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INTERNATIONAL

Thorne & Derrick

+44 (0) 191 410 4292

www.heatingandprocess.com



LIGHTING CATALOG

APPLETON'S LINE OF LIGHTING PRODUCTS DELIVERS UNPARALLELED PROTECTION.

Light fixtures that work flawlessly and stand up to harsh conditions go unnoticed everyday, which is exactly the point. Appleton luminaires are designed to withstand the harshest conditions and operate across your facility without incident. A century of innovation and testing makes sure of that. From area to task, flood to emergency, we have a light fixture perfectly suited for every task and use in environments that are hazardous, adverse or ordinary. After all, our vast collection of fixtures is unsurpassed in the industry. Appleton has expanded the boundaries of technology, efficiency and performance to ensure your lights stays on, because failure is not an option.

Lighting

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Product Safety Statement

The information contained in this catalog is based on our experience to date and is believed to be reliable. All weights and dimensions are approximate. This catalog supersedes and voids all previous literature.

Information in this catalog is subject to change without notice. At times, it may be necessary to modify the materials, finishes, or other components of the product. These modifications will meet or exceed the performance or functional requirements of the product.

Appleton Group designs and manufactures a range of electrical products that meet the electrical codes of different geographic markets. Many of these products are evaluated by internationally recognized third-party product safety testing and certification agencies.

As a safety precaution, users of these products must verify the product is appropriate for their application by consulting the electrical code and safety standards for their area.

Appleton Group products should be installed in accordance with the installation instructions provided with the product and all applicable electrical codes. Additional safety requirements are indicated by appropriate Danger, Warning and Caution statements which follow the suggested format of the American National Standards Institute (ANSI).

These statements are intended to inform not only knowledgeable, sophisticated installers and users, but also those who will have casual contact with the product. Failure to follow this information could result in serious personal injury. Where appropriate these statements may appear on:

1. The product carton
2. The label attached to the product carton
3. The instruction sheet
4. The product itself in a conspicuous manner where physical space allows

Any questions with regard these statements or safety should be addressed to:

Product Safety Officer
Appleton Group
9377 W. Higgins Road
Rosemont, IL 60018
1-800-621-1506
www.emerson.com

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LED/Area: NEC/CEC, ATEX/IECEx Enclosed and Gasketed				
Mercmaster™ LED Series Luminaires	8	X	X	
Mercmaster™ LED Low Profile Series Luminaires	29	X	X	
NEC/CEC Viamaster™ LED Series Luminaires	48	X	X	
ATEX/IECEx Viamaster™ LED Series Luminaires	60			X
LED/Area: NEC/CEC Explosionproof/ATEX/IECEx Flameproof				
Code•Master™ LED Factory Sealed Luminaires	72	X	X	
ATX™ FDLED Series Luminaires	87			X
ATX™ DEMULED Series Luminaires	90			X
LED/Area: NEC/CEC Emergency				
Viamaster™ LED Series Emergency Battery Backup Luminaires	93	X	X	
N2LED Series Emergency Luminaires	110	X	X	
LED/Area: NEC/CEC Ordinary Location				
Industrial Mercmaster™ LED Low Profile Series Luminaires	117	X	X	
LED/Floodlights: NEC/CEC, ATEX/IECEx Enclosed and Gasketed				
Areamaster™ LED Flood/High Bay Floodlights	135	X	X	X
LED/Floodlights: NEC/CEC Ordinary Location				
Industrial Areamaster™ LED Flood/High Bay Luminaires	145	X	X	
Areamaster™ Green LED Flood and High Bay Luminaires	152	X	X	
LED/ATEX/IECEx Bulkhead				
ATX™ FDBAES LED Series Self-Contained Emergency	156			X
ATX™ FNES LED Series Self-Contained Emergency Lighting with Self-Test System	161			X
Induction/Area: NEC/CEC Enclosed and Gasketed				
Mercmaster™ III Induction Luminaires	165	X	X	



Mercmaster™ LED



Mercmaster™ LED Low Profile



Viamaster™ LED



Code•Master™ LED



FDLED



DEMULED



N2LED



Areamaster™ LED



FDBAES



FNES



Mercmaster™ III Induction

Description	Page	NEC	CEC	ATEX/ IEC(Ex)
HID/Area: NEC/CEC Enclosed and Gasketed				
Mercmaster™ III Low Profile Luminaires	178	X	X	
Mercmaster™ III Low Profile Luminaires	198		X	
Mercmaster™ III HID 50—250 Watt Luminaires	218	X	X	
Mercmaster™ III HID 50—250 Watt Luminaires	251		X	
Mercmaster™ III 400 Luminaire for Hazardous and Wet Locations	287	X	X	
Mercmaster™ III 400 Luminaire for Hazardous and Wet Locations	305		X	
Mercmaster™ II HID Luminaires	325	X		
Mercmaster™ Jr. Luminaires	341	X		
HID/Area: NEC/CEC Explosionproof				
Code•Master™ 2 HID Factory Sealed Luminaires	348	X	X	
Code•Master™ Jr. HID Factory Sealed Luminaires	363	X	X	
HID/Area: ATEX/IECEx Restricted Breathing Dust				
Mercmaster™ ATEX LN Series Wellglass Luminaires	374			X
HID/Area: NEC/CEC Ordinary Location High Bay				
Baymaster™ Prismatic 250/400 High Bay Luminaires	384	X	X	
Super-Baymaster™ High Bay Luminaires	388		X	
HID/Area: NEC/CEC Industrial Architectural				
Wallmaster™ HPS/PSMH Luminaires	391	X	X	
HID/Floodlight: NEC/CEC Enclosed and Gasketed				
Areamaster™ 250/400 Integrally Ballasted Floodlights	395	X	X	
Areamaster™ 1000 Floodlights	403	X	X	
Areamaster™ Stainless Steel Floodlights	408	X	X	



Mercmaster™ III



Mercmaster™ III
50–250



Mercmaster™ III 400



Mercmaster™ II HID



Mercmaster™ Jr.



Code•Master™



Code•Master™ Jr



Mercmaster™
ATEX LN



Baymaster™ 250/400



Super-Baymaster™



Wallmaster™



Areamaster™ 250/400



Areamaster™ 1000



Areamaster™ SS

Description	Page	NEC	CEC	ATEX/ IEC(Ex)
HID/Floodlight: NEC/CEC Hazardous Architectural				
Wallmaster™ I/2 for Hazardous and Wet Locations — Class I, Division 2/Zone 2	412	X	X	
HID/Floodlight: NEC/CEC Explosionproof				
Code•Master™ 2 HID Factory Sealed Floodlights	414	X	X	
EFL Series HID and Quartz Floodlights	422	X	X	
HID/Floodlight: ATEX/IECEx Flameproof				
Areamaster™ ATEX PN Series Floodlights	426			X
ATX™ PC Series Floodlights	431			X
ATX™ PL Series Floodlights	436			X
HID/Floodlight: NEC/CEC, ATEX/IECEx Flameproof				
ATX™ PB Series Floodlights	440	X	X	X
HID/Floodlight: NEC/CEC Ordinary Location				
Areamaster™ 250/400 Integrally Ballasted Floodlights	444	X		
Areamaster™ 1000 Floodlights	448	X		
Beam–Master™ Floodlights	452	X	X	
Fluorescent/Area: NEC/CEC Enclosed and Gasketed				
Mercmaster™ III Low Profile Compact Fluorescent Luminaires	455	X	X	
FV Series Nonmetallic Fluorescent Luminaires	469	X	X	
FR Enclosed and Gasketed; FZ and FD Hazardous Locations Luminaires	474	X	X	
RigMaster™ Metallic Fluorescent Luminaires	480	X		
RigMaster™ 304 Stainless Steel Fluorescent Luminaires	485		X	
Fluorescent/Area: NEC/CEC Explosionproof				
Code•Master™ 2 Emergency PLT Factory Sealed Luminaires	487	X		
Code•Master™ PLT Factory Sealed Luminaires	496	X	X	
ELS Series Emergency Lighting System	508	X		
APL Two and Four Lamp Fluorescent Factory Sealed Luminaires	514	X	X	
EFU Fluorescent Factory Sealed Luminaires	518	X	X	
PAPL Portable Two and Four Lamp Fluorescent Factory Sealed Luminaire	522	X	X	



Wallmaster™



Code•Master™ 2



EFL



Areamaster™ ATEX PN



PB/PC/PL



Areamaster™ 250/400



Areamaster™ 1000



Beam–Master™



Mercmaster™ III
Low Profile



FV Series



FR/FZ/FD Series



RigMaster™ Metallic



RigMaster™ 304 Stainless Steel



Code•Master™ PLT



ELS Series



APL Series



EFU



PAPL

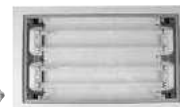
Description	Page	NEC	CEC	ATEX/ IEC(Ex)
Fluorescent/Area: ATEX/IECEx Standard and Emergency Back-Up				
ATX™ FL Series Light Duty Nonmetallic Fluorescent Luminaires	524			X
ATX™ FN Series Heavy Duty Nonmetallic Fluorescent Luminaires	529			X
ATX™ RE Series Recessed and Surface Mounting Fluorescent Luminaires	535			X
ATX™ FD Series Cylindrical Fluorescent Luminaires	544			X
ATX™ FE Series Nonmetallic Fluorescent Luminaires	551			X
Fluorescent/Emergency: ATEX/IECEx Increased Safety				
ATX™ FDES Series Self-Contained Emergency	565			X
Visual Signal: NEC/CEC Enclosed and Gasketed				
Stylmaster™ Strobe Luminaires	569	X	X	
TVA Obstruction, Approach and Boundary Luminaires	573		X	
Visual Signal: NEC/CEC Explosionproof				
Code•Master™ Factory Sealed Strobe Luminaires	577	X		
Visual Signal: ATEX/IECEx Flameproof				
ATX™ SBDO Series Signaling and Lighting Bulkheads	583			X
ATX™ SBDS Series Beacon Lighting Units	585			X
ATX™ SBDB Series Beacon and Strobe Lighting Units	587			X
ATX™ SBDC Series Strobe Lighting and Static Triple Indicator	591			X
Labels for ATEX/IECEx Emergency Lighting Units				
ATX™ Self-Adhesive Signaling Labels for Emergency Lighting Units	594			X
Incandescent/Area: NEC/CEC Enclosed and Gasketed				
Stylmaster™ Incandescent Luminaires	595	X	X	
V—51™ Incandescent Luminaires	604	X	X	
REA 150 W Incandescent Luminaires	613	X		
Incandescent/Area: NEC/CEC Enclosed and Gasketed				
Code•Master™ Incandescent Factory Sealed Luminaires	615	X		
A—51™ Incandescent Factory Sealed Luminaires	620	X	X	
EDT Incandescent Luminaires	634	X	X	



FL Series



FN Series



RE



FD



FE



FDES



Stylmaster™ Strobe



TVA



Code•Master™ Strobe



SBDO



SBDS



SBDB



SBDC



Labels



Stylmaster™



V—51™



REA



Code•Master™



A—51™



EDT

Description	Page	NEC	CEC	ATEX/ IEC(Ex)
Incandescent/Area: ATEX Increased Safety				
ATX™ HBE Series Round Bulkhead Luminaires	635			X
Incandescent/Area: ATEX Emergency				
ATX™ ELS Series Self-Contained Emergency Lighting Unit	638			X
Incandescent/Area: ATEX/IECEx Flameproof				
ATX™ HBD Series Bulkhead Luminaires	640			X
ATX™ HBN Series Round Bulkhead Luminaires	644			X
ATX™ HBDC Series Cylindrical Bulkhead Luminaires	646			X
ATX™ LDP Series Wellglass Luminaires	650			X
ATX™ LDM Series Wellglass Luminaires	652			X
ATX™ LDB, LDB, LDG, LRD Series Wellglass Luminaires	656			X
ATX™ HBDA Series Rectangular Bulkhead Luminaires	661			X
ATX™ HRD Series Tank Inspection Lights	663			X
Incandescent/FloodLight: NEC/CEC Explosionproof				
EF Series Explosionproof Floodlights	666	X		
Incandescent/Portable: NEC/CEC Explosionproof				
AHL and EHL Incandescent Factory Sealed Luminaires and Handlamps	668	X	X	
Incandescent/Halogen/Portable: ATEX Flameproof				
ATX™ PJ Series Portable Floodlights	670			X
ATX™ HLD Series Handlamps	672			X
Incandescent/Halogen/Portable: ATEX Increased Safety				
TCH Series Safety Flashlights	674			X
PhotoControls/NEC/CEC Enclosed and Gasketed				
EFKB Series Photocontrol	677	X		
PCD2 Series Hazardous Location Photocontrol	678	X	X	
PC Series Industrial Location Photocontrol	679	X	X	



HBE/HBN



ELS



HBD



HBDC



LDP



LDM



LDB/LDB/LDG/LRD



HBDA



HRD



EF



AHL/EHL



PJ



HLD



TCH

Description	Page	NEC	CEC	ATEX/ IEC(Ex)
Poles/Hangers: NEC/CEC Explosionproof Flexible Fixture Hangers				
BKX Rigid Fixture Hangers	680		X	
CPU and EFHU Fixture Hangers	684	X	X	
Flexible Fixture Hangers, EXJF Couplings, ESD and ESS Swivels	687	X	X	
EFHC and EFHCA Fixture Hangers and Accessories	690	X	X	
GRF Conduit Outlet Boxes, Fixture Hanger Covers and Canopies	692	X	X	
Poles/Hangers: NEC/CEC Ordinary Location Flexible Fixture Hangers				
AHG and UNJ Flexible Fixture Hangers	694	X	X	
AL Ball and Cushion Flexible Fixture Hangers	695	X		
JB and GS Flexible Fixture Hangers	699	X	X	
SSH Flexible Fixture Hangers	701	X	X	
SHC Flexible Fixture Hangers	703	X	X	
EF and FHS Series Flexible Hangers	704		X	
FH and FHSN Series Flexible Fixture Hangers	705		X	
GHBPH Power Hook for Industrial High Bay Luminaires	707	X	X	
Power Hook for Industrial High Bay Luminaires	708		X	
Poles/Hangers: NEC/CEC Ordinary Location Architectural				
Round Tapered Steel Poles	709	X	X	
Hinged Steel Poles	710	X	X	
Square Tapered Steel Poles	711	X	X	
Square Steel Poles	712	X	X	
Floodlight Mounting Brackets	713	X	X	



BKX



CPU



ESD



EFHC



GRF



Bracket



UNJ



AL



JB



SSH



SHC



Hook and Loop



Receptacle and Hook and Loop



Power Hook



Mounting Poles

Lighting

Description	Page	NEC	CEC	ATEX/ IEC(Ex)
General Temporary Lighting				
McGill™ HID Temporary Lighting	717	X		
McGill™ String–O–Lights	718	X	X	
McGill™ 7000 Series Industrial Extension Lights	720	X	X	
McGill™ 7000–38 Series Industrial Extension Lights	723		X	
McGill™ 6000 Series Commercial–Duty Extension Lights	724	X	X	
McGill™ 5000 Series Industrial Extension Lights	725	X	X	
McGill™ Handy Compact Fluorescent Work Light	726	X		
McGill™ Rough Service Fluorescent Lamp	727	X		
McGill™ Fluorescent Work Lights	728	X	X	
McGill™ Battery Pack with Charger	729	X	X	
McGill™ Fluorescent Industrial Extension Lights	730	X	X	
McGill™ High Intensity Low–Voltage Extension Lights	731	X	X	
McGill™ Mini–Powerpak Low–Voltage Extension Lights	732	X		
McGill™ Fluorescent Hand Lamps — Explosionproof	733	X		
McGill™ Tubular Fluorescent Inspection Light — Explosionproof	734	X		
McGill™ Industrial Extension Lights — Explosionproof	735	X		
McGill™ Low–Voltage, High Intensity Hand Lamp — Explosionproof	736	X		
General Utility Lights				
McGill™ Fluorescent Utility Lights	737	X	X	
McGill™ Incandescent Utility Lights	738	X	X	
Lamp Changers				
McGill™ Fluorescent Lamp Changers	740	X	X	
McGill™ Incandescent Lamp Changers	741	X	X	
McGill™ Lamp Changer Accessories and Replacement Parts	743	X	X	
Lamp Protection				
McGill™ Protect–O–Sleeves	744	X		
McGill™ Tubeloc Holders	746	X	X	
McGill™ Protect–O–Globes	747	X		
McGill™ Wire Lamp Guards and Wire Lamp Guard Grounding Kit	748	X		



HID Temp



String–O–Lights



Extension Lights



Work Lights



Battery Pack



Extension Lights



Explosionproof Lights



Utility Lights



Lamp Changers



Lamp Changers



Protect–O–Sleeves



Tubeloc Holders

Mercmaster™ LED Series Luminaires

Enclosed and Gasketed Fixtures

NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA IIC
Class II, Division 1, Group E, F, G
Class II, Division 2, Group F, G
Class III

NEC/CEC:

Type 3R, 4, 4X
IP66/67
Simultaneous Exposure
Suitable for Use in Wet Locations
Marine Outside Type (Salt Water)

ATEX/IECEX:

Zone 2 and 22
II 2 GD
IP66/67

Applications

- Enclosed and gasketed fixtures suitable for use in:
 - Marine and wet locations
 - A wide range of industrial, chemical processing and other areas where flammable gases and vapors are present
 - Areas of low clearance or low ceiling heights
 - Non-hazardous locations where severe weather conditions, excessive moisture, dirt, dust, corrosive atmosphere or high ambient temperatures are encountered
- Typical applications include:
 - Pulp and paper mills
 - Processing plants
 - Chemical plants
 - Oil refineries
 - Foundries
 - Manufacturing plants
 - Storage areas
 - Waste and sewage treatment
 - Parking garages
 - Other areas where dust, water, dirt and rough usage are a problem



Features

- Compact light weight low profile design is suited for low mounting heights.
- Modular design allows scores of fixture component combinations to meet installation needs. Uses same mounting hoods as Mercmaster III.
- Fixture housing and mounting hoods are copperfree cast aluminum with baked epoxy finish. All exposed hardware is stainless steel.
- Accommodates a wide range of voltages.
- Ambient temperatures:
 - 70 W to 100 W equivalent: -40 °C to +65 °C (-40 °F to +149 °F)
 - 150 W to 175 W equivalent: -40 °C to +55 °C (-40 °F to +131 °F)
 - 250 W equivalent: -40 °C to +50 °C (-40 °F to +122 °F)
 - 350 W equivalent: -40 °C to +50 °C (-40 °F to +122 °F)
 - 400 W equivalent: -40 °C to +55 °C (-40 °F to +131 °F)
- Electrical: 120-277 Vac, 50/60 Hz; 347-480 Vac, 50/60 Hz, Volts +/- 10%.
- Pole terminal block: 1 x 8-24 AWG; 1 x 0.75 to 6 mm² (0.0012 to 0.0093 in²).
- Hinge has high lip for added safety during installation and servicing. Hinge and bolt construction assures 360° compression at all points on ballast housing gasket for positive sealing. Swing away design of captive bolt and nut simplifies servicing.
- All Mercmaster mounting hoods have provision for easy field installation of fuses in fixtures (see Fixture Unit — Electrical Specification).
- NPT and metric threads standard.
- NEMA Type V light distribution is standard.
 - Type V distribution is required in areas where sufficient, evenly distributed light is necessary. It produces a circular distribution that has the same intensity at all angles.

- NEMA Type I light distribution is available as an option for select NEC/CEC certified fixtures.
 - Type I distribution is the perfect lighting for walkways, Type I distribution is perfect for lighting walkways, catwalks or anyplace where a narrow beam of light is required.
- For ATEX/IECEX rated fixtures, ballast bodies and mounting hoods must be purchased separately.

Standard Materials

- Mounting hoods and bodies: cast copperfree (4/10 of 1% max.) aluminum
- All hardware and catch assemblies: stainless steel
- Globe: polycarbonate

Standard Finishes

- Mounting hoods, bodies and guards: baked gray epoxy-clad finish, electrostatically applied for complete uniform protection

NEC/CEC Certifications and Compliances

- UL Standard: UL 50; UL 844; UL 1598; UL 1598A; UL 8750
- CSA Standard: C22.2 No 0; C22.2 No. 0.4; C22.2 No. 0.5; C22.2 No. 94; C22.2 No. 60529; C22.2 No. 137; C22.2 No. 250.0; C22.2 No. 60079; E60079-15
- ANSI/UL Standards: 60079-0; 60079-15
- ANSI/IEC Standards: 60529
- cCSAus Certified: 65182

Mercmaster™ LED Series Luminaires

Enclosed and Gasketed Fixtures

NEC/CEC:
 Class I, Division 2, Groups A, B, C, D
 Class I, Zone 2, AEx nA IIC
 Class II, Division 1, Group E, F, G
 Class II, Division 2, Group F, G
 Class III

NEC/CEC:
 Type 3R, 4, 4X
 IP66/67
 Simultaneous Exposure
 Suitable for Use in Wet Locations
 Marine Outside Type (Salt Water)

ATEX/IECEx:
 Zone 2 and 22
 II 2 GD
 IP66/67

ATEX/IECEx Certification and Compliances

- ATEX
 - Gas: Zone 2
 - Conforming to ATEX 94/9/CE: Ⓔ II 3 G
 - Type of Protection: Ex nA IIC Gc
 - Temperature class:
 - 70 W and 100 W equivalent: T4 [+40 °C (+104 °F)], T4 [+55 °C (+131 °F)], T3 [+65 °C (+149 °F)]
 - 150 W to 175 W equivalent: T4 [+40 °C (+104 °F)], T4 [+55 °C (+131 °F)]
 - 250 W equivalent: T4 [+40 °C (+104 °F)], T4 [+50 °C (+122 °F)]
 - Dust: Zone 22
 - Conforming to ATEX 94/9/CE: Ⓔ II 3 D
 - Type of Protection: Ex tc IIIC Dc
 - Surface Temperature:
 - 70 W and 175 W equivalent: T92 °C (T197.6 °F)
 - 250 W equivalent: T79 °C (T174.2 °F)
 - Ambient Temperature:
 - 70 W and 100 W equivalent: -40 °C to +65 °C (-40 °F to +149 °F)
 - 150 W to 175 W equivalent: -40 °C to +55 °C (-40 °F to +131 °F)
 - 250 W equivalent: -40 °C to +50 °C (-40 °F to 122 °F)
 - ATEX Certificate: LCIE 11 ATEX 1008, LCIE 14 ATEX 3063
 - IECEx Certificate: IECEx LCI 11.0058
 - Index of Protection according EN/IEC 60529: IP66
- IECEx
 - Gas: Zone 2
 - Type of Protection: Ex nA IIC Gc
 - Temperature class:
 - 70 W to 175 W equivalent: T4 [+40 °C (+104 °F)], T4 [+55 °C (+131 °F)]
 - 250 W equivalent: T4 [+40 °C (+104 °F)], T4 [+50 °C (+122 °F)]
 - Dust: Zone 22
 - Type of Protection: Ex tc IIIC Dc
 - Surface Temperature:
 - 70 W and 175 W equivalent: T92 °C (198 °F)
 - 250 W equivalent: T79 °C (198 °F)
 - Ambient Temperature:
 - 70 W and 175 W equivalent: -40 °C to +55 °C (-40 °F to +131 °F)
 - 250 W equivalent: -40 °C to +50 °C (-40 °F to +122 °F)
 - IECEx Certificate: IECEx LCI 11.0058
 - Index of Protection according EN/IEC 60529: IP66

EURASEC Certification

- EURASEC N° TC RU C-FR.Г505.B.00912

Other Certification

- INMETRO Certificate: BVC12.1522 ①

NEC/CEC Related Products

- NEC, Class I, Division 2 photocells for classified use are available, see *PCD2 Series*.
- Mounting hoods with photocontrols are not rated IP66/67, Type 4X or Marine Outside Type (Salt Water).

DesignLights™ Consortium (for the following models)

- MLEDN15
- MLEDN17
- MLEDN25
- MLEDN35
- MLEDN40

Appleton®

LED/AREA: NEC/CEC, ATEX/IECEx ENCLOSED AND GASKETED

① Inmetro certification available on special request only. Contact your local sales representative for more information.

Mercmaster™ LED Series Luminaires

Enclosed and Gasketed Fixtures

NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA IIC
Class II, Division 1, Group E, F, G
Class II, Division 2, Group F, G
Class III

NEC/CEC:

Type 3R, 4, 4X
IP66/67
Simultaneous Exposure
Suitable for Use in Wet Locations
Marine Outside Type (Salt Water)

ATEX/IECEx:

Zone 2 and 22
II 2 GD
IP66/67

Illustrated Features



Heatsink

Reliable heat transfer via the cast, epoxy powder coat aluminum body. Provides maximum heat dissipation from the LED assembly to the outside environment.



Driver Assembly

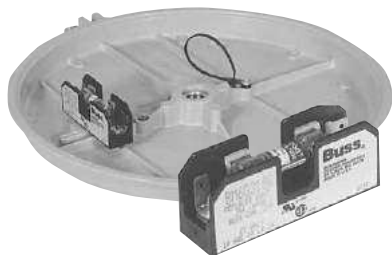
Utilizing non-sparking components avoiding the ignition of gases or vapors that may be present (nA).

Modular Plug between LED and driver.



LED Chamber

Protected by polycarbonate lens, allows for easy maintenance access.



Terminal Blocks (Zone 2)

A seven-point terminal block is provided to facilitate wiring. Terminal block accommodates wire size ranging from #8 to #24AWG, 0.75 to 6 mm² (0.0012 to 0.0093 in²)

Epoxy Finish

Ballast housing, hoods and guards are copperfree aluminum with epoxy powder coat finish.



Cooler Operating Cone Hood

Larger sloped surface sheds dusts, dirt and combustible fibers providing better heat dissipation.

Fuses ①

Two screws secure fuse kit to mounting boss in any Mercmaster mounting hood. Fuse included.

Photocell ①

Available for all fixtures except cone and ceiling mount. Installs through knock-out in mounting hood. Provides continuous ON-OFF dusk-to-dawn control.

Electrical Protection

Ground wire provided to bond mounting hood to ballast housing.

Safety

Rounded heatsink edges prevent possible injury during installation.

Mounting Hood and Globe Gaskets

Silicone rubber gaskets seals out moisture, dirt and dust. Stays flexible, withstands high temperatures. Closure design assures uniform gasket compression.



"Safety" High Hinge

Extra-high hinge provides additional protection against accidental ballast housing disengagement during installation or maintenance.

Stainless Steel Latch Assembly

Captive, stainless steel latch assembly bolt and nut closes securely, resists attack of corrosive atmospheres. Swing-away design simplifies servicing.



① Fuses and photocells are available on the NEC/CEC versions only. Not for use in ATEX/IEC.

Mercmaster™ LED Series Luminaires

Enclosed and Gasketed Fixtures

NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA IIC
Class II, Division 1, Group E, F, G
Class II, Division 2, Group F, G
Class III

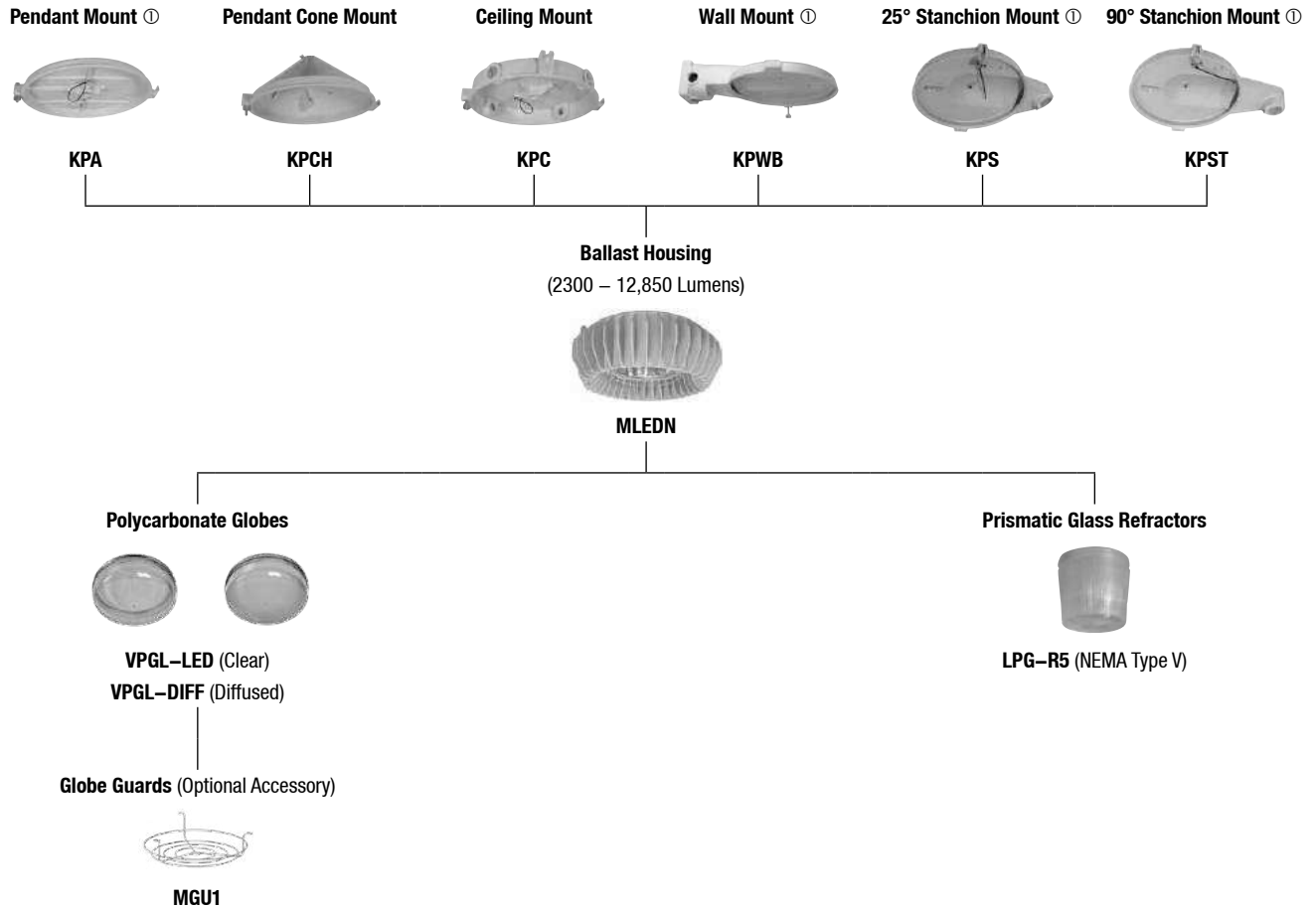
NEC/CEC:

Type 3R, 4, 4X
IP66/67
Simultaneous Exposure
Suitable for Use in Wet Locations
Marine Outside Type (Salt Water)

ATEX/IECEX:

Zone 2 and 22
II 2 GD
IP66/67

Mercmaster LED Family Tree



① Mounting hood with a 120 V or 208-277 V factory installed photocell is available.

Mercmaster™ LED Series Luminaires

Enclosed and Gasketed Fixtures

NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA IIC
Class II, Division 1, Group E, F, G
Class II, Division 2, Group F, G
Class III

NEC/CEC:

Type 3R, 4, 4X
IP66/67
Simultaneous Exposure
Suitable for Use in Wet Locations
Marine Outside Type (Salt Water)

ATEX/IECEX:

Zone 2 and 22
II 2 GD
IP66/67

Order using catalog numbering guides below or select catalog number from tables on following pages.

Catalog Numbering Guide — NEC/CEC Certified Mercmaster LED

MLEDN	A	17	2	P	5	BU	H1
MLEDN - NEC/CEC Certified Mercmaster LED Series		Light Level Equivalent: 70 - 70 W HPS/PSMH 10 - 100 W HPS/PSMH 15 - 150 W HPS/PSMH 17 - 175 W PSMH ② 25 - 250 W HPS/PSMH 35 - 350 W PSMH ⑥ 40 - 400 W HPS/PSMH ⑦		Optical Assembly: P - Polycarbonate Globe		Voltage: BU - Universal Voltages 120-277 Vac, 50/60 Hz BH - 347-480 Vac, 50/60 Hz	
	Mounting: A - Pendant C - Ceiling ① D - Pendant Cone R - 90° Stanchion S - 25° Stanchion W - Wall		Hub Size: 2 - 3/4" NPT 3 - 1" NPT 4 - 1-1/4" NPT stanchion 5 - 1-1/2" NPT stanchion 6 - Metric M20		Light Distribution: 1 - NEMA Type I Elliptical (100 W HPS and 175 W PSMH Only) 5 - NEMA Type V Symmetrical		Options: D - Diffused Globe F - Fusing ③ H1 - Photocontrol 120 V ④ H2 - Photocontrol 208 V ④ H3 - Photocontrol 240 V ④ H4 - Photocontrol 277 V ④

Catalog Numbering Guide — ATEX/IECEX Certified Mercmaster LED ⑤

MLEDNA	—	17	—	P	5	BU	D
MLEDNA - ATEX/IECEX Certified Mercmaster LED Series		Light Level Equivalent: 70 - 70 W HPS/PSMH 10 - 100 W HPS/PSMH 15 - 150 W HPS/PSMH 17 - 175 W PSMH ② 25 - 250 W HPS/PSMH		Optical Assembly: P - Polycarbonate Globe		Voltage: BU - Universal Voltages 120-277 Vac, 50/60 Hz	
	Mounting: ATEX/IECEX version is not available as a complete fixture (not sold with mounting hood)		Hub Size: ATEX/IECEX version is not available as a complete fixture (hub size does not apply)		Light Distribution: 5 - NEMA Type V Symmetrical		Options: D - Diffused Globe

① Ceiling mount luminaires are not designed to use the PCD2 photocontrol. Ceiling mounts must use an FS/FD box with a photocontrol. Contact your local sales representative for more information.

② 175 W Pulse Start Metal Halide only. Does not have a High Pressure Sodium equivalent.

③ Canadian Electrical Code does NOT allow fusing in hazardous locations. Fuse not CEC rated.

④ Luminaires with photocontrol are not rated IP66/67 or marine outside type (salt water).

⑤ For ATEX/IECEX rated fixtures, ballast bodies and mounting hoods must be purchased separately.

⑥ Available for use with the BH voltage only (347-480 Vac, 50/60 Hz).

⑦ Available for use with the BU voltage only (120-277 Vac, 50/60 Hz).

Mercmaster™ LED Series Luminaires

Enclosed and Gasketed Fixtures

NEC/CEC:
 Class I, Division 2, Groups A, B, C, D
 Class I, Zone 2, AEx nA IIC
 Class II, Division 1, Group E, F, G
 Class II, Division 2, Group F, G
 Class III

NEC/CEC:
 Type 3R, 4, 4X
 IP66/67
 Simultaneous Exposure
 Suitable for Use in Wet Locations
 Marine Outside Type (Salt Water)

ATEX/IECEx:
 Zone 2 and 22
 II 2 GD
 IP66/67

Technical Data

Lamp		Ambient Temperature °C (°F)	Supply Wire Temperature °C (°F)	NEC/CEC					Gas/Dust Simultaneous ① Class I, Division 2/ Class II, Division 1	ATEX/IECEx	
Light Level Equivalent to HID	Type			Class I, Division 2 ①	Gas Groups	Class I, Zone 2, AEx nA IIC, Ex nA IIC	Class II, Division 1 and 2 ②	Dust Groups		Gas Ex II 3G ① nA	Dust Ex II 3D ② Ex tc IIIC
70 Watt NEMA Type V	LED	40 (104)	60 (140)	T4A	A, B, C, D	T4	T6	E, F, G	T4	T4	T92°C (T197.6°F) Dc
		55 (131)	75 (167)	T4		T4	T6		T4	T4	
		65 (149)	90 (194)	T3C		T3	T6		T3C	T4	
100 Watt NEMA Type V	LED	40 (104)	60 (140)	T4A	A, B, C, D	T4	T6	E, F, G	T4	T4	T92°C (T197.6°F) Dc
		55 (131)	75 (167)	T4		T4	T6		T4	T4	
		65 (149)	90 (194)	T3C		T3	T6		T3C	T4	
100 Watt NEMA Type I ③	LED	40 (104)	60 (140)	T4	A, B, C, D	T4	T5	E, F, G	T4	—	—
		55 (31)	75 (167)	T3C		T3	T5		T3C	—	
		65 (143)	90 (194)	T3C		T3	T4A		T3C	—	
150 Watt NEMA Type V	LED	40 (104)	60 (140)	T4A	A, B, C, D	T4	T6	E, F, G	T4	T6	T92°C (T197.6°F) Dc IP66
		55 (131)	75 (167)	T4		T4	T6		T4	T6	
175 Watt NEMA Type V	LED	40 (104)	60 (140)	T4A	A, B, C, D	T4	T6	E, F, G	T4	T6	T92°C (T197.6°F) Dc IP66
		55 (131)	75 (167)	T4		T4	T6		T4	T6	
175 Watt NEMA Type I ③	LED	40 (104)	60 (140)	T4	A, B, C, D	T4	T5	E, F, G	T4	—	—
		55 (131)	75 (167)	T3C		T3	T5		T3C	—	
250 Watt NEMA Type V ③	LED	40 (104)	60 (140)	T4A	A, B, C, D	T4	T6	E, F, G	T4A	T4	T79°C (T174.2°F) Dc
		50 (122)	75 (167)	T4		T4	T6		T4	T4	
350 Watt NEMA Type V ③	LED	40 (104)	75 (167)	T3A	A, B, C, D	T3	—	—	—	—	—
		50 (122)	75 (167)	T3		T3	—		—	—	
400 Watt NEMA Type V ③	LED	40 (104)	75 (167)	T3A	A, B, C, D	T3	—	—	—	—	—
		55 (131)	75 (167)	T3		T3	—		—	—	

“T” Numbers Represent the Maximum Internal Temperature ① or Maximum Surface Temperature ②

“T” #	NEC/CEC															
	T1	350	325	T2	T2A	T2B	T2C	T2D	T3	T3A	T3B	T3C	T4	T4A	T5	T6
Temp. Range °C (°F)	351-450	326-350	301-325	281-300	261-280	231-260	216-230	201-215	181-200	166-180	161-165	136-160	121-135	101-120	86-100	85
	(664-842)	(619-662)	(574-617)	(538-572)	(502-536)	(448-500)	(421-446)	(394-419)	(358-392)	(331-356)	(322-329)	(277-320)	(250-275)	(214-248)	(187-212)	(185)

“T” #	ATEX/IECEx					
	T1	T2		T3		T4
Temp. Range °C (°F)	301-450	201-300		136-200		101-135
	(547-842)	(394-572)		(277-392)		(214-275)

① T numbers represent the maximum internal temperature for Class I, Division 2 and Class I, Zone 2 locations designated by the NEC.

② T numbers represent the maximum surface temperature under a dust blanket for Class II, Division 1 and Class I, Zone 2 as designated by the NEC or Zone 2 (Gas) and 22 (Dust) locations as designated by the IEC.

③ Lamp type is not certified for use in ATEX/IECEx.

Mercmaster™ LED Series Luminaires

Enclosed and Gasketed Fixtures

NEC/CEC:
Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA IIC
Class II, Division 1, Group E, F, G
Class II, Division 2, Group F, G
Class III

NEC/CEC:
Type 3R, 4, 4X
IP66/67
Simultaneous Exposure
Suitable for Use in Wet Locations
Marine Outside Type (Salt Water)

ATEX/IECEX:
Zone 2 and 22
II 2 GD
IP66/67

Lamp Comparison Chart

Lamp Data	Line Current Amps	Input Power	Lumens	CRI	Lamp Life (Hours)	Color Temp CCT
NEMA Type V						
MLEDN70	.31 @ 120 V	35	2300	70	60,000+	5650
	.17 @ 277 V	33				
	.24 @ 347 V	34				
	.11 @ 480 V	32				
MLEDN100	.41 @ 120 V	47.5	3450	70	60,000+	5650
	.20 @ 277 V	46				
	.25 @ 347 V	42				
	.12 @ 480 V	44				
MLEDN150	.53 @ 120 V	61	4850	70	60,000+	5650
	.25 @ 277 V	62				
	.29 @ 347 V	62				
	.14 @ 480 V	64				
MLEDN175	.63 @ 120 V	74	6076	70	60,000+	5650
	.28 @ 277 V	72				
	.25 @ 347 V	86				
	.16 @ 480 V	88				
MLEDN250 ①	.83 @ 120 V	95.5	9455	70	60,000+	5650
	.36 @ 277 V	92				
	.45 @ 347 V	96				
	.31 @ 480 V	95				
MLEDN350 ①	.30 @ 347 V	102	11425	70	60,000+	5650
	.23 @ 480 V	103				
MLEDN400	1.04 @ 120 V	127	12850	70	60,000+	5650
	.47 @ 277 V	128				
NEMA Type I						
MLEDN100 ①	.41 @ 120 V	47.5	2900	70	60,000+	5650
	.20 @ 277 V	46				
	.25 @ 347 V	47.5				
	.12 @ 480 V	46				
MLEDN175 ①	.61 @ 120 V	70	6200	70	60,000+	5650
	.28 @ 277 V	69				
	.24 @ 347 V	70				
	.16 @ 480 V	69				

① Lamp type is not certified for use in ATEX/IEC.

Mercmaster™ LED Series Luminaires

Enclosed and Gasketed Fixtures

NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA IIC
Class II, Division 1, Group E, F, G
Class II, Division 2, Group F, G
Class III

NEC/CEC:

Type 3R, 4, 4X
IP66/67
Simultaneous Exposure
Suitable for Use in Wet Locations
Marine Outside Type (Salt Water)

	LED Wattage BU/BH	Lamp Wattage Equivalent	NEMA Type	Hub Size	Conformance	NEC/CEC Catalog Numbers ②③④⑤
Pendant — One Hub, Rigid Mounting						
	35/33 W	70 W HPS/PSMH	Type V	3/4	NEC/CEC	MLEDNA702P5
	47.5/46 W	100 W HPS/PSMH	Type V	3/4	NEC/CEC	MLEDNA102P5
	46.7/46.6 W	100 W HPS/PSMH	Type I	3/4	NEC/CEC	MLEDNA102P1 ①
	61/62 W	150 W HPS/PSMH	Type V	3/4	NEC/CEC	MLEDNA152P5
	74/72 W	175 W PSMH	Type V	3/4	NEC/CEC	MLEDNA172P5
	70/69 W	175 W PSMH	Type I	3/4	NEC/CEC	MLEDNA172P1 ①
	95.5/92 W	250 W HPS/MH	Type V	3/4	NEC/CEC	MLEDNA252P5
	102/103 W	350 W PSMH	Type V	3/4	NEC/CEC	MLEDNA352P5 ⑥
	127/128 W	400 W HPS/PSMH	Type V	3/4	NEC/CEC	MLEDNA402P5 ⑦
	35/33 W	70 W HPS/PSMH	Type V	1	NEC/CEC	MLEDNA703P5
	47.5/46 W	100 W HPS/PSMH	Type V	1	NEC/CEC	MLEDNA103P5
	46.7/46.6 W	100 W HPS/PSMH	Type I	1	NEC/CEC	MLEDNA103P1 ①
	61/62 W	150 W HPS/PSMH	Type V	1	NEC/CEC	MLEDNA153P5
	74/72 W	175 W PSMH	Type V	1	NEC/CEC	MLEDNA173P5
70/64 W	175 W PSMH	Type I	1	NEC/CEC	MLEDNA173P1 ①	
95.5/92 W	250 W HPS/PSMH	Type V	1	NEC/CEC	MLEDNA253P5	
102/103 W	350 W PSMH	Type V	1	NEC/CEC	MLEDNA353P5 ⑥	
127/128 W	400 W HPS/PSMH	Type V	1	NEC/CEC	MLEDNA403P5 ⑦	
Pendant Cone — One Hub, Rigid Mounting						
	35/33 W	70 W HPS/PSMH	Type V	3/4	NEC/CEC	MLEDND702P5
	47.5/46 W	100 W HPS/PSMH	Type V	3/4	NEC/CEC	MLEDND102P5
	46.7/46.6 W	100 W HPS/PSMH	Type I	3/4	NEC/CEC	MLEDND102P1 ①
	61/62 W	150 W HPS/PSMH	Type V	3/4	NEC/CEC	MLEDND152P5
	74/72 W	175 W PSMH	Type V	3/4	NEC/CEC	MLEDND172P5
	70/64 W	175 W PSMH	Type I	3/4	NEC/CEC	MLEDND172P1 ①
	95.5/92 W	250 W HPS/PSMH	Type V	3/4	NEC/CEC	MLEDND252P5
	102/103 W	350 W PSMH	Type V	3/4	NEC/CEC	MLEDNW352P5 ⑥
	127/128 W	400 W HPS/PSMH	Type V	3/4	NEC/CEC	MLEDNW402P5 ⑦
	35/33 W	70 W HPS/PSMH	Type V	1	NEC/CEC	MLEDND703P5
	47.5/46 W	100 W HPS/PSMH	Type V	1	NEC/CEC	MLEDND103P5
	46.7/46.6 W	100 W HPS/PSMH	Type I	1	NEC/CEC	MLEDND103P1 ①
	61/62 W	150 W HPS/PSMH	Type V	1	NEC/CEC	MLEDND153P5
	74/72 W	175 W PSMH	Type V	1	NEC/CEC	MLEDND173P5
70/64 W	175 W PSMH	Type I	1	NEC/CEC	MLEDND173P1 ①	
95.5/92 W	250 W HPS/PSMH	Type V	1	NEC/CEC	MLEDND253P5	
102/103 W	350 W PSMH	Type V	1	NEC/CEC	MLEDND353P5 ⑥	
127/128 W	400 W HPS/PSMH	Type V	1	NEC/CEC	MLEDND403P5 ⑦	

① NEMA Type I Elliptical.

② Voltage specifications: for 120-277 Vac, 50/60 Hz universal voltages add **-BU** to the end of the catalog number. For 347-480 Vac, 50/60 Hz add **-BH** to the end of the catalog number. Example: MLEDNA702P5BU.

③ For optional diffused globe, add suffix **-D** to the end of the catalog number.

④ For optional fusing, add suffix **-F** to the end of the catalog number. The Canadian Electrical Code does NOT allow fusing in hazardous locations. Fuse not CEC rated.

⑤ For optional photocontrols add the appropriate suffix to the end of the catalog number: **-H1** for 120 V; **-H2** for 208 V; **-H3** for 240 V; **-H4** for 277 V. Luminaires with photocontrol are not rated IP66/67, Type 4X or marine outside type (salt water). Ceiling mount luminaires are not designed to use the PCD2 photocontrol. Ceiling mounts must use an FS/FD box with a photocontrol. Contact your local sales representative for more information.

⑥ Available for use with the BH voltage only (347-480 Vac, 50/60 Hz).

⑦ Available for use with the BU voltage only (120-277 Vac, 50/60 Hz).

Mercmaster™ LED Series Luminaires

Enclosed and Gasketed Fixtures

NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA IIC
Class II, Division 1, Group E, F, G
Class II, Division 2, Group F, G
Class III

NEC/CEC:

Type 3R, 4, 4X
IP66/67
Simultaneous Exposure
Suitable for Use in Wet Locations
Marine Outside Type (Salt Water)

	LED Wattage BU/BH	Lamp Wattage Equivalent	NEMA Type	Hub Size	Conformance	NEC/CEC Catalog Numbers ②③④⑤
Ceiling — Five Hubs, Four Close-up Plugs						
	35/33 W	70 W HPS/PSMH	Type V	3/4	NEC/CEC	MLEDNC702P5
	47.5/46 W	100 W HPS/PSMH	Type V	3/4	NEC/CEC	MLEDNC102P5
	46.7/46.6 W	100 W HPS/PSMH	Type I	3/4	NEC/CEC	MLEDNC102P1 ①
	61/62 W	150 W HPS/PSMH	Type V	3/4	NEC/CEC	MLEDNC152P5
	74/72 W	175 W PSMH	Type V	3/4	NEC/CEC	MLEDNC172P5
	70/64 W	175 W PSMH	Type I	3/4	NEC/CEC	MLEDNC172P1 ①
	95.5/92 W	250 W HPS/PSMH	Type V	3/4	NEC/CEC	MLEDNC252P5
	102/103 W	350 W PSMH	Type V	3/4	NEC/CEC	MLEDNC352P5 ⑥
	127/128 W	400 W HPS/PSMH	Type V	3/4	NEC/CEC	MLEDNC402P5 ⑦
	35/33 W	70 W HPS/PSMH	Type V	1	NEC/CEC	MLEDNC703P5
	47.5/46 W	100 W HPS/PSMH	Type V	1	NEC/CEC	MLEDNC103P5
	46.7/46.6 W	100 W HPS/PSMH	Type I	1	NEC/CEC	MLEDNC103P1 ①
	61/62 W	150 W HPS/PSMH	Type V	1	NEC/CEC	MLEDNC153P5
	74/72 W	175 W PSMH	Type V	1	NEC/CEC	MLEDNC173P5
70/64 W	175 W PSMH	Type I	1	NEC/CEC	MLEDNC173P1 ①	
95.5/92 W	250 W HPS/PSMH	Type V	1	NEC/CEC	MLEDNC253P5	
102/103 W	350 W PSMH	Type V	1	NEC/CEC	MLEDNC353P5 ⑥	
127/128 W	400 W HPS/PSMH	Type V	1	NEC/CEC	MLEDNC403P5 ⑦	
Wall — Five Hubs, Four Close-Up Plugs						
	35/33 W	70 W HPS/PSMH	Type V	3/4	NEC/CEC	MLEDNW702P5
	47.5/46 W	100 W HPS/PSMH	Type V	3/4	NEC/CEC	MLEDNW102P5
	46.7/46.6 W	100 W HPS/PSMH	Type I	3/4	NEC/CEC	MLEDNW102P1 ①
	61/62 W	150 W HPS/PSMH	Type V	3/4	NEC/CEC	MLEDNW152P5
	74/72 W	175 W PSMH	Type V	3/4	NEC/CEC	MLEDNW172P5
	70/64 W	175 W PSMH	Type I	3/4	NEC/CEC	MLEDNW172P1 ①
	95.5/92 W	250 W HPS/PSMH	Type V	3/4	NEC/CEC	MLEDNW252P5
	102/103 W	350 W PSMH	Type V	3/4	NEC/CEC	MLEDNW352P5 ⑥
	127/128 W	400 W HPS/PSMH	Type V	3/4	NEC/CEC	MLEDNW402P5 ⑦
	35/33 W	70 W HPS/PSMH	Type V	1	NEC/CEC	MLEDNW703P5
	47.5/46 W	100 W HPS/PSMH	Type V	1	NEC/CEC	MLEDNW103P5
	46.7/46.6 W	100 W HPS/PSMH	Type I	1	NEC/CEC	MLEDNW103P1 ①
	61/62 W	150 W HPS/PSMH	Type V	1	NEC/CEC	MLEDNW153P5
	74/72 W	175 W PSMH	Type V	1	NEC/CEC	MLEDNW173P5
70/64 W	175 W PSMH	Type I	1	NEC/CEC	MLEDNW173P1 ①	
95.5/92 W	250 W HPS/PSMH	Type V	1	NEC/CEC	MLEDNW253P5	
102/103 W	350 W PSMH	Type V	1	NEC/CEC	MLEDNW353P5 ⑥	
127/128 W	400 W HPS/PSMH	Type V	1	NEC/CEC	MLEDNW403P5 ⑦	

① NEMA Type I Elliptical.

② Voltage specifications: for 120-277 Vac, 50/60 Hz universal voltages add **-BU** to the end of the catalog number. For 347-480 Vac, 50/60 Hz add **-BH** to the end of the catalog number. Example: MLEDNA702P5**BU**.

③ For optional diffused globe, add suffix **-D** to the end of the catalog number.

④ For optional fusing, add suffix **-F** to the end of the catalog number. The Canadian Electrical Code does NOT allow fusing in hazardous locations. Fuse not CEC rated.

⑤ For optional photocontrols add the appropriate suffix to the end of the catalog number: **-H1** for 120 V; **-H2** for 208 V; **-H3** for 240 V; **-H4** for 277 V. Luminaires with photocontrol are not rated IP66/67, Type 4X or marine outside type (salt water). Ceiling mount luminaires are not designed to use the PCD2 photocontrol. Ceiling mounts must use an FS/FD box with a photocontrol. Contact your local sales representative for more information.

⑥ Available for use with the BH voltage only (347-480 Vac, 50/60 Hz).

⑦ Available for use with the BU voltage only (120-277 Vac, 50/60 Hz).

Mercmaster™ LED Series Luminaires

Enclosed and Gasketed Fixtures

NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA IIC
Class II, Division 1, Group E, F, G
Class II, Division 2, Group F, G
Class III

NEC/CEC:

Type 3R, 4, 4X
IP66/67
Simultaneous Exposure
Suitable for Use in Wet Locations
Marine Outside Type (Salt Water)

	LED Wattage BU/BH	Lamp Wattage Equivalent	NEMA Type	Hub Size	Conformance	NEC/CEC Catalog Numbers ②③④⑤
25° Stanchion — One Hub						
	35/33 W	70 W HPS/PSMH	Type V	1-1/4	NEC/CEC	MLEDNS704P5
	47.5/46 W	100 W HPS/PSMH	Type V	1-1/4	NEC/CEC	MLEDNS104P5
	46.7/46.6 W	100 W HPS/PSMH	Type I	1-1/4	NEC/CEC	MLEDNS104P1 ①
	61/62 W	150 W HPS/PSMH	Type V	1-1/4	NEC/CEC	MLEDNS154P5
	74/72 W	175 W PSMH	Type V	1-1/4	NEC/CEC	MLEDNS174P5
	70/64 W	175 W PSMH	Type I	1-1/4	NEC/CEC	MLEDNS174P1 ①
	95.5/92 W	250 W HPS/PSMH	Type V	1-1/4	NEC/CEC	MLEDNS254P5
	102/103 W	350 W PSMH	Type V	1-1/4	NEC/CEC	MLEDNS354P5 ⑥
	127/128 W	400 W HPS/PSMH	Type V	1-1/4	NEC/CEC	MLEDNS404P5 ⑦
	35/33 W	70 W HPS/PSMH	Type V	1-1/2	NEC/CEC	MLEDNS705P5
	47.5/46 W	100 W HPS/PSMH	Type V	1-1/2	NEC/CEC	MLEDNS105P5
	46.7/46.6 W	100 W HPS/PSMH	Type I	1-1/2	NEC/CEC	MLEDNS105P1 ①
	61/62 W	150 W HPS/PSMH	Type V	1-1/2	NEC/CEC	MLEDNS155P5
	74/72 W	175 W PSMH	Type V	1-1/2	NEC/CEC	MLEDNS175P5
	70/64 W	175 W PSMH	Type I	1-1/2	NEC/CEC	MLEDNS175P1 ①
	95.5/92 W	250 W HPS/PSMH	Type V	1-1/2	NEC/CEC	MLEDNS255P5
	102/103 W	350 W PSMH	Type V	1-1/2	NEC/CEC	MLEDNS355P5 ⑥
	127/128 W	400 W HPS/PSMH	Type V	1-1/2	NEC/CEC	MLEDNS405P5 ⑦
	35/33 W	70 W HPS/PSMH	Type V	1-1/4	NEC/CEC	MLEDNR704P5
	47.5/46 W	100 W HPS/PSMH	Type V	1-1/4	NEC/CEC	MLEDNR104P5
	46.7/46.6 W	100 W HPS/PSMH	Type I	1-1/4	NEC/CEC	MLEDNR104P1 ①
	61/62 W	150 W HPS/PSMH	Type V	1-1/4	NEC/CEC	MLEDNR154P5
	74/72 W	175 W PSMH	Type V	1-1/4	NEC/CEC	MLEDNR174P5
	70/64 W	175 W PSMH	Type I	1-1/4	NEC/CEC	MLEDNR174P1 ①
	95.5/92 W	250 W HPS/PSMH	Type V	1-1/4	NEC/CEC	MLEDNR254P5
	102/103 W	350 W PSMH	Type V	1-1/4	NEC/CEC	MLEDNR354P5 ⑥
	127/128 W	400 W HPS/PSMH	Type V	1-1/4	NEC/CEC	MLEDNR404P5 ⑦
	35/33 W	70 W HPS/PSMH	Type V	1-1/2	NEC/CEC	MLEDNR705P5
	47.5/46 W	100 W HPS/PSMH	Type V	1-1/2	NEC/CEC	MLEDNR105P5
	46.7/46.6 W	100 W HPS/PSMH	Type I	1-1/2	NEC/CEC	MLEDNR105P1 ①
	61/62 W	150 W HPS/PSMH	Type V	1-1/2	NEC/CEC	MLEDNR155P5
	74/72 W	175 W PSMH	Type V	1-1/2	NEC/CEC	MLEDNR175P5
	70/64 W	175 W PSMH	Type I	1-1/2	NEC/CEC	MLEDNR175P1 ①
	95.5/92 W	250 W HPS/PSMH	Type V	1-1/2	NEC/CEC	MLEDNR255P5
	102/103 W	350 W PSMH	Type V	1-1/2	NEC/CEC	MLEDNR355P5 ⑥
	127/128 W	400 W HPS/PSMH	Type V	1-1/2	NEC/CEC	MLEDNR405P5 ⑦

① NEMA Type I Elliptical.

② Voltage specifications: for 120-277 Vac, 50/60 Hz universal voltages add **-BU** to the end of the catalog number. For 347-480 Vac, 50/60 Hz add **-BH** to the end of the catalog number. Example: MLEDNA702P5BU.

③ For optional diffused globe, add suffix **-D** to the end of the catalog number.

④ For optional fusing, add suffix **-F** to the end of the catalog number. The Canadian Electrical Code does NOT allow fusing in hazardous locations. Fuse not CEC rated.

⑤ For optional photocontrols add the appropriate suffix to the end of the catalog number: **-H1** for 120 V; **-H2** for 208 V; **-H3** for 240 V; **-H4** for 277 V. Luminaires with photocontrol are not rated IP66/67, Type 4X or marine outside type (salt water). Ceiling mount luminaires are not designed to use the PCD2 photocontrol. Ceiling mounts must use an FS/FD box with a photocontrol. Contact your local sales representative for more information.

⑥ Available for use with the BH voltage only (347-480 Vac, 50/60 Hz).

⑦ Available for use with the BU voltage only (120-277 Vac, 50/60 Hz).

Mercmaster™ LED Series Luminaires

Enclosed and Gasketed Fixtures

NEC/CEC:
 Class I, Division 2, Groups A, B, C, D
 Class I, Zone 2, AEx nA IIC
 Class II, Division 1, Group E, F, G
 Class II, Division 2, Group F, G
 Class III

NEC/CEC:
 Type 3R, 4, 4X
 IP66/67
 Simultaneous Exposure
 Suitable for Use in Wet Locations
 Marine Outside Type (Salt Water)

Fixture Unit — Electrical Specification



LED Wattage BU/BH	Light Level Equivalent	NEMA Type	Current Draw	Catalog Number		Conformance	Voltage Range	Voltage Suffix
				Fuse Kit ①	Fixture Unit			
NEC/CEC Certified Ballast Housing								
35/33 W	70 W HPS	Type V	120 Vac @ .31 Amps 277 Vac @ .17 Amps	F3	MLEDN70P5	NEC/CEC	120-277 Vac, 50/60 Hz	BU
34/32 W	70 W HPS	Type V	347 Vac @ .24 Amps 480 Vac @ .11 Amps	F3	MLEDN70P5	NEC/CEC	347-480 Vac, 50/60 Hz	BH
47.5/46 W	100 W HPS	Type V	120 Vac @ .41 Amps 277 Vac @ .20 Amps	F3	MLEDN10P5	NEC/CEC	120-277 Vac, 50/60 Hz	BU
47.5/46 W	100 W HPS	Type I	120 Vac @ .41 Amps 277 Vac @ .20 Amps	F3	MLEDN10P1	NEC/CEC	120-277 Vac, 50/60 Hz	BU
42/44 W	100 W HPS	Type V	347 Vac @ .25 Amps 480 Vac @ .12 Amps	F3	MLEDN10P5	NEC/CEC	347-480 Vac, 50/60 Hz	BH
47.5/46 W	100 W HPS	Type I	347 Vac @ .25 Amps 480 Vac @ .12 Amps	F3	MLEDN10P1	NEC/CEC	347-480 Vac, 50/60 Hz	BH
61/62 W	150 W HPS	Type V	120 Vac @ .53 Amps 277 Vac @ .25 Amps	F3	MLEDN15P5	NEC/CEC	120-277 Vac, 50/60 Hz	BU
62/64 W	150 W HPS	Type V	347 Vac @ .29 Amps 480 Vac @ .14 Amps	F3	MLEDN15P5	NEC/CEC	347-480 Vac, 50/60 Hz	BH
74/72 W	175 W PSMH	Type V	120 Vac @ .63 Amps 277 Vac @ .28 Amps	F3	MLEDN17P5	NEC/CEC	120-277 Vac, 50/60 Hz	BU
70/69 W	175 W PSMH	Type I	120 Vac @ .61 Amps 277 Vac @ .28 Amps	F3	MLEDN17P1	NEC/CEC	120-277 Vac, 50/60 Hz	BU
86/88 W	175 W PSMH	Type V	347 Vac @ .25 Amps 480 Vac @ .16 Amps	F3	MLEDN17P5	NEC/CEC	347-480 Vac, 50/60 Hz	BH
70/69 W	175 W PSMH	Type I	347 Vac @ .24 Amps 480 Vac @ .16 Amps	F3	MLEDN17P1	NEC/CEC	347-480 Vac, 50/60 Hz	BH
95.5/92 W	250 W HPS/PSMH	Type V	120 Vac @ .83 Amps 277 Vac @ .36 Amps	F3	MLEDN25P5	NEC/CEC	120-277 Vac, 50/60 Hz	BU
96/95 W	250 W HPS/PSMH	Type V	347 Vac @ .45 Amps 480 Vac @ .31 Amps	F3	MLEDN25P5	NEC/CEC	347-480 Vac, 50/60 Hz	BH
102/103 W	350 W PSMH	Type V	347 Vac @ .30 Amps 480 Vac @ .23 Amps	F3	MLEDN35P5	NEC/CEC	347-480 Vac, 50/60 Hz	BH
127/128 W	400 W HPS/PSMH	Type V	120 Vac @ 1.04 Amps 277 Vac @ .47 Amps	F3	MLEDN40P5	NEC/CEC	120-277 Vac, 50/60 Hz	BU

① Canadian Electrical Code does NOT allow fusing in hazardous locations. Fuse not CEC rated.

Mercmaster™ LED Series Luminares

Enclosed and Gasketed Fixtures

ATEX/IECEX:
Zone 2 and 22
II 2 GD
IP66/67

Fixture Unit — Electrical Specification



LED Wattage BU/BH	Light Level Equivalent	NEMA Type	Current Draw	Conformance	Voltage Range	Voltage Suffix	Fixture Unit Catalog Number
ATEX/IECEX Certified Ballast Housing ①							
35/33 W	70 W HPS	Type V	120 Vac @ .31 Amps 277 Vac @ .17 Amps	ATEX/IECEX	120-277 Vac, 50/60 Hz	BU	MLEDNA70P5
47.5/46 W	100 W HPS	Type V	120 Vac @ .41 Amps 277 Vac @ .20 Amps	ATEX/IECEX	120-277 Vac, 50/60 Hz	BU	MLEDNA10P5
61/62 W	150 W HPS	Type V	120 Vac @ .53 Amps 277 Vac @ .25 Amps	ATEX/IECEX	120-277 Vac, 50/60 Hz	BU	MLEDNA15P5
74/72 W	175 W PSMH	Type V	120 Vac @ .63 Amps 277 Vac @ .28 Amps	ATEX/IECEX	120-277 Vac, 50/60 Hz	BU	MLEDNA17P5
95.5/92 W	250 W HPS/PSMH	Type V	120 Vac @ .83 Amps 277 Vac @ .36 Amps	ATEX/IECEX	120-277 Vac, 50/60 Hz	BU	MLEDNA25P5

① For ATEX/IECEX rated fixtures, ballast bodies and mounting hoods must be purchased separately.

Mercmaster™ LED Series Luminaires

Enclosed and Gasketed Fixtures

NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA IIC
Class II, Division 1, Group E, F, G
Class II, Division 2, Group F, G
Class III

NEC/CEC:

Type 3R, 4, 4X
IP66/67
Simultaneous Exposure
Suitable for Use in Wet Locations
Marine Outside Type (Salt Water)

ATEX/IECEx:

Zone 2 and 22
II 2 GD
IP66/67

Mounting Hoods ①

Description		Hub Size	Catalog Number NEC/CEC and ATEX/IEC
Pendant			
	One Hub, Rigid Mounting	3/4	KPA-75
		1	KPA-100
		M20	KPA-M20
Pendant Cone			
	One Hub, Rigid Mounting	3/4	KPCH-75
		1	KPCH-100
		M20	KPCH-M20
Ceiling			
	Five Hubs, Four Close-Up Plugs	3/4	KPC-75
		1	KPC-100
		M20	KPC-M20
Wall			
	Five Hubs, Four Close-Up Plugs	3/4	KPWB-75
		1	KPWB-100
		M20	KPWB-M20
25° Stanchion			
	One Hub	1-1/4	KPS-125
		1-1/2	KPS-150
90° Stanchion			
	One Hub	1-1/4	KPST-125
		1-1/2	KPST-150

Mercmaster LED Ballast and Mounting Hood Weights

Description	Weight kg (lb)
Fixture Unit (Ballast Housing)	8.8 (19.4)
Pendant Mounting Hood	1.0 (2.25)
Pendant Cone Mounting Hood	1.1 (2.50)
Ceiling Mounting Hood	1.4 (3.00)
Wall Mounting Hood	1.8 (4.00)
25° Stanchion Mounting Hood	1.5 (3.25)
90° Stanchion Mounting Hood	1.7 (3.75)

① For ATEX/IECEx rated fixtures, ballast bodies and mounting hoods must be purchased separately.

Mercmaster™ LED Series Luminaires

Enclosed and Gasketed Fixtures

NEC/CEC:
 Class I, Division 2, Groups A, B, C, D
 Class I, Zone 2, AEx nA IIC
 Class II, Division 1, Group E, F, G
 Class II, Division 2, Group F, G
 Class III

NEC/CEC:
 Type 3R, 4, 4X
 IP66/67
 Simultaneous Exposure
 Suitable for Use in Wet Locations
 Marine Outside Type (Salt Water)

ATEX/IECEX:
 Zone 2 and 22
 II 2 GD
 IP66/67

Accessories and Replacement Parts

Description	Catalog Number	
	NEC/CEC	ATEX/IECEX

Globes and Gaskets



Clear Globe

VPGL-LED



Diffused Globe

VPGL-DIFF



Globe Gasket — Silicone Rubber

KRF-GK

Closed Prismatic Glass Refractors — All Heat-Resistant



Glass Refractor

NEMA Type V Light Distribution

LPG-R5

Guards



Glass Globe Guard



Refractor Guard

Glass Globe Guard

MGU1

Refractor Guard

KRG2

Description	Catalog Number	
	NEC/CEC	ATEX/IECEX

LED Array

100 Watt LED Array Assembly, Type I, White LED's
 175 Watt LED Array Assembly, Type I, White LED's
 70 Watt LED Array Assembly, Type V, White LED's
 100 Watt LED Array Assembly, Type V, White LED's
 150 Watt LED Array Assembly, Type V, White LED's
 175 Watt LED Array Assembly, Type V, White LED's
 250 Watt LED Array Assembly, Type V, White LED's
 350 Watt LED Array Assembly, Type V, White LED's
 400 Watt LED Array Assembly, Type V, White LED's

MLEDN10A1W
 MLEDN17A1W
 MLEDN70A5W
 MLEDN10A5W
 MLEDN15A5W
 MLEDN17A5W
 MLEDN25A5W
 MLEDN35A5W
 MLEDN40A5W

MLEDN10A1W
 MLEDN17A1W
 MLEDN70A5W
 MLEDN10A5W
 MLEDN15A5W
 MLEDN17A5W
 MLEDN25A5W
 —
 —

Drivers

120-277 V Driver (70 W thru 250 W only)
 347-480 V Driver (70 W thru 350 W only)
 120-277 V Driver (400 W only)

MLEDNDBU
 MLEDNDBH
 MLEDNDBU40

MLEDNDBU
 MLEDNDBH
 —

Mercmaster™ LED Series Luminaires

Enclosed and Gasketed Fixtures

NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA IIC
Class II, Division 1, Group E, F, G
Class II, Division 2, Group F, G
Class III

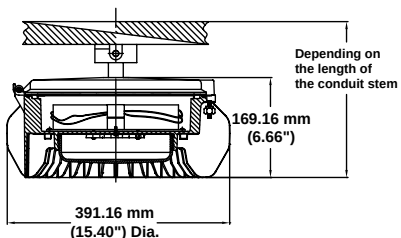
NEC/CEC:

Type 3R, 4, 4X
IP66/67
Simultaneous Exposure
Suitable for Use in Wet Locations
Marine Outside Type (Salt Water)

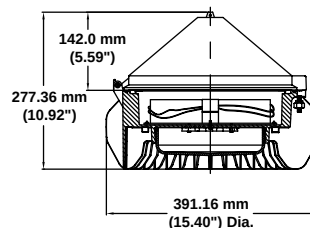
ATEX/IECEx:

Zone 2 and 22
II 2 GD
IP66/67

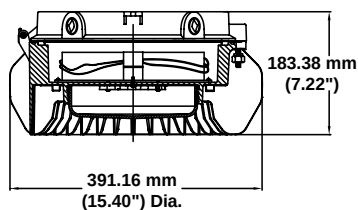
Dimensions in Millimeters (Inches)



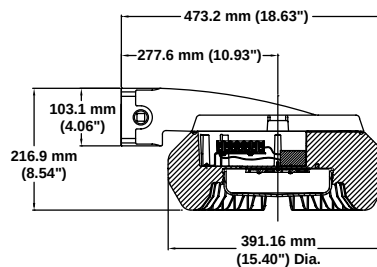
Pendant Mount



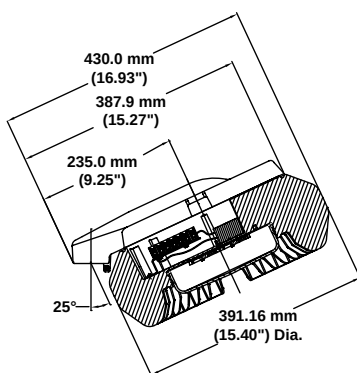
Pendant Cone Mount



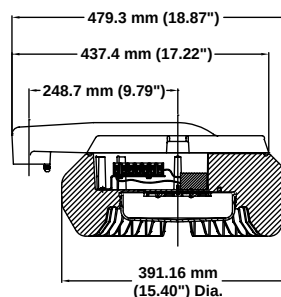
Ceiling Mount



Wall Mount



25° Stanchion Mount



90° Stanchion Mount

PCD2 Series Factory Sealed Hazardous Location Photocontrol^①

For Use in Class I, Division 2, Groups A, B, C, D Locations

Maintains Class I, Division 2 rating for Mercmaster III, Mercmaster III Low Profile, Mercmaster III 50-250 and 400 Series Luminaires; Mercmaster LED Series.

NEC/CEC:

Class I, Division 2, Groups A, B, C, D
NEMA 4X

Applications

- Encapsulated photocontrol provides automatic dusk-to-dawn lighting control in Class I, Division 2 locations.
- Typical applications include walkways, security areas and any other outdoor lighting application.
- For use with Mercmaster III – Low Profile, Mercmaster III, and Mercmaster III – 400 Series Luminaires.
- For remote mounting in FS Boxes.

Features

- Factory sealed design eliminates the need for an explosionproof enclosure.
- Can be easily installed in the field.
- Solid state design for performance and reliability.
- Available for 120, 208, 240, or 277 volts.

- 50-400 W HID, incandescent or fluorescent, 50/60 Hz.
- 1000 V.A. Voltage/Ampere
- Minimum time delay: 15 seconds to eliminate nuisance tripping.
- Provided with (3) 18AWG stranded leads 152.4 mm (6.00 in) length.
- Will fit through standard 1/2" knockout.
- Supplied with locknut and gasket.

Materials

- Encapsulated with epoxy sealing compound
- FS: aluminum

NEC/CEC Certifications and Compliances

- UL Standard: 1604 – Hazardous (Classified) Locations
- cULus Recognized

	Voltage Range	Max VA	Max Current Amps	Suffix Designation Catalog Number
Factory-Installed Photocontrol - Not for ceiling or pendant cone Add to fixture catalog after voltage; i.e.: KPWBL1075MTH1.				
	120 V, 50/60 Hz	1000	—	H1
	208 V, 50/60 Hz	1000	—	H2
	240 V, 50/60 Hz	1000	—	H3
	277 V, 50/60 Hz	1000	—	H4

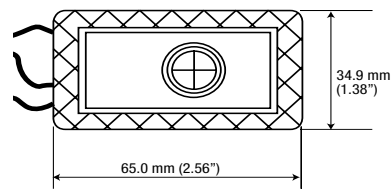
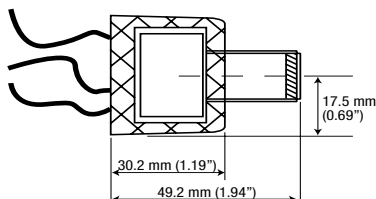
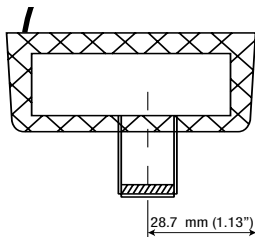
Photocontrol for Field Installation

	120 V, 50/60 Hz	1000	8.3 Amp	PC120D2
	208 V, 50/60 Hz	1000	4.8 Amp	
	240 V, 50/60 Hz	1000	4.2 Amp	PC247D2
	277 V, 50/60 Hz	1000	3.6 Amp	

Photocontrol in FS Cover for Use with FS/FD Box

Supplied with two stainless steel screws. For neoprene gasket, order catalog number **FS-GKR-1N**.

	120V, 50/60 Hz	1000	8.3 Amp	FSKA-PC120D2
	208 V, 50/60 Hz	1000	4.8 Amp	
	240 V, 50/60 Hz	1000	4.2 Amp	FSKA-PC247D2
	277 V, 50/60 Hz	1000	3.6 Amp	



^① Fixtures with photocontrols are not rated IP66/67, Type 4X or marine outside type (salt water).
Fixtures with PCD2 photocontrols are not certified for use in ATEX/IEC governed locations.

Mercmaster™ LED Series Luminaires

Enclosed and Gasketed Fixtures

NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA IIC
Class II, Division 1, Group E, F, G
Class II, Division 2, Group F, G
Class III

NEC/CEC:

Type 3R, 4, 4X
IP66/67
Simultaneous Exposure
Suitable for Use in Wet Locations
Marine Outside Type (Salt Water)

ATEX/IECEX:

Zone 2 and 22
II 2 GD
IP66/67

Photometric Data — DATA SHOWN IS ABSOLUTE

REPORT NUMBER: **MLEDN70P5BU**

Lamps: Mercmaster LED, Class I, Division 2, Polycarbonate Optic

Candela Distribution

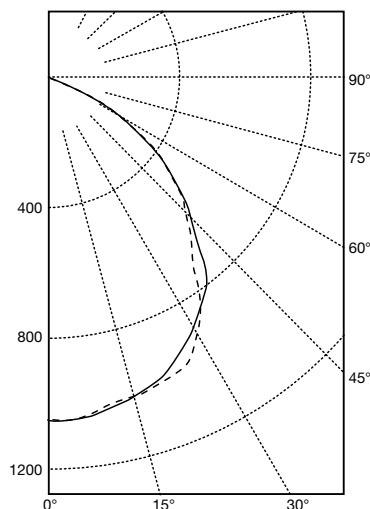
	0.0	22.5	45.0	67.5	90.0	Flux
0	1054	1054	1054	1054	1054	
5	1048	1047	1051	1047	1048	100
15	1016	1014	1016	1014	1016	287
25	977	961	941	961	977	442
35	805	779	824	779	805	497
45	583	607	603	607	583	465
55	408	425	411	425	408	358
65	185	146	139	146	185	133
75	5	5	4	5	5	9
85	1	0	0	0	1	1
90	0	0	0	0	0	

Zonal Lumen Summary

Zone	Lumens	% Fixture
0-30	829	36.1
0-40	1326	57.7
0-60	2149	93.5
0-90	2292	99.7

CIE Type – Direct

Plane	Spacing Criteria
0-Deg	90-Deg
1.3	1.3



REPORT NUMBER: **MLEDN10P5BU**

Lamps: Mercmaster LED, Class I, Division 2, Polycarbonate Optic

Candela Distribution

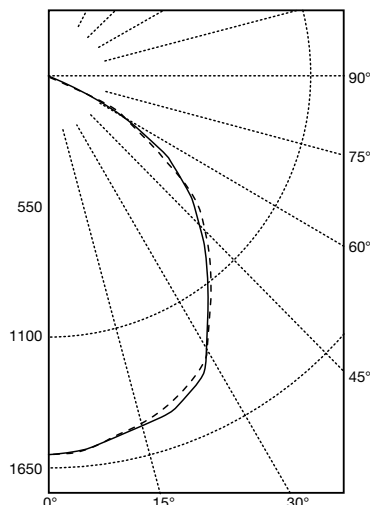
	0.0	22.5	45.0	67.5	90.0	Flux
0	1580	1580	1580	1580	1580	
5	1569	1568	1568	1568	1569	149
15	1509	1510	1513	1510	1509	427
25	1412	1414	1437	1414	1412	655
35	1177	1215	1171	1215	1177	748
45	934	915	893	915	934	707
55	577	588	632	588	577	527
65	228	218	195	218	228	209
75	6	7	6	7	6	13
85	0	0	0	0	0	1
90	0	0	0	0	0	

Zonal Lumen Summary

Zone	Lumens	% Fixture
0-30	1231	35.8
0-40	1980	57.6
0-60	3213	93.5
0-90	3438	100.0

CIE Type – Direct

Plane	Spacing Criteria
0-Deg	90-Deg
1.2	1.2



Mercmaster™ LED Series Luminaires

Enclosed and Gasketed Fixtures

NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA IIC
Class II, Division 1, Group E, F, G
Class II, Division 2, Group F, G
Class III

NEC/CEC:

Type 3R, 4, 4X
IP66/67
Simultaneous Exposure
Suitable for Use in Wet Locations
Marine Outside Type (Salt Water)

ATEX/IECEX:

Zone 2 and 22
II 2 GD
IP66/67

Photometric Data — DATA SHOWN IS ABSOLUTE

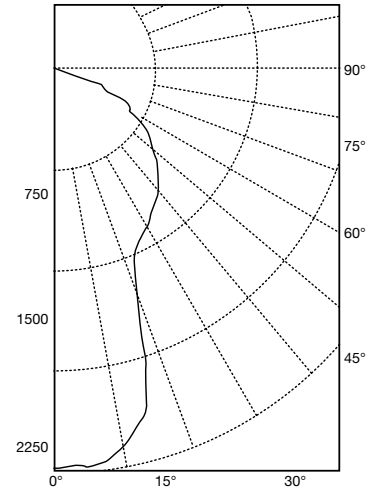
REPORT NUMBER: **MLEDN10P1BU (NEMA Type I)**

Lamps: Mercmaster LED, Class I, Division 2, Polycarbonate Optic

Candela Distribution	
Zone	Lumen
0-10	276.95
10-20	715.67
20-30	650.02
30-40	492.78
40-50	369.94
50-60	232.10
60-70	127.75
70-80	22.49
80-90	2.23

CIE Type – Direct	
Plane	Spacing Criteria
0-Deg	90-Deg
0.74	0.74

Zonal Lumen Summary		
Zone	Lumens	% Fixture
0-20	992.62	34.3
0-30	1642.65	56.8
0-40	2135.42	73.8
0-60	2737.46	94.7
0-80	2887.70	99.8
0-90	2889.93	99.9



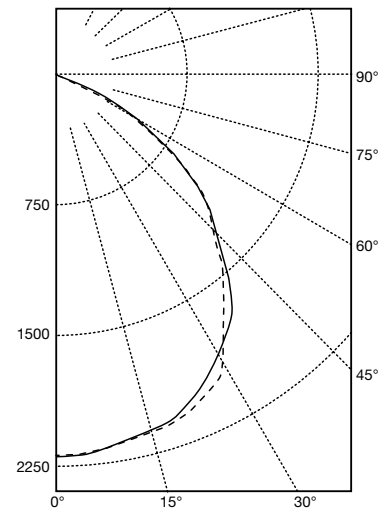
REPORT NUMBER: **MLEDN15P5BU**

Lamps: Mercmaster LED, Class I, Division 2, Polycarbonate Optic

Candela Distribution						
	0.0	22.5	45.0	67.5	90.0	Flux
0	2208	2208	2208	2208	2208	
5	2202	2195	2197	2195	2202	209
15	2137	2131	2127	2131	2137	603
25	2045	2003	1977	2003	2045	926
35	1669	1658	1735	1658	1669	1051
45	1252	1282	1297	1282	1252	988
55	836	850	838	850	834	746
65	276	307	333	307	276	298
75	16	12	11	12	16	22
85	2	1	1	1	2	2
90	1	0	0	0	1	

Zonal Lumen Summary		
Zone	Lumens	% Fixture
0-30	1738	35.8
0-40	2789	57.5
0-60	4523	93.3
0-90	4844	99.9

CIE Type – Direct	
Plane	Spacing Criteria
0-Deg	90-Deg
1.2	1.2



Mercmaster™ LED Series Luminaires

Enclosed and Gasketed Fixtures

NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA IIC
Class II, Division 1, Group E, F, G
Class II, Division 2, Group F, G
Class III

NEC/CEC:

Type 3R, 4, 4X
IP66/67
Simultaneous Exposure
Suitable for Use in Wet Locations
Marine Outside Type (Salt Water)

ATEX/IECEx:

Zone 2 and 22
II 2 GD
IP66/67

Photometric Data — DATA SHOWN IS ABSOLUTE

REPORT NUMBER: **MLEDN17P5BU**

Lamps: Mercmaster LED, Class I, Division 2, Polycarbonate Optic

Candela Distribution

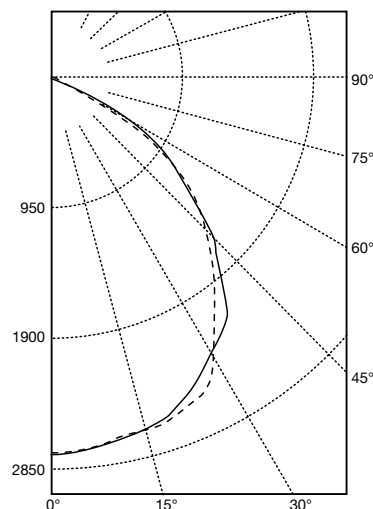
	0.0	22.5	45.0	67.5	90.0	Flux
0	2739	2739	2739	2739	2739	
5	2724	2724	2725	2724	2724	259
15	2660	2658	2655	2658	2660	752
25	2553	2508	2462	2508	2553	1156
35	2069	2062	2201	2062	2069	1312
45	1580	1614	1655	1614	1580	1243
55	1047	1093	1046	1093	1047	943
65	353	380	391	380	353	378
75	19	15	16	15	19	28
85	2	1	1	1	2	2
90	1	0	0	0	1	

Zonal Lumen Summary

Zone	Lumens	% Fixture
0-30	2167	35.7
0-40	3478	57.2
0-60	5664	93.2
0-90	6072	99.9

CIE Type – Direct

Plane	Spacing Criteria
0-Deg	90-Deg
1.2	1.2



REPORT NUMBER: **MLEDN17P1BU (NEMA Type I)**

Lamps: Mercmaster LED, Class I, Division 2, Polycarbonate Optic

Candela Distribution

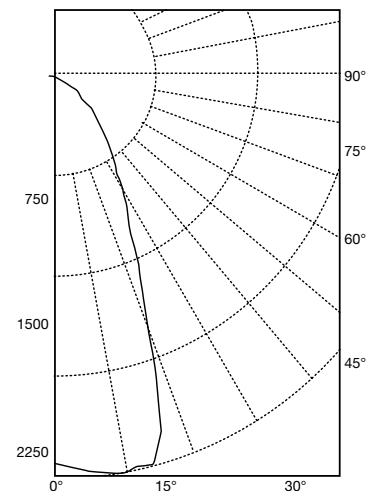
Zone	Lumen
0-10	546.35
10-20	1546.51
20-30	1410.19
30-40	1071.42
40-50	791.23
50-60	524.94
60-70	261.82
70-80	44.42
80-90	3.81

CIE Type – Direct

Plane	Spacing Criteria
0-Deg	90-Deg
0.84	0.84

Zonal Lumen Summary

Zone	Lumens	% Fixture
0-20	2092.86	33.70
0-30	3503.05	56.50
0-40	4574.48	73.70
0-60	5890.65	94.90
0-80	6196.88	99.90
0-90	6200.69	99.90



Mercmaster™ LED Series Luminaires

Enclosed and Gasketed Fixtures

NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA IIC
Class II, Division 1, Group E, F, G
Class II, Division 2, Group F, G
Class III

NEC/CEC:

Type 3R, 4, 4X
IP66/67
Simultaneous Exposure
Suitable for Use in Wet Locations
Marine Outside Type (Salt Water)

ATEX/IECEX:

Zone 2 and 22
II 2 GD
IP66/67

Photometric Data — DATA SHOWN IS ABSOLUTE

REPORT NUMBER: **MLEDN250P5BU** ①

Lamps: Mercmaster LED, Class I, Division 2, Polycarbonate Optic

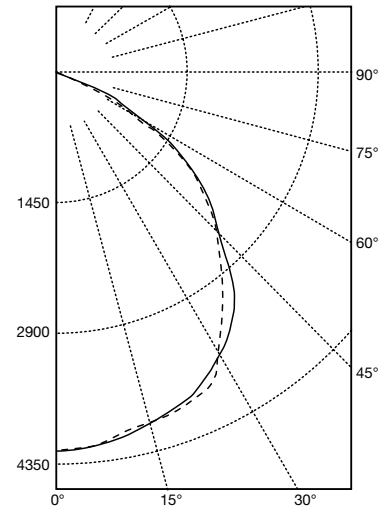
Candela Distribution						
	0.0	22.5	45.0	67.5	90.0	Flux
0	4206	4206	4206	4206	4206	
5	4170	4182	4177	4182	4170	397
15	4035	4046	4038	4046	4035	1145
25	3913	3888	3829	3888	3913	1784
35	3211	3233	3380	3233	3211	2046
45	2484	2524	2532	2524	2484	1942
55	1710	1763	1708	1763	1710	1530
65	682	564	606	564	682	568
75	20	18	17	18	20	31
85	2	1	1	1	2	2
90	1	1	0	1	1	

Zonal Lumen Summary

Zone	Lumens	% Fixture
0-30	3326	35.2
0-40	5372	56.8
0-60	8844	93.5
0-90	9445	99.9

CIE Type – Direct

Plane	Spacing Criteria
0-Deg	90-Deg
1.2	1.2



REPORT NUMBER: **MLEDN35P5BH** ①

Lamps: Mercmaster LED, Class I, Division 2, Polycarbonate Optic

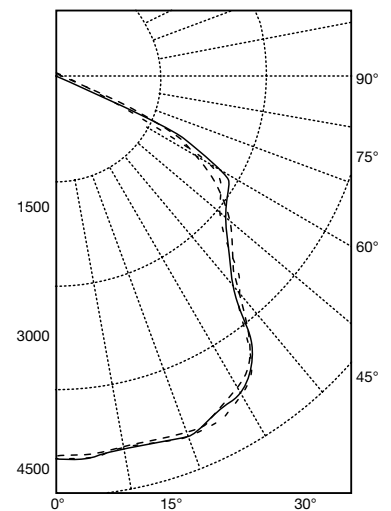
Candela Distribution						
	0.0	22.5	45.0	67.5	90.0	Flux
0	4439	4439	4439	4439	4439	
5	4425	4417	4445	4432	4447	421
15	4356	4368	4410	4404	4418	1249
25	4356	4331	4394	4395	4357	20166
35	3912	3930	4045	4107	3826	2440
45	2929	2883	2866	2874	2929	2248
55	2277	2256	2296	2438	2394	2085
65	1105	893	843	957	825	927
75	20	25	22	26	22	38
85	2	2	2	4	3	4
90	1	1	1	2	1	

Zonal Lumen Summary

Zone	Lumens	% Fixture
0-30	3686	32.3
0-40	6126	53.6
0-60	10460	91.5
0-90	11428	100.0

CIE Type – Direct

Plane	Spacing Criteria
0-Deg	90-Deg
1.4	1.4



① Lamp type is not certified for use in ATEX/IEC governed locations.

Mercmaster™ LED Series Luminaires

Enclosed and Gasketed Fixtures

NEC/CEC:
 Class I, Division 2, Groups A, B, C, D
 Class I, Zone 2, AEx nA IIC
 Class II, Division 1, Group E, F, G
 Class II, Division 2, Group F, G
 Class III

NEC/CEC:
 Type 3R, 4, 4X
 IP66/67
 Simultaneous Exposure
 Suitable for Use in Wet Locations
 Marine Outside Type (Salt Water)

ATEX/IECEX:
 Zone 2 and 22
 II 2 GD
 IP66/67

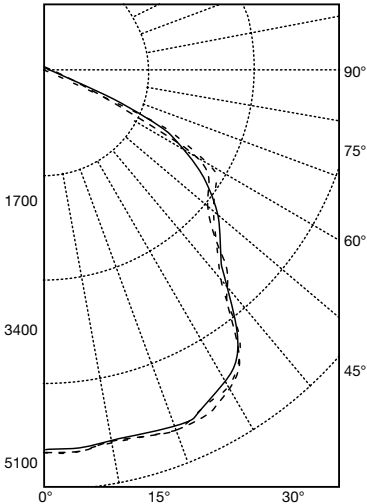
Photometric Data — DATA SHOWN IS ABSOLUTE

REPORT NUMBER: **MLEDN40P5BU**
 Lamps: Mercmaster LED, Class I, Division 2, Polycarbonate Optic

Candela Distribution						
	0.0	22.5	45.0	67.5	90.0	Flux
0	4958	4958	4958	4958	4958	
5	4976	4983	4949	4956	4941	472
15	4943	4934	4907	4921	4913	1400
25	4884	4920	4869	4900	4980	2263
35	4466	4590	4430	4410	4468	2738
45	3215	3213	3269	3286	3160	2525
55	2592	2635	2578	2612	2617	2330
65	833	1145	1070	1020	922	1067
75	30	32	29	33	32	55
85	40	5	3	3	3	5
90	1	2	1	1	1	

Zonal Lumen Summary		
Zone	Lumens	% Fixture
0-30	4135	32.2
0-40	6873	53.5
0-60	11728	91.2
0-90	12855	100.0

CIE Type – Direct	
Plane	Spacing Criteria
0-Deg	90-Deg
1.4	1.4



LED/AREA: NEC/CEC, ATEX/IECEX ENCLOSED AND GASKETED

Mercmaster™ LED Low Profile Luminaires

Enclosed and Gasketed Fixtures

NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, Group IIC
Class II, Division 1, Groups E, F, G ①
Class II, Division 2, Groups F, G
Class III

NEC/CEC:

Type 3R, 4, 4X
IP66
Simultaneous Exposure
Suitable for Use in Wet Locations
Marine Outside Type (Salt Water) For USA ONLY Ⓜ

Applications

- Enclosed and gasketed fixtures suitable for use in:
 - A wide range of industrial, chemical processing and other areas where flammable gases and vapors are present
 - Marine and wet locations
 - Areas of low clearance, low ceiling heights or where fixture weights must be minimized
- Typical applications include:
 - Pulp and paper mills
 - Processing plants
 - Chemical plants
 - Petrochemical facilities
 - Oil refineries
 - Drilling rigs
 - Foundries
 - Waste and sewage treatment
 - Mining
 - Steel mills

Features

- Compact light weight low profile design is suited for low mounting heights.
- Six standard mounting hood designs allow for mounting in any location. Uses same mounting hoods as Mercmaster III.
- Customize to the application requirements with four different globe options: clear and diffused polycarbonate, clear glass, or prismatic glass refractor.
- Three light output levels for retrofit of HID fixtures up to 150 W.
- Hinge has high lip for added safety during installation and servicing. Hinge and bolt construction assures 360° compression at all points on fixture housing gasket for positive sealing. Swing away design of captive bolt and nut simplifies servicing.
- Operating ambient: -40 °C to 55 °C (-40 °F to +131 °F).
- Standard screw-type terminal block can accept UL/CSA 24-8 AWG wire.
- Standard NPT threads.

Options

- Glass globe guard is stainless steel wire. Glass refractor guard is die cast aluminum with gray epoxy powder coating to match fixtures.
- All Mercmaster mounting hoods have provision for fusing; add suffix -F at the end of the catalog number. ②
- Photocontrols are available with all except ceiling and pendant cone mounting hoods, and are configured to your operating voltage.

Standard Materials

- Mounting hoods and bodies: cast copperfree (4/10 of 1% max.) aluminum
- All hardware and catch assemblies: stainless steel
- Globe: polycarbonate or glass
- Refractor: heat-resistant prismatic glass
- Glass globe guard: stainless steel wire
- Glass refractor guard: die cast aluminum
- 30° angle reflectors : fiberglass reinforced white polyester



Standard Finishes

- Mounting hoods, bodies and glass refractor guard: gray epoxy powder coat finish, electrostatically applied for complete uniform protection

NEC/CEC Certifications and Compliances

- UL Standard: UL 50; UL 844, UL 1598, UL 1598A, UL 8750
- CSA Standard: C22.2 No 0; C22.2 No. 0.4; C22.2 No. 0.5; C22.2 No. 94; C22.2 No. 60529; C22.2 No. 137; C22.2 No. 250.0
- ANSI/IEC Standard: 60529
- cULus Listed: E10444
- DLC Qualified Products Listed

Related Products

- NEC, Class I, Division 2 photocells for classified use are available, see *PCD2 Series*.
 - Mounting hoods with photocontrols are not rated IP66, Type 4X or Marine Outside Type (Salt Water), or rated Class II.

DesignLights™ Consortium

- All Mercmaster™ LED Low Profile luminaires are listed and meet Design Lights Consortium performance standards.

① Clear and diffused polycarbonate globes are not rated for Class II, Division I environments.

② Fusing only permitted for ULus rating.

Ⓜ Use of fuse voids Marine Outside Type (Salt Water) rating.

Mercmaster™ LED Low Profile Luminaires

Enclosed and Gasketed Fixtures

NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, Group IIC
Class II, Division 1, Groups E, F, G ①
Class II, Division 2, Groups F, G
Class III

NEC/CEC:

Type 3R, 4, 4X
IP66
Simultaneous Exposure
Suitable for Use in Wet Locations
Marine Outside Type (Salt Water) For USA ONLY ⌘

Illustrated Features

Heatsink

Reliable heat transfer via the cast, epoxy powder coat aluminum body. Provides maximum heat dissipation from the LED assembly to the outside environment.



Driver Assembly

Utilizing non-sparking components avoiding the ignition of gases or vapors that may be present.

Terminal Blocks

A seven-point terminal block is provided to facilitate wiring. Terminal block accommodates wire size ranging from 24-8 AWG.



LED Chamber

Protected by polycarbonate or glass lens, allows for easy maintenance access.

Fuses (optional)

Two screws secure fuse kit to mounting boss in any Mercmaster mounting hood. Fuse included. *Note: Fusing only permitted for ULus rating. (Use of fuse voids Marine Outside Type (salt water) rating).*

Photocell (optional)

Available for all fixtures except cone and ceiling mount. Provides continuous ON-OFF dusk-to-dawn control. *Note: Fixtures with PCD2 photocontrols are not rated IP66, Type 4X, Marine Outside Type (Salt Water), or Class II.*

Prismatic Refractors

Heat-resistant refractor threads directly into fixture housing and seal against a high-temperature silicone rubber gasket.



Epoxy Finish

Fixture housing, hoods and guards are copperfree aluminum with epoxy powder coat finish.

Electrical Protection

Ground wire provided to bond mounting hood to fixture housing.

"Safety" High Hinge

Extra-high hinge provides additional protection against accidental fixture housing disengagement during installation or maintenance.



Cooler Operating Cone Hood

Larger sloped surface sheds dusts, dirt and combustible fibers providing better heat dissipation.

Mounting Hood and Globe Gaskets

Silicone rubber gaskets seal out moisture, dirt and dust. Stays flexible, withstands high temperatures. Closure design assures uniform gasket compression.

Stainless Steel Latch Assembly

Captive, stainless steel latch assembly bolt and nut closes securely, resists attack of corrosive atmospheres. Swing-away design simplifies servicing.



Reflectors

Reflectors are thick, tough fiberglass reinforced white polyester. Quickly attach with furnished stainless steel screws.



① Clear and diffused polycarbonate globes are not rated for Class II, Division I environments.

⌘ Use of fuse voids Marine Outside Type (Salt Water) rating.

Mercmaster™ LED Low Profile Luminaires

Enclosed and Gasketed Fixtures

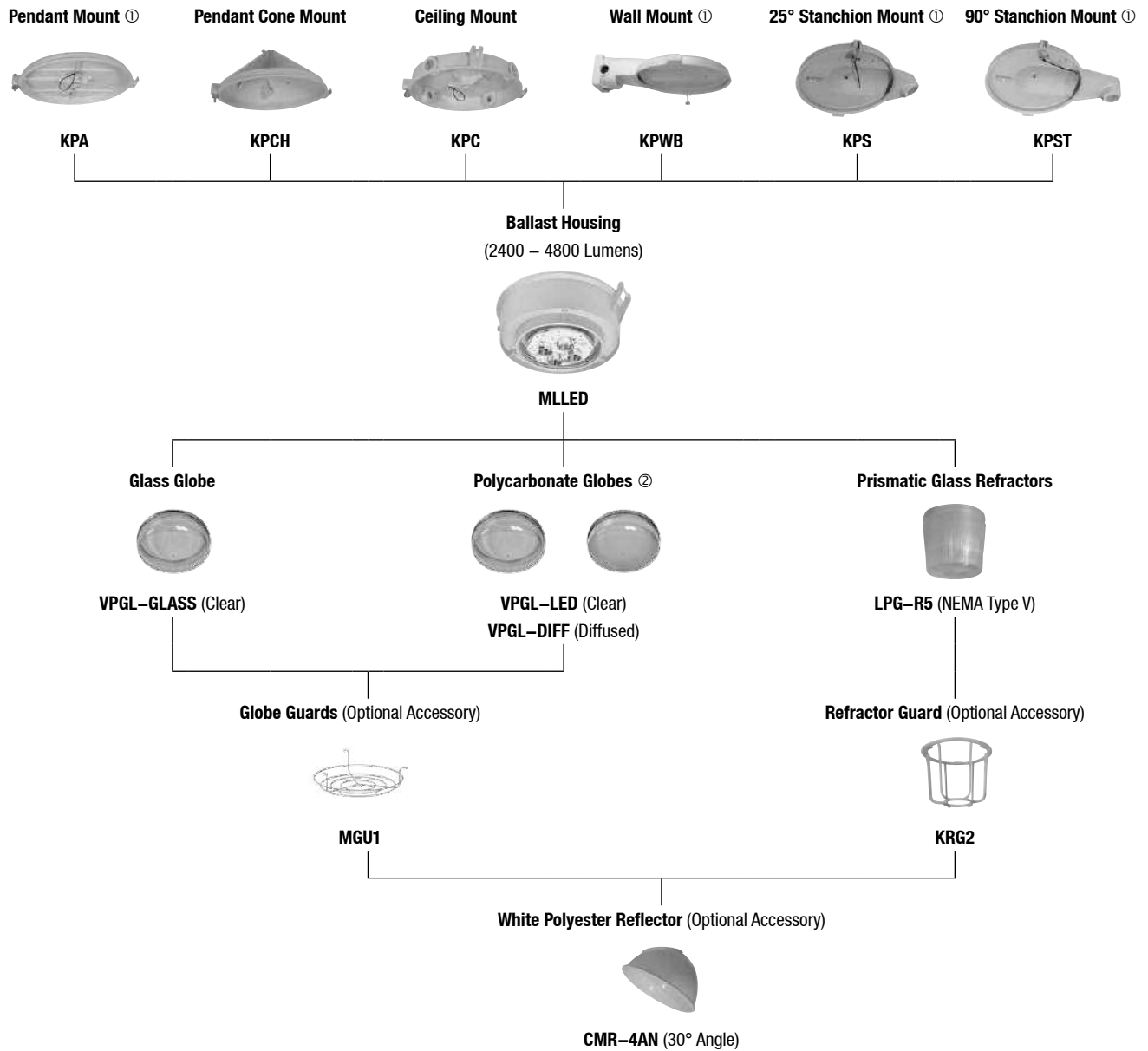
NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, Group IIC
Class II, Division 1, Groups E, F, G ①
Class II, Division 2, Groups F, G
Class III

NEC/CEC:

Type 3R, 4, 4X
IP66
Simultaneous Exposure
Suitable for Use in Wet Locations
Marine Outside Type (Salt Water) For USA ONLY ⅈ

Mercmaster LED Low Profile Family Tree



① Mounting hood with a 120 V or 208-277 V factory installed photocell is available.

② Polycarbonate globes are not Class II, Division 1.

Mercmaster™ LED Low Profile Luminaires

Enclosed and Gasketed Fixtures

NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, Group IIC
Class II, Division 1, Groups E, F, G ①
Class II, Division 2, Groups F, G
Class III

NEC/CEC:

Type 3R, 4, 4X
IP66
Simultaneous Exposure
Suitable for Use in Wet Locations
Marine Outside Type (Salt Water) For USA ONLY ※

Order using catalog numbering guides below or select catalog number from tables on following pages.

Catalog Numbering Guide

For Hazardous Locations:

MLLED	A	2	2	P5	BU	1
MLLED - NEC/CEC Certified Mercmaster LED Low Profile Series	Mounting: A - Pendant C - Ceiling ② D - Pendant Cone Hood ② R - 90° Stanchion S - 25° Stanchion W - Wall	Lumen Output ⑥: 2 - 2K Lumens, 5700K CCT 3 - 3K Lumens, 5700K CCT 4 - 4K Lumens, 5700K CCT	Hub Size: 2 - 3/4" NPT 3 - 1" NPT 4 - 1-1/4" NPT stanchion 5 - 1-1/2" NPT stanchion	P5- NEMA Type V Clear Polycarbonate Globe ① D5- NEMA Type V Diffused Polycarbonate Globe ① G5- NEMA Type V Glass Globe ⑤ J5- NEMA Type V Glass Refractor ⑤	Voltage: BU - Universal Voltages 120-277 Vac, 50/60Hz	Options: F - Fusing ③ 1 - Photocontrol 120V ④ 2 - Photocontrol 208V ④ 3 - Photocontrol 240V ④ 4 - Photocontrol 277V ④

① Clear and diffused polycarbonate globes are not rated for Class II, Division I environments.

② Ceiling and pendant cone hood mounted luminaires are not designed to use the PCD2 photocontrol. Ceiling mounts must use an FS/FD box with a photocontrol. Contact your local sales representative for more information.

③ Fusing only permitted for ULus rating.

④ Luminaires with photocontrol are not rated IP66, Marine Outside Type (Salt Water), or Class II.

⑤ Guards for the glass refractors and globes are ordered separately. See the Accessories for more information.

⑥ For specific lumen output information, see Lamp Comparison Chart.

※ Use of fuse voids Marine Outside Type (Salt Water) rating.

Mercmaster™ LED Low Profile Luminaires

Enclosed and Gasketed Fixtures

NEC/CEC:
 Class I, Division 2, Groups A, B, C, D
 Class I, Zone 2, Group IIC
 Class II, Division 1, Groups E, F, G ①
 Class II, Division 2, Groups F, G
 Class III

NEC/CEC:
 Type 3R, 4, 4X
 IP66
 Simultaneous Exposure
 Suitable for Use in Wet Locations
 Marine Outside Type (Salt Water) For USA ONLY ⌘

Technical Data

Lamp		Ambient Temperature °C (°F)	Supply Wire Temperature °C (°F)	NEC/CEC				Dust	Gas/Dust Simultaneous ② Class I, Division 2/ Class II, Division 1
Model	Type			Class I, Division 2 ②	Gas Groups	Class I, Zone 2,	Class II, Division 1 and 2 ③		
MLLED2 NEMA Type V	LED	40 (104)	60 (140)	T4	A, B, C, D	T4	T4A	E, F, G	T4A
		55 (131)	75 (167)	T4		T4	T4A		T4A
MLLED3 NEMA Type V	LED	40 (104)	60 (140)	T4	A, B, C, D	T4	T4A	E, F, G	T4A
		55 (131)	75 (167)	T4		T4	T4A		T4A
MLLED4 NEMA Type V	LED	40 (104)	60 (140)	T4	A, B, C, D	T4	T4A	E, F, G	T4A
		55 (131)	75 (167)	T4		T4	T4A		T4A

“T” Numbers Represent the Maximum Internal Temperature ② or Maximum Surface Temperature ③

“T” #	NEC/CEC															
	T1	350	325	T2	T2A	T2B	T2C	T2D	T3	T3A	T3B	T3C	T4	T4A	T5	T6
Temp. Range °C (°F)	351-450 (664-842)	326-350 (619-662)	301-325 (574-617)	281-300 (538-572)	261-280 (502-536)	231-260 (448-500)	216-230 (421-446)	201-215 (394-419)	181-200 (358-392)	166-180 (331-356)	161-165 (322-329)	136-160 (277-320)	121-135 (250-275)	101-120 (214-248)	86-100 (187-212)	85 (185)

Lamp Comparison Chart

Lamp Comparison Chart													
					Lumens ④								
	Line Current	Input	Power			Polycarbonate	Glass	Type V		Lamp	Color	Equivalent	
Model	Amps	Power	Factor	THD	Polycarbonate	Diffused	Clear	Prismatic	CRI	Life	Temp	HID	
					Clear Globe ①	Globe ①	Globe	Glass Refractor		(Hours)	CCT	Luminaire	
NEMA Type V													
MLLED2	.21 @120V	26	> .97	< 20%	2400	2300	2500	2200	>70	60,000+	5700K	70 W	
	.10 @277V	26											
MLLED3	.29 @120V	35	> .97	< 20%	3400	3300	3600	3100	>70	60,000+	5700K	100 W	
	.13 @277V	34											
MLLED4	.41 @120V	48	> .88	< 20%	4800	4600	5000	4300	>70	60,000+	5700K	150 W	
	.20 @277V	48											

Surge Protection Common/Differential Mode:
 100kHz Ring Wave (w/t 30Ω): 6 KV
 1.2/50 μs Combination Wave (w/t 2Ω): MLLED2,
 MLLED3 4 KV; MLLED4 3 KV

① Clear and diffused polycarbonate globes are not rated for Class II, Division I environments

② T numbers represent the maximum internal temperature for Class I, Division 2 and Class I, Zone 2 locations designated by the NEC.

③ T numbers represent the maximum surface temperature under a dust blanket for Class II, Division 1 as designated by the NEC.

④ All lumen values are typical (tolerance +/- 10%).

⌘ Use of fuse voids Marine Outside Type (Salt Water) rating

Mercmaster™ LED Low Profile Luminaires

Enclosed and Gasketed Fixtures

NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, Group IIC
Class II, Division 1, Groups E, F, G ①
Class II, Division 2, Groups F, G
Class III

NEC/CEC:

Type 3R, 4, 4X
IP66
Simultaneous Exposure
Suitable for Use in Wet Locations
Marine Outside Type (Salt Water) For USA ONLY ⌘

	Hub Size	Lumen Level	With Type V Polycarbonate Globe ①②	With Type V Polycarbonate Diffused Globe ①②	Glass Globe ②③	With Type V Glass Refractor ②③
Pendant — One Hub						
	3/4	2K	MLLEDA22P5	MLLEDA22D5	MLLEDA22G5	MLLEDA22J5
	3/4	3K	MLLEDA32P5	MLLEDA32D5	MLLEDA32G5	MLLEDA32J5
	3/4	4K	MLLEDA42P5	MLLEDA42D5	MLLEDA42G5	MLLEDA42J5
	1	2K	MLLEDA23P5	MLLEDA23D5	MLLEDA23G5	MLLEDA23J5
	1	3K	MLLEDA33P5	MLLEDA33D5	MLLEDA33G5	MLLEDA33J5
	1	4K	MLLEDA43P5	MLLEDA43D5	MLLEDA43G5	MLLEDA43J5
Ceiling — Five Hubs, Four Close-up Plugs						
	3/4	2K	MLLEDC22P5	MLLEDC22D5	MLLEDC22G5	MLLEDC22J5
	3/4	3K	MLLEDC32P5	MLLEDC32D5	MLLEDC32G5	MLLEDC32J5
	3/4	4K	MLLEDC42P5	MLLEDC42D5	MLLEDC42G5	MLLEDC42J5
	1	2K	MLLEDC23P5	MLLEDC23D5	MLLEDC23G5	MLLEDC23J5
	1	3K	MLLEDC33P5	MLLEDC33D5	MLLEDC33G5	MLLEDC33J5
	1	4K	MLLEDC43P5	MLLEDC43D5	MLLEDC43G5	MLLEDC43J5
Pendant Cone — One Hub, Rigid Mounting						
	3/4	2K	MLLEDD22P5	MLLEDD22D5	MLLEDD22G5	MLLEDD22J5
	3/4	3K	MLLEDD32P5	MLLEDD32D5	MLLEDD32G5	MLLEDD32J5
	3/4	4K	MLLEDD42P5	MLLEDD42D5	MLLEDD42G5	MLLEDD42J5
	1	2K	MLLEDD23P5	MLLEDD23D5	MLLEDD23G5	MLLEDD23J5
	1	3K	MLLEDD33P5	MLLEDD33D5	MLLEDD33G5	MLLEDD33J5
	1	4K	MLLEDD43P5	MLLEDD43D5	MLLEDD43G5	MLLEDD43J5

① Clear and diffused polycarbonate globes are not rated for Class II, Division I environments

② For optional fusing, add suffix -F to the end of the catalog number. Fusing only permitted for ULus rating.

③ Guards are available for fixtures with glass globe or refractor. See following pages for accessory ordering information.

⌘ Use of fuse voids Marine Outside Type (Salt Water) rating.

Mercmaster™ LED Low Profile Luminaires

Enclosed and Gasketed Fixtures

NEC/CEC:
 Class I, Division 2, Groups A, B, C, D
 Class I, Zone 2, Group IIC
 Class II, Division 1, Groups E, F, G ①
 Class II, Division 2, Groups F, G
 Class III

NEC/CEC:
 Type 3R, 4, 4X
 IP66
 Simultaneous Exposure
 Suitable for Use in Wet Locations
 Marine Outside Type (Salt Water) For USA ONLY ⌘

	Hub Size	Lumen Level	With Type V Polycarbonate Globe ①②	With Type V Polycarbonate Diffused Globe ①②	Glass Globe ②③	With Type V Glass Refractor ②③
90° Stanchion — One hub						
	1 - 1/4	2K	MLLEDR24P5	MLLEDR24D5	MLLEDR24G5	MLLEDR24J5
	1 - 1/4	3K	MLLEDR34P5	MLLEDR34D5	MLLEDR34G5	MLLEDR34J5
	1 - 1/4	4K	MLLEDR44P5	MLLEDR44D5	MLLEDR44G5	MLLEDR44J5
	1 - 1/2	2K	MLLEDR25P5	MLLEDR25D5	MLLEDR25G5	MLLEDR25J5
	1 - 1/2	3K	MLLEDR35P5	MLLEDR35D5	MLLEDR35G5	MLLEDR35J5
	1 - 1/2	4K	MLLEDR45P5	MLLEDR45D5	MLLEDR45G5	MLLEDR45J5
25° Stanchion — One hub						
	1 - 1/4	2K	MLLED24P5	MLLED24D5	MLLED24G5	MLLED24J5
	1 - 1/4	3K	MLLED34P5	MLLED34D5	MLLED34G5	MLLED34J5
	1 - 1/4	4K	MLLED44P5	MLLED44D5	MLLED44G5	MLLED44J5
	1 - 1/2	2K	MLLED25P5	MLLED25D5	MLLED25G5	MLLED25J5
	1 - 1/2	3K	MLLED35P5	MLLED35D5	MLLED35G5	MLLED35J5
	1 - 1/2	4K	MLLED45P5	MLLED45D5	MLLED45G5	MLLED45J5
Wall — Five hubs, Four Close-Up Plugs						
	3/4	2K	MLLEDW22P5	MLLEDW22D5	MLLEDW22G5	MLLEDW22J5
	3/4	3K	MLLEDW32P5	MLLEDW32D5	MLLEDW32G5	MLLEDW32J5
	3/4	4K	MLLEDW42P5	MLLEDW42D5	MLLEDW42G5	MLLEDW42J5
	1	2K	MLLEDW23P5	MLLEDW23D5	MLLEDW23G5	MLLEDW23J5
	1	3K	MLLEDW33P5	MLLEDW33D5	MLLEDW33G5	MLLEDW33J5
	1	4K	MLLEDW43P5	MLLEDW43D5	MLLEDW43G5	MLLEDW43J5

① Clear and diffused polycarbonate globes are not rated for Class II, Division I environments
 ② For optional fusing, add suffix -F to the end of the catalog number. Fusing only permitted for ULus rating.
 ③ Guards are available for fixtures with glass globe or refractor. See following pages for accessory ordering information.
 ⌘ Use of fuse voids Marine Outside Type (Salt Water) rating.

Mercmaster™ LED Low Profile Luminaires

Enclosed and Gasketed Fixtures

NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, Group IIC
Class II, Division 1, Groups E, F, G ①
Class II, Division 2, Groups F, G
Class III

NEC/CEC:

Type 3R, 4, 4X
IP66
Simultaneous Exposure
Suitable for Use in Wet Locations
Marine Outside Type (Salt Water) For USA ONLY ⌘

Fixture Unit — Ballast Body and Globe or Refractor



Catalog Number ②							
Lumen Level	LED Wattage	Light Level Equivalent	NEMA Type	For Polycarbonate Globe ①	For Polycarbonate Diffused Globe ①	Glass Globe ③	For Refractor ③
NEC/CEC Certified Fixture Housing - For Hazardous Locations							
2K	26	70W HPS	Type V	MLLED2P5BU	MLLED2D5BU	MLLED2G5BU	MLLED2J5BU
3K	35	100W HPS	Type V	MLLED3P5BU	MLLED3D5BU	MLLED3G5BU	MLLED3J5BU
4K	48	150W HPS	Type V	MLLED4P5BU	MLLED4D5BU	MLLED4G5BU	MLLED4J5BU

Mounting Hoods

Description		Hub Size	Catalog Number
Pendant			
	One Hub	3/4	KPA-75
		1	KPA-100
Pendant Cone			
	One Hub, Rigid Mounting	3/4	KPCH-75
		1	KPCH-100
Ceiling			
	Five Hubs, Four Close-Up Plugs	3/4	KPC-75
		1	KPC-100
Wall			
	Five Hubs, Four Close-Up Plugs	3/4	KPWB-75
		1	KPWB-100
25° Stanchion			
	One Hub	1-1/4	KPS-125
		1-1/2	KPS-150
90° Stanchion			
	One Hub	1-1/4	KPST-125
		1-1/2	KPST-150

① Clear and diffused polycarbonate globes are not rated for Class II, Division I environments

② BU - Universal Voltages 120-277 Vac, 50/60Hz

③ Guards are available for fixtures with glass globe or refractor. See following pages for accessory ordering information.

⌘ Use of fuse voids Marine Outside Type (Salt Water) rating.

Mercmaster™ LED Low Profile Luminaires

Enclosed and Gasketed Fixtures

NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, Group IIC
Class II, Division 1, Groups E, F, G ①
Class II, Division 2, Groups F, G
Class III

NEC/CEC:

Type 3R, 4, 4X
IP66
Simultaneous Exposure
Suitable for Use in Wet Locations
Marine Outside Type (Salt Water) For USA ONLY Ⓜ

Replacement Parts

	Description	Catalog Number
Globes and Gaskets		
	Clear Globe (polycarbonate)	VPGL-LED
	Diffused Globe (polycarbonate)	VPGL-DIFF
	Glass Globe	VPGL-GLASS
	Globe Gasket — Silicone Rubber	KRF-GK
	Light Distribution	Catalog Number
Closed Prismatic Glass Refractors — All Heat-Resistant		
 Glass Refractor	NEMA Type V	LPG-R5
	Description	Catalog Number
LED Array		
	MLLED2 Array assembly, Type V, 5700K	MLLED2A5W
	MLLED3 Array assembly, Type V, 5700K	MLLED3A5W
	MLLED4 Array assembly, Type V, 5700K	MLLED4A5W
Drivers		
	120-277V Driver for MLLED2 and MLLED3	MLLEDDBU
	120-277V Driver for MLLED4	MLLEDDBU4

① Clear and diffused polycarbonate globes are not rated for Class II, Division I environments

Ⓜ Use of fuse voids Marine Outside Type (Salt Water) rating.

Mercmaster™ LED Low Profile Luminaires

Enclosed and Gasketed Fixtures

NEC/CEC:
 Class I, Division 2, Groups A, B, C, D
 Class I, Zone 2, Group IIC
 Class II, Division 1, Groups E, F, G ①
 Class II, Division 2, Groups F, G
 Class III

NEC/CEC:
 Type 3R, 4, 4X
 IP66
 Simultaneous Exposure
 Suitable for Use in Wet Locations
 Marine Outside Type (Salt Water) For USA ONLY ⌘

Accessories

		Description	Catalog Number
White Polyester Reflectors			
		30° Angle	CMR-4AN
Guards			
		Glass Globe Guard	MGU1
		Refractor Guard	KRG2
Adapters			
		Adapter Assembly from V51 to MM III/LED Series	LPAD-1 ②

① Clear and diffused polycarbonate globes are not rated for Class II, Division I environments.
 ② LPAD-1 adapter is not UL certified for use with MLLED luminaires.
 ⌘ Use of fuse voids Marine Outside Type (Salt Water) rating.

Mercmaster™ LED Low Profile Luminaires

Enclosed and Gasketed Fixtures

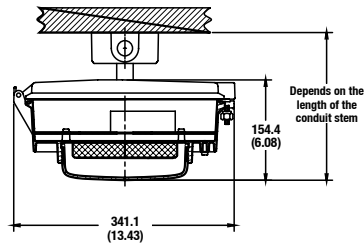
NEC/CEC:

Class I, Division 2, Groups A, B, C, D
 Class I, Zone 2, Group IIC
 Class II, Division 1, Groups E, F, G ①
 Class II, Division 2, Groups F, G
 Class III

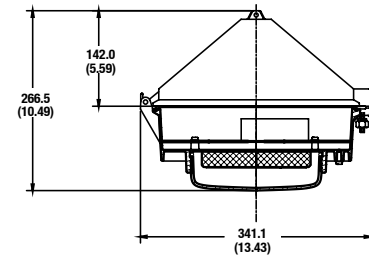
NEC/CEC:

Type 3R, 4, 4X
 IP66
 Simultaneous Exposure
 Suitable for Use in Wet Locations
 Marine Outside Type (Salt Water) For USA ONLY ⌘

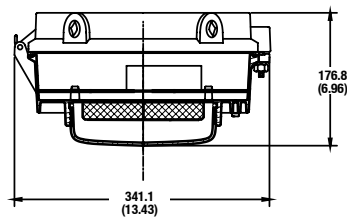
Dimensions in Millimeters (Inches)



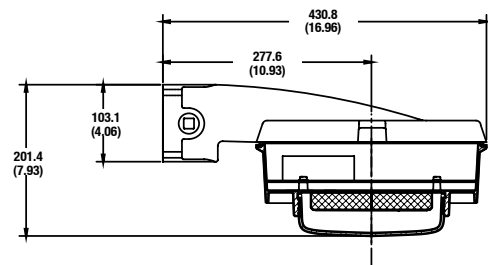
Pendant Mount



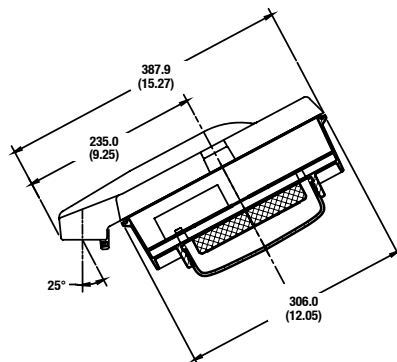
Pendant Cone Mount



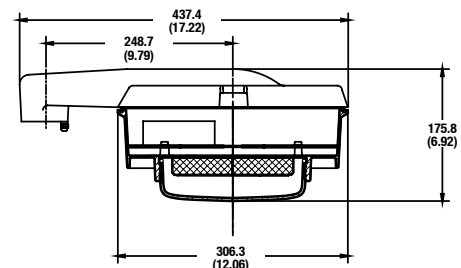
Ceiling Mount



Wall Mount



Angle Stanchion Mount



Stanchion Mount

① Clear and diffused polycarbonate globes are not rated for Class II, Division I environments.

⌘ Use of fuse voids Marine Outside Type (Salt Water) rating.

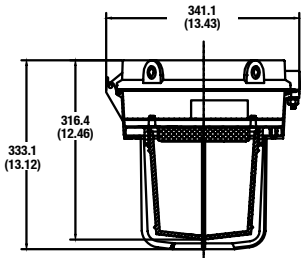
Mercmaster™ LED Low Profile Luminaires

Enclosed and Gasketed Fixtures

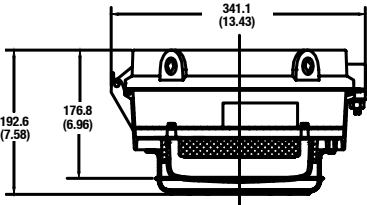
NEC/CEC:
 Class I, Division 2, Groups A, B, C, D
 Class I, Zone 2, Group IIC
 Class II, Division 1, Groups E, F, G ①
 Class II, Division 2, Groups F, G
 Class III

NEC/CEC:
 Type 3R, 4, 4X
 IP66
 Simultaneous Exposure
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 Marine Outside Type (Salt Water) For USA ONLY ⌘

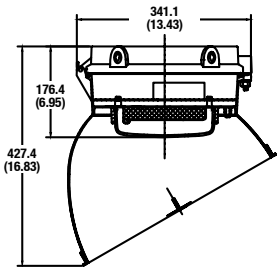
Dimensions With Polycarbonate Globe in Millimeters (Inches)



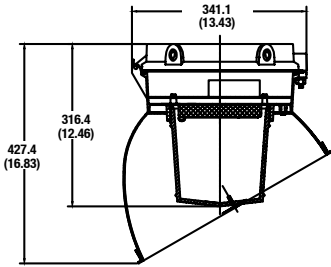
Ceiling Mount w/ Refractor and Guard



Ceiling Mount w/ Glass Globe and Guard



Ceiling Mount with Globe and 30° Reflector



Ceiling Mount with Refractor and 30° Reflector

Mercmaster LED Low Profile Fixture and Mounting Hood Weights

Description	Weight kg (lb)
Fixture Unit (MLLED2/MLLED3)	4.1 (9.00)
Fixture Unit (MLLED4)	4.6 (10.1)
Pendant Mounting Hood	1.0 (2.25)
Pendant Cone Mounting Hood	1.1 (2.50)
Ceiling Mounting Hood	1.4 (3.00)
Wall Mounting Hood	1.8 (4.00)
25° Stanchion Mounting Hood	1.5 (3.25)
90° Stanchion Mounting Hood	1.7 (3.75)

① Clear and diffused polycarbonate globes are not rated for Class II, Division I environments.
 ⌘ Use of fuse voids Marine Outside Type (Salt Water) rating.

PCD2 Series Factory Sealed Hazardous Location Photocontrol ^①

For Use in Class I, Division 2, Groups A, B, C, D Locations

Maintains Class I, Division 2 rating for Mercmaster III, Mercmaster III Low Profile, Mercmaster III 50-250 and 400 Series Luminaires; Mercmaster LED Series.

NEC/CEC:
Class I, Division 2, Groups A, B, C, D
NEMA 4X

Applications

- Encapsulated photocontrol provides automatic dusk-to-dawn lighting control in Class I, Division 2 locations.
- Typical applications include walkways, security areas and any other outdoor lighting application.
- For use with all Mercmaster LED series.
- For remote mounting in FS Boxes.

Features

- Factory sealed design eliminates the need for an explosionproof enclosure.
- One-piece molded GE Ultem 1000 translucent lens assembly, UL94V-0 compliant.
- Can be easily installed in the field.
- Solid state design for performance and reliability.

- Available for 120, 208, 240, or 277 volts.
- 1000 V.A. Voltage/Ampere
- Minimum time delay: 15 seconds to eliminate nuisance tripping.
- Provided with (3) 18AWG stranded leads 152.4 mm (6.00 in) length.
- Will fit through standard 1/2" knockout.
- Supplied with locknut and gasket.

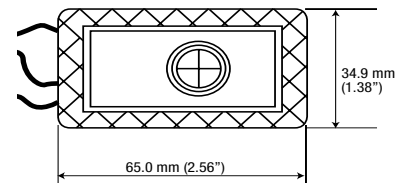
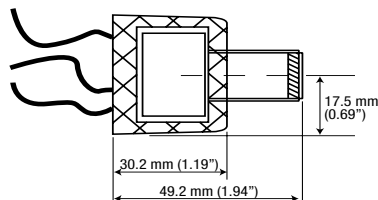
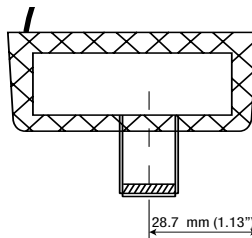
Materials

- Encapsulated with epoxy sealing compound
- FS Cover: aluminum

NEC/CEC Certifications and Compliances

- UL Standard: 1604 – Hazardous (Classified) Locations
- cULus Recognized

	Voltage Range	Max VA	Max Current Amps	Suffix Designation Catalog Number
Factory Installed Photocontrol — Not for ceiling or pendant cone				
<i>Add to fixture catalog after voltage; i.e.: MLLDA32P5BU1.</i>				
 Mercmaster III wall mounting hood with photocontrol installed shown	120 V, 50/60 Hz	1000	8.3 Amp	1
	208 V, 50/60 Hz	1000	4.8 Amp	2
	240 V, 50/60 Hz	1000	4.2 Amp	3
	277 V, 50/60 Hz	1000	3.6 Amp	4
Photocontrol, purchased separately				
	120 V, 50/60 Hz	1000	8.3 Amp	PC120D2
	208 V, 50/60 Hz	1000	4.8 Amp	
	240 V, 50/60 Hz	1000	4.2 Amp	PC247D2
	277 V, 50/60 Hz	1000	3.6 Amp	
Photocontrol in FS Cover for Use with FS/FD Box				
<i>Supplied with two stainless steel screws. For neoprene gasket, order catalog number FS-GKR-1N.</i>				
	120 V, 50/60 Hz	1000	8.3 Amp	FSKA-PC120D2
	208 V, 50/60 Hz	1000	4.8 Amp	
	240 V, 50/60 Hz	1000	4.2 Amp	FSKA-PC247D2
	277 V, 50/60 Hz	1000	3.6 Amp	



① Fixtures with photocontrols are not rated IP66, Type 4X, marine outside type (salt water), or Class II.

Mercmaster™ LED Low Profile Luminaires

Enclosed and Gasketed Fixtures

NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, Group IIC
Class II, Division 1, Groups E, F, G ①
Class II, Division 2, Groups F, G
Class III

NEC/CEC:

Type 3R, 4, 4X
IP66
Simultaneous Exposure
Suitable for Use in Wet Locations
Marine Outside Type (Salt Water) For USA ONLY ⌘

Photometric Data — DATA SHOWN IS ABSOLUTE

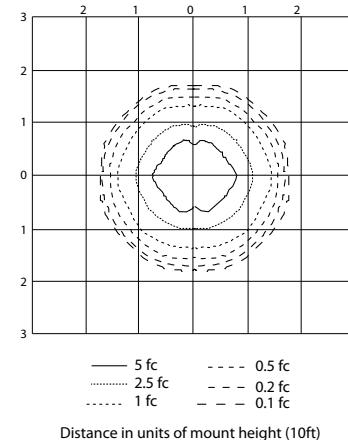
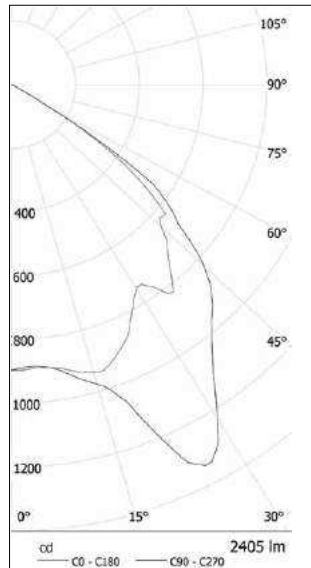
MLLED2P5BU 2K Lumen 5700K CCT with Clear Polycarbonate Lens

Polar Candela Distribution

Isoillumination Plot

Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire	Zone	Lumens	% Luminaire
0-30	852.7	35.4	0-10	86.5	3.6
0-40	1423	59.2	10-20	280.4	11.7
0-60	2368	98.5	20-30	485.8	20.2
60-90	37.0	1.5	30-40	570.3	23.7
0-90	2406	100.0	40-50	573.0	23.8
90-180	0.0	0.0	50-60	372.5	15.5
0-180	2406	100.0	60-70	27.9	1.2
			70-80	7.0	0.3
			80-90	2.1	0.1



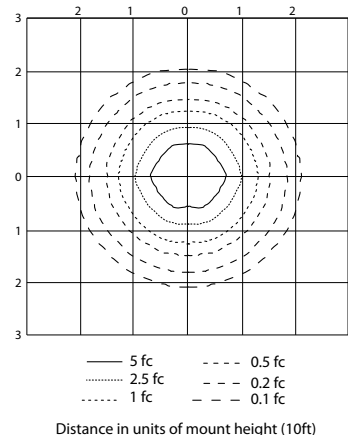
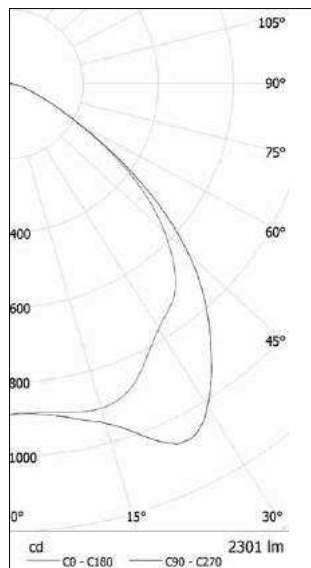
MLLED2D5BU 2K Lumen 5700K CCT with Diffused Polycarbonate Lens

Polar Candela Distribution

Isoillumination Plot

Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire	Zone	Lumens	% Luminaire
0-30	788.1	34.3	0-10	85.9	3.7
0-40	1299	56.5	10-20	266.8	11.6
0-60	2092	90.9	20-30	435.4	18.9
60-90	194.5	8.5	30-40	510.6	22.2
0-90	2286	99.4	40-50	478.8	20.8
90-180	14.7	0.6	50-60	314.0	13.6
0-180	2301	100.0	60-70	130.7	5.7
			70-80	50.4	2.2
			80-90	13.4	0.6
			90-100	4.0	0.2
			100-110	9.5	0.4
			110-120	1.2	0.1



① Clear and diffused polycarbonate globes are not rated for Class II, Division I environments.

⌘ Use of fuse voids Marine Outside Type (Salt Water) rating.

Mercmaster™ LED Low Profile Luminaires

Enclosed and Gasketed Fixtures

NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, Group IIC
Class II, Division 1, Groups E, F, G ①
Class II, Division 2, Groups F, G
Class III

NEC/CEC:

Type 3R, 4, 4X
IP66
Simultaneous Exposure
Suitable for Use in Wet Locations
Marine Outside Type (Salt Water) For USA ONLY ⌘

Photometric Data — DATA SHOWN IS ABSOLUTE

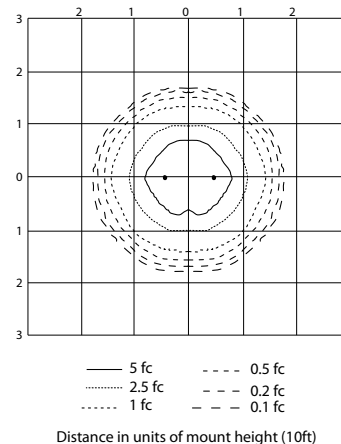
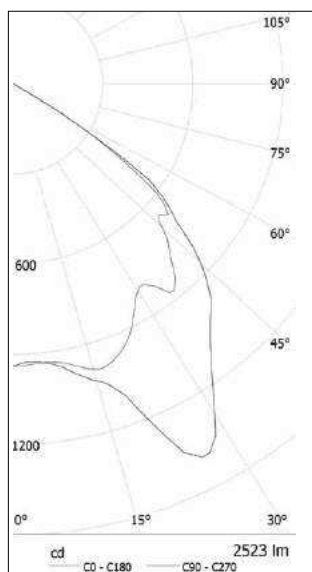
MLLED2G5BU 2K Lumen 5700K CCT with Glass Globe

Polar Candela Distribution

Isoillumination Plot

Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire	Zone	Lumens	% Luminaire
0-30	896.4	35.5	0-10	90.7	3.6
0-40	1498	59.4	10-20	294.9	11.7
0-60	2490	98.7	20-30	510.7	20.2
60-90	33.4	1.3	30-40	601.9	23.9
0-90	2523	100.0	40-50	605.8	24.0
90-180	0.0	0.0	50-60	385.7	15.3
0-180	2523	100.0	60-70	26.1	1.0
			70-80	5.8	0.2
			80-90	1.4	0.1



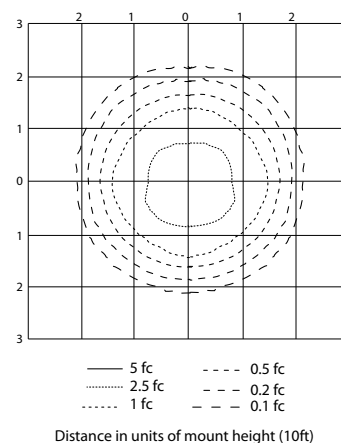
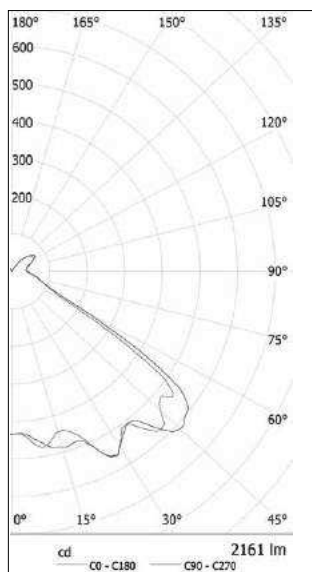
MLLED2J5BU 2K Lumen 5700K CCT with Glass Refractor

Polar Candela Distribution

Isoillumination Plot

Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire	Zone	Lumens	% Luminaire
0-30	421.8	19.5	0-10	42.6	2.0
0-40	758.5	35.1	10-20	137.9	6.4
0-60	1612	74.6	20-30	241.3	11.2
60-90	287.7	13.3	30-40	336.8	15.6
0-90	1900	87.9	40-50	440.2	20.4
90-180	261.4	12.1	50-60	413.6	19.1
0-180	2161	100.0	60-70	155.1	7.2
			70-80	79.1	3.7
			80-90	53.5	2.5
			90-100	42.3	2.0
			100-110	43.7	2.0
			110-120	53.9	2.5
			120-130	60.8	2.8
			130-140	42.9	2.0
			140-150	16.4	0.8
			150-160	1.4	0.1



① Clear and diffused polycarbonate globes are not rated for Class II, Division I environments.

⌘ Use of fuse voids Marine Outside Type (Salt Water) rating.

Mercmaster™ LED Low Profile Luminaires

Enclosed and Gasketed Fixtures

NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, Group IIC
Class II, Division 1, Groups E, F, G ①
Class II, Division 2, Groups F, G
Class III

NEC/CEC:

Type 3R, 4, 4X
IP66
Simultaneous Exposure
Suitable for Use in Wet Locations
Marine Outside Type (Salt Water) For USA ONLY ※

Photometric Data — DATA SHOWN IS ABSOLUTE

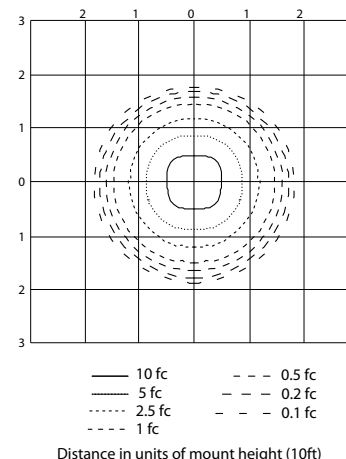
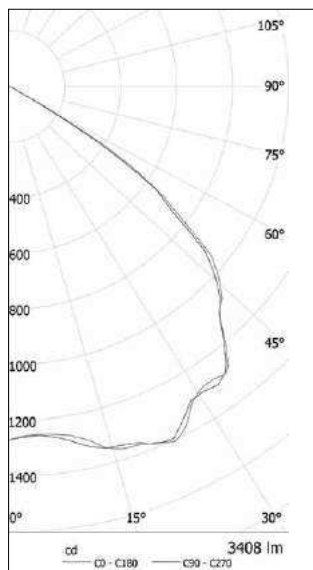
MLLED3P5BU 3K Lumen 5700K CCT with Clear Polycarbonate Lens

Polar Candela Distribution

Isoillumination Plot

Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire	Zone	Lumens	% Luminaire
0-30	1161	34.1	0-10	121.6	3.6
0-40	1992	58.5	10-20	378.1	11.1
0-60	3358	98.5	20-30	660.9	19.4
60-90	49.5	1.5	30-40	831.4	24.4
0-90	3408	100.0	40-50	837.7	24.6
90-180	0.0	0.0	50-60	528.5	15.5
0-180	3408	100.0	60-70	37.7	1.1
			70-80	9.2	0.3
			80-90	2.6	0.1



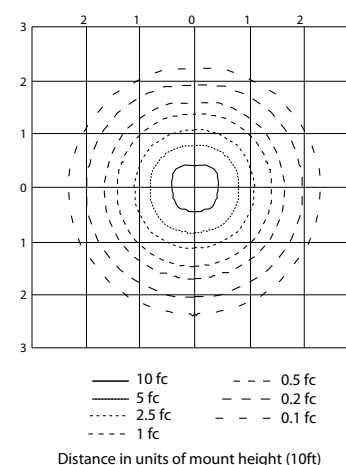
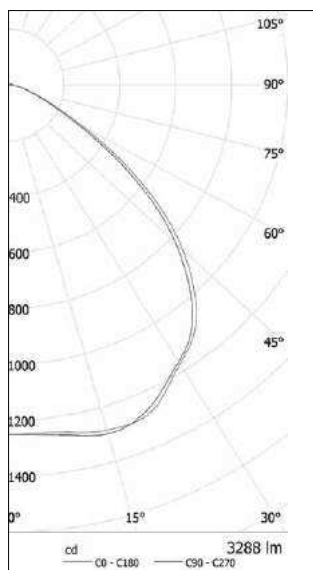
MLLED3D5BU 3K Lumen 5700K CCT with Diffused Polycarbonate Lens

Polar Candela Distribution

Isoillumination Plot

Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire	Zone	Lumens	% Luminaire
0-30	1090	33.2	0-10	120.5	3.7
0-40	1827	55.6	10-20	366.3	11.1
0-60	2980	90.6	20-30	603.4	18.4
60-90	283.7	8.6	30-40	736.6	22.4
0-90	3263	99.3	40-50	698.3	21.2
90-180	24.6	0.7	50-60	454.6	13.8
0-180	3288	100.0	60-70	188.8	5.7
			70-80	73.6	2.2
			80-90	21.3	0.6
			90-100	7.3	0.2
			100-110	14.8	0.4
			110-120	2.5	0.1



① Clear and diffused polycarbonate globes are not rated for Class II, Division I environments.

※ Use of fuse voids Marine Outside Type (Salt Water) rating.

Mercmaster™ LED Low Profile Luminaires

Enclosed and Gasketed Fixtures

NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, Group IIC
Class II, Division 1, Groups E, F, G ①
Class II, Division 2, Groups F, G
Class III

NEC/CEC:

Type 3R, 4, 4X
IP66
Simultaneous Exposure
Suitable for Use in Wet Locations
Marine Outside Type (Salt Water) For USA ONLY ※

Photometric Data — DATA SHOWN IS ABSOLUTE

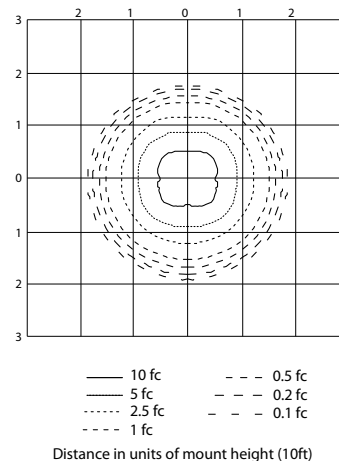
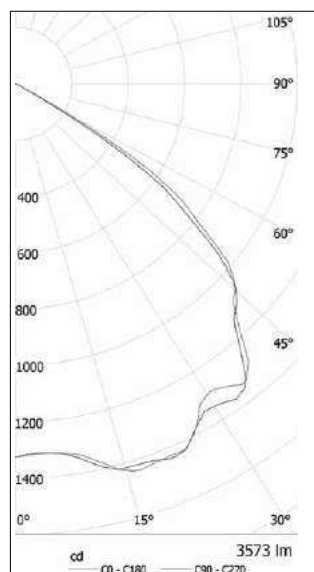
MLLED3G5BU 3K Lumen 5700K CCT with Glass Globe

Polar Candela Distribution

Isoillumination Plot

Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire	Zone	Lumens	% Luminaire
0-30	1220	34.1	0-10	127.4	3.6
0-40	2095	58.6	10-20	397.2	11.1
0-60	3525	98.7	20-30	695.5	19.5
60-90	47.7	1.3	30-40	874.8	24.5
0-90	3573	100.0	40-50	880.9	24.7
90-180	0.0	0.0	50-60	549.3	15.4
0-180	3573	100.0	60-70	36.8	1.0
			70-80	8.5	0.2
			80-90	2.3	0.1



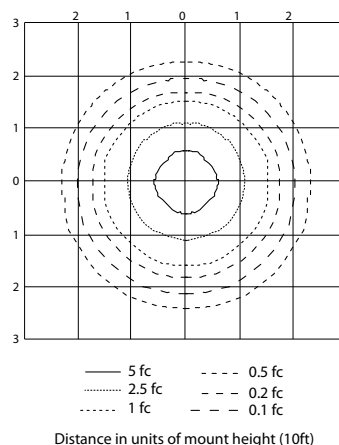
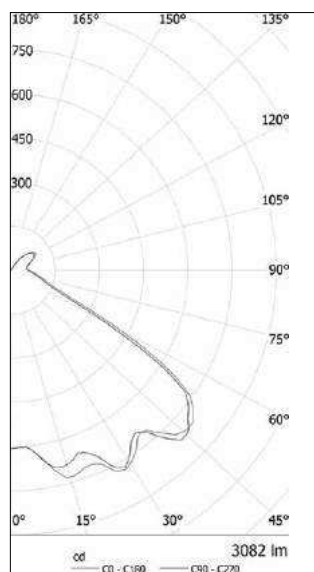
MLLED3J5BU 3K Lumen 5700K CCT with Glass Refractor

Polar Candela Distribution

Isoillumination Plot

Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire	Zone	Lumens	% Luminaire
0-30	593.6	19.3	0-10	59.9	1.9
0-40	1069	34.7	10-20	194.1	6.3
0-60	2292	74.4	20-30	339.6	11.0
60-90	417.3	13.5	30-40	475.6	15.4
0-90	2709	87.9	40-50	622.0	20.2
90-180	372.4	12.1	50-60	601.0	19.5
0-180	3082	100.0	60-70	227.5	7.4
			70-80	113.1	3.7
			80-90	76.7	2.5
			90-100	60.6	2.0
			100-110	62.7	2.0
			110-120	76.1	2.5
			120-130	84.4	2.8
			130-140	61.2	2.0
			140-150	24.1	0.8
			150-160	2.2	0.1



① Clear and diffused polycarbonate globes are not rated for Class II, Division I environments.
※ Use of fuse voids Marine Outside Type (Salt Water) rating.

Mercmaster™ LED Low Profile Luminaires

Enclosed and Gasketed Fixtures

NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, Group IIC
Class II, Division 1, Groups E, F, G ①
Class II, Division 2, Groups F, G
Class III

NEC/CEC:

Type 3R, 4, 4X
IP66
Simultaneous Exposure
Suitable for Use in Wet Locations
Marine Outside Type (Salt Water) For USA ONLY ⌘

Photometric Data — DATA SHOWN IS ABSOLUTE

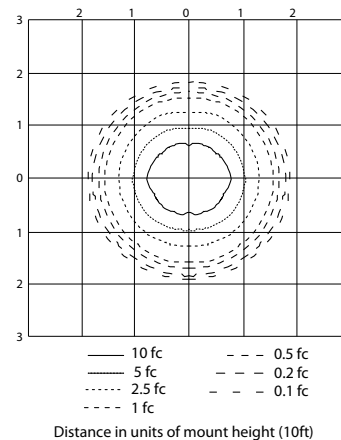
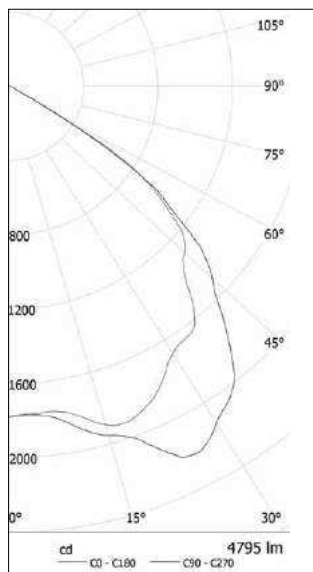
MLLED4P5BU 4K Lumen 5700K CCT with Clear Polycarbonate Lens

Polar Candela Distribution

Isoillumination Plot

Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire	Zone	Lumens	% Luminaire
0-30	1676	34.9	0-10	171.9	3.6
0-40	2829	59.0	10-20	549.3	11.5
0-60	4705	98.1	20-30	954.3	19.9
60-90	89.7	1.9	30-40	1153	24.0
0-90	4795	100.0	40-50	1126	23.5
90-180	0.0	0.0	50-60	751.1	15.7
0-180	4795	100.0	60-70	63.9	1.3
			70-80	17.9	0.4
			80-90	7.8	0.2



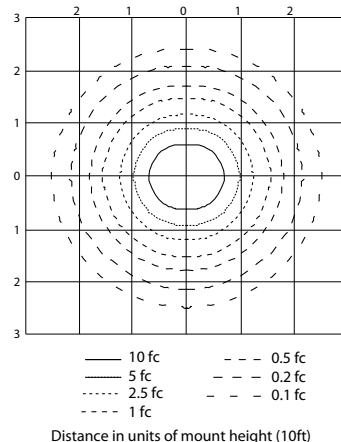
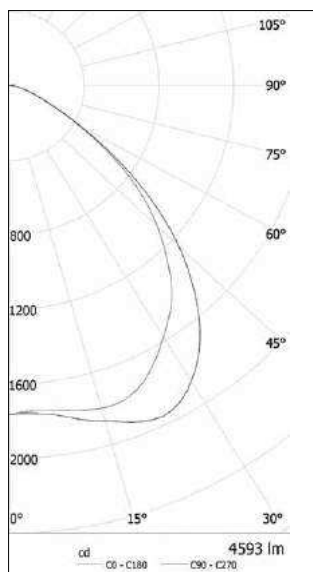
MLLED4D5BU 4K Lumen 5700K CCT with Diffused Polycarbonate Lens

Polar Candela Distribution

Isoillumination Plot

Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire	Zone	Lumens	% Luminaire
0-30	1560	34.0	0-10	170.4	3.7
0-40	2583	56.2	10-20	526.5	11.5
0-60	4159	90.6	20-30	863.6	18.8
60-90	398.6	8.7	30-40	1022	22.3
0-90	4558	99.2	40-50	948.3	20.6
90-180	35.2	0.8	50-60	628.0	13.7
0-180	4593	100.0	60-70	266.2	5.8
			70-80	102.8	2.2
			80-90	29.6	0.6
			90-100	10.2	0.2
			100-110	21.6	0.5
			110-120	3.7	0.1



① Clear and diffused polycarbonate globes are not rated for Class II, Division I environments.

⌘ Use of fuse voids Marine Outside Type (Salt Water) rating.

Mercmaster™ LED Low Profile Luminaires

Enclosed and Gasketed Fixtures

NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, Group IIC
Class II, Division 1, Groups E, F, G ①
Class II, Division 2, Groups F, G
Class III

NEC/CEC:

Type 3R, 4, 4X
IP66
Simultaneous Exposure
Suitable for Use in Wet Locations
Marine Outside Type (Salt Water) For USA ONLY Ⓜ

Photometric Data — DATA SHOWN IS ABSOLUTE

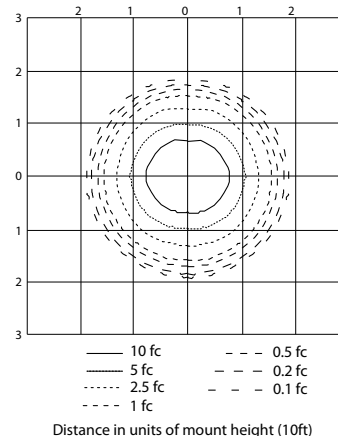
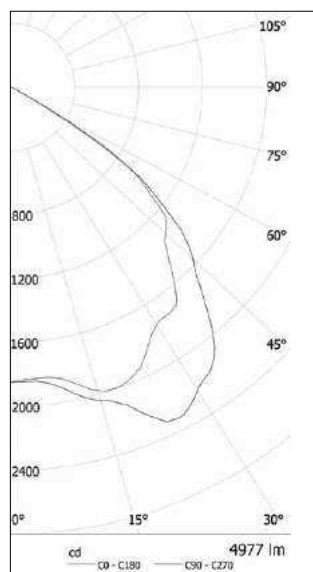
MLLED4G5BU 4K Lumen 5700K CCT with Glass Globe

Polar Candela Distribution

Isoillumination Plot

Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire	Zone	Lumens	% Luminaire
0-30	1748	35.1	0-10	178.5	3.6
0-40	2952	59.3	10-20	572.7	11.5
0-60	4906	98.6	20-30	997.0	20.0
60-90	71.5	1.4	30-40	1204	24.2
0-90	4977	100.0	40-50	1175	23.6
90-180	0.0	0.0	50-60	778.5	15.6
0-180	4977	100.0	60-70	57.6	1.2
			70-80	11.2	0.2
			80-90	2.6	0.1



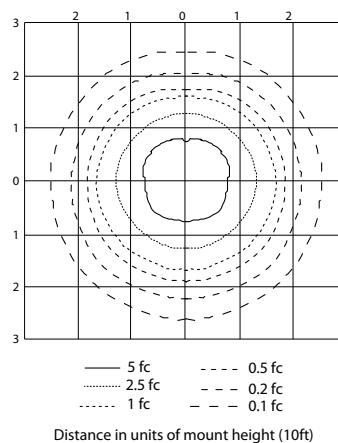
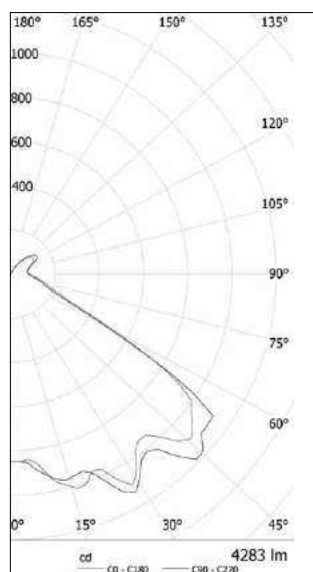
MLLED4J5BU 4K Lumen 5700K CCT with Glass Refractor

Polar Candela Distribution

Isoillumination Plot

Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire	Zone	Lumens	% Luminaire
0-30	836.3	19.5	0-10	84.6	2.0
0-40	1501	35.0	10-20	274.6	6.4
0-60	3199	74.7	20-30	477.1	11.1
60-90	571.9	13.4	30-40	664.8	15.5
0-90	3771	88.0	40-50	871.2	20.3
90-180	512.5	12.0	50-60	826.7	19.3
0-180	4283	100.0	60-70	308.3	7.2
			70-80	156.7	3.7
			80-90	106.9	2.5
			90-100	84.6	2.0
			100-110	87.9	2.1
			110-120	105.6	2.5
			120-130	115.7	2.7
			130-140	82.9	1.9
			140-150	32.6	0.8
			150-160	3.2	0.1



① Clear and diffused polycarbonate globes are not rated for Class II, Division I environments.

Ⓜ Use of fuse voids Marine Outside Type (Salt Water) rating.

Viamaster™ LED Series Luminaires

For NEC and CEC Governed Hazardous Locations

NEC/CEC:

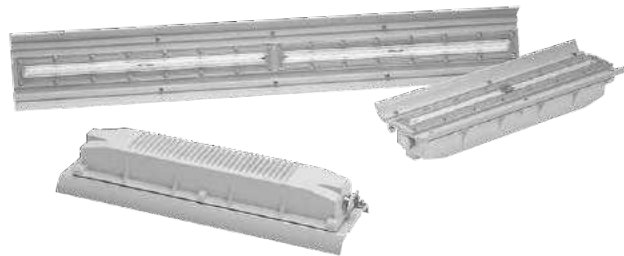
Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, Group IIC
Class II, Division 2, Groups F, G
Class III
Type 3R, 4, 4X

NEC/CEC:

Marine Outside Type- For USA Only ⌘
IP66/IP67

Applications

- For use in locations where:
 - Flammable gases, vapors and dusts are present
 - A high degree of corrosion resistance is required
 - Protection against dirt, water and moisture is necessary
- Typical applications include:
 - Oil refineries
 - Petrochemical facilities
 - Pulp and paper mills
 - Food processing plants
 - Waste and sewer treatment
 - Underground tunnels
 - General manufacturing facilities



Features

- 60,000+ hour LED life for years of maintenance free operation.
- Lightweight design, hinged cover with captive screws, and terminal block wiring for easy installation and maintenance.
- Standard screw-type terminal block can accept UL/CSA 26 to 10 AWG wire.
- Contemporary, low profile design suitable for tight spaces.
- Field replaceable LED driver and lens.
- Industry-leading thermal management for safe, reliable operation over wide temperature range.
- Full range of lumen outputs, with light distribution equivalent to Appleton's FV Series fluorescent fixtures
- Easy to retrofit in same mounting footprint as Appleton's FV Series fluorescent fixtures.
- 2 opposing 3/4" NPT hubs with adjacent terminal blocks for thru wiring. (1) 3/4" NPT close up plug provided.

Options

- Universal, high efficiency, drivers cover voltage requirements for 120-277 Vac and 347-480 Vac, 50/60 Hz +/- 10%.
- Standard 2KV surge suppression.
- Safety cable for fall safe retention; add suffix **-C** to the end of the catalog number.
- Fusing is available;
 - Add suffix **-F** to the end of the catalog number. ⌘
- Diffused lens is available;
 - Add suffix **-D** to the end of the catalog number.
- For emergency battery backup refer to Viamaster LED Series Emergency Luminaires.

Standard Materials

- Housing: copperfree (4/10 of 1% max.) aluminum
- Lens: thermal shock- and impact-resistant polycarbonate lens
- Gasket: silicone rubber, mechanically secured
- Bolts: stainless steel
- Close up plugs: nickel plated brass
 - Mounting hardware: See ordering information

Standard Finishes

- Housing: gray polyester

Related Products

- For ATEX/IECEx certified products, refer to Viamaster LED Series Luminaires for ATEX and IECEx Governed Locations

NEC/CEC Certifications and Compliances

- UL Standard: UL 1598, UL 8750, UL 844, UL1598A, UL50E
- CSA Standards: C22.2 No. 250.0, C22.2 No. 137
- cCSAus Certified: 065182. cULus E10444
- Ambient Temperature:
 - LU: 120-277 Volts: -40 °C up to +65 °C (-40 °F up to +149 °F)
 - BH: 347-480 Volts: -40 °C up to +65 °C (-40 °F up to +149 °F)

⌘ Fusing option not available with Marine Outside Type (Salt Water) rating. Fusing option not permitted for cUL.

Viamaster™ LED Series Luminaires

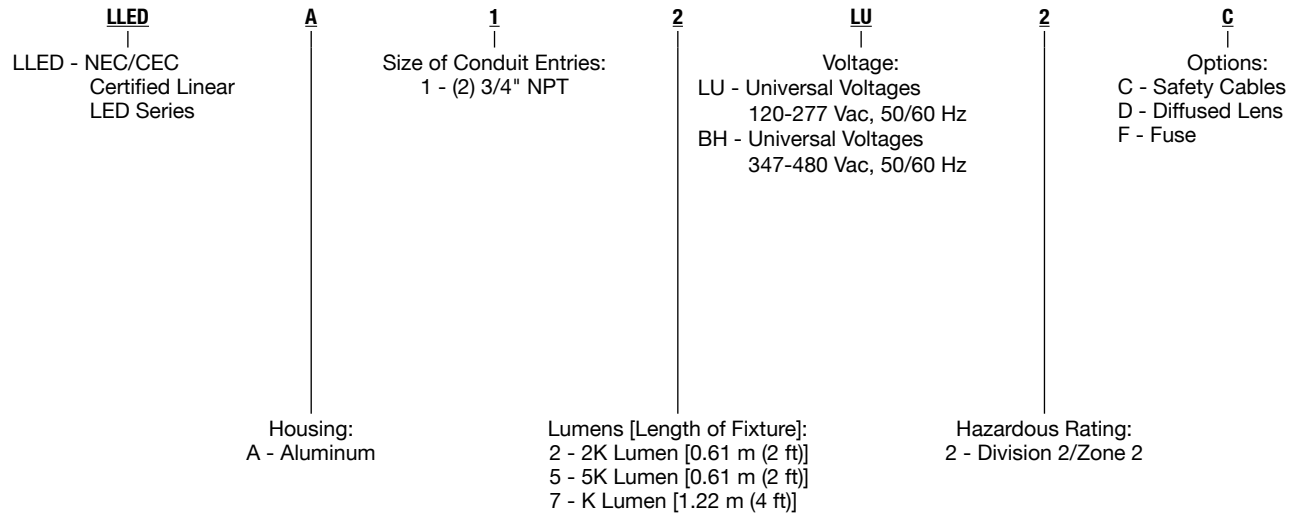
For NEC and CEC Governed Hazardous Locations

NEC/CEC:
 Class I, Division 2, Groups A, B, C, D
 Class I, Zone 2, Group IIC
 Class II, Division 2, Groups F, G
 Class III
 Type 3R, 4, 4X

NEC/CEC:
 Marine Outside Type- For USA Only ⚡
 IP66/IP67

Order using catalog numbering guides below or select catalog number from tables on following pages.

Catalog Numbering Guide – NEC/CEC Certified Linear LED



Lamp Comparison Chart

Lumens									
Catalog Number	Line Current Amps	Input Power	Power Factor	THD	Clear Polycarbonate	Diffused Polycarbonate	CRI	Color Temp CCT	Length m (ft)
NEC/CEC									
LLEDA12LU2	.20@120V	22	>0.95	<20%	2200	1800	70	5650K	0.61 (2)
	.12@277V		>0.87						
LLEDA12BH2	.07@347V		>.95						
	.06@480V		>.77						
LLEDA15LU2	.37@120V	45	>.95	<20%	4400	3800	70	5650K	0.61 (2)
	.17@277V								
LLEDA15BH2	.14@347V								
	.10@480V								
LLEDA17LU2	.70@120V	81	>.95	<20%	7800	6400	70	5650K	1.22 (4)
	.31@277V								
LLEDA17BH2	.24@347V								
	.18@480V								

⚡ Fusing option not available with Marine Outside Type (Salt Water) rating. Fusing option not permitted for cUL.

Viamaster™ LED Series Luminaires

For NEC and CEC Governed Hazardous Locations

NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, Group IIC
Class II, Division 2, Groups F, G
Class III
Type 3R, 4, 4X

NEC/CEC:

Marine Outside Type- For USA Only ⌘
IP66/IP67

Technical Data ①

Lamp		Ambient Temperature °C (°F)	Supply Wire Temperature °C (°F)	Gas		NEC/CEC		Dust	
Model	Type			Class I, Division 2 ②	Groups	Class I, Zone 2, AEx nA IIC, Ex nA IIC	Class II, Division 2 ③	Groups	Groups
LLEDA12LU2	LED	40 (104)	75 (167)	T4	A, B, C, D	T4	T5	F, G	
		55 (131)	75 (167)	T4	A, B, C, D	T4	T5	F, G	
		65 (149)	75 (167)	T4	A, B, C, D	T4	T4A	F, G	
LLEDA12BH2	LED	40 (104)	75 (167)	T4A	A, B, C, D	T4	T6	F, G	
		55 (131)	75 (167)	T4A	A, B, C, D	T4	T5	F, G	
		65 (149)	75 (167)	T4	A, B, C, D	T4	T4A	F, G	
LLEDA15LU2	LED	40 (104)	75 (167)	T4A	A, B, C, D	T4	T5	F, G	
		55 (131)	75 (167)	T4	A, B, C, D	T4	T4A	F, G	
		65 (149)	75 (167)	T4	A, B, C, D	T4	T4A	F, G	
LLEDA15BH2	LED	40 (104)	75 (167)	T4	A, B, C, D	T4	T5	F, G	
		55 (131)	75 (167)	T4	A, B, C, D	T4	T4A	F, G	
		65 (149)	75 (167)	T4	A, B, C, D	T4	T4A	F, G	
LLEDA17LU2	LED	40 (104)	75 (167)	T4A	A, B, C, D	T4	T5	F, G	
		55 (131)	75 (167)	T5	A, B, C, D	T5	T4A	F, G	
		65 (149)	75 (167)	T4	A, B, C, D	T4	T4A	F, G	
LLEDA17BH2	LED	40 (104)	75 (167)	T4A	A, B, C, D	T4	T5	F, G	
		55 (131)	75 (167)	T4A	A, B, C, D	T4	T5	F, G	
		65 (149)	75 (167)	T4	A, B, C, D	T4	T4A	F, G	

T Code data is per UL Certification.

“T” Numbers Represent the Maximum Internal Temperature ② or Maximum Surface Temperature ③

“T” #	NEC/CEC															
	T1	350	325	T2	T2A	T2B	T2C	T2D	T3	T3A	T3B	T3C	T4	T4A	T5	T6
Temp. Range °C (°F)	351-450	326-350	301-325	281-300	261-280	231-260	216-230	201-215	181-200	166-180	161-165	136-160	121-135	101-120	86-100	85
	(664-842)	(619-662)	(574-617)	(538-572)	(502-536)	(448-500)	(421-446)	(394-419)	(358-392)	(331-356)	(322-329)	(277-320)	(250-275)	(214-248)	(187-212)	(185)

① T codes provided in catalog pages are based on worst case data.

② T numbers represent the maximum internal temperature for Class I, Division 2 and Class I, Zone 2 locations designated by the NEC.

③ T numbers represent the maximum surface temperature under a dust blanket for Class II, Division 1 and 2 as designated by the NEC.

⌘ Fusing option not available with Marine Outside Type (Salt Water) rating. Fusing option not permitted for cUL.

Viamaster™ LED Series Luminaires

For NEC and CEC Governed Hazardous Locations

NEC/CEC:
 Class I, Division 2, Groups A, B, C, D
 Class I, Zone 2, Group IIC
 Class II, Division 2, Groups F, G
 Class III
 Type 3R, 4, 4X

NEC/CEC:
 Marine Outside Type- For USA Only ⚡
 IP66/IP67

	Conduit/Cable Entries	Voltage	Weight kg (lb)	Catalog Numbers ①	
				Clear Polycarbonate	Diffused Polycarbonate
2,200 Lumens — 0.61 m (2 ft)					
	3/4" NPT (2)	120-277 Vac, 50/60 Hz	6.21 (13.7)	LLEDA12LU2	LLEDA12LU2D
	3/4" NPT (2)	347-480 Vac, 50/60 Hz		LLEDA12BH2	LLEDA12BH2D
4,400 Lumens — 0.61 m (2 ft)					
	3/4" NPT (2)	120-277 Vac, 50/60 Hz	6.35 (14.0)	LLEDA15LU2	LLEDA15LU2D
	3/4" NPT (2)	347-480 Vac, 50/60 Hz		LLEDA15BH2	LLEDA15BH2D
7,800 Lumens — 1.22 m (4 ft)					
	3/4" NPT (2)	120-277 Vac, 50/60 Hz	8.69 (19.15)	LLEDA17LU2	LLEDA17LU2D
	3/4" NPT (2)	347-480 Vac, 50/60 Hz		LLEDA17BH2	LLEDA17BH2D

① For optional safety cables, add suffix **-C** to the end of the catalog number. For optional fuse, add suffix **-F** to the end of the catalog number.
 Example: LLEDA12LU2CDF.

⚡ Fusing option not available with Marine Outside Type (Salt Water) rating. Fusing option not permitted for cUL.

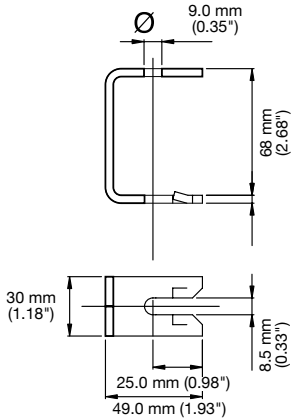
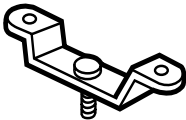
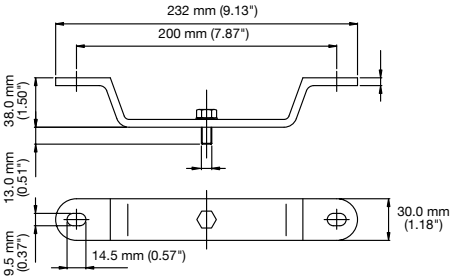
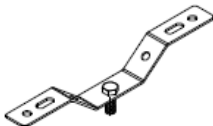
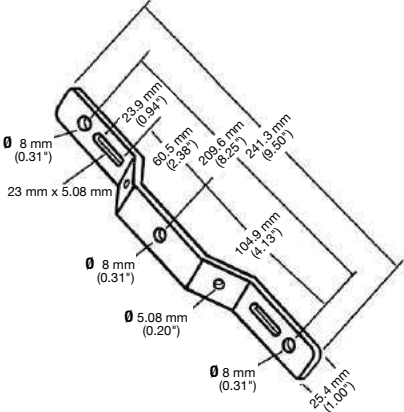
Viamaster™ LED Series Luminaires

For NEC and CEC Governed Hazardous Locations

NEC/CEC:
Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, Group IIC
Class II, Division 2, Groups F, G
Class III
Type 3R, 4, 4X

NEC/CEC:
Marine Outside Type- For USA Only ⌘
IP66/IP67

Accessories and Replacement Parts

	Description		Catalog Numbers
Mounting Brackets – Set of Two			
 	Surface Mounting		316 stainless steel FEFBS
 	Surface Mounting		Aluminium (gray painted) 316 stainless steel FESBA FESBS
 	Surface Mounting		14-gauge stainless steel FVSM

⌘ Fusing option not available with Marine Outside Type (Salt Water) rating. Fusing option not permitted for cUL.

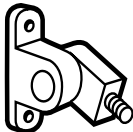
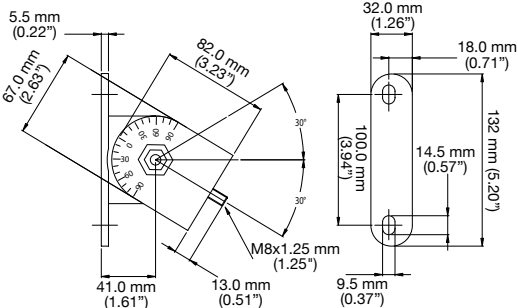
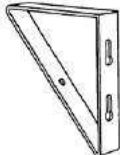
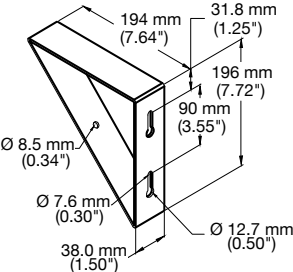
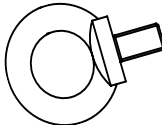
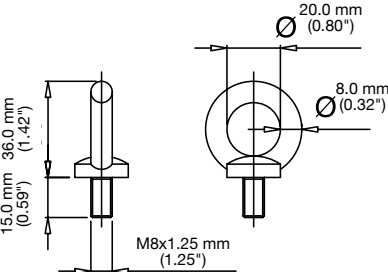
Viamaster™ LED Series Luminaires

For NEC and CEC Governed Hazardous Locations

NEC/CEC:
 Class I, Division 2, Groups A, B, C, D
 Class I, Zone 2, Group IIC
 Class II, Division 2, Groups F, G
 Class III
 Type 3R, 4, 4X

NEC/CEC:
 Marine Outside Type- For USA Only ⚡
 IP66/IP67

Accessories and Replacement Parts

		Description	Catalog Numbers
Mounting Brackets — Set of Two			
			Hinged Brackets
	Aluminium	FEHBA	
Fixed 45° Wall Mount			
			Fixed 45° Wall Mount
	11-gauge (1/8\") stainless steel	FVWFM	
M8 Ring Bolts			
			M8 Ring Bolts
	Zinc plated steel — For use with optional safety chain (not provided)	FERBM8Z	
Safety Cables — Set of Two		Safety Cables — Attached to fixtures to guard against them falling when the primary method of attachment fails.	LLEDSC
Replacement Drivers		120-277 Vac driver (-40 °C to +65 °C)	LLEDBU2
		347-480 Vac driver	LLEDBH
Replacement Lenses		Clear Polycarbonate lens with an integral gasket	LLEDGPL
		Diffused lens with an integral gasket	LLEDDPL

⚡ Fusing option not available with Marine Outside Type (Salt Water) rating. Fusing option not permitted for cUL.

Viamaster™ LED Series Luminaires

For NEC and CEC Governed Hazardous Locations

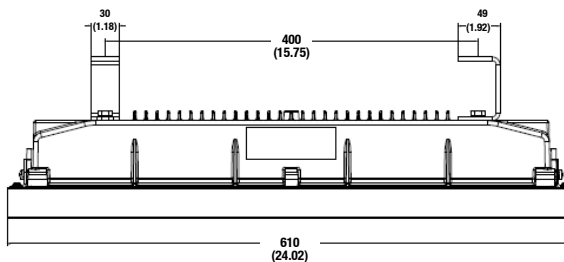
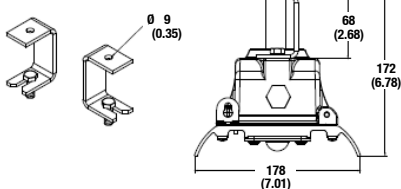
NEC/CEC:
 Class I, Division 2, Groups A, B, C, D
 Class I, Zone 2, Group IIC
 Class II, Division 2, Groups F, G
 Class III
 Type 3R, 4, 4X

NEC/CEC:
 Marine Outside Type- For USA Only ⚡
 IP66/IP67

Mounting Option Dimensions in Millimeters (Inches)

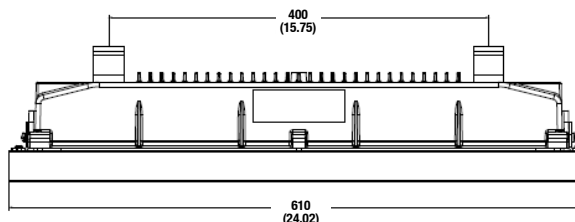
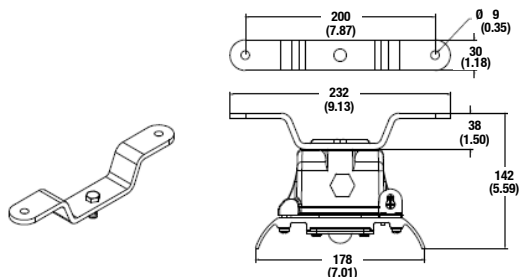
FEFBS

Ceiling/Surface Mount



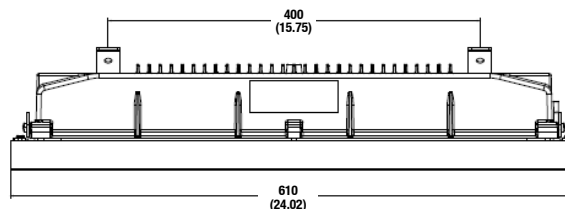
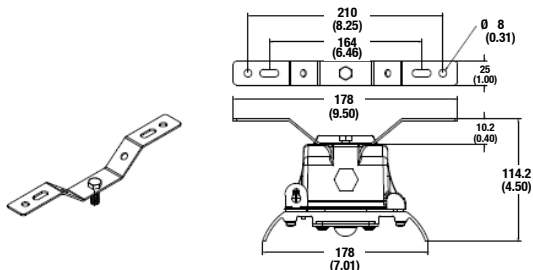
FESBA Aluminum (gray painted)
FESBS 316 stainless steel

Ceiling/Surface Mount



FVSM

Ceiling/Surface Mount



⚡ Fusing option not available with Marine Outside Type (Salt Water) rating. Fusing option not permitted for cUL.

Viamaster™ LED Series Luminaires

For NEC and CEC Governed Hazardous Locations

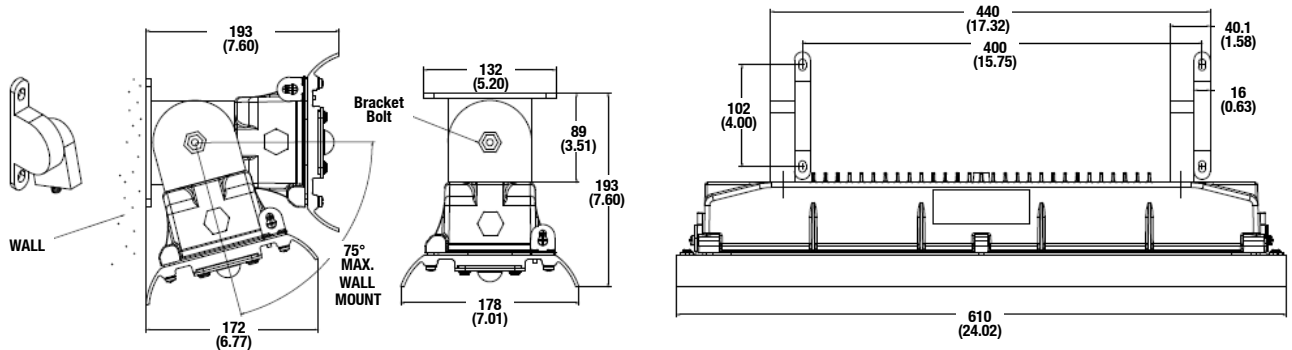
NEC/CEC:
 Class I, Division 2, Groups A, B, C, D
 Class I, Zone 2, Group IIC
 Class II, Division 2, Groups F, G
 Class III
 Type 3R, 4, 4X

NEC/CEC:
 Marine Outside Type- For USA Only ⌘
 IP66/IP67

Mounting Options (continued) Dimensions in Millimeters (Inches)

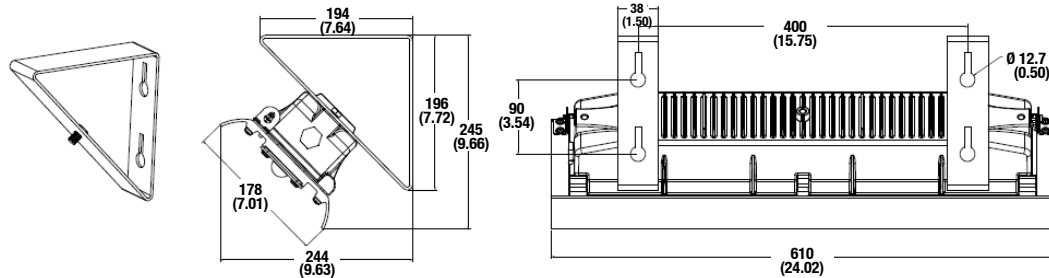
FEHBA

Wall/Hinged Mount



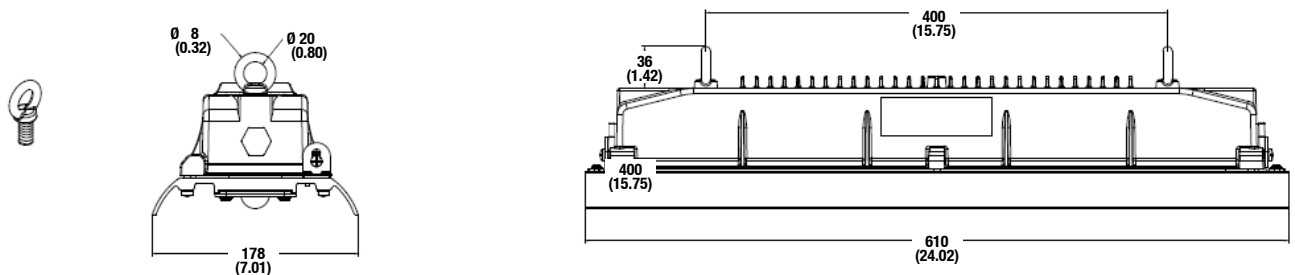
FVWFM

Wall/Fixed 45° Mount



FERBM8Z

Ceiling/Chain Mount



⌘ Fusing option not available with Marine Outside Type (Salt Water) rating. Fusing option not permitted for cUL.

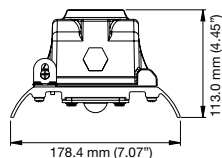
Viamaster™ LED Series Luminaires

For NEC and CEC Governed Hazardous Locations

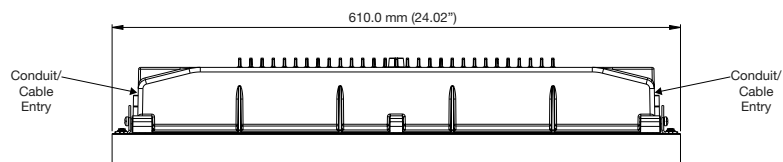
NEC/CEC:
 Class I, Division 2, Groups A, B, C, D
 Class I, Zone 2, Group IIC
 Class II, Division 2, Groups F, G
 Class III
 Type 3R, 4, 4X

NEC/CEC:
 Marine Outside Type- For USA Only ⚡
 IP66/IP67

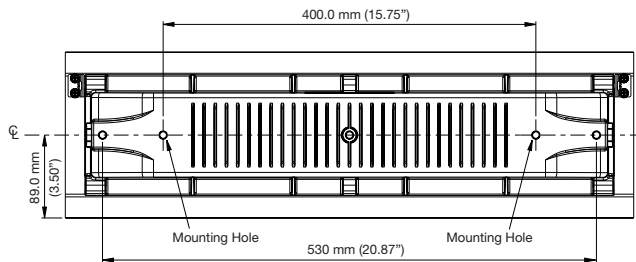
Luminaire Dimensions in Millimeters (Inches)



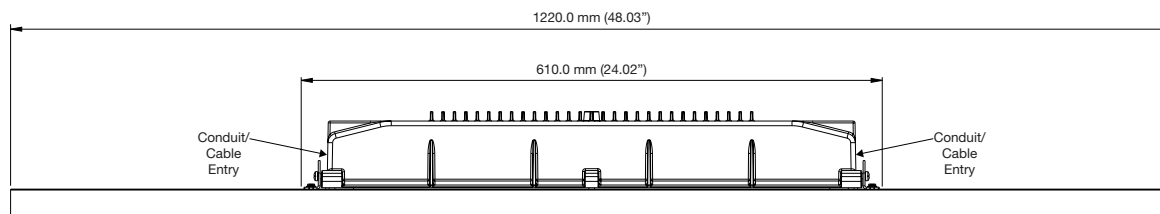
End View — 0.61 m (2 ft) and 1.22 m (4 ft) Versions



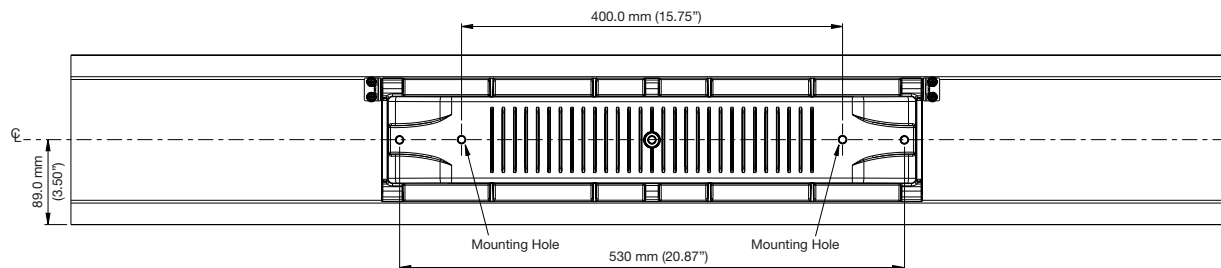
Side View — 0.61 m (2 ft) Versions



Top (Mounting) View — 0.61 m (2 ft) Versions



Side View — 1.22 m (4 ft) Version



Top (Mounting) View — 1.22 m (4 ft) Version

⚡ Fusing option not available with Marine Outside Type (Salt Water) rating. Fusing option not permitted for cUL.

Viamaster™ LED Series Luminaires

For NEC and CEC Governed Hazardous Locations

NEC/CEC:
 Class I, Division 2, Groups A, B, C, D
 Class I, Zone 2, Group IIC
 Class II, Division 2, Groups F, G
 Class III
 Type 3R, 4, 4X

NEC/CEC:
 Marine Outside Type- For USA Only ⌘
 IP66/IP67

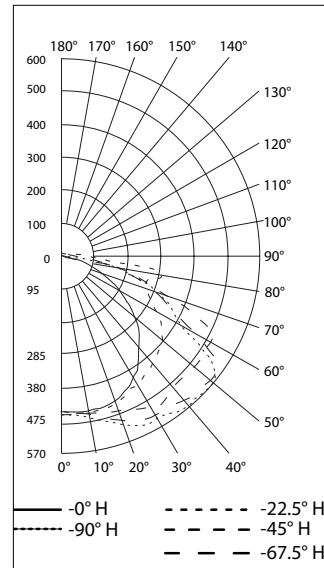
Photometric Data — DATA SHOWN IS ABSOLUTE

LLEDA12LU2 with Clear Polycarbonate Lens

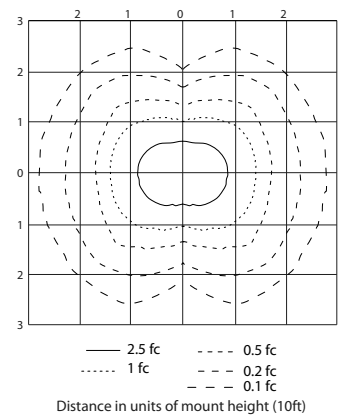
Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire	Zone	Lumens	% Luminaire
0-30	424.1	20.2	0-10	46.7	2.2
0-40	741.2	35.4	10-20	140.9	6.7
0-60	1521	72.6	20-30	236.4	11.3
60-90	573.3	27.4	30-40	317.2	15.1
0-90	2094	100.0	40-50	378.4	18.1
90-180	0.3	0.0	50-60	401.5	19.2
0-180	2095	100.0	60-70	324.6	15.5
			70-80	209.6	10.0
			80-90	39.1	1.9
			90-100	0.3	0.0

Polar Candela Distribution



Isoillumination Plot

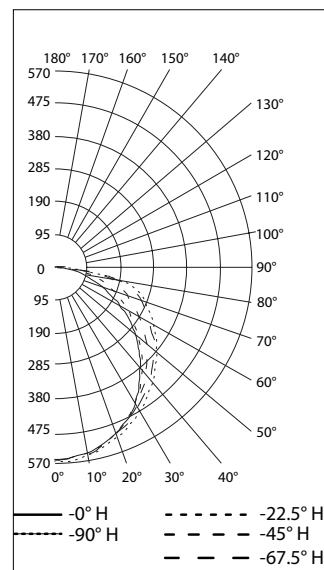


LLEDA12LU2D with Diffused Polycarbonate Lens

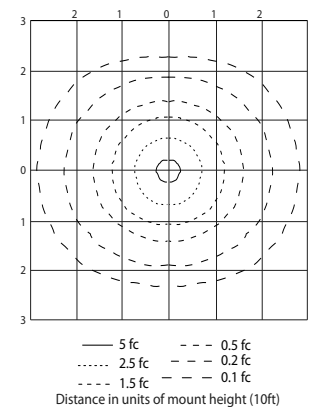
Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire	Zone	Lumens	% Luminaire
0-30	429.7	24.6	0-10	52.8	3.0
0-40	702.7	40.3	10-20	150.5	8.6
0-60	1264	72.4	20-30	226.5	13.0
60-90	482.0	27.6	30-40	272.9	15.6
0-90	1746	100.0	40-50	287.4	16.5
90-180	0.0	0.0	50-60	273.6	15.7
0-180	1746	100.0	60-70	236.9	13.6
			70-80	183.1	10.5
			80-90	62.1	3.6

Polar Candela Distribution



Isoillumination Plot



⌘ Fusing option not available with Marine Outside Type (Salt Water) rating. Fusing option not permitted for cUL.

Viamaster™ LED Series Luminaires

For NEC and CEC Governed Hazardous Locations

NEC/CEC:
Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, Group IIC
Class II, Division 2, Groups F, G
Class III
Type 3R, 4, 4X

NEC/CEC:
Marine Outside Type- For USA Only ⌘
IP66/IP67

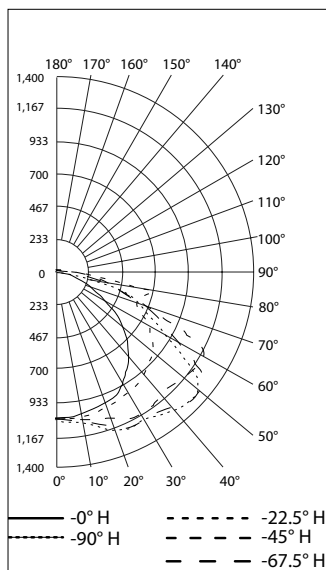
Photometric Data — DATA SHOWN IS ABSOLUTE

LLEDA15LU2 with Clear Polycarbonate Lens

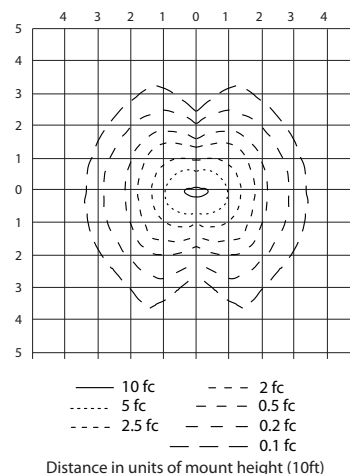
Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire	Zone	Lumens	% Luminaire
0-30	912.8	20.3	0-10	100.4	2.2
0-40	1593	35.5	10-20	303.6	6.8
0-60	3282	73.0	20-30	508.8	11.3
60-90	1206	26.8	30-40	680.0	15.1
0-90	4488	99.9	40-50	822.5	18.3
90-180	4.5	0.1	50-60	866.3	19.3
0-180	4492	100.0	60-70	682.0	15.2
			70-80	438.3	9.8
			80-90	85.9	1.9
			90-100	4.2	0.1
			100-110	0.3	0.0

Polar Candela Distribution



Isoillumination Plot

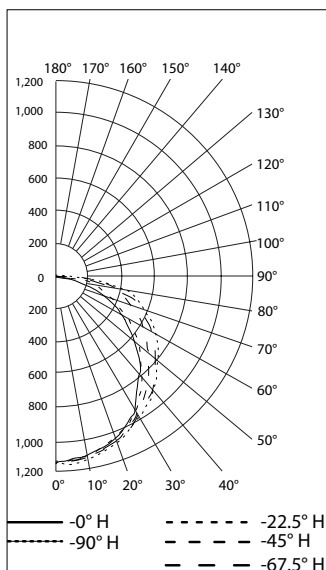


LLEDA15LU2D with Diffused Polycarbonate Lens

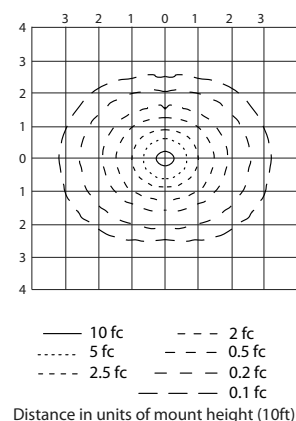
Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire	Zone	Lumens	% Luminaire
0-30	884.1	24.3	0-10	108.2	3.0
0-40	1450	39.8	10-20	308.9	8.5
0-60	2618	71.9	20-30	467.0	12.8
60-90	1017	27.9	30-40	565.5	15.5
0-90	3635	99.8	40-50	598.1	16.4
90-180	7.9	0.2	50-60	570.3	15.7
0-180	3643	100.0	60-70	494.4	13.6
			70-80	382.9	10.5
			80-90	139.8	3.8
			90-100	7.4	0.2
			100-110	0.5	0.0

Polar Candela Distribution



Isoillumination Plot



⌘ Fusing option not available with Marine Outside Type (Salt Water) rating. Fusing option not permitted for cUL.

Viamaster™ LED Series Luminaires

For NEC and CEC Governed Hazardous Locations

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Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, Group IIC
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Class III
Type 3R, 4, 4X

NEC/CEC:
Marine Outside Type- For USA Only ⚡
IP66/IP67

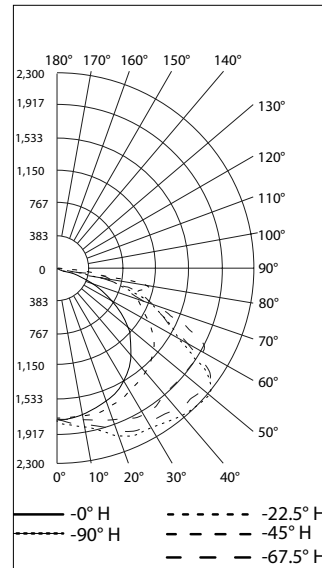
Photometric Data — DATA SHOWN IS ABSOLUTE

LLEDA17LU2 with Clear Polycarbonate Lens

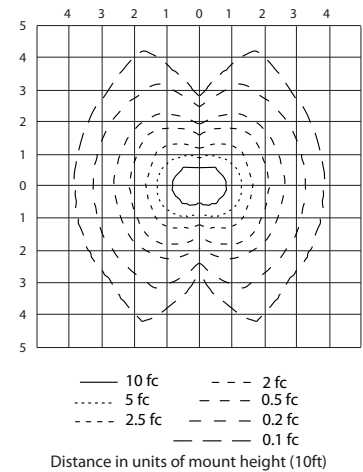
Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire	Zone	Lumens	% Luminaire
0-30	1560	20.0	0-10	170.7	2.2
0-40	2728	34.9	10-20	518.4	6.6
0-60	5631	72.1	20-30	870.5	11.2
60-90	2171	27.8	30-40	1168	15.0
0-90	7802	100.0	40-50	1406	18.0
90-180	2.8	0.0	50-60	1497	19.2
0-180	7805	100.0	60-70	1229	15.7
			70-80	785.7	10.1
			80-90	156.6	2.0
			90-100	2.7	0.0

Polar Candela Distribution



Isoillumination Plot

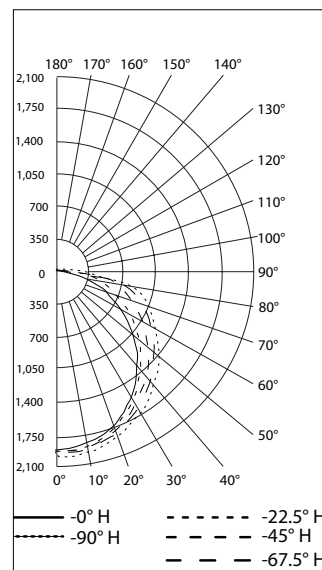


LLEDA17LU2D with Diffused Polycarbonate Lens

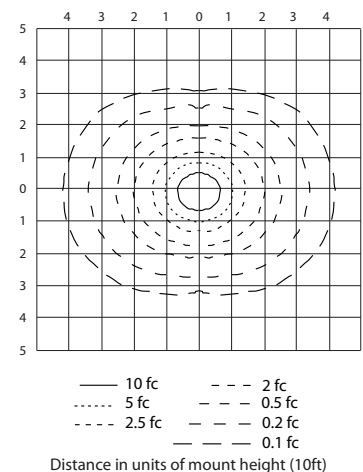
Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire	Zone	Lumens	% Luminaire
0-30	1518	24.1	0-10	185.3	2.9
0-40	2494	39.5	10-20	529.7	8.4
0-60	4528	71.8	20-30	802.9	12.7
60-90	1775	28.1	30-40	976.2	15.5
0-90	6303	99.9	40-50	1038	16.5
90-180	3.4	0.1	50-60	995.8	15.8
0-180	6307	100.0	60-70	868.1	13.8
			70-80	673.7	10.7
			80-90	233.4	3.7
			90-100	3.4	0.1

Polar Candela Distribution



Isoillumination Plot



⚡ Fusing option not available with Marine Outside Type (Salt Water) rating. Fusing option not permitted for cUL.

Viamaster™ LED Series Luminaires

For ATEX and IECEx Governed Hazardous Locations

ATEX/IECEX:
Zones 2 and 22
II 3 GD
EPL Gc and Dc
Ex nA IIC; Ex tc IIIC
IP66/IK08

ATEX/IECEX:
Zone 21
II 2 D
EPL Db
Ex tb IIIC
IP66/IK08

Applications

- For use in locations where:
 - Flammable gases, vapors and dusts are present
 - A high degree of corrosion resistance is required
 - Protection against dirt, water and moisture is necessary
- Typical applications include:
 - Oil refineries
 - Petrochemical facilities
 - Pulp and paper mills
 - Food processing plants
 - Waste and sewer treatment
 - Underground tunnels
 - General manufacturing facilities

Features

- 60,000+ hour LED life for years of maintenance free operation.
- Lightweight design, hinged cover with captive screws, and terminal block wiring for easy installation and maintenance.
- Standard screw-type terminal block can accept 1 to 6 mm² wire.
- Contemporary, low profile design suitable for tight spaces.
- Field replaceable LED driver and lens.
- Industry-leading thermal management for safe, reliable operation over wide temperature range.
- Full range of lumen outputs, with light distribution equivalent to Appleton's FN Series fluorescent fixtures.
- Easy to retrofit in same mounting footprint as Appleton's FE/FN Series fluorescent fixtures.
- M20 plug or M25 plug provided.
- Universal, high efficiency, drivers cover voltage requirements for 120-277 Vac, 50/60 Hz +/- 10%.
- Standard 2KV surge suppression.

Options

- Safety cable for fall safe retention; add suffix **-C** to the end of the catalog number.

Standard Materials

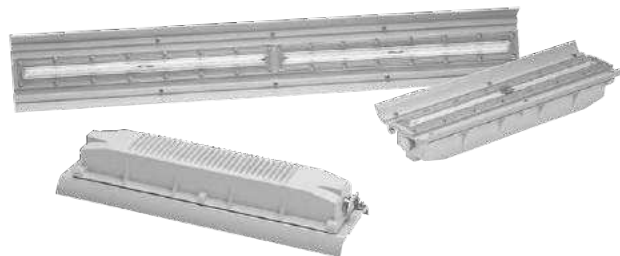
- Housing: copperfree (4/10 of 1% max.) aluminum
- Lens: thermal shock- and impact-resistant polycarbonate lens
- Gasket: silicone rubber, mechanically secured
- Bolts: stainless steel
- Close up plugs: nickel plated brass
- Mounting hardware: See ordering information

Standard Finishes

- Housing: gray RAL 7038 epoxy

Related Products

- For NEC/CEC certified products, refer to Viamaster LED Series Luminaires for NEC and CEC Governed Hazardous Locations



ATEX/IECEX Certifications and Compliances

- Certification Type: LLEDA
 - Gas: Zone 2
 - Conforming to ATEX 94/9/EC: **Ex II 3 G**
 - Protection Level: EPL Gc
 - Type of Protection: Ex nA IIC
 - Temperature Class: See *Technical Data table* (T6 to T3)
 - EC Declaration of Conformity: 50309
 - ATEX Certificate: LCIE 15 ATEX 1003X
 - IECEX Certificate: IECEX LCIE 15.0010X
 - Dust: Zones 21 and 22
 - Conforming to ATEX 94/9/EC: **Ex II 2 D and II 3 D**
 - Protection Level: EPL Db and Dc
 - Type of Protection: Ex tb IIIC and Ex tc IIIC
 - Surface Temperature: See *Technical Data table* [+63 °C to +84 °C (+145 °F to +183 °F)]
 - EC Declaration of Conformity: 50309
 - ATEX Certificate, Zone 21: LCIE 15 ATEX 3006X
 - ATEX Certificate, Zone 22: LCIE 15 ATEX 1003X
 - IECEX Certificate, Zone 21 and 22: IECEX LCIE 15.0010X
- Ambient Temperature:
 - LLEDA2: -40 °C up to +65 °C (-40 °F up to +149 °F)
 - LLEDA5/7: -40 °C up to +60 °C (-40 °F up to +140 °F)
- Index of Protection according EN/IEC 60529: IP66
- Impact Resistance (shock): IK08
- Ex Standards: EN/IEC 60079-0; 60079-15; 60079-31
- Product Standards: EN/IEC 61347-1; EN/IEC 61347-2-13; 60598-1
- EMC Standards: EN/IEC 61000.4.2; 61000.4.3; 61000.4.4; 61000.4.5; 61000.4.6; 61000.4.8; 61000.4.11; EN/IEC 55015; 61547

Viamaster™ LED Series Luminaires

For ATEX and IECEx Governed Hazardous Locations

ATEX/IECEX:
Zones 2 and 22
II 3 GD
EPL Gc and Dc
Ex nA IIC; Ex tc IIIC
IP66/IK08

ATEX/IECEX:
Zone 21
II 2 D
EPL Db
Ex tb IIIC
IP66/IK08

Order using catalog numbering guides below or select catalog number from tables on following pages.

Catalog Numbering Guide — ATEX/IECEX Certified Linear LED

LLEDA	A	2	L	2	BU	Z2	C
LLEDA - ATEX/IECEX Certified Linear LED Series	Housing: A - Aluminum	Size of Cable Entries: 2 - M20 3 - M25	Termination/Wiring: L - Loop In/Out (3 entries, 1 at one end and 2 at the other) S - Standard (2 entries on the same side) T - Through Wired (2 entries, one at each end)	Lumens [Length of Fixture]: 2 - 2K Lumens, [0.61 m (2 ft)] 5 - 5K Lumens, [0.61 m (2 ft)] 7 - 7K Lumens, [1.22 m (4 ft)]	Voltage: BU - Universal Voltages 120-277 Vac, 50/60 Hz	Hazardous Rating: Z2 - Zone 2 and 21-22	Options: C - Safety Cables

Lamp Comparison Chart

Catalog Number	Line Current Amps	Input Power	Power Factor	THD	Lumens		Color Temp CCT	Length m (ft)
					Clear Polycarbonate	CRI		
LLEDAA2S2BUZ2								
LLEDAA3S2BUZ2								
LLEDAA2T2BUZ2	.24 @120V	22 W	> 0.95	< 20%	2,200	70	5650K	0.61 (2)
LLEDAA3T2BUZ2	.15 @ 277V		>0.87					
LLEDAA2L2BUZ2								
LLEDAA3L2BUZ2								
LLEDAA2S5BUZ2								
LLEDAA3S5BUZ2								
LLEDAA2T5BUZ2	.51@120V	45 W	> 0.95	< 20%	4,400	70	5650K	0.61 (2)
LLEDAA3T5BUZ2	.30 @ 277V							
LLEDAA2L5BUZ2								
LLEDAA3L5BUZ2								
LLEDAA2S7BUZ2								
LLEDAA3S7BUZ2								
LLEDAA2T7BUZ2	.90 @120V	81 W	> 0.95	< 20%	7,800	70	5650K	1.22 (4)
LLEDAA3T7BUZ2	.53 @ 277V							
LLEDAA2L7BUZ2								
LLEDAA3L7BUZ2								

Viamaster™ LED Series Luminaires

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ATEX/IECEX:
Zones 2 and 22
II 3 GD
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Ex nA IIC; Ex tc IIIC
IP66/IK08

ATEX/IECEX:
Zone 21
II 2 D
EPL Db
Ex tb IIIC
IP66/IK08

Technical Data

Lamp		Ambient Temperature °C (°F)	Supply Wire Temperature °C (°F)	Zone 2 – 22		Zone 21
Lumen Output	Type			Gas	Dust Surface Temperature °C (°F)	Dust Surface Temperature °C (°F)
				Class of Temperature °C (°F)		
2,200 lm	LED	40 (104)	75 (167)	T6 75 (167)	54 (129)	54 (129)
		55 (131)	75 (167)	T5 90 (203)	69 (156)	69 (156)
		60 (140)	75 (167)	T5 90 (203)	74 (165)	74 (165)
		65 (149)	75 (167)	T5 100 (212)	79 (174)	79 (174)
4,400 lm	LED	40 (104)	75 (167)	T4 129 (264)	64 (147)	64 (147)
		55 (131)	75 (167)	T3 144 (291)	79 (174)	79 (174)
		60 (140)	75 (167)	T3 148 (298)	84 (183)	84 (183)
7,800 lm	LED	40 (104)	75 (167)	T4 130 (266)	64 (147)	64 (147)
		55 (131)	75 (167)	T3 145 (293)	79 (174)	79 (174)
		60 (140)	75 (167)	T3 149 (300)	84 (183)	84 (183)

“T” Numbers Represent the Maximum External Surface Temperature

“T” #	T1	T2	T3	T4	T5	T6
Temp. Range °C (°F)	301-450 (547-842)	201-300 (394-572)	136-200 (277-392)	101-135 (214-275)	86-100 (187-212)	85 (185)

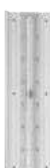
① T codes provided in catalog pages are based on worst case data.
② Zone 2 (Gas) and 22 (Dust) locations as designated by the IEC.

Viamaster™ LED Series Luminaires

For ATEX and IECEx Governed Hazardous Locations

ATEX/IECEx:
Zones 2 and 22
II 3 GD
EPL Gc and Dc
Ex nA IIC; Ex tc IIIC
IP66/IK08

ATEX/IECEx:
Zone 21
II 2 D
EPL Db
Ex tb IIIC
IP66/IK08

	Conduit/Cable Entries	Voltage	Ambient Temperature	Weight kg (lb)	Catalog Numbers Clear Polycarbonate
	2,200 Lumens — 0.61 m (2 ft)				
	M20 Standard ①	120-277 Vac, 50/60 Hz	-40 °C up to +65 °C (-40 °F up to +149 °F)	6.21 (13.7)	LLEDAA2S2BUZ2 ④
	M25 Standard ①	120-277 Vac, 50/60 Hz			LLEDAA3S2BUZ2 ④
	M20 Through Wired ②	120-277 Vac, 50/60 Hz	-40 °C up to +65 °C (-40 °F up to +149 °F)	6.21 (13.7)	LLEDAA2T2BUZ2 ④
	M25 Through Wired ②	120-277 Vac, 50/60 Hz			LLEDAA3T2BUZ2 ④
	M20 Loop In/Loop Out ③	120-277 Vac, 50/60 Hz	-40 °C up to +65 °C (-40 °F up to +149 °F)	6.21 (13.7)	LLEDAA2L2BUZ2 ④
	M25 Loop In/Loop Out ③	120-277 Vac, 50/60 Hz			LLEDAA3L2BUZ2 ④
	4,400 Lumens — 0.61 m (2 ft)				
	M20 Standard ①	120-277 Vac, 50/60 Hz	-40 °C up to +60 °C (-40 °F up to +140 °F)	6.35 (14.0)	LLEDAA2S5BUZ2 ④
	M25 Standard ①	120-277 Vac, 50/60 Hz			LLEDAA3S5BUZ2 ④
	M20 Through Wired ②	120-277 Vac, 50/60 Hz	-40 °C up to +60 °C (-40 °F up to +140 °F)	6.35 (14.0)	LLEDAA2T5BUZ2 ④
	M25 Through Wired ②	120-277 Vac, 50/60 Hz			LLEDAA3T5BUZ2 ④
	M20 Loop In/Loop Out ③	120-277 Vac, 50/60 Hz	-40 °C up to +60 °C (-40 °F up to +140 °F)	6.35 (14.0)	LLEDAA2L5BUZ2 ④
	M25 Loop In/Loop Out ③	120-277 Vac, 50/60 Hz			LLEDAA3L5BUZ2 ④
	7,800 Lumens — 1.22 m (4 ft)				
	M20 Standard ①	120-277 Vac, 50/60 Hz	-40 °C up to +60 °C (-40 °F up to +140 °F)	8.69 (19.15)	LLEDAA2S7BUZ2 ④
	M25 Standard ①	120-277 Vac, 50/60 Hz			LLEDAA3S7BUZ2 ④
	M20 Through Wired ②	120-277 Vac, 50/60 Hz	-40 °C up to +60 °C (-40 °F up to +140 °F)	8.69 (19.15)	LLEDAA2T7BUZ2 ④
	M25 Through Wired ②	120-277 Vac, 50/60 Hz			LLEDAA3T7BUZ2 ④
	M20 Loop In/Loop Out ③	120-277 Vac, 50/60 Hz	-40 °C up to +60 °C (-40 °F up to +140 °F)	8.69 (19.15)	LLEDAA2L7BUZ2 ④
	M25 Loop In/Loop Out ③	120-277 Vac, 50/60 Hz			LLEDAA3L7BUZ2 ④

① Standard cable entry provides 2 entries on the same side of the housing.

② Through wired cable entry provides 2 entries, one at each end of the housing.

③ Loop In/Loop Out cable entry provides 3 entries, 1 at one and 2 at the other end of the housing.

④ For optional safety cables, add suffix **-C** to the end of the catalog number.

Viamaster™ LED Series Luminaires

For ATEX and IECEx Governed Hazardous Locations

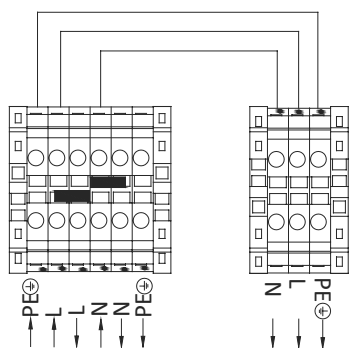
ATEX/IECEX:
Zones 2 and 22
II 3 GD
EPL Gc and Dc
Ex nA IIC; Ex tc IIIC
IP66/IK08

ATEX/IECEX:
Zone 21
II 2 D
EPL Db
Ex tb IIIC
IP66/IK08

Version : L

Dual Loop In/Out - Through Wiring (Single phase)

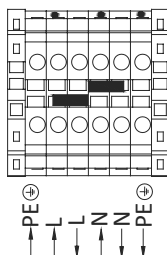
3 entries, 1 at one end and 2 at the other



Version : S

Standard

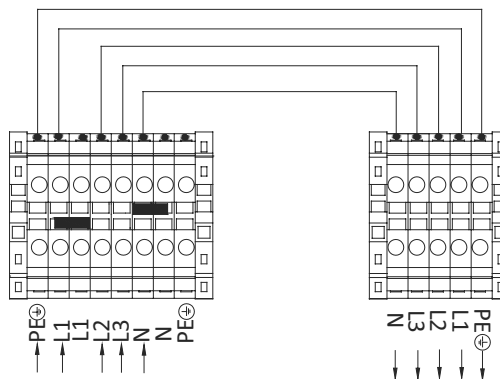
2 entries on the same side



Version : T

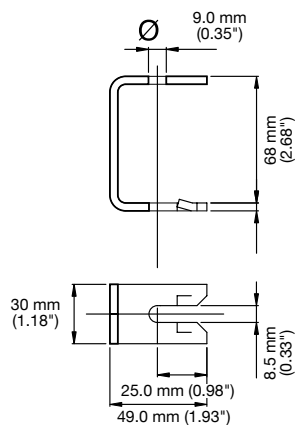
Through Wiring (3 phases)

2 entries, one at each end



Accessories and Replacement Parts

Mounting Brackets — Set of Two

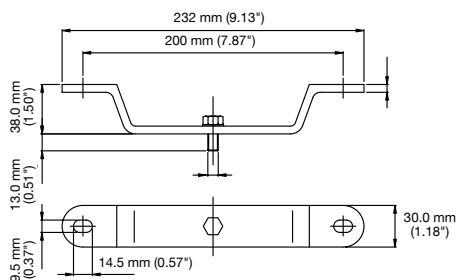
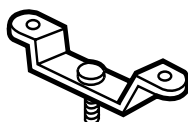


Fixing Brackets for Surface Installation

Zinc plated steel
316 stainless steel

FEFBZ
FEFBS

Surface Mounting



Aluminum (gray painted)
316 stainless steel

FESBA
FESBS

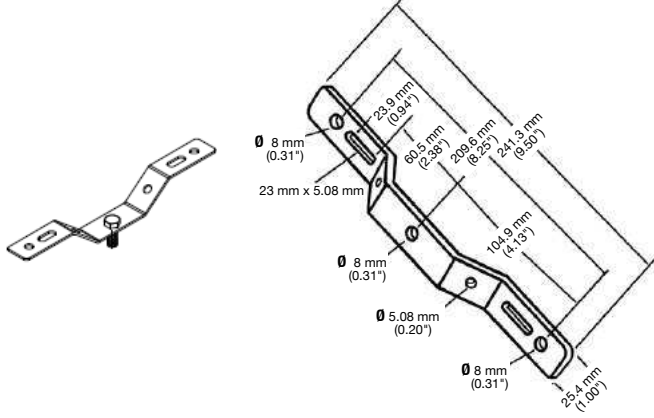
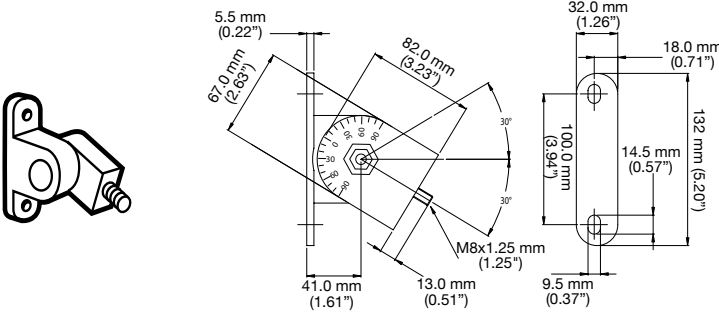
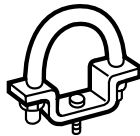
Viamaster™ LED Series Luminaires

For ATEX and IECEx Governed Hazardous Locations

ATEX/IECEx:
Zones 2 and 22
II 3 GD
EPL Gc and Dc
Ex nA IIC; Ex tc IIIC
IP66/IK08

ATEX/IECEx:
Zone 21
II 2 D
EPL Db
Ex tb IIIC
IP66/IK08

Accessories and Replacement Parts

		Description	Catalog Numbers
Mounting Brackets — Set of Two			
	Surface Mounting	14-gauge stainless steel ①	FVSM
Hinged Brackets for Adjusting Luminaire			
		Aluminum	FEHBA
Half Clamp Brackets for Pole Mounting			
	For 42 mm to 49 mm pole (1-1/4 to 1-1/2" tube)		
	Zinc plated steel		FEHC49Z
	316 stainless steel		FEHC49S
	For 60 mm pole (2" tube)		
	Zinc plated steel		FEHC60Z
	316 stainless steel		FEHC60S

① FVSM does not retrofit in same mounting footprint as Appleton's FN/FE series.

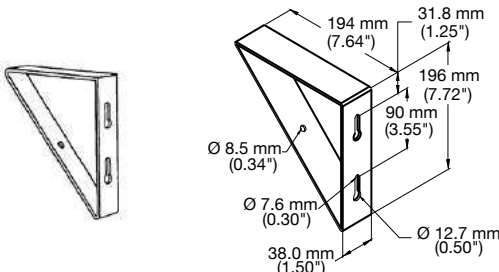
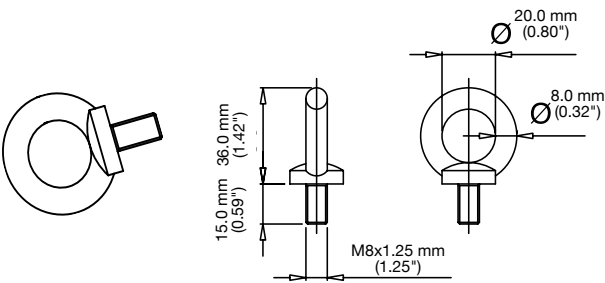
Viamaster™ LED Series Luminaires

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Ex nA IIC; Ex tc IIIC
IP66/IK08

ATEX/IECEx:
Zone 21
II 2 D
EPL Db
Ex tb IIIC
IP66/IK08

Accessories and Replacement Parts

		Description	Catalog Numbers
Mounting Brackets — Set of Two			
	Fixed 45° Wall Mount		
	11-gauge (1/8") stainless steel ①		FVWFM
	M8 Ring Bolts		
	Zinc plated steel — For use with optional safety chain (not provided)		FERBM8Z
Retrofit Brackets — Set of Two		Adapts mounting holes for 4 foot fixture to 700 mm mounting centers	LLEDRB
Fall Prevention Kit		Safety Cables — Attached to fixtures to guard against them falling when the primary method of attachment fails.	LLEDSC
Replacement Drivers		120-277 Vac driver	LLEDU2
Replacement Lenses		Clear Polycarbonate lens with an integral gasket	LLEDCL

① FVWFM does not retrofit in same mounting footprint as Appleton's FN/FE series.

Viamaster™ LED Series Luminaires

For ATEX and IECEx Governed Hazardous Locations

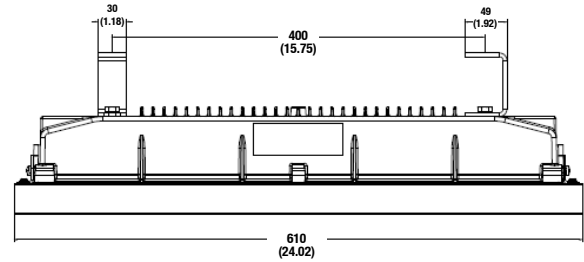
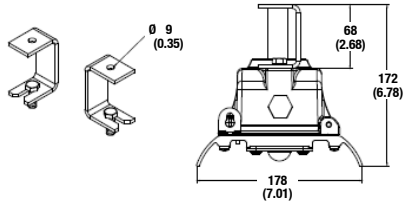
ATEX/IECEx:
Zones 2 and 22
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IP66/IK08

ATEX/IECEx:
Zone 21
II 2 D
EPL Db
Ex tb IIIC
IP66/IK08

Mounting Options Dimensions in Millimeters (Inches)

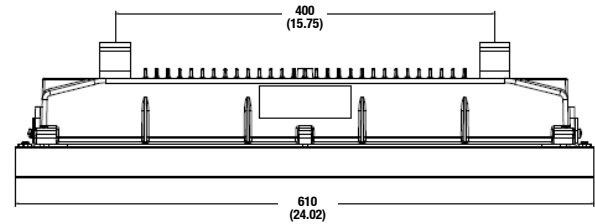
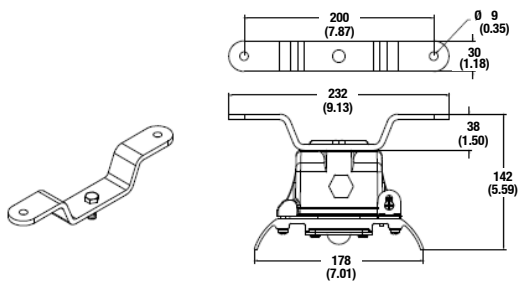
FEBBS

Ceiling/Surface Mount



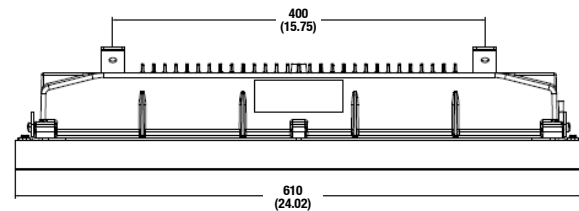
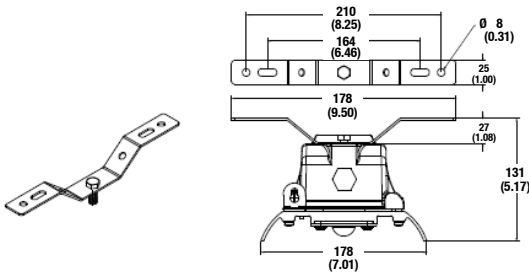
FESBA Aluminum (gray painted)
FESBS 316 stainless steel

Ceiling/Surface Mount



FVSM

Ceiling/Surface Mount



Viamaster™ LED Series Luminaires

For ATEX and IECEx Governed Hazardous Locations

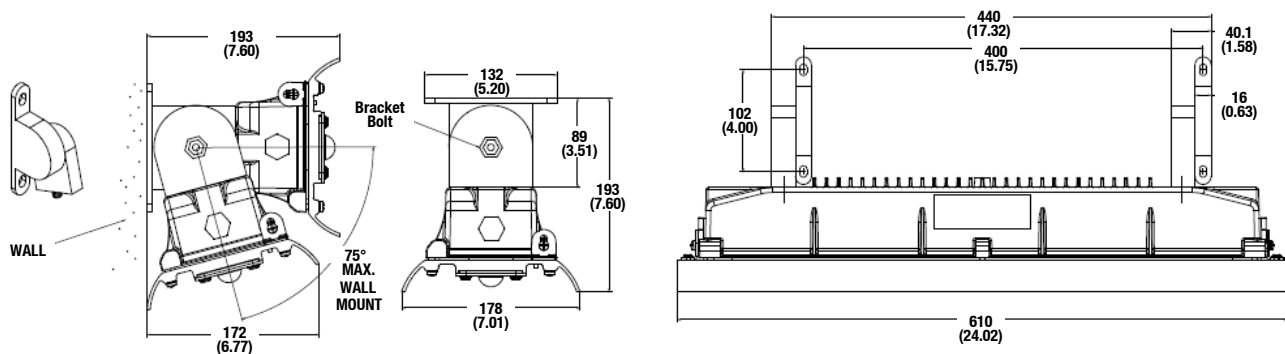
ATEX/IECEX:
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IP66/IK08

ATEX/IECEX:
Zone 21
II 2 D
EPL Db
Ex tb IIIC
IP66/IK08

Mounting Options Dimensions in Millimeters (Inches)

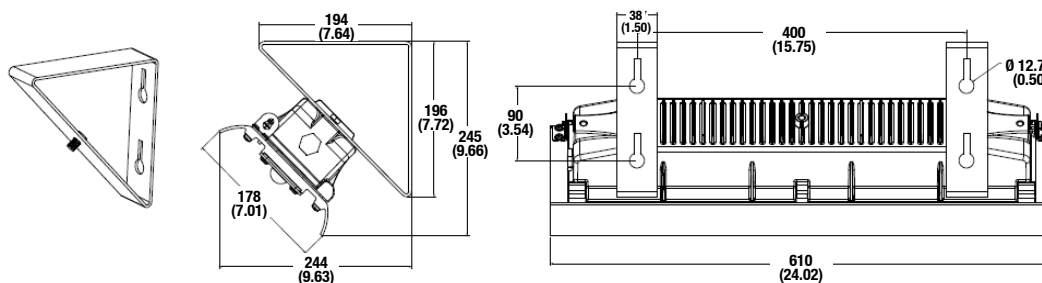
FEHBA

Wall/Hinged Mount



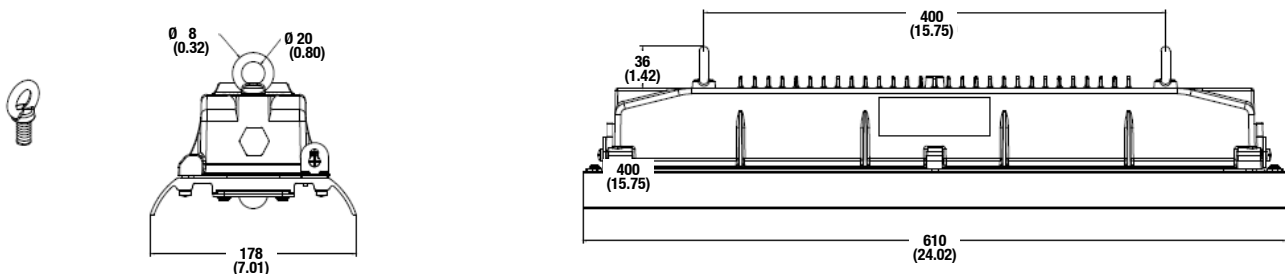
FVWFM

Wall/Fixed 45° Mount



FERBM8Z

Ceiling/Chain Mount



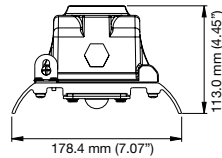
Viamaster™ LED Series Luminaires

For ATEX and IECEx Governed Hazardous Locations

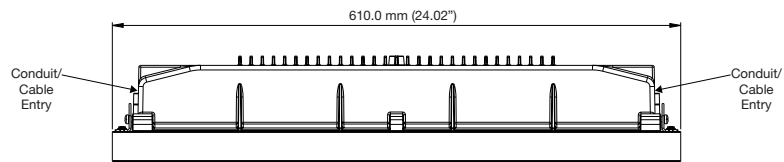
ATEX/IECEX:
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ATEX/IECEX:
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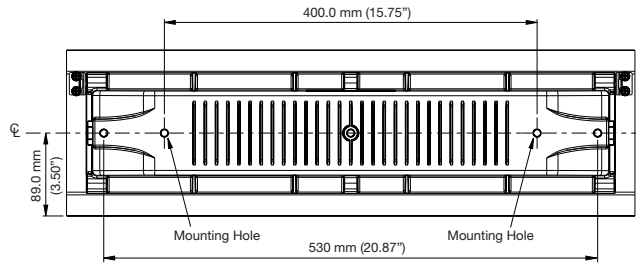
Luminaire Dimensions in Millimeters (Inches)



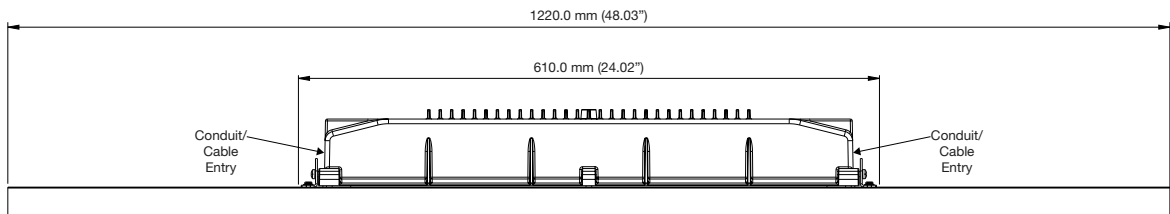
End View — 0.61 m (2 ft) and 1.22 m (4 ft) Versions



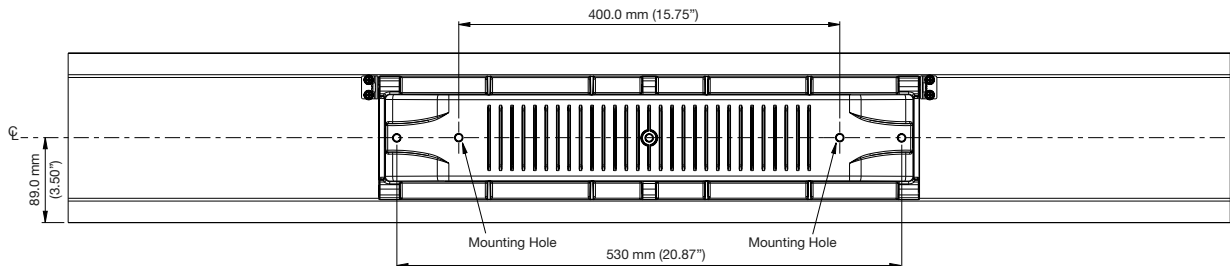
Side View — 0.61 m (2 ft) Versions



Top (Mounting) View — 0.61 m (2 ft) Versions



Side View — 1.22 m (4 ft) Version



Top (Mounting) View — 1.22 m (4 ft) Version

Viamaster™ LED Series Luminaires

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Zone 21
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Photometric Data — DATA SHOWN IS ABSOLUTE

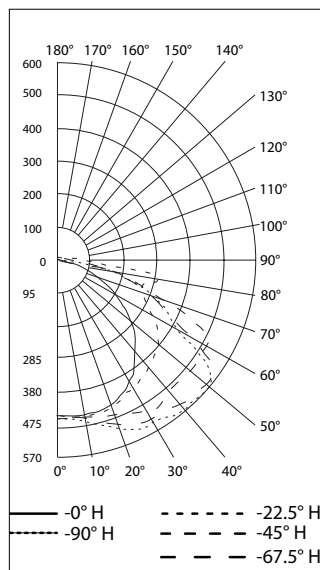
LLEDAA(XY)2BUZ2 with Clear Polycarbonate Lens

X = cable entry size, Y = style of termination

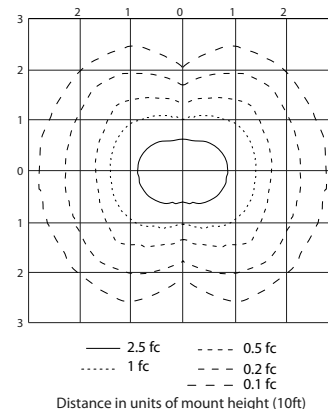
Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire	Zone	Lumens	% Luminaire
0-30	424.1	20.2	0-10	46.7	2.2
0-40	741.2	35.4	10-20	140.9	6.7
0-60	1521	72.6	20-30	236.4	11.3
60-90	573.3	27.4	30-40	317.2	15.1
0-90	2094	100.0	40-50	378.4	18.1
90-180	0.3	0.0	50-60	401.5	19.2
0-180	2095	100.0	60-70	324.6	15.5
			70-80	209.6	10.0
			80-90	39.1	1.9
			90-100	0.3	0.0

Polar Candela Distribution



Isoillumination Plot



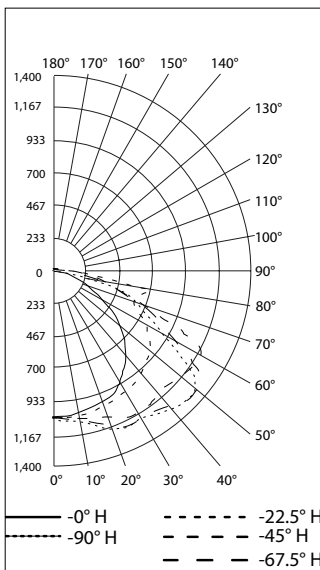
LLEDAA(XY)5BUZ2 with Clear Polycarbonate Lens

X = cable entry size, Y = style of termination

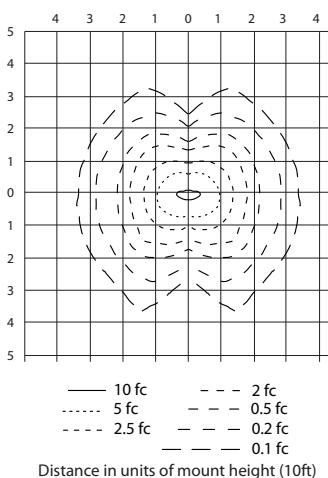
Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire	Zone	Lumens	% Luminaire
0-30	912.8	20.3	0-10	100.4	2.2
0-40	1593	35.5	10-20	303.6	6.8
0-60	3282	73.0	20-30	508.8	11.3
60-90	1206	26.8	30-40	680.0	15.1
0-90	4488	99.9	40-50	822.5	18.3
90-180	4.5	0.1	50-60	866.3	19.3
0-180	4492	100.0	60-70	682.0	15.2
			70-80	438.3	9.8
			80-90	85.9	1.9
			90-100	4.2	0.1
			100-110	0.3	0.0

Polar Candela Distribution



Isoillumination Plot



Viamaster™ LED Series Luminaires

For ATEX and IECEx Governed Hazardous Locations

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ATEX/IECEX:
Zone 21
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Photometric Data — DATA SHOWN IS ABSOLUTE

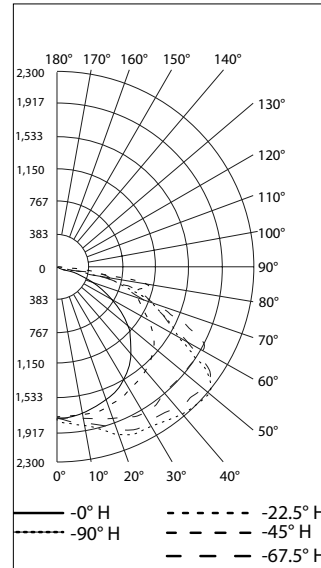
LLEDAA(XY)7BUZ2 with Clear Polycarbonate Lens

X = cable entry size, Y = style of termination

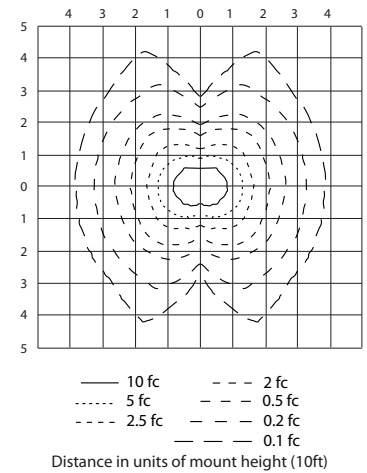
Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire	Zone	Lumens	% Luminaire
0-30	1560	20.0	0-10	170.7	2.2
0-40	2728	34.9	10-20	518.4	6.6
0-60	5631	72.1	20-30	870.5	11.2
60-90	2171	27.8	30-40	1168	15.0
0-90	7802	100.0	40-50	1406	18.0
90-180	2.8	0.0	50-60	1497	19.2
0-180	7805	100.0	60-70	1229	15.7
			70-80	785.7	10.1
			80-90	156.6	2.0
			90-100	2.7	0.0

Polar Candela Distribution



Isoillumination Plot



Appleton®

LED/AREA: NEC/CEC, ATEX/IECEX ENCLOSED AND GASKETED

Code•Master™ LED Factory Sealed Luminaires

Explosionproof, Dust-Ignitionproof

NEC/CEC:

Class I, Division 1 and 2, Groups B, C, D ★
 Class I, Zone 1, Group IIB + H₂
 Class II, Division 1, Group E, F, G
 Class II, Division 2, Group F, G
 Class III

NEC/CEC:

Simultaneous Exposure
 Type 3R, 4X
 IP66/67
 Suitable for Use in Wet Locations
 Marine Outside Type (Salt Water) *

Applications

- Explosionproof fixtures suitable for use in:
 - A wide range of hazardous areas where ignitable vapors, dust, moisture and corrosive elements are present
 - Areas where access to relamp is difficult, reliability is essential, and environment is costly to maintain. Consistent light levels maintained regardless of cold temperatures
 - Areas requiring frequent on-and-off of lights or power cycling- no warm up time required
 - Type 4X, marine, wet locations and hose-down environments
 - Areas with high energy costs- Code•Master LED consumes 50% less power than its HID equivalent
- Typical applications include:
 - Chemical
 - Oil, Gas, and Petrochemical
 - Pulp and Paper
 - Foundries
 - Manufacturing
 - Waste and sewage treatment
 - Pharmaceutical
 - Mining
 - Power Generation

Features

- Fixture operates safely in high ambient temperatures
 - 70 W equivalent: -40 °C to +65 °C (-40 °F to +149 °F)
 - 100 W equivalent: -40 °C to +65 °C (-40 °F to +149 °F)
 - 150 W equivalent: -40 °C to +55 °C (-40 °F to +131 °F)
 - 175 W equivalent: -40 °C to +50 °C (-40 °F to +122 °F)
 - 250 W equivalent: -40 °C to +50 °C (-40 °F to +122 °F)
 - 350 W equivalent: -40 °C to +50 °C (-40 °F to +122 °F)
 - 400 W equivalent: -40 °C to +55 °C (-40 °F to +131 °F)
- 60,000 hours rated life eliminates the need for frequent relamping.
- Arrangement of heat-producing components results in more efficient heat dissipation for cooler fixture operation.
- All threaded joints are flame-tight.
- Fixture housing and mounting hoods are copperfree cast aluminum with baked epoxy finish. All exposed hardware is stainless steel.
- Aluminum body utilizes the same Code•Master HID mounting hoods, and is an easy retrofit for existing Code•Master HID installations; can be pendant, ceiling, wall, or stanchion mounted.
- Acme double-lead threads speed installation and fixture removal from mounting hood – only half as many turns are required as for single-lead threads. The threads do not stick or gall, eliminating the troublesome problems often encountered with single lead threads during fixture unit removal.
- Safe, easy servicing without disconnecting any wiring. "Wireless" fixture unit easily threads off mounting hood for convenient servicing or for immediate replacement with a "stand-by" unit.
- Factory sealed. External seals not required.
- Lens, driver, and LED array are all field replaceable.
- LED arrays generate light outputs from 2,580 to 13,730 lumens (an equivalent of 70 W HID to 400 W HID lamps) providing exceptional efficacy



- Universal, high efficiency, drivers cover voltage requirements for 120-277 Vac and 347-480 Vac, 50/60 Hz, Volts +/- 10%.
- Standard surge suppression:
 - 3KV for 347-480 Vac input
 - 4KV for 120-277 Vac input

Standard Materials

- Mounting hoods and bodies: cast copperfree (4/10 of 1% max.) aluminum
- All hardware and catch assemblies: stainless steel
- Gaskets: silicone
- Globe: explosionproof glass

Standard Finishes

- Mounting hoods, bodies, and guards: baked gray epoxy clad finish, electrostatically applied for complete uniform protection

Options

- Safety cable, add suffix -C.
- Lens guard, add suffix -G.
- Fusing, add suffix -F ①★.

NEC/CEC Certifications and Compliances

- UL Standard: UL 50, UL 50E, UL 844, UL 1598, UL 1598A, UL 8750
- CSA Standard: CAN/CSA-C22.2 No. 94.1-07 (R2012), CAN/CSA-C22.2 No. 94.2-07 (R2012), CAN/CSA-C22.2 No. 137-M1981 (R2009), CAN/CSA-C22.2 No. 250.0-08 (R2013), CAN/CSA-C22.2 No. 250.13, CAN/CSA-C22.2 No. 60529-05 (R2010)
- ANSI Standard: ANSI/IEC 60529
- cCSAus Certified: 70030675

① Canadian Electrical Code does NOT allow fusing in hazardous locations. Fuse not CEC rated.

★ Complete Code•Master LED luminaire consists of fixture unit and a mounting hood. For Group B applications a Group B rated mounting hood must be used.

* Use of a fuse voids Marine Outside Type (Salt Water) rating.

Code•Master™ LED Factory Sealed Luminaires

Explosionproof, Dust-Ignitionproof

NEC/CEC:

Class I, Division 1 and 2, Groups B, C, D ★
 Class I, Zone 1, Group IIB + H₂
 Class II, Division 1, Group E, F, G
 Class II, Division 2, Group F, G
 Class III

NEC/CEC:

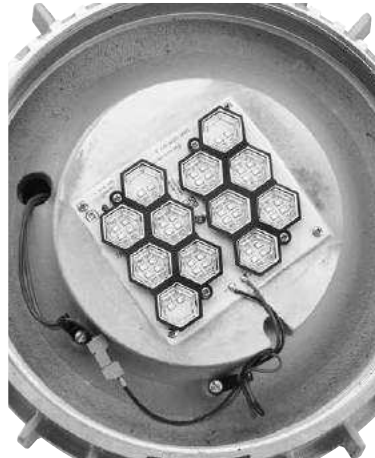
Simultaneous Exposure
 Type 3R, 4X
 IP66/67
 Suitable for Use in Wet Locations
 Marine Outside Type (Salt Water) *

Illustrated Features



Mounting Hood Compatibility

Code•Master LED is compatible with existing Code•Master mounting hoods. For easy installation, install and wire the mounting hood and simply thread in fixture. Double lead Acme threads are provided for ease of installation.



Replaceable LED Array

Replacement LED arrays are available and can be easily installed in the field. Unthread the glass globe assembly to access the LED array.



Driver Assembly

Utilizing non-sparking components avoiding the ignition of gases or vapors that may be present (nA). Driver can be easily accessed and replaced.



Rugged and Durable Housing

Mounting hoods and bodies are copper free aluminum with baked epoxy-clad finish, electrostatically applied for complete uniform protection.



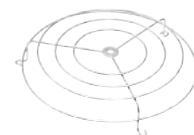
Replaceable Globe Assembly

The replaceable globe assembly is available with clear glass.



Optional Fusing *

Fuse kit includes fuse, fuse holder and necessary hardware for field installation.



Optional Wire Guard

Stainless steel wire guard can be used for additional protection.

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 * Use of a fuse voids Marine Outside Type (Salt Water) rating.
 Canadian Electrical Code does NOT allow fusing in hazardous locations. Fuse not CEC rated.

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Explosionproof, Dust-Ignitionproof

NEC/CEC:

Class I, Division 1 and 2, Groups B, C, D ★
Class I, Zone 1, Group IIB + H₂
Class II, Division 1, Group E, F, G
Class II, Division 2, Group F, G
Class III

NEC/CEC:

Simultaneous Exposure
Type 3R, 4X
IP66/67
Suitable for Use in Wet Locations
Marine Outside Type (Salt Water) *

Order using catalog numbering guides below or select catalog number from tables on following pages.

Catalog Numbering Guide — NEC/CEC Certified Mercmaster LED

CMLED	A	17	2	G	5	BU	C
CMLED - NEC/CEC Certified Code•Master LED Series	Light Level Equivalent: 70 - 70 W HPS/PSMH 10 - 100 W HPS/PSMH 15 - 150 W HPS/PSMH 17 - 175 W PSMH ① 25 - 250 W HPS/PSMH 35 - 350 W PSMH ①② 40 - 400 W HPS/PSMH ③	Optical Assembly: G - Clear Glass Globe	Voltage: BU - Universal Voltages 120-277 Vac, 50/60 Hz BH - 347-480 Vac, 50/60 Hz				
	Mounting: A - Pendant C - Ceiling S - 25° Stanchion W - Wall	Hub Size: 2 - 3/4" NPT 3 - 1" NPT 4 - 1-1/4" NPT stanchion 5 - 1-1/2" NPT stanchion	Light Distribution: 5 - NEMA Type V Symmetrical	Options: C- Safety Cable F - Fusing ④★ G- Lens Guard			

① Pulse Start Metal Halide only. Does not have a High Pressure Sodium equivalent.

② Available for use with the BH voltage only (347-480 Vac, 50/60 Hz).

③ Available for use with the BU voltage only (120-277 Vac, 50/60 Hz).

④ Canadian Electrical Code does NOT allow fusing in hazardous locations. Fuse not CEC rated.

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* Use of a fuse voids Marine Outside Type (Salt Water) rating.

Code•Master™ LED Factory Sealed Luminaires

Explosionproof, Dust-Ignitionproof

NEC/CEC:
 Class I, Division 1 and 2, Groups B, C, D ★
 Class I, Zone 1, Group IIB + H₂
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 Class II, Division 2, Group F, G
 Class III

NEC/CEC:
 Simultaneous Exposure
 Type 3R, 4X
 IP66/67
 Suitable for Use in Wet Locations
 Marine Outside Type (Salt Water) *

Technical Data

Lamp		Ambient Temperature °C (°F)	Supply Wire Temperature °C (°F)	Class I, Division 1	Class I, Zone 1	Class II, Division 1
Light Level Equivalent to HID	Type					
70 Watt	CMLED70	40 (104)	75 (167)	T6	T6	T6
		55 (131)	75 (167)	T6	T6	T6
		65 (143)	75 (167)	T6	T6	T6
100 Watt	CMLED10	40 (104)	75 (167)	T6	T6	T6
		55 (131)	75 (167)	T6	T6	T6
		65 (143)	75 (167)	T6	T6	T6
150 Watt	CMLED15	40 (104)	75 (167)	T6	T6	T6
		55 (131)	75 (167)	T6	T6	T6
175 Watt	CMLED17	40 (104)	75 (167)	T6	T6	T6
		50 (122)	75 (167)	T6	T6	T6
250 Watt	CMLED25	40 (104)	75 (167)	T6	T6	T6
		50 (122)	75 (167)	T6	T6	T6
350 Watt	CMLED35	40 (104)	75 (167)	T6	T6	T6
		50 (122)	75 (167)	T6	T6	T6
400 Watt	CMLED40	40 (104)	75 (167)	T6	T6	T6
		55 (131)	75 (167)	T6	T6	T6

“T” Numbers Represent the Maximum Surface Temperature for Class I, Division 1 locations and Maximum Surface Temperature Under Dust Blanket for Class II, Division 1 Locations.

“T” #	T1	350	325	T2	T2A	T2B	T2C	T2D	T3	T3A	T3B	T3C	T4	T4A	T5	T6
Temp. Range °C (°F)	351- 450	326- 350	301- 325	281- 300	261- 280	231- 260	216- 230	201- 215	181- 200	166- 180	161- 165	136- 160	121- 135	101- 120	86- 100	85
	(664- 842)	(619- 662)	(574- 617)	(538- 572)	(502- 536)	(448- 500)	(421- 446)	(394- 419)	(358- 392)	(331- 356)	(322- 329)	(277- 320)	(250- 275)	(214- 248)	(187- 212)	(185)

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 * Use of a fuse voids Marine Outside Type (Salt Water) rating.

Code•Master™ LED Factory Sealed Luminaires

Explosionproof, Dust-Ignitionproof

NEC/CEC:
Class I, Division 1 and 2, Groups B, C, D ★
Class I, Zone 1, Group IIB + H₂
Class II, Division 1, Group E, F, G
Class II, Division 2, Group F, G
Class III

NEC/CEC:
Simultaneous Exposure
Type 3R, 4X
IP66/67
Suitable for Use in Wet Locations
Marine Outside Type (Salt Water) *

LED/AREA: NEC/CEC EXPLOSIONPROOF/ATEX/IECEx FLAMEPROOF

Appleton®

Lamp Comparison Chart

Lamp Data	Line Current Amps	Input Power	Lumens	CRI	Lamp Life (Hours)	Color Temp CCT
NEMA Type V						
CMLED70	0.31 @ 120V	37	2582	70	60,000+	5650
	0.17 @ 277V	47				
	0.24 @ 347V	83				
	0.11 @ 480V	52				
CMLED10	0.41 @ 120V	49	3967	70	60,000+	5650
	0.20 @ 277V	55				
	0.25 @ 347V	86				
	0.12 @ 480V	57				
CMLED15	0.53 @ 120V	64	4838	70	60,000+	5650
	0.25 @ 277V	69				
	0.29 @ 347V	98				
	0.14 @ 480V	67				
CMLED17	0.64 @ 120V	77	6294	70	60,000+	5650
	0.28 @ 277V	78				
	0.25 @ 347V	86				
	0.16 @ 480V	88				
CMLED25	0.90 @ 120V	108	8982	70	60,000+	5650
	0.36 @ 277V	100				
	0.45 @ 347V	96				
	0.31 @ 480V	95				
CMLED35	0.32 @ 347V	111	11830	70	60,000+	5650
	0.23 @ 480V	110				
CMLED40	1.05 @ 120V	126	13732	70	60,000+	5650
	0.47 @ 277V	130				

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	Lamp Wattage		Hub Size	Catalog Number	Voltage Suffix ①②	
	LED Wattage	Equivalent		Clear Glass	120–277 Vac	347–480 Vac
Pendant — One Hub, Rigid or Flexible Mounting — 50/60 Hz						
	35/33 W	70 W HPS/PSMH	3/4	CMLEDA702G5	BU	BH
	47.5/46 W	100 W HPS/PSMH	3/4	CMLEDA102G5	BU	BH
	61/62 W	150 W HPS/PSMH	3/4	CMLEDA152G5	BU	BH
	74/72 W	175 W PSMH	3/4	CMLEDA172G5	BU	BH
	95.5/92 W	250 W HPS/MH	3/4	CMLEDA252G5	BU	BH
	102/103 W	350 W PSMH	3/4	CMLEDA352G5	—	BH
	127/128 W	400 W HPS/PSMH	3/4	CMLEDA402G5	BU	—
	35/33 W	70 W HPS/PSMH	1	CMLEDA703G5	BU	BH
	47.5/46 W	100 W HPS/PSMH	1	CMLEDA103G5	BU	BH
	61/62 W	150 W HPS/PSMH	1	CMLEDA153G5	BU	BH
	74/72 W	175 W PSMH	1	CMLEDA173G5	BU	BH
	95.5/92 W	250 W HPS/MH	1	CMLEDA253G5	BU	BH
	102/103 W	350 W PSMH	1	CMLEDA353G5	—	BH
	127/128 W	400 W HPS/PSMH	1	CMLEDA403G5	BU	—
Ceiling — Four Hubs, Three Close-up Plugs — 50/60 Hz						
	35/33 W	70 W HPS/PSMH	3/4	CMLEDC702G5	BU	BH
	47.5/46 W	100 W HPS/PSMH	3/4	CMLEDC102G5	BU	BH
	61/62 W	150 W HPS/PSMH	3/4	CMLEDC152G5	BU	BH
	74/72 W	175 W PSMH	3/4	CMLEDC172G5	BU	BH
	95.5/92 W	250 W HPS/MH	3/4	CMLEDC252G5	BU	BH
	102/103 W	350 W PSMH	3/4	CMLEDC352G5	—	BH
	127/128 W	400 W HPS/PSMH	3/4	CMLEDC402G5	BU	—
	35/33 W	70 W HPS/PSMH	1	CMLEDC703G5	BU	BH
	47.5/46 W	100 W HPS/PSMH	1	CMLEDC103G5	BU	BH
	61/62 W	150 W HPS/PSMH	1	CMLEDC153G5	BU	BH
	74/72 W	175 W PSMH	1	CMLEDC173G5	BU	BH
	95.5/92 W	250 W HPS/MH	1	CMLEDC253G5	BU	BH
	102/103 W	350 W PSMH	1	CMLEDC353G5	—	BH
	127/128 W	400 W HPS/PSMH	1	CMLEDC403G5	BU	—

① For optional fusing, add suffix **-F** to the end of the catalog number. The Canadian Electrical Code does NOT allow fusing in hazardous locations. Fuse not CEC rated.

② For optional safety cable, add suffix **-C** to the end of the catalog number.

For optional lens guard, add suffix **-G** to the end of the catalog number.

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LED/AREA: NEC/CEC EXPLOSIONPROOF/ATEX/IECEx FLAMEPROOF

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Class II, Division 2, Group F, G
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Simultaneous Exposure
Type 3R, 4X
IP66/67
Suitable for Use in Wet Locations
Marine Outside Type (Salt Water) *

LED/AREA: NEC/CEC EXPLOSIONPROOF/ATEX/IECex FLAMEPROOF

				Catalog Number	Voltage Suffix ①②	
	LED Wattage	Lamp Wattage Equivalent	Hub Size	Clear Glass	120–277 Vac	347–480 Vac
Wall — Four Hubs, Three Close-up Plugs — 50/60 Hz						
	35/33 W	70 W HPS/PSMH	3/4	CMLEDW702G5	BU	BH
	47.5/46 W	100 W HPS/PSMH	3/4	CMLEDW102G5	BU	BH
	61/62 W	150 W HPS/PSMH	3/4	CMLEDW152G5	BU	BH
	74/72 W	175 W PSMH	3/4	CMLEDW172G5	BU	BH
	95.5/92 W	250 W HPS/MH	3/4	CMLEDW252G5	BU	BH
	102/103 W	350 W PSMH	3/4	CMLEDW352G5	—	BH
	127/128 W	400 W HPS/PSMH	3/4	CMLEDW402G5	BU	—
	35/33 W	70 W HPS/PSMH	1	CMLEDW703G5	BU	BH
	47.5/46 W	100 W HPS/PSMH	1	CMLEDW103G5	BU	BH
	61/62 W	150 W HPS/PSMH	1	CMLEDW153G5	BU	BH
	74/72 W	175 W PSMH	1	CMLEDW173G5	BU	BH
	95.5/92 W	250 W HPS/MH	1	CMLEDW253G5	BU	BH
	102/103 W	350 W PSMH	1	CMLEDW353G5	—	BH
	127/128 W	400 W HPS/PSMH	1	CMLEDW403G5	BU	—
25° Stanchion — One Hub — 50/60 Hz						
	35/33 W	70 W HPS/PSMH	1-1/4	CMLEDS704G5	BU	BH
	47.5/46 W	100 W HPS/PSMH	1-1/4	CMLEDS104G5	BU	BH
	61/62 W	150 W HPS/PSMH	1-1/4	CMLEDS154G5	BU	BH
	74/72 W	175 W PSMH	1-1/4	CMLEDS174G5	BU	BH
	95.5/92 W	250 W HPS/MH	1-1/4	CMLEDS254G5	BU	BH
	102/103 W	350 W PSMH	1-1/4	CMLEDS354G5	—	BH
	127/128 W	400 W HPS/PSMH	1-1/4	CMLEDS404G5	BU	—
	35/33 W	70 W HPS/PSMH	1-1/2	CMLEDS705G5	BU	BH
	47.5/46 W	100 W HPS/PSMH	1-1/2	CMLEDS105G5	BU	BH
	61/62 W	150 W HPS/PSMH	1-1/2	CMLEDS155G5	BU	BH
	74/72 W	175 W PSMH	1-1/2	CMLEDS175G5	BU	BH
	95.5/92 W	250 W HPS/MH	1-1/2	CMLEDS255G5	BU	BH
	102/103 W	350 W PSMH	1-1/2	CMLEDS355G5	—	BH
	127/128 W	400 W HPS/PSMH	1-1/2	CMLEDS405G5	BU	—

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For optional lens guard, add suffix **-G** to the end of the catalog number.

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 Type 3R, 4X
 IP66/67
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 Marine Outside Type (Salt Water) *

Fixture Unit — Electrical Specification



LED Wattage BU/BH	Light Level Equivalent	Voltage Range	Current Draw	Catalog Number Glass Globe	Voltage Suffix
35/33 W	70 W HPS	120-277 Vac, 50/60 Hz	120 Vac @ .31 Amps 277 Vac @ .17 Amps	CMLED70G5	BU
34/32 W	70 W HPS	347-480 Vac, 50/60 Hz	347 Vac @ .32 Amps 480 Vac @ .23 Amps	CMLED70G5	BH
47.5/46 W	100 W HPS	120-277 Vac, 50/60 Hz	120 Vac @ .41 Amps 277 Vac @ .20 Amps	CMLED10G5	BU
42/44 W	100 W HPS	347-480 Vac, 50/60 Hz	347 Vac @ .32 Amps 480 Vac @ .23 Amps	CMLED10G5	BH
61/62 W	150 W HPS	120-277 Vac, 50/60 Hz	120 Vac @ .53 Amps 277 Vac @ .25 Amps	CMLED15G5	BU
62/64 W	150 W HPS	347-480 Vac, 50/60 Hz	347 Vac @ .32 Amps 480 Vac @ .25 Amps	CMLED15G5	BH
74/72 W	175 W PSMH	120-277 Vac, 50/60 Hz	120 Vac @ .63 Amps 277 Vac @ .28 Amps	CMLED17G5	BU
86/88 W	175 W PSMH	347-480 Vac, 50/60 Hz	347 Vac @ .32 Amps 480 Vac @ .23 Amps	CMLED17G5	BH
95.5/92 W	250 W HPS/PSMH	120-277 Vac, 50/60 Hz	120 Vac @ .90 Amps 277 Vac @ .36 Amps	CMLED25G5	BU
96/95 W	250 W HPS/PSMH	347-480 Vac, 50/60 Hz	347 Vac @ .32 Amps 480 Vac @ .23 Amps	CMLED25G5	BH
102/103 W	350 W PSMH	347-480 Vac, 50/60 Hz	347 Vac @ .33 Amps 480 Vac @ .23 Amps	CMLED35G5	BH
127/128 W	400 W HPS/PSMH	120-277 Vac, 50/60 Hz	120 Vac @ 1.18 Amps 277 Vac @ .47 Amps	CMLED40G5	BU

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Mounting Hoods

			Certified for Class I, Division 1 and 2, Group			
			Hub Size Inches	cCSA Certified	cCSAus Certified	Catalog Number
Pendant						
 CAP-75 & CAP-100	 CAP-75B	One Hub	3/4	B, C, D	C, D	CAP-75
			3/4	B, C, D	B, C, D	CAP-75B
			1	D	D	CAP-100
Ceiling						
		Four hubs, Three Close-Up Plugs	3/4	C, D	C, D	CAC-75
			1	D	D	CAC-100
Bracket						
		Four hubs, Three Close-Up Plugs	3/4	C, D	C, D	CALB-75
			1	D	D	CALB-100
25° Stanchion						
 CAS-150	 CAS-150B	One Hub	1-1/4 or 1-1/2 ①	B, C, D	C, D	CAS-150
			1-1/2	B, C, D	B, C, D	CAS-150B

① 1-1/2" tapped hub furnished with 1-1/2" to 1-1/4" reducer.

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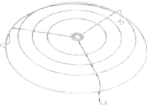
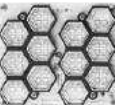
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 Class II, Division 2, Group F, G
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Accessories and Replacement Parts

	Description	Catalog Number
Fuse Kits *		
	3 Amp for 120-277 Vac, 70 thru 250 Watt Equivalent	CMLEDF-3
	5 Amp for 120-277 Vac, 400 Watt Equivalent	CMLEDF-5
	2 Amp for 347-480 Vac, 70 thru 350 Watt Equivalent	CMLEDF-2
Globes and Gaskets		
	Clear Globe Assembly	CGL-CLEAR
	Stainless Steel Wire Guard	CMLEDGU
	Safety Cable	CMLEDSC
LED Array		
	70 Watt Equivalent LED Array Assembly, Type V, White LED's	CMLED70A5W
	100 Watt Equivalent LED Array Assembly, Type V, White LED's	CMLED10A5W
	150 Watt Equivalent LED Array Assembly, Type V, White LED's	CMLED15A5W
	175 Watt Equivalent LED Array Assembly, Type V, White LED's	CMLED17A5W
	250 Watt Equivalent LED Array Assembly, Type V, White LED's	CMLED25A5W
	350 Watt Equivalent LED Array Assembly, Type V, White LED's	CMLED35A5W
	400 Watt Equivalent LED Array Assembly, Type V, White LED's	CMLED40A5W
Drivers		
	120-277 V Driver (70 thru 250 Watt equivalent only)	CMLEDBU
	347-480 V Driver (70 thru 350 Watt equivalent only)	CMLEDBH
	120-277 V Driver (400 Watt equivalent only)	CMLEDBU40

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NEC/CEC:

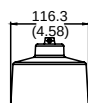
Class I, Division 1 and 2, Groups B, C, D ★
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NEC/CEC:

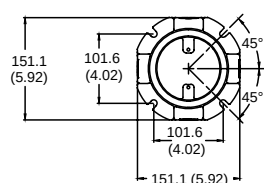
Simultaneous Exposure
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Dimensions in Millimeters (Inches)

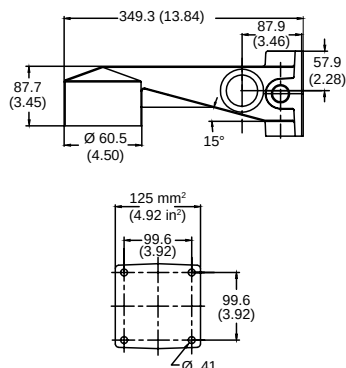
Pendant



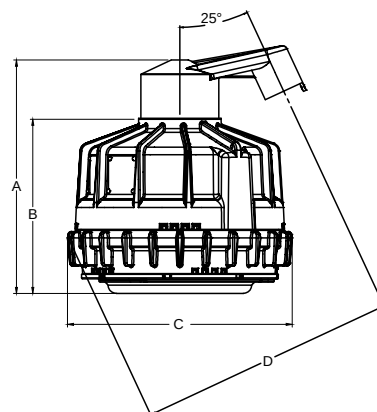
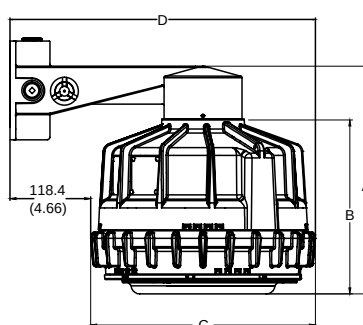
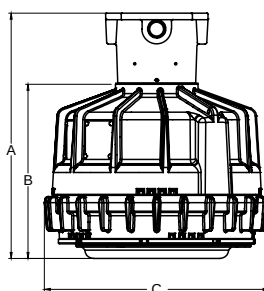
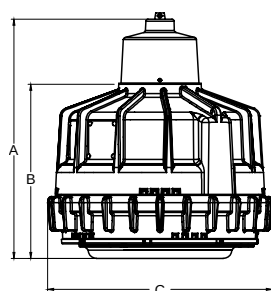
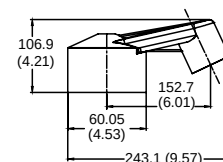
Ceiling



Bracket

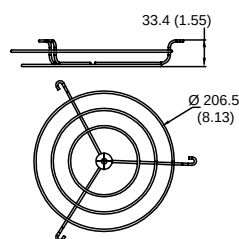


25° Stanchion



Pendant			Ceiling			Bracket				25° Stanchion			
A	B	C	A	B	C	A	B	C	D	A	B	C	D
350.5	256.5	330.2	360.7	256.5	330.2	335.3	256.5	330.2	449.6	365.8	256.5	330.2	378.5
(13.8)	(10.1)	(13.0)	(14.2)	(10.1)	(13.0)	(13.2)	(10.1)	(13.0)	(17.7)	(14.4)	(10.1)	(13.0)	(14.9)

Wire Guard



Weights

Description	Weight kg (lb)
Fixture Unit (Ballast Housing)	17.2 (38)
Pendant Mounting Hood	0.9 (2)
Ceiling Mounting Hood	1.8 (4)
Wall Mounting Hood	2.7 (6)
25° Stanchion Mounting Hood	0.9 (2)
Wire Guard	0.45 (1)

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NEC/CEC:

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 IP66/67
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 Marine Outside Type (Salt Water) *

Photometric Data — DATA SHOWN IS ABSOLUTE

REPORT NUMBER: **CMLED70P5BU**

Lamps: Code•Master LED with clear glass globe, pendant style mount.
 Total Input Watts = 34.1. Efficacy= 75.7 Lm/W. CIE Type – Direct.

Candela Distribution

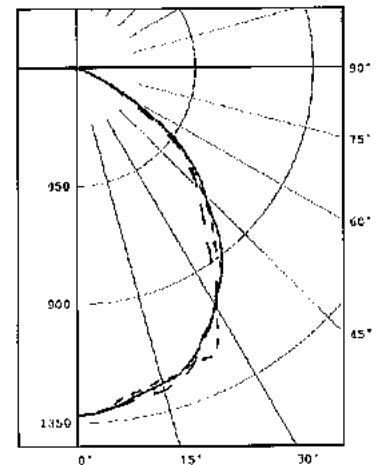
	0.0	22.5	45.0	67.5	90.0	Flux
0	1322	1322	1322	1322	1322	
5	1301	1304	1304	1308	1304	123
15	1229	1236	1244	1260	1271	353
25	1213	1172	1128	1137	1137	528
35	958	917	955	921	882	577
45	673	685	686	689	653	524
55	422	428	404	367	349	351
65	124	106	96	118	120	113
75	5	5	7	7	8	11
85	3	2	1	1	1	2
90	1	1	1	1	1	

Zonal Lumen Summary

Zone	Lumens	% Fixture
0-30	1004	38.9
0-40	1581	61.2
0-60	2456	95.1
0-90	2581	100.0

CIE Type – Direct

Plane	Spacing Criteria
0-Deg	90-Deg
1.2	1.2



REPORT NUMBER: **CMLED10P5BU**

Lamps: Code•Master LED with clear glass globe, pendant style mount.
 Total Input Watts = 46.8. Efficacy= 84.8 Lm/W. CIE Type – Direct.

Candela Distribution

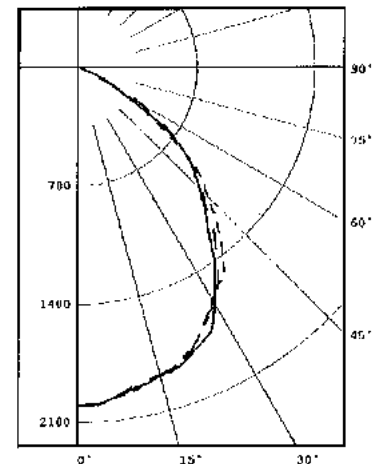
	0.0	22.5	45.0	67.5	90.0	Flux
0	1999	1999	1999	1999	1999	
5	1983	1974	1982	1976	1976	187
15	1886	1888	1890	1882	1885	533
25	1724	1739	1776	1773	1716	803
35	1503	1372	1403	1449	1440	884
45	1081	1029	1013	1082	1035	806
55	573	581	624	655	662	549
65	194	177	193	165	131	183
75	12	11	8	10	11	18
85	2	2	2	2	2	3
90	2	1	2	2	2	

Zonal Lumen Summary

Zone	Lumens	% Fixture
0-30	1523	38.4
0-40	2408	60.7
0-60	3762	94.8
0-90	3966	100.0

CIE Type – Direct

Plane	Spacing Criteria
0-Deg	90-Deg
1.2	1.2



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 Class II, Division 1, Group E, F, G
 Class II, Division 2, Group F, G
 Class III

NEC/CEC:

Simultaneous Exposure
 Type 3R, 4X
 IP66/67
 Suitable for Use in Wet Locations
 Marine Outside Type (Salt Water) *

Photometric Data — DATA SHOWN IS ABSOLUTE

REPORT NUMBER: **CMLED15P5BU**

Lamps: Code•Master LED with clear glass globe, pendant style mount.
 Total Input Watts = 59.3. Efficacy= 81.6 Lm/W. CIE Type – Direct.

Candela Distribution

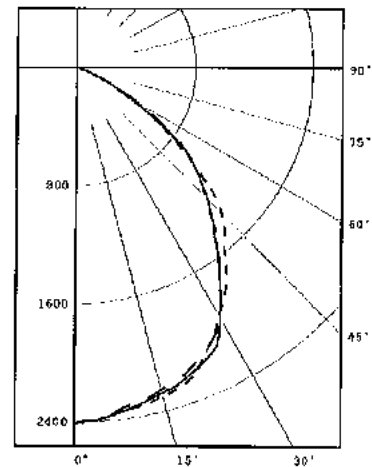
	0.0	22.5	45.0	67.5	90.0	Flux
0	2400	2400	2400	2400	2400	
5	2376	2374	2376	2379	2379	225
15	2298	2282	2276	2270	2253	644
25	2105	2090	2146	2145	2094	971
35	1775	1709	1692	1758	1697	1075
45	1388	1245	1253	1302	1231	983
55	724	715	763	795	807	675
65	233	214	243	219	200	233
75	17	18	13	17	21	27
85	3	2	2	2	2	
90	2	2	2	2	2	1

Zonal Lumen Summary

Zone	Lumens	% Fixture
0-30	1840	38.0
0-40	2915	60.3
0-60	4573	94.5
0-90	4837	100.0

CIE Type – Direct

Plane	Spacing Criteria
0-Deg	90-Deg
1.2	1.2



REPORT NUMBER: **CMLED17P5BU**

Lamps: Code•Master LED with clear glass globe, pendant style mount.
 Total Input Watts = 73.0. Efficacy= 86.2 Lm/W. CIE Type – Direct.

Candela Distribution

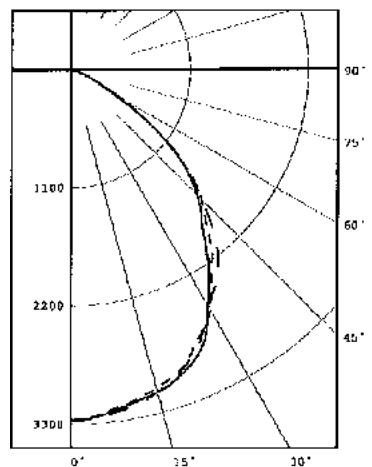
	0.0	22.5	45.0	67.5	90.0	Flux
0	3260	3260	3260	3260	3260	
5	3218	3222	3228	3230	3238	306
15	3071	3094	3107	3114	3105	874
25	2778	2869	2864	2796	2810	1294
35	2260	2314	2223	2199	2370	1413
45	1708	1718	1651	1642	1712	1286
55	905	923	915	910	902	814
65	207	237	265	241	260	253
75	40	38	32	30	31	42
85	7	7	6	5	5	9
90	4	4	4	4	4	

Zonal Lumen Summary

Zone	Lumens	% Fixture
0-30	2475	39.3
0-40	3887	61.8
0-60	5988	95.1
0-90	6292	100.0

CIE Type – Direct

Plane	Spacing Criteria
0-Deg	90-Deg
1.2	1.2



★ Complete Code•Master LED luminaire consists of fixture unit and a mounting hood. For Group B applications a Group B rated mounting hood must be used.
 ★ Use of a fuse voids Marine Outside Type (Salt Water) rating.

Code•Master™ LED Factory Sealed Luminaires

Explosionproof, Dust-Ignitionproof

NEC/CEC:

Class I, Division 1 and 2, Groups B, C, D ★
 Class I, Zone 1, Group IIB + H₂
 Class II, Division 1, Group E, F, G
 Class II, Division 2, Group F, G
 Class III

NEC/CEC:

Simultaneous Exposure
 Type 3R, 4X
 IP66/67
 Suitable for Use in Wet Locations
 Marine Outside Type (Salt Water) *

Photometric Data — DATA SHOWN IS ABSOLUTE

REPORT NUMBER: **CMLED25P5BU**

Lamps: Code•Master LED with clear glass globe, pendant style mount.
 Total Input Watts = 97.6. Efficacy= 92.0 Lm/W. CIE Type – Direct.

Candela Distribution

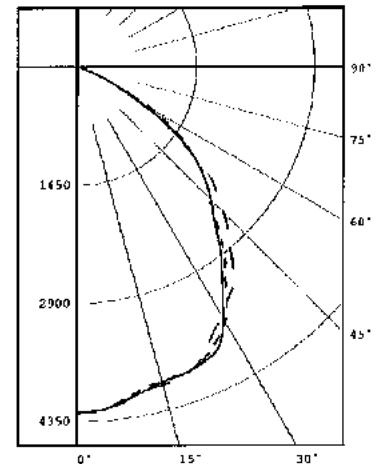
	0.0	22.5	45.0	67.5	90.0	Flux
0	4239	4239	4239	4239	4239	
5	4208	4209	4202	4203	4198	397
15	3991	4008	3999	4017	4033	1138
25	3843	3848	3904	3873	3768	1766
35	3139	3208	3071	3127	3302	1976
45	2282	2394	2303	2288	2526	1816
55	1574	1537	1524	1485	1453	1340
65	454	438	464	439	487	483
75	41	33	26	33	33	55
85	7	7	7	7	8	9
90	5	5	5	5	5	

Zonal Lumen Summary

Zone	Lumens	% Fixture
0-30	3301	36.7
0-40	5276	58.7
0-60	8432	93.9
0-90	8979	100.0

CIE Type – Direct

Plane	Spacing Criteria
0-Deg	90-Deg
1.2	1.2



REPORT NUMBER: **CMLED35P5BU**

Lamps: Code•Master LED with clear glass globe, pendant style mount.
 Total Input Watts = 104.0. Efficacy= 113.8 Lm/W. CIE Type – Direct.

Candela Distribution

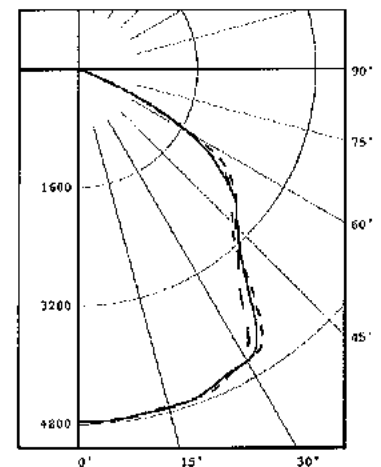
	0.0	22.5	45.0	67.5	90.0	Flux
0	4773	4773	4773	4773	4773	
5	4771	4772	4771	4766	4787	454
15	4717	4716	4735	4719	4745	1340
25	4656	4585	4613	4632	4601	2138
35	4337	4026	4181	4248	3858	2545
45	2941	3019	3042	2983	2996	2338
55	2495	2375	2289	2311	2409	2073
65	831	782	855	873	765	868
75	38	34	35	34	30	58
85	9	10	9	10	11	12
90	6	7	6	7	6	

Zonal Lumen Summary

Zone	Lumens	% Fixture
0-30	3932	33.2
0-40	6477	54.7
0-60	10888	92.0
0-90	11826	100.0

CIE Type – Direct

Plane	Spacing Criteria
0-Deg	90-Deg
1.4	1.3



★ Complete Code•Master LED luminaire consists of fixture unit and a mounting hood. For Group B applications a Group B rated mounting hood must be used.
 ★ Use of a fuse voids Marine Outside Type (Salt Water) rating.

Code•Master™ LED Factory Sealed Luminaires

Explosionproof, Dust-Ignitionproof

NEC/CEC:

Class I, Division 1 and 2, Groups B, C, D ★
 Class I, Zone 1, Group IIB + H₂
 Class II, Division 1, Group E, F, G
 Class II, Division 2, Group F, G
 Class III

NEC/CEC:

Simultaneous Exposure
 Type 3R, 4X
 IP66/67
 Suitable for Use in Wet Locations
 Marine Outside Type (Salt Water) *

Photometric Data — DATA SHOWN IS ABSOLUTE

REPORT NUMBER: **CMLED40P5BU**

Lamps: Code•Master LED with clear glass globe, pendant style mount.
 Total Input Watts = 127.9. Efficacy= 107.4 Lm/W. CIE Type – Direct.

Candela Distribution

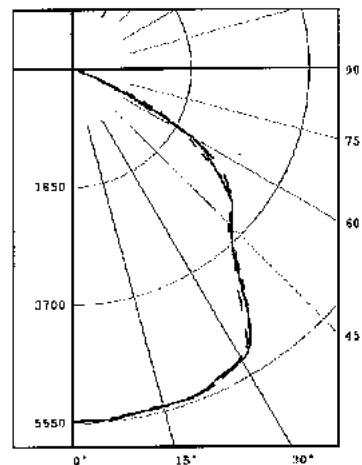
	0.0	22.5	45.0	67.5	90.0	Flux
0	5525	5525	5525	5525	5525	
5	5535	5543	5523	5517	5509	526
15	5480	5503	5474	5467	5466	1553
25	5392	5370	5354	5365	5362	2483
35	4789	4730	4805	4940	4610	2947
45	3454	3494	3490	3434	3506	2724
55	2643	2686	2699	2858	2886	2425
65	1149	950	868	1000	806	992
75	37	42	41	38	35	62
85	11	11	10	10	10	13
90	9	8	7	7	7	

Zonal Lumen Summary

Zone	Lumens	% Fixture
0-30	4562	33.2
0-40	7509	54.7
0-60	12659	92.2
0-90	13727	100.0

CIE Type – Direct

Plane	Spacing Criteria
0-Deg	90-Deg
1.4	1.3



★ Complete Code•Master LED luminaire consists of fixture unit and a mounting hood. For Group B applications a Group B rated mounting hood must be used.
 ★ Use of a fuse voids Marine Outside Type (Salt Water) rating.

ATX™ FDLED Series Luminaires

Flameproof

ATEX/IECEX:
Zone 1 and 2 - 21 and 22
⊕ II 2GD
Ex d IIB (4725 lm version)
Ex d IIB+H₂ (2400 lm version)
Ex d IIC (400 lm version)

ATEX/IECEX:
IK09 (400 and 2400 lm version)
IK08 (4725 lm version)
IP66/68

Applications

- Can be installed in hazardous areas designated as Zone 1 and 2 – 21 and 22.
- For use in locations where a high degree of corrosion resistance is required.
- For indoor/outdoor use where protection against dirt, water and moisture is necessary.
- Typical applications include:
 - Oil refineries
 - Petrochemical facilities
 - Pulp and paper, mills
 - Painting, sewage and water treatment facilities
 - Warehouses
 - Underground tunnels
 - General manufacturing facilities.

Features

- Impact resistant borosilicate glass sealed tube.
- Easy access to LED array through gray painted aluminum threaded entry cap.
- Supplied with O-ring for improved ingress protection.
- Corrosion-resistant gray painted aluminum.
- Supplied with energy efficient electronic driver on a removable gear tray.
- Supplied with external and internal ground/earth connection.
- Fixture supplied with one M20 blanking plug.
- Easy connection to wire and disconnect with plug-in terminal blocks.

Standard Materials

- End caps and cover: aluminum.
- Glass tube: tempered borosilicate glass.
- O-ring gasket: Nitrile (NBR).
- Internal reflector: white powder coated galvanized steel (400 lm version) or aluminium (2400/4725 lm versions).
- Mounting accessories: several accessories in different material such as zinc plated steel, galvanized steel or 316 stainless steel.

Options

- Diffused polycarbonate lens (2400/4725 lm versions only)
- Ta -50 °C (-58 °F) IP66 (without gasket)
- Ta -40 °C (-40 °F) IP66/68 (with EPDM70)

ATEX/IECEX Certifications and Compliances

- Certification Type FDLED
 - Gas: Zone 1 and 2:
 - Conforming to ATEX 94/9/CE: ⊕ II 2 G
 - Type of Protection: Ex d IIB (4725 lm version), Ex d IIB+H₂ (2400 lm version), Ex d IIC (400 lm version)
 - Temperature Class: T6
 - Dust: Zone 21 and 22:
 - Conforming to ATEX 94/9/CE: ⊕ II 2 D
 - Type of Protection: Ex tb IIIC
 - Surface Temperature:
 - +75 °C (+167 °F) (400 lm version)
 - +80 °C (+176 °F) (2400 and 4725 lm version)
- Ambient Temperature: -30 °C to 60 °C (-22 °F to +140 °F)
- CE Declaration of Conformity: 50312
- ATEX Certificate: INERIS 15 ATEX 0042X
- IECEx Certificate: IECEx INE 15.0046X
- Index of Protection according EN/IEC 60529: IP66/68



4725 lm (IIB)



2400 lm (IIB+H₂)



400 lm (IIC)

- Impact Resistance (shock): IK09 (400 and 2400 lm version), IK08 (4725 lm version)
- Internal Volume: > 2 dm³ (122 in³) - 2 liters

LED/AREA: NEC/CEC EXPLOSIONPROOF/ATEX/IECEX FLAMEPROOF

Appleton®

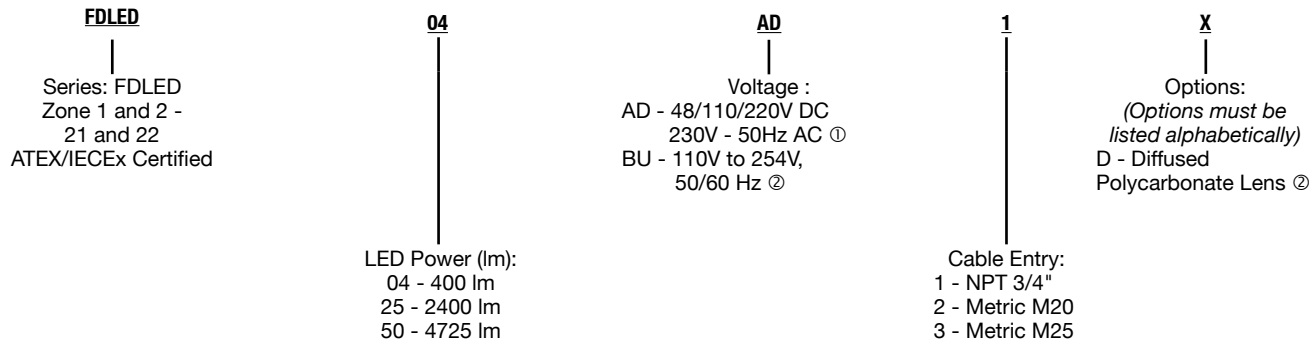
ATX™ FDLED Series Luminaires

Flameproof

ATEX/IECEX:
Zone 1 and 2 - 21 and 22
Ex d IIB (4725 lm version)
Ex d IIB+H₂ (2400 lm version)
Ex d IIC (400 lm version)

ATEX/IECEX:
IK09 (400 and 2400 lm version)
IK08 (4725 lm version)
IP66/68

Catalog Numbering Guide — FD LED Series Luminaires



Technical Data

Lumen Output	Type	P	I _e	Gas group	Ambient Temperature °C (°F)	Class of Temperature	Surface Temperature °C (°F)
400 lm	LED	6 W	0.03 A	IIC	-30 °C to + 60°C (-22 °F to +140 °F)	T6	75 (167)
2400 lm	LED	23 W	0.21 A	IIB+H ₂	-30 °C to + 60°C (-22 °F to +140 °F)	T6	80 (176)
4725 lm	LED	46 W	0.42 A	IIB	-30 °C to + 60°C (-22 °F to +140 °F)	T6	80 (176)

Led Power (lm)	Voltage	Cable Entry	Weight kg (lb)	Volume dm ³ (in ³)	Catalog Number
400 lm	48/110/220V DC 230V - 50Hz AC	M20	7.8 (17.2)	36.0 (2196.9)	FDLED04AD2
2400 lm	110V to 254V, 50/60 Hz	M20	8.1 (17.9)	37.1 (2264.0)	FDLED25BU2
4725 lm	110V to 254V, 50/60 Hz	M20	9.0 (19.8)	58.0 (3539.4)	FDLED50BU2

① Only 400 lm version

② Only 2400 and 4725 lm version

ATX™ FDLED Series Luminaires

Flameproof

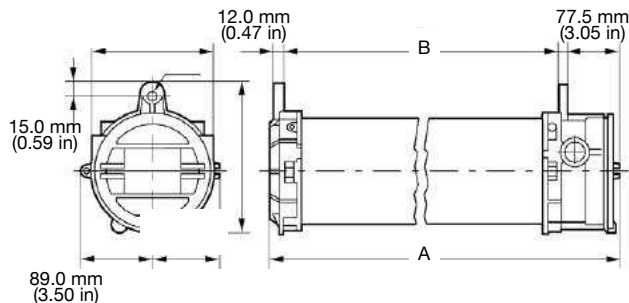
ATEX/IECEX:
 Zone 1 and 2 - 21 and 22
 Ⓢ II2GD
 Ex d IIB (4725 lm version)
 Ex d IIB+H₂ (2400 lm version)
 Ex d IIC (400 lm version)

ATEX/IECEX:
 IK09 (400 and 2400 lm version)
 IK08 (4725 lm version)
 IP66/68

Accessories and Replacement Parts

Description		Catalog Number
Protective Guard – Zinc Plated Steel		
	Model 0.3 (for 400 lm)	FDPG1Z
	Model 0,4 (for 2400 lm)	FDPG5Z
	Model 0.6 (for 4725 lm)	FDPG2Z
Fixing Brackets for Ease of Surface Installation – Set of Two		
	Zinc plated steel	FDFBZ
	316 stainless steel	FDFBS
Surface Mounting Brackets – Set of Two		
	Zinc plated steel	FDSBZ
	316 stainless steel	FDSBS
Half Clamp Brackets for Pole Mounting – Set of Two		
	For 42 mm (1.65 in) to 49 mm (1.93 in) pole (1-1/4 to 1-1/2" tube)	
	Zinc plated steel	FDHC49Z
	316 stainless steel	FDHC49S
	For 60 mm (2.36 in) pole (2" tube)	
	Zinc plated steel	FDHC60Z
	316 stainless steel	FDHC60S
Fall Prevention Kit		
	1.20 meter (3.93 feet) stainless steel chain	FDSCS

Dimensions in Millimeters (Inches)



Model	A	B
0.3 (400 lm)	430 (16.93)	335 (13.19)
0,4 (2400 lm)	470 (18.50)	375 (14.76)
0.6 (4725 lm)	745 (29.33)	650 (25.59)

ATX™ DEMULED LED Series Luminaires

Flameproof

ATEX/IECEX:
Zone 1 and 2 - 21 and 22
Ex II 2GD
Ex tb IIIC
IK09
IP66/68

Applications

- Provides adequate lighting and/or visual indication of access on exit routes during an evacuation in a hazardous environment.
- Can be installed in hazardous areas designated as Zone 1 and 2 – 21 and 22.
- Typical applications include oil refineries, petrochemical plants, pulp and paper mills.

Features

All versions:

- Power supply 230 Vac, 50 Hz.
- 1 hour duration (emergency).
- Threaded access cover with O-ring seal.
- Battery pack :
 - Escape route lighting: 2.4 V - 0,8 Ah (2 cells - Nicd)
 - Space lighting: 6 V - 1,6 Ah (6 cells - Nicd)
- Charge indicator by 1 green LED (life time over 10 years).
- Operates in any position.
- Connection to plug-in terminal block via 5 x 2.5 mm² (0.004 in²) terminals.
- Supplied with two fixing brackets (zinc plated steel)
- Automatic built-in self-test system (SATI) with memorization of tests indicated by LEDs.
- Using a microprocessor and an internal clock, the unit will carry out automatic tests.
- Escape route lighting: 45 lumens, 0.50 wattage.
- Space lighting: 400 lumens, 0.95 wattage.

Addressable versions:

- Operates without additional control lines. Communication between units and the control system is realized via mains borne signals that utilize the existing electrical wiring.
- Standard control system capacity: one control system for up to 200 emergency lighting units.
- Optional increased control system capacity: booster (repeater unit) is used to increase the length of the network allowing up to 1000 emergency lighting units to be on one control system. This allows for the use of a single computer to centralize the management of the facilities emergency lighting system. For more information, please contact your local sales representative

Standard Materials

- End caps and cover: aluminum
- O-ring seal: Nitrile
- Lens: tempered borosilicate glass tube
- Fixing brackets: zinc plated steel or 316 stainless steel
- Accessories: white painted galvanized steel
- Guard: zinc plated steel

Options

- Ta -40 °C (-40 °F) (with EPDM70)
- Addressable monitoring software, please consult your local sales representative.



ATEX/IECEX Certifications and Compliances

- Certification Type DEMULED
 - Gas: Zone 1 and 2:
 - Conforming to ATEX 94/9/CE: Ex II 2 G
 - Type of Protection: Ex d IIC
 - Temperature Class: T6
 - Dust: Zone 21 and 22:
 - Conforming to ATEX 94/9/CE: Ex II 2 D
 - Type of Protection: Ex tb IIIC
 - Surface Temperature: +75 °C (167 °F)
- Ambient Temperature: -30 °C to +55 °C (-22 °F to +131 °F) ①
- CE Declaration of Conformity: 50314
- ATEX Certificate: INERIS 15ATEX0056X
- IECEx Certificate: IECEx INE 15.0052X
- Index of Protection according EN/IEC 60529: IP66/68 (10m/1h)
- Impact Resistance (shock): IK09
- Internal Volume: > 2 dm³ (122 in³) - 2 liters
- Conforming to NF AEAS

Related Products

- For labels see *Labels for Emergency Lighting Units*, *ATX Self-Adhesive Signaling Labels for Emergency Lighting Units*.

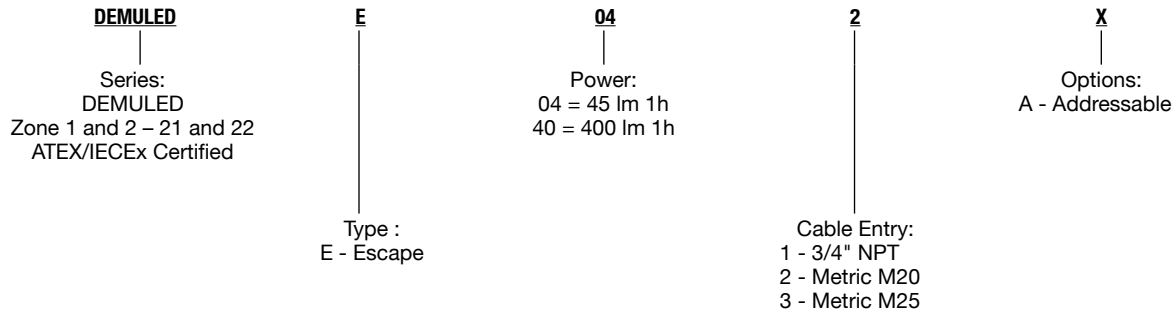
① Optimum operating temperature for battery is -5 °C to +30 °C (-22 °F to +131 °F).

ATX™ DEMULED LED Series Luminaires

Flameproof

ATEX/IECEX:
Zone 1 and 2 - 21 and 22
Ex II2GD
Ex tb IIIC
IK09
IP66/68

Catalog Numbering Guide



Type	Lamp	Lumen Output	Cable Entries	Weight kg (lb)	Volume dm³ (in³)	Option	Catalog Number
Escape	LED	45 lm	M20	7.8 (17.2)	36.0 (2196.9)	SATI	DEMULEDE042
Escape	LED	45 lm	M20	7.8 (17.2)	36.0 (2196.9)	Addressable	DEMULEDE042A

Accessories and Replacement Parts

	Description	Catalog Number
	Protective Guard Zinc plated steel	FDPG1Z
	Fixing Brackets: Set of two for ease of surface installation Zinc plated steel 316 stainless steel	FDFBZ FDFBS
	Surface Mounting Brackets: Set of two Zinc plated steel 316 stainless steel	FDSBZ FDSBS
	Half Clamps: Set of two Zinc plated steel versions: For 42 mm to 49 mm pole (1-1/4 to 1-1/2" tube) For 60 mm pole (2" tube) 316 stainless steel versions: For 42 mm to 49 mm pole (1-1/4 to 1-1/2" tube) For 60 mm pole (2" tube)	FDHC49Z FDHC60Z FDHC49S FDHC60S
	Fall Prevention Kit 1.20 m stainless steel chain	FDSCS

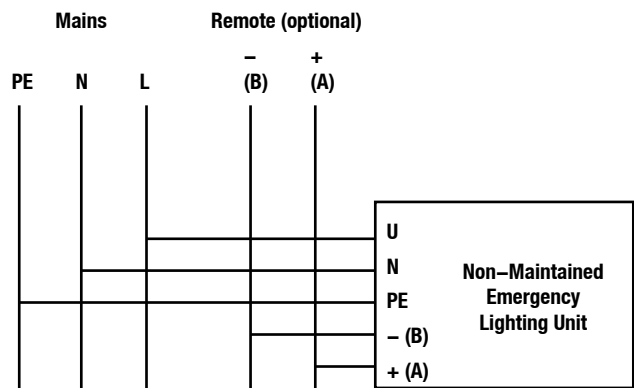
ATX™ DEMULED LED Series Luminaires

Flameproof

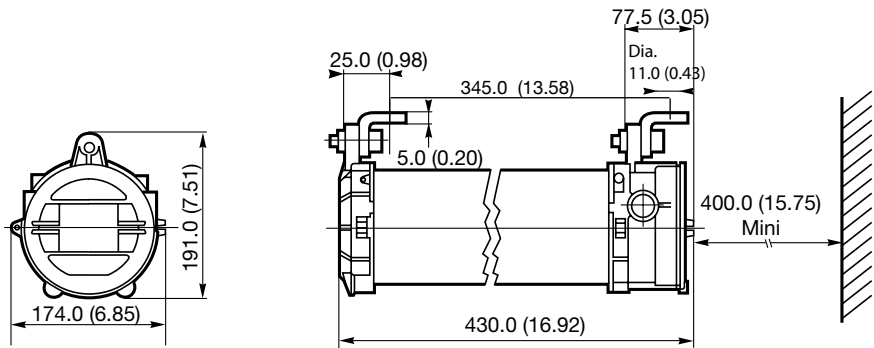
ATEX/IECEX:
Zone 1 and 2 - 21 and 22
II2GD
Ex tb IIIC
IK09
IP66/68

LED/AREA: NEC/CEC EXPLOSIONPROOF/ATEX/IECEX FLAMEPROOF

Electrical Wiring Diagram



Dimensions in Millimeters (Inches)



Viamaster™ LED Series Emergency Battery Backup Luminaires

For NEC and CEC Hazardous Locations

NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, Group IIC
Class II, Division 2, Groups F, G
Class III
Type 3R, 4, 4X

NEC/CEC:

Marine Outside Type- For USA Only ⌘
IP66/67

Applications

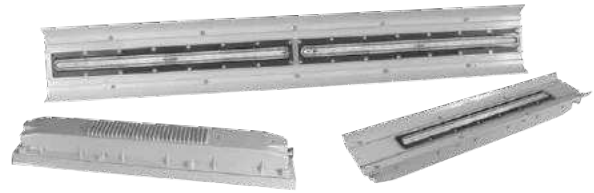
- For use in locations where:
 - Flammable gases, vapors and dusts are present
 - A high degree of corrosion resistance is required
 - Protection against dirt, water and moisture is necessary
- Typical applications include:
 - Oil refineries
 - Petrochemical facilities
 - Pulp and paper mills
 - Food processing plants
 - Waste and sewer treatment
 - Underground tunnels
 - General manufacturing facilities

Features

- Provides up to 1250 lumens illumination for 90 minutes of emergency lighting with clear lens.
- Functional diagnostic test self-initiates every 14 days after initial start up.
- Duration test is automatically performed once per year.
- Green and Red LED lamps indicate charging status and provide fault warning.
- Positive safety switch disconnects power between LEDs and battery management module to allow maintenance in hazardous locations.
- 60,000+ hour LED life, for years of maintenance free operation.
- Universal, high efficiency, driver covers voltage requirements for 120-277 Vac, 50/60 Hz +/- 10%.
- Standard 2KV surge suppression.
- Hinged cover with captive screws, and terminal block wiring for easy installation and maintenance.
- Standard screw-type terminal block can accept UL/CSA 26 to 10 AWG wire.
- Contemporary, low profile design suitable for tight spaces.
- Field replaceable LED driver, battery management module (BMM), battery pack, and lens.
- 5 Cell NiMH battery pack for longer emergency capability.
- Plug in connectors on battery pack for easy maintenance.
- Industry-leading thermal management for safe, reliable operation over a wide temperature range.
- Easy retrofit in same mounting footprint as Appleton's FV Series fluorescent luminaires.
- Full range of lumen outputs, with light distribution equivalent to Appleton's FV Series fluorescent luminaires.
- 2 opposing 3/4" NPT hubs with adjacent terminal blocks for thru wiring. (1) 3/4" NPT close up plug provided.

Options

- Safety cable for fall safe retention; add suffix **-C** to the end of the catalog number.
- Diffused lens is available;
 - Add suffix **-D** to the catalog number.
 - Example: **LLEDA12LU2DH**
- Fusing is available;
 - Add suffix **-F** to the catalog number. ⌘
 - Example: **LLEDA12LU2FH**



Standard Materials

- Housing: copperfree (4/10 of 1% max.) aluminum
- Lens: thermal shock- and impact-resistant polycarbonate lens
- Gasket: silicone rubber, mechanically secured
- Bolts: stainless steel
- Close up plugs: nickel plated brass
 - Mounting hardware: See ordering information

Standard Finishes

- Housing/Reflector: gray polyester

Related Products

- For specifications on non-emergency operation, refer to Viamaster LED Series Luminaires for NEC and CEC Hazardous Locations.

NEC/CEC Certifications and Compliances

- UL Standard: UL 1598, UL 8750, UL 844, UL 924
- CSA Standards: C22.2 No. 250.0, C22.2 No. 250.13, C22.2 No. 137
- cULus Certified: E165014
- Ambient Temperature:
120-277 Volts: -20 °C up to +55 °C (-4 °F up to +131 °F)

⌘ Fusing option not available with Marine Outside Type (Salt Water) rating. Fusing option not permitted for cUL.

Viamaster™ LED Series Emergency Battery Backup Luminaires

For NEC and CEC Hazardous Locations

NEC/CEC: Class I, Division 2, Groups A, B, C, D Class I, Zone 2, Group IIC Class II, Division 2, Groups F, G Class III Type 3R, 4, 4X	NEC/CEC: Marine Outside Type- For USA Only ⌘ IP66/67

Order using catalog numbering guides below or select catalog number from tables on following pages.

Catalog Numbering Guide – NEC/CEC Certified Linear LED

LLED	A	1	2	LU	2	C	H
LLED - NEC/CEC Certified Linear LED Series	Housing: A - Aluminum	Size of Conduit Entries: 1 - (2) 3/4" NPT	Lumens [Length of Fixture]: 2 - 2K [843 mm (33.19 in)] 5 - 5K [843 mm (33.19 in)] 7 - 7K [1,220 mm (44.09 in)]	Voltage: LU - Universal Voltages 120-277 Vac, 50/60 Hz -20 °C up to +55 °C (-4 °F up to +131 °F)	Hazardous Rating: 2 - Division 2/Zone 2	Options: C - Safety Cables D - Diffused Lens F - Fuse	Emergency: 90 minutes

	Conduit/Cable Entries	Voltage	Weight kg (lb)	Catalog Numbers ①	
				Clear Polycarbonate	Diffused Polycarbonate
2,200 Lumens — 0.843 m (3 ft)					
	3/4" NPT (2)	120-277 Vac, 50/60 Hz	8.75 (19.30)	LLEDA12LU2H	LLEDA12LU2DH
4,600 Lumens — 0.843 m (3 ft)					
	3/4" NPT (2)	120-277 Vac, 50/60 Hz	8.89 (19.60)	LLEDA15LU2H	LLEDA15LU2DH
7,800 Lumens — 1.22 m (4 ft)					
	3/4" NPT (2)	120-277 Vac, 50/60 Hz	9.07 (20.00)	LLEDA17LU2H	LLEDA17LU2DH

① For optional safety cables, add suffix -C to the end of the catalog number. For optional fuse, add suffix -F to the catalog number.
 Example: LLEDA12LU2CDFH.
 ⌘ Fusing option not available with Marine Outside Type (Salt Water) rating. Fusing option not permitted for cUL.

Viamaster™ LED Series Emergency Battery Backup Luminaires

For NEC and CEC Hazardous Locations

NEC/CEC:
 Class I, Division 2, Groups A, B, C, D
 Class I, Zone 2, Group IIC
 Class II, Division 2, Groups F, G
 Class III
 Type 3R, 4, 4X

NEC/CEC:
 Marine Outside Type- For USA Only ⌘
 IP66/67

Technical Data ①

Luminaire		Ambient Temperature °C (°F)	Supply Wire Temperature °C (°F)	Class I, Division 2 ②	NEC/CEC		Dust	
Lumen Output	Type				Gas Groups	Class I, Zone 2, AEx nA IIC, Ex nA IIC	Class II, Division 2 ③	Groups
2,200	LED	40 (104)	75 (167)	T4	A, B, C, D	T4	T6	F, G
		55 (131)	75 (167)	T3C	A, B, C, D	T3	T5	F, G
		65 (149)	75 (167)	T3C	A, B, C, D	T3	T4A	F, G
4,600	LED	40 (104)	75 (167)	T4A	A, B, C, D	T4	T5	F, G
		55 (131)	75 (167)	T4A	A, B, C, D	T4	T5	F, G
		65 (149)	75 (167)	T4	A, B, C, D	T4	T4A	F, G
7,800	LED	40 (104)	75 (167)	T4A	A, B, C, D	T4	T5	F, G
		55 (131)	75 (167)	T4	A, B, C, D	T4	T4A	F, G
		65 (149)	75 (167)	T4	A, B, C, D	T4	T4A	F, G

“T” Numbers Represent the Maximum Internal Temperature ② or Maximum Surface Temperature ③

“T” #	NEC/CEC															
	T1	350	325	T2	T2A	T2B	T2C	T2D	T3	T3A	T3B	T3C	T4	T4A	T5	T6
Temp. Range °C (°F)	351-450	326-350	301-325	281-300	261-280	231-260	216-230	201-215	181-200	166-180	161-165	136-160	121-135	101-120	86-100	85
	(664-842)	(619-662)	(574-617)	(538-572)	(502-536)	(448-500)	(421-446)	(394-419)	(358-392)	(331-356)	(322-329)	(277-320)	(250-275)	(214-248)	(187-212)	(185)

Luminaire Comparison Chart

Catalog Number	Line Current Amps	Input Power	Power Factor	THD	Lumens			Color Temp CCT	Length m (ft)
					Clear Polycarbonate	Diffused Polycarbonate	CRI		
Standard Operation									
LLEDA12LU2H	.21@120V .11@277V	24	>0.95 >0.87	<20%	2200	1800	70	5650K	0.842 (3)
LLEDA15LU2H	.43@120V .20@277V	45	>.95	<20%	4400	3800	70	5650K	0.842 (3)
LLEDA17LU2H	.73@120V .33@277V	83	>.95	<20%	7800	6400	70	5650K	1.22 (4)
90 Minute Emergency Mode									
LLEDA12LU2H	2.3@6.6V	15	1.00	0	1250	1000	70	5650K	0.842 (3)
LLEDA15LU2H	2.3@6.6V	15	1.00	0	1250	1000	70	5650K	0.842 (3)
LLEDA17LU2H	2.3@6.6V	15	1.00	0	1250	1000	70	5650K	1.22 (4)

① T codes provided in catalog pages are based on worst case data.

② T numbers represent the maximum internal temperature for Class I, Division 2 and Class I, Zone 2 locations designated by the NEC.

③ T numbers represent the maximum surface temperature under a dust blanket for Class II, Division 1 and 2 as designated by the NEC.

⌘ Fusing option not available with Marine Outside Type (Salt Water) rating. Fusing option not permitted for cUL.

Viamaster™ LED Series Emergency Battery Backup Luminaires

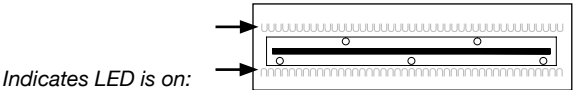
For NEC and CEC Hazardous Locations

NEC/CEC:
 Class I, Division 2, Groups A, B, C, D
 Class I, Zone 2, Group IIC
 Class II, Division 2, Groups F, G
 Class III
 Type 3R, 4, 4X

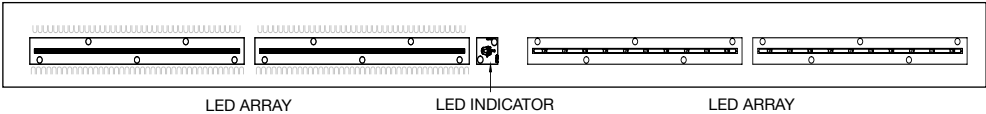
NEC/CEC:
 Marine Outside Type- For USA Only ⌘
 IP66/67

Emergency Mode

Illustration of LED operation in Emergency Mode

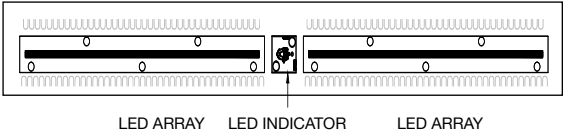


7,000 Lumen Version — 1.22 m (4 ft)



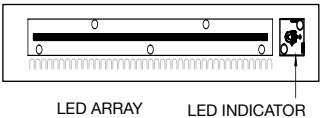
Two arrays on, two arrays off.

5,000 Lumen Version — 0.843 m (3 ft)



Both arrays on.

2,000 Lumen Version — 0.843 m (3 ft)



Array on.

Battery Charging Circuit Specifications						
Battery Charge Current:	Battery Intermittent Charge:	Battery Type:	Battery Quantity:	Battery Voltage (total):	Battery Capacity:	Battery Charge Time:
300 mA	60 mA	“D” Cell NiMH	5	6 V nominal	6 A-hr	24 hrs

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LED / AREA: NEC/CEC EMERGENCY



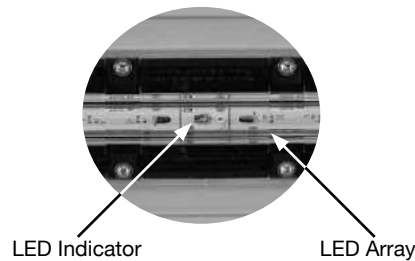
Viamaster™ LED Series Emergency Battery Backup Luminaires

For NEC and CEC Hazardous Locations

NEC/CEC:
 Class I, Division 2, Groups A, B, C, D
 Class I, Zone 2, Group IIC
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 Type 3R, 4, 4X

NEC/CEC:
 Marine Outside Type- For USA Only ⚡
 IP66/67

Automatic Testing System (ATS)	
Functional	Full Duration
Starts within 24 to 45 hours after the initial powerup of the module	Starts within 14 to 35 days after the initial power of the module
Occurs every 14 days after the initial aforementioned functional test	Occurs every 364 days after the initial aforementioned functional test
Lasts for 5 minutes	Lasts for the full duration of the rated emergency period
At the completion of functional and full duration tests, LED indicator will display the status of the emergency luminaire when AC is present	



Color	LED Signals	
	Timing	Description
Green	1 sec ON: 1 sec OFF	Charging ok, Battery not yet fully charged, No fault detected, Testing ok
Green	0.25 sec ON: 0.25 sec OFF	Functional / Duration Test on-going
Green	Steady ON	Charging ok, Battery fully charged, No fault detected, Testing ok
Red	1 sec ON: 1 sec OFF	Installation issue. Battery is reverse, not connected or shorted. Functional test failure, full duration test failure
Indicator OFF, LED Array ON	LED OFF	No AC, Emergency mode ON

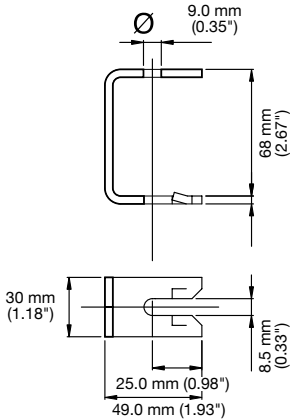
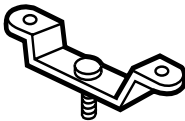
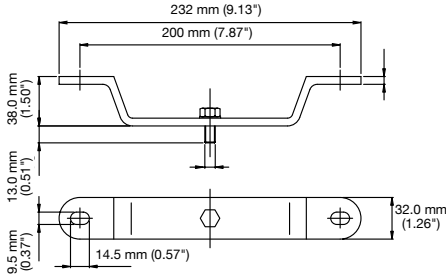
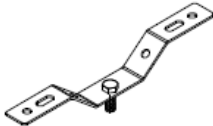
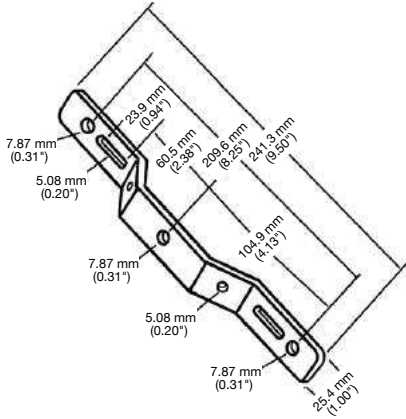
⚡ Fusing option not available with Marine Outside Type (Salt Water) rating. Fusing option not permitted for cUL.

Viamaster™ LED Series Emergency Battery Backup Luminaires

For NEC and CEC Hazardous Locations

NEC/CEC:	NEC/CEC:
Class I, Division 2, Groups A, B, C, D	Marine Outside Type- For USA Only
Class I, Zone 2, Group IIC	⚡
Class II, Division 2, Groups F, G	IP66/67
Class III	
Type 3R, 4, 4X	

Accessories and Replacement Parts

	Description	Catalog Numbers
Mounting Brackets — Set of Two		
 	Fixing Brackets for Surface Installation 316 stainless steel	FEFBS
 	Surface Mounting Aluminium (gray painted) 316 stainless steel	FESBA FESBS
 	Surface Mounting 14-gauge stainless steel	FVSM

⚡ Fusing option not available with Marine Outside Type (Salt Water) rating. Fusing option not permitted for cUL.

Viamaster™ LED Series Emergency Battery Backup Luminaires

For NEC and CEC Hazardous Locations

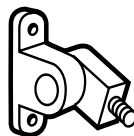
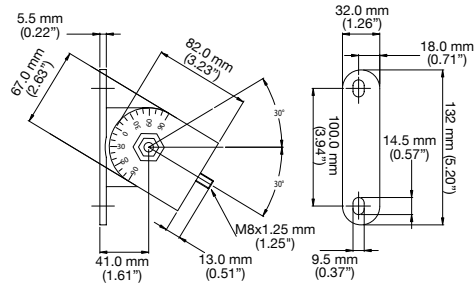
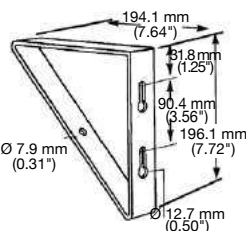
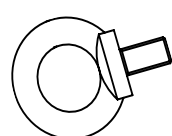
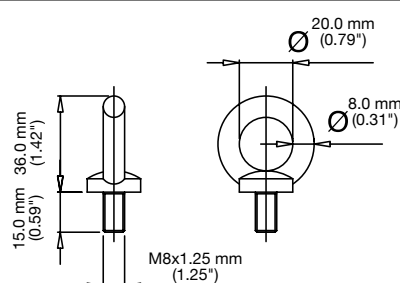
NEC/CEC:

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Class I, Zone 2, Group IIC
Class II, Division 2, Groups F, G
Class III
Type 3R, 4, 4X

NEC/CEC:

Marine Outside Type- For USA Only
%
IP66/67

Accessories and Replacement Parts

		Description	Catalog Numbers
Mounting Brackets — Set of Two			
		Hinged Brackets for Adjusting Luminaire Aluminum	FEHBA
Fixed 45° Wall Mount			
		11-gauge (1/8") stainless steel	FVWFM
M8 Ring Bolts ①			
		Zinc plated steel — For use with optional safety chain (not provided) <i>Not for use with Marine Listing</i>	FERBM8Z
Safety Cables — Set of Two		Safety Cables — Attached to fixtures to guard against them falling when the primary method of attachment fails.	LLEDSC
Replacement Drivers		120-277 Vac driver	LLEDBU2
Replacement Lenses		Clear Polycarbonate lens with an integral gasket	LLEDCLPL
		Diffused lens with an integral gasket	LLEDDPL
Replacement Battery Management Module			BMMLED
Replacement Battery Pack			BPLLED

① Not for use in Marine applications.

% Fusing option not available with Marine Outside Type (Salt Water) rating. Fusing option not permitted for cUL.

Viamaster™ LED Series Emergency Battery Backup Luminaires

For NEC and CEC Hazardous Locations

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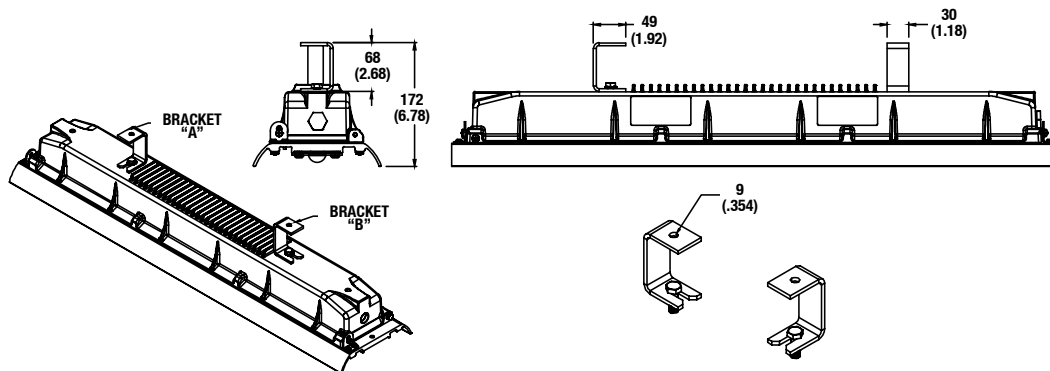
NEC/CEC:

Marine Outside Type- For USA Only ⌘
IP66/67

Mounting Options Dimensions in Millimeters (Inches)

FEFBS

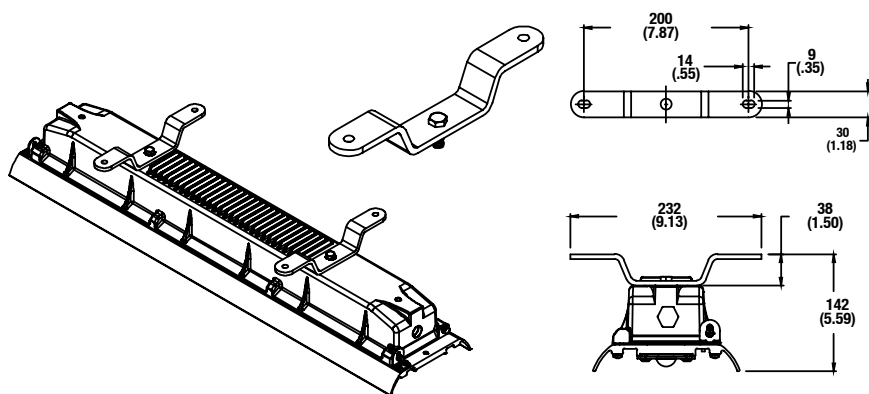
Ceiling/Surface Mount



FESBA Aluminum (gray painted)

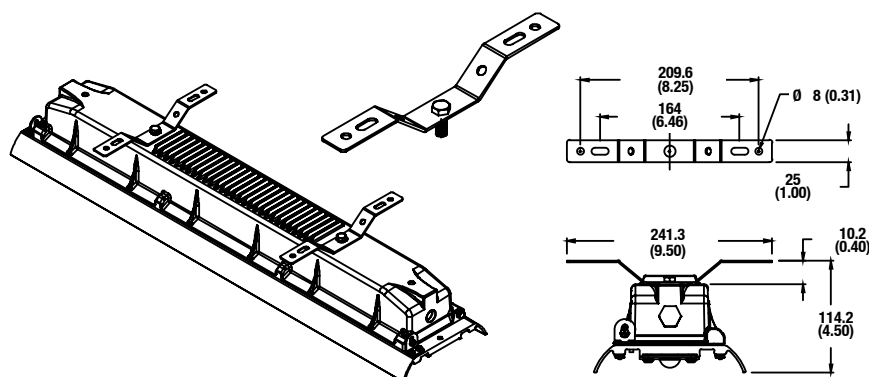
FESBS 316 stainless steel

Ceiling/Surface Mount



FVSM

Ceiling/Surface Mount



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Viamaster™ LED Series Emergency Battery Backup Luminaires

For NEC and CEC Hazardous Locations

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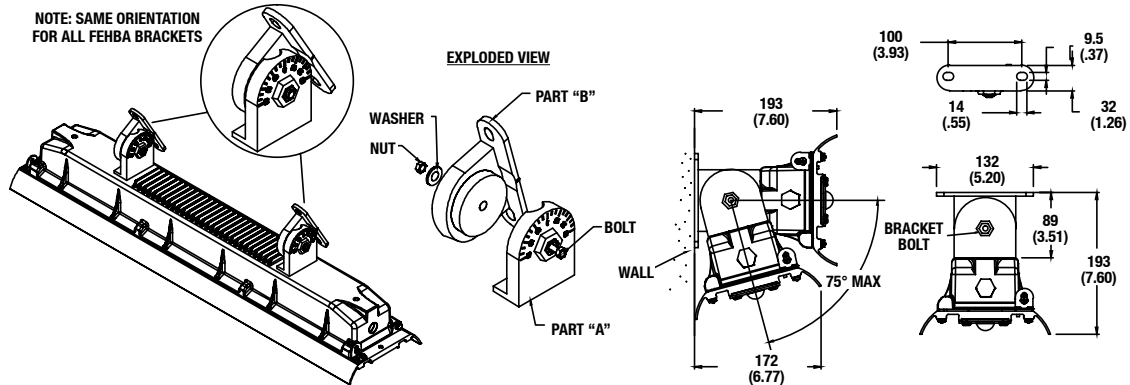
NEC/CEC:

Marine Outside Type- For USA Only ⌘
 IP66/67

Mounting Options (continued) Dimensions in Millimeters (Inches)

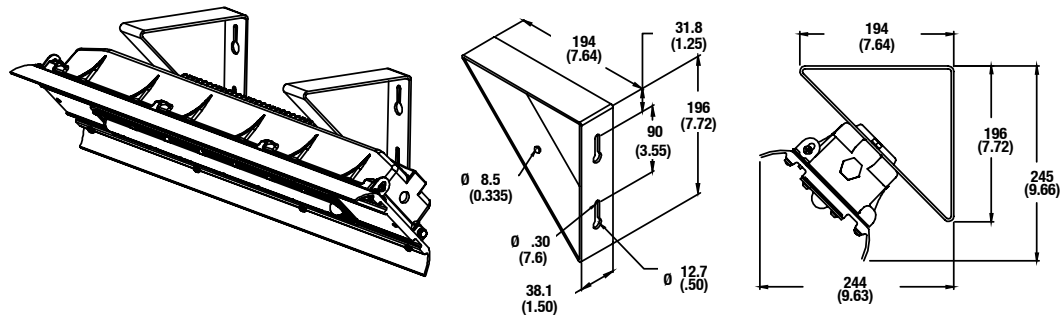
FEHBA

Wall/Hinged Mount



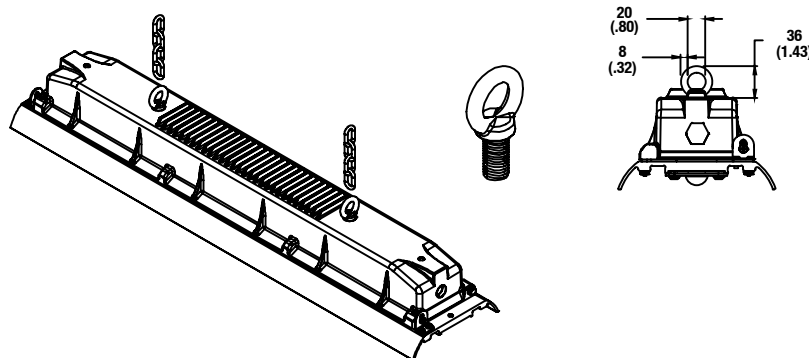
FVWFM

Wall/Fixed 45° Mount



FERBM8Z

Ceiling/Chain Mount



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Viamaster™ LED Series Emergency Battery Backup Luminaires

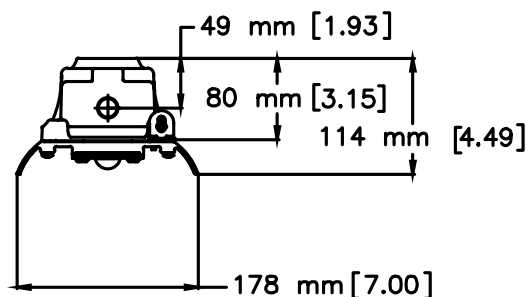
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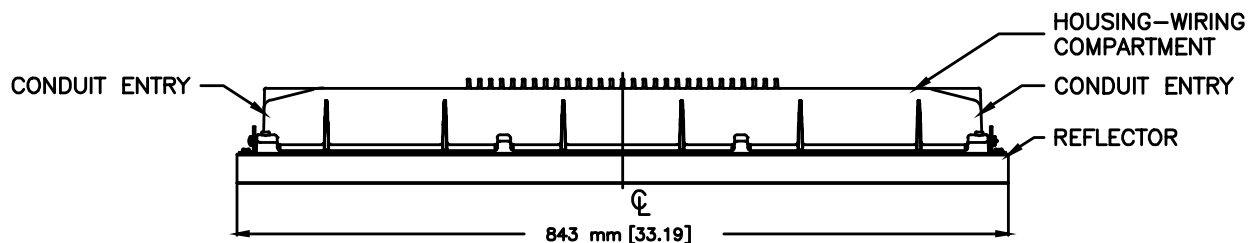
NEC/CEC:
Marine Outside Type- For USA Only ⌘
IP66/67

Luminaire Dimensions in Millimeters (Inches)

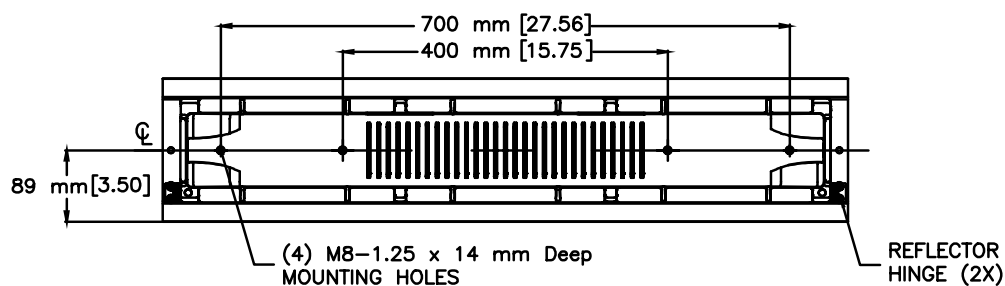
LLEDA12H and LLEDA15H



End View — 843 mm (33.19 in) Versions



Side View — 843 mm (33.19 in) Versions



Top (Mounting) View — 843 mm (33.19 in) Versions

LED / AREA: NEC/CEC EMERGENCY

Appleton®

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Viamaster™ LED Series Emergency Battery Backup Luminaires

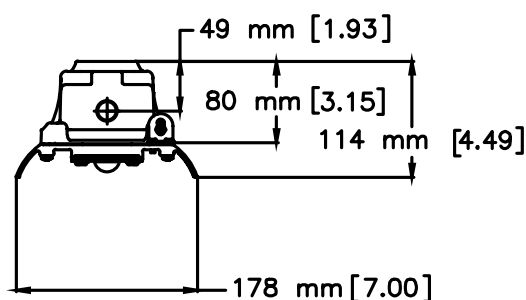
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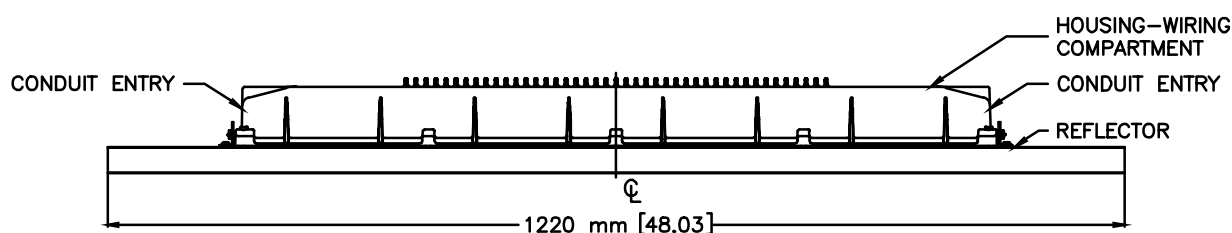
NEC/CEC:
 Marine Outside Type- For USA Only ⌘
 IP66/67

Luminaire Dimensions in Millimeters (Inches)

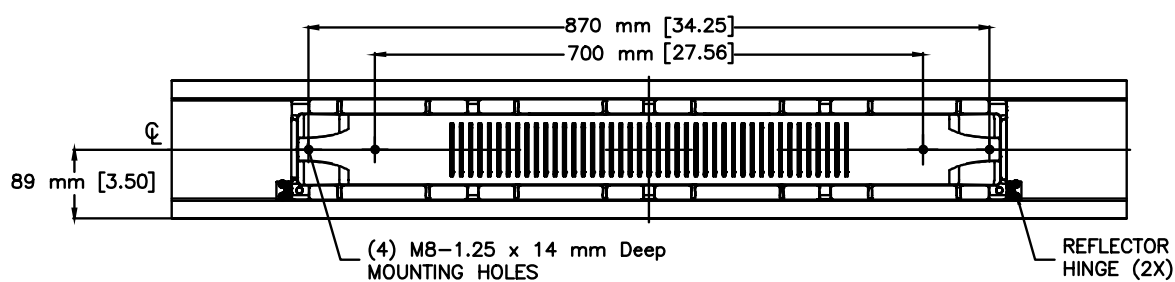
LLEDA17H



End View — 1,220 mm (44.09 in) Versions



Side View — 1,220 mm (44.09 in) Versions



Top (Mounting) View — 1,220 mm (44.09 in) Versions

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NEC/CEC:
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 IP66/67

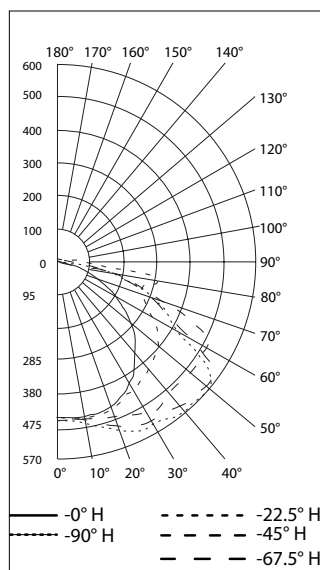
Photometric Data — DATA SHOWN IS ABSOLUTE

LLEDA12LU2H with Clear Polycarbonate Lens — Standard Mode

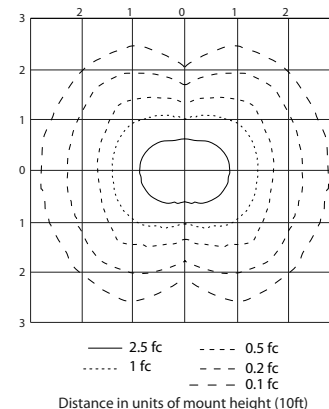
Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire	Zone	Lumens	% Luminaire
0-30	424.1	20.2	0-10	46.7	2.2
0-40	741.2	35.4	10-20	140.9	6.7
0-60	1521	72.6	20-30	236.4	11.3
60-90	573.3	27.4	30-40	317.2	15.1
0-90	2094	100.0	40-50	378.4	18.1
90-180	0.3	0.0	50-60	401.5	19.2
0-180	2095	100.0	60-70	324.6	15.5
			70-80	209.6	10.0
			80-90	39.1	1.9
			90-100	0.3	0.0

Polar Candela Distribution



Isoillumination Plot

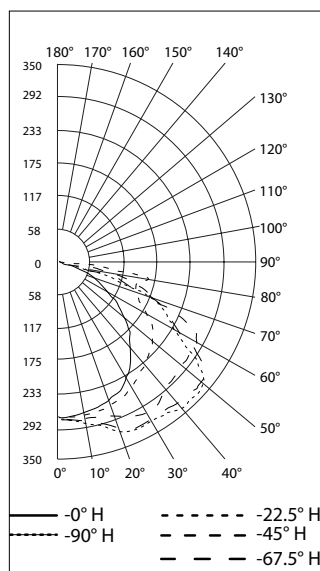


LLEDA12LU2H with Clear Polycarbonate Lens — Emergency Mode

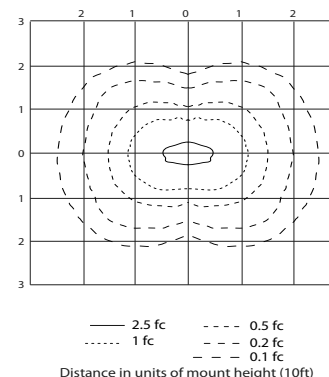
Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire	Zone	Lumens	% Luminaire
0-30	243.3	20.3	0-10	26.8	2.2
0-40	423.5	35.3	10-20	80.9	6.7
0-60	863.5	71.9	20-30	135.6	11.3
60-90	337.3	28.1	30-40	180.3	15.0
0-90	1201	100.0	40-50	213.9	17.8
90-180	0.1	0.0	50-60	226.0	18.8
0-180	1201	100.0	60-70	188.3	15.7
			70-80	123.1	10.2
			80-90	26.0	2.2
			90-100	0.1	0.0

Polar Candela Distribution



Isoillumination Plot



LED / AREA: NEC / CEC EMERGENCY

Appleton®

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NEC/CEC:
 Marine Outside Type- For USA Only ⌘
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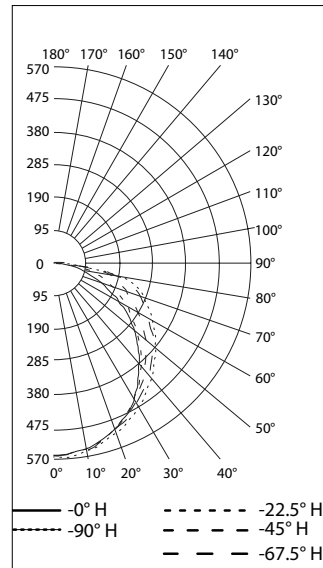
Photometric Data — DATA SHOWN IS ABSOLUTE

LLEDA12LU2DH with Diffused Polycarbonate Lens — Standard Mode

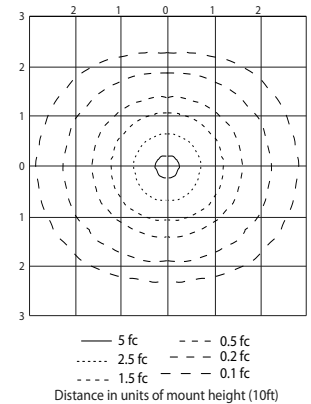
Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire	Zone	Lumens	% Luminaire
0-30	429.7	24.6	0-10	52.8	3.0
0-40	702.7	40.3	10-20	150.5	8.6
0-60	1264	72.4	20-30	226.5	13.0
60-90	482.0	27.6	30-40	272.9	15.6
0-90	1746	100.0	40-50	287.4	16.5
90-180	0.0	0.0	50-60	273.6	15.7
0-180	1746	100.0	60-70	236.9	13.6
			70-80	183.1	10.5
			80-90	62.1	3.6

Polar Candela Distribution



Isoillumination Plot

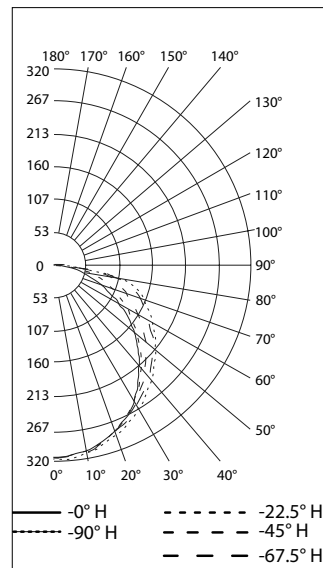


LLEDA12LU2DH with Diffused Polycarbonate Lens — Emergency Mode

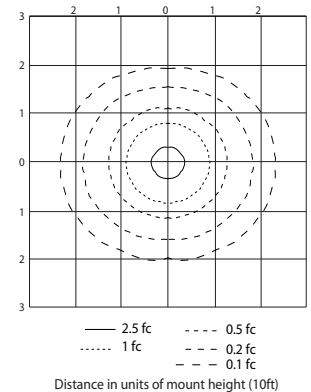
Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire	Zone	Lumens	% Luminaire
0-30	239.3	24.6	0-10	29.4	3.0
0-40	391.3	40.2	10-20	83.8	8.6
0-60	704.3	72.4	20-30	126.1	13.0
60-90	268.1	27.6	30-40	152.0	15.6
0-90	972.3	100.0	40-50	160.4	16.5
90-180	0.0	0.0	50-60	152.6	15.7
0-180	972.4	100.0	60-70	132.2	13.6
			70-80	102.2	10.5
			80-90	33.6	3.5

Polar Candela Distribution



Isoillumination Plot



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Viamaster™ LED Series Emergency Battery Backup Luminaires

For NEC and CEC Hazardous Locations

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 Class I, Division 2, Groups A, B, C, D
 Class I, Zone 2, Group IIC
 Class II, Division 2, Groups F, G
 Class III
 Type 3R, 4, 4X

NEC/CEC:
 Marine Outside Type- For USA Only ⌘
 IP66/67

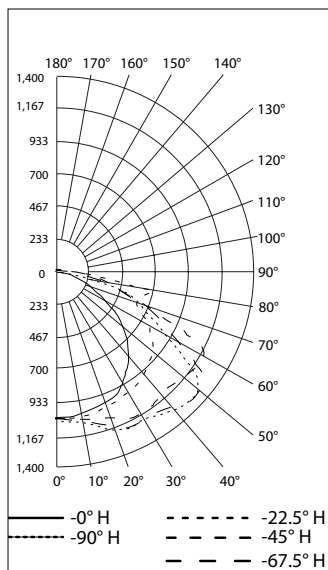
Photometric Data — DATA SHOWN IS ABSOLUTE

LLEDA15LU2H with Clear Polycarbonate Lens — Standard Mode

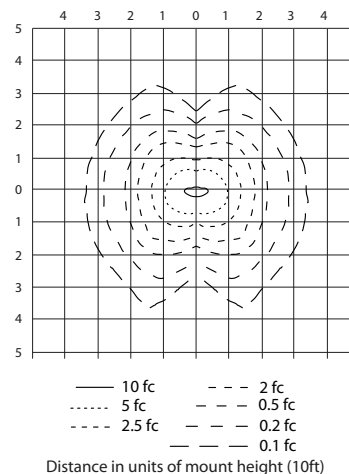
Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire	Zone	Lumens	% Luminaire
0-30	912.8	20.3	0-10	100.4	2.2
0-40	1593	35.5	10-20	303.6	6.8
0-60	3282	73.0	20-30	508.8	11.3
60-90	1206	26.8	30-40	680.0	15.1
0-90	4488	99.9	40-50	822.5	18.3
90-180	4.5	0.1	50-60	866.3	19.3
0-180	4492	100.0	60-70	682.0	15.2
			70-80	438.3	9.8
			80-90	85.9	1.9
			90-100	4.2	0.1
			100-110	0.3	0.0

Polar Candela Distribution



Isoillumination Plot

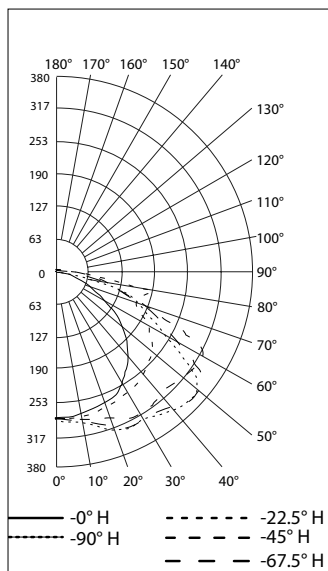


LLEDA15LU2H with Clear Polycarbonate Lens — Emergency Mode

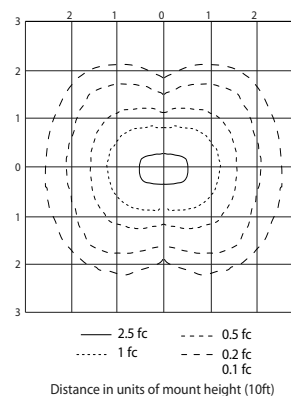
Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire	Zone	Lumens	% Luminaire
0-30	260.7	19.9	0-10	28.7	2.2
0-40	455.2	34.7	10-20	86.6	6.6
0-60	939.1	71.6	20-30	145.4	11.1
60-90	371.6	28.3	30-40	194.4	14.8
0-90	1311	100.0	40-50	233.1	17.8
90-180	0.4	0.0	50-60	250.8	19.1
0-180	1311	100.0	60-70	209.7	16.0
			70-80	133.0	10.1
			80-90	28.9	2.2
			90-100	0.4	0.0
			100-110		

Polar Candela Distribution



Isoillumination Plot



⌘ Fusing option not available with Marine Outside Type (Salt Water) rating. Fusing option not permitted for cUL.

Viamaster™ LED Series Emergency Battery Backup Luminaires

For NEC and CEC Hazardous Locations

NEC/CEC:
 Class I, Division 2, Groups A, B, C, D
 Class I, Zone 2, Group IIC
 Class II, Division 2, Groups F, G
 Class III
 Type 3R, 4, 4X

NEC/CEC:
 Marine Outside Type- For USA Only ⌘
 IP66/67

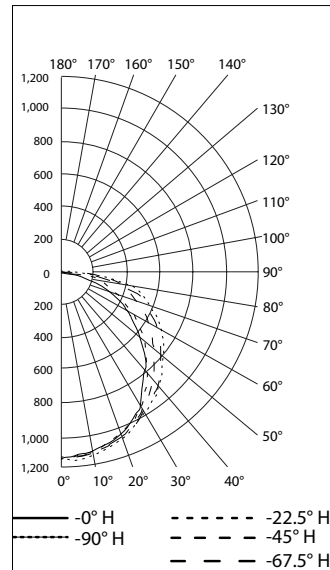
Photometric Data — DATA SHOWN IS ABSOLUTE

LLEDA15LU2DH with Diffused Polycarbonate Lens — Standard Mode

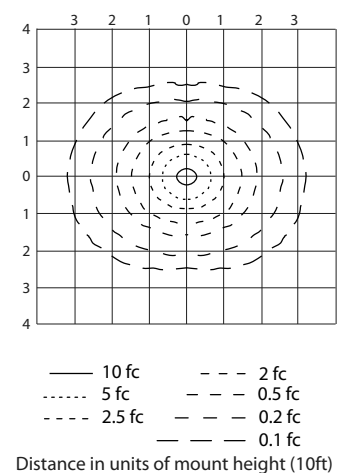
Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire	Zone	Lumens	% Luminaire
0-30	884.1	24.3	0-10	108.2	3.0
0-40	1450	39.8	10-20	308.9	8.5
0-60	2618	71.9	20-30	467.0	12.8
60-90	1017	27.9	30-40	565.5	15.5
0-90	3635	99.8	40-50	598.1	16.4
90-180	7.9	0.2	50-60	570.3	15.7
0-180	3643	100.0	60-70	494.4	13.6
			70-80	382.9	10.5
			80-90	139.8	3.8
			90-100	7.4	0.2
			100-110	0.5	0.0

Polar Candela Distribution



Isoillumination Plot

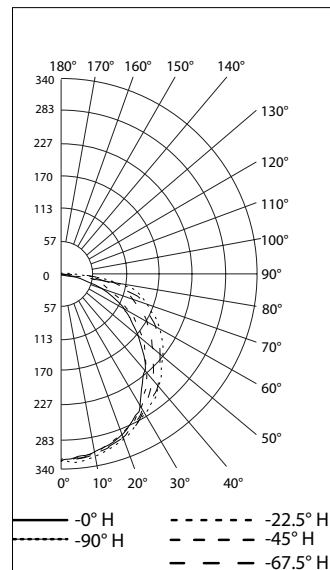


LLEDA15LU2DH with Diffused Polycarbonate Lens — Emergency Mode

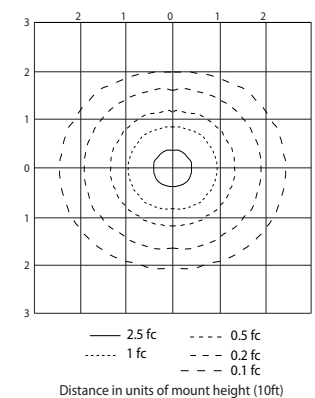
Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire	Zone	Lumens	% Luminaire
0-30	256.6	24.2	0-10	31.4	3.0
0-40	421.3	39.8	10-20	89.6	8.5
0-60	763.1	72.1	20-30	135.6	12.8
60-90	295.6	27.9	30-40	164.7	15.6
0-90	1059	100.0	40-50	174.6	16.5
90-180	0.3	0.0	50-60	167.1	15.8
0-180	1059	100.0	60-70	145.4	13.7
			70-80	112.5	10.6
			80-90	37.7	3.6
			90-100	0.3	0.0

Polar Candela Distribution



Isoillumination Plot



⌘ Fusing option not available with Marine Outside Type (Salt Water) rating. Fusing option not permitted for cUL.

Viamaster™ LED Series Emergency Battery Backup Luminaires

For NEC and CEC Hazardous Locations

NEC/CEC:
Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, Group IIC
Class II, Division 2, Groups F, G
Class III
Type 3R, 4, 4X

NEC/CEC:
Marine Outside Type- For USA Only ¾
IP66/67

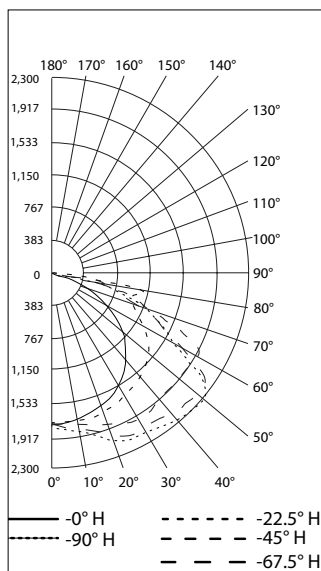
Photometric Data — DATA SHOWN IS ABSOLUTE

LLEDA17LU2H with Clear Polycarbonate Lens — Standard Mode

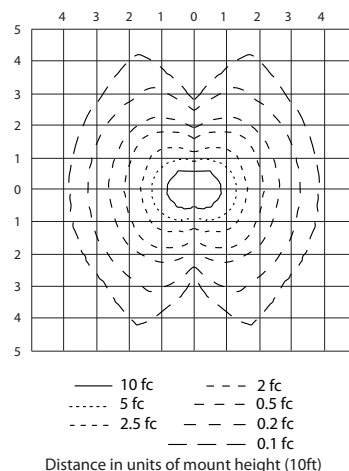
Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire	Zone	Lumens	% Luminaire
0-30	1560	20.0	0-10	170.7	2.2
0-40	2728	34.9	10-20	518.4	6.6
0-60	5631	72.1	20-30	870.5	11.2
60-90	2171	27.8	30-40	1168	15.0
0-90	7802	100.0	40-50	1406	18.0
90-180	2.8	0.0	50-60	1497	19.2
0-180	7805	100.0	60-70	1229	15.7
			70-80	785.7	10.1
			80-90	156.6	2.0
			90-100	2.7	0.0

Polar Candela Distribution



Isoillumination Plot

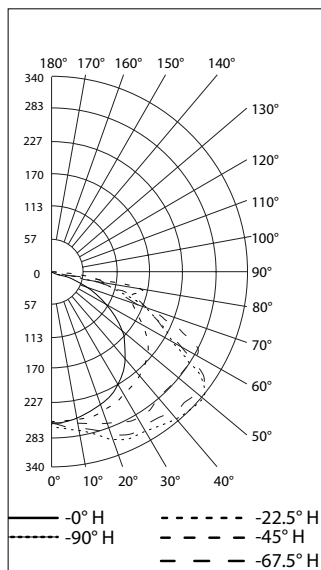


LLEDA17LU2H with Clear Polycarbonate Lens — Emergency Mode

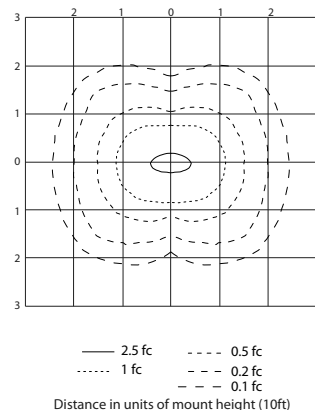
Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire	Zone	Lumens	% Luminaire
0-30	234.0	19.9	0-10	25.7	2.2
0-40	408.1	34.7	10-20	77.9	6.6
0-60	840.6	71.4	20-30	130.4	11.1
60-90	335.1	28.5	30-40	174.0	14.8
0-90	1176	99.9	40-50	208.6	17.7
90-180	1.0	0.1	50-60	223.9	19.0
0-180	1177	100.0	60-70	186.3	15.8
			70-80	121.0	10.3
			80-90	27.9	2.4
			90-100	1.0	0.1

Polar Candela Distribution



Isoillumination Plot



¾ Fusing option not available with Marine Outside Type (Salt Water) rating. Fusing option not permitted for cUL.

Viamaster™ LED Series Emergency Battery Backup Luminaires

For NEC and CEC Hazardous Locations

NEC/CEC:
 Class I, Division 2, Groups A, B, C, D
 Class I, Zone 2, Group IIC
 Class II, Division 2, Groups F, G
 Class III
 Type 3R, 4, 4X

NEC/CEC:
 Marine Outside Type- For USA Only ⌘
 IP66/67

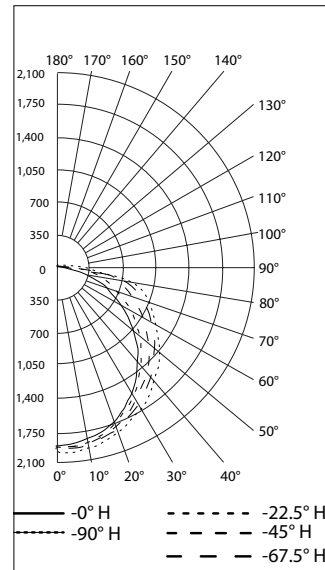
Photometric Data — DATA SHOWN IS ABSOLUTE

LLEDA17LU2DH with Diffused Polycarbonate Lens — Standard Mode

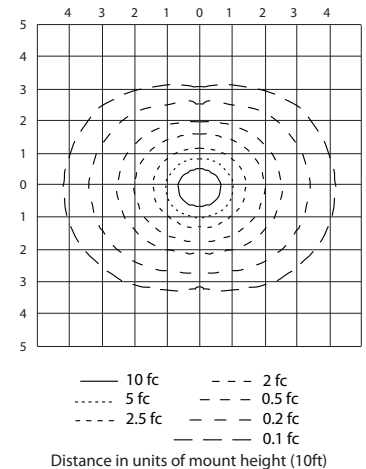
Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire	Zone	Lumens	% Luminaire
0-30	1518	24.1	0-10	185.3	2.9
0-40	2494	39.5	10-20	529.7	8.4
0-60	4528	71.8	20-30	802.9	12.7
60-90	1775	28.1	30-40	976.2	15.5
0-90	6303	99.9	40-50	1038	16.5
90-180	3.4	0.1	50-60	995.8	15.8
0-180	6307	100.0	60-70	868.1	13.8
			70-80	673.7	10.7
			80-90	233.4	3.7
			90-100	3.4	0.1

Polar Candela Distribution



Isoillumination Plot

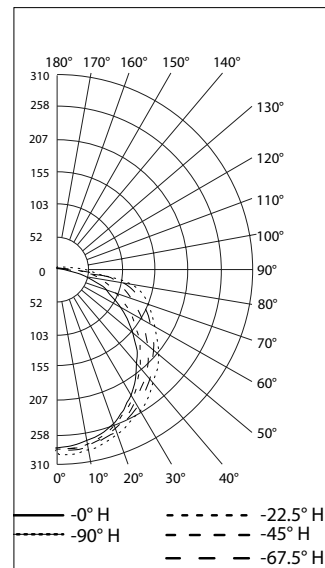


LLEDA17LU2DH with Diffused Polycarbonate Lens — Emergency Mode

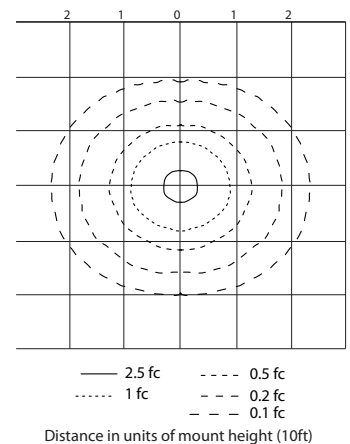
Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire	Zone	Lumens	% Luminaire
0-30	232.0	24.2	0-10	28.4	3.0
0-40	380.8	39.7	10-20	81.0	8.4
0-60	690.0	71.9	20-30	122.6	12.8
60-90	269.3	28.1	30-40	148.8	15.5
0-90	959.4	99.9	40-50	157.9	16.5
90-180	0.7	0.1	50-60	151.3	15.8
0-180	960.1	100.0	60-70	131.9	13.7
			70-80	102.4	10.7
			80-90	35.0	3.6
			90-100	0.7	0.1

Polar Candela Distribution



Isoillumination Plot



⌘ Fusing option not available with Marine Outside Type (Salt Water) rating. Fusing option not permitted for cUL.

N2LED Series Emergency Luminaires

Non-Metallic Emergency Egress Lighting Systems with Remote or Direct Mounted Lamps.

NEC/CEC:

Class I, Division 2, Groups A, B, C, D

Class I, Zone 2, Group IIC

NEMA Type 4X

IP66

Marine Outside Type (Salt Water)

Applications

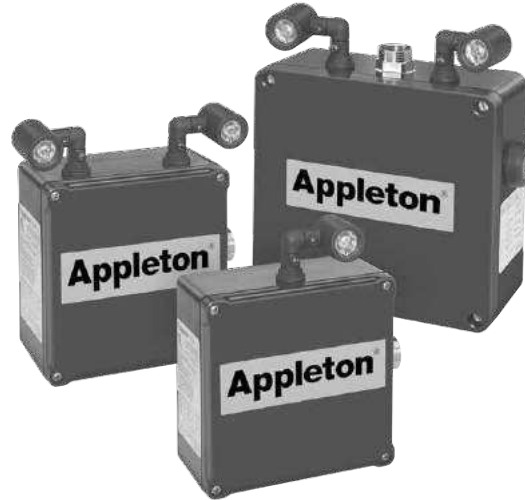
- Enclosed and gasketed, non-metallic emergency lighting system suitable for use in areas where flammable gases or vapors may become present due to abnormal, unusual or accidental conditions defined by NEC as Class I, Division 2, Groups A, B, C and D and Class I, Zone 2, Group IIC.
- Typical applications include manufacturing plants, refineries, petrochemical and chemical plants, waste and sewerage treatment facilities, food processing facilities, and other industrial manufacturing or process facilities subject to wet or corrosive conditions.
- Non-hazardous areas where dirt, dust or corrosion would reduce life of ordinary emergency lighting systems.

Features

- Enclosures are raintight and suited for operation in highly corrosive and wet locations.
- The electronics consist of a solid-state charger, transfer circuit and low voltage battery disconnect circuit.
- The integrated, illuminated push to test button is mounted on the system housing using a neoprene O-ring gasket to seal out moisture and liquids.
- Capacity is sufficient for the connection of 6 output watts (maximum).
- System supports 4 light heads in any main/remote combination utilizing up to 6 Watts of output power.
 - This allows for a main unit without any light heads to drive up to 4 remote units or any other combination of 4 lights.
- Provides 100% lumen output for 90 minutes of operation with four light heads or 180 minutes of operation with two light heads.
- The solid-state charger maintains battery at full charge
- Upon power failure or utility voltage (AC) below 50 V, the DC emergency lighting load is connected to the battery.
- During emergency operation, the battery is automatically protected from deep discharge damage by a low-voltage battery disconnect (LVD) circuit.
- Upon restoration of normal power, the charger brings the battery to full capacity within acceptable UL time standards.
- Integrated, illuminated push to test button:
 - Indicates presence of AC line voltage and system error codes
 - Activates push to test function
- A universal input circuit allows operation from 120 to 277 Vac, 50/60 Hz lines.
- Maintenance-free NiCd battery is suited for harsh temperature environments of 0 °C to +55 °C (+32 to +131 °F).
- Remote lamp head assemblies (one or two) are available for mounting of lamp heads away from main power supply system.
- An automatic test feature provides periodic self-test of the system functions every 30 days.
- Status indicator light allows easy monitoring of system status and failure modes.

Standard Materials

- Lighting system:
 - Body: fiberglass reinforced polyester
 - Cover gasket: continuous silicone
 - Push to test switch: fiberglass reinforced polyester (FRP), neoprene gaskets
 - Hub: nickel plated brass
 - Cover screws: stainless steel
 - Lampheads: aluminum



- Remote unit:
 - Body: fiberglass reinforced polyester (FRP); specially formulated with low resistivity, will not hold static charge
 - Cover screws: stainless steel
 - Gasket: neoprene gasket

NEC/CEC Certifications and Compliances

- UL Standards:
 - 1598A (Supplemental Requirements for Luminaires for Installation on Marine Vessels)
 - 924 (Emergency Lighting and Power Equipment)
 - 844 (Electric Luminaires Hazardous Locations)
- CSA Standards:
 - C22.2 No. 141-M1985 unit equipment for emergency lighting
 - C22.2 No. 137-M1981 non-incendive electrical equipment for use in Class I, Division 2 hazardous locations
- Life Safety Code NFPA101® – Section 5-9 (Emergency Lighting)
- Marine wet locations suitability, Type 4X
- cCSAus Certified: 2715744

N2LED Series Emergency Luminaires

Enclosed and Gasketed

Non-Metallic Emergency Egress Lighting Systems with Remote or Direct Mounted Lamps.

NEC/CEC:

Class I, Division 2, Groups A, B, C, D

Class I, Zone 2, Group IIC

NEMA Type 4X

IP66

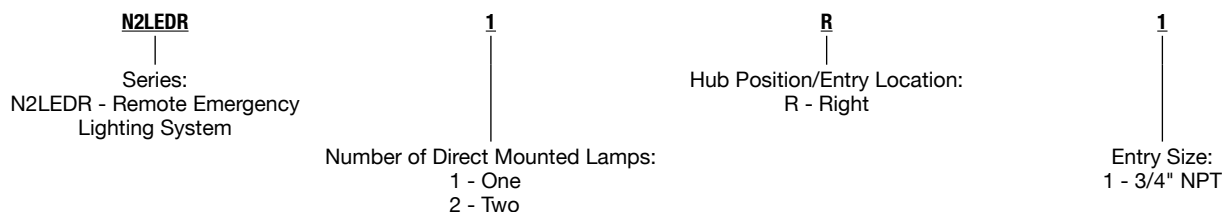
Marine Outside Type (Salt Water)

Order using catalog numbering guide below or select catalog number from tables on following pages.

Catalog Numbering Guide For N2LED Master Units



Catalog Numbering Guide For N2LED Remote Units



Thermal Performance — Operating Temperatures

Wire Supply	Ambient Temperature	"T" Number
60 °C (140 °F)	0 °C to +55 °C (+32 °F to +131 °F).	T6

"T" Numbers Represent the Maximum Lamp Temperature for Class I, Division 2 Locations

"T" Number	T1	350	325	T2	T2A	T2B	T2C	T2D	T3	T3A	T3B	T3C	T4	T4A	T5	T6
Temp Range (°C)	351-450	326-350	301-325	281-300	261-280	231-260	216-230	201-215	181-200	166-180	161-165	136-160	121-135	101-120	86-100	85
Temp. Range (°F)	664-842	619-662	574-617	538-572	502-536	448-500	421-446	394-419	358-392	331-356	322-329	277-320	250-275	214-248	187-212	185

N2LED Series Emergency Luminaires

Enclosed and Gasketed

Non-Metallic Emergency Egress Lighting Systems with Remote or Direct Mounted Lamps.

NEC/CEC:

Class I, Division 2, Groups A, B, C, D

Class I, Zone 2, Group IIC

NEMA Type 4X

IP66

Marine Outside Type (Salt Water)

Lamp Comparison Chart

Number of LED Lamps	Input Power	Lumens	CRI	Lamp Life (Hours)	Color Temp CCT
1	1.256 Watts	131.0	70	50,000+	5650K
2	2.513 Watts	257.8	70	50,000+	5650K

Photometric and Electrical Measurements at Ambient Temperature (25°C +/- 1°C) – Distribution Method

Number of LED Lamps	Base Orientation	Input Voltage Vdc	Input Current (mA)	Input Power (Watts)	Input Power Factor	Absolute Luminous Flux (Lumens)	Lumen Efficacy (Lumens Per Watt)
1	Up	2.9	437.0	1.256	1.000	131.0	104.3
2	Up	2.9	874.0	2.513	1.000	257.8	102.6

Wire Sizing For Remote Installations

For copper wire, maximum distance (feet) between power supply and remote unit to limit voltage drop to 5%.

Wire Gage	Maximum Wire Length m (ft)
18 AWG	23.8 (78)
16 AWG	38.1 (125)
14 AWG	60.4 (198)
12 AWG	96.0 (315)
10 AWG	152.4 (500)

System Status

Status Indication	Status Description	Status Definition
	No light	AC power removed from circuit
*	Continuous steady light	Battery fully charged
* *	Light blinks once	Battery charging
** **	Light blinks twice	Battery failure
*** ***	Light blinks three times	LED lamp head failure
**** ****	Light blinks four times	Emergency circuit charger board failure

N2LED Series Emergency Luminaires

Enclosed and Gasketed

Non-Metallic Emergency Egress Lighting Systems with Remote or Direct Mounted Lamps.

NEC/CEC:

Class I, Division 2, Groups A, B, C, D

Class I, Zone 2, Group IIC

NEMA Type 4X

IP66

Marine Outside Type (Salt Water)

Main System

	Number of LED Lamps	Total Watts of LED Lamps	Hub Size	Input Voltage	Frequency	Weight kg (lb)	Catalog Number

Emergency Lighting System With Two Direct Mount Lamps



2	3	3/4"	120-277	50/60 Hz	3.27 (7.2)	N2LED2T1

Emergency Lighting System Without Direct Mount Lamps



—	—	3/4"	120-277	50/60 Hz	3.04 (6.7)	N2LED0T1

Remote System

	Number of LED Lamps	Total Watts of LED Lamps	Hub Size	Hub Position	Weight kg (lb)	Catalog Number

Remote Mount With One Lamp



1	1.5	3/4"	Dead End Hub on Right	1.45 (3.2)	N2LEDR1R1

Remote Mount With Two Lamps



2	3	3/4"	Dead End Hub on Right	1.59 (3.5)	N2LEDR2R1

Replacement Parts

Description	Catalog Number
Emergency Lamp Kit	N2LEDLH
Emergency Battery Pack Kit	N2LEDBP
Emergency Circuit Charger Board Kit	N2LEDCB
Nickel Plated Brass M25 Male, 3/4" NPT Female Hub	737DM3T25

LED / AREA: NEC/CEC EMERGENCY

Appleton®

N2LED Series Emergency Luminares

Enclosed and Gasketed

Non-Metallic Emergency Egress Lighting Systems with Remote or Direct Mounted Lamps.

NEC/CEC:

Class I, Division 2, Groups A, B, C, D

Class I, Zone 2, Group IIC

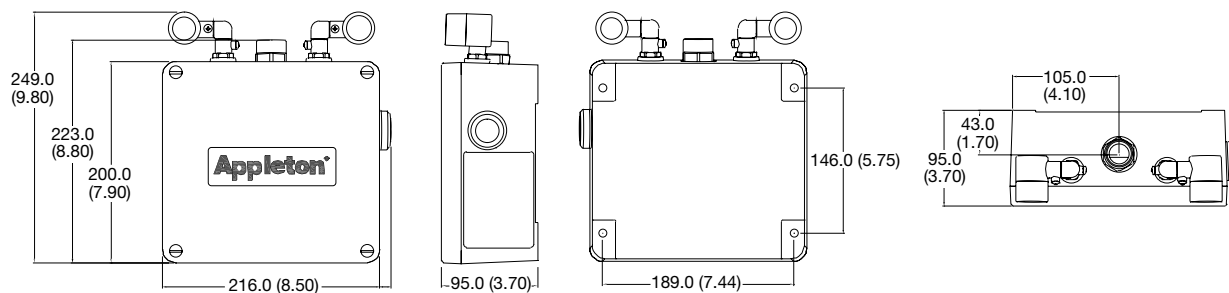
NEMA Type 4X

IP66

Marine Outside Type (Salt Water)

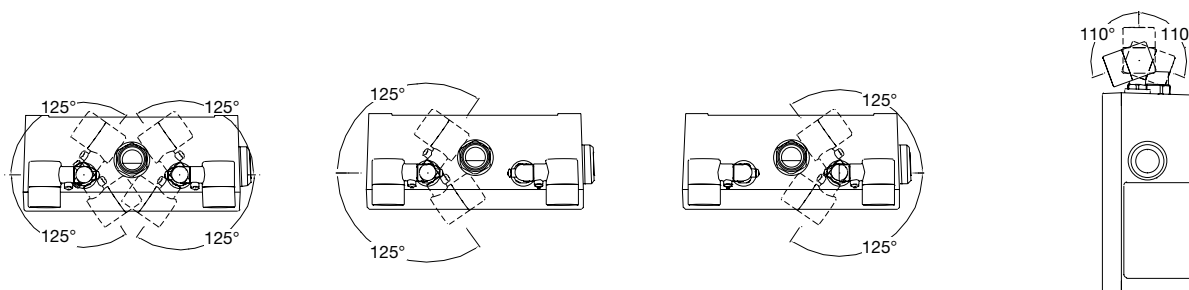
Dimensions in Millimeters (Inches)

Emergency Lighting System With Two Direct Mount Lamps

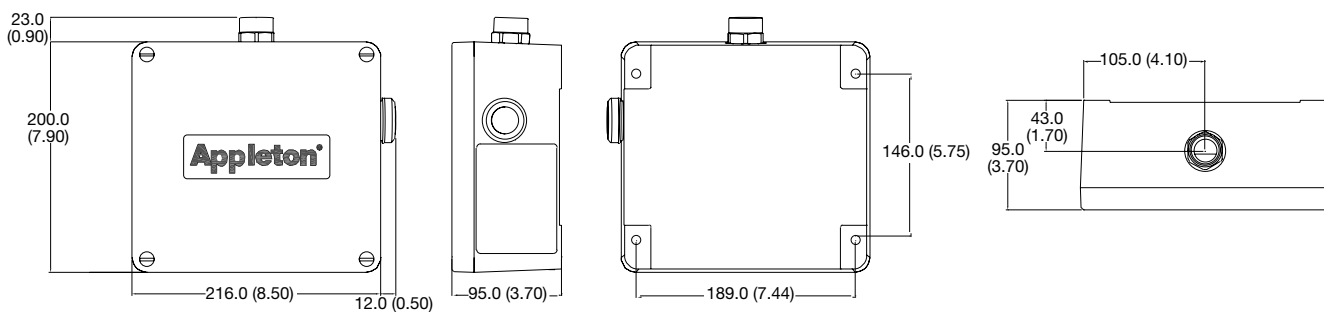


Adjustment Angle — Top View

Side View



Emergency Lighting System Without Direct Mount Lamps



N2LED Series Emergency Luminaires

Enclosed and Gasketed

Non-Metallic Emergency Egress Lighting Systems with Remote or Direct Mounted Lamps.

NEC/CEC:

Class I, Division 2, Groups A, B, C, D

Class I, Zone 2, Group IIC

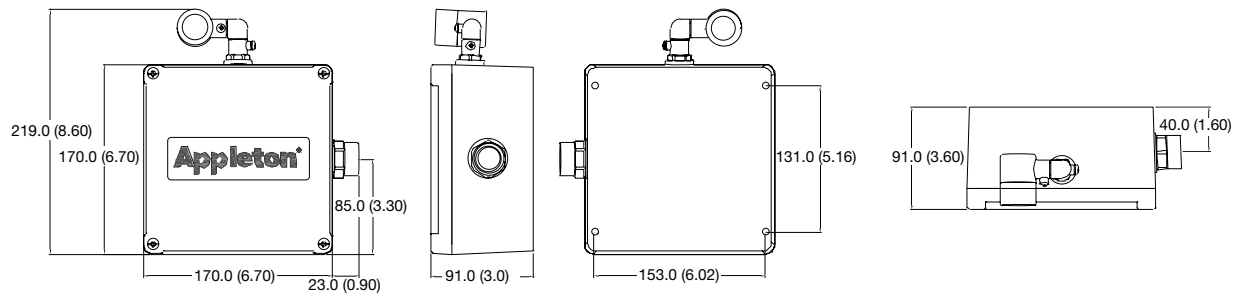
NEMA Type 4X

IP66

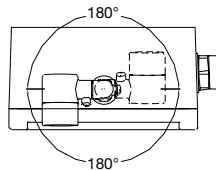
Marine Outside Type (Salt Water)

Dimensions in Millimeters (Inches)

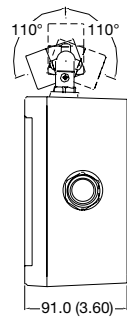
Remote Mount With One Lamp



Adjustment Angle — Top View



Side View



N2LED Series Emergency Luminaires

Enclosed and Gasketed

Non-Metallic Emergency Egress Lighting Systems with Remote or Direct Mounted Lamps.

NEC/CEC:

Class I, Division 2, Groups A, B, C, D

Class I, Zone 2, Group IIC

NEMA Type 4X

IP66

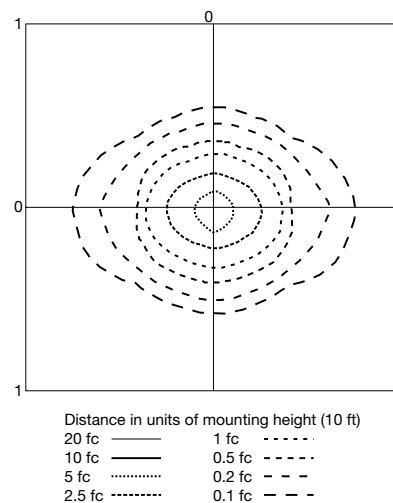
Marine Outside Type (Salt Water)

Photometric Data — DATA SHOWN IS ABSOLUTE

MODEL: N2LED, Wall Mount LED Emergency Luminaire, Single Lamp

Candela Distribution					
	0.0	22.5	45.0	67.5	90.0
0	663	663	663	663	663
5	603	569	547	540	527
10	377	350	370	394	391
15	188	172	202	249	255
20	86	80	97	123	119
25	36	34	42	41	46
30	15	14	16	30	36
35	6	6	9	20	25
40	3	3	6	11	14
45	2	2	4	5	3
50	2	2	3	2	2
55	2	2	2	2	2
60	1	1	1	1	1
65	0	0	1	1	1
70	0	0	0	0	0
75	0	0	0	0	0
80	0	0	0	0	0
85	0	0	0	0	0
90	0	0	0	0	0

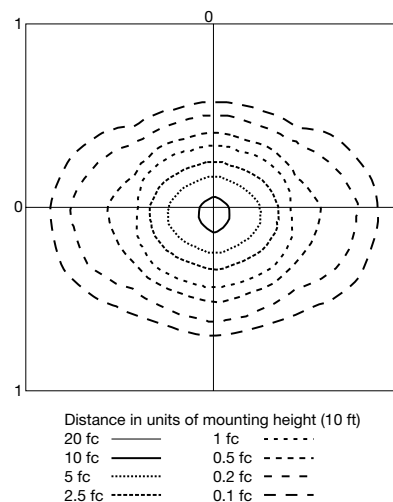
Zonal Lumen Summary		
Zone	Lumens	% Fixture
0-30	117.9	90.0
0-40	125.5	95.8
0-60	130.2	99.4
60-90	0.8	0.6
0-90	131.0	100.0
90-180	0.0	0.0
0-180	131.0	100.0



MODEL: N2LED, Wall Mount LED Emergency Luminaire, Two Lamp

Candela Distribution					
	0.0	22.5	45.0	67.5	90.0
0	1241	1241	1241	1241	1241
5	1196	1110	1049	1011	989
10	844	764	761	763	737
15	469	426	461	506	486
20	225	206	239	264	234
25	93	87	107	91	97
30	40	37	40	66	74
35	17	16	23	44	51
40	7	7	14	26	28
45	4	5	8	11	6
50	4	4	6	5	4
55	4	4	5	4	3
60	2	2	3	3	2
65	1	1	2	2	1
70	0	1	1	1	1
75	0	0	0	1	0
80	0	0	0	0	0
85	0	0	0	0	0
90	0	0	0	0	0

Zonal Lumen Summary		
Zone	Lumens	% Fixture
0-30	230.9	89.6
0-40	246.7	95.7
0-60	255.9	99.3
60-90	1.8	0.7
0-90	257.8	100.0
90-180	0.0	0.0
0-180	257.8	100.0



Industrial Mercmaster™ LED Low Profile Luminaires

For Ordinary Locations

NEC/CEC:
cULus Listed
Type 3R, 4, 4X
IP66
Suitable for Use in Wet Locations
Marine Outside Type (Salt Water)

Applications

- Ordinary location fixtures suitable for use in:
 - Heavy industrial locations where severe weather conditions, excessive moisture, dirt, dust, corrosive atmospheres, or high ambient temperatures are encountered.
 - Marine and wet locations
 - Areas of low clearance, low ceiling heights or where fixture weights must be minimized
- Typical applications include:
 - Manufacturing plants
 - Storage area/warehouse
 - Platforms
 - Loading docks
 - Food processing
 - Parking garages

Features

- Compact light weight low profile design is suited for low mounting heights.
- Six standard mounting hood designs allow for mounting in any location. Uses same mounting hoods as Mercmaster III.
- Customize to the application requirements with four different globe options: clear and diffused polycarbonate, clear glass, or prismatic glass refractor.
- Three light output levels for retrofit of HID fixtures up to 150 W.
- Hinge has high lip for added safety during installation and servicing. Hinge and bolt construction assures 360° compression at all points on fixture housing gasket for positive sealing. Swing away design of captive bolt and nut simplifies servicing.
- Operating ambient: -40 °C to 55 °C (-40 °F to +131 °F).
- Standard NPT threads.

Options

- Glass globe guard is stainless steel wire. Glass refractor guard is die cast aluminum with gray epoxy powder coating.
- All Mercmaster mounting hoods have provision for fusing; add suffix -F at the end of the catalog number.
- Photocontrols are available with all except ceiling and pendant cone mounting hoods, and are configured to your operating voltage.

Standard Materials

- Mounting hoods and bodies: cast copperfree (4/10 of 1% max.) aluminum
- All hardware and catch assemblies: stainless steel
- Globe: polycarbonate or glass
- Refractor: heat-resistant prismatic glass
- Glass globe guard: stainless steel wire
- Refractor guard: die cast aluminum
- 30° angle reflectors: fiberglass reinforced white polyester



Standard Finishes

- Mounting hoods, bodies and glass refractor guard: baked gray epoxy powder coat finish, electrostatically applied for complete uniform protection

NEC/CEC Certifications and Compliances

- UL Standard: UL 50/50E, UL 1598, UL 1598A, UL 8750
- CSA Standard: C22.2 No. 0; C22.2 No. 0.4; C22.2 No. 0.5; C22.2 No. 94.1/94.2; C22.2 No. 60529; C22.2 No. 250.0
- ANSI/IEC Standard: 60529
- cULus Listed: E279986
- DLC Qualified Products Listed

Related Products

- Photocells are available, see *PC Series*.
 - Mounting hoods with photocontrols are not rated IP66, Type 4X or Marine Outside Type (Salt Water)

DesignLights™ Consortium

- All Industrial Mercmaster™ LED Low Profile luminaires are listed and meet Design Lights Consortium performance standards.

Industrial Mercmaster™ LED Low Profile Luminaires

For Ordinary Locations

NEC/CEC:
cULus Listed
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IP66
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Marine Outside Type (Salt Water)

Illustrated Features

Heatsink

Reliable heat transfer via the cast, epoxy powder coat aluminum body. Provides maximum heat dissipation from the LED assembly to the outside environment.



Fuses (optional)

Two screws secure fuse kit to mounting boss in any Mercmaster mounting hood. Fuse included. Use of fuse voids Marine Outside type (salt water) rating.

Photocell (optional)

Available for all fixtures except cone and ceiling mount. Provides continuous ON-OFF dusk-to-dawn control. *Note: Fixtures with photocontrols are not rated IP66, Type 4X, Marine Outside Type (Salt Water), or Class II.*

Prismatic Refractors

Heat-resistant refractor threads directly into fixture housing and seal against a high-temperature silicone rubber gasket.



Vented Reflectors

Reflectors are thick, tough fiberglass reinforced white polyester. Quickly attach with furnished stainless steel screws.



Epoxy Finish

Fixture housing, hoods and guards are copperfree aluminum with epoxy powder coat finish.

Electrical Protection

Ground wire provided to bond mounting hood to fixture housing.

"Safety" High Hinge

Extra-high hinge provides additional protection against accidental fixture housing disengagement during installation or maintenance.



LED Chamber

Protected by polycarbonate or glass lens, allows for easy maintenance access.



Cooler Operating Cone Hood

Larger sloped surface sheds dusts and dirt providing better heat dissipation.

Mounting Hood and Globe Gaskets

Silicone rubber gaskets seal out moisture, dirt and dust. Stays flexible, withstands high temperatures. Closure design assures uniform gasket compression.

Stainless Steel Latch Assembly

Captive, stainless steel latch assembly bolt and nut closes securely, resists attack of corrosive atmospheres. Swing-away design simplifies servicing.

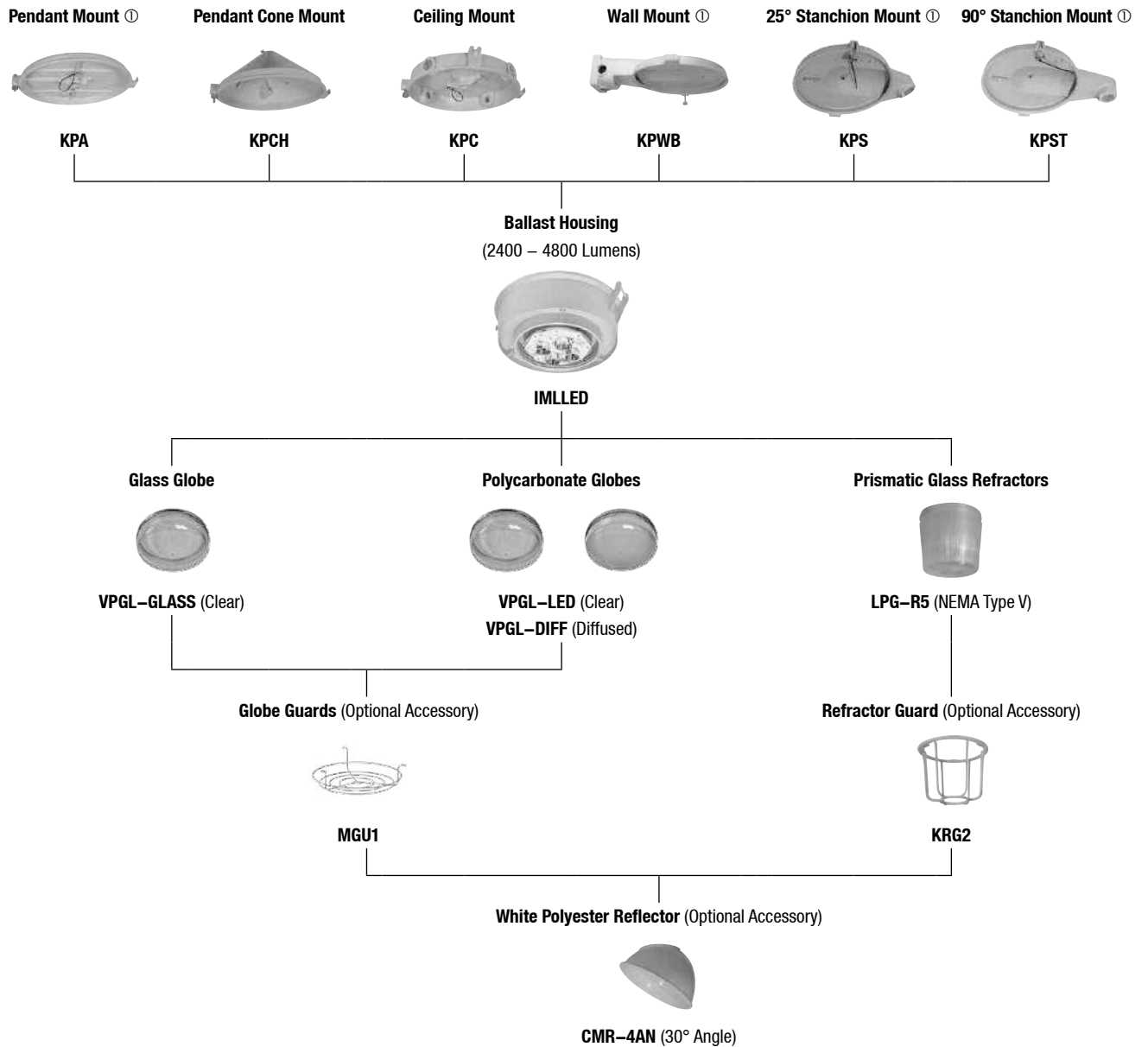


Industrial Mercmaster™ LED Low Profile Luminaires

For Ordinary Locations

NEC/CEC:
cULus Listed
Type 3R, 4, 4X
IP66
Suitable for Use in Wet Locations
Marine Outside Type (Salt Water)

Industrial Mercmaster LED Low Profile Family Tree



① Mounting hood with a 120 V or 208-277 V factory installed photocell is available.

Industrial Mercmaster™ LED Low Profile Luminaires

For Ordinary Locations

NEC/CEC:
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Type 3R, 4, 4X
IP66
Suitable for Use in Wet Locations
Marine Outside Type (Salt Water)

Order using catalog numbering guides below or select catalog number from tables on following pages.

Catalog Numbering Guide

For Ordinary Locations:

IMLLED	A	2	2	P5	BU	5
IMLLED - Industrial Mercmaster LED Low Profile Series		Lumen Output ④: 2 - 2K Lumens, 5700K CCT 3 - 3K Lumens, 5700K CCT 4 - 4K Lumens, 5700K CCT		P5 - NEMA Type V Clear Polycarbonate Globe D5 - NEMA Type V Diffused Polycarbonate Globe G5 - NEMA Type V Glass Globe ③ J5 - NEMA Type V Glass Refractor ③		Options: F -Fusing 5 - Photocontrol 120V ② 6 - Photocontrol 208V ② 7 - Photocontrol 240V ② 8 - Photocontrol 277V ②
	Mounting:		Hub Size:		Voltage:	
	A - Pendant C - Ceiling ① D - Pendant Cone Hood ① R - 90° Stanchion S - 25° Stanchion W - Wall		2 - 3/4" NPT 3 - 1" NPT 4 - 1-1/4" NPT stanchion 5 - 1-1/2" NPT stanchion		BU - Universal Voltages 120-277 VAC, 50/60Hz	

Lamp Comparison Chart

Lumens ⓘ												
Model	Line Current Amps	Input Power	Power Factor	THD	Polycarbonate Clear Globe	Polycarbonate Diffused Globe	Glass Clear Globe	Type V Prismatic Glass Refractor	CRI	Lamp Life (Hours)	Color Temp CCT	Equivalent HID Luminaire
NEMA Type V												
IMLLED2	.21 @120V	26	> .97	< 20%	2400	2300	2500	2200	>70	60,000+	5700K	70 W
	.10 @277V	26										
IMLLED3	.29 @120V	35	> .97	< 20%	3400	3300	3600	3100	>70	60,000+	5700K	100 W
	.13 @277V	34										
IMLLED4	.41 @120V	48	> .88	< 20%	4800	4600	5000	4300	>70	60,000+	5700K	150 W
	.20 @277V	48										

Surge Protection Common/Differential Mode:
100kHz Ring Wave (w/t 30Ω): 6 KV
1.2/50 μs Combination Wave (w/t 2Ω): IMLLED2, IMLLED3 4 KV; IMLLED4 3 KV

- ① Ceiling and pendant cone hood mounted luminaires are not designed to use the PC photocontrol. Ceiling mounts must use an FS/FD box with a photocontrol. Contact your local sales representative for more information.
- ② Luminaires with photocontrol are not rated IP66 or Marine Outside Type (Salt Water).
- ③ Guards for the glass refractors and globes are ordered separately. See the list of accessories for more information.
- ④ For specific lumen output information, see Lamp Comparison Chart.
- ⑤ All lumen values are typical (+/- 10%)

Industrial Mercmaster™ LED Low Profile Luminaires

For Ordinary Locations

NEC/CEC:
cULus Listed
Type 3R, 4, 4X
IP66
Suitable for Use in Wet Locations
Marine Outside Type (Salt Water)

	Hub Size	Lumen Level	With Type V Polycarbonate Globe ①	With Type V Polycarbonate Diffused Globe ①	Glass Globe ①②	With Type V Glass Refractor ①②
Pendant — One Hub						
	3/4	2K	IMLLEDA22P5	IMLLEDA22D5	IMLLEDA22G5	IMLLEDA22J5
	3/4	3K	IMLLEDA32P5	IMLLEDA32D5	IMLLEDA32G5	IMLLEDA32J5
	3/4	4K	IMLLEDA42P5	IMLLEDA42D5	IMLLEDA42G5	IMLLEDA42J5
	1	2K	IMLLEDA23P5	IMLLEDA23D5	IMLLEDA23G5	IMLLEDA23J5
	1	3K	IMLLEDA33P5	IMLLEDA33D5	IMLLEDA33G5	IMLLEDA33J5
	1	4K	IMLLEDA43P5	IMLLEDA43D5	IMLLEDA43G5	IMLLEDA43J5
Ceiling — Five Hubs, Four Close-up Plugs						
	3/4	2K	IMLLEDC22P5	IMLLEDC22D5	IMLLEDC22G5	IMLLEDC22J5
	3/4	3K	IMLLEDC32P5	IMLLEDC32D5	IMLLEDC32G5	IMLLEDC32J5
	3/4	4K	IMLLEDC42P5	IMLLEDC42D5	IMLLEDC42G5	IMLLEDC42J5
	1	2K	IMLLEDC23P5	IMLLEDC23D5	IMLLEDC23G5	IMLLEDC23J5
	1	3K	IMLLEDC33P5	IMLLEDC33D5	IMLLEDC33G5	IMLLEDC33J5
	1	4K	IMLLEDC43P5	IMLLEDC43D5	IMLLEDC43G5	IMLLEDC43J5
Pendant Cone — One hub, rigid mounting						
	3/4	2K	IMLLEDD22P5	IMLLEDD22D5	IMLLEDD22G5	IMLLEDD22J5
	3/4	3K	IMLLEDD32P5	IMLLEDD32D5	IMLLEDD32G5	IMLLEDD32J5
	3/4	4K	IMLLEDD42P5	IMLLEDD42D5	IMLLEDD42G5	IMLLEDD42J5
	1	2K	IMLLEDD23P5	IMLLEDD23D5	IMLLEDD23G5	IMLLEDD23J5
	1	3K	IMLLEDD33P5	IMLLEDD33D5	IMLLEDD33G5	IMLLEDD33J5
	1	4K	IMLLEDD43P5	IMLLEDD43D5	IMLLEDD43G5	IMLLEDD43J5

① For optional fusing, add suffix **-F** to the end of the catalog number.

② Guards for the glass refractors and globes are ordered separately. See following pages for accessory ordering information.

Industrial Mercmaster™ LED Low Profile Luminaires

For Ordinary Locations

NEC/CEC:
cULus Listed
Type 3R, 4, 4X
IP66
Suitable for Use in Wet Locations
Marine Outside Type (Salt Water)

Appleton®

LED/AREA: NEC/CEC ORDINARY LOCATION

	Hub Size	Lumen Level	With Type V Polycarbonate Globe ①	With Type V Polycarbonate Diffused Globe ①	Glass Globe ①②	With Type V Glass Refractor ①②
90° Stanchion — One hub						
	1 - 1/4	2K	IMLLEDR24P5	IMLLEDR24D5	IMLLEDR24G5	IMLLEDR24J5
	1 - 1/4	3K	IMLLEDR34P5	IMLLEDR34D5	IMLLEDR34G5	IMLLEDR34J5
	1 - 1/4	4K	IMLLEDR44P5	IMLLEDR44D5	IMLLEDR44G5	IMLLEDR44J5
	1 - 1/2	2K	IMLLEDR25P5	IMLLEDR25D5	IMLLEDR25G5	IMLLEDR25J5
	1 - 1/2	3K	IMLLEDR35P5	IMLLEDR35D5	IMLLEDR35G5	IMLLEDR35J5
	1 - 1/2	4K	IMLLEDR45P5	IMLLEDR45D5	IMLLEDR45G5	IMLLEDR45J5
25° Stanchion — One hub						
	1 - 1/4	2K	IMLLEDS24P5	IMLLEDS24D5	IMLLEDS24G5	IMLLEDS24J5
	1 - 1/4	3K	IMLLEDS34P5	IMLLEDS34D5	IMLLEDS34G5	IMLLEDS34J5
	1 - 1/4	4K	IMLLEDS44P5	IMLLEDS44D5	IMLLEDS44G5	IMLLEDS44J5
	1 - 1/2	2K	IMLLEDS25P5	IMLLEDS25D5	IMLLEDS25G5	IMLLEDS25J5
	1 - 1/2	3K	IMLLEDS35P5	IMLLEDS35D5	IMLLEDS35G5	IMLLEDS35J5
	1 - 1/2	4K	IMLLEDS45P5	IMLLEDS45D5	IMLLEDS45G5	IMLLEDS45J5
Wall — Five hubs, Four Close-Up Plugs						
	3/4	2K	IMLLEDW22P5	IMLLEDW22D5	IMLLEDW22G5	IMLLEDW22J5
	3/4	3K	IMLLEDW32P5	IMLLEDW32D5	IMLLEDW32G5	IMLLEDW32J5
	3/4	4K	IMLLEDW42P5	IMLLEDW42D5	IMLLEDW42G5	IMLLEDW42J5
	1	2K	IMLLEDW23P5	IMLLEDW23D5	IMLLEDW23G5	IMLLEDW23J5
	1	3K	IMLLEDW33P5	IMLLEDW33D5	IMLLEDW33G5	IMLLEDW33J5
	1	4K	IMLLEDW43P5	IMLLEDW43D5	IMLLEDW43G5	IMLLEDW43J5

① For optional fusing, add suffix -F to the end of the catalog number.

② Guards for the glass refractors and globes are ordered separately. See following pages for accessory ordering information.

Industrial Mercmaster™ LED Low Profile Luminaires

For Ordinary Locations

NEC/CEC:
cULus Listed
Type 3R, 4, 4X
IP66
Suitable for Use in Wet Locations
Marine Outside Type (Salt Water)

Fixture Unit — Ballast Body and Globe or Refractor



Catalog Number ①							
Lumen Level	LED Wattage	Light Level Equivalent	NEMA Type	For Polycarbonate Globe	For Polycarbonate Diffused Globe	Glass Globe ②	For Refractor ②
cULus Listed Fixture Housing - For Ordinary Locations							
2K	26	70W HPS	Type V	IMLLED2P5BU	IMLLED2D5BU	IMLLED2G5BU	IMLLED2J5BU
3K	35	100W HPS	Type V	IMLLED3P5BU	IMLLED3D5BU	IMLLED3G5BU	IMLLED3J5BU
4K	48	150W HPS	Type V	IMLLED4P5BU	IMLLED4D5BU	IMLLED4G5BU	IMLLED4J5BU

Mounting Hoods

	Description	Hub Size	Catalog Number
Pendant			
	One Hub	3/4	KPA-75
		1	KPA-100
Pendant Cone			
	One Hub, Rigid Mounting	3/4	KPCH-75
		1	KPCH-100
Ceiling			
	Five Hubs, Four Close-Up Plugs	3/4	KPC-75
		1	KPC-100
Wall			
	Five Hubs, Four Close-Up Plugs	3/4	KPWB-75
		1	KPWB-100
25° Stanchion			
	One Hub	1-1/4	KPS-125
		1-1/2	KPS-150
90° Stanchion			
	One Hub	1-1/4	KPST-125
		1-1/2	KPST-150

① BU - Universal Voltages 120-277 VAC, 50/60Hz

② Guards for the glass refractors and globes are ordered separately. See following pages for accessory ordering information.

Industrial Mercmaster™ LED Low Profile Luminaires

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Appleton®

LED / AREA: NEC / CEC ORDINARY LOCATION

Replacement Parts

	Description	Catalog Number
Globes and Gaskets		
	Clear Globe (polycarbonate)	VPGL-LED
	Diffused Globe (polycarbonate)	VPGL-DIFF
	Glass Globe	VPGL-GLASS
	Globe Gasket — Silicone Rubber	KRF-GK

	Light Distribution	Catalog Number
Closed Prismatic Glass Refractors — All Heat-Resistant		
 Glass Refractor	NEMA Type V	LPG-R5

	Description	Catalog Number
LED Array	IMLLED2 Array assembly, Type V, 5700K	IMLLED2A5W
	IMLLED3 Array assembly, Type V, 5700K	IMLLED3A5W
	IMLLED4 Array assembly, Type V, 5700K	IMLLED4A5W
Drivers	120-277V Driver for IMLLED2 and IMLLED3	IMLLEDDBU
	120-277V Driver for IMLLED4	IMLLEDDBU4

Industrial Mercmaster™ LED Low Profile Luminaires

For Ordinary Locations

NEC/CEC:
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Marine Outside Type (Salt Water)

Accessories		
	Description	Catalog Number
White Polyester Reflectors		
 30° Angle	30° Angle	CMR-4AN
Guards		
 Glass Globe Guard	Glass Globe Guard	MGU1
 Refractor Guard	Refractor Guard	KRG2
Adapters		
	Adapter Assembly from V51 to MM III/LED Series	LPAD-1 ①

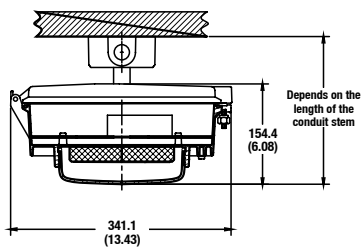
① LPAD-1 adapter is not UL certified for use with IMLLED luminaires.

Industrial Mercmaster™ LED Low Profile Luminaires

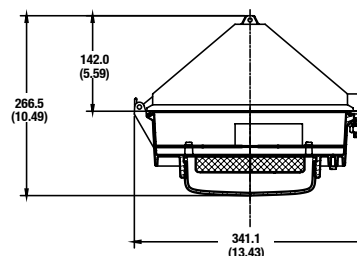
For Ordinary Locations

NEC/CEC:
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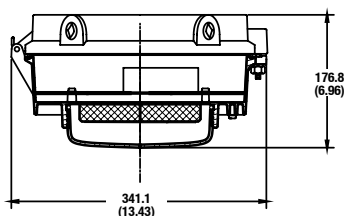
Dimensions With Polycarbonate Globe in Millimeters (Inches)



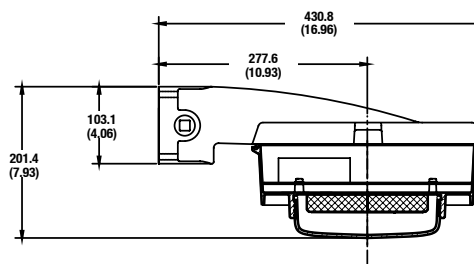
Pendant Mount



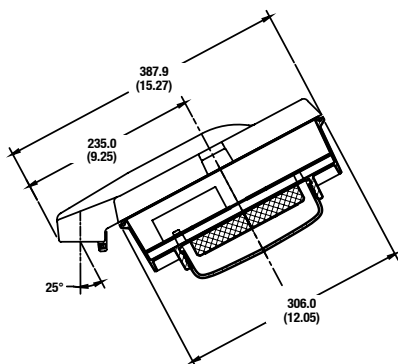
Pendant Cone Mount



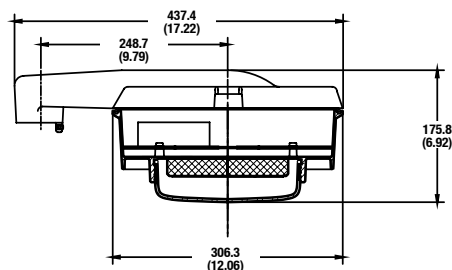
Ceiling Mount



Wall Mount



Angle Stanchion Mount



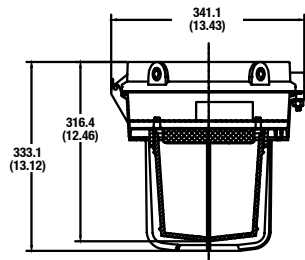
Stanchion Mount

Industrial Mercmaster™ LED Low Profile Luminaires

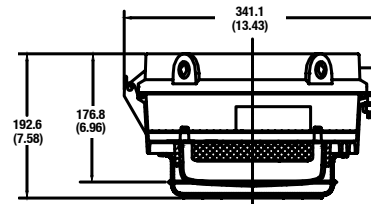
For Ordinary Locations

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Suitable for Use in Wet Locations
Marine Outside Type (Salt Water)

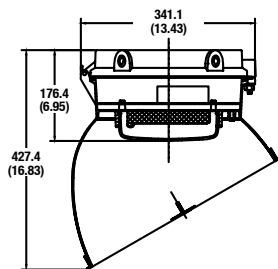
Dimensions With Polycarbonate Globe in Millimeters (Inches)



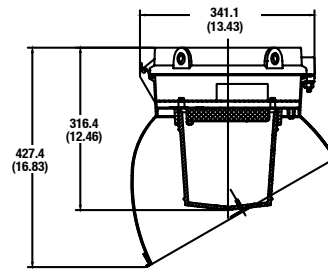
Ceiling Mount w/ Refractor and Guard



Ceiling Mount w/ Glass Globe and Guard



Ceiling Mount with Globe and 30° Reflector



Ceiling Mount with Refractor and 30° Reflector

Mercmaster LED Low Profile Fixture and Mounting Hood Weights

Description	Weight kg (lb)
Fixture Unit (IMLLED2/IMLLED3)	4.1 (9.00)
Fixture Unit (IMLLED4)	4.6 (10.1)
Pendant Mounting Hood	1.0 (2.25)
Pendant Cone Mounting Hood	1.1 (2.50)
Ceiling Mounting Hood	1.4 (3.00)
Wall Mounting Hood	1.8 (4.00)
25° Stanchion Mounting Hood	1.5 (3.25)
90° Stanchion Mounting Hood	1.7 (3.75)

PC Series Industrial Photocontrol ①

For Use in Ordinary Locations

For use with all Mercmaster III and Mercmaster LED luminaires

NEC/CEC:

Rated for Ordinary (Unclassified) Locations

Applications

- Durable polycarbonate housing with a clear UV stabilized window ultrasonically welded in place.
- Typical applications include walkways, security areas and any other outdoor lighting application.
- For use with all LED Series.
- For remote mounting in FS Boxes.

Features

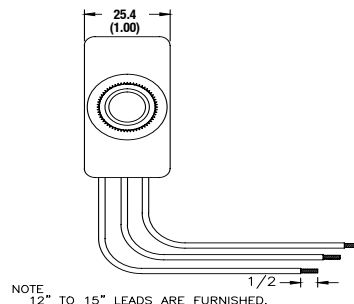
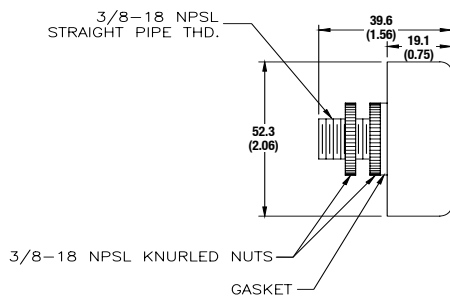
- Solid state design for performance and reliability.
- Available for 120, 208, 240, or 277 volts.
- 1000 V.A.
- Minimum time delay: 15 seconds to eliminate nuisance tripping.
- Provided with (3) 18AWG stranded leads 152.4 mm (6.00 in) length.
- Will fit through standard 1/2" knockout.

- Supplied with locknut and gasket.
- Specifications:
 - Turn on: 1 to 4 Fc
 - Turn off: 3 to 12 Fc
 - Time Delay: 30 seconds, minimum
 - Rated Life: 5,000 operation, minimum at rated load

Materials

- Photocell Housing: UV resistant polycarbonate
- FS Cover: aluminum

	Voltage Range	Max VA	Max Current Amps	Suffix Designation Catalog Number
Factory Installed Photocontrol — Not for ceiling or pendant cone Add to fixture catalog after voltage; i.e.: IMLLEDA32P5BU5.				
 Mercmaster III wall mounting hood with photocontrol installed shown	120 V, 50/60 Hz	1000	—	5
	208 V, 50/60 Hz	1000	—	6
	240 V, 50/60 Hz	1000	—	7
	277 V, 50/60 Hz	1000	—	8
Photocontrol, purchased separately				
	120 V, 50/60 Hz	1000	8.3 Amp	PC120
	208 V, 50/60 Hz	1000	4.8 Amp	PC248
	240 V, 50/60 Hz	1000	4.2 Amp	
	277 V, 50/60 Hz	1000	3.6 Amp	
Photocontrol in FS Cover for Use with FS/FD Box <i>Supplied with two stainless steel screws. For neoprene gasket, order catalog number FS-GKR-1N.</i>				
	120 V, 50/60 Hz	1000	8.3 Amp	FSKA-PC120
	208 V, 50/60 Hz	1000	4.8 Amp	FSKA-PC247
	240 V, 50/60 Hz	1000	4.2 Amp	
	277 V, 50/60 Hz	1000	3.6 Amp	



① Fixtures with photocontrols are rated Type 3R.

Industrial Mercmaster™ LED Low Profile Luminaires

For Ordinary Locations

NEC/CEC:
cULus Listed
Type 3R, 4, 4X
IP66
Suitable for Use in Wet Locations
Marine Outside Type (Salt Water)

Photometric Data — DATA SHOWN IS ABSOLUTE

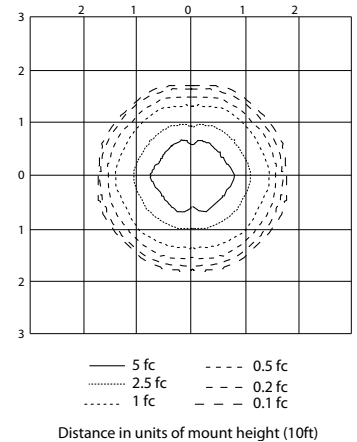
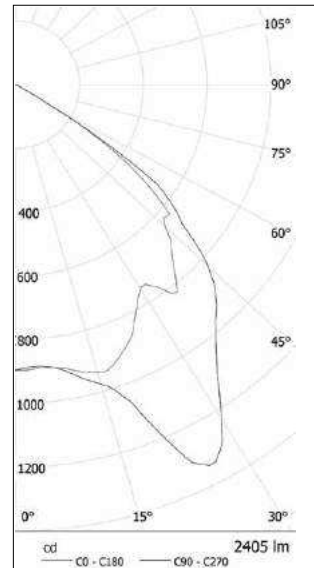
IMLLED2P5BU 2K Lumen 5700K CCT with Clear Polycarbonate Lens

Polar Candela Distribution

Isoillumination Plot

Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire	Zone	Lumens	% Luminaire
0-30	852.7	35.4	0-10	86.5	3.6
0-40	1423	59.2	10-20	280.4	11.7
0-60	2368	98.5	20-30	485.8	20.2
60-90	37.0	1.5	30-40	570.3	23.7
0-90	2406	100.0	40-50	573.0	23.8
90-180	0.0	0.0	50-60	372.5	15.5
0-180	2406	100.0	60-70	27.9	1.2
			70-80	7.0	0.3
			80-90	2.1	0.1



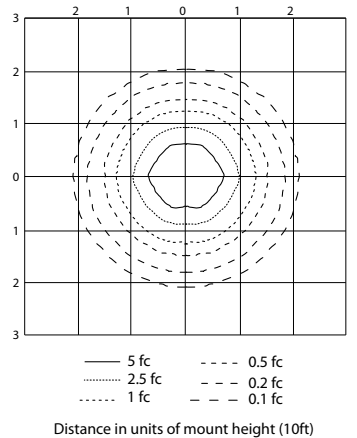
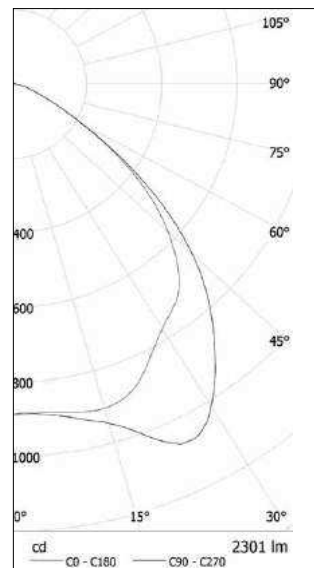
IMLLED2D5BU 2K Lumen 5700K CCT with Diffused Polycarbonate Lens

Polar Candela Distribution

Isoillumination Plot

Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire	Zone	Lumens	% Luminaire
0-30	788.1	34.3	0-10	85.9	3.7
0-40	1299	56.5	10-20	266.8	11.6
0-60	2092	90.9	20-30	435.4	18.9
60-90	194.5	8.5	30-40	510.6	22.2
0-90	2286	99.4	40-50	478.8	20.8
90-180	14.7	0.6	50-60	314.0	13.6
0-180	2301	100.0	60-70	130.7	5.7
			70-80	50.4	2.2
			80-90	13.4	0.6
			90-100	4.0	0.2
			100-110	9.5	0.4
			110-120	1.2	0.1



Industrial Mercmaster™ LED Low Profile Luminaires

For Ordinary Locations

NEC/CEC:
cULus Listed
Type 3R, 4, 4X
IP66
Suitable for Use in Wet Locations
Marine Outside Type (Salt Water)

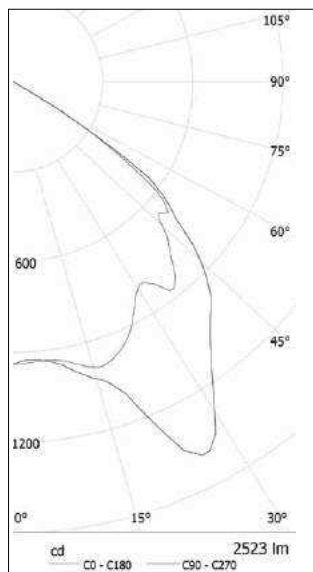
Photometric Data — DATA SHOWN IS ABSOLUTE

IMLLED2G5BU 2K Lumen 5700K CCT with Glass Globe

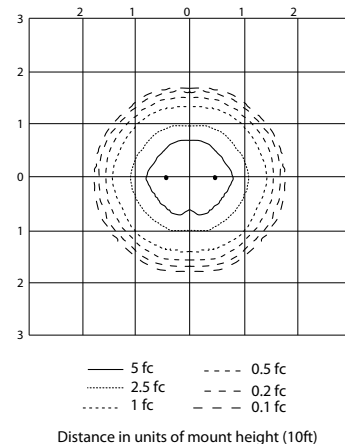
Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire	Zone	Lumens	% Luminaire
0-30	896.4	35.5	0-10	90.7	3.6
0-40	1498	59.4	10-20	294.9	11.7
0-60	2490	98.7	20-30	510.7	20.2
60-90	33.4	1.3	30-40	601.9	23.9
0-90	2523	100.0	40-50	605.8	24.0
90-180	0.0	0.0	50-60	385.7	15.3
0-180	2523	100.0	60-70	26.1	1.0
			70-80	5.8	0.2
			80-90	1.4	0.1

Polar Candela Distribution



Isoillumination Plot

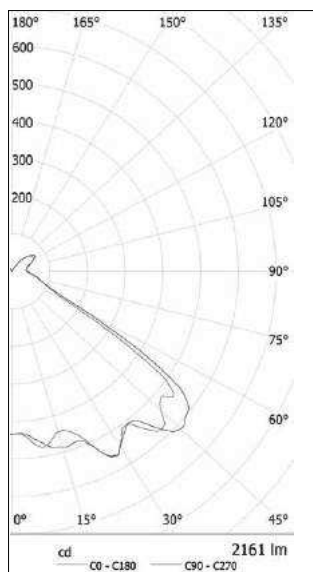


IMLLED2J5BU 2K Lumen 5700K CCT with Glass Refractor

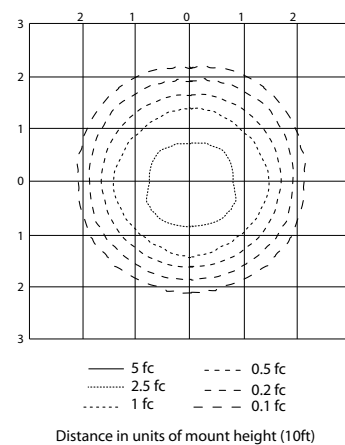
Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire	Zone	Lumens	% Luminaire
0-30	421.8	19.5	0-10	42.6	2.0
0-40	758.5	35.1	10-20	137.9	6.4
0-60	1612	74.6	20-30	241.3	11.2
60-90	287.7	13.3	30-40	336.8	15.6
0-90	1900	87.9	40-50	440.2	20.4
90-180	261.4	12.1	50-60	413.6	19.1
0-180	2161	100.0	60-70	155.1	7.2
			70-80	79.1	3.7
			80-90	53.5	2.5
			90-100	42.3	2.0
			100-110	43.7	2.0
			110-120	53.9	2.5
			120-130	60.8	2.8
			130-140	42.9	2.0
			140-150	16.4	0.8
			150-160	1.4	0.1

Polar Candela Distribution



Isoillumination Plot



Industrial Mercmaster™ LED Low Profile Luminaires

For Ordinary Locations

NEC/CEC:
cULus Listed
Type 3R, 4, 4X
IP66
Suitable for Use in Wet Locations
Marine Outside Type (Salt Water)

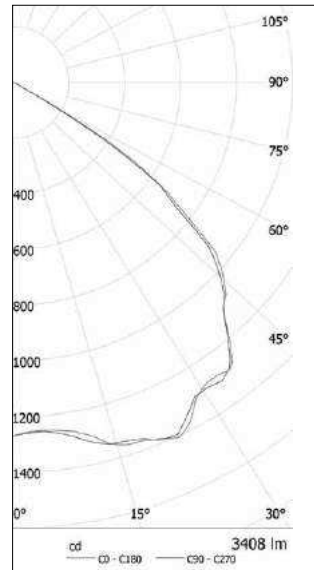
Photometric Data — DATA SHOWN IS ABSOLUTE

IMLLED3P5BU 3K Lumen 5700K CCT with Clear Polycarbonate Lens

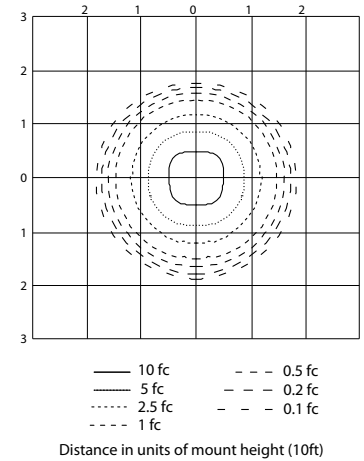
Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire	Zone	Lumens	% Luminaire
0-30	1161	34.1	0-10	121.6	3.6
0-40	1992	58.5	10-20	378.1	11.1
0-60	3358	98.5	20-30	660.9	19.4
60-90	49.5	1.5	30-40	831.4	24.4
0-90	3408	100.0	40-50	837.7	24.6
90-180	0.0	0.0	50-60	528.5	15.5
0-180	3408	100.0	60-70	37.7	1.1
			70-80	9.2	0.3
			80-90	2.6	0.1

Polar Candela Distribution



Isoillumination Plot

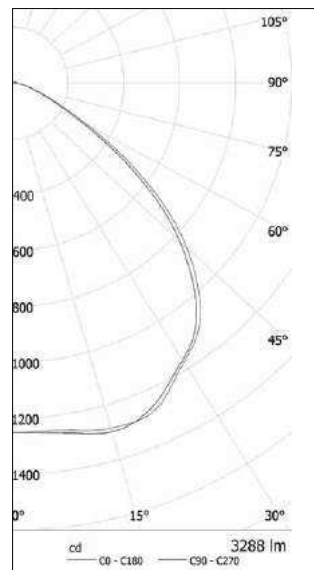


IMLLED3D5BU 3K Lumen 5700K CCT with Diffused Polycarbonate Lens

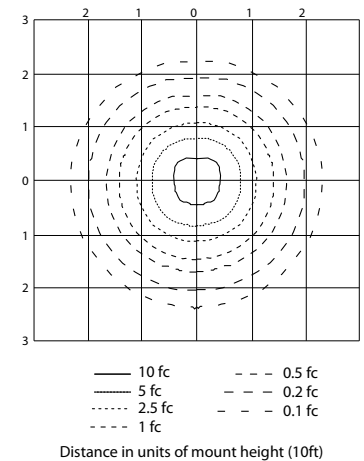
Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire	Zone	Lumens	% Luminaire
0-30	1090	33.2	0-10	120.5	3.7
0-40	1827	55.6	10-20	366.3	11.1
0-60	2980	90.6	20-30	603.4	18.4
60-90	283.7	8.6	30-40	736.6	22.4
0-90	3263	99.3	40-50	698.3	21.2
90-180	24.6	0.7	50-60	454.6	13.8
0-180	3288	100.0	60-70	188.8	5.7
			70-80	73.6	2.2
			80-90	21.3	0.6
			90-100	7.3	0.2
			100-110	14.8	0.4
			110-120	2.5	0.1

Polar Candela Distribution



Isoillumination Plot



Industrial Mercmaster™ LED Low Profile Luminaires

For Ordinary Locations

NEC/CEC:

cULus Listed

Type 3R, 4, 4X

IP66

Suitable for Use in Wet Locations

Marine Outside Type (Salt Water)

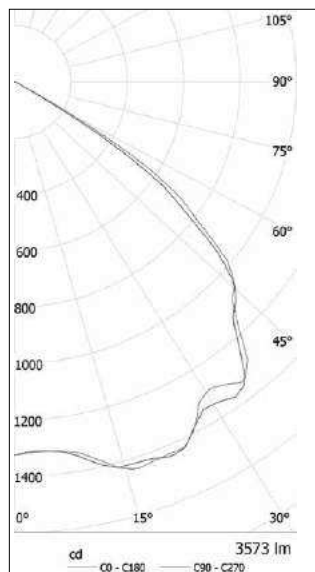
Photometric Data — DATA SHOWN IS ABSOLUTE

IMLLED3G5BU 3K Lumen 5700K CCT with Glass Globe

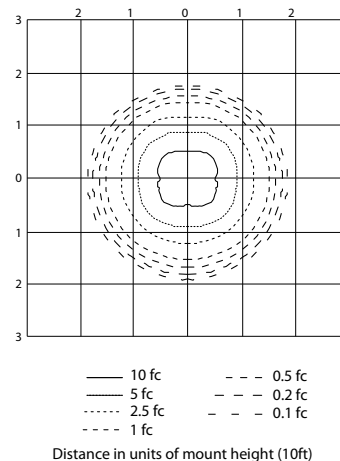
Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire	Zone	Lumens	% Luminaire
0-30	1220	34.1	0-10	127.4	3.6
0-40	2095	58.6	10-20	397.2	11.1
0-60	3525	98.7	20-30	695.5	19.5
60-90	47.7	1.3	30-40	874.8	24.5
0-90	3573	100.0	40-50	880.9	24.7
90-180	0.0	0.0	50-60	549.3	15.4
0-180	3573	100.0	60-70	36.8	1.0
			70-80	8.5	0.2
			80-90	2.3	0.1

Polar Candela Distribution



Isoillumination Plot

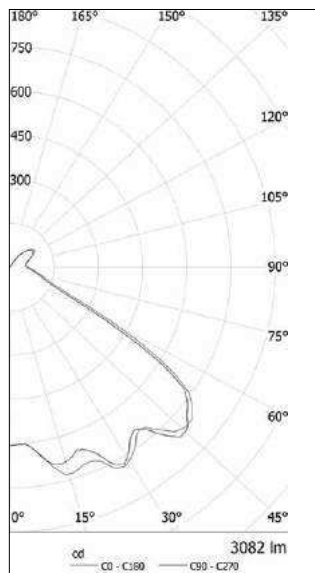


IMLLED3J5BU 3K Lumen 5700K CCT with Glass Refractor

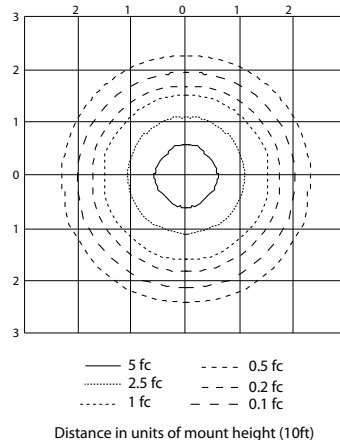
Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire	Zone	Lumens	% Luminaire
0-30	593.6	19.3	0-10	59.9	1.9
0-40	1069	34.7	10-20	194.1	6.3
0-60	2292	74.4	20-30	339.6	11.0
60-90	417.3	13.5	30-40	475.6	15.4
0-90	2709	87.9	40-50	622.0	20.2
90-180	372.4	12.1	50-60	601.0	19.5
0-180	3082	100.0	60-70	227.5	7.4
			70-80	113.1	3.7
			80-90	76.7	2.5
			90-100	60.6	2.0
			100-110	62.7	2.0
			110-120	76.1	2.5
			120-130	84.4	2.8
			130-140	61.2	2.0
			140-150	24.1	0.8
			150-160	2.2	0.1

Polar Candela Distribution



Isoillumination Plot



Industrial Mercmaster™ LED Low Profile Luminaires

For Ordinary Locations

NEC/CEC:
cULus Listed
Type 3R, 4, 4X
IP66
Suitable for Use in Wet Locations
Marine Outside Type (Salt Water)

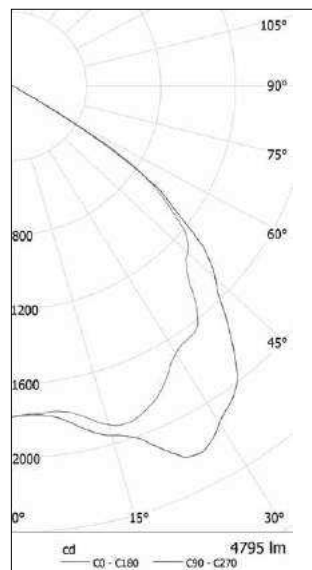
Photometric Data — DATA SHOWN IS ABSOLUTE

IMLLED4P5BU 4K Lumen 5700K CCT with Clear Polycarbonate Lens

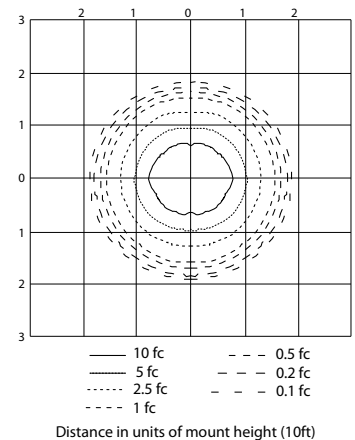
Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire	Zone	Lumens	% Luminaire
0-30	1676	34.9	0-10	171.9	3.6
0-40	2829	59.0	10-20	549.3	11.5
0-60	4705	98.1	20-30	954.3	19.9
60-90	89.7	1.9	30-40	1153	24.0
0-90	4795	100.0	40-50	1126	23.5
90-180	0.0	0.0	50-60	751.1	15.7
0-180	4795	100.0	60-70	63.9	1.3
			70-80	17.9	0.4
			80-90	7.8	0.2

Polar Candela Distribution

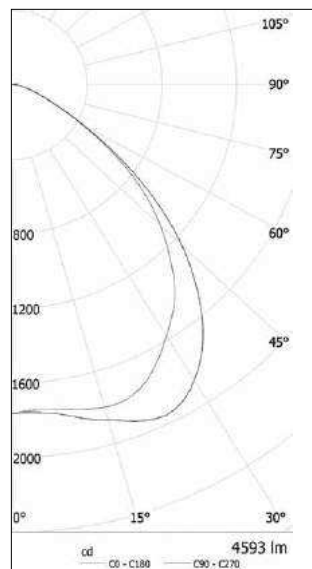


Isoillumination Plot

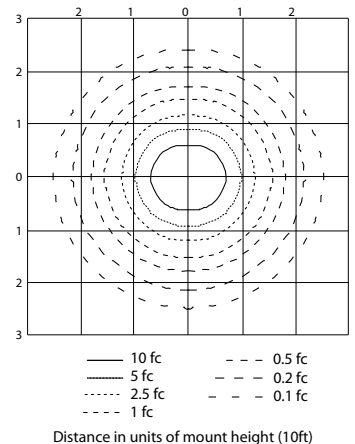


IMLLED4D5BU 4K Lumen 5700K CCT with Diffused Polycarbonate Lens

Polar Candela Distribution



Isoillumination Plot



Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire	Zone	Lumens	% Luminaire
0-30	1560	34.0	0-10	170.4	3.7
0-40	2583	56.2	10-20	526.5	11.5
0-60	4159	90.6	20-30	863.6	18.8
60-90	398.6	8.7	30-40	1022	22.3
0-90	4558	99.2	40-50	948.3	20.6
90-180	35.2	0.8	50-60	628.0	13.7
0-180	4593	100.0	60-70	266.2	5.8
			70-80	102.8	2.2
			80-90	29.6	0.6
			90-100	10.2	0.2
			100-110	21.6	0.5
			110-120	3.7	0.1

Industrial Mercmaster™ LED Low Profile Luminaires

For Ordinary Locations

NEC/CEC:
cULus Listed
Type 3R, 4, 4X
IP66
Suitable for Use in Wet Locations
Marine Outside Type (Salt Water)

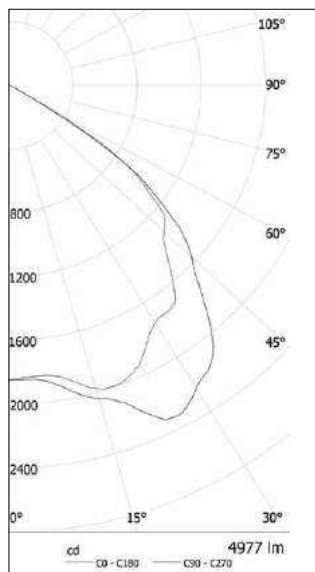
Photometric Data — DATA SHOWN IS ABSOLUTE

IMLLED4G5BU 4K Lumen 5700K CCT with Glass Globe

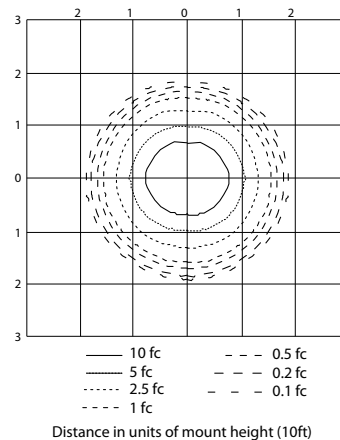
Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire	Zone	Lumens	% Luminaire
0-30	1748	35.1	0-10	178.5	3.6
0-40	2952	59.3	10-20	572.7	11.5
0-60	4906	98.6	20-30	997.0	20.0
60-90	71.5	1.4	30-40	1204	24.2
0-90	4977	100.0	40-50	1175	23.6
90-180	0.0	0.0	50-60	778.5	15.6
0-180	4977	100.0	60-70	57.6	1.2
			70-80	11.2	0.2
			80-90	2.6	0.1

Polar Candela Distribution



Isoillumination Plot

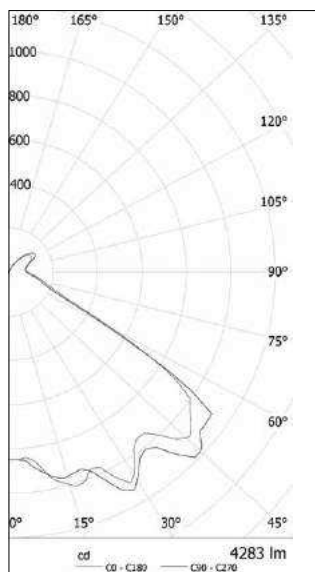


IMLLED4J5BU 4K Lumen 5700K CCT with Glass Refractor

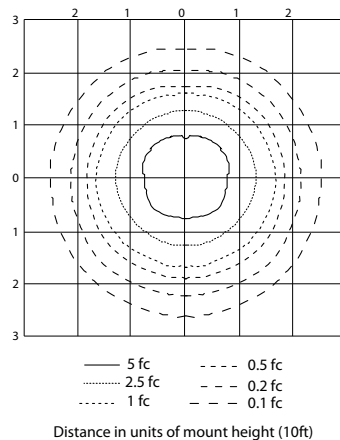
Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire	Zone	Lumens	% Luminaire
0-30	836.3	19.5	0-10	84.6	2.0
0-40	1501	35.0	10-20	274.6	6.4
0-60	3199	74.7	20-30	477.1	11.1
60-90	571.9	13.4	30-40	664.8	15.5
0-90	3771	88.0	40-50	871.2	20.3
90-180	512.5	12.0	50-60	826.7	19.3
0-180	4283	100.0	60-70	308.3	7.2
			70-80	156.7	3.7
			80-90	106.9	2.5
			90-100	84.6	2.0
			100-110	87.9	2.1
			110-120	105.6	2.5
			120-130	115.7	2.7
			130-140	82.9	1.9
			140-150	32.6	0.8
			150-160	3.2	0.1

Polar Candela Distribution



Isoillumination Plot



Areamaster™ LED Flood/High Bay Luminaires

For Hazardous Locations. 250 W, 400 W, 750 W HID Light Level Equivalent

NEC/CEC:
Class I, Division 2, Groups A,
B, C, D
Class I, Zone 2 Group IIC
Class II, Division 1, Groups
E, F, G

NEC/CEC:
Class II Division 2, Groups F, G
Class III
Simultaneous Exposure
Type 3R, 4, 4X
IP66/67

NEC:
Marine Outside Type
(Salt Water)
Wet Locations

ATEX/IECEX:
Zones 2 and 22
II 3 GD
EPL Gc and Dc
Ex nA IIC; Ex tc IIIC
IP66, IK08

ATEX/IECEX:
Zone 21
II 2 D
EPL Db
Ex tb IIIC
IK08

Applications

- Typical applications include:
 - Pulp and paper mills
 - Processing plants
 - Chemical plants
 - Oil refineries
 - Foundries
 - Food processing plants
 - Storage areas
 - Waste and sewage treatment
 - Parking garages
 - Other areas where water, dirt and rough usage are a problem

Features

- Compact in size, attractively styled contemporary design, rugged and dependable.
- Easy to install and service.
- One-piece housing.
- One-piece lens in hinged cover. Secured by four M6 captive stainless steel slotted hex-head bolts.
- Thermal shock- and impact-resistant glass lens standard.
- Diffused polycarbonate lens available as an option.
- Heavy duty, high temperature silicone rubber gasket, mechanically secured.
- Universal design for flood and high bay mounting.
- Floodlight Mounting:
 - Yoke mount, zinc plated steel yoke with architectural bronze polyester finish.
- High Bay Mounting:
 - (1) Conduit entry on back of luminaire with locking set screw.
 - Rotate yoke up or remove.
- Chain Mounting:
 - Mounts via eyebolts threaded into the corners of the fixture.
 - Available with chain mounting, or as an accessory.
 - Rotate yoke up or remove.
- Cool operating temperatures translate into long luminaire life.
- NEC/CEC versions available with a total of three (3) 3/4" NPT entries with integral bushings.
- ATEX/IECEX version provided with one (1) 3/4" NPT/M20 adapter and two (2) close up plugs.
- Two (2) 3/4" NPT aluminum close up plugs provided.
- Electrical:
 - NEC/CEC/ATEX/IECEX: 120-277 Vac, 50/60 Hz
 - NEC/CEC: 347-480 Vac, 50/60 Hz.; 250 Vdc available on AMLED77YBC.
- Terminal block (screw type for secure connection) can accept UL/CSA 24-10AWG and IEC 0.2 - 4 mm².

Standard Materials

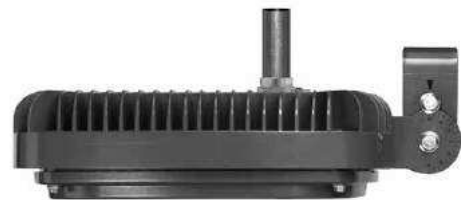
- Housing and lens door: copperfree (4/10 of 1% max.) aluminum
- Gasket: silicone rubber
- Reflector: metallized high reflectance finish
- Yoke mount: zinc plated steel
- Bolts: stainless steel
- Close up plugs: (2) aluminum provided

Standard Finishes

- Housing, lens cover and yoke mount: architectural bronze polyester



Floodlight



High Bay

Appleton®

LED/FLOODLIGHTS: NEC/CEC, ATEX/IECEX ENCLOSED AND GASKETED

Areamaster™ LED Flood/High Bay Luminaires

For Hazardous Locations. 250 W, 400 W, 750 W HID Light Level Equivalent

NEC/CEC:
Class I, Division 2, Groups A, B, C, D
Class I, Zone 2 Group IIC
Class II, Division 1, Groups E, F, G

NEC/CEC:
Class II Division 2, Groups F, G
Class III
Simultaneous Exposure
Type 3R, 4, 4X
IP66/67

NEC:
Marine Outside Type
(Salt Water)
Wet Locations

ATEX/IECEX:
Zones 2 and 22
⊕ II 3 GD
EPL Gc and Dc
Ex nA IIC; Ex tc IIIC
IP66, IK08

ATEX/IECEX:
Zone 21
⊕ II 2 D
EPL Db
Ex tb IIIC
IK08

NEC/CEC Certifications and Compliances

- UL Standard: UL 1598, UL 1598A, UL 8750, UL 844
- CSA Standard: C22.2 No. 250.0, C22.2 No. 137
- cCASus Certified: 065182
- Ambient Temperature: AMLED67 and AMLED77 -40 °C to +65 °C (-40 °F to +149 °F); AMLED87 -40 °C to +55 °C (-40 °F to +131 °F)
- The Class II, Division 1 & 2, Class III & Simultaneous Exposure Restrictions: 30° Rotation Maximum
 - The luminaire may be rotated a maximum of 30 degrees from the vertical plane such that the lens will be facing down (see 30° rotation picture).
 - The luminaire must not be rotated such that the lens will be facing up at any angle. Also, for fixtures with glass lens only and not for chain-mounted or pendant-mounted fixtures.

ATEX/IECEX Certifications and Compliances

- Certification Type AMLED
 - Gas: Zone 2
 - Conforming to ATEX 94/9/EC: ⊕ II 3 G
 - Protection Level: EPL Gc
 - Type of Protection: Ex nA IIC
 - Temperature class: See Table on following page
 - Dust: Zones 21 and 22
 - Conforming to ATEX 94/9/EC: ⊕ II 2 D and II 3D
 - Protection Level: EPL Db and Dc
 - Type of Protection: Ex tb IIIC and Ex tc IIIC
 - Temperature class: See Table on following page
- EC Declaration of Conformity: 50307
- ATEX Certificate: LCIE 14 ATEX 1016X (Zone 2/22), LCIE 14 ATEX 3049X (Zone 21)
- IECEx Certificate: IECEx LCIE 14.0030X
- Ambient Temperature: -40 °C to +55 °C (-40 °F to +131 °F)
- Index of Protection according EN/IEC 60529: IP66
- Impact Resistance (shock): IK08

EURASEC Certification

- EURASEC N° TC RU C-FR.Г505.B.00912

DesignLights™ Consortium (for the following models)

- AMLED67YBU1
- AMLED67YBU1D
- AMLED77YBU1
- AMLED77YBU1D
- AMLED87YBU1
- AMLED87YBU1D



30° Rotation

Areamaster™ LED Flood/High Bay Luminaires

For Hazardous Locations. 250 W, 400 W, 750 W HID Light Level Equivalent

NEC/CEC:
Class I, Division 2, Groups A,
B, C, D
Class I, Zone 2 Group IIC
Class II, Division 1, Groups
E, F, G

NEC/CEC:
Class II Division 2, Groups F, G
Class III
Simultaneous Exposure
Type 3R, 4, 4X
IP66/67

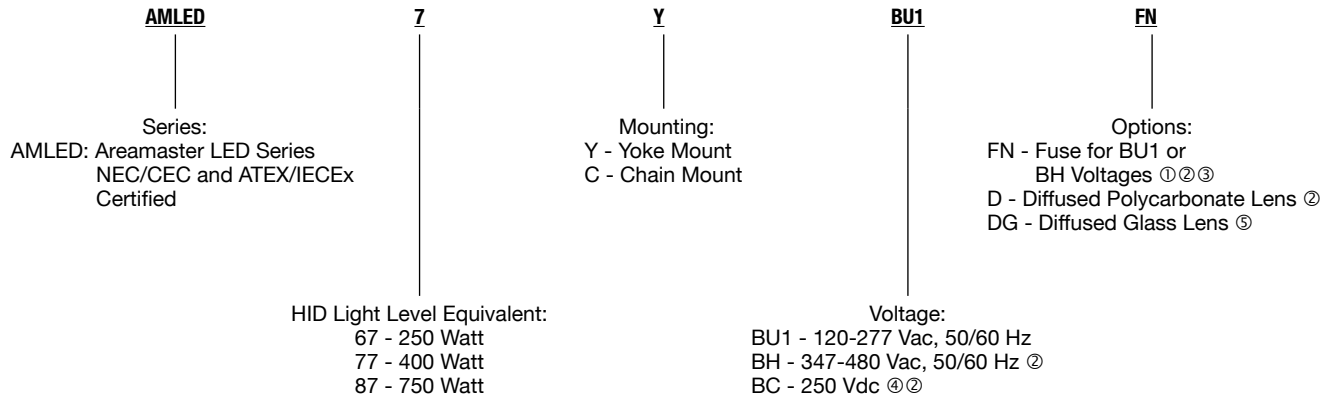
NEC:
Marine Outside Type
(Salt Water)
Wet Locations

ATEX/IECEX:
Zones 2 and 22
II 3 GD
EPL Gc and Dc
Ex nA IIC; Ex tc IIIC
IP66, IK08

ATEX/IECEX:
Zone 21
II 2 D
EPL Db
Ex tb IIIC
IK08

Order using catalog numbering guide below or select catalog number from tables on following pages.

Catalog Numbering Guide — NEC/CEC and ATEX/IECEX Certified Areamaster LED



① Not available for use on the 750 Watt equivalent.

② Not available for use on the ATEX/IECEX certified fixtures.

③ Canadian Electrical Code does NOT allow fusing in hazardous locations. Fuse not CEC rated.

④ Not available for use on the 250 and 750 Watt equivalent.

⑤ For ATEX/IECEX versions.

Areamaster™ LED Flood/High Bay Luminaires

For Hazardous Locations. 250 W, 400 W, 750 W HID Light Level Equivalent

NEC/CEC:
Class I, Division 2, Groups A, B, C, D
Class I, Zone 2 Group IIC
Class II, Division 1, Groups E, F, G

NEC/CEC:
Class II Division 2, Groups F, G
Class III
Simultaneous Exposure
Type 3R, 4, 4X
IP66/67

NEC:
Marine Outside Type
(Salt Water)
Wet Locations

ATEX/IECEX:
Zones 2 and 22
II 3 GD
EPL Gc and Dc
Ex nA IIC; Ex tc IIIC
IP66, IK08

ATEX/IECEX:
Zone 21
II 2 D
EPL Db
Ex tb IIIC
IK08

Technical Data — NEC/CEC

Lamp		Ambient Temperature °C (°F)	Supply Wire Temperature °C (°F)	Gas		ExnA IIC AExnA IIC	Dust Class II, Division 1 Groups E,F,G	Catalog Number
Line Voltage	Type			Class I, Division 2 ①	Groups			
120-277 Vac	LED	40 (104)	75 (167)	T4	A,B,C,D	T4	T6	AMLED67YBU1
		55 (131)	90 (194)	T3C	A,B,C,D	T3	T6	
		65 (149)	90 (194)	T3C	A,B,C,D	T3	T5	
347-480 Vac	LED	40 (104)	75 (167)	T4	A,B,C,D	—	T6	AMLED67YBH
		55 (131)	75 (167)	T3C	A,B,C,D	—	—	
120-277 Vac	LED	40 (104)	75 (167)	T4	A,B,C,D	T4	T6	AMLED77YBU1
		55 (131)	90 (194)	T3C	A,B,C,D	T3	T5	
		65 (149)	105 (221)	T3C	A,B,C,D	T3	T4A	
347-480 Vac	LED	40 (104)	75 (167)	T4	A,B,C,D	—	T6	AMLED77YBH
250 Vdc	LED	40 (104)	75 (167)	T4A	A,B,C,D	T4	T5	AMLED77YBC
120-277 Vac	LED	40 (104)	75 (167)	T3C	A,B,C,D	T3	T4A	AMLED87YBU1
		55 (131)	90 (194)	T3A	A,B,C,D	T3	T5	
347-480 Vac	LED	40 (104)	75 (167)	T3	A,B,C,D	—	T5	AMLED87YBH

Technical Data — ATEX/IECEX – Ambient Temperature Ta °C (°F)

GAS (Zone 2) ①						DUST (Zones 21–22) ②						Catalog Number
40 (104)	55 (131)	40 (104)	55 (131)	40 (104)	55 (131)	40 (104)	55 (131)	40 (104)	55 (131)	40 (104)	55 (131)	
Downward		Wall Mounting		Upward		Downward		Wall Mounting		Upward		
T4 114 (237)	T4 129 (264)	T4 109 (228)	T4 124 (255)	T4 117 (243)	T3 132 (270)	68 (154)	83 (181)	67 (153)	82 (180)	70 (158)	85 (185)	AMLED67YBU1
T3 144 (291)	T3 159 (318)	T3 146 (295)	T3 161 (322)	T3 150 (302)	T3 165 (329)	75 (167)	90 (194)	74 (165)	89 (192)	77 (171)	92 (198)	AMLED77YBU1
T3 178 (352)	T3 193 (379)	T3 176 (349)	T3 191 (376)	T3 183 (361)	T2 198 (388)	83 (181)	98 (208)	82 (180)	97 (207)	87 (198)	102 (216)	AMLED87YBU1

“T” Numbers Represent the Maximum Internal Temperature ① or Maximum Surface Temperature ②

NEC/CEC																
“T” #	T1	350	325	T2	T2A	T2B	T2C	T2D	T3	T3A	T3B	T3C	T4	T4A	T5	T6
Temp. Range °C (°F)	351-450	326-350	301-325	281-300	261-280	231-260	216-230	201-215	181-200	166-180	161-165	136-160	121-135	101-120	86-100	85
	(664-842)	(619-662)	(574-617)	(538-572)	(502-536)	(448-500)	(421-446)	(394-419)	(358-392)	(331-356)	(322-329)	(277-320)	(250-275)	(214-248)	(187-212)	(185)
ATEX/IECEX																
“T” #	T1			T2				T3				T4		T5	T6	
Temp. Range °C (°F)	301-450			201-300				136-200				101-135		86-100	85	
	(547-842)			(394-572)				(277-392)				(214-275)		(187-212)	(185)	

① T numbers represent the maximum internal temperature for Class I, Division 2 and Class I, Zone 2 locations designated by the NEC and ATEX/IECEX.

② T numbers represent the maximum surface temperature under a dust blanket for Class II, Division 1 and 2 as designated by the NEC or Zone 2 (Gas) and 22 (Dust) locations as designated by the IEC.

Areamaster™ LED Flood/High Bay Luminaires

For Hazardous Locations. 250 W, 400 W, 750 W HID Light Level Equivalent

NEC/CEC:
Class I, Division 2, Groups A,
B, C, D
Class I, Zone 2 Group IIC
Class II, Division 1, Groups
E, F, G

NEC/CEC:
Class II Division 2, Groups F, G
Class III
Simultaneous Exposure
Type 3R, 4, 4X
IP66/67

NEC:
Marine Outside Type
(Salt Water)
Wet Locations

ATEX/IECEX:
Zones 2 and 22
II 3 GD
EPL Gc and Dc
Ex nA IIC; Ex tc IIIC
IP66, IK08

ATEX/IECEX:
Zone 21
II 2 D
EPL Db
Ex tb IIIC
IK08

Electrical Specifications — Flood Mount

Voltage Range	Frequency (Hz)	Watts Input Power (Nom.)	Input Amps (Max.)	Total Harmonic Distortion	Power Factor	CRI	Color Temp CCT	Catalog Number
120-277 Vac	50/60	86/85	0.72 - 0.35	0.5	> 0.98	70	5650K	AMLED67YBU1
347-480 Vac	50/60	88/90	0.27 - 0.22	0.5	> 0.95	70	5650K	AMLED67YBH
120-277 Vac	50/60	125/121	1.10 - 0.47	0.5	> 0.98	70	5650K	AMLED77YBU1
347-480 Vac	50/60	124/125	0.37 - 0.29	0.5	> 0.95	70	5650K	AMLED77YBH
250 Vdc	—	118	0.47	0.5	> 0.98	70	5650K	AMLED77YBC
120-277 Vac	50/60	174/169	1.60 - 0.70	0.5	> 0.98	70	5700K	AMLED87YBU1
347-480 Vac	50/60	176/175	0.52 - 0.39	0.5	> 0.95	70	5700K	AMLED87YBH

Line Voltage	Catalog Number	
	NEC/CEC	ATEX/IECEX
120-277 Vac, 50/60 Hz	AMLED67YBU1	AMLED67YBU1
120-277 Vac, 50/60 Hz	AMLED77YBU1	AMLED77YBU1
120-277 Vac, 50/60 Hz	AMLED87YBU1	AMLED87YBU1
347-480 Vac, 50/60 Hz	AMLED67YBH	—
347-480 Vac, 50/60 Hz	AMLED77YBH	—
250 Vdc	AMLED77YBC	—
347-480 Vac, 50/60 Hz	AMLED87YBH	—



Appleton®

LED/FLOODLIGHTS: NEC/CEC, ATEX/IECEX ENCLOSED AND GASKETED

Areamaster™ LED Flood/High Bay Luminaires

For Hazardous Locations. 250 W, 400 W, 750 W HID Light Level Equivalent

NEC/CEC:
Class I, Division 2, Groups A,
B, C, D
Class I, Zone 2 Group IIC
Class II, Division 1, Groups
E, F, G

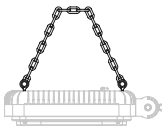
NEC/CEC:
Class II Division 2, Groups F, G
Class III
Simultaneous Exposure
Type 3R, 4, 4X
IP66/67

NEC:
Marine Outside Type
(Salt Water)
Wet Locations

ATEX/IECEX:
Zones 2 and 22
II 3 GD
EPL Gc and Dc
Ex nA IIC; Ex tc IIIC
IP66, IK08

ATEX/IECEX:
Zone 21
II 2 D
EPL Db
Ex tb IIIC
IK08

Accessories and Replacement Parts

Description		Catalog Number NEC/CEC, ATEX/IECEx
Crossarm Mounting Bracket		
	Has 180° horizontal adjustment — degree marked. Facilitates mounting floodlight to crossarm or other flat surface, or to G-AM-8-WB. Includes floodlight yoke bolts. Malleable iron, zinc plated, chromate sealed, architectural bronze polyester finish.	G-AM-8-CA
Pipe or Wall Mount Bracket		
	Used with G-AM-8-CA. Clamps to 1” to 2-1/2” pipe, vertical or horizontal, or mounts on flat surfaces. Includes U-bolt and crossarm bracket bolts. Malleable iron, zinc plated, chromate sealed, with architectural bronze polyester finish.	G-AM-8-WB
Poletop Slip-Fitter		
	Slip-fits 1-1/2” or 2” pipe size poletop tenons. Includes floodlight yoke bolts, 3 locking bolts, and cord grip. Body is malleable iron-zinc plated, chromate sealed, with cast aluminum cap. Assembly has architectural bronze polyester finish.	G-SF20
	Slip-fits 1" or 1-1/2” pipe size poletop tenons. Includes floodlight yoke bolts, 3 locking bolts, and cord grip. Body is malleable iron-zinc plated, chromate sealed, with cast aluminum cap. Assembly has architectural bronze polyester finish.	AMLEDSF1
Poletop Slip-Fitter		
	Slip-fits 2” or 2-1/2” poletop tenons. Includes floodlight yoke bolts, 3 locking bolts, and cord grip. Malleable iron, zinc plated, chromate sealed, with architectural bronze polyester finish.	G-AM-8-SF
Chain		
	Chain mount assembly comes with two (2) 914.4 mm (36 inch) long chains, four (4) eye bolts, four (4) hex bolts, four (4) lock washers, four (4) hex nuts, eight (8) plain washers and an instruction sheet for complete assembly and mounting. Chains are galvanized steel, eye bolts are zinc plated steel, all other hardware is stainless steel.	AMLEDCM
Description		Catalog Number NEC/CEC ATEX/IECEx
LED Array		
With White LED's for the AMLED67	AMLED67AW	AMLED67AW
With White LED's for the AMLED77	AMLED77AW	AMLED77AW
With White LED's for the AMLED87	AMLED87AW	AMLED87AW
Drivers		
120 - 277 Vac — BU Version and BC Version	AMLED77DBU	—
120 - 277 Vac — BU1 Version — AMLED87: Left Side — AMLED67, AMLED77	AMLEDDBU1L	AMLEDDBU1L
120 - 277 Vac — BU1 Version — AMLED87: Right Side	AMLEDDBU1R	AMLEDDBU1R
347 - 480 Vac — BH Version — AMLED67, AMLED77	AMLED77DBH	—
347 - 480 Vac — BH Version — AMLED87: Left Side	AMLED87DBHL	—
347 - 480 Vac — BH Version — AMLED87: Right Side	AMLED87DBHR	—
Door Assembly		
With a Glass Lens, Pins	AMLEDMDOOR	AMLEDMDOOR
With a Polycarbonate Lens, Pins	AMLEDMDOORP	—

Areamaster™ LED Flood/High Bay Luminaires

For Hazardous Locations. 250 W, 400 W, 750 W HID Light Level Equivalent

NEC/CEC:
Class I, Division 2, Groups A,
B, C, D
Class I, Zone 2 Group IIC
Class II, Division 1, Groups
E, F, G

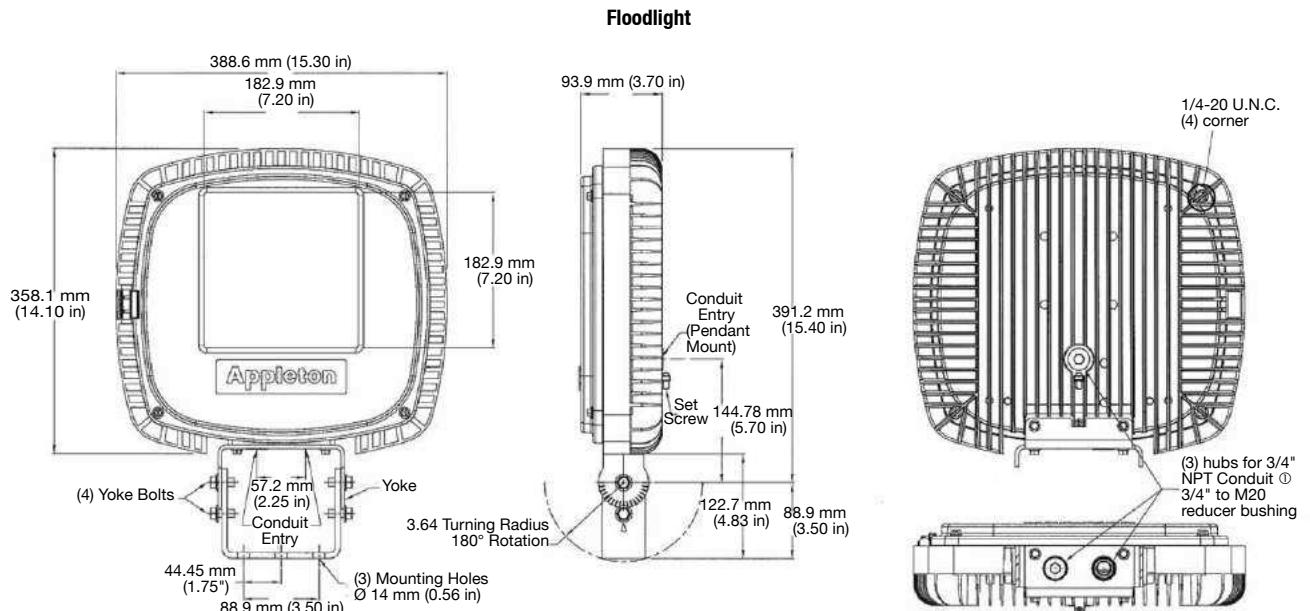
NEC/CEC:
Class II Division 2, Groups F, G
Class III
Simultaneous Exposure
Type 3R, 4, 4X
IP66/67

NEC:
Marine Outside Type
(Salt Water)
Wet Locations

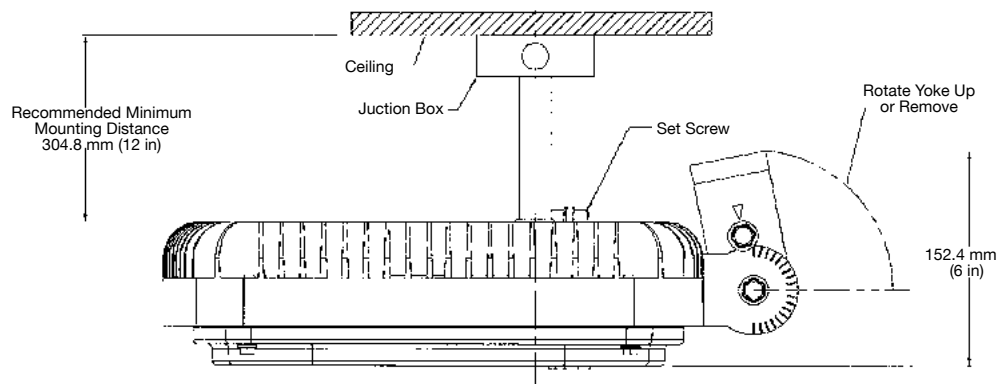
ATEX/IECEX:
Zones 2 and 22
II 3 GD
EPL Gc and Dc
Ex nA IIC; Ex tc IIIC
IP66, IK08

ATEX/IECEX:
Zone 21
II 2 D
EPL Db
Ex tb IIIC
IK08

Dimensions in Millimeters (Inches)



High Bay Pendant Mount



⌀ 3/4" NPT/M20 adapter supplied for ATEX version.

Areamaster™ LED Flood/High Bay Luminaires

For Hazardous Locations. 250 W, 400 W, 750 W HID Light Level Equivalent

NEC/CEC:
Class I, Division 2, Groups A,
B, C, D
Class I, Zone 2 Group IIC
Class II, Division 1, Groups
E, F, G

NEC/CEC:
Class II Division 2, Groups F, G
Class III
Simultaneous Exposure
Type 3R, 4, 4X
IP66/67

NEC:
Marine Outside Type
(Salt Water)
Wet Locations

ATEX/IECEX:
Zones 2 and 22
II 3 GD
EPL Gc and Dc
Ex nA IIC; Ex tc IIIC
IP66, IK08

ATEX/IECEX:
Zone 21
II 2 D
EPL Db
Ex tb IIIC
IK08

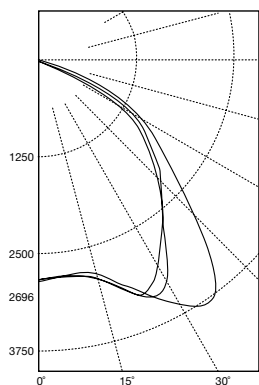
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REPORT NUMBER: **AMLED67YBU1_FLOOD**

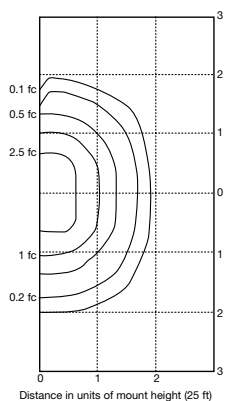
Lamps: Areamaster, High Bay Mount, LED Board 39 LEDs, Specular Reflector 6–1/2 X 6–1/2 Tapered To 3–1/2 X 3–1/2, Lens Clear

Luminaire Lumens 8238

POLAR CANDELA DISTRIBUTION



ISOCANDELA CURVES



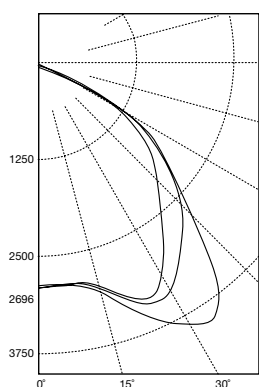
Zonal Lumen and Percentage at 25 °C (77 °F)

Zone	Lumens	% Lamp	% Fixture
0-10	245.6	N.A.	3.0
10-20	771.8	N.A.	9.4
20-30	1431	N.A.	17.4
30-40	1842	N.A.	22.4
40-50	1785	N.A.	21.7
50-60	1448	N.A.	17.6
60-70	667.1	N.A.	8.1
70-80	43.8	N.A.	0.5
80-90	4.5	N.A.	0.1

REPORT NUMBER: **AMLED67YBU1_HIGHBAY**

Lamps: Areamaster, High Bay Mount, LED Board 39 LEDs, Specular Reflector 6–1/2 X 6–1/2 Tapered To 3–1/2 X 3–1/2, Lens Clear

POLAR CANDELA DISTRIBUTION



Zonal Lumen Summary and Percentage at 25 °C (77 °F)

Zone	Lumens	% Lamp	% Fixture
0-30	2434	N.A.	29.2
0-40	4283	N.A.	51.6
0-60	7553	N.A.	90.6
60-90	780	N.A.	9.4
0-90	8333	N.A.	100.0
90-180	0	N.A.	0
0-180	8333	N.A.	100.0

Zonal Lumen and Percentage at 25 °C (77 °F)

Zone	Lumens	% Lamp	% Fixture
0-10	244.8	N.A.	2.9
10-20	764.2	N.A.	9.2
20-30	1425	N.A.	17.1
30-40	1849	N.A.	22.2
40-50	1787	N.A.	21.4
50-60	1483	N.A.	17.8
60-70	731.0	N.A.	8.8
70-80	46.7	N.A.	0.6
80-90	2.4	N.A.	0.0

Areamaster™ LED Flood/High Bay Luminaires

For Hazardous Locations. 250 W, 400 W, 750 W HID Light Level Equivalent

NEC/CEC:
Class I, Division 2, Groups A,
B, C, D
Class I, Zone 2 Group IIC
Class II, Division 1, Groups
E, F, G

NEC/CEC:
Class II Division 2, Groups F, G
Class III
Simultaneous Exposure
Type 3R, 4, 4X
IP66/67

NEC:
Marine Outside Type
(Salt Water)
Wet Locations

ATEX/IECEX:
Zones 2 and 22
II 3 GD
EPL Gc and Dc
Ex nA IIC; Ex tc IIIC
IP66, IK08

ATEX/IECEX:
Zone 21
II 2 D
EPL Db
Ex tb IIIC
IK08

Photometric Data — DATA SHOWN IS ABSOLUTE

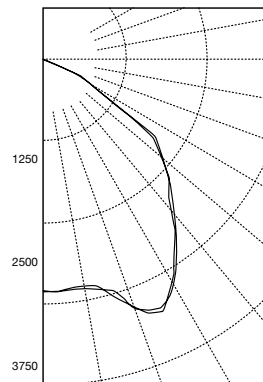
REPORT NUMBER: **AMLED77YBU1_FLOOD**

Lamps: Areamaster, High Bay Mount, LED Board 56 LEDs, Specular Reflector 6–1/2 X 6–1/2 Tapered To 3–1/2 X 3–1/2, Lens Clear

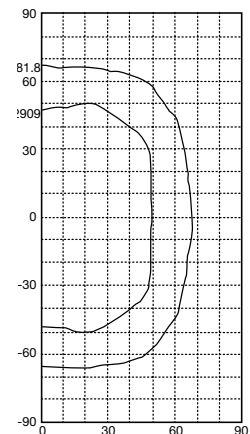
Characteristics: Maximum Candela: 5818; Maximum Candela Angle: 22.5 H 25.5 V; Horizontal Beam Angle (50%): 97.0; Vertical Beam Angle (50%): 102; Horizontal Field Angle (10%): 134; Vertical Field Angle (10%): 134; Beam Lumens 10414; Field Lumens 12967; Luminaire Lumens 13157

AXIAL CANDELA		
DEG.	HOR.	VERT.
90.0	0	0
85.0	21	2
75.0	26	5
65.0	700	733
55.0	2400	2341
47.5	3023	2976
42.5	3375	3307
37.5	3838	3826
33.0	4312	4319
29.0	4670	4719
25.5	4964	4898
22.5	4910	4857
19.5	4700	4660
17.0	4456	4343
15.0	4273	4249
13.0	4184	4165
11.0	4154	4123
9.0	4139	4105
7.0	4124	4119
5.0	4127	4133
3.0	4138	4150
1.0	4149	4153
0.0	4149	4149

AXIAL CANDELA DISPLAY



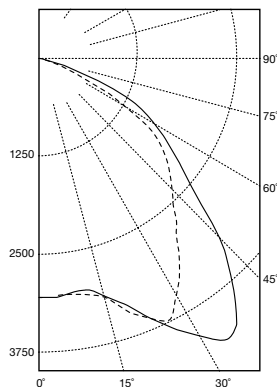
ISOCANDELA CURVES



CIE Type – Direct

Plane	Spacing Criteria
0 Deg	1.5
90 Deg	1.5

Zone	Lumens
0-5	98
5-10	290
10-15	485
15-20	711
20-25	993
25-30	1264
30-35	1440
35-40	1517
40-45	1471
45-50	1392
50-55	1283
55-60	1086
60-65	764
65-70	340
70-75	37
75-80	4
80-85	2
85-90	1



REPORT NUMBER: **AMLED77YBU1_HIGHBAY**

Lamps: Areamaster, High Bay Mount, LED Board 56 LEDs, Specular Reflector 6–1/2 X 6–1/2 Tapered To 3–1/2 X 3–1/2, Lens Clear

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

		Effective Floor Cavity Reflectance 0.20															
		80				70				50				30			
% Ceiling	Rcc	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30
% Walls	Rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	111	107	103	100	108	105	102	99	101	98	96	97	95	93	93	92	90
2	102	95	89	84	99	93	88	83	90	85	81	86	83	79	83	80	78
3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	75	70	67
4	86	75	67	61	84	74	66	60	71	65	59	69	63	59	67	62	58
5	79	67	59	52	77	66	58	52	64	57	52	62	56	51	60	55	50
6	73	60	52	46	71	59	51	45	58	50	45	56	50	45	54	49	44
7	67	54	46	40	66	54	46	40	52	45	40	51	44	39	49	44	39
8	63	50	41	36	61	49	41	36	48	40	35	46	40	35	45	39	35
9	58	45	37	32	57	45	37	32	44	37	32	43	36	31	42	36	31
10	55	42	34	29	53	41	34	29	40	33	29	39	33	28	38	32	28

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture	Zone	Lumens	% Lamp	% Fixture
0-30	3841	N.A.	29.1	90-130	2	N.A.	0.0
0-40	6798	N.A.	51.5	90-150	6	N.A.	0.0
0-60	12029	N.A.	91.1	90-180	7	N.A.	0.1
0-90	13177	N.A.	99.8	0-180	13199	N.A.	100
90-120	1	N.A.	0.0				

Areamaster™ LED High Bay Luminaires

For Hazardous Locations. 250 W, 400 W, 750 W HID Light Level Equivalent

NEC/CEC:
Class I, Division 2, Groups A,
B, C, D
Class I, Zone 2 Group IIC
Class II, Division 1, Groups
E, F, G

NEC/CEC:
Class II Division 2, Groups F, G
Class III
Simultaneous Exposure
Type 3R, 4, 4X
IP66/67

NEC:
Marine Outside Type
(Salt Water)
Wet Locations

ATEX/IECEX:
Zones 2 and 22
II 3 GD
EPL Gc and Dc
Ex nA IIC; Ex tc IIIC
IP66, IK08

ATEX/IECEX:
Zone 21
II 2 D
EPL Db
Ex tb IIIC
IK08

Photometric Data — DATA SHOWN IS ABSOLUTE

REPORT NUMBER: **AMLED87YBU1_FLOOD**

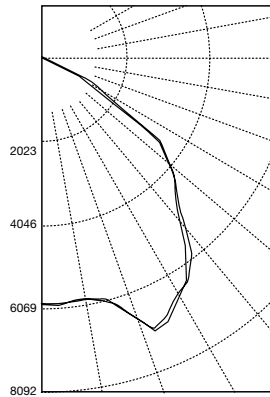
Lamps: Areamaster, Pendant Mount, LED Board 20 LEDs, Specular Reflector 6–1/2 X 6–1/2 Tapered To 3–1/2 X 3–1/2, Lens Clear

Characteristics: NEMA Type: 7Hx7V; Maximum Candela: 8092; Maximum Candela Angle: 25.5H 25.5V; Horizontal Beam Angle (50%): 97.3; Vertical Beam Angle (50%): 103; Horizontal Field Angle (10%): 137; Vertical Field Angle (10%): 136; Beam Lumens 14933; Field Lumens 18585; Luminaire Lumens 18842

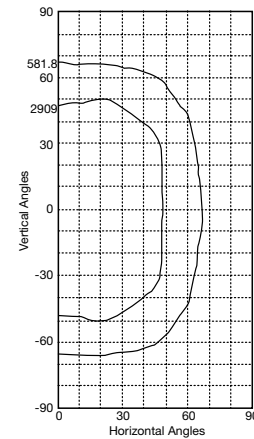
AXIAL CANDELA

DEG.	HOR.	VERT.
90	0	0
85	31	5
75	36	8
65	1239	938
55	3463	3477
47.5	4393	4345
42.5	4921	4831
37.5	5955	5752
33	6455	6392
29	6656	6778
25.5	6998	7087
22.5	7109	7158
19.5	6665	6664
17	6302	6222
15	6059	6108
13	6027	6044
11	5931	5942
9	5914	5938
7	5933	5956
5	5974	5975
3	6003	5995
1	6002	6004
0	5999	5999

AXIAL CANDELA DISPLAY



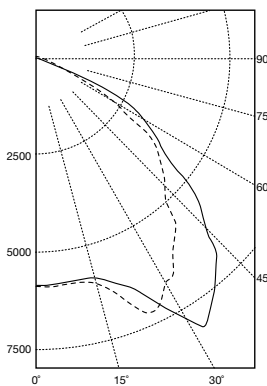
ISOCANDELA CURVES



CIE Type – Direct

Plane	Spacing Criteria
0-180	1.54
90-270	1.54

Zone	Lumens
0- 5	141
5- 10	419
10- 15	697
15- 20	1004
20- 25	1408
25- 30	1794
30- 35	2079
35- 40	2151
40- 45	2143
45- 50	2011
50- 55	1834
55- 60	1567
60- 65	1118
65- 70	514
70- 75	62
75- 80	3
80- 85	2
85- 90	1



REPORT NUMBER: **AMLED87YBU1_HIGHBAY**

Lamps: Areamaster, High Bay Mount, LED Board 20 LEDs, Specular Reflector 6–1/2 X 6–1/2 Tapered To 3–1/2 X 3–1/2, Lens Clear

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

		Effective Floor Slab Thicknesses (mm)																									
% Ceiling	Rcc	80					70					50					30					10					0
% Walls	Rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0					
0	119	119	119	119	119	116	116	116	116	116	111	111	111	111	106	106	106	102	102	102	100						
1	111	107	103	100	108	105	101	99	100	98	95	97	95	93	93	91	90	88									
2	102	95	89	84	99	93	88	83	89	85	81	86	83	79	83	80	77	75									
3	93	84	77	71	91	82	76	70	80	74	69	77	72	68	74	70	67	65									
4	86	75	67	60	84	73	66	60	71	64	59	69	63	58	67	62	58	56									
5	79	67	58	52	77	66	58	52	64	57	51	62	56	51	60	55	50	48									
6	73	60	52	45	71	59	51	45	57	50	45	56	49	45	54	49	44	42									
7	67	54	46	40	66	54	46	40	52	45	40	51	44	39	49	43	39	37									
8	63	49	41	36	61	49	41	35	47	40	35	46	40	35	45	39	35	33									
9	58	45	37	32	57	45	37	32	43	36	31	42	36	31	41	35	31	29									
10	54	42	34	29	53	41	34	29	40	33	28	39	33	28	38	32	28	26									

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture	Zone	Lumens	% Lamp	% Fixture
0-30	5462	N.A.	28.8	90-130	3	N.A.	0
0-40	9692	N.A.	51.2	90-150	5	N.A.	0
0-60	17247	N.A.	91.1	90-180	7	N.A.	0
0-90	18946	N.A.	100.1	0-180	18933	N.A.	100
90-120	2	N.A.	0				

Industrial Areamaster™ LED Flood/High Bay Luminaires

For Ordinary Locations. 250 W, 400 W, 750 W HID Light Level Equivalent

NEC/CEC:
Type 3R, 4X
IP66, IP67
Suitable for use in Wet Locations
Marine Outside Type (Salt Water)

Applications

- Powerful, efficient weatherproof lighting for applications such as:
 - Security lighting
 - Production facilities
 - Warehouses
 - Processing plants
 - Storage areas
 - Parking garages and lots

Features

- Compact in size, attractively styled contemporary design, rugged and dependable.
- Easy to install and service.
- One-piece housing.
- One-piece lens in hinged cover. Secured by four M6 captive stainless steel slotted hex-head bolts.
- Thermal shock- and impact-resistant glass lens standard.
- Diffused polycarbonate lens available as an option.
- Heavy duty, high temperature silicone rubber gasket, mechanically secured.
- Universal design for flood and high bay mounting.
- Floodlight Mounting:
 - Yoke mount, zinc plated steel yoke with architectural bronze polyester finish.
- High Bay Mounting:
 - (1) Conduit entry on back of luminaire with locking set screw.
 - Rotate yoke up or remove.
- Chain Mounting:
 - Mounts via eyebolts threaded into the corners of the fixture.
 - Available with chain mounting, or as an accessory.
 - Rotate yoke up or remove.
- Cool operating temperatures translate into long luminaire life.
- Available with a total of three (3) 3/4" NPT entries with integral bushings.
- Two (2) 3/4" NPT aluminum close up plugs provided.
- Electrical:
 - NEC/CEC: 120-277 Vac, 50/60 Hz; 347-480 Vac, 50/60 Hz.; 250 Vdc available on AMLED77YBC.
- Terminal block (screw type for secure connection) can accept UL/CSA 24-10AWG and IEC 0.2 - 4 mm².

Standard Materials

- Housing and lens door: copperfree (4/10 of 1% max.) aluminum
- Gasket: silicone rubber
- Reflector: metallized high reflectance finish
- Yoke mount: zinc plated steel
- Bolts: stainless steel
- Close up plugs: (2) aluminum provided

Standard Finishes

- Housing, lens cover and yoke mount: architectural bronze polyester



Floodlight



High Bay

NEC/CEC Certifications and Compliances

- UL Standard: UL 1598, UL 1598A,
- CSA Standards: C22.2 No. 250.0
- cCSAus Certified: 164460

DesignLights™ Consortium (for the following models)

- IAMLED67YBU1
- IAMLED67YBU1D
- IAMLED77YBU1
- IAMLED77YBU1D
- IAMLED87YBU1
- IAMLED87YBU1D

LED/FLOODLIGHTS: NEC/CEC ORDINARY LOCATION

Appleton

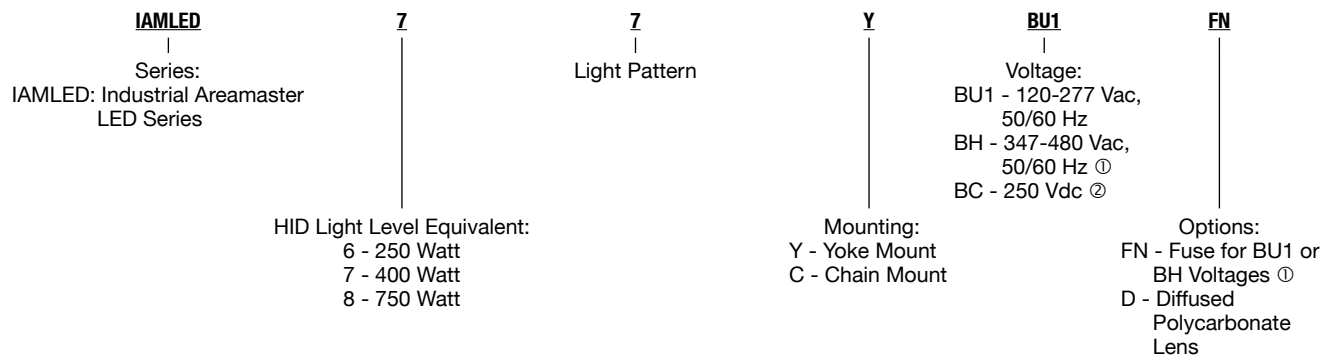
Industrial Areamaster™ LED Flood/High Bay Luminaires

For Ordinary Locations. 250 W, 400 W, 750 W HID Light Level Equivalent

NEC/CEC:
Type 3R, 4X
IP66, IP67
Suitable for use in Wet Locations
Marine Outside Type (Salt Water)

Order using catalog numbering guide below or select catalog number from tables on following pages.

Catalog Numbering Guide — Industrial Areamaster LED



Electrical Specifications — Flood Mount

Catalog Number	Voltage Range	Frequency (Hz)	Watts Input Power (Nom.)	Input Amps (Max.)	Total Harmonic Distortion	Power Factor
IAMLED67YBU1	120-277 Vac	50/60	86/85	0.72 - 0.32	0.5	> 0.98
IAMLED67YBH	347-480 Vac	50/60	88/90	0.25 - 0.19	0.5	> 0.96
IAMLED77YBU1	120-277 Vac	50/60	125/121	1.10 - .047	0.5	> 0.98
IAMLED77YBH	347-480 Vac	50/60	124/125	0.35 - 0.25	0.5	> 0.96
IAMLED77YBC	250 Vdc	—	118	0.47	0.5	> 0.98
IAMLED87YBU1	120-277 Vac	50/60	176/175	1.60 - 0.70	0.5	> 0.98



Line Voltage	Catalog Number
120-277 Vac, 50/60 Hz	IAMLED67YBU1
120-277 Vac, 50/60 Hz	IAMLED77YBU1
120-277 Vac, 50/60 Hz	IAMLED87YBU1
347-480 Vac, 50/60 Hz	IAMLED67YBH
347-480 Vac, 50/60 Hz	IAMLED77YBH
250 Vdc	IAMLED77YBC

① Not available for use on the 750 Watt equivalent.

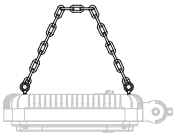
② Not available for use on the 250 and 750 Watt equivalent.

Industrial Areamaster™ LED Flood/High Bay Luminaires

For Ordinary Locations. 250 W, 400 W, 750 W HID Light Level Equivalent

NEC/CEC:
Type 3R, 4X
IP66, IP67
Suitable for use in Wet Locations
Marine Outside Type (Salt Water)

Accessories and Replacement Parts

	Description	Catalog Number
Crossarm Mounting Bracket		
	Has 180° horizontal adjustment — degree marked. Facilitates mounting floodlight to crossarm or other flat surface, or to G-AM-8-WB. Includes floodlight yoke bolts. Malleable iron, zinc plated, chromate sealed, architectural bronze polyester finish.	G-AM-8-CA
Pipe or Wall Mount Bracket		
	Used with G-AM-8-CA. Clamps to 1" to 2-1/2" pipe, vertical or horizontal, or mounts on flat surfaces. Includes U-bolt and crossarm bracket bolts. Malleable iron, zinc plated, chromate sealed, with architectural bronze polyester finish.	G-AM-8-WB
Poletop Slip-Fitter		
	Slip-fits 1-1/2" or 2" pipe size poletop tenons. Includes floodlight yoke bolts, 3 locking bolts, and cord grip. Body is malleable iron-zinc plated, chromate sealed, with cast aluminum cap. Assembly has architectural bronze polyester finish.	G-SF20
	Slip-fits 1" or 1-1/2" pipe size poletop tenons. Includes floodlight yoke bolts, 3 locking bolts, and cord grip. Body is malleable iron-zinc plated, chromate sealed, with cast aluminum cap. Assembly has architectural bronze polyester finish.	AMLEDSF1
Poletop Slip-Fitter		
	Slip-fits 2" or 2-1/2" poletop tenons. Includes floodlight yoke bolts, 3 locking bolts, and cord grip. Malleable iron, zinc plated, chromate sealed, with architectural bronze polyester finish.	G-AM-8-SF
Chain		
	Chain mount assembly comes with two (2) 914.4 mm (36 inch) long chains, four (4) eye bolts, four (4) hex bolts, four (4) lock washers, four (4) hex nuts, eight (8) plain washers and an instruction sheet for complete assembly and mounting. Chains are galvanized steel, eye bolts are zinc plated steel, all other hardware is stainless steel.	AMLEDCM
LED Array		
	LED Array with White LED's for the IAMLED67	IAMLED67AW
	LED Array with White LED's for the IAMLED77	IAMLED77AW
	LED Array with White LED's for the IAMLED87	IAMLED87AW
Drivers		
	120 - 277 Vac Driver — BU1 Version — IAMLED87: Left Side — IAMLED67, IAMLED77	IAMLEDDBU1L
	120 - 277 Vac Driver — BU1 Version — IAMLED87: Right Side	IAMLEDDBU1R
	347 - 480 Vac Driver — BH Version	IAMLED77DBH
	250 Vdc Driver — BC Version	IAMLED77DBU
Door Assembly		
	Door Assembly with a Glass Lens, Pins	IAMLEDMDOOR
	Door Assembly with a Polycarbonate Lens, Pins	IAMLEDMDOORP

LED/FLOODLIGHTS: NEC/CEC ORDINARY LOCATION

Appleton®

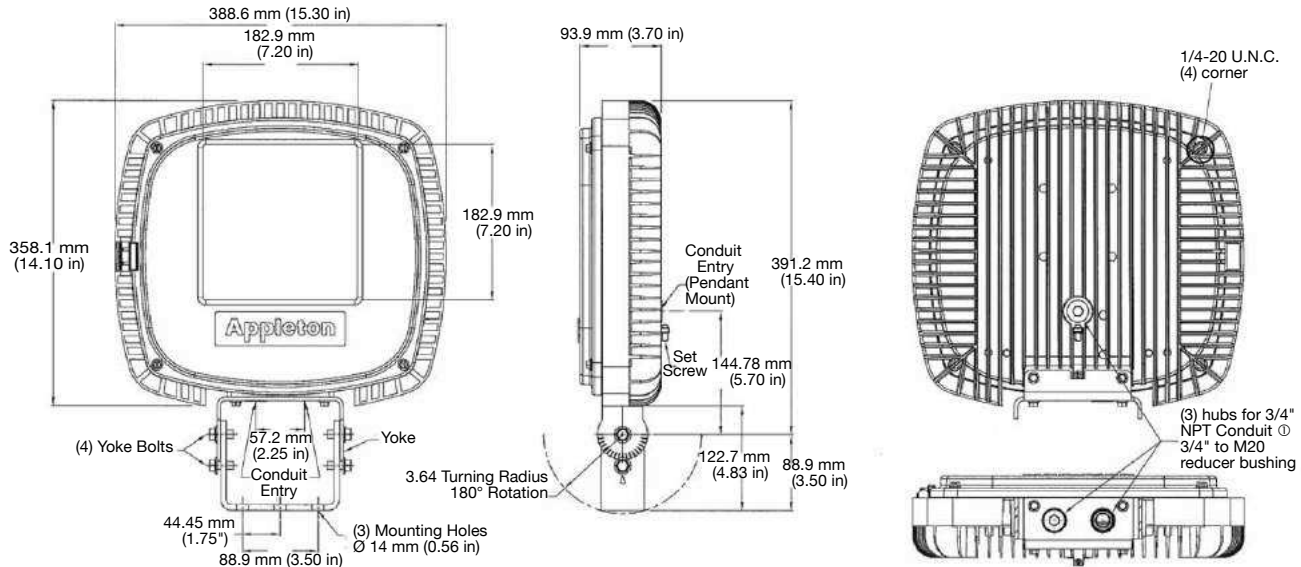
Industrial Areamaster™ LED Flood/High Bay Luminaires

For Ordinary Locations. 250 W, 400 W, 750 W HID Light Level Equivalent

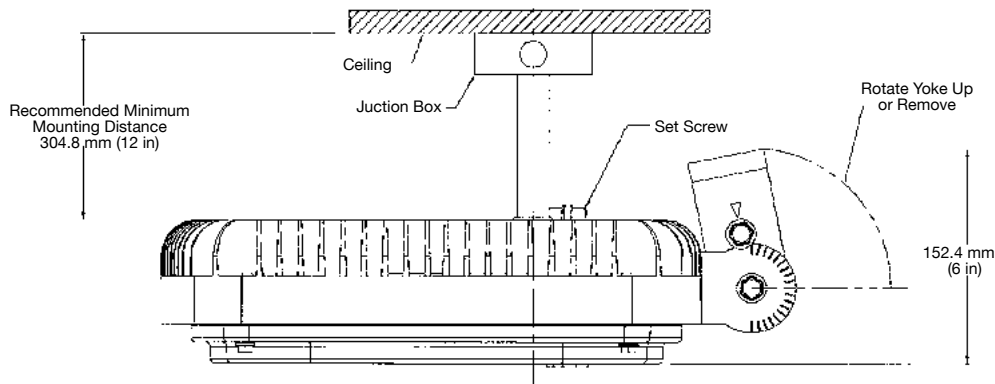
NEC/CEC:
Type 3R, 4X
IP66, IP67
Suitable for use in Wet Locations
Marine Outside Type (Salt Water)

Dimensions in Millimeters (Inches)

Floodlight



High Bay Pendant Mount



Industrial Areamaster™ LED Flood/High Bay Luminaires

For Ordinary Locations. 250 W, 400 W, 750 W HID Light Level Equivalent

NEC/CEC:
Type 3R, 4X
IP66, IP67
Suitable for use in Wet Locations
Marine Outside Type (Salt Water)

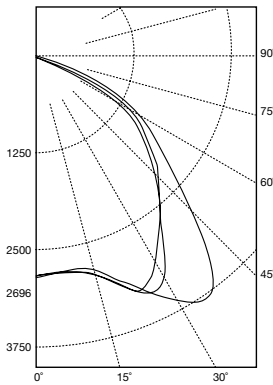
Photometric Data — DATA SHOWN IS ABSOLUTE

REPORT NUMBER: **IAMLED67YBU1_FLOOD**

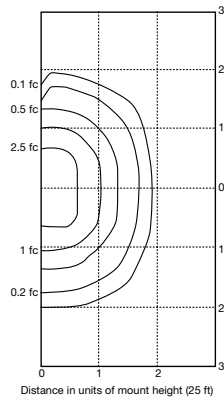
Lamps: Areamaster, High Bay Mount, LED Board 39 LEDs, Specular Reflector 6–1/2 X 6–1/2 Tapered To 3–1/2 X 3–1/2, Lens Clear

Luminaire Lumens 8238

POLAR CANDELA DISTRIBUTION



ISOCANDELA CURVES



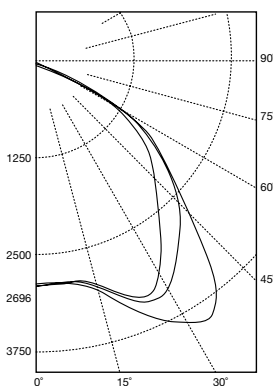
Zonal Lumen and Percentage at 25 °C (77 °F)

Zone	Lumens	% Lamp	% Fixture
0-10	245.6	N.A.	3.0
10-20	771.8	N.A.	9.4
20-30	1431	N.A.	17.4
30-40	1842	N.A.	22.4
40-50	1785	N.A.	21.7
50-60	1448	N.A.	17.6
60-70	667.1	N.A.	8.1
70-80	43.8	N.A.	0.5
80-90	4.5	N.A.	0.1

REPORT NUMBER: **IAMLED67YBU1_HIGHBAY**

Lamps: Areamaster, High Bay Mount, LED Board 39 LEDs, Specular Reflector 6–1/2 X 6–1/2 Tapered To 3–1/2 X 3–1/2, Lens Clear

POLAR CANDELA DISTRIBUTION



Zonal Lumen Summary and Percentage at 25 °C (77 °F)

Zone	Lumens	% Lamp	% Fixture
0-30	2434	N.A.	29.2
0-40	4283	N.A.	51.6
0-60	7553	N.A.	90.6
60-90	780	N.A.	9.4
0-90	8333	N.A.	100.0
90-180	0	N.A.	0
0-180	8333	N.A.	100.0

Zonal Lumen and Percentage at 25 °C (77 °F)

Zone	Lumens	% Lamp	% Fixture
0-10	244.8	N.A.	2.9
10-20	764.2	N.A.	9.2
20-30	1425	N.A.	17.1
30-40	1849	N.A.	22.2
40-50	1787	N.A.	21.4
50-60	1483	N.A.	17.8
60-70	731.0	N.A.	8.8
70-80	46.7	N.A.	0.6
80-90	2.4	N.A.	0.0

Industrial Areamaster™ LED Flood/High Bay Luminaires

For Ordinary Locations. 250 W, 400 W, 750 W HID Light Level Equivalent

NEC/CEC:
Type 3R, 4X
IP66, IP67
Suitable for use in Wet Locations
Marine Outside Type (Salt Water)

Photometric Data — DATA SHOWN IS ABSOLUTE

REPORT NUMBER: **IAMLED77YBU1_FLOOD**

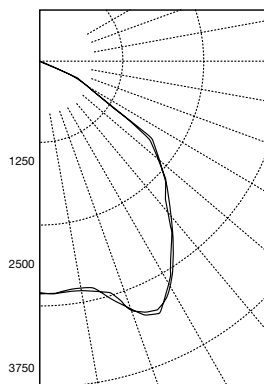
Lamps: Areamaster, High Bay Mount, LED Board 56 LEDs, Specular Reflector 6–1/2 X 6–1/2 Tapered To 3–1/2 X 3–1/2, Lens Clear

Characteristics: Maximum Candela: 5818; Maximum Candela Angle: 22.5 H 25.5 V; Horizontal Beam Angle (50%): 97.0; Vertical Beam Angle (50%): 102; Horizontal Field Angle (10%): 134; Vertical Field Angle (10%): 134; Beam Lumens 10414; Field Lumens 12967; Luminaire Lumens 13157

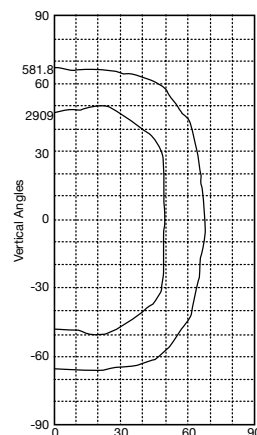
AXIAL CANDELA

DEG.	HOR.	VERT.
90.0	0	0
85.0	21	2
75.0	26	5
65.0	700	733
55.0	2400	2341
47.5	3023	2976
42.5	3375	3307
37.5	3838	3826
33.0	4312	4319
29.0	4670	4719
25.5	4964	4898
22.5	4910	4857
19.5	4700	4660
17.0	4456	4343
15.0	4273	4249
13.0	4184	4165
11.0	4154	4123
9.0	4139	4105
7.0	4124	4119
5.0	4127	4133
3.0	4138	4150
1.0	4149	4153
0.0	4149	4149

AXIAL CANDELA DISPLAY



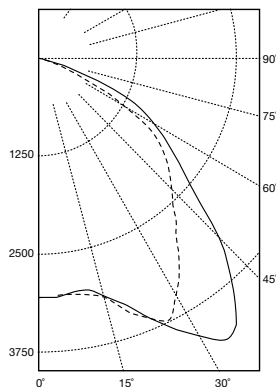
ISOCANDELA CURVES



CIE Type – Direct

Plane	Spacing Criteria
0 Deg	1.5
90 Deg	1.5

Zone	Lumens
0-5	98
5-10	290
10-15	485
15-20	711
20-25	993
25-30	1264
30-35	1440
35-40	1517
40-45	1471
45-50	1392
50-55	1283
55-60	1086
60-65	764
65-70	340
70-75	37
75-80	4
80-85	2
85-90	1



REPORT NUMBER: **IAMLED77YBU1_Highbay**

Lamps: Areamaster, High Bay Mount, LED Board 56 LEDs, Specular Reflector 6–1/2 X 6–1/2 Tapered To 3–1/2 X 3–1/2, Lens Clear

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

		Increase Area Ratio From Panels Size																				
% Ceiling	Rcc	80				70				50				30				10				0
% Walls	Rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0			
0	119	119	119	119	119	116	116	116	116	111	111	111	111	106	106	106	102	102	100			
1	111	107	103	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88				
2	102	95	89	84	99	93	88	83	90	85	81	86	83	79	83	80	78	76				
3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	75	70	67	65				
4	86	75	67	61	84	74	66	60	71	65	59	69	63	59	67	62	58	56				
5	79	67	59	52	77	66	58	52	64	57	52	62	56	51	60	55	50	48				
6	73	60	52	46	71	59	51	45	58	50	45	56	50	45	54	49	44	42				
7	67	54	46	40	66	54	46	40	52	45	40	51	44	39	49	44	39	37				
8	63	50	41	36	61	49	41	36	48	40	35	46	40	35	45	39	35	33				
9	58	45	37	32	57	45	37	32	44	37	32	43	36	31	42	36	31	30				
10	55	42	34	29	53	41	34	29	40	33	29	39	33	28	38	32	28	27				

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture	Zone	Lumens	% Lamp	% Fixture
0-30	3841	N.A.	29.1	90-130	2	N.A.	0.0
0-40	6798	N.A.	51.5	90-150	6	N.A.	0.0
0-60	12029	N.A.	91.1	90-180	7	N.A.	0.1
0-90	13177	N.A.	99.8	0-180	13199	N.A.	100
90-120	1	N.A.	0.0				

Industrial Areamaster™ LED Flood/High Bay Luminaires

For Ordinary Locations. 250 W, 400 W, 750 W HID Light Level Equivalent

NEC/CEC:
Type 3R, 4X
IP66, IP67
Suitable for use in Wet Locations
Marine Outside Type (Salt Water)

Photometric Data — DATA SHOWN IS ABSOLUTE

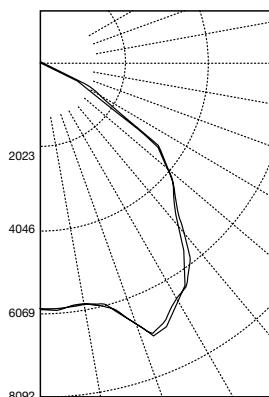
REPORT NUMBER: **IAMLED87YBU1_FLOOD**

Lamps: Areamaster, Pendant Mount, LED Board 20 LEDs, Specular Reflector 6–1/2 X 6–1/2 Tapered To 3–1/2 X 3–1/2, Lens Clear

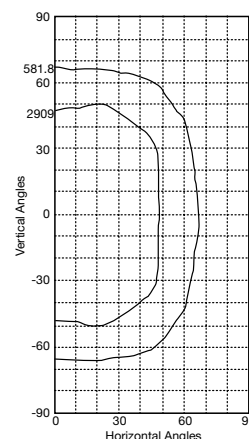
Characteristics: NEMA Type: 7Hx7V; Maximum Candela: 8092; Maximum Candela Angle: 25.5H 25.5V; Horizontal Beam Angle (50%): 97.3; Vertical Beam Angle (50%): 103; Horizontal Field Angle (10%): 137; Vertical Field Angle (10%): 136; Beam Lumens 14933; Field Lumens 18585; Luminaire Lumens 18842

AXIAL CANDELA		
DEG.	HOR.	VERT.
90	0	0
85	31	5
75	36	8
65	1239	938
55	3463	3477
47.5	4393	4345
42.5	4921	4831
37.5	5955	5752
33	6455	6392
29	6656	6778
25.5	6998	7087
22.5	7109	7158
19.5	6665	6664
17	6302	6222
15	6059	6108
13	6027	6044
11	5931	5942
9	5914	5938
7	5933	5956
5	5974	5975
3	6003	5995
1	6002	6004
0	5999	5999

AXIAL CANDELA DISPLAY



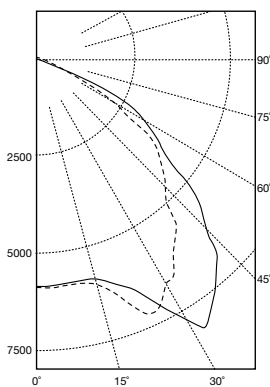
ISOCANDELA CURVES



CIE Type – Direct

Plane	Spacing Criteria
0-180	1.54
90-270	1.54

Zone	Lumens
0-5	141
5-10	419
10-15	697
15-20	1004
20-25	1408
25-30	1794
30-35	2079
35-40	2151
40-45	2143
45-50	2011
50-55	1834
55-60	1567
60-65	1118
65-70	514
70-75	62
75-80	3
80-85	2
85-90	1



REPORT NUMBER: **IAMLED87YBU1_Highbay**

Lamps: Areamaster, High Bay Mount, LED Board 20 LEDs, Specular Reflector 6–1/2 X 6–1/2 Tapered To 3–1/2 X 3–1/2, Lens Clear

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

		Envelope Area: Entry Hallways Size																				
% Ceiling	Rcc	80				70				50				30				10				0
% Walls	Rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0			
0	119	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100			
1	111	107	103	100	108	105	101	99	100	98	95	97	95	93	93	91	90	88	88			
2	102	95	89	84	99	93	88	83	89	85	81	86	83	79	83	80	77	75	75			
3	93	84	77	71	91	82	76	70	80	74	69	77	72	68	74	70	67	65	65			
4	86	75	67	60	84	73	66	60	71	64	59	69	63	58	67	62	58	56	56			
5	79	67	58	52	77	66	58	52	64	57	51	62	56	51	60	55	50	48	48			
6	73	60	52	45	71	59	51	45	57	50	45	56	49	45	54	49	44	42	42			
7	67	54	46	40	66	54	46	40	52	45	40	51	44	39	49	43	39	37	37			
8	63	49	41	36	61	49	41	35	47	40	35	46	40	35	45	39	35	33	33			
9	58	45	37	32	57	45	37	32	43	36	31	42	36	31	41	35	31	29	29			
10	54	42	34	29	53	41	34	29	40	33	28	39	33	28	38	32	28	26	26			

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture	Zone	Lumens	% Lamp	% Fixture
0-30	5462	N.A.	28.8	90-130	3	N.A.	0
0-40	9692	N.A.	51.2	90-150	5	N.A.	0
0-60	17247	N.A.	91.1	90-180	7	N.A.	0
0-90	18946	N.A.	100.1	0-180	18933	N.A.	100
90-120	2	N.A.	0				

Areamaster™ Green LED Flood/High Bay Luminaires

General Duty

NEC/CEC:
Rated for Ordinary (Classified) Locations

Applications

- Locations where a green light is required for steel manufacturing quality inspection

Features

- LED color: green.
- Compact in size, attractively styled contemporary design, rugged and dependable.
- Easy to install and service.
- One-piece housing.
- One-piece lens cover. Secured by four M6 captive stainless steel slotted hex-head bolts.
- Thermal shock and impact resistant glass lens.
- Heavy duty, high temperature silicone rubber gasket, firmly seated.
- Floodlight Mounting:
 - Yoke mount, zinc plated steel yoke with architectural bronze polyester finish.
- High Bay Mounting:
 - (1) Conduit entry on back of luminaire.
 - Rotate yoke up or remove.
- Vibration rated in all configurations.
- Cool operating temperatures translate into long luminaire life.
- Total of three (3) 3/4" NPT entries with integral bushings.
- Two (2) aluminum close up plugs provided.
- Electrical: 120-277 Vac, 50/60 Hz.
- Nominal input power: 165.
- Maximum input Amps: 1.40 - 0.60.
- Power factor: > 0.90.
- Terminal block (screw type for secure connection) can accept 24-10 AWG wire.

Standard Materials

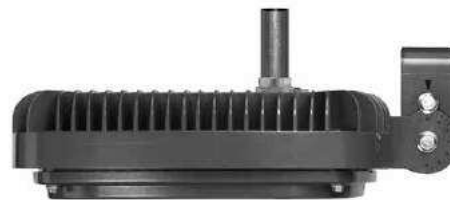
- Ballast housing and lens door: copperfree (4/10 of 1% max.) aluminum
- Gasket: silicone rubber
- Reflector: metallized high reflectance finish
- Yoke mount: zinc plated steel
- Bolts: stainless steel
- Plugs: (2) aluminum provided

Standard Finishes

- Housing, lens cover and yoke mount: architectural bronze polyester



Floodlight



High Bay

LED/FLOODLIGHTS: NEC/CEC ORDINARY LOCATION

Appleton®

Areamaster™ Green LED Flood/High Bay Luminaires

General Duty

NEC/CEC:
Rated for Ordinary (Classified) Locations

	Line Voltage	Yoke Mount Catalog Number
	120-277 50/60 Hz	AMLED774BU1GR
Accessories		
	Description	Catalog Numbers
Crossarm Mounting Bracket		
	Has 180° horizontal adjustment — degree marked. Facilitates mounting floodlight to crossarm or other flat surface, or to G-AM-8-WB. Includes floodlight yoke bolts. Malleable iron, zinc plated, chromate sealed, architectural bronze polyester finish.	G-AM-8-CA
Pipe or Wall Mount Bracket		
	Used with G-AM-8-CA. Clamps to 1" to 2-1/2" pipe, vertical or horizontal, or mounts on flat surfaces. Includes U-bolt and crossarm bracket bolts. Malleable iron, zinc plated, chromate sealed, with architectural bronze polyester finish.	G-AM-8-WB
Poletop Slip-Fitter		
	Slip-fits 1-1/2" or 2" pipe size poletop tenons. Includes floodlight yoke bolts, 3 locking bolts, and cord grip. Body is malleable iron-zinc plated, chromate sealed, with cast aluminum cap. Assembly has architectural bronze polyester finish.	G-SF20
Poletop Slip-Fitter		
	Slip-fits 2" or 2-1/2" poletop tenons. Includes floodlight yoke bolts, 3 locking bolts, and cord grip. Malleable iron, zinc plated, chromate sealed, with architectural bronze polyester finish.	G-AM-8-SF

LED/FLOODLIGHTS: NEC/CEC ORDINARY LOCATION

Appleton®

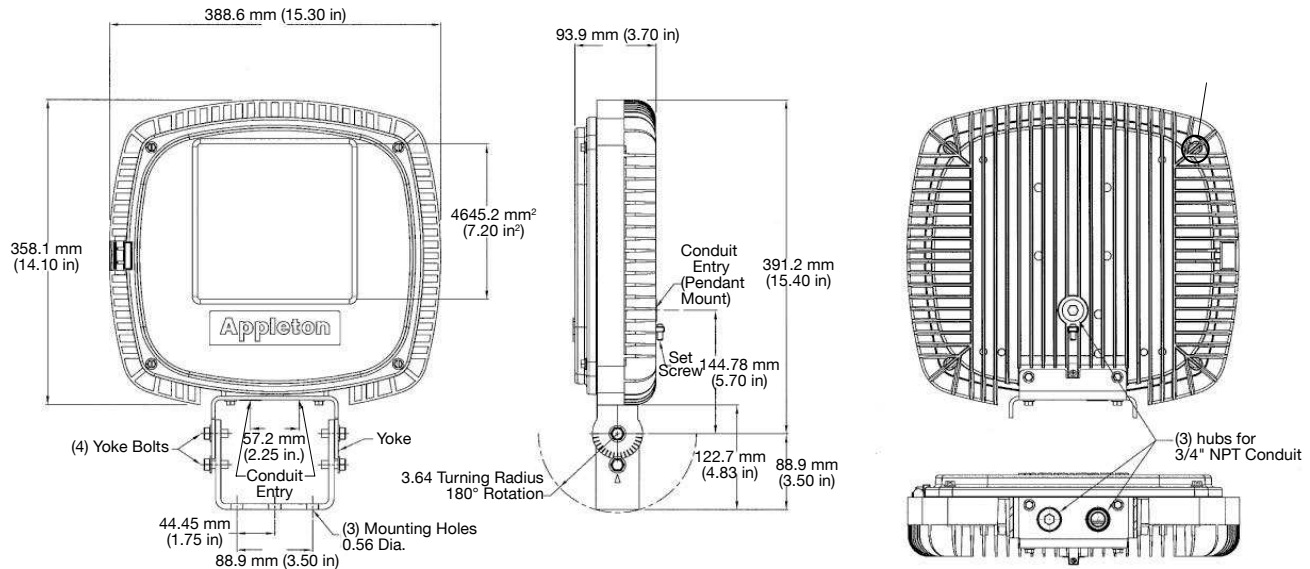
Areamaster™ Green LED Flood/High Bay Luminaires

General Duty

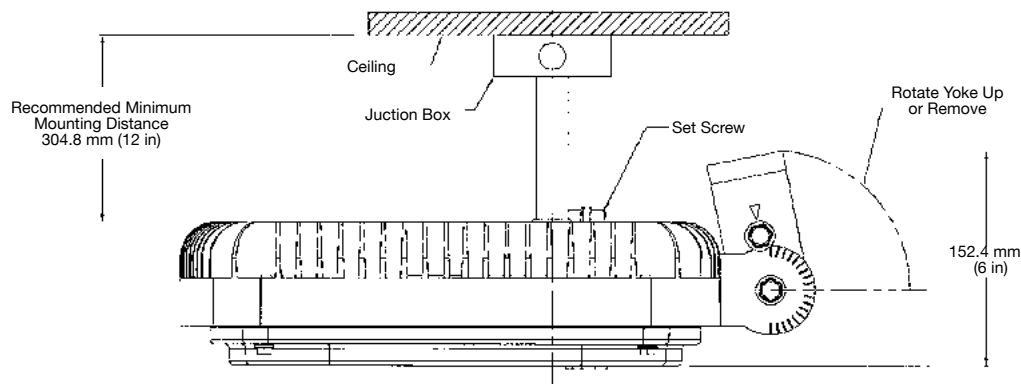
NEC/CEC:
Rated for Ordinary (Classified) Locations

Dimensions in Millimeters (Inches)

Floodlight



High Bay Pendant Mount



Areamaster™ Green LED Flood/High Bay Luminaires

General Duty

NEC/CEC:
Rated for Ordinary (Classified) Locations

Photometric Data — DATA SHOWN IS ABSOLUTE

REPORT NUMBER: **AMLED77YBUGR**

Fixture: Flood Mount, Led Board 60 LED, Specular Reflector 6–1/2 X 6–1/2 Tapered To 3–1/2 X 3–1/2 , Lens Clear 7 x 7"

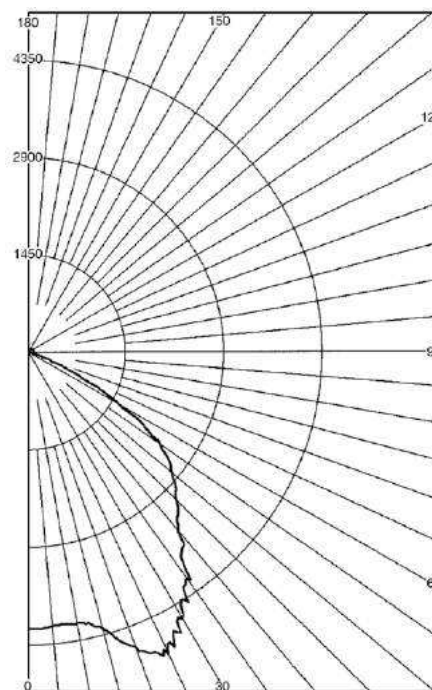
Floodlight Characteristics

IES Type	7H X 7V
Maximum Candlepower	3424. AT 22.5 H, 25.5 V
Horizontal Beam Angle (50%)	101.5 deg
Vertical Beam Angle (50%)	100.3 deg
Horizontal Field Angle (10%)	134.6 deg
Vertical Field Angle (10%)	134.2 deg
Beam Lumens (Efficiency)	6436. (79.7)
Field Lumens (Efficiency)	7949. (98.4)
Total Lumens (Efficiency)	8075. (100.0)

Axial Candlepower

Deg	Horizontal	Deg	Vertical
90.0	0.	90.0	0.
85.0	20.	85.0	1.
75.0	22.	75.0	3.
65.0	438.	65.0	444.
55.0	1479.	55.0	1460.
47.5	1889.	47.5	1828.
42.5	2146.	42.5	2121.
37.5	2539.	37.5	2515.
33.0	2807.	33.0	2928.
29.0	3043.	29.0	3121.
25.5	3163.	25.5	3186.
22.5	3063.	22.5	3080.
19.5	2968.	19.5	2936.
17.0	2807.	17.0	2758.
15.0	2795.	15.0	2731.
13.0	2771.	13.0	2706.
11.0	2732.	11.0	2704.
9.0	2714.	9.0	2711.
7.0	2721.	7.0	2722.
5.0	2728.	5.0	2731.
3.0	2736.	3.0	2730.
1.0	2729.	1.0	2731.
0.0	2730.	0.0	2730.

Plot(s) is/are single sweep(s) — Stray light is NOT accounted for. Lateral trace thru 90 deg Vertical.



LED/FLOODLIGHTS: NEC/CEC ORDINARY LOCATION

Appleton

ATX™ FDBAES LED Series Self-Contained Emergency Lighting Units

Flameproof

ATEX/IECEX:
Zone 1 and 2 - 21 and 22
Ex II 2 GD
IP66/68 - IK08

Applications

- Provides adequate lighting and/or visual indication of access on exit routes during an evacuation in a hazardous environment.
- Can be installed in hazardous areas designated as Zone 1 and 2 - 21 and 22.
- Typical applications include oil refineries, petrochemical plants, pulp and paper mills.

Features

All versions:

- Power supply 230 Vac, 50/60 Hz.
- 1 hour duration (emergency).
- Threaded access cover with O-ring seal.
- Can be maintained in hazardous areas as an internal switch cuts off battery supply automatically once the cover is unscrewed and opened.
- Battery pack.
- Escape route lighting: 2.4 V - 1.5 Ah (2 cells - Nicd)
Space lighting: 7.2 V - 2.2 Ah (6 cells - NiMh) - Flameproof
- Padlockable switch is available on switched models which individually cuts off power supply and remote control.
- Charge indicator by 1 green LED (life time over 10 years).
- Operates in any position.
- Connection to plug-in terminal block via 2 x 5 x 2.5 mm² (0.003 x 0.008 x 0.004 in³) terminals.
- Supplied with two fixing lugs.
- Automatic built-in self-test system (SATI) with memorization of tests indicated by LEDs.
- Using a microprocessor and an internal clock, the unit will carry out automatic tests.
- Weekly test: Lamp check during 6 seconds.
- Quarterly test: Emergency operation and lamp check for 1 hour.
- Can be remotely controlled and checked without switching the mains off with remote control unit from Legrand (Catalog Number 03901) or URA (Catalog Number 095448 and 095450) manufacturers.
- The remote control unit installed in a safe area or inside a flameproof box allows manual ignition of all the units (maximum 300 units) for visual inspection of their operation.
- Escape route lighting: 55 lumens, 0.50 wattage.
Space lighting: 540 lumens, 0.95 wattage.

Addressable versions:

- Operates without additional control lines. Communication between units and the control system is realized via mains borne signals that utilize the existing electrical wiring.
- Standard control system capacity: one control system for up to 200 emergency lighting units.
- Optional increased control system capacity: booster (repeater unit) is used to increase the length of the network allowing up to 1000 emergency lighting units to be on one control system. This allows for the use of a single computer to centralize the management of the facilities emergency lighting system. For more information, please contact your local sales representative.

Standard Materials

- End caps and cover: aluminum
- O-ring seal: Nitrile
- Lens: tempered borosilicate glass
- Fixing brackets: zinc plated steel or 316 stainless steel
- Accessories: white painted galvanized steel
- Guard: zinc plated steel



FDBAESLEDEM

Options

- Addressable monitoring software, please consult your local sales representative.
- Low temperature application, please consult your local sales representative.

ATEX/IECEX Certifications and Compliances

- Certification Type: FLd
 - Gas: Zone 1 - 2
 - Conforming to ATEX 94/9/CE: Ex II 2 G
 - Type of Protection: Ex d IIC
 - Temperature class: T6
 - Dust: Zone 21 - 22
 - Conforming to ATEX 94/9/CE: Ex II 2 D
 - Type of Protection: Ex tD A21
 - Surface Temperature: T80 °C (T176 °F)
- Ambient Temperature: -40 °C to +55 °C (-40 °F to +131 °F) ①
- CE Declaration of Conformity: 50203
- ATEX Certificate: LCIE 97/ ATEX 6012
- IECEX Certificate: IECEX LCI 04.0018
- Index of Protection according EN/IEC 60529: IP66/68
- Impact Resistance (shock): IK08
- Internal Volume: > 2 dm³ (122 in³) - 2 liters
- Conforming to NF AEAS

EURASEC Certification

- EURASEC N° TC RU C-FR.Г505.B.00912

Other Certification

- INMETRO Certificate: BVC 11.0492 ②

Related Products

- For labels see *Labels for Emergency Lighting Units, ATX Self-Adhesive Signaling Labels for Emergency Lighting Units.*

① Optimum operating temperature for battery is -5 °C to +30 °C (+23 °F to +86 °F)

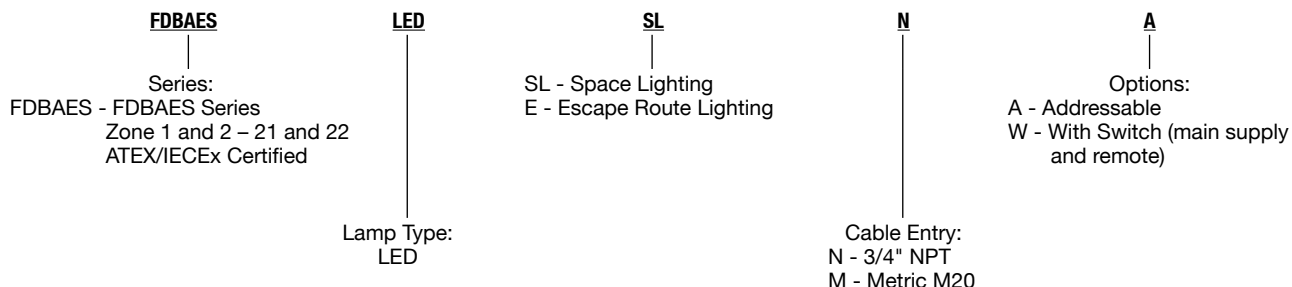
② Inmetro certification available on special request only. Contact your local sales representative for more information.

ATX™ FDBAES LED Series Self-Contained Emergency Lighting Units

Flameproof

ATEX/IECEX:
Zone 1 and 2 - 21 and 22
II 2 GD
IP66/68 - IK08

Catalog Numbering Guide



Type	Lamp	Lumen Output	Cable Entries	Weight kg (lb)	Volume dm³ (in³)	Catalog Number
Unswitched Version — 1 hour duration — Non-maintained — Two threaded cable entries with one blanking plug						
Space Lighting	LED Array	540 lm ①	3/4" NPT	8.1 (0.32)	37.1 (2264.0)	FDBAESLEDSLN
			M20			FDBAESLEDSLM
Escape Route Lighting	LED Array	55 lm ②	3/4" NPT	8.1 (0.32)	37.1 (2264.0)	FDBAESLEDEN
			M20			FDBAESLEDEM
Switched Version — 1 hour duration — Non-maintained — One threaded cable entry						
Space Lighting	LED Array	540 lm	3/4" NPT	10.0 (0.39)	40.4 (2465.4)	FDBAESLEDSLNW
			M20			FDBAESLEDSLMW
Escape Route Lighting	LED Array	55 lm	3/4" NPT	10.0 (0.39)	40.4 (2465.4)	FDBAESLEDENW
			M20			FDBAESLEDEMW
Addressable and Unswitched Version — 1 hour duration — Non-maintained — Two threaded cable entries with one blanking plug						
Space Lighting	LED Array	540 lm	3/4" NPT	8.1 (0.32)	37.1 (2264.0)	FDBAESLEDSLNA
			M20			FDBAESLEDSLMA
Escape Route Lighting	LED Array	55 lm	3/4" NPT	8.1 (0.32)	37.1 (2264.0)	FDBAESLEDENA
			M20			FDBAESLEDEMA
Addressable and Switched Version — 1 hour duration — Non-maintained — One threaded cable entry						
Space Lighting	LED Array	540 lm	M20	10.0 (0.39)	40.4 (2465.4)	FDBAESLEDSLMAW
Escape Route Lighting	LED Array	55 lm	M20	10.0 (0.39)	40.4 (2465.4)	FDBAESLEDEMAW

① Value measured after 1 hour duration - required value by standard is 400 lm.
 ② Value measured after 1 hour duration - required value by standard is 45 lm.

ATX™ FDBAES LED Series Self-Contained Emergency Lighting Units

Flameproof

ATEX/IECEX:
Zone 1 and 2 - 21 and 22
II 2 GD
IP66/68 - IK08

Accessories		
	Description	Catalog Number
	Reflector	
	White painted galvanized steel	FDER5G
	Protective Guard	
	Zinc plated steel	FDPG5Z
	Fixing Brackets – set of two brackets for ease of surface installation	
	Zinc plated steel	FDFBZ
	316 stainless steel	FDFBS
	Surface Mounting Brackets – set of two brackets for ease of installation	
	Zinc plated steel	FDSBZ
	316 stainless steel	FDSBS
	Half Clamps – set of two	
	Zinc plated steel versions:	
	Diameter for 1-1/4 to 1-1/2" pole: 42 mm (16.65 in) to 49 mm (1.93 in)	FDHC49Z
	Diameter for 2" pole: 60 mm (2.36 in)	FDHC60Z
	316 stainless steel versions:	
	Diameter for 1-1/4 to 1-1/2" pole: 42 mm (16.65 in) to 49 mm (1.93 in)	
	Diameter for 2" pole: 60 mm (2.36 in)	FDHC49S
	Fall Prevention Kit	FDHC60S
	1.20 m (3.94 ft) stainless steel chain	FDSCS

LED / ATEX / IECEX BULKHEAD

Appleton®

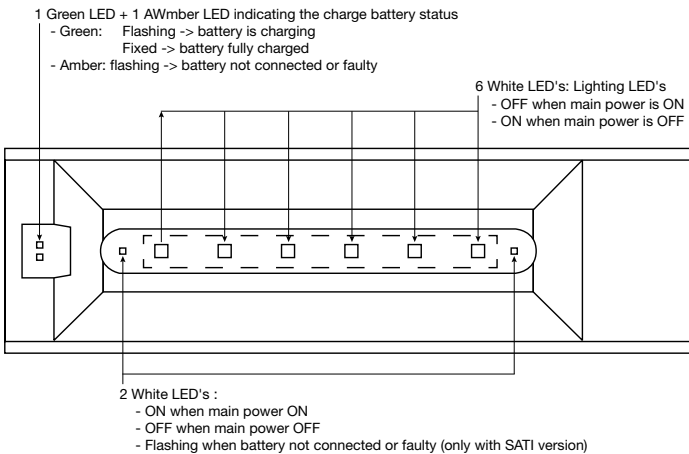
ATX™ FDBAES LED Series Self-Contained Emergency Lighting Units

Flameproof

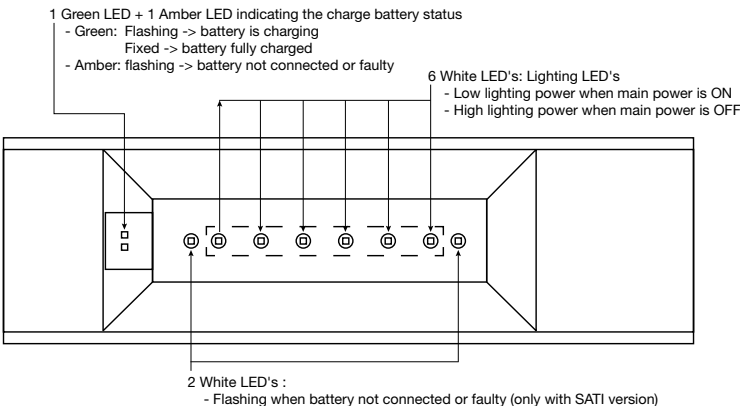
ATEX/IECEX:
Zone 1 and 2 - 21 and 22
II 2 GD
IP66/68 - IK08

LED Indicator

Space Lighting — Replaces Fluorescent Version



Escape Lighting — Replaces Incandescent Version



Main Status	Non Maintained	
	Space Lighting	Escape Route Lighting
Switched On	☀ ● ● ● ● ● ● ☀	● ✕ ✕ ✕ ✕ ✕ ✕ ●
Switched Off	● ☀ ☀ ☀ ☀ ☀ ☀ ●	● ☀ ☀ ☀ ☀ ☀ ☀ ●
●	OFF	
☀	ON (high lighting power)	
✕	ON (low lighting power)	

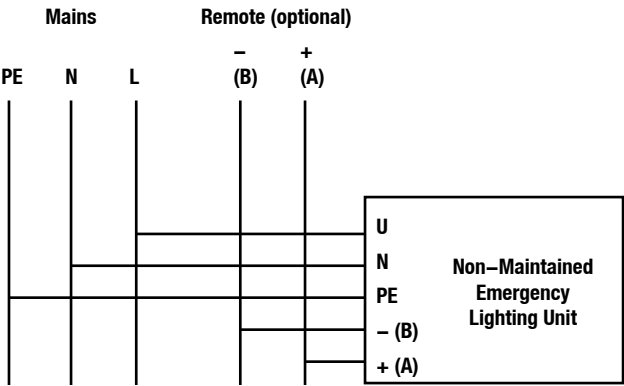
Battery not Connected or Faulty	Main Power ON	
	Space or Escape Route Lighting	
SATI	⚡	⚡ ● ● ● ● ● ● ⚡
Addressable	⚡	● ● ● ● ● ● ● ●
●	OFF	
⚡	ON — Flashing — White LED	
⚡	ON — Flashing — Amber LED	

ATX™ FDBAES LED Series Self-Contained Emergency Lighting Units

Flameproof

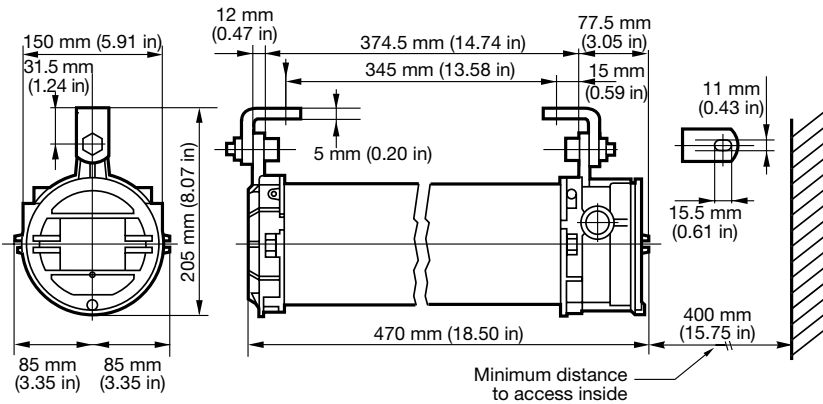
ATEX/IECEX:
Zone 1 and 2 - 21 and 22
II 2 GD
IP66/68 - IK08

Electrical Wiring Diagram

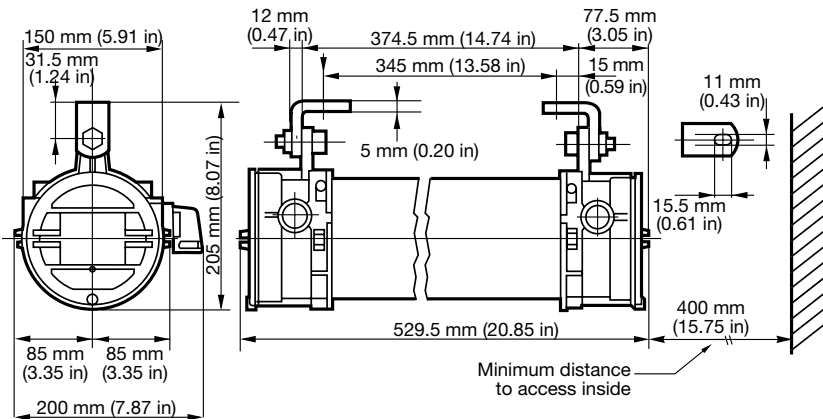


Dimensions in Millimeters (Inches)

Unswitched Versions



Switched Versions



ATX™ FNES LED Series Self-Contained Emergency Lighting

Zone 2 - 21 and 22. With Self-Test System

ATEX/IECEX:
Zone 2 - 21 and 22
II 2 D and II 3 GD
IP66/67 - IK10

Applications

- Provides adequate lighting and/or visual indication of access and exit routes during an evacuation in a hazardous environment.
- Can be installed in hazardous areas designated as Zone 2 – 21 and 22.
- Typical applications include oil refineries, petrochemical plants, pulp, paper mills and silos.

Features

- Power supply 230 Vac, 50/60 Hz.
- 3 hour duration (emergency).
- Non-maintained.
- Operates in any position.
- Battery pack.
 - Escape route lighting: 2.4 V - 1.5 Ah (2 cells - Nicd).
 - Space lighting: 7.2 V - 2.2 Ah (6 cells - NiMH) - Flameproof.
- Open and close using an Allen key (size 10) or a 6 mm flat screwdriver.
- Connection to plug-in terminal block via 2 x 5 x 2.5 mm² (0.003 x 0.008 x 0.004 in²) terminals.
- Two M20 clearance holes supplied with one cable gland — diameter 6.5 to 14.5 mm (0.26 to 0.57 in), one blanking plug and two locknuts.
- Charge indicator by green LED (lifetime over 10 years).
- Automatic built-in self-test system (SATI) with memorization of tests indicated by LEDs.
- Using a microprocessor and an internal clock, the unit will carry out automatic tests.
- Weekly test: Lamp check duration 6 seconds.
- Quarterly test: Emergency operation and lamp check for 1 hour.
- Can be remotely controlled and checked without switching the mains off with remote control unit from Legrand (Catalog Number 03901) or URA (Catalog Number 095448 and 095450) manufacturers.
- The remote control unit installed in a safe area or inside a flameproof box allows manual ignition of all the units (max. 300 units) for visual inspection of their operation.
- Escape route lighting: 55 lumens, 0.50 wattage.
- Space lighting: 540 lumens, 0.95 wattage.

Standard Materials

- Body: fiberglass reinforced polyester
- Diffuser (hinged to body): polycarbonate
- Gasket: elastomer
- Fixing brackets: zinc plated steel, gray painted aluminum or 316 stainless steel
- Cable gland and blanking plug: polyamide
- Locknut: nickel-plated brass

Options

- Addressable versions:
 - Operates without additional control lines. Communication between units and the control system is realized via mains borne signals that utilize the existing electrical wiring.
 - Standard control system capacity: one control system for up to 200 emergency lighting units.



FNES LED

- Optional increased control system capacity: booster (repeater unit) is used to increase the length of the network allowing up to 1000 emergency lighting units to be on one control system. This allows for the use of a single computer to centralize the management of the facilities emergency lighting system. For more information, please contact your local sales representative.
- Addressable monitoring software is available, please consult your local sales representative.
- Low temperature application, please consult your local sales representative.

ATEX/IECEX Certifications and Compliances

- Certification Type: FLn
 - Gas: Zone 2
 - Conforming to ATEX 94/9/CE: Ⓢ II 3 G
 - Type of Protection 'nA': Type of Protection 'nA'
 - Type of Protection 'nR': Ex nR IIC T4 Gc
 - Temperature class: T6 (nA) or T4 (nR)
 - Ambient Temperature: -20 °C to +55 °C (-4°F to +131 °F) ①
 - Dust: Zone 21
 - Conforming to ATEX 94/9/CE: Ⓢ II 2 D
 - Type of Protection: Ex tD A21
 - Surface Temperature: T75 °C (T167 °F)
 - Ambient Temperature: -40 °C to +55 °C (-40 °F to +131 °F) ①
 - Dust: Zone 22
 - Conforming to ATEX 94/9/CE: Ⓢ II 3 D
 - Type of Protection: Ex t IIC Dc
 - Surface Temperature: T75 °C (T167 °F)
 - Ambient Temperature: -20 °C to +55 °C (-4°F to +131 °F) ①
- CE Declaration of Conformity: 50212
- ATEX Certificate: LCIE 03 ATEX 6072 (Zone 2-22), LCIE 02 ATEX 6067 (Zone 21)
- IECEx Certificate: IECEx LCI 04.0021 (Zone 2-22)
- Index of Protection according EN/IEC 60529: IP66/67
- Impact Resistance (shock): IK10
- Conforming to NF AEAS

EURASEC Certification

- EURASEC N° TC RU C-FR.Г505.B.00912

Other Certification

- INMETRO Certificate: BVC11.0815 ②

Related Products

- For labels see *Labels for Emergency Lighting Units*, *ATX Self-Adhesive Signaling Labels for Emergency Lighting Units*.

① Optimum operating temperature for battery is -5 °C to +30 °C (+23 °F to +86 °F).

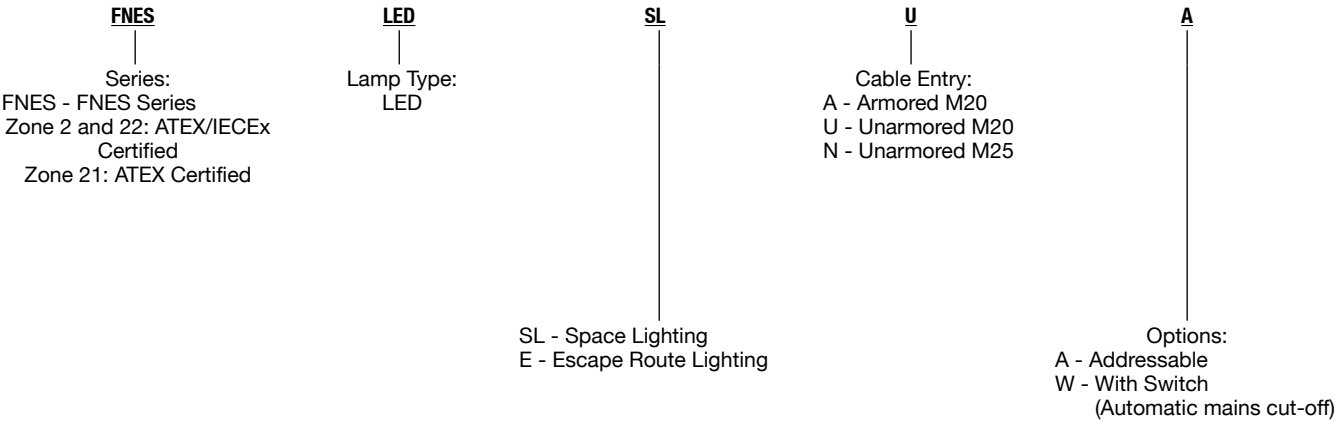
② Inmetro certification available on special request only. Contact your local sales representative for more information.

ATX™ FNES LED Series Self-Contained Emergency Lighting

Zone 2 - 21 and 22. With Self-Test System

ATEX/IECEX:
 Zone 2 - 21 and 22
 II 2 D and II 3 GD
 IP66/67 - IK10

Catalog Numbering Guide



Unswitched Version – 1 hour duration - Non-maintained - Two Unarmored M20 clearance entries

Type	Lamp Type	Lumen Output	Weight kg (lb)	Volume dm ³ (in ³)	Catalog Number
Space Lighting	LED Array	540 lm	7.2 (15.87)	32.3 (1971.1)	FNESLEDSLU
Escape Route Lighting	LED Array	55 lm	7.2 (15.87)	32.3 (1971.1)	FNESLEDEU

LED / ATEX / IECEX BULKHEAD



ATX™ FNES LED Series Self-Contained Emergency Lighting

Zone 2 - 21 and 22. With Self-Test System

ATEX/IECEX:
Zone 2 - 21 and 22
II 2 D and II 3 GD
IP66/67 - IK10

Accessories

	Description	Catalog Number
	Half Clamps Brackets - Set of Two	
	Diameter for 1-1/4 to 1-1/2" pole: 42 mm (1.65 in) to 49 mm (1.93 in)	
	Zinc plated steel	FEHC49Z
	316 stainless steel	FEHC49S
	Diameter for 2" pole: 60 mm (2.36 in)	
	Zinc plated steel	FEHC60Z
	316 stainless steel	FEHC60S
	M8 Ring Bolts - Set of Two	
	Zinc plated steel	FERBM8Z
	Hinged Brackets - Set of two brackets for adjusting luminaire when wall-mounted	
	Aluminium (gray painted)	FEHBA
	316 stainless steel	FEHBS
	Brackets for Surface Mounting - Set of two	
	Aluminium (gray painted)	FESBA
	316 stainless steel	FESBS
	Fixing Brackets - Set of two brackets for ease of surface installation	
	Zinc plated steel	FEFBZ
	316 stainless steel	FEFBS

LED/ATEX/IECEX BULKHEAD

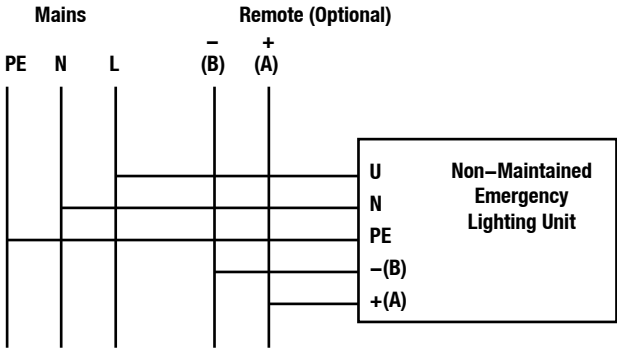
 **Appleton**

ATX™ FNES LED Series Self-Contained Emergency Lighting

Zone 2 - 21 and 22. With Self-Test System

ATEX/IECEX:
Zone 2 - 21 and 22
II 2 D and II 3 GD
IP66/67 - IK10

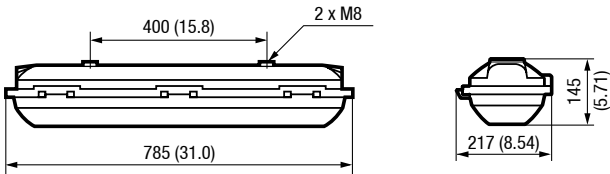
Electrical Wiring Diagram



LED Indicator

Main Status	Non Maintained		Battery not Connected or Faulty	Main Power ON	
	Space Lighting	Escape Route Lighting		Space or Escape Route Lighting	
Switched On	☀ ● ● ● ● ● ☀	● ✕ ✕ ✕ ✕ ✕ ●	SATI	⬮ ⬮ ● ● ● ● ● ⬮	
Switched Off	● ☀ ☀ ☀ ☀ ☀ ●	● ☀ ☀ ☀ ☀ ☀ ●	Addressable	⬮ ● ● ● ● ● ● ●	
● OFF ☀ ON (high lighting power) ✕ ON (low lighting power)					
● OFF ⬮ ON — Flashing — White LED ⬮ ON — Flashing — Amber LED					

Dimensions in Millimeters (Inches)



Mercmaster™ III Induction Luminaires

Enclosed and Gasketed. For Hazardous and Adverse Locations

NEC/CEC:
Class I, Division 2, Groups A, B, C, D
Class II, Division 1 and 2, Groups E, F, G
NEMA 4X

NEC/CEC:
Class I, Zone 2
AEx nA nR, IIC
Ex nA nR IIC

Applications

- Areas where access for relamping is difficult, reliability is essential and the environment is costly to maintain.
- Cold environment applications.
- Enclosed and gasketed fixtures suitable for use in marine and wet locations, and in a wide range of industrial, chemical processing and other areas where flammable gases and vapors or combustible dusts are present under conditions defined by NEC Class I, Division 2.
- Fixtures are also well suited for use in non-hazardous areas where severe weather conditions, excessive moisture, dirt, dust and corrosive atmospheres are a problem.
- Typical applications include pulp and paper mills, processing plants, chemical plants, oil refineries, foundries, manufacturing plants, storage areas and marine applications. Fixtures have NEMA 4X listing.

Features

- Instant start and restrike.
- High lumen output and efficacy (up to 73 lumens per Watt).
- Fixtures operate safely in a 40 °C (104 °F) ambient.
- Good lumen maintenance provides less than 30% depreciation after 60K hours of operation.
- Virtually maintenance free.
- Ultra long 100,000 hours of life keeps maintenance costs to a minimum.
- Starts in temperatures as low as -40 °C (-40 °F).
- Low total harmonic distortion (less than 10%).
- No cycling at end of life.
- Modular design allows scores of fixture component combinations to meet installation and lighting needs.
- Mounting hoods include cone-shaped pendant, standard pendant, flexible pendant, ceiling and wall (tapped for 3/4" or 1" NPT), 25° angle stanchion and straight stanchion (both tapped for 1-1/4" or 1-1/2" NPT).
- Cone hood fixtures for pendant mounting shed dust, dirt and combustible fibers, and inhibit build-up that "insulates" fixture and slows heat transfer. Also provide increased surface area for more effective heat dissipation.
- Reflector choice includes standard dome and 30° angle types, both made of fiberglass reinforced white polyester. Highly resistant to unusually corrosive applications. Reflectors are vented for cooler, dirt-free operation and maintained lumen output. They secure to ballast housing with stainless steel screws threading into stainless steel inserts.
- For high corrosion resistance, fixture housing, mounting hoods and guards are copperfree (4/10 of 1% max.) cast aluminum with baked epoxy finish, electrostatically applied for uniformity. All exposed hardware is stainless steel.
- Hinge has high lip for added safety during installation and servicing. Hinge and bolt construction assures 360° compression at all points on ballast housing gasket for positive sealing. Swing-away design of captive bolt and nut simplifies servicing.
- Body gaskets and globe gaskets are high-temperature silicone rubber.
- All Mercmaster III mounting hoods have provision for easy field installation of fuses in fixtures (see fuse kit listings in this catalog section).
- For electrical protection, a ground wire is provided on each Mercmaster to bond hood and ballast housing.



**85 Watt Wall Mount Fixture with
Prismatic Glass Globe**

Standard Materials

- Mounting hoods, ballast bodies and guards: cast copperfree (4/10 of 1% max.) aluminum
- Exposed hardware: stainless steel; latch assemblies have stainless steel bolt and captive nut; reflectors and guards attach with stainless steel screws threading into stainless steel inserts
- Reflectors: fiberglass reinforced white polyester
- Globes: heat-resistant prismatic glass

Standard Finishes

- Mounting hoods, ballast bodies, guards: epoxy powder coat finish, electrostatically applied for complete, uniform surface protection
- Reflectors: white polyester finish

Options

- Fuses can be field-installed on Mercmaster III fixtures. Kits include fuse block, wire connectors and screws for attaching to mounting hood. Fixtures with fuses do not comply with Marine Type Electric Fixtures Outside Type (Salt Water) requirements for marine listing.
- Photocell optional for all fixtures except cone and ceiling mounts; provides automatic "on-off" control.

NEC/CEC Certifications and Compliances

- UL Standard: UL 1598, UL 844, UL 1598A
- CSA Standard: C22.2 No. 250, C22.2 No. 137
- cCSAus Certified

Mercmaster™ III Induction Luminaires

Enclosed and Gasketed. For Hazardous and Adverse Locations

NEC/CEC:
Class I, Division 2, Groups A, B, C, D
Class II, Division 1 and 2, Groups E, F, G
NEMA 4X

NEC/CEC:
Class I, Zone 2
AEx nA nR, IIC
Ex nA nR IIC

Illustrated Features

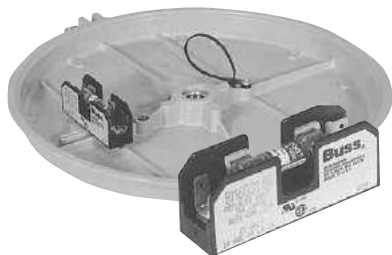


Aluminum Inner Reflector

Solid aluminum inner reflector improves photometric efficiency.

Epoxy Finish

Ballast housing, hoods and guards are copperfree aluminum with epoxy powder coat finish.



Fuses Mount to Hood Bosses

Two screws secure fuse kit to mounting boss in any Mercmaster mounting hood.

Electrical Protection

Ground wire provided to bond mounting hood to ballast housing.



Stainless Steel Latch Assembly

Captive, stainless steel latch assembly bolt and nut closes securely, resists attack of corrosive atmospheres. Swing-away design simplifies servicing.



Rugged, Vented Reflectors

Reflectors are thick, tough fiberglass reinforced white polyester, vented for cooler operation. Quickly attach with stainless steel screws provided.

Threaded Stainless Steel Inserts for Screws

Fixture bodies have stainless steel threaded inserts to receive stainless steel screws for reflector and guard. Prevents "freezing", allowing guards and reflectors to be easily removed and replaced at any time, without damage to the housing.

Prismatic Glass Globes, Refractors and Enclosed Reflector

Heat-resistant globes, refractors and enclosed reflectors thread into ballast housing and seal against a high-temperature silicone rubber gasket.



Mounting Hood and Globe Gaskets

Silicone rubber gaskets seals out moisture, dirt and dust. Stays flexible, withstands high temperatures. Closure design assures uniform gasket compression.



Cooler Operating Cone Hood

Sloped surface sheds insulating dust, dirt, and combustible fibers. Provides cleaner, larger surface area for better heat dissipation.

Photocell

Available for all fixtures except cone and ceiling mount. Installs through knock-out in mounting hood. Provides continuous ON-OFF dusk-to-dawn control.



"Safety" High Hinge

Extra-high hinge provides additional protection against accidental ballast housing disengagement during installation or maintenance.

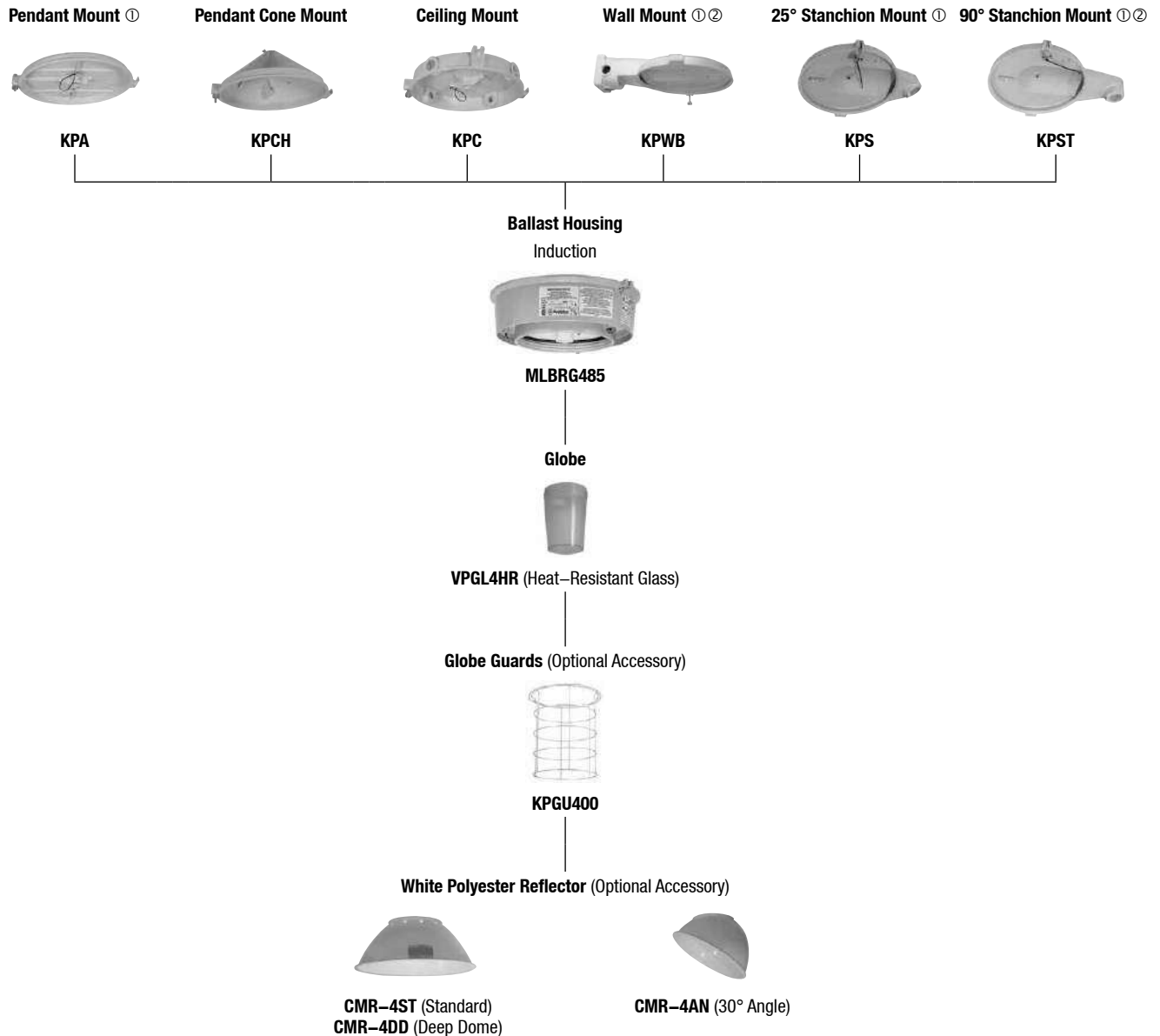
Mercmaster™ III Induction Luminaires

Enclosed and Gasketed. For Hazardous and Adverse Locations

NEC/CEC:
 Class I, Division 2, Groups A, B, C, D
 Class II, Division 1 and 2, Groups E, F, G
 NEMA 4X

NEC/CEC:
 Class I, Zone 2
 AEx nA nR, IIC
 Ex nA nR IIC

Mercmaster III Induction Family Tree



① Mounting hood with a 120 V or 208-277 V factory installed photocell is available.

② Standard and deep dome reflectors may interfere with bottom conduit entry if used with KPST and KPWB mounting hoods..

Mercmaster™ III Induction Luminaires

Enclosed and Gasketed. For Hazardous and Adverse Locations

NEC/CEC:
Class I, Division 2, Groups A, B, C, D
Class II, Division 1 and 2, Groups E, F, G
NEMA 4X

NEC/CEC:
Class I, Zone 2
AEx nA nR, IIC
Ex nA nR IIC

"T" Numbers for Mercmaster III Induction Fixtures — Class I, Division 2 and Class II, Division 1 and 2

Lamp Watts	Lamp Type	Supply Wire Temp. °C (°F)	Ambient Temp. °C (°F)	Input Voltage	Class I, Division 2, Groups A, B, C, D NEC/CEC Temp. Indent. Number Nameplate Marking			Class II, Division 1 and 2, Groups E, F, G NEC/CEC Temp. Indent. Number Nameplate Marking		
					with Globe or Globe and Reflector	with Refractor	with Enclosed Reflector	with Globe or Globe and Reflector	with Refractor	with Enclosed Reflector
85	Induction	90 (194)	40 (104)	100-120	T3A	—	—	T6	—	—
85	Induction	90 (194)	40 (104)	200-277	T3A	—	—	T6	—	—

"T" Numbers for Mercmaster III Induction Fixtures — Class I, Zone 2

Lamp Watts	Lamp Type	Supply Wire Temp. °C (°F)	Ambient Temp. °C (°F)	Input Voltage	Class I, Zone 2 AEx nA nR IIC / Ex nA nR IIC		Class I, Zone 2 AEx nR IIC / Ex nR IIC			
					with Globe	with Globe and Reflector	with Globe	with Globe and Reflector	with Refractor	Reflector with Lens
85	Induction	90 (194)	40 (104)	100-120	T4	T4	—	—	—	—
85	Induction	90 (194)	40 (104)	200-277	T4	T4	—	—	—	—

"T" Numbers Represent the Maximum Lamp Temperature for Class I, Division 2 Locations and Maximum Surface Temperature Under Dust Blanket for Class II, Division 1 Locations.

"T" Number	T1	350	325	T2	T2A	T2B	T2C	T2D	T3	T3A	T3B	T3C	T4	T4A	T5	T6
Temp Range (°C)	351-450	326-350	301-325	281-300	261-280	231-260	216-230	201-215	181-200	166-180	161-165	136-160	121-135	101-120	86-100	85
Temp. Range (°F)	664-842	619-662	574-617	538-572	502-536	448-500	421-446	394-419	358-392	331-356	322-329	277-320	250-275	214-248	187-212	185

Mercmaster™ III Induction Luminaires

Enclosed and Gasketed. For Hazardous and Adverse Locations

NEC/CEC:
Class I, Division 2, Groups A, B, C, D
Class II, Division 1 and 2, Groups E, F, G
NEMA 4X

NEC/CEC:
Class I, Zone 2
AEx nA nR, IIC
Ex nA nR IIC

	Type Mounting	Lamp Watts	Hub Size (Inches)	Catalog Numbers ① ② ③ with Globe
 Shown with Globe	Pendant			
	One Hub Rigid Mounting ④	85 ⑤ ⑥	3/4	MLAQ852G4N
			1	MLAQ853G4N
 Shown with Globe	Pendant Cone Hood			
	One Hub Rigid Mounting	85 ⑤ ⑥	3/4	MLDQ852G4N
			1	MLDQ853G4N
 Shown with Refractor	Ceiling			
	Five Hubs Four Close-Up Plugs	85 ⑤ ⑥	3/4	MLCQ852G4N
			1	MLCQ853G4N

- ① Add voltage suffix **-A1** for 120 Vac; 90-140 Vac; **-A6** for 277; 180-305 Vac.
 ② See following pages for accessory ordering information.
 ③ For fixtures with guard, substitute **G** for **N** before adding suffix.
 ④ For flexible pendant mount, change **A** to **F** in catalog number.
 ⑤ Add **Z2** suffix for factory sealed non-sparking/restricted breathing protection (AEx nA nR).
 ⑥ Add **Z** suffix for factory sealed non-sparking/restricted breathing protection (Ex nA nR).

Mercmaster™ III Induction Luminaires

Enclosed and Gasketed. For Hazardous and Adverse Locations

NEC/CEC:
Class I, Division 2, Groups A, B, C, D
Class II, Division 1 and 2, Groups E, F, G
NEMA 4X

NEC/CEC:
Class I, Zone 2
AEx nA nR, IIC
Ex nA nR IIC

Appleton®

INDUCTION/AREA: NEC/CEC ENCLOSED AND GASKETED

	Type Mounting	Lamp Watts	Hub Size (Inches)	Catalog Numbers ① ② ③ with Globe
 Shown with Globe	Wall		3/4	MLWQ852G4N
	Five Hubs Four Close-Up Plugs	85 ④ ⑤	1	MLWQ853G4N
 Shown with Globe	25° Stanchion		1-1/4	MLSQ854G4N
	One Hub	85 ④ ⑤	1-1/2	MLSQ855G4N
 Shown with Globe	Straight Stanchion		1-1/4	MLRQ854G4N
	One Hub	85 ④ ⑤	1-1/2	MLRQ855G4N

① Add voltage suffix **-A1** for 120 Vac: 90-140 Vac; **-A6** for 277: 180-305 Vac.

② See following pages for accessory ordering information.

③ For fixtures with guard, substitute **G** for **N** before adding suffix.

④ Add **Z2** suffix for factory sealed non-sparking/restricted breathing protection (AEx nA nR).

⑤ Add **Z** suffix for factory sealed non-sparking/restricted breathing protection (Ex nA nR).

Mercmaster™ III Induction Luminaires

Enclosed and Gasketed. For Hazardous and Adverse Locations

NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class II, Division 1 and 2, Groups E, F, G
NEMA 4X

NEC/CEC:

Class I, Zone 2
AEx nA nR, IIC
Ex nA nR IIC

Mounting Hoods

	Description	Hub Size (Inches)	Catalog Number
Pendant			
	One Hub, Rigid Mounting	3/4 1	KPA-75 KPA-100
Pendant — Flexible			
	One Hub, Flexible Mounting	3/4 1	KPAF-75 KPAF-100
Pendant Cone			
	Cone Hood Rigid Mounting	3/4 1	KPCH-75 KPCH-100
Ceiling			
	Five Hubs, Four Close-Up Plugs	3/4 1	KPC-75 KPC-100
Wall			
	Five Hubs, Four Close-Up Plugs	3/4 1	KPWB-75 KPWB-100
25° Stanchion			
	One Hub	1-1/4 1-1/2	KPS-125 KPS-150
90° Stanchion			
	One Hub	1-1/4 1-1/2	KPST-125 KPST-150

Mercmaster™ III Induction Luminaires

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NEC/CEC:
Class I, Division 2, Groups A, B, C, D
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NEMA 4X

NEC/CEC:
Class I, Zone 2
AEx nA nR, IIC
Ex nA nR IIC

Fixture Units — Less Mounting Hoods

	Type	Frequency	Fixture Unit Catalog Number	120 V	Add Voltage Suffixes 277 V
Globe					
	Induction	50/60 Hz	MLBRG485Q	-A1	-A6

Accessories and Replacement Parts

Item	Description	Catalog Number
White Polyester Reflectors		
	Standard Dome	CMR-4ST ①
	Deep Dome (Dark Skies Compliant)	CMR-4DD ①
	30° Angle	CMR-4AN ①
Prismatic Glass Globes – Heat-Resistant		
	Clear	VPGL-4HR
Guards		
		KPGU400

Mercmaster III Fixture Unit, Component and Accessory Weights ②

Fixture Unit and Mounting Hoods	Wt. kg (lbs)	Reflectors	Wt. kg (lbs)	Refractors, Globes and Guard	Wt. kg (lbs)
Fixture	12.7 (28.00)	Standard Dome	1.1 (2.50)	Glass Globe	1.7 (3.75)
Pendant	1.0 (2.25)	30° Angle	1.1 (2.50)	Globe Guard	0.5 (1.00)
Pendant Cone	1.1 (2.50)	Deep Dome	1.6 (3.50)		
Ceiling	1.4 (3.00)				
Wall	1.8 (4.00)				
25° Stanchion	1.5 (3.25)				
90° Stanchion	1.5 (3.33)				

① Standard and deep dome reflectors may interfere with bottom conduit entry if used with KPST and KPWB mounting hoods.

② Weights are approximate.

Mercmaster™ III Induction Luminaires

Enclosed and Gasketed. For Hazardous and Adverse Locations

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NEC/CEC:
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Fuse Kit includes fuse, fuse holder and necessary hardware for field installation. Mounts easily to hood with one screw. ①

Lamp Watts	Volts	Fuse Qty. Req.
85	120/277	1
	208-240	2

Electromagnetic Compatibility

A.) Complies with European norms EN55015, EN6100-3-2 and EN61547

B.) RFI

a.) Meets standard EN55022 and is valid for frequencies up to 1000 MHz.

Electrical Characteristics

		85 W 100–120 V	85 W 200–277 V
System power ② nom.	W	85	85
System power ② min.	W	82	82
System power ② max.	W	88	88
AC supply voltage nom.	V	120	230
AC supply voltage min.	V	90	180
AC supply voltage max.	V	140	305
DC supply voltage nom.	V	120	230
DC supply voltage min.	V	90	180
DC supply voltage max.	V	180	350
Supply frequency nom.	Hz	60	50
Supply frequency min.	Hz	47	47
Supply frequency max.	Hz	63	63
Supply current nom.	mA	730	400
Inrush current max.	A	16	12
Duration inrush current max.	usec	170	170
Power factor nom.		>0.92	>0.92
HF output frequency nom.	MHz	2.65	2.65
HF output frequency min.	MHz	2.3	2.3
HF output frequency max.	MHz	3	3
HF output voltage max.	kV	1.5	1.5
Leakage current	mA	<0.5	<0.5
Overvoltage		200Vac	400Vac

Lamp Characteristics

	Values at 100 Hrs.	QL 85 W
Luminous flux nom.	lm	6,000
Luminous flux min.	lm	5,500
Luminous flux max.	lm	6,500
System efficacy nom.	lm/W	70

Lamp Operation

A.) Ignition and Lifetime Performance

a.) Ignition time <0.5 seconds

Hot Restrike time <0.5 seconds

b.) Induction lighting offers a direct, flicker-free ignition after switch-on, in both cold and hot conditions

B.) Lumen Maintenance

a.) The lumens of an induction lamp are expected to have depreciated after 60,000 hours to no less than 75% of the initial lumens

① Canadian Electrical Code does NOT allow fusing in hazardous locations.

② At design voltage.

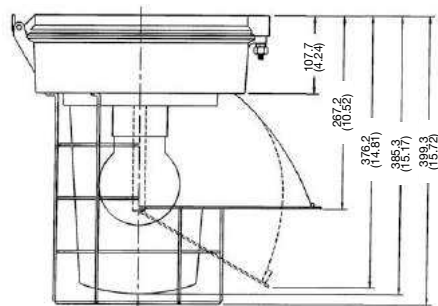
Mercmaster™ III Induction Luminaires

Enclosed and Gasketed. For Hazardous and Adverse Locations

NEC/CEC:
Class I, Division 2, Groups A, B, C, D
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Ex nA nR IIC

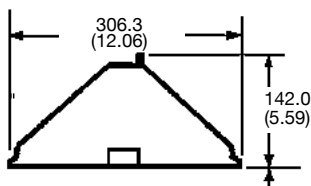
Dimensions in Millimeters (Inches)



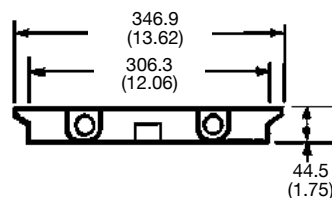
Pendant (Rigid or Flex)



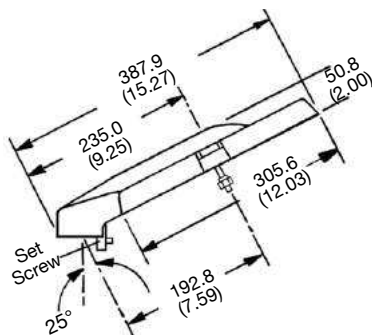
Pendant Cone



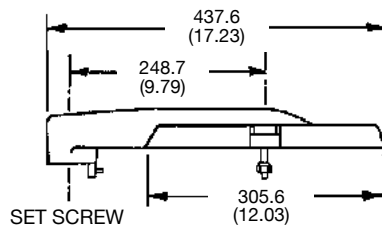
Ceiling



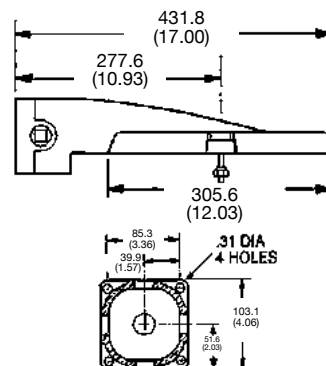
25° Stanchion



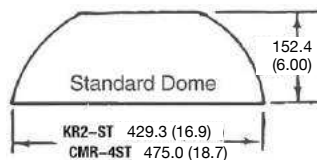
90° Stanchion



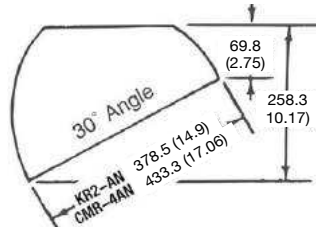
Wall Mount



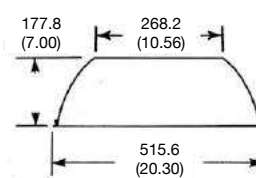
Standard Polyester Reflector



30° Angle Polyester Reflector



Deep Dome



PCD2 Series Factory Sealed Hazardous Location Photocontrol

For use in Class I, Division 2, Groups A, B, C, D locations

Maintains Class I, Division 2 rating for Mercmaster III – Low Profile, Mercmaster III, and Mercmaster III – 400 Series Luminaires, Mercmaster LED

NEC/CEC:
Class I, Division 2, Groups A, B, C, D
NEMA 4X

Applications

- Encapsulated photocontrol provides automatic dusk-to-dawn lighting control in Class I, Division 2 locations.
- Typical applications include walkways, security areas and any other outdoor lighting application.
- For use with Mercmaster III – Low Profile, Mercmaster III, and Mercmaster III – 400 Series Luminaires.
- For remote mounting in FS Boxes.

Features

- Factory sealed design eliminates the need for an explosionproof enclosure.
- Can be easily installed in the field.
- Solid state design for performance and reliability.
- Available for 120, 208, 240, or 277 volts.

- 50-400 W HID, incandescent or fluorescent, 50/60 Hz.
- 1000 V.A. Voltage/Ampere
- Minimum time delay: 15 seconds to eliminate nuisance tripping.
- Provided with (3) 18AWG stranded leads 152.4 mm (6.00 in) length.
- Will fit through standard 1/2" knockout.
- Supplied with locknut and gasket.

Materials

- Encapsulated with epoxy sealing compound
- FS: aluminum

NEC/CEC Certifications and Compliances

- UL Standard: 1604 – Hazardous (Classified) Locations
- cULus Recognized

	Voltage Range	Max VA	Max Current Amps	Suffix Designation Catalog Number
Factory-Installed Photocontrol - Not for ceiling or pendant cone. <i>Add to fixture catalog after voltage; i.e.: KPWB1075MTH1.</i>				
	120 V, 50/60 Hz	1000	—	H1
	208 V, 50/60 Hz	1000	—	H2
	240 V, 50/60 Hz	1000	—	H3
	277 V, 50/60 Hz	1000	—	H4

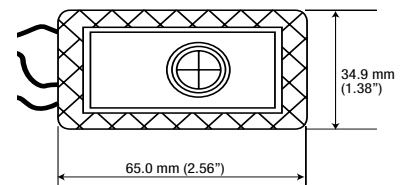
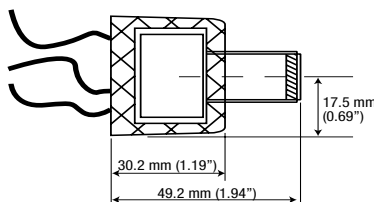
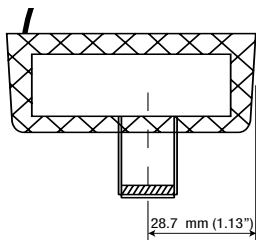
Photocontrol for Field Installation

	120 V, 50/60 Hz	1000	8.3 Amp	PC120D2
	208 V, 50/60 Hz	1000	4.8 Amp	
	240 V, 50/60 Hz	1000	4.2 Amp	PC247D2
	277 V, 50/60 Hz	1000	3.6 Amp	

Photocontrol in FS Cover for Use with FS/FD Box

Supplied with two stainless steel screws. For neoprene gasket, order catalog number FS-GKR-1N.

	120V, 50/60 Hz	1000	8.3 Amp	FSKA-PC120D2
	208, 50/60 Hz	1000	4.8 Amp	
	240 V, 50/60 Hz	1000	4.2 Amp	FSKA-PC247D2
	277 V, 50/60 Hz	1000	3.6 Amp	



Mercmaster™ III Induction Luminaires

Enclosed and Gasketed. For Hazardous and Adverse Locations

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Class I, Division 2, Groups A, B, C, D
Class II, Division 1 and 2, Groups E, F, G
NEMA 4X

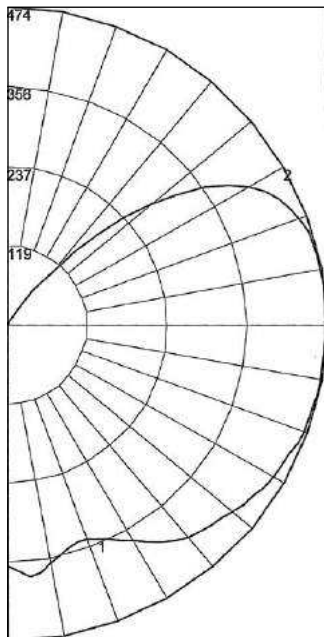
NEC/CEC:
Class I, Zone 2
AEx nA nR, IIC
Ex nA nR IIC

Photometric Data

Total Luminaire Efficiency = 78.4%

CIE Type – General Diffuse

Zone	Lumens
0-10	35.55
10-20	98.53
20-30	165.29
30-40	250.39
40-50	330.30
50-60	401.42
60-70	458.68
70-80	498.03
80-90	515.94
90-100	516.75
100-110	496.86
110-120	439.16
120-130	318.85
130-140	150.78
140-150	28.79
150-160	1.15
160-170	0.08
170-180	0.00



REPORT NUMBER: **MLBR85QL**

Lamps: 85 W QL lamp with Globe only

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

% Ceiling Rcc	80				70				50				30				10				0
% Walls Rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
0	86	86	86	86	80	80	80	80	69	69	69	59	59	59	50	50	50	46			
1	74	69	64	60	68	64	59	56	54	51	48	46	43	41	38	36	34	30			
2	66	58	51	46	60	53	47	42	45	41	36	38	34	31	31	28	25	22			
3	59	49	42	36	54	46	39	34	39	33	29	32	28	24	26	23	20	17			
4	53	43	35	29	49	40	33	27	34	28	24	28	23	20	23	19	16	13			
5	49	38	30	25	45	35	28	23	30	24	20	25	20	17	20	16	13	11			
6	45	34	26	21	41	31	24	19	26	21	17	22	17	14	18	14	11	9			
7	41	30	23	18	38	28	21	17	24	18	14	20	15	12	16	13	10	8			
8	38	27	20	16	35	25	19	14	21	16	12	18	14	11	15	11	9	7			
9	35	25	18	14	33	23	17	13	20	15	11	16	12	9	13	10	8	6			
10	33	23	16	12	30	21	15	11	18	13	10	15	11	8	12	9	7	5			

Zonal Lumen Summary

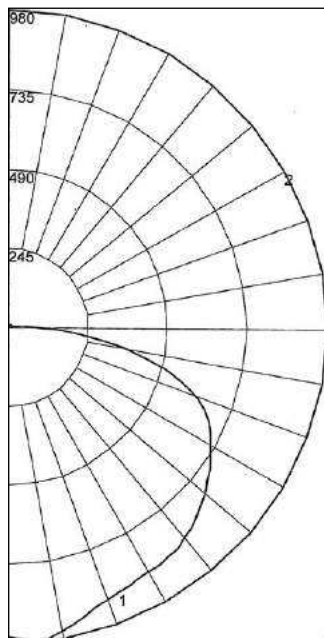
Zone	Lumens	% Lamp	% Fixture	Zone	Lumens	% Lamp	% Fixture
0-30	299.37	5.0	6.4	90-120	1452.77	24.2	30.9
0-40	549.76	9.2	11.7	90-130	1771.62	29.5	37.6
0-60	1281.48	21.4	27.2	90-150	1951.19	32.5	37.6
0-90	2754.13	45.9	58.5	90-180	1952.42	32.5	41.5
				0-180	4706.55	78.4	100.0

Total Luminaire Efficiency = 69%

CIE Type – Direct

Plane	Spacing Criteria
0-180	1.40
90-270	1.40
Diagonal	1.58

Zone	Lumens
0-10	92.63
10-20	261.43
20-30	408.83
30-40	542.94
40-50	636.87
50-60	680.44
60-70	671.51
70-80	528.78
80-90	243.62
90-100	34.74
100-110	7.14
110-120	7.07
120-130	8.83
130-140	7.95
140-150	3.33
150-160	0.64
160-170	0.19
170-180	0.07



REPORT NUMBER: **MLBR85QLST**

Lamps: 85 W QL lamp with Standard Dome Reflector

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

% Ceiling Rcc	80				70				50				30				10				0
% Walls Rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
0	82	82	82	82	80	80	80	80	76	76	76	72	72	72	69	69	69	68			
1	73	68	65	61	70	67	63	60	63	60	58	60	58	56	58	56	54	52			
2	65	58	52	47	63	56	51	47	54	49	45	51	47	44	49	46	43	41			
3	58	50	43	38	56	48	42	37	46	41	37	44	39	36	42	38	35	33			
4	53	43	36	31	51	42	36	31	40	35	30	38	34	30	37	33	29	27			
5	48	38	31	26	47	37	31	26	36	30	25	34	29	25	33	28	25	23			
6	44	34	27	22	43	33	27	22	32	26	22	31	25	22	29	25	21	20			
7	41	31	24	19	40	30	24	19	29	23	19	28	23	19	27	22	19	17			
8	38	28	21	17	37	27	21	17	26	21	17	25	20	17	24	20	16	15			
9	35	25	19	15	34	25	19	15	24	19	15	23	18	15	22	18	15	13			
10	33	23	18	14	32	23	17	14	22	17	13	21	17	13	21	16	13	12			

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture	Zone	Lumens	% Lamp	% Fixture
0-30	762.89	12.7	18.4	90-120	48.95	0.8	1.2
0-40	1305.83	21.8	31.6	90-130	57.78	1.0	1.4
0-60	2623.14	43.7	63.4	90-150	69.06	1.2	1.4
0-90	4067.06	67.8	98.3	90-180	69.96	1.2	1.7
				0-180	4137.02	69.0	100.0

Mercmaster™ III Induction Luminaires

Enclosed and Gasketed. For Hazardous and Adverse Locations

NEC/CEC:
Class I, Division 2, Groups A, B, C, D
Class II, Division 1 and 2, Groups E, F, G
NEMA 4X

NEC/CEC:
Class I, Zone 2
AEx nA nR, IIC
Ex nA nR IIC

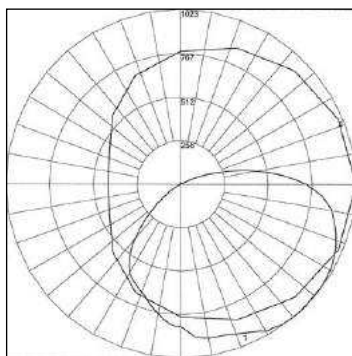
Photometric Data

Total Luminaire Efficiency = 61.4%

CIE Type – Direct

Plane	Spacing Criteria
0-180	1.80
90-270	1.44
Diagonal	1.54

Zone	Lumens
0-10	81.53
10-20	231.27
20-30	367.34
30-40	487.91
40-50	542.61
50-60	528.65
60-70	475.60
70-80	400.17
80-90	296.45
90-100	173.50
100-110	69.93
110-120	16.29
120-130	6.47
130-140	4.19
140-150	1.67
150-160	0.59
160-170	0.44
170-180	0.10



REPORT NUMBER: **MLBR85QLAN**

Lamps: 85 W QL lamp with 30° Angle Dome Reflector

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

% Ceiling	Rcc	80				70				50			30			10			0
% Walls	Rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	72	72	72	72	70	70	70	70	66	66	66	62	62	62	58	58	58	57	
1	64	60	56	53	61	58	55	52	54	52	50	51	49	47	48	46	45	43	
2	57	51	46	42	55	49	45	41	46	43	39	44	40	38	41	38	36	34	
3	52	44	38	34	49	43	37	33	40	36	32	38	34	31	36	32	30	28	
4	47	39	33	28	45	38	32	28	35	31	27	33	29	26	31	28	25	23	
5	43	34	28	24	41	33	28	23	31	26	23	30	25	22	28	24	21	20	
6	39	31	25	20	38	30	24	20	28	23	20	27	22	19	25	21	19	17	
7	36	28	22	18	35	27	21	18	25	21	17	24	20	17	23	19	16	15	
8	34	25	20	16	33	24	19	16	23	19	15	22	18	15	21	17	14	13	
9	32	23	18	14	30	22	17	14	21	17	14	20	16	13	19	16	13	12	
10	30	21	16	13	29	21	16	12	20	15	12	19	15	12	18	14	12	11	

Zonal Lumen Summary

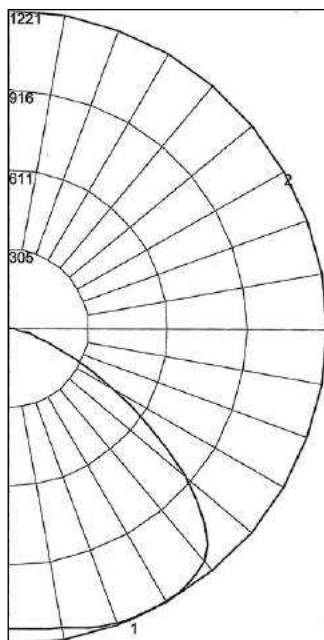
Zone	Lumens	% Lamp	% Fixture	Zone	Lumens	% Lamp	% Fixture
0-30	680.15	11.3	18.5	90-120	259.73	4.3	7.0
0-40	1168.06	19.5	31.7	90-130	266.19	4.4	7.2
0-60	2239.32	37.3	60.8	90-150	272.06	4.5	7.2
0-90	3411.54	56.9	92.6	90-180	273.19	4.6	7.4
				0-180	2684.73	61.4	100.0

Total Luminaire Efficiency = 59.5%

CIE Type – Direct

Plane	Spacing Criteria
0-180	1.58
90-270	1.58
Diagonal	1.58

Zone	Lumens
0-10	111.69
10-20	339.29
20-30	563.74
30-40	754.34
40-50	811.90
50-60	595.64
60-70	288.96
70-80	91.02
80-90	13.32
90-100	0.00
100-110	0.00
110-120	0.25
120-130	0.46
130-140	0.28
140-150	0.41
150-160	0.00
160-170	0.07
170-180	0.04



REPORT NUMBER: **MLBR85QLHB**

Lamps: 85 W QL lamp with High Bay Reflector

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

% Ceiling	Rcc	80				70				50			30			10			0
% Walls	Rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	71	71	71	71	69	69	69	69	66	66	66	63	63	63	61	61	61	59	
1	66	63	61	59	64	62	60	58	59	58	56	57	56	55	55	54	53	52	
2	60	56	52	49	59	55	51	49	53	50	48	51	49	46	49	47	45	44	
3	55	50	45	42	54	49	44	41	47	43	40	45	42	40	44	41	39	38	
4	51	44	39	35	49	43	39	35	42	38	35	40	37	34	39	36	34	33	
5	47	39	34	31	45	39	34	30	38	33	30	36	33	30	35	32	29	28	
6	43	35	30	27	42	35	30	27	34	30	26	33	29	26	32	29	26	25	
7	40	32	27	24	39	32	27	23	31	26	23	30	26	23	29	26	23	22	
8	37	29	24	21	36	29	24	21	28	24	21	27	23	21	27	23	20	19	
9	35	27	22	19	34	26	22	19	26	22	19	25	21	18	24	21	18	17	
10	32	25	20	17	32	24	20	17	24	20	17	23	19	17	23	19	17	16	

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture	Zone	Lumens	% Lamp	% Fixture
0-30	1014.71	16.9	28.4	90-120	0.25	0.0	0.0
0-40	1769.06	29.5	49.5	90-130	0.70	0.0	0.0
0-60	3176.60	52.9	88.9	90-150	1.39	0.0	0.0
0-90	3569.90	59.5	100.0	90-180	1.50	0.0	0.0
				0-180	3571.40	59.5	100.0

Mercmaster™ III Low Profile Luminaires

High Pressure Sodium and Pulse Start Metal Halide

Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA nR IIC (Z2)
Class I, Zone 2, AEx nR IIC (ZB)
Class II, Division 1 and 2, Groups E, F, G
Class III

NEC/CEC:

Simultaneous Exposure
(Class I, Division 2/Class II, Division 1)
Fixtures Outside Type (Salt Water)
Type 4X
IP66

Applications

- Enclosed and gasketed fixtures suitable for use in:
 - Marine and wet locations
 - A wide range of industrial, chemical processing and other areas where flammable gases and vapors or combustible dusts are present under conditions defined by the National Electrical Code as Class I, Division 2; Class II, Division 1 and 2; and Class III
 - Areas of low clearance, low ceiling heights or where fixture weights must be minimized
 - For Zone 2, the method of protection is AEx nA nR – Restricted Breathing/Nonsparking or AEx nR – Restricted Breathing
 - Non-hazardous locations where severe weather conditions, excessive moisture, dirt, dust, corrosive atmosphere or high ambient temperatures are encountered
- Typical applications include:
 - Pulp and paper mills
 - Processing plants
 - Chemical plants
 - Oil refineries
 - Foundries
 - Manufacturing plants
 - Storage areas
 - Waste and sewage treatment
 - Parking garages
 - Other areas where dust, water, dirt and rough usage are a problem

Features

- Compact light weight low profile design is suited for low mounting heights in conjunction with lower wattage fixtures.
- Modular design allows scores of fixture component combinations to meet installation and lighting needs. Uses same mounting hoods and optical accessories as Mercmaster III.
- A choice of heat-resistant prismatic glass refractors (NEMA I, III or V) or heat-resistant globes which thread directly into ballast housing. Photometrics available upon request – contact your local sales representative.
- Standard dome or 30° angle reflectors made of fiberglass reinforced white polyester. Highly resistant to corrosive atmospheres.
- Accommodates medium base lamps.
- A wide range of voltages available (120 to 600 Volt) and ballast types (Reactor, CWA and Super CWA).
- Medium base lamp type and watts:
 - HPS 50 W-150 W
 - PSMH 50 W-175 W
- Hinge has high lip for added safety during installation and servicing. Hinge and bolt construction assures 360° compression at all points on ballast housing gasket for positive sealing. Swing away design of captive bolt and nut simplifies servicing.
- All Mercmaster III mounting hoods have provision for easy field installation of fuses in fixtures (see fuse kits).
- Fixtures are for use in Class I, Zone 2 hazardous locations.
- The AEx nA nR factory sealed Mercmaster III prevents vapors and gases from entering the globe chamber. There are no seals or putty required which will reduce installation time and installation errors.



Low Profile Mercmaster III with Prismatic Globe and Guard

Standard Materials

- Mounting hoods, bodies and guard: cast copperfree (4/10 of 1% max.) aluminum
- All hardware and catch assemblies: stainless steel
- Reflectors: Fiberglass reinforced white polyester
- Globes and Refractors: heat-resistant prismatic glass

Standard Finishes

- Mounting hoods, bodies and guards: baked gray epoxy-clad finish, electrostatically applied for complete uniform protection

Options

- Quartz Auxiliary comes to full brightness immediately and remains lit until the HID lamp attains 60-70% of full illumination. Quartz Auxiliary supplied with relay switch and socket to accept 120 V quartz double-contact bayonet base lamp (not included). Add suffix **-E** ①.
- Guards with gray epoxy painted to match fixtures, supplied with stainless steel screws. Add suffix **-G** before voltage suffix.
- Hot Restrike to restrike HPS lamp immediately when power is restored after a momentary power interruption. Add suffix **-R**.
- Smart Starter incorporates a 1-1/2 minute timer and performs as a conventional starter to normally start lamp. Removes itself from circuit if lamp burns out or is removed from socket. Eliminates starter failures caused by prolonged operation with cycling or failing lamps and simplifies finding their location, reducing maintenance and repair costs. Available for all fixtures. Add suffix **-S**.
- AEx nA nR fixtures, add suffix **-Z2**.
- AEx nR fixtures, add suffix **-ZB**.
- Reflectors are available as standard dome and 30° angle polyester. Order separately.

NEC/CEC Certifications and Compliances ②

- cULus Listed: E10444
- UL Standard: ANSI/UL 844, 1598, 60079-0, 60079-15, Marine Type Electric Fixtures Outside Type (Salt Water)
- CSA Certified: 025428
- CSA Standard: CSA C22.2 No. 9, C22.2 No. 137; CAN/CSA E60079-0, E60079-15

Related Products

- Photocells for classified use are available, see *PCD2 Series*.

① Fixtures equipped with quartz auxiliary lamp do not comply with NEC/CEC requirements and are not suitable for use in classified locations.

② Compliance data varies for specific fixtures. Consult Appleton regarding suitability of specific fixtures for a particular application.

Mercmaster™ III Low Profile Luminaires

High Pressure Sodium and Pulse Start Metal Halide

Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA nR IIC (Z2)
Class I, Zone 2, AEx nR IIC (ZB)
Class II, Division 1 and 2, Groups E, F, G
Class III

NEC/CEC:

Simultaneous Exposure
(Class I, Division 2/Class II, Division 1)
Fixtures Outside Type (Salt Water)
Type 4X
IP66

Illustrated Features



High Temperature Sockets

Medium base high-temperature porcelain sockets.

Aluminum Inner Reflector

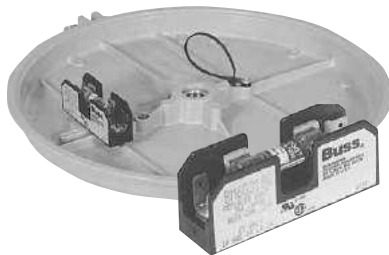
Solid aluminum inner reflector (for refractor ballast housings only) improves photometric efficiency.

Globe Chamber

Completely sealed from the ballast housing and outside vapors/air (nR).

Electrical Protection

Ground wire provided to bond mounting hood to ballast housing.



Fuses

Two screws secure fuse kit to mounting boss in any Mercmaster mounting hood. Fuse included.

Photocell

Available for all fixtures except cone and ceiling mount. Installs through knock-out in mounting hood. Provides continuous ON-OFF dusk-to-dawn control.



Vented Reflectors

Reflectors are thick, tough fiberglass-reinforced white polyester, vented for cooler operation. Quickly attach with furnished stainless steel screws.

Stainless Steel Inserts

Ballast bodies have stainless steel threaded inserts to receive stainless steel screws for reflectors and guard. Prevents "freezing", allowing guards and reflectors to be easily removed and replaced at any time, without damage to the housing.

Epoxy Finish

Ballast housing, hoods and guards are copperfree aluminum with epoxy powder coat finish.

Prismatic Glass Globes and Refractors

Heat-resistant globes and refractors thread directly into ballast housing and seal against a high-temperature silicone rubber gasket.



"Safety" High Hinge

Extra-high hinge provides additional protection against accidental ballast housing disengagement during installation or maintenance.



Ballast Assembly

Utilizing non-sparking components avoiding the ignition of gases or vapors that may be present (nA).

Mounting Hood and Globe Gaskets

Silicone rubber gaskets seals out moisture, dirt and dust. Stays flexible, withstands high temperatures. Closure design assures uniform gasket compression.

Terminal Blocks (Zone 2)

A seven-point terminal block is provided to facilitate wiring. Terminal block accommodates wire size ranging from #8 to #24 AWG.



Cooler Operating Cone Hood

Larger sloped surface sheds dusts, dirt and combustible fibers providing better heat dissipation.



Stainless Steel Latch Assembly

Captive, stainless steel latch assembly bolt and nut closes securely, resists attack of corrosive atmospheres. Swing-away design simplifies servicing.

Appleton®

HID/AREA: NEC/CEC ENCLOSED AND GASKETED

Mercmaster™ III Low Profile Luminaires

High Pressure Sodium and Pulse Start Metal Halide

Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

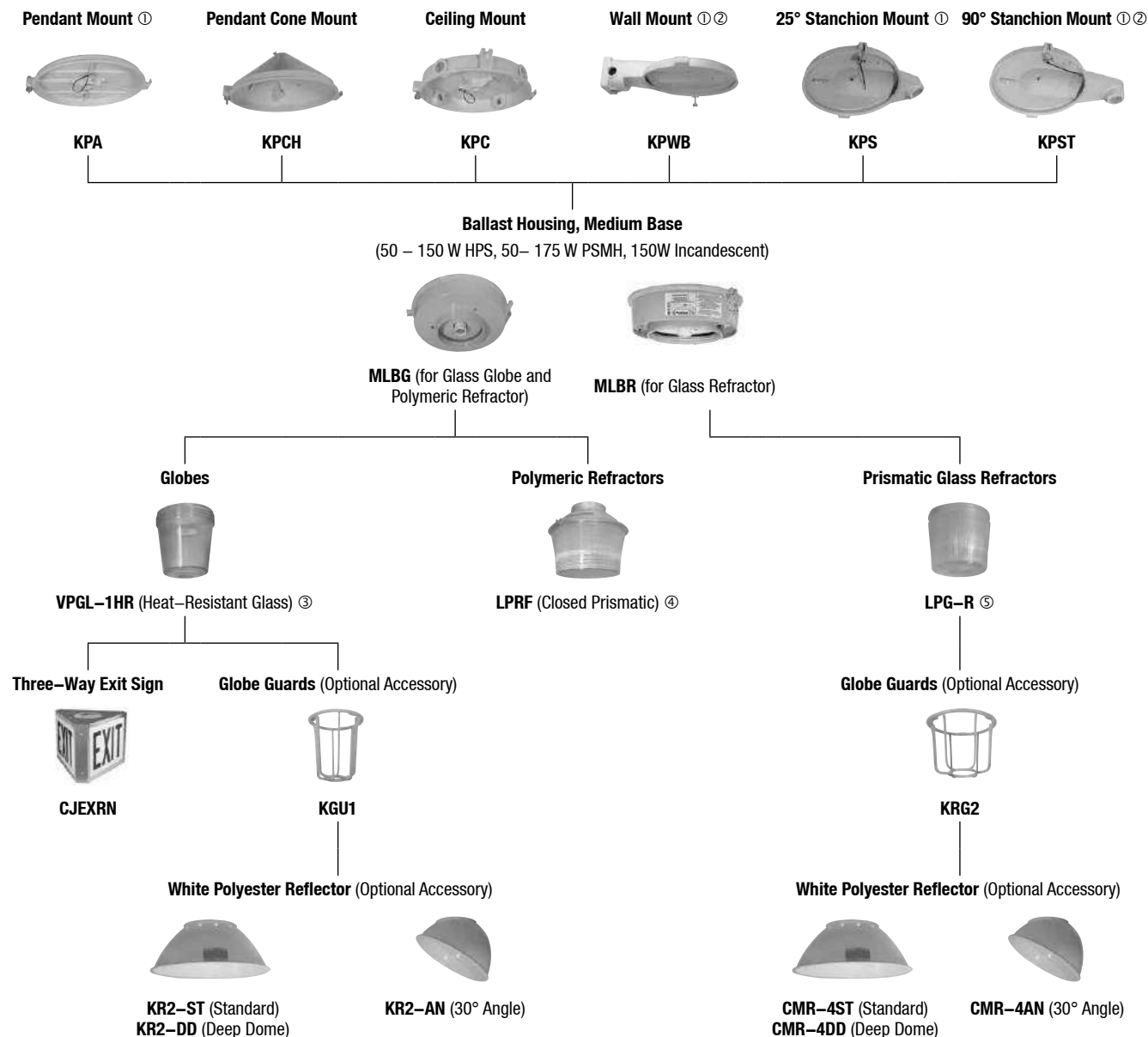
NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA nR IIC (Z2)
Class I, Zone 2, AEx nR IIC (ZB)
Class II, Division 1 and 2, Groups E, F, G
Class III

NEC/CEC:

Simultaneous Exposure
(Class I, Division 2/Class II, Division 1)
Fixtures Outside Type (Salt Water)
Type 4X
IP66

Mercmaster III Low Profile Family Tree



① Mounting hood with a 120 V or 208-277 V factory installed photocell is available.

② Standard and deep dome reflectors may interfere with bottom conduit entry if used with KPST and KPWB mounting hoods..

③ Available in clear, amber, blue, green and red.

④ Available in NEMA Type II, III, IV and V. Polymeric Refractor suitable for Class II, Groups F and G, NEMA 4X and Marine Type Electric Fixtures Outside Type (Salt Water) only (100 W PSMH Max.).

⑤ Available in NEMA Type I, III and V.

Mercmaster™ III Low Profile Luminaires

High Pressure Sodium and Pulse Start Metal Halide

Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA nR IIC (Z2)
Class I, Zone 2, AEx nR IIC (ZB)
Class II, Division 1 and 2, Groups E, F, G
Class III

NEC/CEC:

Simultaneous Exposure
(Class I, Division 2/Class II, Division 1)
Fixtures Outside Type (Salt Water)
Type 4X
IP66

Order using catalog numbering guide below or select catalog number from tables on following pages.

Catalog Numbering Guide

ML	A	L	15	2	G1	G	MT	R	Z2
Series: ML - Mercmaster III Low Profile		Lamp Type: I - Incandescent L - High Pressure Sodium P - Pulse Start Metal Halide		Hub Size: 2 - 3/4" NPT 3 - 1" NPT 4 - 1-1/4" NPT stanchion 5 - 1-1/2" NPT stanchion		Guard Options: G - Cast Guard N - No Guard		Options: E - Emergency Quartz ⑤ F - Fuse Kit (Specify Voltage) R - Hot Restrike ③ S - Smart Starter ④ H1 - Photocontrol 120 V H2 - Photocontrol 208 V H3 - Photocontrol 240 V H4 - Photocontrol 277 V D - E-27 Export Socket <i>Optional Fusing</i> ⑥ FN - 120 V FP - 208 V FS - 240 V FT - 277 V FF - 480 V	
	Mounting: A - Pendant (rigid mounting) C - Ceiling D - Pendant Cone Hood F - Pendant (flexible mounting) R - 90° Stanchion S - 25° Stanchion W - Wall	Wattage: 10 - 100 W HPS, PSMH 15 - 150 W HPS, PSMH and 60-150 W max. Incandescent 17 - 175 W PSMH 50 - 50 W HPS, PSMH 70 - 70 W HPS, PSMH		Optical Assembly: ② G1 - Globe J1 - NEMA I Glass Refractor J3 - NEMA III Glass Refractor J5 - NEMA V Glass Refractor P2 - NEMA II Polymeric Refractor P3 - NEMA III Polymeric Refractor P4 - NEMA IV Polymeric Refractor P5 - NEMA V Polymeric Refractor		Voltage: ① LB - Incandescent, 120, 60 Hz MT - 120/208/240/277, 60 Hz 5MT - 120/208/240/ 277/480, 60 Hz 48 - 480, 60 Hz 125 - 120, 50 Hz 225 - 225, 50 Hz 226 - 220, 60 Hz 236 - 230, 60 Hz 245 - 240, 50 Hz 246 - 240, 60 Hz		Suffix: Z2 - Zone 2 suffix (required for AEx nA nR rating) ZB - Zone 2 suffix (required for AEx nR)	

① Other voltages, frequencies available – contact your local sales representative. Voltages shown are limited to specific combinations; refer to following pages.

② Polymeric Refractor suitable for Class II, Groups F and G, NEMA 4X and Marine Type Electric Fixtures Outside Type (Salt Water) only (100 W PSMH Max.). Reflectors ordered separately.

③ Available for 50-150 W HPS fixtures only.

④ Available for HPS or PSMH fixtures.

⑤ Fixtures equipped with quartz auxiliary lamp do not comply with NEC/CEC requirements and are not suitable for use in classified locations

⑥ Optional fusing is available for use with MT, 5MT and 48 voltage suffixes ONLY.

Mercmaster™ III Low Profile Luminaires

Class I, Division 2; Class II, Division 1; Simultaneous exposure to hazardous conditions in both classifications

Temperature identification numbers of Mercmaster III Low Profile High Pressure Sodium and Pulse Start Metal Halide

NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA nR IIC (Z2)
Class I, Zone 2, AEx nR IIC (ZB)
Class II, Division 1 and 2, Groups E, F, G
Class III

NEC/CEC:

Simultaneous Exposure
(Class I, Division 2/Class II, Division 1)
Fixtures Outside Type (Salt Water)
Type 4X
IP66

Lamp		Supply Wire Min.	Ambient Temp.	Class I, Division 2			Class II, Division 1 Groups E, F and G			Simultaneous Exposure Class I, Division 2 / Class II, Division 1		
Watts	Type	Temp. °C (°F)	°C (°F)	Globe	Reflector	Refractor	Globe	Reflector	Refractor	Globe	Reflector	Refractor
50	HPS	90 °C (194 °F)	40 °C (104 °F)	T3	T3	T3B	T4A	T4A	T5	T3	T3	T3
		90 °C (194 °F)	55 °C (131 °F)	T3	T3	T3A	T4A	T4A	T4A	T2D	T2D	T2D
		90 °C (194 °F)	65 °C (149 °F)	T3	T3	T3A	T4	T4	T4A	T2C	T2C	T2C
70	HPS	90 °C (194 °F)	40 °C (104 °F)	T3	T3	T3	T4	T4	T5	T2B	T2B	T2D
		90 °C (194 °F)	55 °C (131 °F)	T2D	T2D	T3	T3C	T3C	T4A	T2B	T2B	T2C
		90 °C (194 °F)	65 °C (149 °F)	—	—	T3	—	—	T4	—	—	T2B
100	HPS	90 °C (194 °F)	40 °C (104 °F)	T2C	T2C	T2D	T4	T4	T4A	T2B	T2B	T2B
		90 °C (194 °F)	55 °C (131 °F)	T2B	T2B	T2C	T3C	T3C	T4	T2A	T2A	T2A
		90 °C (194 °F)	65 °C (149 °F)	—	—	—	—	—	—	—	—	—
150	HPS	90 °C (194 °F)	40 °C (104 °F)	T2A	T2A	T2B	T3A ①	—	T4	325	—	T2
50	PSMH	90 °C (194 °F)	40 °C (104 °F)	T3	T3	T3A	T4A	T4A	T6	T2D	T2D	T3
		90 °C (194 °F)	55 °C (131 °F)	T3	T3	T3	T4	T4	T5	T2C	T2C	T2D
		90 °C (194 °F)	65 °C (149 °F)	T3	T3	T3	T4	T4	T4A	T2B	T2B	T2D
70	PSMH	90 °C (194 °F)	40 °C (104 °F)	T3	T3	T3	T3C	T3C	T4A	T2B	T2B	T2C
		90 °C (194 °F)	55 °C (131 °F)	T2D	T2D	T3	T3C	T3C	T4A	T2A	T2A	T2B
		110 °C (230 °F)	65 °C (149 °F)	—	—	T3	—	—	T4	—	—	T2B
100	PSMH	90 °C (194 °F)	40 °C (104 °F)	T2A	T2A	T2B	T3B	T3B	T4A	T2	T2	T2A
		90 °C (194 °F)	55 °C (131 °F)	T2A	T2A	T2B	T3A ①	T3A ①	T4	T1	T1	T2
150	PSMH	105 °C (221 °F)	40 °C (104 °F)	350	350	325	—	—	T3B	—	—	T1
175	PSMH	105 °C (221 °F)	40 °C (104 °F)	350	350	325	—	—	T3B	—	—	T1
60	Inc.	90 °C (194 °F)	40 °C (104 °F)	T3B	T3B	T3C	—	—	—	—	—	—
		90 °C (194 °F)	55 °C (131 °F)	T3A	T3A	T3C	—	—	—	—	—	—
		90 °C (194 °F)	65 °C (149 °F)	T3A	T3A	T3C	—	—	—	—	—	—
100	Inc.	90 °C (194 °F)	40 °C (104 °F)	T3	T3	T3	—	—	—	—	—	—
		90 °C (194 °F)	55 °C (131 °F)	T3	T3	T3	—	—	—	—	—	—
		90 °C (194 °F)	65 °C (149 °F)	T2D	T2D	T3	—	—	—	—	—	—
150	Inc.	90 °C (194 °F)	40 °C (104 °F)	T2D	T2D	T3	—	—	—	—	—	—
		90 °C (194 °F)	55 °C (131 °F)	T2B	T2B	T2D	—	—	—	—	—	—
		90 °C (194 °F)	65 °C (149 °F)	T2B	T2B	T2D	—	—	—	—	—	—

“T” Numbers Represent the Maximum Lamp Temperature for Class I, Division 2 Locations and Maximum Surface Temperature Under Dust Blanket for Class II, Division 1 Locations.

“T” #	T1	350	325	T2	T2A	T2B	T2C	T2D	T3	T3A	T3B	T3C	T4	T4A	T5	T6
Temp. Range (°C)	351-450	326-350	301-325	281-300	261-280	231-260	216-230	201-215	181-200	166-180	161-165	136-160	121-135	101-120	86-100	85
Temp. Range (°F)	664-842	619-662	574-617	538-572	502-536	448-500	421-446	394-419	358-392	331-356	322-329	277-320	250-275	214-248	187-212	185

① “T” numbers are for Groups E and F only.

Mercmaster™ III Low Profile Luminaires

Class I, Zone 2, AEx nA nR IIC, AEx nR IIC IP66, NEMA 4X

Temperature identification numbers of Mercmaster III Zone 2 Low Profile High Pressure Sodium and Pulse Start Metal Halide.

NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA nR IIC (Z2)
Class I, Zone 2, AEx nR IIC (ZB)
Class II, Division 1 and 2, Groups E, F, G
Class III

NEC/CEC:

Simultaneous Exposure
(Class I, Division 2/Class II, Division 1)
Fixtures Outside Type (Salt Water)
Type 4X
IP66

Lamp		Class I, Zone 2 AEx nA nR IIC					Class I, Zone 2 AEx nR IIC		
Watts	Type	Supply Wire Temp. °C (°F)	Ambient Temp. °C (°F)	Globe	Globe w/ Reflector	Reflector	Globe	Globe w/ Reflector	Reflector
50	HPS	90 °C (194 °F)	40 °C (104 °F)	T6	T6	T6	T6	T6	T6
		90 °C (194 °F)	55 °C (131 °F)	T5	T5	T5	T5	T5	T5
		90 °C (194 °F)	65 °C (149 °F)	T4	T4	T5	T4	T4	T5
70	HPS	90 °C (194 °F)	40 °C (104 °F)	T5	T5	T5	T5	T5	T5
		90 °C (194 °F)	55 °C (131 °F)	T4	T4	T4	T4	T4	T4
		90 °C (194 °F)	65 °C (149 °F)	—	—	T4	—	—	T4
100	HPS	90 °C (194 °F)	40 °C (104 °F)	T4	T4	T4	T4	T4	T4
		90 °C (194 °F)	55 °C (131 °F)	T4	T4	T4	T4	T4	T4
150	HPS	90 °C (194 °F)	40 °C (104 °F)	T4	T4	T4	T4	T4	T4
50	PSMH	90 °C (194 °F)	40 °C (104 °F)	T5	T5	T6	T5	T5	T6
		90 °C (194 °F)	55 °C (131 °F)	T5	T5	T6	T5	T5	T6
		90 °C (194 °F)	65 °C (149 °F)	T4	T4	T5	T4	T4	T5
70	PSMH	90 °C (194 °F)	40 °C (104 °F)	T5	T5	T6	T5	T5	T6
		90 °C (194 °F)	55 °C (131 °F)	T4	T4	T6	T4	T4	T6
		110 °C (230 °F)	65 °C (149 °F)	—	—	T4	—	—	T4
100	PSMH	90 °C (194 °F)	40 °C (104 °F)	T4	T4	T6	T4	T4	T6
		90 °C (194 °F)	55 °C (131 °F)	T4	T4	T4	T4	T4	T4
150	PSMH	105 °C (221 °F)	40 °C (104 °F)	T3	T3	T4	T3	T3	T4
175	PSMH	105 °C (221 °F)	40 °C (104 °F)	T3	T3	T4	T3	T3	T4

“T” Numbers represent the maximum surface temperature for luminaires with AEx nA nR and AEx nR rating:

The “T” number is established by separately determining the maximum temperature of the globe surface and ballast compartment. The hotter of the two is taken to determine the “T” number for the overall fixture.

“T” Number	T1	T2	T3	T4	T5	T6
Temp. Range (°C)	301-450	201-300	136-200	101-135	86-100	85
Temp. Range (°F)	547-842	394-572	277-392	214-275	187-212	185

Mercmaster™ III Low Profile Luminaires

50 W – 150 W HPS

High Power Factor (min. P.F. 90%). Medium base lamps.

NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA nR IIC (Z2)
Class I, Zone 2, AEx nR IIC (ZB)
Class II, Division 1 and 2, Groups E, F, G
Class III

NEC/CEC:

Simultaneous Exposure
(Class I, Division 2/Class II, Division 1)
Fixtures Outside Type (Salt Water)
Type 4X
IP66

			Hub Size (Inches)	Catalog Numbers ③④⑤		
Lamp Type			Lamp Watts	With Globe	With Type V 8" Refractor ②	
Pendant — One Hub, Rigid Mounting ①						
	HPS	50	3/4 1	MLAL502G1N MLAL503G1N	MLAL502J5N MLAL503J5N	
	HPS	70	3/4 1	MLAL702G1N MLAL703G1N	MLAL702J5N MLAL703J5N	
	HPS	100	3/4 1	MLAL102G1N MLAL103G1N	MLAL102J5N MLAL103J5N	
	Shown with Globe and Optional Guard	HPS	150	3/4 1	MLAL152G1N ⑥ MLAL153G1N ⑥	MLAL152J5N ⑥ MLAL153J5N ⑥
	Pendant Cone — One Hub, Rigid Mounting					
		HPS	50	3/4 1	MLDL502G1N MLDL503G1N	MLDL502J5N MLDL503J5N
		HPS	70	3/4 1	MLDL702G1N MLDL703G1N	MLDL702J5N MLDL703J5N
HPS		100	3/4 1	MLDL102G1N MLDL103G1N	MLDL102J5N MLDL103J5N	
Shown with Refractor		HPS	150	3/4 1	MLDL152G1N ⑥ MLDL153G1N ⑥	MLDL152J5N ⑥ MLDL153J5N ⑥
Ceiling — Five Hubs, Four Close-up Plugs						
		HPS	50	3/4 1	MLCL502G1N MLCL503G1N	MLCL502J5N MLCL503J5N
		HPS	70	3/4 1	MLCL702G1N MLCL703G1N	MLCL702J5N MLCL703J5N
	HPS	100	3/4 1	MLCL102G1N MLCL103G1N	MLCL102J5N MLCL103J5N	
	Shown with Globe	HPS	150	3/4 1	MLCL152G1N ⑥ MLCL153G1N ⑥	MLCL152J5N ⑥ MLCL153J5N ⑥

① For Flexible Pendant Mount, change **A** to **F** in catalog number (except 50 W HPS).

② To order fixture with NEMA Type I or NEMA Type III refractor, change final digit **5** in catalog number to **1** or **3**.

③ For fixtures with guards, substitute a **G** for the **N** before adding voltage suffix. See following pages for accessory ordering information.

④ Add the following voltage and frequency designation before **Z2** suffix:

Lamp Type	Lamp Watts	LB	MT	5MT	48	125	Voltage Suffixes					
							225	226	235	236	245	246
Inc.	150 Max.	X	—	—	—	—	—	—	—	—	—	—
HPS	50	—	X	—	—	—	X	X	—	X	X	X
HPS	70	—	X	—	X	X	X	X	—	X	X	X
HPS	100	—	X	—	X	X	X	X	—	X	X	X
HPS	150	—	X	—	X	X	X	X	—	—	X	—
PSMH	50	—	X	—	X	—	—	—	—	—	—	—
PSMH	70	—	X	—	X	X	X	—	—	—	X	—
PSMH	100	—	X	—	X	X	X	—	—	—	X	—
PSMH	150	—	X	—	X	—	—	—	—	—	X	—
PSMH	175	—	X	X	X	—	—	—	—	—	X	—

Volts:

LB - Incandescent, 120 V 60 Hz

48 - 480 V 60 Hz

226 - 220 V 60 Hz

MT - 120/208/240/277 V 60 Hz

125 - 120 V 50 Hz

235 - 230 V 50 Hz

245 - 240 V 50 Hz

5MT - 120/208/240/277/480 V 60 Hz

225 - 225 V 50 Hz

236 - 230 V 60 Hz

246 - 240 V 60 Hz

⑤ Add **Z2** suffix for factory sealed non-sparking/restricted breathing protection (AEx nA nR). Add **ZB** suffix for restricted breathing protection (AEx nR).

⑥ For 150 W HPS fixtures, use S-55 lamp type only.

Mercmaster™ III Low Profile Luminaires

50 W – 150 W HPS

High Power Factor (min. P.F. 90%). Medium base lamps.

NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA nR IIC (Z2)
Class I, Zone 2, AEx nR IIC (ZB)
Class II, Division 1 and 2, Groups E, F, G
Class III

NEC/CEC:

Simultaneous Exposure
(Class I, Division 2/Class II, Division 1)
Fixtures Outside Type (Salt Water)
Type 4X
IP66

		Lamp Type	Lamp Watts	Hub Size (Inches)	Catalog Numbers ③④⑤	
					With Globe	With Type V 8" Refractor ②
Wall — Five Hubs, Four Close-Up Plugs						
	HPS	50	3/4 1	MLWL502G1N MLWL503G1N	MLWL502J5N MLWL503J5N	
	HPS	70	3/4 1	MLWL702G1N MLWL703G1N	MLWL702J5N MLWL703J5N	
	HPS	100	3/4 1	MLWL102G1N MLWL103G1N	MLWL102J5N MLWL103J5N	
	HPS	150	3/4 1	MLWL152G1N ⑥ MLWL153G1N ⑥	MLWL152J5N ⑥ MLWL153J5N ⑥	
25° Stanchion — One Hub						
	HPS	50	1-1/4 1-1/2	MLSL504G1N MLSL505G1N	MLSL504J5N MLSL505J5N	
	HPS	70	1-1/4 1-1/2	MLSL704G1N MLSL705G1N	MLSL704J5N MLSL705J5N	
	HPS	100	1-1/4 1-1/2	MLSL104G1N MLSL105G1N	MLSL104J5N MLSL105J5N	
	HPS	150	1-1/4 1-1/2	MLSL154G1N ⑥ MLSL155G1N ⑥	MLSL154J5N ⑥ MLSL155J5N ⑥	
90° Stanchion — One Hub						
	HPS	50	1-1/4 1-1/2	MLRL504G1N MLRL505G1N	MLRL504J5N MLRL505J5N	
	HPS	70	1-1/4 1-1/2	MLRL704G1N MLRL705G1N	MLRL704J5N MLRL705J5N	
	HPS	100	1-1/4 1-1/2	MLRL104G1N MLRL105G1N	MLRL104J5N MLRL105J5N	
	HPS	150	1-1/4 1-1/2	MLRL154G1N ⑥ MLRL155G1N ⑥	MLRL154J5N ⑥ MLRL155J5N ⑥	
		Shown with Refractor and Optional Guard				

② To order fixture with NEMA Type I or NEMA Type III refractor, change final digit 5 in catalog number to 1 or 3.

③ For fixtures with guards, substitute a G for the N before adding voltage suffix. See following pages for accessory ordering information.

④ Add the following voltage and frequency designation before Z2 suffix:

Lamp Type	Lamp Watts	LB	MT	5MT	48	125	225	226	235	236	245	246
Inc.	150 Max.	X	—	—	—	—	—	—	—	—	—	—
HPS	50	—	X	—	—	—	X	X	—	X	X	X
HPS	70	—	X	—	X	X	X	X	—	X	X	X
HPS	100	—	X	—	X	X	X	X	—	X	X	X
HPS	150	—	X	—	X	X	X	X	—	—	X	—
PSMH	50	—	X	—	X	—	—	—	—	—	—	—
PSMH	70	—	X	—	X	X	X	—	—	—	X	—
PSMH	100	—	X	—	X	X	X	—	—	—	X	—
PSMH	150	—	X	—	X	—	—	—	—	—	X	—
PSMH	175	—	X	X	X	—	—	—	—	—	X	—

Volages:

LB - Incandescent, 120 V 60 Hz

48 - 480 V 60 Hz

226 - 220 V 60 Hz

MT - 120/208/240/277 V 60 Hz

125 - 120 V 50 Hz

245 - 240 V 50 Hz

5MT - 120/208/240/277/480 V 60 Hz

225 - 225 V 50 Hz

236 - 230 V 60 Hz

246 - 240 V 60 Hz

⑤ Add Z2 suffix for factory sealed non-sparking/restricted breathing protection (AEx nA nR). Add ZB suffix for restricted breathing protection (AEx nR).

⑥ For 150 W HPS fixtures, use S-55 lamp type only.

Mercmaster™ III Low Profile Luminaires

50 W - 175 W PSMH

High Power Factor (min. P.F. 90%). Medium base lamps.

NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA nR IIC (Z2)
Class I, Zone 2, AEx nR IIC (ZB)
Class II, Division 1 and 2, Groups E, F, G
Class III

NEC/CEC:

Simultaneous Exposure
(Class I, Division 2/Class II, Division 1)
Fixtures Outside Type (Salt Water)
Type 4X
IP66

			Hub Size (Inches)	Catalog Numbers ③④⑤	
Lamp Type	Lamp Watts			With Globe	With Type V 8" Refractor ②
Pendant — One Hub, Rigid Mounting ①					
	PSMH	50	3/4 1	MLAH502G1N MLAH503G1N	MLAH502J5N MLAH503J5N
	PSMH	70	3/4 1	MLAH702G1N MLAH703G1N	MLAH702J5N MLAH703J5N
	PSMH	100	3/4 1	MLAH102G1N MLAH103G1N	MLAH102J5N MLAH103J5N
	PSMH	150	3/4 1	MLAP152G1N MLAP153G1N	MLAP152J5N MLAP153J5N
	PSMH	175	3/4 1	MLAP172G1N MLAP173G1N	MLAP172J5N MLAP173J5N
Pendant Cone — One Hub, Rigid Mounting					
	PSMH	50	3/4 1	MLDH502G1N MLDH503G1N	MLDH502J5N MLDH503J5N
	PSMH	70	3/4 1	MLDH702G1N MLDH703G1N	MLDH702J5N MLDH703J5N
	PSMH	100	3/4 1	MLDH102G1N MLDH103G1N	MLDH102J5N MLDH103J5N
	PSMH	150	3/4 1	MLDP152G1N MLDP153G1N	MLDP152J5N MLDP153J5N
	PSMH	175	3/4 1	MLDP172G1N MLDP173G1N	MLDP172J5N MLDP173J5N
Ceiling — Five Hubs, Four Close-up Plugs					
	PSMH	50	3/4 1	MLCH502G1N MLCH503G1N	MLCH502J5N MLCH503J5N
	PSMH	70	3/4 1	MLCH702G1N MLCH703G1N	MLCH702J5N MLCH703J5N
	PSMH	100	3/4 1	MLCH102G1N MLCH103G1N	MLCH102J5N MLCH103J5N
	PSMH	150	3/4 1	MLCP152G1N MLCP153G1N	MLCP152J5N MLCP153J5N
	PSMH	175	3/4 1	MLCP172G1N MLCP173G1N	MLCP172J5N MLCP173J5N

① For Flexible Pendant Mount, change **A** to **F** in catalog number (except 50 W HPS).

② To order fixture with NEMA Type I or NEMA Type III refractor, change final digit **5** in catalog number to **1** or **3**.

③ For fixtures with guards, substitute a **G** for the **N** before adding voltage suffix. See following pages for accessory ordering information.

④ Add the following voltage and frequency designation before **Z2** suffix:

Voltage Suffixes												
Lamp Type	Lamp Watts	LB	MT	5MT	48	125	225	226	235	236	245	246
Inc.	150 Max.	X	—	—	—	—	—	—	—	—	—	—
HPS	50	—	X	—	—	—	X	X	—	X	X	X
HPS	70	—	X	—	X	X	X	X	—	X	X	X
HPS	100	—	X	—	X	X	X	X	—	X	X	X
HPS	150	—	X	—	X	X	X	X	—	—	X	—
PSMH	50	—	X	—	X	—	—	—	—	—	—	—
PSMH	70	—	X	—	X	X	X	—	—	—	X	—
PSMH	100	—	X	—	X	X	X	—	—	—	X	—
PSMH	150	—	X	—	X	—	—	—	—	—	X	—
PSMH	175	—	X	X	X	—	—	—	—	—	X	—

Voltages:

LB - Incandescent, 120 V 60 Hz

MT - 120/208/240/277 V 60 Hz

5MT - 120/208/240/277/480 V 60 Hz

48 - 480 V 60 Hz

125 - 120 V 50 Hz

225 - 225 V 50 Hz

226 - 220 V 60 Hz

235 - 230 V 50 Hz

236 - 230 V 60 Hz

245 - 240 V 50 Hz

246 - 240 V 60 Hz

⑤ Add **Z2** suffix for factory sealed non-sparking/restricted breathing protection (AEx nA nR). Add **ZB** suffix for restricted breathing protection (AEx nR).

Mercmaster™ III Low Profile Luminaires

50 W - 175 W PSMH

High Power Factor (min. P.F. 90%). Medium base lamps.

NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA nR IIC (Z2)
Class I, Zone 2, AEx nR IIC (ZB)
Class II, Division 1 and 2, Groups E, F, G
Class III

NEC/CEC:

Simultaneous Exposure
(Class I, Division 2/Class II, Division 1)
Fixtures Outside Type (Salt Water)
Type 4X
IP66

	Lamp Type	Lamp Watts	Hub Size (Inches)	Catalog Numbers ③④⑤ With Globe	With Type V 8" Refractor ②
Wall — Five Hubs, Four Close-Up Plugs					
	PSMH	50	3/4 1	MLWH502G1N MLWH503G1N	MLWH502J5N MLWH503J5N
	PSMH	70	3/4 1	MLWH702G1N MLWH703G1N	MLWH702J5N MLWH703J5N
	PSMH	100	3/4 1	MLWH102G1N MLWH103G1N	MLWH102J5N MLWH103J5N
	PSMH	150	3/4 1	MLWP152G1N MLWP153G1N	MLWP152J5N MLWP153J5N
	Shown with Refractor and Optional Guard	PSMH	175	3/4 1	MLWP172G1N MLWP173G1N
25° Stanchion — One Hub					
	PSMH	50	1-1/4 1-1/2	MLSH504G1N MLSH505G1N	MLSH504J5N MLSH505J5N
	PSMH	70	1-1/4 1-1/2	MLSH704G1N MLSH705G1N	MLSH704J5N MLSH705J5N
	PSMH	100	1-1/4 1-1/2	MLSH104G1N MLSH105G1N	MLSH104J5N MLSH105J5N
	PSMH	150	1-1/4 1-1/2	MLSP154G1N MLSP155G1N	MLSP154J5N MLSP155J5N
	Shown with Globe and Optional Guard	PSMH	175	1-1/4 1-1/2	MLSP174G1N MLSP175G1N
90° Stanchion — One Hub					
	PSMH	50	1-1/4 1-1/2	MLRH504G1N MLRH505G1N	MLRH504J5N MLRH505J5N
	PSMH	70	1-1/4 1-1/2	MLRH704G1N MLRH705G1N	MLRH704J5N MLRH705J5N
	PSMH	100	1-1/4 1-1/2	MLRH104G1N MLRH105G1N	MLRH104J5N MLRH105J5N
	PSMH	150	1-1/4 1-1/2	MLRP154G1N MLRP155G1N	MLRP154J5N MLRP155J5N
	Shown with Refractor and Optional Guard	PSMH	175	1-1/4 1-1/2	MLRP174G1N MLRP175G1N

② To order fixture with NEMA Type I or NEMA Type III refractor, change final digit 5 in catalog number to 1 or 3.

③ For fixtures with guards, substitute a G for the N before adding voltage suffix. See following pages for accessory ordering information.

④ Add the following voltage and frequency designation before Z2 suffix:

Voltage Suffixes												
Lamp Type	Lamp Watts	LB	MT	5MT	48	125	225	226	235	236	245	246
Inc.	150 Max.	X	—	—	—	—	—	—	—	—	—	—
HPS	50	—	X	—	—	—	X	X	—	X	X	X
HPS	70	—	X	—	X	X	X	X	—	X	X	X
HPS	100	—	X	—	X	X	X	X	—	X	X	X
HPS	150	—	X	—	X	X	X	X	—	—	X	—
PSMH	50	—	X	—	X	—	—	—	—	—	—	—
PSMH	70	—	X	—	X	X	X	—	—	—	X	—
PSMH	100	—	X	—	X	X	X	—	—	—	X	—
PSMH	150	—	X	—	X	—	—	—	—	—	X	—
PSMH	175	—	X	X	X	—	—	—	—	—	X	—

Voltagess:

LB - Incandescent, 120 V 60 Hz

MT - 120/208/240/277 V 60 Hz

5MT - 120/208/240/277/480 V 60 Hz

48 - 480 V 60 Hz

125 - 120 V 50 Hz

225 - 225 V 50 Hz

226 - 220 V 60 Hz

235 - 230 V 50 Hz

236 - 230 V 60 Hz

245 - 240 V 50 Hz

246 - 240 V 60 Hz

⑤ Add Z2 suffix for factory sealed non-sparking/restricted breathing protection (AEx nA nR). Add ZB suffix for restricted breathing protection (AEx nR).

Mercmaster™ III Low Profile Luminaires

High Pressure Sodium and Pulse Start Metal Halide

Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA nR IIC (Z2)
Class I, Zone 2, AEx nR IIC (ZB)
Class II, Division 1 and 2, Groups E, F, G
Class III

NEC/CEC:

Simultaneous Exposure
(Class I, Division 2/Class II, Division 1)
Fixtures Outside Type (Salt Water)
Type 4X
IP66

Mounting Hoods

Description		Hub Size (Inches)	Catalog Number
Pendant			
	One Hub, Rigid Mounting	3/4	KPA-75
		1	KPA-100
Pendant — Flexible			
	One Hub, Flexible Mounting	3/4	KPAF-75
		1	KPAF-100
Pendant Cone			
	One Hub, Rigid or Flexible Mounting	3/4	KPCH-75
		1	KPCH-100
Ceiling			
	Five Hubs, Four Close-Up Plugs	3/4	KPC-75
		1	KPC-100
Wall			
	Five Hubs, Four Close-Up Plugs	3/4	KPWB-75
		1	KPWB-100
25° Stanchion			
	One Hub	1-1/4	KPS-125
		1-1/2	KPS-150
90° Stanchion			
	One Hub	1-1/4	KPST-125
		1-1/2	KPST-150

Mercmaster™ III Low Profile Luminaires

High Pressure Sodium and Pulse Start Metal Halide

Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA nR IIC (Z2)
Class I, Zone 2, AEx nR IIC (ZB)
Class II, Division 1 and 2, Groups E, F, G
Class III

NEC/CEC:

Simultaneous Exposure
(Class I, Division 2/Class II, Division 1)
Fixtures Outside Type (Salt Water)
Type 4X
IP66

Ballast Bodies



Ballast Body for Glass Refractor

High Pressure Sodium
High Power Factor (Min. P.F. 90%)



Ballast Body for Glass Globe or Polymeric Refractor

Pulse Start Metal Halide
Super Constant Wattage Autotransformer (Min. P.F. 90%)

Lamp Type	Lamp Watts	Catalog Number ④		Voltage Suffixes										
		For Globe	For Refractor	LB	MT	5MT	48	125	225	226	235	236	245	246
Inc.	150 Max.	MLBG15I	MLBR15I	X	—	—	—	—	—	—	—	—	—	—
HPS	50	MLBG50L ①②	MLBR50L ①②	—	X	—	—	—	X	X	—	—	X	—
HPS	70	MLBG70L ①②	MLBR70L ①②	—	X	—	X	X	X	X	—	X	X	X
HPS	100	MLBG10L ①②	MLBR10L ①②	—	X	—	X	X	X	X	—	X	X	X
HPS	150	MLBG15L ①②	MLBR15L ①②	—	X	—	X	X	X	X	—	X	X	X
PSMH	50	MLBG50H ②③	MLBR50H ②③	—	X	—	X	—	—	—	—	—	—	—
PSMH	70	MLBG70H ②③	MLBR70H ②③	—	X	—	X	X	X	—	—	—	X	—
PSMH	100	MLBG10H ②③	MLBR10H ②③	—	X	—	X	X	X	—	—	—	X	—
PSMH	150	MLBG15P ②③	MLBR15P ②③	—	X	—	X	—	—	—	—	—	X	—
PSMH	175	MLBG17P ②③	MLBR17P ②③	—	X	X	X	—	—	—	—	—	X	—

Voltages:

LB - Incandescent, 120 V 60 Hz

MT - 120/208/240/277 V 60 Hz

5MT - 120/208/240/277/480 V 60 Hz

48 - 480 V 60 Hz

125 - 120 V 50 Hz

225 - 225 V 50 Hz

226 - 220 V 60 Hz

235 - 230 V 50 Hz

236 - 230 V 60 Hz

245 - 240 V 50 Hz

246 - 240 V 60 Hz

① After voltage suffix add: **-S** for Smart Starter, **-R** for ballast body with Hot Restrike Ignitor.

② Add **-E** after voltage suffix for ballast body with provision for Quartz Emergency Light. Not suitable for hazardous locations.

③ After voltage suffix add: **-S** for Smart Starter.

④ Add **-Z2** suffix for factory sealed non-sparking/restricted breathing protection (AEx nA nR). Add **-ZB** suffix for restricted breathing protection (AEx nR).

Mercmaster™ III Low Profile Luminaires

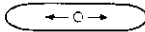
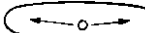
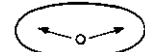
High Pressure Sodium and Pulse Start Metal Halide

Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

NEC/CEC:
 Class I, Division 2, Groups A, B, C, D
 Class I, Zone 2, AEx nA nR IIC (Z2)
 Class I, Zone 2, AEx nR IIC (ZB)
 Class II, Division 1 and 2, Groups E, F, G
 Class III

NEC/CEC:
 Simultaneous Exposure
 (Class I, Division 2/Class II, Division 1)
 Fixtures Outside Type (Salt Water)
 Type 4X
 IP66

Accessories and Replacement Parts

		Description	Catalog Number
Prismatic Glass Globes — Heat-Resistant			
 Glass Globe		Clear	VPGL-1HR
		Amber	VPGL-1AM
		Blue	VPGL-1BL
		Green	VPGL-1GR
		Red	VPGL-1RE
Light Distribution		IES/NEMA Distribution Curves	Catalog Number
Closed Prismatic Glass Refractors — All Heat-Resistant			
 Glass Refractor	NEMA Type I		LPG-R1
	NEMA Type III		LPG-R3
	NEMA Type V		LPG-R5
Closed Prismatic Polymeric Refractors — For Use with PSMH Lamps <i>100 W max. +40 °C (+104 °F) max. ambient temperature. Suitable for Class II, Division 1 and 2, Groups F, G; NEMA 4X, UL 1598A Marine Type Electric Fixtures Outside Type (Salt Water)</i>			
 Polymeric Refractor	NEMA Type II		LPRF-2CP
	NEMA Type III		LPRF-3CP
	NEMA Type IV		LPRF-4CP
	NEMA Type V		LPRF-5CP
		Description	Catalog Number
White Polyester Reflectors			
 Standard Dome	For Globe Fixtures	Standard Dome	KR2-ST
		Deep Dome	KR2-DD ①
		30° Angle	KR2-AN
 30° Angle	For Glass Refractor Fixtures	Standard Dome	CMR-4ST ②
		Deep Dome	CMR-4DD ①
		30° Angle	CMR-4AN
Guards			
 Globe Guard	 Refractor Guard	Globe Guard Refractor Guard	KGU1 KRG2
Replacement Globe Gaskets — Silicone Rubber			
 Globe Gaskets		Globe Gasket Refractor Gasket	VPGL-GK KRF-GK

① Dark Skies Compliant.

② Standard and deep dome reflectors may interfere with bottom conduit entry if used with KPST and KPWB mounting hoods.

Mercmaster™ III Low Profile Luminaires

High Pressure Sodium and Pulse Start Metal Halide

Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA nR IIC (Z2)
Class I, Zone 2, AEx nR IIC (ZB)
Class II, Division 1 and 2, Groups E, F, G
Class III

NEC/CEC:

Simultaneous Exposure
(Class I, Division 2/Class II, Division 1)
Fixtures Outside Type (Salt Water)
Type 4X
IP66

Electrical Specifications

Line Voltage	Type of Ballast ①	Starting Amps	Operating Amps	Total Watts
50 Watt High Pressure Sodium				
120	HX-HPF	0.58	0.58	64
208	HX-HPF	0.35	0.33	64
240	HX-HPF	0.31	0.29	64
277	HX-HPF	0.25	0.25	64
70 Watt High Pressure Sodium				
120	HX-HPF	0.90	0.82	94
208	HX-HPF	0.50	0.48	94
240	HX-HPF	0.44	0.41	94
277	HX-HPF	0.35	0.36	94
480	HX-HPF	0.21	0.21	94
100 Watt High Pressure Sodium				
120	HX-HPF	1.30	1.15	130
208	HX-HPF	0.76	0.67	130
240	HX-HPF	0.66	0.60	130
277	HX-HPF	0.60	0.52	130
480	HX-HPF	0.33	0.31	135
150 Watt High Pressure Sodium ②				
120	HX-HPF	2.00	1.70	188
208	HX-HPF	1.15	0.95	188
240	HX-HPF	1.00	0.85	188
277	HX-HPF	0.85	0.72	188
480	HX-HPF	0.50	0.47	189
50 Watt Pulse Start Metal Halide				
120	HX-HPF	0.87	0.62	67
208	HX-HPF	0.51	0.40	67
240	HX-HPF	0.47	0.35	67
277	HX-HPF	0.32	0.32	67
70 Watt Pulse Start Metal Halide				
120	HX-HPF	0.80	0.85	95
208	HX-HPF	0.50	0.52	95
240	HX-HPF	0.43	0.44	95
277	HX-HPF	0.39	0.39	95
480	HX-HPF	0.26	0.23	95
100 Watt Pulse Start Metal Halide				
120	HX-HPF	1.20	1.15	130
208	HX-HPF	0.70	0.70	130
240	HX-HPF	0.61	0.58	130
277	HX-HPF	0.55	0.50	130
480	HX-HPF	0.30	0.35	140

Electrical Specifications

Line Voltage	Type of Ballast ①	Starting Amps	Operating Amps	Total Watts
150 Watt Pulse Start Metal Halide				
120	HX-HPF	1.75	1.60	188
208	HX-HPF	1.30	1.00	188
240	HX-HPF	0.85	0.80	188
277	HX-HPF	0.77	0.70	188
480	Super C.W.A.	0.45	0.42	185
175 Watt Pulse Start Metal Halide				
120	Super C.W.A.	0.90	1.78	199
208	Super C.W.A.	0.50	1.08	199
240	Super C.W.A.	0.35	0.89	199
277	Super C.W.A.	0.30	0.76	199
480	Super C.W.A.	0.25	0.50	213

Fuse Kit for Field Installation

Lamp Watts	Volts	Fuse Quantity Required	Fuse Kit Catalog Number	HPS	PSMH
50W	120	1	F5	F5	F3
	208	2	F3	F3	F3
	240	2	F3	F3	F2
	277	1	F2	F2	F2
70W	120	1	F5	F5	F4
	208	2	F3	F3	F3
	240	2	F3	F3	F3
	277	1	F2	F2	F2
100W	480	2	F2	F2	F1
	120	1	F8	F8	F6
	208	2	F5	F5	F4
	240	2	F5	F5	F3
150W	277	1	F3	F3	F3
	480	2	F3	F3	F2
	120	1	F10	F10	F10
	208	2	F5	F5	F5
175W	240	2	F5	F5	F5
	277	1	F5	F5	F4
	480	2	F3	F3	F3
	120	1	—	—	F5
	208	2	—	—	F3
	240	2	—	—	F3
	277	1	—	—	F2
	480	2	—	—	F2

① C.W.A. – Constant Wattage Autotransformer. HX-HPF – High Reactance High Power Factor Autotransformer. Super C.W.A. – Super Constant Wattage Autotransformer.

② 150 W HPS units equipped with ballasts to operate 55 V lamps only.

Mercmaster™ III Low Profile Luminaires

High Pressure Sodium and Pulse Start Metal Halide

Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

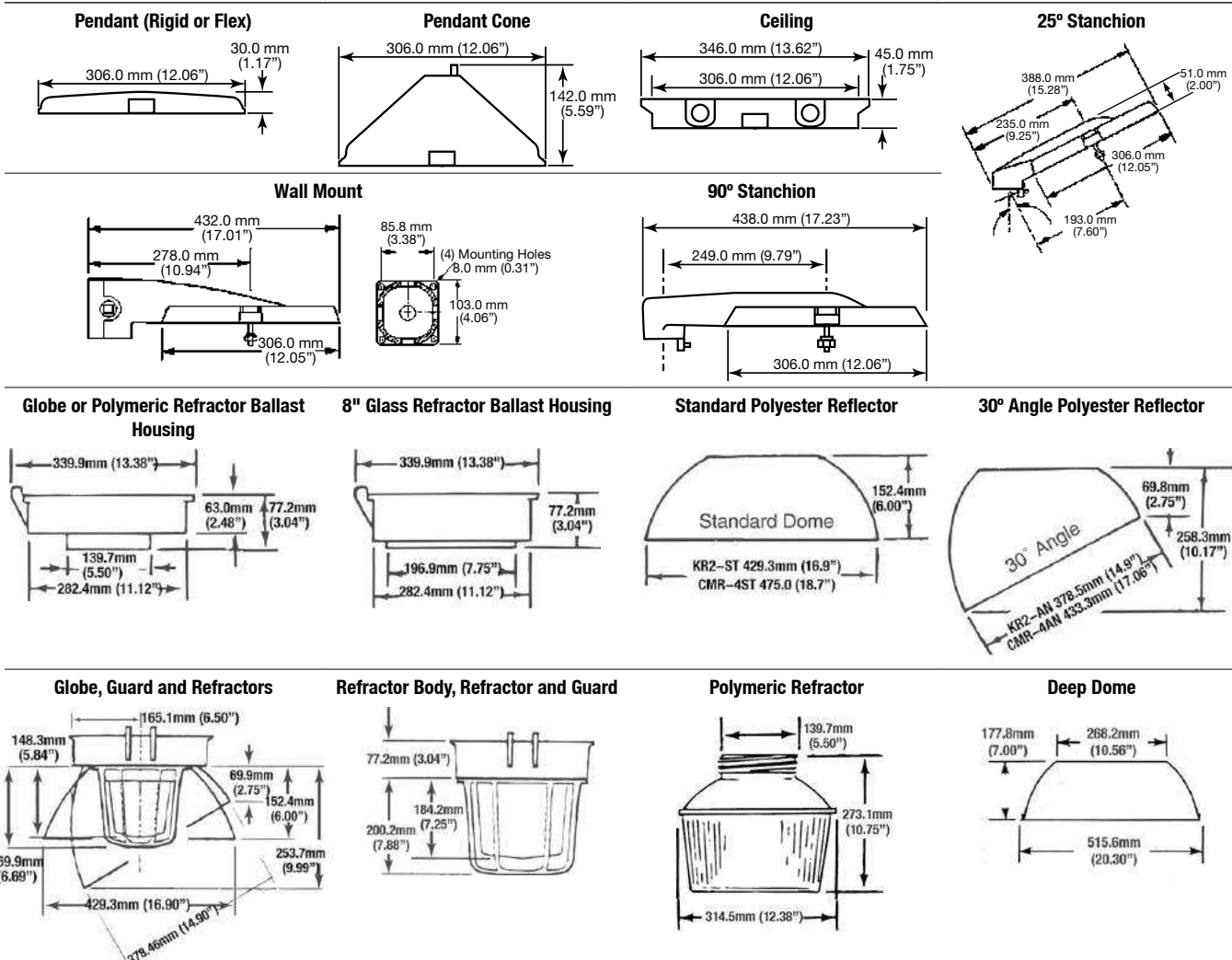
NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA nR IIC (Z2)
Class I, Zone 2, AEx nR IIC (ZB)
Class II, Division 1 and 2, Groups E, F, G
Class III

NEC/CEC:

Simultaneous Exposure
(Class I, Division 2/Class II, Division 1)
Fixtures Outside Type (Salt Water)
Type 4X
IP66

Dimensions in Millimeters (Inches)



Mercmaster III Low Profile Ballast and Accessory Weights ①

Globe Housing Ballast Wt. kg (lb)			Refractor Housing Ballast Wt. kg (lb)		Mounting Hoods	Wt. Kg (Lb)	Refractors, Globes, Guards and Reflectors	Wt. Kg (Lb)
Watts	HPS	PSMH	HPS	PSMH				
50	3.3 (7.28)	3.2 (7.05)	3.5 (7.72)	3.4 (7.50)	Pendant	1.0 (2.20)	8" Glass Refractor	2.4 (5.29)
70	3.7 (8.16)	3.5 (7.72)	4.0 (8.82)	3.7 (8.16)	Pendant Cone	1.1 (2.43)	Glass Globe	1.7 (3.75)
100	4.4 (9.70)	4.2 (9.26)	4.6 (10.14)	4.4 (9.70)	Ceiling	1.4 (3.09)	Refractor Guard	0.5 (1.10)
150	4.9 (10.80)	4.9 (10.80)	5.1 (11.24)	5.1 (11.24)	Wall	1.8 (3.97)	Globe Guard	0.5 (1.10)
175	—	5.0 (11.02)	—	5.2 (11.46)	25° Stanchion	1.5 (3.31)	Standard Dome	1.1 (2.43)
					90° Stanchion	1.7 (3.75)	Deep Dome	2.3 (5.07)
							30° Angle	1.1 (2.43)
							Polymeric Refractor	1.1 (2.43)

① Weights are approximate. Add 0.1 kg (0.25 lbs) for Quartz option.

PCD2 Series Factory Sealed Hazardous Location Photocontrol

For use in Class I, Division 2, Groups A, B, C, D locations

Maintains Class I, Division 2 rating for Mercmaster III – Low Profile, Mercmaster III, and Mercmaster III – 400 Series Luminaires, Mercmaster LED

NEC/CEC:
Class I, Division 2, Groups A, B, C, D
NEMA 4X

Applications

- Encapsulated photocontrol provides automatic dusk-to-dawn lighting control in Class I, Division 2 locations.
- Typical applications include walkways, security areas and any other outdoor lighting application.
- For use with Mercmaster III – Low Profile, Mercmaster III, and Mercmaster III – 400 Series Luminaires.
- For remote mounting in FS Boxes.

Features

- Factory sealed design eliminates the need for an explosionproof enclosure.
- Can be easily installed in the field.
- Solid state design for performance and reliability.
- Available for 120, 208, 240, or 277 volts.

- 50-400 W HID, incandescent or fluorescent, 50/60 Hz.
- 1000 V.A. Voltage/Ampere
- Minimum time delay: 15 seconds to eliminate nuisance tripping.
- Provided with (3) 18 AWG stranded leads 152.4 mm (6.00 in) in length.
- Will fit through standard 1/2" knockout.
- Supplied with locknut and gasket.

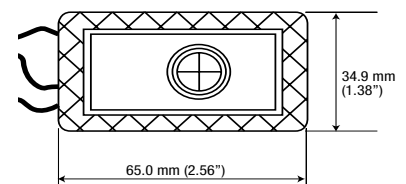
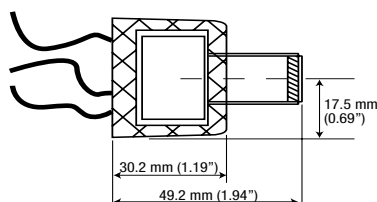
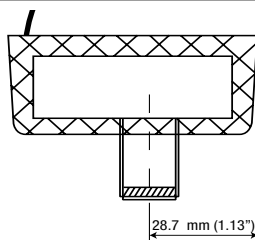
Materials

- Encapsulated with epoxy sealing compound
- FS: aluminum

NEC/CEC Certifications and Compliances

- UL Standard: 1604 – Hazardous (Classified) Locations
- cULus Recognized

	Voltage Range	Max VA	Max Current Amps	Suffix Designation Catalog Number
Factory-Installed Photocontrol - Not for ceiling or pendant cone.				
<i>Add to fixture catalog after voltage; i.e.: KPWBL1075MTH1.</i>				
 Mercmaster III wall mounting hood with photocontrol installed shown	120 V, 50/60 Hz	1000	—	H1
	208 V, 50/60 Hz	1000	—	H2
	240 V, 50/60 Hz	1000	—	H3
	277 V, 50/60 Hz	1000	—	H4
Photocontrol for Field Installation				
	120 V, 50/60 Hz	1000	8.3 Amp	PC120D2
	208 V, 50/60 Hz	1000	4.8 Amp	PC247D2
	240 V, 50/60 Hz	1000	4.2 Amp	
	277 V, 50/60 Hz	1000	3.6 Amp	
Photocontrol in FS Cover for Use with FS/FD Box				
<i>Supplied with two stainless steel screws. For neoprene gasket, order catalog number FS-GKR-1N.</i>				
	120 V, 50/60 Hz	1000	8.3 Amp	FSKA-PC120D2
	208, 50/60 Hz	1000	4.8 Amp	FSKA-PC247D2
	240 V, 50/60 Hz	1000	4.2 Amp	
	277 V, 50/60 Hz	1000	3.6 Amp	



Mercmaster™ III Low Profile Luminaires

150 W HPS

* Photometric data is based on a fixture with a 150-watt clear High Pressure Sodium lamp (16,000 lumen). For candlepower values of fixtures with other HPS lamps, use the following multipliers: for a 100 W (9,500 lumen) HPS lamp – 0.594; for a 70 W (6,400 lumen) HPS lamp – 0.40; for a 50 W (4,000 lumen) HPS lamp – 0.25. For candlepower values of fixture with guard, multiply by – 0.95.

NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA nR IIC (Z2)
Class I, Zone 2, AEx nR IIC (ZB)
Class II, Division 1 and 2, Groups E, F, G
Class III

NEC/CEC:

Simultaneous Exposure
(Class I, Division 2/Class II, Division 1)
Fixtures Outside Type (Salt Water)
Type 4X
IP66

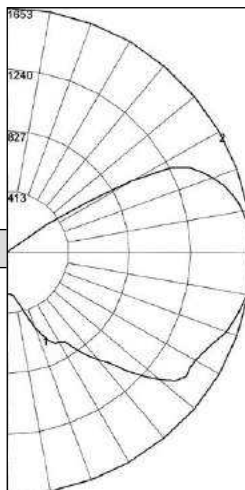
Photometric Data

Zone Lumens Total Luminaire Efficiency = 83%

0-10 28.58 CIE Type – Semi-Direct

Plane	Spacing Criteria
0-180	3.9
90-270	3.9
Diagonal	3.7

Zonal Lumen Summary				
Zone	Lumens	% Lamp	% Fixture	
0-30	4563.72	2.9	3.4	
0-40	970.35	6.1	7.3	
0-60	3159.07	19.7	23.8	
0-90	8172.49	51.1	61.5	
90-120	4755.49	29.7	35.8	
90-130	5106.74	31.9	38.4	
90-150	5111.87	31.9	38.4	
90-180	5111.87	31.9	38.5	
0-180	13284.37	83.0	100.0	



REPORT NUMBER: **ML15LG**

Lamps: 150 W High Pressure Sodium with Globe only *

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

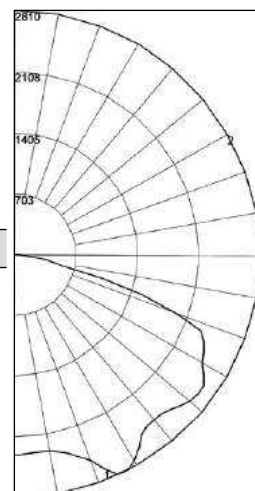
% Ceiling Rcc		80				70				50				30				10				0
% Walls	Rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
	0	91	91	91	91	85	85	85	85	75	75	75	65	65	65	55	55	55	55	55	55	51
	1	77	71	66	61	72	66	61	57	57	53	49	48	45	42	40	37	35	31	31	31	31
	2	68	59	51	45	63	55	48	42	46	41	36	39	34	31	32	28	25	21	21	21	21
	3	61	50	42	35	56	46	39	33	39	33	28	32	27	23	26	22	19	16	16	16	16
	4	55	43	35	28	50	40	32	26	34	27	22	28	23	18	22	18	15	12	12	12	12
	5	50	38	29	23	46	35	27	21	29	23	18	24	19	15	19	15	12	9	9	9	9
	6	46	33	25	19	42	31	23	18	26	20	15	21	16	12	17	13	10	7	7	7	7
	7	42	30	22	16	38	27	20	15	23	17	13	19	14	10	15	11	8	6	6	6	6
	8	39	27	19	14	36	25	18	13	21	15	11	17	12	9	14	10	7	5	5	5	5
	9	36	24	17	12	33	22	16	11	19	13	9	16	11	8	13	9	6	4	4	4	4
	10	33	22	15	11	31	20	14	10	17	12	8	15	10	7	12	8	5	4	4	4	4

Zone Lumens Total Luminaire Efficiency = 73.2%

0-10 219.96 CIE Type – Direct

Plane	Spacing Criteria
0-180	1.64
90-270	1.64
Diagonal	1.88

Zonal Lumen Summary				
Zone	Lumens	% Lamp	% Fixture	
0-30	2171.29	13.6	18.5	
0-40	3784.97	23.7	32.3	
0-60	8086.62	50.5	69.1	
0-90	11708.37	73.2	100.0	
90-120	1.23	0.0	0.0	
90-130	1.23	0.0	0.0	
90-150	1.23	0.0	0.0	
90-180	1.23	0.0	0.0	
0-180	11709.6	73.2	100.0	



REPORT NUMBER: **ML15LST**

Lamps: 150 W High Pressure Sodium with Standard Dome Reflector *

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

% Ceiling Rcc		80				70				50				30				10				0
% Walls	Rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
	0	87	87	87	87	85	85	85	85	81	81	81	78	78	78	75	75	75	73	73	73	73
	1	79	75	71	68	77	73	70	67	70	67	65	67	65	63	64	62	61	59	59	59	59
	2	70	63	58	53	68	62	57	52	59	55	51	57	53	50	55	52	49	47	47	47	47
	3	63	54	48	42	61	53	47	42	51	46	41	49	44	40	47	43	40	38	38	38	38
	4	57	47	40	35	55	46	39	34	44	38	34	42	37	33	41	36	33	31	31	31	31
	5	52	41	34	29	50	41	34	29	39	33	28	37	32	28	36	31	28	26	26	26	26
	6	48	37	30	24	46	36	29	24	35	29	24	33	28	24	32	27	24	22	22	22	22
	7	44	33	26	21	42	32	26	21	31	25	21	30	25	21	29	24	20	19	19	19	19
	8	41	30	23	18	39	29	23	18	28	22	18	27	22	18	26	22	18	16	16	16	16
	9	38	27	21	16	37	27	20	16	26	20	16	25	20	16	24	19	16	14	14	14	14
	10	35	25	19	15	34	24	18	14	24	18	14	23	18	14	22	18	14	13	13	13	13

Mercmaster™ III Low Profile Luminaires

150 W HPS

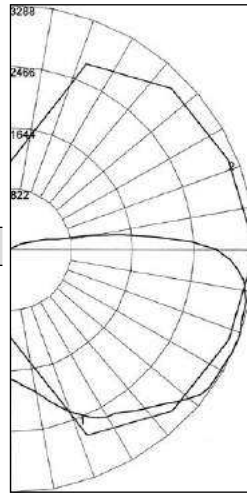
* Photometric data is based on a fixture with a 150-watt clear High Pressure Sodium lamp (16,000 lumen). For candlepower values of fixtures with other HPS lamps, use the following multipliers: for a 100 W (9,500 lumen) HPS lamp – 0.594; for a 70 W (6,400 lumen) HPS lamp – 0.40; for a 50 W (4,000 lumen) HPS lamp – 0.25. For candlepower values of fixture with guard, multiply by – 0.95.

NEC/CEC:
Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA nR IIC (Z2)
Class I, Zone 2, AEx nR IIC (ZB)
Class II, Division 1 and 2, Groups E, F, G
Class III

NEC/CEC:
Simultaneous Exposure
(Class I, Division 2/Class II, Division 1)
Fixtures Outside Type (Salt Water)
Type 4X
IP66

Photometric Data

Zone	Lumens	Total Luminaire Efficiency = 68.4%			
0-10	168.01	CIE Type – Direct			
10-20	536.92				
20-30	972.38				
30-40	1342.99	Plane	Spacing Criteria		
40-50	1625.08	0-180	2.3		
50-60	1721.88	90-270	2.0		
60-70	1586.98	Diagonal	1.8		
70-80	1369.71	Zonal Lumen Summary			
80-90	995.76	Zone	Lumens	% Lamp	% Fixture
90-100	461.94	0-30	1677.30	10.5	15.3
100-110	127.24	0-40	3020.29	18.9	27.6
110-120	27.54	0-60	6367.25	39.8	58.2
120-130	4.31	0-90	10319.70	64.5	94.3
130-140	2.68	90-120	616.71	3.9	5.6
140-150	0.00	90-130	621.02	3.9	5.7
150-160	0.00	90-150	623.70	3.9	5.7
160-170	0.00	90-180	623.70	3.9	5.7
170-180	0.00	0-180	10943.41	68.4	100.0



REPORT NUMBER: **ML15LAN**

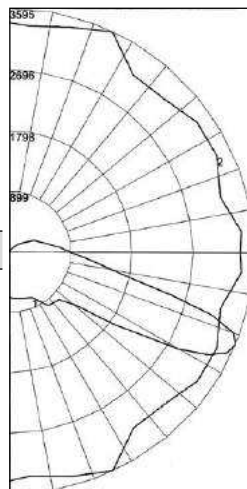
Lamps: 150 W High Pressure Sodium with
 30° Angle Dome Reflector *

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

% Ceiling Rcc	80				70				50				30				10				0
% Walls Rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
0	80	80	80	80	78	78	78	78	74	74	74	70	70	70	66	66	66	64			
1	70	66	62	58	68	64	60	57	60	57	54	57	54	52	54	52	50	48			
2	63	56	50	45	60	54	49	44	51	46	42	48	44	41	45	42	39	37			
3	56	48	41	36	54	46	40	35	44	38	34	41	37	33	39	35	32	30			
4	51	42	35	29	49	40	34	29	38	32	28	36	31	27	34	30	26	24			
5	47	37	30	24	45	36	29	24	34	28	23	32	27	23	30	26	22	20			
6	43	33	26	21	41	32	25	20	30	24	20	28	23	19	27	22	19	17			
7	39	29	23	18	38	28	22	18	27	21	17	26	21	17	24	20	16	15			
8	37	26	20	16	35	26	20	15	24	19	15	23	18	15	22	18	14	13			
9	34	24	18	14	33	23	18	14	22	17	13	21	17	13	20	16	13	11			
10	32	22	16	12	31	22	16	12	21	15	12	20	15	12	19	15	11	10			

Zone	Lumens	Total Luminaire Efficiency = 77.6%																																											
0-10	16.51	CIE Type – Semi-Direct																																											
10-20	135.03	<table><tr><th>Plane</th><th>Spacing Criteria</th></tr><tr><td>0-180</td><td>2.22</td></tr><tr><td>90-270</td><td>2.20</td></tr><tr><td>Diagonal</td><td>3.50</td></tr></table>				Plane	Spacing Criteria	0-180	2.22	90-270	2.20	Diagonal	3.50																																
Plane	Spacing Criteria																																												
0-180	2.22																																												
90-270	2.20																																												
Diagonal	3.50																																												
20-30	274.24																																												
30-40	463.44																																												
40-50	1125.38																																												
50-60	1688.89																																												
60-70	3137.76																																												
70-80	2421.27	Zonal Lumen Summary																																											
80-90	1145.98	<table><tr><th>Zone</th><th>Lumens</th><th>% Lamp</th><th>% Fixture</th></tr><tr><td>0-30</td><td>425.77</td><td>2.7</td><td>3.4</td></tr><tr><td>0-40</td><td>889.22</td><td>5.6</td><td>7.2</td></tr><tr><td>0-60</td><td>3703.50</td><td>23.1</td><td>29.8</td></tr><tr><td>0-90</td><td>10408.50</td><td>65.1</td><td>83.8</td></tr><tr><td>90-120</td><td>1491.78</td><td>9.3</td><td>12.0</td></tr><tr><td>90-130</td><td>1784.86</td><td>11.2</td><td>14.4</td></tr><tr><td>90-150</td><td>1998.77</td><td>12.5</td><td>14.4</td></tr><tr><td>90-180</td><td>2009.26</td><td>12.6</td><td>16.2</td></tr><tr><td>0-180</td><td>12417.76</td><td>77.6</td><td>100.0</td></tr></table>	Zone	Lumens	% Lamp	% Fixture	0-30	425.77	2.7	3.4	0-40	889.22	5.6	7.2	0-60	3703.50	23.1	29.8	0-90	10408.50	65.1	83.8	90-120	1491.78	9.3	12.0	90-130	1784.86	11.2	14.4	90-150	1998.77	12.5	14.4	90-180	2009.26	12.6	16.2	0-180	12417.76	77.6	100.0			
Zone	Lumens	% Lamp	% Fixture																																										
0-30	425.77	2.7	3.4																																										
0-40	889.22	5.6	7.2																																										
0-60	3703.50	23.1	29.8																																										
0-90	10408.50	65.1	83.8																																										
90-120	1491.78	9.3	12.0																																										
90-130	1784.86	11.2	14.4																																										
90-150	1998.77	12.5	14.4																																										
90-180	2009.26	12.6	16.2																																										
0-180	12417.76	77.6	100.0																																										
90-100	411.16																																												
100-110	632.32																																												
110-120	448.30																																												
120-130	293.08																																												
130-140	154.61																																												
140-150	59.30																																												
150-160	9.99																																												
160-170	0.49																																												
170-180	0.00																																												



REPORT NUMBER: **ML15LJ5**

Lamps: 150 W High Pressure Sodium with
 8" Prismatic Glass Refractor – NEMA Type V *

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

% Ceiling Rcc	80				70				50				30				10				0
% Walls Rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
0	89	89	89	89	86	86	86	86	79	79	79	73	73	73	68	68	68	65			
1	76	70	65	60	72	67	62	58	61	57	54	56	53	50	51	48	46	43			
2	66	56	49	42	62	54	47	41	49	43	38	44	39	35	40	36	32	29			
3	58	46	38	31	54	44	36	30	40	33	27	36	30	25	32	27	23	21			
4	51	39	30	23	48	37	29	22	33	26	21	30	24	19	27	22	17	15			
5	46	34	25	18	43	32	24	18	29	22	16	26	20	15	23	18	13	11			
6	42	29	21	15	40	28	20	14	25	18	13	22	16	12	20	15	11	8			
7	39	26	18	12	36	25	17	12	22	15	11	20	14	10	18	13	9	7			
8	36	23	15	10	33	22	15	10	20	13	9	18	12	8	16	11	7	5			
9	33	21	14	9	31	20	13	8	18	12	8	16	11	7	15	10	6	4			
10	31	19	12	8	29	18	12	7	17	11	7	15	10	6	13	9	5	4			

Mercmaster™ III Low Profile Luminaires

100 W PSMH

* Photometric data is based on a fixture with a 100-watt clear Pulse Start Metal Halide lamp (8,500 lumen). For candlepower values of fixtures with other PSMH lamps, use the following multipliers: for a 50 W (3400 lumen) PSMH lamp – 0.40; for a 70 W (5600 lumen) PSMH lamp – 0.66; for a 150 W (10,500 lumen) PSMH lamp – 1.24; for a 175 W (17,500 lumen) PSMH lamp – 2.06. For candlepower values of fixture with guard, multiply by – 0.95.

NEC/CEC:

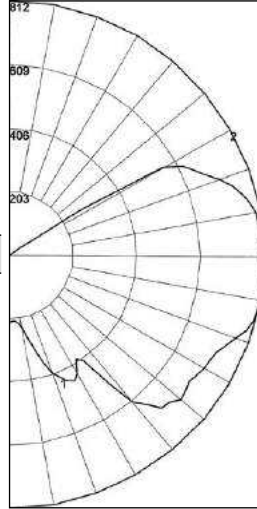
Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA nR IIC (Z2)
Class I, Zone 2, AEx nR IIC (ZB)
Class II, Division 1 and 2, Groups E, F, G
Class III

NEC/CEC:

Simultaneous Exposure
(Class I, Division 2/Class II, Division 1)
Fixtures Outside Type (Salt Water)
Type 4X
IP66

Photometric Data

Zone	Lumens	Total Luminaire Efficiency = 85.7%																																								
0-10	21.19	CIE Type – Semi-Direct																																								
10-20	93.55	<table><tr><th>Plane</th><th>Spacing Criteria</th></tr><tr><td>0-180</td><td>3.20</td></tr><tr><td>90-270</td><td>3.20</td></tr><tr><td>Diagonal</td><td>3.08</td></tr></table>				Plane	Spacing Criteria	0-180	3.20	90-270	3.20	Diagonal	3.08																													
Plane	Spacing Criteria																																									
0-180	3.20																																									
90-270	3.20																																									
Diagonal	3.08																																									
20-30	201.68																																									
30-40	291.92	0-180	3.20																																							
40-50	523.42	90-270	3.20																																							
50-60	637.38	Diagonal	3.08																																							
60-70	732.34																																									
70-80	845.58	Zonal Lumen Summary																																								
80-90	874.42	<table><tr><th>Zone</th><th>Lumens</th><th>% Lamp</th><th>% Fixture</th></tr><tr><td>0-30</td><td>316.42</td><td>4.1</td><td>4.7</td></tr><tr><td>0-40</td><td>608.33</td><td>7.8</td><td>9.1</td></tr><tr><td>0-60</td><td>1769.13</td><td>22.7</td><td>26.5</td></tr><tr><td>0-90</td><td>4221.46</td><td>54.1</td><td>63.2</td></tr><tr><td>90-120</td><td>2323.56</td><td>29.8</td><td>34.8</td></tr><tr><td>90-130</td><td>2462.56</td><td>31.6</td><td>36.8</td></tr><tr><td>90-150</td><td>2463.27</td><td>31.6</td><td>36.8</td></tr><tr><td>90-180</td><td>2463.27</td><td>31.6</td><td>36.8</td></tr><tr><td>0-180</td><td>6684.73</td><td>85.7</td><td>100.0</td></tr></table>	Zone	Lumens	% Lamp	% Fixture	0-30	316.42	4.1	4.7	0-40	608.33	7.8	9.1	0-60	1769.13	22.7	26.5	0-90	4221.46	54.1	63.2	90-120	2323.56	29.8	34.8	90-130	2462.56	31.6	36.8	90-150	2463.27	31.6	36.8	90-180	2463.27	31.6	36.8	0-180	6684.73	85.7	100.0
Zone	Lumens	% Lamp	% Fixture																																							
0-30	316.42	4.1	4.7																																							
0-40	608.33	7.8	9.1																																							
0-60	1769.13	22.7	26.5																																							
0-90	4221.46	54.1	63.2																																							
90-120	2323.56	29.8	34.8																																							
90-130	2462.56	31.6	36.8																																							
90-150	2463.27	31.6	36.8																																							
90-180	2463.27	31.6	36.8																																							
0-180	6684.73	85.7	100.0																																							
90-100	870.80	0-30	316.42	4.1	4.7																																					
100-110	809.33	0-40	608.33	7.8	9.1																																					
110-120	643.44	0-60	1769.13	22.7	26.5																																					
120-130	139.00	0-90	4221.46	54.1	63.2																																					
130-140	0.71	90-120	2323.56	29.8	34.8																																					
140-150	0.00	90-130	2462.56	31.6	36.8																																					
150-160	0.00	90-150	2463.27	31.6	36.8																																					
160-170	0.00	90-180	2463.27	31.6	36.8																																					
170-180	0.00	0-180	6684.73	85.7	100.0																																					



REPORT NUMBER: **ML10HG**

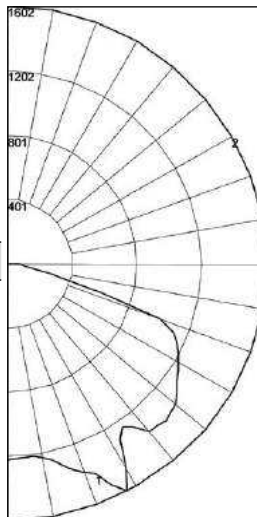
Lamps: 100 W Pulse Start Metal Halide with Globe only *

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

% Ceiling Rcc		80			70				50			30			10			0	
% Walls	Rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
	0	95	95	95	95	89	89	89	89	78	78	78	68	68	68	58	58	58	54
	1	81	74	69	64	75	69	64	60	60	56	52	51	48	45	43	40	38	34
	2	71	62	54	48	66	57	50	45	49	43	39	41	37	33	34	31	28	24
	3	64	52	44	37	59	49	41	35	41	35	30	35	30	26	29	25	21	18
	4	57	45	37	30	53	42	34	28	36	29	24	30	25	20	25	20	17	14
	5	52	40	31	25	48	37	29	23	31	25	20	26	21	17	21	17	14	11
	6	48	35	27	21	44	33	25	19	28	21	17	23	18	14	19	15	11	9
	7	44	31	23	17	40	29	22	16	25	19	14	21	16	12	17	13	10	7
	8	41	28	20	15	37	26	19	14	22	16	12	19	14	10	16	11	8	6
	9	38	26	18	13	35	24	17	12	20	15	11	17	12	9	14	10	7	5
	10	35	23	16	12	32	22	15	11	19	13	9	16	11	8	13	9	6	5

Zone	Lumens	Total Luminaire Efficiency = 75.8%											
0-10	116.29	CIE Type – Direct											
10-20	371.61	<table><tr><th>Plane</th><th>Spacing Criteria</th></tr><tr><td>0-180</td><td>1.70</td></tr><tr><td>90-270</td><td>1.70</td></tr><tr><td>Diagonal</td><td>1.84</td></tr></table>				Plane	Spacing Criteria	0-180	1.70	90-270	1.70	Diagonal	1.84
Plane	Spacing Criteria												
0-180	1.70												
90-270	1.70												
Diagonal	1.84												
20-30	692.88												
30-40	821.73	0-180	1.70										
40-50	1064.03	90-270	1.70										
50-60	1154.58	Diagonal	1.84										
60-70	1134.19												
70-80	470.22	Zonal Lumen Summary											
80-90	83.66	Zone	Lumens	% Lamp	% Fixture								
90-100	0.82	0-30	1180.78	15.1	20.0								
100-110	0.00	0-40	2002.50	25.7	33.9								
110-120	0.00	0-60	4221.11	54.1	71.4								
120-130	0.00	0-90	5909.17	75.8	100.0								
130-140	0.00	90-120	0.82	0.0	0.0								
140-150	0.00	90-130	0.82	0.0	0.0								
150-160	0.00	90-150	0.82	0.0	0.0								
160-170	0.00	90-180	0.82	0.0	0.0								
170-180	0.00	0-180	5910.00	75.8	100.0								



REPORT NUMBER: **ML10HST**

Lamps: 100 W Pulse Start Metal Halide with Standard Dome Reflector *

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

% Ceiling Rcc		80			70				50			30			10			0	
% Walls	Rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
	0	90	90	90	90	88	88	88	88	84	84	84	81	81	81	77	77	77	76
	1	82	78	74	71	80	76	73	70	73	70	68	70	68	66	67	65	64	62
	2	73	66	61	56	71	65	60	55	62	58	54	60	56	53	57	54	51	50
	3	66	57	50	45	64	56	50	45	54	48	44	51	47	43	49	46	42	40
	4	60	50	43	37	58	49	42	37	47	41	36	45	40	36	43	39	35	33
	5	54	44	36	31	53	43	36	31	41	35	30	40	34	30	38	33	30	28
	6	50	39	32	26	48	38	31	26	37	31	26	35	30	26	34	29	25	24
	7	46	35	28	23	45	34	27	23	33	27	22	32	26	22	31	26	22	20
	8	43	32	25	20	41	31	24	20	30	24	20	29	24	20	28	23	19	18
	9	40	29	22	18	38	28	22	18	27	22	17	27	21	17	36	21	17	16
	10	37	26	20	16	36	26	20	16	25	20	16	24	19	16	24	19	15	14

Mercmaster™ III Low Profile Luminaires

100 W PSMH

* Photometric data is based on a fixture with a 100-watt clear Pulse Start Metal Halide lamp (8,500 lumen). For candlepower values of fixtures with other PSMH lamps, use the following multipliers: for a 50 W (3400 lumen) PSMH lamp – 0.40; for a 70 W (5600 lumen) PSMH lamp – 0.66; for a 150 W (10,500 lumen) PSMH lamp – 1.24; for a 175 W (17,500 lumen) PSMH lamp – 2.06. For candlepower values of fixture with guard, multiply by – 0.95.

NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA nR IIC (Z2)
Class I, Zone 2, AEx nR IIC (ZB)
Class II, Division 1 and 2, Groups E, F, G
Class III

NEC/CEC:

Simultaneous Exposure
(Class I, Division 2/Class II, Division 1)
Fixtures Outside Type (Salt Water)
Type 4X
IP66

Photometric Data

Zone Lumens Total Luminaire Efficiency = 71.3%

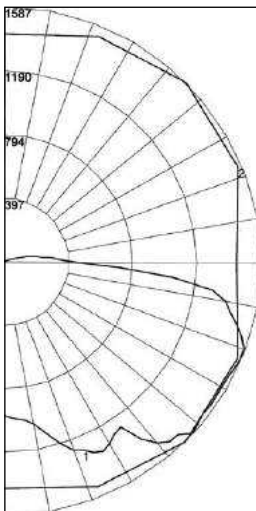
0-10 91.83 CIE Type – Direct

Plane	Spacing Criteria
0-180	2.08
90-270	2.06
Diagonal	1.76

60-70 7753.51

70-80 667.27 Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture
0-30	936.72	12.0	16.8
0-40	1639.74	21.0	29.5
0-60	3367.18	43.2	60.6
0-90	5281.39	67.7	95.0
90-120	278.21	3.6	5.0
90-130	279.28	3.6	5.0
90-150	279.28	3.6	5.0
90-180	279.28	3.6	5.0
0-180	5560.68	71.3	100.0



REPORT NUMBER: **ML10HAN**

Lamps: 100 W Pulse Start Metal Halide with
30° Angle Dome Reflector *

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

% Ceiling Rcc	80	70	50	30	10	0
% Walls Rw	70 50 30 10	70 50 30 10	50 30 10	50 30 10	50 30 10	0
0	84 84 84 84	82 82 82 82	77 77 77	73 73 73	69 69 69	68
1	74 69 65 62	71 67 64 60	63 60 58	60 57 55	57 55 53	51
2	66 59 53 48	64 57 51 47	54 49 45	51 47 43	48 45 42	40
3	59 51 44 38	57 49 43 38	46 41 36	44 39 35	41 37 34	32
4	54 44 37 31	52 43 36 31	40 35 30	38 33 29	36 32 28	27
5	49 39 32 26	47 38 31 26	36 30 25	34 29 25	32 28 24	22
6	45 35 28 23	43 34 27 22	32 26 22	30 25 21	29 24 21	19
7	42 31 24 20	40 30 24 19	29 23 19	27 22 18	26 22 18	16
8	39 28 22 17	37 28 21 17	26 21 17	25 20 16	24 19 16	14
9	36 26 19 15	35 25 19 15	24 19 15	23 18 14	22 17 14	13
10	34 24 18 14	32 23 17 13	22 17 13	21 16 13	20 16 13	11

Zone Lumens Total Luminaire Efficiency = 76.6%

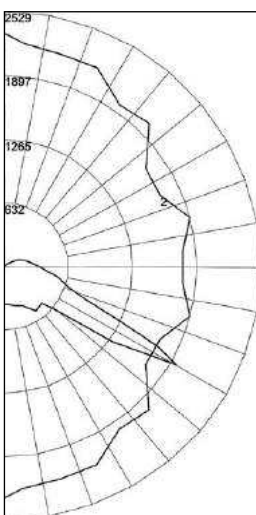
0-10 9.17 CIE Type – Semi-Direct

Plane	Spacing Criteria
0-180	2.06
90-270	2.20
Diagonal	3.26

60-70 1665.76

70-80 693.73 Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture
0-30	239.35	3.1	4.0
0-40	505.69	6.5	8.5
0-60	2293.81	29.4	38.4
0-90	5102.58	65.4	85.4
90-120	674.20	8.6	11.3
90-130	802.38	10.3	13.4
90-150	874.12	11.2	13.4
90-180	874.22	11.2	14.6
0-180	5976.80	76.6	100.0



REPORT NUMBER: **ML10HJ5**

Lamps: 100 W Pulse Start Metal Halide with
8" Prismatic Glass Refractor – NEMA Type V *

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

% Ceiling Rcc	80	70	50	30	10	0
% Walls Rw	70 50 30 10	70 50 30 10	50 30 10	50 30 10	50 30 10	0
0	89 89 89 89	85 85 85 85	79 79 79	73 73 73	68 68 68	65
1	77 71 67 62	73 68 64 60	63 59 56	58 55 52	53 51 49	46
2	67 58 51 45	64 56 49 44	51 46 41	47 42 38	43 39 36	33
3	59 48 40 34	56 46 39 32	42 36 30	38 33 28	34 30 26	24
4	52 41 32 26	49 39 31 25	35 28 23	32 26 21	29 24 20	18
5	47 35 26 20	44 33 25 19	30 23 18	27 21 17	25 20 15	13
6	43 30 22 16	40 29 21 15	26 19 14	24 18 13	21 16 12	10
7	39 27 19 13	37 25 18 13	23 16 12	21 15 11	19 14 10	8
8	36 24 16 11	34 23 15 10	21 14 10	19 13 9	17 12 8	6
9	33 21 14 9	31 20 14 9	19 12 8	17 11 8	15 10 7	5
10	31 19 12 8	29 19 12 8	17 11 7	15 10 6	14 9 6	4

Mercmaster™ III Low Profile Luminaires

High Pressure Sodium, Pulse Start Metal Halide and Metal Halide

Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

CEC:
Class I, Division 2, Groups A, B, C, D
Class I, Zone 2 Ex nR IIC (Z)
Class II, Division 1 and 2, Groups E, F, G
Class III

CEC:
Type 4X
IP66

Applications

- Enclosed and gasketed fixtures suitable for use in:
 - Marine and wet locations
 - A wide range of industrial, chemical processing and other areas where flammable gases and vapors or combustible dusts are present under conditions defined by the National Electrical Code as Class I, Division 2; Class II, Division 1 and 2; and Class III
 - Areas of low clearance, low ceiling heights or where fixture weights must be minimized
 - For Zone 2, the method of protection is Ex nR – Restricted Breathing
 - Non-hazardous locations where severe weather conditions, excessive moisture, dirt, dust, corrosive atmosphere or high ambient temperatures are encountered
- Typical applications include:
 - Pulp and paper mills
 - Processing plants
 - Chemical plants
 - Oil refineries
 - Foundries
 - Manufacturing plants
 - Storage areas
 - Waste and sewage treatment
 - Parking garages
 - Other areas where dust, water, dirt and rough usage are a problem

Features

- Compact light weight low profile design is suited for low mounting heights in conjunction with lower wattage fixtures.
- Modular design allows scores of fixture component combinations to meet installation and lighting needs. Uses same mounting hoods and optical accessories as Mercmaster III.
- A choice of heat-resistant prismatic glass refractors (NEMA I, III or V) or heat-resistant globes which thread directly into ballast housing. Photometrics available upon request – contact your local sales representative.
- Standard dome or 30° angle reflectors made of fiberglass reinforced white polyester. Highly resistant to corrosive atmospheres.
- Accommodates medium base lamps.
- A wide range of voltages available (120 to 600 Volt) and ballast types (Reactor, CWA, CWI and Super CWA).
- Medium base lamp type and watts:
 - HPS 50 W-150 W
 - PSMH 50 W-175 W ①
- Hinge has high lip for added safety during installation and servicing. Hinge and bolt construction assures 360° compression at all points on ballast housing gasket for positive sealing. Swing away design of captive bolt and nut simplifies servicing.
- All Mercmaster III mounting hoods have provision for easy field installation of fuses in fixtures (see fuse kits).
- Fixtures are for use in Class I, Zone 2 hazardous locations.
- The Ex nR factory sealed Mercmaster III prevents vapors and gases from entering the globe chamber. There are no seals or putty required which will reduce installation time and installation errors.



Low Profile Mercmaster III with Prismatic Globe and Guard

Standard Materials

- Mounting hoods, bodies and guard: cast copperfree (4/10 of 1% max.) aluminum
- All hardware and catch assemblies: stainless steel
- Reflectors: Fiberglass reinforced white polyester
- Globes and Refractors: heat-resistant prismatic glass

Standard Finishes

- Mounting hoods, bodies and guards: baked gray epoxy-clad finish, electrostatically applied for complete uniform protection

Options

- Quartz Auxiliary comes to full brightness immediately and remains lit until the HID lamp attains 60-70% of full illumination. Quartz Auxiliary supplied with relay switch and socket to accept 120 V quartz double-contact bayonet base lamp (not included). Add suffix **-E** ①.
- Guards with gray epoxy painted to match fixtures, supplied with stainless steel screws. Add suffix **-G** before voltage suffix.
- Hot Restrike to restrike HPS lamp immediately when power is restored after a momentary power interruption. Add suffix **-R**.
- Smart Starter incorporates a 1-1/2 minute timer and performs as a conventional starter to normally start lamp. Removes itself from circuit if lamp burns out or is removed from socket. Eliminates starter failures caused by prolonged operation with cycling or failing lamps and simplifies finding their location, reducing maintenance and repair costs. Available for all fixtures. Add suffix **-S**.
- Ex nR fixtures, add suffix **-Z**.
- Reflectors are available as standard dome and 30° angle polyester. Order separately.

CEC Certifications and Compliances ②

- CSA Certified: 025428
- CSA Standard: CSA C22.2 No. 9, C22.2 No. 137; CAN/CSA E60079-0, E60079-15

Related Products

- Photocells for classified use are available, see *PCD2 Series*.

① Fixtures equipped with quartz auxiliary lamp do not comply with CEC requirements and are not suitable for use in classified locations.

② Compliance data varies for specific fixtures. Consult Appleton regarding suitability of specific fixtures for a particular application.

③ Mercury vapor and metal halide luminaires are not available for purchase within the United States. Please check with your countries governing legislation regarding allowable lamp types before ordering.

Mercmaster™ III Low Profile Luminaires

High Pressure Sodium, Pulse Start Metal Halide and Metal Halide

Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2 Ex nR IIC (Z)
Class II, Division 1 and 2, Groups E, F, G
Class III

CEC:

Type 4X
IP66

Illustrated Features



High Temperature Sockets

Medium base high-temperature porcelain sockets.

Aluminum Inner Reflector

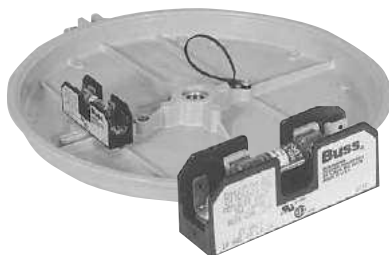
Solid aluminum inner reflector (for refractor ballast housings only) improves photometric efficiency.

Globe Chamber

Completely sealed from the ballast housing and outside vapors/air (nR).

Electrical Protection

Ground wire provided to bond mounting hood to ballast housing.



Fuses

Two screws secure fuse kit to mounting boss in any Mercmaster mounting hood. Fuse included.

Photocell

Available for all fixtures except cone and ceiling mount. Installs through knock-out in mounting hood. Provides continuous ON-OFF dusk-to-dawn control.



Vented Reflectors

Reflectors are thick, tough fiberglass-reinforced white polyester, vented for cooler operation. Quickly attach with furnished stainless steel screws.

Stainless Steel Inserts

Ballast bodies have stainless steel threaded inserts to receive stainless steel screws for reflectors and guard. Prevents "freezing", allowing guards and reflectors to be easily removed and replaced at any time, without damage to the housing.

Epoxy Finish

Ballast housing, hoods and guards are copperfree aluminum with epoxy powder coat finish.

Prismatic Glass Globes and Refractors

Heat-resistant globes and refractors thread directly into ballast housing and seal against a high-temperature silicone rubber gasket.



"Safety" High Hinge

Extra-high hinge provides additional protection against accidental ballast housing disengagement during installation or maintenance.



Ballast Assembly

Utilizing non-sparking components avoiding the ignition of gases or vapors that may be present (nA).

Mounting Hood and Globe Gaskets

Silicone rubber gaskets seals out moisture, dirt and dust. Stays flexible, withstands high temperatures. Closure design assures uniform gasket compression.

Terminal Blocks (Zone 2)

A seven-point terminal block is provided to facilitate wiring. Terminal block accommodates wire size ranging from #8 to #24 AWG.



Cooler Operating Cone Hood

Larger sloped surface sheds dusts, dirt and combustible fibers providing better heat dissipation.



Stainless Steel Latch Assembly

Captive, stainless steel latch assembly bolt and nut closes securely, resists attack of corrosive atmospheres. Swing-away design simplifies servicing.

Appleton®

HID/AREA: NEC/CEC ENCLOSED AND GASKETED

Mercmaster™ III Low Profile Luminaires

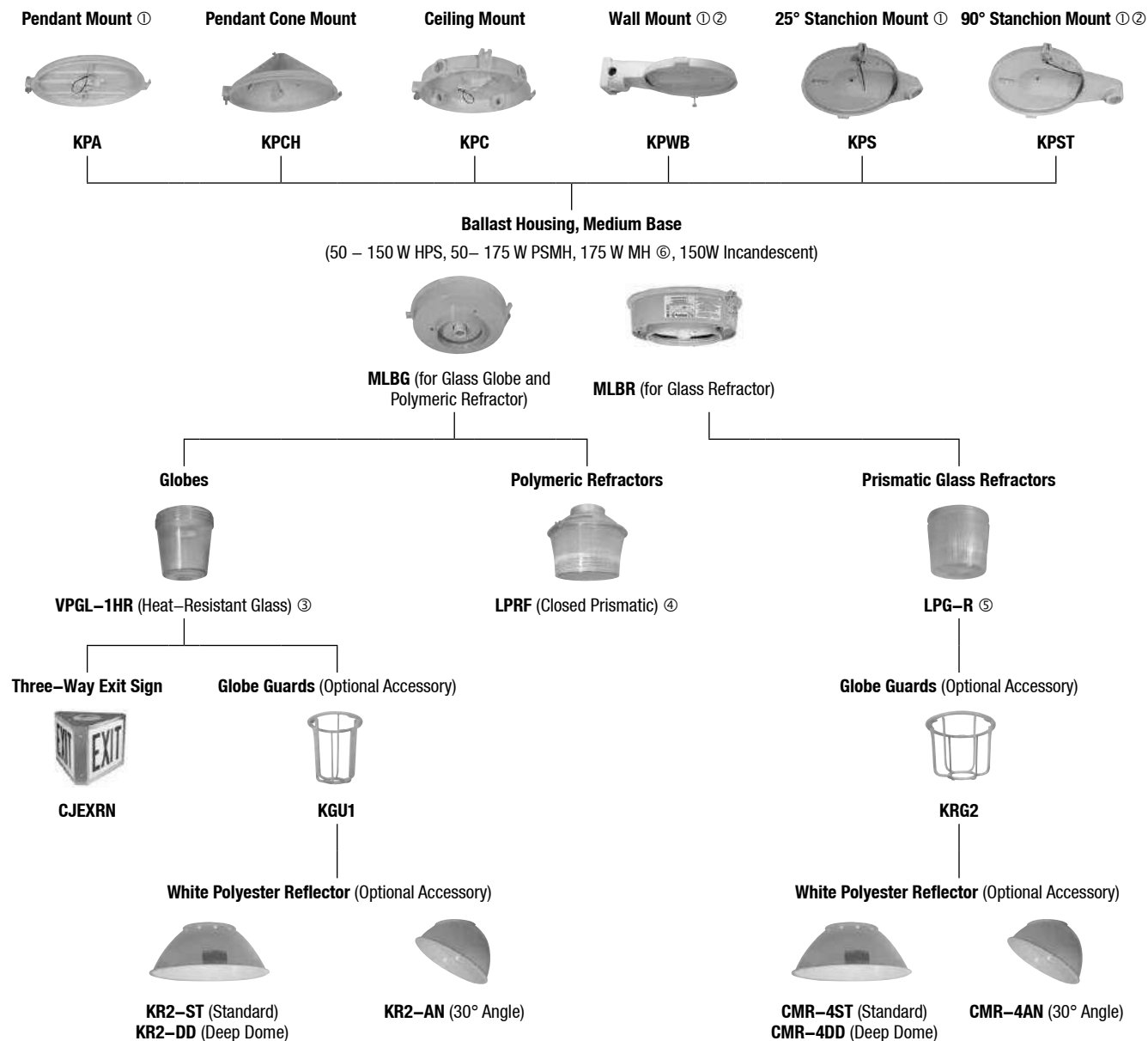
High Pressure Sodium, Pulse Start Metal Halide and Metal Halide

Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

CEC:
Class I, Division 2, Groups A, B, C, D
Class I, Zone 2 Ex nR IIC (Z)
Class II, Division 1 and 2, Groups E, F, G
Class III

CEC:
Type 4X
IP66

Mercmaster III Low Profile Family Tree



① Mounting hood with a 120 V or 208-277 V factory installed photocell is available.

② Standard and deep dome reflectors may interfere with bottom conduit entry if used with KPST and KPWB mounting hoods..

③ Available in clear, amber, blue, green and red.

④ Available in NEMA Type II, III, IV and V. Polymeric Refractor suitable for Class II, Groups F and G, NEMA 4X and Marine Type Electric Fixtures Outside Type (Salt Water) only (100 W PSMH Max.).

⑤ Available in NEMA Type I, III and V.

⑥ Mercury vapor and metal halide luminaires are not available for purchase within the United States. Please check with your countries governing legislation regarding allowable lamp types before ordering.

Mercmaster™ III Low Profile Luminaires

High Pressure Sodium, Pulse Start Metal Halide and Metal Halide

Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2 Ex nR IIC (Z)
Class II, Division 1 and 2, Groups E, F, G
Class III

CEC:

Type 4X
IP66

Order using catalog numbering guide below or select catalog number from tables on following pages.

Catalog Numbering Guide

ML	A	L	15	2	G1	G	MT	R	22
Series: ML - Mercmaster III Low Profile		Lamp Type: I - Incandescent H - 175 W Metal Halide L - High Pressure Sodium H - Pulse Start Metal Halide		Hub Size: 2 - 3/4" NPT 3 - 1" NPT 4 - 1-1/4" NPT stanchion 5 - 1-1/2" NPT stanchion		Guard Options: G - Cast Guard N - No Guard		Options: E - Emergency Quartz ⑤ R - Hot Restrike ③ S - Smart Starter ④ H1 - Photocontrol 120 V H2 - Photocontrol 208 V H3 - Photocontrol 240 V H4 - Photocontrol 277 V C - Safety Cable Adapted D - E-27 Export Socket T - Terminal Blocks V - Anti-Vibration Modifications X - Appledapter ⑥ Mounting Hood Adapter	
	Mounting:		Wattage ⑦:		Optical Assembly: ②		Voltage: ①		Suffix:
	A - Pendant (rigid mounting) C - Ceiling D - Pendant Cone Hood F - Pendant (flexible mounting) R - 90° Stanchion S - 25° Stanchion W - Wall		10 - 100 W HPS/MH 15 - 150 W HPS/MH and 60-150 W max. Incandescent 17 - 175 W MH 50 - 50 W HPS/MH 70 - 70 W HPS/MH		G1 - Globe J1 - NEMA I Glass Refractor J3 - NEMA III Glass Refractor J5 - NEMA V Glass Refractor P2 - NEMA II Polymeric Refractor P3 - NEMA III Polymeric Refractor P4 - NEMA IV Polymeric Refractor P5 - NEMA V Polymeric Refractor		LB - Incandescent, 120 V 60 Hz MT - 120/208/240/277 V 60 Hz TT - 120/277/347 V 60 Hz, CWA C2 - 208 V 60 Hz, CWI C3 - 240 V 60 Hz, CWI C6 - 480 V 60 Hz, CWI C7 - 600 V 60 Hz, CWI		Z - Zone 2 suffix (required for Ex nR)

① Other voltages, frequencies available – contact your local sales representative. Voltages shown are limited to specific combinations; refer to following pages.

② Polymeric Refractor suitable for Class II, Groups F and G and NEMA 4X only (100 W PSMH Max.). Reflectors ordered separately.

③ Available for 50-150 W HPS fixtures only.

④ Available for HPS fixtures.

⑤ Fixtures equipped with quartz auxiliary lamp do not comply with CEC requirements and are not suitable for use in classified locations.

⑥ Appledapter is available for use with the pendant, ceiling and angled stanchion mounting only.

⑦ Mercury vapor and metal halide luminaires are not available for purchase within the United States. Please check with your countries governing legislation regarding allowable lamp types before ordering.

Mercmaster™ III Low Profile Luminaires

Class I, Division 2; Class II, Division 1; Simultaneous exposure to hazardous conditions in both classifications

Temperature identification numbers of Mercmaster III Low Profile High Pressure Sodium and Pulse Start Metal Halide

CEC:
Class I, Division 2, Groups A, B, C, D
Class I, Zone 2 Ex nR IIC (Z)
Class II, Division 1 and 2, Groups E, F, G
Class III

CEC:
Type 4X
IP66

Lamp		Supply Wire Min.	Ambient Temp.	Class I, Division 2			Class II, Division 1 Groups E, F and G			Simultaneous Exposure Class I, Division 2 / Class II, Division 1		
Watts	Type	Temp. °C (°F)	°C (°F)	Globe	Globe & Reflector	Reflector	Globe	Globe & Reflector	Reflector	Globe	Globe & Reflector	Reflector
50	HPS	90 °C (194 °F)	40 °C (104 °F)	T3	T3	T3B	T4A	T4A	T5	T3	T3	T3
		90 °C (194 °F)	55 °C (131 °F)	T3	T3	T3A	T4A	T4A	T4A	T2D	T2D	T2D
		90 °C (194 °F)	65 °C (149 °F)	T3	T3	T3A	T4	T4	T4A	T2C	T2C	T2C
70	HPS	90 °C (194 °F)	40 °C (104 °F)	T3	T3	T3	T4	T4	T5	T2B	T2B	T2D
		90 °C (194 °F)	55 °C (131 °F)	T2D	T2D	T3	T3C	T3C	T4A	T2B	T2B	T2C
		90 °C (194 °F)	65 °C (149 °F)	—	—	T3	—	—	T4	—	—	T2B
100	HPS	90 °C (194 °F)	40 °C (104 °F)	T2C	T2C	T2D	T4	T4	T4A	T2B	T2B	T2B
		90 °C (194 °F)	55 °C (131 °F)	T2B	T2B	T2C	T3C	T3C	T4	T2A	T2A	T2A
		90 °C (194 °F)	65 °C (149 °F)	—	—	—	—	—	—	—	—	—
150	HPS	90 °C (194 °F)	40 °C (104 °F)	T2A	T2A	T2B	T3A ①	—	T4	325	—	T2
50	PSMH	90 °C (194 °F)	40 °C (104 °F)	T3	T3	T3A	T4A	T4A	T6	T2D	T2D	T3
		90 °C (194 °F)	55 °C (131 °F)	T3	T3	T3	T4	T4	T5	T2C	T2C	T2D
		90 °C (194 °F)	65 °C (149 °F)	T3	T3	T3	T4	T4	T4A	T2B	T2B	T2D
70	PSMH	90 °C (194 °F)	40 °C (104 °F)	T3	T3	T3	T3C	T3C	T4A	T2B	T2B	T2C
		90 °C (194 °F)	55 °C (131 °F)	T2D	T2D	T3	T3C	T3C	T4A	T2A	T2A	T2B
		110 °C (230 °F)	65 °C (149 °F)	—	—	T3	—	—	T4	—	—	T2B
100	PSMH	90 °C (194 °F)	40 °C (104 °F)	T2A	T2A	T2B	T3B	T3B	T4A	T2	T2	T2A
		90 °C (194 °F)	55 °C (131 °F)	T2A	T2A	T2B	T3A ①	T3A ①	T4	T1	T1	T2
150	PSMH	105 °C (221 °F)	40 °C (104 °F)	350	350	325	—	—	T3B	—	—	T1
175	PSMH	105 °C (221 °F)	40 °C (104 °F)	350	350	325	—	—	T3B	—	—	T1
175	MH ②	110 °C (230 °F)	40 °C (104 °F)	—	—	325	—	—	T3B	—	—	—
60	Inc.	90 °C (194 °F)	40 °C (104 °F)	T3B	T3B	T3C	—	—	—	—	—	—
		90 °C (194 °F)	55 °C (131 °F)	T3A	T3A	T3C	—	—	—	—	—	—
		90 °C (194 °F)	65 °C (149 °F)	T3A	T3A	T3C	—	—	—	—	—	—
100	Inc.	90 °C (194 °F)	40 °C (104 °F)	T3	T3	T3	—	—	—	—	—	—
		90 °C (194 °F)	55 °C (131 °F)	T3	T3	T3	—	—	—	—	—	—
		90 °C (194 °F)	65 °C (149 °F)	T2D	T2D	T3	—	—	—	—	—	—
150	Inc.	90 °C (194 °F)	40 °C (104 °F)	T2D	T2D	T3	—	—	—	—	—	—
		90 °C (194 °F)	55 °C (131 °F)	T2B	T2B	T2D	—	—	—	—	—	—
		90 °C (194 °F)	65 °C (149 °F)	T2B	T2B	T2D	—	—	—	—	—	—

“T” Numbers Represent the Maximum Lamp Temperature for Class I, Division 2 Locations and Maximum Surface Temperature Under Dust Blanket for Class II, Division 1 Locations.

“T” #	T1	350	325	T2	T2A	T2B	T2C	T2D	T3	T3A	T3B	T3C	T4	T4A	T5	T6
Temp. Range (°C)	351-450	326-350	301-325	281-300	261-280	231-260	216-230	201-215	181-200	166-180	161-165	136-160	121-135	101-120	86-100	85
Temp. Range (°F)	664-842	619-662	574-617	538-572	502-536	448-500	421-446	394-419	358-392	331-356	322-329	277-320	250-275	214-248	187-212	185

① “T” numbers are for Groups E and F only.

② Mercury vapor and metal halide luminaires are not available for purchase within the United States. Please check with your countries governing legislation regarding allowable lamp types before ordering.

Mercmaster™ III Low Profile Luminaires

Class I, Zone 2; Ex nR IIC; IP66; NEMA 4X

Temperature identification numbers of Mercmaster III Zone 2 Low Profile High Pressure Sodium and Pulse Start Metal Halide.

CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2 Ex nR IIC (Z)
Class II, Division 1 and 2, Groups E, F, G
Class III

CEC:

Type 4X
IP66

Watts	Lamp Type	Supply Wire Temp. °C (°F)	Ambient Temp. °C (°F)	Class I, Zone 2 AEx nA nR IIC / Ex nR IIC		
				Globe	Globe w/Reflector	Refractor
50	HPS	90 °C (194 °F)	40 °C (104 °F)	T6	T6	T6
		90 °C (194 °F)	55 °C (131 °F)	T5	T5	T5
		90 °C (194 °F)	65 °C (149 °F)	T4	T4	T5
70	HPS	90 °C (194 °F)	40 °C (104 °F)	T5	T5	T5
		90 °C (194 °F)	55 °C (131 °F)	T4	T4	T4
		90 °C (194 °F)	65 °C (149 °F)	—	—	T4
100	HPS	90 °C (194 °F)	40 °C (104 °F)	T4	T4	T4
		90 °C (194 °F)	55 °C (131 °F)	T4	T4	T4
150	HPS	90 °C (194 °F)	40 °C (104 °F)	T4	T4	T4
50	PSMH	90 °C (194 °F)	40 °C (104 °F)	T5	T5	T6
		90 °C (194 °F)	55 °C (131 °F)	T5	T5	T6
		90 °C (194 °F)	65 °C (149 °F)	T4	T4	T5
70	PSMH	90 °C (194 °F)	40 °C (104 °F)	T5	T5	T6
		90 °C (194 °F)	55 °C (131 °F)	T4	T4	T6
		110 °C (230 °F)	65 °C (149 °F)	—	—	T4
100	PSMH	90 °C (194 °F)	40 °C (104 °F)	T4	T4	T6
		90 °C (194 °F)	55 °C (131 °F)	T4	T4	T4
150	PSMH	105 °C (221 °F)	40 °C (104 °F)	T3	T3	T4
175	PSMH	105 °C (221 °F)	40 °C (104 °F)	T3	T3	T4
175	MH ①	110 °C (230 °F)	40 °C (104 °F)	—	—	T3

“T” Numbers represent the maximum surface temperature for luminaires with Ex nR rating:

The “T” number is established by separately determining the maximum temperature of the globe surface and ballast compartment. The hotter of the two is taken to determine the “T” number for the overall fixture.

“T” Number	T1	T2	T3	T4	T5	T6
Temp. Range (°C)	301-450	201-300	136-200	101-135	86-100	85
Temp. Range (°F)	547-842	394-572	277-392	214-275	187-212	185

① Mercury vapor and metal halide luminaires are not available for purchase within the United States. Please check with your countries governing legislation regarding allowable lamp types before ordering.

Mercmaster™ III Low Profile Luminaires

50 W – 150 W HPS

High Power Factor (min. P.F. 90%). Medium base lamps.

CEC:
Class I, Division 2, Groups A, B, C, D
Class I, Zone 2 Ex nR IIC (Z)
Class II, Division 1 and 2, Groups E, F, G
Class III

CEC:
Type 4X
IP66

		Lamp Type	Lamp Watts	Hub Size (Inches)	Catalog Numbers ③④⑤ With Globe	With Type V 8" Refractor ②
Pendant — One Hub, Rigid Mounting ①						
	HPS	50	3/4	MLAL502G1N	MLAL502J5N	
			1	MLAL503G1N	MLAL503J5N	
	HPS	70	3/4	MLAL702G1N	MLAL702J5N	
			1	MLAL703G1N	MLAL703J5N	
	HPS	100	3/4	MLAL102G1N	MLAL102J5N	
			1	MLAL103G1N	MLAL103J5N	
	Shown with Globe and Optional Guard	HPS	150	3/4	MLAL152G1N ⑥	MLAL152J5N ⑥
				1	MLAL153G1N ⑥	MLAL153J5N ⑥
Pendant Cone — One Hub, Rigid Mounting						
	HPS	50	3/4	MLDL502G1N	MLDL502J5N	
			1	MLDL503G1N	MLDL503J5N	
	HPS	70	3/4	MLDL702G1N	MLDL702J5N	
			1	MLDL703G1N	MLDL703J5N	
	HPS	100	3/4	MLDL102G1N	MLDL102J5N	
			1	MLDL103G1N	MLDL103J5N	
	Shown with Refractor	HPS	150	3/4	MLDL152G1N ⑥	MLDL152J5N ⑥
				1	MLDL153G1N ⑥	MLDL153J5N ⑥
Ceiling — Five Hubs, Four Close-up Plugs						
	HPS	50	3/4	MLCL502G1N	MLCL502J5N	
			1	MLCL503G1N	MLCL503J5N	
	HPS	70	3/4	MLCL702G1N	MLCL702J5N	
			1	MLCL703G1N	MLCL703J5N	
	HPS	100	3/4	MLCL102G1N	MLCL102J5N	
			1	MLCL103G1N	MLCL103J5N	
	Shown with Globe	HPS	150	3/4	MLCL152G1N ⑥	MLCL152J5N ⑥
				1	MLCL153G1N ⑥	MLCL153J5N ⑥

① For Flexible Pendant Mount, change **A** to **F** in catalog number (except 50 W HPS).

② To order fixture with NEMA Type I or NEMA Type III refractor, change final digit **5** in catalog number to **1** or **3**.

③ For fixtures with guards, substitute a **G** for the **N** before adding voltage suffix. See following pages for accessory ordering information.

④ Add the following voltage and frequency designation before **Z** suffix:

Lamp Type	Lamp Watts	LB	MT	TT	Voltage Suffixes			
					C2	C3	C6	C7
Inc.	150 Max.	X	—	—	—	—	—	—
HPS	50	—	X	X	—	—	—	—
HPS	70	—	X	X	X	X	X	X
HPS	100	—	X	X	X	X	X	X
HPS	150	—	X	X	X	X	X	X
PSMH	50	—	X	X	—	—	—	—
PSMH	70	—	X	X	—	—	—	—
PSMH	100	—	X	X	—	—	—	—
PSMH	150	—	X	X	—	—	—	—
PSMH	175	—	X	X	—	—	—	—
MH ⑦	175	—	—	X	X	X	X	X

Voltages:

LB - Incandescent, 120 V 60 Hz

MT - 120/208/240/277 V 60 Hz

TT - 120/277/347 V 60 Hz, CWA

C2 - 208 V 60 Hz, CWI

C3 - 240 V 60 Hz, CWI

C6 - 480 V 60 Hz, CWI

C7 - 600 V 60 Hz, CWI

⑤ Add **Z** for factory sealed restricted breathing protection (Ex nR)

⑥ For 150 W HPS fixtures, use S-55 lamp type only.

⑦ Mercury vapor and metal halide luminaires are not available for purchase within the United States. Please check with your countries governing legislation regarding allowable lamp types before ordering.

Mercmaster™ III Low Profile Luminaires

50 W – 150 W HPS

High Power Factor (min. P.F. 90%). Medium base lamps.

CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2 Ex nR IIC (Z)
Class II, Division 1 and 2, Groups E, F, G
Class III

CEC:

Type 4X
IP66

			Hub Size (Inches)	Catalog Numbers ③④⑤	
Lamp Type	Lamp Watts			With Globe	With Type V 8" Refractor ②
Wall — Five Hubs, Four Close-Up Plugs					
	HPS	50	3/4 1	MLWL502G1N MLWL503G1N	MLWL502J5N MLWL503J5N
	HPS	70	3/4 1	MLWL702G1N MLWL703G1N	MLWL702J5N MLWL703J5N
	HPS	100	3/4 1	MLWL102G1N MLWL103G1N	MLWL102J5N MLWL103J5N
	HPS	150	3/4 1	MLWL152G1N ⑥ MLWL153G1N ⑥	MLWL152J5N ⑥ MLWL153J5N ⑥
25° Stanchion — One Hub					
	HPS	50	1-1/4 1-1/2	MLSL504G1N MLSL505G1N	MLSL504J5N MLSL505J5N
	HPS	70	1-1/4 1-1/2	MLSL704G1N MLSL705G1N	MLSL704J5N MLSL705J5N
	HPS	100	1-1/4 1-1/2	MLSL104G1N MLSL105G1N	MLSL104J5N MLSL105J5N
	HPS	150	1-1/4 1-1/2	MLSL154G1N ⑥ MLSL155G1N ⑥	MLSL154J5N ⑥ MLSL155J5N ⑥
90° Stanchion — One Hub					
	HPS	50	1-1/4 1-1/2	MLRL504G1N MLRL505G1N	MLRL504J5N MLRL505J5N
	HPS	70	1-1/4 1-1/2	MLRL704G1N MLRL705G1N	MLRL704J5N MLRL705J5N
	HPS	100	1-1/4 1-1/2	MLRL104G1N MLRL105G1N	MLRL104J5N MLRL105J5N
	HPS	150	1-1/4 1-1/2	MLRL154G1N ⑥ MLRL155G1N ⑥	MLRL154J5N ⑥ MLRL155J5N ⑥

② To order fixture with NEMA Type I or NEMA Type III refractor, change final digit 5 in catalog number to 1 or 3.

③ For fixtures with guards, substitute a G for the N before adding voltage suffix. See following pages for accessory ordering information.

④ Add the following voltage and frequency designation before Z suffix:

Lamp Type	Lamp Watts	LB	MT	TT	Voltage Suffixes			
					C2	C3	C6	C7
Inc.	150 Max.	X	—	—	—	—	—	—
HPS	50	—	X	X	—	—	—	—
HPS	70	—	X	X	X	X	X	X
HPS	100	—	X	X	X	X	X	X
HPS	150	—	X	X	X	X	X	X
PSMH	50	—	X	X	—	—	—	—
PSMH	70	—	X	X	—	—	—	—
PSMH	100	—	X	X	—	—	—	—
PSMH	150	—	X	X	—	—	—	—
PSMH	175	—	X	X	—	—	—	—
MH ⑦	175	—	—	X	X	X	X	X

Voltagess:

LB - Incandescent, 120 V 60 Hz

MT - 120/208/240/277 V 60 Hz

TT - 120/277/347 V 60 Hz, CWA

C2 - 208 V 60 Hz, CWI

C3 - 240 V 60 Hz, CWI

C6 - 480 V 60 Hz, CWI

C7 - 600 V 60 Hz, CWI

⑤ Add Z for factory sealed restricted breathing protection (Ex nR)

⑥ For 150 W HPS fixtures, use S-55 lamp type only.

⑦ Mercury vapor and metal halide luminaires are not available for purchase within the United States. Please check with your countries governing legislation regarding allowable lamp types before ordering.

Mercmaster™ III Low Profile Luminaires

50 W - 175 W PSMH

High Power Factor (min. P.F. 90%). Medium base lamps.

CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2 Ex nR IIC (Z)
Class II, Division 1 and 2, Groups E, F, G
Class III

CEC:

Type 4X
IP66

			Hub Size (Inches)	Catalog Numbers ③④⑤	
	Lamp Type	Lamp Watts		With Globe	With Type V 8" Refractor ②
Pendant — One Hub, Rigid Mounting ①					
	PSMH	50	3/4 1	MLAH502G1N MLAH503G1N	MLAH502J5N MLAH503J5N
	PSMH	70	3/4 1	MLAH702G1N MLAH703G1N	MLAH702J5N MLAH703J5N
	PSMH	100	3/4 1	MLAH102G1N MLAH103G1N	MLAH102J5N MLAH103J5N
	PSMH	150	3/4 1	MLAP152G1N MLAP153G1N	MLAP152J5N MLAP153J5N
	PSMH	175	3/4 1	MLAP172G1N MLAP173G1N	MLAP172J5N MLAP173J5N
Pendant Cone — One Hub, Rigid Mounting					
	PSMH	50	3/4 1	MLDH502G1N MLDH503G1N	MLDH502J5N MLDH503J5N
	PSMH	70	3/4 1	MLDH702G1N MLDH703G1N	MLDH702J5N MLDH703J5N
	PSMH	100	3/4 1	MLDH102G1N MLDH103G1N	MLDH102J5N MLDH103J5N
	PSMH	150	3/4 1	MLDP152G1N MLDP153G1N	MLDP152J5N MLDP153J5N
	PSMH	175	3/4 1	MLDP172G1N MLDP173G1N	MLDP172J5N MLDP173J5N
Ceiling — Five Hubs, Four Close-up Plugs					
	PSMH	50	3/4 1	MLCH502G1N MLCH503G1N	MLCH502J5N MLCH503J5N
	PSMH	70	3/4 1	MLCH702G1N MLCH703G1N	MLCH702J5N MLCH703J5N
	PSMH	100	3/4 1	MLCH102G1N MLCH103G1N	MLCH102J5N MLCH103J5N
	PSMH	150	3/4 1	MLCP152G1N MLCP153G1N	MLCP152J5N MLCP153J5N
	PSMH	175	3/4 1	MLCP172G1N MLCP173G1N	MLCP172J5N MLCP173J5N

① For Flexible Pendant Mount, change **A** to **F** in catalog number (except 50 W HPS).

② To order fixture with NEMA Type I or NEMA Type III refractor, change final digit **5** in catalog number to **1** or **3**.

③ For fixtures with guards, substitute a **G** for the **N** before adding voltage suffix. See following pages for accessory ordering information.

④ Add the following voltage and frequency designation before **Z** suffix:

Voltage Suffixes								
Lamp Type	Lamp Watts	LB	MT	TT	C2	C3	C6	C7
Inc.	150 Max.	X	—	—	—	—	—	—
HPS	50	—	X	X	—	—	—	—
HPS	70	—	X	X	X	X	X	X
HPS	100	—	X	X	X	X	X	X
HPS	150	—	X	X	X	X	X	X
PSMH	50	—	X	X	—	—	—	—
PSMH	70	—	X	X	—	—	—	—
PSMH	100	—	X	X	—	—	—	—
PSMH	150	—	X	X	—	—	—	—
PSMH	175	—	X	X	—	—	—	—
MH ⑥	175	—	—	X	X	X	X	X

Voltages:

LB - Incandescent, 120 V 60 Hz

MT - 120/208/240/277 V 60 Hz

TT - 120/277/347 V 60 Hz, CWA

C2 - 208 V 60 Hz, CWI

C3 - 240 V 60 Hz, CWI

C6 - 480 V 60 Hz, CWI

C7 - 600 V 60 Hz, CWI

⑤ Add **Z** for factory sealed restricted breathing protection (Ex nR).

⑥ Mercury vapor and metal halide luminaires are not available for purchase within the United States. Please check with your countries governing legislation regarding allowable lamp types before ordering.

Mercmaster™ III Low Profile Luminaires

50 W - 175 W PSMH

High Power Factor (min. P.F. 90%). Medium base lamps.

CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2 Ex nR IIC (Z)
Class II, Division 1 and 2, Groups E, F, G
Class III

CEC:

Type 4X
IP66

		Lamp Type	Lamp Watts	Hub Size (Inches)	Catalog Numbers ③④⑤	
					With Globe	With Type V 8" Refractor ②
Wall — Five Hubs, Four Close-Up Plugs						
	PSMH	50	3/4 1	MLWH502G1N MLWH503G1N	MLWH502J5N MLWH503J5N	
	PSMH	70	3/4 1	MLWH702G1N MLWH703G1N	MLWH702J5N MLWH703J5N	
	PSMH	100	3/4 1	MLWH102G1N MLWH103G1N	MLWH102J5N MLWH103J5N	
	PSMH	150	3/4 1	MLWP152G1N MLWP153G1N	MLWP152J5N MLWP153J5N	
	Shown with Refractor and Optional Guard	PSMH	175	3/4 1	MLWP172G1N MLWP173G1N	MLWP172J5N MLWP173J5N
25° Stanchion — One Hub						
	PSMH	50	1-1/4 1-1/2	MLSH504G1N MLSH505G1N	MLSH504J5N MLSH505J5N	
	PSMH	70	1-1/4 1-1/2	MLSH704G1N MLSH705G1N	MLSH704J5N MLSH705J5N	
	PSMH	100	1-1/4 1-1/2	MLSH104G1N MLSH105G1N	MLSH104J5N MLSH105J5N	
	PSMH	150	1-1/4 1-1/2	MLSP154G1N MLSP155G1N	MLSP154J5N MLSP155J5N	
	Shown with Globe and Optional Guard	PSMH	175	1-1/4 1-1/2	MLSP174G1N MLSP175G1N	MLSP174J5N MLSP175J5N
90° Stanchion — One Hub						
	PSMH	50	1-1/4 1-1/2	MLRH504G1N MLRH505G1N	MLRH504J5N MLRH505J5N	
	PSMH	70	1-1/4 1-1/2	MLRH704G1N MLRH705G1N	MLRH704J5N MLRH705J5N	
	PSMH	100	1-1/4 1-1/2	MLRH104G1N MLRH105G1N	MLRH104J5N MLRH105J5N	
	PSMH	150	1-1/4 1-1/2	MLRP154G1N MLRP155G1N	MLRP154J5N MLRP155J5N	
	Shown with Refractor and Optional Guard	PSMH	175	1-1/4 1-1/2	MLRP174G1N MLRP175G1N	MLRP174J5N MLRP175J5N

② To order fixture with NEMA Type I or NEMA Type III refractor, change final digit 5 in catalog number to 1 or 3.

③ For fixtures with guards, substitute a **G** for the **N** before adding voltage suffix. See following pages for accessory ordering information.

④ Add the following voltage and frequency designation before **Z** suffix:

Lamp Type	Lamp Watts	LB	MT	TT	Voltage Suffixes			
					C2	C3	C6	C7
Inc.	150 Max.	X	—	—	—	—	—	—
HPS	50	—	X	X	—	—	—	—
HPS	70	—	X	X	X	X	X	X
HPS	100	—	X	X	X	X	X	X
HPS	150	—	X	X	X	X	X	X
PSMH	50	—	X	X	—	—	—	—
PSMH	70	—	X	X	—	—	—	—
PSMH	100	—	X	X	—	—	—	—
PSMH	150	—	X	X	—	—	—	—
PSMH	175	—	X	X	—	—	—	—
MH ⑥	175	—	—	X	X	X	X	X

Volts:

LB - Incandescent, 120 V 60 Hz

MT - 120/208/240/277 V 60 Hz

TT - 120/277/347 V 60 Hz, CWA

C2 - 208 V 60 Hz, CWI

C3 - 240 V 60 Hz, CWI

C6 - 480 V 60 Hz, CWI

C7 - 600 V 60 Hz, CWI

⑤ Add **Z** for factory sealed restricted breathing protection (Ex nR).

⑥ Mercury vapor and metal halide luminaires are not available for purchase within the United States. Please check with your countries governing legislation regarding allowable lamp types before ordering.

Mercmaster™ III Low Profile Luminaires

High Pressure Sodium, Pulse Start Metal Halide and Metal Halide

Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

CEC:
Class I, Division 2, Groups A, B, C, D
Class I, Zone 2 Ex nR IIC (Z)
Class II, Division 1 and 2, Groups E, F, G
Class III

CEC:
Type 4X
IP66

Mounting Hoods

	Description	Hub Size (Inches)	Catalog Number
Pendant			
	One Hub, Rigid Mounting	3/4 1	KPA-75 KPA-100
Pendant — Flexible			
	One Hub, Flexible Mounting	3/4 1	KPAF-75 KPAF-100
Pendant Cone			
	One Hub, Rigid or Flexible Mounting	3/4 1	KPCH-75 KPCH-100
Ceiling			
	Five Hubs, Four Close-Up Plugs	3/4 1	KPC-75 KPC-100
Wall			
	Five Hubs, Four Close-Up Plugs	3/4 1	KPWB-75 KPWB-100
25° Stanchion			
	One Hub	1-1/4 1-1/2	KPS-125 KPS-150
90° Stanchion			
	One Hub	1-1/4 1-1/2	KPST-125 KPST-150

Fuse Kits — Order one kit for CWA ballasts and two kits for CWI ballasts ①

	35W		50W		60W		70W		75W		100W		150W		175W	
Volts	CWA	CWI	CWA	CWI	CWA	CWI	CWA	CWI	CWA	CWI	CWA	CWI	CWA	CWI	CWA	CWI
High Pressure Sodium																
120	F2C	F2C	F2C	F2C	—	—	F3C	F3C	—	—	F4C	F4C	F6C	F6C	—	—
208	—	—	—	F2C	—	—	—	F2C	—	—	—	F2C	—	F3C	—	—
240	F1C	F1C	F2C	F2C	—	—	F2C	F2C	—	—	F2C	F2C	F3C	F3C	—	—
277	F1C	—	F1C	—	—	—	F2C	—	—	—	F2C	—	F3C	—	—	—
347	F1C	—	F1C	—	—	—	F1C	—	—	—	F1C	—	F2C	—	—	—
480	—	—	—	F1C	—	—	—	F1C	—	—	—	F1C	—	F2C	—	—
600	—	—	—	F1C	—	—	—	F1C	—	—	—	F1C	—	F2C	—	—
Pulse Start Metal Halide/Metal Halide																
120	—	—	F3C	F3C	—	—	F4C	—	—	—	F4C	—	—	—	F6C	F6C
208	—	—	—	F2C	—	—	—	—	—	—	—	—	—	—	—	F4C
240	—	—	F1C	F1C	—	—	F2C	—	—	—	F2C	—	—	—	F3C	F3C
277	—	—	F1C	—	—	—	F2C	—	—	—	F2C	—	—	—	F3C	—
347	—	—	F1C	—	—	—	F2C	—	—	—	F2C	—	—	—	F2C	—
480	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	F2C
600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	F2C
Incandescent																
	—	—	—	—	F1C	—	—	—	—	—	F1C	—	F2C	—	—	—

① Not for use in Hazardous Location applications, per the Canadian Electrical Code (CEC).

Mercmaster™ III Low Profile Luminaires

High Pressure Sodium, Pulse Start Metal Halide and Metal Halide

Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2 Ex nR IIC (Z)
Class II, Division 1 and 2, Groups E, F, G
Class III

CEC:

Type 4X
IP66

Ballast Bodies



Ballast Body for Glass Refractor

High Pressure Sodium
High Power Factor (Min. P.F. 90%)



Ballast Body for Glass Globe or Polymeric Refractor

Pulse Start Metal Halide
Super Constant Wattage Autotransformer (Min. P.F. 90%)

Lamp Type	Lamp Watts	Catalog Number ④		Voltage Suffixes						
		For Globe	For Refractor	LB	MT	TT	C2	C3	C6	C7
Inc.	150 Max.	MLBG15I	MLBR15I	X	—	—	—	—	—	—
HPS	50	MLBG50L ①②	MLBR50L ①②	—	X	X	—	—	—	—
HPS	70	MLBG70L ①②	MLBR70L ①②	—	X	X	X	X	X	X
HPS	100	MLBG10L ①②	MLBR10L ①②	—	X	X	X	X	X	X
HPS	150	MLBG15L ①②	MLBR15L ①②	—	X	X	X	X	X	X
PSMH	50	MLBG50H ②③	MLBR50H ②③	—	X	X	—	—	—	—
PSMH	70	MLBG70H ②③	MLBR70H ②③	—	X	X	—	—	—	—
PSMH	100	MLBG10H ②③	MLBR10H ②③	—	X	X	—	—	—	—
PSMH	150	MLBG15P ②③	MLBR15P ②③	—	X	X	—	—	—	—
PSMH	175	MLBG17P ②③	MLBR17P ②③	—	X	X	—	—	—	—
MH ⑤	175	MLBG17H ②	MLBR17H ②	—	X	X	X	X	X	X

Voltages:

LB - Incandescent, 120 V 60 Hz

MT - 120/208/240/277 V 60 Hz

TT - 120/277/347 V 60 Hz, CWA

C2 - 208 V 60 Hz, CWI

C3 - 240 V 60 Hz, CWI

C6 - 480 V 60 Hz, CWI

C7 - 600 V 60 Hz, CWI

① After voltage suffix add: **-S** for Smart Starter, **-R** for ballast body with Hot Restrike Ignitor.

② Add **-E** after voltage suffix for ballast body with provision for Quartz Emergency Light. Not suitable for hazardous locations. Specify supply voltage.

③ After voltage suffix add: **-S** for Smart Starter.

④ Add **Z** for factory sealed restricted breathing protection (Ex nR).

⑤ Mercury vapor and metal halide luminaires are not available for purchase within the United States. Please check with your countries governing legislation regarding allowable lamp types before ordering.

Mercmaster™ III Low Profile Luminaires

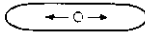
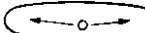
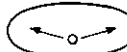
High Pressure Sodium, Pulse Start Metal Halide and Metal Halide

Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

CEC:
Class I, Division 2, Groups A, B, C, D
Class I, Zone 2 Ex nR IIC (Z)
Class II, Division 1 and 2, Groups E, F, G
Class III

CEC:
Type 4X
IP66

Accessories and Replacement Parts

		Description	Catalog Number
Prismatic Glass Globes — Heat-Resistant			
 Glass Globe		Clear	VPGL-1HR
		Amber	VPGL-1AM
		Blue	VPGL-1BL
		Green	VPGL-1GR
		Red	VPGL-1RE
Light Distribution		IES/NEMA Distribution Curves	Catalog Number
Closed Prismatic Glass Refractors — All Heat-Resistant			
 Glass Refractor	NEMA Type I		LPG-R1
	NEMA Type III		LPG-R3
	NEMA Type V		LPG-R5
Closed Prismatic Polymeric Refractors — For Use with PSMH Lamps			
100 W max. +40 °C (+104 °F) max. ambient temperature. Suitable for Class II, Division 1 and 2, Groups F, G; NEMA 4X, UL 1598A Marine Type Electric Fixtures Outside Type (Salt Water)			
 Polymeric Refractor	NEMA Type II		LPRF-2CP
	NEMA Type III		LPRF-3CP
	NEMA Type IV		LPRF-4CP
	NEMA Type V		LPRF-5CP
		Description	Catalog Number
White Polyester Reflectors			
 Standard Dome	For Globe Fixtures	Standard Dome	KR2-ST
		Deep Dome	KR2-DD ①
		30° Angle	KR2-AN
 30° Angle	For Glass Refractor Fixtures	Standard Dome	CMR-4ST ②
		Deep Dome	CMR-4DD ①
		30° Angle	CMR-4AN
Guards			
 Globe Guard	 Refractor Guard	Globe Guard	KGU1
		Refractor Guard	KRG2
Replacement Globe Gaskets — Silicone Rubber			
 Globe Gaskets		Globe Gasket	VPGL-GK
		Refractor Gasket	KRF-GK

① Dark Skies Compliant.

② Standard and deep dome reflectors may interfere with bottom conduit entry if used with KPST and KPWB mounting hoods.

Mercmaster™ III Low Profile Luminaires

High Pressure Sodium, Pulse Start Metal Halide and Metal Halide

Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2 Ex nR IIC (Z)
Class II, Division 1 and 2, Groups E, F, G
Class III

CEC:

Type 4X
IP66

Electrical Specifications

Line Voltage	Type of Ballast ①	Starting Amps	Operating Amps	Total Watts
50 Watt High Pressure Sodium				
120	HX-HPF	0.58	0.58	64
208	HX-HPF	0.35	0.33	64
240	HX-HPF	0.31	0.29	64
277	HX-HPF	0.25	0.25	64
347	HX-HPF	0.26	0.21	68
70 Watt High Pressure Sodium				
120	HX-HPF	0.90	0.82	94
208	HX-HPF	0.50	0.48	94
240	HX-HPF	0.44	0.41	94
277	HX-HPF	0.35	0.36	94
347	HX-HPF	0.30	0.30	94
480	HX-HPF	0.21	0.21	94
100 Watt High Pressure Sodium				
120	HX-HPF	1.30	1.15	130
208	HX-HPF	0.76	0.67	130
240	HX-HPF	0.66	0.60	130
277	HX-HPF	0.60	0.52	130
347	HX-HPF	0.45	0.39	130
480	HX-HPF	0.33	0.31	135
480	C.W.I.	0.17	0.30	130
600	C.W.I.	0.14	0.24	130
150 Watt High Pressure Sodium ②				
120	HX-HPF	2.00	1.70	188
208	HX-HPF	1.15	0.95	188
240	HX-HPF	1.00	0.85	188
277	HX-HPF	0.85	0.72	188
347	HX-HPF	0.52	0.56	188
480	HX-HPF	0.50	0.47	189
480	C.W.I.	0.25	0.42	190
600	C.W.I.	0.19	0.35	190
50 Watt Pulse Start Metal Halide				
120	HX-HPF	0.87	0.62	67
208	HX-HPF	0.51	0.40	67
240	HX-HPF	0.47	0.35	67
277	HX-HPF	0.32	0.32	67
347	HX-HPF	0.15	0.20	67

Electrical Specifications

Line Voltage	Type of Ballast ①	Starting Amps	Operating Amps	Total Watts
70 Watt Pulse Start Metal Halide				
120	HX-HPF	0.80	0.85	95
208	HX-HPF	0.50	0.52	95
240	HX-HPF	0.43	0.44	95
277	HX-HPF	0.39	0.39	95
347	HX-HPF	0.20	0.28	88
480	HX-HPF	0.26	0.23	95
100 Watt Pulse Start Metal Halide				
120	HX-HPF	1.20	1.15	130
208	HX-HPF	0.70	0.70	130
240	HX-HPF	0.61	0.58	130
277	HX-HPF	0.55	0.50	130
347	HX-HPF	0.40	0.40	129
480	HX-HPF	0.30	0.35	140
150 Watt Pulse Start Metal Halide				
120	HX-HPF	1.75	1.60	188
208	HX-HPF	1.30	1.00	188
240	HX-HPF	0.85	0.80	188
277	HX-HPF	0.77	0.70	188
347	Super C.W.A.	0.65	0.55	185
480	Super C.W.A.	0.45	0.42	185
175 Watt Pulse Start Metal Halide				
120	Super C.W.A.	0.90	1.78	199
208	Super C.W.A.	0.50	1.08	199
240	Super C.W.A.	0.35	0.89	199
277	Super C.W.A.	0.30	0.76	199
347	Super C.W.A.	0.25	0.65	208
480	Super C.W.A.	0.25	0.50	213
175 Watt Metal Halide ③				
120	C.W.A.	1.30	1.80	210
208	C.W.A.	0.75	1.04	210
240	C.W.A.	0.65	0.90	210
277	C.W.A.	0.55	0.80	210
347	C.W.A.	0.50	0.65	210
480	C.W.I.	0.20	0.45	215
600	C.W.I.	0.16	0.37	215

① C.W.A. – Constant Wattage Autotransformer. HX-HPF – High Reactance High Power Factor Autotransformer. Super C.W.A. – Super Constant Wattage Autotransformer.

② 150 W HPS units equipped with ballasts to operate 55 V lamps only.

③ Mercury vapor and metal halide luminaires are not available for purchase within the United States. Please check with your countries governing legislation regarding allowable lamp types before ordering.

Mercmaster™ III Low Profile Luminaires

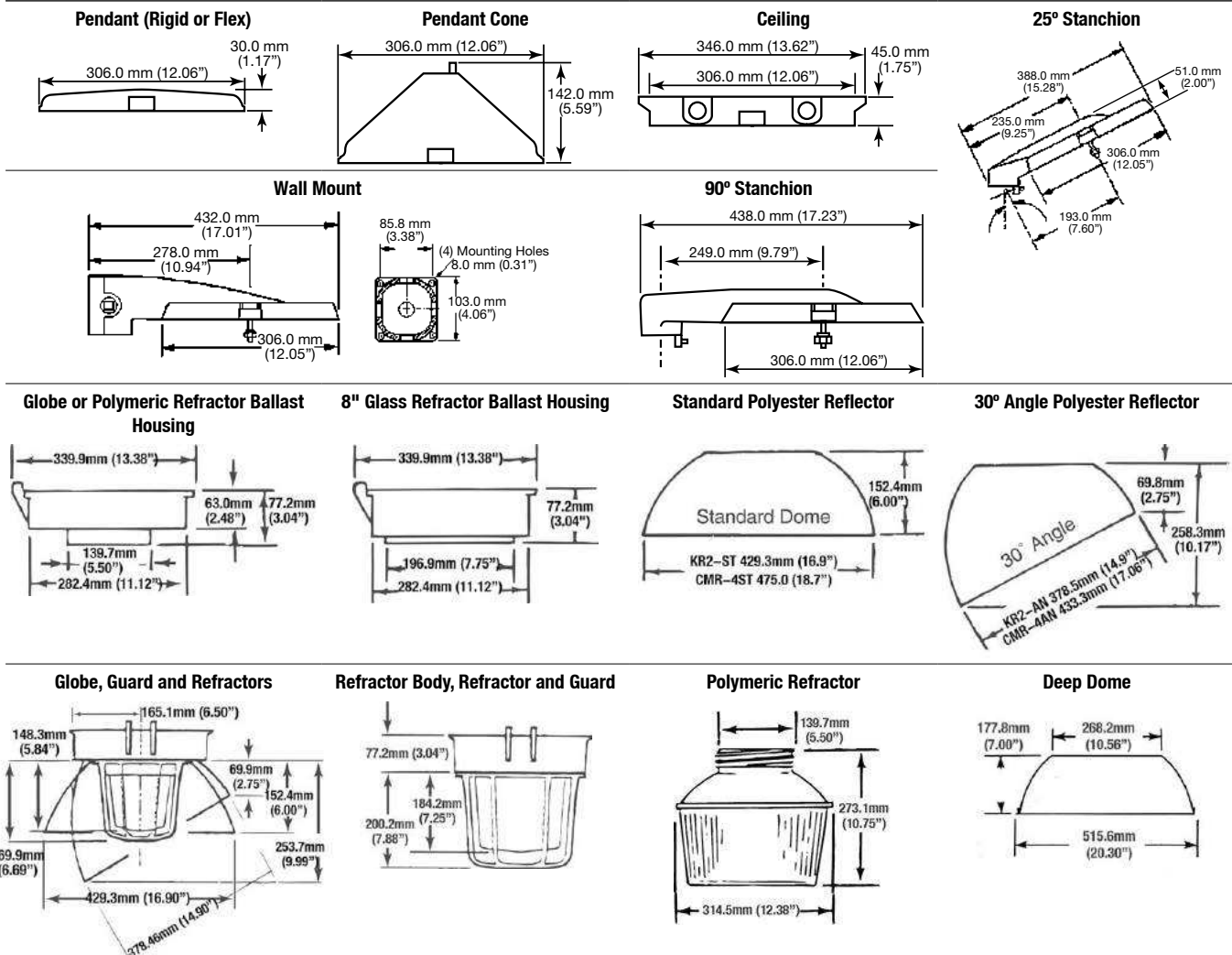
High Pressure Sodium, Pulse Start Metal Halide and Metal Halide

Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

CEC:
Class I, Division 2, Groups A, B, C, D
Class I, Zone 2 Ex nR IIC (Z)
Class II, Division 1 and 2, Groups E, F, G
Class III

CEC:
Type 4X
IP66

Dimensions in Millimeters (Inches)



Mercmaster III Low Profile Ballast and Accessory Weights ①

Globe Housing Ballast Wt. kg (lb)		Refractor Housing Ballast Wt. kg (lb)		Mounting Hoods	Wt. Kg (Lb)	Refractors, Globes, Guards and Reflectors	Wt. Kg (Lb)
Watts	HPS	PSMH	HPS				
50	3.3 (7.28)	3.2 (7.05)	3.5 (7.72)	3.4 (7.50)	Pendant 1.0 (2.20)	8" Glass Refractor	2.4 (5.29)
70	3.7 (8.16)	3.5 (7.72)	4.0 (8.82)	3.7 (8.16)	Pendant Cone 1.1 (2.43)	Glass Globe	1.7 (3.75)
100	4.4 (9.70)	4.2 (9.26)	4.6 (10.14)	4.4 (9.70)	Ceiling 1.4 (3.09)	Refractor Guard	0.5 (1.10)
150	4.9 (10.80)	4.9 (10.80)	5.1 (11.24)	5.1 (11.24)	Wall 1.8 (3.97)	Globe Guard	0.5 (1.10)
175	—	5.0 (11.02)	—	5.2 (11.46)	25° Stanchion 1.5 (3.31)	Standard Dome	1.1 (2.43)
					90° Stanchion 1.7 (3.75)	Deep Dome	2.3 (5.07)
						30° Angle	1.1 (2.43)
						Polymeric Refractor	1.1 (2.43)

① Weights are approximate. Add 0.1 kg (0.25 lbs) for Quartz option.

PCD2 Series Factory Sealed Hazardous Location Photocontrol

For use in Class I, Division 2, Groups A, B, C, D locations

Maintains Class I, Division 2 rating for Mercmaster III – Low Profile, Mercmaster III, and Mercmaster III – 400 Series Luminaires, Mercmaster LED

NEC/CEC:
Class I, Division 2, Groups A, B, C, D
NEMA 4X

Applications

- Encapsulated photocontrol provides automatic dusk-to-dawn lighting control in Class I, Division 2 locations.
- Typical applications include walkways, security areas and any other outdoor lighting application.
- For use with Mercmaster III – Low Profile, Mercmaster III, and Mercmaster III – 400 Series Luminaires.
- For remote mounting in FS Boxes.

Features

- Factory sealed design eliminates the need for an explosionproof enclosure.
- Can be easily installed in the field.
- Solid state design for performance and reliability.
- Available for 120, 208, 240, or 277 volts.

- 50-400 W HID, incandescent or fluorescent, 50/60 Hz.
- 1000 V.A. Voltage/Ampere
- Minimum time delay: 15 seconds to eliminate nuisance tripping.
- Provided with (3) 18 AWG stranded leads 152.4 mm (6.00 in) in length.
- Will fit through standard 1/2" knockout.
- Supplied with locknut and gasket.

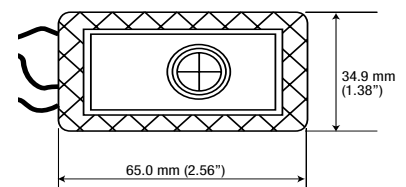
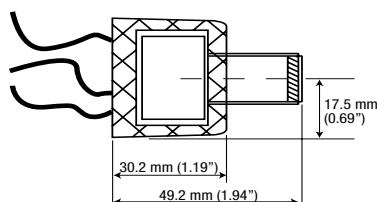
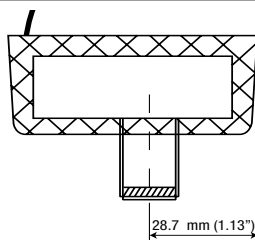
Materials

- Encapsulated with epoxy sealing compound
- FS: aluminum

NEC/CEC Certifications and Compliances

- UL Standard: 1604 – Hazardous (Classified) Locations
- cULus Recognized

	Voltage Range	Max VA	Max Current Amps	Suffix Designation Catalog Number
Factory-Installed Photocontrol - Not for ceiling or pendant cone. <i>Add to fixture catalog after voltage; i.e.: KPWBL1075MTH1.</i>				
 Mercmaster III wall mounting hood with photocontrol installed shown	120 V, 50/60 Hz	1000	—	H1
	208 V, 50/60 Hz	1000	—	H2
	240 V, 50/60 Hz	1000	—	H3
	277 V, 50/60 Hz	1000	—	H4
Photocontrol for Field Installation				
	120 V, 50/60 Hz	1000	8.3 Amp	PC120D2
	208 V, 50/60 Hz	1000	4.8 Amp	PC247D2
	240 V, 50/60 Hz	1000	4.2 Amp	
	277 V, 50/60 Hz	1000	3.6 Amp	
Photocontrol in FS Cover for Use with FS/FD Box <i>Supplied with two stainless steel screws. For neoprene gasket, order catalog number FS-GKR-1N.</i>				
	120 V, 50/60 Hz	1000	8.3 Amp	FSKA-PC120D2
	208, 50/60 Hz	1000	4.8 Amp	FSKA-PC247D2
	240 V, 50/60 Hz	1000	4.2 Amp	
	277 V, 50/60 Hz	1000	3.6 Amp	



Mercmaster™ III Low Profile Luminaires

150 W HPS

* Photometric data is based on a fixture with a 150-watt clear High Pressure Sodium lamp (16,000 lumen). For candlepower values of fixtures with other HPS lamps, use the following multipliers: for a 100 W (9,500 lumen) HPS lamp – 0.594; for a 70 W (6,400 lumen) HPS lamp – 0.40; for a 50 W (4,000 lumen) HPS lamp – 0.25. For candlepower values of fixture with guard, multiply by – 0.95.

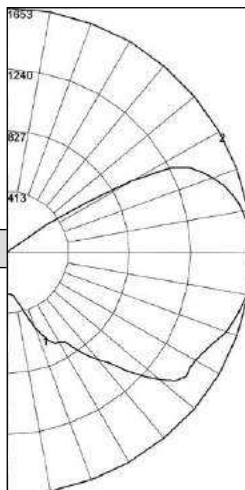
CEC:
Class I, Division 2, Groups A, B, C, D
Class I, Zone 2 Ex nR IIC (Z)
Class II, Division 1 and 2, Groups E, F, G
Class III

CEC:
Type 4X
IP66

Photometric Data

Zone Lumens Total Luminaire Efficiency = 83%

Zone	Lumens	CIE Type – Semi-Direct			
		Plane	Spacing Criteria		
0-10	28.58				
10-20	123.97				
20-30	304.16				
30-40	513.64	0-180	3.9		
40-50	889.19	90-270	3.9		
50-60	1299.53	Diagonal	3.7		
60-70	1506.73				
70-80	1706.16	Zonal Lumen Summary			
		Zone	Lumens	% Lamp	% Fixture
80-90	1800.53				
90-100	1791.58	0-30	4563.72	2.9	3.4
100-110	1652.69	0-40	970.35	6.1	7.3
110-120	1311.22	0-60	3159.07	19.7	23.8
120-130	351.25	0-90	8172.49	51.1	61.5
130-140	5.14	90-120	4755.49	29.7	35.8
140-150	0.00	90-130	5106.74	31.9	38.4
150-160	0.00	90-150	5111.87	31.9	38.4
160-170	0.00	90-180	5111.87	31.9	38.5
170-180	0.00	0-180	13284.37	83.0	100.0



REPORT NUMBER: **ML15LG**

Lamps: 150 W High Pressure Sodium with Globe only *

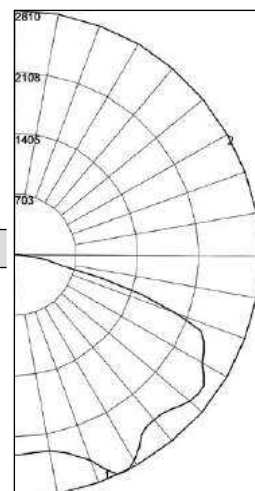
Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

% Ceiling Rcc		80				70				50				30				10				0
% Walls	Rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0			
	0	91	91	91	91	85	85	85	85	75	75	75	65	65	65	55	55	55	51			
	1	77	71	66	61	72	66	61	57	57	53	49	48	45	42	40	37	35	31			
	2	68	59	51	45	63	55	48	42	46	41	36	39	34	31	32	28	25	21			
	3	61	50	42	35	56	46	39	33	39	33	28	32	27	23	26	22	19	16			
	4	55	43	35	28	50	40	32	26	34	27	22	28	23	18	22	18	15	12			
	5	50	38	29	23	46	35	27	21	29	23	18	24	19	15	19	15	12	9			
	6	46	33	25	19	42	31	23	18	26	20	15	21	16	12	17	13	10	7			
	7	42	30	22	16	38	27	20	15	23	17	13	19	14	10	15	11	8	6			
	8	39	27	19	14	36	25	18	13	21	15	11	17	12	9	14	10	7	5			
	9	36	24	17	12	33	22	16	11	19	13	9	16	11	8	13	9	6	4			
	10	33	22	15	11	31	20	14	10	17	12	8	15	10	7	12	8	5	4			

Zone Lumens Total Luminaire Efficiency = 73.2%

Zone	Lumens	CIE Type – Direct			
		Plane	Spacing Criteria		
0-10	219.96				
10-20	683.41				
20-30	1267.92				
30-40	1613.68	0-180	1.64		
40-50	1967.79	90-270	1.64		
50-60	2333.86	Diagonal	1.88		
60-70	2328.33				
70-80	1118.52	Zonal Lumen Summary			
		Zone	Lumens	% Lamp	% Fixture
80-90	174.91				
90-100	1.23	0-30	2171.29	13.6	18.5
100-110	0.00	0-40	3784.97	23.7	32.3
110-120	0.00	0-60	8086.62	50.5	69.1
120-130	0.00	0-90	11708.37	73.2	100.0
130-140	0.00	90-120	1.23	0.0	0.0
140-150	0.00	90-130	1.23	0.0	0.0
150-160	0.00	90-150	1.23	0.0	0.0
160-170	0.00	90-180	1.23	0.0	0.0
170-180	0.00	0-180	11709.6	73.2	100.0



REPORT NUMBER: **ML15LST**

Lamps: 150 W High Pressure Sodium with Standard Dome Reflector *

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

% Ceiling Rcc		80				70				50				30				10				0
% Walls	Rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0			
	0	87	87	87	87	85	85	85	85	81	81	81	78	78	78	75	75	75	73			
	1	79	75	71	68	77	73	70	67	70	67	65	67	65	63	64	62	61	59			
	2	70	63	58	53	68	62	57	52	59	55	51	57	53	50	55	52	49	47			
	3	63	54	48	42	61	53	47	42	51	46	41	49	44	40	47	43	40	38			
	4	57	47	40	35	55	46	39	34	44	38	34	42	37	33	41	36	33	31			
	5	52	41	34	29	50	41	34	29	39	33	28	37	32	28	36	31	28	26			
	6	48	37	30	24	46	36	29	24	35	29	24	33	28	24	32	27	24	22			
	7	44	33	26	21	42	32	26	21	31	25	21	30	25	21	29	24	20	19			
	8	41	30	23	18	39	29	23	18	28	22	18	27	22	18	26	22	18	16			
	9	38	27	21	16	37	27	20	16	26	20	16	25	20	16	24	19	16	14			
	10	35	25	19	15	34	24	18	14	24	18	14	23	18	14	22	18	14	13			

Mercmaster™ III Low Profile Luminaires

150 W HPS

* Photometric data is based on a fixture with a 150-watt clear High Pressure Sodium lamp (16,000 lumen). For candlepower values of fixtures with other HPS lamps, use the following multipliers: for a 100 W (9,500 lumen) HPS lamp – 0.594; for a 70 W (6,400 lumen) HPS lamp – 0.40; for a 50 W (4,000 lumen) HPS lamp – 0.25. For candlepower values of fixture with guard, multiply by – 0.95.

CEC:

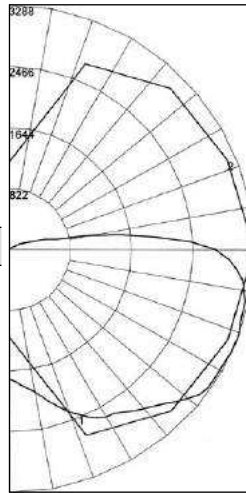
Class I, Division 2, Groups A, B, C, D
Class I, Zone 2 Ex nR IIC (Z)
Class II, Division 1 and 2, Groups E, F, G
Class III

CEC:

Type 4X
IP66

Photometric Data

Zone	Lumens	Total Luminaire Efficiency = 68.4%											
0-10	168.01	CIE Type – Direct											
10-20	536.92	<table><tr><th>Plane</th><th>Spacing Criteria</th></tr><tr><td>0-180</td><td>2.3</td></tr><tr><td>90-270</td><td>2.0</td></tr><tr><td>Diagonal</td><td>1.8</td></tr></table>				Plane	Spacing Criteria	0-180	2.3	90-270	2.0	Diagonal	1.8
Plane	Spacing Criteria												
0-180	2.3												
90-270	2.0												
Diagonal	1.8												
20-30	972.38												
30-40	1342.99												
40-50	1625.08												
50-60	1721.88												
60-70	1586.98												
70-80	1369.71	Zonal Lumen Summary											
80-90	995.76	Zone	Lumens	% Lamp	% Fixture								
90-100	461.94	0-30	1677.30	10.5	15.3								
100-110	127.24	0-40	3020.29	18.9	27.6								
110-120	27.54	0-60	6367.25	39.8	58.2								
120-130	4.31	0-90	10319.70	64.5	94.3								
130-140	2.68	90-120	616.71	3.9	5.6								
140-150	0.00	90-130	621.02	3.9	5.7								
150-160	0.00	90-150	623.70	3.9	5.7								
160-170	0.00	90-180	623.70	3.9	5.7								
170-180	0.00	0-180	10943.41	68.4	100.0								



REPORT NUMBER: **ML15LAN**

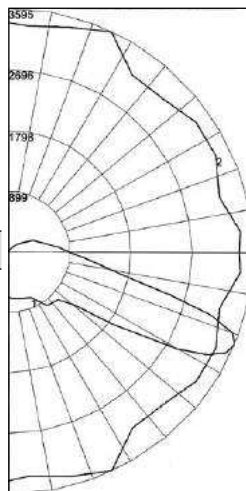
Lamps: 150 W High Pressure Sodium with
30° Angle Dome Reflector *

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

% Ceiling Rcc	80				70				50				30				10				0
% Walls Rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
0	80	80	80	80	78	78	78	78	74	74	74	70	70	70	66	66	66	64	66	66	64
1	70	66	62	58	68	64	60	57	60	57	54	57	54	52	54	52	50	54	52	50	48
2	63	56	50	45	60	54	49	44	51	46	42	48	44	41	45	42	39	37	35	32	30
3	56	48	41	36	54	46	40	35	44	38	34	41	37	33	39	35	32	30	28	26	24
4	51	42	35	29	49	40	34	29	38	32	28	36	31	27	34	30	26	24	22	20	18
5	47	37	30	24	45	36	29	24	34	28	23	32	27	23	30	26	22	20	18	16	14
6	43	33	26	21	41	32	25	20	30	24	20	28	23	19	27	22	19	17	15	13	11
7	39	29	23	18	38	28	22	18	27	21	17	26	21	17	24	20	16	15	13	11	9
8	37	26	20	16	35	26	20	15	24	19	15	23	18	15	22	18	14	13	11	9	7
9	34	24	18	14	33	23	18	14	22	17	13	21	17	13	20	16	13	11	9	7	5
10	32	22	16	12	31	22	16	12	21	15	12	20	15	12	19	15	11	10	8	6	4

Zone	Lumens	Total Luminaire Efficiency = 77.6%																																								
0-10	16.51	CIE Type – Semi-Direct																																								
10-20	135.03	<table><tr><th>Plane</th><th>Spacing Criteria</th></tr><tr><td>0-180</td><td>2.22</td></tr><tr><td>90-270</td><td>2.20</td></tr><tr><td>Diagonal</td><td>3.50</td></tr></table>				Plane	Spacing Criteria	0-180	2.22	90-270	2.20	Diagonal	3.50																													
Plane	Spacing Criteria																																									
0-180	2.22																																									
90-270	2.20																																									
Diagonal	3.50																																									
20-30	274.24																																									
30-40	463.44																																									
40-50	1125.38																																									
50-60	1688.89																																									
60-70	3137.76																																									
70-80	2421.27	Zonal Lumen Summary																																								
80-90	1145.98	<table><tr><th>Zone</th><th>Lumens</th><th>% Lamp</th><th>% Fixture</th></tr><tr><td>0-30</td><td>425.77</td><td>2.7</td><td>3.4</td></tr><tr><td>0-40</td><td>889.22</td><td>5.6</td><td>7.2</td></tr><tr><td>0-60</td><td>3703.50</td><td>23.1</td><td>29.8</td></tr><tr><td>0-90</td><td>10408.50</td><td>65.1</td><td>83.8</td></tr><tr><td>90-120</td><td>1491.78</td><td>9.3</td><td>12.0</td></tr><tr><td>90-130</td><td>1784.86</td><td>11.2</td><td>14.4</td></tr><tr><td>90-150</td><td>1998.77</td><td>12.5</td><td>14.4</td></tr><tr><td>90-180</td><td>2009.26</td><td>12.6</td><td>16.2</td></tr><tr><td>0-180</td><td>12417.76</td><td>77.6</td><td>100.0</td></tr></table>	Zone	Lumens	% Lamp	% Fixture	0-30	425.77	2.7	3.4	0-40	889.22	5.6	7.2	0-60	3703.50	23.1	29.8	0-90	10408.50	65.1	83.8	90-120	1491.78	9.3	12.0	90-130	1784.86	11.2	14.4	90-150	1998.77	12.5	14.4	90-180	2009.26	12.6	16.2	0-180	12417.76	77.6	100.0
Zone	Lumens	% Lamp	% Fixture																																							
0-30	425.77	2.7	3.4																																							
0-40	889.22	5.6	7.2																																							
0-60	3703.50	23.1	29.8																																							
0-90	10408.50	65.1	83.8																																							
90-120	1491.78	9.3	12.0																																							
90-130	1784.86	11.2	14.4																																							
90-150	1998.77	12.5	14.4																																							
90-180	2009.26	12.6	16.2																																							
0-180	12417.76	77.6	100.0																																							
90-100	411.16																																									
100-110	632.32																																									
110-120	448.30																																									
120-130	293.08																																									
130-140	154.61																																									
140-150	59.30																																									
150-160	9.99																																									
160-170	0.49																																									
170-180	0.00																																									



REPORT NUMBER: **ML15LJ5**

Lamps: 150 W High Pressure Sodium with
8" Prismatic Glass Refractor – NEMA Type V *

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

% Ceiling Rcc	80				70				50				30				10				0
% Walls Rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
0	89	89	89	89	86	86	86	86	79	79	79	73	73	73	68	68	68	65	68	68	65
1	76	70	65	60	72	67	62	58	61	57	54	56	53	50	51	48	46	43	46	46	43
2	66	56	49	42	62	54	47	41	49	43	38	44	39	35	40	36	32	29	36	32	29
3	58	46	38	31	54	44	36	30	40	33	27	36	30	25	32	27	23	21	28	23	21
4	51	39	30	23	48	37	29	22	33	26	21	30	24	19	27	22	17	15	22	17	15
5	46	34	25	18	43	32	24	18	29	22	16	26	20	15	23	18	13	11	18	13	11
6	42	29	21	15	40	28	20	14	25	18	13	22	16	12	20	15	11	8	16	11	8
7	39	26	18	12	36	25	17	12	22	15	11	20	14	10	18	13	9	7	14	9	7
8	36	23	15	10	33	22	15	10	20	13	9	18	12	8	16	11	7	5	12	7	5
9	33	21	14	9	31	20	13	8	18	12	8	16	11	7	15	10	6	4	11	6	4
10	31	19	12	8	29	18	12	7	17	11	7	15	10	6	13	9	5	4	10	5	4

Mercmaster™ III Low Profile Luminaires

100 W PSMH

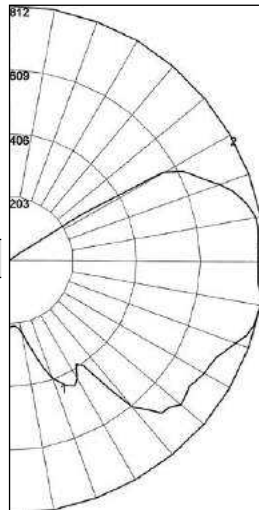
* Photometric data is based on a fixture with a 100-watt clear Pulse Start Metal Halide lamp (8,500 lumen). For candlepower values of fixtures with other PSMH lamps, use the following multipliers: for a 50 W (3400 lumen) PSMH lamp – 0.40; for a 70 W (5600 lumen) PSMH lamp – 0.66; for a 150 W (10,500 lumen) PSMH lamp – 1.24; for a 175 W (17,500 lumen) PSMH lamp – 2.06. For candlepower values of fixture with guard, multiply by – 0.95.

CEC:
 Class I, Division 2, Groups A, B, C, D
 Class I, Zone 2 Ex nR IIC (Z)
 Class II, Division 1 and 2, Groups E, F, G
 Class III

CEC:
 Type 4X
 IP66

Photometric Data

Zone	Lumens	Total Luminaire Efficiency = 85.7%																																								
0-10	21.19	CIE Type – Semi-Direct																																								
10-20	93.55	<table><tr><th>Plane</th><th>Spacing Criteria</th></tr><tr><td>0-180</td><td>3.20</td></tr><tr><td>90-270</td><td>3.20</td></tr><tr><td>Diagonal</td><td>3.08</td></tr></table>				Plane	Spacing Criteria	0-180	3.20	90-270	3.20	Diagonal	3.08																													
Plane	Spacing Criteria																																									
0-180	3.20																																									
90-270	3.20																																									
Diagonal	3.08																																									
20-30	201.68																																									
30-40	291.92																																									
40-50	523.42																																									
50-60	637.38																																									
60-70	732.34																																									
70-80	845.58	Zonal Lumen Summary																																								
80-90	874.42	<table><tr><th>Zone</th><th>Lumens</th><th>% Lamp</th><th>% Fixture</th></tr><tr><td>0-30</td><td>316.42</td><td>4.1</td><td>4.7</td></tr><tr><td>0-40</td><td>608.33</td><td>7.8</td><td>9.1</td></tr><tr><td>0-60</td><td>1769.13</td><td>22.7</td><td>26.5</td></tr><tr><td>0-90</td><td>4221.46</td><td>54.1</td><td>63.2</td></tr><tr><td>90-120</td><td>2323.56</td><td>29.8</td><td>34.8</td></tr><tr><td>90-130</td><td>2462.56</td><td>31.6</td><td>36.8</td></tr><tr><td>90-150</td><td>2463.27</td><td>31.6</td><td>36.8</td></tr><tr><td>90-180</td><td>2463.27</td><td>31.6</td><td>36.8</td></tr><tr><td>0-180</td><td>6684.73</td><td>85.7</td><td>100.0</td></tr></table>	Zone	Lumens	% Lamp	% Fixture	0-30	316.42	4.1	4.7	0-40	608.33	7.8	9.1	0-60	1769.13	22.7	26.5	0-90	4221.46	54.1	63.2	90-120	2323.56	29.8	34.8	90-130	2462.56	31.6	36.8	90-150	2463.27	31.6	36.8	90-180	2463.27	31.6	36.8	0-180	6684.73	85.7	100.0
Zone	Lumens	% Lamp	% Fixture																																							
0-30	316.42	4.1	4.7																																							
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0-90	4221.46	54.1	63.2																																							
90-120	2323.56	29.8	34.8																																							
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90-150	2463.27	31.6	36.8																																							
90-180	2463.27	31.6	36.8																																							
0-180	6684.73	85.7	100.0																																							
90-100	870.80																																									
100-110	809.33																																									
110-120	643.44																																									
120-130	139.00																																									
130-140	0.71																																									
140-150	0.00																																									
150-160	0.00																																									
160-170	0.00																																									
170-180	0.00																																									



REPORT NUMBER: **ML10HG**

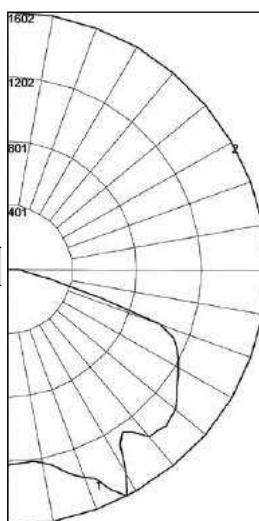
Lamps: 100 W Pulse Start Metal Halide with Globe only *

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

% Ceiling Rcc		80				70				50				30				10				0
% Walls	Rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0			
	0	95	95	95	95	89	89	89	89	78	78	78	68	68	68	58	58	58	54			
	1	81	74	69	64	75	69	64	60	60	56	52	51	48	45	43	40	38	34			
	2	71	62	54	48	66	57	50	45	49	43	39	41	37	33	34	31	28	24			
	3	64	52	44	37	59	49	41	35	41	35	30	35	30	26	29	25	21	18			
	4	57	45	37	30	53	42	34	28	36	29	24	30	25	20	25	20	17	14			
	5	52	40	31	25	48	37	29	23	31	25	20	26	21	17	21	17	14	11			
	6	48	35	27	21	44	33	25	19	28	21	17	23	18	14	19	15	11	9			
	7	44	31	23	17	40	29	22	16	25	19	14	21	16	12	17	13	10	7			
	8	41	28	20	15	37	26	19	14	22	16	12	19	14	10	16	11	8	6			
	9	38	26	18	13	35	24	17	12	20	15	11	17	12	9	14	10	7	5			
10	35	23	16	12	32	22	15	11	19	13	9	16	11	8	13	9	6	5				

Zone	Lumens	Total Luminaire Efficiency = 75.8%											
0-10	116.29	CIE Type – Direct											
10-20	371.61	<table><tr><th>Plane</th><th>Spacing Criteria</th></tr><tr><td>0-180</td><td>1.70</td></tr><tr><td>90-270</td><td>1.70</td></tr><tr><td>Diagonal</td><td>1.84</td></tr></table>				Plane	Spacing Criteria	0-180	1.70	90-270	1.70	Diagonal	1.84
Plane	Spacing Criteria												
0-180	1.70												
90-270	1.70												
Diagonal	1.84												
20-30	692.88												
30-40	821.73												
40-50	1064.03												
50-60	1154.58												
60-70	1134.19												
70-80	470.22	Zonal Lumen Summary											
80-90	83.66	Zone	Lumens	% Lamp	% Fixture								
90-100	0.82	0-30	1180.78	15.1	20.0								
100-110	0.00	0-40	2002.50	25.7	33.9								
110-120	0.00	0-60	4221.11	54.1	71.4								
120-130	0.00	0-90	5909.17	75.8	100.0								
130-140	0.00	90-120	0.82	0.0	0.0								
140-150	0.00	90-130	0.82	0.0	0.0								
150-160	0.00	90-150	0.82	0.0	0.0								
160-170	0.00	90-180	0.82	0.0	0.0								
170-180	0.00	0-180	5910.00	75.8	100.0								



REPORT NUMBER: **ML10HST**

Lamps: 100 W Pulse Start Metal Halide with Standard Dome Reflector *

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

% Ceiling Rcc		80				70				50				30				10				0
% Walls	Rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0			
	0	90	90	90	90	88	88	88	88	84	84	84	81	81	81	77	77	77	76			
	1	82	78	74	71	80	76	73	70	73	70	68	70	68	66	67	65	64	62			
	2	73	66	61	56	71	65	60	55	62	58	54	60	56	53	57	54	51	50			
	3	66	57	50	45	64	56	50	45	54	48	44	51	47	43	49	46	42	40			
	4	60	50	43	37	58	49	42	37	47	41	36	45	40	36	43	39	35	33			
	5	54	44	36	31	53	43	36	31	41	35	30	40	34	30	38	33	30	28			
	6	50	39	32	26	48	38	31	26	37	31	26	35	30	26	34	29	25	24			
	7	46	35	28	23	45	34	27	23	33	27	22	32	26	22	31	26	22	20			
	8	43	32	25	20	41	31	24	20	30	24	20	29	24	20	28	23	19	18			
	9	40	29	22	18	38	28	22	18	27	22	17	27	21	17	36	21	17	16			
10	37	26	20	16	36	26	20	16	25	20	16	24	19	16	24	19	15	14				

Mercmaster™ III Low Profile Luminaires

100 W PSMH

* Photometric data is based on a fixture with a 100-watt clear Pulse Start Metal Halide lamp (8,500 lumen). For candlepower values of fixtures with other PSMH lamps, use the following multipliers: for a 50 W (3400 lumen) PSMH lamp – 0.40; for a 70 W (5600 lumen) PSMH lamp – 0.66; for a 150 W (10,500 lumen) PSMH lamp – 1.24; for a 175 W (17,500 lumen) PSMH lamp – 2.06. For candlepower values of fixture with guard, multiply by – 0.95.

CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2 Ex nR IIC (Z)
Class II, Division 1 and 2, Groups E, F, G
Class III

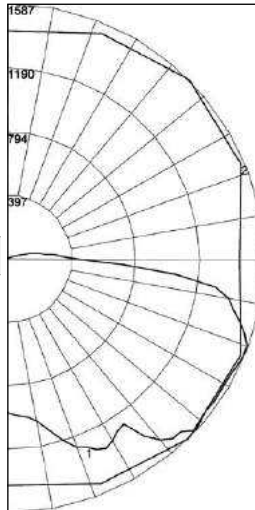
CEC:

Type 4X
IP66

Photometric Data

Zone Lumens Total Luminaire Efficiency = 71.3%

0-10	91.83	CIE Type – Direct			
10-20	301.65				
20-30	543.23				
30-40	703.02				
40-50	877.11	Plane	Spacing Criteria		
50-60	850.33	0-180	2.08		
60-70	7753.51	90-270	2.06		
70-80	667.27	Diagonal	1.76		
80-90	471.44	Zonal Lumen Summary			
90-100	200.90	Zone	Lumens	% Lamp	% Fixture
100-110	62.89	0-30	936.72	12.0	16.8
110-120	14.42	0-40	1639.74	21.0	29.5
120-130	1.07	0-60	3367.18	43.2	60.6
130-140	0.00	0-90	5281.39	67.7	95.0
140-150	0.00	90-120	278.21	3.6	5.0
150-160	0.00	90-130	279.28	3.6	5.0
160-170	0.00	90-150	279.28	3.6	5.0
170-180	0.00	90-180	279.28	3.6	5.0
		0-180	5560.68	71.3	100.0



REPORT NUMBER: **ML10HAN**

Lamps: 100 W Pulse Start Metal Halide with
 30° Angle Dome Reflector *

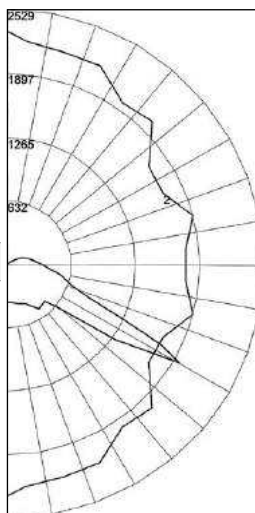
Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

% Ceiling Rcc		80				70				50				30				10				0
% Walls	Rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0			
	0	84	84	84	84	82	82	82	82	77	77	77	73	73	73	69	69	69	68			
	1	74	69	65	62	71	67	64	60	63	60	58	60	57	55	57	55	53	51			
	2	66	59	53	48	64	57	51	47	54	49	45	51	47	43	48	45	42	40			
	3	59	51	44	38	57	49	43	38	46	41	36	44	39	35	41	37	34	32			
	4	54	44	37	31	52	43	36	31	40	35	30	38	33	29	36	32	28	27			
	5	49	39	32	26	47	38	31	26	36	30	25	34	29	25	32	28	24	22			
	6	45	35	28	23	43	34	27	22	32	26	22	30	25	21	29	24	21	19			
	7	42	31	24	20	40	30	24	19	29	23	19	27	22	18	26	22	18	16			
	8	39	28	22	17	37	28	21	17	26	21	17	25	20	16	24	19	16	14			
	9	36	26	19	15	35	25	19	15	24	19	15	23	18	14	22	17	14	13			
	10	34	24	18	14	32	23	17	13	22	17	13	21	16	13	20	16	13	11			

Zone Lumens Total Luminaire Efficiency = 76.6%

0-10	9.17	CIE Type – Semi-Direct			
10-20	75.43				
20-30	154.76				
30-40	266.34				
		Plane	Spacing Criteria		
40-50	632.54	0-180	2.06		
50-60	1155.59	90-270	2.20		
60-70	1665.76	Diagonal	3.26		
70-80	693.73	Zonal Lumen Summary			
80-90	449.28	Zone	Lumens	% Lamp	% Fixture
90-100	177.44	0-30	239.35	3.1	4.0
100-110	288.25	0-40	505.69	6.5	8.5
110-120	208.52	0-60	2293.81	29.4	38.4
120-130	128.19	0-90	5102.58	65.4	85.4
130-140	56.80	90-120	674.20	8.6	11.3
140-150	14.94	90-130	802.38	10.3	13.4
150-160	0.10	90-150	874.12	11.2	13.4
160-170	0.00	90-180	874.22	11.2	14.6
170-180	0.00	0-180	5976.80	76.6	100.0



REPORT NUMBER: **ML10HJ5**

Lamps: 100 W Pulse Start Metal Halide with
 8" Prismatic Glass Refractor – NEMA Type V *

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

% Ceiling Rcc		80				70				50				30				10				0
% Walls	Rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0			
	0	89	89	89	89	85	85	85	85	79	79	79	73	73	73	68	68	68	65			
	1	77	71	67	62	73	68	64	60	63	59	56	58	55	52	53	51	49	46			
	2	67	58	51	45	64	56	49	44	51	46	41	47	42	38	43	39	36	33			
	3	59	48	40	34	56	46	39	32	42	36	30	38	33	28	34	30	26	24			
	4	52	41	32	26	49	39	31	25	35	28	23	32	26	21	29	24	20	18			
	5	47	35	26	20	44	33	25	19	30	23	18	27	21	17	25	20	15	13			
	6	43	30	22	16	40	29	21	15	26	19	14	24	18	13	21	16	12	10			
	7	39	27	19	13	37	25	18	13	23	16	12	21	15	11	19	14	10	8			
	8	36	24	16	11	34	23	15	10	21	14	10	19	13	9	17	12	8	6			
	9	33	21	14	9	31	20	14	9	19	12	8	17	11	8	15	10	7	5			
	10	31	19	12	8	29	19	12	8	17	11	7	15	10	6	14	9	6	4			

Mercmaster™ III HID 50–250 Watt Luminaires

High Pressure Sodium and Pulse Start Metal Halide

Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA nR IIC (Z2)
Class I, Zone 2, AEx nR IIC (ZB)
Class II, Division 1 and 2, Groups E, F, G
Class III

NEC/CEC:

Simultaneous Exposure (Class I, Division 2/
Class II, Division 1)
Fixtures Outside Type (Salt Water)
Type 4X
IP66

Applications

- Enclosed and gasketed fixtures suitable for use in:
 - Marine and wet locations
 - A wide range of industrial, chemical processing and other areas where flammable gases and vapors or combustible dusts are present under conditions defined by the National Electrical Code as Class I, Division 2; Class II, Division 1 and 2; and Class III
 - For Zone 2, the method of protection is AEx nA nR – Restricted Breathing/Nonsparking or AEx nR – Restricted Breathing
 - Non-hazardous locations where severe weather conditions, excessive moisture, dirt, dust, corrosive atmosphere or high ambient temperatures are encountered. 18% cooler operation allows use in ambient temperatures up to 65 °C (149 °F) depending on fixture component combinations
- Typical applications include:
 - Pulp and paper mills
 - Processing plants
 - Chemical plants
 - Oil refineries
 - Foundries
 - Manufacturing plants
 - Storage areas
 - Marine applications
- Fixtures have NEMA 4X listing.
- Suitability includes listing for use where there may be simultaneous exposure to combustible dusts and flammable gases and vapors. See listing pages for compliance data on specific fixture component combinations.

Features

- Modular design allows scores of fixture component combinations to meet installation and lighting needs. Many most-used combinations are offered prewired and assembled, complete with lamp, packaged in a single carton and ready to install.
- Mogul lamp types and wattages:
 - HPS 50W-150W
 - PSMH 70W-250W
- Choice of heat-resistant prismatic glass refractors (NEMA distributions I, III and V), or heat-resistant prismatic glass globes for hazardous area fixtures. Colored and clear polycarbonate globes and Tuff-skin® ① coated glass globes are available but are NOT approved for use in classified areas. Fixtures with these globes do NOT comply with code requirements, and should be used in non-classified areas only. Globes and refractors thread directly into ballast housing.
- Mounting hoods include cone-shaped pendant hood, standard pendant, flexible pendant, ceiling and wall pendants (tapped for 3/4" or 1" NPT), 25° angle stanchion, and 90° (straight) stanchion (both tapped for 1-1/4" or 1-1/2" NPT).
- Cone hood fixtures for pendant mounting shed dust, dirt and combustible fibers. Cone hood inhibits build-up that "insulates" fixture and slows heat transfer, and provides increased surface area for more effective heat dissipation.



Pendant Mount Fixture
with Prismatic Glass Refractor



Straight Stanchion-Mount Fixture
with Prismatic Glass Refractor and
Guard



Pendant Cone Fixture with
Prismatic Glass Globe and Guard



Ceiling Mount Fixture
with Prismatic Glass Globe, Guard
and Polyester 30° Angle Reflector

- Reflector choice includes standard dome and 30° angle types, both made of Fiberglass reinforced white polyester. Highly resistant to unusually corrosive applications. Reflectors are vented for cooler, dirt-free operation and maintained lumen output. They secure to ballast housing with stainless steel screws threading into stainless steel inserts.
- For high corrosion resistance, fixture housing, mounting hoods and guards are copperfree cast aluminum with baked epoxy finish, electrostatically applied for uniformity. All exposed hardware is stainless steel.
- Hinge has high lip for added safety during installation and servicing. Hinge and bolt construction assures 360° compression at all points on ballast housing gasket for positive sealing. Swing-away design of captive bolt and nut simplifies servicing.
- Body gaskets and globe gaskets are high-temperature silicone rubber.
- Capacitors are non-PCB type, thermally isolated from ballast.

① Tuff-skin is a registered trademark of Thomas Manufacturing Corp., Parkton, Maryland.

Mercmaster™ III HID 50–250 Watt Luminaires

High Pressure Sodium and Pulse Start Metal Halide

Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA nR IIC (Z2)
Class I, Zone 2, AEx nR IIC (ZB)
Class II, Division 1 and 2, Groups E, F, G
Class III

NEC/CEC:

Simultaneous Exposure (Class I, Division 2/
Class II, Division 1)
Fixtures Outside Type (Salt Water)
Type 4X
IP66

- Mogul base porcelain socket with nickel-plated contacts has 200 °C (392 °F) welded leads, prewired to the ballast. Assures trouble-free operation in installations where high ambient temperatures are encountered.
- HPS ballasts are High Power Factor (min. P.F. 90%).
- A wide range of voltages available (120 to 600 Volt) and ballast types (Reactor, CWA and Super CWA).
- All Mercmaster III mounting hoods have provision for easy field installation of fuses in fixtures (see fuse kit listings in this catalog section).
- For electrical protection, a ground wire is provided on each Mercmaster to bond hood and ballast housing.
- The AEx nA nR factory sealed Mercmaster III prevents vapors and gases from entering the globe chamber. There are no seals or putty required which will reduce installation time and installation errors.
- The AEx nR Mercmaster III fixture requires all wiring entries to be sealed.

Standard Materials

- Mounting hoods, ballast bodies and guards: copperfree cast aluminum (less than 4/10 of 1%)
- Exposed hardware: stainless steel; latch assemblies have stainless steel bolt and captive nut; reflectors and guards attach with stainless steel screws threading into stainless steel inserts.
- Reflectors: Fiberglass reinforced white polyester
- Globes: heat-resistant prismatic glass
- Refractors: heat-resistant prismatic glass

Standard Finishes

- Mounting hoods, ballast bodies, guards: epoxy powder coat finish, electrostatically applied for complete, uniform surface protection
- Reflectors: white polyester finish

Options

- AEx nA nR fixtures are available with a Class I, Zone 2 rating. Add suffix **-Z2**.
- AEx nR fixtures are available with a Class I, Zone 2 rating. Add suffix **-ZB**.
- Fuses can be field-installed on Mercmaster III fixtures. Kits include fuse block, wire connectors and screws for attaching to mounting hood. Fixtures with fuses do not comply with Marine Type Electric Fixtures Outside Type (Salt Water) requirements for marine listing. For fuse kits, see *Electrical Specifications and Fuse Kits* page.
- Hot Restrike will restrike HPS lamp immediately when power is restored after a momentary power interruption. Add suffix **-R**.
- Smart Starter incorporates a 1-1/2-minute timer and performs as a conventional starter to normally start lamp. Removes itself from circuit if lamp burns out or is removed from socket. Eliminates starter failures caused by prolonged operation with cycling or failing lamps and simplifies finding their location, reducing maintenance and repair costs. Available for all HPS and PSMH fixtures. Add suffix **-S**.
- Optional photocell for all fixtures except cone and ceiling mount provides automatic “on-off” control.
- Quartz Auxiliary comes to full brightness immediately and remains lit until the HID lamp attains 60-70% of full illumination. Quartz Auxiliary supplied with relay switch and socket to accept 120 V quartz double contact bayonet base lamp (not included). Add suffix **-E** to fixture catalog number. ①

NEC/CEC Certifications and Compliances

- cULus Listed: E10444
- UL Standard: ANSI/UL 844, 1598, 60079-0, 60079-15, Marine Type Electric Fixtures Outside Type (Salt Water)
- CSA Certified: 025428
- CSA Standard: CSA C22.2 No. 9, C22.2 No. 137; CAN/CSA E60079-0, E60079-15
- PSMH 250W MT (120/208/240/277, 60 Hz) Fixtures are not UL Listed

Related Products

- Classified area photo controls are also available.

① Fixtures equipped with a quartz auxiliary lamp do not comply with UL requirements and are not suitable for use in classified locations.

Mercmaster™ III HID 50–250 Watt Luminaires

High Pressure Sodium and Pulse Start Metal Halide

Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA nR IIC (Z2)
Class I, Zone 2, AEx nR IIC (ZB)
Class II, Division 1 and 2, Groups E, F, G
Class III

NEC/CEC:

Simultaneous Exposure (Class I, Division 2/
Class II, Division 1)
Fixtures Outside Type (Salt Water)
Type 4X
IP66

Illustrated Features



High Temperature Sockets

Mogul base high-temperature porcelain sockets.

Aluminum Inner Reflector

Solid aluminum inner reflector (for refractor ballast housings only) improves photometric efficiency.

Globe Chamber (Zone 2)

Completely sealed from the ballast housing and outside vapors/air (nA nR).



Vented Reflectors

Reflectors are thick, tough fiberglass-reinforced white polyester, vented for cooler operation. Quickly attach with furnished stainless steel screws.

Terminal Blocks (Zone 2)

A seven-point terminal block is provided to facilitate wiring. Terminal block accommodates wire size ranging from #8 to #24 AWG.

Stainless Steel Inserts

Ballast bodies have stainless steel threaded inserts to receive stainless steel screws for reflectors and guard. Prevents "freezing", allowing guards and reflectors to be easily removed and replaced at any time, without damage to the housing.



Ballast Assembly (Zone 2)

Utilizing non-sparking components avoiding the ignition of gases or vapors that may be present (nA).

Mounting Hood and Globe Gaskets

Silicone rubber gasket seals out moisture, dirt and dust. Stays flexible, withstands high temperatures. Closure design assures uniform gasket compression.

Electrical Protection

Ground wire provided to bond mounting hood to ballast housing.



"Safety" High Hinge

Extra-high hinge provides additional protection against accidental ballast housing disengagement during installation or maintenance.

Epoxy Finish

Ballast housing, hoods and guards are copperfree aluminum with epoxy powder coat finish.

Photocell

Available for all fixtures except cone and ceiling mount. Installs through knock-out in mounting hood. Provides continuous ON-OFF dusk-to-dawn control.



Cooler Operating Cone Hood

Larger sloped surface sheds dusts, dirt and combustible fibers providing better heat dissipation.



Stainless Steel Latch Assembly

Captive, stainless steel latch assembly bolt and nut closes securely, resists attack of corrosive atmospheres. Swing-away design simplifies servicing.

Heat-Resistant Globes and Refractors

Prismatic glass globes and refractors are heat-resistant. They thread directly into the ballast housing and seal against a high-temperature silicone rubber gasket.



Fuses

Two screws secure fuse kit to mounting boss in any Mercmaster mounting hood. Fuse included.

Mercmaster™ III HID 50–250 Watt Luminaires

High Pressure Sodium and Pulse Start Metal Halide

Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

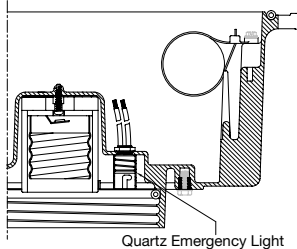
NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA nR IIC (Z2)
Class I, Zone 2, AEx nR IIC (ZB)
Class II, Division 1 and 2, Groups E, F, G
Class III

NEC/CEC:

Simultaneous Exposure (Class I, Division 2/
Class II, Division 1)
Fixtures Outside Type (Salt Water)
Type 4X
IP66

Quartz Emergency Light for Pulse Start Metal Halide or High Pressure Sodium Fixtures ①



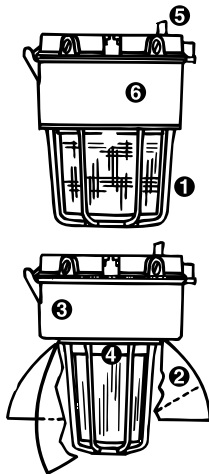
Quartz Emergency Light for
PSMH or HPS Fixtures

Mercmaster fixtures for or metal halide and high pressure sodium lamps can be supplied with a socket to accept a 150 W or 250 W, 120 V quartz lamp. This D.C. bayonet base socket is in addition to the standard lamp socket. In the event of a momentary power interruption, the quartz lamp is automatically switched on. The single ended quartz lamp remains energized until the HID restrikes and reaches about 60% output.

The quartz emergency lamp socket is wired to a 120 V tap on the ballast and is therefore independent of the lighting fixture voltage. No special field wiring is necessary.

Description	Catalog Suffix
For fixture volts of 120, 208, 240 or 277	-MTE
For fixture volts of 480	-48E

Accessory Options



- ① **Guards:** Guards are die-cast copperfree aluminum with baked epoxy finish to match fixtures. Fixture supplied with stainless steel mounting screws which thread into stainless steel inserts on fixture housing to attach guard. To order fixture with guard, add suffix **-G** to catalog number before adding voltage suffix.
- ② **Reflectors:** Standard dome and 30° angle polyester reflectors are shown elsewhere in this catalog section.
- ③ **Hot Restrike:** Instantly restrikes a hot HPS lamp when power is restored after a momentary outage. Available factory-installed only. To order, add suffix **-R** to catalog number.
- ④ **Quartz Emergency Light:** When ordered, HPS fixtures will be supplied with a prewired special DC bayonet base socket to accept a 150W, 120 V quartz lamp (not furnished) that automatically switches on when a power outage occurs. Fixtures ordered with this quartz emergency lamp feature do NOT comply with requirements for classified areas and should be used only in non-classified locations. To order, add suffix **-E** to catalog number and specify if a relay switch is desired.
- ⑤ **Photocell and Fuses:** Photocontrols are available.
- ⑥ **Smart Starter:** Performs as a conventional starter in lamp start-up. Removes itself from circuit at end of lamp life or if lamp is out of socket. Add suffix **-S** to catalog number.

① NOTE: Fixtures equipped with quartz emergency light do not comply with UL requirements and are not suitable for use in classified locations.

Mercmaster™ III HID 50–250 Watt Luminaires

High Pressure Sodium and Pulse Start Metal Halide

Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA nR IIC (Z2)
Class I, Zone 2, AEx nR IIC (ZB)
Class II, Division 1 and 2, Groups E, F, G
Class III

NEC/CEC:

Simultaneous Exposure (Class I, Division 2/
Class II, Division 1)
Fixtures Outside Type (Salt Water)
Type 4X
IP66

Mercmaster III 50-250 Family Tree

Pendant & Flexible Pendant Mount ①



KPA & KPAF

Pendant Cone Mount



KPCH

Ceiling Mount



KPC

Wall Mount ①②



KPWB

25° Stanchion Mount ①



KPS

90° Stanchion Mount ①②



KPST

Ballast Housing, Mogul Base

(50 – 150 W HPS, 100– 250 W PSMH)



KPB (for Glass Globe)



KPBR (for Glass Refractor and G3 Globe)

Globes



VPGL-2HR

(Heat-Resistant Glass) ③



VPGL-2HRT

(Coated Heat-Resistant Glass)



VPGL-2PL

(Polycarbonate) ④

Polymeric Refractors



LPRF

(Closed Prismatic) ⑤

G3 Globe



VPGL-3HR

(Heat-Resistant Glass)

Prismatic Glass Refractors



LPG-R ⑥

Three-Way Exit Sign



CJEXRN

Globe Guards (Optional Accessory)



KGU2

White Polyester Reflector (Optional Accessory)



KR2-ST (Standard)
KR2-DD (Deep Dome)



KR2-AN (30° Angle)

Globe Guards (Optional Accessory)



KRG2

White Polyester Reflector (Optional Accessory)



CMR-4ST (Standard)
CMR-4DD (Deep Dome)



CMR-4AN (30° Angle)

① Mounting hood with a 120 V or 208-277 V factory installed photocell is available.

② Standard and deep dome reflectors may interfere with bottom conduit entry if used with KPST and KPWB mounting hoods..

③ Available in clear, amber, blue, green and red.

④ Available in clear, amber, green and red.

⑤ Available in NEMA Type II, III, IV and V. Polymeric Refractor suitable for Class II, Groups F and G, NEMA 4X and Marine Type Electric Fixtures Outside Type (Salt Water) only (100 W PSMH Max.).

⑥ Available in NEMA Type I, III and V.

Mercmaster™ III HID 50–250 Watt Luminaires

High Pressure Sodium and Pulse Start Metal Halide

Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA nR IIC (Z2)
Class I, Zone 2, AEx nR IIC (ZB)
Class II, Division 1 and 2, Groups E, F, G
Class III

NEC/CEC:

Simultaneous Exposure (Class I, Division 2/
Class II, Division 1)
Fixtures Outside Type (Salt Water)
Type 4X
IP66

Order using catalog numbering guide below or select catalog number from tables on following pages.

Catalog Numbering Guide

KP	A	L	70	10	J5	G	MT	R	Z2
Series: KP - Mercmaster III 250		Lamp Type: L - High Pressure Sodium H or P - Pulse Start Metal Halide ①		Hub Size: 75 - 3/4" NPT 10 - 1" NPT 125 - 1-1/4" NPT stanchion 150 - 1-1/2" NPT stanchion		Guard Options: G - Guard Blank - No Guard		Options: E - Emergency Quartz F - Fuse Kit (Specify Voltage) R - Hot Restrike (50-150 W HPS only) S - Smart Starter K - Kynar Coating H1 - Photocontrol 120 V H2 - Photocontrol 208 V H3 - Photocontrol 240 V H4 - Photocontrol 277 V C - Safety Cable Adapted E40 - Export Socket T - Terminal Blocks <i>Optional Fusing</i> ③ FN - 120 V FP - 208 V FS - 240 V FT - 277 V FF - 480 V	
Mounting: A - Pendant (rigid mounting) C - Ceiling CH - Pendant Cone Hood F - Pendant (flexible mounting) ST - 90° Stanchion S - 25° Stanchion WB - Wall		Wattage: 10 - 100 W HPS, PSMH 15 - 150 W HPS, PSMH 17 - 175 W PSMH 20 - 200 W PSMH 25 - 250 W PSMH ④ 50 - 50 W HPS (MT - Voltage Only) 70 - 70 W HPS, PSMH		Optical Assembly: Blank - Glass Globe J1 - NEMA I Glass Refractor J3 - NEMA III Glass Refractor J5 - NEMA V Glass Refractor G3 - Large Glass Globe		Voltage: ② MT - 120/208/240/277, 60 Hz 5MT - 120/208/240/ 277/480, 60 Hz 48 - 480, 60 Hz 125 - 120, 50 Hz 225 - 220, 50 Hz 226 - 220, 60 Hz 235 - 230, 50 Hz 245 - 240, 50 Hz		Suffix: Z2 - Zone 2 suffix (required for AEx nA nR rating) ZB - Zone 2 suffix (required for AEx nR rating)	

Reflectors are ordered separately – see Accessories page.

① H - Lamp type is for 70W and 100W fixtures only.

P - Lamp type is for 175W, 200W and 250W fixtures only.

② Voltages shown are limited to specific combinations.

③ Optional fusing is available for use with MT, 5MT and 48 voltage suffixes ONLY.

④ PSMH 250 W, MT fixtures are not UL Listed.

Mercmaster™ III HID 50–250 Watt Luminaires

Class I, Division 2; Class II, Division 1; Simultaneous Exposure to Hazardous Conditions of Both Classifications

Temperature Identification Numbers of Mercmaster III fixtures.

NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA nR IIC (Z2)
Class I, Zone 2, AEx nR IIC (ZB)
Class II, Division 1 and 2, Groups E, F, G
Class III

NEC/CEC:

Simultaneous Exposure (Class I, Division 2/
Class II, Division 1)
Fixtures Outside Type (Salt Water)
Type 4X
IP66

Mercmaster III fixtures are listed for “Simultaneous Exposure” to combinations of Class I, Division 2 and Class II, Division 1 hazardous conditions.

“T” Numbers for Mercmaster III Fixtures

Lamp Watts Type	Supply Wire Temp. °C (°F)	Ambient Temp. °C (°F)	Class I, Division 2				Class II, Division 1 Groups E, F and G ①				Simultaneous Exposure Class I, Division 2 / Class II, Division 1			
			Globe	Reflector	G3	8”	Globe	Reflector	G3	8”	Globe	Reflector	G3	8”
50 HPS	90 °C (194 °F)	40 °C (104 °F)	T3C	T3B	—	T3C	T4A	T4	—	T6	T3A	T3	—	T3C
	90 °C (194 °F)	55 °C (131 °F)	T3A	T3A	—	T3A	T4	T3B	—	T5	T3	T3	—	T3A
	90 °C (194 °F)	65 °C (149 °F)	T3A	T3	—	T3A	T3C	T3C	—	T4A	T2D	T2D	—	T3
70 HPS	90 °C (194 °F)	40 °C (104 °F)	T3B	T3A	—	T3C	T4	T3C	—	T6	T3	T3	—	T3A
	90 °C (194 °F)	55 °C (131 °F)	T3A	T3A	—	T3B	T3C	T3C	—	T5	T2D	T2D	—	T3
	90 °C (194 °F)	65 °C (149 °F)	T3	T3A	—	T3A	T3C	T3B	—	T4A	T2C	T2C	—	T3
100 HPS	90 °C (194 °F)	40 °C (104 °F)	T2D	T2D	T3	T3	—	T3A (EF)	T3 (EF)	—	—	—	—	—
	90 °C (194 °F)	40 °C (104 °F)	—	—	—	—	T3B	—	T4A	T4A	T2B	T2B	T2C	T2C
	90 °C (194 °F)	55 °C (131 °F)	T2D	T2D	T3	T3	—	—	T4	T4	—	—	T2B	T2B
	90 °C (194 °F)	65 °C (149 °F)	T2D	T2D	T2D	T2D	—	—	—	—	—	—	—	—
150 HPS	90 °C (194 °F)	40 °C (104 °F)	T2B	T2B	—	T2C	—	—	—	T3C	T2	—	—	T2B
	90 °C (194 °F)	40 °C (104 °F)	—	—	—	—	T3 (EF)	—	—	—	—	—	—	—
	90 °C (194 °F)	55 °C (131 °F)	T2B	T2A	—	T2B	—	—	—	—	—	—	—	—
70 PSMH	90 °C (194 °F)	40 °C (104 °F)	T3A	T3A	—	T3A	—	—	—	T3C	—	—	—	—
	90 °C (194 °F)	55 °C (131 °F)	T3A	T3A	—	T3A	—	—	—	T3C	—	—	—	—
	90 °C (194 °F)	65 °C (149 °F)	T3	T2	—	T3	—	—	—	T3C	—	—	—	—
100 PSMH	90 °C (194 °F)	40 °C (104 °F)	T3	T3	—	T3	—	—	—	T3C	—	—	—	T2B
	90 °C (194 °F)	55 °C (131 °F)	T3	T3	—	T3	—	—	—	T3C	—	—	—	T2A
	90 °C (194 °F)	65 °C (149 °F)	T2D	T2D	—	T2D	—	—	—	T3C	—	—	—	—
150 PSMH	90 °C (194 °F)	40 °C (104 °F)	T2B	T2B	—	T2B	—	—	—	T3C	—	—	—	T2B
	90 °C (194 °F)	55 °C (131 °F)	T2A	T2A	—	T2B	—	—	—	T3C	—	—	—	T2A
	125 °C (257 °F)	65 °C (149 °F)	T2A	T2	—	T2B	—	—	—	T3C	—	—	—	—
175 PSMH	90 °C (194 °F)	40 °C (104 °F)	T2B	T2B	—	T2B	—	—	—	T3C	—	—	—	T2B
	90 °C (194 °F)	55 °C (131 °F)	T2A	T2A	—	T2B	—	—	—	T3C	—	—	—	T2A
	125 °C (257 °F)	65 °C (149 °F)	T2A	T2	—	T2B	—	—	—	—	—	—	—	—
200 PSMH	90 °C (194 °F)	40 °C (104 °F)	T2B	T2B	—	T2B	—	—	—	T3B	—	—	—	—
	90 °C (194 °F)	55 °C (131 °F)	T2B	T2B	—	T2B	—	—	—	—	—	—	—	—
250 PSMH	90 °C (194 °F)	40 °C (104 °F)	T2	T2	—	T2	—	—	—	—	—	—	—	—
	90 °C (194 °F)	55 °C (131 °F)	T2	T2	—	T2	—	—	—	—	—	—	—	—

“T” Numbers Represent the Maximum Lamp Temperature for Class I, Division 2 Locations and Maximum Surface Temperature Under Dust Blanket for Class II, Division 1 Locations.

“T” Number	T1	350	325	T2	T2A	T2B	T2C	T2D	T3	T3A	T3B	T3C	T4	T4A	T5	T6
Temp. Range (°C)	351-450	326-350	301-325	281-300	261-280	231-260	216-230	201-215	181-200	166-180	161-165	136-160	121-135	101-120	86-100	85
Temp. Range (°F)	664-842	619-662	574-617	538-572	502-536	448-500	421-446	394-419	358-392	331-356	322-329	277-320	250-275	214-248	187-212	185

① All Class II T Numbers are E, F, G unless otherwise indicated.

Mercmaster™ III HID 50–250 Watt Luminaires

Class I, Zone 2, AEx nA nR IIC; Class 1 Zone 2, AEx nR IIC; IP66; and NEMA 4X

Temperature Identification Numbers of Mercmaster III Fixtures.

NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA nR IIC (Z2)
Class I, Zone 2, AEx nR IIC (ZB)
Class II, Division 1 and 2, Groups E, F, G
Class III

NEC/CEC:

Simultaneous Exposure (Class I, Division 2/
Class II, Division 1)
Fixtures Outside Type (Salt Water)
Type 4X
IP66

Operating Temperatures: “T” Numbers for Zone 2 Mercmaster III Fixtures

The “T” number is established by separately determining the maximum temperature of the globe surface and ballast compartment. The hotter of the two is taken to determine the “T” number for the overall fixture.

Lamp		Supply Wire Temp. °C (°F)	Ambient Temp. °C (°F)	Class I, Zone 2 AEx nA nR IIC				Class I, Zone 2 AEx nR IIC			
Watts	Type			Globe	Globe & Reflector	Refractor Only	G3/Refractor & Reflector	Globe	Globe & Reflector	Refractor Only	G3/Refractor & Reflector
50	HPS	90 °C (194 °F)	40 °C (104 °F)	T4	T4	T6	T4	T4	T4	T6	T4
		90 °C (194 °F)	55 °C (131 °F)	T4	T3	T5	T3	T4	T3	T5	T3
		90 °C (194 °F)	65 °C (149 °F)	T3	T3	T4	T3	T3	T3	T4	T3
70	HPS	90 °C (194 °F)	40 °C (104 °F)	T4	T4	T4	T4	T6	T5	T6	T4
		90 °C (194 °F)	55 °C (131 °F)	T4	T4	T4	T3	T5	T4	T5	T3
		90 °C (194 °F)	65 °C (149 °F)	T4	T4	T3	T3	T4	T4	T5	T3
100	HPS	90 °C (194 °F)	40 °C (104 °F)	T4	T4	T4	T4	T5	T4	T6	T4
		90 °C (194 °F)	55 °C (131 °F)	T4	T4	T3	T3	T4	T4	T5	T3
		90 °C (194 °F)	65 °C (149 °F)	T4	T4	T3	T3	T4	T4	T4	T3
150	HPS	90 °C (194 °F)	40 °C (104 °F)	T4	T3	T3	T3	T4	T4	T5	T4
		90 °C (194 °F)	55 °C (131 °F)	T3	T3	T3	T3	T4	T4	T4	T3
		105 °C (221 °F)	65 °C (149 °F)	T3	T3	T3	T3	T4	T3	T4	T3
70	PSMH	90 °C (194 °F)	40 °C (104 °F)	T4	T4	T4	—	T5	T4	T6	—
		90 °C (194 °F)	55 °C (131 °F)	T3	T3	T3	—	T4	T4	T5	—
		90 °C (194 °F)	65 °C (149 °F)	T3	T3	T3	—	T4	T3	T4	—
100	PSMH	90 °C (194 °F)	40 °C (104 °F)	T3	T3	T3	—	T5	T4	T6	—
		90 °C (194 °F)	55 °C (131 °F)	T3	T3	T3	—	T4	T4	T5	—
		90 °C (194 °F)	65 °C (149 °F)	T3	T3	T3	—	T4	T3	T4	—
150	PSMH	90 °C (194 °F)	40 °C (104 °F)	T4	T4	T4	—	T4	T4	T5	—
		90 °C (194 °F)	55 °C (131 °F)	T3	T3	T3	—	T4	T3	T4	—
		105 °C (221 °F)	65 °C (149 °F)	T3	T3	T3	—	T4	T3	T4	—
175	PSMH	90 °C (194 °F)	40 °C (104 °F)	T3	T3	T4	—	T3	T3	T4	—
		90 °C (194 °F)	55 °C (131 °F)	T3	T3	T3	—	T3	T3	T4	—
		105 °C (221 °F)	65 °C (149 °F)	T3	T3	T3	—	T3	T3	T4	—
200	PSMH	90 °C (194 °F)	40 °C (104 °F)	T3	T3	T4	—	T3	T3	T4	—
		105 °C (221 °F)	55 °C (131 °F)	T3	T3	T3	—	T3	T3	T4	—
		105 °C (221 °F)	65 °C (149 °F)	T3	T3	T3	—	T3	T3	T4	—
250	PSMH	90 °C (194 °F)	40 °C (104 °F)	T3	T3	T3	—	T3	T3	T3	—
		90 °C (194 °F)	55 °C (131 °F)	T3	T3	T3	—	T3	T3	T3	—

“T” Numbers Represent the Maximum Surface Temperature for Luminaires with AEx nA nR or AEx nR rating

“T” Number	T1	T2	T3	T4	T5	T6
Temp. Range (°C)	301-450	201-300	136-200	101-135	86-100	85
Temp. Range (°F)	547-842	394-572	277-392	214-275	187-212	185

Mercmaster™ III HID 50–250 Watt Luminaires

Class I, Division 2; Class II, Division 1; Simultaneous Exposure to Hazardous Conditions of Both Classifications

Maximum Temperatures in °C (°F) Obtained from Tests in a 40 °C (104 °F) Ambient, Vertical Position, Lamp Base Up, as per NEC.

NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA nR IIC (Z2)
Class I, Zone 2, AEx nR IIC (ZB)
Class II, Division 1 and 2, Groups E, F, G
Class III

NEC/CEC:

Simultaneous Exposure (Class I, Division 2/
Class II, Division 1)
Fixtures Outside Type (Salt Water)
Type 4X
IP66

Fixture Selection Guide Indicates atmosphere for which fixture is suitable.

① Denotes fixture with Globe Only. ② Denotes fixture with Globe and Reflector. ③ Denotes fixture with 8" Refractor / G3 Globe

Class I, Division 2 Chemical	Ignition °C (°F) ④	Minimum Fixture “T” Number for Chemical	HPS (Watts)				PSMH (Watts)				
			50	70	100	150	70	100	175	200	250
Group A Atmospheres											
acetylene	305 °C (581 °F)	T2	①②③	①②③	①②③	①②③	①②	①②③	①②③	① ③	①②
Group B Atmospheres											
acrolein (inhibited)	220 °C (428 °F)	T2D	①②③	①②③	①②③		①②	①②③			①②
arsine	NA ②										
butadiene	420 °C (788 °F)	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
ethylene oxide	429 °C (804 °F)	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
hydrogen	500 °C (932 °F)	T1	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
propylene oxide	449 °C (840 °F)	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
propylnitrate	175 °C (347 °F)	T3B	①②③	①②③			①②				
Group C Atmospheres											
acetaldehyde	175 °C (347 °F)	T3B	①②③	① ③			①②				
allyl alcohol	378 °C (712 °F)	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
n-butyraldehyde	218 °C (424°F)	T2D	①②③	①②③	①②③		①②	①②③			①②
carbon monoxide	609 °C (1128 °F)	T1	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
crotonaldehyde	232 °C (450 °F)	T2C	①②③	①②③	①②③	③	①②	①②③			①②
cyclopropane	498 °C (928 °F)	T1	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
diethyl ether (ethyl ether)	160 °C (320 °F)	T3C	① ③	③			①②				
diethylamine	312 °C (594 °F)	T2	①②③	①②③	①②③	①②③	①②	①②③	①②③	① ③	①②
ethylene	450 °C (842 °F)	T1	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
ethylenimine	320 °C (608 °F)	T2	①②③	①②③	①②③	①②③	①②	①②③	①②③	① ③	①②
ethly mercaptan	300 °C (572 °F)	T2	①②③	①②③	①②③	①②③	①②	①②③	①②③	① ③	①②
ethyl sulfide	NA ⑤										
hydrogen cyanide	538 °C (1000 °F)	T1	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
hydrogen sulfide	260 °C (500 °F)	T2B	①②③	①②③	①②③	①②③	①②	①②③	①②③	①	①②
morpholine	310 °C (590 °F)	T2	①②③	①②③	①②③	①②③	①②	①②③	①②③	① ③	①②
2-nitropropane	428 °C (802 °F)	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
tetrahydrofuran	321 °C (610 °F)	T2	①②③	①②③	①②③	①②③	①②	①②③	①②③	① ③	①②
unsymmetrical dimethyl hydrazine	249 °C (480 °F)	T2C	①②③	①②③	①②③	③	①②	①②③			①②
Group D Atmospheres											
acetic acid (glacial)	464 °C (867 °F)	T1	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
acetone	465 °C (869 °F)	T1	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
acrylonitrile	481 °C (898 °F)	T1	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
ammonia	651 °C (1204 °F)	T1	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
benzene	498 °C (928 °F)	T1	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
butane	287 °C (549 °F)	T2A	①②③	①②③	①②③	①②③	①②	①②③	①②③	①	①②
1-butanol (butyl alcohol)	343 °C (649 °F)	325	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②

This classified area suitability chart is based on NEC requirements and Appleton and UL testing. However, the ultimate decision on suitability of these fixtures for classified areas depends solely on the judgement of the owner, insurance company, inspector and/or authority having jurisdiction.

④ Ignition temperatures shown should be regarded as approximations only. Per NFPA Bulletin 325M, ignition temperatures may vary according to such factors as vapor/air mixture, size and space where ignition may occur, rate and duration of heating, oxygen concentration and other materials present.

⑤ Not Available.

Mercmaster™ III HID 50–250 Watt Luminaires

Class I, Division 2; Class II, Division 1; Simultaneous Exposure to Hazardous Conditions of Both Classifications

Maximum Temperatures in °C (°F) Obtained from Tests in a 40 °C (104 °F) Ambient, Vertical Position, Lamp Base Up, as per NEC.

NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA nR IIC (Z2)
Class I, Zone 2, AEx nR IIC (ZB)
Class II, Division 1 and 2, Groups E, F, G
Class III

NEC/CEC:

Simultaneous Exposure (Class I, Division 2/
Class II, Division 1)
Fixtures Outside Type (Salt Water)
Type 4X
IP66

Fixture Selection Guide Indicates atmosphere for which fixture is suitable.

① Denotes fixture with Globe Only. ② Denotes fixture with Globe and Reflector. ③ Denotes fixture with 8" Refractor / G3 Globe

Class I, Division 2 Chemical	Ignition °C (°F) ④	Minimum Fixture “T” Number for Chemical	HPS (Watts)				PSMH (Watts)				
			50	70	100	150	70	100	175	200	250
Group D Atmospheres											
2-butanol (secondary butyl alcohol)	405 °C (761 °F)	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
n-butyl acetate	425 °C (797 °F)	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
isobutyl acetate	421 °C (790 °F)	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
sec-butyl alcohol	343 °C (649 °F)	325	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
di-isobutylene	391 °C (736 °F)	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
ethane	472 °C (882 °F)	T1	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
ethanol (ethyl alcohol)	363 °C (685 °F)	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
ethyl acetate	426 °C (799 °F)	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
ethylene diamine (anhydrous)	385 °C (725 °F)	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
ethylene dichloride	413 °C (775 °F)	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
gasoline (56-60 octane)	280 °C (536 °F)	T2A	①②③	①②③	①②③	①②③	①②	①②③	①②③	①	①②
heptanes	204 °C (399 °F)	T3	①②③	①②③	①②③		①②	①②③			
hexanes	223 °C (433 °F)	T2D	①②③	①②③	①②③		①②	①②③			
isoprene	395 °C (743 °F)	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
isopropyl ether	443 °C (829 °F)	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
mesityl oxide	344 °C (651 °F)	325	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
methane (natural gas)	537 °C (999 °F)	T1	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
methanol (methyl alcohol)	385 °C (725 °F)	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
3-methyl-1-butanol (isoamyl alcohol)	350 °C (662 °F)	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
methyl ethyl ketone	404 °C (759 °F)	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
methyl isobutyl ketone	448 °C (838 °F)	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
2-methyl-1-propanol (isobutyl alcohol)	415 °C (779 °F)	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
2-methyl-1-propanol (tertiary butyl alcohol)	478 °C (892 °F)	T1	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
petroleum naphtha ⑥	288 °C (550 °F)	T2A	①②③	①②③	①②③	①②③	①②	①②③	①②③	①	①②
pyridine	482 °C (900 °F)	T1	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
octanes	206 °C (403 °F)	T3	①②③	①②③	①②③		①②	①②③			
pentanes	260 °C (500 °F)	T2B	①②③	①②③	①②③	①②③	①②	①②③	①②③	①	①②
1-pentanol (amyl alcohol)	300 °C (572 °F)	T2	①②③	①②③	①②③	①②③	①②	①②③	①②③	① ③	①②
propane	432 °C (810 °F)	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
1-propanol (propyl alcohol)	412 °C (774 °F)	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
2-propanol (isopropyl alcohol)	399 °C (750 °F)	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
propylene	455 °C (851 °F)	T1	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
styrene	490 °C (914 °F)	T1	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
toluene	480 °C (896 °F)	T1	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
vinyl acetate	402 °C (756 °F)	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
vinyl chloride	472 °C (882 °F)	T1	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
xylenes (o-xylene)	463 °C (865 °F)	T1	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②

This classified area suitability chart is based on NEC requirements and Appleton and UL testing. However, the ultimate decision on suitability of these fixtures for classified areas depends solely on the judgement of the owner, insurance company, inspector and/or authority having jurisdiction.

④ Ignition temperatures shown should be regarded as approximations only. Per NFPA Bulletin 325M, ignition temperatures may vary according to such factors as vapor/air mixture, size and space where ignition may occur, rate and duration of heating, oxygen concentration and other materials present.

⑥ A saturated hydrocarbon mixture. Also known by synonyms benzine, ligroin, petroleum, ether and naptha.

Mercmaster™ III HID 50–250 Watt Luminaires

Class I, Zone 2, AEx nA nR IIC; Class 1 Zone 2, AEx nR IIC; IP66; and NEMA 4X

Maximum Temperatures in °C (°F) Obtained from Tests in a 40 °C (104 °F) Ambient, Vertical Position, Lamp Base Up.

NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA nR IIC (Z2)
Class I, Zone 2, AEx nR IIC (ZB)
Class II, Division 1 and 2, Groups E, F, G
Class III

NEC/CEC:

Simultaneous Exposure (Class I, Division 2/
Class II, Division 1)
Fixtures Outside Type (Salt Water)
Type 4X
IP66

Fixture Selection Guide Indicates atmosphere for which fixture is suitable.

② Denotes fixture with Globe and Reflector. ③ Denotes fixture with 8" Refractor.

Class I, Division 2 Chemical	Ignition °C (°F) ④	Minimum Fixture “T” Number for Chemical	HPS (Watts)				PSMH (Watts)				
			50	70	100	150	70	100	175	200	250
Group IIC											
acetylene	305 °C (581 °F)	T2	②③	②③	②③	②③	②③	②③	②③	②③	②③
acetylene	300 °C (572 °F)	T2	②③	②③	②③	②③	②③	②③	②③	②③	②③
hydrogen	500 °C (932 °F)	T1	②③	②③	②③	②③	②③	②③	②③	②③	②③
Group IIB											
ethylene	490 °C (914 °F)	T1	②③	②③	②③	②③	②③	②③	②③	②③	②③
butadiene 1.3	425 °C (797 °F)	T2	②③	②③	②③	②③	②③	②③	②③	②③	②③
carbon monoxide coke oven gas	560 °C (1040 °F)	T1	②③	②③	②③	②③	②③	②③	②③	②③	②③
diethyl ether (ethyl ether)	160 °C (320 °F)	T4	②③	②③	②③	②③	②③				
ethylene	450 °C (842 °F)	T1	②③	②③	②③	②③	②③	②③	②③	②③	②③
ethylenimine ethylene oxide	425 °C (797 °F)	T2	②③	②③	②③	②③	②③	②③	②③	②③	②③
Group IIA											
acetone	465 °C (869 °F)	T1	②③	②③	②③	②③	②③	②③	②③	②③	②③
amyl acetate	375 °C (707 °F)	T2	②③	②③	②③	②③	②③	②③	②③	②③	②③
ammonia	651 °C (1204 °F)	T1	②③	②③	②③	②③	②③	②③	②③	②③	②③
benzene	498 °C (928 °F)	T1	②③	②③	②③	②③	②③	②③	②③	②③	②③
butane	287 °C (549 °F)	T3	②③	②③	②③	②③	②③	②③	②③	②③	
1-butanol (butyl alcohol)	343 °C (649 °F)	T2	②③	②③	②③	②③	②③	②③	②③	②③	②③
n-butyl acetate cyclohexane	260 °C (500 °F)	T3	②③	②③	②③	②③	②③	②③	②③	②③	
ethyl methyl ketone	515 °C (959 °F)	T1	②③	②③	②③	②③	②③	②③	②③	②③	②③
ethanol (ethyl alcohol)	363 °C (685 °F)	T2	②③	②③	②③	②③	②③	②③	②③	②③	②③
ethyl acetate	426 °C (799 °F)	T1	②③	②③	②③	②③	②③	②③	②③	②③	②③
heptanes	204 °C (399 °F)	T3	②③	②③	②③	②③	②③	②③	②③	②③	
hexanes	223 °C (433 °F)	T3	②③	②③	②③	②③	②③	②③	②③	②③	
isoprene isobutanol	430 °C (806 °F)	T2	②③	②③	②③	②③	②③	②③	②③	②③	②③
mesityl oxide methyl acetate	500 °C (932 °F)	T1	②③	②③	②③	②③	②③	②③	②③	②③	②③
methanol (methyl alcohol)	385 °C (725 °F)	T2	②③	②③	②③	②③	②③	②③	②③	②③	②③
n-propyl acetate	500 °C (932 °F)	T1	②③	②③	②③	②③	②③	②③	②③	②③	②③
n-butul acetate	420 °C (788 °F)	T2	②③	②③	②③	②③	②③	②③	②③	②③	②③
pentanes	260 °C (500 °F)	T3	②③	②③	②③	②③	②③	②③	②③	②③	
propane	432 °C (810 °F)	T2	②③	②③	②③	②③	②③	②③	②③	②③	②③
xylenes (o-xylene)	463 °C (865 °F)	T1	②③	②③	②③	②③	②③	②③	②③	②③	②③

This classified area suitability chart is based on NEC requirements and Appleton and UL testing. However, the ultimate decision on suitability of these fixtures for classified areas depends solely on the judgement of the owner, insurance company, inspector and/or authority having jurisdiction.

④ Ignition temperatures shown should be regarded as approximations only. Per NFPA Bulletin 325M, ignition temperatures may vary according to such factors as vapor/air mixture, size and space where ignition may occur, rate and duration of heating, oxygen concentration and other materials present.

Mercmaster™ III HID 50–250 Watt Luminaires

50 W, 70 W, 100 W, 150 W HPS

High Reactance, High Power Factor (min. P.F. 90%). Heat-Resistant Prismatic Glass Globe or Closed Prismatic Glass Refractor. Mogul Base Lamps.

NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA nR IIC (Z2)
Class I, Zone 2, AEx nR IIC (ZB)
Class II, Division 1 and 2, Groups E, F, G
Class III

NEC/CEC:

Simultaneous Exposure (Class I, Division 2/
Class II, Division 1)
Fixtures Outside Type (Salt Water)
Type 4X
IP66

			Catalog Numbers ③④⑤ with Type V 8" Refractor or G3 Globe ②		
	Lamp Type	Lamp Watts	Hub Size (Inches)	with Globe	
Pendant — One Hub, Rigid Mounting ①					
	HPS	50	3/4 1	KPAL5075 KPAL5010	KPAL5075J5 KPAL5010J5
	HPS	70	3/4 1	KPAL7075 KPAL7010	KPAL7075J5 KPAL7010J5
	HPS	100	3/4 1	KPAL1075 KPAL1010	KPAL1075J5 KPAL1010J5
	HPS	150	3/4 1	KPAL1575 KPAL1510	KPAL1575J5 KPAL1510J5
	Pendant Cone — One Hub, Rigid Mounting				
	HPS	50	3/4 1	KPCHL5075 KPCHL5010	KPCHL5075J5 KPCHL5010J5
	HPS	70	3/4 1	KPCHL7075 KPCHL7010	KPCHL7075J5 KPCHL7010J5
	HPS	100	3/4 1	KPCHL1075 KPCHL1010	KPCHL1075J5 KPCHL1010J5
	HPS	150	3/4 1	KPCHL1575 KPCHL1510	KPCHL1575J5 KPCHL1510J5
	Ceiling — Five Hubs, Four Close-Up Plugs				
	HPS	50	3/4 1	KPCL5075 KPCL5010	KPCL5075J5 KPCL5010J5
	HPS	70	3/4 1	KPCL7075 KPCL7010	KPCL7075J5 KPCL7010J5
	HPS	100	3/4 1	KPCL1075 KPCL1010	KPCL1075J5 KPCL1010J5
	HPS	150	3/4 1	KPCL1575 KPCL1510	KPCL1575J5 KPCL1510J5

① For Flexible Pendant Mount, change **A** to **F** in catalog number (except 50 W HPS).

② To order fixtures with large globe change **J5** to **G3**; for fixture with NEMA Type I or NEMA Type III refractor, change final digit **5** in catalog number to **1** or **3**.

③ Add the following voltage and frequency designation before **Z2** suffix:

Lamp Type	Lamp Watts	MT	5MT	48	125	Voltage Suffixes					
						225	226	235	236	245	246
HPS	50	X	—	—	—	X	X	—	X	X	X
HPS	70	X	—	X	X	X	X	—	X	X	X
HPS	100	X	—	X	X	X	X	—	X	X	X
HPS	150	X	—	X	X	X	X	—	—	X	—
PSMH	70	X	—	X	X	X	—	—	—	X	—
PSMH	100	X	—	X	X	X	—	—	—	X	—
PSMH	150	X	—	X	X	X	—	—	—	X	—
PSMH	175	X	X	X	—	—	—	—	—	—	—
PSMH	200	X	—	X	—	—	—	—	—	—	X
PSMH	250	X	—	—	—	—	—	—	X	—	—

Voltages:

MT - 120/208/240/277 V 60 Hz

5MT - 120/208/240/277/480 V 60 Hz

48 - 480 V 60 Hz

125 - 120 V 50 Hz

225 - 225 V 50 Hz

226 - 220 V 60 Hz

235 - 230 V 50 Hz

236 - 230 V 60 Hz

245 - 240 V 50 Hz

246 - 240 V 60 Hz

④ Add **-Z2** suffix for factory sealed non-sparking/restricted breathing protection (AEx nA nR). Add **-ZB** suffix for restricted breathing protection (AEx nR).

⑤ For fixtures with guards, add letter **G** before adding voltage designation.

Mercmaster™ III HID 50–250 Watt Luminaires

50 W, 70 W, 100 W, 150 W HPS

High Reactance, High Power Factor (min. P.F. 90%). Heat-Resistant Prismatic Glass Globe or Closed Prismatic Glass Refractor. Mogul Base Lamps.

NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA nR IIC (Z2)
Class I, Zone 2, AEx nR IIC (ZB)
Class II, Division 1 and 2, Groups E, F, G
Class III

NEC/CEC:

Simultaneous Exposure (Class I, Division 2/
Class II, Division 1)
Fixtures Outside Type (Salt Water)
Type 4X
IP66

			Catalog Numbers ③④⑤ with Type V 8" Refractor or G3 Globe ②		
	Lamp Type	Lamp Watts	Hub Size (Inches)	with Globe	
Wall — Five Hubs, Four Close-Up Plugs					
	HPS	50	3/4	KPWBL5075	KPWBL5075J5
			1	KPWBL5010	KPWBL5010J5
	HPS	70	3/4	KPWBL7075	KPWBL7075J5
			1	KPWBL7010	KPWBL7010J5
	HPS	100	3/4	KPWBL1075	KPWBL1075J5
			1	KPWBL1010	KPWBL1010J5
	HPS	150	3/4	KPWBL1575	KPWBL1575J5
			1	KPWBL1510	KPWBL1510J5
25° Stanchion — One Hub					
	HPS	50	1-1/4	KPSL50125	KPSL50125J5
			1-1/2	KPSL50150	KPSL50150J5
	HPS	70	1-1/4	KPSL70125	KPSL70125J5
			1-1/2	KPSL70150	KPSL70150J5
	HPS	100	1-1/4	KPSL10125	KPSL10125J5
			1-1/2	KPSL10150	KPSL10150J5
	HPS	150	1-1/4	KPSL15125	KPSL15125J5
			1-1/2	KPSL15150	KPSL15150J5
90° Stanchion — One Hub					
	HPS	50	1-1/4	KPSTL50125	KPSTL50125J5
			1-1/2	KPSTL50150	KPSTL50150J5
	HPS	70	1-1/4	KPSTL70125	KPSTL70125J5
			1-1/2	KPSTL70150	KPSTL70150J5
	HPS	100	1-1/4	KPSTL10125	KPSTL10125J5
			1-1/2	KPSTL10150	KPSTL10150J5
	HPS	150	1-1/4	KPSTL15125	KPSTL15125J5
			1-1/2	KPSTL15150	KPSTL15150J5

② To order fixtures with large globe change **J5** to **G3**; for fixture with NEMA Type I or NEMA Type III refractor, change final digit **5** in catalog number to **1** or **3**.

③ Add the following voltage and frequency designation before **Z2** suffix:

		Voltage Suffixes									
Lamp Type	Lamp Watts	MT	5MT	48	125	225	226	235	236	245	246
HPS	50	X	—	—	—	X	X	—	X	X	X
HPS	70	X	—	X	X	X	X	—	X	X	X
HPS	100	X	—	X	X	X	X	—	X	X	X
HPS	150	X	—	X	X	X	X	—	—	X	—
PSMH	70	X	—	X	X	X	—	—	—	X	—
PSMH	100	X	—	X	X	X	—	—	—	X	—
PSMH	150	X	—	X	X	X	—	—	—	X	—
PSMH	175	X	X	X	—	—	—	—	—	—	—
PSMH	200	X	—	X	—	—	—	—	—	—	X
PSMH	250	X	—	—	—	—	—	—	X	—	—

Voltages:

MT - 120/208/240/277 V 60 Hz

125 - 120 V 50 Hz

235 - 230 V 50 Hz

5MT - 120/208/240/277/480 V 60 Hz

225 - 225 V 50 Hz

236 - 230 V 60 Hz

48 - 480 V 60 Hz

226 - 220 V 60 Hz

245 - 240 V 50 Hz

246 - 240 V 60 Hz

④ Add **-Z2** suffix for factory sealed non-sparking/restricted breathing protection (AEx nA nR). Add **-ZB** suffix for restricted breathing protection (AEx nR).

⑤ For fixtures with guards, add letter **G** before adding voltage designation.

Mercmaster™ III HID 50–250 Watt Luminaires

70 W, 100 W, 150 W, 175 W, 200 W, 250 W PSMH

High Reactance, High Power Factor (min. P.F. 90%). Heat-Resistant Prismatic Glass Globe or Closed Prismatic Glass Refractor. Mogul Base Lamps

NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA nR IIC (Z2)
Class I, Zone 2, AEx nR IIC (ZB)
Class II, Division 1 and 2, Groups E, F, G
Class III

NEC/CEC:

Simultaneous Exposure (Class I, Division 2/
Class II, Division 1)
Fixtures Outside Type (Salt Water)
Type 4X
IP66

			Hub Size (Inches)	Catalog Numbers ③④⑤	
Lamp Type			Lamp Watts	with Globe	with Type V 8" Refractor ②
Pendant — One Hub, Rigid Mounting ①					
	PSMH	70	3/4 1	KPAH7075 KPAH7010	KPAH7075J5 KPAH7010J5
	PSMH	100	3/4 1	KPAH1075 KPAH1010	KPAH1075J5 KPAH1010J5
	PSMH	150	3/4 1	KPAP1575 KPAP1510	KPAP1575J5 KPAP1510J5
	PSMH	175	3/4 1	KPAP1775 KPAP1710	KPAP1775J5 KPAP1710J5
	PSMH	200	3/4 1	KPAP2075 KPAP2010	KPAP2075J5 KPAP2010J5
	PSMH	250 ⑥	3/4 1	KPAP2575 KPAP2510	KPAP2575J5 KPAP2510J5
Pendant Cone — One Hub, Rigid Mounting					
	PSMH	70	3/4 1	KPCHH7075 KPCHH7010	KPCHH7075J5 KPCHH7010J5
	PSMH	100	3/4 1	KPCHH1075 KPCHH1010	KPCHH1075J5 KPCHH1010J5
	PSMH	150	3/4 1	KPCHP1575 KPCHP1510	KPCHP1575J5 KPCHP1510J5
	PSMH	175	3/4 1	KPCHP1775 KPCHP1710	KPCHP1775J5 KPCHP1710J5
	PSMH	200	3/4 1	KPCHP2075 KPCHP2010	KPCHP2075J5 KPCHP2010J5
	PSMH	250 ⑥	3/4 1	KPCHP2575 KPCHP2510	KPCHP2575J5 KPCHP2510J5
Ceiling — Five Hubs, Four Close-Up Plugs					
	PSMH	70	3/4 1	KPCH7075 KPCH7075	KPCH7075J5 KPCH7010J5
	PSMH	100	3/4 1	KPCH1075 KPCH1010	KPCH1075J5 KPCH1010J5
	PSMH	150	3/4 1	KPCP1575 KPCP1510	KPCP1575J5 KPCP1510J5
	PSMH	175	3/4 1	KPCP1775 KPCP1710	KPCP1775J5 KPCP1710J5
	PSMH	200	3/4 1	KPCP2075 KPCP2010	KPCP2075J5 KPCP2010J5
	PSMH	250 ⑥	3/4 1	KPCP2575 KPCP2510	KPCP2575J5 KPCP2510J5

① For Flexible Pendant Mount, change **A** to **F** in catalog number (except 50 W HPS).

② To order fixtures with large globe change **J5** to **G3**; for fixture with NEMA Type I or NEMA Type III refractor, change final digit **5** in catalog number to **1** or **3**.

③ Add the following voltage and frequency designation before **Z2** suffix:

Lamp Type	Lamp Watts	MT	5MT	48	125	Voltage Suffixes		235	236	245	246
						225	226				
HPS	50	X	—	—	—	X	X	—	X	X	X
HPS	70	X	—	X	X	X	X	—	X	X	X
HPS	100	X	—	X	X	X	X	—	X	X	X
HPS	150	X	—	X	X	X	X	—	—	X	—
PSMH	70	X	—	X	X	X	—	—	—	X	—
PSMH	100	X	—	X	X	X	—	—	—	X	—
PSMH	150	X	—	X	X	X	—	—	—	X	—
PSMH	175	X	X	X	—	—	—	—	—	—	—
PSMH	200	X	—	X	—	—	—	—	—	—	X
PSMH	250	X	—	—	—	—	—	—	X	—	—

Voltages:

MT - 120/208/240/277 V 60 Hz

5MT - 120/208/240/277/480 V 60 Hz

48 - 480 V 60 Hz

125 - 120 V 50 Hz

225 - 225 V 50 Hz

226 - 220 V 60 Hz

235 - 230 V 50 Hz

236 - 230 V 60 Hz

245 - 240 V 50 Hz

246 - 240 V 60 Hz

④ Add **-Z2** suffix for factory sealed non-sparking/restricted breathing protection (AEx nA nR). Add **-ZB** suffix for restricted breathing protection (AEx nR).

⑤ For fixtures with guards, add letter **G** before adding voltage designation.

⑥ Available in MT and TT only. MT and TT 250W fixtures are not UL Listed.

Mercmaster™ III HID 50–250 Watt Luminaires

70 W, 100 W, 150 W, 175 W, 200 W, 250 W PSMH

High Reactance, High Power Factor (min. P.F. 90%). Heat-Resistant Prismatic Glass Globe or Closed Prismatic Glass Refractor. Mogul Base Lamps.

NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA nR IIC (Z2)
Class I, Zone 2, AEx nR IIC (ZB)
Class II, Division 1 and 2, Groups E, F, G
Class III

NEC/CEC:

Simultaneous Exposure (Class I, Division 2/
Class II, Division 1)
Fixtures Outside Type (Salt Water)
Type 4X
IP66

	Lamp Type	Lamp Watts	Hub Size (Inches)	Catalog Numbers ③④⑤ with Globe with Type V 8" Refractor ②	
Wall — Five Hubs, Four Close-Up Plugs					
	PSMH	70	3/4 1	KPWBH7075 KPWBH7010	KPWBH7075J5 KPWBH7010J5
	PSMH	100	3/4 1	KPWBH1075 KPWBH1010	KPWBH1075J5 KPWBH1010J5
	PSMH	150	3/4 1	KPWBP1575 KPWBP1510	KPWBP1575J5 KPWBP1510J5
	PSMH	175	3/4 1	KPWBP1775 KPWBP1710	KPWBP1775J5 KPWBP1710J5
	PSMH	200	3/4 1	KPWBP2075 KPWBP2010	KPWBP2075J5 KPWBP2010J5
	PSMH	250 ⑥	3/4 1	KPWBP2575 KPWBP2510	KPWBP2575J5 KPWBP2510J5
25° Stanchion — One Hub					
	PSMH	70	1-1/4 1-1/2	KPSH70125 KPSH70150	KPSH70125J5 KPSH70150J5
	PSMH	100	1-1/4 1-1/2	KPSH10125 KPSH10150	KPSH10125J5 KPSH10150J5
	PSMH	150	1-1/4 1-1/2	KPSP15125 KPSP15150	KPSP15125J5 KPSP15150J5
	PSMH	175	1-1/4 1-1/2	KPSP17125 KPSP17150	KPSP17125J5 KPSP17150J5
	PSMH	200	1-1/4 1-1/2	KPSP20125 KPSP20150	KPSP20125J5 KPSP20150J5
	PSMH	250 ⑥	1-1/4 1-1/2	KPSP25125 KPSP25150	KPSP25125J5 KPSP25150J5
90° Stanchion — One Hub					
	PSMH	70	1-1/4 1-1/2	KPSTH70125 KPSTH70150	KPSTH70125J5 KPSTH70150J5
	PSMH	100	1-1/4 1-1/2	KPSTH10125 KPSTH10150	KPSTH10125J5 KPSTH10150J5
	PSMH	150	1-1/4 1-1/2	KPSTP15125 KPSTP15150	KPSTP15125J5 KPSTP15150J5
	PSMH	175	1-1/4 1-1/2	KPSTP17125 KPSTP17150	KPSTP17125J5 KPSTP17150J5
	PSMH	200	1-1/4 1-1/2	KPSTP20125 KPSTP20150	KPSTP20125J5 KPSTP20150J5
	PSMH	250 ⑥	1-1/4 1-1/2	KPSTP25125 KPSTP25150	KPSTP25125J5 KPSTP25150J5
Shown with Globe and Optional Guard					

Shown with Globe and Optional Guard

② To order fixtures with large globe change **J5** to **G3**; for fixture with NEMA Type I or NEMA Type III refractor, change final digit **5** in catalog number to **1** or **3**.

③ Add the following voltage and frequency designation before **Z2** suffix:

Lamp Type	Lamp Watts	MT	5MT	48	125	Voltage Suffixes		235	236	245	246
						225	226				
HPS	50	X	—	—	—	X	X	—	X	X	X
HPS	70	X	—	X	X	X	X	—	X	X	X
HPS	100	X	—	X	X	X	X	—	X	X	X
HPS	150	X	—	X	X	X	X	—	—	X	—
PSMH	70	X	—	X	X	X	—	—	—	X	—
PSMH	100	X	—	X	X	X	—	—	—	X	—
PSMH	150	X	—	X	X	X	—	—	—	X	—
PSMH	175	X	X	X	—	—	—	—	—	—	—
PSMH	200	X	—	X	—	—	—	—	—	—	X
PSMH	250	X	—	—	—	—	—	—	X	—	—

Voltages:

MT - 120/208/240/277 V 60 Hz

125 - 120 V 50 Hz

235 - 230 V 50 Hz

5MT - 120/208/240/277/480 V 60 Hz

225 - 225 V 50 Hz

236 - 230 V 60 Hz

48 - 480 V 60 Hz

226 - 220 V 60 Hz

245 - 240 V 50 Hz

246 - 240 V 60 Hz

④ Add **-Z2** suffix for factory sealed non-sparking/restricted breathing protection (AEx nA nR). Add **-ZB** suffix for restricted breathing protection (AEx nR).

⑤ For fixtures with guards, add letter **G** before adding voltage designation.

⑥ Available in MT and TT only. MT and TT 250W fixtures are not UL Listed.

Mercmaster™ III HID 50–250 Watt PRE-PAK™ Luminaires

Factory-Assembled Fixtures

For 70 W, 100 W or 150 W High Pressure Sodium Lamps, or 100 W or 175 W Pulse Start Metal Halide Lamps. Mogul Base Lamps.

NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA nR IIC (Z2)
Class I, Zone 2, Ex nR IIC (Z)
Class I, Zone 2, AEx nR IIC (ZB)

NEC/CEC:

Class II, Division 1 and 2, Groups E, F, G
Class III
Simultaneous Exposure (Class I, Division 2/
Class II, Division 1)

NEC/CEC:

Fixtures Outside Type (Salt Water)
Type 4X
IP66

These pre-packaged fixture component combinations are delivered fully assembled and packed in a single carton. They are available with or without lamp, and with choice of globe or NEMA Type I, III or V refractors – all with or without guards. PRE-PAK units simplify ordering, stocking and shipping, and result in savings on job-site assembly and installation time and costs.

Catalog numbers do not include mounting hood or reflector. For mounting hood and reflectors selection, see below and order separately. Hood and Reflector will be packaged separately.



PRE-PAK Fixtures ①

Lamp Type and Watts	Ballast Assembly with Globe Only	Ballast Assembly with Globe and Guard	Ballast Assembly with G3 Globe Only	Ballast Assembly with Refractor Only ③	Ballast Assembly with Refractor and Guard
100 W PSMH ②	KPBU100H-MT	KPBU100HG-MT	—	KPBU100HJ5-MT	KPBU100HJ5G-MT
175 W PSMH	KPBU175P-MT	KPBU175PG-MT	—	KPBU175PJ5-MT	KPBU175PJ5G-MT
70 W HPS	KPBU70L-MT	KPBU70LG-MT	—	KPBU70LJ5-MT	KPBU70LJ5G-MT
100 W HPS	KPBU100L-MT	KPBU100LG-MT	KPBUG3100L-MT	KPBU100LJ5-MT	KPBU100LJ5G-MT
150 W HPS	KPBU150L-MT	KPBU150LG-MT	—	KPBU150LJ5-MT	KPBU150LJ5G-MT

Mounting Hoods

Description	Hub Size (Inches)	Catalog Number
Pendant One Hub, Rigid Mounting	3/4 1	KPA-75 KPA-100
Pendant — Flexible One Hub, Flexible Mounting	3/4 1	KPAF-75 KPAF-100
Pendant Cone One Hub, Rigid	3/4 1	KPCH-75 KPCH-100
Ceiling Five Hubs, Four Close-Up Plugs	3/4 1	KPC-75 KPC-100
Wall Five Hubs, Four Close-Up Plugs	3/4 1	KPWB-75 KPWB-100
25° Stanchion One Hub	1-1/4 1-1/2	KPS-125 KPS-150
90° Stanchion One Hub	1-1/4 1-1/2	KPST-125 KPST-150

White Polyester Reflectors

Description	Catalog Number
Standard Dome For Globe Fixtures	KR2-ST
30° Angle For Globe Fixtures	KR2-AN
Standard Dome For Glass Refractor Fixtures	CMR-4ST
30° Angle For Glass Refractor Fixtures	CMR-4AN

① All catalog numbers above are fixtures without lamp. To order fixture complete with appropriate installed lamp, add suffix **L** to catalog number. All PRE-PAK fixtures include multi-tap ballast for operation on 120 V, 208 V, 240 V or 277 V lines. Fixture component combinations listed are furnished completely assembled in a single carton.

② 100 W fixtures use ED-28 mogul base lamps.

③ Refractor catalog numbers listed are for NEMA Type V. To order fixture with Type III refractor, change **J5** in catalog number to **J3**; for Type I refractor, change **J5** to **J1**.

Mercmaster™ III HID 50–250 Watt Luminaires

High Pressure Sodium and Pulse Start Metal Halide

Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA nR IIC (Z2)
Class I, Zone 2, AEx nR IIC (ZB)
Class II, Division 1 and 2, Groups E, F, G
Class III

NEC/CEC:

Simultaneous Exposure (Class I, Division 2/
Class II, Division 1)
Fixtures Outside Type (Salt Water)
Type 4X
IP66

Mounting Hoods

	Description	Hub Size (Inches)	Catalog Number
Pendant	 One Hub, Rigid Mounting	3/4	KPA-75
		1	KPA-100
Pendant — Flexible	 One Hub, Flexible Mounting	3/4	KPAF-75
		1	KPAF-100
Pendant Cone	 One Hub, Rigid	3/4	KPCH-75
		1	KPCH-100
Ceiling	 Five Hubs, Four Close-Up Plugs	3/4	KPC-75
		1	KPC-100
Wall	 Five Hubs, Four Close-Up Plugs	3/4	KPWB-75
		1	KPWB-100
25° Stanchion	 One Hub	1-1/4	KPS-125
		1-1/2	KPS-150
90° Stanchion	 One Hub	1-1/4	KPST-125
		1-1/2	KPST-150

Mercmaster™ III HID 50–250 Watt Luminaires

High Pressure Sodium and Pulse Start Metal Halide

Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA nR IIC (Z2)
Class I, Zone 2, AEx nR IIC (ZB)
Class II, Division 1 and 2, Groups E, F, G
Class III

NEC/CEC:

Simultaneous Exposure (Class I, Division 2/
Class II, Division 1)
Fixtures Outside Type (Salt Water)
Type 4X
IP66

Ballast Bodies



Ballast Body for Glass Globe (shown)

High Pressure Sodium
High Power Factor (Min. P.F. 90%)



Ballast Body for Glass Refractor or G3 Globe (shown)

Pulse Start Metal Halide
Super Constant Wattage Autotransformer (Min. P.F. 90%)

Lamp Type	Lamp Watts	Catalog Number ②④⑤		Voltage Suffixes									
		For Globe	For G3 Globe ①/ Refractor	MT	5MT	48	125	225	226	235	236	245	246
HPS	50 ③	KPB50L	KPBR50L	X	—	—	—	X	X	—	X	X	X
HPS	70 ③	KPB70L	KPBR70L	X	—	X	X	X	X	—	X	X	X
HPS	100 ③	KPB100L	KPBR100L	X	—	X	X	X	X	—	X	X	X
HPS	150 ③	KPB150L	KPBR150L	X	—	X	X	X	X	—	—	X	—
PSMH	70	KPB70H	KPBR70H	X	—	X	X	X	—	—	—	X	—
PSMH	100	KPB100H	KPBR100H	X	—	X	X	X	—	—	—	X	—
PSMH	150	KPB150P	KPBR150P	X	—	X	X	X	—	—	—	X	—
PSMH	175	KPB175P	KPBR175P	X	X	X	—	—	—	—	—	—	—
PSMH	200	KPB200P	KPBR200P	X	—	X	—	—	—	—	—	—	X
PSMH ⑥	250	KPBG250P	KPBR250P	X	—	—	—	—	—	—	X	—	—

Voltages:

MT - 120/208/240/277 V 60 Hz

5MT - 120/208/240/277/480 V 60 Hz

48 - 480 V 60 Hz

125 - 120 V 50 Hz

225 - 225 V 50 Hz

226 - 220 V 60 Hz

235 - 230 V 50 Hz

236 - 240 V 50 Hz

245 - 240 V 50 Hz

246 - 240 V 60 Hz

① For HPS version fixtures only.

② After voltage suffix add: **-S** for Smart Starter.

③ After voltage suffix add: **-R** for ballast body with Hot Restrike Ignitor.

④ Add **-E** after voltage suffix for ballast body with provision for Quartz Emergency Light. Not suitable for hazardous locations.

⑤ Add **Z2** suffix for factory sealed non-sparking/restricted breathing protection (AEx nA nR). Add **ZB** suffix for restricted breathing protection (AEx nR).

⑥ MT ballast bodies are not UL Listed for 250W PSMH version fixtures only.

Mercmaster™ III HID 50–250 Watt Luminaires

High Pressure Sodium and Pulse Start Metal Halide

Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA nR IIC (Z2)
Class I, Zone 2, AEx nR IIC (ZB)
Class II, Division 1 and 2, Groups E, F, G
Class III

NEC/CEC:

Simultaneous Exposure (Class I, Division 2/
Class II, Division 1)
Fixtures Outside Type (Salt Water)
Type 4X
IP66

Description		Catalog Number
Prismatic Glass Globes — Heat-Resistant		
 Glass Globe	For use in areas where fixture is subject to extreme thermal shock Heat-Resistant	Clear VPGL-2HR
		Amber VPGL-2AM
		Blue VPGL-2BL
		Green VPGL-2GR
		Red VPGL-2RE
 G3 Glass Globe		Clear VPGL3HR
Tuff-Skin® Coated Prismatic Glass Globes — For Non-Classified Areas		
 Tuff-Skin® Glass Globe	For use in areas where fixture is subject to extreme thermal shock Heat-Resistant	Clear VPGL-2HRT
Polycarbonate Globes — Impact-Resistant ①		
 Polycarbonate Globe	Use 100 watt lamp max. Do not use in ambients exceeding 25 °C (77 °F).	Clear VPGL-2PL
		Amber VPGL-2AMPL
		Green VPGL-2GRPL
		Red VPGL-2REPL

① Polycarbonate globes are shatter-resistant – for use in processing plants, canneries, dairies, bakeries or anywhere broken glass would prove a hazard. Ideally suited for areas where vandalism, high replacement and high maintenance costs are a problem. Do not use in ambients exceeding +25 °C (+77 °F). For burning in vertical base-up positions only.

Mercmaster™ III HID 50–250 Watt Luminaires

High Pressure Sodium and Pulse Start Metal Halide

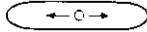
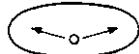
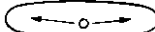
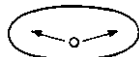
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Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA nR IIC (Z2)
Class I, Zone 2, AEx nR IIC (ZB)
Class II, Division 1 and 2, Groups E, F, G
Class III

NEC/CEC:

Simultaneous Exposure (Class I, Division 2/
Class II, Division 1)
Fixtures Outside Type (Salt Water)
Type 4X
IP66

	Light Distribution	IES/NEMA Distribution Curves	Catalog Number
Closed Prismatic Glass Refractors — Heat-Resistant			
 Glass Refractor	NEMA Type I		LPG-R1
	NEMA Type III		LPG-R3
	NEMA Type V		LPG-R5
Closed Prismatic Polymeric Refractors			
For use with PSMH lamps, 100 W max. +40 °C (+104 °F) max. ambient temperature. Suitable for Class II, Division 1 and 2, Groups F, G; NEMA 4X, UL 1598A Marine Type Electric Fixtures Outside Type (Salt Water)			
 Polymeric Refractor	NEMA Type II		LPRF-2CP
	NEMA Type III		LPRF-3CP
	NEMA Type IV		LPRF-4CP
	NEMA Type V		LPRF-5CP

Mercmaster™ III HID 50–250 Watt Luminaires

High Pressure Sodium and Pulse Start Metal Halide

Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA nR IIC (Z2)
Class I, Zone 2, AEx nR IIC (ZB)
Class II, Division 1 and 2, Groups E, F, G
Class III

NEC/CEC:

Simultaneous Exposure (Class I, Division 2/
Class II, Division 1)
Fixtures Outside Type (Salt Water)
Type 4X
IP66

		Item	Description	Catalog Number
White Polyester Reflectors				
		For Globe Fixtures	Standard Dome	KR2-ST
			Deep Dome	KR2-DD ①
			30° Angle	KR2-AN
	For Glass Refractor Fixtures ②	Standard Dome	CMR-4ST	
		Deep Dome	CMR-4DD ①	
		30° Angle	CMR-4AN	
Standard Dome	30° Angle			
Guards				
			Globe Guard	KGU2
			G3 Globe/Refractor Guard	KRG2
Globe Guard	Refractor Guard			
Replacement Globe Gaskets — Silicone Rubber				
			Globe Gasket	VPGL-GK
			G3 Globe/Refractor Gasket	KRF-GK
Globe Gaskets				
Retrofit Pendant Mounting Adapter				
		Permits use of Mercmaster III pendant hood with 3/4” hub on existing V-51 mounting hood.		
			LPAD-1	
Mounting Adapter				

① Dark Skies Compliant.

② Fixtures with refractors are not UL Listed when used with reflectors.

Mercmaster™ III HID 50–250 Watt Luminaires

High Pressure Sodium and Pulse Start Metal Halide

Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA nR IIC (Z2)
Class I, Zone 2, AEx nR IIC (ZB)
Class II, Division 1 and 2, Groups E, F, G
Class III

NEC/CEC:

Simultaneous Exposure (Class I, Division 2/
Class II, Division 1)
Fixtures Outside Type (Salt Water)
Type 4X
IP66

Ballast Housing Weights

Lamp Watts	HPS Wt. kg (lb) ①②	PSMH Wt. kg (lb) ①②
Globe Housing with Ballast		
50	5.7 (12.6)	—
70	6.8 (15.0)	6.9 (15.2)
100	7.3 (16.0)	7.4 (16.3)
175	—	7.8 (17.2)
200	—	8.2 (18.0)
250	—	8.4 (18.5)
Refractor Housing with Ballast		
70	7.0 (15.4)	7.1 (15.7)
100	7.5 (16.5)	7.6 (16.8)
150	7.9 (17.4)	7.8 (17.2)
175	—	8.1 (17.9)
200	—	8.4 (18.5)

Component and Accessory Weights

Item	Wt. kg (lb) ①
Mounting Hoods	
Pendant Cone	1.1 (2.43)
Ceiling	1.4 (3.09)
Wall	1.8 (3.97)
25° Stanchion	1.5 (3.31)
Straight Stanchion	1.7 (3.75)
8" Glass Refractor/G3 Globe	2.4 (5.29)
Glass Globe	1.7 (3.75)
Globe Guard	0.5 (1.10)
Refractor Guard	0.5 (1.10)
Reflectors	
30° Angle	1.1 (2.43)

Fuse Kits

Lamp Watts	Volts	Fuse Quantity Required	Fuse Kit Catalog Number	
			HPS	PSMH
50	120	1	F5	—
	208	2	F3	—
	240	2	F3	—
	277	1	F2	—
70	120	1	F5	F4
	208	2	F3	F3
	240	2	F3	F3
	277	1	F2	F2
	480	2	F2	F1
100	120	1	F8	F6
	208	2	F5	F4
	240	2	F5	F3
	277	1	F3	F3
	480	2	F3	F2
150	120	1	F10	—
	208	2	F5	—
	240	2	F5	—
	277	1	F5	—
	480	2	F3	—
175	120	1	—	F5
	208	2	—	F3
	240	2	—	F3
	277	1	—	F2
	480	2	—	F2
200	120	1	—	F9
	208	2	—	F6
	240	2	—	F5
	277	1	—	F4
	480	2	—	F2
250	120	1	—	F8
	208	2	—	F5
	240	2	—	F5
	277	1	—	F3

① Weights are approximate.

② Add 0.5 kg (1 lbs) for HPS fixtures with Hot Restrike. Add 0.1 kg (0.25 lbs) for Quartz Emergency Light.

Mercmaster™ III HID 50–250 Watt Luminaires

High Pressure Sodium and Pulse Start Metal Halide

Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA nR IIC (Z2)
Class I, Zone 2, AEx nR IIC (ZB)
Class II, Division 1 and 2, Groups E, F, G
Class III

NEC/CEC:

Simultaneous Exposure (Class I, Division 2/
Class II, Division 1)
Fixtures Outside Type (Salt Water)
Type 4X
IP66

Electrical Specifications

Line Voltage	Type of Ballast ①	StartingAmps	OperatingAmps	Total Watts
50 Watt High Pressure Sodium				
120	HX-HPF	0.58	0.58	64
208	HX-HPF	0.35	0.33	64
240	HX-HPF	0.31	0.29	64
277	HX-HPF	0.25	0.25	64
70 Watt High Pressure Sodium				
120	HX-HPF	0.90	0.82	94
208	HX-HPF	0.50	0.48	94
240	HX-HPF	0.44	0.41	94
277	HX-HPF	0.35	0.36	94
480	HX-HPF	0.21	0.21	94
100 Watt High Pressure Sodium				
120	HX-HPF	1.30	1.15	130
208	HX-HPF	0.76	0.67	130
240	HX-HPF	0.66	0.60	130
277	HX-HPF	0.60	0.52	130
480	HX-HPF	0.33	0.31	135
150 Watt High Pressure Sodium ②				
120	HX-HPF	2.00	1.70	188
208	HX-HPF	1.15	0.95	188
240	HX-HPF	1.00	0.85	188
277	HX-HPF	0.85	0.72	188
480	HX-HPF	0.50	0.47	189
70 Watt Pulse Start Metal Halide				
120	HX-HPF	0.80	0.85	95
208	HX-HPF	0.50	0.52	95
240	HX-HPF	0.43	0.44	95
277	HX-HPF	0.39	0.39	95
480	HX-HPF	0.26	0.23	95
100 Watt Pulse Start Metal Halide				
120	HX-HPF	1.20	1.15	130
208	HX-HPF	0.70	0.70	130
240	HX-HPF	0.61	0.58	130
277	HX-HPF	0.55	0.50	130
480	HX-HPF	0.30	0.35	140
150 Watt Pulse Start Metal Halide				
120	HX-HPF	1.75	1.60	188
208	HX-HPF	1.30	1.00	188
240	HX-HPF	0.85	0.80	188
277	HX-HPF	0.77	0.70	188
480	Super C.W.A.	0.45	0.42	185
175 Watt Pulse Start Metal Halide				
120	Super C.W.A.	0.90	1.78	199
208	Super C.W.A.	0.50	1.08	199
240	Super C.W.A.	0.35	0.89	199
277	Super C.W.A.	0.30	0.76	199
480	Super C.W.A.	0.25	0.50	213

① C.W.A. – Constant Wattage Autotransformer. HX-HPF – High Reactance High Power Factor Autotransformer. Super C.W.A. – Super Constant Wattage Autotransformer.

② 150 W HPS units equipped with ballasts to operate 55 volt lamps only.

Mercmaster™ III HID 50–250 Watt Luminaires

High Pressure Sodium and Pulse Start Metal Halide

Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

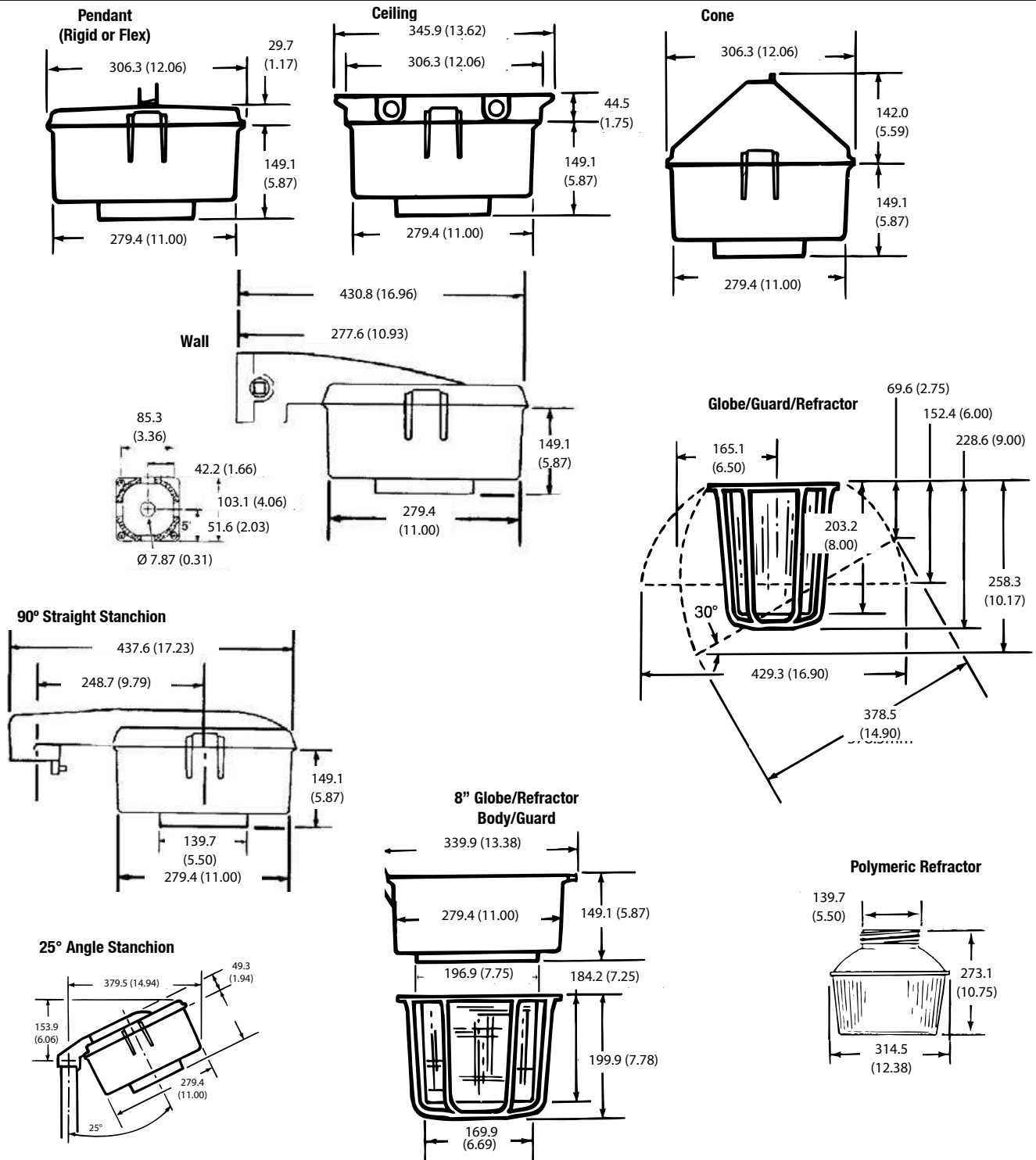
NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA nR IIC (Z2)
Class I, Zone 2, AEx nR IIC (ZB)
Class II, Division 1 and 2, Groups E, F, G
Class III

NEC/CEC:

Simultaneous Exposure (Class I, Division 2/
Class II, Division 1)
Fixtures Outside Type (Salt Water)
Type 4X
IP66

Dimensions in Millimeters (Inches)



Appleton®

HID/AREA: NEC/CEC ENCLOSED AND GASKETED

PCD2 Series Factory Sealed Hazardous Location Photocontrol

For use in Class I, Division 2, Groups A, B, C, D locations

Maintains Class I, Division 2 rating for Mercmaster III – Low Profile, Mercmaster III, and Mercmaster III – 400 Series Luminaires, Mercmaster LED

NEC/CEC:
Class I, Division 2, Groups A, B, C, D
NEMA 4X

Applications

- Encapsulated photocontrol provides automatic dusk-to-dawn lighting control in Class I, Division 2 locations.
- Typical applications include walkways, security areas and any other outdoor lighting application.
- For use with Mercmaster III – Low Profile, Mercmaster III, and Mercmaster III – 400 Series Luminaires.
- For remote mounting in FS Boxes.

Features

- Factory sealed design eliminates the need for an explosionproof enclosure.
- Can be easily installed in the field.
- Solid state design for performance and reliability.
- Available for 120, 208, 240, or 277 volts.

- 50-400 W HID, incandescent or fluorescent, 50/60 Hz.
- 1000 V.A. Voltage/Ampere
- Minimum time delay: 15 seconds to eliminate nuisance tripping.
- Provided with (3) 18AWG stranded leads 152.4 mm (6 in) in length.
- Will fit through standard 1/2" knockout.
- Supplied with locknut and gasket.

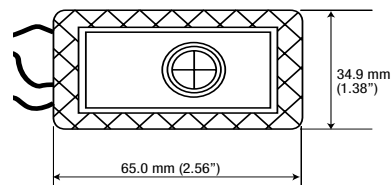
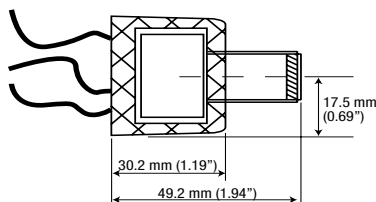
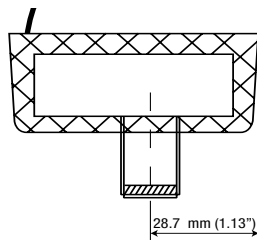
Materials

- Encapsulated with epoxy sealing compound
- FS: aluminum

NEC/CEC Certifications and Compliances

- UL Standard: 1604 – Hazardous (Classified) Locations
- cULus Recognized

	Voltage Range	Max VA	Max Current Amps	Suffix Designation Catalog Number
Factory-Installed Photocontrol - Not for ceiling or pendant cone. <i>Add to fixture catalog after voltage; i.e.: KPWBL1075MTH1.</i>				
	120 V, 50/60 Hz	1000	—	H1
	208 V, 50/60 Hz	1000	—	H2
	240 V, 50/60 Hz	1000	—	H3
	277 V, 50/60 Hz	1000	—	H4
Photocontrol for Field Installation				
	120 V, 50/60 Hz	1000	8.3 Amp	PC120D2
	208 V, 50/60 Hz	1000	4.8 Amp	PC247D2
	240 V, 50/60 Hz	1000	4.2 Amp	
	277 V, 50/60 Hz	1000	3.6 Amp	
Photocontrol in FS Cover for Use with FS/FD Box <i>Supplied with two stainless steel screws. For neoprene gasket, order catalog number FS-GKR-1N.</i>				
	120 V, 50/60 Hz	1000	8.3 Amp	FSKA-PC120D2
	208, 50/60 Hz	1000	4.8 Amp	FSKA-PC247D2
	240 V, 50/60 Hz	1000	4.2 Amp	
	277 V, 50/60 Hz	1000	3.6 Amp	



Mercmaster™ III HID 50–250 Watt Luminaires

150 W HPS

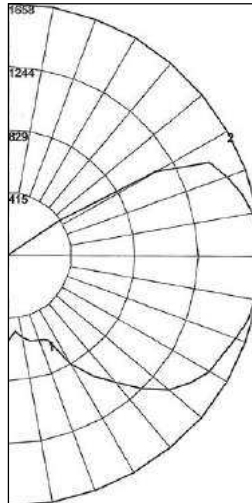
* Photometric data is based on fixtures with 150-watt clear High Pressure Sodium lamp (16,000 lumen). For candlepower values of fixtures with other HPS lamps, use the following multipliers: for 70 W (6,400 lumen) HPS lamp – 0.40; for 50 W (4,000 lumen) HPS lamp – 0.25. For candlepower values of fixture with guard, multiply by 0.95.

NEC/CEC:
 Class I, Division 2, Groups A, B, C, D
 Class I, Zone 2, AEx nA nR IIC (Z2)
 Class I, Zone 2, AEx nR IIC (ZB)
 Class II, Division 1 and 2, Groups E, F, G
 Class III

NEC/CEC:
 Simultaneous Exposure (Class I, Division 2/
 Class II, Division 1)
 Fixtures Outside Type (Salt Water)
 Type 4X
 IP66

Photometric Data

Zone	Lumens	Total Luminaire Efficiency = 86.1%																																											
0-10	50.74	CIE Type – Semi-Direct																																											
10-20	164.55	<table><tr><th>Plane</th><th>Spacing Criteria</th></tr><tr><td>0-180</td><td>2.82</td></tr><tr><td>90-270</td><td>2.82</td></tr><tr><td>Diagonal</td><td>2.80</td></tr></table>				Plane	Spacing Criteria	0-180	2.82	90-270	2.82	Diagonal	2.80																																
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30-40	611.05																																												
40-50	961.13																																												
50-60	1308.18																																												
60-70	1542.35																																												
70-80	1716.10	Zonal Lumen Summary																																											
80-90	1799.18	<table><tr><th>Zone</th><th>Lumens</th><th>% Lamp</th><th>% Fixture</th></tr><tr><td>0-30</td><td>525.75</td><td>3.3</td><td>3.8</td></tr><tr><td>0-40</td><td>1136.81</td><td>7.1</td><td>8.3</td></tr><tr><td>0-60</td><td>3406.12</td><td>21.3</td><td>24.7</td></tr><tr><td>0-90</td><td>8463.75</td><td>52.9</td><td>61.4</td></tr><tr><td>90-120</td><td>4858.16</td><td>30.4</td><td>35.3</td></tr><tr><td>90-130</td><td>5299.62</td><td>33.1</td><td>38.5</td></tr><tr><td>90-150</td><td>5312.56</td><td>33.2</td><td>38.5</td></tr><tr><td>90-180</td><td>5313.30</td><td>33.2</td><td>38.6</td></tr><tr><td>180-0</td><td>13777.05</td><td>86.1</td><td>100.0</td></tr></table>	Zone	Lumens	% Lamp	% Fixture	0-30	525.75	3.3	3.8	0-40	1136.81	7.1	8.3	0-60	3406.12	21.3	24.7	0-90	8463.75	52.9	61.4	90-120	4858.16	30.4	35.3	90-130	5299.62	33.1	38.5	90-150	5312.56	33.2	38.5	90-180	5313.30	33.2	38.6	180-0	13777.05	86.1	100.0			
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90-100	1802.19																																												
100-110	1676.86																																												
110-120	1379.11																																												
120-130	441.46																																												
130-140	9.61																																												
140-150	3.33																																												
150-160	0.74																																												
160-170	0.00																																												
170-180	0.00																																												



REPORT NUMBER: **KP15LG**

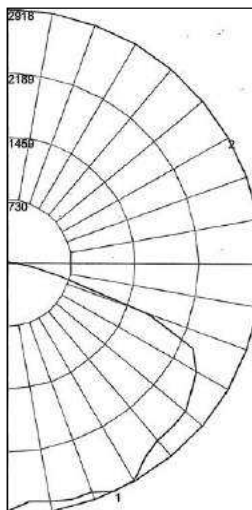
Lamps: 150 W High Pressure Sodium with Globe only *

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

% Ceiling	Rcc	80				70				50				30				10				0
% Walls	Rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
0	95	95	95	95	95	89	89	89	89	77	77	77	67	67	67	57	57	57	53	53	53	53
1	81	74	69	64	64	75	69	64	59	59	55	51	50	47	44	42	39	37	33	33	33	33
2	71	62	54	47	47	65	57	50	44	49	43	38	41	36	32	33	30	27	23	23	23	23
3	64	52	44	37	37	58	48	41	34	41	35	30	34	29	25	28	24	20	17	17	17	17
4	57	45	36	30	30	53	42	34	28	35	29	24	29	24	20	24	19	16	13	13	13	13
5	52	40	31	24	24	48	37	29	23	31	24	19	26	20	16	21	16	13	10	10	10	10
6	48	35	26	20	20	44	32	25	19	27	21	16	23	17	13	18	14	11	8	8	8	8
7	44	31	23	17	17	40	29	21	16	24	18	14	20	15	11	16	12	9	7	7	7	7
8	40	28	20	15	15	37	26	19	14	22	16	12	18	13	10	15	11	8	6	6	6	6
9	38	25	18	13	13	35	24	17	12	20	14	10	17	12	8	14	10	7	5	5	5	5
10	35	23	16	11	11	32	22	15	11	18	13	9	15	11	7	13	9	6	4	4	4	4

Zone	Lumens	Total Luminaire Efficiency = 73.6%																																											
0-10	266.98	CIE Type – Direct <table><tr><th>Plane</th><th>Spacing Criteria</th></tr><tr><td>0-180</td><td>1.46</td></tr><tr><td>90-270</td><td>1.46</td></tr><tr><td>Diagonal</td><td>1.68</td></tr></table>				Plane	Spacing Criteria	0-180	1.46	90-270	1.46	Diagonal	1.68																																
Plane	Spacing Criteria																																												
0-180	1.46																																												
90-270	1.46																																												
Diagonal	1.68																																												
10-20	799.41																																												
20-30	1337.05																																												
30-40	1732.06																																												
40-50	2067.60	Zonal Lumen Summary <table><tr><th>Zone</th><th>Lumens</th><th>% Lamp</th><th>% Fixture</th></tr><tr><td>0-30</td><td>2403.44</td><td>15.0</td><td>20.4</td></tr><tr><td>0-40</td><td>4135.50</td><td>25.8</td><td>35.1</td></tr><tr><td>0-60</td><td>8520.70</td><td>53.3</td><td>72.3</td></tr><tr><td>0-90</td><td>11743.37</td><td>73.4</td><td>99.7</td></tr><tr><td>90-120</td><td>31.14</td><td>0.2</td><td>0.3</td></tr><tr><td>90-130</td><td>35.65</td><td>0.2</td><td>0.3</td></tr><tr><td>90-150</td><td>38.29</td><td>0.2</td><td>0.3</td></tr><tr><td>90-180</td><td>38.29</td><td>0.2</td><td>0.3</td></tr><tr><td>180-0</td><td>11781.65</td><td>73.6</td><td>100.0</td></tr></table>				Zone	Lumens	% Lamp	% Fixture	0-30	2403.44	15.0	20.4	0-40	4135.50	25.8	35.1	0-60	8520.70	53.3	72.3	0-90	11743.37	73.4	99.7	90-120	31.14	0.2	0.3	90-130	35.65	0.2	0.3	90-150	38.29	0.2	0.3	90-180	38.29	0.2	0.3	180-0	11781.65	73.6	100.0
Zone	Lumens					% Lamp	% Fixture																																						
0-30	2403.44					15.0	20.4																																						
0-40	4135.50					25.8	35.1																																						
0-60	8520.70	53.3	72.3																																										
0-90	11743.37	73.4	99.7																																										
90-120	31.14	0.2	0.3																																										
90-130	35.65	0.2	0.3																																										
90-150	38.29	0.2	0.3																																										
90-180	38.29	0.2	0.3																																										
180-0	11781.65	73.6	100.0																																										
50-60	2317.60																																												
60-70	2210.81																																												
70-80	866.77																																												
80-90	145.09																																												
90-100	14.46																																												
100-110	8.75																																												
110-120	7.93																																												
120-130	4.51																																												
130-140	2.16																																												
140-150	0.48																																												
150-160	0.00																																												
160-170	0.00																																												
170-180	0.00																																												



REPORT NUMBER: **KP15LST**

Lamps: 150 W High Pressure Sodium with Standard Dome Reflector *

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

% Ceiling	Rcc	80				70				50				30				10				0
% Walls	Rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
0	88	88	88	88	88	86	86	86	86	82	82	82	78	78	78	75	75	75	73	73	73	73
1	79	76	72	69	69	77	74	71	68	71	68	66	68	66	64	65	64	62	60	60	60	60
2	71	65	59	55	55	69	63	58	54	61	57	53	58	55	52	56	53	50	49	49	49	49
3	64	56	49	44	44	62	55	49	44	52	47	43	50	46	42	48	45	41	40	40	40	40
4	58	49	42	36	36	57	48	41	36	46	40	36	44	39	35	42	38	35	33	33	33	33
5	53	43	36	31	31	52	42	35	30	40	35	30	39	34	30	38	33	29	28	28	28	28
6	49	38	31	26	26	47	38	31	26	36	30	26	35	30	25	34	29	25	24	24	24	24
7	45	34	27	23	23	44	34	27	23	33	27	22	31	26	22	30	26	22	20	20	20	20
8	42	31	24	20	20	40	31	24	20	30	24	20	29	23	19	28	23	19	18	18	18	18
9	39	28	22	18	18	38	28	22	18	27	21	17	26	21	17	25	21	17	16	16	16	16
10	36	26	20	16	16	35	26	20	16	25	19	16	24	19	16	23	19	15	14	14	14	14

Mercmaster™ III HID 50–250 Watt Luminaires

150 W HPS

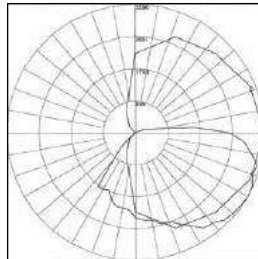
* Photometric data is based on fixtures with 150-watt clear High Pressure Sodium lamp (16,000 lumen). For candlepower values of fixtures with other HPS lamps, use the following multipliers: for 70 W (6,400 lumen) HPS lamp – 0.40; for 50 W (4,000 lumen) HPS lamp – 0.25. For candlepower values of fixture with guard, multiply by 0.95.

NEC/CEC:
 Class I, Division 2, Groups A, B, C, D
 Class I, Zone 2, AEx nA nR IIC (Z2)
 Class I, Zone 2, AEx nR IIC (ZB)
 Class II, Division 1 and 2, Groups E, F, G
 Class III

NEC/CEC:
 Simultaneous Exposure (Class I, Division 2)
 Class II, Division 1
 Fixtures Outside Type (Salt Water)
 Type 4X
 IP66

Photometric Data

Zone	Lumens	Total Luminaire Efficiency = 73.1%	
0-10	222.62	CIE Type – Direct	
10-20	664.6	Plane	Spacing Criteria
20-30	1084.32		
30-40	1536.55	0-180	2.06
40-50	1771.90	90-270	1.58
50-60	1771.51	Diagonal	1.62
60-70	1668.93	Zonal Lumen Summary	
70-80	1422.36		
80-90	994.54	Zone	Lumens % Lamp % Fixture
90-100	432.23	0-30	1971.54 12.3 16.9
100-110	104.58	0-40	3508.09 21.9 30.0
110-120	20.99	0-60	7051.50 44.1 60.3
120-130	1.21	0-90	11137.33 69.6 95.2
130-140	0.04	90-120	557.80 3.5 4.8
140-150	0.00	90-130	559.01 3.5 4.8
150-160	0.00	90-150	559.04 3.5 4.8
160-170	0.00	90-180	559.04 3.5 4.8
170-180	0.00	180-0	11696.38 73.1 100.0



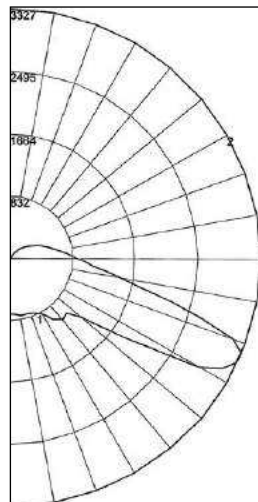
REPORT NUMBER: **KP15LAN**

Lamps: 150 W High Pressure Sodium with
 30° Angle Dome Reflector *

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20																								
% Ceiling Rcc		80				70				50				30				10				0		
% Walls	Rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0		
	0	86	86	86	86	84	84	84	84	79	79	79	75	75	75	71	71	71	70					
	1	76	71	67	63	73	69	65	62	65	62	59	62	59	57	58	56	54	52					
	2	68	60	54	49	65	58	53	48	55	50	46	52	48	45	49	46	43	41					
	3	61	52	45	39	59	50	44	39	48	42	37	45	40	36	43	39	35	33					
	4	55	45	38	32	53	44	37	32	42	36	31	39	34	30	37	33	29	27					
	5	50	40	33	27	49	39	32	27	37	31	26	35	30	25	33	29	25	23					
	6	46	36	28	23	45	35	28	23	33	27	22	31	26	22	30	25	21	20					
	7	43	32	25	20	41	31	25	20	30	24	19	28	23	19	27	22	19	17					
	8	40	29	22	18	38	28	22	17	27	21	17	26	21	17	25	20	16	15					
	9	37	26	20	16	36	26	20	16	25	19	15	24	19	15	23	18	15	13					
	10	35	24	18	14	33	24	18	14	23	17	14	22	17	13	21	16	13	12					

Zone	Lumens	Total Luminaire Efficiency = 81.1%	
0-10	72.83	CIE Type – Semi- Direct	
10-20	222.26	Plane	Spacing Criteria
20-30	380.73		
30-40	621.11	0-180	1.98
40-50	852.53	90-270	1.98
50-60	1765.29	Diagonal	3.40
60-70	3192.58	Zonal Lumen Summary	
70-80	2366.61		
80-90	1230.65	Zone	Lumens % Lamp % Fixture
90-100	450.14	0-30	675.83 4.2 5.2
100-110	712.41	0-40	1296.93 8.1 10.0
110-120	499.15	0-60	3914.76 24.5 30.2
120-130	323.44	0-90	10704.60 66.9 82.5
130-140	185.00	90-120	1661.70 10.4 12.8
140-150	81.31	90-130	1985.14 12.4 15.3
150-160	21.08	90-150	2251.45 14.1 15.3
160-170	2.81	90-180	2275.34 14.2 17.5
170-180	0.00	180-0	12979.94 81.1 100.0



REPORT NUMBER: **KP15LJR5**

Lamps: 150 W High Pressure Sodium with
 8" Prismatic Glass Refractor – NEMA Type V *

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20																									
% Ceiling	Rcc	80				70				50				30				10				0			
% Walls	Rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
	0	93	93	93	93	89	89	89	89	82	82	82	76	76	76	70	70	70	67						
	1	80	73	68	63	76	70	65	61	64	60	56	58	55	52	53	50	48	45						
	2	69	59	51	45	65	56	49	43	51	45	40	46	41	37	41	37	34	31						
	3	61	49	40	33	57	47	38	32	42	35	29	38	32	27	34	29	25	22						
	4	54	42	32	25	51	40	31	24	35	28	22	32	26	21	28	23	19	16						
	5	49	36	27	20	46	34	26	19	31	23	18	27	21	16	24	19	15	12						
	6	45	32	23	16	42	30	22	16	27	20	14	24	18	13	21	16	12	10						
	7	41	28	20	14	38	27	19	13	24	17	12	21	15	11	19	14	10	8						
	8	38	25	17	12	36	24	16	11	22	15	10	19	14	9	17	12	8	6						
	9	35	23	15	10	33	22	15	10	20	13	9	18	12	8	16	11	7	5						
10	33	21	14	9	31	20	13	9	18	12	8	16	11	7	15	10	6	5							

Mercmaster™ III HID 50–250 Watt Luminaires

175 W PSMH

* Photometric data is based on fixtures with a 175-watt clear Pulse Start Metal Halide lamp (17,500 lumen). For candlepower values of fixtures with other PSMH lamps, use the following multipliers: for a 100 W (8,500 lumen) PSMH lamp – 0.49; for a 70 W (6,200 lumen) PSMH lamp – 0.36; for a 200 W (21,000 lumen) PSMH lamp – 1.2. For candlepower values of fixture with guard, multiply by 0.95.

NEC/CEC:
 Class I, Division 2, Groups A, B, C, D
 Class I, Zone 2, AEx nA nR IIC (Z2)
 Class I, Zone 2, AEx nR IIC (ZB)
 Class II, Division 1 and 2, Groups E, F, G
 Class III

NEC/CEC:
 Simultaneous Exposure (Class I, Division 2/
 Class II, Division 1)
 Fixtures Outside Type (Salt Water)
 Type 4X
 IP66

Photometric Data

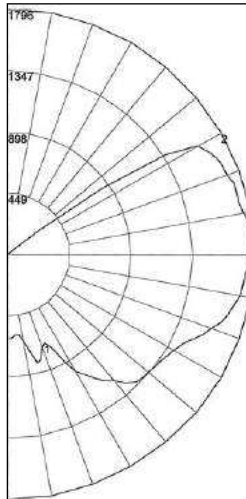
Zone Lumens Total Luminaire Efficiency = 75.4%

CIE Type – General Diffuse

Zone	Lumens	% Lamp	% Fixture
0-10	57.98		
10-20	217.30		
20-30	372.71		
30-40	696.29		
40-50	1009.65		
50-60	1226.57		
60-70	1473.76		
70-80	1757.30		
80-90	1902.34		
90-100	1946.09		
100-110	1829.51		
110-120	1657.20		
120-130	750.27		
130-140	14.15		
140-150	4.47		
150-160	0.52		
160-170	1.35		
170-180	0.18		

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture
0-30	647.99	3.7	4.3
0-40	1344.28	7.7	9.0
0-60	3580.49	20.5	24.0
0-90	8713.89	49.8	58.4
90-120	5432.80	31.0	36.4
90-130	6183.06	35.3	41.4
90-150	6201.69	35.4	41.6
90-180	6203.74	35.4	41.6
180-0	14917.63	85.2	100.0



REPORT NUMBER: **KP17PG**

Lamps: 175 W Pulse Start Metal Halide with Globe only *

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

% Ceiling Rcc		80				70				50				30				10				0
% Walls	Rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0			
	0	93	93	93	93	87	87	87	87	75	75	75	64	64	64	54	54	54	50			
	1	79	73	68	63	73	68	63	59	58	54	50	48	45	43	40	37	35	31			
	2	70	61	54	47	65	57	50	44	48	42	38	39	35	32	32	29	26	22			
	3	63	52	44	37	58	48	41	35	40	34	29	33	28	24	27	23	20	16			
	4	57	45	37	30	52	42	34	28	35	29	24	29	24	20	23	19	16	12			
	5	52	40	31	25	47	37	29	23	31	24	20	25	20	16	20	16	13	10			
	6	47	35	27	21	43	32	25	19	27	21	17	22	17	14	18	14	11	8			
	7	44	31	23	18	40	29	22	17	24	18	14	20	15	12	16	12	9	7			
	8	40	28	21	15	37	26	19	14	22	16	12	18	14	10	15	11	8	6			
	9	37	26	18	13	34	24	17	13	20	15	11	17	12	9	13	10	7	5			
	10	35	23	16	12	32	22	15	11	18	13	9	15	11	8	12	9	6	4			

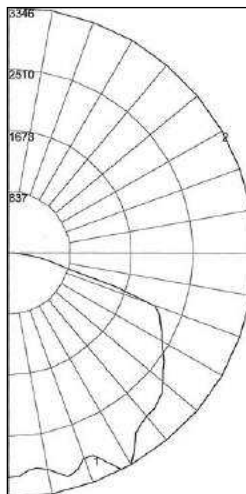
Zone Lumens Total Luminaire Efficiency = 72.3%

CIE Type – Direct

Plane	Spacing Criteria
0-180	1.50
90-270	1.50
Diagonal	1.66

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture
0-30	2635.28	15.1	20.8
0-40	4559.67	26.1	36.0
0-60	9078.64	51.9	71.8
0-90	12648.77	72.3	100.0
90-120	3.56	0.00	0.00
90-130	3.56	0.00	0.00
90-150	3.56	0.00	0.00
90-180	3.56	0.00	0.00
180-0	12652.33	72.3	100.0



REPORT NUMBER: **KP17PST**

Lamps: 175 W Pulse Start Metal Halide with Standard Dome Reflector *

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

% Ceiling Rcc		80				70				50				30				10				0
% Walls	Rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0			
	0	86	86	86	86	84	84	84	84	80	80	80	77	77	77	74	74	74	72			
	1	78	74	71	68	76	72	69	67	69	67	65	67	64	63	64	62	61	59			
	2	70	63	58	54	68	62	57	53	59	55	52	57	54	50	55	52	49	48			
	3	63	55	48	43	61	54	48	43	51	46	42	49	45	41	47	44	41	39			
	4	57	48	41	36	56	47	40	35	45	39	35	43	38	34	42	37	34	32			
	5	52	42	35	30	51	41	35	30	40	34	30	38	33	29	37	32	29	27			
	6	48	38	31	26	47	37	30	26	36	30	25	34	29	25	33	29	25	23			
	7	44	34	27	22	43	33	27	22	32	26	22	31	26	22	30	25	22	20			
	8	41	31	24	20	40	30	24	20	29	24	19	28	23	19	27	23	19	18			
	9	38	28	22	18	37	28	22	17	27	21	17	26	21	17	25	21	17	16			
	10	36	26	20	16	35	25	20	16	25	19	16	24	19	15	23	19	15	14			

Mercmaster™ III HID 50–250 Watt Luminaires

175 W PSMH

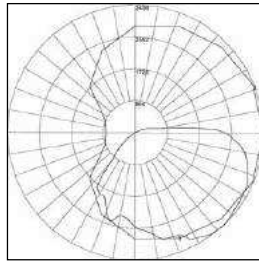
* Photometric data is based on fixtures with a 175-watt clear Pulse Start Metal Halide lamp (17,500 lumen). For candlepower values of fixtures with other PSMH lamps, use the following multipliers: for a 100 W (8,500 lumen) PSMH lamp – 0.49; for 70 W (6,200 lumen) PSMH lamp – 0.36; for a 200 W (21,000 lumen) PSMH lamp – 1.2. For candlepower values of fixture with guard, multiply by 0.95.

NEC/CEC:
 Class I, Division 2, Groups A, B, C, D
 Class I, Zone 2, AEx nA nR IIC (Z2)
 Class I, Zone 2, AEx nR IIC (ZB)
 Class II, Division 1 and 2, Groups E, F, G
 Class III

NEC/CEC:
 Simultaneous Exposure (Class I, Division 2)
 Class II, Division 1
 Fixtures Outside Type (Salt Water)
 Type 4X
 IP66

Photometric Data

Zone	Lumens	Total Luminaire Efficiency = 67.1%			
0-10	240.21	CIE Type – Direct			
10-20	750.99				
20-30	1195.39				
30-40	1662.85	Plane	Spacing Criteria		
30-40	1662.85	0-180	1.96		
40-50	1830.67	90-270	1.70		
50-60	1740.13	Diagonal	1.56		
60-70	1571.75				
70-80	1324.18	Zonal Lumen Summary			
80-90	900.65	Zone	Lumens	% Lamp	% Fixture
90-100	367.96	0-30	2186.59	12.5	18.6
100-110	107.38	0-40	3849.44	22.0	32.8
110-120	27.79	0-60	7420.24	42.4	63.2
120-130	5.54	0-90	11216.82	64.1	95.6
130-140	4.20	90-120	503.12	2.9	4.3
140-150	4.42	90-130	508.66	2.9	4.3
150-160	2.00	90-150	517.28	3.0	4.4
160-170	1.70	90-180	521.31	3.0	4.4
170-180	0.33	180-0	11738.13	67.1	100.0



REPORT NUMBER: **KP17PAN**

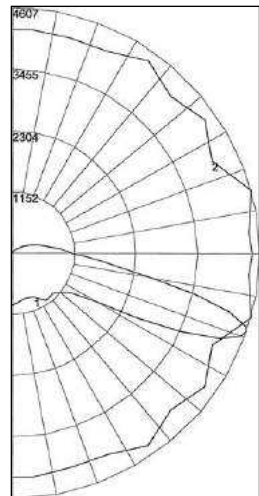
Lamps: 175 W Pulse Start Metal Halide with
 30° Angle Dome Reflector *

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

% Ceiling Rcc		80				70				50				30				10				0
% Walls	Rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0			
	0	79	79	79	79	77	77	77	77	73	73	73	69	69	69	66	66	66	64			
	1	70	66	62	59	68	64	61	58	60	58	55	57	55	53	54	52	51	49			
	2	63	56	51	46	61	55	49	45	52	47	44	49	45	42	46	43	41	39			
	3	57	48	42	37	55	47	41	37	45	40	36	42	38	35	40	37	34	32			
	4	51	42	36	31	50	41	35	30	39	34	30	37	33	29	35	31	28	26			
	5	47	38	31	26	45	37	30	26	35	29	25	33	28	25	32	27	24	22			
	6	43	34	27	22	42	33	27	22	31	26	22	30	25	21	28	24	21	19			
	7	40	30	24	20	39	30	24	19	28	23	19	27	22	19	26	22	18	17			
	8	37	27	21	17	36	27	21	17	26	20	17	25	20	16	24	19	16	15			
	9	35	25	19	15	33	25	19	15	24	18	15	23	18	15	22	18	14	13			
	10	32	23	17	14	31	23	17	14	22	17	13	21	16	13	20	16	13	12			

Zone	Lumens	Total Luminaire Efficiency = 81.1%			
0-10	22.77	CIE Type – Semi-Direct			
10-20	171.20				
20-30	325.41				
30-40	531.35	Plane	Spacing Criteria		
40-50	1173.62	0-180	1.66		
50-60	1165.11	90-270	1.64		
60-70	3171.29	Diagonal	1.92		
70-80	3719.35	Zonal Lumen Summary			
80-90	1751.05	Zone	Lumens	% Lamp	% Fixture
90-100	523.23	0-30	519.38	3.0	3.7
100-110	716.53	0-40	1050.73	6.0	7.4
110-120	431.18	0-60	3389.46	19.4	23.9
120-130	265.20	0-90	12031.16	68.7	84.8
130-140	142.69	90-120	1670.94	9.5	11.8
140-150	57.09	90-130	1936.15	11.1	13.7
150-160	13.48	90-150	2135.93	12.2	15.1
160-170	2.44	90-180	2152.72	12.3	15.2
170-180	0.88	180-0	14183.88	81.1	100.0



REPORT NUMBER: **KP17PJR5**

Lamps: 175 W Pulse Start Metal Halide with
 8" Prismatic Glass Refractor – NEMA Type V *

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

% Ceiling Rcc		80				70				50			30			10			0
% Walls	Rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
	0	94	94	94	94	90	90	90	90	83	83	83	77	77	77	71	71	71	69
	1	78	71	65	60	74	68	62	57	62	57	53	57	53	49	51	48	46	43
	2	67	57	48	41	63	54	46	39	49	42	36	44	38	33	39	35	31	28
	3	59	46	37	29	55	44	35	28	40	32	26	35	29	24	32	26	22	19
	4	52	39	30	22	49	37	28	21	33	26	20	30	23	18	26	21	16	14
	5	47	34	24	17	45	32	23	17	29	21	15	26	19	14	23	17	13	10
	6	43	30	21	14	41	28	20	14	25	18	12	23	16	11	20	15	10	8
	7	40	27	18	12	37	23	17	11	23	16	10	20	14	9	18	13	8	6
	8	37	24	16	10	35	23	15	10	20	14	9	18	12	8	16	11	7	5
	9	34	22	14	9	32	21	13	8	19	12	8	17	11	7	15	10	6	4
	10	32	20	12	8	30	19	12	7	17	11	7	16	10	6	14	9	5	4

Mercmaster™ III HID 50–250 Watt Luminaires

175 W PSMH

* Photometric data is based on fixtures with a 175-watt clear Pulse Start Metal Halide lamp (17,500 lumen). For candlepower values of fixtures with other PSMH lamps, use the following multipliers: for a 100 W (8,500 lumen) PSMH lamp – 0.49; for a 70 W (6,200 lumen) PSMH lamp – 0.36; for a 200 W (21,000 lumen) PSMH lamp – 1.2. For candlepower values of fixture with guard, multiply by 0.95.

NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA nR IIC (Z2)
Class I, Zone 2, AEx nR IIC (ZB)
Class II, Division 1 and 2, Groups E, F, G
Class III

NEC/CEC:

Simultaneous Exposure (Class I, Division 2)
Class II, Division 1
Fixtures Outside Type (Salt Water)
Type 4X
IP66

Photometric Data

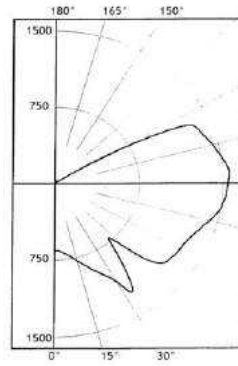
Degree	Candela	Lumens
0	657	
5	668	65
15	784	224
25	966	451
35	1194	705
45	871	711
55	1267	1142
65	1309	1303
75	1430	1509
85	1528	1661
90	1537	
95	1552	1680
105	1452	1532
115	1339	1232
125	68	143
135	19	16
145	13	11
155	7	3
165	1	1
175	2	0
180	7	

TOTAL LUMINAIRE EFFICIENCY = 70.8%

CIE Type – Semi-Direct
Spacing Criteria: 1.7

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LAMP	%FIXT.
0-30	740	4.2	6.0
0-40	1445	8.3	11.7
0-60	3297	18.8	26.6
0-90	7770	44.4	62.7
90-120	4444	25.4	35.9
90-130	4586	26.2	37.0
90-150	4613	26.4	37.2
90-180	4617	26.4	37.3
0-180	12387	70.8	100.0



REPORT NUMBER: **KPB175PG3**

Lamps: 175 W Pulse Start Metal Halide ED28 Mogul Base with G3 Globe only

COEFFICIENTS OF UTILIZATION – ZONAL CAVITY METHOD

EFFECTIVE FLOOR CAVITY REFLECTANCE 0.20																					
RC	80				70				50				30				10				0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0			
0	78	78	78	78	73	73	73	73	64	64	64	56	56	56	48	48	48	44			
1	67	61	57	53	62	57	53	49	49	46	43	42	39	37	35	33	31	28			
2	59	51	45	40	54	48	42	37	41	36	32	34	31	27	28	26	23	20			
3	53	44	37	31	49	40	34	29	34	29	25	29	25	21	24	21	18	15			
4	48	38	31	25	44	35	29	24	30	25	20	25	21	17	21	17	14	12			
5	43	33	26	21	40	31	24	20	26	21	17	22	18	14	18	15	12	9			
6	40	29	23	18	37	27	21	16	23	18	14	20	15	12	16	13	10	8			
7	37	26	20	15	34	25	18	14	21	16	12	18	13	10	15	11	9	7			
8	34	24	17	13	31	22	16	12	19	14	11	16	12	9	13	10	7	6			
9	32	22	16	11	29	20	15	11	17	13	9	15	11	8	12	9	7	5			
10	29	20	14	10	27	18	13	9	16	11	8	14	10	7	11	8	6	4			

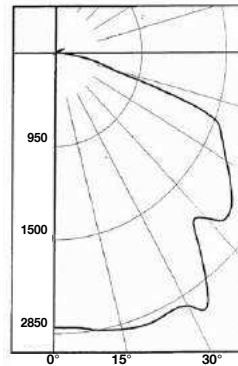
Degree	Candela	Lumens
0	2785	
5	2797	269
15	2902	823
25	2931	1358
35	2979	1821
45	2388	1874
55	2393	2145
65	2044	2034
75	664	856
85	150	183
90	24	
95	5	11
105	16	17
115	91	73
125	5	9
135	7	3
145	8	2
155	2	2
165	2	0
175	2	1
180	11	

TOTAL LUMINAIRE EFFICIENCY = 65.6%

CIE Type – Direct
Spacing Criteria: 1.5

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LAMP	%FIXT.
0-30	2450	14.0	21.3
0-40	4271	24.4	37.2
0-60	8290	47.4	72.2
0-90	11363	64.9	99.0
90-120	101	0.6	0.9
90-130	110	0.6	1.0
90-150	115	0.7	1.0
90-180	118	0.7	1.0
0-180	11481	65.6	100.0



REPORT NUMBER: **KPB175PG3_ST**

Lamps: 175 W Pulse Start Metal Halide ED28 Mogul Base with G3 Globe and Standard Dome Reflector

COEFFICIENTS OF UTILIZATION – ZONAL CAVITY METHOD

EFFECTIVE FLOOR CAVITY REFLECTANCE 0.20																					
RC	80				70				50				30				10				0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0			
0	78	78	78	78	76	76	76	76	73	73	73	69	69	69	66	66	66	65			
1	71	67	64	62	69	66	63	61	63	61	59	60	58	57	58	56	55	53			
2	64	58	53	49	62	57	52	48	54	50	47	52	49	46	50	47	45	43			
3	58	50	44	40	56	49	44	39	47	42	39	45	41	38	43	40	37	35			
4	52	44	38	33	51	43	37	33	41	36	32	39	35	32	38	34	31	29			
5	48	39	32	28	46	38	32	28	36	31	27	35	30	27	34	30	26	25			
6	44	35	28	24	42	34	28	24	33	27	23	31	27	23	30	26	23	21			
7	40	31	25	21	39	30	25	21	29	24	20	28	24	20	27	23	20	19			
8	37	28	22	18	36	28	22	18	27	22	18	26	21	18	25	21	18	16			
9	35	26	20	16	34	25	20	16	24	19	16	24	19	16	23	19	16	15			
10	33	24	18	15	32	23	18	15	23	18	14	22	17	14	21	17	14	13			

Candela Distribution

	0.0	45.0	90.0	135.0	180.0	Flux
0	2333	2333	2333	2333	2333	
5	2491	2467	2321	2205	2141	223
15	2904	2753	2337	2160	2099	692
25	3010	2891	2480	2242	2120	1170
35	3471	3100	2544	2027	1367	1512
45	2978	2719	1993	832	546	1427
55	3296	2939	1791	421	154	1533
65	3153	2801	776	74	0	1349
75	3175	2621	392	3	0	1140
85	2729	967	117	5	0	709
90	1601	662	11	5	5	
95	790	461	3	11	16	247
105	413	175	11	19	21	109
115	117	8	8	29	90	56
125	5	11	13	13	11	2
135	0	3	3	3	0	1
145	5	5	11	5	0	4
155	0	3	5	5	0	2
165	5	3	8	5	0	1
175	0	5	3	3	0	0
180	6	6	6	6	6	

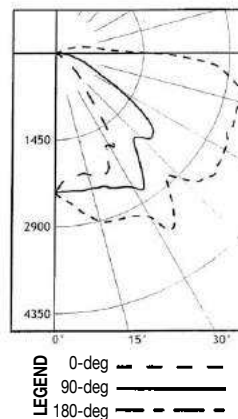
TOTAL LUMINAIRE EFFICIENCY = 58.2%

CIE Type – Direct

Plane	Spacing Criteria
0°	1.8
90°	1.5
180°	1.1

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LAMP	%FIXT.
0-30	2085	11.9	20.5
0-40	3597	20.6	35.3
0-60	6557	37.5	64.4
0-90	9755	55.7	95.8
90-120	412	2.4	4.1
90-130	415	2.4	4.1
90-150	420	2.4	4.1
90-180	423	2.4	4.2
0-180	10178	58.2	100.0



REPORT NUMBER: **KPB175PG3_AN**

Lamps: 175 W Pulse Start Metal Halide ED28 Mogul Base with G3 Globe and 30° Angle Dome Reflector

COEFFICIENTS OF UTILIZATION – ZONAL CAVITY METHOD

EFFECTIVE FLOOR CAVITY REFLECTANCE 0.20																					
RC	80				70				50				30				10				0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0			
0	69	69	69	69	67	67	67	67	63	63	63	60	60	60	57	57	57	56			
1	61	57	54	51	59	56	53	50	53	50	48	50	48	46	48	46	45	43			
2	55	49	44	40	53	48	43	40	45	42	38	43	40	37	41	38	36	34			
3	49	42	37	33	48	41	36	32	39	35	31	37	34	31	35	32	30	28			
4	45	37	32	27	43	36	31	27	34	30	26	33	29	26	31	28	25	24			
5	41	33	27	23	40	32	27	23	31	26	22	29	25	22	28	24	21	20			
6	38	30	24	20	37	29	24	20	28	23	19	26	22	19	25	22	19	17			
7	35	27	21	18	34	26	21	17	25	20	17	24	20	17	23	19	16	15			
8	33	24	19	16	32	24	19	15	23	18	15	22	18	15	21	17	15	13			
9	30	22	17	14	29	22	17	14	21	17	14	20	16	13	19	16	13	12			
10	28	20	16	12	28	20	15	12	19	15	12	19	15	12	18	14	12	11			

Mercmaster™ III HID 50–250 Watt Luminaires

100 W HPS

* Photometric data is based on fixtures with a 100-watt clear High Pressure Sodium lamp (9,400 lumen). For candlepower values of fixtures with other HPS lamps, use the following multipliers: for a 70 W (6,400 lumen) HPS lamp – 0.68; for 50 W (4,000 lumen) HPS lamp – 0.43; for candlepower values of fixture with guard, multiply by 0.95.

NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA nR IIC (Z2)
Class I, Zone 2, AEx nR IIC (ZB)
Class II, Division 1 and 2, Groups E, F, G
Class III

NEC/CEC:

Simultaneous Exposure (Class I, Division 2/
Class II, Division 1)
Fixtures Outside Type (Salt Water)
Type 4X
IP66

Photometric Data

Degree	Candela	Lumens
0	269	
5	267	27
15	407	117
25	571	267
35	748	442
45	451	380
55	848	735
65	915	908
75	976	1033
85	1021	1113
90	1027	
95	1019	1109
105	953	1002
115	791	734
125	54	103
135	13	9
145	13	8
155	4	2
165	0	0
175	0	0
180	1	

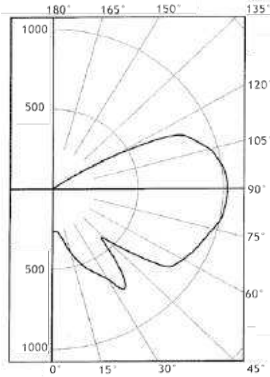
TOTAL LUMINAIRE EFFICIENCY = 84.1%

CIE Type – Semi-Direct

Spacing Criteria: 3.1

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LAMP	%FIXT.
0-30	410	4.3	5.1
0-40	852	9.0	10.7
0-60	1967	20.7	24.6
0-90	5021	52.9	62.9
90-120	2845	29.9	35.6
90-130	2948	31.0	36.9
90-150	2965	31.2	37.1
90-180	2967	31.2	37.1
0-180	7988	84.1	100.0



REPORT NUMBER: KPB100LG3

Lamps: 100 W High Pressure Sodium C100S54 ED23 – 1/2
Mogul Base with G3 Globe only

COEFFICIENTS OF UTILIZATION – ZONAL CAVITY METHOD

EFFECTIVE FLOOR CAVITY REFLECTANCE 0.20

RC	80				70				50			30			10			0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	93	93	93	93	87	87	87	87	76	76	76	66	66	66	57	57	57	53
1	79	72	67	62	73	67	62	58	58	54	50	49	46	43	41	39	36	32
2	69	60	52	46	64	56	49	43	48	42	37	40	36	32	33	30	26	23
3	62	51	43	36	57	47	40	34	40	34	29	34	29	24	28	24	20	17
4	56	44	36	29	51	41	33	27	35	28	23	29	24	20	24	19	16	13
5	51	39	30	24	47	36	28	22	30	24	19	25	20	16	21	17	13	10
6	47	34	26	20	43	32	24	19	27	21	16	23	17	13	19	14	11	8
7	43	31	23	17	40	28	21	16	24	18	14	20	15	13	17	13	9	7
8	40	28	20	15	37	26	19	14	22	16	12	19	14	10	15	11	8	6
9	37	25	18	13	34	23	17	12	20	14	10	17	12	9	14	10	7	5
10	34	23	16	11	32	21	15	11	18	13	9	16	11	8	13	9	6	5

Degree	Candela	Lumens
0	1466	
5	1473	142
15	1607	456
25	1675	775
35	1757	1071
45	1316	1047
55	1502	1316
65	1377	1362
75	465	589
85	92	111
90	16	
95	3	5
105	6	6
115	40	33
125	5	8
135	3	2
145	3	1
155	2	1
165	0	1
175	1	0
180	1	

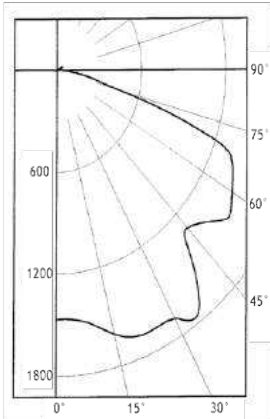
TOTAL LUMINAIRE EFFICIENCY = 72.9%

CIE Type – Direct

Spacing Criteria: 1.6

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LAMP	%FIXT.
0-30	1373	14.5	19.8
0-40	2445	25.7	35.3
0-60	4807	50.6	69.4
0-90	6869	72.3	99.2
90-120	45	0.5	0.6
90-130	53	0.6	0.8
90-150	56	0.6	0.8
90-180	58	0.6	0.8
0-180	6927	72.9	100.0



REPORT NUMBER: KPB100LG3_ST

Lamps: 100 W High Pressure Sodium C100S54 ED23 – 1/2
Mogul Base with G3 Globe and Standard Dome Reflector

COEFFICIENTS OF UTILIZATION – ZONAL CAVITY METHOD

EFFECTIVE FLOOR CAVITY REFLECTANCE 0.20

RC	80				70				50				30				10				0
	RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10			
0	87	87	87	87	87	85	85	85	85	81	81	81	77	77	77	74	74	74	72		
1	78	74	71	68		76	73	70	67	70	67	65	67	64	62	64	62	60	59		
2	70	64	58	53		68	62	57	53	59	55	51	57	53	50	54	52	49	47		
3	63	55	48	43		61	54	47	43	51	46	42	49	45	41	47	43	40	38		
4	57	48	41	35		55	47	40	35	45	39	34	43	38	34	41	37	33	32		
5	52	42	35	30		51	41	34	29	39	34	29	38	33	29	36	32	28	26		
6	48	37	30	25		46	37	30	25	35	29	25	34	29	25	33	28	24	23		
7	44	34	27	22		43	33	26	22	32	26	22	31	25	21	29	25	21	20		
8	41	30	24	19		40	30	24	19	29	23	19	28	23	19	27	22	19	17		
9	38	23	21	17		37	27	21	17	26	21	17	25	20	17	25	20	17	15		
10	36	25	19	15		35	25	19	15	24	19	15	23	19	15	23	18	15	14		

Candela Distribution

	0.0	45.0	90.0	135.0	180.0	Flux
0	1270	1270	1270	1270	1270	
5	1317	1302	1271	1227	1211	122
15	1554	1471	1384	1341	1298	398
25	1779	1680	1528	1353	1246	694
35	1923	1830	1593	1256	1020	917
45	1715	1564	1163	599	361	848
55	1981	1862	1100	287	122	953
65	1923	1751	869	104	0	869
75	1879	1272	298	9	0	711
85	1371	828	140	1	0	424
90	680	422	89	2	1	
95	416	259	47	4	4	144
105	191	93	4	7	6	59
115	40	18	51	54	92	31
125	1	3	3	3	1	2
135	1	2	3	2	1	1
145	0	1	2	0	0	1
155	0	1	2	1	0	1
165	0	1	1	1	0	0
175	2	2	2	1	0	0
180	2	2	2	2	2	

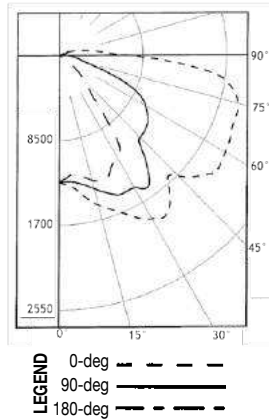
TOTAL LUMINAIRE EFFICIENCY = 65.0%

CIE Type – Direct

Spacing	Criteria
Plane	
0°	1.9
90°	1.7
180°	1.3

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LAMP	%FIXT.
0-30	1213	12.8	19.7
0-40	2131	22.4	34.5
0-60	3932	41.4	63.7
0-90	5936	62.5	96.1
90-120	234	2.5	3.8
90-130	236	2.5	3.8
90-150	238	2.5	3.9
90-180	239	2.5	3.9
0-180	6175	65.0	100.0



REPORT NUMBER: KPB100LG3_AN

Lamps: 100 W High Pressure Sodium C100S54 ED23 – 1/2
Mogul Base with G3 Globe and 30° Angle Reflector

COEFFICIENTS OF UTILIZATION – ZONAL CAVITY METHOD

EFFECTIVE FLOOR CAVITY REFLECTANCE 0.20

RC	80				70				50				30				10				0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
0	77	77	77	77	75	75	75	75	71	71	71	67	67	67	64	64	64	62			
1	68	64	61	57	66	62	59	56	59	56	54	56	54	52	53	51	50	48			
2	61	55	49	45	59	53	48	44	50	46	43	48	44	41	45	42	40	38			
3	55	47	41	36	53	46	40	36	44	39	35	41	37	34	39	36	33	31			
4	50	41	35	30	48	40	34	30	38	33	29	36	32	28	35	31	28	26			
5	46	37	30	25	44	36	30	25	34	29	25	32	28	24	31	27	24	22			
6	42	33	26	22	41	32	26	22	30	25	21	29	24	21	28	24	20	19			
7	39	30	23	19	38	29	23	19	28	22	19	26	22	18	25	21	18	17			
8	36	27	21	17	35	26	21	17	25	20	16	24	20	16	23	19	16	15			
9	34	25	19	15	33	24	19	15	23	18	15	22	18	14	21	17	14	13			
10	32	23	17	14	31	22	17	13	21	17	13	20	16	13	20	16	13	12			

Mercmaster™ III HID 50–250 Watt Luminaires

150 W HPS

* Photometric data is based on fixtures with a 150-watt clear High Pressure Sodium lamp (16,000 lumen). For candlepower values of fixtures with other HPS lamps, use the following multipliers: for a 70 W (6,400 lumen) HPS lamp – 0.40; for a 50 W (4,000 lumen) HPS lamp – 0.25. For candlepower values of fixture with guard, multiply by 0.95.

NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA nR IIC (Z2)
Class I, Zone 2, AEx nR IIC (ZB)
Class II, Division 1 and 2, Groups E, F, G
Class III

NEC/CEC:

Simultaneous Exposure (Class I, Division 2/
Class II, Division 1)
Fixtures Outside Type (Salt Water)
Type 4X
IP66

Photometric Data

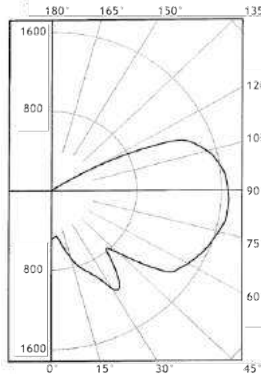
Degree	Candela	Lumens
0	488	
5	459	46
15	703	202
25	938	442
35	1107	672
45	892	710
55	1420	1253
65	1542	1529
75	1629	1723
85	1675	1824
90	1665	
95	1643	1788
105	1515	1599
115	1072	1042
125	51	115
135	20	16
145	19	12
155	6	4
165	1	0
175	0	0
180	2	

TOTAL LUMINAIRE EFFICIENCY = 81.1%

CIE Type – Semi-Direct
Spacing Criteria: 3.0

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LAMP	%FIXT.
0-30	689	4.3	5.3
0-40	1361	8.5	10.5
0-60	3324	20.8	25.6
0-90	8400	52.5	64.7
90-120	4429	27.7	34.1
90-130	4544	28.4	35.0
90-150	4572	28.6	35.2
90-180	4576	28.6	35.3
0-180	12976	81.1	100.0



REPORT NUMBER: KPB150LG3

Lamps: 150 W High Pressure Sodium C100S54 ED23 – 1/2 Mogul Base with G3 Globe only

COEFFICIENTS OF UTILIZATION – ZONAL CAVITY METHOD

EFFECTIVE FLOOR CAVITY REFLECTANCE 0.20																		
RC	80				70				50			30			10			0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	90	90	90	90	84	84	84	84	74	74	74	65	65	65	56	56	56	53
1	76	70	65	60	71	65	60	56	56	53	49	48	45	42	41	38	36	32
2	67	58	51	44	62	54	47	42	46	41	36	39	35	31	33	29	26	23
3	60	49	41	34	55	46	38	32	39	33	28	33	28	24	27	23	20	17
4	54	43	34	29	50	40	32	26	34	27	22	28	23	19	23	19	16	13
5	49	37	29	23	45	35	27	21	30	23	18	25	20	16	21	16	13	10
6	45	33	25	19	42	31	23	18	26	20	15	22	17	13	18	14	11	8
7	41	30	22	16	38	27	20	15	24	18	13	20	15	11	16	12	9	7
8	38	27	19	14	35	25	18	13	21	16	11	18	13	10	15	11	8	6
9	36	24	17	12	33	23	16	12	19	14	10	17	12	8	14	10	7	5
10	33	22	15	11	31	21	14	10	18	12	9	15	11	7	13	9	6	4

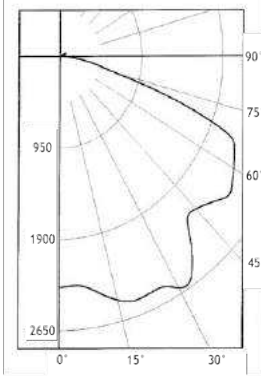
Degree	Candela	Lumens
0	2403	
5	2391	230
15	2624	744
25	2678	1247
35	2705	1673
45	2250	1754
55	2444	2161
65	2246	2192
75	655	851
85	147	174
90	26	
95	6	8
105	11	13
115	73	71
125	7	12
135	6	3
145	4	2
155	4	2
165	2	1
175	2	0
180	1	

TOTAL LUMINAIRE EFFICIENCY = 69.6%

CIE Type – Direct
Spacing Criteria: 1.6

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LAMP	%FIXT.
0-30	2221	13.9	19.9
0-40	3895	24.3	35.0
0-60	7809	48.8	70.1
0-90	11027	68.9	99.0
90-120	92	0.6	0.8
90-130	104	0.6	0.9
90-150	109	0.7	1.0
90-180	112	0.7	1.0
0-180	11139	69.6	100.0



REPORT NUMBER: KPB150LG3_ST

Lamps: 150 W High Pressure Sodium C100S54 ED23 – 1/2 Mogul Base with G3 Globe and Standard Dome Reflector

COEFFICIENTS OF UTILIZATION – ZONAL CAVITY METHOD

EFFECTIVE FLOOR CAVITY REFLECTANCE 0.20																		
RC	80				70				50			30			10			0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	83	83	83	83	81	81	81	81	77	77	77	74	74	74	70	70	70	69
1	75	71	68	65	73	70	67	64	66	64	62	64	62	60	61	59	58	56
2	67	61	56	51	65	60	55	51	57	53	49	54	51	48	52	49	47	45
3	61	52	46	41	59	51	46	41	49	44	40	47	43	39	45	41	38	37
4	55	46	39	34	53	45	38	34	43	37	33	41	36	33	39	35	32	30
5	50	40	33	28	48	39	33	28	38	32	28	36	31	27	35	31	27	25
6	46	36	29	24	44	35	29	24	34	28	24	32	27	24	31	27	23	22
7	42	32	26	21	41	32	25	21	30	25	21	29	24	20	28	24	20	19
8	39	29	23	18	38	29	23	18	28	22	18	27	22	18	26	22	18	16
9	36	27	20	16	35	26	20	16	25	20	16	24	20	16	24	19	16	15
10	34	24	19	15	33	24	18	15	23	18	14	22	18	14	22	17	14	13

Candela Distribution						
0.0	45.0	90.0	135.0	180.0	Flux	
0	1964	1964	1964	1964	1964	
5	2035	2007	1941	1871	1838	187
15	2375	2307	2140	2047	2037	619
25	2755	2587	2288	2095	1853	1081
35	2924	2763	2415	1885	1276	1416
45	2790	2552	2015	780	518	1368
55	3166	2937	1945	410	157	1520
65	3188	2913	777	77	0	1380
75	3145	2547	408	1	2	1118
85	2533	927	117	0	2	663
90	1490	640	14	5	9	
95	765	449	5	8	11	239
105	380	163	6	11	15	106
115	114	4	6	18	63	44
125	2	5	7	8	7	5
135	2	6	7	8	6	4
145	0	2	6	4	2	3
155	2	4	6	4	2	
165	4	3	5	4	2	1
175	0	2	3	3	2	0
180	2	2	2	2	2	

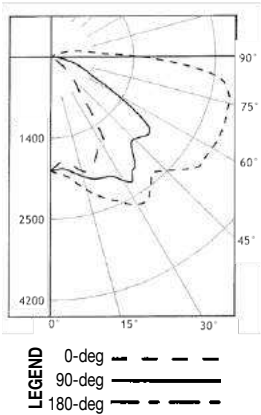
TOTAL LUMINAIRE EFFICIENCY = 61.0%

CIE Type – Direct

Plane	Spacing Criteria
0°	2.0
90°	1.7
180°	1.3

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LAMP	%FIXT.
0-30	1886	11.8	19.3
0-40	3302	20.6	33.8
0-60	6190	38.7	63.5
0-90	9351	58.4	95.9
90-120	389	2.4	4.0
90-130	395	2.5	4.0
90-150	401	2.5	4.1
90-180	404	2.5	4.1
0-180	9754	61.0	100.0



REPORT NUMBER: KPB150LG3_AN

Lamps: 150 W High Pressure Sodium C100S54 ED23 – 1/2 Mogul Base with G3 Globe and 30° Angle Reflector

COEFFICIENTS OF UTILIZATION – ZONAL CAVITY METHOD

EFFECTIVE FLOOR CAVITY REFLECTANCE 0.20																			
RC	80				70				50				30			10			0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0	
0	72	72	72	72	70	70	70	70	66	66	66	63	63	63	60	60	60	58	
1	64	60	57	54	62	58	55	53	55	53	50	52	50	48	50	48	47	45	
2	57	51	46	42	55	50	45	41	47	43	40	45	41	39	42	40	37	36	
3	52	44	38	34	50	43	38	33	41	36	33	39	35	32	37	33	31	29	
4	47	39	33	28	45	38	32	28	36	31	27	34	30	26	32	29	26	24	
5	43	34	28	24	41	33	28	24	32	27	23	30	26	22	29	25	22	21	
6	39	31	25	20	38	30	24	20	28	24	20	27	23	19	26	22	19	18	
7	36	28	22	18	35	27	22	18	26	21	17	25	20	17	24	20	17	15	
8	34	25	20	16	33	24	19	16	23	19	15	22	18	15	22	18	15	14	
9	32	23	18	14	30	22	17	14	21	17	14	21	16	13	20	16	13	12	
10	30	21	16	13	29	21	16	12	20	15	12	19	15	12	18	15	12	11	

Mercmaster™ III HID 50–250 Watt Luminaires

250 W PSMH

* Photometric data is based on fixtures with a 250-watt clear Pulse Start Metal Halide lamp (23,000 lumen). For candlepower values of fixtures with other PSMH lamps, (21,000 lumen) PSMH lamp – 0.913. For candlepower values of fixture with guard, multiply by 0.95.

NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA nR IIC (Z2)
Class I, Zone 2, AEx nR IIC (ZB)
Class II, Division 1 and 2, Groups E, F, G
Class III

NEC/CEC:

Simultaneous Exposure (Class I, Division 2)
Class II, Division 1
Fixtures Outside Type (Salt Water)
Type 4X
IP66

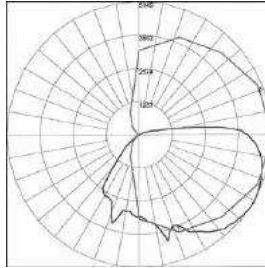
Photometric Data

Zone	Lumens
0-10	307.05
10-20	986.27
20-30	1556.63
30-40	2215.28
40-50	2539.71
50-60	2525.66
60-70	2313.2
70-80	1992.57
80-90	1470.76
90-100	689.06
100-110	177.72
110-120	46
120-130	10.39
130-140	6.24
140-150	5.71
150-160	3.95
160-170	2.26
170-180	.8

TOTAL LUMINAIRE EFFICIENCY = 67.4%

CIE Type – Direct
Spacing Criteria: 2.16

ZONAL LUMEN SUMMARY			
ZONE	LUMENS	%LAMP	%FIXT.
0-30	2849.95	11.4	16.9
0-40	5065.22	20.3	30.1
0-60	10130.59	40.5	60.1
0-90	15907	63.6	94.4
90-120	912.78	3.7	5.4
90-130	923.17	3.7	5.5
90-150	935.11	3.7	5.5
90-180	942.12	3.8	5.6
0-180	16849.24	67.4	100.0



REPORT NUMBER: **KPBG250PAN**

Lamps: 250 W Metal Halide Pulse Start
Mogul Base

COEFFICIENTS OF UTILIZATION – ZONAL CAVITY METHOD EFFECTIVE FLOOR CAVITY REFLECTANCE 0.20

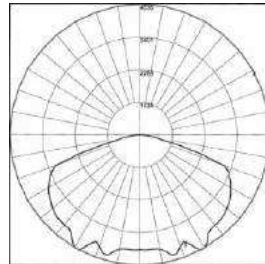
RC	80				70				50				30				10				0
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	
0	79	79	79	79	77	77	77	77	73	73	73	69	69	69	65	65	65	65	65	65	64
1	70	65	62	58	67	63	60	57	60	57	54	56	54	52	53	51	50	48	47	46	48
2	62	55	50	45	60	54	49	44	51	46	43	48	44	41	45	42	39	38	37	36	38
3	56	48	41	36	54	46	40	36	44	39	34	41	37	33	39	35	32	30	29	28	30
4	51	42	35	30	49	41	34	29	38	33	29	36	31	28	34	30	27	25	24	23	25
5	47	37	30	25	45	36	30	25	34	28	24	32	27	23	30	26	23	21	20	19	21
6	43	33	26	21	41	32	26	21	30	25	21	29	24	20	27	23	20	18	17	16	18
7	40	30	23	19	38	29	23	18	27	22	18	26	21	18	25	20	17	16	15	14	16
8	37	27	21	16	35	26	20	16	25	20	16	24	19	16	23	18	15	14	13	12	14
9	34	24	19	15	33	24	18	14	23	18	14	22	17	14	21	17	14	12	11	10	12
10	32	22	17	13	31	22	17	13	21	16	13	20	16	12	19	15	12	11	10	9	11

Zone	Lumens
0-10	382.83
10-20	1200.76
20-30	1987.77
30-40	2662.58
40-50	3136.15
50-60	3436.26
60-70	3412.32
70-80	1660.08
80-90	278.17
90-100	3.43
100-110	0
110-120	0
120-130	0
130-140	0
140-150	0
150-160	0
160-170	0
170-180	0

TOTAL LUMINAIRE EFFICIENCY = 72.6%

CIE Type – Direct
Spacing Criteria: 1.58

ZONAL LUMEN SUMMARY			
ZONE	LUMENS	%LAMP	%FIXT.
0-30	3571.36	14.3	19.7
0-40	6233.94	24.9	34.3
0-60	12806.35	51.2	70.5
0-90	18156.91	72.6	100
90-120	3.43	0	0
90-130	3.43	0	0
90-150	3.43	0	0
90-180	3.43	0	0
0-180	18160.34	72.6	100.0



REPORT NUMBER: **KPBG250PST**

Lamps: 250 W Metal Halide Pulse Start
Mogul Base

COEFFICIENTS OF UTILIZATION – ZONAL CAVITY METHOD EFFECTIVE FLOOR CAVITY REFLECTANCE 0.20

RC	80				70				50				30				10				0
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	
0	86	86	86	86	84	84	84	84	81	81	81	77	77	77	74	74	74	73	72	71	73
1	78	74	71	68	76	73	70	67	70	67	65	67	65	63	64	62	61	59	58	57	59
2	70	63	58	53	68	62	57	53	59	55	51	57	53	50	55	52	49	47	46	45	47
3	63	55	48	43	61	53	47	42	51	46	42	49	45	41	47	43	40	38	37	36	38
4	57	48	41	35	55	47	40	35	45	39	34	43	38	34	41	37	33	32	31	30	32
5	52	42	35	30	50	41	34	29	39	34	29	38	33	29	37	32	28	27	26	25	27
6	48	37	30	25	46	37	30	25	35	29	25	34	29	25	33	28	24	23	22	21	23
7	44	33	27	22	43	33	26	22	32	26	22	31	25	21	30	25	21	20	19	18	20
8	41	30	24	19	40	30	23	19	29	23	19	28	23	19	27	22	19	17	16	15	17
9	38	28	21	17	37	27	21	17	26	21	17	25	20	17	25	20	17	15	14	13	15
10	35	25	19	15	35	25	19	15	24	19	15	23	18	15	23	18	15	14	13	12	14

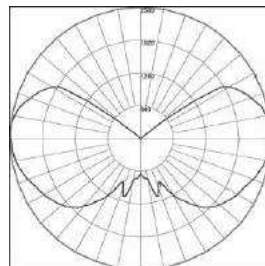
Candela Distribution

Zone	Candela
0-10	74.54
10-20	304.58
20-30	486.47
30-40	948.61
40-50	1471.61
50-60	1887.31
60-70	2239.17
70-80	2561.7
80-90	2747.67
90-100	2779.02
100-110	2564.95
110-120	2148.15
120-130	1109.49
130-140	37.55
140-150	3.93
150-160	.76
160-170	.09
170-180	.03

TOTAL LUMINAIRE EFFICIENCY = 85.5%

CIE Type – General Diffuse

ZONAL LUMEN SUMMARY			
ZONE	LUMENS	%LAMP	%FIXT.
0-30	865.59	3.5	4.1
0-40	1814.2	7.3	8.5
0-60	5173.13	20.7	24.2
0-90	12721.67	50.9	59.5
90-120	7492.124	30	35.1
90-130	8601.61	34.4	40.3
90-150	8643.09	34.6	40.5
90-180	8643.97	34.6	40.5
0-180	21365.63	85.5	100.0



REPORT NUMBER: **KPBG250PG**

Lamps: 250 W Metal Halide Pulse Start
Mogul Base

COEFFICIENTS OF UTILIZATION – ZONAL CAVITY METHOD EFFECTIVE FLOOR CAVITY REFLECTANCE 0.20

RC	80				70				50				30				10				0
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	
0	94	94	94	94	87	87	87	87	76	76	76	65	65	65	55	55	55	51	50	49	51
1	80	74	68	63	74	68	63	59	58	54	51	49	46	43	40	38	36	31	30	29	31
2	71	61	54	47	65	57	50	44	48	42	38	40	36	32	32	29	26	22	21	20	22
3	63	52	44	37	58	48	41	34	41	34	29	33	29	25	27	23	20	16	15	14	16
4	57	45	36	30	52	42	34	28	35	29	24	29	24	20	23	19	16	13	12	11	13
5	52	40	31	25	47	36	29	23	31	24	19	25	20	16	20	16	13	10	9	8	10
6	47	35	27	21	43	32	25	19	27	21	16	22	17	13	18	14	11	8	7	6	8
7	44	31	23	18	40	29	22	16	24	18	14	20	15	11	16	12	9	7	6	5	7
8	40	28	20	15	37	26	19	14	22	16	12	18	13	10	15	11	8	6	5	4	6
9	37	25	18	13	34	24	17	12	20	14	10	17	12	9	13	10	7	5	4	3	5
10	35	23	16	12	32	22	15	11	18	13	9	15	11	8	12	9	6	4	3	2	4

Mercmaster™ III HID 50–250 Watt Luminaires

High Pressure Sodium, Pulse Start Metal Halide and Metal Halide

Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2 Ex nR IIC (Z)
Class II, Division 1 and 2, Groups E, F, G
Class III

CEC:

Type 4X
IP66

Applications

- Enclosed and gasketed fixtures suitable for use in:
 - Marine and wet locations
 - A wide range of industrial, chemical processing and other areas where flammable gases and vapors or combustible dusts are present under conditions defined by the National Electrical Code as Class I, Division 2; Class II, Division 1 and 2; and Class III
 - For Zone 2, the method of protection is Ex nR – Restricted Breathing/Nonsparking.
 - Non-hazardous locations where severe weather conditions, excessive moisture, dirt, dust, corrosive atmosphere or high ambient temperatures are encountered. 18% cooler operation allows use in ambient temperatures up to 65 °C (149 °F) depending on fixture component combinations
- Typical applications include:
 - Pulp and paper mills
 - Processing plants
 - Chemical plants
 - Oil refineries
 - Foundries
 - Manufacturing plants
 - Storage areas
 - Marine applications
- Fixtures have NEMA 4X listing.
- Suitability includes listing for use where there may be simultaneous exposure to combustible dusts and flammable gases and vapors. See listing pages for compliance data on specific fixture component combinations.

Features

- Modular design allows scores of fixture component combinations to meet installation and lighting needs. Many most-used combinations are offered prewired and assembled, complete with lamp, packaged in a single carton and ready to install.
- Mogul lamp types and wattages:
 - HPS 50W-150W
 - PSMH 70W-250W ②
- Choice of heat-resistant prismatic glass refractors (NEMA distributions I, III and V), or heat-resistant prismatic glass globes for hazardous area fixtures. Colored and clear polycarbonate globes and Tuff-skin® ① coated glass globes are available but are NOT approved for use in classified areas. Fixtures with these globes do NOT comply with code requirements, and should be used in non-classified areas only. Globes and refractors thread directly into ballast housing.
- Mounting hoods include cone-shaped pendant hood, standard pendant, flexible pendant, ceiling and wall pendants (tapped for 3/4" or 1" NPT), 25° angle stanchion, and 90° (straight) stanchion (both tapped for 1-1/4" or 1-1/2" NPT).
- Cone hood fixtures for pendant mounting shed dust, dirt and combustible fibers. Cone hood inhibits build-up that "insulates" fixture and slows heat transfer, and provides increased surface area for more effective heat dissipation.



Pendant Mount Fixture
with Prismatic Glass Refractor



Straight Stanchion-Mount Fixture
with Prismatic Glass Refractor and
Guard



Pendant Cone Fixture with
Prismatic Glass Globe and Guard



Ceiling Mount Fixture
with Prismatic Glass Globe, Guard
and Polyester 30° Angle Reflector

- Reflector choice includes standard dome and 30° angle types, both made of Fiberglass reinforced white polyester. Highly resistant to unusually corrosive applications. Reflectors are vented for cooler, dirt-free operation and maintained lumen output. They secure to ballast housing with stainless steel screws threading into stainless steel inserts.
- For high corrosion resistance, fixture housing, mounting hoods and guards are copperfree cast aluminum with baked epoxy finish, electrostatically applied for uniformity. All exposed hardware is stainless steel.
- Hinge has high lip for added safety during installation and servicing. Hinge and bolt construction assures 360° compression at all points on ballast housing gasket for positive sealing. Swing-away design of captive bolt and nut simplifies servicing.
- Body gaskets and globe gaskets are high-temperature silicone rubber.
- Capacitors are non-PCB type, thermally isolated from ballast.

① Tuff-skin is a registered trademark of Thomas Manufacturing Corp., Parkton, Maryland.

② Mercury vapor and metal halide luminaires are not available for purchase within the United States. Please check with your countries governing legislation regarding allowable lamp types before ordering.

Mercmaster™ III HID 50–250 Watt Luminaires

High Pressure Sodium, Pulse Start Metal Halide and Metal Halide

Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2 Ex nR IIC (Z)
Class II, Division 1 and 2, Groups E, F, G
Class III

CEC:

Type 4X
IP66

- Mogul base porcelain socket with nickel-plated contacts has 200 °C (392 °F) welded leads, prewired to the ballast. Assures trouble-free operation in installations where high ambient temperatures are encountered.
- HPS ballasts are High Power Factor (min. P.F. 90%).
- A wide range of voltages available (120 to 600 Volt) and ballast types (Reactor, CWA, CWI and Super CWA).
- All Mercmaster III mounting hoods have provision for easy field installation of fuses in fixtures (see fuse kit listings in this catalog section).
- For electrical protection, a ground wire is provided on each Mercmaster to bond hood and ballast housing.
- The Ex nR factory sealed Mercmaster III prevents vapors and gases from entering the globe chamber. There are no seals or putty required which will reduce installation time and installation errors.

Standard Materials

- Mounting hoods, ballast bodies and guards: copperfree cast aluminum (less than 4/10 of 1%)
- Exposed hardware: stainless steel; latch assemblies have stainless steel bolt and captive nut; reflectors and guards attach with stainless steel screws threading into stainless steel inserts.
- Reflectors: Fiberglass reinforced white polyester
- Globes: heat-resistant prismatic glass
- Refractors: heat-resistant prismatic glass

Standard Finishes

- Mounting hoods, ballast bodies, guards: epoxy powder coat finish, electrostatically applied for complete, uniform surface protection
- Reflectors: white polyester finish

Options

- Ex nR fixtures, add suffix **-Z**.
- Fuses can be field-installed on Mercmaster III fixtures. Kits include fuse block, wire connectors and screws for attaching to mounting hood. For fuse kits, see *Fuse Kits* page.
- Hot Restrike will restrike HPS lamp immediately when power is restored after a momentary power interruption. Add suffix **-R**.
- Smart Starter incorporates a 1-1/2-minute timer and performs as a conventional starter to normally start lamp. Removes itself from circuit if lamp burns out or is removed from socket. Eliminates starter failures caused by prolonged operation with cycling or failing lamps and simplifies finding their location, reducing maintenance and repair costs. Available for all HPS and PSMH fixtures. Add suffix **-S**.
- Optional photocell for all fixtures except cone and ceiling mount provides automatic "on-off" control.
- Quartz Auxiliary comes to full brightness immediately and remains lit until the HID lamp attains 60-70% of full illumination. Quartz Auxiliary supplied with relay switch and socket to accept 120 V quartz double contact bayonet base lamp (not included). Add suffix **-E** to fixture catalog number. ①

CEC Certifications and Compliances

- CSA Certified: 025428
- CSA Standard: CSA C22.2 No. 9, C22.2 No. 137; CAN/CSA E60079-0, E60079-15
- PSMH 250W MT (120/208/240/277, 60 Hz) Fixtures are not UL Listed

Related Products

- Classified area photo controls are also available.

① Fixtures equipped with a quartz auxiliary lamp do not comply with UL requirements and are not suitable for use in classified locations.

Mercmaster™ III HID 50–250 Watt Luminaires

High Pressure Sodium, Pulse Start Metal Halide and Metal Halide

Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2 Ex nR IIC (Z)
Class II, Division 1 and 2, Groups E, F, G
Class III

CEC:

Type 4X
IP66

Illustrated Features



High Temperature Sockets

Mogul base high-temperature porcelain sockets.

Aluminum Inner Reflector

Solid aluminum inner reflector (for refractor ballast housings only) improves photometric efficiency.

Globe Chamber (Zone 2)

Completely sealed from the ballast housing and outside vapors/air (nA nR).



Vented Reflectors

Reflectors are thick, tough fiberglass-reinforced white polyester, vented for cooler operation. Quickly attach with furnished stainless steel screws.

Terminal Blocks (Zone 2)

A seven-point terminal block is provided to facilitate wiring. Terminal block accommodates wire size ranging from #8 to #24 AWG.

Stainless Steel Inserts

Ballast bodies have stainless steel threaded inserts to receive stainless steel screws for reflectors and guard. Prevents "freezing", allowing guards and reflectors to be easily removed and replaced at any time, without damage to the housing.



Ballast Assembly (Zone 2)

Utilizing non-sparking components avoiding the ignition of gases or vapors that may be present (nA).

Mounting Hood and Globe Gaskets

Silicone rubber gasket seals out moisture, dirt and dust. Stays flexible, withstands high temperatures. Closure design assures uniform gasket compression.

Electrical Protection

Ground wire provided to bond mounting hood to ballast housing.



"Safety" High Hinge

Extra-high hinge provides additional protection against accidental ballast housing disengagement during installation or maintenance.

Epoxy Finish

Ballast housing, hoods and guards are copperfree aluminum with epoxy powder coat finish.

Photocell

Available for all fixtures except cone and ceiling mount. Installs through knock-out in mounting hood. Provides continuous ON-OFF dusk-to-dawn control.



Cooler Operating Cone Hood

Larger sloped surface sheds dusts, dirt and combustible fibers providing better heat dissipation.



Stainless Steel Latch Assembly

Captive, stainless steel latch assembly bolt and nut closes securely, resists attack of corrosive atmospheres. Swing-away design simplifies servicing.

Heat-Resistant Globes and Refractors

Prismatic glass globes and refractors are heat-resistant. They thread directly into the ballast housing and seal against a high-temperature silicone rubber gasket.



Fuses

Two screws secure fuse kit to mounting boss in any Mercmaster mounting hood. Fuse included.

Mercmaster™ III HID 50–250 Watt Luminaires

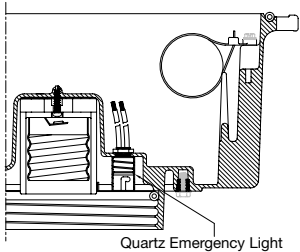
High Pressure Sodium, Pulse Start Metal Halide and Metal Halide

Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

CEC:
Class I, Division 2, Groups A, B, C, D
Class I, Zone 2 Ex nR IIC (Z)
Class II, Division 1 and 2, Groups E, F, G
Class III

CEC:
Type 4X
IP66

Quartz Emergency Light for Pulse Start Metal Halide or High Pressure Sodium Fixtures ①



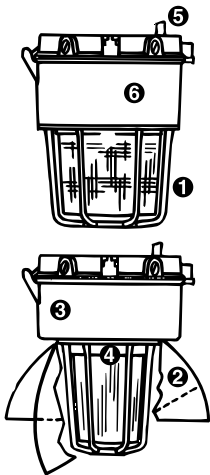
Quartz Emergency Light for PSMH or HPS Fixtures

Mercmaster fixtures for or metal halide and high pressure sodium lamps can be supplied with a socket to accept a 150 W or 250 W, 120 V quartz lamp. This D.C. bayonet base socket is in addition to the standard lamp socket. In the event of a momentary power interruption, the quartz lamp is automatically switched on. The single ended quartz lamp remains energized until the HID restrikes and reaches about 60% output.

The quartz emergency lamp socket is wired to a 120 V tap on the ballast and is therefore independent of the lighting fixture voltage. No special field wiring is necessary.

Description	Catalog Suffix
For fixture volts of 120, 208, 240 or 277	-MTE

Accessory Options



- ① **Guards:** Guards are die-cast copperfree aluminum with baked epoxy finish to match fixtures. Fixture supplied with stainless steel mounting screws which thread into stainless steel inserts on fixture housing to attach guard. To order fixture with guard, add suffix **-G** to catalog number before adding voltage suffix.
- ② **Reflectors:** Standard dome and 30° angle polyester reflectors are shown elsewhere in this catalog section.
- ③ **Hot Restrike:** Instantly restrikes a hot HPS lamp when power is restored after a momentary outage. Available factory-installed only. To order, add suffix **-R** to catalog number.
- ④ **Quartz Emergency Light:** When ordered, HPS fixtures will be supplied with a prewired special DC bayonet base socket to accept a 150W, 120 V quartz lamp (not furnished) that automatically switches on when a power outage occurs. Fixtures ordered with this quartz emergency lamp feature do NOT comply with requirements for classified areas and should be used only in non-classified locations. To order, add suffix **-E** to catalog number and specify if a relay switch is desired.
- ⑤ **Photocell and Fuses:** Photocontrols are available.
- ⑥ **Smart Starter:** Performs as a conventional starter in lamp start-up. Removes itself from circuit at end of lamp life or if lamp is out of socket. Add suffix **-S** to catalog number.

① NOTE: Fixtures equipped with quartz emergency light do not comply with UL requirements and are not suitable for use in classified locations.

Mercmaster™ III HID 50–250 Watt Luminaires

High Pressure Sodium, Pulse Start Metal Halide and Metal Halide

Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

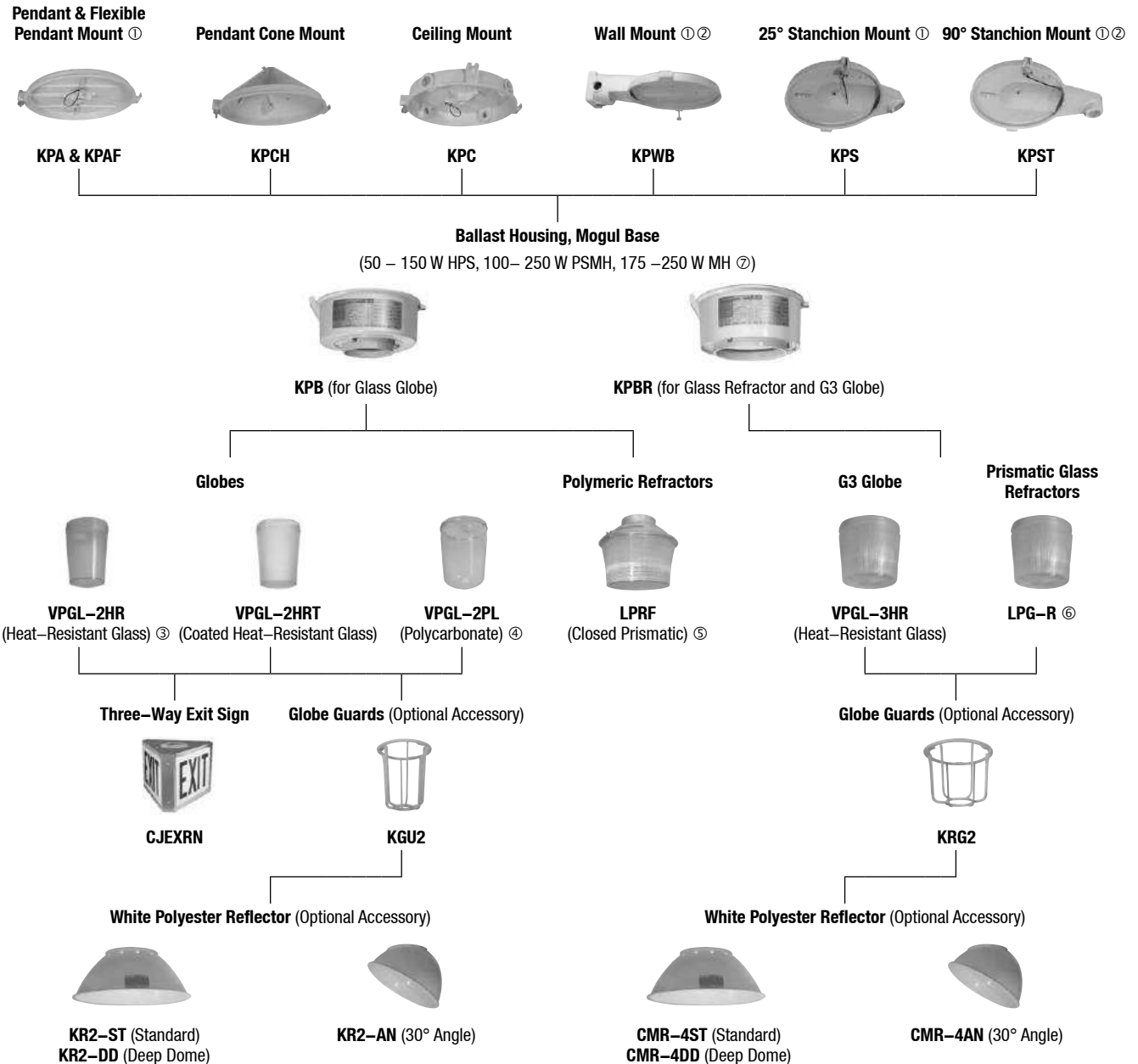
CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2 Ex nR IIC (Z)
Class II, Division 1 and 2, Groups E, F, G
Class III

CEC:

Type 4X
IP66

Mercmaster III 50-250 Family Tree



① Mounting hood with a 120 V or 208-277 V factory installed photocell is available.

② Standard and deep dome reflectors may interfere with bottom conduit entry if used with KPST and KPWB mounting hoods..

③ Available in clear, amber, blue, green and red.

④ Available in clear, amber, green and red.

⑤ Available in NEMA Type II, III, IV and V. Polymeric Refractor suitable for Class II, Groups F and G, NEMA 4X and Marine Type Electric Fixtures Outside Type (Salt Water) only (100 W PSMH Max.).

⑥ Available in NEMA Type I, III and V.

⑦ Mercury vapor and metal halide luminaires are not available for purchase within the United States. Please check with your countries governing legislation regarding allowable lamp types before ordering.

Mercmaster™ III HID 50–250 Watt Luminaires

High Pressure Sodium, Pulse Start Metal Halide and Metal Halide

Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2 Ex nR IIC (Z)
Class II, Division 1 and 2, Groups E, F, G
Class III

CEC:

Type 4X
IP66

Order using catalog numbering guide below or select catalog number from tables on following pages.

Catalog Numbering Guide

KP	A	L	70	10	J5	G	MT	R	ZZ
Series: KP - Mercmaster III 250		Lamp Type: H - Metal Halide (MH) ① L - High Pressure Sodium (HPS) P - Pulse Start Metal Halide (PSMH)		Hub Size: 2 - 3/4" NPT 3 - 1" NPT 4 - 1-1/4" NPT Stanchion 5 - 1-1/2" NPT Stanchion		Guard Options: G - Guard (Not for use on RL Highbay Reflector) N - No Guard		Options: C - Safety Cable Adapted D - E-40 Export Socket E - Emergency Quartz F1 - Single Pole Fuse (Specify Voltage) F2 - Double Pole Fuse (Specify Voltage) PC - Non-Haz. Photocell in hood (specify voltage) PCD2 - Div.2 Haz. Photocell in hood (Specify Voltage) R - Hot Restrike (50-150 W HPS only) S - Smart Starter T - Terminal Blocks V - Anti-Vibration Modifications X - Appledapter ③ Mounting Hood Adapter	
	Mounting:		Wattage:		Optical Assembly:		Voltage: ②		Suffix:
	A - Pendant (rigid mounting) C - Ceiling D - Threaded Dust Cone F - Flexible Pendant R - Right Angled Stanchion (90°) S - Angled Stanchion (25°) W - Wall X - Crouse-Hinds Hood Compatible		10 - 100 W HPS/MH 15 - 150 W HPS/MH 17 - 175 W MH 20 - 200 W PSMH 25 - 250 W MH ⑤ 50 - 50 W HPS (MT - Voltage Only) 70 - 70 W HPS/MH		J1 - NEMA I Glass Refractor J3 - NEMA III Glass Refractor J5 - NEMA V Glass Refractor G2 - Medium Glass Globe G3 - Large Glass Globe RL - Highbay Reflector/ Lens		C2 - 208 V 60 Hz, CWI C3 - 240 V 60 Hz, CWI C6 - 480 V 60 Hz, CWI C7 - 600 V 60 Hz, CWI MT- 120, 208, 240, 277 V, 60 Hz, CWA TT - 120, 277, 347 V, 60 Hz, CWA XP - 220-240 V, 50 Hz, CWA		Z - Zone 2 suffix (required for Ex nR)

Reflectors are ordered separately – see Accessories page.

① H - Lamp type is for 70W and 100W fixtures only.

P - Lamp type is for 175W, 200W and 250W fixtures only.

② Voltages shown are limited to specific combinations.

③ Appledapter is available for use with the pendant, ceiling and angled stanchion mounting only.

④ Optional fusing is available for use with MT, 5MT and 48 voltage suffixes ONLY.

⑤ PSMH 250 W, MT and TT fixtures are not UL Listed.

⑥ Mercury vapor and metal halide luminaires are not available for purchase within the United States. Please check with your countries governing legislation regarding allowable lamp types before ordering.

Mercmaster™ III HID 50–250 Watt Luminaires

Class I, Division 2; Class II, Division 1; Simultaneous Exposure to Hazardous Conditions of Both Classifications
Temperature Identification Numbers of Mercmaster III fixtures.

CEC:
Class I, Division 2, Groups A, B, C, D
Class I, Zone 2 Ex nR IIC (Z)
Class II, Division 1 and 2, Groups E, F, G
Class III

CEC:
Type 4X
IP66

Mercmaster III fixtures are listed for “Simultaneous Exposure” to combinations of Class I, Division 2 and Class II, Division 1 hazardous conditions.

“T” Numbers for Mercmaster III Fixtures

Lamp Watts Type	Supply Wire Temp. °C (°F)	Ambient Temp. °C (°F)	Class I, Division 2				Class II, Division 1 Groups E, F and G ①				Simultaneous Exposure Class I, Division 2 / Class II, Division 1			
			Globe	Reflector	G3	8”	Globe	Reflector	G3	8”	Globe	Reflector	G3	8”
50 HPS	90 °C (194 °F)	40 °C (104 °F)	T3C	T3B	—	T3C	T4A	T4	—	T6	T3A	T3	—	T3C
	90 °C (194 °F)	55 °C (131 °F)	T3A	T3A	—	T3A	T4	T3B	—	T5	T3	T3	—	T3A
	90 °C (194 °F)	65 °C (149 °F)	T3A	T3	—	T3A	T3C	T3C	—	T4A	T2D	T2D	—	T3
70 HPS	90 °C (194 °F)	40 °C (104 °F)	T3B	T3A	—	T3C	T4	T3C	—	T6	T3	T3	—	T3A
	90 °C (194 °F)	55 °C (131 °F)	T3A	T3A	—	T3B	T3C	T3C	—	T5	T2D	T2D	—	T3
	90 °C (194 °F)	65 °C (149 °F)	T3	T3A	—	T3A	T3C	T3B	—	T4A	T2C	T2C	—	T3
100 HPS	90 °C (194 °F)	40 °C (104 °F)	T2D	T2D	T3	T3	—	T3A (EF)	T3 (EF)	—	—	—	—	—
	90 °C (194 °F)	40 °C (104 °F)	—	—	—	—	T3B	—	T4A	T4A	T2B	T2B	T2C	T2C
	90 °C (194 °F)	55 °C (131 °F)	T2D	T2D	T3	T3	—	—	T4	T4	—	—	T2B	T2B
	90 °C (194 °F)	65 °C (149 °F)	T2D	T2D	T2D	T2D	—	—	—	—	—	—	—	—
150 HPS	90 °C (194 °F)	40 °C (104 °F)	T2B	T2B	—	T2C	—	—	—	T3C	T2	—	—	T2B
	90 °C (194 °F)	40 °C (104 °F)	—	—	—	—	T3 (EF)	—	—	—	—	—	—	—
	90 °C (194 °F)	55 °C (131 °F)	T2B	T2A	—	T2B	—	—	—	—	—	—	—	—
70 PSMH	90 °C (194 °F)	40 °C (104 °F)	T3A	T3A	—	T3A	—	—	—	T3C	—	—	—	—
	90 °C (194 °F)	55 °C (131 °F)	T3A	T3A	—	T3A	—	—	—	T3C	—	—	—	—
	90 °C (194 °F)	65 °C (149 °F)	T3	T2	—	T3	—	—	—	T3C	—	—	—	—
100 PSMH	90 °C (194 °F)	40 °C (104 °F)	T3	T3	—	T3	—	—	—	T3C	—	—	—	T2B
	90 °C (194 °F)	55 °C (131 °F)	T3	T3	—	T3	—	—	—	T3C	—	—	—	T2A
	90 °C (194 °F)	65 °C (149 °F)	T2D	T2D	—	T2D	—	—	—	T3C	—	—	—	—
150 PSMH	90 °C (194 °F)	40 °C (104 °F)	T2B	T2B	—	T2B	—	—	—	T3C	—	—	—	T2B
	90 °C (194 °F)	55 °C (131 °F)	T2A	T2A	—	T2B	—	—	—	T3C	—	—	—	T2A
	125 °C (257 °F)	65 °C (149 °F)	T2A	T2	—	T2B	—	—	—	T3C	—	—	—	—
175 PSMH	90 °C (194 °F)	40 °C (104 °F)	T2B	T2B	—	T2B	—	—	—	T3C	—	—	—	T2B
	90 °C (194 °F)	55 °C (131 °F)	T2A	T2A	—	T2B	—	—	—	T3C	—	—	—	T2A
	125 °C (257 °F)	65 °C (149 °F)	T2A	T2	—	T2B	—	—	—	—	—	—	—	—
200 PSMH	90 °C (194 °F)	40 °C (104 °F)	T2B	T2B	—	T2B	—	—	—	T3B	—	—	—	—
	90 °C (194 °F)	55 °C (131 °F)	T2B	T2B	—	T2B	—	—	—	—	—	—	—	—
250 PSMH	90 °C (194 °F)	40 °C (104 °F)	T2	T2	—	T2	—	—	—	—	—	—	—	—
	90 °C (194 °F)	55 °C (131 °F)	T2	T2	—	T2	—	—	—	—	—	—	—	—
175 MH ②	90 °C (194 °F)	40 °C (104 °F)	T2B	T2B	—	T2B	—	—	—	T3C	—	—	—	—
	90 °C (194 °F)	55 °C (131 °F)	T2A	T2A	—	T2B	—	—	—	T3C	—	—	—	—
250 MH ②	90 °C (194 °F)	40 °C (104 °F)	325	325	—	T2	—	—	—	T3B	—	—	—	—

“T” Numbers Represent the Maximum Lamp Temperature for Class I, Division 2 Locations and Maximum Surface Temperature Under Dust Blanket for Class II, Division 1 Locations.

“T” Number	T1	350	325	T2	T2A	T2B	T2C	T2D	T3	T3A	T3B	T3C	T4	T4A	T5	T6
Temp. Range (°C)	351- 450	326- 350	301- 325	281- 300	261- 280	231- 260	216- 230	201- 215	181- 200	166- 180	161- 165	136- 160	121- 135	101- 120	86- 100	85
Temp. Range (°F)	664- 842	619- 662	574- 617	538- 572	502- 536	448- 500	421- 446	394- 419	358- 392	331- 356	322- 329	277- 320	250- 275	214- 248	187- 212	185

① All Class II T Numbers are E, F, G unless otherwise indicated.

② Mercury vapor and metal halide luminaires are not available for purchase within the United States. Please check with your countries governing legislation regarding allowable lamp types before ordering.

Mercmaster™ III HID 50–250 Watt Luminaires

Class I, Zone 2, Ex nR IIC; IP66; and NEMA 4X

Temperature Identification Numbers of Mercmaster III Fixtures.

CEC:
Class I, Division 2, Groups A, B, C, D
Class I, Zone 2 Ex nR IIC (Z)
Class II, Division 1 and 2, Groups E, F, G
Class III

CEC:
Type 4X
IP66

Operating Temperatures: “T” Numbers for Zone 2 Mercmaster III Fixtures

The “T” number is established by separately determining the maximum temperature of the globe surface and ballast compartment. The hotter of the two is taken to determine the “T” number for the overall fixture.

Lamp		Supply Wire Temp. °C (°F)	Ambient Temp. °C (°F)	Class I, Zone 2 Ex nR IIC			
Watts	Type			Globe	Globe & Reflector	Refractor Only	G3/Refractor & Reflector
50	HPS	90 °C (194 °F)	40 °C (104 °F)	T4	T4	T6	T4
		90 °C (194 °F)	55 °C (131 °F)	T4	T3	T5	T3
		90 °C (194 °F)	65 °C (149 °F)	T3	T3	T4	T3
70	HPS	90 °C (194 °F)	40 °C (104 °F)	T4	T4	T4	T4
		90 °C (194 °F)	55 °C (131 °F)	T4	T4	T4	T3
		90 °C (194 °F)	65 °C (149 °F)	T4	T4	T3	T3
100	HPS	90 °C (194 °F)	40 °C (104 °F)	T4	T4	T4	T4
		90 °C (194 °F)	55 °C (131 °F)	T4	T4	T3	T3
		90 °C (194 °F)	65 °C (149 °F)	T4	T4	T3	T3
150	HPS	90 °C (194 °F)	40 °C (104 °F)	T4	T3	T3	T3
		90 °C (194 °F)	55 °C (131 °F)	T3	T3	T3	T3
		105 °C (221 °F)	65 °C (149 °F)	T3	T3	T3	T3
70	PSMH	90 °C (194 °F)	40 °C (104 °F)	T4	T4	T4	—
		90 °C (194 °F)	55 °C (131 °F)	T3	T3	T3	—
		90 °C (194 °F)	65 °C (149 °F)	T3	T3	T3	—
100	PSMH	90 °C (194 °F)	40 °C (104 °F)	T3	T3	T3	—
		90 °C (194 °F)	55 °C (131 °F)	T3	T3	T3	—
		90 °C (194 °F)	65 °C (149 °F)	T3	T3	T3	—
150	PSMH	90 °C (194 °F)	40 °C (104 °F)	T4	T4	T4	—
		90 °C (194 °F)	55 °C (131 °F)	T3	T3	T3	—
		105 °C (221 °F)	65 °C (149 °F)	T3	T3	T3	—
175	PSMH	90 °C (194 °F)	40 °C (104 °F)	T3	T3	T4	—
		90 °C (194 °F)	55 °C (131 °F)	T3	T3	T3	—
		105 °C (221 °F)	65 °C (149 °F)	T3	T3	T3	—
200	PSMH	90 °C (194 °F)	40 °C (104 °F)	T3	T3	T4	—
		105 °C (221 °F)	55 °C (131 °F)	T3	T3	T3	—
		105 °C (221 °F)	65 °C (149 °F)	T3	T3	T3	—
250	PSMH	90 °C (194 °F)	40 °C (104 °F)	T3	T3	T3	—
		90 °C (194 °F)	55 °C (131 °F)	T3	T3	T3	—

“T” Numbers Represent the Maximum Surface Temperature for Luminaires with Ex nR rating

“T” Number	T1	T2	T3	T4	T5	T6
Temp. Range (°C)	301-450	201-300	136-200	101-135	86-100	85
Temp. Range (°F)	547-842	394-572	277-392	214-275	187-212	185

Mercmaster™ III HID 50–250 Watt Luminaires

Class I, Division 2; Class II, Division 1; Simultaneous Exposure to Hazardous Conditions of Both Classifications

Maximum Temperatures in °C (°F) Obtained from Tests in a 40 °C (104 °F) Ambient, Vertical Position, Lamp Base Up, as per NEC.

CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2 Ex nR IIC (Z)
Class II, Division 1 and 2, Groups E, F, G
Class III

CEC:

Type 4X
IP66

Fixture Selection Guide Indicates atmosphere for which fixture is suitable.

① Denotes fixture with Globe Only. ② Denotes fixture with Globe and Reflector. ③ Denotes fixture with 8" Refractor / G3 Globe

Class I, Division 2 Chemical	Ignition °C (°F) ④	Minimum Fixture “T” Number for Chemical	HPS (Watts)				PSMH (Watts)				
			50	70	100	150	70	100	175	200	250
Group A Atmospheres											
acetylene	305 °C (581 °F)	T2	①②③	①②③	①②③	①②③	①②	①②③	①②③	① ③	①②
Group B Atmospheres											
acrolein (inhibited)	220 °C (428 °F)	T2D	①②③	①②③	①②③		①②	①②③			①②
arsine	NA ②										
butadiene	420 °C (788 °F)	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
ethylene oxide	429 °C (804 °F)	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
hydrogen	500 °C (932 °F)	T1	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
propylene oxide	449 °C (840 °F)	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
propylnitrate	175 °C (347 °F)	T3B	①②③	①②③			①②				
Group C Atmospheres											
acetaldehyde	175 °C (347 °F)	T3B	①②③	① ③			①②				
allyl alcohol	378 °C (712 °F)	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
n-butylaldehyde	218 °C (424°F)	T2D	①②③	①②③	①②③		①②	①②③			①②
carbon monoxide	609 °C (1128 °F)	T1	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
crotonaldehyde	232 °C (450 °F)	T2C	①②③	①②③	①②③	③	①②	①②③			①②
cyclopropane	498 °C (928 °F)	T1	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
diethyl ether (ethyl ether)	160 °C (320 °F)	T3C	① ③	③			①②				
diethylamine	312 °C (594 °F)	T2	①②③	①②③	①②③	①②③	①②	①②③	①②③	① ③	①②
ethylene	450 °C (842 °F)	T1	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
ethylenimine	320 °C (608 °F)	T2	①②③	①②③	①②③	①②③	①②	①②③	①②③	① ③	①②
ethly mercaptan	300 °C (572 °F)	T2	①②③	①②③	①②③	①②③	①②	①②③	①②③	① ③	①②
ethyl sulfide	NA ⑤										
hydrogen cyanide	538 °C (1000 °F)	T1	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
hydrogen sulfide	260 °C (500 °F)	T2B	①②③	①②③	①②③	①②③	①②	①②③	①②③	①	①②
morpholine	310 °C (590 °F)	T2	①②③	①②③	①②③	①②③	①②	①②③	①②③	① ③	①②
2-nitropropane	428 °C (802 °F)	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
tetrahydrofuran	321 °C (610 °F)	T2	①②③	①②③	①②③	①②③	①②	①②③	①②③	① ③	①②
unsymmetrical dimethyl hydrazine	249 °C (480 °F)	T2C	①②③	①②③	①②③	③	①②	①②③			①②
Group D Atmospheres											
acetic acid (glacial)	464 °C (867 °F)	T1	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
acetone	465 °C (869 °F)	T1	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
acrylonitrile	481 °C (898 °F)	T1	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
ammonia	651 °C (1204 °F)	T1	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
benzene	498 °C (928 °F)	T1	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
butane	287 °C (549 °F)	T2A	①②③	①②③	①②③	①②③	①②	①②③	①②③	①	①②
1-butanol (butyl alcohol)	343 °C (649 °F)	325	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②

This classified area suitability chart is based on NEC requirements and Appleton and UL testing. However, the ultimate decision on suitability of these fixtures for classified areas depends solely on the judgement of the owner, insurance company, inspector and/or authority having jurisdiction.

④ Ignition temperatures shown should be regarded as approximations only. Per NFPA Bulletin 325M, ignition temperatures may vary according to such factors as vapor/air mixture, size and space where ignition may occur, rate and duration of heating, oxygen concentration and other materials present.

⑤ Not Available.

Mercmaster™ III HID 50–250 Watt Luminaires

Class I, Division 2; Class II, Division 1; Simultaneous Exposure to Hazardous Conditions of Both Classifications

Maximum Temperatures in °C (°F) Obtained from Tests in a 40 °C (104 °F) Ambient, Vertical Position, Lamp Base Up, as per NEC.

CEC:
Class I, Division 2, Groups A, B, C, D
Class I, Zone 2 Ex nR IIC (Z)
Class II, Division 1 and 2, Groups E, F, G
Class III

CEC:
Type 4X
IP66

Fixture Selection Guide Indicates atmosphere for which fixture is suitable.

① Denotes fixture with Globe Only. ② Denotes fixture with Globe and Reflector. ③ Denotes fixture with 8" Refractor / G3 Globe

Class I, Division 2 Chemical	Ignition °C (°F) ④	Minimum Fixture “T” Number for Chemical	HPS (Watts)				PSMH (Watts)				
			50	70	100	150	70	100	175	200	250
Group D Atmospheres											
2-butanol (secondary butyl alcohol)	405 °C (761 °F)	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
n-butyl acetate	425 °C (797 °F)	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
isobutyl acetate	421 °C (790 °F)	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
sec-butyl alcohol	343 °C (649 °F)	325	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
di-isobutylene	391 °C (736 °F)	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
ethane	472 °C (882 °F)	T1	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
ethanol (ethyl alcohol)	363 °C (685 °F)	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
ethyl acetate	426 °C (799 °F)	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
ethylene diamine (anhydrous)	385 °C (725 °F)	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
ethylene dichloride	413 °C (775 °F)	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
gasoline (56-60 octane)	280 °C (536 °F)	T2A	①②③	①②③	①②③	①②③	①②	①②③	①②③	①	①②
heptanes	204 °C (399 °F)	T3	①②③	①②③	①②③		①②	①②③			
hexanes	223 °C (433 °F)	T2D	①②③	①②③	①②③		①②	①②③			
isoprene	395 °C (743 °F)	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
isopropyl ether	443 °C (829 °F)	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
mesityl oxide	344 °C (651 °F)	325	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
methane (natural gas)	537 °C (999 °F)	T1	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
methanol (methyl alcohol)	385 °C (725 °F)	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
3-methyl-1-butanol (isoamyl alcohol)	350 °C (662 °F)	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
methyl ethyl ketone	404 °C (759 °F)	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
methyl isobutyl ketone	448 °C (838 °F)	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
2-methyl-1-propanol (isobutyl alcohol)	415 °C (779 °F)	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
2-methyl-1-propanol (tertiary butyl alcohol)	478 °C (892 °F)	T1	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
petroleum naphtha ⑥	288 °C (550 °F)	T2A	①②③	①②③	①②③	①②③	①②	①②③	①②③	①	①②
pyridine	482 °C (900 °F)	T1	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
octanes	206 °C (403 °F)	T3	①②③	①②③	①②③		①②	①②③			
pentanes	260 °C (500 °F)	T2B	①②③	①②③	①②③	①②③	①②	①②③	①②③	①	①②
1-pentanol (amyl alcohol)	300 °C (572 °F)	T2	①②③	①②③	①②③	①②③	①②	①②③	①②③	① ③	①②
propane	432 °C (810 °F)	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
1-propanol (propyl alcohol)	412 °C (774 °F)	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
2-propanol (isopropyl alcohol)	399 °C (750 °F)	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
propylene	455 °C (851 °F)	T1	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
styrene	490 °C (914 °F)	T1	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
toluene	480 °C (896 °F)	T1	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
vinyl acetate	402 °C (756 °F)	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
vinyl chloride	472 °C (882 °F)	T1	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
xylenes (o-xylene)	463 °C (865 °F)	T1	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②

This classified area suitability chart is based on NEC requirements and Appleton and UL testing. However, the ultimate decision on suitability of these fixtures for classified areas depends solely on the judgement of the owner, insurance company, inspector and/or authority having jurisdiction.

④ Ignition temperatures shown should be regarded as approximations only. Per NFPA Bulletin 325M, ignition temperatures may vary according to such factors as vapor/air mixture, size and space where ignition may occur, rate and duration of heating, oxygen concentration and other materials present.

⑥ A saturated hydrocarbon mixture. Also known by synonyms benzine, ligroin, petroleum, ether and naptha.

Mercmaster™ III HID 50–250 Watt Luminaires

Class I, Zone 2, AEx nA nR IIC; Class 1 Zone 2, AEx nR IIC; IP66; and NEMA 4X

Maximum Temperatures in °C (°F) Obtained from Tests in a 40 °C (104 °F) Ambient, Vertical Position, Lamp Base Up.

CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2 Ex nR IIC (Z)
Class II, Division 1 and 2, Groups E, F, G
Class III

CEC:

Type 4X
IP66

Fixture Selection Guide Indicates atmosphere for which fixture is suitable.

② Denotes fixture with Globe and Reflector. ③ Denotes fixture with 8" Refractor.

Class I, Division 2 Chemical	Ignition °C (°F) ④	Minimum Fixture “T” Number for Chemical	HPS (Watts)				PSMH (Watts)				
			50	70	100	150	70	100	175	200	250
Group IIC											
acetylene	305 °C (581 °F)	T2	②③	②③	②③	②③	②③	②③	②③	②③	②③
acetylene	300 °C (572 °F)	T2	②③	②③	②③	②③	②③	②③	②③	②③	②③
hydrogen	500 °C (932 °F)	T1	②③	②③	②③	②③	②③	②③	②③	②③	②③
Group IIB											
ethylene	490 °C (914 °F)	T1	②③	②③	②③	②③	②③	②③	②③	②③	②③
butadiene 1.3	425 °C (797 °F)	T2	②③	②③	②③	②③	②③	②③	②③	②③	②③
carbon monoxide coke oven gas	560 °C (1040 °F)	T1	②③	②③	②③	②③	②③	②③	②③	②③	②③
diethyl ether (ethyl ether)	160 °C (320 °F)	T4	②③	②③	②③	②③	②③				
ethylene	450 °C (842 °F)	T1	②③	②③	②③	②③	②③	②③	②③	②③	②③
ethylenimine ethylene oxide	425 °C (797 °F)	T2	②③	②③	②③	②③	②③	②③	②③	②③	②③
Group IIA											
acetone	465 °C (869 °F)	T1	②③	②③	②③	②③	②③	②③	②③	②③	②③
amyl acetate	375 °C (707 °F)	T2	②③	②③	②③	②③	②③	②③	②③	②③	②③
ammonia	651 °C (1204 °F)	T1	②③	②③	②③	②③	②③	②③	②③	②③	②③
benzene	498 °C (928 °F)	T1	②③	②③	②③	②③	②③	②③	②③	②③	②③
butane	287 °C (549 °F)	T3	②③	②③	②③	②③	②③	②③	②③	②③	
1-butanol (butyl alcohol)	343 °C (649 °F)	T2	②③	②③	②③	②③	②③	②③	②③	②③	②③
n-butyl acetate cyclohexane	260 °C (500 °F)	T3	②③	②③	②③	②③	②③	②③	②③	②③	
ethyl methyl ketone	515 °C (959 °F)	T1	②③	②③	②③	②③	②③	②③	②③	②③	②③
ethanol (ethyl alcohol)	363 °C (685 °F)	T2	②③	②③	②③	②③	②③	②③	②③	②③	②③
ethyl acetate	426 °C (799 °F)	T1	②③	②③	②③	②③	②③	②③	②③	②③	②③
heptanes	204 °C (399 °F)	T3	②③	②③	②③	②③	②③	②③	②③	②③	
hexanes	223 °C (433 °F)	T3	②③	②③	②③	②③	②③	②③	②③	②③	
isoprene isobutanol	430 °C (806 °F)	T2	②③	②③	②③	②③	②③	②③	②③	②③	②③
mesityl oxide methyl acetate	500 °C (932 °F)	T1	②③	②③	②③	②③	②③	②③	②③	②③	②③
methanol (methyl alcohol)	385 °C (725 °F)	T2	②③	②③	②③	②③	②③	②③	②③	②③	②③
n-propyl acetate	500 °C (932 °F)	T1	②③	②③	②③	②③	②③	②③	②③	②③	②③
n-butul acetate	420 °C (788 °F)	T2	②③	②③	②③	②③	②③	②③	②③	②③	②③
pentanes	260 °C (500 °F)	T3	②③	②③	②③	②③	②③	②③	②③	②③	
propane	432 °C (810 °F)	T2	②③	②③	②③	②③	②③	②③	②③	②③	②③
xylene (o-xylene)	463 °C (865 °F)	T1	②③	②③	②③	②③	②③	②③	②③	②③	②③

This classified area suitability chart is based on NEC requirements and Appleton and UL testing. However, the ultimate decision on suitability of these fixtures for classified areas depends solely on the judgement of the owner, insurance company, inspector and/or authority having jurisdiction.

④ Ignition temperatures shown should be regarded as approximations only. Per NFPA Bulletin 325M, ignition temperatures may vary according to such factors as vapor/air mixture, size and space where ignition may occur, rate and duration of heating, oxygen concentration and other materials present.

Mercmaster™ III HID 50–250 Watt Luminaires

50 W, 70 W, 100 W, 150 W HPS

High Reactance, High Power Factor (min. P.F. 90%). Heat-Resistant Prismatic Glass Globe or Closed Prismatic Glass Refractor. Mogul Base Lamps.

CEC:
Class I, Division 2, Groups A, B, C, D
Class I, Zone 2 Ex nR IIC (Z)
Class II, Division 1 and 2, Groups E, F, G
Class III

CEC:
Type 4X
IP66

			Catalog Numbers ③④⑤ with Type V 8" Refractor or G3 Globe ②		
	Lamp Type	Lamp Watts	Hub Size (Inches)	with Globe	
Pendant — One Hub, Rigid Mounting ①					
	HPS	50	3/4 1	KPAL5075 KPAL5010	KPAL5075J5 KPAL5010J5
	HPS	70	3/4 1	KPAL7075 KPAL7010	KPAL7075J5 KPAL7010J5
	HPS	100	3/4 1	KPAL1075 KPAL1010	KPAL1075J5 KPAL1010J5
	HPS	150	3/4 1	KPAL1575 KPAL1510	KPAL1575J5 KPAL1510J5
	Pendant Cone — One Hub, Rigid Mounting				
	HPS	50	3/4 1	KPDL5075 KPDL5010	KPDL5075J5 KPDL5010J5
	HPS	70	3/4 1	KPDL7075 KPDL7010	KPDL7075J5 KPDL7010J5
	HPS	100	3/4 1	KPDL1075 KPDL1010	KPDL1075J5 KPDL1010J5
	HPS	150	3/4 1	KPDL1575 KPDL1510	KPDL1575J5 KPDL1510J5
	Ceiling — Five Hubs, Four Close-Up Plugs				
	HPS	50	3/4 1	KPCL5075 KPCL5010	KPCL5075J5 KPCL5010J5
	HPS	70	3/4 1	KPCL7075 KPCL7010	KPCL7075J5 KPCL7010J5
	HPS	100	3/4 1	KPCL1075 KPCL1010	KPCL1075J5 KPCL1010J5
	HPS	150	3/4 1	KPCL1575 KPCL1510	KPCL1575J5 KPCL1510J5

① For Flexible Pendant Mount, change **A** to **F** in catalog number (except 50 W HPS).

② To order fixtures with large globe change **J5** to **G3**; for fixture with NEMA Type I or NEMA Type III refractor, change final digit **5** in catalog number to **1** or **3**.

③ Add the following voltage and frequency designation before **Z** suffix:

		Voltage Suffixes						
Lamp Type	Lamp Watts	C2	C3	C6	C7	MT	TT	XP
HPS	50	—	—	—	—	X	X	X
HPS	70	—	—	—	—	X	X	X
HPS	100	—	—	X	X	X	X	X
HPS	150	X	X	X	X	X	X	X
PSMH	70	—	—	—	—	X	X	X
PSMH	100	—	—	—	—	X	X	X
PSMH	150	—	—	—	—	X	X	X
PSMH	175	—	—	—	—	X	X	X
PSMH	200	—	—	—	—	X	X	X
PSMH	250	—	—	—	—	X	X	X
MH ⑥	175	X	X	X	X	—	X	—
MH ⑥	250	X	X	X	X	—	X	—

Voltages:

C2 - 208 V 60 Hz, CWI

C6 - 480 V 60 Hz, CWI

C7 - 600 V 60 Hz, CWI

C3 - 240 V 60 Hz, CWI

LB - Incandescent, 120 V 60 Hz

MT - 120/208/240/277 V 60 Hz

TT - 120/277/347 V 60 Hz, CWA

XP - 220-240 V, 50Hz, CWA

④ Add **Z** for factory sealed restricted breathing protection (Ex nR)

⑤ For fixtures with guards, add letter **G** before adding voltage designation.

⑥ Mercury vapor and metal halide luminaires are not available for purchase within the United States. Please check with your countries governing legislation regarding allowable lamp types before ordering.

Mercmaster™ III HID 50–250 Watt Luminaires

50 W, 70 W, 100 W, 150 W HPS

High Reactance, High Power Factor (min. P.F. 90%). Heat-Resistant Prismatic Glass Globe or Closed Prismatic Glass Refractor. Mogul Base Lamps.

CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2 Ex nR IIC (Z)
Class II, Division 1 and 2, Groups E, F, G
Class III

CEC:

Type 4X
IP66

Catalog Numbers ③④⑤ with Type V 8" Refractor or G3 Globe ②				
Lamp Type	Lamp Watts	Hub Size (Inches)	with Globe	
Wall — Five Hubs, Four Close-Up Plugs				
	HPS	50	3/4 1	KPWL5075 KPWL5010
	HPS	70	3/4 1	KPWL7075 KPWL7010
	HPS	100	3/4 1	KPWL1075 KPWL1010
	HPS	150	3/4 1	KPWL1575 KPWL1510
25° Stanchion — One Hub				
	HPS	50	1-1/4 1-1/2	KPSL50125 KPSL50150
	HPS	70	1-1/4 1-1/2	KPSL70125 KPSL70150
	HPS	100	1-1/4 1-1/2	KPSL10125 KPSL10150
	HPS	150	1-1/4 1-1/2	KPSL15125 KPSL15150
90° Stanchion — One Hub				
	HPS	50	1-1/4 1-1/2	KPRL50125 KPRL50150
	HPS	70	1-1/4 1-1/2	KPRL70125 KPRL70150
	HPS	100	1-1/4 1-1/2	KPRL10125 KPRL10150
	HPS	150	1-1/4 1-1/2	KPRL15125 KPRL15150

② To order fixtures with large globe change **J5** to **G3**; for fixture with NEMA Type I or NEMA Type III refractor, change final digit **5** in catalog number to **1** or **3**.

③ Add the following voltage and frequency designation before **Z** suffix:

Lamp Type	Lamp Watts	Voltage Suffixes						
		C2	C3	C6	C7	MT	TT	XP
HPS	50	—	—	—	—	X	X	X
HPS	70	—	—	—	—	X	X	X
HPS	100	—	—	X	X	X	X	X
HPS	150	X	X	X	X	X	X	X
PSMH	70	—	—	—	—	X	X	X
PSMH	100	—	—	—	—	X	X	X
PSMH	150	—	—	—	—	X	X	X
PSMH	175	—	—	—	—	X	X	X
PSMH	200	—	—	—	—	X	X	X
PSMH	250	—	—	—	—	X	X	X
MH ⑥	175	X	X	X	X	—	X	—
MH ⑥	250	X	X	X	X	—	X	—

Voltagess:

C2 - 208 V 60 Hz, CWI

C3 - 240 V 60 Hz, CWI

C6 - 480 V 60 Hz, CWI

C7 - 600 V 60 Hz, CWI

LB - Incandescent, 120 V 60 Hz

MT - 120/208/240/277 V 60 Hz

TT - 120/277/347 V 60 Hz, CWA

XP - 220-240 V, 50Hz, CWA

④ Add **Z** for factory sealed restricted breathing protection (Ex nR)

⑤ For fixtures with guards, add letter **G** before adding voltage designation.

⑥ Mercury vapor and metal halide luminaires are not available for purchase within the United States. Please check with your countries governing legislation regarding allowable lamp types before ordering.

Mercmaster™ III HID 50–250 Watt Luminaires

70 W, 100 W, 150 W, 175 W, 200 W, 250 W PSMH

High Reactance, High Power Factor (min. P.F. 90%). Heat-Resistant Prismatic Glass Globe or Closed Prismatic Glass Refractor. Mogul Base Lamps

CEC:
Class I, Division 2, Groups A, B, C, D
Class I, Zone 2 Ex nR IIC (Z)
Class II, Division 1 and 2, Groups E, F, G
Class III

CEC:
Type 4X
IP66



Pendant — One Hub, Rigid Mounting ①

Lamp Type	Lamp Watts	Hub Size (Inches)	Catalog Numbers ③④⑤	
			with Globe	with Type V 8" Refractor ②
PSMH	70	3/4 1	KPAH7075 KPAH7010	KPAH7075J5 KPAH7010J5
PSMH	100	3/4 1	KPAH1075 KPAH1010	KPAH1075J5 KPAH1010J5
PSMH	150	3/4 1	KPAP1575 KPAP1510	KPAP1575J5 KPAP1510J5
PSMH	175	3/4 1	KPAP1775 KPAP1710	KPAP1775J5 KPAP1710J5
PSMH	200	3/4 1	KPAP2075 KPAP2010	KPAP2075J5 KPAP2010J5
PSMH	250 ⑥	3/4 1	KPAP2575 KPAP2510	KPAP2575J5 KPAP2510J5



Pendant Cone — One Hub, Rigid Mounting

PSMH	70	3/4 1	KPDH7075 KPDH7010	KPDH7075J5 KPDH7010J5
PSMH	100	3/4 1	KPDH1075 KPDH1010	KPDH1075J5 KPDH1010J5
PSMH	150	3/4 1	KPDP1575 KPDP1510	KPDP1575J5 KPDP1510J5
PSMH	175	3/4 1	KPDP1775 KPDP1710	KPDP1775J5 KPDP1710J5
PSMH	200	3/4 1	KPDP2075 KPDP2010	KPDP2075J5 KPDP2010J5
PSMH	250 ⑥	3/4 1	KPDP2575 KPDP2510	KPDP2575J5 KPDP2510J5



Ceiling — Five Hubs, Four Close-Up Plugs

PSMH	70	3/4 1	KPCH7075 KPCH7010	KPCH7075J5 KPCH7010J5
PSMH	100	3/4 1	KPCH1075 KPCH1010	KPCH1075J5 KPCH1010J5
PSMH	150	3/4 1	KPCP1575 KPCP1510	KPCP1575J5 KPCP1510J5
PSMH	175	3/4 1	KPCP1775 KPCP1710	KPCP1775J5 KPCP1710J5
PSMH	200	3/4 1	KPCP2075 KPCP2010	KPCP2075J5 KPCP2010J5
PSMH	250 ⑥	3/4 1	KPCP2575 KPCP2510	KPCP2575J5 KPCP2510J5

① For Flexible Pendant Mount, change **A** to **F** in catalog number (except 50 W HPS).

② To order fixtures with large globe change **J5** to **G3**; for fixture with NEMA Type I or NEMA Type III refractor, change final digit **5** in catalog number to **1** or **3**.

③ Add the following voltage and frequency designation before **Z** suffix:

Lamp Type	Lamp Watts	Voltage Suffixes						
		C2	C3	C6	C7	MT	TT	XP
HPS	50	—	—	—	—	X	X	X
HPS	70	—	—	—	—	X	X	X
HPS	100	—	—	X	X	X	X	X
HPS	150	X	X	X	X	X	X	X
PSMH	70	—	—	—	—	X	X	X
PSMH	100	—	—	—	—	X	X	X
PSMH	150	—	—	—	—	X	X	X
PSMH	175	—	—	—	—	X	X	X
PSMH	200	—	—	—	—	X	X	X
PSMH	250	—	—	—	—	X	X	X
MH ⑦	175	X	X	X	X	—	X	—
MH ⑦	250	X	X	X	X	—	X	—

Voltages:

C2 - 208 V 60 Hz, CWI

C3 - 240 V 60 Hz, CWI

C6 - 480 V 60 Hz, CWI

C7 - 600 V 60 Hz, CWI

LB - Incandescent, 120 V 60 Hz

MT - 120/208/240/277 V 60 Hz

TT - 120/277/347 V 60 Hz, CWA

XP - 220-240 V, 50Hz, CWA

④ Add **Z** for factory sealed restricted breathing protection (Ex nR)

⑤ For fixtures with guards, add letter **G** before adding voltage designation.

⑥ Available in MT and TT only. MT and TT fixtures are not UL Listed.

⑦ Mercury vapor and metal halide luminaires are not available for purchase within the United States. Please check with your countries governing legislation regarding allowable lamp types before ordering.

Mercmaster™ III HID 50–250 Watt Luminaires

70 W, 100 W, 150 W, 175 W, 200 W, 250 W PSMH

High Reactance, High Power Factor (min. P.F. 90%). Heat-Resistant Prismatic Glass Globe or Closed Prismatic Glass Refractor. Mogul Base Lamps.

CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2 Ex nR IIC (Z)
Class II, Division 1 and 2, Groups E, F, G
Class III

CEC:

Type 4X
IP66

	Lamp Type	Lamp Watts	Hub Size (Inches)	Catalog Numbers ③④⑤ with Globe with Type V 8" Refractor ②	
Wall — Five Hubs, Four Close-Up Plugs					
	PSMH	70	3/4 1	KPWH7075 KPWH7010	KPWH7075J5 KPWH7010J5
	PSMH	100	3/4 1	KPWH1075 KPWH1010	KPWH1075J5 KPWH1010J5
	PSMH	150	3/4 1	KPWP1575 KPWP1510	KPWP1575J5 KPWP1510J5
	PSMH	175	3/4 1	KPWP1775 KPWP1710	KPWP1775J5 KPWP1710J5
	PSMH	200	3/4 1	KPWP2075 KPWP2010	KPWP2075J5 KPWP2010J5
	PSMH	250 ⑥	3/4 1	KPWP2575 KPWP2510	KPWP2575J5 KPWP2510J5
25° Stanchion — One Hub					
	PSMH	70	1-1/4 1-1/2	KPSH70125 KPSH70150	KPSH70125J5 KPSH70150J5
	PSMH	100	1-1/4 1-1/2	KPSH10125 KPSH10150	KPSH10125J5 KPSH10150J5
	PSMH	150	1-1/4 1-1/2	KPSP15125 KPSP15150	KPSP15125J5 KPSP15150J5
	PSMH	175	1-1/4 1-1/2	KPSP17125 KPSP17150	KPSP17125J5 KPSP17150J5
	PSMH	200	1-1/4 1-1/2	KPSP20125 KPSP20150	KPSP20125J5 KPSP20150J5
	PSMH	250 ⑥	1-1/4 1-1/2	KPSP25125 KPSP25150	KPSP25125J5 KPSP25150J5
90° Stanchion — One Hub					
	PSMH	70	1-1/4 1-1/2	KPRH70125 KPRH70150	KPRH70125J5 KPRH70150J5
	PSMH	100	1-1/4 1-1/2	KPRH10125 KPRH10150	KPRH10125J5 KPRH10150J5
	PSMH	150	1-1/4 1-1/2	KPRP15125 KPRP15150	KPRP15125J5 KPRP15150J5
	PSMH	175	1-1/4 1-1/2	KPRP17125 KPRP17150	KPRP17125J5 KPRP17150J5
	PSMH	200	1-1/4 1-1/2	KPRP20125 KPRP20150	KPRP20125J5 KPRP20150J5
	PSMH	250 ⑥	1-1/4 1-1/2	KPRP25125 KPRP25150	KPRP25125J5 KPRP25150J5

Shown with Globe and Optional Guard

② To order fixtures with large globe change **J5** to **G3**; for fixture with NEMA Type I or NEMA Type III refractor, change final digit 5 in catalog number to 1 or 3.

③ Add the following voltage and frequency designation before **Z** suffix:

Lamp Type	Lamp Watts	Voltage Suffixes						
		C2	C3	C6	C7	MT	TT	XP
HPS	50	—	—	—	—	X	X	X
HPS	70	—	—	—	—	X	X	X
HPS	100	—	—	X	X	X	X	X
HPS	150	X	X	X	X	X	X	X
PSMH	70	—	—	—	—	X	X	X
PSMH	100	—	—	—	—	X	X	X
PSMH	150	—	—	—	—	X	X	X
PSMH	175	—	—	—	—	X	X	X
PSMH	200	—	—	—	—	X	X	X
PSMH	250	—	—	—	—	X	X	X
MH ⑦	175	X	X	X	X	—	X	—
MH ⑦	250	X	X	X	X	—	X	—

Voltages:

C2 - 208 V 60 Hz, CWI

C3 - 240 V 60 Hz, CWI

C6 - 480 V 60 Hz, CWI

C7 - 600 V 60 Hz, CWI

LB - Incandescent, 120 V 60 Hz

MT - 120/208/240/277 V 60 Hz

TT - 120/277/347 V 60 Hz, CWA

XP - 220-240 V, 50Hz, CWA

④ Add **Z** for factory sealed restricted breathing protection (Ex nR)

⑤ For fixtures with guards, add letter **G** before adding voltage designation.

⑥ Available in MT and TT only. MT and TT fixtures are not UL Listed.

⑦ Mercury vapor and metal halide luminaires are not available for purchase within the United States. Please check with your countries governing legislation regarding allowable lamp types before ordering.

Mercmaster™ III HID 50–250 Watt Luminaires

175 W, 250 W MH

High Reactance, High Power Factor (min. P.F. 90%). Heat-Resistant Prismatic Glass Globe or Closed Prismatic Glass Refractor. Mogul Base Lamps

CEC:
Class I, Division 2, Groups A, B, C, D
Class I, Zone 2 Ex nR IIC (Z)
Class II, Division 1 and 2, Groups E, F, G
Class III

CEC:
Type 4X
IP66

Lamp Type ⑦	Lamp Watts	Hub Size (Inches)	Catalog Numbers ③④⑤	
			with Globe	with Type V 8" Refractor ②

Pendant — One Hub, Rigid Mounting ①



MH	175	3/4	KPAH1775	KPAH1775J5
		1	KPAH1710	KPAH1710J5
MH	250 ⑥	3/4	KPAH2575	KPAH2575J5
		1	KPAH2510	KPAH2510J5

Pendant Cone — One Hub, Rigid Mounting



MH	175	3/4	KPDH1775	KPDH1775J5
		1	KPDH1710	KPDH1710J5
MH	250 ⑥	3/4	KPDH2575	KPDH2575J5
		1	KPDH2510	KPDH2510J5

Ceiling — Five Hubs, Four Close-Up Plugs



MH	175	3/4	KPCH1775	KPCH1775J5
		1	KPCH1710	KPCH1710J5
MH	250 ⑥	3/4	KPCH2575	KPCH2575J5
		1	KPCH2510	KPCH2510J5

① For Flexible Pendant Mount, change **A** to **F** in catalog number (except 50 W HPS).

② To order fixtures with large globe change **J5** to **G3**; for fixture with NEMA Type I or NEMA Type III refractor, change final digit **5** in catalog number to **1** or **3**.

③ Add the following voltage and frequency designation before **Z** suffix:

Lamp Type	Lamp Watts	Voltage Suffixes						
		C2	C3	C6	C7	MT	TT	XP
HPS	50	—	—	—	—	X	X	X
HPS	70	—	—	—	—	X	X	X
HPS	100	—	—	X	X	X	X	X
HPS	150	X	X	X	X	X	X	X
PSMH	70	—	—	—	—	X	X	X
PSMH	100	—	—	—	—	X	X	X
PSMH	150	—	—	—	—	X	X	X
PSMH	175	—	—	—	—	X	X	X
PSMH	200	—	—	—	—	X	X	X
PSMH	250	—	—	—	—	X	X	X
MH ⑦	175	X	X	X	X	—	X	—
MH ⑦	250	X	X	X	X	—	X	—

Voltages:

C2 - 208 V 60 Hz, CWI

C3 - 240 V 60 Hz, CWI

C6 - 480 V 60 Hz, CWI

C7 - 600 V 60 Hz, CWI

LB - Incandescent, 120 V 60 Hz

MT - 120/208/240/277 V 60 Hz

TT - 120/277/347 V 60 Hz, CWA

XP - 220-240 V, 50Hz, CWA

④ Add **Z** for factory sealed restricted breathing protection (Ex nR)

⑤ For fixtures with guards, add letter **G** before adding voltage designation.

⑥ Available in MT and TT only. MT and TT fixtures are not UL Listed.

⑦ Mercury vapor and metal halide luminaires are not available for purchase within the United States. Please check with your countries governing legislation regarding allowable lamp types before ordering.

Mercmaster™ III HID 50–250 Watt Luminaires

175 W, 250 W MH

High Reactance, High Power Factor (min. P.F. 90%). Heat-Resistant Prismatic Glass Globe or Closed Prismatic Glass Refractor. Mogul Base Lamps

CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2 Ex nR IIC (Z)
Class II, Division 1 and 2, Groups E, F, G
Class III

CEC:

Type 4X
IP66

Lamp Type ⑦	Lamp Watts	Hub Size (Inches)	Catalog Numbers ③④⑤	
			with Globe	with Type V 8" Refractor ②

Wall — Five Hubs, Four Close-Up Plugs



MH	175	3/4	KPWH1775	KPWH1775J5
		1	KPWH1710	KPWH1710J5
MH	250 ⑥	3/4	KPWH2575	KPWH2575J5
		1	KPWH2510	KPWH2510J5

25° Stanchion — One Hub



MH	175	1-1/4	KPSH17125	KPSH17125J5
		1-1/2	KPSH17150	KPSH17150J5
MH	250 ⑥	1-1/4	KPSH25125	KPSH25125J5
		1-1/2	KPSH25150	KPSH25150J5

90° Stanchion — One Hub



MH	175	1-1/4	KPRH17125	KPRH17125J5
		1-1/2	KPRH17150	KPRH17150J5
MH	250 ⑥	1-1/4	KPRH25125	KPRH25125J5
		1-1/2	KPRH25150	KPRH25150J5

Shown with Globe and Optional Guard

② To order fixtures with large globe change **J5** to **G3**; for fixture with NEMA Type I or NEMA Type III refractor, change final digit **5** in catalog number to **1** or **3**.

③ Add the following voltage and frequency designation before **Z** suffix:

Lamp Type	Lamp Watts	C2	C3	C6	Voltage Suffixes				MT	TT	XP
					C7						
HPS	50	—	—	—	—	—	—	—	X	X	X
HPS	70	—	—	—	—	—	—	—	X	X	X
HPS	100	—	—	X	X	—	—	—	X	X	X
HPS	150	X	X	X	X	—	—	—	X	X	X
PSMH	70	—	—	—	—	—	—	—	X	X	X
PSMH	100	—	—	—	—	—	—	—	X	X	X
PSMH	150	—	—	—	—	—	—	—	X	X	X
PSMH	175	—	—	—	—	—	—	—	X	X	X
PSMH	200	—	—	—	—	—	—	—	X	X	X
PSMH	250	—	—	—	—	—	—	—	X	X	X
MH ⑦	175	X	X	X	X	—	—	—	—	X	—
MH ⑦	250	X	X	X	X	—	—	—	—	X	—

Voltages:

C2 - 208 V 60 Hz, CWI

C3 - 240 V 60 Hz, CWI

C6 - 480 V 60 Hz, CWI

C7 - 600 V 60 Hz, CWI

LB - Incandescent, 120 V 60 Hz

MT - 120/208/240/277 V 60 Hz

TT - 120/277/347 V 60 Hz, CWA

XP - 220-240 V, 50Hz, CWA

④ Add **Z** for factory sealed restricted breathing protection (Ex nR)

⑤ For fixtures with guards, add letter **G** before adding voltage designation.

⑥ Available in MT and TT only. MT and TT fixtures are not UL Listed.

⑦ Mercury vapor and metal halide luminaires are not available for purchase within the United States. Please check with your countries governing legislation regarding allowable lamp types before ordering.

Mercmaster™ III HID 50–250 Watt PRE–PAK Luminaires

Factory-Assembled Fixtures

For 70 W, 100 W or 150 W High Pressure Sodium Lamps, or 100 W or 175 W Pulse Start Metal Halide Lamps. Mogul Base Lamps.

CEC:
Class I, Division 2, Groups A, B, C, D
Class I, Zone 2 Ex nR IIC (Z)
Class II, Division 1 and 2, Groups E, F, G
Class III

CEC:
Type 4X
IP66

These pre-packaged fixture component combinations are delivered fully assembled and packed in a single carton. They are available with or without lamp, and with choice of globe or NEMA Type I, III or V refractors – all with or without guards. PRE-PAK units simplify ordering, stocking and shipping, and result in savings on job-site assembly and installation time and costs.

Catalog numbers do not include mounting hood or reflector. For mounting hood and reflectors selection, see below and order separately. Hood and Reflector will be packaged separately.



PRE-PAK Fixtures ①

Lamp Type and Watts	Ballast Assembly with Globe Only	Ballast Assembly with Globe and Guard	Ballast Assembly with G3 Globe Only	Ballast Assembly with Refractor Only ③	Ballast Assembly with Refractor and Guard
100 W PSMH ②	KPBU17P-G2N-TT-L	KPBU17P-G2G-TT-L	—	KPBU17P-J5N-TT-L	KPBU17P-J5G-TT-L
175 W PSMH	KPBU20P-G2N-TT-L	KPBU20P-G2G-TT-L	—	KPBU20P-J5N-TT-L	KPBU20P-J5G-TT-L
70 W HPS	KPBU70L-G2N-TT-L	KPBU70L-G2G-TT-L	—	KPBU70L-J5N-TT-L	KPBU70L-J5G-TT-L
100 W HPS	KPBU10L-G2N-TT-L	KPBU10L-G2G-TT-L	KPBU10L-G3N-TT-L	KPBU10L-J5N-TT-L	KPBU10L-J5G-TT-L
150 W HPS	KPBU15L-G2N-TT-L	KPBU15L-G2G-TT-L	—	KPBU15L-J5N-TT-L	KPBU15L-J5G-TT-L
175 W MH ④	KPBU17H-G2N-TT-L	KPBU17H-G2G-TT-L	—	KPBU17H-J5N-TT-L	KPBU17H-J5G-TT-L
250 W MH ④	KPBU25H-G2N-TT-L	KPBU25H-G2G-TT-L	—	KPBU25H-J5N-TT-L	KPBU25H-J5G-TT-L

Mounting Hoods

Description	Hub Size (Inches)	Catalog Number
Pendant One Hub, Rigid Mounting	3/4 1	KPA-75 KPA-100
Pendant – Flexible One Hub, Flexible Mounting	3/4 1	KPAF-75 KPAF-100
Pendant Cone One Hub, Rigid	3/4 1	KPCH-75 KPCH-100
Ceiling Five Hubs, Four Close-Up Plugs	3/4 1	KPC-75 KPC-100
Wall Five Hubs, Four Close-Up Plugs	3/4 1	KPWB-75 KPWB-100
25° Stanchion One Hub	1-1/4 1-1/2	KPS-125 KPS-150
90° Stanchion One Hub	1-1/4 1-1/2	KPST-125 KPST-150

White Polyester Reflectors

Description	Catalog Number
Standard Dome For Globe Fixtures	KR2-ST
30° Angle For Globe Fixtures	KR2-AN
Standard Dome For Glass Refractor Fixtures	CMR-4ST
30° Angle For Glass Refractor Fixtures	CMR-4AN

① All catalog numbers above are fixtures without lamp. To order fixture complete with appropriate installed lamp, add suffix L to catalog number. All PRE-PAK fixtures include multi-tap ballast for operation on 120 V, 277 V OR 347 V lines. Fixture component combinations listed are furnished completely assembled in a single carton.

② 100 W fixtures use ED-28 mogul base lamps.

③ Refractor catalog numbers listed are for NEMA Type V. To order fixture with Type III refractor, change J5 in catalog number to J3; for Type I refractor, change J5 to J1.

④ Mercury vapor and metal halide luminaires are not available for purchase within the United States. Please check with your countries governing legislation regarding allowable lamp types before ordering.

Mercmaster™ III HID 50–250 Watt Luminaires

High Pressure Sodium, Pulse Start Metal Halide and Metal Halide

Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2 Ex nR IIC (Z)
Class II, Division 1 and 2, Groups E, F, G
Class III

CEC:

Type 4X
IP66

Mounting Hoods

	Description	Hub Size (Inches)	Catalog Number
Pendant 	One Hub, Rigid Mounting	3/4	KPA-75
		1	KPA-100
Pendant — Flexible 	One Hub, Flexible Mounting	3/4	KPAF-75
		1	KPAF-100
Pendant Cone 	One Hub, Rigid	3/4	KPCH-75
		1	KPCH-100
Ceiling 	Five Hubs, Four Close-Up Plugs	3/4	KPC-75
		1	KPC-100
Wall 	Five Hubs, Four Close-Up Plugs	3/4	KPWB-75
		1	KPWB-100
25° Stanchion 	One Hub	1-1/4	KPS-125
		1-1/2	KPS-150
90° Stanchion 	One Hub	1-1/4	KPST-125
		1-1/2	KPST-150

Appleton®

HID/AREA: NEC/CEC ENCLOSED AND GASKETED

Mercmaster™ III HID 50–250 Watt Luminaires

High Pressure Sodium, Pulse Start Metal Halide and Metal Halide

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CEC:
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Class I, Zone 2 Ex nR IIC (Z)
Class II, Division 1 and 2, Groups E, F, G
Class III

CEC:
Type 4X
IP66

Ballast Bodies



Ballast Body for Glass Globe (shown)

High Pressure Sodium
High Power Factor (Min. P.F. 90%)



Ballast Body for Glass Refractor or G3 Globe (shown)

Pulse Start Metal Halide
Super Constant Wattage Autotransformer (Min. P.F. 90%)

Lamp Type	Lamp Watts	Catalog Number ②④⑤		Voltage Suffixes							
		For Globe	For G3 Globe ①/ Refractor	C2	C3	C6	C7	LB	MT	TT	XP
HPS	50 ③	KPB50L	KPBR50L	—	—	—	—	—	X	X	X
HPS	70 ③	KPB70L	KPBR70L	—	—	—	—	—	X	X	X
HPS	100 ③	KPB100L	KPBR100L	—	—	X	X	—	X	X	X
HPS	150 ③	KPB150L	KPBR150L	X	X	X	X	—	X	X	X
PSMH	70	KPB70H	KPBR70H	—	—	—	—	—	X	X	X
PSMH	100	KPB100H	KPBR100H	—	—	—	—	—	X	X	X
PSMH	150	KPB150P	KPBR150P	—	—	—	—	—	X	X	X
PSMH	175	KPB175P	KPBR175P	—	—	—	—	—	X	X	X
PSMH	200	KPB200P	KPBR200P	—	—	—	—	—	X	X	X
PSMH ⑥	250	KPBG250P	KPBR250P	—	—	—	—	—	X	X	X
MH ⑦	175	KPB175H	KPBR175H	X	X	X	X	—	—	X	—
MH ⑦	250	KPB250H	KPBR250H	X	X	X	X	—	—	X	—

Voltages:

C2 - 208 V 60 Hz, CWI
C3 - 240 V 60 Hz, CWI
C6 - 480 V 60 Hz, CWI
C7 - 600 V 60 Hz, CWI
LB - Incandescent, 120 V 60 Hz
MT - 120/208/240/277 V 60 Hz
TT - 120/277/347 V 60 Hz, CWA
XP - 220-240 V, 50Hz, CWA

① For HPS version fixtures only.

② After voltage suffix add: -S for Smart Starter.

③ After voltage suffix add: -R for ballast body with Hot Restrike Ignitor.

④ Add -E after voltage suffix for ballast body with provision for Quartz Emergency Light. Not suitable for hazardous locations.

⑤ Add Z for factory sealed restricted breathing protection (Ex nR)

⑥ MT and TT ballast bodies are not UL Listed for 250W PSMH version fixtures only.

⑦ Mercury vapor and metal halide luminaires are not available for purchase within the United States. Please check with your countries governing legislation regarding allowable lamp types before ordering.

Mercmaster™ III HID 50–250 Watt Luminaires

High Pressure Sodium, Pulse Start Metal Halide and Metal Halide

Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2 Ex nR IIC (Z)
Class II, Division 1 and 2, Groups E, F, G
Class III

CEC:

Type 4X
IP66

Description		Catalog Number
Prismatic Glass Globes — Heat-Resistant		
 Glass Globe	For use in areas where fixture is subject to extreme thermal shock Heat-Resistant	Clear VPGL-2HR
		Amber VPGL-2AM
		Blue VPGL-2BL
		Green VPGL-2GR
		Red VPGL-2RE
 G3 Glass Globe		Clear VPGL3HR
Tuff-Skin® Coated Prismatic Glass Globes — For Non-Classified Areas		
 Tuff-Skin® Glass Globe	For use in areas where fixture is subject to extreme thermal shock Heat-Resistant	Clear VPGL-2HRT
Polycarbonate Globes — Impact-Resistant ①		
 Polycarbonate Globe	Use 100 watt lamp max. Do not use in ambients exceeding 25 °C (77 °F).	Clear VPGL-2PL
		Amber VPGL-2AMPL
		Green VPGL-2GRPL
		Red VPGL-2REPL

① Polycarbonate globes are shatter-resistant – for use in processing plants, canneries, dairies, bakeries or anywhere broken glass would prove a hazard. Ideally suited for areas where vandalism, high replacement and high maintenance costs are a problem. Do not use in ambients exceeding +25 °C (+77 °F). For burning in vertical base-up positions only.

Mercmaster™ III HID 50–250 Watt Luminaires

High Pressure Sodium, Pulse Start Metal Halide and Metal Halide

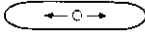
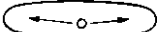
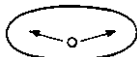
Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2 Ex nR IIC (Z)
Class II, Division 1 and 2, Groups E, F, G
Class III

CEC:

Type 4X
IP66

	Light Distribution	IES/NEMA Distribution Curves	Catalog Number
Closed Prismatic Glass Refractors — Heat-Resistant			
 Glass Refractor	NEMA Type I		LPG-R1
	NEMA Type III		LPG-R3
	NEMA Type V		LPG-R5
Closed Prismatic Polymeric Refractors			
For use with PSMH lamps, 100 W max. +40 °C (+104 °F) max. ambient temperature. Suitable for Class II, Division 1 and 2, Groups F, G; NEMA 4X, UL 1598A Marine Type Electric Fixtures Outside Type (Salt Water)			
 Polymeric Refractor	NEMA Type II		LPRF-2CP
	NEMA Type III		LPRF-3CP
	NEMA Type IV		LPRF-4CP
	NEMA Type V		LPRF-5CP

Mercmaster™ III HID 50–250 Watt Luminaires

High Pressure Sodium, Pulse Start Metal Halide and Metal Halide

Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2 Ex nR IIC (Z)
Class II, Division 1 and 2, Groups E, F, G
Class III

CEC:

Type 4X
IP66

		Item	Description	Catalog Number
White Polyester Reflectors				
		For Globe Fixtures	Standard Dome	KR2-ST
			Deep Dome	KR2-DD ①
			30° Angle	KR2-AN
		For Glass Refractor Fixtures ②	Standard Dome	CMR-4ST
			Deep Dome	CMR-4DD ①
			30° Angle	CMR-4AN
Standard Dome	30° Angle			
Guards				
		Globe Guard		KGU2
		G3 Globe/Refractor Guard		KRG2
Globe Guard	Refractor Guard			
Replacement Globe Gaskets — Silicone Rubber				
	Globe Gasket		VPGL-GK	
	G3 Globe/Refractor Gasket		KRF-GK	
Globe Gaskets				
Retrofit Pendant Mounting Adapter				
	Permits use of Mercmaster III pendant hood with 3/4" hub on existing V-51 mounting hood.			LPAD-1
	Mounting Adapter			

① Dark Skies Compliant.

② Fixtures with refractors are not UL Listed when used with reflectors.

Mercmaster™ III HID 50–250 Watt Luminaires

High Pressure Sodium, Pulse Start Metal Halide and Metal Halide

Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

CEC:
Class I, Division 2, Groups A, B, C, D
Class I, Zone 2 Ex nR IIC (Z)
Class II, Division 1 and 2, Groups E, F, G
Class III

CEC:
Type 4X
IP66

Ballast Housing Weights

Lamp Watts	HPS — Wt. kg (lb) ① ②	PSMH — Wt. kg (lb) ① ②
Globe Housing with Ballast		
50	5.7 (12.6)	—
70	6.8 (15.0)	6.9 (15.2)
100	7.3 (16.0)	7.4 (16.3)
150	7.7 (17.0)	7.6 (16.8)
175	—	7.8 (17.2)
200	—	8.2 (18.0)
250	—	8.4 (18.5)
Reflector Housing with Ballast		
50	5.9 (13.0)	—
70	7.0 (15.4)	7.1 (15.7)
100	7.5 (16.5)	7.6 (16.8)
150	7.9 (17.4)	7.8 (17.2)
175	—	8.1 (17.9)
200	—	8.4 (18.5)
250	—	8.6 (19.0)

Component and Accessory Weights

Item	Wt. kg (lb) ①
Mounting Hoods	
Pendant	1.0 (2.20)
Pendant Cone	1.1 (2.43)
Ceiling	1.4 (3.09)
Wall	1.8 (3.97)
25° Stanchion	1.5 (3.31)
Straight Stanchion	1.7 (3.75)
Refractors, Globes and Guards	
8" Glass Refractor/G3 Globe	2.4 (5.29)
Glass Globe	1.7 (3.75)
Globe Guard	0.5 (1.10)
Refractor Guard	0.5 (1.10)
Reflectors	
Standard Dome	1.1 (2.43)
30° Angle	1.1 (2.43)

① Weights are approximate.

② Add 0.5 kg (1 lbs) for HPS fixtures with Hot Restrike. Add 0.1 kg (0.25 lbs) for Quartz Emergency Light.

Mercmaster™ III HID 50–250 Watt Luminaires

High Pressure Sodium, Pulse Start Metal Halide and Metal Halide

Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2 Ex nR IIC (Z)
Class II, Division 1 and 2, Groups E, F, G
Class III

CEC:

Type 4X
IP66

Electrical Specifications

Line Voltage	Type of Ballast ①	Starting Amps	Operating Amps	Total Watts
50 Watt High Pressure Sodium				
120	HX-HPF	0.58	0.58	64
208	HX-HPF	0.35	0.33	64
240	HX-HPF	0.31	0.29	64
277	HX-HPF	0.25	0.25	64
347	HX-HPF	0.26	0.21	68
70 Watt High Pressure Sodium				
120	HX-HPF	0.90	0.82	94
208	HX-HPF	0.50	0.48	94
240	HX-HPF	0.44	0.41	94
277	HX-HPF	0.35	0.36	94
347	HX-HPF	0.30	0.30	94
480	HX-HPF	0.21	0.21	94
100 Watt High Pressure Sodium				
120	HX-HPF	1.30	1.15	130
208	HX-HPF	0.76	0.67	130
240	HX-HPF	0.66	0.60	130
277	HX-HPF	0.60	0.52	130
347	HX-HPF	0.45	0.39	130
480	HX-HPF	0.33	0.31	135
480	C.W.I.	0.17	0.30	130
600	C.W.I.	0.14	0.24	130
150 Watt High Pressure Sodium ②				
120	HX-HPF	2.00	1.70	188
208	HX-HPF	1.15	0.95	188
240	HX-HPF	1.00	0.85	188
277	HX-HPF	0.85	0.72	188
347	HX-HPF	0.52	0.56	188
480	HX-HPF	0.50	0.47	189
480	C.W.I.	0.25	0.42	190
600	C.W.I.	0.19	0.35	190
70 Watt Pulse Start Metal Halide				
120	HX-HPF	0.80	0.85	95
208	HX-HPF	0.50	0.52	95
240	HX-HPF	0.43	0.44	95
277	HX-HPF	0.39	0.39	95
347	HX-HPF	0.20	0.28	88
480	HX-HPF	0.26	0.23	95
100 Watt Pulse Start Metal Halide				
120	HX-HPF	1.20	1.15	130
208	HX-HPF	0.70	0.70	130
240	HX-HPF	0.61	0.58	130
277	HX-HPF	0.55	0.50	130
347	HX-HPF	0.40	0.40	129
480	HX-HPF	0.30	0.35	140

Line Voltage	Type of Ballast ①	Starting Amps	Operating Amps	Total Watts
150 Watt Pulse Start Metal Halide				
120	HX-HPF	1.75	1.60	188
208	HX-HPF	1.30	1.00	188
240	HX-HPF	0.85	0.80	188
277	HX-HPF	0.77	0.70	188
347 ③	Super C.W.A.	0.65	0.55	185
480	Super C.W.A.	0.45	0.42	185
175 Watt Pulse Start Metal Halide				
120	Super C.W.A.	0.90	1.78	199
208	Super C.W.A.	0.50	1.08	199
240	Super C.W.A.	0.35	0.89	199
277	Super C.W.A.	0.30	0.76	199
347 ③	Super C.W.A.	0.25	0.65	208
480	Super C.W.A.	0.25	0.50	213
175 Watt Metal Halide ④				
120	C.W.A.	1.30	1.80	210
208	C.W.A.	0.75	1.04	210
240	C.W.A.	0.65	0.90	210
277	C.W.A.	0.55	0.80	210
347	C.W.A.	0.50	0.65	210
480	C.W.I.	0.20	0.45	215
600	C.W.I.	0.16	0.37	215
175 Watt Metal Halide ④				
120	Super C.W.A.	1.30	1.80	213
208	Super C.W.A.	0.75	1.10	213
240	Super C.W.A.	0.65	0.90	213
277	Super C.W.A.	0.55	0.80	213
480	Super C.W.A.	0.35	0.45	213
250 Watt Metal Halide ④				
120	Super C.W.A.	1.20	2.60	298
208	Super C.W.A.	0.65	1.50	298
240	Super C.W.A.	0.60	1.30	298
277	Super C.W.A.	0.50	1.12	298
480	Super C.W.A.	0.30	0.65	298

① C.W.A. – Constant Wattage Autotransformer. HX-HPF – High Reactance High Power Factor Autotransformer. Super C.W.A. – Super Constant Wattage Autotransformer.

② 150 W HPS units equipped with ballasts to operate 55 volt lamps only.

③ Certified to meet the Canadian Electrical Code (CEC) only.

④ Mercury vapor and metal halide luminaires are not available for purchase within the United States. Please check with your countries governing legislation regarding allowable lamp types before ordering.

Mercmaster™ III HID 50–250 Watt Luminaires

High Pressure Sodium, Pulse Start Metal Halide and Metal Halide

Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

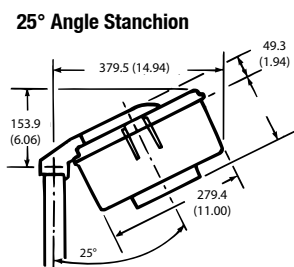
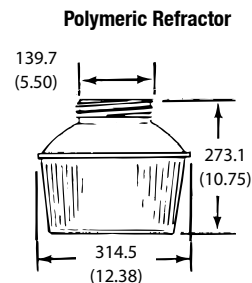
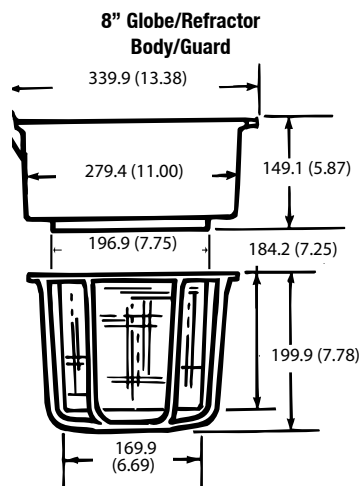
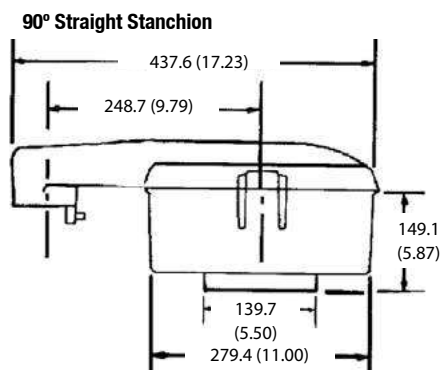
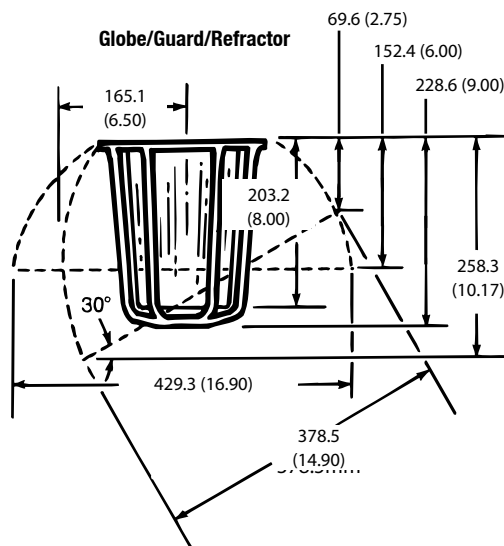
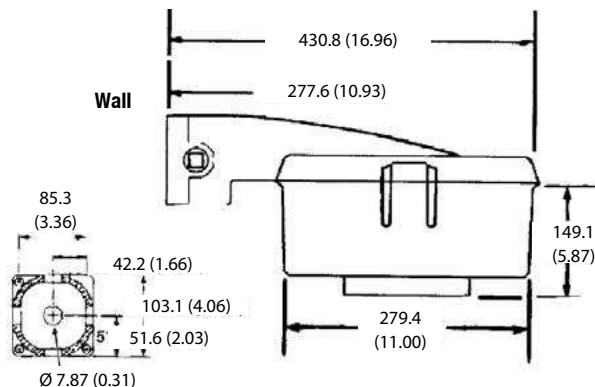
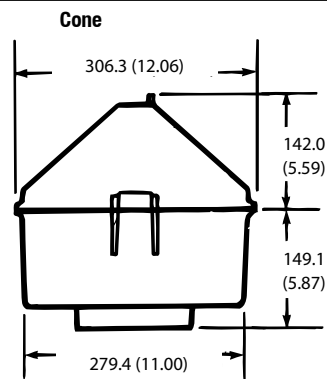
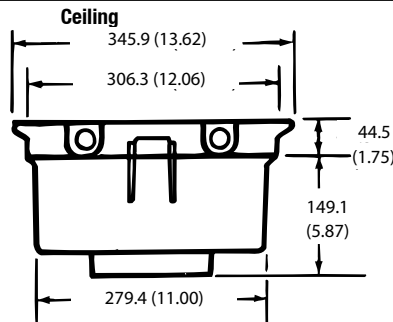
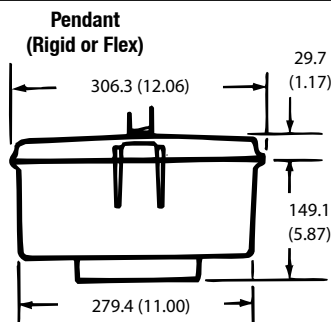
CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2 Ex nR IIC (Z)
Class II, Division 1 and 2, Groups E, F, G
Class III

CEC:

Type 4X
IP66

Dimensions in Millimeters (Inches)



PCD2 Series Factory Sealed Hazardous Location Photocontrol

For use in Class I, Division 2, Groups A, B, C, D locations

Maintains Class I, Division 2 rating for Mercmaster III – Low Profile, Mercmaster III, and Mercmaster III – 400 Series Luminaires, Mercmaster LED

NEC/CEC:
Class I, Division 2, Groups A, B, C, D
NEMA 4X

Applications

- Encapsulated photocontrol provides automatic dusk-to-dawn lighting control in Class I, Division 2 locations.
- Typical applications include walkways, security areas and any other outdoor lighting application.
- For use with Mercmaster III – Low Profile, Mercmaster III, and Mercmaster III – 400 Series Luminaires.
- For remote mounting in FS Boxes.

Features

- Factory sealed design eliminates the need for an explosionproof enclosure.
- Can be easily installed in the field.
- Solid state design for performance and reliability.
- Available for 120, 208, 240, or 277 volts.

- 50-400 W HID, incandescent or fluorescent, 50/60 Hz.
- 1000 V.A. Voltage/Ampere
- Minimum time delay: 15 seconds to eliminate nuisance tripping.
- Provided with (3) 18AWG stranded leads 152.4 mm (6 in) in length.
- Will fit through standard 1/2" knockout.
- Supplied with locknut and gasket.

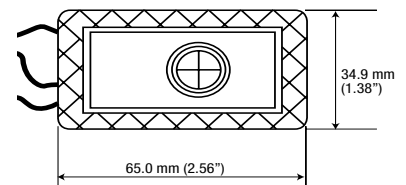
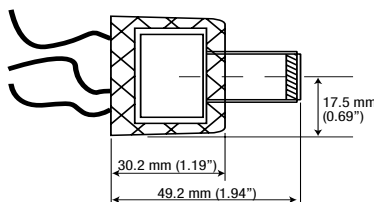
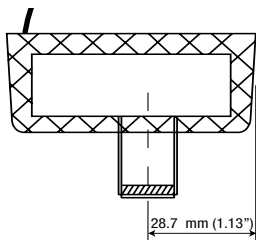
Materials

- Encapsulated with epoxy sealing compound
- FS: aluminum

NEC/CEC Certifications and Compliances

- UL Standard: 1604 – Hazardous (Classified) Locations
- cULus Recognized

	Voltage Range	Max VA	Max Current Amps	Suffix Designation Catalog Number
Factory-Installed Photocontrol - Not for ceiling or pendant cone. Add to fixture catalog after voltage; i.e.: KPWBL1075MTH1 .				
	120 V, 50/60 Hz	1000	—	H1
	208 V, 50/60 Hz	1000	—	H2
	240 V, 50/60 Hz	1000	—	H3
	277 V, 50/60 Hz	1000	—	H4
Photocontrol for Field Installation				
	120 V, 50/60 Hz	1000	8.3 Amp	PC120D2
	208 V, 50/60 Hz	1000	4.8 Amp	PC247D2
	240 V, 50/60 Hz	1000	4.2 Amp	
	277 V, 50/60 Hz	1000	3.6 Amp	
Photocontrol in FS Cover for Use with FS/FD Box Supplied with two stainless steel screws. For neoprene gasket, order catalog number FS-GKR-1N .				
	120 V, 50/60 Hz	1000	8.3 Amp	FSKA-PC120D2
	208, 50/60 Hz	1000	4.8 Amp	FSKA-PC247D2
	240 V, 50/60 Hz	1000	4.2 Amp	
	277 V, 50/60 Hz	1000	3.6 Amp	



Mercmaster™ III HID 50–250 Watt Luminaires

150 W HPS

* Photometric data is based on fixtures with 150-watt clear High Pressure Sodium lamp (16,000 lumen). For candlepower values of fixtures with other HPS lamps, use the following multipliers: for 70 W (6,400 lumen) HPS lamp – 0.40; for 50 W (4,000 lumen) HPS lamp – 0.25. For candlepower values of fixture with guard, multiply by 0.95.

CEC:
Class I, Division 2, Groups A, B, C, D
Class I, Zone 2 Ex nR IIC (Z)
Class II, Division 1 and 2, Groups E, F, G
Class III

CEC:
Type 4X
IP66

Photometric Data

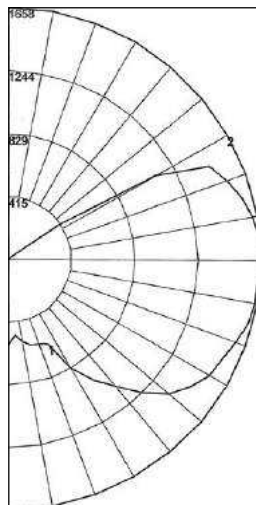
Zone Lumens Total Luminaire Efficiency = 86.1%

0-10 50.74 **CIE Type – Semi-Direct**

Plane	Spacing Criteria
0-180	2.82
90-270	2.82
Diagonal	2.80

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture
0-30	525.75	3.3	3.8
0-40	1136.81	7.1	8.3
0-60	3406.12	21.3	24.7
0-90	8463.75	52.9	61.4
90-120	4858.16	30.4	35.3
90-130	5299.62	33.1	38.5
90-150	5312.56	33.2	38.5
90-180	5313.30	33.2	38.6
180-0	13777.05	86.1	100.0



REPORT NUMBER: **KP15LG**

Lamps: 150 W High Pressure Sodium with Globe only *

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

% Ceiling	Rcc	80				70				50				30				10				0
% Walls	Rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
0	95	95	95	95	95	89	89	89	89	77	77	77	67	67	67	57	57	57	47	47	47	33
1	81	74	69	64	64	75	69	64	59	59	55	51	50	47	44	42	39	37	33	30	27	23
2	71	62	54	47	47	65	57	50	44	49	43	38	41	36	32	33	30	27	23	20	17	13
3	64	52	44	37	37	58	48	41	34	41	35	30	34	29	25	28	24	20	17	14	10	7
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5	52	40	31	24	24	48	37	29	23	31	24	19	26	20	16	21	16	13	10	7	4	1
6	48	35	26	20	20	44	32	25	19	27	21	16	23	17	13	18	14	11	8	6	3	0
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9	38	25	18	13	13	35	24	17	12	20	14	10	17	12	8	14	10	7	5	2	0	0
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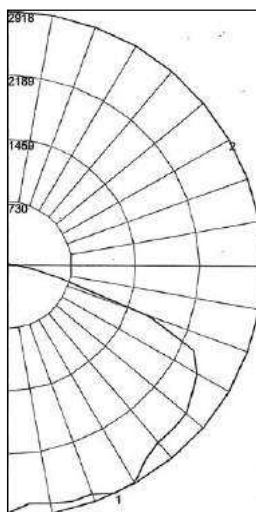
Zone Lumens Total Luminaire Efficiency = 73.6%

0-10 266.98 **CIE Type – Direct**

Plane	Spacing Criteria
0-180	1.46
90-270	1.46
Diagonal	1.68

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture
0-30	2403.44	15.0	20.4
0-40	4135.50	25.8	35.1
0-60	8520.70	53.3	72.3
0-90	11743.37	73.4	99.7
90-120	31.14	0.2	0.3
90-130	35.65	0.2	0.3
90-150	38.29	0.2	0.3
90-180	38.29	0.2	0.3
180-0	11781.65	73.6	100.0



REPORT NUMBER: **KP15LST**

Lamps: 150 W High Pressure Sodium with Standard Dome Reflector *

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

% Ceiling	Rcc	80				70				50				30				10				0
% Walls	Rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
0	88	88	88	88	88	86	86	86	86	82	82	82	78	78	78	75	75	75	73	73	73	73
1	79	76	72	69	69	77	74	71	68	71	68	66	68	66	64	65	64	62	60	58	56	54
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4	58	49	42	36	36	57	48	41	36	46	40	36	44	39	35	42	38	35	33	31	29	27
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6	49	38	31	26	26	47	38	31	26	36	30	26	35	30	25	34	29	25	24	22	20	18
7	45	34	27	23	23	44	34	27	23	33	27	22	31	26	22	30	26	22	20	18	16	14
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10	36	26	20	16	16	35	26	20	16	25	19	16	24	19	16	23	19	15	14	12	10	8

Mercmaster™ III HID 50–250 Watt Luminaires

150 W HPS

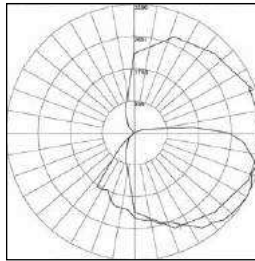
* Photometric data is based on fixtures with 150-watt clear High Pressure Sodium lamp (16,000 lumen). For candlepower values of fixtures with other HPS lamps, use the following multipliers: for 70 W (6,400 lumen) HPS lamp – 0.40; for 50 W (4,000 lumen) HPS lamp – 0.25. For candlepower values of fixture with guard, multiply by 0.95.

CEC:
 Class I, Division 2, Groups A, B, C, D
 Class I, Zone 2 Ex nR IIC (Z)
 Class II, Division 1 and 2, Groups E, F, G
 Class III

CEC:
 Type 4X
 IP66

Photometric Data

Zone	Lumens	Total Luminaire Efficiency = 73.1%			
0-10	222.62	CIE Type – Direct			
10-20	664.6				
20-30	1084.32				
30-40	1536.55	Plane	Spacing Criteria		
30-40	1536.55	0-180	2.06		
40-50	1771.90	90-270	1.58		
50-60	1771.51	Diagonal	1.62		
60-70	1668.93				
70-80	1422.36	Zonal Lumen Summary			
80-90	994.54	Zone	Lumens	% Lamp	% Fixture
90-100	432.23	0-30	1971.54	12.3	16.9
100-110	104.58	0-40	3508.09	21.9	30.0
110-120	20.99	0-60	7051.50	44.1	60.3
120-130	1.21	0-90	11137.33	69.6	95.2
130-140	0.04	90-120	557.80	3.5	4.8
140-150	0.00	90-130	559.01	3.5	4.8
150-160	0.00	90-150	559.04	3.5	4.8
160-170	0.00	90-180	559.04	3.5	4.8
170-180	0.00	180-0	11696.38	73.1	100.0



REPORT NUMBER: **KP15LAN**

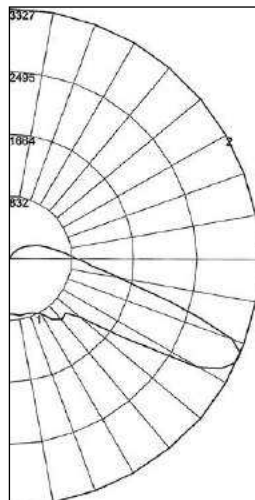
Lamps: 150 W High Pressure Sodium with
 30° Angle Dome Reflector *

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

% Ceiling Rcc	80				70				50				30				10				0
% Walls Rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
0	86	86	86	86	84	84	84	84	79	79	79	75	75	75	71	71	71	70			
1	76	71	67	63	73	69	65	62	65	62	59	62	59	57	58	56	54	52			
2	68	60	54	49	65	58	53	48	55	50	46	52	48	45	49	46	43	41			
3	61	52	45	39	59	50	44	39	48	42	37	45	40	36	43	39	35	33			
4	55	45	38	32	53	44	37	32	42	36	31	39	34	30	37	33	29	27			
5	50	40	33	27	49	39	32	27	37	31	26	35	30	25	33	29	25	23			
6	46	36	28	23	45	35	28	23	33	27	22	31	26	22	30	25	21	20			
7	43	32	25	20	41	31	25	20	30	24	19	28	23	19	27	22	19	17			
8	40	29	22	18	38	28	22	17	27	21	17	26	21	17	25	20	16	15			
9	37	26	20	16	36	26	20	16	25	19	15	24	19	15	23	18	15	13			
10	35	24	18	14	33	24	18	14	23	17	14	22	17	13	21	16	13	12			

Zone	Lumens	Total Luminaire Efficiency = 81.1%			
0-10	72.83	CIE Type – Semi– Direct			
10-20	222.26	Plane Spacing Criteria			
20-30	380.73				
30-40	621.11	0-180	1.98		
40-50	852.53	90-270	1.98		
50-60	1765.29	Diagonal	3.40		
60-70	3192.58				
70-80	2366.61	Zonal Lumen Summary			
80-90	1230.65	Zone	Lumens	% Lamp	% Fixture
90-100	450.14	0-30	675.83	4.2	5.2
100-110	712.41	0-40	1296.93	8.1	10.0
110-120	499.15	0-60	3914.76	24.5	30.2
120-130	323.44	0-90	10704.60	66.9	82.5
130-140	185.00	90-120	1661.70	10.4	12.8
140-150	81.31	90-130	1985.14	12.4	15.3
150-160	21.08	90-150	2251.45	14.1	15.3
160-170	2.81	90-180	2275.34	14.2	17.5
170-180	0.00	180-0	12979.94	81.1	100.0



REPORT NUMBER: **KP15LJR5**

Lamps: 150 W High Pressure Sodium with
 8" Prismatic Glass Refractor – NEMA Type V *

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

% Ceiling Rcc	80				70				50				30				10				0
% Walls Rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
0	93	93	93	93	89	89	89	89	82	82	82	76	76	76	70	70	70	67			
1	80	73	68	63	76	70	65	61	64	60	56	58	55	52	53	50	48	45			
2	69	59	51	45	65	56	49	43	51	45	40	46	41	37	41	37	34	31			
3	61	49	40	33	57	47	38	32	42	35	29	38	32	27	34	29	25	22			
4	54	42	32	25	51	40	31	24	35	28	22	32	26	21	28	23	19	16			
5	49	36	27	20	46	34	26	19	31	23	18	27	21	16	24	19	15	12			
6	45	32	23	16	42	30	22	16	27	20	14	24	18	13	21	16	12	10			
7	41	28	20	14	38	27	19	13	24	17	12	21	15	11	19	14	10	8			
8	38	25	17	12	36	24	16	11	22	15	10	19	14	9	17	12	8	6			
9	35	23	15	10	33	22	15	10	20	13	9	18	12	8	16	11	7	5			
10	33	21	14	9	31	20	13	9	18	12	8	16	11	7	15	10	6	5			

Mercmaster™ III HID 50–250 Watt Luminaires

175 W PSMH

* Photometric data is based on fixtures with a 175-watt clear Pulse Start Metal Halide lamp (17,500 lumen). For candlepower values of fixtures with other PSMH lamps, use the following multipliers: for a 100 W (8,500 lumen) PSMH lamp – 0.49; for a 70 W (6,200 lumen) PSMH lamp – 0.36; for a 200 W (21,000 lumen) PSMH lamp – 1.2. For candlepower values of fixture with guard, multiply by 0.95.

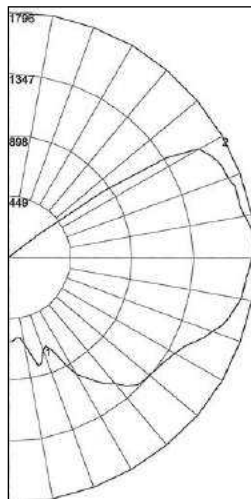
CEC:
 Class I, Division 2, Groups A, B, C, D
 Class I, Zone 2 Ex nR IIC (Z)
 Class II, Division 1 and 2, Groups E, F, G
 Class III

CEC:
 Type 4X
 IP66

Photometric Data

Zone	Lumens	Total Luminaire Efficiency = 75.4%			
0-10	57.98	CIE Type – General Diffuse			
10-20	217.30				
20-30	372.71				
30-40	696.29				
40-50	1009.65				
50-60	1226.57				
60-70	1473.76				
70-80	1757.30				
80-90	1902.34				
90-100	1946.09				
100-110	1829.51				
110-120	1657.20				
120-130	750.27				
130-140	14.15				
140-150	4.47				
150-160	0.52				
160-170	1.35				
170-180	0.18				

Zonal Lumen Summary			
Zone	Lumens	% Lamp	% Fixture
0-30	647.99	3.7	4.3
0-40	1344.28	7.7	9.0
0-60	3580.49	20.5	24.0
0-90	8713.89	49.8	58.4
90-120	5432.80	31.0	36.4
90-130	6183.06	35.3	41.4
90-150	6201.69	35.4	41.6
90-180	6203.74	35.4	41.6
180-0	14917.63	85.2	100.0



REPORT NUMBER: **KP17PG**

Lamps: 175 W Pulse Start Metal Halide with Globe only *

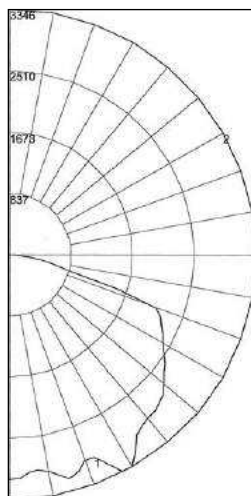
Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

% Ceiling Rcc		80				70				50			30			10			0
% Walls	Rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
	0	93	93	93	93	87	87	87	87	75	75	75	64	64	64	54	54	54	50
	1	79	73	68	63	73	68	63	59	58	54	50	48	45	43	40	37	35	31
	2	70	61	54	47	65	57	50	44	48	42	38	39	35	32	32	29	26	22
	3	63	52	44	37	58	48	41	35	40	34	29	33	28	24	27	23	20	16
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	9	37	26	18	13	34	24	17	13	20	15	11	17	12	9	13	10	7	5
	10	35	23	16	12	32	22	15	11	18	13	9	15	11	8	12	9	6	4

Zone	Lumens	Total Luminaire Efficiency = 72.3%			
0-10	285.95	CIE Type – Direct			
10-20	876.46				
20-30	1472.88				
30-40	1924.39				
40-50	2213.42				
50-60	2305.55				
60-70	2256.32				
70-80	1115.75				
80-90	198.05				
90-100	3.56				
100-110	0.00				
110-120	0.00				
120-130	0.00				
130-140	0.00				
140-150	0.00				
150-160	0.00				
160-170	0.00				
170-180	0.00				

Plane	Spacing Criteria
0-180	1.50
90-270	1.50
Diagonal	1.66



REPORT NUMBER: **KP17PST**

Lamps: 175 W Pulse Start Metal Halide with Standard Dome Reflector *

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

% Ceiling Rcc		80				70				50				30				10				0
% Walls	Rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0			
	0	86	86	86	86	84	84	84	84	80	80	80	77	77	77	74	74	74	72			
	1	78	74	71	68	76	72	69	67	69	67	65	67	64	63	64	62	61	59			
	2	70	63	58	54	68	62	57	53	59	55	52	57	54	50	55	52	49	48			
	3	63	55	48	43	61	54	48	43	51	46	42	49	45	41	47	44	41	39			
	4	57	48	41	36	56	47	40	35	45	39	35	43	38	34	42	37	34	32			
	5	52	42	35	30	51	41	35	30	40	34	30	38	33	29	37	32	29	27			
	6	48	38	31	26	47	37	30	26	36	30	25	34	29	25	33	29	25	23			
	7	44	34	27	22	43	33	27	22	32	26	22	31	26	22	30	25	22	20			
	8	41	31	24	20	40	30	24	20	29	24	19	28	23	19	27	23	19	18			
	9	38	28	22	18	37	28	22	17	27	21	17	26	21	17	25	21	17	16			
	10	36	26	20	16	35	25	20	16	25	19	16	24	19	15	23	19	15	14			

Mercmaster™ III HID 50–250 Watt Luminaires

175 W PSMH

* Photometric data is based on fixtures with a 175-watt clear Pulse Start Metal Halide lamp (17,500 lumen). For candlepower values of fixtures with other PSMH lamps, use the following multipliers: for a 100 W (8,500 lumen) PSMH lamp – 0.49; for 70 W (6,200 lumen) PSMH lamp – 0.36; for a 200 W (21,000 lumen) PSMH lamp – 1.2. For candlepower values of fixture with guard, multiply by 0.95.

CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2 Ex nR IIC (Z)
Class II, Division 1 and 2, Groups E, F, G
Class III

CEC:

Type 4X
IP66

Photometric Data

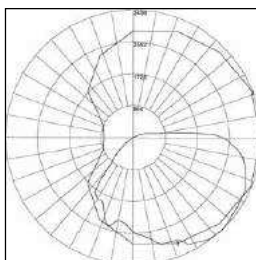
Zone Lumens Total Luminaire Efficiency = 67.1%

0-10 240.21 CIE Type – Direct

Plane	Spacing Criteria
0-180	1.96
90-270	1.70
Diagonal	1.56

60-70 1571.75

Zonal Lumen Summary				
Zone	Lumens	% Lamp	% Fixture	
0-30	2186.59	12.5	18.6	
0-40	3849.44	22.0	32.8	
0-60	7420.24	42.4	63.2	
0-90	11216.82	64.1	95.6	
90-120	503.12	2.9	4.3	
90-130	508.66	2.9	4.3	
90-150	517.28	3.0	4.4	
90-180	521.31	3.0	4.4	
180-0	11738.13	67.1	100.0	



REPORT NUMBER: KP17PAN

Lamps: 175 W Pulse Start Metal Halide with
30° Angle Dome Reflector *

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

% Ceiling Rcc		80				70				50				30				10				0
% Walls	Rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0			
	0	79	79	79	79	77	77	77	77	73	73	73	69	69	69	66	66	66	64			
	1	70	66	62	59	68	64	61	58	60	58	55	57	55	53	54	52	51	49			
	2	63	56	51	46	61	55	49	45	52	47	44	49	45	42	46	43	41	39			
	3	57	48	42	37	55	47	41	37	45	40	36	42	38	35	40	37	34	32			
	4	51	42	36	31	50	41	35	30	39	34	30	37	33	29	35	31	28	26			
	5	47	38	31	26	45	37	30	26	35	29	25	33	28	25	32	27	24	22			
	6	43	34	27	22	42	33	27	22	31	26	22	30	25	21	28	24	21	19			
	7	40	30	24	20	39	30	24	19	28	23	19	27	22	19	26	22	18	17			
	8	37	27	21	17	36	27	21	17	26	20	17	25	20	16	24	19	16	15			
	9	35	25	19	15	33	25	19	15	24	18	15	23	18	15	22	18	14	13			
	10	32	23	17	14	31	23	17	14	22	17	13	21	16	13	20	16	13	12			

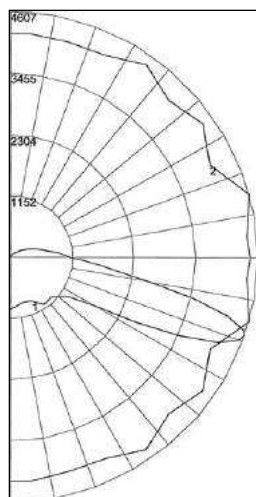
Zone Lumens Total Luminaire Efficiency = 81.1%

0-10 22.77 CIE Type – Semi-Direct

Plane	Spacing Criteria
0-180	1.66
90-270	1.64
Diagonal	1.92

60-70 3171.29

Zonal Lumen Summary				
Zone	Lumens	% Lamp	% Fixture	
0-30	519.38	3.0	3.7	
0-40	1050.73	6.0	7.4	
0-60	3389.46	19.4	23.9	
0-90	12031.16	68.7	84.8	
90-120	1670.94	9.5	11.8	
90-130	1936.15	11.1	13.7	
90-150	2135.93	12.2	15.1	
90-180	2152.72	12.3	15.2	
180-0	14183.88	81.1	100.0	



REPORT NUMBER: KP17PJR5

Lamps: 175 W Pulse Start Metal Halide with
8" Prismatic Glass Refractor – NEMA Type V *

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

% Ceiling Rcc		80				70				50			30			10			0
% Walls	Rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
	0	94	94	94	94	90	90	90	90	83	83	83	77	77	77	71	71	71	69
	1	78	71	65	60	74	68	62	57	62	57	53	57	53	49	51	48	46	43
	2	67	57	48	41	63	54	46	39	49	42	36	44	38	33	39	35	31	28
	3	59	46	37	29	55	44	35	28	40	32	26	35	29	24	32	26	22	19
	4	52	39	30	22	49	37	28	21	33	26	20	30	23	18	26	21	16	14
	5	47	34	24	17	45	32	23	17	29	21	15	26	19	14	23	17	13	10
	6	43	30	21	14	41	28	20	14	25	18	12	23	16	11	20	15	10	8
	7	40	27	18	12	37	23	17	11	23	16	10	20	14	9	18	13	8	6
	8	37	24	16	10	35	23	15	10	20	14	9	18	12	8	16	11	7	5
	9	34	22	14	9	32	21	13	8	19	12	8	17	11	7	15	10	6	4
	10	32	20	12	8	30	19	12	7	17	11	7	16	10	6	14	9	5	4

Mercmaster™ III HID 50–250 Watt Luminaires

175 W PSMH

* Photometric data is based on fixtures with a 175-watt clear Pulse Start Metal Halide lamp (17,500 lumen). For candlepower values of fixtures with other PSMH lamps, use the following multipliers: for a 100 W (8,500 lumen) PSMH lamp – 0.49; for a 70 W (6,200 lumen) PSMH lamp – 0.36; for a 200 W (21,000 lumen) PSMH lamp – 1.2. For candlepower values of fixture with guard, multiply by 0.95.

CEC:
Class I, Division 2, Groups A, B, C, D
Class I, Zone 2 Ex nR IIC (Z)
Class II, Division 1 and 2, Groups E, F, G
Class III

CEC:
Type 4X
IP66

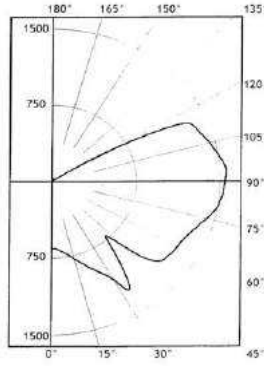
Photometric Data

Degree	Candela	Lumens
0	657	
5	668	65
15	784	224
25	966	451
35	1194	705
45	871	711
55	1267	1142
65	1309	1303
75	1430	1509
85	1528	1661
90	1537	
95	1552	1680
105	1452	1532
115	1339	1232
125	68	143
135	19	16
145	13	11
155	7	3
165	1	1
175	2	0
180	7	

TOTAL LUMINAIRE EFFICIENCY = 70.8%

CIE Type – Semi-Direct
Spacing Criteria: 1.7

ZONAL LUMEN SUMMARY			
ZONE	LUMENS	%LAMP	%FIXT.
0-30	740	4.2	6.0
0-40	1445	8.3	11.7
0-60	3297	18.8	26.6
0-90	7770	44.4	62.7
90-120	4444	25.4	35.9
90-130	4586	26.2	37.0
90-150	4613	26.4	37.2
90-180	4617	26.4	37.3
0-180	12387	70.8	100.0



REPORT NUMBER: KPB175PG3

Lamps: 175 W Pulse Start Metal Halide ED28 Mogul Base with G3 Globe only

COEFFICIENTS OF UTILIZATION – ZONAL CAVITY METHOD

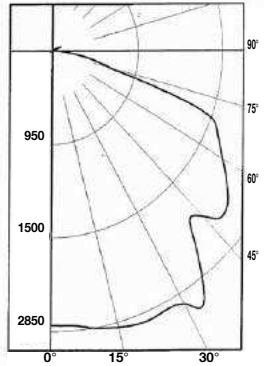
EFFECTIVE FLOOR CAVITY REFLECTANCE 0.20																
RC	80				70				50				30			
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	0
0	78	78	78	78	73	73	73	73	64	64	64	56	56	56	48	48
1	67	61	57	53	62	57	53	49	49	46	43	42	39	37	35	31
2	59	51	45	40	54	48	42	37	41	36	32	34	31	27	28	23
3	53	44	37	31	49	40	34	29	34	29	25	29	25	21	24	21
4	48	38	31	25	44	35	29	24	30	25	20	25	21	17	21	17
5	43	33	26	21	40	31	24	20	26	21	17	22	18	14	18	15
6	40	29	23	18	37	27	21	16	23	18	14	20	15	12	16	13
7	37	26	20	15	34	25	18	14	21	16	12	18	13	10	15	11
8	34	24	17	13	31	22	16	12	19	14	11	16	12	9	13	10
9	32	22	16	11	29	20	15	11	17	13	9	15	11	8	12	9
10	29	20	14	10	27	18	13	9	16	11	8	14	10	7	11	8

Degree	Candela	Lumens
0	2785	
5	2797	269
15	2902	823
25	2931	1358
35	2979	1821
45	2388	1874
55	2393	2145
65	2044	2034
75	664	856
85	150	183
90	24	
95	5	11
105	16	17
115	91	73
125	5	9
135	7	3
145	8	2
155	2	2
165	2	0
175	2	1
180	11	

TOTAL LUMINAIRE EFFICIENCY = 65.6%

CIE Type – Direct
Spacing Criteria: 1.5

ZONAL LUMEN SUMMARY			
ZONE	LUMENS	%LAMP	%FIXT.
0-30	2450	14.0	21.3
0-40	4271	24.4	37.2
0-60	8290	47.4	72.2
0-90	11363	64.9	99.0
90-120	101	0.6	0.9
90-130	110	0.6	1.0
90-150	115	0.7	1.0
90-180	118	0.7	1.0
0-180	11481	65.6	100.0



REPORT NUMBER: KPB175PG3_ST

Lamps: 175 W Pulse Start Metal Halide ED28 Mogul Base with G3 Globe and Standard Dome Reflector

COEFFICIENTS OF UTILIZATION – ZONAL CAVITY METHOD

EFFECTIVE FLOOR CAVITY REFLECTANCE 0.20																
RC	80				70				50				30			
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	0
0	78	78	78	78	76	76	76	76	73	73	73	69	69	69	66	66
1	71	67	64	62	69	66	63	61	63	61	59	60	58	57	58	55
2	64	58	53	49	62	57	52	48	54	50	47	52	49	46	50	45
3	58	50	44	40	56	49	44	39	47	42	39	45	41	38	43	40
4	52	44	38	33	51	43	37	33	41	36	32	39	35	32	38	34
5	48	39	32	28	46	38	32	28	36	31	27	35	30	27	34	30
6	44	35	28	24	42	34	28	24	33	27	23	31	27	23	30	26
7	40	31	25	21	39	30	25	21	29	24	20	28	24	20	27	23
8	37	28	22	18	36	28	22	18	27	22	18	26	21	18	25	21
9	35	26	20	16	34	25	20	16	24	19	16	24	19	16	23	19
10	33	24	18	15	32	23	18	15	23	18	14	22	17	14	21	17

Candela Distribution

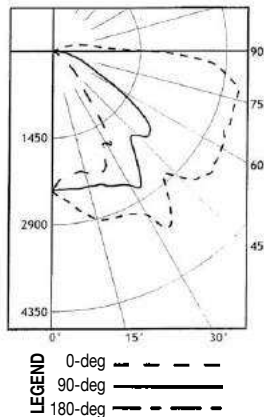
0.0	45.0	90.0	135.0	180.0	Flux
0	2333	2333	2333	2333	2333
5	2491	2467	2321	2205	2141
15	2904	2753	2337	2160	2099
25	3010	2891	2480	2242	2120
35	3471	3100	2544	2027	1367
45	2978	2719	1993	832	546
55	3296	2939	1791	421	154
65	3153	2801	776	74	0
75	3175	2621	392	3	0
85	2729	967	117	5	0
90	1601	662	11	5	5
95	790	461	3	11	16
105	413	175	11	19	21
115	117	8	8	29	56
125	5	11	13	13	11
135	0	3	3	3	0
145	5	5	11	5	0
155	0	3	5	5	0
165	5	3	8	5	0
175	0	5	3	3	0
180	6	6	6	6	6

TOTAL LUMINAIRE EFFICIENCY = 58.2%

CIE Type – Direct

Plane	Spacing Criteria
0°	1.8
90°	1.5
180°	1.1

ZONAL LUMEN SUMMARY			
ZONE	LUMENS	%LAMP	%FIXT.
0-30	2085	11.9	20.5
0-40	3597	20.6	35.3
0-60	6557	37.5	64.4
0-90	9755	55.7	95.8
90-120	412	2.4	4.1
90-130	415	2.4	4.1
90-150	420	2.4	4.1
90-180	423	2.4	4.2
0-180	10178	58.2	100.0



REPORT NUMBER: KPB175PG3_AN

Lamps: 175 W Pulse Start Metal Halide ED28 Mogul Base with G3 Globe and 30° Angle Dome Reflector

COEFFICIENTS OF UTILIZATION – ZONAL CAVITY METHOD

EFFECTIVE FLOOR CAVITY REFLECTANCE 0.20																
RC	80				70				50				30			
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	0
0	69	69	69	69	67	67	67	67	63	63	63	60	60	60	57	57
1	61	57	54	51	59	56	53	50	53	50	48	50	48	46	48	45
2	55	49	44	40	53	48	43	40	45	42	38	43	40	37	41	38
3	49	42	37	33	48	41	36	32	39	35	31	37	34	31	35	32
4	45	37	32	27	43	36	31	27	34	30	26	33	29	26	31	28
5	41	33	27	23	40	32	27	23	31	26	22	29	25	22	28	24
6	38	30	24	20	37	29	24	20	28	23	19	26	22	19	25	22
7	35	27	21	18	34	26	21	17	25	20	17	24	20	17	23	19
8	33	24	19	16	32	24	19	15	23	18	15	22	18	15	21	17
9	30	22	17	14	29	22	17	14	21	17	14	20	16	13	19	16
10	28	20	16	12	28	20	15	12	19	15	12	19	15	12	18	14

Mercmaster™ III HID 50–250 Watt Luminaires

100 W HPS

* Photometric data is based on fixtures with a 100-watt clear High Pressure Sodium lamp (9,400 lumen). For candlepower values of fixtures with other HPS lamps, use the following multipliers: for a 70 W (6,400 lumen) HPS lamp – 0.68; for 50 W (4,000 lumen) HPS lamp – 0.43; for candlepower values of fixture with guard, multiply by 0.95.

CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2 Ex nR IIC (Z)
Class II, Division 1 and 2, Groups E, F, G
Class III

CEC:

Type 4X
IP66

Photometric Data

Degree	Candela	Lumens
0	269	
5	267	27
15	407	117
25	571	267
35	748	442
45	451	380
55	848	735
65	915	908
75	976	1033
85	1021	1113
90	1027	
95	1019	1109
105	953	1002
115	791	734
125	54	103
135	13	9
145	13	8
155	4	2
165	0	0
175	0	0
180	1	

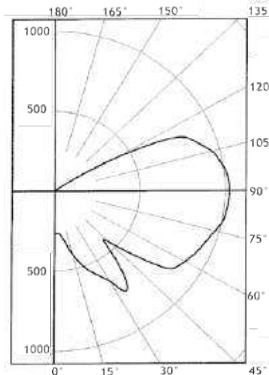
TOTAL LUMINAIRE EFFICIENCY = 84.1%

CIE Type – Semi-Direct

Spacing Criteria: 3.1

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LAMP	%FIXT.
0-30	410	4.3	5.1
0-40	852	9.0	10.7
0-60	1967	20.7	24.6
0-90	5021	52.9	62.9
90-120	2845	29.9	35.6
90-130	2948	31.0	36.9
90-150	2965	31.2	37.1
90-180	2967	31.2	37.1
0-180	7988	84.1	100.0



REPORT NUMBER: KPB100LG3

Lamps: 100 W High Pressure Sodium C100S54 ED23 – 1/2 Mogul Base with G3 Globe only

COEFFICIENTS OF UTILIZATION – ZONAL CAVITY METHOD EFFECTIVE FLOOR CAVITY REFLECTANCE 0.20

RC	80				70				50				30				10				0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0			
0	93	93	93	93	87	87	87	87	76	76	76	66	66	66	57	57	57	53			
1	79	72	67	62	73	67	62	58	58	54	50	49	46	43	41	39	36	32			
2	69	60	52	46	64	56	49	43	48	42	37	40	36	32	33	30	26	23			
3	62	51	43	36	57	47	40	34	40	34	29	34	29	24	28	24	20	17			
4	56	44	36	29	51	41	33	27	35	28	23	29	24	20	24	19	16	13			
5	51	39	30	24	47	36	28	22	30	24	19	25	20	16	21	17	13	10			
6	47	34	26	20	43	32	24	19	27	21	16	23	17	13	19	14	11	8			
7	43	31	23	17	40	28	21	16	24	18	14	20	15	13	17	13	9	7			
8	40	28	20	15	37	26	19	14	22	16	12	19	14	10	15	11	8	6			
9	37	25	18	13	34	23	17	12	20	14	10	17	12	9	14	10	7	5			
10	34	23	16	11	32	21	15	11	18	13	9	16	11	8	13	9	6	5			

Degree	Candela	Lumens
0	1466	
5	1473	142
15	1607	456
25	1675	775
35	1757	1071
45	1316	1047
55	1502	1316
65	1377	1362
75	465	589
85	92	111
90	16	
95	3	5
105	6	6
115	40	33
125	5	8
135	3	2
145	3	1
155	2	1
165	0	1
175	1	0
180	1	

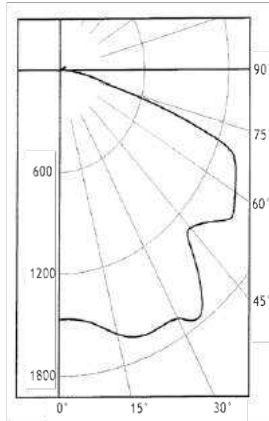
TOTAL LUMINAIRE EFFICIENCY = 72.9%

CIE Type – Direct

Spacing Criteria: 1.6

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LAMP	%FIXT.
0-30	1373	14.5	19.8
0-40	2445	25.7	35.3
0-60	4807	50.6	69.4
0-90	6869	72.3	99.2
90-120	45	0.5	0.6
90-130	53	0.6	0.8
90-150	56	0.6	0.8
90-180	58	0.6	0.8
0-180	6927	72.9	100.0



REPORT NUMBER: KPB100LG3_ST

Lamps: 100 W High Pressure Sodium C100S54 ED23 – 1/2 Mogul Base with G3 Globe and Standard Dome Reflector

COEFFICIENTS OF UTILIZATION – ZONAL CAVITY METHOD EFFECTIVE FLOOR CAVITY REFLECTANCE 0.20

RC	80				70				50				30				10				0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0			
0	87	87	87	87	85	85	85	85	81	81	81	77	77	77	74	74	74	72			
1	78	74	71	68	76	73	70	67	70	67	65	67	64	62	64	62	60	59			
2	70	64	58	53	68	62	57	53	59	55	51	57	53	50	54	52	49	47			
3	63	55	48	43	61	54	47	43	51	46	42	49	45	41	47	43	40	38			
4	57	48	41	35	55	47	40	35	45	39	34	43	38	34	41	37	33	32			
5	52	42	35	30	51	41	34	29	39	34	29	38	33	29	36	32	28	26			
6	48	37	30	25	46	37	30	25	35	29	25	34	29	25	33	28	24	23			
7	44	34	27	22	43	33	26	22	32	26	22	31	25	21	29	25	21	20			
8	41	30	24	19	40	30	24	19	29	23	19	28	23	19	27	22	19	17			
9	38	23	21	17	37	27	21	17	26	21	17	25	20	17	25	20	17	15			
10	36	25	19	15	35	25	19	15	24	19	15	23	19	15	23	18	15	14			

Candela Distribution

	0.0	45.0	90.0	135.0	180.0	Flux
0	1270	1270	1270	1270	1270	
5	1317	1302	1271	1227	1211	122
15	1554	1471	1384	1341	1298	398
25	1779	1680	1528	1353	1246	694
35	1923	1830	1593	1256	1020	917
45	1715	1564	1163	599	361	848
55	1981	1862	1100	287	122	953
65	1923	1751	869	104	0	869
75	1879	1272	298	9	0	711
85	1371	828	140	1	0	424
90	680	422	89	2	1	
95	416	259	47	4	4	144
105	191	93	4	7	6	59
115	40	18	51	54	92	31
125	1	3	3	3	1	2
135	1	2	3	2	1	1
145	0	1	2	0	0	1
155	0	1	2	1	0	1
165	0	1	1	1	0	0
175	2	2	2	1	0	0
180	2	2	2	2	2	

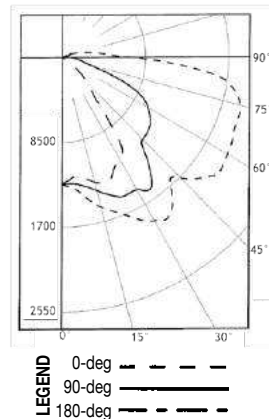
TOTAL LUMINAIRE EFFICIENCY = 65.0%

CIE Type – Direct

Spacing Plane	Criteria
0°	1.9
90°	1.7
180°	1.3

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LAMP	%FIXT.
0-30	1213	12.8	19.7
0-40	2131	22.4	34.5
0-60	3932	41.4	63.7
0-90	5936	62.5	96.1
90-120	234	2.5	3.8
90-130	236	2.5	3.8
90-150	238	2.5	3.9
90-180	239	2.5	3.9
0-180	6175	65.0	100.0



REPORT NUMBER: KPB100LG3_AN

Lamps: 100 W High Pressure Sodium C100S54 ED23 – 1/2 Mogul Base with G3 Globe and 30° Angle Reflector

COEFFICIENTS OF UTILIZATION – ZONAL CAVITY METHOD EFFECTIVE FLOOR CAVITY REFLECTANCE 0.20

EFFECTIVE FLOOR CAVITY REFLECTANCE 0.20																		
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	77	77	77	77	75	75	75	75	71	71	71	67	67	67	64	64	64	62
1	68	64	61	57	66	62	59	56	59	56	54	56	54	52	53	51	50	48
2	61	55	49	45	59	53	48	44	50	46	43	48	44	41	45	42	40	38
3	55	47	41	36	53	46	40	36	44	39	35	41	37	34	39	36	33	31
4	50	41	35	30	48	40	34	30	38	33	29	36	32	28	35	31	28	26
5	46	37	30	25	44	36	30	25	34	29	25	32	28	24	31	27	24	22
6	42	33	26	22	41	32	26	22	30	25	21	29	24	21	28	24	20	19
7	39	30	23	19	38	29	23	19	28	22	19	26	22	18	25	21	18	17
8	36	27	21	17	35	26	21	17	25	20	16	24	20	16	23	19	16	15
9	34	25	19	15	33	24	19	15	23	18	15	22	18	14	21	17	14	13
10	32	23	17	14	31	22	17	13	21	17	13	20	16	13	20	16	13	12

Mercmaster™ III HID 50–250 Watt Luminaires

150 W HPS

* Photometric data is based on fixtures with a 150-watt clear High Pressure Sodium lamp (16,000 lumen). For candlepower values of fixtures with other HPS lamps, use the following multipliers: for a 70 W (6,400 lumen) HPS lamp – 0.40; for a 50 W (4,000 lumen) HPS lamp – 0.25. For candlepower values of fixture with guard, multiply by 0.95.

CEC:
Class I, Division 2, Groups A, B, C, D
Class I, Zone 2 Ex nR IIC (Z)
Class II, Division 1 and 2, Groups E, F, G
Class III

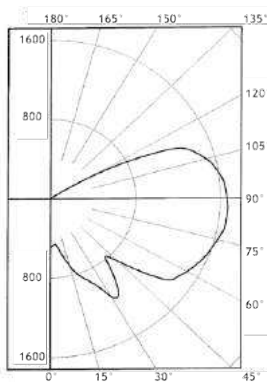
CEC:
Type 4X
IP66

Photometric Data

Degree	Candela	Lumens
0	488	
5	459	46
15	703	202
25	938	442
35	1107	672
45	892	710
55	1420	1253
65	1542	1529
75	1629	1723
85	1675	1824
90	1665	
95	1643	1788
105	1515	1599
115	1072	1042
125	51	115
135	20	16
145	19	12
155	6	4
165	1	0
175	0	0
180	2	

TOTAL LUMINAIRE EFFICIENCY = 81.1%
CIE Type – Semi-Direct
Spacing Criteria: 3.0

ZONAL LUMEN SUMMARY			
ZONE	LUMENS	%LAMP	%FIXT.
0-30	689	4.3	5.3
0-40	1361	8.5	10.5
0-60	3324	20.8	25.6
0-90	8400	52.5	64.7
90-120	4429	27.7	34.1
90-130	4544	28.4	35.0
90-150	4572	28.6	35.2
90-180	4576	28.6	35.3
0-180	12976	81.1	100.0



REPORT NUMBER: **KPB150LG3**

Lamps: 150 W High Pressure Sodium C100S54 ED23 – 1/2 Mogul Base with G3 Globe only

COEFFICIENTS OF UTILIZATION – ZONAL CAVITY METHOD

EFFECTIVE FLOOR CAVITY REFLECTANCE 0.20

RC	80				70				50				30				10				0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
0	90	90	90	90	84	84	84	84	74	74	74	65	65	65	56	56	56	56	56	56	53
1	76	70	65	60	71	65	60	56	56	53	49	48	45	42	41	38	36	32	32	32	32
2	67	58	51	44	62	54	47	42	46	41	36	39	35	31	33	29	26	23	23	23	23
3	60	49	41	34	55	46	38	32	39	33	28	33	28	24	27	23	20	17	17	17	17
4	54	43	34	29	50	40	32	26	34	27	22	28	23	19	23	19	16	13	13	13	13
5	49	37	29	23	45	35	27	21	30	23	18	25	20	16	21	16	13	10	10	10	10
6	45	33	25	19	42	31	23	18	26	20	15	22	17	13	18	14	11	8	8	8	8
7	41	30	22	16	38	27	20	15	24	18	13	20	15	11	16	12	9	7	7	7	7
8	38	27	19	14	35	25	18	13	21	16	11	18	13	10	15	11	8	6	6	6	6
9	36	24	17	12	33	23	16	12	19	14	10	17	12	8	14	10	7	5	5	5	5
10	33	22	15	11	31	21	14	10	18	12	9	15	11	7	13	9	6	4	4	4	4

REPORT NUMBER: **KPB150LG3_ST**

Lamps: 150 W High Pressure Sodium C100S54 ED23 – 1/2 Mogul Base with G3 Globe and Standard Dome Reflector

COEFFICIENTS OF UTILIZATION – ZONAL CAVITY METHOD

EFFECTIVE FLOOR CAVITY REFLECTANCE 0.20

RC	80				70				50				30				10				0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
0	83	83	83	83	81	81	81	81	77	77	77	74	74	74	70	70	70	69	69	69	69
1	75	71	68	65	73	70	67	64	66	64	62	64	62	60	61	59	58	56	56	56	56
2	67	61	56	51	65	60	55	51	57	53	49	54	51	48	52	49	47	45	45	45	45
3	61	52	46	41	59	51	46	41	49	44	40	47	43	39	45	41	38	37	37	37	37
4	55	46	39	34	53	45	38	34	43	37	33	41	36	33	39	35	32	30	30	30	30
5	50	40	33	28	48	39	33	28	38	32	28	36	31	27	35	31	27	25	25	25	25
6	46	36	29	24	44	35	29	24	34	28	24	32	27	24	31	27	23	22	22	22	22
7	42	32	26	21	41	32	25	21	30	25	21	29	24	20	28	24	20	19	19	19	19
8	39	29	23	18	38	29	23	18	28	22	18	27	22	18	26	22	18	16	16	16	16
9	36	27	20	16	35	26	20	16	25	20	16	24	20	16	24	19	16	15	15	15	15
10	34	24	19	15	33	24	18	15	23	18	14	22	18	14	22	17	14	13	13	13	13

REPORT NUMBER: **KPB150LG3_AN**

Lamps: 150 W High Pressure Sodium C100S54 ED23 – 1/2 Mogul Base with G3 Globe and 30° Angle Reflector

COEFFICIENTS OF UTILIZATION – ZONAL CAVITY METHOD

EFFECTIVE FLOOR CAVITY REFLECTANCE 0.20

RC	80				70				50				30				10				0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
0	72	72	72	72	70	70	70	70	66	66	66	63	63	63	60	60	60	58	58	58	58
1	64	60	57	54	62	58	55	53	55	53	50	52	50	48	50	48	47	45	45	45	45
2	57	51	46	42	55	50	45	41	47	43	40	45	41	39	42	40	37	36	36	36	36
3	52	44	38	34	50	43	38	33	41	36	33	39	35	32	37	33	31	29	29	29	29
4	47	39	33	28	45	38	32	28	36	31	27	34	30	26	32	29	26	24	24	24	24
5	43	34	28	24	41	33	28	24	32	27	23	30	26	22	29	25	22	21	21	21	21
6	39	31	25	20	38	30	24	20	28	24	20	27	23	19	26	22	19	18	18	18	18
7	36	28	22	18	35	27	22	18	26	21	17	25	20	17	24	20	17	15	15	15	15
8	34	25	20	16	33	24	19	16	23	19	15	22	18	15	22	18	15	14	14	14	14
9	32	23	18	14	30	22	17	14	21	17	14	21	16	13	20	16	13	12	12	12	12
10	30	21	16	13	29	21	16	12	20	15	12	19	15	12	18	15	12	11	11	11	11

Candela Distribution

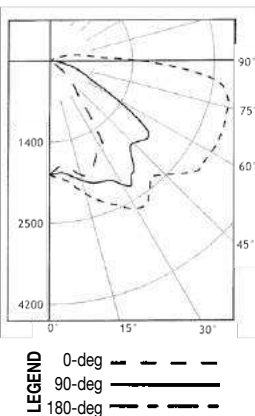
0.0	45.0	90.0	135.0	180.0	Flux
0	1964	1964	1964	1964	1964
5	2035	2007	1941	1871	1838 187
15	2375	2307	2140	2047	2037 619
25	2755	2587	2288	2095	1853 1081
35	2924	2763	2415	1885	1276 1416
45	2790	2552	2015	780	518 1368
55	3166	2937	1945	410	157 1520
65	3188	2913	777	77	0 1380
75	3145	2547	408	1	2 1118
85	2533	927	117	0	2 663
90	1490	640	14	5	9
95	765	449	5	8	11 239
105	380	163	6	11	15 106
115	114	4	6	18	63 44
125	2	5	7	8	7 5
135	2	6	7	8	6 4
145	0	2	6	4	2 3
155	2	4	6	4	2 2
165	4	3	5	4	2 1
175	0	2	3	3	2 0
180	2	2	2	2	2

TOTAL LUMINAIRE EFFICIENCY = 61.0%

CIE Type – Direct

Plane	Spacing Criteria
0°	2.0
90°	1.7
180°	1.3

ZONAL LUMEN SUMMARY			
ZONE	LUMENS	%LAMP	%FIXT.
0-30	1886	11.8	19.3
0-40	3302	20.6	33.8
0-60	6190	38.7	63.5
0-90	9351	58.4	95.9
90-120	389	2.4	4.0
90-130	395	2.5	4.0
90-150	401	2.5	4.1
90-180	404	2.5	4.1
0-180	9754	61.0	100.0



250 W PSMH

* Photometric data is based on fixtures with a 250-watt clear Pulse Start Metal Halide lamp (23,000 lumen). For candlepower values of fixtures with other PSMH lamps, (21,000 lumen) PSMH lamp – 0.913. For candlepower values of fixture with guard, multiply by 0.95.

CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2 Ex nR IIC (Z)
Class II, Division 1 and 2, Groups E, F, G
Class III

CEC:
Type 4X
IP66

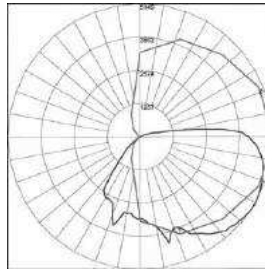
Photometric Data

Zone	Lumens
0-10	307.05
10-20	986.27
20-30	1556.63
30-40	2215.28
40-50	2539.71
50-60	2525.66
60-70	2313.2
70-80	1992.57
80-90	1470.76
90-100	689.06
100-110	177.72
110-120	46
120-130	10.39
130-140	6.24
140-150	5.71
150-160	3.95
160-170	2.26
170-180	.8

TOTAL LUMINAIRE EFFICIENCY = 67.4%

CIE Type – Direct
Spacing Criteria: 2.16

ZONAL LUMEN SUMMARY			
ZONE	LUMENS	%LAMP	%FIXT.
0-30	2849.95	11.4	16.9
0-40	5065.22	20.3	30.1
0-60	10130.59	40.5	60.1
0-90	15907	63.6	94.4
90-120	912.78	3.7	5.4
90-130	923.17	3.7	5.5
90-150	935.11	3.7	5.5
90-180	942.12	3.8	5.6
0-180	16849.24	67.4	100.0



REPORT NUMBER: **KPBG250PAN**
Lamps: 250 W Metal Halide Pulse Start
Mogul Base

COEFFICIENTS OF UTILIZATION – ZONAL CAVITY METHOD
EFFECTIVE FLOOR CAVITY REFLECTANCE 0.20

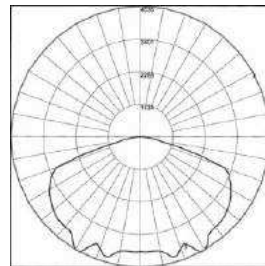
RC	80				70				50			30			10			0																
	RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30		10															
0	7	9	7	9	7	9	7	7	7	7	7	3	7	3	7	6	9	6	9	6	9	6	9	6	9	6	9	6	9	6	9			
1	7	0	6	5	6	2	5	8	6	7	6	3	6	0	5	7	5	4	5	6	5	4	5	2	5	3	5	1	5	0	4	8		
2	6	2	5	6	5	5	4	5	6	5	4	4	5	1	4	6	4	3	4	8	4	4	1	4	5	4	2	3	9	3	8	3		
3	5	6	4	8	4	1	3	6	5	4	4	6	3	6	4	3	9	3	4	1	3	7	3	3	3	9	3	5	3	2	3	0		
4	5	1	4	2	3	5	3	0	4	9	4	1	3	2	3	9	3	6	3	2	9	3	6	3	0	2	7	2	3	0	2	5		
5	4	7	3	7	3	0	2	5	4	5	3	6	3	0	2	5	3	4	2	8	2	3	2	7	3	0	2	6	2	3	2	1		
6	4	3	3	3	2	6	2	1	4	1	3	2	2	6	2	1	3	0	2	5	2	1	2	9	2	4	2	0	2	7	2	3	0	1
7	4	0	3	0	2	3	1	9	3	8	2	9	2	3	1	8	2	6	2	1	8	2	5	2	0	1	7	1	6	2	0	1	6	
8	3	7	2	7	2	1	1	6	3	5	2	6	2	0	1	6	2	4	1	9	1	6	2	3	1	8	2	3	1	8	1	5	1	4
9	3	4	2	4	1	9	1	5	3	3	2	4	1	8	1	4	2	2	1	8	2	4	1	9	1	6	2	1	7	1	4	1	2	
10	3	2	2	2	1	7	1	3	3	1	2	2	1	7	1	3	2	1	6	1	3	2	0	1	6	1	2	1	9	1	5	1	2	1

Zone	Lumens
0-10	382.83
10-20	1200.76
20-30	1987.77
30-40	2662.58
40-50	3136.15
50-60	3436.26
60-70	3412.32
70-80	1660.08
80-90	278.17
90-100	3.43
100-110	0
110-120	0
120-130	0
130-140	0
140-150	0
150-160	0
160-170	0
170-180	0

TOTAL LUMINAIRE EFFICIENCY = 72.6%

CIE Type – Direct
Spacing Criteria: 1.58

ZONAL LUMEN SUMMARY			
ZONE	LUMENS	%LAMP	%FXT.
0-30	3571.36	14.3	19.7
0-40	6233.94	24.9	34.3
0-60	12806.35	51.2	70.5
0-90	18156.91	72.6	100
90-120	3.43	0	0
90-130	3.43	0	0
90-150	3.43	0	0
90-180	3.43	0	0
0-180	18160.34.	72.6	100.0



REPORT NUMBER: **KPBG250PST**
Lamps: 250 W Metal Halide Pulse Start
Mogul Base

COEFFICIENTS OF UTILIZATION – ZONAL CAVITY METHOD
EFFECTIVE FLOOR CAVITY REFLECTANCE 0.20

RC	80				70				50				30				10				0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0			
0	86	86	86	86	84	84	84	84	81	81	81	77	77	77	74	74	74	73			
1	78	74	71	68	76	73	70	67	70	67	65	67	65	63	64	62	61	59			
2	70	63	58	53	68	62	57	53	59	55	51	57	53	50	55	52	49	47			
3	63	55	48	43	61	53	47	42	51	46	42	49	45	41	47	43	40	38			
4	57	48	41	35	55	47	40	35	45	39	34	43	38	34	41	37	33	32			
5	52	42	35	30	50	41	34	29	39	34	29	38	33	29	37	32	28	27			
6	48	37	30	25	46	37	30	25	35	29	25	34	29	25	33	28	24	23			
7	44	33	27	22	43	33	26	22	32	26	22	31	25	21	30	25	21	20			
8	41	30	24	19	40	30	23	19	29	23	19	28	23	19	27	22	19	17			
9	38	28	21	17	37	27	21	17	26	21	17	25	20	17	25	20	17	15			
10	35	25	19	15	35	25	19	15	24	19	15	23	18	15	23	18	15	14			

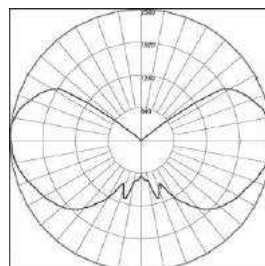
Candela Distribution

Zone	
0-10	74.54
10-20	304.58
20-30	486.47
30-40	948.61
40-50	1471.61
50-60	1887.31
60-70	2239.17
70-80	2561.7
80-90	2747.67
90-100	2779.02
100-110	2564.95
110-120	2148.15
120-130	1109.49
130-140	37.55
140-150	3.93
150-160	.76
160-170	.39
170-180	.03

TOTAL LUMINAIRE EFFICIENCY = 85.5%

CIE Type – General Diffuse

ZONAL LUMEN SUMMARY			
ZONE	LUMENS	%LAMP	%FXT.
0-30	865.59	3.5	4.1
0-40	1814.2	7.3	8.5
0-60	5173.13	20.7	24.2
0-90	12721.67	50.9	59.5
90-120	7492.124	30	35.1
90-130	8601.61	34.4	40.3
90-150	8643.09	34.6	40.5
90-180	8643.97	34.6	40.5
0-180	21365.63	85.5	100.0



REPORT NUMBER: **KPBG250PG**
Lamps: 250 W Metal Halide Pulse Start
Moquf Base

COEFFICIENTS OF UTILIZATION – ZONAL CAVITY METHOD
EFFECTIVE FLOOR CAVITY REFLECTANCE 0.20

EFFECTIVE FLOOR CAVITY REFLECTANCE 0.20																					
RC	80				70				50				30				10				0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
0	94	94	94	94	87	87	87	87	76	76	76	65	65	65	55	55	55	55	55	55	0
1	80	74	68	63	74	68	63	59	58	54	51	49	46	43	40	38	36	31			31
2	71	61	54	47	65	57	50	44	48	42	38	40	36	32	32	29	26	22			22
3	63	52	44	37	58	48	41	34	41	34	29	33	29	25	27	23	20	16			16
4	57	45	36	30	52	42	34	28	35	29	24	29	24	20	23	19	16	13			13
5	52	40	31	25	47	36	29	23	31	24	19	25	20	16	20	16	13	10			10
6	47	35	27	21	43	32	25	19	27	21	16	22	17	13	18	14	11	8			8
7	44	31	23	18	40	29	22	16	24	18	14	20	15	11	16	12	9	7			7
8	40	28	20	15	37	26	19	14	22	16	12	18	13	10	15	11	8	6			6
9	37	25	18	13	34	24	17	12	20	14	10	17	12	9	13	10	7	5			5
10	35	23	16	12	32	22	15	11	18	13	9	15	11	8	12	9	6	4			4

Mercmaster™ III HID 50–250 Watt Luminaires

250 W PSMH

* Photometric data is based on fixtures with a 250-watt clear Pulse Start Metal Halide lamp (23,000 lumen). For candlepower values of fixtures with other PSMH lamps, (21,000 lumen) PSMH lamp – 0.913. For candlepower values of fixture with guard, multiply by 0.95.

CEC:
Class I, Division 2, Groups A, B, C, D
Class I, Zone 2 Ex nR IIC (Z)
Class II, Division 1 and 2, Groups E, F, G
Class III

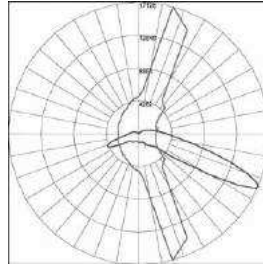
CEC:
Type 4X
IP66

Photometric Data

Zone	Lumens
0-10	28.46
10-20	222.99
20-30	438.39
30-40	727.7
40-50	1709.75
50-60	2094.28
60-70	4828.69
70-80	4189.12
80-90	2131.34
90-100	748.43
100-110	1109.54
110-120	701.88
120-130	410.51
130-140	237.73
140-150	123.53
150-160	37.79
160-170	3.51
170-180	.32

TOTAL LUMINAIRE EFFICIENCY = 79%
CIE Type – Semi-Direct
Spacing Criteria: 1.64

ZONAL LUMEN SUMMARY			
ZONE	LUMENS	%LAMP	%FIXT.
0-30	689.84	2.8	3.5
0-40	1417.54	5.7	7.2
0-60	5221.56	20.9	26.4
0-90	16370.71	65.5	82.9
90-120	2559.84	10.2	13
90-130	2970.35	11.9	15
90-150	3331.61	13.3	16.9
90-180	3373.23	13.5	17.1
0-180	19743.94	79	100.0



REPORT NUMBER: **KPBR250PJ3**

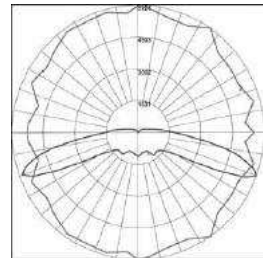
Lamps: 250 W Metal Halide Pulse Start
Mogul Base

		COEFFICIENTS OF UTILIZATION – ZONAL CAVITY METHOD															
		EFFECTIVE FLOOR CAVITY REFLECTANCE 0.20															
RC		80				70				50				30			
RW		70	50	30	10	70	50	30	10	50	30	10	0	50	30	10	0
0	91	91	91	91	91	87	87	87	87	80	80	80	74	74	74	68	68
1	77	70	65	60	60	73	67	62	57	61	57	53	55	52	49	50	48
2	66	56	48	42	42	62	54	46	40	48	42	37	43	38	34	39	35
3	58	46	37	30	30	55	44	36	29	39	32	27	35	29	24	31	26
4	52	39	30	23	23	49	37	29	22	33	26	20	30	23	18	26	21
5	47	34	25	18	18	44	32	24	17	29	21	16	25	19	14	22	17
6	43	30	21	15	15	40	28	20	14	25	18	13	22	16	12	20	14
7	39	26	18	12	12	37	25	17	12	22	16	11	20	14	9	18	12
8	36	24	16	10	10	34	22	15	10	20	14	9	18	12	8	16	11
9	33	21	14	9	9	32	20	13	8	18	12	8	16	11	7	15	10
10	31	19	12	8	8	29	18	12	7	17	11	7	15	10	6	13	9

Zone	Lumens
0-10	28.96
10-20	214.01
20-30	402.91
30-40	678.83
40-50	1539.03
50-60	1537.39
60-70	4450.44
70-80	5789.28
80-90	3160.26
90-100	855.15
100-110	1095.13
110-120	596.59
120-130	345.11
130-140	189.6
140-150	82.84
150-160	22.91
160-170	2.78
170-180	.71

TOTAL LUMINAIRE EFFICIENCY = 84%
CIE Type – Semi-Direct
Spacing Criteria: 1.64

ZONAL LUMEN SUMMARY			
ZONE	LUMENS	%LAMP	%FIXT.
0-30	645.89	2.6	3.1
0-40	1324.72	5.3	6.3
0-60	4401.15	17.6	21
0-90	17801.14	71.2	84.8
90-120	2546.87	10.2	12.1
90-130	2891.98	11.6	13.8
90-150	3164.41	12.7	15.1
90-180	3190.80	12.8	15.2
0-180	20991.94	84	100.0



REPORT NUMBER: **KPBR250PJ5**

Lamps: 250 W Metal Halide Pulse Start
Mogul Base

		COEFFICIENTS OF UTILIZATION – ZONAL CAVITY METHOD															
		EFFECTIVE FLOOR CAVITY REFLECTANCE 0.20															
RC		80				70				50				30			
RW		70	50	30	10	70	50	30	10	50	30	10	0	50	30	10	0
0	97	97	97	97	97	93	93	93	93	86	86	86	80	80	80	74	74
1	80	72	66	60	60	76	69	63	57	63	58	53	57	53	49	52	48
2	68	57	48	40	40	65	54	46	38	49	42	35	44	38	33	39	34
3	60	47	37	29	29	56	44	35	27	40	32	25	35	29	23	31	26
4	54	40	29	22	22	50	37	28	21	33	25	19	30	23	17	26	20
5	48	34	24	17	17	45	32	23	16	29	21	15	26	19	13	23	17
6	44	30	21	14	14	41	28	20	13	25	18	12	23	16	11	20	14
7	41	27	18	11	11	38	25	17	11	23	15	10	20	14	9	18	12
8	38	24	16	10	10	35	23	15	9	21	14	8	18	12	8	16	11
9	35	22	14	8	8	33	21	13	8	19	12	7	17	11	7	15	10
10	33	20	12	7	7	31	19	12	7	17	11	6	16	10	6	14	9

Mercmaster™ III 400 Luminaire for Hazardous and Wet Locations

High Pressure Sodium and Pulse Start Metal Halide

Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA nR IIC (Z2)
Class I, Zone 2, AEx nR IIC (ZB)
Class II, Division 1 and 2, Groups E, F, G
Class III

NEC/CEC:

Simultaneous Exposure (Class I, Division 2/
Class II, Division 1)
Fixtures Outside Type (Salt Water)
Type 4X
IP66

Applications

- Enclosed and gasketed fixtures suitable for use in:
 - Marine and wet locations
 - A wide range of industrial, chemical processing and other areas where flammable gases and vapors or combustible dusts are present under conditions defined by the National Electrical Code as Class I, Division 2; Class II, Division 1 and 2; and Class III
 - In applications involving medium and high mounting heights
 - In applications where energy efficient, high lumen output is required
 - The AEx nA nR Mercmaster III fixture is factory sealed and prevents vapors and gases from entering the globe chamber. There are no seals or putty required.
 - The AEx nR Mercmaster III fixture requires all wiring entries to be sealed.
 - Non-hazardous locations where severe weather conditions, excessive moisture, dirt, dust, corrosive atmosphere or high ambient temperatures are encountered
- Typical applications include:
 - Pulp and paper mills
 - Processing plants
 - Chemical plants
 - Oil refineries
 - Foundries
 - Manufacturing plants
 - Storage areas
 - Waste and sewage treatment
 - Other areas where dust, water, dirt and rough usage are a problem

Features

- Superior corrosion resistance.
- Choice of light sources: high pressure sodium, and pulse start metal halide.
- Six mounting arrangements to suit any lighting layout: pendant, ceiling, wall bracket, 25° (angle) stanchion, 90° (straight) stanchion and cone.
- Hinge has high lip for added safety during installation and servicing. Hinge and bolt construction assures 360° compression at all points on ballast housing gasket for positive sealing. Swing away design of captive bolt and nut simplifies servicing.
- Choice of optical assemblies: prismatic globe; enclosed reflector with sealed lens; or Type V or Type II closed prismatic glass refractor, with or without guards.
- Wide choice of photometric distributions.
- All fixtures designed to perform in a 40 °C (104 °F) ambient temperature. Selected fixtures are suitable for ambient temperatures up to 65 °C (149 °F) .
- Mogul base porcelain lamp holder with nickel-plated contacts has 200 °C (392 °F) rated welded leads, pre-wired to the ballast. Assures trouble-free operation in installations where high ambient temperatures are encountered.
- For electrical protection, a ground wire is provided on each Mercmaster to bond hood and ballast housing.
- Terminal blocks are provided for Zone 2 fixtures to facilitate wiring.
- Standard dome of 30° angle reflectors made of fiberglass reinforced white polyester. Highly resistant to corrosive atmospheres.
- A wide range of voltages available (120 to 600 Volt) and ballast types (CWA and Super CWA).
- One-piece ballast housing for each component provides even



Enclosed Reflector



Prismatic Glass Globe



12" Glass Refractor

- heat dissipation for cooler operation and longer ballast life.
- All Mercmaster mounting hoods have provision for easy field installation of fuses in fixtures (see fuse kit listings).

Standard Materials

- Mounting hoods and ballast bodies: cast copperfree (less than 4/10 of 1% copper) aluminum
- Reflectors: Fiberglass reinforced white polyester
- Guards, hardware and catch assemblies: stainless steel
- Globe: heat- and impact-resistant internally fluted glass
- Refractors: prismatic glass
- Enclosed reflector: etched Alzak aluminum with sealed, tempered heat- and impact-resistant lens
- Body and globe gaskets: high-temperature silicone rubber

Standard Finishes

- Mounting hoods and guards: epoxy powder coat, electrostatically applied for complete and uniform protection

Options

- AEx nA nR fixtures are available with a Class I, Zone 2 rating. Add suffix **-Z2**.
- AEx nR fixtures are available with a Class I, Zone 2 rating. Add suffix **-ZB**.
- Quartz Auxiliary comes to full brightness immediately and remains lit until the HID lamp attains 60-70% of full illumination. Quartz Auxiliary supplied with relay switch and socket to accept 120 V quartz double-contact bayonet base lamp (not included). (Not suitable for hazardous locations.) Add suffix **-E**.
- Factory sealed photocontrol available. See PCD2 Series.
- Smart Starter incorporates a 1-1/2-minute timer and performs as a conventional starter to normally start lamp. Removes itself from circuit if lamp burns out or is removed from socket. Eliminates starter failures caused by prolonged operation with cycling or failing lamps and simplifies finding their location, reducing maintenance and repair costs. Available for all HPS and PSMH fixtures. Add suffix **-S**.

NEC/CEC Certifications and Compliances

- cULus Listed: E10444
- UL Standard: ANSI/UL 844, 1598, 60079-0, 60079-15, Marine Type Electric Fixtures Outside Type (Salt Water)
- CSA Certified: 025428
- CSA Standard: CSA C22.2 No. 9, C22.2 No. 137; CAN/CSA E60079-0, E60079-15
- 250 W PSMH not available in MT ballast. See Mercmaster III, 50-250 Luminaires.

Mercmaster™ III 400 Luminaire for Hazardous and Wet Locations

High Pressure Sodium and Pulse Start Metal Halide

Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA nR IIC (Z2)
Class I, Zone 2, AEx nR IIC (ZB)
Class II, Division 1 and 2, Groups E, F, G
Class III

NEC/CEC:

Simultaneous Exposure (Class I, Division 2/
Class II, Division 1)
Fixtures Outside Type (Salt Water)
Type 4X
IP66

Illustrated Features



High Temperature Sockets

Mogul base high-temperature porcelain sockets.

Aluminum Inner Reflector

Solid aluminum inner reflector (for refractor ballast housings only) improves photometric efficiency.

Globe Chamber

Completely sealed from the ballast housing and outside vapors/air (nR).



Vented Reflectors

Reflectors are thick, tough fiberglass-reinforced white polyester, vented for cooler operation. Quickly attach with furnished stainless steel screws.

Terminal Blocks (Zone 2)

A seven-point terminal block is provided to facilitate wiring. Terminal block accommodates wire size ranging from #8 to #24 AWG.

Stainless Steel Inserts

Ballast bodies have stainless steel threaded inserts to receive stainless steel screws for reflectors and guard. Prevents "freezing", allowing guards and reflectors to be easily removed and replaced at any time, without damage to the housing.



Ballast Assembly

Utilizing non-sparking components avoiding the ignition of gases or vapors that may be present (nA).

Mounting Hood and Globe Gaskets

Silicone rubber gasket seals out moisture, dirt and dust. Stays flexible, withstands high temperatures. Closure design assures uniform gasket compression.

Electrical Protection

Ground wire provided to bond mounting hood to ballast housing.



"Safety" High Hinge

Extra-high hinge provides additional protection against accidental ballast housing disengagement during installation or maintenance.

Epoxy Finish

Ballast housing, hoods and guards are copperfree aluminum with epoxy powder coat finish.

Photocell

Available for all fixtures except cone and ceiling mount. Installs through knock-out in mounting hood. Provides continuous ON-OFF dusk-to-dawn control.



Cooler Operating Cone Hood

Larger sloped surface sheds dusts, dirt and combustible fibers providing better heat dissipation.



Stainless Steel Latch Assembly

Captive, stainless steel latch assembly bolt and nut closes securely, resists attack of corrosive atmospheres. Swing-away design simplifies servicing.

Prismatic Glass Globes, Refractors and Enclosed Reflector

Heat-resistant globes, refractors and enclosed reflector thread into ballast housing and seal against a high temperature silicone rubber gasket.



Fuses

Two screws secure fuse kit to mounting boss in any Mercmaster mounting hood. Fuse included.

Mercmaster™ III 400 Luminaire for Hazardous and Wet Locations

High Pressure Sodium and Pulse Start Metal Halide

Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

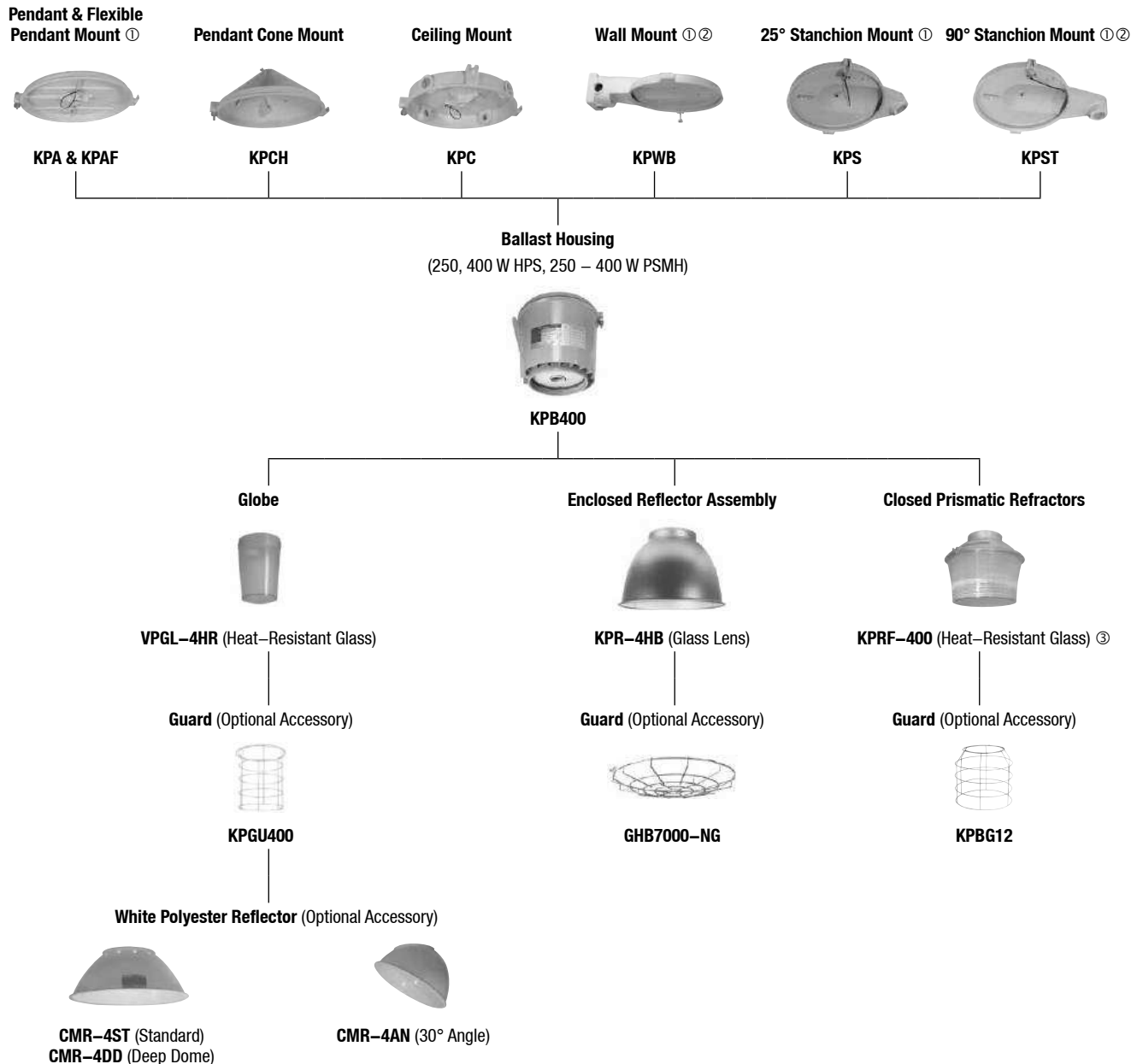
NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA nR IIC (Z2)
Class I, Zone 2, AEx nR IIC (ZB)
Class II, Division 1 and 2, Groups E, F, G
Class III

NEC/CEC:

Simultaneous Exposure (Class I, Division 2/
Class II, Division 1)
Fixtures Outside Type (Salt Water)
Type 4X
IP66

Mercmaster III 400 Family Tree



① Mounting hood with a 120 V or 208-277 V factory installed photocell is available.

② Standard and deep dome reflectors may interfere with bottom conduit entry if used with KPST and KPWB mounting hoods.

③ Available in NEMA Type II and V.

Mercmaster™ III 400 Luminaire for Hazardous and Wet Locations

High Pressure Sodium and Pulse Start Metal Halide

Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA nR IIC (Z2)
Class I, Zone 2, AEx nR IIC (ZB)
Class II, Division 1 and 2, Groups E, F, G
Class III

NEC/CEC:

Simultaneous Exposure (Class I, Division 2/
Class II, Division 1)
Fixtures Outside Type (Salt Water)
Type 4X
IP66

Order using catalog numbering guide below or select catalog number from tables on following pages.

Catalog Numbering Guide

KP	A	L	40	10	J5	G	MT	S	Z2
Series: KP - Mercmaster III 400		Lamp Type: L - High Pressure Sodium P - Pulse Start Metal Halide		Hub Size: 75 - 3/4" NPT 10 - 1" NPT 125 - 1-1/4" NPT stanchion 150 - 1-1/2" NPT stanchion		Guard Options: ② G - Globe Guard BG - Refractor Guard Blank - No Guard		Options: E - Emergency Quartz F - Fuse Kit (Specify Voltage) S - Smart Starter H1 - Photocontrol 120 V H2 - Photocontrol 208 V H3 - Photocontrol 240 V H4 - Photocontrol 277 V E40 - Export Socket <i>Optional Fusing ⑥</i> FN - 120 V FP - 208 V FS - 240 V FT - 277 V FF - 480 V	
	Mounting: A - Pendant (rigid mounting) C - Ceiling CH - Pendant Cone Hood F - Pendant (flexible mounting) ST - 90° Stanchion S - 25° Stanchion WB- Wall		Wattage: 25 - 250 W HPS, PSMH ⑤ 32 - 320 W PSMH 35 - 350 W PSMH 40 - 400 W PSMH & HPS	Optical Assembly: ① Blank - Glass Globe J2 - NEMA II Glass Refractor ④ J5 - NEMA V Glass Refractor ④ R - Enclosed Refractor with Sealed Lens			Voltage: ③ MT - 120/208/240/277, 60 Hz 5MT - 120/208/240/ 277/480, 60 Hz 48 - 480, 60 Hz 125 - 120, 50Hz 226 - 220, 60 Hz 235 - 230, 50Hz 245 - 240, 50 Hz	Suffix: Z2 - Zone 2 suffix (required for AEx nA nR rating) ZB - Zone 2 suffix (required for AEx nR rating)	

Refer to "Mounting Hoods and Ballast" page for available Voltage Configuration.

① NO DESIGNATION is required for fixtures with standard type globe.

② NO DESIGNATION is required for fixtures without guards.

③ Other voltages available. Contact your local sales representative.

④ J2 and J5 refractors are not available with Z2 or ZB suffix.

⑤ Available for 480 V, 50 Hz and 5MT ballast options. For MT and TT voltage suffix, see Mercmaster III 50-250 Luminaires.

⑥ Optional fusing is available for use with MT, 5MT and 48 voltage suffixes ONLY.

Mercmaster™ III 400 Luminaire for Hazardous and Wet Locations

Class I, Division 2; Class II, Division 1; Simultaneous Exposure to Hazardous Conditions on Both Classifications

Temperature identification numbers of Mercmaster III – 400 Fixtures.

NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA nR IIC (Z2)
Class I, Zone 2, AEx nR IIC (ZB)
Class II, Division 1 and 2, Groups E, F, G
Class III

NEC/CEC:

Simultaneous Exposure (Class I, Division 2/
Class II, Division 1)
Fixtures Outside Type (Salt Water)
Type 4X
IP66

“T” Numbers

Lamp Watts Type	Supply Wire Temp. °C (°F) ①	Ambient Temp. °C (°F) ①	Class I, Division 2				Class II, Division 1 Groups E, F and G				Simultaneous Exposure Class I, Division 2 / Class II, Division 1			
			Globe	Reflector	Refractor	Enclosed Reflector	Globe	Reflector	Refractor	Enclosed Reflector	Globe	Reflector	Refractor	Enclosed Reflector
250 HPS	125 °C (257 °F)	40 °C (104 °F)	T2	T2	T2	T2	T3B	T3B	T4	T4A	325	325	325	325
	125 °C (257 °F)	55 °C (131 °F)	325	325	T2	T2	—	—	T3B	T4A	—	—	T1	325
	125 °C (257 °F)	65 °C (149 °F)	—	—	T2	T2	—	—	T3B	T4	—	—	T1	350
400 HPS	90 °C (194 °F)	40 °C (104 °F)	350	T1	T1	350	T3 ②	T3 ②	T3C	T3C	T1	T1	T1	350
	90 °C (194 °F)	40 °C (104 °F)	T2A	T2A	T2B	T2C	T3 (EF)	T3 (EF)	T4	T4A	—	—	—	—
250 PSMH	90 °C (194 °F)	55 °C (131 °F)	T2A	T2A	T2B	T2C	—	—	—	—	—	—	—	—
	90 °C (194 °F)	65 °C (149 °F)	—	—	—	T2C	—	—	—	—	—	—	—	—
	90 °C (194 °F)	40 °C (104 °F)	T2B	T2B	T2B	T2B	—	—	T3C	T3C	—	—	—	—
320 PSMH	90 °C (194 °F)	55 °C (131 °F)	T2A	T2A	T2A	T2B	—	—	—	—	—	—	—	—
	90 °C (194 °F)	40 °C (104 °F)	T2B	T2B	T2B	T2B	—	—	T3C	T3C	—	—	—	—
350 PSMH	90 °C (194 °F)	55 °C (131 °F)	T2A	T2A	T2A	T2B	—	—	—	—	—	—	—	—
	90 °C (194 °F)	40 °C (104 °F)	T2A	T2A	T2B	T2B	—	—	T3C	T3C	—	—	—	—
400 PSMH	90 °C (194 °F)	40 °C (104 °F)	T2A	T2A	T2B	T2B	—	—	T3C	T3C	—	—	—	—

“T” Numbers Represent the Maximum Lamp Temperature for Class I, Division 2 Locations and Maximum Surface Temperature Under Dust Blanket for Class II, Division 1 Locations

“T” Number	T1	350	325	T2	T2A	T2B	T2C	T2D	T3	T3A	T3B	T3C	T4	T4A	T5	T6
Temp Range (°C)	351- 450	326- 350	301- 325	281- 300	261- 280	231- 260	216- 230	201- 215	181- 200	166- 180	161- 165	136- 160	121- 135	101- 120	86- 100	85
Temp. Range (°F)	664- 842	619- 662	574- 617	538- 572	502- 536	448- 500	421- 446	394- 419	358- 392	331- 356	322- 329	277- 320	250- 275	214- 248	187- 212	185

① Use +90 °C (+194 °F) rated supply wire.

② “T” numbers are for Groups E and F only.

Mercmaster™ III 400 Luminaire for Hazardous and Wet Locations

Class I, Zone 2, AEx nR IIC, AEx nA nR IIC, IP66, NEMA 4X

Temperature identification numbers of Mercmaster III – 400 Fixtures.

NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA nR IIC (Z2)
Class I, Zone 2, AEx nR IIC (ZB)
Class II, Division 1 and 2, Groups E, F, G
Class III

NEC/CEC:

Simultaneous Exposure (Class I, Division 2/
Class II, Division 1)
Fixtures Outside Type (Salt Water)
Type 4X
IP66

“T” Numbers

Lamp		Supply Wire Temp.	Ambient Temp.	Class 1, Zone 2 AEx nA nR			Class 1, Zone 2 AEx nR		
Watts	Type	°C (°F) ①	°C (°F) ①	Globe	Globe & Reflector	Enclosed Reflector	Globe	Globe & Reflector	Enclosed Reflector
250	HPS	125 (257)	40 (104)	T4	T4	T5	T4	T4	T5
	HPS	125 (257)	55 (131)	T3	T3	T3	T3	T3	T3
	HPS	125 (257)	65 (149)	—	—	T3	—	—	T3
400	HPS	90 (194)	40 (104)	T4	T4	T5	T4	T4	T5
250	PSMH	90 (194)	40 (104)	T3	T3	T3	—	—	—
	PSMH	90 (194)	55 (131)	T3	T3	T3	—	—	—
	PSMH	90 (194)	40 (104)	—	—	T3	—	—	—
320	PSMH	90 (194)	40 (104)	T4	T4	T4	T4	T4	T4
	PSMH	90 (194)	55 (131)	T3	T3	T4	T3	T3	T4
350	PSMH	90 (194)	40 (104)	T4	T4	T4	T4	T4	T4
	PSMH	90 (194)	55 (131)	T3	T3	T4	T3	T3	T4
400	PSMH	75 (167)	40 (104)	T3	T3	T3	T3	T3	T3
400	MH	75 (167)	40 (104)	T3	T3	T3	—	—	—

“T” Numbers represent the maximum surface temperature for luminaires with AEx nA nR and AEx nR rating:

To comply with AEx nR Requirements, all wiring entries must be sealed.

“T” Number	T1	T2	T3	T4	T5	T6
Temp. Range (°C)	301-450	201-300	136-200	101-135	86-100	85
Temp. Range (°F)	547-842	394-572	277-392	214-275	187-212	185

① Use +90 °C (+194 °F) rated supply wire.

Mercmaster™ III 400 Luminaire for Hazardous and Wet Locations

250 W, 400 W HPS

Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA nR IIC (Z2)
Class I, Zone 2, AEx nR IIC (ZB)
Class II, Division 1 and 2, Groups E, F, G
Class III

NEC/CEC:

Simultaneous Exposure (Class I, Division 2/
Class II, Division 1)
Fixtures Outside Type (Salt Water)
Type 4X
IP66

Type Mounting	Lamp Type	Lamp Watts	Hub Size (Inches)	With Globe	Catalog Numbers ③④⑤		
					With Type V 12" Refractor ②	With Enclosed Reflector	

Pendant — One Hub, Rigid Mounting ①



Shown with Globe

HPS	250	3/4 1	KPAL2575 KPAL2510	KPAL2575J5 KPAL2510J5	KPAL2575R KPAL2510R
HPS	400	3/4 1	KPAL4075 KPAL4010	KPAL4075J5 KPAL4010J5	KPAL4075R KPAL4010R

Pendant Cone — One Hub, Rigid Mounting



Shown with 12" Glass Refractor

HPS	250	3/4 1	KPCHL2575 KPCHL2510	KPCHL2575J5 KPCHL2510J5	KPCHL2575R KPCHL2510R
HPS	400	3/4 1	KPCHL4075 KPCHL4010	KPCHL4075J5 KPCHL4010J5	KPCHL4075R KPCHL4010R

Ceiling — Five Hubs, Four Close-Up Plugs



Shown with Enclosed Reflector

HPS	250	3/4 1	KPCL2575 KPCL2510	KPCL2575J5 KPCL2510J5	KPCL2575R KPCL2510R
HPS	400	3/4 1	KPCL4075 KPCL4010	KPCL4075J5 KPCL4010J5	KPCL4075R KPCL4010R

① For Flexible Pendant Mount, change **A** to **F** in catalog number.

② To order fixture with NEMA Type II refractor, change digits **J5** in catalog number to **J2**. Refractor not available for Z, Z2 or ZB suffix.

③ For fixtures with guards, add suffix **G** before adding voltage suffix. **BG** for refractor. **NG** for enclosed reflector.

④ Add the following voltage and frequency designations before Z2 or ZB suffix:

Lamp Type	Lamp Watts	Voltage Suffixes							
		MT	5MT	48	125	225	226	235	245
HPS	250	X	X	X	X	—	X	X	—
HPS	400	X	X	X	X	—	—	X	—
PSMH	250	—	X	X	X	—	—	X	—
PSMH	320	X	X	X	X	—	—	X	—
PSMH	350	X	X	X	X	—	—	X	—
PSMH	400	X	X	X	—	—	—	X	—
Voltages:		48 - 480 V 60 Hz				226 - 220 V 60 Hz			
MT - 120/208/240/277 V 60 Hz		125 - 120 V 50 Hz				235 - 230 V 50 Hz			
5MT - 120/208/240/277/480 V 60 Hz		225 - 225 V 50 Hz				245 - 240 V 50 Hz			

⑤ Add **Z2** suffix for factory sealed non-sparking/restricted breathing protection (AEx nA nR). Add **ZB** suffix for restricted breathing protection (AEx nR).

Mercmaster™ III 400 Luminaire for Hazardous and Wet Locations

250 W, 400 W HPS

Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA nR IIC (Z2)
Class I, Zone 2, AEx nR IIC (ZB)
Class II, Division 1 and 2, Groups E, F, G
Class III

NEC/CEC:

Simultaneous Exposure (Class I, Division 2/
Class II, Division 1)
Fixtures Outside Type (Salt Water)
Type 4X
IP66

Type Mounting	Lamp Type	Lamp Watts	Hub Size (Inches)	With Globe	Catalog Numbers ③④⑤		
					With Type V 12" Refractor ②	With Enclosed Reflector	

Wall Five Hubs, Four Close-Up Plugs



Shown with 12" Glass Refractor

HPS	250	3/4	KPWBL2575	KPWBL2575J5	KPWBL2575R
		1	KPWBL2510	KPWBL2510J5	KPWBL2510R
HPS	400	3/4	KPWBL4075	KPWBL4075J5	KPWBL4075R
		1	KPWBL4010	KPWBL4010J5	KPWBL4010R

25° Stanchion One Hub



Shown with Prismatic Glass Globe and Optional Guard

HPS	250	1-1/4	KPSL25125	KPSL25125J5	KPSL25125R
		1-1/2	KPSL25150	KPSL25150J5	KPSL25150R
HPS	400	1-1/4	KPSL40125	KPSL40125J5	KPSL40125R
		1-1/2	KPSL40150	KPSL40150J5	KPSL40150R

90° Stanchion One Hub



Shown with Prismatic Glass Globe and Optional Guard

HPS	250	1-1/4	KPSTL25125	KPSTL25125J5	KPSTL25125R
		1-1/2	KPSTL25150	KPSTL25150J5	KPSTL25150R
HPS	400	1-1/4	KPSTL40125	KPSTL40125J5	KPSTL40125R
		1-1/2	KPSTL40150	KPSTL40150J5	KPSTL40150R

② To order fixture with NEMA Type II refractor, change digits **J5** in catalog number to **J2**. Refractor not available for Z, Z2 or ZB suffix.

③ For fixtures with guards, add suffix **G** before adding voltage suffix. **BG** for refractor. **NG** for enclosed reflector.

④ Add the following voltage and frequency designations before Z2 or ZB suffix:

Lamp Type	Lamp Watts	Voltage Suffixes							
		MT	5MT	48	125	225	226	235	245
HPS	250	X	X	X	X	—	X	X	—
HPS	400	X	X	X	X	—	—	X	—
PSMH	250	—	X	X	X	—	—	X	—
PSMH	320	X	X	X	X	—	—	X	—
PSMH	350	X	X	X	X	—	—	X	—
PSMH	400	X	X	X	—	—	—	X	—
Voltages:		48 - 480 V 60 Hz				226 - 220 V 60 Hz			
MT - 120/208/240/277 V 60 Hz		125 - 120 V 50 Hz				235 - 230 V 50 Hz			
5MT - 120/208/240/277/480 V 60 Hz		225 - 225 V 50 Hz				245 - 240 V 50 Hz			

⑤ Add **Z2** suffix for factory sealed non-sparking/restricted breathing protection (AEx nA nR). Add **ZB** suffix for restricted breathing protection (AEx nR).

Mercmaster™ III 400 Luminaire for Hazardous and Wet Locations

250 W, 320 W, 350 W, 400 W PSMH

Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA nR IIC (Z2)
Class I, Zone 2, AEx nR IIC (ZB)
Class II, Division 1 and 2, Groups E, F, G
Class III

NEC/CEC:

Simultaneous Exposure (Class I, Division 2/
Class II, Division 1)
Fixtures Outside Type (Salt Water)
Type 4X
IP66

Type Mounting	Lamp Type	Lamp Watts	Hub Size (Inches)	With Globe	Catalog Numbers ③④⑤ With Type V 12" Refractor ②	With Enclosed Reflector
Pendant One Hub, Rigid Mounting ①						
 Shown with Globe	PSMH	250 ⑥	3/4	KPAP2575	KPAP2575J5	KPAP2575R
			1	KPAP2510	KPAP2510J5	KPAP2510R
	PSMH	320	3/4	KPAP3275	KPAP3275J5	KPAP3275R
			1	KPAP3210	KPAP3210J5	KPAP3210R
	PSMH	350	3/4	KPAP3575	KPAP3575J5	KPAP3575R
			1	KPAP3510	KPAP3510J5	KPAP3510R
	PSMH	400	3/4	KPAP4075	KPAP4075J5	KPAP4075R
			1	KPAP4010	KPAP4010J5	KPAP4010R
Pendant Cone One Hub, Rigid Mounting						
 Shown with 12" Glass Refractor	PSMH	250 ⑥	3/4	KPCHP2575	KPCHP2575J5	KPCHP2575R
			1	KPCHP2510	KPCHP2510J5	KPCHP2510R
	PSMH	320	3/4	KPCHP3275	KPCHP3275J5	KPCHP3275R
			1	KPCHP3210	KPCHP3210J5	KPCHP3210R
	PSMH	350	3/4	KPCHP3575	KPCHP3575J5	KPCHP3575R
			1	KPCHP3510	KPCHP3510J5	KPCHP3510R
	PSMH	400	3/4	KPCHP4075	KPCHP4075J5	KPCHP4075R
			1	KPCHP4010	KPCHP4010J5	KPCHP4010R
Ceiling Five Hubs, Four Close-Up Plugs						
 Shown with Enclosed Refractor	PSMH	250 ⑥	3/4	KPCP2575	KPCP2575J5	KPCP2575R
			1	KPCP2510	KPCP2510J5	KPCP2510R
	PSMH	320	3/4	KPCP3275	KPCP3275J5	KPCP3275R
			1	KPCP3210	KPCP3210J5	KPCP3210R
	PSMH	350	3/4	KPCP3575	KPCP3575J5	KPCP3575R
			1	KPCP3510	KPCP3510J5	KPCP3510R
	PSMH	400	3/4	KPCP4075	KPCP4075J5	KPCP4075R
			1	KPCP4010	KPCP4010J5	KPCP4010R

① For Flexible Pendant Mount, change **A** to **F** in catalog number.

② To order fixture with NEMA Type II refractor, change digits **J5** in catalog number to **J2**. Refractor not available for Z, Z2 or ZB suffix.

③ For fixtures with guards, add suffix **G** before adding voltage suffix. **BG** for refractor. **NG** for enclosed reflector.

④ Add the following voltage and frequency designations before Z2 or ZB suffix:

Lamp Type	Lamp Watts	Voltage Suffixes							
		MT	5MT	48	125	225	226	235	245
HPS	250	X	X	X	X	—	X	X	—
HPS	400	X	X	X	X	—	—	X	—
PSMH	250	—	X	X	X	—	—	X	—
PSMH	320	X	X	X	X	—	—	X	—
PSMH	350	X	X	X	X	—	—	X	—
PSMH	400	X	X	X	—	—	—	X	—

Volages:

MT - 120/208/240/277 V 60 Hz

5MT - 120/208/240/277/480 V 60 Hz

48 - 480 V 60 Hz

125 - 120 V 50 Hz

225 - 225 V 50 Hz

226 - 220 V 60 Hz

235 - 230 V 50 Hz

245 - 240 V 50 Hz

⑤ Add **Z2** suffix for factory sealed non-sparking/restricted breathing protection (AEx nA nR). Add **ZB** suffix for restricted breathing protection (AEx nR).

⑥ Available for 480 V, 50 Hz and 5MT ballast options. For MT and TT voltage suffix, see Mercmaster III 50-250 Luminaires.

Mercmaster™ III 400 Luminaire for Hazardous and Wet Locations

250 W, 320 W, 350 W, 400 W PSMH

Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA nR IIC (Z2)
Class I, Zone 2, AEx nR IIC (ZB)
Class II, Division 1 and 2, Groups E, F, G
Class III

NEC/CEC:

Simultaneous Exposure (Class I, Division 2/
Class II, Division 1)
Fixtures Outside Type (Salt Water)
Type 4X
IP66

Type Mounting	Lamp Type	Lamp Watts	Hub Size (Inches)	With Globe	Catalog Numbers ③④⑤ With Type V 12" Refractor ②	With Enclosed Reflector
Wall Five Hubs, Four Close-Up Plugs						
	PSMH	250 ⑥	3/4	KPWPB2575	KPWPB2575J5	KPWPB2575R
			1	KPWPB2510	KPWPB2510J5	KPWPB2510R
	PSMH	320	3/4	KPWPB3275	KPWPB3275J5	KPWPB3275R
			1	KPWPB3210	KPWPB3210J5	KPWPB3210R
	PSMH	350	3/4	KPWPB3575	KPWPB3575J5	KPWPB3575R
			1	KPWPB3510	KPWPB3510J5	KPWPB3510R
	PSMH	400	3/4	KPWPB4075	KPWPB4075J5	KPWPB4075R
			1	KPWPB4010	KPWPB4010J5	KPWPB4010R
Shown with 12" Glass Refractor						
25° Stanchion One Hub						
	PSMH	250 ⑥	1-1/4	KPSP25125	KPSP25125J5	KPSP25125R
			1-1/2	KPSP25150	KPSP25150J5	KPSP25150R
	PSMH	320	1-1/4	KPSP32125	KPSP32125J5	KPSP32125R
			1-1/2	KPSP32150	KPSP32150J5	KPSP32150R
	PSMH	350	1-1/4	KPSP35125	KPSP35125J5	KPSP35125R
			1-1/2	KPSP35150	KPSP35150J5	KPSP35150R
	PSMH	400	1-1/4	KPSP40125	KPSP40125J5	KPSP40125R
			1-1/2	KPSP40150	KPSP40150J5	KPSP40150R
Shown with Prismatic Glass Globe and Optional Guard						
90° Stanchion One Hub						
	PSMH	250 ⑥	1-1/4	KPSTP25125	KPSTP25125J5	KPSTP25125R
			1-1/2	KPSTP25150	KPSTP25150J5	KPSTP25150R
	PSMH	320	1-1/4	KPSTP32125	KPSTP32125J5	KPSTP32125R
			1-1/2	KPSTP32150	KPSTP32150J5	KPSTP32150R
	PSMH	350	1-1/4	KPSTP35125	KPSTP35125J5	KPSTP35125R
			1-1/2	KPSTP35150	KPSTP35150J5	KPSTP35150R
	PSMH	400	1-1/4	KPSTP40125	KPSTP40125J5	KPSTP40125R
			1-1/2	KPSTP40150	KPSTP40150J5	KPSTP40150R
Shown with Prismatic Glass Globe and Optional Guard						

② To order fixture with NEMA Type II refractor, change digits **J5** in catalog number to **J2**. Refractor not available for Z, Z2 or ZB suffix.

③ For fixtures with guards, add suffix **G** before adding voltage suffix. **BG** for refractor. **NG** for enclosed reflector.

④ Add the following voltage and frequency designations before Z2 or ZB suffix:

Lamp Type	Lamp Watts	Voltage Suffixes							
		MT	5MT	48	125	225	226	235	245
HPS	250	X	X	X	X	—	X	X	—
HPS	400	X	X	X	X	—	—	X	—
PSMH	250	—	X	X	X	—	—	X	—
PSMH	320	X	X	X	X	—	—	X	—
PSMH	350	X	X	X	X	—	—	X	—
PSMH	400	X	X	X	—	—	—	X	—
Voltages:		48 - 480 V 60 Hz				226 - 220 V 60 Hz			
MT - 120/208/240/277 V 60 Hz		125 - 120 V 50 Hz				235 - 230 V 50 Hz			
5MT - 120/208/240/277/480 V 60 Hz		225 - 225 V 50 Hz				245 - 240 V 50 Hz			

⑤ Add **Z2** suffix for factory sealed non-sparking/restricted breathing protection (AEx nA nR). Add **ZB** suffix for restricted breathing protection (AEx nR).

⑥ Available for 480 V, 50 Hz and 5MT ballast options. For MT and TT voltage suffix, see Mercmaster III 50-250 Luminaires.

Mercmaster™ III 400 Luminaire for Hazardous and Wet Locations

High Pressure Sodium and Pulse Start Metal Halide - Hazardous and Wet Locations

Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

NEC/CEC:
 Class I, Division 2, Groups A, B, C, D
 Class I, Zone 2, AEx nA nR IIC (Z2)
 Class I, Zone 2, AEx nR IIC (ZB)
 Class II, Division 1 and 2, Groups E, F, G
 Class III

NEC/CEC:
 Simultaneous Exposure (Class I, Division 2/
 Class II, Division 1)
 Fixtures Outside Type (Salt Water)
 Type 4X
 IP66

Mounting Hoods

	Description	Hub Size (Inches)	Catalog Number
	One Hub, Rigid Mounting	3/4	KPA-75
		1	KPA-100
Pendant — Flexible 	One Hub, Flexible Mounting	3/4	KPAF-75
		1	KPAF-100
Pendant Cone 	One Hub, Rigid	3/4	KPCH-75
		1	KPCH-100
Ceiling 	Five Hubs, Four Close-Up Plugs	3/4	KPC-75
		1	KPC-100
Wall 	Five Hubs, Four Close-Up Plugs	3/4	KPWB-75
		1	KPWB-100
25° Stanchion 	One Hub	1-1/4	KPS-125
		1-1/2	KPS-150
90° Stanchion 	One Hub	1-1/4	KPST-125
		1-1/2	KPST-150

Ballast Bodies



High Pressure Sodium — Constant Wattage (Min. P.F. 90%)
Pulse Start Metal Halide — Super Constant Wattage (Min. P.F. 90%)

Lamp Type	Lamp Watts	Catalog Numbers ②④	MT	5MT	48	125	225	226	235	245
HPS	250	KPB250L ①③	X	X	X	X	—	X	X	—
HPS	400	KPB400L ①③	X	X	X	X	—	—	X	—
PSMH	250	KPB250P ①③④	—	X	X	X	—	—	X	—
PSMH	320	KPB320P ①③	X	X	X	X	—	—	X	—
PSMH	350	KPB350P ①③	X	X	X	X	—	—	X	—
PSMH	400	KPB400P ①③	X	X	X	—	—	—	X	—
Voltages:				48 - 480 V 60 Hz			226 - 220 V 60 Hz			
MT - 120/208/240/277 V 60 Hz				125 - 120 V 50 Hz			235 - 230 V 50 Hz			
5MT - 120/208/240/277/480 V 60 Hz				225 - 225 V 50 Hz			245 - 240 V 50 Hz			

① Add **-S** after voltage designation for ballast body with Smart Starter (HPS and PSMH only).

② Add **-E** after voltage designation for ballast body with provision for Quartz Emergency Light (not suitable for hazardous location).

③ Add **Z2** suffix for factory sealed non-sparking/restricted breathing protection (AEx nA nR). Add **ZB** suffix for restricted breathing protection (AEx nR).

④ Not available in MT. See Mercmaster III 50-250 Luminaires.

Mercmaster™ III 400 Luminaire for Hazardous and Wet Locations

High Pressure Sodium and Pulse Start Metal Halide - Hazardous and Wet Locations

Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA nR IIC (Z2)
Class I, Zone 2, AEx nR IIC (ZB)
Class II, Division 1 and 2, Groups E, F, G
Class III

NEC/CEC:

Simultaneous Exposure (Class I, Division 2/
Class II, Division 1)
Fixtures Outside Type (Salt Water)
Type 4X
IP66

Description	Catalog Number

Prismatic Glass Globes — Heat-Resistant



Glass Globe

Clear

VPGL-4HR

Enclosed Reflector Assembly



Enclosed Reflector

Heat- and impact-resistant glass lens

KPR-4HB

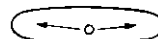
Light Distribution	IES/NEMA Distribution Curves	Catalog Number

Closed Prismatic Glass Refractors ② — All Heat-Resistant



Glass Refractor

NEMA Type II



KPRF400-2

NEMA Type V



KPRF400-5

Item	Description	Catalog Number

White Polyester Reflectors



Standard and Deep Dome



30° Angle

For use with globe fixtures

Standard Dome

CMR-4ST①

30° Angle

CMR-4AN

Deep Dome

CMR-4DD①

Guards



Globe Guard



Refractor Guard



Enclosed Refractor Guard

Globe Guard

KPGU400

Refractor Guard

KPBG12

Enclosed Refractor Guard

G-HB7000-NG

① Contact your local sales representative if used with KPWB or KPST mounting hoods.

② Not suitable for use with Z2 or ZB suffixes (Zone 2).

Mercmaster™ III 400 Luminaire for Hazardous and Wet Locations

High Pressure Sodium and Pulse Start Metal Halide - Hazardous and Wet Locations

Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA nR IIC (Z2)
Class I, Zone 2, AEx nR IIC (ZB)
Class II, Division 1 and 2, Groups E, F, G
Class III

NEC/CEC:

Simultaneous Exposure (Class I, Division 2)
Class II, Division 1)
Fixtures Outside Type (Salt Water)
Type 4X
IP66

Electrical Specifications

Line Voltage	Type of Ballast ①	Frequency	Starting Amps	Operating Amps	Total Watts
250 Watt High Pressure Sodium					
120	C.W.A.	60	2.00	2.50	295
208	C.W.A.	60	1.20	1.50	295
240	C.W.A.	60	1.00	1.30	295
277	C.W.A.	60	0.85	1.10	295
480	C.W.A.	60	0.40	0.65	295
120	C.W.A.	50	1.85	2.75	300
230	C.W.A.	50	0.95	1.44	300
400 Watt High Pressure Sodium					
120	C.W.A.	60	3.30	3.80	465
208	C.W.A.	60	1.80	2.20	465
240	C.W.A.	60	1.60	1.90	465
277	C.W.A.	60	1.40	1.70	465
480	C.W.A.	60	0.80	1.00	465
120	C.W.A.	50	3.70	4.00	465
230	C.W.A.	50	1.85	2.00	465
250 Watt Pulse Start Metal Halide					
120	C.W.A.	60	1.96	2.50	291
208	C.W.A.	60	1.13	1.45	291
240	C.W.A.	60	0.98	1.25	291
277	C.W.A.	60	0.85	1.10	291
480	C.W.A.	60	0.32	0.69	298
480	Super C.W.A.	60	0.45	0.60	285
120	Super C.W.A.	50	1.90	2.60	288
230	Super C.W.A.	50	1.00	1.35	288
320 Watt Pulse Start Metal Halide					
120	Super C.W.A.	60	2.60	3.25	368
208	Super C.W.A.	60	1.50	1.90	368
240	Super C.W.A.	60	1.30	1.65	368
277	Super C.W.A.	60	1.15	1.40	368
480	Super C.W.A.	60	0.60	0.80	368
120	Super C.W.A.	50	2.28	3.05	365
230	Super C.W.A.	50	1.14	1.60	365
350 Watt Pulse Start Metal Halide					
120	Super C.W.A.	60	3.30	3.60	400
208	Super C.W.A.	60	1.90	2.10	400
240	Super C.W.A.	60	1.65	1.80	400
277	Super C.W.A.	60	1.40	1.55	400
480	Super C.W.A.	60	0.75	0.90	400
120	Super C.W.A.	50	2.45	3.34	394
230	Super C.W.A.	50	1.26	1.74	394
400 Watt Pulse Start Metal Halide					
120	Super C.W.A.	60	3.50	4.00	454
208	Super C.W.A.	60	2.00	2.30	454
240	Super C.W.A.	60	1.75	2.00	454
277	Super C.W.A.	60	1.50	1.25	454
480	Super C.W.A.	60	0.90	1.00	454
120	Super C.W.A.	50	3.17	3.90	454
230	Super C.W.A.	50	1.65	2.00	454

Fuse Kit

Order fuses as a separate item by catalog number from right columns.

Lamp Watts	Volts	Fuse Quantity Required	Fuse Catalog Number	
			HPS	PSMH
250	120	1	F7	—
	208	2	F4	—
	240	2	F4	—
	277	1	F3	—
	480	2	F2	—
	120	1	F7	—
250	230	2	F4	—
	480	2	—	F2
	230	1	—	F3
	120	1	—	F9
	208	2	—	F6
	240	2	—	F5
320	277	1	—	F4
	480	2	—	F3
	120	1	—	F10
	230	2	—	F5
	120	1	—	F10
	208	2	—	F7
350	240	2	—	F5
	277	1	—	F5
	480	2	—	F3
	120	1	—	F10
	230	2	—	F5
	120	1	F15	F10
400	208	2	F8	F7
	240	2	F8	F5
	277	1	F5	F5
	480	2	F5	F3
	120	1	F10	F10
	230	2	F6	F5

① C.W.A. – Constant Wattage Autotransformer. HX-HPF – High Reactance High Power Factor Autotransformer.
Super C.W.A. – Super Constant Wattage Autotransformer.

Mercmaster™ III 400 Luminaire for Hazardous and Wet Locations

High Pressure Sodium and Pulse Start Metal Halide - Hazardous and Wet Locations

Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

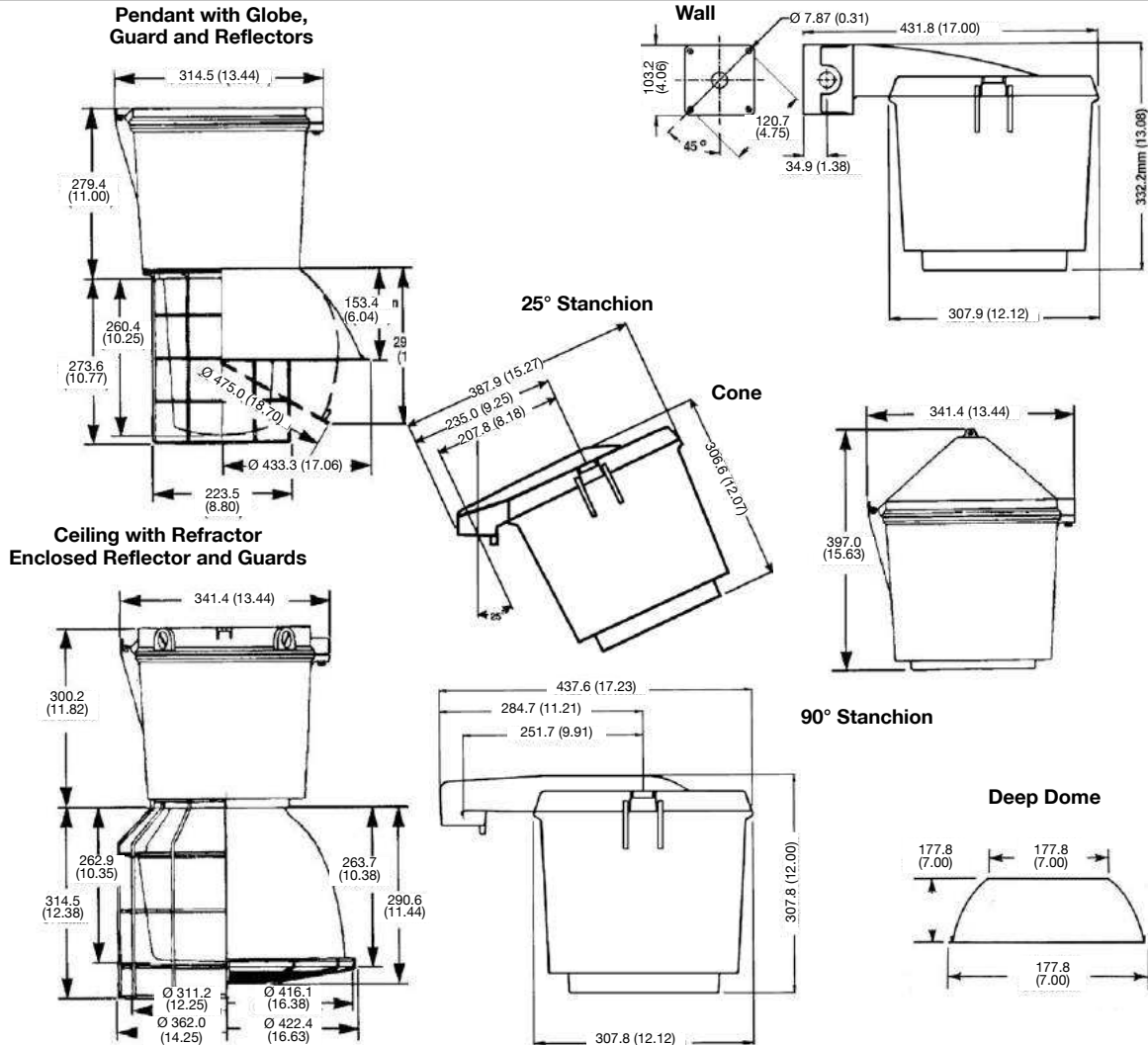
NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA nR IIC (Z2)
Class I, Zone 2, AEx nR IIC (ZB)
Class II, Division 1 and 2, Groups E, F, G
Class III

NEC/CEC:

Simultaneous Exposure (Class I, Division 2/
Class II, Division 1)
Fixtures Outside Type (Salt Water)
Type 4X
IP66

Dimensions in Millimeters (Inches)



Mercmaster III – 400 Ballast and Accessory Weights

Lamp Watts	Ballast Housing Wt. kg (lb)		Mounting Hoods and Reflectors	Wt. kg (lb)	Globe Refractor, Enclosed Reflector and Guards	Wt. kg (lb)
	HPS	PSMH				
250	11.1 (24.5)	—	Pendant	1.0 (2.25)	Glass Globe	3.2 (7.0)
			Pendant Cone	1.1 (2.50)	Globe Guard	1.4 (3.0)
320	—	12.7 (28.0)	Ceiling	1.4 (3.00)	12" Glass Refractor	5.4 (12.0)
			Wall	1.8 (4.00)	Refractor Guard	2.0 (4.5)
350	—	12.9 (28.5)	25° Stanchion	1.5 (3.25)	Enclosed Reflector	5.0 (11.0)
			90° Stanchion	1.7 (3.75)	Enclosed Reflector Guard	0.9 (2.0)
400	12.9 (28.5)	12.9 (28.5)	Standard Dome	1.6 (3.50)		
			30° Angle	1.6 (3.50)		

Weights are approximate. Add 0.11 kg (0.25 lb). for Quartz option.

PCD2 Series Factory Sealed Hazardous Location Photocontrol

For use in Class I, Division 2, Groups A, B, C, D locations

Maintains Class I, Division 2 rating for Mercmaster III – Low Profile, Mercmaster III, and Mercmaster III – 400 Series Luminaires, Mercmaster LED

NEC/CEC:
Class I, Division 2, Groups A, B, C, D
NEMA 4X

Applications

- Encapsulated photocontrol provides automatic dusk-to-dawn lighting control in Class I, Division 2 locations.
- Typical applications include walkways, security areas and any other outdoor lighting application.
- For use with Mercmaster III – Low Profile, Mercmaster III, and Mercmaster III – 400 Series Luminaires.
- For remote mounting in FS Boxes.

Features

- Factory sealed design eliminates the need for an explosionproof enclosure.
- Can be easily installed in the field.
- Solid state design for performance and reliability.
- Available for 120, 208, 240, or 277 volts.

- 50-400 W HID, incandescent or fluorescent, 50/60 Hz.
- 1000 V.A. Voltage/Ampere
- Minimum time delay: 15 seconds to eliminate nuisance tripping.
- Provided with (3) 18AWG stranded leads 152.4 mm (6 in) in length.
- Will fit through standard 1/2" knockout.
- Supplied with locknut and gasket.

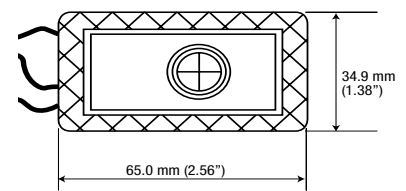
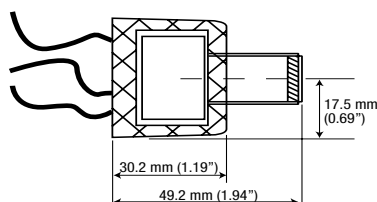
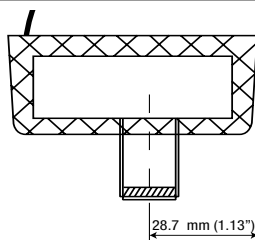
Materials

- Encapsulated with epoxy sealing compound
- FS: aluminum

NEC/CEC Certifications and Compliances

- UL Standard: 1604 – Hazardous (Classified) Locations
- cULus Recognized

	Voltage Range	Max VA	Max Current Amps	Suffix Designation Catalog Number
Factory-Installed Photocontrol - Not for ceiling or pendant cone. <i>Add to fixture catalog after voltage; i.e.: KPWBL1075MTH1.</i>				
 Mercmaster III wall mounting hood with photocontrol installed shown	120 V, 50/60 Hz	1000	—	H1
	208 V, 50/60 Hz	1000	—	H2
	240 V, 50/60 Hz	1000	—	H3
	277 V, 50/60 Hz	1000	—	H4
Photocontrol for Field Installation				
	120 V, 50/60 Hz	1000	8.3 Amp	PC120D2
	208 V, 50/60 Hz	1000	4.8 Amp	PC247D2
	240 V, 50/60 Hz	1000	4.2 Amp	
	277 V, 50/60 Hz	1000	3.6 Amp	
Photocontrol in FS Cover for Use with FS/FD Box <i>Supplied with two stainless steel screws. For neoprene gasket, order catalog number FS-GKR-1N.</i>				
	120 V, 50/60 Hz	1000	8.3 Amp	FSKA-PC120D2
	208, 50/60 Hz	1000	4.8 Amp	FSKA-PC247D2
	240 V, 50/60 Hz	1000	4.2 Amp	
	277 V, 50/60 Hz	1000	3.6 Amp	



Mercmaster™ III 400 Luminaire for Hazardous and Wet Locations

400 W PSMH

* Photometric data is based on a fixture with a 400-watt clear Pulse Start Metal Halide lamp (44,000 lumen). For candlepower values of fixtures with other PSMH lamps, use the following multipliers: for a 320 W (33,000 lumen) PSMH lamp – .750; for a 350 W (37,000 lumen) PSMH lamp – .840. For candlepower values of fixture with guard, multiply by – 0.95.

NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA nR IIC (Z2)
Class I, Zone 2, AEx nR IIC (ZB)
Class II, Division 1 and 2, Groups E, F, G
Class III

NEC/CEC:

Simultaneous Exposure (Class I, Division 2/
Class II, Division 1)
Fixtures Outside Type (Salt Water)
Type 4X
IP66

Photometric Data

Zone	Lumens	TOTAL LUMINAIRE EFFICIENCY = 92.6%

0-10 118.85 CIE Type – General Diffuse

10-20 488.36

20-30 948.99

30-40 1678.84

40-50 2714.15

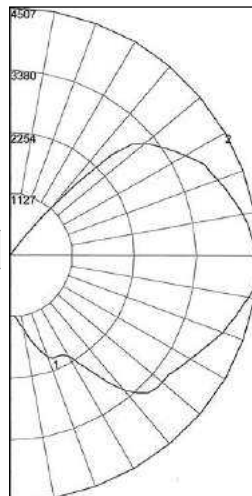
50-60 3299.55

60-70 3919.47

70-80 4497.45

ZONAL LUMEN SUMMARY

Zone	Lumens	% Lamp	% Fixture
0-30	1556.19	3.5	3.8
0-40	3235.03	7.4	7.9
0-60	9248.74	21.0	22.7
0-90	22558.07	51.3	55.4
90-120	13058.07	29.7	32.0
90-130	16136.25	36.7	39.6
90-150	18174.93	41.3	44.6
90-180	18191.71	41.3	44.6
0-180	40749.78	92.6	100.0



REPORT NUMBER: **KP40PG**

Lamps: 400 W Pulse Start Metal Halide with Globe *

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

% Ceiling	Rcc	80				70				50				30				10				0
% Walls	Rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
	0	100	100	100	100	93	93	93	93	80	80	80	68	68	68	57	57	57	57	57	57	51
	1	86	80	74	69	79	73	68	64	62	58	54	51	48	45	41	39	37	32	32	32	32
	2	76	67	59	52	70	61	54	48	51	45	41	42	37	33	33	30	27	22	22	22	22
	3	68	57	48	41	62	52	44	38	45	37	32	35	30	26	28	24	20	16	16	16	16
	4	62	49	40	33	56	45	37	30	37	31	26	30	25	21	24	20	16	13	13	13	13
	5	56	43	34	27	51	40	31	25	33	26	21	27	21	17	21	17	13	10	10	10	10
	6	51	38	29	23	47	35	27	21	29	23	18	24	18	14	18	14	11	8	8	8	8
	7	47	34	25	20	43	31	24	18	26	20	15	21	16	12	17	12	9	7	7	7	7
	8	44	31	22	17	40	28	21	16	24	17	13	19	14	10	15	11	8	6	6	6	6
	9	41	28	20	15	37	26	18	14	21	15	11	18	13	9	14	10	7	5	5	5	5
	10	38	25	18	13	35	23	16	12	20	14	10	16	11	8	13	9	6	4	4	4	4

Zone	Lumens	TOTAL LUMINAIRE EFFICIENCY = 81.4%

0-10 561.93 CIE Type – Direct

10-20 1748.92

20-30 2859.54

30-40 4018.21

40-50 5254.58

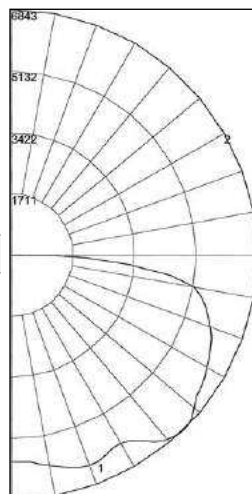
50-60 5772.38

60-70 6052.84

70-80 5887.04

ZONAL LUMEN SUMMARY

Zone	Lumens	% Lamp	% Fixture
0-30	5170.39	11.8	14.4
0-40	9188.60	20.9	25.7
0-60	20215.55	45.9	56.5
0-90	35668.14	81.1	99.6
90-120	137.17	0.3	0.4
90-130	137.17	0.3	0.4
90-150	137.17	0.3	0.4
90-180	137.17	0.3	0.4
0-180	35805.32	81.4	100.0



REPORT NUMBER: **KP40PST**

Lamps: 400 W Pulse Start Metal Halide with
Standard Dome Reflector *

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

% Ceiling	Rcc	80				70				50				30				10				0
% Walls	Rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
	0	97	97	97	97	95	95	95	95	90	90	90	86	86	86	83	83	83	81	81	81	81
	1	84	78	73	68	81	76	71	67	72	69	65	69	66	63	66	63	61	59	59	59	59
	2	74	65	58	51	72	63	57	51	60	54	49	57	52	48	55	51	47	45	45	45	45
	3	66	55	47	40	64	54	46	40	51	44	39	49	43	38	46	42	37	35	35	35	35
	4	60	48	39	32	58	47	39	32	44	37	32	42	36	31	40	35	31	28	28	28	28
	5	55	42	33	27	53	41	33	27	39	32	26	37	31	26	36	30	26	24	24	24	24
	6	50	37	29	23	48	36	28	23	35	28	22	33	27	22	32	26	22	20	20	20	20
	7	46	33	25	20	44	33	25	19	31	24	19	30	24	19	29	23	19	17	17	17	17
	8	43	30	22	17	41	30	22	17	28	22	17	27	21	17	26	21	17	15	15	15	15
	9	40	28	20	15	38	27	20	15	26	19	15	25	19	15	24	19	15	13	13	13	13
	10	37	25	18	13	36	25	18	13	24	18	13	23	17	13	22	17	13	12	12	12	12

Mercmaster™ III 400 Luminaire for Hazardous and Wet Locations

400 W PSMH

* Photometric data is based on a fixture with a 400-watt clear Pulse Start Metal Halide lamp (44,000 lumen). For candlepower values of fixtures with other PSMH lamps, use the following multipliers: for a 320 W (33,000 lumen) PSMH lamp – .750; for a 350 W (37,000 lumen) PSMH lamp – .840. For candlepower values of fixture with guard, multiply by – 0.95.

NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA nR IIC (Z2)
Class I, Zone 2, AEx nR IIC (ZB)
Class II, Division 1 and 2, Groups E, F, G
Class III

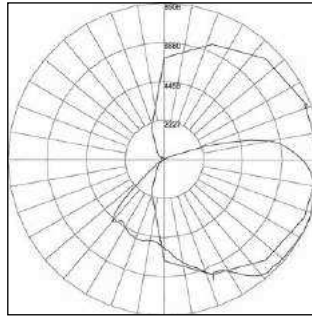
NEC/CEC:

Simultaneous Exposure (Class I, Division 2/
Class II, Division 1)
Fixtures Outside Type (Salt Water)
Type 4X
IP66

Photometric Data

Zone	Lumens	TOTAL LUMINAIRE EFFICIENCY = 76%

0-10	499.96	CIE Type – Direct	
10-20	1605.38	Plane	Spacing Criteria
20-30	2680.72		
30-40	3841.49	0-180	2.28
40-50	4899.23	90-270	1.92
50-60	4819.21	Diagonal	1.84
60-70	4564.58		
70-80	4063.65		
80-90	3258.13		



REPORT NUMBER: **KP40PAN**

Lamps: 400 W Pulse Start Metal Halide with
30° Angle Dome Reflector *

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

% Ceiling	Rcc	80				70				50				30				10				0
% Walls	Rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0			
	0	89	89	89	89	86	86	86	86	80	80	80	75	75	75	71	71	71	69			
	1	78	72	68	64	75	70	66	62	65	62	59	61	58	56	57	55	53	50			
	2	69	61	55	49	66	59	53	48	55	50	46	51	47	43	48	44	41	39			
	3	62	52	45	39	59	51	44	38	47	41	37	44	39	35	41	37	33	31			
	4	56	46	38	32	54	44	37	31	41	35	30	38	33	29	36	31	28	26			
	5	51	40	33	27	49	39	32	26	36	30	25	34	29	24	32	27	23	21			
	6	47	36	28	23	45	35	28	22	32	26	22	30	25	21	29	24	20	18			
	7	43	32	25	20	42	31	24	19	29	23	19	27	22	18	26	21	17	16			
	8	40	29	22	17	39	28	22	17	27	21	16	25	20	16	24	19	15	14			
	9	37	26	20	15	36	26	19	15	24	19	15	23	18	14	22	17	14	12			
	10	35	24	18	14	34	24	17	13	22	17	13	21	16	13	20	15	12	11			

ZONAL LUMEN SUMMARY

Zone	Lumens	% Lamp	% Fixture
100-110	762.24		
110-120	138.12	0-30	4786.06 10.9 14.3
120-130	77.59	0-40	8627.55 19.6 25.8
130-140	73.07	0-60	18345.99 41.7 54.9
140-150	25.07	0-90	30232.35 68.7 90.4
150-160	10.91	90-120	3005.49 6.8 9.0
160-170	5.30	90-130	3083.09 7.0 9.2
170-180	1.45	90-150	3181.23 7.2 9.5
		90-180	3198.89 7.3 9.6
		0-180	33431.25 76.0 100.0

Appleton®

HID/AREA: NEC/CEC ENCLOSED AND GASKETED

Mercmaster™ III 400 Luminaire for Hazardous and Wet Locations

400 W PSMH

* Photometric data is based on a fixture with a 400-watt clear Pulse Start Metal Halide lamp (44,000 lumen). For candlepower values of fixtures with other PSMH lamps, use the following multipliers: for a 320 W (33,000 lumen) PSMH lamp – .750; for a 350 W (37,000 lumen) PSMH lamp – .840. For candlepower values of fixture with guard, multiply by – 0.95.

NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA nR IIC (Z2)
Class I, Zone 2, AEx nR IIC (ZB)
Class II, Division 1 and 2, Groups E, F, G
Class III

NEC/CEC:

Simultaneous Exposure (Class I, Division 2)
Class II, Division 1
Fixtures Outside Type (Salt Water)
Type 4X
IP66

Photometric Data

Zone	Lumens	TOTAL LUMINAIRE EFFICIENCY = 78.4%

0-10 77.24 CIE Type – Semi-Direct

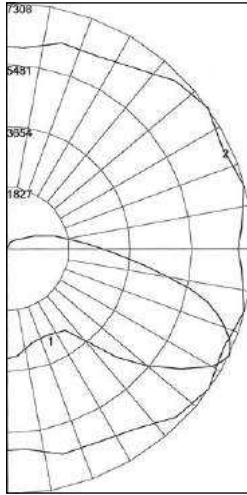
	Plane	Spacing Criteria
10-20 575.14		
20-30 1061.45		
30-40 1581.40	0-180	1.36
40-50 4468.52	90-270	1.40
50-60 4938.88	Diagonal	2.42

60-70 6338.26

70-80 5875.90

ZONAL LUMEN SUMMARY

Zone	Lumens	% Lamp	% Fixture
80-90 3886.90			
90-100 1318.17	0-30	1713.83	3.9 5.0
100-110 1872.98	0-40	3295.23	7.5 9.6
110-120 1122.17	0-60	12702.64	28.9 36.8
120-130 616.83	0-90	28803.69	65.5 83.5
130-140 358.56	90-120	4313.33	9.8 12.5
140-150 224.03	90-130	4930.15	11.2 14.3
150-160 128.38	90-150	5512.75	12.5 16.0
160-170 50.79	90-180	5699.61	13.0 16.5
170-180 7.69	0-180	34503.3	78.4 100.0



REPORT NUMBER: KP40PJ5

Lamps: 400 W Pulse Start Metal Halide with
8" Prismatic Glass Refractor – NEMA Type V *

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

% Floors	Rfc	20																				
% Ceiling	Rcc	80				70				50				30				10				0
% Walls	Rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0			
	0	90	90	90	90	87	87	87	87	80	80	80	74	74	74	68	68	68	65			
	1	77	71	66	61	73	68	63	59	62	58	54	57	53	50	52	49	47	44			
	2	67	58	50	44	64	55	48	42	50	44	39	45	41	37	41	37	34	31			
	3	59	48	40	33	56	46	38	32	42	35	30	38	32	27	34	29	25	23			
	4	53	41	33	26	50	39	31	25	35	29	23	32	26	21	29	24	20	17			
	5	48	36	27	21	45	34	26	20	31	24	18	28	22	17	25	20	16	13			
	6	44	31	23	17	41	30	22	16	27	20	15	24	18	14	22	17	13	11			
	7	40	28	20	14	38	26	19	14	24	17	13	22	16	12	19	14	11	9			
	8	37	25	17	12	35	24	17	11	22	15	11	19	14	10	18	13	9	7			
	9	34	22	15	10	32	21	15	10	20	13	9	18	12	8	16	11	8	6			
	10	32	20	14	9	30	20	13	9	18	12	8	16	11	7	15	10	7	5			

Zone	Lumens	TOTAL LUMINAIRE EFFICIENCY = 64.2%

0-10 514.26 CIE Type – Direct

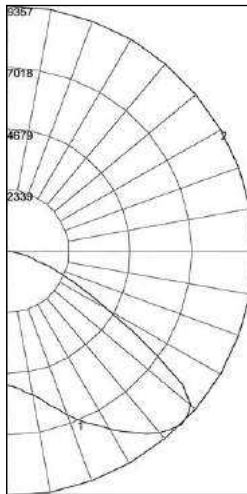
	Plane	Spacing Criteria
10-20 1734.49		
20-30 3370.99		
30-40 5333.06	0-180	2.32
40-50 7165.13	90-270	2.32
50-60 6195.93	Diagonal	2.04

60-70 2879.28

70-80 921.95

ZONAL LUMEN SUMMARY

Zone	Lumens	% Lamp	% Fixture
80-90 111.28			
90-100 0.14	0-30	5619.74	12.8 19.9
100-110 0.00	0-40	10952.81	24.9 38.8
110-120 0.00	0-60	24313.86	55.3 86.1
120-130 0.00	0-90	28226.37	64.2 100.0
130-140 0.00	90-120	0.14 0.0 0.0	
140-150 0.00	90-130	0.14 0.0 0.0	
150-160 0.00	90-150	0.14 0.0 0.0	
160-170 0.00	90-180	0.14 0.0 0.0	
170-180 0.00	0-180	28226.50	64.2 100.0



REPORT NUMBER: KP40PHB

Lamps: 400 W Pulse Start Metal Halide with
Enclosed Reflector (KPR-4HB) *

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

% Floors	Rfc	20																				
% Ceiling	Rcc	80				70				50				30				10				0
% Walls	Rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0			
	0	76	76	76	76	75	75	75	75	71	71	71	68	68	68	65	65	65	64			
	1	70	67	65	63	69	66	64	62	63	61	60	61	59	58	59	57	56	55			
	2	64	59	55	51	62	58	54	50	55	52	49	53	51	48	51	49	47	46			
	3	58	51	46	42	56	50	46	42	48	44	41	47	43	40	45	42	40	38			
	4	53	45	39	35	51	44	39	35	43	38	34	41	37	34	40	36	33	32			
	5	48	40	34	30	47	39	34	29	38	33	29	36	32	29	35	31	28	27			
	6	44	35	29	25	43	35	29	25	34	29	25	32	28	25	31	28	24	23			
	7	41	32	26	22	39	31	26	22	30	25	22	29	25	21	28	24	21	20			
	8	37	29	23	19	36	28	23	19	27	22	19	26	22	19	26	22	19	17			
	9	35	26	20	17	34	25	20	17	25	20	17	24	20	16	23	19	16	15			
	10	32	24	18	15	32	23	18	15	23	18	15	22	18	15	21	17	15	13			

Mercmaster™ III 400 Luminaire for Hazardous and Wet Locations

High Pressure Sodium, Pulse Start Metal Halide and Metal Halide

Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, Ex nR IIC (Z)
Class II, Division 1 and 2, Groups E, F, G
Class III

CEC:

Type 4X
IP66

Applications

- Enclosed and gasketed fixtures suitable for use in:
 - Marine and wet locations
 - A wide range of industrial, chemical processing and other areas where flammable gases and vapors or combustible dusts are present under conditions defined by the National Electrical Code as Class I, Division 2; Class II, Division 1 and 2; and Class III
 - In applications involving medium and high mounting heights
 - In applications where energy efficient, high lumen output is required
 - The Ex nR Mercmaster III fixture requires all wiring entries to be sealed.
 - Non-hazardous locations where severe weather conditions, excessive moisture, dirt, dust, corrosive atmosphere or high ambient temperatures are encountered
- Typical applications include:
 - Pulp and paper mills
 - Processing plants
 - Chemical plants
 - Oil refineries
 - Foundries
 - Manufacturing plants
 - Storage areas
 - Waste and sewage treatment
 - Other areas where dust, water, dirt and rough usage are a problem

Features

- Superior corrosion resistance.
- Choice of light sources: high pressure sodium, and pulse start metal halide.
- Six mounting arrangements to suit any lighting layout: pendant, ceiling, wall bracket, 25° (angle) stanchion, 90° (straight) stanchion and cone.
- Hinge has high lip for added safety during installation and servicing. Hinge and bolt construction assures 360° compression at all points on ballast housing gasket for positive sealing. Swing away design of captive bolt and nut simplifies servicing.
- Choice of optical assemblies: prismatic globe; enclosed reflector with sealed lens; or Type V or Type II closed prismatic glass refractor, with or without guards.
- Wide choice of photometric distributions.
- All fixtures designed to perform in a 40 °C (104 °F) ambient temperature. Selected fixtures are suitable for ambient temperatures up to 65 °C (149 °F).
- Mogul base porcelain lamp holder with nickel-plated contacts has 200 °C (392 °F) rated welded leads, pre-wired to the ballast. Assures trouble-free operation in installations where high ambient temperatures are encountered.
- For electrical protection, a ground wire is provided on each Mercmaster to bond hood and ballast housing.
- Terminal blocks are provided for Zone 2 fixtures to facilitate wiring.
- Standard dome of 30° angle reflectors made of fiberglass reinforced white polyester. Highly resistant to corrosive atmospheres.
- A wide range of voltages available (120 to 600 Volt) and ballast types (CWA, CWI and Super CWA).
- One-piece ballast housing for each component provides even heat dissipation for cooler operation and longer ballast life.
- All Mercmaster mounting hoods have provision for easy field installation of fuses in fixtures (see fuse kit listings).



Enclosed Reflector



Prismatic Glass Globe



12" Glass Refractor

Standard Materials

- Mounting hoods and ballast bodies: cast copperfree (less than 4/10 of 1% copper) aluminum
- Reflectors: Fiberglass reinforced white polyester
- Guards, hardware and catch assemblies: stainless steel
- Globe: heat- and impact-resistant internally fluted glass
- Refractors: prismatic glass
- Enclosed reflector: etched Alzak aluminum with sealed, tempered heat- and impact-resistant lens
- Body and globe gaskets: high-temperature silicone rubber

Standard Finishes

- Mounting hoods and guards: epoxy powder coat, electrostatically applied for complete and uniform protection

Options

- Ex nR fixtures are available with a Class I, Zone 2 rating. Add suffix **-Z**
- Quartz Auxiliary comes to full brightness immediately and remains lit until the HID lamp attains 60-70% of full illumination. Quartz Auxiliary supplied with relay switch and socket to accept 120 V quartz double-contact bayonet base lamp (not included). (Not suitable for hazardous locations.) Add suffix **-E**.
- Factory sealed photocontrol available. See PCD2 Series.
- Smart Starter incorporates a 1-1/2-minute timer and performs as a conventional starter to normally start lamp. Removes itself from circuit if lamp burns out or is removed from socket. Eliminates starter failures caused by prolonged operation with cycling or failing lamps and simplifies finding their location, reducing maintenance and repair costs. Available for all HPS and PSMH fixtures. Add suffix **-S**.

CEC Certifications and Compliances

- CSA Certified: 025428
- CSA Standard: CSA C22.2 No. 9, C22.2 No. 137; CAN/CSA E60079-0, E60079-15
- 250 W PSMH not available in MT ballast. See Mercmaster III, 50-250 Luminaires.

Appleton®

HID/AREA: NEC/CEC ENCLOSED AND GASKETED

Mercmaster™ III 400 Luminaire for Hazardous and Wet Locations

High Pressure Sodium, Pulse Start Metal Halide and Metal Halide

Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

CEC:
Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, Ex nR IIC (Z)
Class II, Division 1 and 2, Groups E, F, G
Class III

CEC:
Type 4X
IP66

Illustrated Features



High Temperature Sockets

Mogul base high-temperature porcelain sockets.

Aluminum Inner Reflector

Solid aluminum inner reflector (for refractor ballast housings only) improves photometric efficiency.

Globe Chamber

Completely sealed from the ballast housing and outside vapors/air (nR).



Vented Reflectors

Reflectors are thick, tough fiberglass-reinforced white polyester, vented for cooler operation. Quickly attach with furnished stainless steel screws.

Terminal Blocks (Zone 2)

A seven-point terminal block is provided to facilitate wiring. Terminal block accommodates wire size ranging from #8 to #24 AWG.

Stainless Steel Inserts

Ballast bodies have stainless steel threaded inserts to receive stainless steel screws for reflectors and guard. Prevents "freezing", allowing guards and reflectors to be easily removed and replaced at any time, without damage to the housing.

Epoxy Finish

Ballast housing, hoods and guards are copperfree aluminum with epoxy powder coat finish.

Photocell

Available for all fixtures except cone and ceiling mount. Installs through knock-out in mounting hood. Provides continuous ON-OFF dusk-to-dawn control.

Prismatic Glass Globes, Refractors and Enclosed Reflector

Heat-resistant globes, refractors and enclosed reflector thread into ballast housing and seal against a high temperature silicone rubber gasket.



Ballast Assembly

Utilizing non-sparking components avoiding the ignition of gases or vapors that may be present (nA).

Mounting Hood and Globe Gaskets

Silicone rubber gasket seals out moisture, dirt and dust. Stays flexible, withstands high temperatures. Closure design assures uniform gasket compression.

Electrical Protection

Ground wire provided to bond mounting hood to ballast housing.



Cooler Operating Cone Hood

Larger sloped surface sheds dusts, dirt and combustible fibers providing better heat dissipation.



Fuses

Two screws secure fuse kit to mounting boss in any Mercmaster mounting hood. Fuse included.

Mercmaster™ III 400 Luminaire for Hazardous and Wet Locations

High Pressure Sodium, Pulse Start Metal Halide and Metal Halide

Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, Ex nR IIC (Z)
Class II, Division 1 and 2, Groups E, F, G
Class III

CEC:

Type 4X
IP66
IP66

Mercmaster III 400 Family Tree

Pendant & Flexible Pendant Mount ①



KPA & KPAF

Pendant Cone Mount



KPCH

Ceiling Mount



KPC

Wall Mount ①②



KPWB

25° Stanchion Mount ①



KPS

90° Stanchion Mount ①②



KPST

Ballast Housing

(250, 400 W HPS, 250 – 400 W PSMH, 400 W MH ④)



KP400

Globe



VPGL-4HR (Heat-Resistant Glass)

Guard (Optional Accessory)



KPGU400

White Polyester Reflector (Optional Accessory)



CMR-4ST (Standard)
CMR-4DD (Deep Dome)



CMR-4AN (30° Angle)

Enclosed Reflector Assembly



KPR-4HB (Glass Lens)

Guard (Optional Accessory)



GHB7000-NG

Closed Prismatic Refractors



KPRF-400 (Heat-Resistant Glass) ③

Guard (Optional Accessory)



KPB612

① Mounting hood with a 120 V or 208-277 V factory installed photocell is available.

② Standard and deep dome reflectors may interfere with bottom conduit entry if used with KPST and KPWB mounting hoods.

③ Available in NEMA Type II and V.

④ Mercury vapor and metal halide luminaires are not available for purchase within the United States. Please check with your countries governing legislation regarding allowable lamp types before ordering.

Mercmaster™ III 400 Luminaire for Hazardous and Wet Locations

High Pressure Sodium, Pulse Start Metal Halide and Metal Halide

Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, Ex nR IIC (Z)
Class II, Division 1 and 2, Groups E, F, G
Class III

CEC:

Type 4X
IP66
IP66

Order using catalog numbering guide below or select catalog number from tables on following pages.

Catalog Numbering Guide

KP	A	L	40	10	J5	G	MT	S	Z2
Series: KP - Mercmaster III 400	Lamp Type: H - Metal Halide (MH) ⑥ L - High Pressure Sodium (HPS) P - Pulse Start Metal Halide (PS)	Hub Size: 2 - 3/4" NPT 3 - 1" NPT 4 - 1-1/4" NPT stanchion 5 - 1-1/2" NPT stanchion	Guard Options: ② G - Globe Guard (Not for use on RL Highbay Reflector) N - No Guard	Options: E - Emergency Quartz F - Fuse (Specify Voltage) S - Smart Starter C - Safety Cable Adapted D - E-40 Export Socket T - Terminal Blocks V - Anti-Vibration Modifications X - Appledapter ⑤ Mounting Hood Adapter					
Mounting: A - Pendant (rigid mounting) C - Ceiling D - Threaded Dust Cone R - Right Angled Stanchion (90°) S - Angled Stanchion (25°) W - Wall	Wattage: 25 - 250 W HPS/MH ④ 40 - 400 W HPS/MH	Optical Assembly: ① J2 - NEMA II Glass Refractor J5 - NEMA V Glass Refractor ORL - Highbay Reflector/ Lens G4 - Globe	Voltage: ③ C2 - 208 V 60 Hz, CWI C3 - 240 V 60 Hz, CWI C6 - 480 V 60 Hz, CWI C7 - 600 V 60 Hz, CWI MT- 120, 208, 240, 277 V, 60 Hz, CWA TT - 120, 277, 347 V, 60 Hz, CWA XP - 220-240 V, 50 Hz, CWA	Suffix: Z - Zone 2 suffix (required for Ex nR)					

Refer to "Mounting Hoods and Ballast" page for available Voltage Configuration.

① NO DESIGNATION is required for fixtures with standard type globe.

② NO DESIGNATION is required for fixtures without guards.

③ Other voltages available. Contact your local sales representative.

④ Available for 480 V, 50 Hz and 5MT ballast options. For MT and TT voltage suffix, see Mercmaster III 50-250 Luminaires.

⑤ Appledapter is available for use with the pendant, ceiling and angled stanchion mounting only.

⑥ Mercury vapor and metal halide luminaires are not available for purchase within the United States. Please check with your countries governing legislation regarding allowable lamp types before ordering.

Mercmaster™ III 400 Luminaire for Hazardous and Wet Locations

Class I, Division 2; Class II, Division 1; Simultaneous Exposure to Hazardous Conditions on Both Classifications

Temperature identification numbers of Mercmaster III – 400 Fixtures.

CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, Ex nR IIC (Z)
Class II, Division 1 and 2, Groups E, F, G
Class III

CEC:

Type 4X
IP66

“T” Numbers

Lamp Watts Type	Supply Wire Temp. °C (°F) ①	Ambient Temp. °C (°F) ①	Class I, Division 2				Class II, Division 1 Groups E, F and G				Simultaneous Exposure Class I, Division 2 / Class II, Division 1			
			Globe	Reflector	Refractor	Enclosed Reflector	Globe	Reflector	Refractor	Enclosed Reflector	Globe	Reflector	Refractor	Enclosed Reflector
250 HPS	125 °C (257 °F)	40 °C (104 °F)	T2	T2	T2	T2	T3B	T3B	T4	T4A	325	325	325	325
	125 °C (257 °F)	55 °C (131 °F)	325	325	T2	T2	—	—	T3B	T4A	—	—	T1	325
	125 °C (257 °F)	65 °C (149 °F)	—	—	T2	T2	—	—	T3B	T4	—	—	T1	350
400 HPS	90 °C (194 °F)	40 °C (104 °F)	350	T1	T1	350	T3 ②	T3 ②	T3C	T3C	T1	T1	T1	350
250 PSMH	90 °C (194 °F)	40 °C (104 °F)	T2A	T2A	T2B	T2C	T3 (EF)	T3 (EF)	T4	T4A	—	—	—	—
	90 °C (194 °F)	55 °C (131 °F)	T2A	T2A	T2B	T2C	—	—	—	—	—	—	—	—
	90 °C (194 °F)	65 °C (149 °F)	—	—	—	T2C	—	—	—	—	—	—	—	—
320 PSMH	90 °C (194 °F)	40 °C (104 °F)	T2B	T2B	T2B	T2B	—	—	T3C	T3C	—	—	—	—
	90 °C (194 °F)	55 °C (131 °F)	T2A	T2A	T2A	T2B	—	—	—	—	—	—	—	—
350 PSMH	90 °C (194 °F)	40 °C (104 °F)	T2B	T2B	T2B	T2B	—	—	T3C	T3C	—	—	—	—
	90 °C (194 °F)	55 °C (131 °F)	T2A	T2A	T2A	T2B	—	—	—	—	—	—	—	—
400 PSMH	90 °C (194 °F)	40 °C (104 °F)	T2A	T2A	T2B	T2B	—	—	T3C	T3C	—	—	—	—
400 MH ③	90 °C (194 °F)	40 °C (104 °F)	T2	T2	T2A	T2A	—	—	T3A	T4	—	—	—	—

“T” Numbers Represent the Maximum Lamp Temperature for Class I, Division 2 Locations and Maximum Surface Temperature Under Dust Blanket for Class II, Division 1 Locations

“T” Number	T1	350	325	T2	T2A	T2B	T2C	T2D	T3	T3A	T3B	T3C	T4	T4A	T5	T6
Temp Range (°C)	351- 450	326- 350	301- 325	281- 300	261- 280	231- 260	216- 230	201- 215	181- 200	166- 180	161- 165	136- 160	121- 135	101- 120	86- 100	85
Temp. Range (°F)	664- 842	619- 662	574- 617	538- 572	502- 536	448- 500	421- 446	394- 419	358- 392	331- 356	322- 329	277- 320	250- 275	214- 248	187- 212	185

① Use +90 °C (+194 °F) rated supply wire.

② “T” numbers are for Groups E and F only.

③ Mercury vapor and metal halide luminaires are not available for purchase within the United States. Please check with your countries governing legislation regarding allowable lamp types before ordering.

Mercmaster™ III 400 Luminaire for Hazardous and Wet Locations

Class I, Zone 2, Ex nR IIC, IP66, NEMA 4X

Temperature identification numbers of Mercmaster III – 400 Fixtures.

CEC:
Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, Ex nR IIC (Z)
Class II, Division 1 and 2, Groups E, F, G
Class III

CEC:
Type 4X
IP66
IP66

“T” Numbers

Lamp		Supply Wire Temp. °C (°F) ①	Ambient Temp. °C (°F) ①	Class 1, Zone 2 Ex nR		
Watts	Type			Globe	Globe & Reflector	Enclosed Reflector
250	HPS	125 (257)	40 (104)	T4	T4	T5
	HPS	125 (257)	55 (131)	T3	T3	T3
	HPS	125 (257)	65 (149)	—	—	T3
400	HPS	90 (194)	40 (104)	T4	T4	T5
250	PSMH	90 (194)	40 (104)	T3	T3	T3
	PSMH	90 (194)	55 (131)	T3	T3	T3
	PSMH	90 (194)	40 (104)	—	—	T3
320	PSMH	90 (194)	40 (104)	T4	T4	T4
	PSMH	90 (194)	55 (131)	T3	T3	T4
350	PSMH	90 (194)	40 (104)	T4	T4	T4
	PSMH	90 (194)	55 (131)	T3	T3	T4
400	PSMH	75 (167)	40 (104)	T3	T3	T3
400	MH ②	75 (167)	40 (104)	T3	T3	T3

“T” Numbers represent the maximum surface temperature for luminaires with Ex nR rating:

To comply with AEx nR Requirements, all wiring entries must be sealed.

“T” Number	T1	T2	T3	T4	T5	T6
Temp. Range (°C)	301-450	201-300	136-200	101-135	86-100	85
Temp. Range (°F)	547-842	394-572	277-392	214-275	187-212	185

① Use +90 °C (+194 °F) rated supply wire.

② Mercury vapor and metal halide luminaires are not available for purchase within the United States. Please check with your countries governing legislation regarding allowable lamp types before ordering.

Mercmaster™ III 400 Luminaire for Hazardous and Wet Locations

250 W, 400 W HPS

Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, Ex nR IIC (Z)
Class II, Division 1 and 2, Groups E, F, G
Class III

CEC:

Type 4X
IP66

Type Mounting	Lamp Type	Lamp Watts	Hub Size (Inches)	With Globe	Catalog Numbers ③④⑤	
					With Type V 12" Refractor ②	With Enclosed Reflector

Pendant — One Hub, Rigid Mounting ①



Shown with Globe

HPS	250	3/4	KPAL2575	KPAL2575J5	KPAL2575R
		1	KPAL2510	KPAL2510J5	KPAL2510R
HPS	400	3/4	KPAL4075	KPAL4075J5	KPAL4075R
		1	KPAL4010	KPAL4010J5	KPAL4010R

Pendant Cone — One Hub, Rigid Mounting



Shown with 12" Glass Refractor

HPS	250	3/4	KPDL2575	KPDL2575J5	KPDL2575R
		1	KPDL2510	KPDL2510J5	KPDL2510R
HPS	400	3/4	KPDL4075	KPDL4075J5	KPDL4075R
		1	KPDL4010	KPDL4010J5	KPDL4010R

Ceiling — Five Hubs, Four Close-Up Plugs



Shown with Enclosed Reflector

HPS	250	3/4	KPCL2575	KPCL2575J5	KPCL2575R
		1	KPCL2510	KPCL2510J5	KPCL2510R
HPS	400	3/4	KPCL4075	KPCL4075J5	KPCL4075R
		1	KPCL4010	KPCL4010J5	KPCL4010R

① For Flexible Pendant Mount, change **A** to **F** in catalog number.

② To order fixture with NEMA Type II refractor, change digits **J5** in catalog number to **J2**. Refractor not available for Z, Z2 or ZB suffix.

③ For fixtures with guards, add suffix **G** before adding voltage suffix. **BG** for refractor. **NG** for enclosed reflector.

④ Add the following voltage and frequency designations before Z suffix:

Voltage Suffixes								
Lamp Type	Lamp Watts	C2	C3	C6	C7	MT	TT	XP
HPS	250	X	X	X	X	X	X	X
HPS	400	X	X	X	X	X	X	X
PSMH	250	—	—	—	—	—	—	X
PSMH	320	—	—	—	—	X	X	X
PSMH	350	—	—	—	—	X	X	X
PSMH	400	—	—	—	—	X	X	X
MH ⑥	400	—	—	—	—	X	X	—
MH ⑥	400	X	X	X	X	X	X	—
Voltages:			C6 - 480 V 60 Hz, CWI			MT - 120/208/240/277 V 60 Hz		
C2 - 208 V 60 Hz, CWI			C7 - 600 V 60 Hz, CWI			TT - 120/277/347 V 60 Hz, CWA		
C3 - 240 V 60 Hz, CWI			LB - Incandescent, 120 V 60 Hz			XP - 220-240 V, 50Hz, CWA		

⑤ Add **Z** for factory sealed restricted breathing protection (Ex nR)

⑥ Mercury vapor and metal halide luminaires are not available for purchase within the United States. Please check with your countries governing legislation regarding allowable lamp types before ordering.

Mercmaster™ III 400 Luminaire for Hazardous and Wet Locations

250 W, 400 W HPS

Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

CEC:
Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, Ex nR IIC (Z)
Class II, Division 1 and 2, Groups E, F, G
Class III

CEC:
Type 4X
IP66

Type Mounting	Lamp Type	Lamp Watts	Hub Size (Inches)	With Globe	Catalog Numbers ③④⑤	
					With Type V 12" Refractor ②	With Enclosed Reflector

Wall Five Hubs, Four Close-Up Plugs



Shown with 12" Glass Refractor

HPS	250	3/4	KPWL2575	KPWL2575J5	KPWL2575R
		1	KPWL2510	KPWL2510J5	KPWL2510R
HPS	400	3/4	KPWL4075	KPWL4075J5	KPWL4075R
		1	KPWL4010	KPWL4010J5	KPWL4010R

25° Stanchion One Hub



Shown with Prismatic Glass Globe and Optional Guard

HPS	250	1-1/4	KPSL25125	KPSL25125J5	KPSL25125R
		1-1/2	KPSL25150	KPSL25150J5	KPSL25150R
HPS	400	1-1/4	KPSL40125	KPSL40125J5	KPSL40125R
		1-1/2	KPSL40150	KPSL40150J5	KPSL40150R

90° Stanchion One Hub



Shown with Prismatic Glass Globe and Optional Guard

HPS	250	1-1/4	KPRL25125	KPRL25125J5	KPRL25125R
		1-1/2	KPRL25150	KPRL25150J5	KPRL25150R
HPS	400	1-1/4	KPRL40125	KPRL40125J5	KPRL40125R
		1-1/2	KPRL40150	KPRL40150J5	KPRL40150R

② To order fixture with NEMA Type II refractor, change digits **J5** in catalog number to **J2**. Refractor not available for Z, Z2 or ZB suffix.

③ For fixtures with guards, add suffix **G** before adding voltage suffix. **BG** for refractor. **NG** for enclosed reflector.

④ Add the following voltage and frequency designations before Z suffix:

Lamp Type	Lamp Watts	Voltage Suffixes						
		C2	C3	C6	C7	MT	TT	XP
HPS	250	X	X	X	X	X	X	X
HPS	400	X	X	X	X	X	X	X
PSMH	250	—	—	—	—	—	—	X
PSMH	320	—	—	—	—	X	X	X
PSMH	350	—	—	—	—	X	X	X
PSMH	400	—	—	—	—	X	X	X
MH ⑥	400	—	—	—	—	X	X	—
MH ⑥	400	X	X	X	X	X	X	—

Voltages:

C2 - 208 V 60 Hz, CWI

C3 - 240 V 60 Hz, CWI

C6 - 480 V 60 Hz, CWI

C7 - 600 V 60 Hz, CWI

LB - Incandescent, 120 V 60 Hz

MT - 120/208/240/277 V 60 Hz

TT - 120/277/347 V 60 Hz, CWA

XP - 220-240 V, 50Hz, CWA

⑤ Add **Z** for factory sealed restricted breathing protection (Ex nR)

⑥ Mercury vapor and metal halide luminaires are not available for purchase within the United States. Please check with your countries governing legislation regarding allowable lamp types before ordering.

Mercmaster™ III 400 Luminaire for Hazardous and Wet Locations

250 W, 320 W, 350 W, 400 W PSMH

Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, Ex nR IIC (Z)
Class II, Division 1 and 2, Groups E, F, G
Class III

CEC:

Type 4X
IP66

Type Mounting	Lamp Type	Lamp Watts	Hub Size (Inches)	With Globe	Catalog Numbers ③④⑤ With Type V 12" Refractor ②	With Enclosed Reflector
Pendant One Hub, Rigid Mounting ①						
	PSMH	250 ⑥	3/4	KPAP2575	KPAP2575J5	KPAP2575R
			1	KPAP2510	KPAP2510J5	KPAP2510R
	PSMH	320	3/4	KPAP3275	KPAP3275J5	KPAP3275R
			1	KPAP3210	KPAP3210J5	KPAP3210R
	PSMH	350	3/4	KPAP3575	KPAP3575J5	KPAP3575R
			1	KPAP3510	KPAP3510J5	KPAP3510R
	PSMH	400	3/4	KPAP4075	KPAP4075J5	KPAP4075R
			1	KPAP4010	KPAP4010J5	KPAP4010R
Pendant Cone One Hub, Rigid Mounting						
	PSMH	250 ⑥	3/4	KPDP2575	KPDP2575J5	KPDP2575R
			1	KPDP2510	KPDP2510J5	KPDP2510R
	PSMH	320	3/4	KPDP3275	KPDP3275J5	KPDP3275R
			1	KPDP3210	KPDP3210J5	KPDP3210R
	PSMH	350	3/4	KPDP3575	KPDP3575J5	KPDP3575R
			1	KPDP3510	KPDP3510J5	KPDP3510R
	PSMH	400	3/4	KPDP4075	KPDP4075J5	KPDP4075R
			1	KPDP4010	KPDP4010J5	KPDP4010R
Ceiling Five Hubs, Four Close-Up Plugs						
	PSMH	250 ⑥	3/4	KPCP2575	KPCP2575J5	KPCP2575R
			1	KPCP2510	KPCP2510J5	KPCP2510R
	PSMH	320	3/4	KPCP3275	KPCP3275J5	KPCP3275R
			1	KPCP3210	KPCP3210J5	KPCP3210R
	PSMH	350	3/4	KPCP3575	KPCP3575J5	KPCP3575R
			1	KPCP3510	KPCP3510J5	KPCP3510R
	PSMH	400	3/4	KPCP4075	KPCP4075J5	KPCP4075R
			1	KPCP4010	KPCP4010J5	KPCP4010R

① For Flexible Pendant Mount, change **A** to **F** in catalog number.

② To order fixture with NEMA Type II refractor, change digits **J5** in catalog number to **J2**. Refractor not available for Z, Z2 or ZB suffix.

③ For fixtures with guards, add suffix **G** before adding voltage suffix. **BG** for refractor. **NG** for enclosed reflector.

④ Add the following voltage and frequency designations before Z suffix:

Lamp Type	Lamp Watts	Voltage Suffixes						
		C2	C3	C6	C7	MT	TT	XP
HPS	250	X	X	X	X	X	X	X
HPS	400	X	X	X	X	X	X	X
PSMH	250	—	—	—	—	—	—	X
PSMH	320	—	—	—	—	X	X	X
PSMH	350	—	—	—	—	X	X	X
PSMH	400	—	—	—	—	X	X	X
MH ⑥	400	—	—	—	—	X	X	—
MH ⑥	400	X	X	X	X	X	X	—

Voltagess:
C2 - 208 V 60 Hz, CWI
C3 - 240 V 60 Hz, CWI
C6 - 480 V 60 Hz, CWI
C7 - 600 V 60 Hz, CWI
LB - Incandescent, 120 V 60 Hz
MT - 120/208/240/277 V 60 Hz
TT - 120/277/347 V 60 Hz, CWA
XP - 220-240 V, 50Hz, CWA

⑤ Add **Z** for factory sealed restricted breathing protection (Ex nR)

⑥ Mercury vapor and metal halide luminaires are not available for purchase within the United States. Please check with your countries governing legislation regarding allowable lamp types before ordering.

Mercmaster™ III 400 Luminaire for Hazardous and Wet Locations

250 W, 320 W, 350 W, 400 W PSMH

Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

CEC:
Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, Ex nR IIC (Z)
Class II, Division 1 and 2, Groups E, F, G
Class III

CEC:
Type 4X
IP66

Type Mounting	Lamp Type	Lamp Watts	Hub Size (Inches)	With Globe	Catalog Numbers ③④⑤ With Type V 12" Refractor ②	With Enclosed Reflector
Wall Five Hubs, Four Close-Up Plugs						
	PSMH	250 ⑥	3/4 1	KPWP2575 KPWP2510	KPWP2575J5 KPWP2510J5	KPWP2575R KPWP2510R
	PSMH	320	3/4 1	KPWP3275 KPWP3210	KPWP3275J5 KPWP3210J5	KPWP3275R KPWP3210R
	PSMH	350	3/4 1	KPWP3575 KPWP3510	KPWP3575J5 KPWP3510J5	KPWP3575R KPWP3510R
	PSMH	400	3/4 1	KPWP4075 KPWP4010	KPWP4075J5 KPWP4010J5	KPWP4075R KPWP4010R
	Shown with 12" Glass Refractor					
25° Stanchion One Hub						
	PSMH	250 ⑥	1-1/4 1-1/2	KPSP25125 KPSP25150	KPSP25125J5 KPSP25150J5	KPSP25125R KPSP25150R
	PSMH	320	1-1/4 1-1/2	KPSP32125 KPSP32150	KPSP32125J5 KPSP32150J5	KPSP32125R KPSP32150R
	PSMH	350	1-1/4 1-1/2	KPSP35125 KPSP35150	KPSP35125J5 KPSP35150J5	KPSP35125R KPSP35150R
	PSMH	400	1-1/4 1-1/2	KPSP40125 KPSP40150	KPSP40125J5 KPSP40150J5	KPSP40125R KPSP40150R
	Shown with Prismatic Glass Globe and Optional Guard					
90° Stanchion One Hub						
	PSMH	250 ⑥	1-1/4 1-1/2	KPRP25125 KPRP25150	KPRP25125J5 KPRP25150J5	KPRP25125R KPRP25150R
	PSMH	320	1-1/4 1-1/2	KPRP32125 KPRP32150	KPRP32125J5 KPRP32150J5	KPRP32125R KPRP32150R
	PSMH	350	1-1/4 1-1/2	KPRP35125 KPRP35150	KPRP35125J5 KPRP35150J5	KPRP35125R KPRP35150R
	PSMH	400	1-1/4 1-1/2	KPRP40125 KPRP40150	KPRP40125J5 KPRP40150J5	KPRP40125R KPRP40150R
	Shown with Prismatic Glass Globe and Optional Guard					

② To order fixture with NEMA Type II refractor, change digits **J5** in catalog number to **J2**. Refractor not available for Z, Z2 or ZB suffix.

③ For fixtures with guards, add suffix **G** before adding voltage suffix. **BG** for refractor. **NG** for enclosed reflector.

④ Add the following voltage and frequency designations before Z suffix:

Lamp Type	Lamp Watts	C2	C3	C6	C7	MT	TT	XP
HPS	250	X	X	X	X	X	X	X
HPS	400	X	X	X	X	X	X	X
PSMH	250	—	—	—	—	—	—	X
PSMH	320	—	—	—	—	X	X	X
PSMH	350	—	—	—	—	X	X	X
PSMH	400	—	—	—	—	X	X	X
MH ⑥	400	—	—	—	—	X	X	—
MH ⑥	400	X	X	X	X	X	X	—
Voltages:		C6 - 480 V 60 Hz, CWI			MT - 120/208/240/277 V 60 Hz			
C2 - 208 V 60 Hz, CWI		C7 - 600 V 60 Hz, CWI			TT - 120/277/347 V 60 Hz, CWA			
C3 - 240 V 60 Hz, CWI		LB - Incandescent, 120 V 60 Hz			XP - 220-240 V, 50Hz, CWA			

⑤ Add **Z** for factory sealed restricted breathing protection (Ex nR)

⑥ Mercury vapor and metal halide luminaires are not available for purchase within the United States. Please check with your countries governing legislation regarding allowable lamp types before ordering.

Mercmaster™ III 400 Luminaire for Hazardous and Wet Locations

400 W MH

Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, Ex nR IIC (Z)
Class II, Division 1 and 2, Groups E, F, G
Class III

CEC:

Type 4X
IP66

Type Mounting	Lamp Type ⑥	Lamp Watts	Hub Size (Inches)	With Globe	Catalog Numbers ③④⑤ With Type V 12" Refractor ②	With Enclosed Reflector

Pendant One Hub, Rigid Mounting ①



Shown with Globe

MH	400	3/4 1	KPAH4075 KPAH4010	KPAH4075J5 KPAH4010J5	KPAH4075R KPAH4010R

Pendant Cone One Hub, Rigid Mounting



Shown with 12" Glass Refractor

MH	400	3/4 1	KPDH4075 KPDH4010	KPDH4075J5 KPDH4010J5	KPDH4075R KPDH4010R

Ceiling Five Hubs, Four Close-Up Plugs



Shown with Enclosed Refractor

MH	400	3/4 1	KPCH4075 KPCH4010	KPCH4075J5 KPCH4010J5	KPCH4075R KPCH4010R

① For Flexible Pendant Mount, change **A** to **F** in catalog number.

② To order fixture with NEMA Type II refractor, change digits **J5** in catalog number to **J2**. Refractor not available for Z, Z2 or ZB suffix.

③ For fixtures with guards, add suffix **G** before adding voltage suffix. **BG** for refractor. **NG** for enclosed reflector.

④ Add the following voltage and frequency designations before Z suffix:

Lamp Type	Lamp Watts	C2	C3	C6	C7	MT	TT	XP
HPS	250	X	X	X	X	X	X	X
HPS	400	X	X	X	X	X	X	X
PSMH	250	—	—	—	—	—	—	X
PSMH	320	—	—	—	—	X	X	X
PSMH	350	—	—	—	—	X	X	X
PSMH	400	—	—	—	—	X	X	X
MH ⑥	400	—	—	—	—	X	X	—
MH ⑥	400	X	X	X	X	X	X	—

Voltages:

C2 - 208 V 60 Hz, CWI

C3 - 240 V 60 Hz, CWI

C6 - 480 V 60 Hz, CWI

C7 - 600 V 60 Hz, CWI

LB - Incandescent, 120 V 60 Hz

MT - 120/208/240/277 V 60 Hz

TT - 120/277/347 V 60 Hz, CWA

XP - 220-240 V, 50Hz, CWA

⑤ Add **Z** for factory sealed restricted breathing protection (Ex nR)

⑥ Mercury vapor and metal halide luminaires are not available for purchase within the United States. Please check with your countries governing legislation regarding allowable lamp types before ordering.

Mercmaster™ III 400 Luminaire for Hazardous and Wet Locations

400 W MH

Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

CEC:
Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, Ex nR IIC (Z)
Class II, Division 1 and 2, Groups E, F, G
Class III

CEC:
Type 4X
IP66

Type Mounting	Lamp Type ⑥	Lamp Watts	Hub Size (Inches)	With Globe	Catalog Numbers ③④⑤ With Type V 12" Refractor ②	With Enclosed Reflector

Wall Five Hubs, Four Close-Up Plugs



MH	400	3/4 1	KPWH4075 KPWH4010	KPWH4075J5 KPWH4010J5	KPWH4075R KPWH4010R

Shown with 12" Glass Refractor

25° Stanchion One Hub



MH	400	1-1/4 1-1/2	KPSH40125 KPSH40150	KPSH40125J5 KPSH40150J5	KPSH40125R KPSH40150R

Shown with Prismatic Glass Globe and Optional Guard

90° Stanchion One Hub



MH	400	1-1/4 1-1/2	KPRH40125 KPRH40150	KPRH40125J5 KPRH40150J5	KPRH40125R KPRH40150R

Shown with Prismatic Glass Globe and Optional Guard

② To order fixture with NEMA Type II refractor, change digits **J5** in catalog number to **J2**. Refractor not available for Z, Z2 or ZB suffix.

③ For fixtures with guards, add suffix **G** before adding voltage suffix. **BG** for refractor. **NG** for enclosed reflector.

④ Add the following voltage and frequency designations before Z suffix:

Lamp Type	Lamp Watts	C2	C3	C6	Voltage Suffixes C7	MT	TT	XP
HPS	250	X	X	X	X	X	X	X
HPS	400	X	X	X	X	X	X	X
PSMH	250	—	—	—	—	—	—	X
PSMH	320	—	—	—	—	X	X	X
PSMH	350	—	—	—	—	X	X	X
PSMH	400	—	—	—	—	X	X	X
MH	400	—	—	—	—	X	X	—
MH	400	X	X	X	X	X	X	—

Voltages:

C2 - 208 V 60 Hz, CWI

C3 - 240 V 60 Hz, CWI

C6 - 480 V 60 Hz, CWI

C7 - 600 V 60 Hz, CWI

LB - Incandescent, 120 V 60 Hz

MT - 120/208/240/277 V 60 Hz

TT - 120/277/347 V 60 Hz, CWA

XP - 220-240 V, 50Hz, CWA

⑤ Add **Z** for factory sealed restricted breathing protection (Ex nR)

⑥ Mercury vapor and metal halide luminaires are not available for purchase within the United States. Please check with your countries governing legislation regarding allowable lamp types before ordering.

Mercmaster™ III 400 Luminaire for Hazardous and Wet Locations

High Pressure Sodium, Pulse Start Metal Halide and Metal Halide - Hazardous and Wet Locations

Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

CEC:
Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, Ex nR IIC (Z)
Class II, Division 1 and 2, Groups E, F, G
Class III

CEC:
Type 4X
IP66

Mounting Hoods

	Description	Hub Size (Inches)	Catalog Number
	One Hub, Rigid Mounting	3/4	KPA-75
		1	KPA-100
Pendant — Flexible 	One Hub, Flexible Mounting	3/4	KPAF-75
		1	KPAF-100
Pendant Cone 	One Hub, Rigid	3/4	KPCH-75
		1	KPCH-100
Ceiling 	Five Hubs, Four Close-Up Plugs	3/4	KPC-75
		1	KPC-100
Wall 	Five Hubs, Four Close-Up Plugs	3/4	KPWB-75
		1	KPWB-100
25° Stanchion 	One Hub	1-1/4	KPS-125
		1-1/2	KPS-150
90° Stanchion 	One Hub	1-1/4	KPST-125
		1-1/2	KPST-150

Ballast Bodies



High Pressure Sodium — Constant Wattage (Min. P.F. 90%)
Pulse Start Metal Halide — Super Constant Wattage (Min. P.F. 90%)

Lamp Type	Lamp Watts	Catalog Numbers ②	Voltage Suffixes						
			C2	C3	C6	C7	MT	TT	XP
HPS	250	KPB250L ①③	X	X	X	X	X	X	X
HPS	400	KPB400L ①③	X	X	X	X	X	X	X
PSMH	250	KPB250P ①③④	—	—	—	—	—	—	X
PSMH	320	KPB320P ①③	—	—	—	—	X	X	X
PSMH	350	KPB350P ①③	—	—	—	—	X	X	X
PSMH	400	KPB400P ①③	—	—	—	—	X	X	X
MH ⑤	400	KPB400H	X	X	X	X	X	X	—

Volts:

C2 - 208, 60 Hz, CWI

C3 - 240, 60 Hz, CWI

C6 - 480, 60 Hz, CWI

C7 - 600, 60 Hz, CWI

MT - 120/208/240/277, 60 Hz

TT - 120/277/347, 60 Hz

XP - 220-240, 50 Hz

① Add **-S** after voltage designation for ballast body with Smart Starter (HPS and PSMH only).

② Add **-E** after voltage designation for ballast body with provision for Quartz Emergency Light (not suitable for hazardous location).

③ Add **Z** for factory sealed restricted breathing protection (Ex nR).

④ Not available in MT. See Mercmaster III 50-250 Luminaires.

⑤ Mercury vapor and metal halide luminaires are not available for purchase within the United States. Please check with your countries governing legislation regarding allowable lamp types before ordering.

Mercmaster™ III 400 Luminaire for Hazardous and Wet Locations

High Pressure Sodium, Pulse Start Metal Halide and Metal Halide - Hazardous and Wet Locations

Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

CEC:
Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, Ex nR IIC (Z)
Class II, Division 1 and 2, Groups E, F, G
Class III

CEC:
Type 4X
IP66

Description	Catalog Number

Prismatic Glass Globes — Heat-Resistant



Glass Globe

Clear

VPGL-4HR

Enclosed Reflector Assembly



Enclosed Reflector

Heat- and impact-resistant glass lens

KPR-4HB

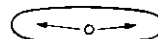
Light Distribution	IES/NEMA Distribution Curves	Catalog Number

Closed Prismatic Glass Refractors ② — All Heat-Resistant



Glass Refractor

NEMA Type II



KPRF400-2

NEMA Type V



KPRF400-5

Item	Description	Catalog Number

White Polyester Reflectors



Standard and Deep Dome



30° Angle

For use with globe fixtures

Standard Dome

CMR-4ST①

30° Angle

CMR-4AN

Deep Dome

CMR-4DD①

Guards



Globe Guard



Refractor Guard



Enclosed Refractor Guard

Globe Guard

KPGU400

Refractor Guard

KPBG12

Enclosed Refractor Guard

G-HB7000-NG

① Contact your local sales representative if used with KPWB or KPST mounting hoods.

② Not suitable for use with Z suffix (Zone 2).

Mercmaster™ III 400 Luminaire for Hazardous and Wet Locations

High Pressure Sodium, Pulse Start Metal Halide and Metal Halide - Hazardous and Wet Locations

Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, Ex nR IIC (Z)
Class II, Division 1 and 2, Groups E, F, G
Class III

CEC:

Type 4X
IP66

Electrical Specifications

Line Voltage	Type of Ballast ①	Frequency	Starting Amps	Operating Amps	Total Watts
250 Watt High Pressure Sodium					
120	C.W.A.	60	2.00	2.50	295
208	C.W.A.	60	1.20	1.50	295
240	C.W.A.	60	1.00	1.30	295
277	C.W.A.	60	0.85	1.10	295
347	C.W.A.	60	0.60	0.93	295
480	C.W.A.	60	0.40	0.65	295
120	C.W.A.	50	1.85	2.75	300
230	C.W.A.	50	0.95	1.44	300
400 Watt High Pressure Sodium					
120	C.W.A.	60	3.30	3.80	465
208	C.W.A.	60	1.80	2.20	465
240	C.W.A.	60	1.60	1.90	465
277	C.W.A.	60	1.40	1.70	465
347	C.W.A.	60	1.00	1.32	464
480	C.W.A.	60	0.80	1.00	465
120	C.W.A.	50	3.70	4.00	465
230	C.W.A.	50	1.85	2.00	465
250 Watt Pulse Start Metal Halide					
120	C.W.A.	60	1.96	2.50	291
208	C.W.A.	60	1.13	1.45	291
240	C.W.A.	60	0.98	1.25	291
277	C.W.A.	60	0.85	1.10	291
347	C.W.A.	60	0.62	0.90	291
480	C.W.A.	60	0.32	0.69	298
480	Super C.W.A.	60	0.45	0.60	285
120	Super C.W.A.	50	1.90	2.60	288
230	Super C.W.A.	50	1.00	1.35	288
320 Watt Pulse Start Metal Halide					
120	Super C.W.A.	60	2.60	3.25	368
208	Super C.W.A.	60	1.50	1.90	368
240	Super C.W.A.	60	1.30	1.65	368
277	Super C.W.A.	60	1.15	1.40	368
347	Super C.W.A.	60	0.70	1.10	368
480	Super C.W.A.	60	0.60	0.80	368
120	Super C.W.A.	50	2.28	3.05	365
230	Super C.W.A.	50	1.14	1.60	365
350 Watt Pulse Start Metal Halide					
120	Super C.W.A.	60	3.30	3.60	400
208	Super C.W.A.	60	1.90	2.10	400
240	Super C.W.A.	60	1.65	1.80	400
277	Super C.W.A.	60	1.40	1.55	400
347	Super C.W.A.	60	0.85	1.20	400
480	Super C.W.A.	60	0.75	0.90	400
120	Super C.W.A.	50	2.45	3.34	394
230	Super C.W.A.	50	1.26	1.74	394

Electrical Specifications

Line Voltage	Type of Ballast ①	Frequency	Starting Amps	Operating Amps	Total Watts
400 Watt Pulse Start Metal Halide					
120	Super C.W.A.	60	3.50	4.00	454
208	Super C.W.A.	60	2.00	2.30	454
240	Super C.W.A.	60	1.75	2.00	454
277	Super C.W.A.	60	1.50	1.25	454
347	Super C.W.A.	60	1.10	1.35	452
480	Super C.W.A.	60	0.90	1.00	454
120	Super C.W.A.	50	3.17	3.90	454
230	Super C.W.A.	50	1.65	2.00	454
400 Watt Metal Halide ②					
120	C.W.A.	60	3.25	4.00	458
208	C.W.A.	60	1.90	2.30	458
240	C.W.A.	60	1.80	2.00	458
277	C.W.A.	60	1.70	1.75	458
347	C.W.A.	60	1.40	1.75	458
480	C.W.I.	60	0.85	1.00	462
600	C.W.I.	60	0.30	0.70	475
120	C.W.A.	50	2.70	4.10	462
220	C.W.A.	50	1.50	2.10	462
240	C.W.A.	50	1.50	2.10	462

① C.W.A. – Constant Wattage Autotransformer. HX-HPF – High Reactance High Power Factor Autotransformer.
Super C.W.A. – Super Constant Wattage Autotransformer.

② Mercury vapor and metal halide luminaires are not available for purchase within the United States. Please check with your countries governing legislation regarding allowable lamp types before ordering.

Mercmaster™ III 400 Luminaire for Hazardous and Wet Locations

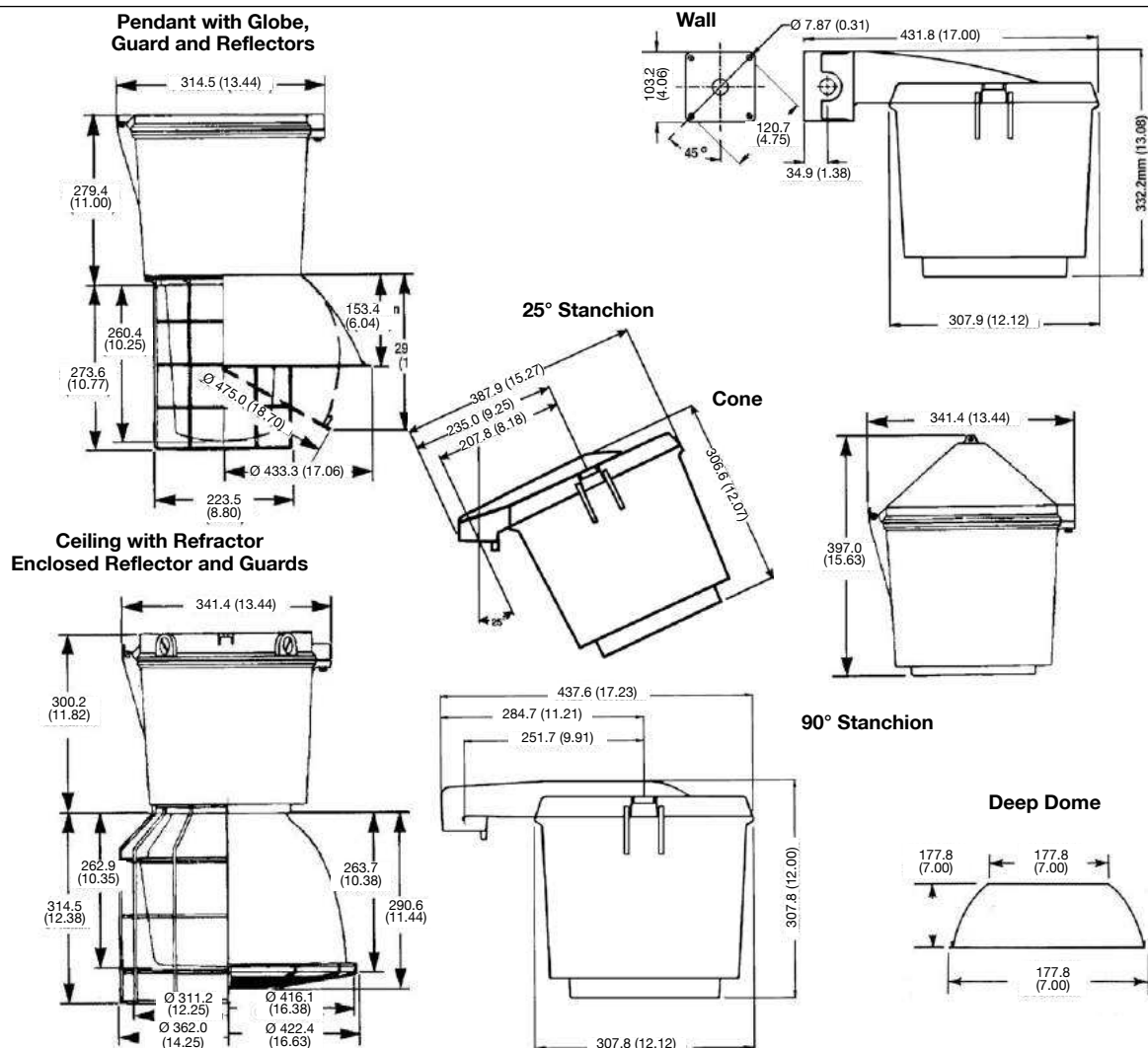
High Pressure Sodium, Pulse Start Metal Halide and Metal Halide - Hazardous and Wet Locations

Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

CEC:
Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, Ex nR IIC (Z)
Class II, Division 1 and 2, Groups E, F, G
Class III

CEC:
Type 4X
IP66

Dimensions in Millimeters (Inches)



Mercmaster III – 400 Ballast and Accessory Weights

Lamp Watts	Ballast Housing Wt. kg (lb)		Mounting Hoods and Reflectors	Wt. kg (lb)	Globe Refractor, Enclosed Reflector and Guards	Wt. kg (lb)
	HPS	PSMH				
250	11.1 (24.5)	—	Pendant	1.0 (2.25)	Glass Globe	3.2 (7.0)
			Pendant Cone	1.1 (2.50)	Globe Guard	1.4 (3.0)
320	—	12.7 (28.0)	Ceiling	1.4 (3.00)	12" Glass Refractor	5.4 (12.0)
			Wall	1.8 (4.00)	Refractor Guard	2.0 (4.5)
350	—	12.9 (28.5)	25° Stanchion	1.5 (3.25)	Enclosed Reflector	5.0 (11.0)
			90° Stanchion	1.7 (3.75)	Enclosed Reflector Guard	0.9 (2.0)
400	12.9 (28.5)	12.9 (28.5)	Standard Dome	1.6 (3.50)		
			30° Angle	1.6 (3.50)		

Weights are approximate. Add 0.11 kg (0.25 lb). for Quartz option.

PCD2 Series Factory Sealed Hazardous Location Photocontrol

For use in Class I, Division 2, Groups A, B, C, D locations

Maintains Class I, Division 2 rating for Mercmaster III – Low Profile, Mercmaster III, and Mercmaster III – 400 Series Luminaires, Mercmaster LED

NEC/CEC:
Class I, Division 2, Groups A, B, C, D
NEMA 4X

Applications

- Encapsulated photocontrol provides automatic dusk-to-dawn lighting control in Class I, Division 2 locations.
- Typical applications include walkways, security areas and any other outdoor lighting application.
- For use with Mercmaster III – Low Profile, Mercmaster III, and Mercmaster III – 400 Series Luminaires.
- For remote mounting in FS Boxes.

Features

- Factory sealed design eliminates the need for an explosionproof enclosure.
- Can be easily installed in the field.
- Solid state design for performance and reliability.
- Available for 120, 208, 240, or 277 volts.

- 50-400 W HID, incandescent or fluorescent, 50/60 Hz.
- 1000 V.A. Voltage/Ampere
- Minimum time delay: 15 seconds to eliminate nuisance tripping.
- Provided with (3) 18AWG stranded leads 152.4 mm (6 in) in length.
- Will fit through standard 1/2" knockout.
- Supplied with locknut and gasket.

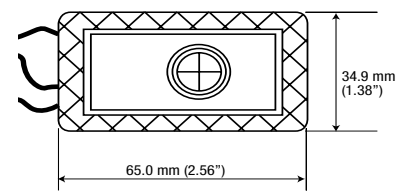
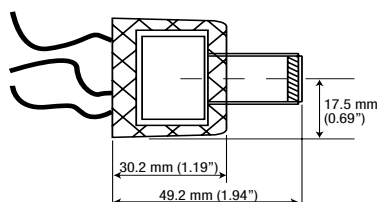
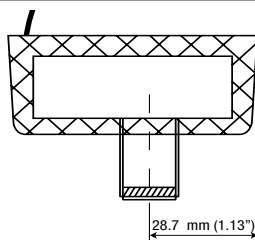
Materials

- Encapsulated with epoxy sealing compound
- FS: aluminum

NEC/CEC Certifications and Compliances

- UL Standard: 1604 – Hazardous (Classified) Locations
- cULus Recognized

	Voltage Range	Max VA	Max Current Amps	Suffix Designation Catalog Number
Factory-Installed Photocontrol - Not for ceiling or pendant cone. <i>Add to fixture catalog after voltage; i.e.: KPWBL1075MTH1.</i>				
 Mercmaster III wall mounting hood with photocontrol installed shown	120 V, 50/60 Hz	1000	—	H1
	208 V, 50/60 Hz	1000	—	H2
	240 V, 50/60 Hz	1000	—	H3
	277 V, 50/60 Hz	1000	—	H4
Photocontrol for Field Installation				
	120 V, 50/60 Hz	1000	8.3 Amp	PC120D2
	208 V, 50/60 Hz	1000	4.8 Amp	PC247D2
	240 V, 50/60 Hz	1000	4.2 Amp	
	277 V, 50/60 Hz	1000	3.6 Amp	
Photocontrol in FS Cover for Use with FS/FD Box <i>Supplied with two stainless steel screws. For neoprene gasket, order catalog number FS-GKR-1N.</i>				
	120 V, 50/60 Hz	1000	8.3 Amp	FSKA-PC120D2
	208, 50/60 Hz	1000	4.8 Amp	FSKA-PC247D2
	240 V, 50/60 Hz	1000	4.2 Amp	
	277 V, 50/60 Hz	1000	3.6 Amp	



Mercmaster™ III 400 Luminaire for Hazardous and Wet Locations

400 W PSMH

* Photometric data is based on a fixture with a 400-watt clear Pulse Start Metal Halide lamp (44,000 lumen). For candlepower values of fixtures with other PSMH lamps, use the following multipliers: for a 320 W (33,000 lumen) PSMH lamp – .750; for a 350 W (37,000 lumen) PSMH lamp – .840. For candlepower values of fixture with guard, multiply by – 0.95.

CEC:
Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, Ex nR IIC (Z)
Class II, Division 1 and 2, Groups E, F, G
Class III

CEC:
Type 4X
IP66

Photometric Data

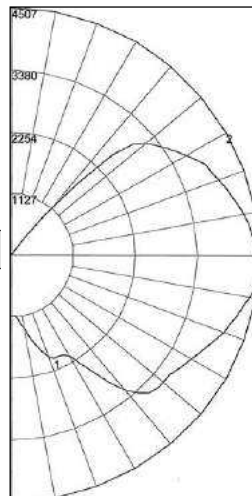
Zone Lumens TOTAL LUMINAIRE EFFICIENCY = 92.6%

CIE Type – General Diffuse

0-10	118.85
10-20	488.36
20-30	948.99
30-40	1678.84
40-50	2714.15
50-60	3299.55
60-70	3919.47
70-80	4497.45
80-90	4892.41
90-100	4803.79
100-110	4404.56
110-120	3849.71
120-130	3078.18
130-140	1852.83
140-150	185.86
150-160	14.88
160-170	1.78
170-180	0.12

ZONAL LUMEN SUMMARY

Zone	Lumens	% Lamp	% Fixture
0-30	1556.19	3.5	3.8
0-40	3235.03	7.4	7.9
0-60	9248.74	21.0	22.7
0-90	22558.07	51.3	55.4
90-120	13058.07	29.7	32.0
90-130	16136.25	36.7	39.6
90-150	18174.93	41.3	44.6
90-180	18191.71	41.3	44.6
0-180	40749.78	92.6	100.0



REPORT NUMBER: **KP40PG**

Lamps: 400 W Pulse Start Metal Halide with Globe *

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

% Ceiling	Rcc	80				70				50				30				10				0
% Walls	Rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
0	100	100	100	100	100	93	93	93	93	80	80	80	68	68	68	57	57	57	57	57	57	51
1	86	80	74	69	64	79	73	68	64	62	58	54	51	48	45	41	39	37	32	32	32	32
2	76	67	59	52	46	70	61	54	48	51	45	41	42	37	33	33	30	27	22	22	22	22
3	68	57	48	41	35	62	52	44	38	45	37	32	35	30	26	28	24	20	16	16	16	16
4	62	49	40	33	27	56	45	37	30	37	31	26	30	25	21	24	20	16	13	13	13	13
5	56	43	34	27	21	51	40	31	25	33	26	21	27	21	17	21	17	13	10	10	10	10
6	51	38	29	23	17	47	35	27	21	29	23	18	24	18	14	18	14	11	8	8	8	8
7	47	34	25	20	14	43	31	24	18	26	20	15	21	16	12	17	12	9	7	7	7	7
8	44	31	22	17	12	40	28	21	16	24	17	13	19	14	10	15	11	8	6	6	6	6
9	41	28	20	15	10	37	26	18	14	21	15	11	18	13	9	14	10	7	5	5	5	5
10	38	25	18	13	8	35	23	16	12	20	14	10	16	11	8	13	9	6	4	4	4	4

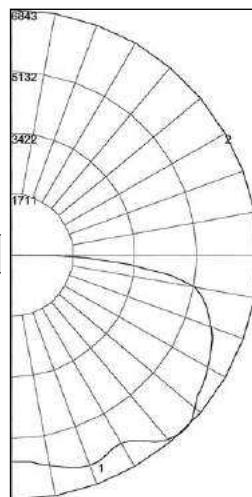
Zone Lumens TOTAL LUMINAIRE EFFICIENCY = 81.4%

CIE Type – Direct

0-10	561.93
10-20	1748.92
20-30	2859.54
30-40	4018.21
40-50	5254.58
50-60	5772.38
60-70	6052.84
70-80	5887.04
80-90	3512.71
90-100	137.17
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

ZONAL LUMEN SUMMARY

Zone	Lumens	% Lamp	% Fixture
0-30	5170.39	11.8	14.4
0-40	9188.60	20.9	25.7
0-60	20215.55	45.9	56.5
0-90	35668.14	81.1	99.6
90-120	137.17	0.3	0.4
90-130	137.17	0.3	0.4
90-150	137.17	0.3	0.4
90-180	137.17	0.3	0.4
0-180	35805.32	81.4	100.0



REPORT NUMBER: **KP40PST**

Lamps: 400 W Pulse Start Metal Halide with Standard Dome Reflector *

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

% Ceiling	Rcc	80				70				50				30				10				0
% Walls	Rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
0	97	97	97	97	97	95	95	95	95	90	90	90	86	86	86	83	83	83	81	81	81	81
1	84	78	73	68	64	81	76	71	67	72	69	65	69	66	63	66	63	61	59	59	59	59
2	74	65	58	51	46	72	63	57	51	60	54	49	57	52	48	55	51	47	45	45	45	45
3	66	55	47	40	35	64	54	46	40	51	44	39	49	43	38	46	42	37	35	35	35	35
4	60	48	39	32	27	58	47	39	32	44	37	32	42	36	31	40	35	31	28	28	28	28
5	55	42	33	27	21	53	41	33	27	39	32	26	37	31	26	36	30	26	24	24	24	24
6	50	37	29	23	17	48	36	28	23	35	28	22	33	27	22	32	26	22	20	20	20	20
7	46	33	25	20	14	44	33	25	19	31	24	19	30	24	19	29	23	19	17	17	17	17
8	43	30	22	17	12	41	30	22	17	28	22	17	27	21	17	26	21	17	15	15	15	15
9	40	28	20	15	10	38	27	20	15	26	19	15	25	19	15	24	19	15	13	13	13	13
10	37	25	18	13	8	36	25	18	13	24	18	13	23	17	13	22	17	13	12	12	12	12

Mercmaster™ III 400 Luminaire for Hazardous and Wet Locations

400 W PSMH

* Photometric data is based on a fixture with a 400-watt clear Pulse Start Metal Halide lamp (44,000 lumen). For candlepower values of fixtures with other PSMH lamps, use the following multipliers: for a 320 W (33,000 lumen) PSMH lamp – .750; for a 350 W (37,000 lumen) PSMH lamp – .840. For candlepower values of fixture with guard, multiply by – 0.95.

CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, Ex nR IIC (Z)
Class II, Division 1 and 2, Groups E, F, G
Class III

CEC:

Type 4X
IP66

Photometric Data

Zone	Lumens	TOTAL LUMINAIRE EFFICIENCY = 76%	

0-10 499.96 CIE Type – Direct

10-20 1605.38

20-30 2680.72

30-40 3841.49

40-50 4899.23

50-60 4819.21

60-70 4564.58

70-80 4063.65

80-90 3258.13

90-100 2105.14

100-110 762.24

110-120 138.12

120-130 77.59

130-140 73.07

140-150 25.07

150-160 10.91

160-170 5.30

170-180 1.45

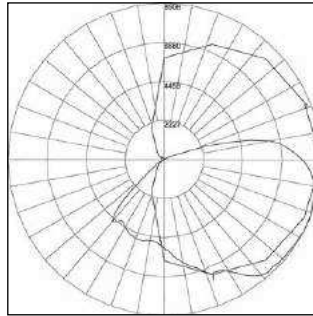
CIE Type – Direct

Plane	Spacing Criteria

0-180 2.28

90-270 1.92

Diagonal 1.84



REPORT NUMBER: **KP40PAN**

Lamps: 400 W Pulse Start Metal Halide with
30° Angle Dome Reflector *

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

% Ceiling	Rcc	80				70				50				30				10				0
% Walls	Rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0			
	0	89	89	89	89	86	86	86	86	80	80	80	75	75	75	71	71	71	69			
	1	78	72	68	64	75	70	66	62	65	62	59	61	58	56	57	55	53	50			
	2	69	61	55	49	66	59	53	48	55	50	46	51	47	43	48	44	41	39			
	3	62	52	45	39	59	51	44	38	47	41	37	44	39	35	41	37	33	31			
	4	56	46	38	32	54	44	37	31	41	35	30	38	33	29	36	31	28	26			
	5	51	40	33	27	49	39	32	26	36	30	25	34	29	24	32	27	23	21			
	6	47	36	28	23	45	35	28	22	32	26	22	30	25	21	29	24	20	18			
	7	43	32	25	20	42	31	24	19	29	23	19	27	22	18	26	21	17	16			
	8	40	29	22	17	39	28	22	17	27	21	16	25	20	16	24	19	15	14			
	9	37	26	20	15	36	26	19	15	24	19	15	23	18	14	22	17	14	12			
	10	35	24	18	14	34	24	17	13	22	17	13	21	16	13	20	15	12	11			

ZONAL LUMEN SUMMARY

Zone	Lumens	% Lamp	% Fixture
0-30	4786.06	10.9	14.3
0-40	8627.55	19.6	25.8
0-60	18345.99	41.7	54.9
0-90	30232.35	68.7	90.4
90-120	3005.49	6.8	9.0
90-130	3083.09	7.0	9.2
90-150	3181.23	7.2	9.5
90-180	3198.89	7.3	9.6
0-180	33431.25	76.0	100.0

Appleton®

HID/AREA: NEC/CEC ENCLOSED AND GASKETED

Mercmaster™ III 400 Luminaire for Hazardous and Wet Locations

400 W PSMH

* Photometric data is based on a fixture with a 400-watt clear Pulse Start Metal Halide lamp (44,000 lumen). For candlepower values of fixtures with other PSMH lamps, use the following multipliers: for a 320 W (33,000 lumen) PSMH lamp – .750; for a 350 W (37,000 lumen) PSMH lamp – .840. For candlepower values of fixture with guard, multiply by – 0.95.

CEC:
 Class I, Division 2, Groups A, B, C, D
 Class I, Zone 2, Ex nR IIC (Z)
 Class II, Division 1 and 2, Groups E, F, G
 Class III

CEC:
 Type 4X
 IP66

Photometric Data

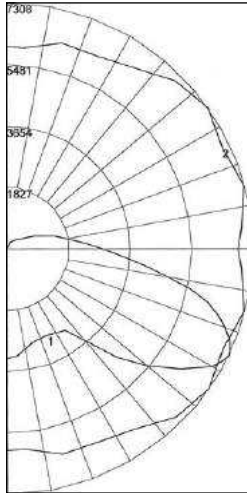
Zone Lumens TOTAL LUMINAIRE EFFICIENCY = 78.4%

CIE Type – Semi-Direct

Plane	Spacing Criteria
0-180	1.36
90-270	1.40
Diagonal	2.42

ZONAL LUMEN SUMMARY

Zone	Lumens	% Lamp	% Fixture
0-10	77.24		
10-20	575.14		
20-30	1061.45		
30-40	1581.40		
40-50	4468.52		
50-60	4938.88		
60-70	6338.26		
70-80	5875.90		
80-90	3886.90		
90-100	1318.17		
100-110	1872.98		
110-120	1122.17		
120-130	616.83		
130-140	358.56		
140-150	224.03		
150-160	128.38		
160-170	50.79		
170-180	7.69		



REPORT NUMBER: **KP40PJ5**

Lamps: 400 W Pulse Start Metal Halide with
 8" Prismatic Glass Refractor – NEMA Type V *

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

% Floors	Rfc	20																		
% Ceiling	Rcc	80				70				50				30				10		0
% Walls	Rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0	
	0	90	90	90	90	87	87	87	87	80	80	80	74	74	74	68	68	68	65	
	1	77	71	66	61	73	68	63	59	62	58	54	57	53	50	52	49	47	44	
	2	67	58	50	44	64	55	48	42	50	44	39	45	41	37	41	37	34	31	
	3	59	48	40	33	56	46	38	32	42	35	30	38	32	27	34	29	25	23	
	4	53	41	33	26	50	39	31	25	35	29	23	32	26	21	29	24	20	17	
	5	48	36	27	21	45	34	26	20	31	24	18	28	22	17	25	20	16	13	
	6	44	31	23	17	41	30	22	16	27	20	15	24	18	14	22	17	13	11	
	7	40	28	20	14	38	26	19	14	24	17	13	22	16	12	19	14	11	9	
	8	37	25	17	12	35	24	17	11	22	15	11	19	14	10	18	13	9	7	
	9	34	22	15	10	32	21	15	10	20	13	9	18	12	8	16	11	8	6	
	10	32	20	14	9	30	20	13	9	18	12	8	16	11	7	15	10	7	5	

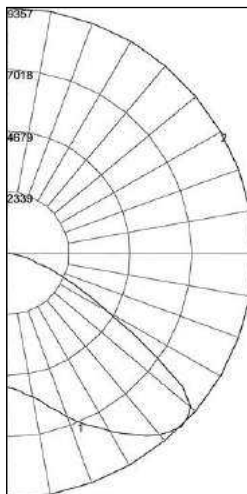
Zone Lumens TOTAL LUMINAIRE EFFICIENCY = 64.2%

CIE Type – Direct

Plane	Spacing Criteria
0-180	2.32
90-270	2.32
Diagonal	2.04

ZONAL LUMEN SUMMARY

Zone	Lumens	% Lamp	% Fixture
0-10	514.26		
10-20	1734.49		
20-30	3370.99		
30-40	5333.06		
40-50	7165.13		
50-60	6195.93		
60-70	2879.28		
70-80	921.95		
80-90	111.28		
90-100	0.14		
100-110	0.00		
110-120	0.00		
120-130	0.00		
130-140	0.00		
140-150	0.00		
150-160	0.00		
160-170	0.00		
170-180	0.00		



REPORT NUMBER: **KP40PHB**

Lamps: 400 W Pulse Start Metal Halide with
 Enclosed Reflector (KPR-4HB) *

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

% Floors	Rfc	20																				
% Ceiling	Rcc	80				70				50				30				10				0
% Walls	Rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0			
	0	76	76	76	76	75	75	75	75	71	71	71	68	68	68	65	65	65	64			
	1	70	67	65	63	69	66	64	62	63	61	60	61	59	58	59	57	56	55			
	2	64	59	55	51	62	58	54	50	55	52	49	53	51	48	51	49	47	46			
	3	58	51	46	42	56	50	46	42	48	44	41	47	43	40	45	42	40	38			
	4	53	45	39	35	51	44	39	35	43	38	34	41	37	34	40	36	33	32			
	5	48	40	34	30	47	39	34	29	38	33	29	36	32	29	35	31	28	27			
	6	44	35	29	25	43	35	29	25	34	29	25	32	28	25	31	28	24	23			
	7	41	32	26	22	39	31	26	22	30	25	22	29	25	21	28	24	21	20			
	8	37	29	23	19	36	28	23	19	27	22	19	26	22	19	26	22	19	17			
	9	35	26	20	17	34	25	20	17	25	20	17	24	20	16	23	19	16	15			
10	32	24	18	15	32	23	18	15	23	18	15	22	18	15	21	17	15	13				



Mercmaster™ II HID Luminaires

High Pressure Sodium and Pulse Start Metal Halide. Mogul Base

UNILETS® for Use with Threaded Metal Conduit.

NEC:

Class I, Division 2, Groups A, B, C, D ①
Class II, Division 1 and 2, Groups E, F, G ②
Class III
Fixtures Outside Type (Salt Water)

Applications

- Enclosed and gasketed HID lighting fixtures for use in tunnels, walkways, bridges, storage facilities, processing plants, parking lots, foundries, manufacturing plants, power plants and other locations where moisture, dirt, dust or corrosive atmospheres are encountered.
- Fixtures suited for Class I, Division 2; Class II, Division 1 and 2; and Class III. Suitable for use in wet and outdoor saltwater locations.
- Wide range of wattages and voltages. Choice of ballasts for 100 W-200 W PSMH; and 50 W-150 W HPS lamps in 120, 208, 240, 277 and 480 voltages.
- Choice of light sources: high pressure sodium and pulse start metal halide.
- Choice of optical assemblies: (1) prismatic globe with or without guard through 200 W; or (2) Type V closed prismatic glass refractor through 200 W. (Types II, III and IV also available through 200 W. Also polycarbonate globes for 100 W max.)
- Choice of mounting hoods: pendant (rigid or flexible), 25° (angle) stanchion, ceiling and wall mounting.
- Porcelain reflector for standard applications and Fiberglass reinforced polyester reflector for installations where luminaire is subject to exceptionally severe corrosive atmospheres.

Features

- Superior corrosion-resistance: copperfree aluminum mounting hoods, ballasts and guards with epoxy powder coat, inside and out.
- Standard pendant mounting hood for rigid or flexible mounting. Balanced round design automatically hangs plumb when used with flexible hanger.
- Positive sealing. Hinge and bolt construction assures 360° compression at all points on gasket.
- One-piece ballast housing for each component provides even heat dissipation for cooler operation and longer ballast life.
- Heat barrier isolates capacitor from ballast. Standard non-PCB biodegradable capacitors installed in separate compartment.
- Mogul socket is furnished with 200 °C (392 °F) welded leads, pre-wired to the ballast.
- Porcelain socket assures trouble-free operation in high ambient installations.
- Guards protect globes from damage. Keyhole slots allow easy installation and are secured with stainless steel screws.
- Prismatic glass globes and glass refractors are standard (plastic refractors also available) and thread directly into fixture housing. Eliminate glare and provide uniform light distribution.
- Vented reflectors result in cooler, dirt-free operation, increased lumen output.
- Reflectors secured to mounting hood with screws (furnished).
- Choice of reflector styles: white porcelain enamel or Fiberglass reinforced polyester; standard dome or 30° angle.
- Optional photocell provides automatic "on-off" control.
- All Mercmaster mounting hoods have provision for easy field installation of fuses in fixtures (see fuse kit listings).



Standard Materials

- Mounting hoods, ballast bodies and guards: copperfree (4/10 of 1% max.) aluminum
- Reflectors: fiberglass reinforced polyester
- Globes: 50 W-100 W, threaded prismatic glass; 150 W, 175 W and 200W, threaded heat-resistant prismatic glass
- Refractors: 50 W to 150 W, heat-resistant prismatic glass and plastic; 175 W to 200 W, prismatic glass

Standard Finishes

- Mounting hoods, ballast bodies, guards: epoxy powder-coat finish. Two-coat baked finish, electrostatically applied for complete uniform surface protection
- Polyester reflectors: natural finish

Options

- Fuses for fixtures. For fuse kits see *Electrical Specifications and Fuse Kits* page.
- MH fixtures for Quartz Auxiliary lamps. Relay switch installed in fixture when specified. Add suffix **-MTE** to fixture catalog number for 120 V through 277 V, and suffix **-480E** to fixture catalog number for 480 V fixture.
- Hot Restrike option add suffix **-R**.
- Smart Starter available for HPS and PSMH. Add suffix **-S**.

NEC Certifications and Compliances

- UL Standard: UL 1598, UL 1598A, UL 844
- UL Listed: E10444

① For specific Class I suitability of each fixture listed, see *Thermal Suitability*.

② For 175 W and 200 W fixtures, use 12" refractor only for Groups E, F and G. Heat-resistant glass globe supplied with 175 W and 200 W fixtures.

Note: Fixtures equipped with optional photocell or quartz auxiliary lamp do not comply with UL requirements and are not suitable for use in classified locations.

Mercmaster™ II HID Luminaires

High Pressure Sodium and Pulse Start Metal Halide. Mogul Base

UNILETS® for Use with Threaded Metal Conduit.

NEC:

Class I, Division 2, Groups A, B, C, D ①

Class II, Division 1 and 2, Groups E, F, G ②

Class III

Fixtures Outside Type (Salt Water)

Illustrated Features



High Temperature Sockets

Mogul base high temperature socket for 50W through 400W HID lamps.

Aluminum Inner Reflector

Solid aluminum inner reflector improves photometric efficiency.



Epoxy Finish

Ballast housing, hoods and guards are copperfree aluminum with epoxy powder coat finish.

Electrical Protection

Ground wire provided to bond mounting hood to ballast housing. Fiber insulator protects ballast and capacitor.



Photocell

Installs through knock-out in mounting hood; provides continuous ON-OFF dusk-to-dawn control. Fixtures with optional photocell or quartz auxiliary lamp do not comply with UL requirements for use in classified locations.



Fuses Mount to Hood Bosses

Two screws secure fuse kit to mounting boss in any Mercmaster mounting hood.



Hood/Ballast Gasket

Silicone rubber gasket seals out moisture, dirt and dust.



Stainless Steel Latch Assembly

Captive, stainless steel latch assembly bolt and nut closes securely, resists attack of corrosive atmospheres. Swing-away design simplifies servicing.



"Safety" High Hinge

Extra-high hinge provides additional protection against accidental ballast housing disengagement during installation or maintenance.

JB Series Box and Flexible Hanger



Balanced Round Design

Pendant fixtures automatically hang plumb. Fixtures and hangers suitable for Class I, Division 2 applications.

① For specific Class I suitability of each fixture listed, see Thermal Suitability.

② For 175 W and 200 W fixtures, use 12" refractor only for Groups E, F and G. Heat-resistant glass globe supplied with 175 W and 200 W fixtures.

Mercmaster™ II HID Luminaires

High Pressure Sodium and Pulse Start Metal Halide. Mogul Base

UNILETS® for Use with Threaded Metal Conduit.

NEC:

Class I, Division 2, Groups A, B, C, D ①
Class II, Division 1 and 2, Groups E, F, G ②
Class III
Fixtures Outside Type (Salt Water)

Quartz Emergency Light for Pulse Start Metal Halide or High Pressure Sodium Fixtures ③

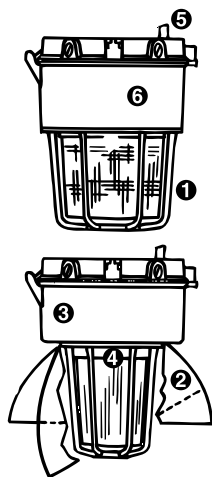


Mercmaster fixtures for or metal halide and high pressure sodium lamps can be supplied with a socket to accept a 150 W 120 V quartz lamp. This D.C. bayonet base socket is in addition to the standard lamp socket. In the event of a momentary power interruption, the quartz lamp is automatically switched on. The single ended quartz lamp remains energized until the HID restrikes and reaches about 60% output.

The quartz emergency lamp socket is wired to a 120 V tap on the ballast and is therefore independent of the lighting fixture voltage. No special field wiring is necessary.

Description	Catalog Suffix
For fixture volts of 120, 208, 240 or 277	-MTE
For fixture volts of 480	-480E

Accessory Options



① **Guards:** Guards are die-cast copperfree aluminum with baked epoxy finish to match fixtures. Fixture supplied with stainless steel mounting screws which thread into stainless steel inserts on fixture housing to attach guard. To order fixture with guard, add suffix **-G** to catalog number before adding voltage suffix.

② **Reflectors:** Standard dome and 30° angle polyester reflectors.

③ **Hot Restrike:** Instantly restrikes a hot HPS lamp when power is restored after a momentary outage. Available factory-installed only. To order, add suffix **-R** to catalog number.

④ **Quartz Emergency Light:** When ordered, HPS fixtures will be supplied with a prewired special DC bayonet base socket to accept a 150W, 120V quartz lamp (not furnished) that automatically switches on when a power outage occurs. Fixtures ordered with this quartz emergency lamp feature do NOT comply with requirements for classified areas and should be used only in non-classified locations. To order, add suffix **-E** to catalog number and specify if a relay switch is desired.

⑤ **Photocell and Fuses:** Photocontrol.

⑥ **Smart Starter:** Performs as a conventional starter in lamp start-up. Removes itself from circuit at end of lamp life or if lamp is out of socket. Add suffix **-S** to catalog number.

① For specific Class I suitability of each fixture listed, see Thermal Suitability.

② For 175 W and 200 W fixtures, use 12" refractor only for Groups E, F and G. Heat-resistant glass globe supplied with 175 W and 200 W fixtures.

③ NOTE: Fixtures equipped with quartz emergency light do not comply with UL requirements and are not suitable for use in classified locations.

Mercmaster™ II HID Luminaires

Class I, Division 2, Groups A, B, C, D; Class II, Division 1, Groups E, F, G

UNILETS® for Use with Threaded Metal Conduit.

NEC:

Class I, Division 2, Groups A, B, C, D ①
Class II, Division 1 and 2, Groups E, F, G ②
Class III
Fixtures Outside Type (Salt Water)

The following table shows maximum operating temperatures of Mercmaster fixtures for Class I, Division 2, in a +40 °C (+104 °F) ambient in free air as rated by UL. As shown, the higher the Temperature Identification Number, the cooler the fixture operates. Keep this in mind when selecting a fixture for a specific chemical listed on the Classified Area Suitability pages. Per the NEC. The temperature marking shown on fixtures shall not exceed the

ignition temperature of the gas to be encountered. To illustrate, a 400W HPS fixture, which has a UL-NEC Temperature Identification Number of 350 [+326 — +350 °C (+619 — +662 °F)] does NOT exceed the Group D Methane (natural gas) ignition temperature of +540 °C (+1004 °F), and is therefore suitable for use in atmospheres containing that chemical.

Mercmaster II Thermal Suitability

Lamp		Supply Wire Temp. °C (°F)	Ambient Temp. °C (°F)	Class I, Division 2, Groups A, B, C, D				Class II, Division 1, Groups E, F, G			
Watts	Type			Globe	Globe and Reflector	8" Refractor	12" Refractor	Globe	Globe and Reflector	8" Refractor	12" Refractor
50	HPS	90 (194)	40 (104)	T3	T3	T3A	T3A	T3B	T3B	T3B	T3B
70	HPS	90 (194)	40 (104)	T3	T3	T3A	T3A	T3B	T3B	T3B	T3B
100	HPS	90 (194)	40 (104)	T2C	T2C	T3	T3	T3B	T3B	T3B	T3B
150	HPS	90 (194)	40 (104)	T2A	T2A	T2B	T2B	③	③	③	T3B
100	PSMH	90 (194)	40 (104)	T2A	T2A	T2C	T2C	③	③	③	T3
150	PSMH	90 (194)	40 (104)	T2B	T2B	T2D	T2D	T3	—	—	T3
175	PSMH	90 (194)	40 (104)	T2B	T2B	T2C	T2C	T3	—	—	T3
200	PSMH	90 (194)	40 (104)	T2	T2	T2B	T2B	T3	—	—	T3

“T” Numbers Represent the Maximum Lamp Temperature for Class I, Division 2 Locations and Maximum Surface Temperature Under Dust Blanket for Class II, Division 1 Locations.

“T” Number	T1	350	325	T2	T2A	T2B	T2C	T2D	T3	T3A	T3B	T3C	T4	T4A	T5	T6
Temp Range (°C)	351-450	326-350	301-325	281-300	261-280	231-260	216-230	201-215	181-200	166-180	161-165	136-160	121-135	101-120	86-100	85
Temp. Range (°F)	664-842	619-662	574-617	538-572	502-536	448-500	421-446	394-419	358-392	331-356	322-329	277-320	250-275	214-248	187-212	185

All HPS fixtures suitable for operation at -40 °C (-40 °F); PSMH at -29 °C (-20 °F).

① For specific Class I suitability of each fixture listed, see Thermal Suitability above.

② For 175 W and 200 W fixtures, use 12" refractor only for Groups E, F and G. Heat-resistant glass globe supplied with 175 W and 200 W fixtures.

③ Pendant, ceiling and wall mount are suitable for groups E and F only with T3A rating. Stanchion mount is suitable for groups E, F and G with a T3B rating.

Mercmaster™ II HID Luminaires

50 W, 70 W, 100 W, 150 W HPS

High Power Factor (Min. P.F. 90%). Suitable for Use in Wet Locations. Prismatic Glass Globe or Type V Closed Glass Refractor. Mogul Base Lamps.

NEC:

Class I, Division 2, Groups A, B, C, D ①
Class II, Division 1 and 2, Groups E, F, G ②
Class III
Fixtures Outside Type (Salt Water)

With Globe, Less Guard	With 8" Refractor (NEMA V)	Lamp Watts	Hub Size (Inches)	With Globe ③	Catalog Numbers With 8" Refractor ④	With 12" Refractor
Pendant — One Hub, Rigid or Flexible Mounting						
		50	3/4	LPAL5075 ⑤	LPAL5075J ⑤	LPAL5075R ⑤
			1	LPAL5010 ⑤	LPAL5010J ⑤	LPAL5010R ⑤
		70	3/4	LPAL7075 ⑥	LPAL7075J ⑥	LPAL7075R ⑥
			1	LPAL7010 ⑥	LPAL7010J ⑥	LPAL7010R ⑥
		100	3/4	LPAL1075 ⑥	LPAL1075J ⑥	LPAL1075R ⑥
			1	LPAL1010 ⑥	LPAL1010J ⑥	LPAL1010R ⑥
		150	3/4	LPAL1575 ⑥	LPAL1575J ⑥	LPAL1575R ⑥
			1	LPAL1510 ⑥	LPAL1510J ⑥	LPAL1510R ⑥
Ceiling — Five Hubs, Four Close-Up Plugs						
		50	3/4	LPCL5075 ⑤	LPCL5075J ⑤	LPCL5075R ⑤
			1	LPCL5010 ⑤	LPCL5010J ⑤	LPCL5010R ⑤
		70	3/4	LPCL7075 ⑥	LPCL7075J ⑥	LPCL7075R ⑥
			1	LPCL7010 ⑥	LPCL7010J ⑥	LPCL7010R ⑥
		100	3/4	LPCL1075 ⑥	LPCL1075J ⑥	LPCL1075R ⑥
			1	LPCL1010 ⑥	LPCL1010J ⑥	LPCL1010R ⑥
		150	3/4	LPCL1575 ⑥	LPCL1575J ⑥	LPCL1575R ⑥
			1	LPCL1510 ⑥	LPCL1510J ⑥	LPCL1510R ⑥
Wall — Five Hubs, Four Close-Up Plugs						
		50	3/4	LPWBL5075 ⑤	LPWBL5075J ⑤	LPWBL5075R ⑤
			1	LPWBL5010 ⑤	LPWBL5010J ⑤	LPWBL5010R ⑤
		70	3/4	LPWBL7075 ⑥	LPWBL7075J ⑥	LPWBL7075R ⑥
			1	LPWBL7010 ⑥	LPWBL7010J ⑥	LPWBL7010R ⑥
		100	3/4	LPWBL1075 ⑥	LPWBL1075J ⑥	LPWBL1075R ⑥
			1	LPWBL1010 ⑥	LPWBL1010J ⑥	LPWBL1010R ⑥
		150	3/4	LPWBL1575 ⑥	LPWBL1575J ⑥	LPWBL1575R ⑥
			1	LPWBL1510 ⑥	LPWBL1510J ⑥	LPWBL1510R ⑥
25° Stanchion — One Hub						
		50	1-1/4	LPSL50125 ⑤	LPSL50125J ⑤	LPSL50125R ⑤
			1-1/2	LPSL50150 ⑤	LPSL50150J ⑤	LPSL50150R ⑤
		70	1-1/4	LPSL70125 ⑥	LPSL70125J ⑥	LPSL70125R ⑥
			1-1/2	LPSL70150 ⑥	LPSL70150J ⑥	LPSL70150R ⑥
		100	1-1/4	LPSL10125 ⑥	LPSL10125J ⑥	LPSL10125R ⑥
			1-1/2	LPSL10150 ⑥	LPSL10150J ⑥	LPSL10150R ⑥
		150	1-1/4	LPSL15125 ⑥	LPSL15125J ⑥	LPSL15125R ⑥
			1-1/2	LPSL15150 ⑥	LPSL15150J ⑥	LPSL15150R ⑥

① For specific Class I suitability of each fixture listed, see Thermal Suitability.

② For 175 W and 200 W fixtures, use 12" refractor only for Groups E, F and G. Heat-resistant glass globe supplied with 175 W and 200 W fixtures.

③ To order fixture with guard, add suffix **-G** (before adding voltage suffix).

④ Furnished with 8" NEMA V refractor — to order with NEMA I or III refractor, change **J** in the catalog number to **J1** or **J3**.

Add voltage suffix **-MTMED** for Medium Base, 100W (order as special).

⑤ Add voltage suffix **-MT** for 120, 208, 240 or 277 V.

⑥ Add voltage suffix **-MT** for 120, 208, 240 or 277 V; **-480** for 480 V.

Mercmaster™ II HID Luminaires

100 W, 150 W, 175 W, 200 W PSMH

Constant Wattage (Min. P.F. 90%). Suitable for Use in Wet Locations. Prismatic Glass Globe or Type V Closed Glass Refractor. Mogul Base Lamps.

NEC:

Class I, Division 2, Groups A, B, C, D ①
Class II, Division 1 and 2, Groups E, F, G ②
Class III
Fixtures Outside Type (Salt Water)

With Globe, Less Guard	With 8" Refractor (NEMA V)	Lamp Watts	Hub Size (Inches)	With Globe ③	Catalog Numbers With 8" Refractor ④	With 12" Refractor
Pendant — One Hub, Rigid or Flexible Mounting						
		100	3/4	LPAH1075 ⑤	LPAH1075J ⑤	LPAH1075R ⑤
			1	LPAH1010 ⑤	LPAH1010J ⑤	LPAH1010R ⑤
		150	3/4	LPAP1575 ⑤	LPAP1575J ⑤	LPAP1575R ⑤
			1	LPAP1510 ⑤	LPAP1510J ⑤	LPAP1510R ⑤
		175 ②	3/4	LPAP1775 ⑤	LPAP1775J ⑤	LPAP1775R ⑤
			1	LPAP1710 ⑤	LPAP1710J ⑤	LPAP1710R ⑤
		200 ②	3/4	LPAP2075 ⑤	LPAP2075J ⑤	LPAP2075R ⑤
			1	LPAP2010 ⑤	LPAP2010J ⑤	LPAP2010R ⑤
Ceiling — Five Hubs, Four Close-Up Plugs						
		100	3/4	LPCH1075 ⑤	LPCH1075J ⑤	LPCH1075R ⑤
			1	LPCH1010 ⑤	LPCH1010J ⑤	LPCH1010R ⑤
		150	3/4	LPCP1575 ⑤	LPCP1575J ⑤	LPCP1575R ⑤
			1	LPCP1510 ⑤	LPCP1510J ⑤	LPCP1510R ⑤
		175 ②	3/4	LPCP1775 ⑤	LPCP1775J ⑤	LPCP1775R ⑤
			1	LPCP1710 ⑤	LPCP1710J ⑤	LPCP1710R ⑤
		200 ②	3/4	LPCP2075 ⑤	LPCP2075J ⑤	LPCP2075R ⑤
			1	LPCP2010 ⑤	LPCP2010J ⑤	LPCP2010R ⑤
Wall — Five Hubs, Four Close-Up Plugs						
		100	3/4	LPWBH1075 ⑤	LPWBH1075J ⑤	LPWBH1075R ⑤
			1	LPWBH1010 ⑤	LPWBH1010J ⑤	LPWBH1010R ⑤
		150	3/4	LPWBP1575 ⑤	LPWBP1575J ⑤	LPWBP1575R ⑤
			1	LPWBP1510 ⑤	LPWBP1510J ⑤	LPWBP1510R ⑤
		175 ②	3/4	LPWBP1775 ⑤	LPWBP1775J ⑤	LPWBP1775R ⑤
			1	LPWBP1710 ⑤	LPWBP1710J ⑤	LPWBP1710R ⑤
		200 ②	3/4	LPWBP2075 ⑤	LPWBP2075J ⑤	LPWBP2075R ⑤
			1	LPWBP2010 ⑤	LPWBP2010J ⑤	LPWBP2010R ⑤
25° Stanchion — One Hub						
		100	1-1/4	LPSH1075 ⑤	LPSH1075J ⑤	LPSH1075R ⑤
			1-1/2	LPSH1010 ⑤	LPSH1010J ⑤	LPSH1010R ⑤
		150	1-1/4	LPSP15125 ⑤	LPSP15125J ⑤	LPSP15125R ⑤
			1-1/2	LPSP15150 ⑤	LPSP15150J ⑤	LPSP15150R ⑤
		175 ②	1-1/4	LPSP17125 ⑤	LPSP17125J ⑤	LPSP17125R ⑤
			1-1/2	LPSP17150 ⑤	LPSP17150J ⑤	LPSP17150R ⑤
		200 ②	1-1/4	LPSP20125 ⑤	LPSP20125J ⑤	LPSP20125R ⑤
			1-1/2	LPSP20150 ⑤	LPSP20150J ⑤	LPSP20150R ⑤

① For specific Class I suitability of each fixture listed, see Thermal Suitability.

② For 175 W and 200 W fixtures, use 12" refractor only for Groups E, F and G. Heat-resistant glass globe supplied with 175 W and 200 W fixtures.

③ To order fixture with guard, add suffix -G (before adding voltage suffix).

④ Furnished with 8" NEMA V refractor — to order with NEMA I or III refractor, change J in the catalog number to J1 or J3.

Add voltage suffix -MTMED for Medium Base, 100W (order as special).

⑤ Add voltage suffix -MT for 120, 208, 240 or 277 V.

⑥ Add voltage suffix -MT for 120, 208, 240 or 277 V; -480 for 480 V.

Mercmaster™ II HID Luminaires

High Pressure Sodium and Pulse Start Metal Halide. Mogul Base

Hoods and Ballast Housings are Copperfree Aluminum (4/10 of 1%).

NEC:

Class I, Division 2, Groups A, B, C, D ①

Class II, Division 1 and 2, Groups E, F, G ②

Class III

Fixtures Outside Type (Salt Water)

Mounting Hoods

	Description	Hub Size (Inches)	Catalog Number
Pendant			
	One Hub, Rigid or Flexible Mounting	3/4	LPA-75
		1	LPA-100
Ceiling			
	Five Hubs, Four Close-Up Plugs	3/4	LPC-75
		1	LPC-100
Wall			
	Five Hubs, Four Close-Up Plugs	3/4	LPWB-75
		1	LPWB-100
25° Stanchion			
	One Hub	1-1/4	LPS-125
		1-1/2	LPS-150
Mounting Adapter			
	Permits use of Mercmaster II pendant hood on existing V-51 and Mercmaster I mounting hoods. Remove Mercmaster I ballast body from existing mounting hood, thread in adapter and attach wire to Mercmaster II.		LPAD-1

Mercmaster II Ballast Bodies

	Type	Lamp Watts	Ballast Body Catalog Numbers		Add Voltage Suffixes ①				
			Globe/12” Refractor	8” Refractor	120V	208V	240V	277V	480V
	High Pressure Sodium								
	High Power Factor (Min. P.F. 90%)	50	LPB50L	LPBLH50R	-MT	-MT	-MT	-MT	—
		70	LPB70L	LPBLH70R	-MT	-MT	-MT	-MT	-480
		100	LPB100L	LPBLH100R	-MT	-MT	-MT	-MT	-480
		150	LPB150L	LPBLH150R	-MT	-MT	-MT	-MT	-480
	Pulse Start Metal Halide								
	Constant Wattage (Min. P.F. 90%)	100	LPB100H	LPBH100R	-MTMED	-MTMED	-MTMED	-MTMED	-480MED
		150	LPB150P	LPBP150R	-MT	-MT	-MT	-MT	-480
		175	LPB175P	LPBP175R	-MT	-MT	-MT	-MT	-480
		200	LPB200P	LPBP200R	-MT	-MT	-MT	-MT	-480

① For specific Class I suitability of each fixture listed, see Thermal Suitability.

② For 175 W and 200 W fixtures, use 12" refractor only for Groups E, F and G. Heat-resistant glass globe supplied with 175 W and 200 W fixtures.

③ **MT** (multi-volt) ballasts can be operated at an input voltage of either 120, 208, 240 or 277 V. **480** ballasts can be operated at input voltage of 480 V.

Mercmaster™ II HID Luminaires

High Pressure Sodium and Pulse Start Metal Halide. Mogul Base

Screws furnished to Fasten Reflectors to Ballast Body. Refractors Thread Directly into Ballast Body.

NEC:

Class I, Division 2, Groups A, B, C, D ①
Class II, Division 1 and 2, Groups E, F, G ②
Class III
Fixtures Outside Type (Salt Water)

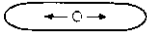
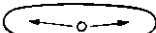
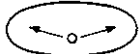
Description		Catalog Number
Prismatic Glass Globes		
	Clear Heat-Resistant	VPGL-2HR
	Amber	VPGL-2AM
	Blue	VPGL-2BL
	Green	VPGL-2GR
	Red	VPGL-2RE

Coated Prismatic Tuff-Skin® ♦ Glass Globes		
	For use in areas where fixture is subject to extreme thermal shock	Clear Heat-Resistant
		VPGL-2HRT

Polycarbonate Globes – Impact-Resistant ③		
	Use 100W Lamp max.; do not use in ambients exceeding +25 °C (+77 °F)	Clear
		Amber
		Green
		Red
		VPGL-2PL
		VPGL-2AMPL
		VPGL-2GRPL
		VPGL-2REPL

Light Distribution	IES/NECA Distribution Curves	8" Glass (50–200 W ④)	12" Glass (50–200 W ④)	12" Polycarbonate (50–175 W ⑤)

Closed Prismatic Refractors — 50 W-200 W ③

 8" Refractor	 12" Refractor	NEMA I		LPG-R1	—	—
		NEMA II		—	LPRF-2CG	LPRF-2CP
		NEMA III		LPG-R3	—	LPRF-3CP
		NEMA IV		—	—	LPRF-4CP
		NEMA V		LPG-R5	LPRF-5CG	LPRF-5CP

① For specific Class I suitability of each fixture listed, see Thermal Suitability.

② For 175 W and 200 W fixtures, use 12" refractor only for Groups E, F and G. Heat-resistant glass globe supplied with 175 W and 200 W fixtures.

③ Polycarbonate globes are shatter-resistant – for use in processing plants, canneries, dairies, bakeries or anywhere broken glass would prove a hazard. Ideally suited for areas where vandalism, high replacement and high maintenance costs are a problem. Do not use in ambients exceeding +25 °C (+77 °F). For burning in vertical base-up positions only.

♦ Registered trademark of Thomas Manufacturing Corporation, Parkton, Md. It is recommended that guards be used with these globes.

④ 150 W max. for HPS.

⑤ 100 W max. for MH.

Mercmaster™ II HID Luminaires

High Pressure Sodium and Pulse Start Metal Halide. Mogul Base

Screws furnished to Fasten Reflectors to Ballast Body. Refractors Thread Directly into Ballast Body.

NEC:

Class I, Division 2, Groups A, B, C, D ①

Class II, Division 1 and 2, Groups E, F, G ②

Class III

Fixtures Outside Type (Salt Water)

Description		Catalog Number
Guard		
	Guard for Glass Globe	KGU2
Steel Guards for 8" and 12" Refractors		
	Guard for 8" Refractor	LPRG-2
	Guard for 12" Refractor	LPBG-12
	3 machine screws furnished	
Polyester Reflectors		
	Standard Dome	KR2-ST
	30° Angle	KR2-AN
Replacement Gaskets — Silicone Rubber		
	Globe and 12" Refractor Gasket	VPGL-GK
	8" Refractor Gasket	KRF-GK
Photocell (Hazardous)		
	120 Volt	PC120D2
	208 thru 277 Volt	PC247D2

Mounting Hood Weights

Type	Weight kg (lb)
Pendant	1.4 (3)
Ceiling	2.3 (5)

Type	Weight kg (lb)
Wall	2.3 (5)
Stanchion	1.8 (4)

Reflectors and Refractors — Weight includes globe and guard

Watts	HPS	PSMH	Wt. kg (lb) Standard Dome Reflector	Catalog Number	Wt. kg (lb) 30° Angle Reflector	Catalog Number	Wt. kg (lb) 8" Refractor	Catalog Number	Wt. kg (lb) 12" Refractor	Catalog Number
50, 70	14	—								
100	15	15	1.1 (2.5)	KR2-ST	1.1 (2.5)	KR2-AN	2.4 (5.25)	LPG-R1	5.9 (13)	LPRF-5CG
150	16	—					2.4 (5.25)	LPG-R3	5.9 (13)	
175	—	16					2.4 (5.25)	LPG-R5	5.9 (13)	
200		18								

① For specific Class I suitability of each fixture listed, see Thermal Suitability.

② For 175 W and 200 W fixtures, use 12" refractor only for Groups E, F and G. Heat-resistant glass globe supplied with 175 W and 200 W fixtures.

Mercmaster™ II HID Luminaires

High Pressure Sodium and Pulse Start Metal Halide. Mogul Base

UNILETS® for Use with Threaded Metal Conduit.

NEC:

Class I, Division 2, Groups A, B, C, D ①
Class II, Division 1 and 2, Groups E, F, G ②
Class III
Fixtures Outside Type (Salt Water)

Electrical Specifications

Line Voltage	Type of Ballast	Starting Amps	Operating Amps	Total Watts
50 Watt High Pressure Sodium				
120	HX-HPF	0.58	0.58	64
208	HX-HPF	0.35	0.33	64
240	HX-HPF	0.31	0.29	64
277	HX-HPF	0.25	0.25	64
70 Watt High Pressure Sodium				
120	HX-HPF	0.90	0.82	94
208	HX-HPF	0.50	0.48	94
240	HX-HPF	0.44	0.41	94
277	HX-HPF	0.35	0.36	94
480	HX-HPF	0.21	0.21	94
100 Watt High Pressure Sodium				
120	HX-HPF	1.30	1.15	130
208	HX-HPF	0.76	0.67	130
240	HX-HPF	0.66	0.60	130
277	HX-HPF	0.60	0.52	130
480	HX-HPF	0.33	0.31	135
150 Watt High Pressure Sodium				
120	HX-HPF	2.00	1.70	188
208	HX-HPF	1.15	0.95	188
240	HX-HPF	1.00	0.85	188
277	HX-HPF	0.85	0.72	188
480	HX-HPF	0.50	0.47	189
100 Watt Pulse Start Metal Halide				
120	HX-HPF	1.20	1.15	130
208	HX-HPF	0.70	0.70	130
240	HX-HPF	0.61	0.58	130
277	HX-HPF	0.55	0.50	130
480	HX-HPF	0.30	0.35	140
150 Watt Pulse Start Metal Halide				
120	HX-HPF	1.75	1.60	188
208	HX-HPF	1.30	1.00	188
240	HX-HPF	0.85	0.80	188
277	HX-HPF	0.77	0.70	188
480	C.W.A.	0.45	0.42	185
175 Watt Pulse Start Metal Halide				
120	C.W.A.	0.90	1.78	199
208	C.W.A.	0.50	1.08	199
240	C.W.A.	0.35	0.89	199
277	C.W.A.	0.30	0.76	199
480	C.W.A.	0.25	0.50	213
200 Watt Pulse Start Metal Halide				
120	C.W.A.	2.10	2.00	238
208	C.W.A.	1.15	1.25	238
240	C.W.A.	1.10	1.00	238
277	C.W.A.	.75	.85	238
480	C.W.A.	.58	.50	237

Fuse Kit

Order fuses as a separate item by catalog number from right columns.

Lamp Watts	Volts	Fuse Quantity Required	Fuse Kit Catalog Number	
			HPS	PSMH
50	120	1	F5	—
	208	2	F3	—
	240	2	F3	—
	277	1	F2	—
70	120	1	F5	—
	208	2	F3	—
	240	2	F3	—
	277	1	F2	—
	480	2	F2	—
100	120	1	F8	F6
	208	2	F5	F4
	240	2	F5	F3
	277	1	F3	F3
	480	2	F3	F2
150	120	1	F10	F10
	208	2	F5	F5
	240	2	F5	F5
	277	1	F5	F4
	480	2	F3	F3
175	120	1	—	F5
	208	2	—	F3
	240	2	—	F3
	277	1	—	F2
	480	2	—	F2
200	120	1	—	F9
	208	2	—	F6
	240	2	—	F5
	277	1	—	F4
	480	2	—	F2



Fuses are filled with non-combustible granular material. Fuse Kit includes fuse, fuse block, wire, mounting screws and connectors. All mounting hoods have provisions for easy field installation of fuses in fixtures.

① For specific Class I suitability of each fixture listed, see Thermal Suitability.

② For 175 W and 200 W fixtures, use 12" refractor only for Groups E, F and G. Heat-resistant glass globe supplied with 175 W and 200 W fixtures.

Mercmaster™ II HID Luminaires

High Pressure Sodium and Pulse Start Metal Halide. Mogul Base

UNILETS® for Use with Threaded Metal Conduit.

NEC:

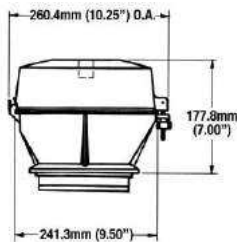
Class I, Division 2, Groups A, B, C, D ①

Class II, Division 1 and 2, Groups E, F, G ②

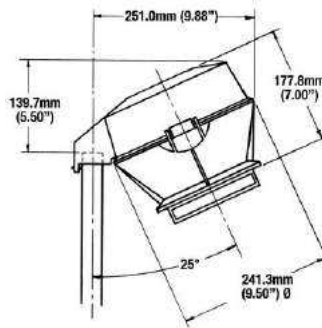
Class III

Fixtures Outside Type (Salt Water)

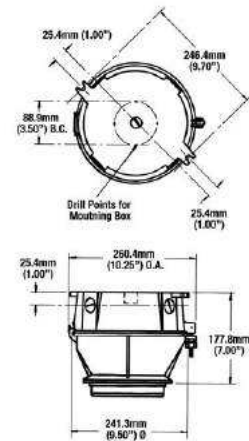
Dimensions in Millimeters (Inches)



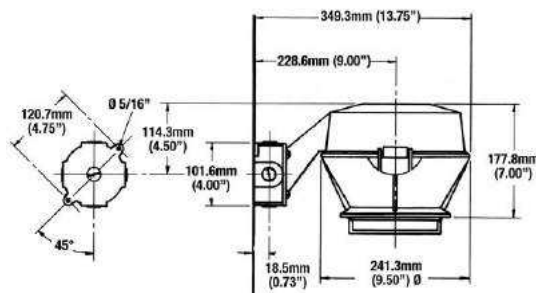
Pendant Mount



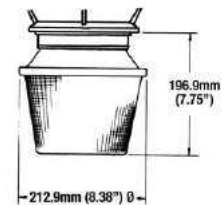
25° Angle Stanchion Mount



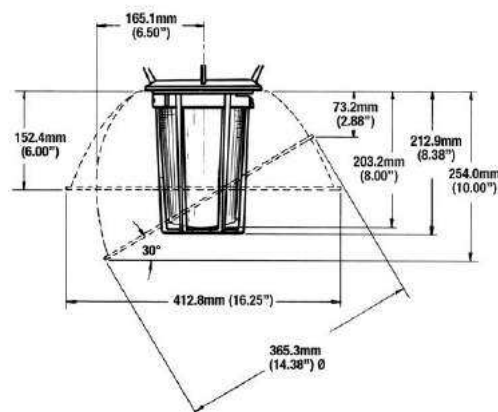
Ceiling Mount



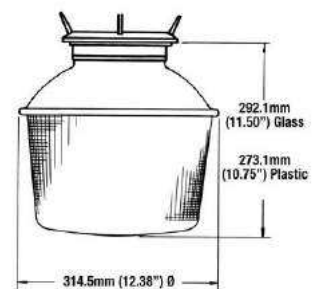
Wall Mount



Fixture with 8" Refractor



Fixture with Guard and Polyester Reflector



Fixture with 12" Refractor

① For specific Class I suitability of each fixture listed, see Thermal Suitability.

② For 175 W and 200 W fixtures, use 12" refractor only for Groups E, F and G. Heat-resistant glass globe supplied with 175 W and 200 W fixtures.

Mercmaster™ II HID Luminaires

150 W HPS

* Photometric data is based on fixtures with 150-watt clear High Pressure Sodium lamp (16,000 lumen). For candlepower values of fixtures with other HPS lamps, use the following multipliers; for 100 W (9,500 lumen) HPS lamp – 0.594; for 70 W (6,400 lumen) HPS lamp – 0.40; for 50 W (4,000 lumen) HPS lamp – 0.25. For candlepower values of fixture with guard, multiply by 0.95.

NEC:

Class I, Division 2, Groups A, B, C, D ①
Class II, Division 1 and 2, Groups E, F, G ②
Class III
Fixtures Outside Type (Salt Water)

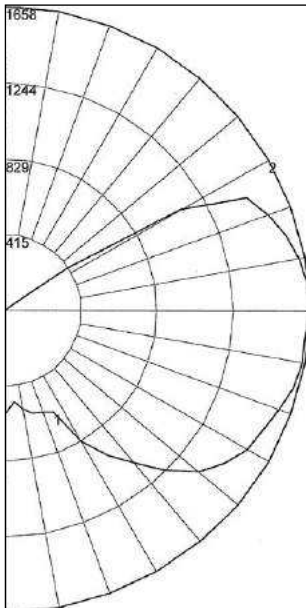
Photometric Data

Total Luminaire Efficiency = 86.1%

CIE Type – Semi-Direct

Plane	Spacing Criteria
0-180	2.82
90-270	2.82
Diagonal	2.82

Zone	Lumens
0-10	50.74
10-20	164.55
20-30	310.47
30-40	611.05
40-50	961.13
50-60	1308.18
60-70	1542.35
70-80	1716.10
80-90	1799.18
90-100	1802.19
100-110	1676.86
110-120	1379.11
120-130	441.46
130-140	9.61
140-150	3.33
150-160	0.74
160-170	0.00
170-180	0.00



REPORT NUMBER: LP15LGG

150 W High Pressure Sodium fixture with Globe only *

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

% Ceiling Rcc		80				70				50				30				10				0
% Walls Rw		70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
0	95	95	95	95	89	89	89	89	77	77	77	67	67	67	57	57	57	53				
1	81	74	69	64	75	69	64	59	59	55	51	50	47	44	42	39	37	33				
2	71	62	54	47	65	57	50	44	49	43	38	41	36	32	33	30	27	23				
3	64	52	44	37	58	48	41	34	41	35	30	34	29	25	28	24	20	17				
4	57	45	36	30	53	42	34	28	35	29	24	29	24	20	24	19	16	13				
5	52	40	31	24	48	37	29	23	31	24	19	26	20	16	21	16	13	10				
6	48	35	26	20	44	32	25	19	27	21	16	23	17	13	18	14	11	8				
7	44	31	23	17	40	29	21	16	24	18	14	20	15	11	16	12	9	7				
8	40	28	20	15	37	26	19	14	22	16	12	18	13	10	15	11	8	6				
9	38	25	18	13	35	24	17	12	20	14	10	17	12	8	14	10	7	5				
10	35	23	16	11	32	22	15	11	18	13	9	15	11	7	13	9	6	4				

Zonal Lumen Summary

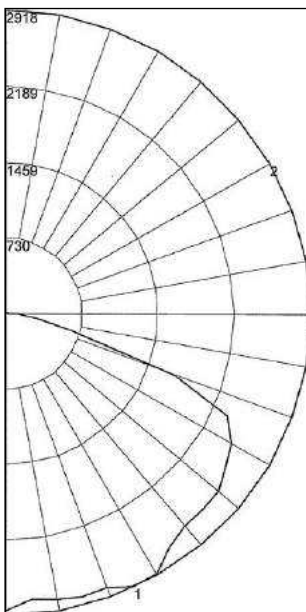
Zone	Lumens	% Lamp	% Fixture	Zone	Lumens	% Lamp	% Fixture
0-30	525.75	3.3	3.8	90-120	4858.16	30.4	35.3
0-40	1136.81	7.1	8.3	90-130	5299.62	33.1	38.5
0-60	3406.12	21.3	24.7	90-150	5312.56	33.2	38.5
0-90	8463.75	52.9	61.4	90-180	5313.30	33.2	38.6
				0-180	13777.05	86.1	100.0

Total Luminaire Efficiency = 73.6%

CIE Type – Direct

Plane	Spacing Criteria
0-180	1.46
90-270	1.46
Diagonal	1.68

Zone	Lumens
0-10	266.98
10-20	799.41
20-30	1337.05
30-40	1732.06
40-50	2067.60
50-60	2317.60
60-70	2210.81
70-80	866.77
80-90	145.09
90-100	14.46
100-110	8.75
110-120	7.93
120-130	4.51
130-140	2.16
140-150	0.48
150-160	0.00
160-170	0.00
170-180	0.00



REPORT NUMBER: LP15LST

150 W High Pressure Sodium fixture with Standard Dome Reflector *

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

% Ceiling Rcc		80				70				50				30				10				0
% Walls Rw		70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
0	88	88	88	88	86	86	86	86	82	82	82	78	78	78	75	75	75	73				
1	79	76	72	69	77	74	71	68	71	68	66	68	66	64	65	64	62	60				
2	71	65	59	55	69	63	58	54	61	57	53	58	55	52	56	53	50	49				
3	64	56	49	44	62	55	49	44	52	47	43	50	46	42	48	45	41	40				
4	58	49	42	36	57	48	41	36	46	40	36	44	39	35	42	38	35	33				
5	53	43	36	31	52	42	35	30	40	35	30	39	34	30	38	33	29	28				
6	49	38	31	26	47	38	31	26	36	30	26	35	30	25	34	29	25	24				
7	45	34	27	23	44	34	27	23	33	27	22	31	26	22	30	26	22	20				
8	42	31	24	20	40	31	24	20	30	24	20	29	23	19	28	23	19	18				
9	39	28	22	18	38	28	22	18	27	21	17	26	21	17	25	21	17	16				
10	36	26	20	16	35	26	20	16	25	19	16	24	19	16	23	19	15	14				

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture	Zone	Lumens	% Lamp	% Fixture
0-30	2403.44	15.0	20.4	90-120	31.14	0.2	0.3
0-40	4135.50	25.8	35.1	90-130	35.65	0.2	0.3
0-60	8520.70	53.3	72.3	90-150	38.29	0.2	0.3
0-90	11743.37	73.4	99.7	90-180	38.29	0.3	0.3
				0-180	11781.65	73.6	100.0

① For specific Class I suitability of each fixture listed, see Thermal Suitability.

② For 175 W and 200 W fixtures, use 12" refractor only for Groups E, F and G. Heat-resistant glass globe supplied with 175 W and 200 W fixtures.

Mercmaster™ II HID Luminaires

150 W HPS

* Photometric data is based on fixtures with 150-watt clear High Pressure Sodium lamp (16,000 lumen). For candlepower values of fixtures with other HPS lamps, use the following multipliers; for 100 W (9,500 lumen) HPS lamp – 0.594; for 70 W (6,400 lumen) HPS lamp – 0.40; for 50 W (4,000 lumen) HPS lamp – 0.25. For candlepower values of fixture with guard, multiply by 0.95.

NEC:

Class I, Division 2, Groups A, B, C, D ①
Class II, Division 1 and 2, Groups E, F, G ②
Class III
Fixtures Outside Type (Salt Water)

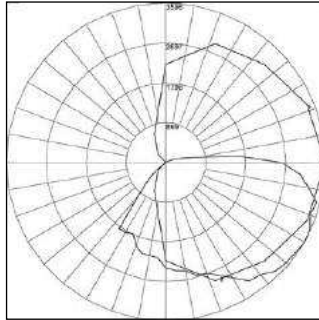
Photometric Data

Total Luminaire Efficiency = 73.1%

CIE Type – Direct

Plane	Spacing Criteria
0-180	2.06
90-270	1.58
Diagonal	1.62

Zone	Lumens
0-10	222.62
10-20	664.60
20-30	1084.32
30-40	1536.55
40-50	1771.90
50-60	1771.51
60-70	1668.93
70-80	1422.36
80-90	994.54
90-100	432.23
100-110	104.58
110-120	20.99
120-130	1.21
130-140	0.04
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00



REPORT NUMBER: LP15LAN

150 W High Pressure Sodium fixture with 30° Angle Dome Reflector *

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

% Ceiling Rcc	80				70				50				30				10				0
% Walls R _w	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
0	86	86	86	86	84	84	84	84	79	79	79	75	75	75	71	71	71	70	71	71	70
1	76	71	67	63	73	69	65	62	65	62	59	62	59	57	58	56	54	52	58	56	52
2	68	60	54	49	65	58	53	48	55	50	46	52	48	45	49	46	43	41	49	46	41
3	61	52	45	39	59	50	44	39	48	42	37	45	40	36	43	39	35	33	43	39	33
4	55	45	38	32	53	44	37	32	42	36	31	39	34	30	37	33	29	27	37	33	27
5	50	40	33	27	49	39	32	27	37	31	26	35	30	25	33	29	25	23	33	29	23
6	46	36	28	23	45	35	28	23	33	27	22	31	26	22	30	25	21	20	30	25	20
7	43	32	25	20	41	31	25	20	30	24	19	28	23	19	27	22	19	17	27	22	17
8	40	29	22	18	38	28	22	17	27	21	17	26	21	17	25	20	16	15	25	20	15
9	37	26	20	16	36	26	20	16	25	19	15	24	19	15	23	18	15	13	23	18	13
10	35	24	18	14	33	24	18	14	23	17	14	22	17	13	21	16	13	12	21	16	12

Zonal Lumen Summary

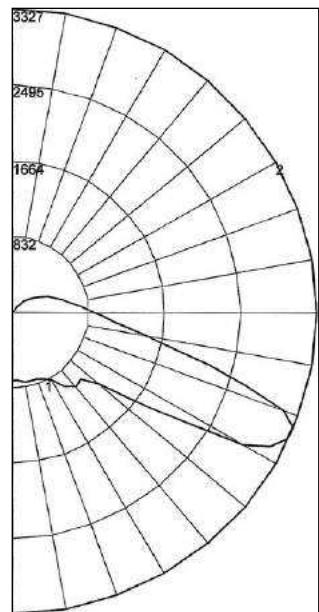
Zone	Lumens	% Lamp	% Fixture	Zone	Lumens	% Lamp	% Fixture
0-30	1971.54	12.3	16.9	90-120	557.80	3.5	4.8
0-40	3508.09	21.9	30.0	90-130	559.01	3.5	4.8
0-60	7051.50	44.1	60.3	90-150	559.04	3.5	4.8
0-90	11137.33	69.6	95.2	90-180	559.04	3.5	4.8
				0-180	11696.38	73.1	100.0

Total Luminaire Efficiency = 81.1%

CIE Type – Semi-Direct

Plane	Spacing Criteria
0-180	1.98
90-270	1.98
Diagonal	3.40

Zone	Lumens
0-10	72.83
10-20	222.26
20-30	380.73
30-40	621.11
40-50	852.53
50-60	1765.29
60-70	3192.58
70-80	2366.61
80-90	1230.65
90-100	450.14
100-110	712.41
110-120	499.15
120-130	323.44
130-140	185.00
140-150	81.31
150-160	21.08
160-170	2.81
170-180	0.00



REPORT NUMBER: LP15LJ

150 W High Pressure Sodium fixture with
8" Prismatic Glass Refractor – NEMA Type V *

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

% Ceiling Rcc	80				70				50				30				10				0
% Walls R _w	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
0	93	93	93	93	89	89	89	89	82	82	82	76	76	76	70	70	70	67	70	70	67
1	80	73	68	63	76	70	65	61	64	60	56	58	55	52	53	50	48	45	53	50	45
2	69	59	51	45	65	56	49	43	51	45	40	46	41	37	41	37	34	31	41	37	34
3	61	49	40	33	57	47	38	32	42	35	29	38	32	27	34	29	25	22	34	29	22
4	54	42	32	25	51	40	31	24	35	28	22	32	26	21	28	23	19	16	28	23	19
5	49	36	27	20	46	34	26	19	31	23	18	27	21	16	24	19	15	12	24	19	15
6	45	32	23	16	42	30	22	16	27	20	14	24	18	13	21	16	12	10	21	16	12
7	41	28	20	14	38	27	19	13	24	17	12	24	15	11	19	14	10	8	19	14	10
8	38	25	17	12	36	24	16	11	22	15	10	19	14	9	17	12	8	6	17	12	8
9	35	23	15	10	33	22	15	10	20	13	9	18	12	8	16	11	7	5	16	11	7
10	33	21	14	9	31	20	13	9	18	12	8	16	11	7	15	10	6	5	15	10	6

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture	Zone	Lumens	% Lamp	% Fixture
0-30	675.83	4.2	5.2	90-120	1661.70	10.4	12.8
0-40	1296.93	8.1	10.0	90-130	1985.14	12.4	15.3
0-60	3914.76	24.5	30.2	90-150	2251.45	14.1	15.3
0-90	10704.60	66.9	82.5	90-180	2275.34	14.2	17.5
				0-180	12979.94	81.1	100.0

① For specific Class I suitability of each fixture listed, see Thermal Suitability.

② For 175 W and 200 W fixtures, use 12" refractor only for Groups E, F and G. Heat-resistant glass globe supplied with 175 W and 200 W fixtures.

Mercmaster™ II HID Luminaires

175 W PSMH

* Photometric data is based on fixtures with 175-watt clear Pulse Start Metal Halide lamp (17,500 lumen). For candlepower values of fixtures with other PSMH lamps, use the following multipliers: for 250 W (23,750 lumen) PSMH lamp – 1.36; for 100 W (8,500 lumen) PSMH lamp – 0.49. For candlepower values of fixture with guard, multiply by 0.95.

NEC:

Class I, Division 2, Groups A, B, C, D ①
Class II, Division 1 and 2, Groups E, F, G ②
Class III
Fixtures Outside Type (Salt Water)

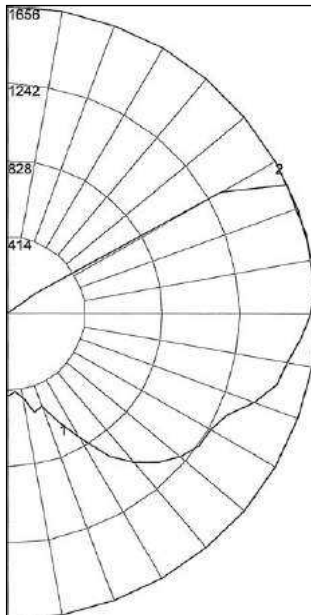
Photometric Data

Total Luminaire Efficiency = 75.4%

CIE Type – General Diffuse

Plane	Spacing Criteria
0-180	n/a
90-270	n/a
Diagonal	n/a

Zone	Lumens
0-10	42.67
10-20	151.27
20-30	305.99
30-40	587.79
40-50	880.58
50-60	1114.51
60-70	1306.71
70-80	1568.03
80-90	1720.24
90-100	1797.50
100-110	1750.20
110-120	1559.14
120-130	391.09
130-140	7.81
140-150	3.19
150-160	0.61
160-170	0.18
170-180	0.00



REPORT NUMBER: LP17PGG

175 W Pulse Start Metal Halide fixture with Globe only *

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

% Ceiling	Rcc	80				70				50			30			10			0
% Walls	Rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	82	82	82	82	77	77	77	77	66	66	66	57	57	57	48	48	48	44	
1	70	65	60	55	65	60	56	52	51	47	44	42	40	37	35	33	31	27	
2	62	54	47	42	57	50	44	39	42	37	33	35	31	28	28	25	22	19	
3	55	46	38	33	51	42	36	30	35	30	26	29	25	21	23	20	17	14	
4	50	40	32	26	46	37	30	24	31	25	21	25	21	17	20	16	13	11	
5	46	35	27	22	42	32	25	20	27	21	17	22	17	14	17	14	11	8	
6	42	31	23	18	38	28	22	17	24	18	14	20	15	12	15	12	9	7	
7	38	27	20	15	35	25	19	14	21	16	12	18	13	10	14	10	8	6	
8	35	25	18	13	32	23	17	12	19	14	10	16	12	9	13	9	7	5	
9	33	22	16	12	30	21	15	11	17	13	9	14	10	7	12	8	6	4	
10	31	20	14	10	28	19	13	9	16	11	8	13	9	7	11	7	5	3	

Zonal Lumen Summary

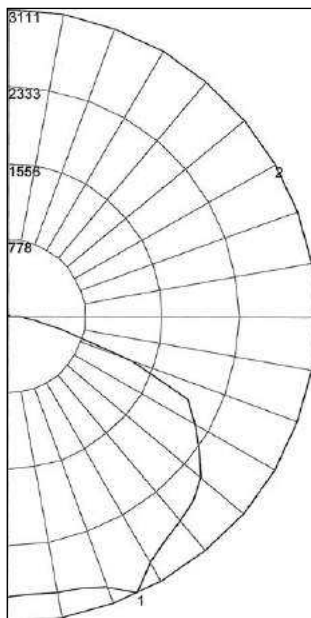
Zone	Lumens	% Lamp	% Fixture	Zone	Lumens	% Lamp	% Fixture
0-30	499.93	2.9	3.8	90-120	5106.84	29.2	38.7
0-40	1087.72	6.2	8.2	90-130	5497.93	31.4	41.7
0-60	3082.80	17.6	23.4	90-150	5508.93	31.5	41.7
0-90	7677.78	43.9	58.2	90-180	5509.71	31.5	41.8
				0-180	13187.48	75.4	100.0

Total Luminaire Efficiency = 63.8%

CIE Type – Direct

Plane	Spacing Criteria
0-180	1.50
90-270	1.50
Diagonal	1.66

Zone	Lumens
0-10	271.72
10-20	817.50
20-30	1392.53
30-40	1749.97
40-50	2044.83
50-60	2121.25
60-70	1862.42
70-80	720.46
80-90	141.89
90-100	14.66
100-110	8.28
110-120	9.57
120-130	5.69
130-140	3.14
140-150	2.17
150-160	1.71
160-170	1.70
170-180	0.36



REPORT NUMBER: LP17PST

175 W Pulse Start Metal Halide fixture with Standard Dome Reflector *

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

% Ceiling	Rcc	80				70				50			30			10			0
% Walls	Rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	76	76	76	76	74	74	74	74	71	71	71	68	68	68	65	65	65	64	
1	69	66	63	61	67	65	62	60	62	60	58	59	57	56	57	55	54	53	
2	62	57	52	48	61	56	51	48	53	50	47	51	48	46	49	47	45	43	
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6	43	34	28	24	42	33	28	24	32	27	23	31	27	23	30	26	23	22	
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8	37	28	22	18	36	27	22	18	26	22	18	26	21	18	25	21	18	16	
9	34	25	20	16	33	25	20	16	24	19	16	23	19	16	23	19	16	15	
10	32	23	18	15	31	23	18	15	22	18	14	22	17	14	21	17	14	13	

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture	Zone	Lumens	% Lamp	% Fixture
0-30	2481.75	14.2	22.2	90-120	32.51	0.2	0.3
0-40	4231.72	24.2	37.9	90-130	38.20	0.2	0.3
0-60	8397.80	48.0	75.2	90-150	43.51	0.2	0.3
0-90	11122.57	63.6	99.6	90-180	47.28	0.3	0.4
				0-180	11169.85	63.8	100.0

① For specific Class I suitability of each fixture listed, see Thermal Suitability.

② For 175 W and 200 W fixtures, use 12" refractor only for Groups E, F and G. Heat-resistant glass globe supplied with 175 W and 200 W fixtures.

Mercmaster™ II HID Luminaires

175 W PSMH

* Photometric data is based on fixtures with 175-watt clear Pulse Start Metal Halide lamp (17,500 lumen). For candlepower values of fixtures with other PSMH lamps, use the following multipliers: for 250 W (23,750 lumen) PSMH lamp – 1.36; for 100 W (8,500 lumen) PSMH lamp – 0.49. For candlepower values of fixture with guard, multiply by 0.95.

NEC:

Class I, Division 2, Groups A, B, C, D ①
Class II, Division 1 and 2, Groups E, F, G ②
Class III
Fixtures Outside Type (Salt Water)

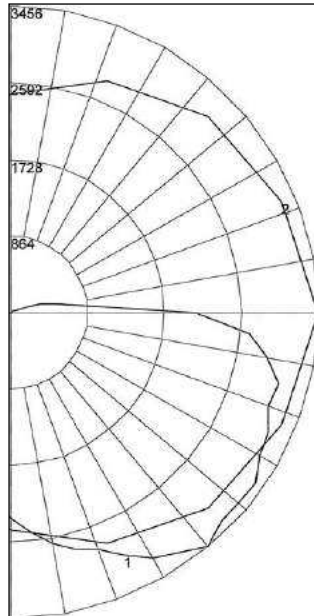
Photometric Data

Total Luminaire Efficiency = 61.6%

CIE Type – Direct

Plane	Spacing Criteria
0-180	2.02
90-270	1.62
Diagonal	1.58

Zone	Lumens
0-10	221.01
10-20	674.48
20-30	1111.79
30-40	1519.14
40-50	1697.13
50-60	1644.77
60-70	1457.83
70-80	1248.84
80-90	814.94
90-100	280.33
100-110	87.54
110-120	16.66
120-130	1.25
130-140	0.06
140-150	0.06
150-160	0.00
160-170	0.00
170-180	0.00



REPORT NUMBER: LP17PAN

175 W Pulse Start Metal Halide fixture with 30° Angle Dome Reflector *

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

% Ceiling	Rcc	80				70				50				30				10				0
% Walls	Rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
0	73	73	73	73	73	71	71	71	71	67	67	67	64	64	64	61	61	61	59	59	59	59
1	64	61	57	54	54	62	59	56	53	56	53	51	53	51	49	50	49	47	45	45	45	45
2	58	52	46	42	42	56	50	45	42	47	44	40	45	42	39	43	40	38	36	36	36	36
3	52	45	39	34	34	50	43	38	34	41	36	33	39	35	32	37	34	31	29	29	29	29
4	47	39	33	28	28	46	38	32	28	36	31	27	34	30	27	33	29	26	24	24	24	24
5	43	34	28	24	24	42	34	28	24	32	27	23	30	26	23	29	25	22	21	21	21	21
6	40	31	25	20	20	38	30	24	20	29	24	20	27	23	20	26	22	19	18	18	18	18
7	37	28	22	18	18	35	27	22	18	26	21	17	25	20	17	24	20	17	15	15	15	15
8	34	25	20	16	16	33	25	19	16	24	19	15	23	18	15	22	18	15	14	14	14	14
9	32	23	18	14	14	31	23	17	14	22	17	14	21	17	13	20	16	13	12	12	12	12
10	30	21	16	13	13	29	21	16	12	20	15	12	19	15	12	18	15	12	11	11	11	11

Zonal Lumen Summary

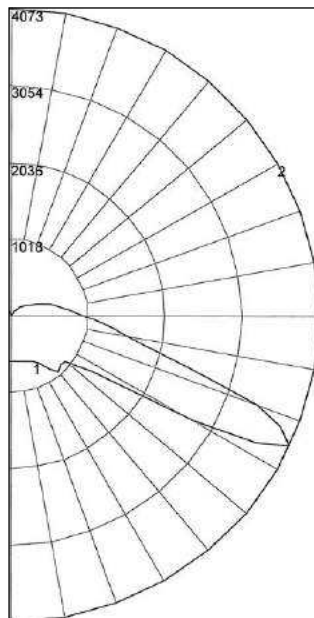
Zone	Lumens	% Lamp	% Fixture	Zone	Lumens	% Lamp	% Fixture
0-30	2007.28	11.5	18.6	90-120	384.53	2.2	3.6
0-40	3526.41	20.2	32.7	90-130	385.77	2.2	3.6
0-60	6868.32	39.2	63.7	90-150	385.89	2.2	3.6
0-90	10389.94	59.4	96.4	90-180	385.89	2.2	3.6
0-180	10775.83	61.6	100.0				

Total Luminaire Efficiency = 73.9%

CIE Type – Semi-Direct

Plane	Spacing Criteria
0-180	2.08
90-270	2.08
Diagonal	3.78

Zone	Lumens
0-10	58.60
10-20	179.87
20-30	316.74
30-40	543.99
40-50	726.99
50-60	1445.41
60-70	3661.34
70-80	2432.42
80-90	1351.63
90-100	477.79
100-110	717.26
110-120	474.07
120-130	293.44
130-140	163.08
140-150	70.40
150-160	18.48
160-170	2.58
170-180	0.00



REPORT NUMBER: LP17PJ

175 W Pulse Start Metal Halide fixture with Globe and 8" Prismatic Glass Refractor – NEMA Type V *

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

% Ceiling	Rcc	80				70				50				30				10				0
% Walls	Rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
0	85	85	85	85	85	82	82	82	82	75	75	75	69	69	69	64	64	64	61	61	61	61
1	72	66	61	56	56	68	63	58	54	57	54	50	52	49	46	47	45	43	40	40	40	40
2	62	53	46	39	39	59	51	44	38	46	40	35	41	36	32	37	33	30	27	27	27	27
3	55	44	35	29	29	51	41	34	28	37	31	25	33	28	23	30	25	21	19	19	19	19
4	49	37	28	22	22	46	35	27	21	31	24	19	28	22	17	25	20	16	13	13	13	13
5	44	32	23	17	17	41	30	22	16	27	20	15	24	18	14	21	16	12	10	10	10	10
6	40	28	20	14	14	37	26	19	13	24	17	12	21	15	11	19	14	10	8	8	8	8
7	37	25	17	12	12	34	23	16	11	21	15	10	19	13	9	17	12	8	6	6	6	6
8	34	22	15	10	10	32	21	14	9	19	13	8	17	12	8	15	10	7	5	5	5	5
9	31	20	13	8	8	30	19	13	8	17	11	7	16	10	7	14	9	6	4	4	4	4
10	29	18	12	7	7	28	18	11	7	16	10	6	14	9	6	13	8	5	4	4	4	4

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture	Zone	Lumens	% Lamp	% Fixture
0-30	555.22	3.2	4.3	90-120	1669.13	9.5	12.9
0-40	1099.21	6.3	8.5	90-130	1962.57	11.2	15.2
0-60	3271.60	18.7	25.3	90-150	2196.06	12.5	15.2
0-90	10717.00	61.2	82.9	90-180	2217.10	12.7	17.1
0-180	12934.11	73.9	100.0				

① For specific Class I suitability of each fixture listed, see Thermal Suitability.

② For 175 W and 200 W fixtures, use 12" refractor only for Groups E, F and G. Heat-resistant glass globe supplied with 175 W and 200 W fixtures.

Mercmaster™ II HID Luminaires

High Pressure Sodium and Pulse Start Metal Halide. Mogul Base

UNILETS® for Use with Threaded Metal Conduit.

NEC:

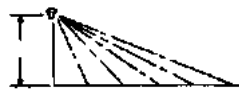
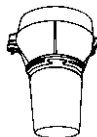
Class I, Division 2, Groups A, B, C, D ①
Class II, Division 1 and 2, Groups E, F, G ②
Class III
Fixtures Outside Type (Salt Water)

Isofootcandle Data

HPS Lamp Wattage	Mounting Height M (Ft)	Horizontal Distance from Mounting Point M (Ft)										
		0 (0)	1.5 (5)	3.0 (10)	4.6 (15)	6.1 (20)	7.6 (25)	9.1 (30)	10.7 (35)	12.2 (40)	13.7 (45)	50 (152)

Mercmaster II, High Pressure Sodium, No Reflector, No Guard

70 Watt – 5,800 Lumen
100 Watt – 9,500 Lumen
150 Watt – 16,000 Lumen



Footcandle Chart (Initial Horiz. FTC)

70	2.4 (8)	.60	2.70	1.50	.73	.38	.21	.13	.08	.06	.04	.03
	3.0 (10)	.39	1.70	1.30	.72	.40	.24	.15	.10	.07	.05	.04
	3.7 (12)	.27	1.10	1.10	.68	.41	.26	.17	.11	.08	.06	.04
	4.6 (15)	.17	.66	.81	.60	.39	.26	.18	.13	.09	.07	.05
	6.1 (20)	.10	.37	.43	.40	.33	.25	.18	.13	.10	.08	.06
100	2.4 (8)	1.00	4.80	2.70	1.20	.62	.35	.21	.14	.10	.07	.05
	3.0 (10)	.64	2.80	2.20	1.30	.67	.40	.25	.16	.11	.08	.06
	3.7 (12)	.44	1.80	1.80	1.30	.71	.42	.28	.18	.13	.09	.07
	4.6 (15)	.28	1.10	1.30	.97	.70	.45	.30	.21	.15	.11	.08
	6.1 (20)	.16	.59	.69	.70	.55	.42	.32	.23	.17	.13	.10
150	2.4 (8)	2.50	8.30	4.60	2.20	1.10	.62	.38	.25	.17	.12	.09
	3.0 (10)	1.60	5.40	4.00	2.20	1.20	.71	.44	.29	.20	.14	.11
	3.7 (12)	1.10	4.20	3.30	2.00	1.20	.76	.49	.33	.23	.17	.12
	4.6 (15)	.72	2.10	2.40	1.80	1.20	.79	.54	.38	.27	.20	.15
	6.1 (20)	.40	1.10	1.30	1.30	1.00	.73	.54	.40	.30	.23	.18

Mercmaster II, High Pressure Sodium, With Reflector, No Guard

70 Watt – 5,800 Lumen
100 Watt – 9,500 Lumen
150 Watt – 16,000 Lumen



Footcandle Chart (Initial Horiz. FTC)

70	2.4 (8)	14.80	10.00	3.80	1.50	.55	.15	.05	.03	.02	.01	.01
	3.0 (10)	9.50	7.70	3.70	1.60	.74	.32	.12	.05	.03	.02	.01
	3.7 (12)	6.60	6.60	3.30	1.50	.87	.46	.18	.10	.05	.02	.02
	4.6 (15)	4.20	4.20	2.70	1.70	.94	.56	.33	.18	.10	.06	.03
	6.1 (20)	2.40	2.50	1.90	1.30	.92	.62	.41	.28	.18	.12	.08
100	2.4 (8)	21.90	16.80	6.30	2.40	.86	.28	.08	.05	.03	.02	.01
	3.0 (10)	14.00	12.40	6.00	2.70	1.20	.53	.19	.07	.04	.03	.02
	3.7 (12)	9.70	9.40	5.50	2.80	1.40	.73	.36	.20	.13	.04	.03
	4.6 (15)	6.20	6.70	4.40	2.70	1.60	.90	.53	.33	.19	.11	.05
	6.1 (20)	3.50	4.30	3.10	2.20	1.50	1.0	.68	.44	.30	.21	.13
150	2.4 (8)	36.90	27.80	10.50	3.80	1.30	.35	.14	.08	.04	.03	.02
	3.0 (10)	23.60	20.80	10.10	4.40	2.00	.78	.29	.11	.07	.04	.03
	3.7 (12)	16.40	15.80	9.20	4.60	2.20	1.20	.54	.30	.16	.06	.04
	4.6 (15)	10.50	11.60	7.50	4.50	2.60	1.50	.86	.42	.26	.16	.08
	6.1 (20)	5.90	7.20	5.20	3.70	2.50	1.70	1.10	.73	.50	.32	.19

① For specific Class I suitability of each fixture listed, see Thermal Suitability.

② For 175 W and 200 W fixtures, use 12" refractor only for Groups E, F and G. Heat-resistant glass globe supplied with 175 W and 200 W fixtures.

Mercmaster™ Jr. Luminaires

High Pressure Sodium. Suitable for Use in Wet Locations

UNILETS® for Use with Threaded Metal Conduit. 120 V Integral Ballast. Medium Base Socket for Medium Base Lamps.

NEC:

With Globe:

35 W, 50 W:

Class I, Division 2, Groups A, B, C, D

Class II, Division 1 and 2, Groups E ②, F, G

Class III

NEC:

70 W: ①

Class I, Division 2, Groups A, B, C, D

Class II, Division 1 and 2, Groups E ②, F

100 W, 150 W: ①

Class I, Division 2, Groups A, B, C, D

NEC:

With Refractor (NEMA V):

35 W, 50 W, 70 W, 100 W:

Class I, Division 2, Groups A, B, C, D

Class II, Division 1 and 2, Groups E ②, F, G

Class III

NEC:

150 W: ①

Class I, Division 2, Groups A, B, C, D

Applications

- Inexpensive HID integrally ballasted fixture for use in hazardous locations – inexpensive to buy and inexpensive to operate (uses one-fifth as much electrical energy as incandescent and three-quarters as much as fluorescent).
- Enclosed and gasketed HID lighting fixtures for use in tunnels, walkways, bridges, storage facilities, processing plants, parking lots, foundries, manufacturing plants, power plants and other locations where moisture, dirt, dust or corrosive atmospheres are encountered.

Features

- “Wireless” design. Threading of fixture unit onto mounting hood makes electrical connection. Only wiring required is attaching two wires to connection block in mounting hood.
- Safe, easy servicing without disconnecting any wiring. “Wireless” fixture unit easily threads off mounting hood for convenient servicing.
- Quick, easy conversion from Appleton V-51® incandescent installation to Mercmaster Jr. HID. Just remove V-51® fixture unit and thread Mercmaster Jr. fixture unit onto existing V-51® mounting hood.
- Choice of mounting hoods. Standard fixtures in pendant, ceiling, outlet box, wall and stanchion mountings.
- Standard pendant mounting hood for rigid or flexible mounting. Balanced round design automatically hangs plumb when used with flexible hanger.
- Unitized construction reduces installation and maintenance costs.
- Ballast has standard non-PCB biodegradable capacitors.
- Medium base socket is furnished with 200 °C (392 °F) leads, prewired to the ballast. Porcelain socket assures trouble-free operation in high ambient installations.
- Prismatic glass globe or glass refractor is standard and threads directly into fixture housing. Eliminates glare and provides uniform light distribution.
- Fiberglass reinforced polyester reflector for exceptionally severe corrosive atmospheres. Vented for cooler, dirt-free operation, increased lumen output.

Standard Materials

- Mounting hoods: copperfree (4/10 of 1% max.) aluminum or malleable iron
- Ballast bodies: copperfree (4/10 of 1% max.) aluminum
- Guards: copperfree (4/10 of 1% max.) aluminum or steel
- Reflectors: fiberglass reinforced polyester or porcelain
- Globe: 35 W-100 W, threaded prismatic glass and threaded polycarbonate; 150 W, threaded heat-resistant prismatic glass
- Refractor: heat-resistant prismatic glass

Standard Finishes

- Ballast bodies, aluminum guard and VMA, VXHA-A, OBWV1-A, OBV1-A, JBW1-A, JB1-A, GSW2 and MS mounting hoods: epoxy powder coat finish, electrostatically applied for complete, uniform surface protection
- VA, VXHA, OBWV1, OBV1, GS-2, JBW1, and JB1 malleable iron mounting hoods: triple coat – (1) zinc electroplate; (2) chromate; and (3) epoxy powder coat
- Steel guard: zinc electroplate



Illustrated Feature

Conversion from Appleton V-51 incandescent installation to HID Mercmaster Jr. is easy and fast.



Step No. 1:

After power is shut off, remove present incandescent V-51 fixture unit from existing V-51 mounting hood.



Step No. 2:

Thread Mercmaster Jr. HID fixture unit onto existing V-51 mounting hood – and conversion is completed.

Options

- Fuses for fixtures, factory installed. Add suffix -F.

NEC Certifications and Compliances

- UL Standard: UL 1598, UL 1598A, UL 844
- UL Listed: E10444

① The MJBW Wall Mount Fixture is suitable for Class I, Division 2, Groups A, B, C and D only.

② Per NEC 500.6(1), there is no such classification as Class II, Division 2, Group E.

Mercmaster™ Jr. Luminaires

High Pressure Sodium. Suitable for Use in Wet Locations

UNILETS® for Use with Threaded Metal Conduit. 120 V Integral Ballast. Medium Base Socket for Medium Base Lamps.

NEC:
With Globe:
35 W, 50 W:
Class I, Division 2, Groups A, B, C, D
Class II, Division 1 and 2, Groups E ②, F, G
Class III

NEC:
70 W: ①
Class I, Division 2, Groups A, B, C, D
Class II, Division 1 and 2, Groups E ②, F
100 W, 150 W: ①
Class I, Division 2, Groups A, B, C, D

NEC:
With Refractor (NEMA V):
35 W, 50 W, 70 W, 100 W:
Class I, Division 2, Groups A, B, C, D
Class II, Division 1 and 2, Groups E ②, F, G
Class III

NEC:
150 W: ①
Class I, Division 2, Groups A, B, C, D

Thermal Suitability

Table at below shows maximum operating temperatures of Mercmaster Jr. fixtures for Class I, Division 2, in a 40 °C (104 °F) ambient. Per NEC 500.8(B)(4), the temperature marking on fixtures shall not exceed the ignition temperature of the specific gas or vapor to be encountered. NEC 500.8(B)(4) states that these markings (Identification Numbers) "marked on equipment nameplates shall be in accordance with Table NEC 500.8(C)." This NEC table is duplicated, as it applies to Appleton Mercmaster Jr. fixtures, in the table below.

As shown, the higher the Temperature Identification Number, the cooler the fixture operates. Keep this in mind when selecting a fixture for a specific gas or vapor.

Example:

- Gasoline (56-60 octane)
- Fixture with Globe and Reflector

To determine Mercmaster Jr. thermal suitability for the above example:

- (1) Check the Thermal Suitability on the following page for ignition temperature of gas or vapor to be encountered. It reveals that 56-60 octane gasoline has an ignition temperature of 280 °C (536 °F).
- (2) Look in table below for fixtures under "With Globe and Reflector" that do not exceed the 280 °C (536 °F) ignition temperature of the gasoline.
- (3) Select the best fixture for your purpose. The 35 W, 50 W, 70 W or 100 W fixture with globe and reflector is acceptable because none of these fixture lamp surfaces exceed the 280 °C (536 °F) ignition temperature of the gasoline.

Temperature Identification Numbers

Class I, Division 2, Groups A, B, C and D					Class II, Division 1 and 2, Groups E, F and G		
With Globe or with Globe and Reflector			With 8" Refractor		With Globe, with Globe and Reflector, or with 8" Refractor		
Lamp Watts	Name—plate Marking	Temperature Range °C (°F)	Nameplate Marking	Temperature Range °C (°F)	Nameplate Marking	Temperature Range °C (°F)	Groups
35	T4	121-135 (250-275)	T4	121-135 (250-275)	T4C	101-120 (214-248)	E, F, G
50	T2D	201-215 (394-419)	T3	181-200 (358-392)	T3C	136-160 (277-320)	E, F, G
70	T2B	231-260 (448-500)	T2C	216-230 (421-446)	T3B	161-165 (322-329)	E, F, G ③
100	T2A	261-280 (502-536)	T2B	231-260 (448-500)	—	—	E, F, G ④
150	T2	281-300 (538-572)	T2A	261-280 (502-536)	—	—	—

Ambient Suitability of Mercmaster Jr. Fixtures

All fixtures suitable for operation at -40 °C (-40 °F).

35W	50W	70W	100W	150W
40 °C (104 °F)	40 °C (104 °F)	25 °C (77 °F)	25 °C (77 °F)	25 °C (77 °F)

Retrofits Incandescent Fixtures Easily and Quickly

- 35 W HPS Comparable to 100/150 W Incandescent Lamp
- 50 W HPS Comparable to 200 W Incandescent Lamp
- 70 W HPS Comparable to 300 W Incandescent Lamp
- 100 W HPS Comparable to 1.5 300 W Incandescent Lamp ⑤
- 150 W HPS Comparable to 2.5 300 W Incandescent Lamp ⑤

Electrical Specifications (Reactor Ballasts)

Lamp Watts	Line Voltage 60 Hz	Line Current in Amperes		Input Watts
		Starting HPF	Operating HPF	
35	120	0.41	0.38	43
50	120	0.62	0.56	60
70	120	0.70	0.73	82
100	120	1.10	1.00	115
150	120	1.70	1.50	170

Optional Factory-Installed Fuses – Add Suffix -F

Available as a factory installed item with Mercmaster Jr. fixtures.

① The MJBW Wall Mount Fixture is suitable for Class I, Division 2, Groups A, B, C and D only.

② Per NEC 500.6(1), there is no such classification as Class II, Division 2, Group E.

③ 70W suitable for Groups E and F with globe; suitable for Groups E, F, and G with refractor.

④ 100W suitable for Groups E, F and G with refractor only.

⑤ These are guidelines only. Light distribution and other factors must be taken into consideration.

Mercmaster™ Jr. Luminaires

35 W, 50 W, 70 W, 100 W, 150 W HPS

Complete with Mounting Hood. Medium Base Socket. High Power Factor (Min. P.F. 90%). Integral Ballast for 120 V Line Operation.

NEC:

With Globe:

35 W, 50 W:

Class I, Division 2, Groups A, B, C, D

Class II, Division 1 and 2, Groups E, F, G

Class III

NEC:

70 W: ①

Class I, Division 2, Groups A, B, C, D

Class II, Division 1 and 2, Groups E, F, G

100 W, 150 W: ①

Class I, Division 2, Groups A, B, C, D

NEC:

With Refractor (NEMA V):

35 W, 50 W, 70 W, 100 W:

Class I, Division 2, Groups A, B, C, D

Class II, Division 1 and 2, Groups E, F, G

Class III

NEC:

150 W: ①

Class I, Division 2, Groups A, B, C, D

With Globe, Less Guard	With Refractor (NEMA V)	Lamp Watts	ANSI Lamp Type	Hub Size (Inches)	Catalog Number ⑥	
Pendant — Aluminum mounting hood and ballast body. One Hub, Rigid or Flexible Mounting						
		35	S76	3/4 1	MA3575-120 MA3510-120	MA3575J-120 MA3510J-120
		50	S68	3/4 1	MA5075-120 MA5010-120	MA5075J-120 MA5010J-120
		70	S62	3/4 1	MA7075-120 MA7010-120	MA7075J-120 MA7010J-120
		100	S54	3/4 1	MA1075-120 MA1010-120	MA1075J-120 MA1010J-120
		150	S55	3/4 1	MA1575-120 MA1510-120	MA1575J-120 MA1510J-120
Ceiling — Aluminum mounting hood and ballast body. Five Hubs, Four Close-Up Plugs						
		35	S76	3/4 1	MC3575-120 MC3510-120	MC3575J-120 MC3510J-120
		50	S68	3/4 1	MC5075-120 MC5010-120	MC5075J-120 MC5010J-120
		70	S62	3/4 1	MC7075-120 MC7010-120	MC7075J-120 MC7010J-120
		100	S54	3/4 1	MC1075-120 MC1010-120	MC1075J-120 MC1010J-120
		150	S55	3/4 1	MC1575-120 MC1510-120	MC1575J-120 MC1510J-120
Wall ⑥ — Malleable iron mounting hood and aluminum ballast body. Gasket and screws furnished with fixture. Fits GSU Cast Boxes						
		35	S76	—	MGSW35-120	MGSW35J-120
		50	S68	—	MGSW50-120	MGSW50J-120
		70	S62	—	MGSW70-120	MGSW70J-120
		100	S54	—	MGSW10-120	MGSW10J-120
		150	S55	—	MGSW15-120	MGSW15J-120
Wall ⑥⑥ — Class I, Division 2 only. Aluminum mounting hood and ballast body. Gasket and screws furnished with fixture. Fits JBX Cast Boxes						
		35	S76	—	MJBW35-120	MJBW35J-120
		50	S68	—	MJBW50-120	MJBW50J-120
		70	S62	—	MJBW70-120	MJBW70J-120
		100	S54	—	MJBW10-120	MJBW10J-120
		150	S55	—	MJBW15-120	MJBW15J-120
25° Stanchion ⑥ — Aluminum mounting hood and ballast body. One hub						
		35	S76	1-1/4 1-1/2	MS35125-120 MS35150-120	MS35125J-120 MS35150J-120
		50	S68	1-1/4 1-1/2	MS50125-120 MS50150-120	MS50125J-120 MS50150J-120
		70	S62	1-1/2 1-1/2	MS70125-120 MS70150-120	MS70125J-120 MS70150J-120
		100	S54	1-1/4 1-1/2	MS10125-120 MS10150-120	MS10125J-120 MS10150J-120
		150	S55	1-1/4 1-1/2	MS15125-120 MS15150-120	MS15125J-120 MS15150J-120

① Per NEC 500.6(1), there is no such classification as Class II, Division 2, Group E.

② The MJBW Wall Mount Fixture is suitable for Class I, Division 2, Groups A, B, C and D only.

③ All fixtures on this page comply with UL Standard 844 except MJBW Wall Mount Fixture, which is not suitable for Class II, Division 1.

④ Using cast outlet box with Wall Mount Fixture provides the following clearances: for the globe – JBX box, 1-5/8" from wall; GSU box, 2" from wall; for the refractor – JBX box, 15/16" from wall; GSU box, 1-5/16" from wall. Reflectors cannot be used with the wall mount fixtures.

⑤ Stanchion Mount can be used with standard dome or 30° angle reflector.

⑥ To order fixture with guard, add -G before voltage (example: MA3575G-120).

Mercmaster™ Jr. Luminaires

High Pressure Sodium. Suitable for Use in Wet Locations

UNILETS® for Use with Threaded Metal Conduit. 120 V Integral Ballast. Medium Base Socket for Medium Base Lamps.

NEC: With Globe: 35 W, 50 W: Class I, Division 2, Groups A, B, C, D Class II, Division 1 and 2, Groups E ②, F, G Class III	NEC: 70 W: ① Class I, Division 2, Groups A, B, C, D Class II, Division 1 and 2, Groups E ②, F 100 W, 150 W: ① Class I, Division 2, Groups A, B, C, D	NEC: With Refractor (NEMA V): 35 W, 50 W, 70 W, 100 W: Class I, Division 2, Groups A, B, C, D Class II, Division 1 and 2, Groups E ②, F, G Class III	NEC: 150 W: ① Class I, Division 2, Groups A, B, C, D

With Globe	With 8" Refractor	Description	Lamp Watts	ANSI Lamp Type	Catalog Number With Globe ③	Catalog Number With 8" Refractor
Outlet Box Fixture						
		Aluminum ballast housing, complete with aluminum mounting hood. Epoxy clad.	35	S76	MOB35-120	MOB35J-120
			50	S68	MOB50-120	MOB50J-120
			70	S62	MOB70-120	MOB70J-120
		Use with SEH and 3-1/4" or 4" Octagonal Outlet Box. Fixture furnished with mounting plate and gasket. Octagonal boxes not suitable for classified locations.	100	S54	MOB10-120	MOB10J-120
			150	S55	MOB15-120	MOB15J-120

	Lamp Watts	ANSI Lamp Type	Catalog Number
Fixture Units			
	S76	35	MUL35-120
	S68	50	MUL50-120
	S62	70	MUL70-120
	S54	100	MUL100-120
	S55	150	MUL150-120

Ballast Bodies			
	S76	35	MBL35-120
	S68	50	MBL50-120
	S62	70	MBL70-120
	S54	100	MBL100-120
	S55	150	MBL150-120

① Per NEC 500.6(1), there is no such classification as Class II, Division 2, Group E.
 ② The MJBW Wall Mount Fixture is suitable for Class I, Division 2, Groups A, B, C and D only.
 ③ Order JBX or GSU box on following page.

Mercmaster™ Jr. Luminaires

High Pressure Sodium. Suitable for Use in Wet Locations

UNILETS® for Use with Threaded Metal Conduit. 120 V Integral Ballast. Medium Base Socket for Medium Base Lamps.

NEC:

With Globe:

35 W, 50 W:

Class I, Division 2, Groups A, B, C, D

Class II, Division 1 and 2, Groups E ②, F, G

Class III

NEC:

70 W: ①

Class I, Division 2, Groups A, B, C, D

Class II, Division 1 and 2, Groups E ②, F

100 W, 150 W: ①

Class I, Division 2, Groups A, B, C, D

NEC:

With Refractor (NEMA V):

35 W, 50 W, 70 W, 100 W:

Class I, Division 2, Groups A, B, C, D

Class II, Division 1 and 2, Groups E ②, F, G

Class III

NEC:

150 W: ①

Class I, Division 2, Groups A, B, C, D

Mounting Hoods

		Hub Size (Inches)	Catalog Number	
			Aluminum	Malleable Iron
Pendant Mounting Furnished with connection block, gasket and screws				
 VMA  VA		1/2	—	VA50
		3/4	VMA75	VA75
		1	VMA100	VA100
Ceiling Mounting Five Hubs. Furnished with connection block, gasket, screws and four close-up plugs				
 VXHA		1/2	VXHA50-A	VXHA50
		3/4	VXHA75-A	VXHA75
		1	VXHA100-A	VXHA100
Cast/Outlet Box Mounting Furnished with connection block, mounting plate and gasket. Octagonal outlet box not suitable for classified locations. Fits SEH and 3-1/4" or 4" Octagonal Box ③				
 OBVW  OBV	Wall ⑥		OBVW1-A	OBVW1
	Ceiling		OBV1-A	OBV1
GS Round Base – Fits GSU Cast Boxes ④ ⑤ Furnished with connection block, gasket and screws				
 GSW  GS	Wall ⑥		—	GSW2
	Ceiling		—	GS2
JB Round Base – Fits JBX Cast Boxes ④ ⑤ Furnished with connection block, gasket and screws				
 JBW  JB	Wall ⑥		JBW1-A	JBW1
	Ceiling		JB1-A	JB1
Stanchion Mounting ⑦ 25° Stanchion furnished with connection block and screws.				
 MS		1-1/4	MS-125	—
		1-1/2	MS-150	—
JBX Cast Conduit Outlet Boxes ④				
 JBX	Aluminum. 1-5/16" inside depth. Four tapped openings, two close-up plugs and mounting lugs. Use with JBW wall mount fixture and JB round base mounting hoods	1/2	JBX50L-A	—
		3/4	JBX75L-A	—
GSU Cast Conduit Outlet Box (Form 20) ⑤				
 GSU-20  GSU-100	Malleable iron. 1-3/4" inside depth. Four 3/4" hubs with four 3/4" to 1/2" reducers, and three 1/2" close-up plugs. Use with GSW wall mount fixture and GS round base mounting hoods	1/2 or 3/4	—	GSU-20
		1	—	GSU-100

① The MJBW Wall Mount Fixture is suitable for Class I, Division 2, Groups A, B, C and D only.

② Per NEC 500.6(1), there is no such classification as Class II, Division 2, Group E.

③ Order SEH box from catalog section A and octagonal box from Section OB. To order fixture with guard, add G before voltage (example: MOB35G-120).

④ Order JBX below. Using JBX Box with these fixtures and mounting hoods provides 15/16" clearance from wall with refractor and 1-5/8" clearance from wall with globe.

⑤ Order GSU below. Using GSU Box with these fixtures and mounting hoods provides 1-5/16" clearance from wall with refractor and 2" clearance from wall with globe.

⑥ Reflectors cannot be used with wall mount fixtures. See dimensions for globe or refractor clearance from wall for these fixtures.

⑦ Stanchion mounting hood can be used with standard dome or 30° angle reflector.

Mercmaster™ Jr. Luminaires

High Pressure Sodium. Suitable for Use in Wet Locations

UNILETS® for Use with Threaded Metal Conduit. 120 V Integral Ballast. Medium Base Socket for Medium Base Lamps.

NEC: <i>With Globe:</i> 35 W, 50 W: Class I, Division 2, Groups A, B, C, D Class II, Division 1 and 2, Groups E ②, F, G Class III	NEC: 70 W: ① Class I, Division 2, Groups A, B, C, D Class II, Division 1 and 2, Groups E ②, F 100 W, 150 W: ① Class I, Division 2, Groups A, B, C, D	NEC: <i>With Refractor (NEMA V):</i> 35 W, 50 W, 70 W, 100 W: Class I, Division 2, Groups A, B, C, D Class II, Division 1 and 2, Groups E ②, F, G Class III	NEC: 150 W: ① Class I, Division 2, Groups A, B, C, D

Description	Catalog Number

Globes – 35 W-150 W



VPGL-1HR



VPGL-2PL

Clear Heat-Resistant Prismatic Glass
Polycarbonate (100W lamp max.) ④

VPGL-1HR
VPGL-2PL

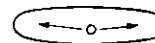
Description	Light Distribution	IES/NEMA Distribution Curves	Catalog Number

Refractors – 35 W-150 W



Closed Prismatic Glass 8" Refractors

NEMA Type II



LPJR-2CG

NEMA Type V



LPJR-5CG

Description	Catalog Number Porcelain	Polyester

Reflectors – 35 W-150 W ③



Standard



30° Angle

Standard (porcelain, 16" dia.; polyester, 16-1/4" dia.)
30° Angle (porcelain, 12" dia.; polyester, 14-3/8" dia.)

LPR-25ST
LPR-25AN

LPRP-25ST
LPRP-25AN

Description	Catalog Number

Guards – 35 W-150 W



VPGU-1



LPBG-8

Copperfree Aluminum Guard

VPGU-1

Steel Guard for 8" Refractors

LPBG-8

Socket



35 W-150 W (Medium Base)

JRS-100

Gasket



Globe Gasket, Silicone Rubber – 35W-150W

VPGL-GK

① The MJBW Wall Mount Fixture is suitable for Class I, Division 2, Groups A, B, C and D only.

② Per NEC 500.6(1), there is no such classification as Class II, Division 2, Group E.

③ V-51 reflectors cannot be used with Mercmaster Jr. Fixtures.

④ Do not use Polycarbonate Globes in ambients exceeding +25 °C (+77 °F). These globes for burning in vertical base-up position only.

Mercmaster™ Jr. Luminaires

35 W, 50 W, 70 W, 100 W, 150 W

UNILETS® for Use with Threaded Metal Conduit. 120 V Integral Ballast. Medium Base Socket for Medium Base Lamps.

NEC:

With Globe:

35 W, 50 W:
Class I, Division 2, Groups A, B, C, D
Class II, Division 1 and 2, Groups E ②, F, G
Class III

NEC:

70 W: ①
Class I, Division 2, Groups A, B, C, D
Class II, Division 1 and 2, Groups E ②, F
100 W, 150 W: ①
Class I, Division 2, Groups A, B, C, D

NEC:

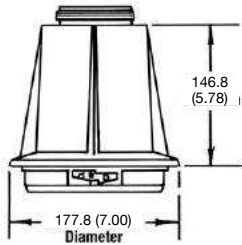
With Refractor (NEMA V):

35 W, 50 W, 70 W, 100 W:
Class I, Division 2, Groups A, B, C, D
Class II, Division 1 and 2, Groups E ②, F, G
Class III

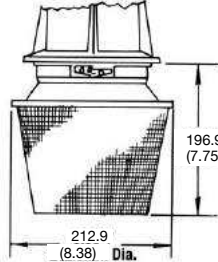
NEC:

150 W: ①
Class I, Division 2, Groups A, B, C, D

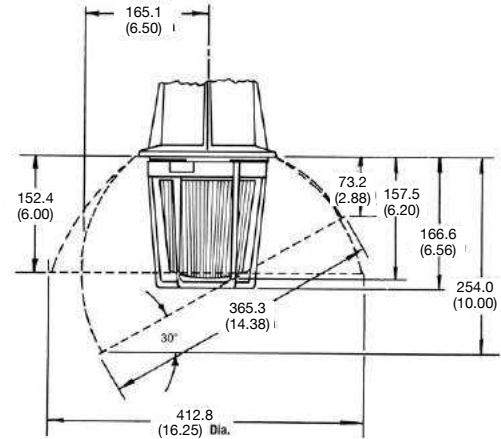
Dimensions in Millimeters (Inches)



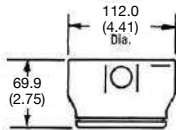
MBL Ballast Body



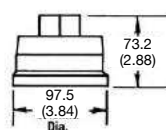
Fixture with 8" Refractor



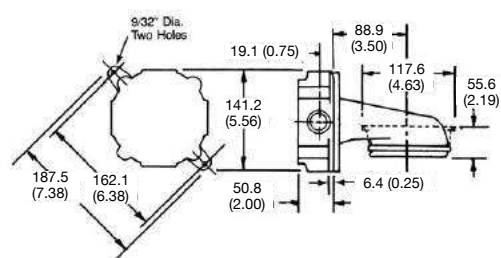
Fixture with Guard and Polyester Reflectors



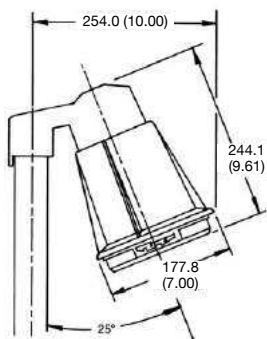
VXHA Ceiling Mount



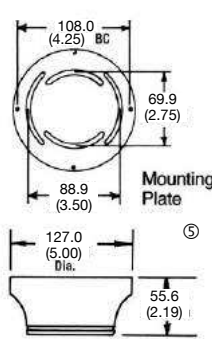
VMA Pendant Mount



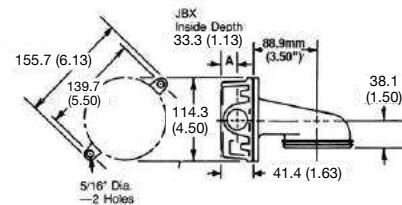
GSW Wall Mount ③ and GS Ceiling Mount with GSU Box ④



Stanchion Mount ⑥



OBV Outlet Box Mount and Mounting Plate ⑤



JBW Wall Mount ③ with JBX Box ④

① The MJBW Wall Mount Fixture is suitable for Class I, Division 2, Groups A, B, C and D only.

② Per NEC 500.6(1), there is no such classification as Class II, Division 2, Group E.

③ Mounting holes 9/32" diameter on 5-1/8" centers. Mounting plate is a separate piece furnished with outlet box mount fixture. The 2.75" dimension is for mounting on 3-1/4" octagonal boxes and the 3.50" dimension is for 4" octagonal boxes.

④ Wall mount fixtures provide the following wall clearances: with GSU box – 2" from wall with globe and 1-5/16" from wall with refractor; with JBX box – 1-5/8" from wall with globe and 15/16" from wall with refractor. Reflectors cannot be used with wall mount fixtures.

⑤ Order GSU or JBX box separately.

⑥ Standard dome or 30° angle reflectors can be used with stanchion mount.

Code•Master™ 2 HID Factory Sealed Luminaires

Explosionproof, Dust-Ignitionproof

Integrally Ballasted. 50 W, 70 W, 100 W, 150 W, 250 W, 400 W HPS; 175 W, 250 W, 320 W, 350 W, 400 W PSMH; 175 W, 250 W, 400 W MH.

Mogul Base. For use with threaded metal conduit.

NEC:

Class I, Division 1 and 2, Groups C, D
Class II, Division 1 and 2, Groups E, F, G
Class III
Marine Type Electric Fixtures
Outside Type (Salt Water)

CEC:

Class I, Division 1 and 2, Groups B, C, D
Class I, Zone 1 and 2; IIB, IIA
Class II, Division 1, Groups E, F, G
Class II, Division 2, Groups F, G
Class III

CEC:

CSA Type 4X
Exd IIB, Zone 1

Applications

- Ideal for use in chemical and petrochemical plants, such as manufacturers of plastics, paints and thinners; in refineries; and in other process areas where ignitable vapors, dust, moisture and corrosive elements may be present.
- Suitable for use in wet locations.

Features

- Fixtures operate safely in high ambient temperatures. For example, in Class I areas the 150 W HPS fixture operates at a maximum temperature of +120 °C (+248 °F) in a +65 °C (+149 °F) ambient [+100 °C (+212 °F) temperature in a +40 °C (+104 °F) ambient].
- Arrangement of heat-producing components results in more efficient heat dissipation for cooler fixture operation.
- "Wireless" design. Threading of fixture unit onto mounting hood makes electrical connection. Only wiring required is attaching two wires to connection block in mounting hood.
- Connection block is easily wired: (a) loosen two screws, (b) make wire connections and (c) re-position connection block.
- Safe, easy servicing without disconnecting any wiring.
- "Wireless" fixture unit easily threads off mounting hood for convenient servicing or for immediate replacement with a "stand-by" unit.
- Acme double-lead threads speed installation and fixture removal from mounting hood — only half as many turns are required as for single-lead threads. The threads do not stick or gall, eliminating the troublesome problems often encountered with single lead threads during fixture unit removal.
- All threaded joints are flame-tight.
- Integrally ballasted HID lighting fixtures; separate ballasts not required.
- Factory sealed. External seals not required.
- Strategic location of lamp socket in combination with the interior prism design of the glass globe provides optimum light distribution and control.
- Superior corrosion resistance, with epoxy powder coat finish.
- Porcelain socket with nickel-plated phosphor bronze screw shell. Assures long trouble-free operation in high ambient areas.
- Choice of mountings: pendant, ceiling, bracket and stanchion.
- Fiberglass-reinforced polyester reflectors, in standard dome, deep dome or 30° angle, are ideal in installations where luminaire is subject to exceptionally severe corrosive atmospheres. The high bay aluminum reflector is indicated in installations where mounting height from work plane ranges from 20 feet/6 meters and higher.
- Optional guards protect globes from damage. Secured to fixture with three screws.
- Light sources: high pressure sodium, pulse start metal halide or metal halide. HPS is excellent where long lamp life is required. HPS provides high lumens per watt and is less expensive to operate. PSMH/MH is desirable where colors of illuminated areas must be close to natural. PSMH/MH provides better color rendition, increased lumen output, longer lamp life, and faster restrike after momentary power interruption.
- A wide range of ballasts and voltages are available for both domestic and export applications.
- Ballasts operate at low temperatures — PSMH: -29 °C (-20 °F); HPS: -40 °C (-40 °F); MH: -35 °C (-31 °F).



- 50 W through 150 W high pressure sodium ballasts are high reactance, high power factor type.

Standard Materials

- Ballast bodies and guards: copperfree (4/10 of 1% max.) aluminum
- Pendant mounting hoods: diecast copperfree (4/10 of 1% max.) aluminum
- Ceiling, bracket and stanchion mounting hoods: sand cast copperfree (4/10 of 1% max.) aluminum
- Reflectors: aluminum or fiberglass reinforced polyester

Standard Finishes

- Ballast bodies, guards and mounting hoods: epoxy powder coat finish, electrostatically applied for complete, uniform corrosion protection

Options

- Fuses for field installation can be ordered by catalog number from fuse kit table.
- Quartz Auxiliary Emergency Lamp for PSMH/MH and HPS fixtures. Relay switch installed in fixture. Add suffix **-E** to fixture catalog number. ①
- Hot Restrike Option available for 50 W through 150 W HPS only. Add suffix **-R**.
- Smart Starter Option available for 50 W through 400 W HPS and PSMH/MH. Add suffix **-S**.

NEC/CEC Certifications and Compliances

- UL Standard: UL 1598, UL 844
- UL Listed: E10444
- CSA Standard: C22.2 No. 250, C22.2 No. 137
- CSA Certified: 025428

① Quartz Auxiliary Emergency Lamps for PSMH/MH and HPS fixtures are for ordinary locations only.

Code•Master™ 2 HID Factory Sealed Luminaires

Explosionproof, Dust-Ignitionproof

Integrally Ballasted. 50 W, 70 W, 100 W, 150 W, 250 W, 400 W HPS; 175 W, 250 W, 320 W, 350 W, 400 W PSMH; 175 W, 250 W, 400 W MH.

Mogul Base. For use with threaded metal conduit.

NEC:

Class I, Division 1 and 2, Groups C, D
Class II, Division 1 and 2, Groups E, F, G
Class III
Marine Type Electric Fixtures
Outside Type (Salt Water)

CEC:

Class I, Division 1 and 2, Groups B, C, D
Class I, Zone 1 and 2; IIB, IIA
Class II, Division 1, Groups E, F, G
Class II, Division 2, Groups F, G
Class III

CEC:

CSA Type 4X
Exd IIB, Zone 1

Classified Area Suitability of Code•Master 2 Series HID Fixtures — Suitability includes use of reflector

Lamp Type	Lamp Watts	Supply Wire °C (°F)	Ambient Temp °C (°F)	Class I, Division 1 and 2 With Globe or with Globe and Reflector UL/NEC/CEC Temp. Ident. No.			Class II, Division 1 and 2 With Globe or with Globe and Reflector UL/NEC/CEC Temp. Ident. No. ①	
				Nameplate Marking	NEC Groups	CEC Groups	Nameplate Marking	Groups
High Pressure Sodium	50	60 (140)	40 (104)	T6	C,D	B, C, D	T4	E,F,G
	50	75 (167)	55 (131)	T5	C,D	B, C, D	—	—
	50	85 (185)	65 (149)	T5	C,D	B, C, D	—	—
	70	60 (140)	40 (104)	T6	C,D	B, C, D	T4	E,F,G
	70	75 (167)	55 (131)	T5	C,D	B, C, D	—	—
	70	85 (185)	65 (149)	T5	C,D	B, C, D	—	—
	100	60 (140)	40 (104)	T5	C,D	B, C, D	T4	E,F,G
	100	75 (167)	55 (131)	T5	C,D	B, C, D	—	—
	100	85 (185)	65 (149)	T4A	C,D	B, C, D	—	—
	150	60 (140)	40 (104)	T5	C,D	B, C, D	T3A	E,F
	150	75 (167)	55 (131)	T4A	C,D	B, C, D	T3	—
	250	75 (167)	40 (104)	T3C	C,D	B, C, D	—	—
Pulse Start Metal Halide	250	75 (167)	55 (131)	T3C	C,D	B, C, D	—	—
	400	85 (185)	40 (104)	T3C	C,D	B, C, D	—	—
	175	75 (167)	40 (104)	T4	C,D	B, C, D	T3C	E,F,G
	250	75 (167)	40 (104)	T4	C,D	B, C, D	T3A	E,F
	320	75 (167)	40 (104)	T3C	C,D	B, C, D	—	—
	350	75 (167)	40 (104)	T3C	C,D	B, C, D	—	—
Metal Halide ②	400	75 (167)	40 (104)	T3C	C,D	B, C, D	—	—
	175	75 (167)	40 (104)	T4	—	B, C, D	T3C	E, F, G
	250	75 (167)	40 (104)	T4	—	B, C, D	T3A	E, F
	400	75 (167)	40 (104)	T3C	—	B, C, D	—	—

“T” Numbers Represent the Maximum Surface Temperature for Class I, Division 1 Locations and Maximum Surface Temperature Under Dust Blanket for Class II, Division 1 Locations.

“T” Number	T1	350	325	T2	T2A	T2B	T2C	T2D	T3	T3A	T3B	T3C	T4	T4A	T5	T6
Temp. Range (°C)	351-450	326-350	301-325	281-300	261-280	231-260	216-230	201-215	181-200	166-180	161-165	136-160	121-135	101-120	86-100	85
Temp. Range (°F)	664-842	619-662	574-617	538-572	502-536	448-500	421-446	394-419	358-392	331-356	322-329	277-320	250-275	214-248	187-12	185

NOTE: The maximum operating temperature of the fixture must not exceed the ignition temperature of the gas, vapor or dust to be encountered per the National Electrical Code and the Canadian Electrical Code.

① Applies to Code•Master 2 only.

② Mercury vapor and metal halide luminaires are not available for purchase within the United States. Please check with your countries governing legislation regarding allowable lamp types before ordering.

Code•Master™ 2 HID Factory Sealed Luminaires

Explosionproof, Dust-Ignitionproof. Groups C and D Applications

Integrally Ballasted. 50 W, 70 W, 100 W, 150 W, 250 W, 400 W HPS; 175 W, 250 W, 320 W, 350 W, 400 W PSMH.

Mogul Base. For use with threaded metal conduit.

NEC:

Class I, Division 1 and 2, Groups C, D ♦

Class II, Division 1 and 2, Groups E, F, G

Class III

Marine Type Electric Fixtures

Outside Type (Salt Water)

HID/AREA: NEC/CEC EXPLOSIONPROOF



	Lamp Watts	ANSI Lamp Type		Hub Size (Inches)	Catalog Number ②③	
		HPS	PSMH		HPS	PSMH
	Pendant — One Hub, Rigid or Flexible Mounting					
	50	S68	—	3/4	CLP5075 ①	—
				1	CLP5010 ①	—
	70	S62	—	3/4	CLP7075	—
				1	CLP7010	—
	100	S54	—	3/4	CLP1075	—
				1	CLP1010	—
	150	S55	—	3/4	CLP1575	—
				1	CLP1510	—
	175	—	M152	3/4	—	CPP1775
				1	—	CPP1710
	250	S50	M153	3/4	CLP2575	CPP2575
				1	CLP2510	CPP2510
	320	—	M154	3/4	—	CPP3275
				1	—	CPP3210
	350	—	M131	3/4	—	CPP3575
				1	—	CPP3510
	400	S51	M155	3/4	CLP4075	CPP4075
1				CLP4010	CPP4010	

Ceiling — Four Hubs, Three Close-Up Plugs



	50	S68	—	3/4	CLC5075 ①	—
				1	CLC5010 ①	—
	70	S62	—	3/4	CLC7075	—
				1	CLC7010	—
	100	S54	—	3/4	CLC1075	—
				1	CLC1010	—
	150	S55	—	3/4	CLC1575	—
				1	CLC1510	—
	175	—	M152	3/4	—	CPC1775
				1	—	CPC1710
	250	S50	M153	3/4	CLC2575	CPC2575
				1	CLC2510	CPC2510
	320	—	M154	3/4	—	CPC3275
				1	—	CPC3210
	350	—	M131	3/4	—	CPC3575
				1	—	CPC3510
	400	S51	M155	3/4	CLC4075	CPC4075
				1	CLC4010	CPC4010

① Add voltage -MT for 120/208/240/277 V. For 480 V, contact your sales representative.

② Add voltage suffix -MT for -120/208/240/277 V; or -480 for 480 V.

③ To order fixture with guard, add suffix -G (before adding voltage suffix).

♦ Shaded items are suitable for Class I, Group D ONLY.

Code•Master™ 2 HID Factory Sealed Luminaires

Explosionproof, Dust-Ignitionproof. Groups C and D Applications

Integrally Ballasted. 50 W, 70 W, 100 W, 150 W, 250 W, 400 W HPS; 175 W, 250 W, 320 W, 350 W, 400 W PSMH.

Mogul Base. For use with threaded metal conduit.

NEC:

Class I, Division 1 and 2, Groups C, D♦

Class II, Division 1 and 2, Groups E, F, G

Class III

Marine Type Electric Fixtures

Outside Type (Salt Water)

	Lamp Watts	ANSI Lamp Type		Hub Size (Inches)	Catalog Number ②③	
		HPS	PSMH		HPS	PSMH
	Bracket - Four Hubs, Three Close-Up Plugs					
	50	S68	—	3/4	CLB5075 ①	—
				1	CLB5010 ①	—
	70	S62	—	3/4	CLB7075	—
				1	CLB7010	—
	100	S54	—	3/4	CLB1075	—
				1	CLB1010	—
	150	S55	—	3/4	CLB1575	—
				1	CLB1510	—
	175	—	M152	3/4	—	CPB1775 ②
				1	—	CPB1710 ②
	250	S50	M153	3/4	CLB2575	CPB2575 ②
				1	CLB2510	CPB2510 ②
	320	—	M154	3/4	—	CPB3275 ②
				1	—	CPB3210 ②
	350	—	M131	3/4	—	CPB3575 ②
1				—	CPB3510 ②	
400	S51	M155	3/4	CLB4075	CPB4075 ②	
			1	CLB4010	CPB4010 ②	
	25° Stanchion - One Hub					
	50	S68	—	1-1/4 or 1-1/2 ④	CLS50150 ①	—
	70	S62	—	1-1/4 or 1-1/2 ④	CLS70150	—
	100	S54	—	1-1/4 or 1-1/2 ④	CLS10150	—
	150	S55	—	1-1/4 or 1-1/2 ④	CLS15150	—
	175	—	M152	1-1/4 or 1-1/2 ④	—	CPS17150 ②
	250	S50	M153	1-1/4 or 1-1/2 ④	CLS25150	CPS25150 ②
	320	—	M154	1-1/4 or 1-1/2 ④	—	CPS32150 ②
	350	—	M131	1-1/4 or 1-1/2 ④	—	CPS35150 ②
	400	S51	M155	1-1/4 or 1-1/2 ④	CLS40150 ②	CPS40150 ②

① Add voltage **-MT** for 120/208/240/277 V. For 480 V, contact your sales representative.

② Add voltage suffix **-MT** for 120/208/240/277 V; or **-480** for 480 V.

③ To order fixture with guard, add suffix **-G** (before adding voltage suffix).

④ 1-1/2" tapped hub furnished with 1-1/2" to 1-1/4" reducer.

♦ Shaded items are suitable for Class I, Group D ONLY.

Code•Master™ 2 HID Factory Sealed Luminaires

Explosionproof, Dust-Ignitionproof. Groups B, C and D Applications

Integrally Ballasted. 70 W, 100 W, 150 W, 250 W, 400 W HPS; 175 W, 250 W, 320 W, 350 W, 400 W PSMH; 175 W, 250 W, 400 W MH.

Mogul Base. For use with threaded metal conduit.

CEC:
Class I, Division 1 and 2, Groups B, C, D ♦
Class I, Zone 1 and 2; IIB, IIA
Class II, Division 1, Groups E, F, G
Class II, Division 2, Groups F, G
Class III

CEC:
CSA Type 4X
Exd IIB, Zone 1

	Lamp Watts	ANSI Lamp Type			Hub Size (Inches)	Catalog Number ①②		
		HPS	PSMH	MH		HPS	PSMH	MH ③
Pendant — One Hub, Rigid or Flexible Mounting								
	70	S62	—	—	3/4	CLP7075TTCN	—	—
					1	CLP7010TTCN	—	—
	100	S54	—	—	3/4	CLP1075TTCN	—	—
					1	CLP1010TTCN	—	—
	150	S55	—	—	3/4	CLP1575TTCN	—	—
					1	CLP1510TTCN	—	—
	175	—	M152	M57	3/4	—	CPP1775TTCN	CHP1775TTCN
					1	—	CPP1710TTCN	CHP1710TTCN
	250	S50	M153	M58	3/4	CLP2575TTCN	CPP2575TTCN	CHP2575TTCN
					1	CLP2510TTCN	CPP2510TTCN	CHP2510TTCN
	320	—	M154	—	3/4	—	CPP3275TTCN	—
					1	—	CPP3210TTCN	—
	350	—	M131	—	3/4	—	CPP3575TTCN	—
					1	—	CPP3510TTCN	—
	400	S51	M155	M59	3/4	CLP4075TTCN	CPP4075TTCN	CHP4075TTCN
					1	CLP4010TTCN	CPP4010TTCN	CHP4010TTCN
Ceiling — Four Hubs, Three Close-Up Plugs								
	70	S62	—	—	3/4	CLC7075TTCN	—	—
					1	CLC7010TTCN	—	—
	100	S54	—	—	3/4	CLC1075TTCN	—	—
					1	CLC1010TTCN	—	—
	150	S55	—	—	3/4	CLC1575TTCN	—	—
					1	CLC1510TTCN	—	—
	175	—	M152	M57	3/4	—	CPC1775TTCN	CHC1775TTCN
					1	—	CPC1710TTCN	CHC1710TTCN
	250	S50	M153	M58	3/4	CLC2575TTCN	CPC2575TTCN	CHC2575TTCN
					1	CLC2510TTCN	CPC2510TTCN	CHC2510TTCN
	320	—	M154	—	3/4	—	CPC3275TTCN	—
					1	—	CPC3210TTCN	—
	350	—	M131	—	3/4	—	CPC3575TTCN	—
					1	—	CPC3510TTCN	—
	400	S51	M155	M59	3/4	CLC4075TTCN	CPC4075TTCN	CHC4075TTCN
					1	CLC4010TTCN	CPC4010TTCN	CHC4010TTCN

① Change voltage suffix -**TT** (120/277/347 V) to -**MT** for 120/208/240/277 V, -**C2** for 208 V, -**C3** for 240 V, -**C6** for 480 V, or -**C7** for 600 V. These voltage suffixes have CSA Certification only.

② To order fixture with guard, add suffix -**G** (before adding voltage suffix).

③ Mercury vapor and metal halide luminaires are not available for purchase within the United States. Please check with your countries governing legislation regarding allowable lamp types before ordering.

♦ Shaded items are suitable for Class I, Group D ONLY.

Code•Master™ 2 HID Factory Sealed Luminaires

Explosionproof, Dust-Ignitionproof. Groups B, C and D Applications

Integrally Ballasted. 70 W, 100 W, 150 W, 250 W, 400 W HPS; 175 W, 250 W, 320 W, 350 W, 400 W PSMH; 175 W, 250 W, 400 W MH.

Mogul Base. For use with threaded metal conduit.

CEC:

Class I, Division 1 and 2, Groups B, C, D ♦

Class I, Zone 1 and 2; IIB, IIA

Class II, Division 1, Groups E, F, G

Class II, Division 2, Groups F, G

Class III

CEC:

CSA Type 4X

Exd IIB, Zone 1



Lamp Watts	ANSI Lamp Type			Hub Size (Inches)	Catalog Number ①②		
	HPS	PSMH	MH		HPS	PSMH	MH ③
Bracket - Four Hubs, Three Close-Up Plugs							
70	S62	—	—	3/4	CLB7075TTCN	—	—
				1	CLB7010TTCN	—	—
100	S54	—	—	3/4	CLB1075TTCN	—	—
				1	CLB1010TTCN	—	—
150	S55	—	—	3/4	CLB1575TTCN	—	—
				1	CLB1510TTCN	—	—
175	—	M152	M57	3/4	—	CPB1775TTCN	CHB1775TTCN
				1	—	CPB1710TTCN	CHB1710TTCN
250	S50	M153	M58	3/4	CLB2575TTCN	CPB2575TTCN	CHB2575TTCN
				1	CLB2510TTCN	CPB2510TTCN	CHB2510TTCN
320	—	M154	—	3/4	—	CPB3275TTCN	—
				1	—	CPB3210TTCN	—
350	—	M131	—	3/4	—	CPB3575TTCN	—
				1	—	CPB3510TTCN	—
400	S51	M155	M59	3/4	CLB4075TTCN	CPB4075TTCN	CHB4075TTCN
				1	CLB4010TTCN	CPB4010TTCN	CHB4010TTCN



25° Stanchion - One Hub



70	S62	—	—	1-1/4 or 1-1/2 ④	CLS70150TTCN	—	—
100	S54	—	—	1-1/4 or 1-1/2 ④	CLS10150TTCN	—	—
150	S55	—	—	1-1/4 or 1-1/2 ④	CLS15150TTCN	—	—
175	—	M152	M57	1-1/4 or 1-1/2 ④	—	CPS17150TTCN	CHS17150TTCN
250	S50	M153	M58	1-1/4 or 1-1/2 ④	CLS25150TTCN	CPS25150TTCN	CHS25150TTCN
320	—	M154	—	1-1/4 or 1-1/2 ④	—	CPS32150TTCN	—
350	—	M131	—	1-1/4 or 1-1/2 ④	—	CPS35150TTCN	—
400	S51	M155	M59	1-1/4 or 1-1/2 ④	CLS40150TTCN	CPS40150TTCN	CHS40150TTCN

① Change voltage suffix -TT (120/277/347 V) to -MT for 120/208/240/277 V, -C2 for 208 V, -C3 for 240 V, -C6 for 480 V, or -C7 for 600 V. These voltage suffixes have CSA Certification only.

② To order fixture with guard, add suffix -G (before adding voltage suffix).

③ Mercury vapor and metal halide luminaires are not available for purchase within the United States. Please check with your countries governing legislation regarding allowable lamp types before ordering.

④ 1-1/2" tapped hub furnished with 1-1/2" to 1-1/4" reducer.

♦ Shaded items are suitable for Class I, Group D ONLY.

Code•Master™ 2 HID Factory Sealed Luminaires

Explosionproof, Dust-Ignitionproof

Integrally Ballasted. 50 W, 70 W, 100 W, 150 W, 250 W, 400 W HPS; 175 W, 250 W, 320 W, 350 W, 400 W PSMH; 175 W, 250 W, 400 W MH.

Mogul Base. For use with threaded metal conduit.

NEC:

Class I, Division 1 and 2, Groups C, D ♦
Class II, Division 1 and 2, Groups E, F, G
Class III
Marine Type Electric Fixtures
Outside Type (Salt Water)

CEC:

Class I, Division 1 and 2, Groups B, C, D ♦
Class I, Zone 1 and 2; IIB, IIA
Class II, Division 1, Groups E, F, G
Class II, Division 2, Groups F, G
Class III

CEC:

CSA Type 4X
Exd IIB, Zone 1

Mounting Hoods

	Hub Size (Inches)	Catalog Number
Pendant — One Hub		
	3/4	CAP-75
	1	CAP-100
Ceiling — Four Hubs, Three Close-Up Plugs		
	3/4	CAC-75
	1	CAC-100
Bracket — Four Hubs, Three Close-Up Plugs		
	3/4	CALB-75
	1	CALB-100
25° Stanchion — One Hub		
	1-1/4 or 1-1/2 ①	CAS-150
Mounting Adapter with Connection Block		
	Permits use of existing A-51 mounting hoods (AAC Ceiling or AALB Bracket) with the new Code•Master 2 Fixture Unit. After removing existing fixture unit and adapter, screw in the new CMAD-1 Adapter. Then thread new fixture unit into the CMAD-1.	CMAD-1

Fixture Units

Ballast body with globe. Indicate voltage desired by adding voltage suffix to fixture unit catalog number listed below.

Type	Lamp Watts	Fixture Unit Number	Add Voltage Suffixes		
			120/208/240/277	120/277/347 ③	480 V
High Pressure Sodium High Power Factor (Min. P.F. 90%)	50	CMBL50	MT	TTCN	—
	70	CMBL70	MT	TTCN	48
	100	CMBL100	MT	TTCN	48
	150	CMBL150	MT	TTCN	48
	250	CMBL250	MT	TTCN	48
	400	CMBL400	MT	TTCN	48
Pulse Start Metal Halide Constant Wattage (Min. P.F. 90%)	175	CMBP175	MT	TTCN	48
	250	CMBP250	MT	TTCN	48
	320	CMBP320	MT	TTCN	48
	350	CMBP350	MT	TTCN	48
	400	CMBP400	MT	TTCN	48
Metal Halide ④ Constant Wattage (Min. P.F. 90%)	175	CMBH175	MT	TT	C6
	250	CMBH250	MT	TT	C6
	400	CMBH400	MT	TT	C6

① 1-1/2" Tapped hub furnished with 1-1/2" to 1-1/4" reducer.

② Add suffix **-R** for "Hot Restrike" and **-S** for "Smart Starter" options.

③ Change voltage suffix **-TTCN** to **-MTCN** for 120/208/240/277 V, **-C2** for 208 V, **-C3** for 240 V, **-C6** for 480 V, or **-C7** for 600 V. These voltage suffixes have CSA Certification only.

④ Mercury vapor and metal halide luminaires are not available for purchase within the United States. Please check with your countries governing legislation regarding allowable lamp types before ordering.

♦ Shaded items are suitable for Class I, Group D ONLY.

Code•Master™ 2 HID Factory Sealed Luminaires

Explosionproof, Dust-Ignitionproof

Integrally Ballasted. 50 W, 70 W, 100 W, 150 W, 250 W, 400 W HPS; 175 W, 250 W, 320 W, 350 W, 400 W PSMH; 175 W, 250 W, 400 W MH.

Mogul Base. For use with threaded metal conduit.

NEC:

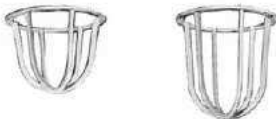
Class I, Division 1 and 2, Groups C, D
Class II, Division 1 and 2, Groups E, F, G
Class III
Marine Type Electric Fixtures
Outside Type (Salt Water)

CEC:

Class I, Division 1 and 2, Groups B, C, D
Class I, Zone 1 and 2; IIB, IIA
Class II, Division 1, Groups E, F, G
Class II, Division 2, Groups F, G
Class III

CEC:

CSA Type 4X
Exd IIB, Zone 1

	Description	Catalog Number
Polyester Reflectors — 50 W - 400 W		
 Standard and Deep Dome 30° Angle	Standard Dome	CMR-4ST
	Deep Dome	CMR-4DD
	30° Angle	CMR-4AN
Aluminum High Bay Reflectors — 50 W - 400 W		
		CMR-4HB
Prismatic Glass Globes — 50 W - 400 W		
	50, 70, 100, 150 W HPS; 175, 250 W PSMH; 175, 250 W MH	CGL-250
	250, 400 W HPS; 320, 350, 400 W PSMH; 400 W MH	CGL-400
Aluminum Guards — 50 W - 400 W		
	50, 70, 100, 150 W HPS; 175, 250 W PSMH; 175, 250 W MH	CGU2
	250, 400 W HPS; 320, 350, 400 W PSMH; 400 W MH	CGU4
Replacement Sockets — 50 W - 400 W (Mogul Base)		
 VPT-7	For all Code•Master 2 HID fixtures	CMS-400
	Connection Block – 50 W through 400 W	
	For all Code•Master 2 HID fixtures	VPT-7

Quartz Emergency Option for Pulse Start Metal Halide and High Pressure Sodium Fixtures

Fixtures can be supplied with a socket to accept a 150 W or 250 W, 120 V quartz lamp (lamp not included). This D.C. bayonet base socket is in addition to the standard lamp socket, independent of the lighting fixture voltage.

Add suffix **-E**

HPS Hot Restrike

Restrikes HPS lamp immediately when power is restored after a momentary power interruption.

Optional for fixture watts of 50, 70, 100 or 150 (HPS only)

Add suffix **-R**

HPS Smart Starter

Smart Starter is for HPS fixtures only. Incorporates a 1-1/2-minute timer and performs as a conventional starter to normally start lamp. Removes itself from circuit if lamp burns out or is removed from socket. Eliminates starter failures caused by prolonged operation with cycling or failing lamps and simplifies finding their location which reduces maintenance and repair costs.

Optional for all HPS fixtures.

Add suffix **-S**

HID/AREA: NEC/CEC EXPLOSIONPROOF

Appleton

Code•Master™ 2 HID Factory Sealed Luminaires

Explosionproof, Dust-Ignitionproof

Integrally Ballasted. 50 W, 70 W, 100 W, 150 W, 250 W, 400 W HPS; 175 W, 250 W, 320 W, 350 W, 400 W PSMH; 175 W, 250 W, 400 W MH.

Mogul Base. For use with threaded metal conduit.

NEC:

Class I, Division 1 and 2, Groups C, D
Class II, Division 1 and 2, Groups E, F, G
Class III
Marine Type Electric Fixtures
Outside Type (Salt Water)

CEC:

Class I, Division 1 and 2, Groups B, C, D
Class I, Zone 1 and 2; IIB, IIA
Class II, Division 1, Groups E, F, G
Class II, Division 2, Groups F, G
Class III

CEC:

CSA Type 4X
Exd IIB, Zone 1

Lamp		High Pressure Sodium ①		Ballast Amps Pulse Start Metal Halide Super CWA		Metal Halide CWA		Fuse Quantity Required	Fuse Kit Catalog Number		
Watts	Volts	Start	Operating	Start	Operating	Start	Operating		HPS	PSMH	MH ②
50	120	0.58	0.58	—	—	—	—	1	CF-5	—	—
	208	0.35	0.33	—	—	—	—	2	CF-3	—	—
	240	0.31	0.29	—	—	—	—	2	CF-3	—	—
	277	0.25	0.25	—	—	—	—	1	CF-2	—	—
	347	—	—	—	—	—	—	—	—	—	—
	480	—	—	—	—	—	—	—	—	—	—
70	120	0.90	0.82	—	—	—	—	1	CF-5	—	—
	208	0.50	0.48	—	—	—	—	2	CF-3	—	—
	240	0.44	0.44	—	—	—	—	2	CF-3	—	—
	277	0.35	0.36	—	—	—	—	1	CF-2	—	—
	347	0.30	0.30	—	—	—	—	1	CF-2	—	—
	480	0.21	0.21	—	—	—	—	2	CF-2	—	—
100	120	1.30	1.15	—	—	—	—	1	CF-8	—	—
	208	0.76	0.67	—	—	—	—	2	CF-5	—	—
	240	0.66	0.58	—	—	—	—	2	CF-5	—	—
	277	0.60	0.50	—	—	—	—	1	CF-3	—	—
	347	0.45	0.39	—	—	—	—	1	CF-3	—	—
	480	0.33	0.29	—	—	—	—	2	CF-3	—	—
150	120	2.00	1.66	—	—	—	—	1	CF-10	—	—
	208	1.16	0.96	—	—	—	—	2	CF-5	—	—
	240	1.00	0.83	—	—	—	—	2	CF-5	—	—
	277	0.88	0.75	—	—	—	—	1	CF-5	—	—
	347	0.52	0.56	—	—	—	—	1	CF-5	—	—
	480	0.50	0.44	—	—	—	—	2	CF-3	—	—
175	120	—	—	1.10	1.86	1.30	1.80	1	—	CF-5	CF-5
	208	—	—	0.75	1.23	0.75	1.10	2	—	CF-3	CF-3
	240	—	—	0.65	0.98	0.65	0.90	2	—	CF-3	CF-3
	277	—	—	0.55	0.87	0.55	0.80	1	—	CF-2	CF-2
	347	—	—	0.25	0.65	0.50	0.65	1	—	CF-2	CF-2
	480	—	—	0.25	0.50	—	—	2	—	CF-2	—
250	120	1.75	2.70	1.96	2.50	1.20	2.60	1	CF-8	CF-8	CF-8
	208	1.00	1.50	1.13	1.45	0.65	1.50	2	CF-5	CF-5	CF-5
	240	0.85	1.30	0.98	1.25	0.60	1.30	2	CF-5	CF-5	CF-5
	277	0.75	1.15	0.85	1.10	0.50	1.12	1	CF-5	CF-3	CF-3
	347	0.60	0.93	0.62	0.90	0.80	0.90	1	CF-5	CF-3	CF-3
	480	0.40	0.65	0.32	0.67	—	—	2	CF-2	CF-2	—
320	120	—	—	3.30	3.25	—	—	1	—	CF-8	—
	208	—	—	1.90	1.90	—	—	2	—	CF-6	—
	240	—	—	1.60	1.65	—	—	2	—	CF-5	—
	277	—	—	1.40	1.40	—	—	1	—	CF-5	—
	347	—	—	0.70	1.10	—	—	1	—	CF-5	—
	480	—	—	0.45	0.85	—	—	2	—	CF-3	—
350	120	—	—	3.60	3.70	—	—	1	—	CF-10	—
	208	—	—	2.10	2.10	—	—	2	—	CF-8	—
	240	—	—	1.80	1.80	—	—	2	—	CF-5	—
	277	—	—	1.60	1.60	—	—	1	—	CF-5	—
	347	—	—	0.70	1.01	—	—	1	—	CF-5	—
	480	—	—	0.60	0.90	—	—	2	—	CF-3	—
400	120	3.10	3.90	3.50	4.00	3.25	4.00	1	CF-15	CF-10	CF-10
	208	1.80	2.25	2.00	2.30	1.90	2.30	2	CF-8	CF-8	CF-8
	240	1.60	1.95	1.75	2.00	1.65	2.00	2	CF-5	CF-5	CF-5
	277	1.35	1.70	1.50	1.75	1.40	1.75	1	CF-5	CF-5	CF-5
	347	1.00	1.32	1.10	1.35	1.20	1.40	1	CF-5	CF-5	CF-5
	480	0.80	1.00	0.75	1.00	—	—	2	CF-5	CF-3	—

Fuse Kit includes fuse, fuse holder and necessary hardware for field installation. Mounts easily in ballast body with one screw. Order one fuse for 120 and 277 V, and 2 fuses for 208, 240 and 480 V. CF-2 = 2 amp; CF-3 = 3 amp; CF-5 = 5 amp; CF-6 = 6 amp; CF-8 = 8 amp; CF-10 = 10 amp

① 50 through 150 W HPS have H.P.F. High Reactance ballasts; 250 W and 400 W HPS have CWA ballasts.

② Mercury vapor and metal halide luminaires are not available for purchase within the United States. Please check with your countries governing legislation regarding allowable lamp types before ordering.

Code•Master™ 2 HID Factory Sealed Luminaires

Explosionproof, Dust-Ignitionproof

Integrally Ballasted. 50 W, 70 W, 100 W, 150 W, 250 W, 400 W HPS; 175 W, 250 W, 320 W, 350 W, 400 W PSMH; 175 W, 250 W, 400 W MH.

Mogul Base. For use with threaded metal conduit.

NEC:

Class I, Division 1 and 2, Groups C, D
Class II, Division 1 and 2, Groups E, F, G
Class III
Marine Type Electric Fixtures
Outside Type (Salt Water)

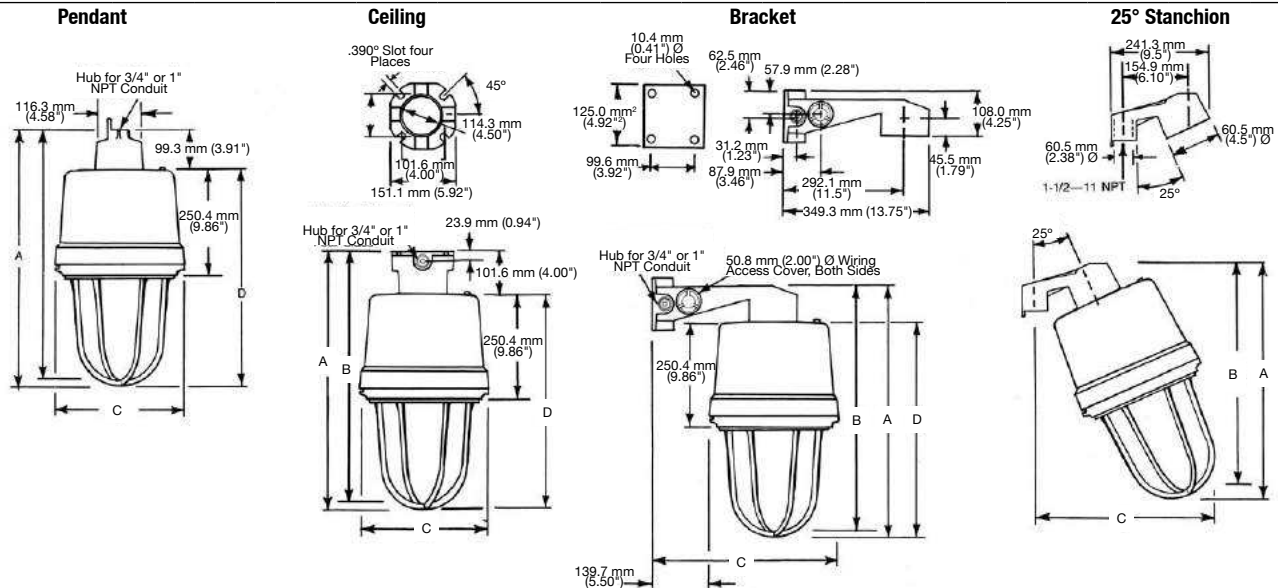
CEC:

Class I, Division 1 and 2, Groups B, C, D
Class I, Zone 1 and 2; IIB, IIA
Class II, Division 1, Groups E, F, G
Class II, Division 2, Groups F, G
Class III

CEC:

CSA Type 4X
Exd IIB, Zone 1

Dimensions in Millimeters (Inches)



	Pendant				Ceiling				Bracket				25° Stanchion		
	A	B	C	D	A	B	C	D	A	B	C	D	A	B	C
50-250 W ①	546.1 (21.50)	520.7 (20.50)	304.8 (12.00)	447.3 (17.61)	548.9 (21.61)	523.5 (20.61)	304.8 (12.00)	447.3 (17.61)	555.2 (21.86)	529.8 (20.86)	444.5 (17.50)	447.3 (17.61)	495.3 (19.50)	475.0 (18.70)	406.4 (16.00)
250-400 W ②	522.3 (24.50)	596.9 (23.50)	304.8 (12.00)	507.1 (20.36)	618.7 (24.36)	507.1 (20.36)	304.8 (12.00)	507.1 (20.36)	625.1 (24.61)	599.7 (23.61)	444.5 (17.50)	507.1 (20.36)	563.9 (22.20)	538.5 (21.20)	444.5 (17.50)

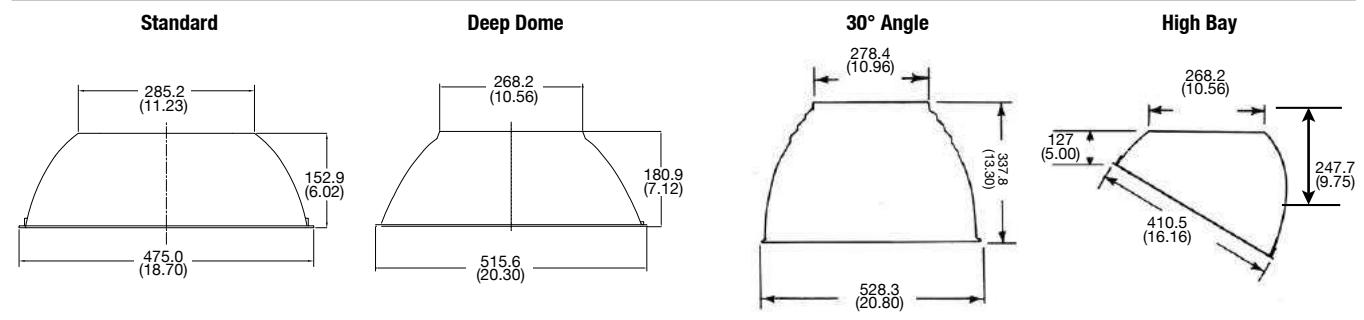
Fixture and Accessory Weights kg (lb)

Fixture Size	Fixture Weight	Reflector Weight	Guard Weight
50 W through 175 W	14.5 (31.97)	1.4 (3.09)	0.5 (1.10)
250 W PSMH/MH	16.9 (37.26)	1.4 (3.09)	0.5 (1.10)
250 W HPS	18.1 (39.90)	1.4 (3.09)	0.9 (1.98)
320 W, 350 W and 400 W PSMH, 400 W MH	20.4 (44.97)	1.4 (3.09)	0.9 (1.98)

Mounting Hood Weights kgs (lbs)

Pendant	Ceiling	Bracket	Stanchion
0.9 (2)	1.8 (4)	2.7 (6)	0.9 (2)

Reflector Dimensions in Millimeters (Inches)



① 50, 70, 100 and 150 W HPS; 175 W PSMH; 175 and 250 W MH.

② 250 and 400 W HPS; 250, 320, 350, and 400 W PSMH; 400 W MH.

Code•Master™ 2 HID Factory Sealed Luminaires

Explosionproof, Dust-Ignitionproof

* Photometric data is based on a 100-watt clear HPS lamp (9,500 lumens). For candlepower values of fixtures with other lamps, use the following multipliers: 50 W HPS – 0.42 (4,000 lumens); 70 W HPS – 0.61 (6,300 lumens); and 150 W HPS – 1.68 (16,000 lumens).

NEC:

Class I, Division 1 and 2, Groups C, D
Class II, Division 1 and 2, Groups E, F, G
Class III
Marine Type Electric Fixtures
Outside Type (Salt Water)

CEC:

Class I, Division 1 and 2, Groups B, C, D
Class I, Zone 1 and 2; IIB, IIA
Class II, Division 1, Groups E, F, G
Class II, Division 2, Groups F, G
Class III

CEC:

CSA Type 4X
Exd IIB, Zone 1

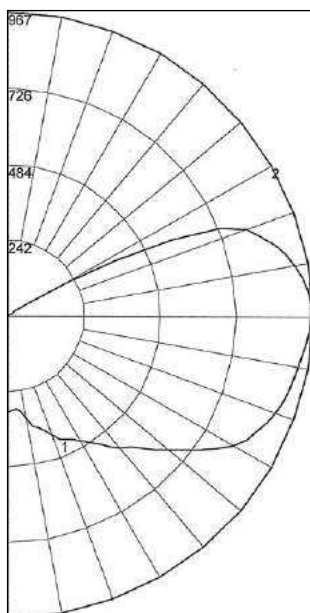
Photometric Data

Total Luminaire Efficiency = 76.4%

CIE Type – Semi-Direct

Plane	Spacing Criteria
0-180	2.66
90-270	2.66
Diagonal	2.84

Zone	Lumens
0-10	29.80
10-20	106.54
20-30	202.92
30-40	318.52
40-50	468.31
50-60	670.49
60-70	866.67
70-80	976.61
80-90	1038.41
90-100	1042.18
100-110	927.00
110-120	551.82
120-130	51.82
130-140	2.51
140-150	0.25
150-160	0.00
160-170	0.00
170-180	0.00



REPORT NUMBER: CL10G

Lamps: 100 W High Pressure Sodium with Globe only

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

% Ceiling Rcc	80				70				50				30				10				0
% Walls Rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
0	84	84	84	84	79	79	79	79	70	70	70	61	61	61	53	53	53	49	49	49	49
1	72	66	61	56	66	61	57	52	53	49	46	45	42	40	38	36	34	30	30	30	30
2	63	54	47	41	58	51	44	39	43	38	34	37	32	29	30	27	24	21	21	21	21
3	56	46	38	32	52	43	36	30	36	31	26	31	26	22	25	22	18	15	15	15	15
4	51	40	32	26	47	37	30	24	31	25	21	26	22	18	22	18	14	12	12	12	12
5	46	35	27	21	42	32	25	20	28	22	17	23	18	14	19	15	12	9	9	9	9
6	42	31	23	18	39	29	22	17	24	19	14	21	16	12	17	13	10	7	7	7	7
7	39	28	20	15	36	26	19	14	22	16	12	18	14	10	15	11	8	6	6	6	6
8	36	25	18	13	33	23	17	12	20	14	10	17	12	9	14	10	7	5	5	5	5
9	33	23	16	11	31	21	15	11	18	13	9	15	11	8	13	9	6	4	4	4	4
10	31	21	14	10	29	19	13	9	17	12	8	14	10	7	12	8	6	4	4	4	4

Zonal Lumen Summary

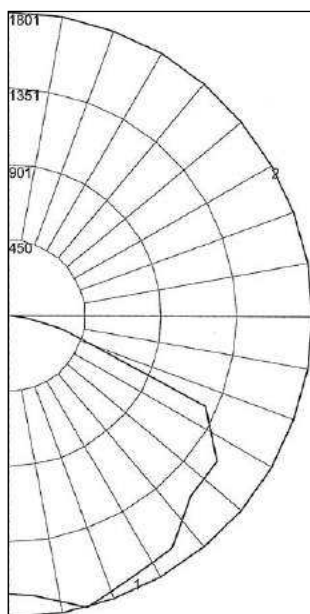
Zone	Lumens	% Lamp	% Fixture	Zone	Lumens	% Lamp	% Fixture
0-30	339.26	3.6	4.7	90-120	2521.83	26.5	34.8
0-40	657.79	6.9	9.1	90-130	2572.83	27.1	35.5
0-60	1796.59	18.9	24.8	90-150	2575.59	27.1	35.5
0-90	4678.28	49.2	64.5	90-180	2575.59	27.1	35.5
				0-180	7253.87	76.4	100.0

Total Luminaire Efficiency = 71.3%

CIE Type – Direct

Plane	Spacing Criteria
0-180	1.54
90-270	1.54
Diagonal	1.66

Zone	Lumens
0-10	40.00
10-20	331.02
20-30	660.22
30-40	934.51
40-50	1131.33
50-60	1272.76
60-70	1322.68
70-80	826.95
80-90	254.44
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00



REPORT NUMBER: CL10ST

Lamps: 100 W High Pressure Sodium with Standard Dome Reflector

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

% Ceiling Rcc	80				70				50				30				10				0
% Walls Rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
0	85	85	85	85	83	83	83	83	79	79	79	76	76	76	73	73	73	71	71	71	71
1	76	71	68	64	74	70	66	63	67	64	61	64	61	59	61	59	57	56	56	56	56
2	67	60	54	49	65	59	53	49	56	51	47	54	50	46	51	48	45	43	43	43	43
3	60	51	44	39	58	50	44	38	48	42	38	46	41	37	44	40	36	34	34	34	34
4	54	44	37	31	52	43	36	31	41	35	31	40	34	30	38	33	30	28	28	28	28
5	49	39	31	26	48	38	31	26	36	30	25	35	29	25	33	29	25	23	23	23	23
6	45	34	27	22	43	33	27	22	32	26	21	31	25	21	30	25	21	19	19	19	19
7	41	30	23	19	40	30	23	18	29	23	18	28	22	18	27	22	18	16	16	16	16
8	38	27	21	16	37	27	20	16	26	20	16	25	20	16	24	19	16	14	14	14	14
9	35	25	18	14	34	24	18	14	24	18	14	23	18	14	22	17	14	12	12	12	12
10	33	23	17	12	32	22	16	12	22	16	12	21	16	12	20	15	12	11	11	11	11

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture	Zone	Lumens	% Lamp	% Fixture
0-30	1031.23	10.9	15.2	90-120	0.00	0.0	0.0
0-40	1965.74	20.7	29.0	90-130	0.00	0.0	0.0
0-60	4369.83	46.0	64.5	90-150	0.00	0.0	0.0
0-90	6773.90	71.3	100.0	90-180	0.00	0.0	0.0
				0-180	6773.90	71.3	100.0

Code•Master™ 2 HID Factory Sealed Luminaires

Explosionproof, Dust-Ignitionproof

* Photometric data is based on a 100-watt clear High Pressure Sodium lamp (9,500 lumens). For candlepower values of fixtures with other lamps, use the following multipliers: 50 W HPS – 0.42 (4,000 lumens); 70 W HPS – 0.61 (6,300 lumens); and 150 W HPS – 1.68 (16,000 lumens).

NEC:

Class I, Division 1 and 2, Groups C, D
Class II, Division 1 and 2, Groups E, F, G
Class III
Marine Type Electric Fixtures
Outside Type (Salt Water)

CEC:

Class I, Division 1 and 2, Groups B, C, D
Class I, Zone 1 and 2; IIB, IIA
Class II, Division 1, Groups E, F, G
Class II, Division 2, Groups F, G
Class III

CEC:

CSA Type 4X
Exd IIB, Zone 1

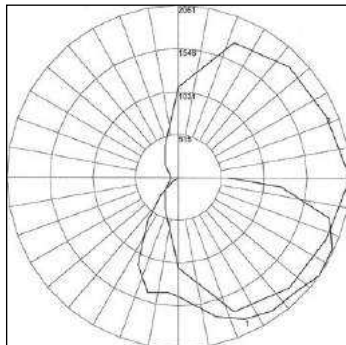
Photometric Data

Total Luminaire Efficiency = 61.9%

CIE Type – Direct

Plane	Spacing Criteria
0-180	1.96
90-270	1.62
Diagonal	1.50

Zone	Lumens
0-10	34.59
10-20	289.50
20-30	587.71
30-40	825.38
40-50	944.04
50-60	952.84
60-70	900.69
70-80	740.88
80-90	607.55
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00



REPORT NUMBER: **CL10AN**

Lamps: 100 W High Pressure Sodium with 30° Angle Dome Reflector

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

% Ceiling	Rcc	80				70				50				30				10				0
% Walls	Rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
0	74	74	74	74	74	72	72	72	72	69	69	69	66	66	66	63	63	63	62	62	62	0
1	64	60	56	53	53	62	59	55	52	56	53	50	53	51	49	51	49	47	46	46	46	0
2	57	51	45	41	41	55	49	44	40	47	43	39	45	41	38	43	40	37	36	36	36	0
3	51	43	37	32	32	50	42	37	32	40	35	31	38	34	31	37	33	30	28	28	28	0
4	47	38	31	26	26	45	37	31	26	35	30	26	34	29	25	32	28	25	23	23	23	0
5	42	33	27	22	22	41	32	26	22	31	26	21	30	25	21	28	24	21	19	19	19	0
6	39	29	23	19	19	38	29	23	18	28	22	18	26	22	18	25	21	18	16	16	16	0
7	36	26	20	16	16	35	26	20	16	25	20	16	24	19	16	23	19	15	14	14	14	0
8	33	24	18	14	14	32	23	18	14	22	17	14	22	17	14	21	17	13	12	12	12	0
9	31	22	16	12	12	30	21	16	12	20	15	12	20	15	12	19	15	12	11	11	11	0
10	29	20	14	11	11	28	19	14	11	19	14	11	18	14	11	18	13	11	9	9	9	0

Zonal Lumen Summary

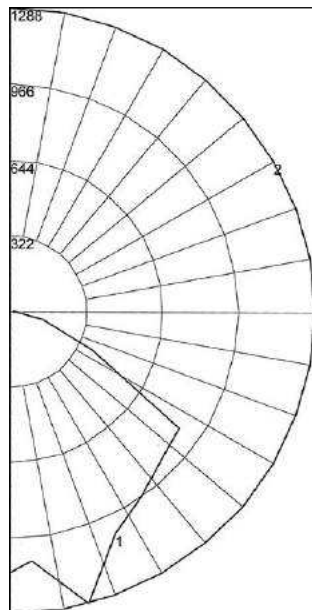
Zone	Lumens	% Lamp	% Fixture	Zone	Lumens	% Lamp	% Fixture
0-30	911.80	9.6	15.5	90-120	0.0	0.0	0.0
0-40	1737.18	18.3	29.5	90-130	0.0	0.0	0.0
0-60	3634.06	38.3	61.8	90-150	0.0	0.0	0.0
0-90	5883.18	61.9	100.0	90-180	0.0	0.0	0.0
0-180	5883.18	61.9	100.0				

Total Luminaire Efficiency = 37.8%

CIE Type – Direct

Plane	Spacing Criteria
0-180	1.36
90-270	1.36
Diagonal	1.54

Zone	Lumens
0-10	26.07
10-20	224.04
20-30	437.71
30-40	551.18
40-50	656.83
50-60	743.35
60-70	592.81
70-80	265.53
80-90	94.52
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00



REPORT NUMBER: **CL10DD**

Lamps: 100 W High Pressure Sodium with Deep Dome Reflector

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

% Ceiling	Rcc	80				70				50				30				10				0
% Walls	Rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
0	45	45	45	45	45	44	44	44	44	42	42	42	40	40	40	39	39	39	38	38	38	0
1	41	39	37	35	35	40	38	36	35	36	35	34	35	34	33	33	32	32	31	31	31	0
2	37	33	30	28	28	36	32	30	28	31	29	27	30	28	26	29	27	26	25	25	25	0
3	33	29	25	22	22	32	28	25	22	27	24	22	26	23	21	25	23	21	20	20	20	0
4	30	25	21	18	18	29	24	21	18	23	20	18	22	20	18	22	19	18	17	17	17	0
5	27	22	18	15	15	26	21	18	15	21	17	15	20	17	15	19	17	15	14	14	14	0
6	25	19	16	13	13	24	19	16	13	18	15	13	18	15	13	17	15	13	12	12	12	0
7	23	17	14	11	11	22	17	14	11	16	13	11	16	13	11	15	13	11	10	10	10	0
8	21	16	12	10	10	21	15	12	10	15	12	10	14	12	10	14	11	10	9	9	9	0
9	20	14	11	9	9	19	14	11	9	13	11	9	13	10	8	13	10	8	8	8	8	0
10	18	13	10	8	8	18	13	10	8	12	10	8	12	9	8	12	9	7	7	7	7	0

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture	Zone	Lumens	% Lamp	% Fixture
0-30	687.82	7.2	19.1	90-120	0.0	0.0	0.0
0-40	1239.00	13.0	34.5	90-130	0.0	0.0	0.0
0-60	2639.18	27.8	73.5	90-150	0.0	0.0	0.0
0-90	3592.04	37.8	100.0	90-180	0.0	0.0	0.0
0-180	3592.04	37.8	100.0				

Code•Master™ 2 HID Factory Sealed Luminaires

Explosionproof, Dust-Ignitionproof

* Photometric data is based on a 400-watt clear Pulse Start Metal Halide lamp (34,000 lumens). For candlepower values of fixtures with other lamps, use the following multipliers: 400 W HPS – 1.13 (50,000 lumens); and 250 W HPS – 0.68 (30,000 lumens).

NEC:

Class I, Division 1 and 2, Groups C, D
Class II, Division 1 and 2, Groups E, F, G
Class III
Marine Type Electric Fixtures
Outside Type (Salt Water)

CEC:

Class I, Division 1 and 2, Groups B, C, D
Class I, Zone 1 and 2; IIB, IIA
Class II, Division 1, Groups E, F, G
Class II, Division 2, Groups F, G
Class III

CEC:

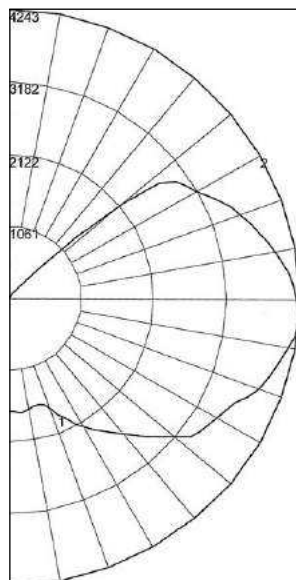
CSA Type 4X
Exd IIB, Zone 1

Photometric Data

Total Luminaire Efficiency = 81.9%

CIE Type – General Diffuse

Zone	Lumens
0-10	161.29
10-20	470.38
20-30	918.96
30-40	1511.24
40-50	2242.10
50-60	3052.29
60-70	3653.41
70-80	4255.87
80-90	4603.15
90-100	4476.83
100-110	4007.91
110-120	3380.83
120-130	2599.55
130-140	672.85
140-150	18.11
150-160	2.59
160-170	1.21
170-180	0.65



REPORT NUMBER: CP40G

Lamps: 400 W Pulse Start Metal Halide with Globe only

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

% Ceiling	Rcc	80				70				50			30			10			0
% Walls	Rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	89	89	89	89	83	83	83	83	72	72	72	61	61	61	52	52	52	47	
1	76	70	65	60	70	65	60	56	55	51	48	46	43	40	38	35	33	29	
2	67	59	51	45	62	54	48	42	45	40	36	37	33	30	30	27	24	20	
3	60	50	42	36	55	46	39	33	39	33	28	32	27	23	25	22	19	15	
4	55	43	35	29	50	40	32	27	33	27	23	27	22	19	22	18	15	12	
5	50	38	30	24	45	35	28	22	29	23	19	24	19	15	19	15	12	9	
6	45	34	26	20	41	31	24	18	26	20	16	21	16	13	17	13	10	8	
7	42	30	22	17	38	28	21	16	23	18	13	19	14	11	15	11	9	6	
8	39	27	20	15	35	25	18	14	21	15	12	17	13	9	14	10	7	5	
9	36	25	18	13	33	23	16	12	19	14	10	16	11	8	13	9	6	5	
10	33	22	16	11	31	21	15	10	18	12	9	15	10	7	12	8	6	4	

Zonal Lumen Summary

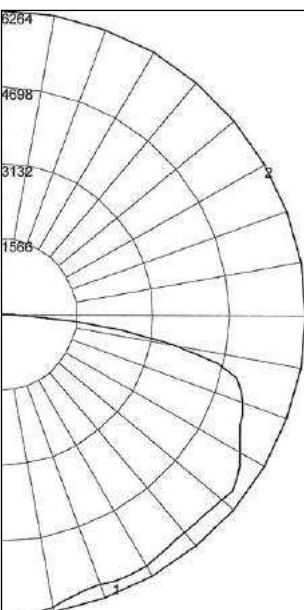
Zone	Lumens	% Lamp	% Fixture	Zone	Lumens	% Lamp	% Fixture
0-30	1550.63	3.5	4.3	90-120	11865.57	27.0	32.9
0-40	3061.87	7.0	8.5	90-130	14465.12	32.9	40.1
0-60	8356.25	19.0	23.2	90-150	15156.08	34.4	40.1
0-90	20868.68	47.4	57.9	90-180	15160.53	34.5	42.1
				0-180	36029.22	81.9	100.0

Total Luminaire Efficiency = 70.4%

CIE Type – Direct

Plane	Spacing Criteria
0-180	1.46
90-270	1.46
Diagonal	1.70

Zone	Lumens
0-10	595.04
10-20	1709.44
20-30	2776.90
30-40	3730.18
40-50	4573.20
50-60	5290.95
60-70	5418.07
70-80	5086.12
80-90	1757.09
90-100	33.71
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00



REPORT NUMBER: CP40ST

Lamps: 400 W Pulse Start Metal Halide with Standard Dome Reflector

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

% Ceiling	Rcc	80				70				50			30			10			0
% Walls	Rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	84	84	84	84	82	82	82	82	78	78	78	75	75	75	72	72	72	70	
1	74	69	65	62	72	68	64	60	64	61	58	62	59	57	59	57	55	53	
2	65	58	52	47	63	57	51	46	54	49	45	51	47	44	49	46	43	41	
3	58	49	42	37	57	48	42	36	46	40	36	44	39	35	42	38	34	32	
4	53	43	35	30	51	42	35	30	40	34	29	38	33	29	36	32	28	26	
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8	38	27	21	16	37	27	20	16	26	20	16	25	19	16	24	19	15	14	
9	35	25	18	14	34	24	18	14	23	18	14	23	18	14	22	17	14	12	
10	33	23	17	13	32	22	17	13	22	16	13	21	16	12	20	16	12	11	

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture	Zone	Lumens	% Lamp	% Fixture
0-30	5081.38	11.5	16.4	90-120	33.71	0.1	0.1
0-40	8811.56	20.0	28.5	90-130	33.71	0.1	0.1
0-60	18675.71	42.4	60.3	90-150	33.71	0.1	0.1
0-90	30936.99	70.3	99.9	90-180	33.71	0.1	0.1
				0-180	30970.7	70.4	100.0

Code•Master™ 2 HID Factory Sealed Luminaires

Explosionproof, Dust-Ignitionproof

* Photometric data is based on a 400-watt clear Pulse Start Metal Halide lamp (34,000 lumens). For candlepower values of fixtures with other lamps, use the following multipliers: 400 W HPS – 1.13 (50,000 lumens); and 250 W HPS – 0.68 (30,000 lumens).

NEC:

Class I, Division 1 and 2, Groups C, D
Class II, Division 1 and 2, Groups E, F, G
Class III
Marine Type Electric Fixtures
Outside Type (Salt Water)

CEC:

Class I, Division 1 and 2, Groups B, C, D
Class I, Zone 1 and 2; IIB, IIA
Class II, Division 1, Groups E, F, G
Class II, Division 2, Groups F, G
Class III

CEC:

CSA Type 4X
Exd IIB, Zone 1

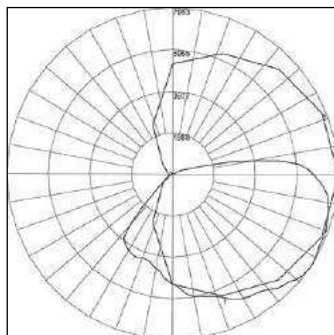
Photometric Data

Total Luminaire Efficiency = 62.5%

CIE Type – Direct

Plane	Spacing Criteria
0-180	2.02
90-270	1.48
Diagonal	1.64

Zone	Lumens
0-10	503.08
10-20	1461.14
20-30	2434.06
30-40	3353.43
40-50	3867.50
50-60	3954.40
60-70	3752.38
70-80	3368.71
80-90	2643.39
90-100	1531.50
100-110	421.63
110-120	86.74
120-130	65.68
130-140	20.81
140-150	11.94
150-160	7.93
160-170	4.46
170-180	1.47



REPORT NUMBER: CP40AN

Lamps: 400 W Pulse Start Metal Halide with 30° Angle Dome Reflector

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

% Ceiling	Rcc	80				70				50				30				10				0
% Walls	Rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
0	73	73	73	73	71	71	71	71	67	67	67	63	63	63	59	59	59	58				
1	64	60	56	53	62	58	55	52	54	52	49	51	49	47	48	46	44	42				
2	57	51	45	41	55	49	44	40	46	42	38	43	40	37	40	38	35	33				
3	51	44	38	33	49	42	37	32	39	35	31	37	33	30	35	31	26	27				
4	47	38	32	27	45	37	31	26	35	29	25	32	28	25	30	27	24	22				
5	43	34	27	23	41	33	27	22	31	25	22	29	24	21	27	23	20	19				
6	39	30	24	19	38	29	23	19	27	22	18	26	21	18	24	20	17	16				
7	36	27	21	17	35	26	21	17	25	20	16	23	19	16	22	18	15	14				
8	34	24	19	15	32	24	18	15	22	18	14	21	17	14	20	16	13	12				
9	31	22	17	13	30	22	16	13	21	16	13	20	15	12	19	15	12	11				
10	29	20	15	12	28	20	15	12	19	14	11	18	14	11	17	13	11	10				

Zonal Lumen Summary

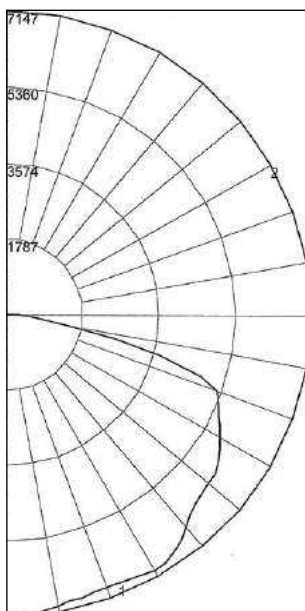
Zone	Lumens	% Lamp	% Fixture	Zone	Lumens	% Lamp	% Fixture
0-30	4398.28	10.0	16.0	90-120	2039.87	4.6	7.4
0-40	7751.71	17.6	28.2	90-130	2105.55	4.8	7.7
0-60	15573.61	35.4	56.7	90-150	2138.30	4.9	7.7
0-90	25338.08	57.6	92.2	90-180	2152.16	4.9	7.8
				0-180	27490.24	62.5	100.0

Total Luminaire Efficiency = 69.1%

CIE Type – Direct

Plane	Spacing Criteria
0-180	1.48
90-270	1.48
Diagonal	1.62

Zone	Lumens
0-10	676.92
10-20	1962.51
20-30	3199.12
30-40	4281.42
40-50	4889.12
50-60	5408.09
60-70	5456.18
70-80	3822.90
80-90	693.25
90-100	20.14
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00



REPORT NUMBER: CP40DD

Lamps: 400 W Pulse Start Metal Halide with Deep Dome Reflector

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

% Ceiling	Rcc	80				70				50				30				10				0
% Walls	Rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
0	82	82	82	82	80	80	80	80	77	77	77	73	73	73	70	70	70	69				
1	74	70	66	63	72	68	65	62	65	63	60	63	60	58	60	58	57	55				
2	66	59	54	49	64	58	53	49	55	51	47	53	49	46	51	48	45	44				
3	59	51	44	39	57	50	44	39	48	42	38	46	41	38	44	40	37	35				
4	54	44	38	32	52	43	37	32	42	36	32	40	35	31	38	34	31	29				
5	49	39	32	27	47	38	32	27	37	31	27	35	30	26	34	29	26	24				
6	45	35	28	23	44	34	28	23	33	27	23	32	26	23	30	26	22	21				
7	41	31	24	20	40	31	24	20	30	24	20	29	23	20	28	23	19	18				
8	38	28	22	18	37	28	22	18	27	21	17	26	21	17	25	21	17	16				
9	36	26	20	16	35	25	20	16	25	19	16	24	19	15	23	19	15	14				
10	34	24	18	14	33	23	18	14	23	18	14	22	17	14	21	17	14	12				

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture	Zone	Lumens	% Lamp	% Fixture
0-30	5838.56	13.3	19.2	90-120	20.14	0.0	0.1
0-40	10119.98	23.0	33.3	90-130	20.14	0.0	0.1
0-60	20417.19	46.4	67.1	90-150	20.14	0.0	0.1
0-90	30389.51	69.1	99.9	90-180	20.14	0.0	0.1
				0-180	30409.65	69.1	100.0

Code•Master™ 2 HID Factory Sealed Luminaires

Explosionproof, Dust-Ignitionproof

* Photometric data is based on a 400-watt clear Pulse Start Metal Halide lamp (34,000 lumens). For candlepower values of fixtures with other lamps, use the following multipliers: 400 W HPS – 1.13 (50,000 lumens); and 250 W HPS – 0.68 (30,000 lumens).

NEC:
 Class I, Division 1 and 2, Groups C, D
 Class II, Division 1 and 2, Groups E, F, G
 Class III
 Marine Type Electric Fixtures
 Outside Type (Salt Water)

CEC:
 Class I, Division 1 and 2, Groups B, C, D
 Class I, Zone 1 and 2; IIB, IIA
 Class II, Division 1, Groups E, F, G
 Class II, Division 2, Groups F, G
 Class III

CEC:
 CSA Type 4X
 Exd IIB, Zone 1

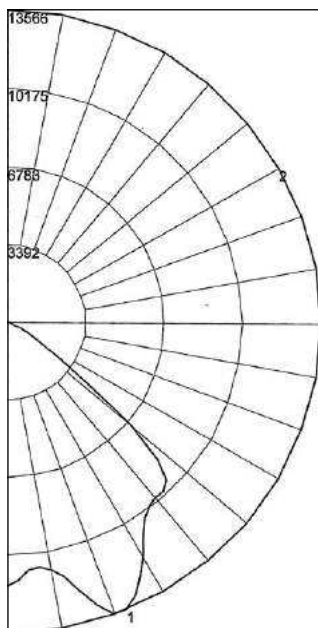
Photometric Data

Total Luminaire Efficiency = 63.4%

CIE Type – Direct

Plane	Spacing Criteria
0-180	1.40
90-270	1.40
Diagonal	1.52

Zone	Lumens
0-10	1044.42
10-20	3491.70
20-30	5976.88
30-40	6632.58
40-50	7143.25
50-60	2844.46
60-70	634.65
70-80	115.54
80-90	20.82
90-100	1.23
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00



REPORT NUMBER: CP40HB

Lamps: 400 W Pulse Start Metal Halide with High Bay Reflector

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

% Ceiling	Rcc	80				70				50				30				10				0
% Walls	Rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
	0	76	76	76	76	74	74	74	74	70	70	70	67	67	67	65	65	65	65	65	65	63
	1	71	69	67	65	69	67	65	64	65	63	62	62	61	60	60	59	58	57	57	57	57
	2	66	62	59	56	64	61	58	55	59	56	54	57	55	53	55	53	52	50	50	50	50
	3	61	56	52	48	60	55	51	48	53	50	47	51	49	46	50	48	46	44	44	44	44
	4	57	50	46	42	55	50	45	42	48	44	42	47	44	41	45	43	40	39	39	39	39
	5	53	46	41	37	51	45	40	37	44	40	37	43	39	36	42	38	36	35	35	35	35
	6	49	42	37	33	48	41	36	33	40	36	33	39	35	32	38	35	32	31	31	31	31
	7	46	38	33	30	44	37	33	29	37	32	29	36	32	29	35	31	29	28	28	28	28
	8	42	35	30	27	42	34	30	26	34	29	26	33	29	26	32	29	26	25	25	25	25
	9	40	32	27	24	39	32	27	24	31	27	24	30	26	24	30	26	24	23	23	23	23
	10	37	29	25	22	36	29	25	22	29	24	22	28	24	22	27	24	21	20	20	20	20

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture	Zone	Lumens	% Lamp	% Fixture
0-30	10513.00	23.9	37.7	90-120	1.23	0.0	0.0
0-40	17145.58	39.0	61.4	90-130	1.23	0.0	0.0
0-60	27133.29	61.7	97.2	90-150	1.23	0.0	0.0
0-90	27904.30	63.4	100.0	90-180	1.23	0.0	0.0
				0-180	27905.53	63.4	100.0

HID/AREA: NEC/CEC EXPLOSIONPROOF

Appleton®

Code•Master™ Jr. HID Factory Sealed Luminaires

Explosionproof, Dust-Ignitionproof

Integrally Ballasted. 50 W, 70 W, 100 W, 150 W HPS; 50 W, 70 W, 100 W, 175 W PSMH. 175 W MH. Medium Base. For Use with Threaded Metal Conduit.

NEC:

Class I, Division 1 and 2, Groups B, C, D
Class II, Division 1 and 2, Groups E, F, G
Class III
Marine type electric fixtures, outside type
(salt water)

CEC:

Class I, Division 1 and 2, Groups B, C, D
Class II, Division 1 and 2, Groups E, F, G
Class III
Type 4X
Exd IIB + H₂

Applications

- For use in chemical and petrochemical plants, such as manufacturers of plastics, paints and thinners; in refineries; and in other areas where ignitable vapors, dust, moisture and corrosive elements may be present.
- Suitable for outdoor saltwater locations and for other wet locations.

Features

- Fixtures operate safely in high ambient temperatures.
- Arrangement of heat-producing components results in efficient heat dissipation for cooler fixture operation.
- Patented “wireless” design. Threading of fixture unit onto mounting hood makes electrical connection. Only wiring required is attaching two wires to connection block in mounting hood.
- Connection block is easily wired: (a) loosen two screws, (b) make wire connections, and (c) re-position connection block.
- Safe, easy servicing without disconnecting any wiring. “Wireless” fixture unit threads off mounting hood for convenient servicing or for immediate replacement with a “stand-by” unit.
- Acme double-lead threads speed installation and fixture removal from mounting hood – only half as many turns are required as for single-lead threads. The threads do not stick or gall, eliminating problems often encountered with single-lead threads during fixture unit removal.
- All threaded joints are flame-tight.
- Integrally ballasted HID lighting fixtures; separate ballasts not required.
- Factory sealed. External seals not required for Groups C and D.
- Fixtures for use in NEC Group B locations furnished complete with UL required sealing fitting. Not required for CEC approval.
- Strategic location of lamp socket, in combination with interior prism design of the glass globe, provides optimum light distribution and control.
- Heat and impact-resistant globes have smooth dust-resistant exterior.
- Superior corrosion resistance, with epoxy powder coat finish.
- Shock-absorbing medium-base socket mounts prolong lamp life.
- Porcelain socket with nickel-plated phosphor bronze screw shell.
- Assures long trouble-free operation in high ambient areas.
- Choice of mountings: pendant, ceiling, bracket and stanchion.
- Fiberglass-reinforced polyester reflectors, in standard dome, or 30° angle styles, are ideal in installations where luminaire is subject to exceptionally severe corrosive atmospheres.
- Optional guards protect globes from damage. Secured to fixture with three stainless steel screws.
- Variety of light sources: high pressure sodium, pulse start metal halide and metal halide. HPS is excellent where long lamp life is required. HPS provides high lumens per watt and is less expensive to operate. PSMH and MH are desirable where colors in illuminated areas must be close to natural.
- A wide range of ballasts and voltages are available for both domestic and export applications.
- Ballasts operate at low temperatures – PSMH/MH: -29 °C (-20 °F); HPS: -40 °C (-40 °F).
- 50 W through 150 W high pressure sodium ballasts are high reactance, high power factor type.



Standard Materials

- Ballast bodies and guards: copperfree (4/10 of 1% max.) aluminum
- Pendant mounting hoods: diecast copperfree (4/10 of 1% max.) aluminum
- Ceiling, bracket and stanchion mounting hoods: sand cast copperfree (4/10 of 1% max.) aluminum
- Reflectors: fiberglass reinforced polyester

Standard Finishes

- Ballast bodies, guards and mounting hoods: epoxy powder coat finish, electrostatically applied for complete, uniform corrosion protection

Options

- Fuses: order fuses for field installation by catalog number, see *Ballast and Fuse Kit Data*.
- “Hot Restrike” – add suffix **-R**. “Smart Starter” – add suffix **-S**. Emergency Options available for 50 W through 150 W HPS only.
- For CEC Exd IIB + H₂ rating, add suffix **-Z**.
- For safety chain, add suffix **-SC**.

NEC/CEC Certifications and Compliances

- UL Standard: UL 1598, UL 844
- UL Listed: E10444
- CSA Standard: C22.2 No. 250, C22. 2No. 137
- CSA Certified: 025428

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Explosionproof, Dust-Ignitionproof

Integrally Ballasted. 50 W, 70 W, 100 W, 150 W HPS; 50 W, 70 W, 100 W, 175 W PSMH. 175 W MH. Medium Base. For Use with Threaded Metal Conduit.

NEC:

Class I, Division 1 and 2, Groups B, C, D
Class II, Division 1 and 2, Groups E, F, G
Class III
Marine type electric fixtures, outside type
(salt water)

CEC:

Class I, Division 1 and 2, Groups B, C, D
Class II, Division 1 and 2, Groups E, F, G
Class III
Type 4X
Exd IIB + H₂

Lamp Watts	Ballast Type ①	+40 °C (+104 °F) ②		+55 °C (+131 °F) ②		+65 °C (+149 °F) ②		+40 °C (+104 °F) ③	
		Ambient Temp. “T” Numbers	Supply Wire Temp °C (°F)	Ambient Temp. “T” Numbers	Supply Wire Temp °C (°F)	Ambient Temp. “T” Numbers	Supply Wire Temp °C (°F)	Ambient Temp. “T” Numbers	Supply Wire Temp °C (°F)
High Pressure Sodium — Medium Base Lamps									
50	MT, TT	T6	75 (167)	T5	75 (167)	T4A	75 (167)	T4	75 (167)
70	MT, TT, 480 V	T5	75 (167)	T4A	75 (167)	T4A	75 (167)	T4	90 (194)
100	MT, TT, 480 V	T4A	75 (167)	T4	90 (194)	—	—	T3B	90 (194)
150	MT, TT, 480 V	T3C	75 (167)	—	—	—	—	—	—
Pulse Start Metal Halide — Medium Base Lamps									
50	MT, TT	T6	75 (167)	T5	75 (167)	T4A	90 (194)	T3C	90 (194)
70	MT, TT, 480 V	T5	75 (167)	T4A	75 (167)	T4A	90 (194)	T3C	90 (194)
100	MT, TT, 480 V	T4A	90 (194)	T4A	90 (194)	—	—	—	—
175	MT, TT, 480 V	T3B	90 (194)	—	—	—	—	—	—
Metal Halide — Medium Base Lamps									
175	MT, TT, 480 V	T3B	85 (185)	—	—	—	—	—	—

"T" Numbers Represent the Maximum Surface Temperature for Class I, Division 1 Locations and Maximum Surface Temperature Under Dust Blanket for Class II, Division 1 Locations.

"T" Number	T1	350	325	T2	T2A	T2B	T2C	T2D	T3	T3A	T3B	T3C	T4	T4A	T5	T6
Temp. Range (°C)	351- 450	326- 350	301- 325	281- 300	261- 280	231- 260	216- 230	201- 215	181- 200	166- 180	161- 165	136- 160	121- 135	101- 120	86- 100	85
Temp. Range (°F)	664- 842	619- 662	574- 617	538- 572	502- 536	448- 500	421- 446	394- 419	358- 392	331- 356	322- 329	277- 320	250- 275	214- 248	187- 212	185

Fixture and Accessory Weights kg (lb)

Fixture Size	Fixture Weight	Reflector Weight	Guard Weight
35 W thru 175 W	12.70-14.51 (28-32)	1.36 (3)	0.45 (1)

Mounting Hood Weights kgs (lbs)

Pendant	Ceiling	Bracket	Stanchion
0.91 (2)	1.81 (4)	2.72 (6)	0.91 (2)

NOTE: The maximum operating temperature of the fixture must not exceed the ignition temperature of the gas, vapor or dust to be encountered per the National Electrical Code and the Canadian Electrical Code.

① MT is Multi-Tap for 120/208/240/277 V, TT is Tri-Tap for 120/277/347 V.

② Class I, Division 1 Locations.

③ Class II, Division 1 Locations.

Code•Master™ Jr. HID Factory Sealed Luminaires

Explosionproof, Dust-Ignitionproof

Integrally Ballasted. 50 W, 70 W, 100 W, 150 W HPS; 50 W, 70 W, 100 W, 175 W PSMH. 175 W MH. Medium Base. For Use with Threaded Metal Conduit.

NEC:

Class I, Division 1 and 2, Groups B, C, D
Class II, Division 1 and 2, Groups E, F, G
Class III
Marine type electric fixtures, outside type
(salt water)

Type Mounting	Lamp Watts	ANSI Lamp Type ⑤		Hub Size (Inches)	Catalog Number ②	
		HPS	PSMH		HPS ①	PSMH
Pendant - One Hub, Rigid or Flexible Mounting						
	50	S68	M110	3/4	CJLPB5075 ③	CJHPB5075 ③
	70	S62	M98	3/4	CJLPB7075 ④	CJHPB7075 ④
	100	S54	M90	3/4	CJLPB1075 ④	CJHPB1075 ④
	150	S55	—	3/4	CJLPB1575 ④	—
	175	—	M152	3/4	—	CJPPB1775 ④
25° Stanchion - One Hub						
	50	S68	M110	1-1/2	CJLSB50150 ③	CJHSB50150 ③
	70	S62	M98	1-1/2	CJLSB70150 ④	CJHSB70150 ④
	100	S54	M90	1-1/2	CJLSB10150 ④	CJHSB10150 ④
	150	S55	—	1-1/2	CJLSB15150 ④	—
	175	—	M152	1-1/2	—	CJPSB17150 ④
Mounting Hoods						
Type Mounting				Hub Size (Inches)	Catalog Number	
	Pendant			3/4	CAP-75B	
	One Hub					
	25° Stanchion			1-1/2	CAS-150B	
	One Hub					

① Add suffix **-R** for "Hot Restrike" and **-S** for "Smart Starter" options.

② To order fixture with guard, add suffix **-G** (before adding voltage suffix).

③ Add voltage **-MT** for 120/208/240/277 V. For 480 V, contact your sales representative.

④ Add voltage suffix **-MT** for 120/208/240/277 V, or **-48** for 480 V. Contact your sales representative for available 50 Hz ballasts.

⑤ Refer to lamp manufacturer's data regarding lamp burning position restrictions.

Code•Master™ Jr. HID Factory Sealed Luminaires

Explosionproof, Dust-Ignitionproof

Integrally Ballasted. 50 W, 70 W, 100 W, 150 W HPS; 50 W, 70 W, 100 W, 175 W PSMH. 175 W MH. Medium Base. For Use with Threaded Metal Conduit.

NEC:

Class I, Division 1 and 2, Groups C, D
Class II, Division 1 and 2, Groups E, F, G
Class III
Marine type electric fixtures, outside type
(salt water)

CEC:

Class I, Division 1 and 2, Groups B♦, C, D
Class II, Division 1 and 2, Groups E, F, G
Class III
Type 4X
Exd IIB + H₂

	Lamp	ANSI Lamp Type ⑥		Hub Size ⑦	Catalog Number ②		
	Watts	HPS	PSMH/MH	(Inches)	HPS ①	PSMH	MH ⑧
Pendant — One Hub, Rigid or Flexible Mounting							
	50	S68	M110	3/4	CJLP5075MT ③	CJHP5075MT ③	—
					CJLP5075TTCN ⑨ ③	CJHP5075TTCN ⑨ ③	—
				1	CJLP5010MT ③	CJHP5010MT ③	—
					CJLP5010TTCN ⑨ ③	CJHP5010TTCN ⑨ ③	—
	70	S62	M98	3/4	CJLP7075MT ④	CJHP7075MT ④	—
					CJLP7075TTCN ⑨ ⑤	CJHP7075TTCN ⑨ ⑤	—
				1	CJLP7010MT ④	CJHP7010MT ④	—
					CJLP7010TTCN ⑨ ⑤	CJHP7010TTCN ⑨ ⑤	—
	100	S54	M90	3/4	CJLP1075MT ④	CJHP1075MT ④	—
					CJLP1075TTCN ⑨ ⑤	CJHP1075TTCN ⑨ ⑤	—
				1	CJLP1010MT ④	CJHP1010MT ④	—
					CJLP1010TTCN ⑨ ④	CJHP1010TTCN ⑨ ⑤	—
	150	S55	—	3/4	CJLP1575MT ④	—	—
					CJLP1575TTCN ⑨ ⑤	—	—
				1	CJLP1510MT ④	—	—
					CJLP1510TTCN ⑨ ④	—	—
	175	—	M152	3/4	—	CJPP1775MT ④	CJHP1775MTCN ⑨ ④
					—	CJPP1775TTCN ⑨ ⑤	CJHP1775TTCN ⑨ ⑤
				1	—	CJPP1710MT ④	CJHP1710MTCN ⑨ ④
					—	CJPP1710TTCN ⑨ ⑤	CJHP1710TTCN ⑨ ⑤
Ceiling — Four Hubs, Three Close-Up Plugs							
	50	S68	M110	3/4	CJLC5075MT ③	CJHC5075MT ③	—
					CJLC5075TTCN ⑨ ③	CJHC5075TTCN ⑨ ③	—
				1	CJLC5010MT ③	CJHC5010MT ③	—
					CJLC5010TTCN ⑨ ③	CJHC5010TTCN ⑨ ③	—
	70	S62	M98	3/4	CJLC7075MT ④	CJHC7075MT ④	—
					CJLC7075TTCN ⑨ ⑤	CJHC7075TTCN ⑨ ⑤	—
				1	CJLC7010MT ④	CJHC7010MT ④	—
					CJLC7010TTCN ⑨ ⑤	CJHC7010TTCN ⑨ ⑤	—
	100	S54	M90	3/4	CJLC1075MT ④	CJHC1075MT ④	—
					CJLC1075TTCN ⑨ ⑤	CJHC1075TTCN ⑨ ⑤	—
				1	CJLC1010MT ④	CJHC1010MT ④	—
					CJLC1010TTCN ⑨ ⑤	CJHC1010TTCN ⑨ ⑤	—
	150	S55	—	3/4	CJLC1575MT ④	—	—
					CJLC1575TTCN ⑨ ⑤	—	—
				1	CJLC1510MT ④	—	—
					CJLC1510TTCN ⑨ ⑤	—	—
	175	—	M152	3/4	—	CJPC1775MT ④	CJHC1775MTCN ⑨ ④
					—	CJPC1775TTCN ⑨ ⑤	CJHC1775TTCN ⑨ ⑤
				1	—	CJPC1710MT ④	CJHC1710MTCN ⑨ ④
					—	CJPC1710TTCN ⑨ ⑤	CJHC1710TTCN ⑨ ⑤

① Add suffix **-R** for "Hot Restrike" and **-S** for "Smart Starter" options.

② To order fixture with guard, add suffix **-G** before adding voltage suffix.

③ For 480 V, contact your sales representative.

④ Change voltage suffix **-MT** to **-48** for 480 V.

⑤ Change voltage suffix **-TT** (120/277/347 V) to **-MT** for 120/208/240/277 V, **-C2** for 208 V, **-C3** for 240 V, **-C6** for 480 V, or **-C7** for 600 V. These voltage suffixes have CSA Certification only.

⑥ Refer to lamp manufacturer's data regarding lamp burning position restrictions.

⑦ Fixtures with 1" hubs listed for Class I, Group D, and Class II, Groups E, F, G only.

⑧ Mercury vapor and metal halide luminaires are not available for purchase within the United States. Please check with your countries governing legislation regarding allowable lamp types before ordering.

⑨ Catalog numbers with **-CN** suffix have CSA Certification only.

♦ Shaded area indicates items suitable for Class I, Division 1, Group B.

Code•Master™ Jr. HID Factory Sealed Luminaires

Explosionproof, Dust-Ignitionproof

Integrally Ballasted. 50 W, 70 W, 100 W, 150 W HPS; 50 W, 70 W, 100 W, 175 W PSMH. 175 W MH. Medium Base. For Use with Threaded Metal Conduit.

NEC:

Class I, Division 1 and 2, Groups C, D
Class II, Division 1 and 2, Groups E, F, G
Class III
Marine type electric fixtures, outside type
(salt water)

CEC:

Class I, Division 1 and 2, Groups B♦, C, D
Class II, Division 1 and 2, Groups E, F, G
Class III
Type 4X
Exd IIB + H₂

				Lamp Watts	ANSI Lamp Type ⑥		Hub Size ⑦ (Inches)	Catalog Number ②		
					HPS	PSMH/MH		HPS ①	PSMH	MH ⑨
Bracket — Four Hubs, Three Close-Up Plugs										
	50	S68	M110	3/4	CJLB5075MT ③	CJHB5075MT ③	—			
					CJLB5075TTCN ⑩③	CJHB5075TTCN ⑩③	—			
				1	CJLB5010MT ③	CJHB5010MT ③	—			
					CJLB5010TTCN ⑩③	CJHB5010TTCN ⑩③	—			
	70	S62	M98	3/4	CJLB7075MT ④	CJHB7075MT ④	—			
					CJLB7075TTCN ⑩⑤	CJHB7075TTCN ⑩⑤	—			
				1	CJLB7010MT ④	CJHB7010MT ④	—			
					CJLB7010TTCN ⑩⑤	CJHB7010TTCN ⑩⑤	—			
	100	S54	M90	3/4	CJLB1075MT ④	CJHB1075MT ④	—			
					CJLB1075TTCN ⑩⑤	CJHB1075TTCN ⑩⑤	—			
				1	CJLB1010MT ④	CJHB1010MT ④	—			
					CJLB1010TTCN ⑩⑤	CJHB1010TTCN ⑩⑤	—			
	150	S55	—	3/4	CJLB1575MT ④	—	—			
					CJLB1575TTCN ⑩⑤	—	—			
				1	CJLB1510MT ④	—	—			
					CJLB1510TTCN ⑩⑤	—	—			
175	—	M152	3/4	—	CJPB1775MT ④	CJHB1775MTCN ⑩④				
				—	CJPB1775TTCN ⑩⑤	CJHB1775TTCN ⑩⑤				
			1	—	CJPB1710MT ④	CJHB1710MTCN ⑩④				
				—	CJPB1710TTCN ⑩⑤	CJHB1710TTCN ⑩⑤				
25° Stanchion — One Hub										
	50	S68	M110	1-1/4 or 1-1/2 ⑧	CJLS50150MT ③	CJHS50150MT ③	—			
					CJLS50150TTCN ⑩③	CJHS50150TTCN ⑩③	—			
	70	S62	M98	1-1/4 or 1-1/2 ⑧	CJLS70150MT ④	CJHS70150MT ③	—			
					CJLS70150TTCN ⑩④	CJHS70150TTCN ⑩③	—			
	100	S54	M90	1-1/4 or 1-1/2 ⑧	CJLS10150MT ④	CJHS10150MT ③	—			
					CJLS10150TTCN ⑩④	CJHS10150TTCN ⑩③	—			
	150	S55	—	1-1/4 or 1-1/2 ⑧	CJLS15150MT ④	—	—			
					CJLS15150TTCN ⑩④	—	—			
	175	—	M152	1-1/4 or 1-1/2 ⑧	—	CJPS17150MT	CJHS17150MTCN ⑩			
					—	CJPS17150TTCN ⑩	CJHS17150TTCN ⑩			

① Add suffix **-R** for "Hot Restrike" and **-S** for "Smart Starter" options.

② To order fixture with guard, add suffix **-G** before adding voltage suffix.

③ For 480 V, contact your sales representative.

④ Change voltage suffix **-MT** to **-48** for 480 V.

⑤ Change voltage suffix **-TT** (120/277/347 V) to **-MT** for 120/208/240/277 V, **-C2** for 208 V, **-C3** for 240 V, **-C6** for 480 V, or **-C7** for 600 V. These voltage suffixes have CSA Certification only.

⑥ Refer to lamp manufacturer's data regarding lamp burning position restrictions.

⑦ Fixtures with 1" hubs listed for Class I, Group D, and Class II, Groups E, F, G only.

⑧ 1-1/2" tapped hub furnished with 1-1/2" to 1-1/4" reducer.

⑨ Mercury vapor and metal halide luminaires are not available for purchase within the United States. Please check with your countries governing legislation regarding allowable lamp types before ordering.

⑩ Catalog numbers with **-CN** suffix have CSA Certification only.

♦ Shaded area indicates items suitable for Class I, Division 1, Group B.

Code•Master™ Jr. HID Factory Sealed Luminaires

Explosionproof, Dust-Ignitionproof

Integrally Ballasted. 50 W, 70 W, 100 W, 150 W HPS; 50 W, 70 W, 100 W, 175 W PSMH. 175 W MH. Medium Base. For Use with Threaded Metal Conduit.

NEC:

Class I, Division 1 and 2, Groups B♦, C, D
Class II, Division 1 and 2, Groups E, F, G
Class III
Marine type electric fixtures, outside type
(salt water)

CEC:

Class I, Division 1 and 2, Groups B♦, C, D
Class II, Division 1 and 2, Groups E, F, G
Class III
Type 4X
Exd IIB + H₂

Mounting Hoods

	Hub Size (Inches)	Catalog Number
Pendant — One Hub		
	3/4	CAP-75
	1 ②	CAP-100
Ceiling — Four Hubs, Three Close-Up Plugs		
	3/4	CAC-75
	1 ②	CAC-100
Bracket — Four Hubs, Three Close-Up Plugs		
	3/4	CALB-75
	1 ②	CALB-100
25° Stanchion — One Hub		
	1-1/4 or 1-1/2 ①	CAS-150
Mounting Adapter with Connection Block		
	Permits use of existing A-51 mounting hoods (AAC Ceiling or AALB Bracket) with the new Code•Master 2 Fixture Unit. After removing existing fixture unit and adapter, screw in the new CMAD-1 Adapter. Then thread new fixture unit into the CMAD-1.	
		CMAD-1

Fixture Units

Ballast body with globe. Indicate voltage desired by adding voltage suffix to fixture unit catalog number listed below.

Type	Lamp Watts	Fixture Unit Number	Add Voltage Suffixes		
			120/208/240/277	120/277/347 ④	480 V
High Pressure Sodium ③ High Power Factor (Min. P.F. 90%)	50	CJB50L-	MT	TTCN	—
	70	CJB70L-	MT	TTCN	48
	100	CJB100L-	MT	TTCN	48
	150	CJB150L-	MT	TTCN	48
Pulse Start Metal Halide Constant Wattage (Min. P.F. 90%)	50	CJB50H-	MT	TTCN	—
	70	CJB70H-	MT	TTCN	48
	100	CJB100H-	MT	TTCN	48
	175	CJB175P-	MT	TTCN	48
Metal Halide Constant Wattage (Min. P.F. 90%)	175	CJB175H-	MT	TT	C6

① 1-1/2" Tapped hub furnished with 1-1/2" to 1-1/4" reducer.

② Mounting Hoods with 1" hub listed for Class I, Group D; Class II, Groups E,F,G; and Class III only.

③ Add suffix **-R** for "Hot Restrike" and **-S** for "Smart Starter" options.

④ Change voltage suffix **-TTCN** to **-MTCN** for 120/208/240/277 V, **-C2** for 208 V, **-C3** for 240 V, **-C6** for 480 V, or **-C7** for 600 V. These voltage suffixes have CSA Certification only.

⑤ Mercury vapor and metal halide luminaires are not available for purchase within the United States. Please check with your countries governing legislation regarding allowable lamp types before ordering.

♦ Shaded area indicates items suitable for Class I, Division 1, Group B.