

Mercmaster™ III Low Profile Luminaires

High Pressure Sodium and Pulse Start Metal Halide
Enclosed and Gasketed Fixtures — Hazardous Locations

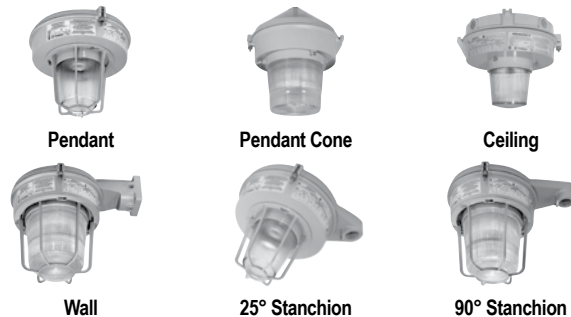
CEC: Class I, Division 2, Groups A, B, C, D | Class I, Zone 2 Ex nR IIC (Z) | Class II, Division 1 and 2, Groups E, F, G | Class III | Type 4X | IP66

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 Type II and III), heat-resistant globes, or prismatic polymeric refractors (NEMA Type II, III, IV and V) 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: ④
 - HPS 70 W-150 W
 - PSMH 70 W-175 W ③
- 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.



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
- Polymeric refractor: spun aluminum reflector and a lens made of an engineered thermoplastic

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.
- Ex nR fixtures, add suffix -Z.
- Reflectors are available as standard dome and 30° angle polyester. Order separately.

CEC Certifications and Compliances ②

- CSA Standard: CSA C22.2 No. 9, C22.2 No. 137; CAN/CSA E60079-0, E60079-15
- CSA Certified: 025428

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.

④ Please note, there is a max lamp height of 141 mm (14.1 cm) when using the VPGL-1HR globe.

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Illustrated Features



High Temperature Sockets

Medium base high-temperature porcelain sockets.

Aluminum Inner Reflector

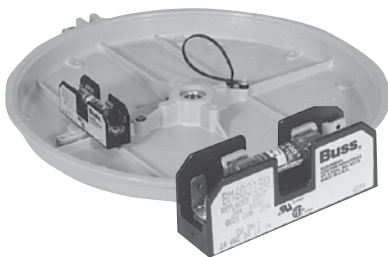
Solid aluminum inner reflector (for refractor ballast housings only) improves photometric efficiency.

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

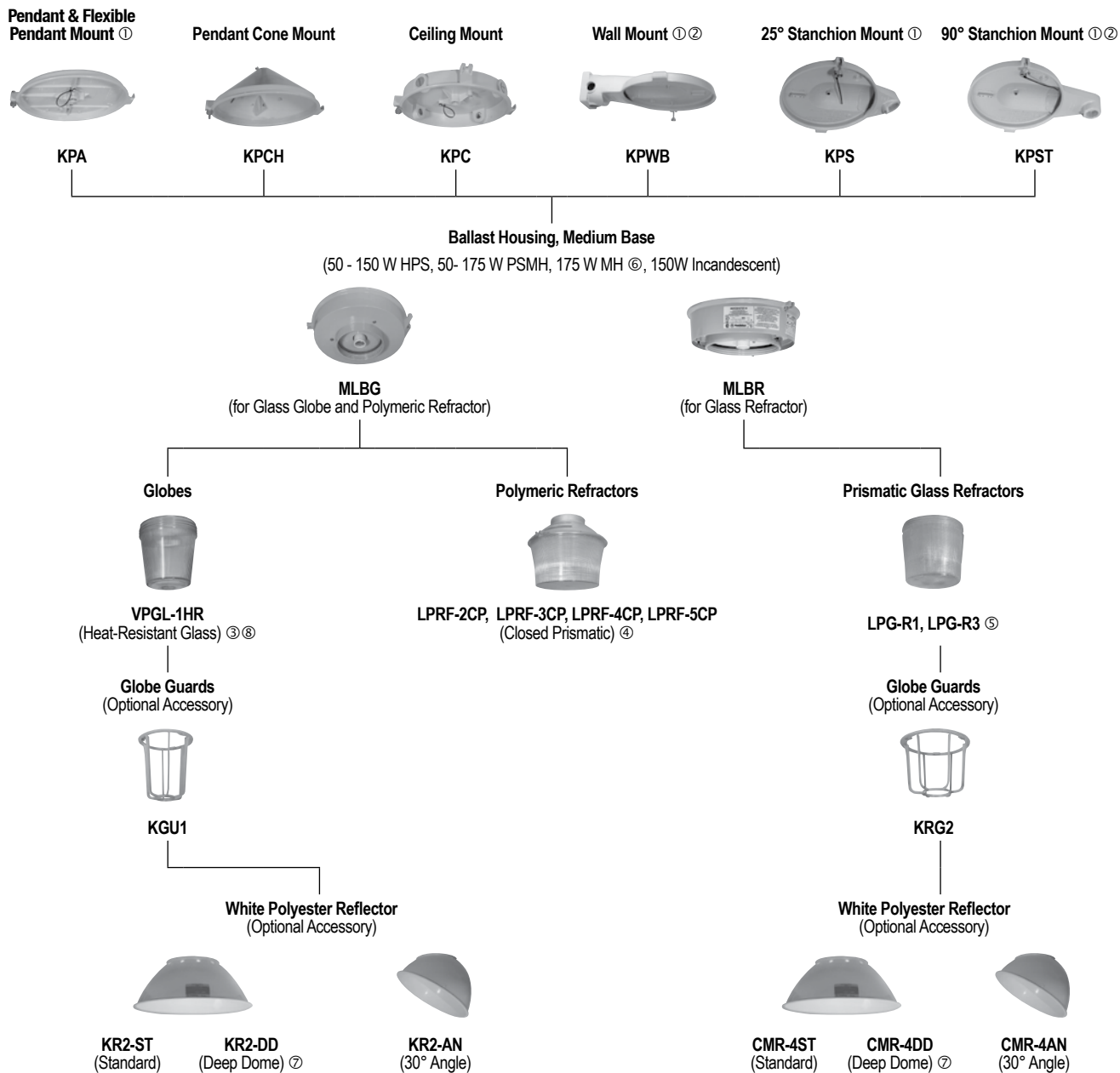
Captive, stainless steel latch assembly bolt and nut closes securely, resists attack of corrosive atmospheres. Swing-away design simplifies servicing.

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Family Tree — Mercmaster™ III Low Profile Luminaires



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 and III.

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.

⑦ Fixtures when used with Deep Dome Refractors are NOT UL Listed.

⑧ Please note, there is a max lamp height of 141 mm (14.1 cm) when using the VPGL-1HR globe.

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Order Using Catalog Numbering Guide — Mercmaster™ III Low Profile Hazardous Location Luminaires

<p>ML</p> <p>Series: ML - Mercmaster III Low Profile</p>	<p>A</p> <p>Mounting: A - Pendant (rigid mounting) C - Ceiling D - Pendant Cone Hood F - Pendant (flexible mounting) R - 90° Stanchion S - 25° Stanchion W - Wall</p>	<p>L</p> <p>Lamp Type: I - Incandescent H - Metal Halide (70-175 W) L - High Pressure Sodium H - Pulse Start Metal Halide (175 W Only)</p>	<p>15</p> <p>Wattage: ⑤ 10 - 100 W HPS/MH 15 - 150 W HPS/MH and 60-150 W max. Incandescent 17 - 175 W MH 70 - 70 W HPS/MH</p>	<p>2</p> <p>Hub Size: 2 - 3/4" NPT 3 - 1" NPT 4 - 1-1/4" NPT stanchion 5 - 1-1/2" NPT stanchion</p>	<p>G1</p> <p>Optical Assembly: ② G1 - Globe ⑥ J1 - NEMA I Glass Refractor J3 - NEMA III Glass Refractor P2 - NEMA II Polymeric Refractor P3 - NEMA III Polymeric Refractor P4 - NEMA IV Polymeric Refractor P5 - NEMA V Polymeric Refractor</p>	<p>G</p> <p>Guard Options: G - Cast Guard N - No Guard</p>	<p>MT</p> <p>Voltage: ① LB - Incandescent, 120, 60 Hz MT - 120/208/240/277 V 60 Hz TT - 120/277/347 V 60 Hz, CWA C7 - 600 V 60 Hz, CWI ④</p>	<p>R</p> <p>Options: E - Emergency Quartz 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</p>	<p>Z2</p> <p>Suffix: Z - Zone 2 suffix (required for Ex nR)</p>
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Lamp Type	Lamp Watts	Voltage Suffixes			
		LB	MT	TT	CT
Inc.	150 Max.	X	—	—	—
HPS	70	—	X	X	X
HPS	100	—	X	X	X
HPS	150	—	X	X	X
PSMH	175	—	X	X	—
MH ③	70	—	X	X	—
MH ③	100	—	X	X	—
MH ③	150	—	X	—	—
MH ③	175	—	—	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

C7 - 600 V 60 Hz, CWI

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 MH Max.). Reflectors ordered separately.

③ Fixtures equipped with quartz auxiliary lamp do not comply with CEC requirements and are not suitable for use in classified locations.

④ For 600 V applications, consult factory prior to ordering.

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.

⑥ Please note, there is a max lamp height of 141 mm (14.1 cm) when using the VPGL-1HR globe.

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HID Luminaires | Area / Task | Hazardous Location | NEC / CEC

Electrical Specifications						
Lamp Watts	Lamp Type	Type of Ballast ①	Line Voltage	Starting Amps	Operating Amps	Total Watts
70 Watt	HPS	HX-HPF	120	0.90	0.82	94
		HX-HPF	208	0.50	0.48	94
		HX-HPF	240	0.44	0.41	94
		HX-HPF	277	0.35	0.36	94
		HX-HPF	347	0.30	0.30	94
100 Watt	HPS	HX-HPF	120	1.30	1.15	130
		HX-HPF	208	0.76	0.67	130
		HX-HPF	240	0.66	0.60	130
		HX-HPF	277	0.60	0.52	130
		HX-HPF	347	0.45	0.39	130
		C.W.I.	600	0.14	0.24	130
150 Watt	HPS ②	HX-HPF	120	2.00	1.70	188
		HX-HPF	208	1.15	0.95	188
		HX-HPF	240	1.00	0.85	188
		HX-HPF	277	0.85	0.72	188
		HX-HPF	347	0.52	0.56	188
		C.W.I.	600	0.19	0.35	190
175 Watt	PSMH	Super C.W.A.	120	0.90	1.78	199
		Super C.W.A.	208	0.50	1.08	199
		Super C.W.A.	240	0.35	0.89	199
		Super C.W.A.	277	0.30	0.76	199
		Super C.W.A.	347	0.25	0.65	208
70 Watt	MH	HX-HPF	120	0.80	0.85	95
		HX-HPF	208	0.50	0.52	95
		HX-HPF	240	0.43	0.44	95
		HX-HPF	277	0.39	0.39	95
		HX-HPF	347	0.20	0.28	88
100 Watt	MH	HX-HPF	120	1.20	1.15	130
		HX-HPF	208	0.70	0.70	130
		HX-HPF	240	0.61	0.58	130
		HX-HPF	277	0.55	0.50	130
		HX-HPF	347	0.40	0.40	129
150 Watt	MH ③	HX-HPF	120	1.75	1.60	188
		HX-HPF	208	1.30	1.00	188
		HX-HPF	240	0.85	0.80	188
		HX-HPF	277	0.77	0.70	188
		Super C.W.A.	347	0.65	0.55	185
175 Watt	PSMH	C.W.A.	120	1.30	1.80	210
		C.W.A.	208	0.75	1.04	210
		C.W.A.	240	0.65	0.90	210
		C.W.A.	277	0.55	0.80	210
		C.W.A.	347	0.50	0.65	210
		C.W.I.	600	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.

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Temperature Codes | Class I, Division 2; Class II, Division 1; Simultaneous exposure to hazardous conditions in both classifications

Lamp Watts	Lamp Type	Supply Wire Min. Temp. °C (°F)	Ambient Temp. °C (°F)	Class I, Division 2			Class II, Division 1 Groups E, F and G			Simultaneous Exposure Class I, Division 2 / Class II, Division 1		
				Globe	Globe & Reflector	Reflector	Globe	Globe & Reflector	Reflector	Globe	Globe & Reflector	Reflector
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
175	PSMH	105 °C (221 °F)	40 °C (104 °F)	350	350	325	—	—	T3B	—	—	T1
70	MH ②	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	MH ②	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	MH ②	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 (°F)	+351 to +450 (+664 to +842)	+326 to +350 (+619 to +662)	+301 to +325 (+574 to +617)	+281 to +300 (+538 to +572)	+261 to +280 (+502 to +536)	+231 to +260 (+448 to +500)	+216 to +230 (+421 to +446)	+201 to +215 (+394 to +419)	+181 to +200 (+358 to +392)	+166 to +180 (+331 to +356)	+161 to +165 (+322 to +329)	+136 to +160 (+277 to +320)	+121 to +135 (+250 to +275)	+101 to +120 (+214 to +248)	+86 to +100 (+187 to +212)	+85 (+185)

① “T” numbers are for Groups E and F only.

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Temperature Codes | Class I, Zone 2; Ex nR IIC; IP66; NEMA 4X

Lamp 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
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
175	PSMH	105 °C (221 °F)	40 °C (104 °F)	T3	T3	T4
70	MH ①	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	MH ①	90 °C (194 °F)	40 °C (104 °F)	T4	T4	T6
		90 °C (194 °F)	55 °C (131 °F)	T4	T4	T4
150	MH ①	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:

“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

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Fuse Kit for Field Installation — Order one kit for CWA ballasts and two kits for CWI ballasts ①

Volts	60W		70W		75W		100W		150W		175W	
	CWA	CWI	CWA	CWI	CWA	CWI	CWA	CWI	CWA	CWI	CWA	CWI
High Pressure Sodium												
120	—	—	F3C	F3C	—	—	F4C	F4C	F6C	F6C	—	—
208	—	—	—	F2C	—	—	—	F2C	—	F3C	—	—
240	—	—	F2C	F2C	—	—	F2C	F2C	F3C	F3C	—	—
277	—	—	F2C	—	—	—	F2C	—	F3C	—	—	—
347	—	—	F1C	—	—	—	F1C	—	F2C	—	—	—
480	—	—	—	F1C	—	—	—	F1C	—	F2C	—	—
600	—	—	—	F1C	—	—	—	F1C	—	F2C	—	—
Pulse Start Metal Halide/Metal Halide												
120	—	—	F4C	—	—	—	F4C	—	—	—	F6C	F6C
208	—	—	—	—	—	—	—	—	—	—	—	F4C
240	—	—	F2C	—	—	—	F2C	—	—	—	F3C	F3C
277	—	—	F2C	—	—	—	F2C	—	—	—	F3C	—
347	—	—	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).

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HID Luminaires | Area / Task | Hazardous Location | NEC / CEC

Catalog Number for Ballast Body and Globe

High Pressure Sodium | High Power Factor (Min. P.F. 90%)

Pulse Start Metal Halide | Super Constant Wattage Autotransformer
(Min. P.F. 90%)



Ballast Body for
Glass Refractor



Ballast Body for
Glass Globe or Polymeric Refractor

Lamp Type	Lamp Watts	Catalog Number ^③		Voltage Suffixes			
		For Globe ^②	For Refractor	LB	MT	TT	C7
Inc.	150 Max.	MLBG15I	MLBR15I	X	—	—	—
HPS	70	MLBG70L ^①	MLBR70L ^{①②}	—	X	X	X
HPS	100	MLBG10L ^①	MLBR10L ^{①②}	—	X	X	X
HPS	150	MLBG15L ^①	MLBR15L ^{①②}	—	X	X	X
PSMH	175	MLBG17P ^{①②}	MLBR17P ^{①②}	—	X	X	—
MH ^④	70	MLBG70H ^①	MLBR70H ^①	—	X	X	—
MH ^④	100	MLBG10H ^①	MLBR10H ^①	—	X	X	—
MH ^④	150	MLBG15H ^①	MLBR15H ^①	—	X	—	—
MH ^④	175	MLBG17H ^①	MLBR17H ^①	—	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

C7 - 600 V 60 Hz, CWI

^① Add **-E** after voltage suffix for ballast body with provision for Quartz Emergency Light. Not suitable for hazardous locations. Specify supply voltage.

^② After voltage suffix add: **-S** for Smart Starter.

^③ Add **Z** for factory sealed restricted breathing protection (Ex nR).

^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.

^⑤ Add **X** for Crouse-Hinds Champ® Series adapted fixture.



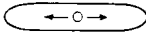
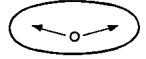

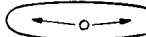
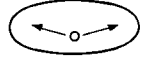







^⑥ Please note, there is a max lamp height of 141 mm (14.1 cm) when using the VPGL-1HR globe.

Mercmaster™ III Low Profile Luminaires

High Pressure Sodium and Pulse Start Metal Halide
Enclosed and Gasketed Fixtures — Hazardous Locations

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 | Type 4X | IP66

Accessories and Replacement Parts

		Description	Catalog Number	
Clear Prismatic Glass Globes — Heat-Resistant				
		Clear	VPGL-1HR ⑤	
		Amber	VPGL-1AM	
		Blue	VPGL-1BL	
		Green	VPGL-1GR	
		Red	VPGL-1RE	
		Light Distribution	IES/NEMA Distribution Curves	
Closed Prismatic Glass Refractors — All Heat-Resistant				
		NEMA Type I	 LPG-R1	
		NEMA Type III	 LPG-R3	
Closed Prismatic Polymeric Refractors — For Use with PSMH Lamps Only <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>				
		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				
		For Globe Fixtures	Standard Dome Deep Dome 30° Angle	KR2-ST KR2-DD ①④ KR2-AN
		For Glass Refractor Fixtures	Standard Dome Deep Dome 30° Angle	CMR-4ST ② CMR-4DD ①④ CMR-4AN
Guards				
		For Globe Fixtures For Glass Refractor Fixtures	Globe Guard 30° Angle Refractor Guard	KGU1 KRG2 ③
Replacement Globe Gaskets — Silicone Rubber				
		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.

③ Not for use with CMR-4ST or CMR-400, only CMR-4AN refractor.

④ Fixtures when used with Deep Dome Reflectors are NOT UL Listed.








⑤ Please note, there is a max lamp height of 141 mm (14.1 cm) when using the VPGL-1HR globe.

Mercmaster™ III Low Profile Luminaires

High Pressure Sodium and Pulse Start Metal Halide

Enclosed and Gasketed Fixtures — Hazardous Locations

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 | Type 4X | IP66

Mounting Hoods			
	Hub Size	Weight in kg (lbs)	Catalog Number
Pendant — One Hub, Rigid Mounting			
	3/4" NPT	1.0 (2.3)	KPA-75
	1" NPT		KPA-100
Pendant — Flexible — One Hub, Rigid or Flexible Mounting			
	3/4" NPT	1.1 (2.5)	KPAF-75
	1" NPT		KPAF-100
Pendant Cone — One Hub, Rigid Mounting			
	3/4" NPT	1.1 (2.5)	KPCH-75
	1" NPT		KPCH-100
Ceiling — Five Hubs, Four Close-Up Plugs			
	3/4" NPT	1.4 (3.0)	KPC-75
	1" NPT		KPC-100
Wall — Five Hubs, Four Close-Up Plugs			
	3/4" NPT	1.8 (4.0)	KPWB-75
	1" NPT		KPWB-100
25° Stanchion — One Hub			
	1-1/4" NPT	1.5 (3.3)	KPS-125
	1-1/2" NPT		KPS-150
90° Stanchion — One Hub			
	1-1/4" NPT	1.7 (3.8)	KPST-125
	1-1/2" NPT		KPST-150

Luminaire Specifications ①

Watts	Globe Housing Ballast Wt. kg (lb)		Refractor Housing Ballast Wt. kg (lb)		Mounting Hoods	Weight kg (lb)	Refractors, Globes, Guards and Reflectors	Weight kg (lb)
	HPS	PSMH	HPS	PSMH				
50	3.3 (7.28)	—	3.5 (7.72)	—	Pendant	1.0 (2.20)	8" Glass Refractor	2.4 (5.29)
70	3.7 (8.16)	—	4.0 (8.82)	—	Pendant Cone	1.1 (2.43)	Glass Globe	1.7 (3.75)
100	4.4 (9.70)	—	4.6 (10.14)	—	Ceiling	1.4 (3.09)	Refractor Guard	0.5 (1.10)
150	4.9 (10.80)	—	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	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.

② Fixtures when used with Deep Dome Reflectors are NOT UL Listed.

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.

- 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.

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.


Materials


- Encapsulated with epoxy sealing compound
- FS: aluminum

NEC/CEC Certifications and Compliances

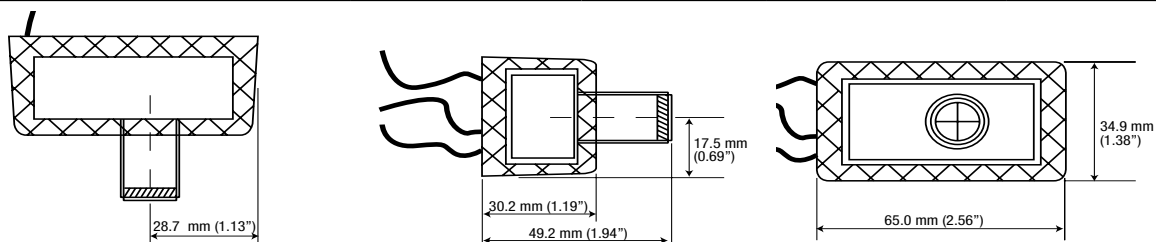
- UL Standard: 1604 – Hazardous (Classified) Locations
- cULus Recognized

	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	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>Photocontrol assembly supplied with two stainless steel screws and one neoprene gasket.</i>				
<i>For additional neoprene gaskets, order catalog numbers 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	

Dimensions in Millimeters (Inches)



Mercmaster™ III Low Profile Luminaires

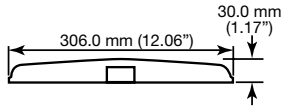
High Pressure Sodium and Pulse Start Metal Halide
Enclosed and Gasketed Fixtures — Hazardous Locations

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 | Type 4X | IP66

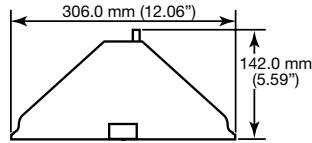
HID Luminaires | Area / Task | Hazardous Location | NEC / CEC

Dimensions in Millimeters (Inches)

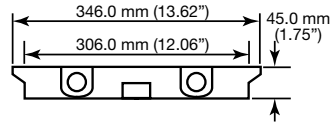
Pendant (Rigid or Flex)



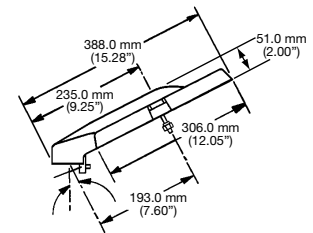
Pendant Cone



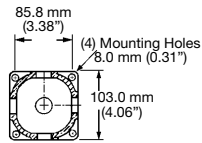
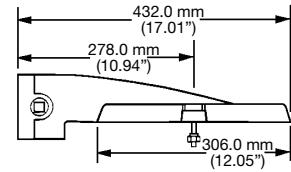
Ceiling



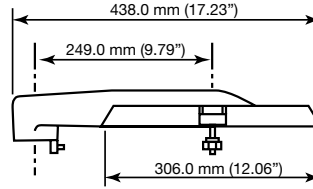
25° Stanchion



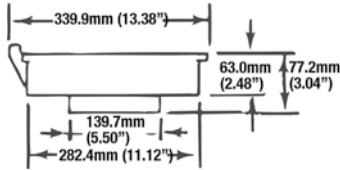
Wall Mount



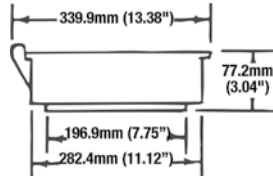
90° Stanchion



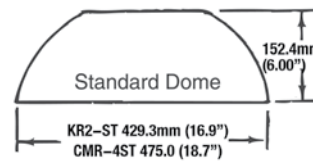
Globe or Polymeric Refractor Ballast Housing



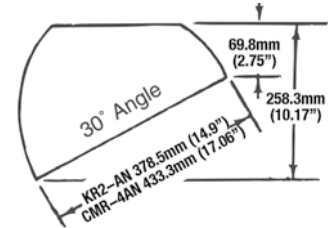
8" Glass Refractor Ballast Housing



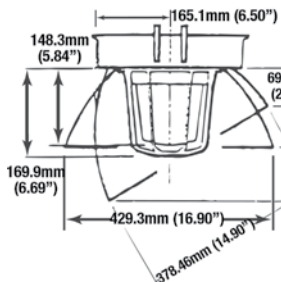
Standard Polyester Reflector



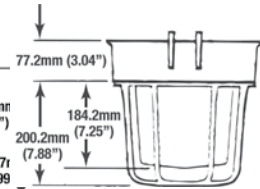
30° Angle Polyester Reflector



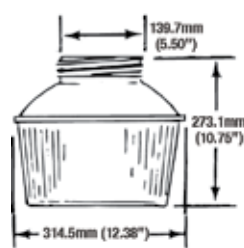
Globe, Guard and Refractors



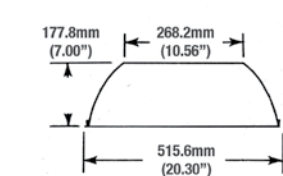
Refractor Body, Refractor and Guard



Polymeric Refractor



Deep Dome



Mercmaster™ III Low Profile Luminaires

High Pressure Sodium and Pulse Start Metal Halide

Enclosed and Gasketed Fixtures — Hazardous Locations

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 | Type 4X | IP66

Photometric Data

* 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 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.

REPORT NUMBER: **ML15LG**

Lamps: 150 W High Pressure Sodium with Globe only *

Zone	Lumens	Total Luminaire Efficiency = 83%	
0-10	28.58	CIE TYPE – SEMI-DIRECT	
10-20	123.97	Plane Spacing Criteria	
20-30	304.16	0-180	3.9
30-40	513.64	90-270	3.9
40-50	889.19	Diagonal	3.7
50-60	1299.53	ZONAL LUMEN SUMMARY	
60-70	1506.73	Zone	Lumens
70-80	1706.16	0-30	4563.72
80-90	1800.53	0-40	970.35
90-100	1791.58	0-60	3159.07
100-110	1652.69	0-90	8172.49
110-120	1311.22	90-120	4755.49
120-130	351.25	90-130	5106.74
130-140	5.14	90-150	5111.87
140-150	0.00	90-180	5111.87
150-160	0.00	0-180	13284.37
160-170	0.00		83.0
170-180	0.00		100.0

COEFFICIENTS OF UTILIZATION – ZONAL CAVITY METHOD

EFFECTIVE FLOOR CAVITY REFLECTANCE 0.20

% Ceiling	Rcc	80				70				50				30				10				0
		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	1	77	71	66	61	72	66	61	57	57	53	49	48	45	42	40	37	35	31			
2	2	68	59	51	45	63	55	48	42	46	41	36	39	34	31	32	28	25	21			
3	3	61	50	42	35	56	46	39	33	39	33	28	32	27	23	26	22	19	16			
4	4	55	43	35	28	50	40	32	26	34	27	22	28	23	18	22	18	15	12			
5	5	50	38	29	23	46	35	27	21	29	23	18	24	19	15	19	15	12	9			
6	6	46	33	25	19	42	31	23	18	26	20	15	21	16	12	17	13	10	7			
7	7	42	30	22	16	38	27	20	15	23	17	13	19	14	10	15	11	8	6			
8	8	39	27	19	14	36	25	18	13	21	15	11	17	12	9	14	10	7	5			
9	9	36	24	17	12	33	22	16	11	19	13	9	16	11	8	13	9	6	4			
10	10	33	22	15	11	31	20	14	10	17	12	8	15	10	7	12	8	5	4			

REPORT NUMBER: **ML15LST**

Lamps: 150 W High Pressure Sodium with Standard Dome Reflector *

Zone	Lumens	TOTAL LUMINAIRE EFFICIENCY = 73.2%	
0-10	219.96	CIE TYPE – DIRECT	
10-20	683.41	Plane Spacing Criteria	
20-30	1267.92	0-180	1.64
30-40	1613.68	90-270	1.64
40-50	1967.79	Diagonal	1.88
50-60	2333.86	ZONAL LUMEN SUMMARY	
60-70	2328.33	Zone	Lumens
70-80	1118.52	0-30	2171.29
80-90	174.91	0-40	3784.97
90-100	1.23	0-60	8086.62
100-110	0.00	0-90	11708.37
110-120	0.00	90-120	1.23
120-130	0.00	90-130	1.23
130-140	0.00	90-150	1.23
140-150	0.00	90-180	1.23
150-160	0.00	0-180	11709.6
160-170	0.00		73.2
170-180	0.00		100.0

COEFFICIENTS OF UTILIZATION – ZONAL CAVITY METHOD

EFFECTIVE FLOOR CAVITY REFLECTANCE 0.20

% Ceiling	Rcc	80				70				50				30				10				0
		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	1	79	75	71	68	77	73	70	67	70	67	65	67	65	63	64	62	61	59			
2	2	70	63	58	53	68	62	57	52	59	55	51	57	53	50	55	52	49	47			
3	3	63	54	48	42	61	53	47	42	51	46	41	49	44	40	47	43	40	38			
4	4	57	47	40	35	55	46	39	34	44	38	34	42	37	33	41	36	33	31			
5	5	52	41	34	29	50	41	34	29	39	33	28	37	32	28	36	31	28	26			
6	6	48	37	30	24	46	36	29	24	35	29	24	33	28	24	32	27	24	22			
7	7	44	33	26	21	42	32	26	21	31	25	21	30	25	21	29	24	20	19			
8	8	41	30	23	18	39	29	23	18	28	22	18	27	22	18	26	22	18	16			
9	9	38	27	21	16	37	27	20	16	26	20	16	25	20	16	24	19	16	14			
10	10	35	25	19	15	34	24	18	14	24	18	14	23	18	14	22	18	14	13			

Mercmaster™ III Low Profile Luminaires

High Pressure Sodium and Pulse Start Metal Halide

Enclosed and Gasketed Fixtures — Hazardous Locations

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 | Type 4X | IP66

HID Luminaires | Area / Task | Hazardous Location | NEC / CEC

Photometric Data

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REPORT NUMBER: **ML15LG**

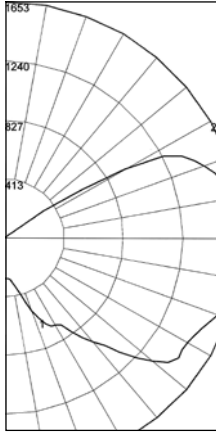
Lamps: 150 W High Pressure Sodium with Globe only *

TOTAL LUMINAIRE EFFICIENCY = 83%

Zone	Lumens	CIE TYPE – DIRECT	
0-10	28.58		
10-20	123.97		
20-30	304.16		
30-40	513.64		
40-50	889.19		
50-60	1299.53		
60-70	1506.73		
70-80	1706.16		
80-90	1800.53		
90-100	1791.58		
100-110	1652.69		
110-120	1311.22		
120-130	351.25		
130-140	5.14		
140-150	0.00		
150-160	0.00		
160-170	0.00		
170-180	0.00		

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



COEFFICIENTS OF UTILIZATION – ZONAL CAVITY METHOD

EFFECTIVE FLOOR CAVITY REFLECTANCE 0.20

% Ceiling % Walls	Rcc Rw	80				70				50				30				10				0
		70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10				
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			

REPORT NUMBER: **ML15LST**

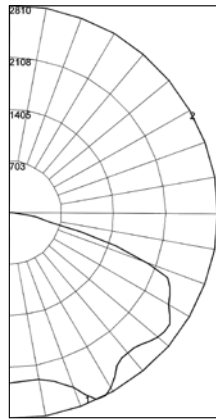
Lamps: 150 W High Pressure Sodium with Standard Dome Reflector *

TOTAL LUMINAIRE EFFICIENCY = 73.2%

Zone	Lumens	CIE TYPE – SEMI-DIRECT	
0-10	219.96		
10-20	683.41		
20-30	1267.92		
30-40	1613.68		
40-50	1967.79		
50-60	2333.86		
60-70	2328.33		
70-80	1118.52		
80-90	174.91		
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		

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



COEFFICIENTS OF UTILIZATION – ZONAL CAVITY METHOD

EFFECTIVE FLOOR CAVITY REFLECTANCE 0.20

% Ceiling % Walls	Rcc Rw	80				70				50				30				10				0
		70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10				
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

High Pressure Sodium and Pulse Start Metal Halide

Enclosed and Gasketed Fixtures — Hazardous Locations

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 | Type 4X | IP66

Photometric Data

* 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.

REPORT NUMBER: **ML10HG**

Lamps: 100 W Pulse Start Metal Halide with Globe only *

TOTAL LUMINAIRE EFFICIENCY = 85.7%

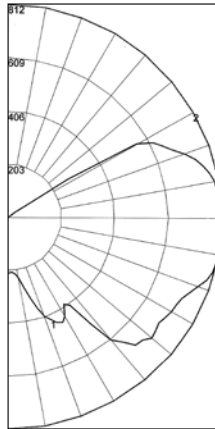
Zone	Lumens
0-10	21.19
10-20	93.55
20-30	201.68
30-40	291.92
40-50	523.42
50-60	637.38
60-70	732.34
70-80	845.58
80-90	874.42
90-100	870.80
100-110	809.33
110-120	643.44
120-130	139.00
130-140	0.71
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

CIE TYPE – DIRECT

Plane	Spacing Criteria
0-180	3.20
90-270	3.20
Diagonal	3.08

ZONAL LUMEN SUMMARY

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



COEFFICIENTS OF UTILIZATION – ZONAL CAVITY METHOD

EFFECTIVE FLOOR CAVITY REFLECTANCE 0.20

% Ceiling	Rcc	80				70				50				30				10				0
		70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10				
0	95	95	95	95	89	89	89	89	78	78	78	68	68	68	58	58	58	54	54			
1	81	74	69	64	75	69	64	60	60	56	52	51	48	45	43	40	38	34	34			
2	71	62	54	48	66	57	50	45	49	43	39	41	37	33	34	31	28	24	24			
3	64	52	44	37	59	49	41	35	41	35	30	35	30	26	29	25	21	18	18			
4	57	45	37	30	53	42	34	28	36	29	24	30	25	20	25	20	17	14	14			
5	52	40	31	25	48	37	29	23	31	25	20	26	21	17	21	17	14	11	11			
6	48	35	27	21	44	33	25	19	28	21	17	23	18	14	19	15	11	9	9			
7	44	31	23	17	40	29	22	16	25	19	14	21	16	12	17	13	10	7	7			
8	41	28	20	15	37	26	19	14	22	16	12	19	14	10	16	11	8	6	6			
9	38	26	18	13	35	24	17	12	20	15	11	17	12	9	14	10	7	5	5			
10	35	23	16	12	32	22	15	11	19	13	9	16	11	8	13	9	6	5	5			

REPORT NUMBER: **ML10HST**

Lamps: 100 W Pulse Start Metal Halide with Standard Dome Reflector *

TOTAL LUMINAIRE EFFICIENCY = 75.8%

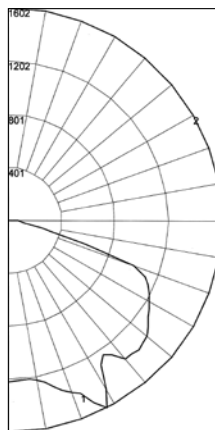
Zone	Lumens
0-10	116.29
10-20	371.61
20-30	692.88
30-40	821.73
40-50	1064.03
50-60	1154.58
60-70	1134.19
70-80	470.22
80-90	83.66
90-100	0.82
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

CIE TYPE – SEMI-DIRECT

Plane	Spacing Criteria
0-180	1.70
90-270	1.70
Diagonal	1.84

ZONAL LUMEN SUMMARY

Zone	Lumens	% Lamp	% Fixture
0-30	1180.78	15.1	20.0
0-40	2002.50	25.7	33.9
0-60	4221.11	54.1	71.4
0-90	5909.17	75.8	100.0
90-120	0.82	0.0	0.0
90-130	0.82	0.0	0.0
90-150	0.82	0.0	0.0
90-180	0.82	0.0	0.0
0-180	5910.00	75.8	100.0



COEFFICIENTS OF UTILIZATION – ZONAL CAVITY METHOD

EFFECTIVE FLOOR CAVITY REFLECTANCE 0.20

% Ceiling	Rcc	80				70				50				30				10				0
		70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10				
0	90	90	90	90	88	88	88	88	84	84	84	81	81	81	77	77	77	76	76			
1	82	78	74	71	80	76	73	70	73	70	68	70	68	66	67	65	64	62	62			
2	73	66	61	56	71	65	60	55	62	58	54	60	56	53	57	54	51	50	50			
3	66	57	50	45	64	56	50	45	54	48	44	51	47	43	49	46	42	40	40			
4	60	50	43	37	58	49	42	37	47	41	36	45	40	36	43	39	35	33	33			
5	54	44	36	31	53	43	36	31	41	35	30	40	34	30	38	33	30	28	28			
6	50	39	32	26	48	38	31	26	37	31	26	35	30	26	34	29	25	24	24			
7	46	35	28	23	45	34	27	23	33	27	22	32	26	22	31	26	22	20	20			
8	43	32	25	20	41	31	24	20	30	24	20	29	24	20	28	23	19	18	18			
9	40	29	22	18	38	28	22	18	27	22	17	27	21	17	26	21	17	16	16			
10	37	26	20	16	36	26	20	16	25	20	16	24	19	16	24	19	15	14	14			

Mercmaster™ III Low Profile Luminaires

High Pressure Sodium and Pulse Start Metal Halide
Enclosed and Gasketed Fixtures — Hazardous Locations

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 | Type 4X | IP66

Photometric Data

* 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.

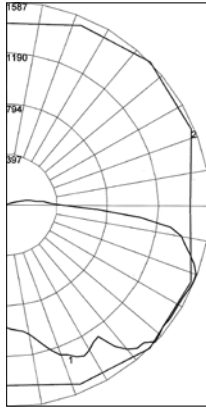
REPORT NUMBER: **ML10HAN**

Lamps: 100 W Pulse Start Metal Halide with 30° Angle Dome Reflector *

Zone Lumens **TOTAL LUMINAIRE EFFICIENCY = 71.3%**
CIE TYPE – DIRECT

Zone	Lumens	Plane	Spacing Criteria
0-10	91.83		
10-20	301.65		
20-30	543.23		
30-40	703.02	0-180	2.08
40-50	877.11	90-270	2.06
50-60	850.33	Diagonal	1.76
60-70	7753.51		
70-80	667.27		
80-90	471.44		
90-100	200.90		
100-110	62.89		
110-120	14.42		
120-130	1.07		
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	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



COEFFICIENTS OF UTILIZATION – ZONAL CAVITY METHOD EFFECTIVE FLOOR CAVITY REFLECTANCE 0.20

% Ceiling	Rcc	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			
% Walls	Rw																								
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						