

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.

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nR IIC (Z2)
Class I, Zone 2, Ex nR IIC (Z) †
Class I, Zone 2, AEx nR IIC (ZB)

Class II, Division 1 and 2, Groups E, F, G
Class III
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, CWI 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 / 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 †**.
- 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**.
- Smart Hot Restrike will immediately restrike HPS lamp when power is restored after a momentary power interruption. The smart function removes the hot restrike ignitor from the circuit if the lamp burns out or is removed from the socket. Eliminates starter failures caused by prolonged operation with cycling or failing lamps. Add suffix **-SR**.
- AEx nA nR fixtures, add suffix **-ZZ**.
- AEx nR fixtures, add suffix **-ZB**.
- Ex nR fixtures, add suffix **-Z †**.
- Reflectors are available as standard dome and 30° angle polyester. Order separately.

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

† CSA Certification Only.

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Class I, Zone 2, AEx nA nR IIC (Z2)
Class I, Zone 2, Ex nR IIC (Z) ¹
Class I, Zone 2, AEx nR IIC (ZB)

Class II, Division 1 and 2, Groups E, F, G
Class III
Simultaneous Exposure (Class I, Division 2/
Class II, Division 1)

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Type 4X
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Certifications and Compliances *

- UL Listed: 60079-15
- UL Standard: 1598A, UL 844, Marine Type Electric Fixtures Outside Type (Salt Water)
- CSA Certified: LR25428

Related Products

- Photocells for classified use are available, see PCD2 Series.

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 H or P - Pulse Start Metal Halide H - 175 W Metal Halide (available with TT voltage only) ¹		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) ⁶ R - Hot Restrike ³ S - Smart Starter ⁴ SR - Smart Hot Restrike ³ H1 - Photocontrol 120 V H2 - Photocontrol 208 V H3 - Photocontrol 240 V H4 - Photocontrol 277 V C - Safety Cable Adapted ¹ D - E-27 Export Socket T - Terminal Blocks ¹ V - Anti-Vibration Modifications ¹ X - Appledapter ⁷ Mounting Hood Adapter ¹ <i>Optional Fusing</i> ⁸ 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 17 - 175 W MH ¹		Optical Assembly: ² G1 - Globe J1 - NEMA I Glass Reflector J3 - NEMA III Glass Reflector J5 - NEMA V Glass Reflector P2 - NEMA II Polymeric Reflector P3 - NEMA III Polymeric Reflector P4 - NEMA IV Polymeric Reflector P5 - NEMA V Polymeric Reflector		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 245 - 240, 50 Hz C2 - 208, 60 Hz, CWI ¹ C3 - 240, 60 Hz, CWI ¹ C6 - 480, 60 Hz, CWI ¹ C7 - 600, 60 Hz, CWI ¹ TT - 120/277/347, 60 Hz, CWA ¹	Suffix: Z2 - Zone 2 suffix (required for AEx nA nR rating) ZB - Zone 2 suffix (required for AEx nR) Z - Zone 2 suffix (required for Ex nR) ¹	

* Compliance data varies for specific fixtures. Consult Appleton regarding suitability of specific fixtures for a particular application.

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 Not suitable for hazardous location per NEC/CEC ¹.

⁶ Canadian Electrical Code does NOT allow fusing in hazardous locations ¹.

⁷ Appledapter is available for use with the pendant, ceiling and angled stanchion mounting only.

⁸ Optional fusing is available for use with MT, 5MT and 48 voltage suffixes ONLY.

¹ CSA Certification Only.

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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, Ex nR IIC (Z) nA
Class I, Zone 2, AEx nR IIC (ZB)

Class II, Division 1 and 2, Groups E, F, G
Class III
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Illustrated Features



High Temperature Sockets

Medium base high-temperature porcelain sockets.

Aluminum Inner Reflector

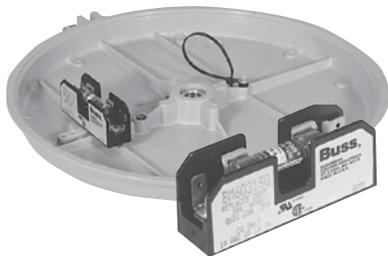
Solid aluminum inner reflector (for refractor ballast housings only) improves photometric efficiency.

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.

Lighting

LIGHTING: ENCLOSED AND GASKETED - AREA - HID

CSA Certification Only.

Mercmaster™ III Low Profile Luminaire Thermal Performance

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

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) ¹
Class I, Zone 2, AEx nR IIC (ZB)

Class II, Division 1 and 2, Groups E, F, G
Class III
Simultaneous Exposure (Class I, Division 2/
Class II, Division 1)

Fixtures Outside Type (Salt Water)
Type 4X
IP66

Lamp Watts	Type	Supply Wire Min. Temp.	Ambient Temp. (°F/°C)	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
50	HPS	194/90	104/40	T3	T3	T3B	T4A	T4A	T5	T3	T3	T3
		194/90	131/55	T3	T3	T3A	T4A	T4A	T4A	T2D	T2D	T2D
		194/90	149/65	T3	T3	T3A	T4	T4	T4A	T2C	T2C	T2C
70	HPS	194/90	104/40	T3	T3	T3	T4	T4	T5	T2B	T2B	T2D
		194/90	131/55	T2D	T2D	T3	T3C	T3C	T4A	T2B	T2B	T2C
		194/90	149/65	—	—	T3	—	—	T4	—	—	T2B
100	HPS	194/90	104/40	T2C	T2C	T2D	T4	T4	T4A	T2B	T2B	T2B
		194/90	131/55	T2B	T2B	T2C	T3C	T3C	T4	T2A	T2A	T2A
		194/90	149/65	—	—	—	—	—	—	—	—	—
150	HPS	194/90	104/40	T2A	T2A	T2B	T3A *	—	T4	325	—	T2
50	PSMH	194/90	104/40	T3	T3	T3A	T4A	T4A	T6	T2D	T2D	T3
		194/90	131/55	T3	T3	T3	T4	T4	T5	T2C	T2C	T2D
		194/90	149/65	T3	T3	T3	T4	T4	T4A	T2B	T2B	T2D
70	PSMH	194/90	104/40	T3	T3	T3	T3C	T3C	T4A	T2B	T2B	T2C
		194/90	131/55	T2D	T2D	T3	T3C	T3C	T4A	T2A	T2A	T2B
		230/110	149/65	—	—	T3	—	—	T4	—	—	T2B
100	PSMH	194/90	104/40	T2A	T2A	T2B	T3B	T3B	T4A	T2	T2	T2A
		194/90	131/55	T2A	T2A	T2B	T3A *	T3A *	T4	T1	T1	T2
150	PSMH	230/105	104/40	350	350	325	—	—	T3B	—	—	T1
175	PSMH	230/105	104/40	350	350	325	—	—	T3B	—	—	T1
175	MH ¹	230/110	104/40	—	—	325	—	—	T3B	—	—	—
60	Inc.	194/90	104/40	T3B	T3B	T3C	—	—	—	—	—	—
		194/90	131/55	T3A	T3A	T3C	—	—	—	—	—	—
		194/90	149/65	T3A	T3A	T3C	—	—	—	—	—	—
100	Inc.	194/90	104/40	T3	T3	T3	—	—	—	—	—	—
		194/90	131/55	T3	T3	T3	—	—	—	—	—	—
		194/90	149/65	T2D	T2D	T3	—	—	—	—	—	—
150	Inc.	194/90	104/40	T2D	T2D	T3	—	—	—	—	—	—
		194/90	131/55	T2B	T2B	T2D	—	—	—	—	—	—
		194/90	149/65	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 (°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
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

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

¹ CSA Certification only.

Mercmaster™ III Low Profile Luminaire Thermal Performance

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.

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) ¹
Class I, Zone 2, AEx nR IIC (ZB)

Class II, Division 1 and 2, Groups E, F, G
Class III
Simultaneous Exposure (Class I, Division 2/
Class II, Division 1)

Fixtures Outside Type (Salt Water)
Type 4X
IP66

Lighting

LIGHTING: ENCLOSED AND GASKETED – AREA – HID

Lamp		Class I, Zone 2 AEx nA nR IIC / Ex nR IIC			Class I, Zone 2 AEx nR IIC				
Watts	Type	Supply Wire Temp. (°F/°C)	Ambient Temp. (°F/°C)	Globe	Globe w/ Reflector	Reflector	Globe	Globe w/ Reflector	Reflector
50	HPS	194/90	104/40	T6	T6	T6	T6	T6	T6
		194/90	131/55	T5	T5	T5	T5	T5	T5
		194/90	149/65	T4	T4	T5	T4	T4	T5
70	HPS	194/90	104/40	T5	T5	T5	T5	T5	T5
		194/90	131/55	T4	T4	T4	T4	T4	T4
		194/90	149/65	—	—	T4	—	—	T4
100	HPS	194/90	104/40	T4	T4	T4	T4	T4	T4
		194/90	131/55	T4	T4	T4	T4	T4	T4
150	HPS	194/90	104/40	T4	T4	T4	T4	T4	T4
50	PSMH	194/90	104/40	T5	T5	T6	T5	T5	T6
		194/90	131/55	T5	T5	T6	T5	T5	T6
		194/90	149/65	T4	T4	T5	T4	T4	T5
70	PSMH	194/90	104/40	T5	T5	T6	T5	T5	T6
		194/90	131/55	T4	T4	T6	T4	T4	T6
		230/110	149/65	—	—	T4	—	—	T4
100	PSMH	194/90	104/40	T4	T4	T6	T4	T4	T6
		194/90	131/55	T4	T4	T4	T4	T4	T4
150	PSMH	221/105	104/40	T3	T3	T4	T3	T3	T4
175	PSMH	221/105	104/40	T3	T3	T4	T3	T3	T4
175	MH ¹	230/110	104/40	—	—	T3	—	—	—

“T” Numbers represent the maximum surface temperature for luminaries with AEx nA nR, Ex 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 (°F)	547-842	394-572	277-392	214-275	187-212	185
Temp. Range (°C)	301-450	201-300	136-200	101-135	86-100	85

¹ CSA Certification Only.

Mercmaster™ III Low Profile Luminaires

50 W – 150 W HPS

High Power Factor (min. P.F. 90%). Medium base lamps.

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)

Class II, Division 1 and 2, Groups E, F, G
Class III
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 ④⑤⑥		
				With Globe	With Type V 8" Refractor ②	
Pendant – One Hub, Rigid Mounting ④						
	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 ⑦	MLAL152J5N ⑦
					MLAL153G1N ⑦	MLAL153J5N ⑦
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 ⑦	MLDL152J5N ⑦
					MLDL153G1N ⑦	MLDL153J5N ⑦
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 ⑦	MLCL152J5N ⑦
					MLCL153G1N ⑦	MLCL153J5N ⑦

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	225	226	235	245	C2 [†]	C3 [†]	C6 [†]	C7 [†]	TT [†]
Inc.	150 Max.	X	—	—	—	—	—	—	—	—	—	—	—	—	—
HPS	50	—	X	—	—	—	X	X	—	X	—	—	—	—	X
HPS	70	—	X	—	X	X	X	X	—	X	—	—	—	—	X
HPS	100	—	X	—	X	X	X	X	—	X	—	—	—	—	X
HPS	150	—	X	—	X	X	X	X	—	X	X	X	X	X	X
PSMH	50	—	X	—	X	—	—	—	—	—	—	—	—	—	X
PSMH	70	—	X	—	X	X	X	—	—	X	—	—	—	—	X
PSMH	100	—	X	—	X	X	X	—	—	X	—	—	—	—	X
PSMH	150	—	X	—	X	—	—	—	—	X	—	—	—	—	X
PSMH	175	—	X	X	X	—	—	—	—	X	—	—	—	—	X
MH [†]	175	—	X	—	—	—	—	—	—	—	X	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

245 - 240 V 50 Hz

C2 - 208 V 60 Hz, CWI [†]

C3 - 240 V 60 Hz, CWI [†]

C6 - 480 V 60 Hz, CWI [†]

C7 - 600 V 60 Hz, CWI [†],

TT - 120/277/347 V 60 Hz, CWA [†]

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 Add **Z** for factory sealed restricted breathing protection (Ex nR) [†].

⑦ For 150 W HPS fixtures, use S-55 lamp type only.

[†] CSA Certification Only.

Mercmaster™ III Low Profile Luminaires

50 W – 150 W HPS

High Power Factor (min. P.F. 90%). Medium base lamps.

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) ¹
Class I, Zone 2, AEx nR IIC (ZB)

Class II, Division 1 and 2, Groups E, F, G
Class III
Simultaneous Exposure (Class I, Division 2/
Class II, Division 1)

Fixtures Outside Type (Salt Water)
Type 4X
IP66

Lighting

LIGHTING: ENCLOSED AND GASKETED – AREA – HID

	Lamp Type	Lamp Watts	Hub Size (Inches)	Catalog Numbers ④④④④	
				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 ⑦ MLWL153G1N ⑦	MLWL152J5N ⑦ MLWL153J5N ⑦
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 ⑦ MLSL155G1N ⑦	MLSL154J5N ⑦ MLSL155J5N ⑦
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 ⑦ MLRL155G1N ⑦	MLRL154J5N ⑦ MLRL155J5N ⑦

- 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	225	226	235	245	C2 ¹	C3 ¹	C6 ¹	C7 ¹	TT ¹
Inc.	150 Max.	X	—	—	—	—	—	—	—	—	—	—	—	—	—
HPS	50	—	X	—	—	—	X	X	—	X	—	—	—	—	X
HPS	70	—	X	—	X	X	X	X	—	X	—	—	—	—	X
HPS	100	—	X	—	X	X	X	X	—	X	—	—	—	—	X
HPS	150	—	X	—	X	X	X	X	—	X	X	X	X	X	X
PSMH	50	—	X	—	X	—	—	—	—	—	—	—	—	—	X
PSMH	70	—	X	—	X	X	X	—	—	X	—	—	—	—	X
PSMH	100	—	X	—	X	X	X	—	—	X	—	—	—	—	X
PSMH	150	—	X	—	X	—	—	—	—	X	—	—	—	—	X
PSMH	175	—	X	X	X	—	—	—	—	X	—	—	—	—	X
MH ¹	175	—	X	—	—	—	—	—	—	—	X	X	X	X	X

Voltages:
LB - Incandescent, 120 V 60 Hz **125** - 120 V 50 Hz **245** - 240 V 50 Hz
MT - 120/208/240/277 V 60 Hz **225** - 225 V 50 Hz **C2** - 208 V 60 Hz, CWI ¹
5MT - 120/208/240/277/480 V 60 Hz **226** - 220 V 60 Hz **C3** - 240 V 60 Hz, CWI ¹ **C7** - 600 V 60 Hz, CWI ¹
48 - 480 V 60 Hz **235** - 230 V 50 Hz **C6** - 480 V 60 Hz, CWI ¹ **TT** - 120/277/347 V 60 Hz, CWA ¹

- 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 Add **Z** for factory sealed restricted breathing protection (Ex nR) ¹.
- ⑦ For 150 W HPS fixtures, use S-55 lamp type only.
- ¹ CSA Certification Only.

Mercmaster™ III Low Profile Luminaires

50 W - 175 W PSMH

High Power Factor (min. P.F. 90%). Medium base lamps.

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) ^{CSA}
Class I, Zone 2, AEx nR IIC (ZB)

Class II, Division 1 and 2, Groups E, F, G
Class III
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 ①②③④	
				With Globe	With Type V 8" Refractor ⑤
Pendant — One Hub, Rigid Mounting ⑥					
	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
	Shown with Globe and Optional Guard				
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
	Shown with Refractor				
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
	Shown with Globe				

- 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	225	226	235	245	C2 ^{CSA}	C3 ^{CSA}	C6 ^{CSA}	C7 ^{CSA}	TT ^{CSA}
Inc.	150 Max.	X	—	—	—	—	—	—	—	—	—	—	—	—	—
HPS	50	—	X	—	—	—	X	X	—	X	—	—	—	—	X
HPS	70	—	X	—	X	X	X	X	—	X	—	—	—	—	X
HPS	100	—	X	—	X	X	X	X	—	X	—	—	—	—	X
HPS	150	—	X	—	X	X	X	X	—	X	X	X	X	X	X
PSMH	50	—	X	—	X	—	—	—	—	—	—	—	—	—	X
PSMH	70	—	X	—	X	X	X	—	—	X	—	—	—	—	X
PSMH	100	—	X	—	X	X	X	—	—	X	—	—	—	—	X
PSMH	150	—	X	—	X	—	—	—	—	X	—	—	—	—	X
PSMH	175	—	X	X	X	—	—	—	—	X	—	—	—	—	X
MH ^{CSA}	175	—	X	—	—	—	—	—	—	—	X	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

245 - 240 V 50 Hz

C2 - 208 V 60 Hz, CWI ^{CSA}

C3 - 240 V 60 Hz, CWI ^{CSA}

C6 - 480 V 60 Hz, CWI ^{CSA}

C7 - 600 V 60 Hz, CWI ^{CSA}

TT - 120/277/347 V 60 Hz, CWA ^{CSA}

^{CSA} CSA Certification Only.

Mercmaster™ III Low Profile Luminaires

50 W - 175 W PSMH

High Power Factor (min. P.F. 90%). Medium base lamps.

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) ¹
Class I, Zone 2, AEx nR IIC (ZB)

Class II, Division 1 and 2, Groups E, F, G
Class III
Simultaneous Exposure (Class I, Division 2/
Class II, Division 1)

Fixtures Outside Type (Salt Water)
Type 4X
IP66

Lighting

LIGHTING: ENCLOSED AND GASKETED — AREA — HID

	Lamp Type	Lamp Watts	Hub Size (Inches)	Catalog Numbers ④⑤⑥	
				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
	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
	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
	PSMH	175	1-1/4 1-1/2	MLRP174G1N MLRP175G1N	MLRP174J5N MLRP175J5N

- 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	225	226	235	245	C2 ¹	C3 ¹	C6 ¹	C7 ¹	TT ¹
Inc.	150 Max.	X	—	—	—	—	—	—	—	—	—	—	—	—	—
HPS	50	—	X	—	—	—	X	X	—	X	—	—	—	—	X
HPS	70	—	X	—	X	X	X	X	—	X	—	—	—	—	X
HPS	100	—	X	—	X	X	X	X	—	X	—	—	—	—	X
HPS	150	—	X	—	X	X	X	X	—	X	X	X	X	X	X
PSMH	50	—	X	—	X	—	—	—	—	—	—	—	—	—	X
PSMH	70	—	X	—	X	X	X	—	—	X	—	—	—	—	X
PSMH	100	—	X	—	X	X	X	—	—	X	—	—	—	—	X
PSMH	150	—	X	—	X	—	—	—	—	X	—	—	—	—	X
PSMH	175	—	X	X	X	—	—	—	—	X	—	—	—	—	X
MH ¹	175	—	X	—	—	—	—	—	—	—	X	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
- 245 - 240 V 50 Hz
- C2 - 208 V 60 Hz, CWI ¹
- C3 - 240 V 60 Hz, CWI ¹
- C6 - 480 V 60 Hz, CWI ¹
- C7 - 600 V 60 Hz, CWI ¹
- TT - 120/277/347 V 60 Hz, CWA ¹

- 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 Add **Z** for factory sealed restricted breathing protection (Ex nR) ¹.
- ⑦ For 150 W HPS fixtures, use S-55 lamp type only.

¹ CSA Certification Only.

Mercmaster™ III Low Profile Luminaire Mounting Hoods

High Pressure Sodium and Pulse Start Metal Halide

Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

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

Lighting

LIGHTING: ENCLOSED AND GASKETED – AREA – HID

Mercmaster™ III Low Profile Luminaire Ballast Bodies

High Pressure Sodium and Pulse Start Metal Halide

Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

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 ①②		Voltage Suffixes														
		For Globe	For Refractor	LB	MT	5MT	48	125	225	226	235	245	C2 ③	C3 ③	C6 ③	C7 ③	TT ③	
Inc.	150 Max.	MLBG15I	MLBR15I	X	—	—	—	—	—	—	—	—	—	—	—	—	—	—
HPS	50	MLBG50L ④	MLBR50L ④	—	X	—	—	—	X	X	—	X	—	—	—	—	—	X
HPS	70	MLBG70L ④	MLBR70L ④	—	X	—	X	X	X	X	—	X	—	—	—	—	—	X
HPS	100	MLBG10L ④	MLBR10L ④	—	X	—	X	X	X	X	—	X	—	—	—	—	—	X
HPS	150	MLBG15L ④	MLBR15L ④	—	X	—	X	X	X	X	—	X	X	X	X	X	X	X
PSMH	50	MLBG50H ⑤	MLBR50H ⑤	—	X	—	X	—	—	—	—	—	—	—	—	—	—	X
PSMH	70	MLBG70H ⑤	MLBR70H ⑤	—	X	—	X	X	X	—	—	X	—	—	—	—	—	X
PSMH	100	MLBG10H ⑤	MLBR10H ⑤	—	X	—	X	X	X	—	—	X	—	—	—	—	—	X
PSMH	150	MLBG15P ⑤	MLBR15P ⑤	—	X	—	X	—	—	—	—	X	—	—	—	—	—	X
PSMH	175	MLBG17P ⑤	MLBR17P ⑤	—	X	X	X	—	—	—	—	X	—	—	—	—	—	X
MH ⑥	175	MLBG17H ②	MLBR17H ②	—	X	—	—	—	—	—	—	—	—	—	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

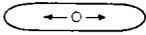
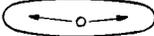
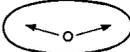
235 - 230 V 50 Hz
245 - 240 V 50 Hz
C2 - 208 V 60 Hz, CWI ⑦
C3 - 240 V 60 Hz, CWI ⑦
C6 - 480 V 60 Hz, CWI ⑦
C7 - 600 V 60 Hz, CWI ⑦,
TT - 120/277/347 V 60 Hz, CWA ⑦

- ① After voltage suffix add: **-S** for Smart Starter, **-SR** for Smart Hot Restrike, **-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).
- ⑤ Add **Z** for factory sealed restricted breathing protection (Ex nR) ⑦.
- ⑦ CSA Certification Only.

Mercmaster™ III Low Profile Luminaire Accessories and Replacement Parts

High Pressure Sodium and Pulse Start Metal Halide

Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

		Description	Catalog Number
Prismatic Glass Globes — Heat-Resistant			
 <p>Glass Globe</p>		Clear	VPGL-1HR
		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			
 <p>Glass Refractor</p>	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. 104 °F/40 °C 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>			
 <p>Polymeric Refractor</p>	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			
 <p>Standard Dome</p>	For Globe Fixtures	Standard Dome	KR2-ST
		Deep Dome	KR2-DD ①
		30° Angle	KR2-AN
 <p>30° Angle</p>	For Glass Refractor Fixtures	Standard Dome	CMR-4ST ②
		Deep Dome	CMR-4DD ①
		30° Angle	CMR-4AN
Guards			
 <p>Globe Guard</p>	 <p>Refractor Guard</p>	Globe Guard	KGU1
		Refractor Guard	KRG2
Replacement Globe Gaskets — Silicone Rubber			
 <p>Globe Gaskets</p>		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 Luminaire Electrical Specifications and Fuse Kits

High Pressure Sodium and Pulse Start Metal Halide

Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

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) ¹
Class I, Zone 2, AEx nR IIC (ZB)

Class II, Division 1 and 2, Groups E, F, G
Class III
Simultaneous Exposure (Class I, Division 2/
Class II, Division 1)

Fixtures Outside Type (Salt Water)
Type 4X
IP66

Lighting

LIGHTING: ENCLOSED AND GASKETED – AREA – HID

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 ¹	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 ¹	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 ¹	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 ¹	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 ¹	HX-HPF	0.15	0.20	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
347 ¹	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 ¹	HX-HPF	0.40	0.40	129
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
347 ¹	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 ¹	Super C.W.A.	0.25	0.65	208
480	Super C.W.A.	0.25	0.50	213
175 Watt Metal Halide ¹				
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
Fuse Kit for Field Installation				
Lamp Watts	Volts	Fuse Quantity Required	Fuse Kit HPS	Fuse Kit Catalog Number PSMH
50W	120	1	F5	F3
	208	2	F3	F3
	240	2	F3	F2
	277	1	F2	F2
	347 ¹	1	F1	F1
70W	120	1	F5	F4
	208	2	F3	F3
	240	2	F3	F3
	277	1	F2	F2
	347 ¹	1	F1	F2
100W	480	2	F2	F1
	120	1	F8	F6
	208	2	F5	F4
	240	2	F5	F3
	277	1	F3	F3
150W	347 ¹	1	F1	F2
	480	2	F3	F2
	120	1	F10	F10
	208	2	F5	F5
	240	2	F5	F5
175W	277	1	F5	F4
	347 ¹	1	F2	F2
	480	2	F3	F3
	120	1	—	F5
	208	2	—	F3
	240	2	—	F3
	277	1	—	F2
	347 ¹	1	F2	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.

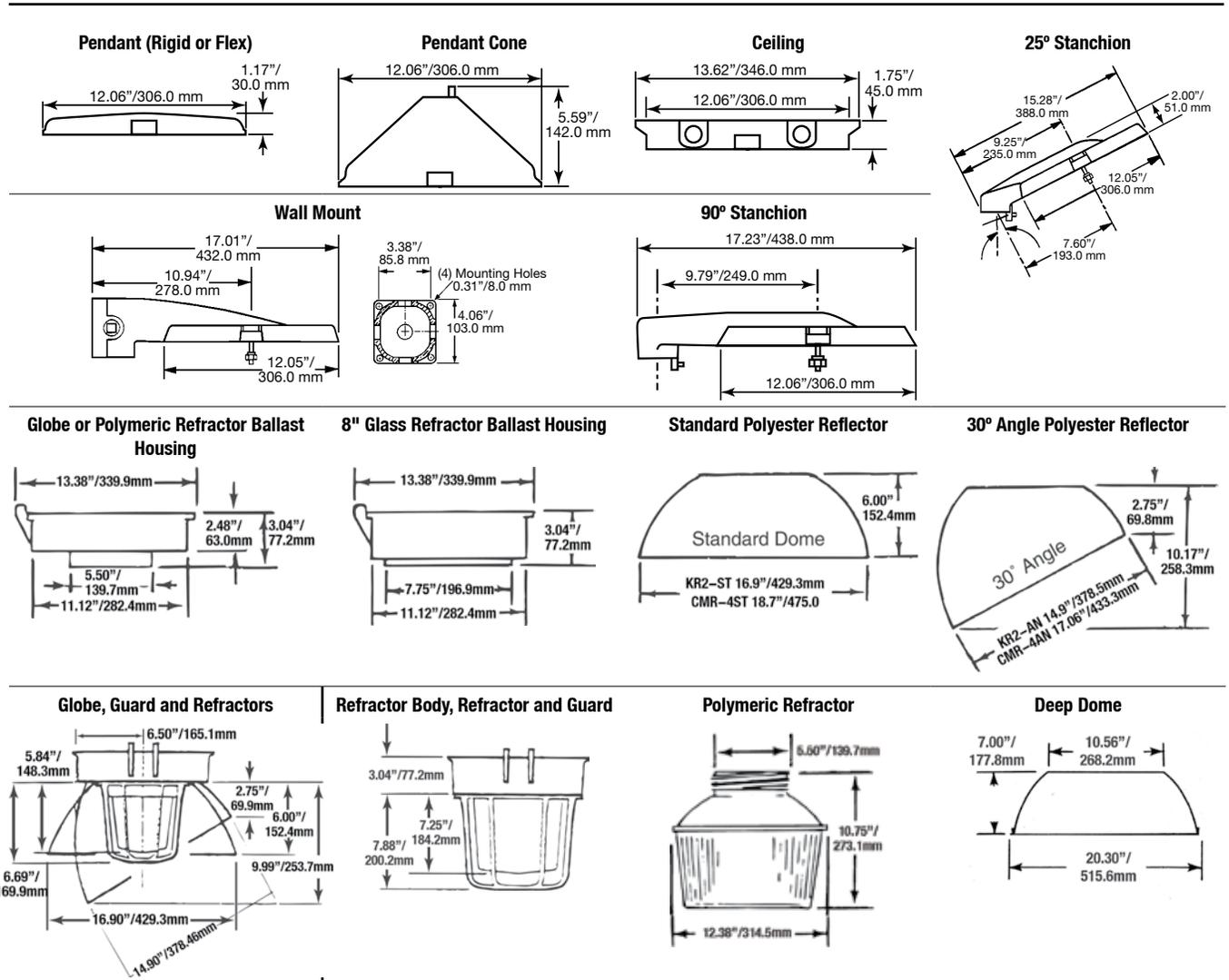
② 150 W HPS units equipped with ballasts to operate 55 V lamps only.

¹ CSA Certification Only.

Mercmaster™ III Low Profile Luminaire Dimensions and Weights

High Pressure Sodium and Pulse Start Metal Halide

Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.



Mercmaster III Low Profile Ballast and Accessory Weights

Watts	Globe Housing Ballast (Wt. Lbs/Kg)		Refractor Housing Ballast (Wt. Lbs/Kg)		Mounting Hoods	Wt. Lbs/Kg	Refractors, Globes, Guards and Reflectors	Wt. Lbs/Kg
	HPS	PSMH	HPS	PSMH				
50	7.25/3.3	7.00/3.2	7.75/3.5	7.50/3.4	Pendant	2.25/1.0	8" Glass Refractor	5.25/2.4
70	8.25/3.7	7.75/3.5	8.75/4.0	8.25/3.7	Pendant Cone	2.50/1.1	Glass Globe	3.75/1.7
100	9.75/4.4	9.25/4.2	10.25/4.6	9.75/4.4	Ceiling	3.00/1.4	Refractor Guard	1.00/0.5
150	10.75/4.9	10.75/4.9	11.25/5.1	11.25/5.1	Wall	4.00/1.8	Globe Guard	1.00/0.5
175	—	11.00/5.0	—	11.50/5.2	25° Stanchion	3.25/1.5	Standard Dome	2.50/1.1
					90° Stanchion	3.75/1.7	Deep Dome	5.00/2.3
							30° Angle	2.50/1.1
							Polymeric Refractor	2.43/1.1

● Weights are approximate. Add 0.25 lbs/0.1 kg 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

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

LIGHTING: ENCLOSED AND GASKETED – AREA – HID

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 6"/152.4mm in length.
- Will fit through standard 1/2" knockout.

Materials

- Encapsulated with epoxy sealing compound
- FS: aluminum

Certifications and Compliances

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

Factory-Installed Photocontrol

Add to fixture catalog after voltage; i.e.: **KPWBL1075MTH1**.

	Voltage Range	Suffix Designation
 <p>Mercmaster III wall mounting hood with photocontrol installed shown</p>	120 V, 50/60 Hz	H1
	208 V, 50/60 Hz	H2
	240 V, 50/60 Hz	H3
	277 V, 50/60 Hz	H4

Photocontrol in FS Cover for Use with FS/FD Box

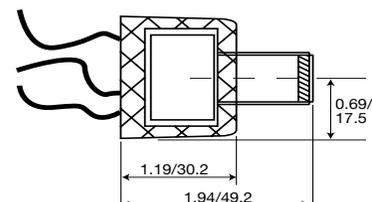
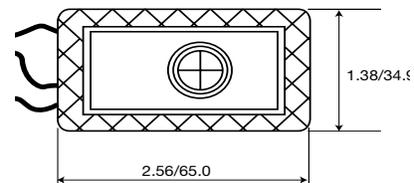
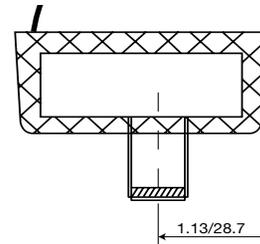
Supplied with two stainless steel screws. For neoprene gasket, order catalog number **FS-GKR-1N**.

	Voltage Range	Catalog Number
	120V, 50/60 Hz	FSKA-PC120D2
	208-277V, 50/60 Hz	FSKA-PC247D2

Photocontrol for Field Installation

	Voltage Range	Max. Current	Catalog Number
	120 V, 50/60 Hz	8.3 Amp	PC120D2
	208-277 V, 50/60 Hz	3.5 Amp	PC247D2

Dimensions



Mercmaster™ III Low Profile Luminaire Photometric Data

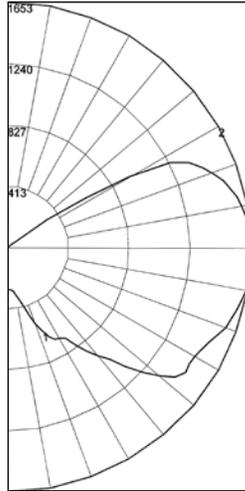
150 W HPS

Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

* 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.

Zone	Lumens	Total Luminaire Efficiency = 83%																																									
0-10	28.58	CIE Type – Semi-Direct																																									
10-20	123.97	<table border="1"> <thead> <tr> <th>Plane</th> <th>Spacing Criteria</th> </tr> </thead> <tbody> <tr> <td>0-180</td> <td>3.9</td> </tr> <tr> <td>90-270</td> <td>3.9</td> </tr> <tr> <td>Diagonal</td> <td>3.7</td> </tr> </tbody> </table>		Plane	Spacing Criteria	0-180	3.9	90-270	3.9	Diagonal	3.7																																
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70-80	1706.16	Zonal Lumen Summary																																									
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140-150	0.00																																										
150-160	0.00																																										
160-170	0.00																																										
170-180	0.00																																										



REPORT NUMBER: **ML15LG**

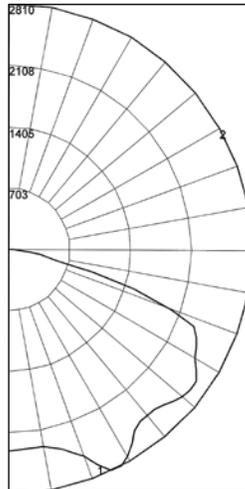
Lamps: 150 W High Pressure Sodium with Globe only *

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

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

Zone	Lumens	Total Luminaire Efficiency = 73.2%																																									
0-10	219.96	CIE Type – Direct																																									
10-20	683.41	<table border="1"> <thead> <tr> <th>Plane</th> <th>Spacing Criteria</th> </tr> </thead> <tbody> <tr> <td>0-180</td> <td>1.64</td> </tr> <tr> <td>90-270</td> <td>1.64</td> </tr> <tr> <td>Diagonal</td> <td>1.88</td> </tr> </tbody> </table>		Plane	Spacing Criteria	0-180	1.64	90-270	1.64	Diagonal	1.88																																
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60-70	2328.33																																										
70-80	1118.52	Zonal Lumen Summary																																									
80-90	174.91	<table border="1"> <thead> <tr> <th>Zone</th> <th>Lumens</th> <th>% Lamp</th> <th>% Fixture</th> </tr> </thead> <tbody> <tr> <td>0-30</td> <td>2171.29</td> <td>13.6</td> <td>18.5</td> </tr> <tr> <td>0-40</td> <td>3784.97</td> <td>23.7</td> <td>32.3</td> </tr> <tr> <td>0-60</td> <td>8086.62</td> <td>50.5</td> <td>69.1</td> </tr> <tr> <td>0-90</td> <td>11708.37</td> <td>73.2</td> <td>100.0</td> </tr> <tr> <td>90-120</td> <td>1.23</td> <td>0.0</td> <td>0.0</td> </tr> <tr> <td>90-130</td> <td>1.23</td> <td>0.0</td> <td>0.0</td> </tr> <tr> <td>90-150</td> <td>1.23</td> <td>0.0</td> <td>0.0</td> </tr> <tr> <td>90-180</td> <td>1.23</td> <td>0.0</td> <td>0.0</td> </tr> <tr> <td>0-180</td> <td>11709.6</td> <td>73.2</td> <td>100.0</td> </tr> </tbody> </table>		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
Zone	Lumens	% Lamp	% Fixture																																								
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150-160	0.00																																										
160-170	0.00																																										
170-180	0.00																																										



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

Mercmaster™ III Low Profile Luminaire Photometric Data

150 W HPS

Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

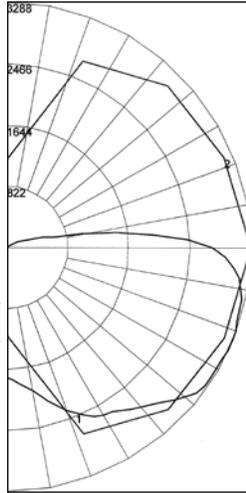
* Photometric data is based on a fixture with a 150-watt clear High Pressure Sodium lamp (16,000 lumen).

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.

Lighting

LIGHTING: ENCLOSED AND GASKETED – AREA – HID

Zone	Lumens	Total Luminaire Efficiency = 68.4%									
0-10	168.01	CIE Type – Direct									
10-20	536.92	<table border="1"> <thead> <tr> <th>Plane</th> <th>Spacing Criteria</th> </tr> </thead> <tbody> <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> </tbody> </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**

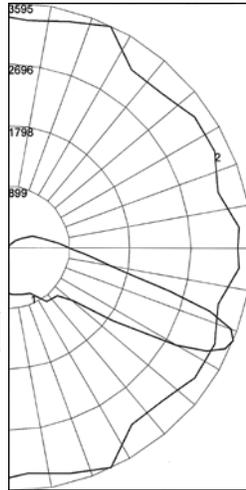
Lamps: 150 W High Pressure Sodium with 30° Angle Dome Reflector *

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

% Ceiling Rcc	80	70				50				30				10				0	
		70	50	30	10	70	50	30	10	50	30	10	50	30	10				
% Walls	Rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	80	80	80	80	80	78	78	78	78	74	74	74	70	70	70	66	66	66	64
1	70	66	62	58	58	68	64	60	57	60	57	54	57	54	52	54	52	50	48
2	63	56	50	45	45	60	54	49	44	51	46	42	48	44	41	45	42	39	37
3	56	48	41	36	36	54	46	40	35	44	38	34	41	37	33	39	35	32	30
4	51	42	35	29	29	49	40	34	29	38	32	28	36	31	27	34	30	26	24
5	47	37	30	24	24	45	36	29	24	34	28	23	32	27	23	30	26	22	20
6	43	33	26	21	21	41	32	25	20	30	24	20	28	23	19	27	22	19	17
7	39	29	23	18	18	38	28	22	18	27	21	17	26	21	17	24	20	16	15
8	37	26	20	16	16	35	26	20	15	24	19	15	23	18	15	22	18	14	13
9	34	24	18	14	14	33	23	18	14	22	17	13	21	17	13	20	16	13	11
10	32	22	16	12	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 border="1"> <thead> <tr> <th>Plane</th> <th>Spacing Criteria</th> </tr> </thead> <tbody> <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> </tbody> </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	Zone	Lumens	% Lamp	% Fixture						
90-100	411.16	0-30	425.77	2.7	3.4						
100-110	632.32	0-40	889.22	5.6	7.2						
110-120	448.30	0-60	3703.50	23.1	29.8						
120-130	293.08	0-90	10408.50	65.1	83.8						
130-140	154.61	90-120	1491.78	9.3	12.0						
140-150	59.30	90-130	1784.86	11.2	14.4						
150-160	9.99	90-150	1998.77	12.5	14.4						
160-170	0.49	90-180	2009.26	12.6	16.2						
170-180	0.00	0-180	12417.76	77.6	100.0						



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	
		70	50	30	10	70	50	30	10	50	30	10	50	30	10				
% 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	89	86	86	86	86	79	79	79	73	73	73	68	68	68	65
1	76	70	65	60	60	72	67	62	58	61	57	54	56	53	50	51	48	46	43
2	66	56	49	42	42	62	54	47	41	49	43	38	44	39	35	40	36	32	29
3	58	46	38	31	31	54	44	36	30	40	33	27	36	30	25	32	27	23	21
4	51	39	30	23	23	48	37	29	22	33	26	21	30	24	19	27	22	17	15
5	46	34	25	18	18	43	32	24	18	29	22	16	26	20	15	23	18	13	11
6	42	29	21	15	15	40	28	20	14	25	18	13	22	16	12	20	15	11	8
7	39	26	18	12	12	36	25	17	12	22	15	11	20	14	10	18	13	9	7
8	36	23	15	10	10	33	22	15	10	20	13	9	18	12	8	16	11	7	5
9	33	21	14	9	9	31	20	13	8	18	12	8	16	11	7	15	10	6	4
10	31	19	12	8	8	29	18	12	7	17	11	7	15	10	6	13	9	5	4

Mercmaster™ III Low Profile Luminaire Photometric Data

100 W PSMH

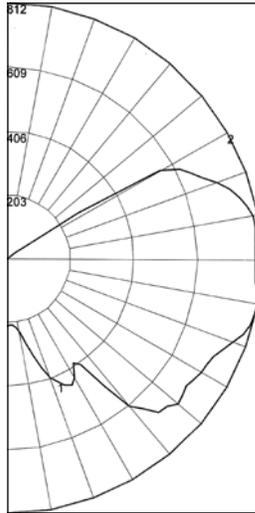
Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

* 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.

Zone	Lumens	Total Luminaire Efficiency = 85.7%	
0-10	21.19	CIE Type – Semi-Direct	
10-20	93.55		
20-30	201.68	Plane	Spacing Criteria
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	Zone	Lumens % Lamp % Fixture
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**

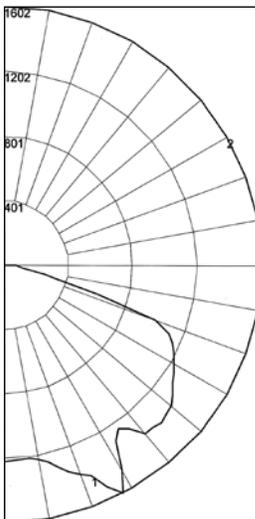
Lamps: 100 W Pulse Start Metal Halide with Globe only *

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	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		
20-30	692.88	Plane	Spacing Criteria
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	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 Luminaire Photometric Data

100 W PSMH

Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

* 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.

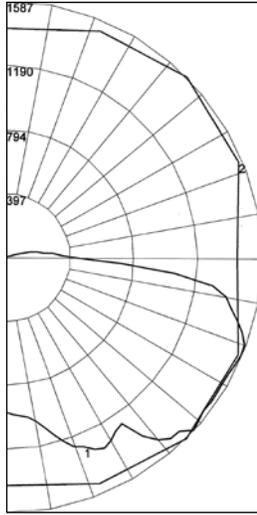
For candlepower values of fixture with guard, multiply by – 0.95.

Lighting

LIGHTING: ENCLOSED AND GASKETED – AREA – HID

Zone Lumens Total Luminaire Efficiency = 71.3%

Zone	Lumens	CIE Type – Direct		
		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	Zonal Lumen Summary		
Zone	Lumens	% Lamp	% Fixture	
90-100	200.90	0-30	936.72	12.0 16.8
100-110	62.89	0-40	1639.74	21.0 29.5
110-120	14.42	0-60	3367.18	43.2 60.6
120-130	1.07	0-90	5281.39	67.7 95.0
130-140	0.00	90-120	278.21	3.6 5.0
140-150	0.00	90-130	279.28	3.6 5.0
150-160	0.00	90-150	279.28	3.6 5.0
160-170	0.00	90-180	279.28	3.6 5.0
170-180	0.00	0-180	5560.68	71.3 100.0



REPORT NUMBER: **ML10HAN**

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

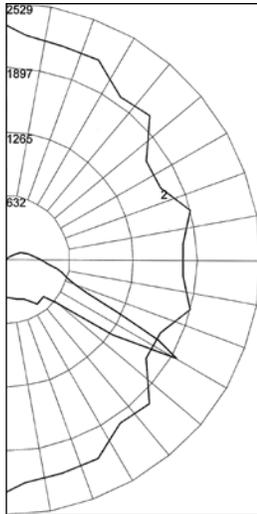
Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

% Ceiling Rcc	% Walls	Rw	80		70		50		30		10		0				
			70	50	30	10	70	50	30	10	50	30		10	0		
0	84	84	84	84	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	55	53	51
2	66	59	53	48	64	57	51	47	54	49	45	51	47	43	48	45	40
3	59	51	44	38	57	49	43	38	46	41	36	44	39	35	41	37	32
4	54	44	37	31	52	43	36	31	40	35	30	38	33	29	36	32	27
5	49	39	32	26	47	38	31	26	36	30	25	34	29	25	32	28	22
6	45	35	28	23	43	34	27	22	32	26	22	30	25	21	29	24	19
7	42	31	24	20	40	30	24	19	29	23	19	27	22	18	26	22	16
8	39	28	22	17	37	28	21	17	26	21	17	25	20	16	24	19	14
9	36	26	19	15	35	25	19	15	24	19	15	23	18	14	22	17	13
10	34	24	18	14	32	23	17	13	22	17	13	21	16	13	20	16	11

Zone Lumens Total Luminaire Efficiency = 76.6%

Zone	Lumens	CIE Type – Semi-Direct		
		Plane	Spacing Criteria	
0-10	9.17			
10-20	75.43			
20-30	154.76			
30-40	266.34	0-180	2.06	
40-50	632.54	90-270	2.20	
50-60	1155.59	Diagonal	3.26	
60-70	1665.76			
70-80	693.73	Zonal Lumen Summary		
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	% Walls	Rw	80		70		50		30		10		0				
			70	50	30	10	70	50	30	10	50	30		10	0		
0	89	89	89	89	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
2	67	58	51	45	64	56	49	44	51	46	41	47	42	38	43	39	33
3	59	48	40	34	56	46	39	32	42	36	30	38	33	28	34	30	24
4	52	41	32	26	49	39	31	25	35	28	23	32	26	21	29	24	18
5	47	35	26	20	44	33	25	19	30	23	18	27	21	17	25	20	13
6	43	30	22	16	40	29	21	15	26	19	14	24	18	13	21	16	10
7	39	27	19	13	37	25	18	13	23	16	12	21	15	11	19	14	8
8	36	24	16	11	34	23	15	10	21	14	10	19	13	9	17	12	6
9	33	21	14	9	31	20	14	9	19	12	8	17	11	8	15	10	5
10	31	19	12	8	29	19	12	8	17	11	7	15	10	6	14	9	4