Mercmaster™ III Low Profile Luminaires

High Pressure Sodium and Pulse Start Metal Halide

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

NEC/CEC:
Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA nR IIC (Z2)
Class I, Zone 2, AEx nR IIC (ZB)
Class II, Division 1 and 2, Groups E, F, G
Class III

NEC/CEC:
Simultaneous Exposure
(Class I, Division 2/Class II, Division 1)
Fixtures Outside Type (Salt Water)
Type 4X
IP66

Applications

- Enclosed and gasketed fixtures suitable for use in:
  - — Marine and wet locations
  - — A wide range of industrial, chemical processing and other areas where flammable gases and vapors or combustible dusts are present under conditions defined by the National Electrical Code as Class I, Division 2; Class II, Division 1 and 2; and Class III
  - — Areas of low clearance, low ceiling heights or where fixture weights must be minimized
  - — For Zone 2, the method of protection is AEx nA nR – Restricted Breathing/Nonsparking or AEx nR – Restricted Breathing
  - — Non-hazardous locations where severe weather conditions, excessive moisture, dirt, dust, corrosive atmosphere or high ambient temperatures are encountered
- Typical applications include:
  - — Pulp and paper mills
  - — Processing plants
  - — Chemical plants
  - — Oil refineries
  - — Foundries
  - — Manufacturing plants
  - — Storage areas
  - — Waste and sewage treatment
  - — Parking garages
  - — Other areas where dust, water, dirt and rough usage are a problem

Features

- Compact light weight low profile design is suited for low mounting heights in conjunction with lower wattage fixtures.
- Modular design allows scores of fixture component combinations to meet installation and lighting needs. Uses same mounting hoods and optical accessories as Mercmaster III.
- A choice of heat-resistant prismatic glass refractors (NEMA I, III or V) or heat-resistant globes which thread directly into ballast housing. Photometrics available upon request – contact your local sales representative.
- Standard dome or 30° angle reflectors made of fiberglass reinforced white polyester. Highly resistant to corrosive atmospheres.
- Accommodates medium base lamps.
- A wide range of voltages available (120 to 600 Volt) and ballast types (Reactor, CWA and Super CWA).
- Medium base lamp type and watts:
  - — HPS 50 W-150 W
  - — PSMH 175 W
- Hinge has high lip for added safety during installation and servicing. Hinge and bolt construction assures 360° compression at all points on ballast housing gasket for positive sealing. Swing away design of captive bolt and nut simplifies servicing.
- All Mercmaster III mounting hoods have provision for easy field installation of fuses in fixtures (see fuse kits).
- Fixtures are for use in Class I, Zone 2 hazardous locations.
- The AEx nA nR factory sealed Mercmaster III prevents vapors and gases from entering the globe chamber. There are no seals or putty required which will reduce installation time and installation errors.

Low Profile Mercmaster III with Prismatic Globe and Guard

Standard Materials

- Mounting hoods, bodies and guard: cast copperfree (4/10 of 1% max.) aluminum
- All hardware and catch assemblies: stainless steel
- Reflectors: Fiberglass reinforced white polyester
- Globes and Refractors: heat-resistant prismatic glass

Standard Finishes

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

Options

- Quartz Auxiliary comes to full brightness immediately and remains lit until the HID lamp attains 60-70% of full illumination. Quartz Auxiliary supplied with relay switch and socket to accept 120 V quartz double-contact bayonet base lamp (not included). Add suffix **-E** ①.
- Guards with gray epoxy painted to match fixtures, supplied with stainless steel screws. Add suffix -**G** before voltage suffix.
- Hot Restrike to restrike HPS lamp immediately when power is restored after a momentary power interruption. Add suffix **-R**.
- Smart Starter incorporates a 1-1/2 minute timer and performs as a conventional starter to normally start lamp. Removes itself from circuit if lamp burns out or is removed from socket. Eliminates starter failures caused by prolonged operation with cycling or failing lamps and simplifies finding their location, reducing maintenance and repair costs. Available for all fixtures. Add suffix **-S.**
- AEx nA nR fixtures, add suffix **-Z2**.
- AEx nR fixtures, add suffix **-ZB.**
- Reflectors are available as standard dome and 30° angle polyester. Order separately.

NEC/CEC Certifications and Compliances ②

- cULus Listed: E10444
- UL Standard: ANSI/UL 844, 1598, 60079-0, 60079-15, Marine Type Electric Fixtures Outside Type (Salt Water)
- CSA Certified: 025428
- CSA Standard: CSA C22.2 No. 9, C22.2 No. 137; CAN/CSA E60079-0, E60079-15

Related Products

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

① Fixtures equipped with quartz auxiliary lamp do not comply with NEC/CEC requirements and are not suitable for use in classified locations.
② Compliance data varies for specific fixtures. Consult Appleton regarding suitability of specific fixtures for a particular application.

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- ***Class II, Division 1 and 2, Groups E, F, G***
- ***Class III***

NEC/CEC:
- ***Simultaneous Exposure***
  - ***(Class I, Division 2/Class II, Division 1)***
- ***Fixtures Outside Type (Salt Water)***
- ***Type 4X***
- ***IP66***

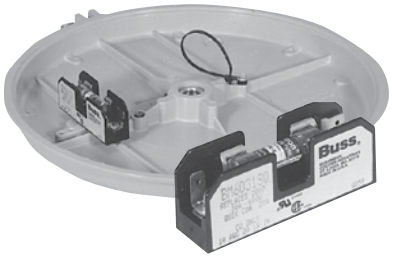
Illustrated Features

High Temperature Sockets
Medium base high-temperature porcelain sockets.

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

Globe Chamber
Completely sealed from the ballast housing and outside vapors/air (nR).

Electrical Protection
Ground wire provided to bond mounting hood to ballast housing.



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

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

Vented Reflectors
Reflectors are thick, tough fiberglass-reinforced white polyester, vented for cooler operation. Quickly attach with furnished stainless steel screws.

Stainless Steel Inserts
Ballast bodies have stainless steel threaded inserts to receive stainless steel screws for reflectors and guard. Prevents "freezing", allowing guards and reflectors to be easily removed and replaced at any time, without damage to the housing.

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

Prismatic Glass Globes and Refractors
Heat-resistant globes and refractors thread directly into ballast housing and seal against a high-temperature silicone rubber gasket.

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

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

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

Terminal Blocks (Zone 2)
A seven-point terminal block is provided to facilitate wiring. Terminal block accommodates wire size ranging from #8 to #24 AWG.

Cooler Operating Cone Hood
Larger sloped surface sheds dusts, dirt and combustible fibers providing better heat dissipation.

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

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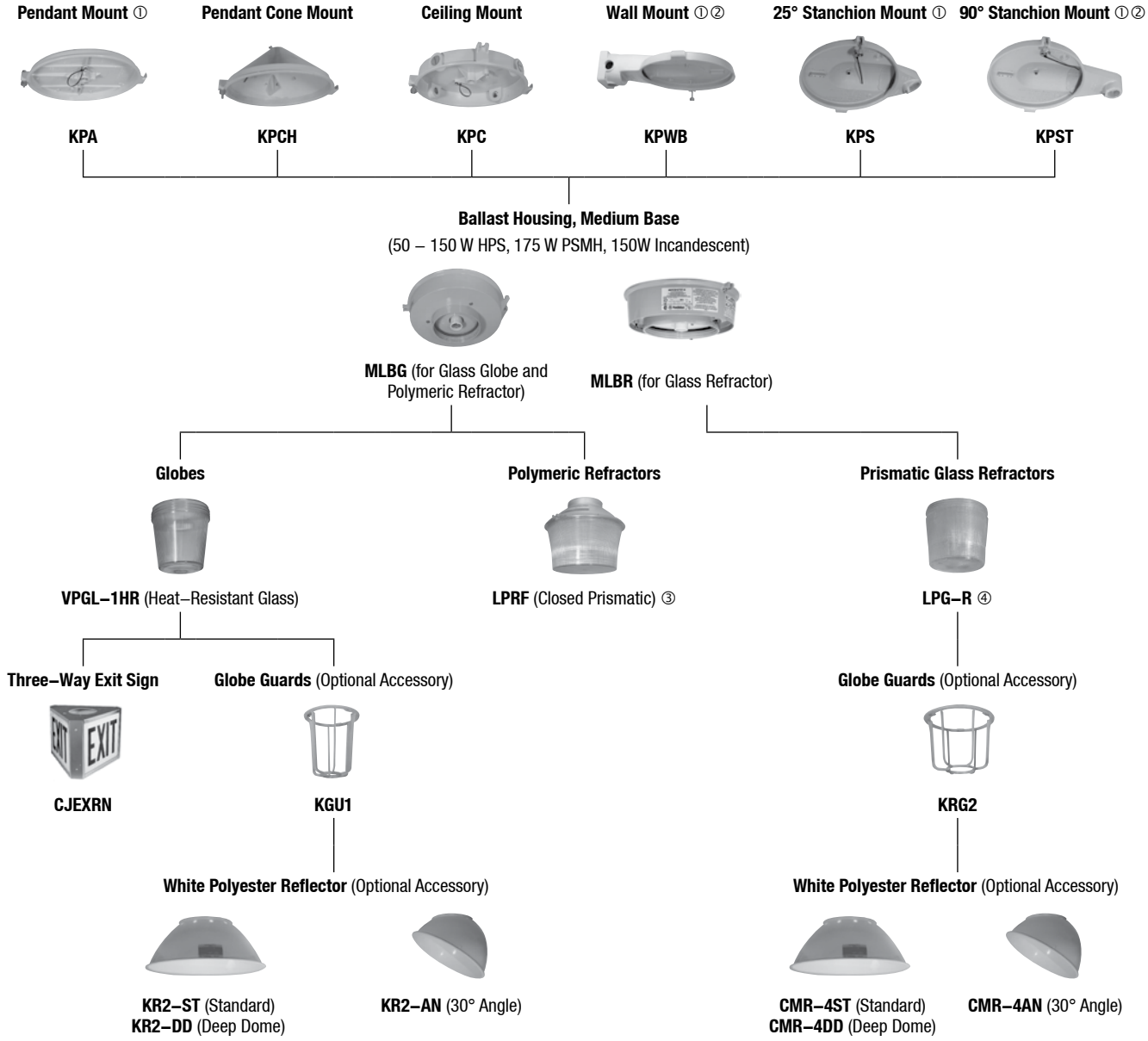
- ***Class III***

NEC/CEC:
- ***Simultaneous Exposure (Class I, Division 2/Class II, Division 1)***
- ***Fixtures Outside Type (Salt Water)***
- ***Type 4X***
- ***IP66***

Mercmaster III Low Profile Family Tree



① Mounting hood with a 120 V or 208-277 V factory installed photocell is available.
② Standard and deep dome reflectors may interfere with bottom conduit entry if used with KPST and KPWB mounting hoods..
③ Available in 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 HPS Max.).
④ Available in NEMA Type I, III and V.

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Class III

NEC/CEC:
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Fixtures Outside Type (Salt Water)
Type 4X
IP66

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

Catalog Numbering Guide

ML A L 15 2 G1 G MT R Z2

Series:
ML - Mercmaster III Low Profile

Lamp Type:
I - Incandescent
L - High Pressure Sodium
P - Pulse Start Metal Halide

Hub Size:
2 - 3/4" NPT
3 - 1" NPT
4 - 1-1/4" NPT stanchion
5 - 1-1/2" NPT stanchion

Guard Options:
G - Cast Guard
N - No Guard

Options:
E - Emergency Quartz ⑤
F - Fuse Kit (Specify Voltage)
R - Hot Restrike ③
S - Smart Starter ④
H1 - Photocontrol 120 V
H2 - Photocontrol 208 V
H3 - Photocontrol 240 V
H4 - Photocontrol 277 V
D - E-27 Export Socket

Optional Fusing ⑥
FN - 120 V
FP - 208 V
FS - 240 V
FT - 277 V
FF - 480 V

Mounting:
A - Pendant (rigid mounting)
C - Ceiling
D - Pendant Cone Hood
F - Pendant (flexible mounting)
R - 90° Stanchion
S - 25° Stanchion
W - Wall

Wattage:
10 - 100 W HPS
15 - 150 W HPS and 60-150 W max. Incandescent
17 - 175 W PSMH
50 - 50 W HPS
70 - 70 W HPS

Optical Assembly: ②
G1 - Globe
J1 - NEMA I Glass Refractor
J3 - NEMA III Glass Refractor
J5 - NEMA V Glass Refractor
P2 - NEMA II Polymeric Refractor
P3 - NEMA III Polymeric Refractor
P4 - NEMA IV Polymeric Refractor
P5 - NEMA V Polymeric Refractor

Voltage: ①
LB - Incandescent, 120, 60 Hz
MT - 120/208/240/277, 60 Hz
5MT - 120/208/240/277/480, 60 Hz
48 - 480, 60 Hz
125 - 120, 50 Hz
225 - 225, 50 Hz
226 - 220, 60 Hz
236 - 230, 60 Hz
245 - 240, 50 Hz
246 - 240, 60 Hz

Suffix:
Z2 - Zone 2 suffix (required for AEx nA nR rating)
ZB - Zone 2 suffix (required for AEx nR)

① Other voltages, frequencies available – contact your local sales representative. Voltages shown are limited to specific combinations; refer to following pages.
② Polymeric Refractor suitable for Class II, Groups F and G, NEMA 4X and Marine Type Electric Fixtures Outside Type (Salt Water) only (100 W HPS Max.). Reflectors ordered separately.
③ Available for 50-150 W HPS fixtures only.
④ Available for HPS or PSMH fixtures.
⑤ Fixtures equipped with quartz auxiliary lamp do not comply with NEC/CEC requirements and are not suitable for use in classified locations
⑥ Optional fusing is available for use with MT, 5MT and 48 voltage suffixes ONLY.

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Mercmaster™ III Low Profile Luminaires

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

Temperature identification numbers of Mercmaster III Low Profile High Pressure Sodium and Pulse Start Metal Halide

NEC/CEC:
Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA nR IIC (Z2)
Class I, Zone 2, AEx nR IIC (ZB)
Class II, Division 1 and 2, Groups E, F, G
Class III

NEC/CEC:
Simultaneous Exposure
(Class I, Division 2/Class II, Division 1)
Fixtures Outside Type (Salt Water)
Type 4X
IP66

Lamp		Supply Wire Min. Temp.	Ambient Temp.	Class I, Division 2			Class II, Division 1 Groups E, F and G			Simultaneous Exposure Class I, Division 2 / Class II, Division 1		
Watts	Type	°C (°F)	°C (°F)	Globe	Globe & Reflector	Refractor	Globe	Globe & Reflector	Refractor	Globe	Globe & Reflector	Refractor
		90 °C (194 °F)	40 °C (104 °F)	**T3**	**T3**	**T3B**	**T4A**	**T4A**	**T5**	**T3**	**T3**	**T3**
50	HPS	90 °C (194 °F)	55 °C (131 °F)	**T3**	**T3**	**T3A**	**T4A**	**T4A**	**T4A**	**T2D**	**T2D**	**T2D**
		90 °C (194 °F)	65 °C (149 °F)	**T3**	**T3**	**T3A**	**T4**	**T4**	**T4A**	**T2C**	**T2C**	**T2C**
		90 °C (194 °F)	40 °C (104 °F)	**T3**	**T3**	**T3**	**T4**	**T4**	**T5**	**T2B**	**T2B**	**T2D**
70	HPS	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**
		90 °C (194 °F)	40 °C (104 °F)	**T2C**	**T2C**	**T2D**	**T4**	**T4**	**T4A**	**T2B**	**T2B**	**T2B**
100	HPS	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**
		90 °C (194 °F)	40 °C (104 °F)	**T3B**	**T3B**	**T3C**	—	—	—	—	—	—
60	Inc.	90 °C (194 °F)	55 °C (131 °F)	**T3A**	**T3A**	**T3C**	—	—	—	—	—	—
		90 °C (194 °F)	65 °C (149 °F)	**T3A**	**T3A**	**T3C**	—	—	—	—	—	—
		90 °C (194 °F)	40 °C (104 °F)	**T3**	**T3**	**T3**	—	—	—	—	—	—
100	Inc.	90 °C (194 °F)	55 °C (131 °F)	**T3**	**T3**	**T3**	—	—	—	—	—	—
		90 °C (194 °F)	65 °C (149 °F)	**T2D**	**T2D**	**T3**	—	—	—	—	—	—
		90 °C (194 °F)	40 °C (104 °F)	**T2D**	**T2D**	**T3**	—	—	—	—	—	—
150	Inc.	90 °C (194 °F)	55 °C (131 °F)	**T2B**	**T2B**	**T2D**	—	—	—	—	—	—
		90 °C (194 °F)	65 °C (149 °F)	**T2B**	**T2B**	**T2D**	—	—	—	—	—	—

"T" Numbers Represent the Maximum Lamp Temperature for Class I, Division 2 Locations and Maximum Surface Temperature Under Dust Blanket for Class II, Division 1 Locations.

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

① *"T" numbers are for Groups E and F only.*

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Mercmaster™ III Low Profile Luminaires

Class I, Zone 2, AEx nA nR IIC, AEx nR IIC IP66, NEMA 4X

Temperature identification numbers of Mercmaster III Zone 2 Low Profile High Pressure Sodium and Pulse Start Metal Halide.

NEC/CEC:
- *Class I, Division 2, Groups A, B, C, D*
- *Class I, Zone 2, AEx nA nR IIC (Z2)*
- *Class I, Zone 2, AEx nR IIC (ZB)*
- *Class II, Division 1 and 2, Groups E, F, G*
- *Class III*

NEC/CEC:
- *Simultaneous Exposure*
  - *(Class I, Division 2/Class II, Division 1)*
- *Fixtures Outside Type (Salt Water)*
- *Type 4X*
- *IP66*

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

"T" Numbers represent the maximum surface temperature for luminaires with AEx nA nR and AEx nR rating:
The "T" number is established by separately determining the maximum temperature of the globe surface and ballast compartment. The hotter of the two is taken to determine the "T" number for the overall fixture.`

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

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Mercmaster™ III Low Profile Luminaires

50 W – 150 W HPS

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

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Class I, Zone 2, AEx nA nR IIC (Z2)
Class I, Zone 2, AEx nR IIC (ZB)
Class II, Division 1 and 2, Groups E, F, G
Class III

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Simultaneous Exposure
(Class I, Division 2/Class II, Division 1)
Fixtures Outside Type (Salt Water)
Type 4X
IP66

	Lamp Type	Lamp Watts	Hub Size (Inches)	Catalog Numbers ③④⑤ With Globe	With Type V 8" Refractor ②
Pendant — One Hub, Rigid Mounting ①					
Shown with Globe and Optional Guard	HPS	50	3/4	**MLAL502G1N**	**MLAL502J5N**
			1	**MLAL503G1N**	**MLAL503J5N**
	HPS	70	3/4	**MLAL702G1N**	**MLAL702J5N**
			1	**MLAL703G1N**	**MLAL703J5N**
	HPS	100	3/4	**MLAL102G1N**	**MLAL102J5N**
			1	**MLAL103G1N**	**MLAL103J5N**
	HPS	150	3/4	**MLAL152G1N** ⑥	**MLAL152J5N** ⑥
			1	**MLAL153G1N** ⑥	**MLAL153J5N** ⑥
Pendant Cone — One Hub, Rigid Mounting					
Shown with Refractor	HPS	50	3/4	**MLDL502G1N**	**MLDL502J5N**
			1	**MLDL503G1N**	**MLDL503J5N**
	HPS	70	3/4	**MLDL702G1N**	**MLDL702J5N**
			1	**MLDL703G1N**	**MLDL703J5N**
	HPS	100	3/4	**MLDL102G1N**	**MLDL102J5N**
			1	**MLDL103G1N**	**MLDL103J5N**
	HPS	150	3/4	**MLDL152G1N** ⑥	**MLDL152J5N** ⑥
			1	**MLDL153G1N** ⑥	**MLDL153J5N** ⑥
Ceiling — Five Hubs, Four Close-up Plugs					
Shown with Globe	HPS	50	3/4	**MLCL502G1N**	**MLCL502J5N**
			1	**MLCL503G1N**	**MLCL503J5N**
	HPS	70	3/4	**MLCL702G1N**	**MLCL702J5N**
			1	**MLCL703G1N**	**MLCL703J5N**
	HPS	100	3/4	**MLCL102G1N**	**MLCL102J5N**
			1	**MLCL103G1N**	**MLCL103J5N**
	HPS	150	3/4	**MLCL152G1N** ⑥	**MLCL152J5N** ⑥
			1	**MLCL153G1N** ⑥	**MLCL153J5N** ⑥

*① For Flexible Pendant Mount, change **A** to **F** in catalog number (except 50 W HPS).*
*② To order fixture with NEMA Type I or NEMA Type III refractor, change final digit **5** in catalog number to **1** or **3**.*
*③ For fixtures with guards, substitute a **G** for the **N** before adding voltage suffix. See following pages for accessory ordering information.*
④ Add the following voltage and frequency designation before ***Z2*** suffix:

		Voltage Suffixes										
Lamp Type	*Lamp Watts*	***LB***	***MT***	***5MT***	***48***	***125***	***225***	***226***	***235***	***236***	***245***	***246***
Inc.	*150 Max.*	*X*	*—*	*—*	*—*	*—*	*—*	*—*	*—*	*—*	*—*	*—*
HPS	*50*	*—*	*X*	*—*	*—*	*—*	*X*	*X*	*—*	*—*	*X*	*—*
HPS	*70*	*—*	*X*	*—*	*X*	*X*	*X*	*X*	*—*	*X*	*X*	*X*
HPS	*100*	*—*	*X*	*—*	*X*	*X*	*X*	*X*	*—*	*X*	*X*	*X*
HPS	*150*	*—*	*X*	*—*	*X*	*X*	*X*	*X*	*—*	*X*	*X*	*X*
PSMH	*175*	*—*	*X*	*—*	*X*	*—*	*—*	*—*	*—*	*—*	*—*	*—*

Voltages:
***LB** - Incandescent, 120 V 60 Hz* ***48** - 480 V 60 Hz* ***226** - 220 V 60 Hz*
***MT** - 120/208/240/277 V 60 Hz* ***125** - 120 V 50 Hz* ***235** - 230 V 50 Hz* ***245** - 240 V 50 Hz*
***5MT** - 120/208/240/277/480 V 60 Hz* ***225** - 225 V 50 Hz* ***236** - 230 V 60 Hz* ***246** - 240 V 60 Hz*

*⑤ Add **Z2** suffix for factory sealed non-sparking/restricted breathing protection (AEx nA nR). Add **ZB** suffix for restricted breathing protection (AEx nR).*
⑥ For 150 W HPS fixtures, use S-55 lamp type only.

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Mercmaster™ III Low Profile Luminaires

50 W – 150 W HPS

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

NEC/CEC:
Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA nR IIC (Z2)
Class I, Zone 2, AEx nR IIC (ZB)
Class II, Division 1 and 2, Groups E, F, G
Class III

NEC/CEC:
Simultaneous Exposure
(Class I, Division 2/Class II, Division 1)
Fixtures Outside Type (Salt Water)
Type 4X
IP66

	Lamp Type	Lamp Watts	Hub Size (Inches)	Catalog Numbers ③④⑤ With Globe	With Type V 8" Refractor ②
Wall — Five Hubs, Four Close-Up Plugs					
	HPS	50	3/4	**MLWL502G1N**	**MLWL502J5N**
			1	**MLWL503G1N**	**MLWL503J5N**
	HPS	70	3/4	**MLWL702G1N**	**MLWL702J5N**
			1	**MLWL703G1N**	**MLWL703J5N**
	HPS	100	3/4	**MLWL102G1N**	**MLWL102J5N**
			1	**MLWL103G1N**	**MLWL103J5N**
	HPS	150	3/4	**MLWL152G1N** ⑥	**MLWL152J5N** ⑥
Shown with Refractor and Optional Guard			1	**MLWL153G1N** ⑥	**MLWL153J5N** ⑥
25° Stanchion — One Hub					
	HPS	50	1-1/4	**MLSL504G1N**	**MLSL504J5N**
			1-1/2	**MLSL505G1N**	**MLSL505J5N**
	HPS	70	1-1/4	**MLSL704G1N**	**MLSL704J5N**
			1-1/2	**MLSL705G1N**	**MLSL705J5N**
	HPS	100	1-1/4	**MLSL104G1N**	**MLSL104J5N**
			1-1/2	**MLSL105G1N**	**MLSL105J5N**
	HPS	150	1-1/4	**MLSL154G1N** ⑥	**MLSL154J5N** ⑥
Shown with Globe and Optional Guard			1-1/2	**MLSL155G1N** ⑥	**MLSL155J5N** ⑥
90° Stanchion — One Hub					
	HPS	50	1-1/4	**MLRL504G1N**	**MLRL504J5N**
			1-1/2	**MLRL505G1N**	**MLRL505J5N**
	HPS	70	1-1/4	**MLRL704G1N**	**MLRL704J5N**
			1-1/2	**MLRL705G1N**	**MLRL705J5N**
	HPS	100	1-1/4	**MLRL104G1N**	**MLRL104J5N**
			1-1/2	**MLRL105G1N**	**MLRL105J5N**
	HPS	150	1-1/4	**MLRL154G1N** ⑥	**MLRL154J5N** ⑥
Shown with Refractor and Optional Guard			1-1/2	**MLRL155G1N** ⑥	**MLRL155J5N** ⑥

*② To order fixture with NEMA Type I or NEMA Type III refractor, change final digit **5** in catalog number to **1** or **3**.*
*③ For fixtures with guards, substitute a **G** for the **N** before adding voltage suffix. See following pages for accessory ordering information.*
④ Add the following voltage and frequency designation before ***Z2*** suffix:

		Voltage Suffixes										
Lamp Type	*Lamp Watts*	***LB***	***MT***	***5MT***	***48***	***125***	***225***	***226***	***235***	***236***	***245***	***246***
Inc.	*150 Max.*	*X*	*—*	*—*	*—*	*—*	*—*	*—*	*—*	*—*	*—*	*—*
HPS	*50*	*—*	*X*	*—*	*—*	*—*	*X*	*X*	*—*	*—*	*X*	*—*
HPS	*70*	*—*	*X*	*—*	*X*	*X*	*X*	*X*	*—*	*X*	*X*	*X*
HPS	*100*	*—*	*X*	*—*	*X*	*X*	*X*	*X*	*—*	*X*	*X*	*X*
HPS	*150*	*—*	*X*	*—*	*X*	*X*	*X*	*X*	*—*	*X*	*X*	*X*
PSMH	*175*	*—*	*X*	*—*	*X*	*—*	*—*	*—*	*—*	*—*	*—*	*—*

Voltages:
***LB** - Incandescent, 120 V 60 Hz*
***MT** - 120/208/240/277 V 60 Hz*
***5MT** - 120/208/240/277/480 V 60 Hz*
***48** - 480 V 60 Hz*
***125** - 120 V 50 Hz*
***225** - 225 V 50 Hz*
***226** - 220 V 60 Hz*
***235** - 230 V 50 Hz*
***236** - 230 V 60 Hz*
***245** - 240 V 50 Hz*
***246** - 240 V 60 Hz*

*⑤ Add **Z2** suffix for factory sealed non-sparking/restricted breathing protection (AEx nA nR). Add **ZB** suffix for restricted breathing protection (AEx nR).*
⑥ For 150 W HPS fixtures, use S-55 lamp type only.

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Mercmaster™ III Low Profile Luminaires

175 W PSMH

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

NEC/CEC:
Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA nR IIC (Z2)
Class I, Zone 2, AEx nR IIC (ZB)
Class II, Division 1 and 2, Groups E, F, G
Class III

NEC/CEC:
Simultaneous Exposure
(Class I, Division 2/Class II, Division 1)
Fixtures Outside Type (Salt Water)
Type 4X
IP66

	Lamp Type	Lamp Watts	Hub Size (Inches)	Catalog Numbers ③④⑤ With Globe	With Type V 8" Refractor ②
Pendant — One Hub, Rigid Mounting ①					
	PSMH	175	3/4	**MLAP172G1N**	**MLAP172J5N**
			1	**MLAP173G1N**	**MLAP173J5N**
Shown with Globe and Optional Guard					
Pendant Cone — One Hub, Rigid Mounting					
	PSMH	175	3/4	**MLDP172G1N**	**MLDP172J5N**
			1	**MLDP173G1N**	**MLDP173J5N**
Shown with Refractor					
Ceiling — Five Hubs, Four Close-up Plugs					
	PSMH	175	3/4	**MLCP172G1N**	**MLCP172J5N**
			1	**MLCP173G1N**	**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:

		Voltage Suffixes										
Lamp Type	*Lamp Watts*	***LB***	***MT***	***5MT***	***48***	***125***	***225***	***226***	***235***	***236***	***245***	***246***
Inc.	*150 Max.*	*X*	*—*	*—*	*—*	*—*	*—*	*—*	*—*	*—*	*—*	*—*
HPS	*50*	*—*	*X*	*—*	*—*	*—*	*X*	*X*	*—*	*—*	*X*	*—*
HPS	*70*	*—*	*X*	*—*	*X*	*X*	*X*	*X*	*—*	*X*	*X*	*X*
HPS	*100*	*—*	*X*	*—*	*X*	*X*	*X*	*X*	*—*	*X*	*X*	*X*
HPS	*150*	*—*	*X*	*—*	*X*	*X*	*X*	*X*	*—*	*X*	*X*	*X*
PSMH	*175*	*—*	*X*	*—*	*X*	*—*	*—*	*—*	*—*	*—*	*—*	*—*

Voltages:
***LB** - Incandescent, 120 V 60 Hz*
***MT** - 120/208/240/277 V 60 Hz*
***5MT** - 120/208/240/277/480 V 60 Hz*
***48** - 480 V 60 Hz*
***125** - 120 V 50 Hz*
***225** - 225 V 50 Hz*
***226** - 220 V 60 Hz*
***235** - 230 V 50 Hz*
***236** - 230 V 60 Hz*
***245** - 240 V 50 Hz*
***246** - 240 V 60 Hz*

*⑤ Add **Z2** suffix for factory sealed non-sparking/restricted breathing protection (AEx nA nR). Add **ZB** suffix for restricted breathing protection (AEx nR).*

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Mercmaster™ III Low Profile Luminaires

50 W - 175 W PSMH

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

NEC/CEC:
- ***Class I, Division 2, Groups A, B, C, D***
- ***Class I, Zone 2, AEx nA nR IIC (Z2)***
- ***Class I, Zone 2, AEx nR IIC (ZB)***
- ***Class II, Division 1 and 2, Groups E, F, G***
- ***Class III***

NEC/CEC:
- ***Simultaneous Exposure (Class I, Division 2/Class II, Division 1)***
- ***Fixtures Outside Type (Salt Water)***
- ***Type 4X***
- ***IP66***

	Lamp Type	Lamp Watts	Hub Size (Inches)	Catalog Numbers ③④⑤ With Globe	With Type V 8" Refractor ②
Wall — Five Hubs, Four Close-Up Plugs					
Shown with Refractor and Optional Guard	PSMH	175	3/4	**MLWP172G1N**	**MLWP172J5N**
			1	**MLWP173G1N**	**MLWP173J5N**
25° Stanchion — One Hub					
Shown with Globe and Optional Guard	PSMH	175	1-1/4	**MLSP174G1N**	**MLSP174J5N**
			1-1/2	**MLSP175G1N**	**MLSP175J5N**
90° Stanchion — One Hub					
Shown with Refractor and Optional Guard	PSMH	175	1-1/4	**MLRP174G1N**	**MLRP174J5N**
			1-1/2	**MLRP175G1N**	**MLRP175J5N**

*② To order fixture with NEMA Type I or NEMA Type III refractor, change final digit **5** in catalog number to **1** or **3**.*

*③ For fixtures with guards, substitute a **G** for the **N** before adding voltage suffix. See following pages for accessory ordering information.*

④ Add the following voltage and frequency designation before ***Z2*** suffix:

		Voltage Suffixes										
Lamp Type	*Lamp Watts*	***LB***	***MT***	***5MT***	***48***	***125***	***225***	***226***	***235***	***236***	***245***	***246***
Inc.	*150 Max.*	*X*	—	—	—	—	—	—	—	—	—	—
HPS	*50*	—	*X*	—	—	—	*X*	*X*	—	—	*X*	—
HPS	*70*	—	*X*	—	*X*	*X*	*X*	*X*	—	*X*	*X*	*X*
HPS	*100*	—	*X*	—	*X*	*X*	*X*	*X*	—	*X*	*X*	*X*
HPS	*150*	—	*X*	—	*X*	*X*	*X*	*X*	—	*X*	*X*	*X*
PSMH	*175*	—	*X*	—	*X*	—	—	—	—	—	—	—

Voltages:

***LB** - Incandescent, 120 V 60 Hz*
***MT** - 120/208/240/277 V 60 Hz*
***5MT** - 120/208/240/277/480 V 60 Hz*
***48** - 480 V 60 Hz*
***125** - 120 V 50 Hz*
***225** - 225 V 50 Hz*
***226** - 220 V 60 Hz*
***235** - 230 V 50 Hz*
***236** - 230 V 60 Hz*
***245** - 240 V 50 Hz*
***246** - 240 V 60 Hz*

*⑤ Add **Z2** suffix for factory sealed non-sparking/restricted breathing protection (AEx nA nR). Add **ZB** suffix for restricted breathing protection (AEx nR).*

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Mercmaster™ III Low Profile Luminaires

High Pressure Sodium and Pulse Start Metal Halide

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

NEC/CEC:
- ***Class I, Division 2, Groups A, B, C, D***
- ***Class I, Zone 2, AEx nA nR IIC (Z2)***
- ***Class I, Zone 2, AEx nR IIC (ZB)***
- ***Class II, Division 1 and 2, Groups E, F, G***
- ***Class III***

NEC/CEC:
- ***Simultaneous Exposure (Class I, Division 2/Class II, Division 1)***
- ***Fixtures Outside Type (Salt Water)***
- ***Type 4X***
- ***IP66***

Mounting Hoods

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

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Class I, Zone 2, AEx nA nR IIC (Z2)
Class I, Zone 2, AEx nR IIC (ZB)
Class II, Division 1 and 2, Groups E, F, G
Class III

NEC/CEC:
Simultaneous Exposure
(Class I, Division 2/Class II, Division 1)
Fixtures Outside Type (Salt Water)
Type 4X
IP66

Ballast Bodies

Ballast Body for Glass Refractor

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

Ballast Body for Glass Globe or Polymeric Refractor

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

Lamp Type	Lamp Watts	Catalog Number ④ For Globe	Catalog Number ④ For Refractor	Voltage Suffixes LB	MT	5MT	48	125	225	226	235	236	245	246
Inc.	150 Max.	**MLBG15I**	**MLBR15I**	X	—	—	—	—	—	—	—	—	—	—
HPS	50	**MLBG50L** ①②	**MLBR50L** ①②	—	X	—	—	—	X	X	—	—	X	—
HPS	70	**MLBG70L** ①②	**MLBR70L** ①②	—	X	—	X	X	X	X	—	X	X	X
HPS	100	**MLBG10L** ①②	**MLBR10L** ①②	—	X	—	X	X	X	X	—	X	X	X
HPS	150	**MLBG15L** ①②	**MLBR15L** ①②	—	X	—	X	X	X	X	—	X	X	X
PSMH	175	**MLBG17P** ②③	**MLBR17P** ②③	—	X	—	X	—	—	—	—	—	—	—

Voltages:
LB - Incandescent, 120 V 60 Hz
MT - 120/208/240/277 V 60 Hz
5MT - 120/208/240/277/480 V 60 Hz
48 - 480 V 60 Hz
125 - 120 V 50 Hz
225 - 225 V 50 Hz
226 - 220 V 60 Hz
235 - 230 V 50 Hz
236 - 230 V 60 Hz
245 - 240 V 50 Hz
246 - 240 V 60 Hz

*① After voltage suffix add: -**S** for Smart Starter, -**R** for ballast body with Hot Restrike Ignitor.*
*② Add -**E** after voltage suffix for ballast body with provision for Quartz Emergency Light. Not suitable for hazardous locations.*
*③ After voltage suffix add: -**S** for Smart Starter.*
*④ Add -**Z2** suffix for factory sealed non-sparking/restricted breathing protection (AEx nA nR). Add -**ZB** suffix for restricted breathing protection (AEx nR).*

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Mercmaster™ III Low Profile Luminaires

High Pressure Sodium and Pulse Start Metal Halide

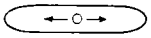
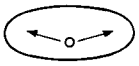
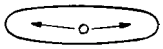
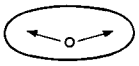
Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

NEC/CEC:
Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA nR IIC (Z2)
Class I, Zone 2, AEx nR IIC (ZB)
Class II, Division 1 and 2, Groups E, F, G
Class III

NEC/CEC:
Simultaneous Exposure
(Class I, Division 2/Class II, Division 1)
Fixtures Outside Type (Salt Water)
Type 4X
IP66

Accessories and Replacement Parts

	Description	Catalog Number
Prismatic Glass Globes — Heat-Resistant		
Glass Globe	Clear	**VPGL-1HR**

	Light Distribution	IES/NEMA Distribution Curves	Catalog Number
Closed Prismatic Glass Refractors — All Heat-Resistant			
Glass Refractor	NEMA Type I		**LPG-R1**
	NEMA Type III		**LPG-R3**
	NEMA Type V		**LPG-R5**
Closed Prismatic Polymeric Refractors — For Use with PSMH Lamps Only *100 W max. +40 °C (+104 °F) max. ambient temperature. Suitable for Class II, Division 1 and 2, Groups F, G; NEMA 4X, UL 1598A Marine Type Electric Fixtures Outside Type (Salt Water)*			
Polymeric Refractor	NEMA Type II		**LPRF-2CP**
	NEMA Type III		**LPRF-3CP**
	NEMA Type IV		**LPRF-4CP**
	NEMA Type V		**LPRF-5CP**

		Description	Catalog Number
White Polyester Reflectors			
Standard Dome 30° Angle	For Globe Fixtures	Standard Dome	**KR2-ST**
		Deep Dome	**KR2-DD** ①
		30° Angle	**KR2-AN**
	For Glass Refractor Fixtures	Standard Dome	**CMR-4ST** ②
		Deep Dome	**CMR-4DD** ①
		30° Angle	**CMR-4AN**
Guards			
Globe Guard Refractor Guard		Globe Guard Refractor Guard	**KGU1** **KRG2**
Replacement Globe Gaskets — Silicone Rubber			
Globe Gaskets		Globe Gasket Refractor Gasket	**VPGL-GK** **KRF-GK**

① Dark Skies Compliant.
② Standard and deep dome reflectors may interfere with bottom conduit entry if used with KPST and KPWB mounting hoods.

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Mercmaster™ III Low Profile Luminaires

High Pressure Sodium and Pulse Start Metal Halide

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

NEC/CEC:
Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA nR IIC (Z2)
Class I, Zone 2, AEx nR IIC (ZB)
Class II, Division 1 and 2, Groups E, F, G
Class III

NEC/CEC:
Simultaneous Exposure
(Class I, Division 2/Class II, Division 1)
Fixtures Outside Type (Salt Water)
Type 4X
IP66

Electrical Specifications

Line Voltage	Type of Ballast ①	Starting Amps	Operating Amps	Total Watts
50 Watt High Pressure Sodium				
120	HX-HPF	0.65	0.61	66
208	HX-HPF	0.37	0.35	66
240	HX-HPF	0.32	0.31	66
277	HX-HPF	0.30	0.26	66
70 Watt High Pressure Sodium				
120	HX-HPF	0.90	0.82	94
208	HX-HPF	0.50	0.48	94
240	HX-HPF	0.44	0.41	94
277	HX-HPF	0.35	0.36	94
480	HX-HPF	0.21	0.21	94
100 Watt High Pressure Sodium				
120	HX-HPF	1.30	1.15	130
208	HX-HPF	0.76	0.67	130
240	HX-HPF	0.66	0.60	130
277	HX-HPF	0.60	0.52	130
480	HX-HPF	0.33	0.31	135
150 Watt High Pressure Sodium ②				
120	HX-HPF	2.00	1.70	188
208	HX-HPF	1.15	0.95	188
240	HX-HPF	1.00	0.85	188
277	HX-HPF	0.85	0.72	188
480	HX-HPF	0.50	0.47	189

Electrical Specifications

Line Voltage	Type of Ballast ①	Starting Amps	Operating Amps	Total Watts
175 Watt Pulse Start Metal Halide				
120	CWA	1.20	1.83	196
208	CWA	0.70	1.03	196
240	CWA	0.60	0.93	196
277	CWA	0.50	0.74	196
480	CWA	0.15	0.45	196

Fuse Kit for Field Installation

Lamp Watts	Volts	Fuse Quantity Required	Fuse Kit Catalog Number HPS	Fuse Kit Catalog Number PSMH
50W	120	1	**F5**	**—**
	208	2	**F3**	**—**
	240	2	**F3**	**—**
	277	1	**F2**	**—**
70W	120	1	**F5**	**—**
	208	2	**F3**	**—**
	240	2	**F3**	**—**
	277	1	**F2**	**—**
	480	2	**F2**	**—**
100W	120	1	**F8**	**—**
	208	2	**F5**	**—**
	240	2	**F5**	**—**
	277	1	**F3**	**—**
	480	2	**F3**	**—**
150W	120	1	**F10**	**—**
	208	2	**F5**	**—**
	240	2	**F5**	**—**
	277	1	**F5**	**—**
	480	2	**F3**	**—**
175W	120	1	**—**	**F10**
	208	2	**—**	**F5**
	240	2	**—**	**F4**
	277	1	**—**	**F3**
	480	2	**—**	**F3**

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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Mercmaster™ III Low Profile Luminaires

High Pressure Sodium and Pulse Start Metal Halide

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NEC/CEC:
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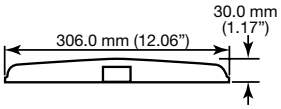
- ***Class I, Zone 2, AEx nA nR IIC (Z2)***
- ***Class I, Zone 2, AEx nR IIC (ZB)***
- ***Class II, Division 1 and 2, Groups E, F, G***
- ***Class III***

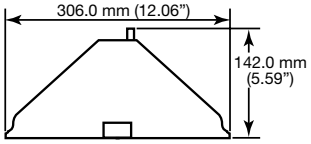
NEC/CEC:
- ***Simultaneous Exposure (Class I, Division 2/Class II, Division 1)***
- ***Fixtures Outside Type (Salt Water)***
- ***Type 4X***
- ***IP66***

Dimensions in Millimeters (Inches)

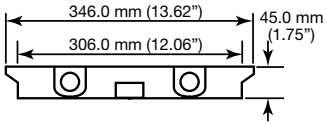
Pendant (Rigid or Flex)



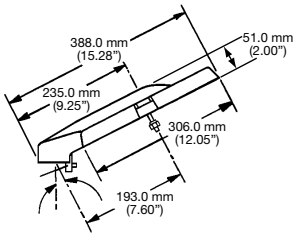
Pendant Cone



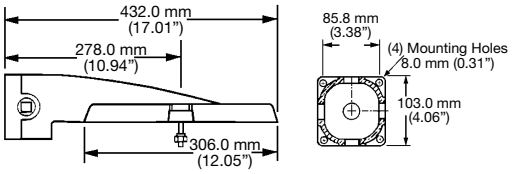
Ceiling



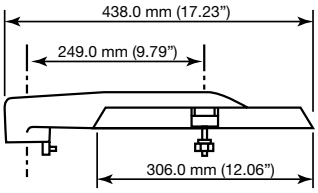
25º Stanchion



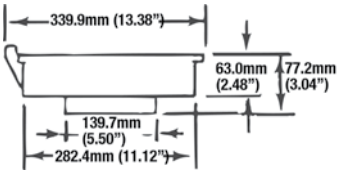
Wall Mount



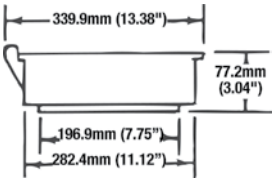
90º Stanchion



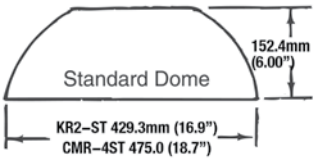
Globe or Polymeric Refractor Ballast Housing



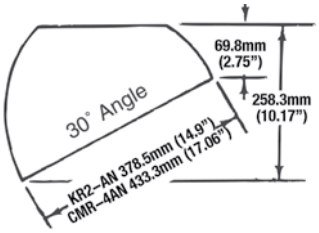
8" Glass Refractor Ballast Housing



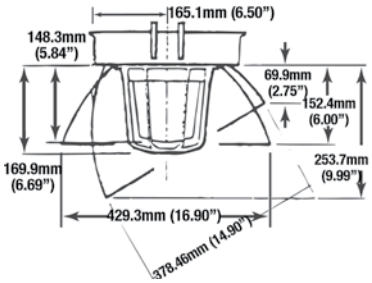
Standard Polyester Reflector



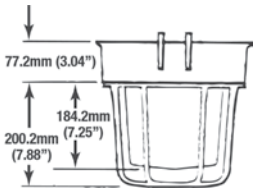
30º Angle Polyester Reflector



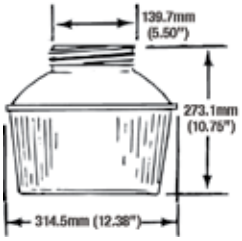
Globe, Guard and Refractors



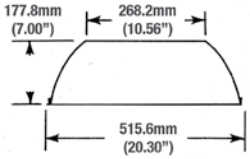
Refractor Body, Refractor and Guard



Polymeric Refractor



Deep Dome



Mercmaster III Low Profile Ballast and Accessory Weights ①

	Globe Housing Ballast Wt. kg (lb)		Refractor Housing Ballast Wt. kg (lb)					
Watts	**HPS**	**PSMH**	**HPS**	**PSMH**	**Mounting Hoods**	**Wt. Kg (Lb)**	**Refractors, Globes, Guards and Reflectors**	**Wt. Kg (Lb)**
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	2.3 (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.

Appleton

HID/AREA: NEC/CEC ENCLOSED AND GASKETED

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EMERSON

PCD2 Series Factory Sealed Hazardous Location Photocontrol

For use in Class I, Division 2, Groups A, B, C, D locations

Maintains Class I, Division 2 rating for Mercmaster III – Low Profile, Mercmaster III, and Mercmaster III – 400 Series Luminaires, Mercmaster LED

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

Applications

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

Features

- Factory sealed design eliminates the need for an explosionproof enclosure.
- Can be easily installed in the field.
- Solid state design for performance and reliability.
- Available for 120, 208, 240, or 277 volts.
- 50-400 W HID, incandescent or fluorescent, 50/60 Hz.
- 1000 V.A. Voltage/Ampere
- Minimum time delay: 15 seconds to eliminate nuisance tripping.
- Provided with (3) 18 AWG stranded leads 152.4 mm (6.00 in) in length.
- Will fit through standard 1/2" knockout.
- Supplied with locknut and gasket.

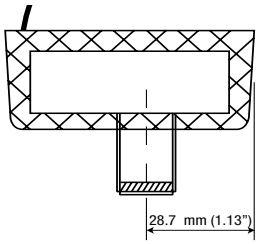
Materials

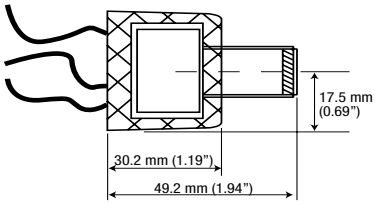
- Encapsulated with epoxy sealing compound
- FS: aluminum

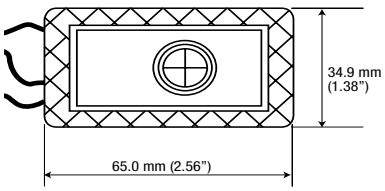
NEC/CEC Certifications and Compliances

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

	Voltage Range	Max VA	Max Current Amps	Suffix Designation Catalog Number
Factory-Installed Photocontrol - Not for ceiling or pendant cone. *Add to fixture catalog after voltage; i.e.:* ***KPWBL1075MTH1****.*				
Mercmaster III wall mounting hood with photocontrol installed shown	120 V, 50/60 Hz	1000	—	**H1**
	208 V, 50/60 Hz	1000	—	**H2**
	240 V, 50/60 Hz	1000	—	**H3**
	277 V, 50/60 Hz	1000	—	**H4**
Photocontrol for Field Installation				
	120 V, 50/60 Hz	1000	8.3 Amp	**PC120D2**
	208 V, 50/60 Hz	1000	4.8 Amp	
	240 V, 50/60 Hz	1000	4.2 Amp	**PC247D2**
	277 V, 50/60 Hz	1000	3.6 Amp	
Photocontrol in FS Cover for Use with FS/FD Box *Supplied with two stainless steel screws. For neoprene gasket, order catalog number* ***FS-GKR-1N****.*				
	120 V, 50/60 Hz	1000	8.3 Amp	**FSKA-PC120D2**
	208, 50/60 Hz	1000	4.8 Amp	
	240 V, 50/60 Hz	1000	4.2 Amp	**FSKA-PC247D2**
	277 V, 50/60 Hz	1000	3.6 Amp	







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Mercmaster™ III Low Profile Luminaires

150 W HPS

* Photometric data is based on a fixture with a 150–watt clear High Pressure Sodium lamp (16,000 lumen). For candlepower values of fixtures with other HPS lamps, use the following multipliers: for a 100 W (9,500 lumen) HPS lamp – 0.594; for a 70 W (6,400 lumen) HPS lamp – 0.40; for a 50 W (4,000 lumen) HPS lamp – 0.25. For candlepower values of fixture with guard, multiply by – 0.95.

NEC/CEC:
Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA nR IIC (Z2)
Class I, Zone 2, AEx nR IIC (ZB)
Class II, Division 1 and 2, Groups E, F, G
Class III

NEC/CEC:
Simultaneous Exposure
(Class I, Division 2/Class II, Division 1)
Fixtures Outside Type (Salt Water)
Type 4X
IP66

Photometric Data

Zone	Lumens
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

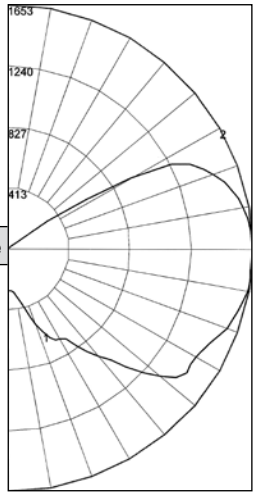
Total Luminaire Efficiency = 83%

CIE Type – Semi–Direct

Plane	Spacing Criteria
0-180	3.9
90-270	3.9
Diagonal	3.7

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture
0-30	4563.72	2.9	3.4
0-40	970.35	6.1	7.3
0-60	3159.07	19.7	23.8
0-90	8172.49	51.1	61.5
90-120	4755.49	29.7	35.8
90-130	5106.74	31.9	38.4
90-150	5111.87	31.9	38.4
90-180	5111.87	31.9	38.5
0-180	13284.37	83.0	100.0



REPORT NUMBER: **ML15LG**

Lamps: 150 W High Pressure Sodium with Globe only *

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

% Ceiling Rcc	80				70				50			30			10			0
% Walls Rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	91	91	91	91	85	85	85	85	75	75	75	65	65	65	55	55	55	51
1	77	71	66	61	72	66	61	57	57	53	49	48	45	42	40	37	35	31
2	68	59	51	45	63	55	48	42	46	41	36	39	34	31	32	28	25	21
3	61	50	42	35	56	46	39	33	39	33	28	32	27	23	26	22	19	16
4	55	43	35	28	50	40	32	26	34	27	22	28	23	18	22	18	15	12
5	50	38	29	23	46	35	27	21	29	23	18	24	19	15	19	15	12	9
6	46	33	25	19	42	31	23	18	26	20	15	21	16	12	17	13	10	7
7	42	30	22	16	38	27	20	15	23	17	13	19	14	10	15	11	8	6
8	39	27	19	14	36	25	18	13	21	15	11	17	12	9	14	10	7	5
9	36	24	17	12	33	22	16	11	19	13	9	16	11	8	13	9	6	4
10	33	22	15	11	31	20	14	10	17	12	8	15	10	7	12	8	5	4

Zone	Lumens
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

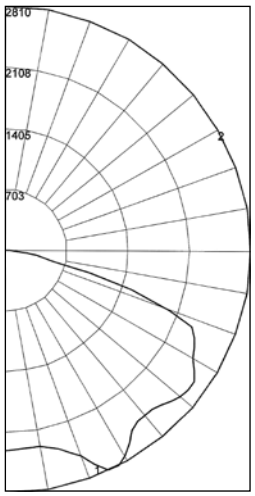
Total Luminaire Efficiency = 73.2%

CIE Type – Direct

Plane	Spacing Criteria
0-180	1.64
90-270	1.64
Diagonal	1.88

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture
0-30	2171.29	13.6	18.5
0-40	3784.97	23.7	32.3
0-60	8086.62	50.5	69.1
0-90	11708.37	73.2	100.0
90-120	1.23	0.0	0.0
90-130	1.23	0.0	0.0
90-150	1.23	0.0	0.0
90-180	1.23	0.0	0.0
0-180	11709.6	73.2	100.0



REPORT NUMBER: **ML15LST**

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

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

% Ceiling Rcc	80				70				50			30			10			0
% Walls Rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	87	87	87	87	85	85	85	85	81	81	81	78	78	78	75	75	75	73
1	79	75	71	68	77	73	70	67	70	67	65	67	65	63	64	62	61	59
2	70	63	58	53	68	62	57	52	59	55	51	57	53	50	55	52	49	47
3	63	54	48	42	61	53	47	42	51	46	41	49	44	40	47	43	40	38
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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

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Mercmaster™ III Low Profile Luminaires

150 W HPS

* Photometric data is based on a fixture with a 150–watt clear High Pressure Sodium lamp (16,000 lumen). For candlepower values of fixtures with other HPS lamps, use the following multipliers: for a 100 W (9,500 lumen) HPS lamp – 0.594; for a 70 W (6,400 lumen) HPS lamp – 0.40; for a 50 W (4,000 lumen) HPS lamp – 0.25. For candlepower values of fixture with guard, multiply by – 0.95.

NEC/CEC:
Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA nR IIC (Z2)
Class I, Zone 2, AEx nR IIC (ZB)
Class II, Division 1 and 2, Groups E, F, G
Class III

NEC/CEC:
Simultaneous Exposure
(Class I, Division 2/Class II, Division 1)
Fixtures Outside Type (Salt Water)
Type 4X
IP66

Photometric Data

Zone	Lumens
0-10	168.01
10-20	536.92
20-30	972.38
30-40	1342.99
40-50	1625.08
50-60	1721.88
60-70	1586.98
70-80	1369.71
80-90	995.76
90-100	461.94
100-110	127.24
110-120	27.54
120-130	4.31
130-140	2.68
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

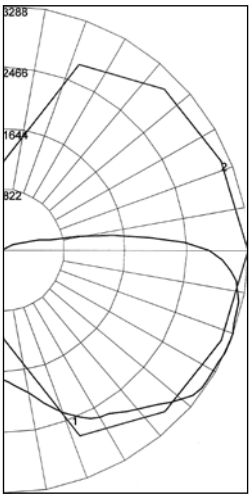
Total Luminaire Efficiency = 68.4%

CIE Type – Direct

Plane	Spacing Criteria
0-180	2.3
90-270	2.0
Diagonal	1.8

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture
0-30	1677.30	10.5	15.3
0-40	3020.29	18.9	27.6
0-60	6367.25	39.8	58.2
0-90	10319.70	64.5	94.3
90-120	616.71	3.9	5.6
90-130	621.02	3.9	5.7
90-150	623.70	3.9	5.7
90-180	623.70	3.9	5.7
0-180	10943.41	68.4	100.0



REPORT NUMBER: **ML15LAN**

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

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

% Ceiling Rcc	80				70				50			30			10			0
% Walls Rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	80	80	80	80	78	78	78	78	74	74	74	70	70	70	66	66	66	64
1	70	66	62	58	68	64	60	57	60	57	54	57	54	52	54	52	50	48
2	63	56	50	45	60	54	49	44	51	46	42	48	44	41	45	42	39	37
3	56	48	41	36	54	46	40	35	44	38	34	41	37	33	39	35	32	30
4	51	42	35	29	49	40	34	29	38	32	28	36	31	27	34	30	26	24
5	47	37	30	24	45	36	29	24	34	28	23	32	27	23	30	26	22	20
6	43	33	26	21	41	32	25	20	30	24	20	28	23	19	27	22	19	17
7	39	29	23	18	38	28	22	18	27	21	17	26	21	17	24	20	16	15
8	37	26	20	16	35	26	20	15	24	19	15	23	18	15	22	18	14	13
9	34	24	18	14	33	23	18	14	22	17	13	21	17	13	20	16	13	11
10	32	22	16	12	31	22	16	12	21	15	12	20	15	12	19	15	11	10

Zone	Lumens
0-10	16.51
10-20	135.03
20-30	274.24
30-40	463.44
40-50	1125.38
50-60	1688.89
60-70	3137.76
70-80	2421.27
80-90	1145.98
90-100	411.16
100-110	632.32
110-120	448.30
120-130	293.08
130-140	154.61
140-150	59.30
150-160	9.99
160-170	0.49
170-180	0.00

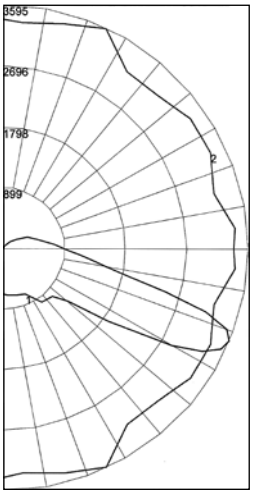
Total Luminaire Efficiency = 77.6%

CIE Type – Semi–Direct

Plane	Spacing Criteria
0-180	2.22
90-270	2.20
Diagonal	3.50

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture
0-30	425.77	2.7	3.4
0-40	889.22	5.6	7.2
0-60	3703.50	23.1	29.8
0-90	10408.50	65.1	83.8
90-120	1491.78	9.3	12.0
90-130	1784.86	11.2	14.4
90-150	1998.77	12.5	14.4
90-180	2009.26	12.6	16.2
0-180	12417.76	77.6	100.0



REPORT NUMBER: **ML15LJ5**

Lamps: 150 W High Pressure Sodium with 8" Prismatic Glass Refracter – NEMA Type V *

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

% Ceiling Rcc	80				70				50			30			10			0
% Walls Rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	89	89	89	89	86	86	86	86	79	79	79	73	73	73	68	68	68	65
1	76	70	65	60	72	67	62	58	61	57	54	56	53	50	51	48	46	43
2	66	56	49	42	62	54	47	41	49	43	38	44	39	35	40	36	32	29
3	58	46	38	31	54	44	36	30	40	33	27	36	30	25	32	27	23	21
4	51	39	30	23	48	37	29	22	33	26	21	30	24	19	27	22	17	15
5	46	34	25	18	43	32	24	18	29	22	16	26	20	15	23	18	13	11
6	42	29	21	15	40	28	20	14	25	18	13	22	16	12	20	15	11	8
7	39	26	18	12	36	25	17	12	22	15	11	20	14	10	18	13	9	7
8	36	23	15	10	33	22	15	10	20	13	9	18	12	8	16	11	7	5
9	33	21	14	9	31	20	13	8	18	12	8	16	11	7	15	10	6	4
10	31	19	12	8	29	18	12	7	17	11	7	15	10	6	13	9	5	4

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Mercmaster™ III Low Profile Luminaires

175 W PSMH

NEC/CEC:
Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA nR IIC (Z2)
Class I, Zone 2, AEx nR IIC (ZB)
Class II, Division 1 and 2, Groups E, F, G
Class III

NEC/CEC:
Simultaneous Exposure
(Class I, Division 2/Class II, Division 1)
Fixtures Outside Type (Salt Water)
Type 4X
IP66

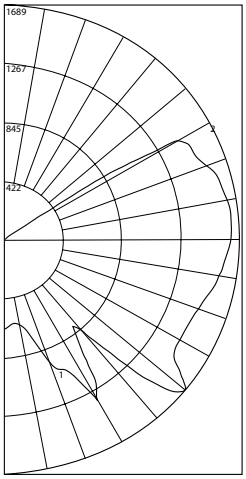
Photometric Data

Total Luminaire Efficiency = 80.00%

Zone	Lumens
0-10	58.11
10-20	215.04
20-30	505.06
30-40	625.11
40-50	1058.31
50-60	1357.89
60-70	1439.44
70-80	1598.2
80-90	1734.46
90-100	1770.13
100-110	1678.73
110-120	1474.6
120-130	436.54
130-140	6.39
140-150	1.68
150-160	0.74
160-170	0.16
170-180	0.15

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture
0-20	273.15	1.60	2.00
0-30	778.21	4.40	5.60
0-40	1403.32	8.00	10.10
0-60	3819.52	21.80	27.40
0-80	6857.15	39.20	49.10
0-90	8591.61	49.10	61.50
10-90	8533.5	48.80	61.10
20-40	1130.17	6.50	8.10
20-50	2188.48	12.50	15.70
40-70	3855.64	17.40	21.80
60-80	3037.64	17.40	21.80
70-80	1598.2	9.10	11.40
80-90	1734.46	9.90	12.40
90-110	3448.86	19.70	24.70
90-120	4923.47	28.10	35.30
90-130	5360.01	30.60	38.40
90-150	5368.08	30.70	38.50
90-180	5369.13	30.70	38.50
110-180	1920.27	11.00	13.80
0-180	13960.74	79.80	100.00



REPORT NUMBER: **ML17PG**

Lamps: 175 W Pulse Start Metal Halide with Globe only *

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

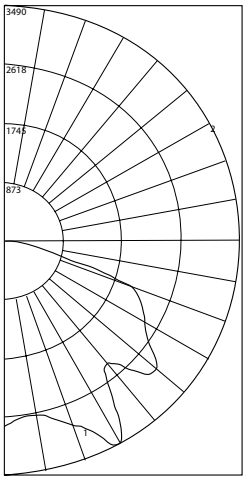
% Ceiling Rcc	80				70				50			30			10			0
% Walls Rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	88	88	88	88	82	82	82	82	72	72	72	62	62	62	53	53	53	49
1	75	69	64	60	70	65	60	56	55	52	49	47	44	42	39	37	25	31
2	66	58	51	45	61	54	48	42	46	41	37	39	35	31	32	29	26	22
3	60	49	42	35	55	46	39	33	39	33	29	33	28	24	27	23	20	17
4	54	43	35	29	49	40	32	27	34	28	23	28	23	20	23	19	16	13
5	49	38	30	24	45	35	28	22	30	24	19	25	20	16	20	16	13	11
6	45	33	26	20	41	31	24	19	26	20	16	22	17	14	18	14	11	9
7	41	30	22	17	38	28	21	16	24	18	14	20	15	12	16	12	9	7
8	38	27	20	15	35	25	18	14	21	16	12	18	13	10	15	11	8	6
9	35	24	17	13	33	23	16	12	19	14	10	16	12	9	13	10	7	5
10	33	22	16	11	30	21	15	11	18	13	9	15	11	8	12	9	6	5

Total Luminaire Efficiency = 69.00%

Zone	Lumens
0-10	252.99
10-20	781.21
20-30	1486.27
30-40	1743.89
40-50	2109.55
50-60	2341.08
60-70	2194.91
70-80	1007.24
80-90	164.57
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

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture
0-20	1034.2	5.90	8.60
0-30	2520.47	14.40	20.90
0-40	4264.36	24.40	35.30
0-60	8714.99	49.80	72.10
0-80	11917.14	68.10	98.60
0-90	12081.71	69.00	100.00
10-90	11828.72	67.60	97.90
20-40	3230.16	18.50	26.70
20-50	5339.71	30.50	44.20
40-70	6645.54	38.00	55.00
60-80	3202.15	18.30	26.50
70-80	1007.24	5.80	8.30
80-90	164.57	0.90	1.40
90-110	0.82	0.00	0.00
90-120	0.82	0.00	0.00
90-130	0.82	0.00	0.00
90-150	0.82	0.00	0.00
90-180	0.82	0.00	0.00
110-180	0.00	0.00	0.00
0-180	12082.53	69.00	100.00



REPORT NUMBER: **ML17PST**

Lamps: 175 W Pulse Start Metal Halide with Standard Dome Reflector *

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

% Ceiling Rcc	80				70				50			30			10			0
% Walls Rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	82	82	82	82	80	80	80	80	77	77	77	73	73	73	70	70	70	69
1	74	71	68	65	73	69	66	64	66	64	62	64	62	60	61	60	58	57
2	67	61	56	51	65	59	55	51	57	53	49	55	51	48	52	50	47	46
3	60	52	46	41	59	51	46	41	49	44	40	47	43	39	45	42	39	37
4	55	46	39	34	53	45	39	34	43	38	33	41	37	33	40	36	32	31
5	50	40	34	29	48	39	33	28	38	32	28	36	32	28	35	31	27	26
6	46	36	29	24	44	35	29	24	34	28	24	33	28	24	31	27	24	22
7	42	32	26	21	41	32	25	21	30	25	21	29	24	21	28	24	21	19
8	39	29	23	19	38	29	23	19	28	22	18	27	22	18	26	21	18	17
9	36	27	21	16	35	26	20	16	25	20	16	25	20	16	24	19	16	15
10	34	24	19	15	33	24	18	15	23	18	15	23	18	15	22	18	14	13

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Mercmaster™ III Low Profile Luminaires

175 W PSMH

NEC/CEC:
Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA nR IIC (Z2)
Class I, Zone 2, AEx nR IIC (ZB)
Class II, Division 1 and 2, Groups E, F, G
Class III

NEC/CEC:
Simultaneous Exposure
(Class I, Division 2/Class II, Division 1)
Fixtures Outside Type (Salt Water)
Type 4X
IP66

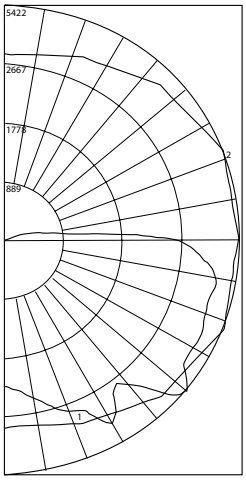
Photometric Data

Total Luminaire Efficiency = 66.00%

Zone	Lumens
0-10	205.50
10-20	650.30
20-30	1204.19
30-40	1493.45
40-50	1718.01
50-60	1751.68
60-70	1549.56
70-80	1328.79
80-90	976.87
90-100	426.94
100-110	125.06
110-120	26.96
120-130	4.22
130-140	5.33
140-150	4.48
150-160	2.90
160-170	1.65
170-180	0.54

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture
0-20	855.80	4.90	7.50
0-30	2059.99	11.80	17.90
0-40	3553.44	20.30	31.00
0-60	7023.13	40.10	61.20
0-80	9901.48	56.60	86.30
0-90	10878.35	62.20	94.80
10-90	10672.86	61.00	93.00
20-40	2697.64	15.40	23.50
20-50	4415.65	25.20	38.50
40-70	5019.25	28.70	43.70
60-80	2878.35	16.40	25.10
70-80	1328.79	7.60	11.60
80-90	976.87	5.60	8.50
90-110	551.99	3.20	4.80
90-120	578.96	3.30	5.00
90-130	583.18	3.30	5.10
90-150	592.99	3.40	5.20
90-180	598.09	3.40	5.20
110-180	46.09	0.30	0.40
0-180	11476.44	65.60	100.00



REPORT NUMBER: **ML17PAN**

Lamps: 175 W Pulse Start Metal Halide with
30° Angle Dome Reflector *

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

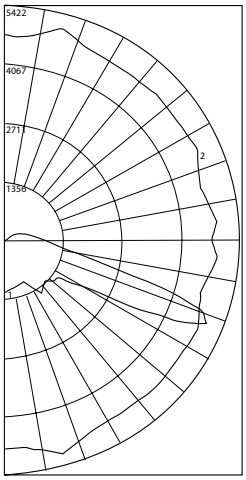
% Ceiling Rcc	80				70				50			30			10			0
% Walls Rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	77	77	77	77	75	75	75	75	71	71	71	67	67	67	64	64	64	62
1	68	64	60	57	66	62	59	55	58	56	53	55	53	51	52	50	49	47
2	61	54	49	44	59	53	48	43	50	45	42	47	43	40	44	41	39	37
3	55	47	40	36	53	45	40	35	43	38	34	41	36	33	38	35	32	30
4	50	41	34	29	48	40	34	29	38	32	28	36	31	27	34	30	27	25
5	46	36	30	25	44	35	29	24	33	28	24	32	27	23	30	26	23	21
6	42	32	26	21	40	31	25	21	30	24	20	28	24	20	27	23	20	18
7	39	29	23	18	37	28	22	18	27	22	18	26	21	17	24	20	17	16
8	36	26	20	16	35	26	20	16	24	19	16	23	19	15	22	18	15	14
9	33	24	18	14	32	23	18	14	22	17	14	21	17	14	21	16	13	12
10	31	22	17	13	30	22	16	13	21	16	13	20	15	12	19	15	12	11

Total Luminaire Efficiency = 84.00%

Zone	Lumens
0-10	27.52
10-20	204.72
20-30	385.68
30-40	631.79
40-50	1402.70
50-60	1539.42
60-70	4097.48
70-80	2842.39
80-90	1271.76
90-100	465.21
100-110	720.39
110-120	495.54
120-130	313.01
130-140	163.78
140-150	68.20
150-160	17.98
160-170	2.35
170-180	0.14

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture
0-20	232.24	1.30	1.60
0-30	617.91	3.50	4.20
0-40	1249.7	7.10	8.50
0-60	4191.82	24.00	28.60
0-80	11131.69	63.60	76.00
0-90	12403.45	70.90	84.70
10-90	12375.93	70.70	84.50
20-40	1017.46	5.80	6.90
20-50	2420.16	13.80	16.50
40-70	7039.6	40.20	48.10
60-80	6939.87	39.70	47.40
70-80	2842.38	16.20	19.40
80-90	1271.76	7.30	8.70
90-110	1185.6	6.80	8.10
90-120	1681.15	9.60	11.50
90-130	1994.16	11.40	13.60
90-150	2226.14	12.70	15.20
90-180	2246.61	12.80	15.30
110-180	1061.00	6.10	7.20
0-180	14650.06	83.70	100.00



REPORT NUMBER: **ML17PJ5**

Lamps: 175 W Pulse Start Metal Halide with
8" Prismatic Glass Refracter – NEMA Type V *

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

% Ceiling Rcc	80				70				50			30			10			0
% Walls Rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	97	97	97	97	93	93	93	93	86	86	86	79	79	79	74	74	74	71
1	82	76	70	65	78	73	68	63	67	62	58	61	57	54	56	53	50	47
2	71	61	53	46	67	58	51	44	53	47	41	48	43	38	43	39	35	32
3	63	50	41	33	59	48	39	32	43	36	30	39	33	28	35	30	26	23
4	56	42	3	25	52	40	31	25	36	29	23	33	26	21	29	24	19	16
5	50	37	27	20	47	35	26	19	31	24	18	28	22	16	25	19	15	12
6	46	32	23	16	43	30	22	16	27	20	14	25	18	13	22	16	12	10
7	42	28	20	13	39	27	19	13	24	17	12	22	16	11	20	14	10	8
8	39	25	17	11	36	24	16	11	22	15	10	20	14	9	18	12	8	6
9	36	23	15	10	34	22	14	9	20	13	9	18	12	8	16	11	7	5
10	33	21	13	8	32	20	13	8	18	12	7	17	11	7	15	10	6	4

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