

# Mercmaster™ III HID 50–250 Watt Luminaires

## High Pressure Sodium and Pulse Start Metal Halide

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

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

### Applications

- Enclosed and gasketed fixtures suitable for use in:
  - Marine and wet locations
  - A wide range of industrial, chemical processing and other areas where flammable gases and vapors or combustible dusts are present under conditions defined by the National Electrical Code as Class I, Division 2; Class II, Division 1 and 2; and Class III
  - For Zone 2, the method of protection is AEx nA nR – Restricted Breathing/Nonsparking or AEx nR – Restricted Breathing
  - Non-hazardous locations where severe weather conditions, excessive moisture, dirt, dust, corrosive atmosphere or high ambient temperatures are encountered. 18% cooler operation allows use in ambient temperatures up to 149°F/65°C depending on fixture component combinations
- Typical applications include:
  - Pulp and paper mills
  - Processing plants
  - Chemical plants
  - Oil refineries
  - Foundries
  - Manufacturing plants
  - Storage areas
  - Marine applications
- Fixtures have NEMA 4X listing.
- Suitability includes listing for use where there may be simultaneous exposure to combustible dusts and flammable gases and vapors. See listing pages for compliance data on specific fixture component combinations.

### Features

- Modular design allows scores of fixture component combinations to meet installation and lighting needs. Many most-used combinations are offered prewired and assembled, complete with lamp, packaged in a single carton and ready to install.
- Mogul lamp types and wattages:
  - HPS 50W-150W
  - PSMH 70W-250W
- Choice of heat-resistant prismatic glass refractors (NEMA distributions I, III and V), or heat-resistant prismatic glass globes for hazardous area fixtures. Colored and clear polycarbonate globes and Tuff-skin® † coated glass globes are available but are NOT approved for use in classified areas. Fixtures with these globes do NOT comply with code requirements, and should be used in non-classified areas only. Globes and refractors thread directly into ballast housing.
- Mounting hoods include cone-shaped pendant hood, standard pendant, flexible pendant, ceiling and wall pendants (tapped for 3/4" or 1" NPT), 25° angle stanchion, and 90° (straight) stanchion (both tapped for 1-1/4" or 1-1/2" NPT).
- Cone hood fixtures for pendant mounting shed dust, dirt and combustible fibers. Cone hood inhibits build-up that "insulates" fixture and slows heat transfer, and provides increased surface area for more effective heat dissipation.



Pendant Mount Fixture  
with Prismatic Glass Refractor



Straight Stanchion-Mount Fixture  
with Prismatic Glass Refractor  
and Guard



Pendant Cone Fixture with  
Prismatic Glass Globe and Guard



Ceiling Mount Fixture  
with Prismatic Glass Globe, Guard  
and Polyester 30° Angle Reflector

- Reflector choice includes standard dome and 30° angle types, both made of Fiberglass reinforced white polyester. Highly resistant to unusually corrosive applications. Reflectors are vented for cooler, dirt-free operation and maintained lumen output. They secure to ballast housing with stainless steel screws threading into stainless steel inserts.
- For high corrosion resistance, fixture housing, mounting hoods and guards are copperfree cast aluminum with baked epoxy finish, electrostatically applied for uniformity. All exposed hardware is stainless steel.
- Hinge has high lip for added safety during installation and servicing. Hinge and bolt construction assures 360° compression at all points on ballast housing gasket for positive sealing. Swing-away design of captive bolt and nut simplifies servicing.
- Body gaskets and globe gaskets are high-temperature silicone rubber.
- Capacitors are non-PCB type, thermally isolated from ballast.

† Tuff-skin is a registered trademark of Thomas Manufacturing Corp., Parkton, Maryland.

‡ 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) <sup>†</sup>  
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

- Mogul base porcelain socket with nickel-plated contacts has 392 °C / 200 °C welded leads, prewired to the ballast. Assures trouble-free operation in installations where high ambient temperatures are encountered.
- HPS ballasts are High Power Factor (min. P.F. 90%).
- A wide range of voltages available (120 to 600 Volt) and ballast types (Reactor, CWA, CWI and Super CWA).
- All Mercmaster III mounting hoods have provision for easy field installation of fuses in fixtures (see fuse kit listings in this catalog section).
- For electrical protection, a ground wire is provided on each Mercmaster to bond hood and ballast housing.
- The 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.
- The AEx nR Mercmaster III fixture requires all wiring entries to be sealed.

### Standard Materials

- Mounting hoods, ballast bodies and guards: copperfree cast aluminum (less than 4/10 of 1%)
- Exposed hardware: stainless steel; latch assemblies have stainless steel bolt and captive nut; reflectors and guards attach with stainless steel screws threading into stainless steel inserts.
- Reflectors: Fiberglass reinforced white polyester
- Globes: heat-resistant prismatic glass
- Refractors: heat-resistant prismatic glass

### Standard Finishes

- Mounting hoods, ballast bodies, guards: epoxy powder coat finish, electrostatically applied for complete, uniform surface protection
- Reflectors: white polyester finish

### Options

- AEx nA nR fixtures are available with a Class I, Zone 2 rating. Add suffix **-Z2**.
- AEx nR fixtures are available with a Class I, Zone 2 rating. Add suffix **-ZB**.
- Ex nR fixtures, add suffix **-Z** <sup>†</sup>.
- Fuses can be field-installed on Mercmaster III fixtures. Kits include fuse block, wire connectors and screws for attaching to mounting hood. Fixtures with fuses do not comply with Marine Type Electric Fixtures Outside Type (Salt Water) requirements for marine listing. For fuse kits, see *Electrical Specifications and Fuse Kits* page.

- Hot Restrike will restrike HPS lamp immediately when power is restored after a momentary power interruption. Add suffix **-R**.
- Smart 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**.
- Smart Starter incorporates a 1-1/2-minute timer and performs as a conventional starter to normally start lamp. Removes itself from circuit if lamp burns out or is removed from socket. Eliminates starter failures caused by prolonged operation with cycling or failing lamps and simplifies finding their location, reducing maintenance and repair costs. Available for all HPS and PSMH fixtures. Add suffix **-S**.
- Optional photocell for all fixtures except cone and ceiling mount provides automatic “on-off” control.
- Quartz Auxiliary comes to full brightness immediately and remains lit until the HID lamp attains 60-70% of full illumination. Quartz Auxiliary supplied with relay switch and socket to accept 120 V quartz double contact bayonet base lamp (not included). Add suffix **-E** to fixture catalog number. ‡

### Certifications and Compliances

- UL Standard: UL 1598, UL 1598A, UL 844, UL 60079-0, UL 60079-15
- UL Listed: E10444
- PSMH 250N, MT Fixtures are non UL.

### Related Products

- Classified area photo controls are also available.

‡ Fixtures equipped with a quartz auxiliary lamp do not comply with UL 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) <sup>1</sup>  
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Class II, Division 1 and 2, Groups E, F, G  
Class III  
Simultaneous Exposure (Class I, Division 2/  
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Fixtures Outside Type (Salt Water)  
Type 4X  
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### Illustrated Features



#### High Temperature Sockets

Mogul base high-temperature porcelain sockets.

#### Aluminum Inner Reflector

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

#### Globe Chamber (Zone 2)

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



#### Vented Reflectors

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

#### Terminal Blocks (Zone 2)

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

#### Stainless Steel Inserts

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

#### Epoxy Finish

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

#### Photocell

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

#### Heat-Resistant Globes and Refractors

Prismatic glass globes and refractors are heat-resistant. They thread directly into the ballast housing and seal against a high-temperature silicone rubber gasket.



#### Ballast Assembly (Zone 2)

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

#### Mounting Hood and Globe Gaskets

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

#### Electrical Protection

Ground wire provided to bond mounting hood to ballast housing.



#### "Safety" High Hinge

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



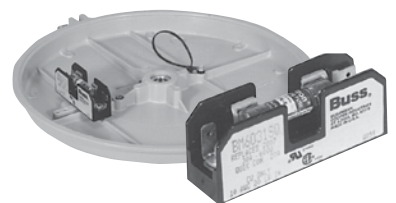
#### Stainless Steel Latch Assembly

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



#### Cooler Operating Cone Hood

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



#### Fuses

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

<sup>1</sup> CSA Certification Only.

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# Mercmaster™ III HID 50–250 Watt Emergency Luminaires Accessories and Options

## High Pressure Sodium and Pulse Start Metal Halide

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Class I, Zone 2, AEx nR IIC (Z2)  
Class I, Zone 2, Ex nR IIC (Z) <sup>†</sup>  
Class I, Zone 2, AEx nR IIC (ZB)

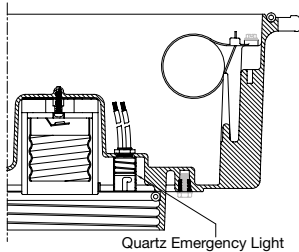
Class II, Division 1 and 2, Groups E, F, G  
Class III  
Simultaneous Exposure (Class I, Division 2/  
Class II, Division 1)

Fixtures Outside Type (Salt Water)  
Type 4X  
IP66

Lighting

LIGHTING: ENCLOSED AND GASKETED — AREA — HID

### Quartz Emergency Light for Pulse Start Metal Halide or High Pressure Sodium Fixtures \*



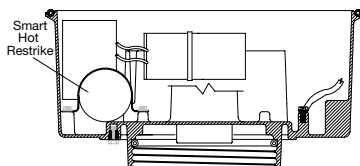
Quartz Emergency Light  
for PSMH or HPS Fixtures

Mercmaster fixtures for metal halide and high pressure sodium lamps can be supplied with a socket to accept a 150 W or 250 W, 120 V quartz lamp. This D.C. bayonet base socket is in addition to the standard lamp socket. In the event of a momentary power interruption, the quartz lamp is automatically switched on. The single ended quartz lamp remains energized until the HID restrikes and reaches about 60% output.

The quartz emergency lamp socket is wired to a 120 V tap on the ballast and is therefore independent of the lighting fixture voltage. No special field wiring is necessary.

Description	Catalog Suffix
For fixture volts of 120, 208, 240 or 277	-MTE
For fixture volts of 480	-48E

### HPS Smart Hot Restrike Accessory for HPS Fixtures



HPS Smart Hot Restrike Accessory  
for HPS Fixtures

Mercmaster fixtures for high pressure sodium lamps can be supplied with a special ignitor (starter board). It instantly restrikes a hot high pressure sodium lamp when a momentary power interruption occurs. This special ignitor, supplied in place of the standard ignitor, is a potted solid state device, totally factory installed. It is not suitable for field installation.

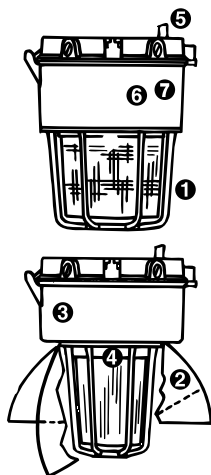
The hot lamp restart option provides instant restart of 50, 70, 100 and 150 W HPS lamps after power outages of up to 10 seconds. The lamps restrike instantly at almost full lumens. For power interruptions of up to 30 seconds, the restart of the high pressure sodium lamp is also instant but at less than full lumens. The hot lamp restart accessory does not accelerate cold lamp start up or starting where the power outage is of a duration which has allowed the HPS lamp to cool.

Additional Advantages of the Smart Hot Restrike:

- Protects against self destruction in the event of failed, missing or broken lamps, or socket or lead wire failure.
- Prevents "End of Life" lamps from continuous cycling over long periods of time.
- Remains unaffected by stray voltages, moderate overvoltages, as well as undervoltage conditions.
- Drops into the background during normal lamp operation with exceptionally low insertion loss.
- Fully encapsulated construction assures electrical integrity and mechanical vibration protection.
- UL recognized component.

Description	Catalog Suffix
For fixture watts of 50, 70, 100 or 150 (HPS only)	-SR

### Accessory Options



① **Guards:** Guards are die-cast copperfree aluminum with baked epoxy finish to match fixtures. Fixture supplied with stainless steel mounting screws which thread into stainless steel inserts on fixture housing to attach guard. To order fixture with guard, add suffix **-G** to catalog number before adding voltage suffix.

② **Reflectors:** Standard dome and 30° angle polyester reflectors are shown elsewhere in this catalog section.

③ **Hot Restrike:** Instantly restrikes a hot HPS lamp when power is restored after a momentary outage. Available factory-installed only. To order, add suffix **-R** to catalog number.

④ **Quartz Emergency Light:** When ordered, HPS fixtures will be supplied with a prewired special DC bayonet base socket to accept a 150W, 120V quartz lamp (not furnished) that automatically switches on when a power outage occurs. Fixtures ordered with this quartz emergency lamp feature do NOT comply with requirements for classified areas and should be used only in non-classified locations. To order, add suffix **-E** to catalog number and specify if a relay switch is desired.

⑤ **Photocell and Fuses:** Photocontrol are available within the *Lighting Section*.

⑥ **Smart Starter:** Performs as a conventional starter in lamp start-up. Removes itself from circuit at end of lamp life or if lamp is out of socket. Add suffix **-S** to catalog number.

⑦ **Smart Hot Restrike (HPS only):** 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** to catalog number.

\*NOTE: Fixtures equipped with quartz emergency light do not comply with UL requirements and are not suitable for use in classified locations.

<sup>†</sup> CSA Certification Only.

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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

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

### Catalog Numbering Guide

KP	A	L	70	10	J5	G	MT	R	Z2
Series: KP - Mercmaster III 250		Lamp Type: L - High Pressure Sodium H or P - Pulse Start Metal Halide <sup>1</sup>		Hub Size: 75 - 3/4" NPT 10 - 1" NPT 125 - 1-1/4" NPT stanchion 150 - 1-1/2" NPT stanchion		Guard Options: G - Guard Blank - No Guard		Options: E - Emergency Quartz F - Fuse Kit (Specify Voltage) R - Hot Restrike (50-150 W HPS only) S - Smart Starter SR - Smart Hot Restrike K - Kynar Coating H1 - Photocontrol 120 V H2 - Photocontrol 208 V H3 - Photocontrol 240 V H4 - Photocontrol 277 V C - Safety Cable Adapted <sup>2</sup> E40 - Export Socket D - E-40 Export Socket <sup>2</sup> T - Terminal Blocks <sup>2</sup> V - Anti-Vibration Modifications <sup>2</sup> X - Appledapter <sup>3</sup> Mounting Hood Adapter <sup>2</sup> Optional Fusing <sup>4</sup> FN - 120 V FP - 208 V FS - 240 V FT - 277 V FF - 480 V	
	Mounting:		Wattage:		Optical Assembly:		Voltage: <sup>2</sup>		Suffix:
	A - Pendant (rigid mounting) C - Ceiling CH - Pendant Cone Hood F - Pendant (flexible mounting) ST - 90° Stanchion S - 25° Stanchion WB - Wall		10 - 100 W HPS, PSMH 15 - 150 W HPS, PSMH 17 - 175 W PSMH 20 - 200 W PSMH 25 - 250 W PSMH <sup>5</sup> 50 - 50 W HPS (MT - Voltage Only) 70 - 70 W HPS, PSMH 17 - 175 W MH <sup>2</sup> 25 - 250 W MH <sup>2</sup>		Blank - Glass Globe J1 - NEMA I Glass Refractor J3 - NEMA III Glass Refractor J5 - NEMA V Glass Refractor G3 - Large Glass Globe		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 235 - 230, 50 Hz 245 - 240, 50 Hz C2 - 208, 60 Hz, CWI <sup>2</sup> C3 - 240, 60 Hz, CWI <sup>2</sup> C6 - 480, 60 Hz, CWI <sup>2</sup> C7 - 600, 60 Hz, CWI <sup>2</sup> TT - 120/277/347, 60 Hz, CWA <sup>2</sup>		Z2 - Zone 2 suffix (required for AEx nA nR rating) ZB - Zone 2 suffix (required for AEx nR rating) Z - Zone 2 suffix (required for Ex nR) <sup>2</sup>

Reflectors are ordered separately – see Accessories page.

<sup>1</sup> H - Lamp type is for 70W and 100W fixtures only.

<sup>2</sup> P - Lamp type is for 175W, 200W and 250W fixtures only.

<sup>3</sup> Voltages shown are limited to specific combinations.

<sup>4</sup> Appledapter is available for use with the pendant, ceiling and angled stanchion mounting only.

<sup>5</sup> Optional fusing is available for use with MT, 5MT and 48 voltage suffixes ONLY.

<sup>6</sup> PSMH 250 W, MT Fixtures are non UL.

<sup>7</sup> CSA Certification Only.

# Mercmaster™ III HID 50–250 Watt Luminaire Thermal Performance

Class I, Division 2; Class II, Division 1; Simultaneous Exposure to Hazardous Conditions of Both Classifications

Temperature Identification Numbers of Mercmaster III fixtures.

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) <sup>1</sup>  
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

Mercmaster III fixtures are listed for “Simultaneous Exposure” to combinations of Class I, Division 2 and Class II, Division 1 hazardous conditions.

## “T” Numbers for Mercmaster III Fixtures

Watts	Lamp Type	Supply Wire Temp. (°F/°C)	Ambient Temp. (°F/°C)	Class I, Division 2				Class II, Division 1 Groups E, F and G <sup>1</sup>				Simultaneous Exposure Class I, Division 2 / Class II, Division 1			
				Globe	Reflector	G3 Globe	8” Refractor	Globe	Reflector	G3 Globe	8” Refractor	Globe	Reflector	G3 Globe	8” Refractor
50	HPS	194/90	104/40	T3C	T3B	—	T3C	T4A	T4	—	T6	T3A	T3	—	T3C
		194/90	131/55	T3A	T3A	—	T3A	T4	T3B	—	T5	T3	T3	—	T3A
		194/90	149/65	T3A	T3	—	T3A	T3C	T3C	—	T4A	T2D	T2D	—	T3
70	HPS	194/90	104/40	T3B	T3A	—	T3C	T4	T3C	—	T6	T3	T3	—	T3A
		194/90	131/55	T3A	T3A	—	T3B	T3C	T3C	—	T5	T2D	T2D	—	T3
		194/90	149/65	T3	T3A	—	T3A	T3C	T3B	—	T4A	T2C	T2C	—	T3
100	HPS	194/90	104/40	T2D	T2D	T3	T3	—	T3A (EF)	T3 (EF)	—	—	—	—	—
		194/90	104/40	—	—	—	—	T3B	—	T4A	T4A	T2B	T2B	T2C	T2C
		194/90	131/55	T2D	T2D	T3	T3	—	—	T4	T4	—	—	T2B	T2B
		194/90	149/65	T2D	T2D	T2D	T2D	—	—	—	—	—	—	—	—
150	HPS	194/90	104/40	T2B	T2B	—	T2C	—	—	—	T3C	T2	—	—	T2B
		194/90	104/40	—	—	—	—	T3 (EF)	—	—	—	—	—	—	—
		194/90	131/55	T2B	T2A	—	T2B	—	—	—	—	—	—	—	—
70	PSMH	194/90	104/40	T3A	T3A	—	T3A	—	—	—	T3C	—	—	—	—
		194/90	131/55	T3A	T3A	—	T3A	—	—	—	T3C	—	—	—	—
		194/90	149/65	T3	T2	—	T3	—	—	—	T3C	—	—	—	—
100	PSMH	194/90	104/40	T3	T3	—	T3	—	—	—	T3C	—	—	—	T2B
		194/90	131/55	T3	T3	—	T3	—	—	—	T3C	—	—	—	T2A
		194/90	149/65	T2D	T2D	—	T2D	—	—	—	T3C	—	—	—	—
150	PSMH	194/90	104/40	T2B	T2B	—	T2B	—	—	—	T3C	—	—	—	T2B
		194/90	131/55	T2A	T2A	—	T2B	—	—	—	T3C	—	—	—	T2A
		257/125	149/65	T2A	T2	—	T2B	—	—	—	T3C	—	—	—	—
175	PSMH	194/90	104/40	T2B	T2B	—	T2B	—	—	—	T3C	—	—	—	T2B
		194/90	131/55	T2A	T2A	—	T2B	—	—	—	T3C	—	—	—	T2A
		221/105	149/65	T2A	T2	—	T2B	—	—	—	—	—	—	—	—
200	PSMH	194/90	104/40	T2B	T2B	—	T2B	—	—	—	T3B	—	—	—	—
		194/90	131/55	T2B	T2B	—	T2B	—	—	—	—	—	—	—	—
250	PSMH	194/90	104/40	T2	T2	—	T2	—	—	—	—	—	—	—	—
		194/90	131/55	T2	T2	—	T2	—	—	—	—	—	—	—	—
175	MH <sup>2</sup>	194/90	104/40	T2B	T2B	—	T2B	—	—	—	T3C	—	—	—	—
		194/90	131/55	T2A	T2A	—	T2B	—	—	—	T3C	—	—	—	—
250	MH <sup>2</sup>	194/90	104/40	325	325	—	T2	—	—	—	T3B	—	—	—	—

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

“T” Number	T1	350	325	T2	T2A	T2B	T2C	T2D	T3	T3A	T3B	T3C	T4	T4A	T5	T6
Temp. Range (°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

<sup>1</sup> All Class II T Numbers are E, F, G unless otherwise indicated.  
<sup>2</sup> CSA Certification Only.

LIGHTING: ENCLOSED AND GASKETED — AREA — HID

# Mercmaster™ III HID 50–250 Watt Luminaire Thermal Performance

Class I, Zone 2, AEx nA nR IIC; Class 1 Zone 2, AEx nR IIC; IP66; and NEMA 4X

Temperature Identification Numbers of Mercmaster III Fixtures.

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) <sup>1</sup>  
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

## Operating Temperatures: “T” Numbers for Zone 2 Mercmaster III Fixtures

The “T” number is established by separately determining the maximum temperature of the globe surface and ballast compartment. The hotter of the two is taken to determine the “T” number for the overall fixture.

Lamp Watts	Supply Wire Temp. (°F/°C)	Ambient Temp. (°F/°C)	Class I, Zone 2 AEx nA nR IIC				Class I, Zone 2 AEx nR IIC				
			Globe	Globe & Reflector	Refractor Only	G3/Refractor & Reflector	Globe	Globe & Reflector	Refractor Only	G3/Refractor & Reflector	
50	HPS	194/90	104/40	T4	T4	T6	T4	T4	T4	T6	T4
		194/90	131/55	T4	T3	T5	T3	T4	T3	T5	T3
		194/90	149/65	T3	T3	T4	T3	T3	T3	T4	T3
70	HPS	194/90	104/40	T4	T4	T4	T4	T6	T5	T6	T4
		194/90	131/55	T4	T4	T4	T3	T5	T4	T5	T3
		194/90	149/65	T4	T4	T3	T3	T4	T4	T5	T3
100	HPS	194/90	104/40	T4	T4	T4	T4	T5	T4	T6	T4
		194/90	131/55	T4	T4	T3	T3	T4	T4	T5	T3
		194/90	149/65	T4	T4	T3	T3	T4	T4	T4	T3
150	HPS	194/90	104/40	T4	T3	T3	T3	T4	T4	T5	T4
		194/90	131/55	T3	T3	T3	T3	T4	T4	T4	T3
		221/105	65	T3	T3	T3	T3	T4	T3	T4	T3
70	PSMH	194/90	104/40	T4	T4	T4	—	T5	T4	T6	—
		194/90	131/55	T3	T3	T3	—	T4	T4	T5	—
		194/90	149/65	T3	T3	T3	—	T4	T3	T4	—
100	PSMH	194/90	104/40	T3	T3	T3	—	T5	T4	T6	—
		194/90	131/55	T3	T3	T3	—	T4	T4	T5	—
		194/90	149/65	T3	T3	T3	—	T4	T3	T4	—
150	PSMH	194/90	104/40	T4	T4	T4	—	T4	T4	T5	—
		194/90	131/55	T3	T3	T3	—	T4	T3	T4	—
		221/105	149/65	T3	T3	T3	—	T4	T3	T4	—
175	PSMH	194/90	104/40	T3	T3	T4	—	T3	T3	T4	—
		194/90	131/55	T3	T3	T3	—	T3	T3	T4	—
		221/105	149/65	T3	T3	T3	—	T3	T3	T4	—
200	PSMH	194/90	104/40	T3	T3	T4	—	T3	T3	T4	—
		221/105	131/55	T3	T3	T3	—	T3	T3	T4	—
		221/105	149/65	T3	T3	T3	—	T3	T3	T4	—
250	PSMH	194/90	104/40	T3	T3	T3	—	T3	T3	T3	—
		194/90	131/55	T3	T3	T3	—	T3	T3	T3	—

## “T” Numbers Represent the Maximum Surface Temperature for Luminaires with AEx nA nR or AEx nR rating

“T” Number	T1	T2	T3	T4	T5	T6
Temp. Range (°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

<sup>1</sup> CSA Certification Only.

# Mercmaster™ III HID 50–250 Watt Luminaire Classified Area Suitability

Class I, Division 2; Class II, Division 1; Simultaneous Exposure to Hazardous Conditions of Both Classifications

Maximum Temperatures in °F/°C Obtained from Tests in a 104 °F/40 °C Ambient, Vertical Position, Lamp Base Up, as per NEC.

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) <sup>†</sup>  
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

Fixture Selection Guide Indicates atmosphere for which fixture is suitable

① Denotes fixture with Globe Only. ② Denotes fixture with Globe and Reflector. ③ Denotes fixture with 8" Refractor / G3 Globe

Class I, Division 2 Chemical	Ignition °F/°C ④	Minimum Fixture "T" Number for Chemical	HPS (Watts)				PSMH (Watts)				
			50	70	100	150	70	100	175	200	250
<b>Group A Atmospheres</b>											
acetylene	581/305	T2	①②③	①②③	①②③	①②③	①②	①②③	①②③	① ③	①②
<b>Group B Atmospheres</b>											
acrolein (inhibited)	428/220	T2D	①②③	①②③	①②③		①②	①②③			①②
arsine	NA ⑥										
butadiene	788/420	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
ethylene oxide	804/429	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
hydrogen	932/500	T1	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
propylene oxide	840/449	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
propyl nitrate	347/175	T3B	①②③	①②③			①②				
<b>Group C Atmospheres</b>											
acetaldehyde	347/175	T3B	①②③	① ③			①②				
allyl alcohol	712/378	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
n-butylaldehyde	424/218	T2D	①②③	①②③	①②③		①②	①②③			①②
carbon monoxide	1128/609	T1	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
crotonaldehyde	450/232	T2C	①②③	①②③	①②③	③	①②	①②③			①②
cyclopropane	928/498	T1	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
diethyl ether (ethyl ether)	320/160	T3C	① ③	③			①②				
diethylamine	594/312	T2	①②③	①②③	①②③	①②③	①②	①②③	①②③	① ③	①②
ethylene	842/450	T1	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
ethylenimine	608/320	T2	①②③	①②③	①②③	①②③	①②	①②③	①②③	① ③	①②
ethyl mercaptan	572/300	T2	①②③	①②③	①②③	①②③	①②	①②③	①②③	① ③	①②
ethyl sulfide	NA ⑥										
hydrogen cyanide	1000/538	T1	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
hydrogen sulfide	500/260	T2B	①②③	①②③	①②③	①②③	①②	①②③	①②③	①	①②
morpholine	590/310	T2	①②③	①②③	①②③	①②③	①②	①②③	①②③	① ③	①②
2-nitropropane	802/428	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
tetrahydrofuran	610/321	T2	①②③	①②③	①②③	①②③	①②	①②③	①②③	① ③	①②
unsymmetrical dimethyl hydrazine	480/249	T2C	①②③	①②③	①②③	③	①②	①②③			①②
<b>Group D Atmospheres</b>											
acetic acid (glacial)	867/464	T1	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
acetone	869/465	T1	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
acrylonitrile	898/481	T1	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
ammonia	1204/651	T1	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
benzene	928/498	T1	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
butane	549/287	T2A	①②③	①②③	①②③	①②③	①②	①②③	①②③	①	①②
1-butanol (butyl alcohol)	649/343	325	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②

This classified area suitability chart is based on NEC requirements and Appleton and UL testing. However, the ultimate decision on suitability of these fixtures for classified areas depends solely on the judgement of the owner, insurance company, inspector and/or authority having jurisdiction.

④ Ignition temperatures shown should be regarded as approximations only. Per NFPA Bulletin 325M, ignition temperatures may vary according to such factors as vapor/air mixture, size and space where ignition may occur, rate and duration of heating, oxygen concentration and other materials present.

⑥ Not Available.

⑦ A saturated hydrocarbon mixture. Also known by synonyms benzene, ligroin, petroleum, ether and naphtha.

†† CSA Certification Only.

LIGHTING: ENCLOSED AND GASKETED - AREA - HID

Lighting



# Mercmaster™ III HID 50–250 Watt Classified Area Suitability

Class I, Division 2; Class II, Division 1; Simultaneous Exposure to Hazardous Conditions of Both Classifications

Maximum Temperatures in °F/°C Obtained from Tests in a 104 °F/40 °C Ambient, Vertical Position, Lamp Base Up, as per NEC.

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) n<sup>+</sup>  
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

Fixture Selection Guide Indicates atmosphere for which fixture is suitable

① Denotes fixture with Globe Only. ② Denotes fixture with Globe and Reflector. ③ Denotes fixture with 8" Refractor / G3 Globe

Class I, Division 2 Chemical	Minimum Fixture Ignition °F/°C ④	Minimum Fixture "T" Number for Chemical	HPS (Watts)				PSMH (Watts)				
			50	70	100	150	70	100	175	200	250
<b>Group D Atmospheres</b>											
2-butanol (secondary butyl alcohol)	761/405	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
n-butyl acetate	797/425	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
isobutyl acetate	790/421	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
sec-butyl alcohol	649/343	325	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
di-isobutylene	736/391	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
ethane	882/472	T1	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
ethanol (ethyl alcohol)	685/363	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
ethyl acetate	799/426	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
ethylene diamine (anhydrous)	725/385	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
ethylene dichloride	775/413	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
gasoline (56-60 octane)	536/280	T2A	①②③	①②③	①②③	①②③	①②	①②③	①②③	①	①②
heptanes	399/204	T3	①②③	①②③	①②③		①②	①②③			
hexanes	433/223	T2D	①②③	①②③	①②③		①②	①②③			
isoprene	743/395	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
isopropyl ether	829/443	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
mesityl oxide	651/344	325	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
methane (natural gas)	999/537	T1	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
methanol (methyl alcohol)	725/385	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
3-methyl-1-butanol (isoamyl alcohol)	662/350	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
methyl ethyl ketone	759/404	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
methyl isobutyl ketone	838/448	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
2-methyl-1-propanol (isobutyl alcohol)	779/415	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
2-methyl-1-propanol (tertiary butyl alcohol)	892/478	T1	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
petroleum naphtha ⑤	550/288	T2A	①②③	①②③	①②③	①②③	①②	①②③	①②③	①	①②
pyridine	900/482	T1	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
octanes	403/206	T3	①②③	①②③	①②③		①②	①②③			
pentanes	500/260	T2B	①②③	①②③	①②③	①②③	①②	①②③	①②③	①	①②
1-pentanol (amyl alcohol)	572/300	T2	①②③	①②③	①②③	①②③	①②	①②③	①②③	① ③	①②
propane	810/432	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
1-propanol (propyl alcohol)	774/412	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
2-propanol (isopropyl alcohol)	750/399	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
propylene	851/455	T1	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
styrene	914/490	T1	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
toluene	896/480	T1	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
vinyl acetate	756/402	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
vinyl chloride	882/472	T1	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
xylenes (o-xylene)	865/463	T1	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②

This classified area suitability chart is based on NEC requirements and Appleton and UL testing. However, the ultimate decision on suitability of these fixtures for classified areas depends solely on the judgement of the owner, insurance company, inspector and/or authority having jurisdiction.

④ Ignition temperatures shown should be regarded as approximations only. Per NFPA Bulletin 325M, ignition temperatures may vary according to such factors as vapor/air mixture, size and space where ignition may occur, rate and duration of heating, oxygen concentration and other materials present.

⑤ Not Available.

⑥ A saturated hydrocarbon mixture. Also known by synonyms benzine, ligroin, petroleum, ether and naphtha.

n<sup>+</sup> CSA Certification Only.

# Mercmaster™ III HID 50–250 Watt Luminaire Classified Area Suitability

Class I, Zone 2, AEx nA nR IIC; Class 1 Zone 2, AEx nR IIC; IP66; and NEMA 4X

Maximum Temperatures in °F/°C Obtained from Tests in a 104 °F/40 °C Ambient, Vertical Position, Lamp Base Up.

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) <sup>†</sup>  
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

Fixture Selection Guide Indicates atmosphere for which fixture is suitable

⊕ Denotes fixture with Globe and Reflector. ⊙ Denotes fixture with 8" Refractor.

Class I, Division 2 Chemical	Ignition °F/°C ⊕	Minimum Fixture "T" Number for Chemical	HPS (Watts)				PSMH (Watts)				
			50	70	100	150	70	100	175	200	250
<b>Group IIC</b>											
acetylene	581/305	T2	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕
acetylene	572/300	T2	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕
hydrogen	932/500	T1	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕
<b>Group IIB</b>											
ethylene	914/490	T1	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕
butadiene 1.3	797/425	T2	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕
carbon monoxide coke oven gas	1040/560	T1	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕
diethyl ether (ethyl ether)	320/160	T4	⊕	⊕	⊕	⊕	⊕				
ethylene	842/450	T1	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕
ethylenimine ethylene oxide	797/425	T2	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕
<b>Group IIA</b>											
acetone	869/465	T1	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕
amyl acetate	707/375	T2	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕
ammonia	1204/651	T1	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕
benzene	928/498	T1	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕
butane	549/287	T3	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	
1-butanol (butyl alcohol)	649/343	T2	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕
n-butyl acetate cyclohexane	500/260	T3	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	
ethyl methyl ketone	959/515	T1	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕
ethanol (ethyl alcohol)	685/363	T2	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕
ethyl acetate	799/426	T1	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕
heptanes	399/204	T3	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	
hexanes	433/223	T3	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	
isoprene isobutanol	806/430	T2	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕
mesityl oxide methyl acetate	932/500	T1	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕
methanol (methyl alcohol)	725/385	T2	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕
n-propyl acetate	932/500	T1	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕
n-butyl acetate	788/420	T2	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕
pentanes	500/260	T3	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	
propane	810/432	T2	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕
xylenes (o-xylene)	865/463	T1	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕

This classified area suitability chart is based on NEC requirements and Appleton and UL testing. However, the ultimate decision on suitability of these fixtures for classified areas depends solely on the judgement of the owner, insurance company, inspector and/or authority having jurisdiction.

⊕ Ignition temperatures shown should be regarded as approximations only. Per NFPA Bulletin 325M, ignition temperatures may vary according to such factors as vapor/air mixture, size and space where ignition may occur, rate and duration of heating, oxygen concentration and other materials present.

<sup>†</sup> CSA Certification Only.

# Mercmaster™ III HID 50–250 Watt Luminaires




50 W, 70 W, 100 W, 150 W HPS

High Reactance, High Power Factor (min. P.F. 90%). Heat-Resistant Prismatic Glass Globe or Closed Prismatic Glass Refractor. Mogul Base Lamps.

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) <sup>†</sup>  
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 <sup>③④⑥</sup> with Type V 8" Refractor	
				with Globe	or G3 Globe <sup>②</sup>
<b>Pendant — One Hub, Rigid Mounting <sup>①</sup></b>					
	HPS	50	3/4	KPAL5075	KPAL5075J5
			1	KPAL5010	KPAL5010J5
	HPS	70	3/4	KPAL7075	KPAL7075J5
			1	KPAL7010	KPAL7010J5
HPS	100	3/4	KPAL1075	KPAL1075J5	
		1	KPAL1010	KPAL1010J5	
HPS	150	3/4	KPAL1575	KPAL1575J5	
		1	KPAL1510	KPAL1510J5	
<b>Pendant Cone — One Hub, Rigid Mounting</b>					
	HPS	50	3/4	KPCHL5075	KPCHL5075J5
			1	KPCHL5010	KPCHL5010J5
	HPS	70	3/4	KPCHL7075	KPCHL7075J5
			1	KPCHL7010	KPCHL7010J5
HPS	100	3/4	KPCHL1075	KPCHL1075J5	
		1	KPCHL1010	KPCHL1010J5	
HPS	150	3/4	KPCHL1575	KPCHL1575J5	
		1	KPCHL1510	KPCHL1510J5	
<b>Ceiling — Five Hubs, Four Close-Up Plugs</b>					
	HPS	50	3/4	KPCL5075	KPCL5075J5
			1	KPCL5010	KPCL5010J5
	HPS	70	3/4	KPCL7075	KPCL7075J5
			1	KPCL7010	KPCL7010J5
HPS	100	3/4	KPCL1075	KPCL1075J5	
		1	KPCL1010	KPCL1010J5	
HPS	150	3/4	KPCL1575	KPCL1575J5	
		1	KPCL1510	KPCL1510J5	

<sup>①</sup> For Flexible Pendant Mount, change **A** to **F** in catalog number (except 50 W HPS).

<sup>②</sup> To order fixtures with large globe change **J5** to **G3**; for fixture with NEMA Type I or NEMA Type III refractor, change final digit **5** in catalog number to **1** or **3**.

<sup>③</sup> Add the following voltage and frequency designation before **Z2** suffix:

Lamp Type	Lamp Watts	Voltage Suffixes												
		MT	5MT	48	125	225	226	235	245	C2 <sup>†</sup>	C3 <sup>†</sup>	C6 <sup>†</sup>	C7 <sup>†</sup>	TT <sup>†</sup>
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	X	X
HPS	150	X	—	X	X	X	X	—	X	—	—	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	—	—	X	—	—	—	—	X
PSMH	175	X	X	X	—	—	—	—	—	—	—	—	—	X
PSMH	200	X	—	X	—	—	—	—	—	—	—	—	—	X
PSMH	250	X	—	—	—	—	—	—	—	—	—	—	—	X
MH <sup>†</sup>	175	X	—	—	X	X	—	—	X	X	X	X	X	X
MH <sup>†</sup>	250	X	—	—	X	X	—	—	X	X	X	X	X	X

Voltages:

**MT** - 120/208/240/277 V 60 Hz

**5MT** - 120/208/240/277/480 V 60 Hz

**48** - 480 V 60 Hz

**125** - 120 V 50 Hz

**225** - 225 V 50 Hz

**226** - 220 V 60 Hz

**235** - 230 V 50 Hz

**245** - 240 V 50 Hz

**C2** - 208 V 60 Hz, CWI <sup>†</sup>

**C3** - 240 V 60 Hz, CWI <sup>†</sup>

**C6** - 480 V 60 Hz, CWI <sup>†</sup>

**C7** - 600 V 60 Hz, CWI <sup>†</sup>,

**TT** - 120/277/347 V 60 Hz, CWA <sup>†</sup>

<sup>④</sup> Add **-Z2** suffix for factory sealed non-sparking/restricted breathing protection (AEx nA nR). Add **-ZB** suffix for restricted breathing protection (AEx nR).

<sup>⑥</sup> For fixtures with guards, add letter **G** before adding voltage designation.

<sup>†</sup> CSA Certification only.

# Mercmaster™ III HID 50–250 Watt Luminaires

50 W, 70 W, 100 W, 150 W HPS

High Reactance, High Power Factor (min. P.F. 90%). Heat-Resistant Prismatic Glass Globe or Closed Prismatic Glass Refractor. Mogul Base Lamps.



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) <sup>1</sup>  
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 ④④⑥ with Type V 8" Refractor or G3 Globe ②		
			with Globe		
<b>Wall – Five Hubs, Four Close-Up Plugs</b>					
	HPS	50	3/4	KPWBL5075	KPWBL5075J5
			1	KPWBL5010	KPWBL5010J5
	HPS	70	3/4	KPWBL7075	KPWBL7075J5
			1	KPWBL7010	KPWBL7010J5
HPS	100	3/4	KPWBL1075	KPWBL1075J5	
		1	KPWBL1010	KPWBL1010J5	
HPS	150	3/4	KPWBL1575	KPWBL1575J5	
		1	KPWBL1510	KPWBL1510J5	
<b>25° Stanchion – One Hub</b>					
	HPS	50	1-1/4	KPSL50125	KPSL50125J5
			1-1/2	KPSL50150	KPSL50150J5
	HPS	70	1-1/4	KPSL70125	KPSL70125J5
			1-1/2	KPSL70150	KPSL70150J5
HPS	100	1-1/4	KPSL10125	KPSL10125J5	
		1-1/2	KPSL10150	KPSL10150J5	
HPS	150	1-1/4	KPSL15125	KPSL15125J5	
		1-1/2	KPSL15150	KPSL15150J5	
<b>90° Stanchion – One Hub</b>					
	HPS	50	1-1/4	KPSTL50125	KPSTL50125J5
			1-1/2	KPSTL50150	KPSTL50150J5
	HPS	70	1-1/4	KPSTL70125	KPSTL70125J5
			1-1/2	KPSTL70150	KPSTL70150J5
HPS	100	1-1/4	KPSTL10125	KPSTL10125J5	
		1-1/2	KPSTL10150	KPSTL10150J5	
HPS	150	1-1/4	KPSTL15125	KPSTL15125J5	
		1-1/2	KPSTL15150	KPSTL15150J5	

- ① For Flexible Pendant Mount, change **A** to **F** in catalog number (except 50 W HPS).
- ② To order fixtures with large globe change **J5** to **G3**; for fixture with NEMA Type I or NEMA Type III refractor, change final digit **5** in catalog number to **1** or **3**.
- ③ Add the following voltage and frequency designation before **Z2** suffix:

Lamp Type	Lamp Watts	Voltage Suffixes												
		MT	5MT	48	125	225	226	235	245	C2 <sup>1</sup>	C3 <sup>1</sup>	C6 <sup>1</sup>	C7 <sup>1</sup>	TT <sup>1</sup>
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	X	X
HPS	150	X	—	X	X	X	X	—	X	—	—	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	—	—	X	—	—	—	—	X
PSMH	175	X	X	X	—	—	—	—	—	—	—	—	—	X
PSMH	200	X	—	X	—	—	—	—	—	—	—	—	—	X
PSMH	250	X	—	—	—	—	—	—	—	—	—	—	—	X
MH <sup>1</sup>	175	X	—	—	X	X	—	—	X	X	X	X	X	X
MH <sup>1</sup>	250	X	—	—	X	X	—	—	X	X	X	X	X	X

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

- ④ Add **-Z2** suffix for factory sealed non-sparking/restricted breathing protection (AEx nA nR). Add **-ZB** suffix for restricted breathing protection (AEx nR).
- ⑤ For fixtures with guards, add letter **G** before adding voltage designation.
- <sup>1</sup> CSA Certification only.

# Mercmaster™ III HID 50–250 Watt




70 W, 100 W, 150 W, 175 W, 200 W, 250 W PSMH

High Reactance, High Power Factor (min. P.F. 90%). Heat-Resistant Prismatic Glass Globe or Closed Prismatic Glass Refractor. Mogul Base Lamps

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<sup>†</sup>  
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 ④④④		
			with Globe	with Type V 8" Refractor ②	
<b>Pendant – One Hub, Rigid Mounting ①</b>					
	PSMH	70	3/4 1	KPAH7075 KPAH7010	KPAH7075J5 KPAH7010J5
	PSMH	100	3/4 1	KPAH1075 KPAH1010	KPAH1075J5 KPAH1010J5
	PSMH	150	3/4 1	KPAP1575 KPAP1510	KPAP1575J5 KPAP1510J5
	PSMH	175	3/4 1	KPAP1775 KPAP1710	KPAP1775J5 KPAP1710J5
	PSMH	200	3/4 1	KPAP2075 KPAP2010	KPAP2075J5 KPAP2010J5
	PSMH	250 ⑥	3/4 1	KPAP2575 KPAP2510	KPAP2575J5 KPAP2510J5
<b>Pendant Cone – One Hub, Rigid Mounting</b>					
	PSMH	70	3/4 1	KPCHH7075 KPCHH7010	KPCHH7075J5 KPCHH7010J5
	PSMH	100	3/4 1	KPCHH1075 KPCHH1010	KPCHH1075J5 KPCHH1010J5
	PSMH	150	3/4 1	KPCHP1575 KPCHP1510	KPCHP1575J5 KPCHP1510J5
	PSMH	175	3/4 1	KPCHP1775 KPCHP1710	KPCHP1775J5 KPCHP1710J5
	PSMH	200	3/4 1	KPCHP2075 KPCHP2010	KPCHP2075J5 KPCHP2010J5
	PSMH	250 ⑥	3/4 1	KPCHP2575 KPCHP2510	KPCHP2575J5 KPCHP2510J5
<b>Ceiling – Five Hubs, Four Close-Up Plugs</b>					
	PSMH	70	3/4 1	KPCH7075 KPCH7010	KPCH7075J5 KPCH7010J5
	PSMH	100	3/4 1	KPCH1075 KPCH1010	KPCH1075J5 KPCH1010J5
	PSMH	150	3/4 1	KPCP1575 KPCP1510	KPCP1575J5 KPCP1510J5
	PSMH	175	3/4 1	KPCP1775 KPCP1710	KPCP1775J5 KPCP1710J5
	PSMH	200	3/4 1	KPCP2075 KPCP2010	KPCP2075J5 KPCP2010J5
	PSMH	250 ⑥	3/4 1	KPCP2575 KPCP2510	KPCP2575J5 KPCP2510J5

① For Flexible Pendant Mount, change A to F in catalog number (except 50 W HPS).

② To order fixtures with large globe change J5 to G3; for fixture with NEMA Type I or NEMA Type III refractor, change final digit 5 in catalog number to 1 or 3.

③ Add the following voltage and frequency designation before Z2 suffix:

Lamp Type	Lamp Watts	Voltage Suffixes												
		MT	5MT	48	125	225	226	235	245	C2 1 <sup>†</sup>	C3 1 <sup>†</sup>	C6 1 <sup>†</sup>	C7 1 <sup>†</sup>	TT 1 <sup>†</sup>
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	X	X
HPS	150	X	—	X	X	X	X	—	X	—	—	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	—	—	X	—	—	—	—	X
PSMH	175	X	X	X	—	—	—	—	—	—	—	—	—	X
PSMH	200	X	—	X	—	—	—	—	—	—	—	—	—	X
PSMH	250	X	—	—	—	—	—	—	—	—	—	—	—	X
MH 1 <sup>†</sup>	175	X	—	—	X	X	—	—	X	X	X	X	X	X
MH 1 <sup>†</sup>	250	X	—	—	X	X	—	—	X	X	X	X	X	X

Voltagess:

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<sup>†</sup>

C3 - 240 V 60 Hz, CWI 1<sup>†</sup>

C6 - 480 V 60 Hz, CWI 1<sup>†</sup>

C7 - 600 V 60 Hz, CWI 1<sup>†</sup>

TT - 120/277/347 V 60 Hz, CWA 1<sup>†</sup>

1<sup>†</sup> CSA Certification only.

Visit our website at [www.appletonelec.com](http://www.appletonelec.com) or contact us at (800) 621-1506.

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# Mercmaster™ III HID 50–250 Watt Luminaires

70 W, 100 W, 150 W, 175 W, 200 W, 250 W PSMH

High Reactance, High Power Factor (min. P.F. 90%). Heat-Resistant Prismatic Glass Globe or Closed Prismatic Glass Refractor. Mogul Base Lamps.




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) <sup>1</sup>  
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 ④④④	
				with Globe	with Type V 8" Refractor ⑤
<b>Wall – Five Hubs, Four Close-Up Plugs</b>					
	PSMH	70	3/4 1	KPWBH7075 KPWBH7010	KPWBH7075J5 KPWBH7010J5
	PSMH	100	3/4 1	KPWBH1075 KPWBH1010	KPWBH1075J5 KPWBH1010J5
	PSMH	150	3/4 1	KPWBP1575 KPWBP1510	KPWBP1575J5 KPWBP1510J5
	PSMH	175	3/4 1	KPWBP1775 KPWBP1710	KPWBP1775J5 KPWBP1710J5
	PSMH	200	3/4 1	KPWBP2075 KPWBP2010	KPWBP2075J5 KPWBP2010J5
	PSMH	250 ⑥	3/4 1	KPWBP2575 KPWBP2510	KPWBP2575J5 KPWBP2510J5
<b>25° Stanchion – One Hub</b>					
	PSMH	70	1-1/4 1-1/2	KPSH70125 KPSH70150	KPSH70125J5 KPSH70150J5
	PSMH	100	1-1/4 1-1/2	KPSH10125 KPSH10150	KPSH10125J5 KPSH10150J5
	PSMH	150	1-1/4 1-1/2	KPSP15125 KPSP15150	KPSP15125J5 KPSP15150J5
	PSMH	175	1-1/4 1-1/2	KPSP17125 KPSP17150	KPSP17125J5 KPSP17150J5
	PSMH	200	1-1/4 1-1/2	KPSP20125 KPSP20150	KPSP20125J5 KPSP20150J5
	PSMH	250 ⑥	1-1/4 1-1/2	KPSP25125 KPSP25150	KPSP25125J5 KPSP25150J5
<b>90° Stanchion – One Hub</b>					
	PSMH	70	1-1/4 1-1/2	KPSTH70125 KPSTH70150	KPSTH70125J5 KPSTH70150J5
	PSMH	100	1-1/4 1-1/2	KPSTH10125 KPSTH10150	KPSTH10125J5 KPSTH10150J5
	PSMH	150	1-1/4 1-1/2	KPSTP15125 KPSTP15150	KPSTP15125J5 KPSTP15150J5
	PSMH	175	1-1/4 1-1/2	KPSTP17125 KPSTP17150	KPSTP17125J5 KPSTP17150J5
	PSMH	200	1-1/4 1-1/2	KPSTP20125 KPSTP20150	KPSTP20125J5 KPSTP20150J5
	PSMH	250 ⑥	1-1/4 1-1/2	KPSTP25125 KPSTP25150	KPSTP25125J5 KPSTP25150J5

① For Flexible Pendant Mount, change **A** to **F** in catalog number (except 50 W HPS).

② To order fixtures with large globe change **J5** to **G3**; for fixture with NEMA Type I or NEMA Type III refractor, change final digit 5 in catalog number to 1 or 3.

③ Add the following voltage and frequency designation before **Z2** suffix:

Lamp Type	Lamp Watts	Voltage Suffixes												
		MT	5MT	48	125	225	226	235	245	C2 <sup>1</sup>	C3 <sup>1</sup>	C6 <sup>1</sup>	C7 <sup>1</sup>	TT <sup>1</sup>
HPS	50	X	—	—	—	X	X	—	X	—	—	—	—	—
HPS	70	X	—	X	X	X	X	—	X	—	—	—	—	X
HPS	100	X	—	X	X	X	X	—	X	—	—	X	X	X
HPS	150	X	—	X	X	X	X	—	X	—	—	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	—	—	X	—	—	—	—	X
PSMH	175	X	X	X	—	—	—	—	—	—	—	—	—	X
PSMH	200	X	—	X	—	—	—	—	—	—	—	—	—	X
PSMH	250	X	—	—	—	—	—	—	—	—	—	—	—	X
MH <sup>1</sup>	175	X	—	—	X	X	—	—	X	X	X	X	X	X
MH <sup>1</sup>	250	X	—	—	X	X	—	—	X	X	X	X	X	X

Voltages:

MT - 120/208/240/277 V 60 Hz

5MT - 120/208/240/277/480 V 60 Hz

48 - 480 V 60 Hz

125 - 120 V 50 Hz

225 - 225 V 50 Hz

226 - 220 V 60 Hz

235 - 230 V 50 Hz

245 - 240 V 50 Hz

C2 - 208 V 60 Hz, CWI <sup>1</sup>

C3 - 240 V 60 Hz, CWI <sup>1</sup>

C6 - 480 V 60 Hz, CWI <sup>1</sup>

C7 - 600 V 60 Hz, CWI <sup>1</sup>

TT - 120/277/347 V 60 Hz, CWA <sup>1</sup>

④ Add **-Z2** suffix for factory sealed non-sparking/restricted breathing protection (AEx nA nR). Add **-ZB** suffix for restricted breathing protection (AEx nR).

⑤ For fixtures with guards, add letter **G** before adding voltage designation.


⑥ Available in MT and TT only.

<sup>1</sup> CSA Certification only.

# Mercmaster™ III HID 50–250 Watt
















175 W, 250 W MH 


High Reactance, High Power Factor (min. P.F. 90%). Heat-Resistant Prismatic Glass Globe or Closed Prismatic Glass Refractor. Mogul Base Lamps


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  	
			with Globe	with Type V 8" Refractor 
<b>Pendant – One Hub, Rigid Mounting </b>				
MH 	175	3/4	KPAH1775	KPAH1775J5
		1	KPAH1710	KPAH1710J5
MH 	250 	3/4	KPAH2575	KPAH2575J5
		1	KPAH2510	KPAH2510J5
<b>Pendant Cone – One Hub, Rigid Mounting </b>				
MH 	175	3/4	KPCHH1775	KPCHH1775J5
		1	KPCHH1710	KPCHH1710J5
MH 	250 	3/4	KPCHH2575	KPCHH2575J5
		1	KPCHH2510	KPCHH2510J5
<b>Ceiling – Five Hubs, Four Close-Up Plugs </b>				
MH 	175	3/4	KPCH1775	KPCH1775J5
		1	KPCH1710	KPCH1710J5
MH 	250 	3/4	KPCH2575	KPCH2575J5
		1	KPCH2510	KPCH2510J5


 For Flexible Pendant Mount, change **A** to **F** in catalog number (except 50 W HPS).


 To order fixtures with large globe change **J5** to **G3**; for fixture with NEMA Type I or NEMA Type III refractor, change final digit **5** in catalog number to **1** or **3**.


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


Lamp Type	Lamp Watts	Voltage Suffixes												
		MT	5MT	48	125	225	226	235	245	C2 	C3 	C6 	C7 	TT 
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	X	X
HPS	150	X	—	X	X	X	X	—	X	—	—	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	—	—	X	—	—	—	—	X
PSMH	175	X	X	X	—	—	—	—	—	—	—	—	—	X
PSMH	200	X	—	X	—	—	—	—	—	—	—	—	—	X
PSMH	250	X	—	—	—	—	—	—	—	—	—	—	—	X
MH 	175	X	—	—	X	X	—	—	X	X	X	X	X	X
MH 	250	X	—	—	X	X	—	—	X	X	X	X	X	X

Voltages:  
**MT** - 120/208/240/277 V 60 Hz  
**5MT** - 120/208/240/277/480 V 60 Hz  
**48** - 480 V 60 Hz  
**125** - 120 V 50 Hz  
**225** - 225 V 50 Hz  
**226** - 220 V 60 Hz  
**235** - 230 V 50 Hz  
**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 

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

 For fixtures with guards, add letter **G** before adding voltage designation.


 Available in MT and TT only.

 CSA Certification only.

# Mercmaster™ III HID 50–250 Watt

175 W, 250 W MH 

High Reactance, High Power Factor (min. P.F. 90%). Heat-Resistant Prismatic Glass Globe or Closed Prismatic Glass Refractor. Mogul Base Lamps

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




Lighting

LIGHTING: ENCLOSED AND GASKETED – AREA – HID

Lamp Type	Lamp Watts	Hub Size (Inches)	Catalog Numbers    	
			with Globe	with Type V 8" Refractor 




## Wall – Five Hubs, Four Close-Up Plugs



MH 	175	3/4	KPWBH1775	KPWBH1775J5
		1	KPWBH1710	KPWBH1710J5
MH 	250 	3/4	KPWBH2575	KPWBH2575J5
		1	KPWBH2510	KPWBH2510J5




## 25° Stanchion – One Hub




MH 	175	1-1/4	KPSH17125	KPSH17125J5
		1-1/2	KPSH17150	KPSH17150J5
MH 	250 	1-1/4	KPSH25125	KPSH25125J5
		1-1/2	KPSH25150	KPSH25150J5

## 90° Stanchion – One Hub











MH 	175	1-1/4	KPSTH17125	KPSTH17125J5
		1-1/2	KPSTH17150	KPSTH17150J5
MH 	250 	1-1/4	KPSTH25125	KPSTH25125J5
		1-1/2	KPSTH25150	KPSTH25150J5

Shown with Globe and Optional Guard






 For Flexible Pendant Mount, change **A** to **F** in catalog number (except 50 W HPS).


 To order fixtures with large globe change **J5** to **G3**; for fixture with NEMA Type I or NEMA Type III refractor, change final digit **5** in catalog number to **1** or **3**.


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


Lamp Type	Lamp Watts	Voltage Suffixes												
		MT	5MT	48	125	225	226	235	245	C2 	C3 	C6 	C7 	TT 
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	X	X
HPS	150	X	—	X	X	X	X	—	X	—	—	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	—	—	X	—	—	—	—	X
PSMH	175	X	X	X	—	—	—	—	—	—	—	—	—	X
PSMH	200	X	—	X	—	—	—	—	—	—	—	—	—	X
PSMH	250	X	—	—	—	—	—	—	—	—	—	—	—	X
MH 	175	X	—	—	X	X	—	—	X	X	X	X	X	X
MH 	250	X	—	—	X	X	—	—	X	X	X	X	X	X

Voltages:

<b>MT</b> - 120/208/240/277 V 60 Hz	<b>5MT</b> - 120/208/240/277/480 V 60 Hz	<b>48</b> - 480 V 60 Hz	<b>125</b> - 120 V 50 Hz	<b>225</b> - 225 V 50 Hz	<b>226</b> - 220 V 60 Hz	<b>235</b> - 230 V 50 Hz	<b>245</b> - 240 V 50 Hz	<b>C2</b> - 208 V 60 Hz, CWI 	<b>C3</b> - 240 V 60 Hz, CWI 	<b>C6</b> - 480 V 60 Hz, CWI 	<b>C7</b> - 600 V 60 Hz, CWI 	<b>TT</b> - 120/277/347 V 60 Hz, CWA 
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 Add **-Z2** suffix for factory sealed non-sparking/restricted breathing protection (AEx nA nR). Add **-ZB** suffix for restricted breathing protection (AEx nR).

 For fixtures with guards, add letter **G** before adding voltage designation.

 Available in MT and TT only.

 CSA Certification only.



# Mercmaster™ III HID 50–250 Watt PRE-PAK™ Luminaires

## Factory-Assembled Fixtures

For 70 W, 100 W or 150 W High Pressure Sodium Lamps, or 100 W or 175 W Pulse Start Metal Halide Lamps. Mogul Base Lamps.

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) <sup>1</sup>  
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

These pre-packaged fixture component combinations are delivered fully assembled and packed in a single carton. They are available with or without lamp, and with choice of globe or NEMA Type I, III or V refractors – all with or without guards. PRE-PAK units simplify ordering, stocking and shipping, and result in savings on job-site assembly and installation time and costs.

Catalog numbers do not include mounting hood or reflector. For mounting hood and reflectors selection, see below and order separately. Hood and Reflector will be packaged separately.



### PRE-PAK Fixtures ④

Lamp Type and Watts	Ballast Assembly with Globe Only	Ballast Assembly with Globe and Guard	Ballast Assembly with G3 Globe Only	Ballast Assembly with Refractor Only ⑤	Ballast Assembly with Refractor and Guard
100 W PSMH ⑥	KPBU100H-MT	KPBU100HG-MT	—	KPBU100HJ5-MT	KPBU100HJ5G-MT
175 W PSMH	KPBU175P-MT	KPBU175PG-MT	—	KPBU175PJ5-MT	KPBU175PJ5G-MT
70 W HPS	KPBU70L-MT	KPBU70LG-MT	—	KPBU70LJ5-MT	KPBU70LJ5G-MT
100 W HPS	KPBU100L-MT	KPBU100LG-MT	KPBUG3100L-MT	KPBU100LJ5-MT	KPBU100LJ5G-MT
150 W HPS	KPBU150L-MT	KPBU150LG-MT	—	KPBU150LJ5-MT	KPBU150LJ5G-MT
175 W MH <sup>1</sup>	KPBU175H-TT	KPBU175HG-TT	—	KPBU175HJ5-TT	KPBU175HJ5G-TT
250 W MH <sup>1</sup>	KPBU250H-TT	KPBU250HG-TT	—	KPBU250HJ5-TT	KPBU250HJ5G-TT

### Mounting Hoods

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

### White Polyester Reflectors

Description	Catalog Number
<b>Standard Dome</b> For Globe Fixtures	KR2-ST
<b>30° Angle</b> For Globe Fixtures	KR2-AN
<b>Standard Dome</b> For Glass Refractor Fixtures	CMR-4ST
<b>30° Angle</b> For Glass Refractor Fixtures	CMR-4AN

① All catalog numbers above are fixtures without lamp. To order fixture complete with appropriate installed lamp, add suffix L to catalog number. All PRE-PAK fixtures include multi-tap ballast for operation on 120 V, 208 V, 240 V or 277 V lines. Fixture component combinations listed are furnished completely assembled in a single carton.

② 100 W fixtures use ED-28 mogul base lamps.

③ Refractor catalog numbers listed are for NEMA Type V. To order fixture with Type III refractor, change J5 in catalog number to J3; for Type I refractor, change J5 to J1.

④ For CSA 120/277/347 Vac tri-tap ballast, change -MT to -TT <sup>1</sup>.

<sup>1</sup> CSA Certification only.








# Mercmaster™ III HID 50–250 Watt Luminaire Mounting Hoods

## High Pressure Sodium and Pulse Start Metal Halide

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

Lighting

LIGHTING: ENCLOSED AND GASKETED – AREA – HID

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

# Mercmaster™ III HID 50–250 Watt Luminaire Ballast Bodies

## 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) <sup>1</sup>/<sub>2</sub>  
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

### Ballast Bodies



Ballast Body for Glass Globe (shown)

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



Ballast Body for Glass Refractor or G3 Globe (shown)

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

Lamp Type	Lamp Watts	Catalog Number ②④⑤⑥		Voltage Suffixes												
		For Globe	For G3 Globe ①/ Refractor	MT	5MT	48	125	225	226	235	245	C2 <sup>1</sup> / <sub>2</sub>	C3 <sup>1</sup> / <sub>2</sub>	C6 <sup>1</sup> / <sub>2</sub>	C7 <sup>1</sup> / <sub>2</sub>	TT <sup>1</sup> / <sub>2</sub>
HPS	50 ②	KPB50L	KPBR50L	X	—	—	—	X	X	—	X	—	—	—	—	X
HPS	70 ②	KPB70L	KPBR70L	X	—	X	X	X	X	—	X	—	—	—	—	X
HPS	100 ②	KPB100L	KPBR100L	X	—	X	X	X	X	—	X	—	—	X	X	X
HPS	150 ②	KPB150L	KPBR150L	X	—	X	X	X	X	—	X	—	—	X	X	X
PSMH	70	KPB70H	KPBR70H	X	—	X	X	X	—	—	X	—	—	—	—	X
PSMH	100	KPB100H	KPBR100H	X	—	X	X	X	—	—	X	—	—	—	—	X
PSMH	150	KPB150P	KPBR150P	X	—	X	X	X	—	—	X	—	—	—	—	X
PSMH	175	KPB175P	KPBR175P	X	X	X	—	—	—	—	—	—	—	—	—	X
PSMH	200	KPB200P	KPBR200P	X	—	X	—	—	—	—	—	—	—	—	—	X
PSMH	250	KPBG250P	KPBR250P	X	—	—	—	—	—	—	—	—	—	—	—	X
MH <sup>1</sup> / <sub>2</sub>	175	KPB175H	KPBR175H	X	—	—	X	X	—	—	X	X	X	X	X	X
MH <sup>1</sup> / <sub>2</sub>	250	KPB250H	KPBR250H	X	—	—	X	X	—	—	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 <sup>1</sup>/<sub>2</sub>

**C3** - 240 V 60 Hz, CWI <sup>1</sup>/<sub>2</sub>

**C6** - 480 V 60 Hz, CWI <sup>1</sup>/<sub>2</sub>

**C7** - 600 V 60 Hz, CWI <sup>1</sup>/<sub>2</sub>,

**TT** - 120/277/347 V 60 Hz, CWA <sup>1</sup>/<sub>2</sub>

① For HPS version fixtures only.

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

③ After voltage suffix add: **-SR** for Smart Hot Restrike, **-R** for ballast body with Hot Restrike Ignitor.

④ Add **-E** after voltage suffix for ballast body with provision for Quartz Emergency Light. Not suitable for hazardous locations.

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

⑥ Add **Z** for factory sealed restricted breathing protection (Ex nR) <sup>1</sup>/<sub>2</sub>.

<sup>1</sup>/<sub>2</sub> CSA Certification only.





# Mercmaster™ III HID 50–250 Watt Luminaire Optics

## High Pressure Sodium and Pulse Start Metal Halide

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

Lighting

LIGHTING: ENCLOSED AND GASKETED – AREA – HID


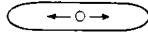
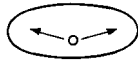


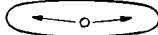
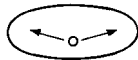


		Description	Catalog Number
<b>Prismatic Glass Globes – Heat-Resistant</b>			
 <b>Glass Globe</b>	For use in areas where fixture is subject to extreme thermal shock Heat-Resistant	Clear	<b>VPGL-2HR</b>
		Amber	<b>VPGL-2AM</b>
		Blue	<b>VPGL-2BL</b>
		Green	<b>VPGL-2GR</b>
		Red	<b>VPGL-2RE</b>
 <b>G3 Glass Globe</b>		Clear	<b>VPGL3HR</b>
<b>Tuff-Skin® Coated Prismatic Glass Globes – For Non-Classified Areas</b>			
 <b>Tuff-Skin® Glass Globe</b>	For use in areas where fixture is subject to extreme thermal shock Heat-Resistant	Clear	<b>VPGL-2HRT</b>
<b>Polycarbonate Globes – Impact-Resistant ❶</b>			
 <b>Polycarbonate Globe</b>	Use 100 watt lamp max. Do not use in ambients exceeding 77 °F/25 °C.	Clear Amber Green Red	<b>VPGL-2PL</b> <b>VPGL-2AMPL</b> <b>VPGL-2GRPL</b> <b>VPGL-2REPL</b>

❶ Polycarbonate globes are shatter-resistant – for use in processing plants, canneries, dairies, bakeries or anywhere broken glass would prove a hazard. Ideally suited for areas where vandalism, high replacement and high maintenance costs are a problem. Do not use in ambients exceeding 77 °F/25 °C. For burning in vertical base-up positions only.

# Mercmaster™ III HID 50–250 Watt Luminaire Optics

## High Pressure Sodium and Pulse Start Metal Halide

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

	Light Distribution	IES/NEMA Distribution Curves	Catalog Number
<b>Closed Prismatic Glass Refractors — Heat-Resistant</b>			
 <p><b>Glass Refractor</b></p>	NEMA Type I		LPG-R1
	NEMA Type III		LPG-R3
	NEMA Type V		LPG-R5
<b>Closed Prismatic Polymeric Refractors</b>			
<p><i>For use with PSMH lamps, 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>			
 <p><b>Polymeric Refractor</b></p>	NEMA Type II		LPRF-2CP
	NEMA Type III		LPRF-3CP
	NEMA Type IV		LPRF-4CP
	NEMA Type V		LPRF-5CP







# Mercmaster™ III HID 50–250 Watt 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.

Lighting

LIGHTING: ENCLOSED AND GASKETED – AREA – HID

		Item	Description	Catalog Number
<b>White Polyester Reflectors</b>				
 Standard Dome	 30° Angle	For Globe Fixtures	Standard Dome	<b>KR2-ST</b>
			Deep Dome	<b>KR2-DD ❶</b>
			30° Angle	<b>KR2-AN</b>
		For Glass Refractor Fixtures ❷	Standard Dome	<b>CMR-4ST</b>
		Deep Dome	<b>CMR-4DD ❶</b>	
		30° Angle	<b>CMR-4AN</b>	
<b>Guards</b>				
 Globe Guard	 Refractor Guard		Globe Guard	<b>KGU2</b>
			G3 Globe/Refractor Guard	<b>KRG2</b>
<b>Replacement Globe Gaskets – Silicone Rubber</b>				
 Globe Gaskets			Globe Gasket	<b>VPGL-GK</b>
			G3 Globe/Refractor Gasket	<b>KRF-GK</b>
<b>Retrofit Pendant Mounting Adapter</b>				
 Mounting Adapter			Permits use of Mercmaster III pendant hood with 3/4" hub on existing V-51 mounting hood.	<b>LPAD-1</b>

❶ Dark Skies Compliant.

❷ Fixtures with refractors are not UL Listed when used with reflectors.

# Mercmaster™ III HID 50–250 Watt Luminaire Ballast Weights 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) <sup>1</sup>/<sub>1</sub>  
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

Ballast Housing Weights			Fuse Kits				
Lamp Watts	HPS (Wt. Lbs/Kg ①②)	PSMH (Wt. Lbs/Kg ①②)	Lamp Watts	Volts	Fuse Quantity Required	Fuse Kit Catalog Number	
						HPS	PSMH
<b>Globe Housing with Ballast</b>							
50	12.5/5.7	—	50	120	1	F5	—
70	15/6.8	15.25/6.9		208	2	F3	—
100	16/7.3	16.25/7.4		240	2	F3	—
150	17/7.7	16.75/7.6		277	1	F2	—
175	—	17.25/7.8		347 <sup>1</sup> / <sub>1</sub>	1	F1	F1
200	—	18/8.2	70	120	1	F5	F4
250	—	18.5/8.4		208	2	F3	F3
				240	2	F3	F3
				277	1	F2	F2
				347 <sup>1</sup> / <sub>1</sub>	1	F1	F2
<b>Reflector Housing with Ballast</b>							
50	13/5.9	—	100	480	2	F2	F1
70	15.5/7.0	15.75/7.1		120	1	F8	F6
100	16.5/7.5	16.75/7.6		208	2	F5	F4
150	17.5/7.9	17.25/7.8		240	2	F5	F3
175	—	17.75/8.1		277	1	F3	F3
200	—	18.5/8.4	150	347 <sup>1</sup> / <sub>1</sub>	1	F1	F2
250	—	19/8.6		480	2	F3	F2
				120	1	F10	—
				208	2	F5	—
				240	2	F5	—
			175	277	1	F5	—
				347 <sup>1</sup> / <sub>1</sub>	1	F2	F2
				480	2	F3	—
				120	1	—	F5
				208	2	—	F3
			200	240	2	—	F3
				277	1	—	F2
				347 <sup>1</sup> / <sub>1</sub>	1	F2	F2
				480	2	—	F2
				120	1	—	F9
			250	208	2	—	F6
				240	2	—	F5
				277	1	—	F4
				347 <sup>1</sup> / <sub>1</sub>	1	—	F2
				480	2	—	F2

Component and Accessory Weights	
Item	Wt. Lbs/Kg ①
<b>Mounting Hoods</b>	
Pendant	2.25/1.0
Pendant Cone	2.5/1.1
Ceiling	3/1.4
Wall	4/1.8
25° Stanchion	3.25/1.5
Straight Stanchion	3.75/1.7
<b>Refractors, Globes and Guards</b>	
8" Glass Refractor/G3 Globe	5.25/2.4
Glass Globe	3.75/1.7
Globe Guard	1/0.5
Refractor Guard	1/0.5
<b>Reflectors</b>	
Standard Dome	2.50/1.1
30° Angle	2.50/1.1

① Weights are approximate.  
② Add 1 lbs/0.5 kg for HPS fixtures with Hot Restrike. Add 0.25 lbs/0.1 kg for Quartz Emergency Light.  
<sup>1</sup>/<sub>1</sub> CSA Certification only.

# Mercmaster™ III HID 50–250 Watt Luminaire Electrical Specifications

## 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) <sup>1</sup>  
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

### Electrical Specifications

Line Voltage	Type of Ballast ①	Starting Amps	Operating Amps	Total Watts
<b>50 Watt High Pressure Sodium</b>				
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 <sup>1</sup>	HX-HPF	0.26	0.21	68
<b>70 Watt High Pressure Sodium</b>				
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 <sup>1</sup>	HX-HPF	0.30	0.30	94
480	HX-HPF	0.21	0.21	94
<b>100 Watt High Pressure Sodium</b>				
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 <sup>1</sup>	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
<b>150 Watt High Pressure Sodium ②</b>				
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 <sup>1</sup>	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
<b>70 Watt Pulse Start Metal Halide</b>				
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 <sup>1</sup>	HX-HPF	0.20	0.28	88
480	HX-HPF	0.26	0.23	95
<b>100 Watt Pulse Start Metal Halide</b>				
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 <sup>1</sup>	HX-HPF	0.40	0.40	129
480	HX-HPF	0.30	0.35	140

Line Voltage	Type of Ballast ①	Starting Amps	Operating Amps	Total Watts
<b>150 Watt Pulse Start Metal Halide</b>				
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 <sup>1</sup>	Super C.W.A.	0.65	0.55	185
480	Super C.W.A.	0.45	0.42	185
<b>175 Watt Pulse Start Metal Halide</b>				
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 <sup>1</sup>	Super C.W.A.	0.25	0.65	208
480	Super C.W.A.	0.25	0.50	213
<b>175 Watt Metal Halide <sup>1</sup></b>				
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
<b>175 Watt Metal Halide <sup>1</sup></b>				
120	Super C.W.A.	1.30	1.80	213
208	Super C.W.A.	0.75	1.10	213
240	Super C.W.A.	0.65	0.90	213
277	Super C.W.A.	0.55	0.80	213
480	Super C.W.A.	0.35	0.45	213
<b>250 Watt Metal Halide <sup>1</sup></b>				
120	Super C.W.A.	1.20	2.60	298
208	Super C.W.A.	0.65	1.50	298
240	Super C.W.A.	0.60	1.30	298
277	Super C.W.A.	0.50	1.12	298
480	Super C.W.A.	0.30	0.65	298

① C.W.A. – Constant Wattage Autotransformer. HX-HPF – High Reactance High Power Factor Autotransformer. Super C.W.A. – Super Constant Wattage Autotransformer.

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

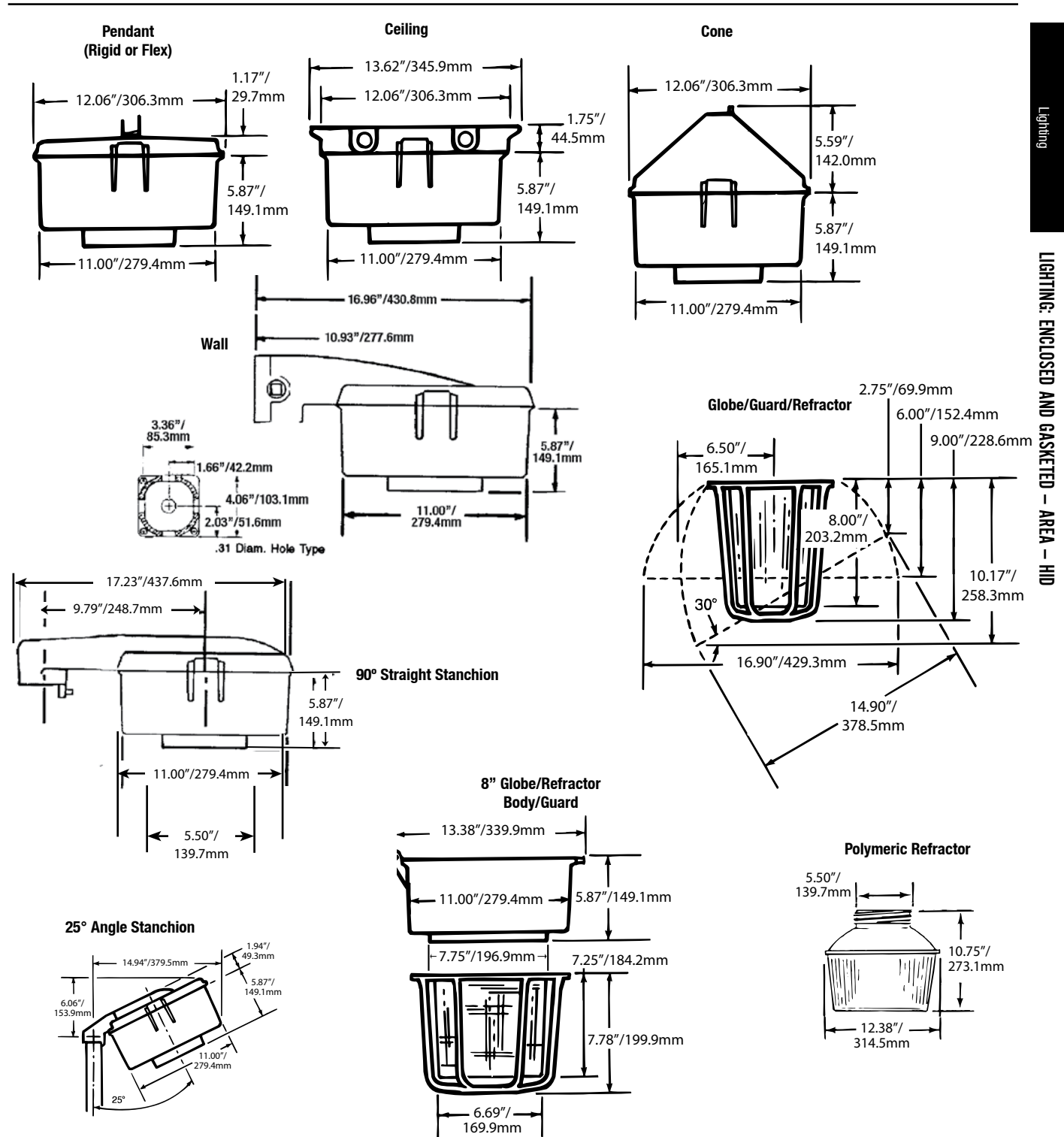
<sup>1</sup> CSA Certification only.



# Mercmaster™ III HID 50–250 Watt Luminaire Dimensions

## High Pressure Sodium and Pulse Start Metal Halide

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



Lighting

LIGHTING: ENCLOSED AND GASKETED - AREA - HID

# 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 VA 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 Complies

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

### Factory-Installed Photocontrol

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



Mercmaster III wall mounting hood with photocontrol installed shown

Voltage Range	Suffix Designation
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**.



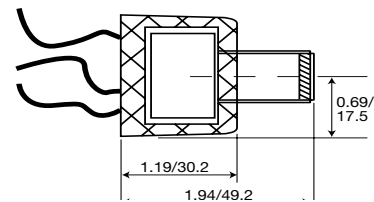
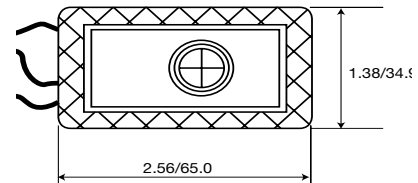
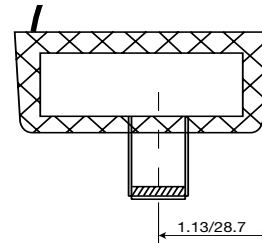
Voltage Range	Catalog Number
120 V, 50/60 Hz	<b>FSKA-PC120D2</b>
208-277V, 50/60 Hz	<b>FSKA-PC247D2</b>

### Photocontrol for Field Installation



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

## Dimensions



# Mercmaster™ III HID 50–250 Watt Luminaire Photometric Data

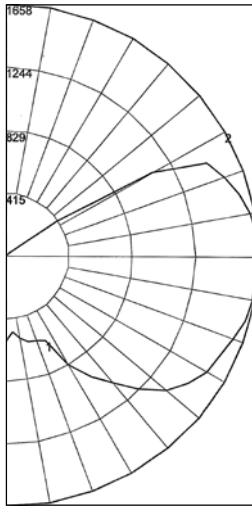
## 150 W HPS

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

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

For candlepower values of fixtures with other HPS lamps, use the following multipliers: for 70 W (6,400 lumen) HPS lamp – 0.40; for 50 W (4,000 lumen) HPS lamp – 0.25. For candlepower values of fixture with guard, multiply by 0.95.

Zone	Lumens	Total Luminaire Efficiency = 86.1%										
0-10	50.74	CIE Type – Semi-Direct										
10-20	164.55	<table border="1"> <thead> <tr> <th>Plane</th> <th>Spacing Criteria</th> </tr> </thead> </table>			Plane	Spacing Criteria						
Plane	Spacing Criteria											
20-30	310.47											
30-40	611.05	0-180	2.82									
40-50	961.13	90-270	2.82									
50-60	1308.18	Diagonal	2.80									
60-70	1542.35	<table border="1"> <thead> <tr> <th colspan="4">Zonal Lumen Summary</th> </tr> <tr> <th>Zone</th> <th>Lumens</th> <th>% Lamp</th> <th>% Fixture</th> </tr> </thead> </table>			Zonal Lumen Summary				Zone	Lumens	% Lamp	% Fixture
Zonal Lumen Summary												
Zone	Lumens	% Lamp	% Fixture									
70-80	1716.10											
80-90	1799.18	0-30	525.75	3.3	3.8							
90-100	1802.19	0-40	1136.81	7.1	8.3							
100-110	1676.86	0-60	3406.12	21.3	24.7							
110-120	1379.11	0-90	8463.75	52.9	61.4							
120-130	441.46	90-120	4858.16	30.4	35.3							
130-140	9.61	90-130	5299.62	33.1	38.5							
140-150	3.33	90-150	5312.56	33.2	38.5							
150-160	0.74	90-180	5313.30	33.2	38.6							
160-170	0.00	180-0	13777.05	86.1	100.0							
170-180	0.00											



REPORT NUMBER: **KP15LG**

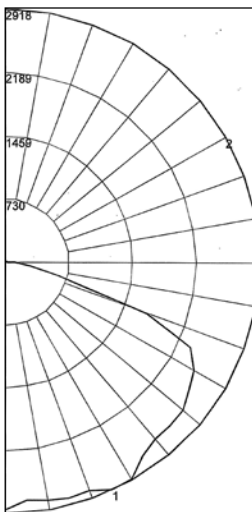
Lamps: 150 W High Pressure Sodium with Globe only \*

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

% Ceiling Rcc	80	70				50				30				10				0
		70	50	30	10	70	50	30	10	50	30	10	50	30	10			
0	95	95	95	95	89	89	89	89	77	77	77	67	67	67	57	57	57	53
1	81	74	69	64	75	69	64	59	59	55	51	50	47	44	42	39	37	33
2	71	62	54	47	65	57	50	44	49	43	38	41	36	32	33	30	27	23
3	64	52	44	37	58	48	41	34	41	35	30	34	29	25	28	24	20	17
4	57	45	36	30	53	42	34	28	35	29	24	29	24	20	24	19	16	13
5	52	40	31	24	48	37	29	23	31	24	19	26	20	16	21	16	13	10
6	48	35	26	20	44	32	25	19	27	21	16	23	17	13	18	14	11	8
7	44	31	23	17	40	29	21	16	24	18	14	20	15	11	16	12	9	7
8	40	28	20	15	37	26	19	14	22	16	12	18	13	10	15	11	8	6
9	38	25	18	13	35	24	17	12	20	14	10	17	12	8	14	10	7	5
10	35	23	16	11	32	22	15	11	18	13	9	15	11	7	13	9	6	4

Zone	Lumens	Total Luminaire Efficiency = 73.6%										
0-10	266.98	CIE Type – Direct										
10-20	799.41	<table border="1"> <thead> <tr> <th>Plane</th> <th>Spacing Criteria</th> </tr> </thead> </table>			Plane	Spacing Criteria						
Plane	Spacing Criteria											
20-30	1337.05											
30-40	1732.06	0-180	1.46									
40-50	2067.60	90-270	1.46									
50-60	2317.60	Diagonal	1.68									
60-70	2210.81	<table border="1"> <thead> <tr> <th colspan="4">Zonal Lumen Summary</th> </tr> <tr> <th>Zone</th> <th>Lumens</th> <th>% Lamp</th> <th>% Fixture</th> </tr> </thead> </table>			Zonal Lumen Summary				Zone	Lumens	% Lamp	% Fixture
Zonal Lumen Summary												
Zone	Lumens	% Lamp	% Fixture									
70-80	866.77											
80-90	145.09	0-30	2403.44	15.0	20.4							
90-100	14.46	0-40	4135.50	25.8	35.1							
100-110	8.75	0-60	8520.70	53.3	72.3							
110-120	7.93	0-90	11743.37	73.4	99.7							
120-130	4.51	90-120	31.14	0.2	0.3							
130-140	2.16	90-130	35.65	0.2	0.3							
140-150	0.48	90-150	38.29	0.2	0.3							
150-160	0.00	90-180	38.29	0.2	0.3							
160-170	0.00	180-0	11781.65	73.6	100.0							
170-180	0.00											



REPORT NUMBER: **KP15LST**

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

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

% Ceiling Rcc	80	70				50				30				10				0
		70	50	30	10	70	50	30	10	50	30	10	50	30	10			
0	88	88	88	88	86	86	86	86	82	82	82	78	78	78	75	75	75	73
1	79	76	72	69	77	74	71	68	71	68	66	68	66	64	65	64	62	60
2	71	65	59	55	69	63	58	54	61	57	53	58	55	52	56	53	50	49
3	64	56	49	44	62	55	49	44	52	47	43	50	46	42	48	45	41	40
4	58	49	42	36	57	48	41	36	46	40	36	44	39	35	42	38	35	33
5	53	43	36	31	52	42	35	30	40	35	30	39	34	30	38	33	29	28
6	49	38	31	26	47	38	31	26	36	30	26	35	30	25	34	29	25	24
7	45	34	27	23	44	34	27	23	33	27	22	31	26	22	30	26	22	20
8	42	31	24	20	40	31	24	20	30	24	20	29	23	19	28	23	19	18
9	39	28	22	18	38	28	22	18	27	21	17	26	21	17	25	21	17	16
10	36	26	20	16	35	26	20	16	25	19	16	24	19	16	23	19	15	14

# Mercmaster™ III HID 50–250 Watt Luminaire Photometric Data

## 150 W HPS

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

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

For candlepower values of fixtures with other HPS lamps, use the following multipliers: for 70 W (6,400 lumen) HPS lamp – 0.40; for 50 W (4,000 lumen) HPS lamp – 0.25. For candlepower values of fixture with guard, multiply by 0.95.

Lighting

LIGHTING: ENCLOSED AND GASKETED – AREA – HID

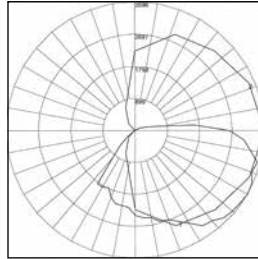
**Zone Lumens** Total Luminaire Efficiency = 73.1%

CIE Type – Direct

Zone	Lumens	Plane	Spacing Criteria
0-10	222.62		
10-20	664.6		
20-30	1084.32		
30-40	1536.55	0-180	2.06
40-50	1771.90	90-270	1.58
50-60	1771.51	Diagonal	1.62
60-70	1668.93		

**Zonal Lumen Summary**

Zone	Lumens	% Lamp	% Fixture
0-30	1971.54	12.3	16.9
0-40	3508.09	21.9	30.0
0-60	7051.50	44.1	60.3
0-90	11137.33	69.6	95.2
90-120	557.80	3.5	4.8
90-130	559.01	3.5	4.8
90-150	559.04	3.5	4.8
90-180	559.04	3.5	4.8
180-0	11696.38	73.1	100.0



REPORT NUMBER: **KP15LAN**

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

**Coefficients of Utilization – Zonal Cavity Method**

**Effective Floor Cavity Reflectance 0.20**

% Ceiling Rcc	% Walls Rw	80				70				50				30				10				0			
		70	50	30	10	70	50	30	10	50	30	10	0	50	30	10	0	50	30	10	0				
0	86	86	86	86	86	84	84	84	84	79	79	79	79	75	75	75	75	71	71	71	71	70	70	70	70
1	76	71	67	63	63	73	69	65	62	65	62	59	57	62	59	57	57	58	56	54	52	58	56	54	52
2	68	60	54	49	49	65	58	53	48	55	50	46	46	52	48	45	45	49	46	43	41	49	46	43	41
3	61	52	45	39	39	59	50	44	39	48	42	37	37	45	40	36	36	43	39	35	33	43	39	35	33
4	55	45	38	32	32	53	44	37	32	42	36	31	31	39	34	30	30	37	33	29	27	37	33	29	27
5	50	40	33	27	27	49	39	32	27	37	31	26	26	35	30	25	25	33	29	25	23	33	29	25	23
6	46	36	28	23	23	45	35	28	23	33	27	22	22	31	26	22	22	30	25	21	20	30	25	21	20
7	43	32	25	20	20	41	31	25	20	30	24	19	19	28	23	19	19	27	22	19	17	27	22	19	17
8	40	29	22	18	18	38	28	22	17	27	21	17	17	26	21	17	17	25	20	16	15	25	20	16	15
9	37	26	20	16	16	36	26	20	16	25	19	15	15	24	19	15	15	23	18	15	13	23	18	15	13
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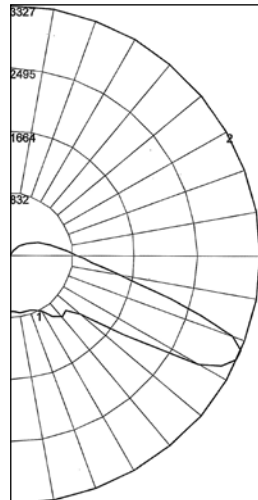
**Zone Lumens** Total Luminaire Efficiency = 81.1%

CIE Type – Semi-Direct

Zone	Lumens	Plane	Spacing Criteria
0-10	72.83		
10-20	222.26		
20-30	380.73		
30-40	621.11	0-180	1.98
40-50	852.53	90-270	1.98
50-60	1765.29	Diagonal	3.40
60-70	3192.58		
70-80	2366.61		

**Zonal Lumen Summary**

Zone	Lumens	% Lamp	% Fixture
0-30	675.83	4.2	5.2
0-40	1296.93	8.1	10.0
0-60	3914.76	24.5	30.2
0-90	10704.60	66.9	82.5
90-120	1661.70	10.4	12.8
90-130	1985.14	12.4	15.3
90-150	2251.45	14.1	15.3
90-180	2275.34	14.2	17.5
180-0	12979.94	81.1	100.0



REPORT NUMBER: **KP15LJR5**

Lamps: 150 W High Pressure Sodium with 8” Prismatic Glass Refractor – NEMA Type V \*

**Coefficients of Utilization – Zonal Cavity Method**

**Effective Floor Cavity Reflectance 0.20**

% Ceiling Rcc	% Walls Rw	80				70				50				30				10				0			
		70	50	30	10	70	50	30	10	50	30	10	0	50	30	10	0	50	30	10	0				
0	93	93	93	93	93	89	89	89	89	82	82	82	82	76	76	76	76	70	70	70	70	67	67	67	67
1	80	73	68	63	63	76	70	65	61	64	60	56	56	58	55	52	52	53	50	48	45	53	50	48	45
2	69	59	51	45	45	65	56	49	43	51	45	40	40	46	41	37	37	41	37	34	31	41	37	34	31
3	61	49	40	33	33	57	47	38	32	42	35	29	29	38	32	27	27	34	29	25	22	34	29	25	22
4	54	42	32	25	25	51	40	31	24	35	28	22	22	32	26	21	21	28	23	19	16	28	23	19	16
5	49	36	27	20	20	46	34	26	19	31	23	18	18	27	21	16	16	24	19	15	12	24	19	15	12
6	45	32	23	16	16	42	30	22	16	27	20	14	14	24	18	13	13	21	16	12	10	21	16	12	10
7	41	28	20	14	14	38	27	19	13	24	17	12	12	21	15	11	11	19	14	10	8	19	14	10	8
8	38	25	17	12	12	36	24	16	11	22	15	10	10	19	14	9	9	17	12	8	6	17	12	8	6
9	35	23	15	10	10	33	22	15	10	20	13	9	9	18	12	8	8	16	11	7	5	16	11	7	5
10	33	21	14	9	9	31	20	13	9	18	12	8	8	16	11	7	7	15	10	6	5	15	10	6	5

# Mercmaster™ III HID 50–250 Watt Luminaire Photometric Data

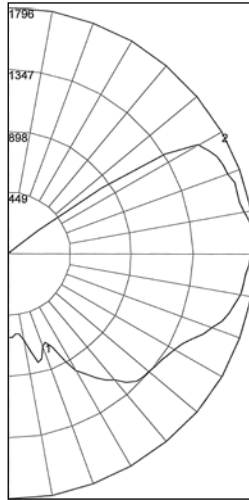
## 175 W PSMH

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

\* Photometric data is based on fixtures with a 175-watt clear Pulse Start Metal Halide lamp (17,500 lumen).

For candlepower values of fixtures with other PSMH lamps, use the following multipliers: for a 100 W (8,500 lumen) PSMH lamp – 0.49; for a 70 W (6,200 lumen) PSMH lamp – 0.36; for a 200 W (21,000 lumen) PSMH lamp – 1.2. For candlepower values of fixture with guard, multiply by 0.95.

Zone	Lumens	Total Luminaire Efficiency = 75.4%		
0-10	57.98	CIE Type – General Diffuse		
10-20	217.30			
20-30	372.71			
30-40	696.29			
40-50	1009.65			
50-60	1226.57			
60-70	1473.76			
70-80	1757.30			
<b>Zonal Lumen Summary</b>				
Zone	Lumens	% Lamp	% Fixture	
80-90	1902.34			
90-100	1946.09	0-30	647.99	3.7 4.3
100-110	1829.51	0-40	1344.28	7.7 9.0
110-120	1657.20	0-60	3580.49	20.5 24.0
120-130	750.27	0-90	8713.89	49.8 58.4
130-140	14.15	90-120	5432.80	31.0 36.4
140-150	4.47	90-130	6183.06	35.3 41.4
150-160	0.52	90-150	6201.69	35.4 41.6
160-170	1.35	90-180	6203.74	35.4 41.6
170-180	0.18	180-0	14917.63	85.2 100.0



REPORT NUMBER: **KP17PG**

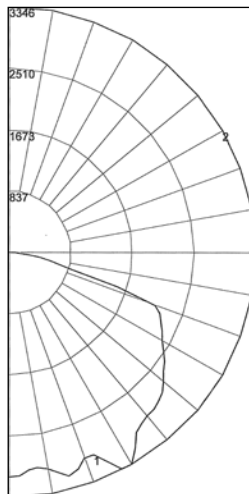
Lamps: 175 W Pulse Start Metal Halide with Globe only \*

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

% Ceiling Rcc	% Walls Rw	80				70				50				30				10				0			
		70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10				
0	93	93	93	93	93	87	87	87	87	75	75	75	75	64	64	64	64	54	54	54	54	44	44	44	44
1	79	73	68	63	59	73	68	63	59	58	54	50	46	48	45	43	40	40	37	35	31	31	28	26	22
2	70	61	54	47	41	65	57	50	44	48	42	38	33	39	35	32	29	32	29	26	22	22	20	18	15
3	63	52	44	37	30	58	48	41	35	40	34	29	24	33	28	24	20	27	23	20	16	16	14	12	10
4	57	45	37	30	24	52	42	34	28	35	29	24	19	29	24	20	16	23	19	16	12	12	10	8	6
5	52	40	31	25	19	47	37	29	23	31	24	20	15	25	20	16	12	20	16	13	10	10	8	6	4
6	47	35	27	21	15	43	32	25	19	27	21	17	12	22	17	14	10	18	14	11	8	8	6	4	2
7	44	31	23	18	13	40	29	22	17	24	18	14	10	20	15	12	8	16	12	9	7	7	5	4	2
8	40	28	21	15	11	37	26	19	14	22	16	12	8	18	14	10	7	15	11	8	6	6	4	3	2
9	37	26	18	13	9	34	24	17	13	20	15	11	7	17	12	9	6	13	10	7	5	5	4	3	2
10	35	23	16	12	8	32	22	15	11	18	13	9	6	15	11	8	5	12	9	6	4	4	3	2	1

Zone	Lumens	Total Luminaire Efficiency = 72.3%		
0-10	285.95	CIE Type – Direct		
10-20	876.46			
20-30	1472.88			
30-40	1924.39			
40-50	2213.42			
50-60	2305.55			
60-70	2256.32			
70-80	1115.75			
<b>Zonal Lumen Summary</b>				
Zone	Lumens	% Lamp	% Fixture	
80-90	198.05			
90-100	3.56	0-30	2635.28	15.1 20.8
100-110	0.00	0-40	4559.67	26.1 36.0
110-120	0.00	0-60	9078.64	51.9 71.8
120-130	0.00	0-90	12648.77	72.3 100.0
130-140	0.00	90-120	3.56	0.00 0.00
140-150	0.00	90-130	3.56	0.00 0.00
150-160	0.00	90-150	3.56	0.00 0.00
160-170	0.00	90-180	3.56	0.00 0.00
170-180	0.00	180-0	12652.33	72.3 100.0



REPORT NUMBER: **KP17PST**

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

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

% Ceiling Rcc	% Walls Rw	80				70				50				30				10				0			
		70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10				
0	86	86	86	86	86	84	84	84	84	80	80	80	80	77	77	77	77	74	74	74	74	72	72	72	72
1	78	74	71	68	65	76	72	69	67	69	67	65	63	67	64	63	61	64	62	61	59	59	57	55	53
2	70	63	58	54	50	68	62	57	53	59	55	52	48	57	54	50	46	55	52	49	48	48	45	42	39
3	63	55	48	43	38	61	54	48	43	51	46	42	37	49	45	41	37	47	44	41	39	39	36	33	30
4	57	48	41	36	31	56	47	40	35	45	39	35	30	43	38	34	30	42	37	34	32	32	29	26	23
5	52	42	35	30	25	51	41	35	30	40	34	30	25	38	33	29	25	37	32	29	27	27	24	21	18
6	48	38	31	26	21	47	37	30	26	36	30	25	20	34	29	25	21	33	29	25	23	23	20	17	14
7	44	34	27	22	17	43	33	27	22	32	26	22	17	31	26	22	17	30	25	22	20	20	17	14	11
8	41	31	24	20	15	40	30	24	20	29	24	19	14	28	23	19	14	27	23	19	18	18	15	12	9
9	38	28	22	18	13	37	28	22	17	27	21	17	12	26	21	17	12	25	21	17	16	16	13	10	7
10	36	26	20	16	11	35	25	20	16	25	19	16	11	24	19	15	11	23	19	15	14	14	11	8	5

# Mercmaster™ III HID 50–250 Watt Luminaire Photometric Data

## 175 W PSMH

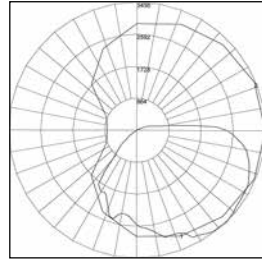
Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

\* Photometric data is based on fixtures with a 175-watt clear Pulse Start Metal Halide lamp (17,500 lumen).

For candlepower values of fixtures with other PSMH lamps, use the following multipliers: for a 100 W (8,500 lumen) PSMH lamp – 0.49; for 70 W (6,200 lumen) PSMH lamp – 0.36; for a 200 W (21,000 lumen) PSMH lamp – 1.2. For candlepower values of fixture with guard, multiply by 0.95.

Lighting  
LIGHTING: ENCLOSED AND GASKETED – AREA – HID

Zone	Lumens	Total Luminaire Efficiency = 67.1%			
0-10	240.21	<b>CIE Type – Direct</b>			
10-20	750.99			<b>Spacing Criteria</b>	
20-30	1195.39	<b>Plane</b>			
30-40	1662.85	0-180	1.96		
40-50	1830.67	90-270	1.70		
50-60	1740.13	Diagonal	1.56		
60-70	1571.75				
70-80	1324.18	<b>Zonal Lumen Summary</b>			
80-90	900.65	<b>Zone</b>	<b>Lumens</b>	<b>% Lamp</b>	<b>% Fixture</b>
90-100	367.96	0-30	2186.59	12.5	18.6
100-110	107.38	0-40	3849.44	22.0	32.8
110-120	27.79	0-60	7420.24	42.4	63.2
120-130	5.54	0-90	11216.82	64.1	95.6
130-140	4.20	90-120	503.12	2.9	4.3
140-150	4.42	90-130	508.66	2.9	4.3
150-160	2.00	90-150	517.28	3.0	4.4
160-170	1.70	90-180	521.31	3.0	4.4
170-180	0.33	180-0	11738.13	67.1	100.0



REPORT NUMBER: **KP17PAN**

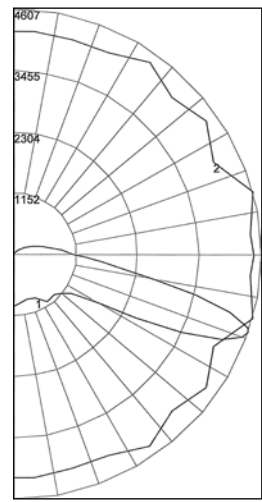
Lamps: 175 W Pulse Start Metal Halide with 30° Angle Dome Reflector \*

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

% Ceiling Rcc	80	70			50			30			10			0				
		70	50	30	10	50	30	10	50	30	10	0						
0	79	79	79	79	77	77	77	77	73	73	73	69	69	69	66	66	66	64
1	70	66	62	59	68	64	61	58	60	58	55	57	55	53	54	52	51	49
2	63	56	51	46	61	55	49	45	52	47	44	49	45	42	46	43	41	39
3	57	48	42	37	55	47	41	37	45	40	36	42	38	35	40	37	34	32
4	51	42	36	31	50	41	35	30	39	34	30	37	33	29	35	31	28	26
5	47	38	31	26	45	37	30	26	35	29	25	33	28	25	32	27	24	22
6	43	34	27	22	42	33	27	22	31	26	22	30	25	21	28	24	21	19
7	40	30	24	20	39	30	24	19	28	23	19	27	22	19	26	22	18	17
8	37	27	21	17	36	27	21	17	26	20	17	25	20	16	24	19	16	15
9	35	25	19	15	33	25	19	15	24	18	15	23	18	15	22	18	14	13
10	32	23	17	14	31	23	17	14	22	17	13	21	16	13	20	16	13	12

Zone	Lumens	Total Luminaire Efficiency = 81.1%			
0-10	22.77	<b>CIE Type – Semi-Direct</b>			
10-20	171.20			<b>Spacing Criteria</b>	
20-30	325.41	<b>Plane</b>			
30-40	531.35	0-180	1.66		
40-50	1173.62	90-270	1.64		
50-60	1165.11	Diagonal	1.92		
60-70	3171.29				
70-80	3719.35	<b>Zonal Lumen Summary</b>			
80-90	1751.05	<b>Zone</b>	<b>Lumens</b>	<b>% Lamp</b>	<b>% Fixture</b>
90-100	523.23	0-30	519.38	3.0	3.7
100-110	716.53	0-40	1050.73	6.0	7.4
110-120	431.18	0-60	3389.46	19.4	23.9
120-130	265.20	0-90	12031.16	68.7	84.8
130-140	142.69	90-120	1670.94	9.5	11.8
140-150	57.09	90-130	1936.15	11.1	13.7
150-160	13.48	90-150	2135.93	12.2	15.1
160-170	2.44	90-180	2152.72	12.3	15.2
170-180	0.88	180-0	14183.88	81.1	100.0



REPORT NUMBER: **KP17PJR5**

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

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

% Ceiling Rcc	80	70			50			30			10			0				
		70	50	30	10	50	30	10	50	30	10	0						
0	94	94	94	94	90	90	90	90	83	83	83	77	77	77	71	71	71	69
1	78	71	65	60	74	68	62	57	62	57	53	57	53	49	51	48	46	43
2	67	57	48	41	63	54	46	39	49	42	36	44	38	33	39	35	31	28
3	59	46	37	29	55	44	35	28	40	32	26	35	29	24	32	26	22	19
4	52	39	30	22	49	37	28	21	33	26	20	30	23	18	26	21	16	14
5	47	34	24	17	45	32	23	17	29	21	15	26	19	14	23	17	13	10
6	43	30	21	14	41	28	20	14	25	18	12	23	16	11	20	15	10	8
7	40	27	18	12	37	23	17	11	23	16	10	20	14	9	18	13	8	6
8	37	24	16	10	35	23	15	10	20	14	9	18	12	8	16	11	7	5
9	34	22	14	9	32	21	13	8	19	12	8	17	11	7	15	10	6	4
10	32	20	12	8	30	19	12	7	17	11	7	16	10	6	14	9	5	4











# Mercmaster™ III HID 50–250 Watt Luminaire Photometric Data

## 250 W PSMH

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

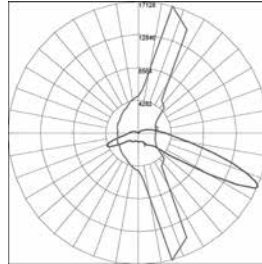
\* Photometric data is based on fixtures with a 250-watt clear Pulse Start Metal Halide lamp (23,000 lumen).

For candlepower values of fixtures with other PSMH lamps, (21,000 lumen) PSMH lamp – 0.913.  
For candlepower values of fixture with guard, multiply by 0.95.

Zone	Lumens
0-10	28.46
10-20	222.99
20-30	438.39
30-40	727.7
40-50	1709.75
50-60	2094.28
60-70	4828.69
70-80	4189.12
80-90	2131.34
90-100	748.43
100-110	1109.54
110-120	701.88
120-130	410.51
130-140	237.73
140-150	123.53
150-160	37.79
160-170	3.51
170-180	.32

TOTAL LUMINAIRE EFFICIENCY = 79%  
CIE Type – Semi-Direct  
Spacing Criteria: 1.64

ZONAL LUMEN SUMMARY				
ZONE	LUMENS	%LAMP	%FIXT.	
0-30	689.84	2.8	3.5	
0-40	1417.54	5.7	7.2	
0-60	5221.56	20.9	26.4	
0-90	16370.71	65.5	82.9	
90-120	2559.84	10.2	13	
90-130	2970.35	11.9	15	
90-150	3331.61	13.3	16.9	
90-180	3373.23	13.5	17.1	
0-180	19743.94	79	100.0	



REPORT NUMBER: **KPBR250PJ3**  
Lamps: 250 W Metal Halide Pulse Start Mogul Base

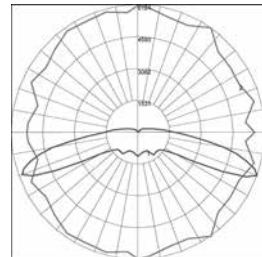
COEFFICIENTS OF UTILIZATION – ZONAL CAVITY METHOD  
EFFECTIVE FLOOR CAVITY REFLECTANCE 0.20

RC	80				70				50				30				10				0
	RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0		
0	91	91	91	91	87	87	87	87	80	80	80	74	74	74	68	68	68	65	0		
1	77	70	65	60	73	67	62	57	61	57	53	55	52	49	50	48	45	42	0		
2	66	56	48	42	62	54	46	40	48	42	37	43	38	34	39	35	31	28	0		
3	58	46	37	30	55	44	36	29	39	32	27	35	29	24	31	26	22	19	0		
4	52	39	30	23	49	37	29	22	33	26	20	30	23	18	26	21	17	14	0		
5	47	34	25	18	44	32	24	17	29	21	16	25	19	14	22	17	13	10	0		
6	43	30	21	15	40	28	20	14	25	18	13	22	16	12	20	14	10	8	0		
7	39	26	18	12	37	25	17	12	22	16	11	20	14	9	18	12	8	6	0		
8	36	24	16	10	34	22	15	10	20	14	9	18	12	8	16	11	7	5	0		
9	33	21	14	9	32	20	13	8	18	12	8	16	11	7	15	10	6	4	0		
10	31	19	12	8	29	18	12	7	17	11	7	15	10	6	13	9	5	4	0		

Zone	Lumens
0-10	28.96
10-20	214.01
20-30	402.91
30-40	678.83
40-50	1539.03
50-60	1537.39
60-70	4450.44
70-80	5789.28
80-90	3160.26
90-100	855.15
100-110	1095.13
110-120	596.59
120-130	345.11
130-140	189.6
140-150	82.84
150-160	22.91
160-170	2.78
170-180	.71

TOTAL LUMINAIRE EFFICIENCY = 84%  
CIE Type – Semi-Direct  
Spacing Criteria: 1.64

ZONAL LUMEN SUMMARY				
ZONE	LUMENS	%LAMP	%FIXT.	
0-30	645.89	2.6	3.1	
0-40	1324.72	5.3	6.3	
0-60	4401.15	17.6	21	
0-90	17801.14	71.2	84.8	
90-120	2546.87	10.2	12.1	
90-130	2891.98	11.6	13.8	
90-150	3164.41	12.7	15.1	
90-180	3190.80	12.8	15.2	
0-180	20991.94	84	100.0	



REPORT NUMBER: **KPBR250PJ5**  
Lamps: 250 W Metal Halide Pulse Start Mogul Base

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

RC	80				70				50				30				10				0
	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	80	80	80	74	74	74	71	0		
1	80	72	66	60	76	69	63	57	63	58	53	57	53	49	52	48	45	42	0		
2	68	57	48	40	65	54	46	38	49	42	35	44	38	33	39	34	30	27	0		
3	60	47	37	29	56	44	35	27	40	32	25	35	29	23	31	26	21	18	0		
4	54	40	29	22	50	37	28	21	33	25	19	30	23	17	26	20	15	13	0		
5	48	34	24	17	45	32	23	16	29	21	15	26	19	13	23	17	12	9	0		
6	44	30	21	14	41	28	20	13	25	18	12	23	16	11	20	14	10	7	0		
7	41	27	18	11	38	25	17	11	23	15	10	20	14	9	18	12	8	6	0		
8	38	24	16	10	35	23	15	9	21	14	8	18	12	8	16	11	7	5	0		
9	35	22	14	8	33	21	13	8	19	12	7	17	11	7	15	10	6	4	0		
10	33	20	12	7	31	19	12	7	17	11	6	16	10	6	14	9	5	3	0		