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) c
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.
c *CSA Certification Only.*

Mercmaster™ III HID 50–250 Watt Luminaires

High Pressure Sodium and Pulse Start Metal Halide

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Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA nR IIC (Z2)
Class I, Zone 2, 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

- 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 strainless 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** .
- 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.

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

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	Mounting: A - Pendant (rigid mounting) C - Ceiling CH - Pendant Cone Hood F - Pendant (flexible mounting) ST - 90° Stanchion S - 25° Stanchion WB - Wall	Lamp Type: L - High Pressure Sodium H or P - Pulse Start Metal Halide ❶	Wattage: 10 - 100 W HPS, PSMH 15 - 150 W HPS, PSMH 17 - 175 W PSMH 20 - 200 W PSMH 25 - 250 W PSMH ❺ 50 - 50 W HPS (MT - Voltage Only) 70 - 70 W HPS, PSMH 17 - 175 W MH 25 - 250 W MH	Hub Size: 75 - 3/4" NPT 10 - 1" NPT 125 - 1-1/4" NPT stanchion 150 - 1-1/2" NPT stanchion	Optical Assembly: Blank - Glass Globe J1 - NEMA I Glass Refractor J3 - NEMA III Glass Refractor J5 - NEMA V Glass Refractor G3 - Large Glass Globe	Guard Options: G - Guard Blank - No Guard	Voltage: ❷ 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 C3 - 240, 60 Hz, CWI C6 - 480, 60 Hz, CWI C7 - 600, 60 Hz, CWI TT - 120/277/347, 60 Hz, CWA	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 E40 - Export Socket D - E-40 Export Socket T - Terminal Blocks V - Anti-Vibration Modifications X - Appledapter ❸ Mounting Hood Adapter *Optional Fusing* ❹ FN - 120 V FP - 208 V FS - 240 V FT - 277 V FF - 480 V	Suffix: 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)

Reflectors are ordered separately – see Accessories page.

❶ ***H*** *- Lamp type is for 70W and 100W fixtures only.*
P *- Lamp type is for 175W, 200W and 250W fixtures only.*

❷ *Voltages shown are limited to specific combinations.*

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

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

❺ *PSMH 250 W, MT Fixtures are non UL.*

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

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

Fixtures Outside Type (Salt Water)
Type 4X
IP66

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

"T" Numbers for Mercmaster III Fixtures

Lamp		Supply Wire Temp.	Ambient Temp.	Class I, Division 2				Class II, Division 1 Groups E, F and G ❶				Simultaneous Exposure Class I, Division2 / Class II, Division 1			
Watts	Type	(°F/°C)	(°F/°C)	Globe	Globe & Reflector	G3 Globe	8" Refractor	Globe	Globe & Reflector	G3 Globe	8" Refractor	Globe	Globe & Reflector	G3 Globe	8" Refractor
		194/90	104/40	T3C	T3B	—	T3C	T4A	T4	—	T6	T3A	T3	—	T3C
50	HPS	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
		194/90	104/40	T3B	T3A	—	T3C	T4	T3C	—	T6	T3	T3	—	T3A
70	HPS	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
		194/90	104/40	T2D	T2D	T3	T3	—	T3A (EF)	T3 (EF)	—	—	—	—	—
100	HPS	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	—	—	—	—	—	—	—	—
		194/90	104/40	T2B	T2B	—	T2C	—	—	—	T3C	T2	—	—	T2B
150	HPS	194/90	104/40	—	—	—	—	T3 (EF)	—	—	—	—	—	—	—
		194/90	131/55	T2B	T2A	—	T2B	—	—	—	—	—	—	—	—
		194/90	104/40	T3A	T3A	—	T3A	—	—	—	T3C	—	—	—	—
70	PSMH	194/90	131/55	T3A	T3A	—	T3A	—	—	—	T3C	—	—	—	—
		194/90	149/65	T3	T2	—	T3	—	—	—	T3C	—	—	—	—
		194/90	104/40	T3	T3	—	T3	—	—	—	T3C	—	—	—	T2B
100	PSMH	194/90	131/55	T3	T3	—	T3	—	—	—	T3C	—	—	—	T2A
		194/90	149/65	T2D	T2D	—	T2D	—	—	—	T3C	—	—	—	—
		194/90	104/40	T2B	T2B	—	T2B	—	—	—	T3C	—	—	—	T2B
150	PSMH	194/90	131/55	T2A	T2A	—	T2B	—	—	—	T3C	—	—	—	T2A
		257/125	149/65	T2A	T2	—	T2B	—	—	—	T3C	—	—	—	—
		194/90	104/40	T2B	T2B	—	T2B	—	—	—	T3C	—	—	—	T2B
175	PSMH	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 CSA	194/90	104/40	T2B	T2B	—	T2B	—	—	—	T3C	—	—	—	—
		194/90	131/55	T2A	T2A	—	T2B	—	—	—	T3C	—	—	—	—
250	MH CSA	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 (ºF)	664-842	619-662	574-617	538-572	502-536	448-500	421-446	394-419	358-392	331-356	322-329	277-320	250-275	214-248	187-212	185
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

❶ *All Class II T Numbers are E, F, G unless otherwise indicated.*
CSA *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) CSA
Class I, Zone 2, AEx nR IIC (ZB)

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

Fixtures Outside Type (Salt Water)
Type 4X
IP66

	Lamp Type	Lamp Watts	Hub Size (Inches)	Catalog Numbers ❸❹❺ with Globe	Catalog Numbers ❸❹❺ with Type V 8" Refractor or G3 Globe ❷
Pendant — One Hub, Rigid Mounting ❶					
	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**
Pendant Cone — One Hub, Rigid Mounting					
	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**
Ceiling — Five Hubs, Four Close-Up Plugs					
	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**

❶ *For Flexible Pendant Mount, change **A** to **F** in catalog number (except 50 W HPS).*
❷ *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**.*
❸ Add the following voltage and frequency designation before ***Z2*** suffix:

		Voltage Suffixes												
Lamp Type	*Lamp Watts*	***MT***	***5MT***	***48***	***125***	***225***	***226***	***235***	***245***	***C2*** CSA	***C3*** CSA	***C6*** CSA	***C7*** CSA	***TT*** CSA
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 CSA	*175*	*X*	*—*	*—*	*X*	*X*	*—*	*—*	*X*	*X*	*X*	*X*	*X*	*X*
MH CSA	*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* CSA
C3 *- 240 V 60 Hz, CWI* CSA
C6 *- 480 V 60 Hz, CWI* CSA
C7 *- 600 V 60 Hz, CWI* CSA,
TT *- 120/277/347 V 60 Hz, CWA* CSA

❹ *Add **-Z2** suffix for factory sealed non-sparking/restricted breathing protection (AEx nA nR). Add **-ZB** suffix for restricted breathing protection (AEx nR).*
❺ *For fixtures with guards, add letter **G** before adding voltage designation.*
CSA *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) CSA
Class I, Zone 2, AEx nR IIC (ZB)

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

Fixtures Outside Type (Salt Water)
Type 4X
IP66

Electrical Specifications

Line Voltage	Type of Ballast ❶	Starting Amps	Operating Amps	Total Watts
50 Watt High Pressure Sodium				
120	HX-HPF	0.58	0.58	64
208	HX-HPF	0.35	0.33	64
240	HX-HPF	0.31	0.29	64
277	HX-HPF	0.25	0.25	64
347 CSA	HX-HPF	0.26	0.21	68
70 Watt High Pressure Sodium				
120	HX-HPF	0.90	0.82	94
208	HX-HPF	0.50	0.48	94
240	HX-HPF	0.44	0.41	94
277	HX-HPF	0.35	0.36	94
347 CSA	HX-HPF	0.30	0.30	94
480	HX-HPF	0.21	0.21	94
100 Watt High Pressure Sodium				
120	HX-HPF	1.30	1.15	130
208	HX-HPF	0.76	0.67	130
240	HX-HPF	0.66	0.60	130
277	HX-HPF	0.60	0.52	130
347 CSA	HX-HPF	0.45	0.39	130
480	HX-HPF	0.33	0.31	135
480	C.W.I.	0.17	0.30	130
600	C.W.I.	0.14	0.24	130
150 Watt High Pressure Sodium ❷				
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 CSA	HX-HPF	0.52	0.56	188
480	HX-HPF	0.50	0.47	189
480	C.W.I.	0.25	0.42	190
600	C.W.I.	0.19	0.35	190
70 Watt Pulse Start Metal Halide				
120	HX-HPF	0.80	0.85	95
208	HX-HPF	0.50	0.52	95
240	HX-HPF	0.43	0.44	95
277	HX-HPF	0.39	0.39	95
347 CSA	HX-HPF	0.20	0.28	88
480	HX-HPF	0.26	0.23	95
100 Watt Pulse Start Metal Halide				
120	HX-HPF	1.20	1.15	130
208	HX-HPF	0.70	0.70	130
240	HX-HPF	0.61	0.58	130
277	HX-HPF	0.55	0.50	130
347 CSA	HX-HPF	0.40	0.40	129
480	HX-HPF	0.30	0.35	140

Line Voltage	Type of Ballast ❶	Starting Amps	Operating Amps	Total Watts
150 Watt Pulse Start Metal Halide				
120	HX-HPF	1.75	1.60	188
208	HX-HPF	1.30	1.00	188
240	HX-HPF	0.85	0.80	188
277	HX-HPF	0.77	0.70	188
347 CSA	Super C.W.A.	0.65	0.55	185
480	Super C.W.A.	0.45	0.42	185
175 Watt Pulse Start Metal Halide				
120	Super C.W.A.	0.90	1.78	199
208	Super C.W.A.	0.50	1.08	199
240	Super C.W.A.	0.35	0.89	199
277	Super C.W.A.	0.30	0.76	199
347 CSA	Super C.W.A.	0.25	0.65	208
480	Super C.W.A.	0.25	0.50	213
175 Watt Metal Halide CSA				
120	C.W.A.	1.30	1.80	210
208	C.W.A.	0.75	1.04	210
240	C.W.A.	0.65	0.90	210
277	C.W.A.	0.55	0.80	210
347	C.W.A.	0.50	0.65	210
480	C.W.I.	0.20	0.45	215
600	C.W.I.	0.16	0.37	215
175 Watt Metal Halide CSA				
120	Super C.W.A.	1.30	1.80	213
208	Super C.W.A.	0.75	1.10	213
240	Super C.W.A.	0.65	0.90	213
277	Super C.W.A.	0.55	0.80	213
480	Super C.W.A.	0.35	0.45	213
250 Watt Metal Halide CSA				
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

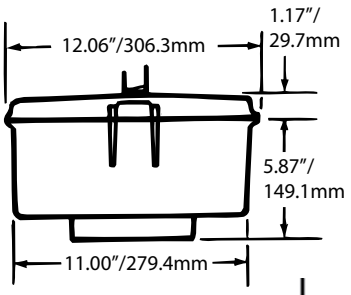
❶ C.W.A. – Constant Wattage Autotransformer. HX-HPF – High Reactance High Power Factor Autotransformer. Super C.W.A. – Super Constant Wattage Autotransformer.
❷ 150 W HPS units equipped with ballasts to operate 55 volt lamps only.
CSA Certification only.

Mercmaster™ III HID 50–250 Watt Luminaire Dimensions

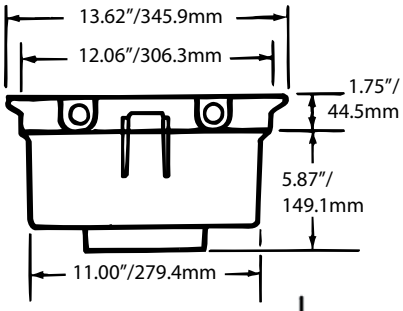
High Pressure Sodium and Pulse Start Metal Halide

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

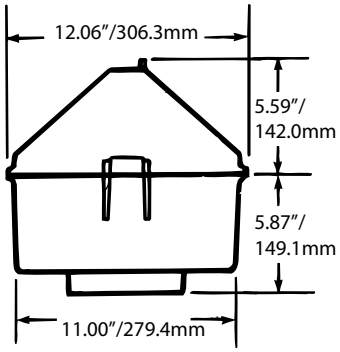
Pendant (Rigid or Flex)



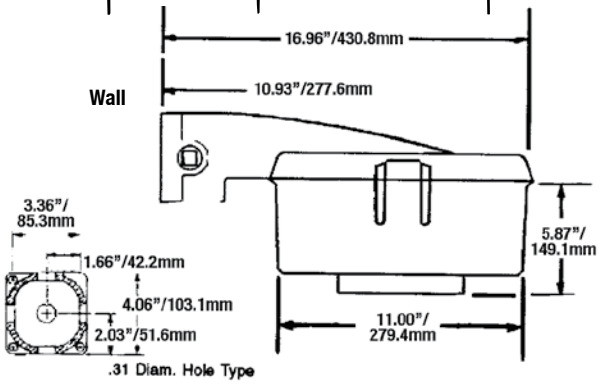
Ceiling



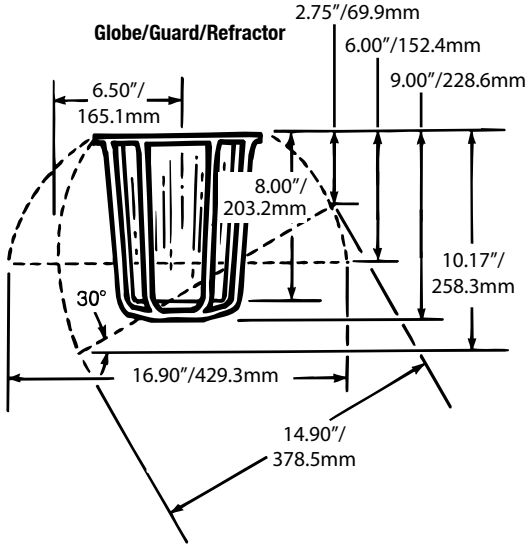
Cone

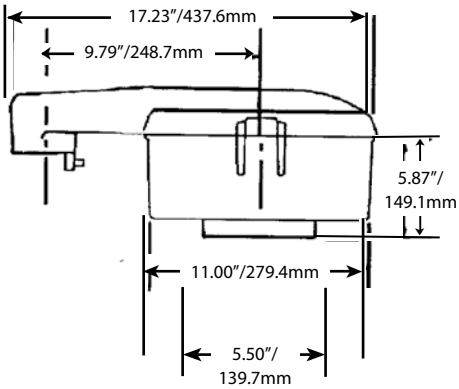


Wall



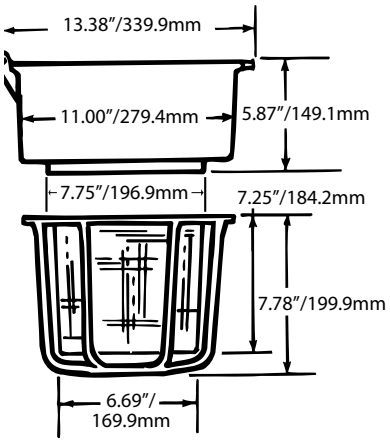
Globe/Guard/Refractor



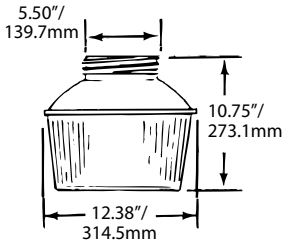


90º Straight Stanchion

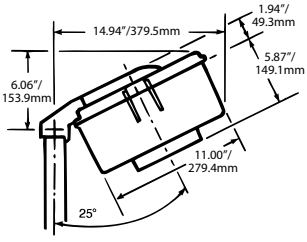
8" Globe/Refractor Body/Guard



Polymeric Refractor



25° Angle Stanchion



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
0-10	50.74
10-20	164.55
20-30	310.47
30-40	611.05
40-50	961.13
50-60	1308.18
60-70	1542.35
70-80	1716.10
80-90	1799.18
90-100	1802.19
100-110	1676.86
110-120	1379.11
120-130	441.46
130-140	9.61
140-150	3.33
150-160	0.74
160-170	0.00
170-180	0.00

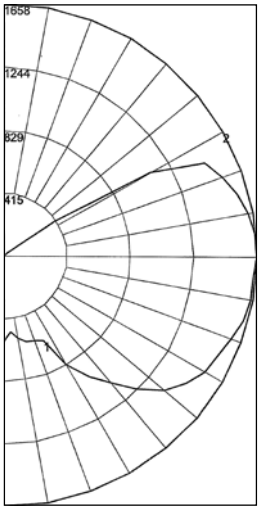
Total Luminaire Efficiency = 86.1%

CIE Type – Semi–Direct

Plane	Spacing Criteria
0-180	2.82
90-270	2.82
Diagonal	2.80

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture
0-30	525.75	3.3	3.8
0-40	1136.81	7.1	8.3
0-60	3406.12	21.3	24.7
0-90	8463.75	52.9	61.4
90-120	4858.16	30.4	35.3
90-130	5299.62	33.1	38.5
90-150	5312.56	33.2	38.5
90-180	5313.30	33.2	38.6
180-0	13777.05	86.1	100.0



REPORT NUMBER: **KP15LG**

Lamps: 150 W High Pressure Sodium with Globe only *

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

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

Zone	Lumens
0-10	266.98
10-20	799.41
20-30	1337.05
30-40	1732.06
40-50	2067.60
50-60	2317.60
60-70	2210.81
70-80	866.77
80-90	145.09
90-100	14.46
100-110	8.75
110-120	7.93
120-130	4.51
130-140	2.16
140-150	0.48
150-160	0.00
160-170	0.00
170-180	0.00

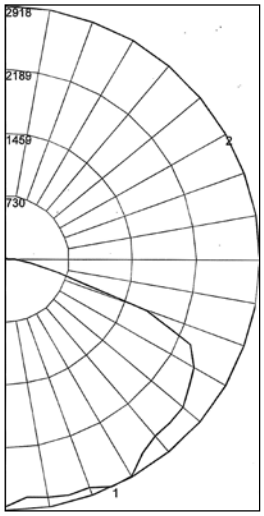
Total Luminaire Efficiency = 73.6%

CIE Type – Direct

Plane	Spacing Criteria
0-180	1.46
90-270	1.46
Diagonal	1.68

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture
0-30	2403.44	15.0	20.4
0-40	4135.50	25.8	35.1
0-60	8520.70	53.3	72.3
0-90	11743.37	73.4	99.7
90-120	31.14	0.2	0.3
90-130	35.65	0.2	0.3
90-150	38.29	0.2	0.3
90-180	38.29	0.2	0.3
180-0	11781.65	73.6	100.0



REPORT NUMBER: **KP15LST**

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

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

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