

Mercmaster™ III HID 50–250 Watt Luminaires

High Pressure Sodium, Pulse Start Metal Halide and Metal Halide

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

CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2 Ex nR IIC (Z)
Class II, Division 1 and 2, Groups E, F, G
Class III

CEC:

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 Ex nR – Restricted Breathing/Nonsparking.
 - 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 65 °C (149 °F) 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 ②
- 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® ① 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.

① Tuff-skin is a registered trademark of Thomas Manufacturing Corp., Parkton, Maryland.

② Mercury vapor and metal halide luminaires are not available for purchase within the United States. Please check with your countries governing legislation regarding allowable lamp types before ordering.

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- Mogul base porcelain socket with nickel-plated contacts has 200 °C (392 °F) 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 Ex nR factory sealed Mercmaster III prevents vapors and gases from entering the globe chamber. There are no seals or putty required which will reduce installation time and installation errors.

Standard Materials

- Mounting hoods, 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

- 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. For fuse kits, see *Fuse Kits* page.
- Hot Restrike will restrike HPS lamp immediately when power is restored after a momentary power interruption. Add suffix **-R**.
- Smart Starter incorporates a 1-1/2-minute timer and performs as a conventional starter to normally start lamp. Removes itself from circuit if lamp burns out or is removed from socket. Eliminates starter failures caused by prolonged operation with cycling or failing lamps and simplifies finding their location, reducing maintenance and repair costs. Available for all 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. ①

CEC Certifications and Compliances

- CSA Certified: 025428
- CSA Standard: CSA C22.2 No. 9, C22.2 No. 137; CAN/CSA E60079-0, E60079-15
- PSMH 250W MT (120/208/240/277, 60 Hz) Fixtures are not UL Listed

Related Products

- Classified area photo controls are also available.

① Fixtures equipped with a quartz auxiliary lamp do not comply with UL requirements and are not suitable for use in classified locations.

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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.



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.

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.



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.

Mercmaster™ III HID 50–250 Watt Luminaires

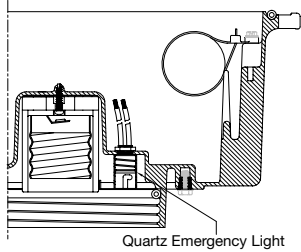
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Quartz Emergency Light for Pulse Start Metal Halide or High Pressure Sodium Fixtures ①



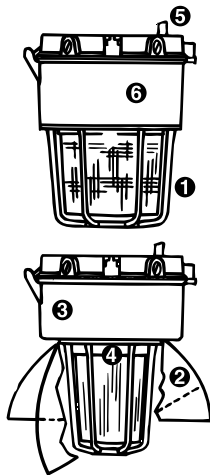
Quartz Emergency Light for PSMH or HPS Fixtures

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

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, 120 V 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:** Photocontrols are available.

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.

① NOTE: Fixtures equipped with quartz emergency light do not comply with UL requirements and are not suitable for use in classified locations.

Mercmaster™ III HID 50–250 Watt Luminaires

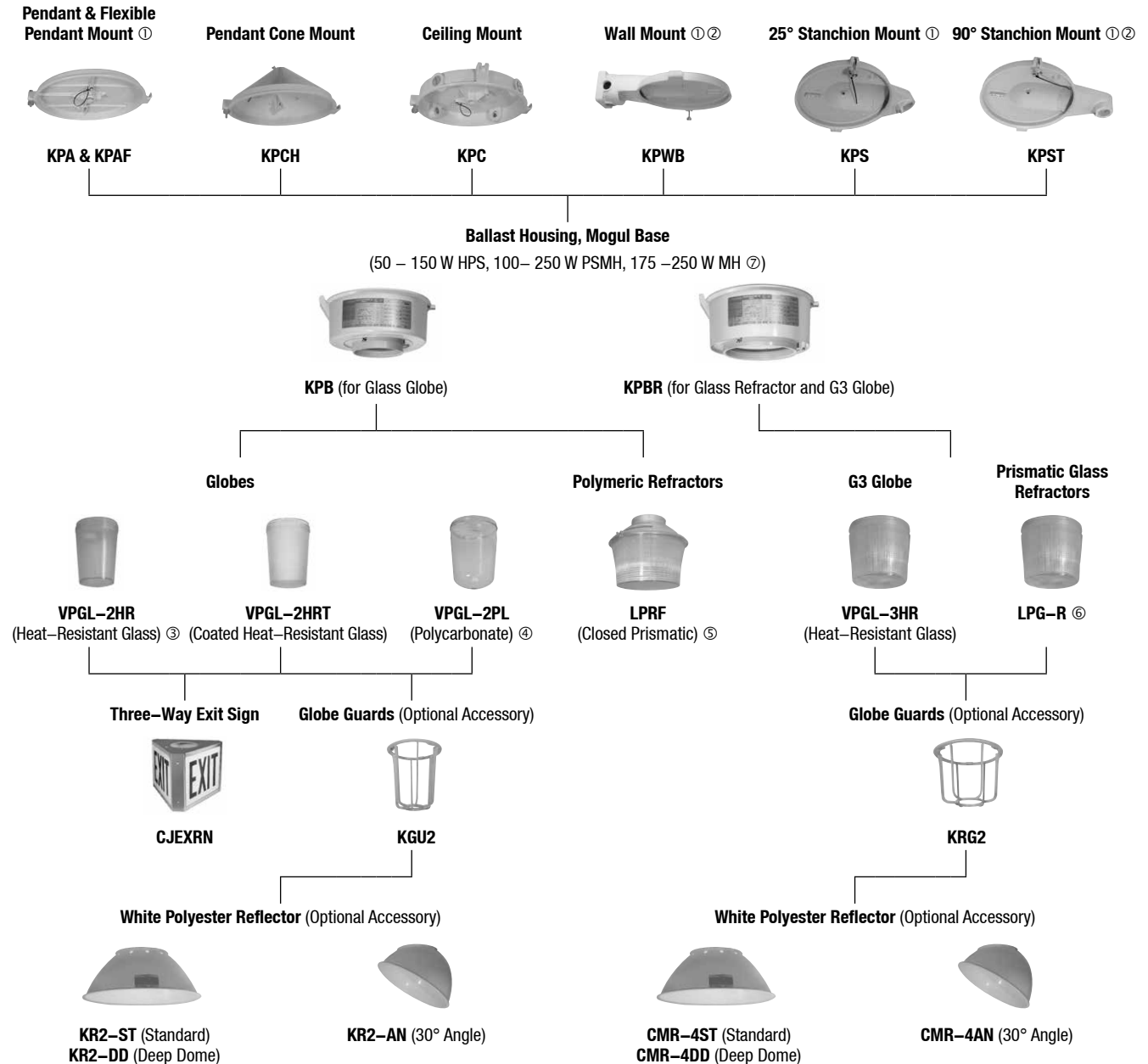
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Mercmaster III 50-250 Family Tree



- ① Mounting hood with a 120 V or 208-277 V factory installed photocell is available.
- ② Standard and deep dome reflectors may interfere with bottom conduit entry if used with KPST and KPWB mounting hoods..
- ③ Available in clear, amber, blue, green and red.
- ④ Available in clear, amber, green and red.
- ⑤ Available in NEMA Type II, III, IV and V. Polymeric Refractor suitable for Class II, Groups F and G, NEMA 4X and Marine Type Electric Fixtures Outside Type (Salt Water) only (100 W PSMH Max.).
- ⑥ Available in NEMA Type I, III and V.
- ⑦ Mercury vapor and metal halide luminaires are not available for purchase within the United States. Please check with your countries governing legislation regarding allowable lamp types before ordering.

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

Catalog Numbering Guide

<u>KP</u>	<u>A</u>	<u>L</u>	<u>70</u>	<u>10</u>	<u>J5</u>	<u>G</u>	<u>MT</u>	<u>R</u>	<u>ZZ</u>
Series: KP - Mercmaster III 250		Lamp Type: H - Metal Halide (MH) ① L - High Pressure Sodium (HPS) P - Pulse Start Metal Halide (PSMH)		Hub Size: 2 - 3/4" NPT 3 - 1" NPT 4 - 1-1/4" NPT Stanchion 5 - 1-1/2" NPT Stanchion		Guard Options: G - Guard (Not for use on RL Highbay Reflector) N - No Guard		Options: C - Safety Cable Adapted D - E-40 Export Socket E - Emergency Quartz F1 - Single Pole Fuse (Specify Voltage) F2 - Double Pole Fuse (Specify Voltage) PC - Non-Haz. Photocell in hood (specify voltage) PCD2 - Div.2 Haz. Photocell in hood (Specify Voltage) R - Hot Restrike (50-150 W HPS only) S - Smart Starter T - Terminal Blocks V - Anti-Vibration Modifications X - Appledapter ③ Mounting Hood Adapter	
	Mounting:		Wattage:	Optical Assembly:		Voltage: ②		Suffix:	
	A - Pendant (rigid mounting) C - Ceiling D - Threaded Dust Cone F - Flexible Pendant R - Right Angled Stanchion (90°) S - Angled Stanchion (25°) W - Wall X - Crouse-Hinds Hood Compatible		10 - 100 W HPS/MH 15 - 150 W HPS/MH 17 - 175 W MH 20 - 200 W PSMH 25 - 250 W MH ④ 50 - 50 W HPS (MT - Voltage Only) 70 - 70 W HPS/MH	J1 - NEMA I Glass Refractor J3 - NEMA III Glass Refractor J5 - NEMA V Glass Refractor G2 - Medium Glass Globe G3 - Large Glass Globe RL - Highbay Reflector/ Lens		C2 - 208 V 60 Hz, CWI C3 - 240 V 60 Hz, CWI C6 - 480 V 60 Hz, CWI C7 - 600 V 60 Hz, CWI MT- 120, 208, 240, 277 V, 60 Hz, CWA TT - 120, 277, 347 V, 60 Hz, CWA XP - 220-240 V, 50 Hz, CWA		Z - Zone 2 suffix (required for Ex nR)	

Reflectors are ordered separately – see Accessories page.

① H - Lamp type is for 70W and 100W fixtures only.

P - Lamp type is for 175W, 200W and 250W fixtures only.

② Voltages shown are limited to specific combinations.

③ Appledapter is available for use with the pendant, ceiling and angled stanchion mounting only.

④ Optional fusing is available for use with MT, 5MT and 48 voltage suffixes ONLY.

⑤ PSMH 250 W, MT and TT fixtures are not UL Listed.

⑥ Mercury vapor and metal halide luminaires are not available for purchase within the United States. Please check with your countries governing legislation regarding allowable lamp types before ordering.

Mercmaster™ III HID 50–250 Watt Luminaires

Class I, Division 2; Class II, Division 1; Simultaneous Exposure to Hazardous Conditions of Both Classifications
Temperature Identification Numbers of Mercmaster III fixtures.

CEC:
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Class I, Zone 2 Ex nR IIC (Z)
Class II, Division 1 and 2, Groups E, F, G
Class III

CEC:
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. °C (°F)	Ambient Temp. °C (°F)	Class I, Division 2				Class II, Division 1 Groups E, F and G ①				Simultaneous Exposure Class I, Division 2 / Class II, Division 1			
				Globe	Reflector	G3	8”	Globe	Reflector	G3	8”	Globe	Reflector	G3	8”
50	HPS	90 °C (194 °F)	40 °C (104 °F)	T3C	T3B	—	T3C	T4A	T4	—	T6	T3A	T3	—	T3C
		90 °C (194 °F)	55 °C (131 °F)	T3A	T3A	—	T3A	T4	T3B	—	T5	T3	T3	—	T3A
		90 °C (194 °F)	65 °C (149 °F)	T3A	T3	—	T3A	T3C	T3C	—	T4A	T2D	T2D	—	T3
70	HPS	90 °C (194 °F)	40 °C (104 °F)	T3B	T3A	—	T3C	T4	T3C	—	T6	T3	T3	—	T3A
		90 °C (194 °F)	55 °C (131 °F)	T3A	T3A	—	T3B	T3C	T3C	—	T5	T2D	T2D	—	T3
		90 °C (194 °F)	65 °C (149 °F)	T3	T3A	—	T3A	T3C	T3B	—	T4A	T2C	T2C	—	T3
100	HPS	90 °C (194 °F)	40 °C (104 °F)	T2D	T2D	T3	T3	—	T3A (EF)	T3 (EF)	—	—	—	—	—
		90 °C (194 °F)	40 °C (104 °F)	—	—	—	—	T3B	—	T4A	T4A	T2B	T2B	T2C	T2C
		90 °C (194 °F)	55 °C (131 °F)	T2D	T2D	T3	T3	—	—	T4	T4	—	—	T2B	T2B
		90 °C (194 °F)	65 °C (149 °F)	T2D	T2D	T2D	T2D	—	—	—	—	—	—	—	—
150	HPS	90 °C (194 °F)	40 °C (104 °F)	T2B	T2B	—	T2C	—	—	—	T3C	T2	—	—	T2B
		90 °C (194 °F)	40 °C (104 °F)	—	—	—	—	T3 (EF)	—	—	—	—	—	—	—
		90 °C (194 °F)	55 °C (131 °F)	T2B	T2A	—	T2B	—	—	—	—	—	—	—	—
70	PSMH	90 °C (194 °F)	40 °C (104 °F)	T3A	T3A	—	T3A	—	—	—	T3C	—	—	—	—
		90 °C (194 °F)	55 °C (131 °F)	T3A	T3A	—	T3A	—	—	—	T3C	—	—	—	—
		90 °C (194 °F)	65 °C (149 °F)	T3	T2	—	T3	—	—	—	T3C	—	—	—	—
100	PSMH	90 °C (194 °F)	40 °C (104 °F)	T3	T3	—	T3	—	—	—	T3C	—	—	—	T2B
		90 °C (194 °F)	55 °C (131 °F)	T3	T3	—	T3	—	—	—	T3C	—	—	—	T2A
		90 °C (194 °F)	65 °C (149 °F)	T2D	T2D	—	T2D	—	—	—	T3C	—	—	—	—
150	PSMH	90 °C (194 °F)	40 °C (104 °F)	T2B	T2B	—	T2B	—	—	—	T3C	—	—	—	T2B
		90 °C (194 °F)	55 °C (131 °F)	T2A	T2A	—	T2B	—	—	—	T3C	—	—	—	T2A
		125 °C (257 °F)	65 °C (149 °F)	T2A	T2	—	T2B	—	—	—	T3C	—	—	—	—
		90 °C (194 °F)	40 °C (104 °F)	T2B	T2B	—	T2B	—	—	—	T3C	—	—	—	T2B
175	PSMH	90 °C (194 °F)	55 °C (131 °F)	T2A	T2A	—	T2B	—	—	—	T3C	—	—	—	T2A
		125 °C (257 °F)	65 °C (149 °F)	T2A	T2	—	T2B	—	—	—	—	—	—	—	—
		90 °C (194 °F)	40 °C (104 °F)	T2B	T2B	—	T2B	—	—	—	T3B	—	—	—	—
200	PSMH	90 °C (194 °F)	55 °C (131 °F)	T2B	T2B	—	T2B	—	—	—	—	—	—	—	—
		90 °C (194 °F)	40 °C (104 °F)	T2	T2	—	T2	—	—	—	—	—	—	—	—
250	PSMH	90 °C (194 °F)	40 °C (104 °F)	T2	T2	—	T2	—	—	—	—	—	—	—	—
		90 °C (194 °F)	55 °C (131 °F)	T2	T2	—	T2	—	—	—	—	—	—	—	—
175	MH ②	90 °C (194 °F)	40 °C (104 °F)	T2B	T2B	—	T2B	—	—	—	T3C	—	—	—	—
		90 °C (194 °F)	55 °C (131 °F)	T2A	T2A	—	T2B	—	—	—	T3C	—	—	—	—
250	MH ②	90 °C (194 °F)	40 °C (104 °F)	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 (°C)	351-450	326-350	301-325	281-300	261-280	231-260	216-230	201-215	181-200	166-180	161-165	136-160	121-135	101-120	86-100	85
Temp. Range (°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

① All Class II T Numbers are E, F, G unless otherwise indicated.

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

“T” Numbers Represent the Maximum Surface Temperature for Luminaires with Ex nR rating

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

Mercmaster™ III HID 50–250 Watt Luminaires

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

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

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

CEC:
 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 °C (°F) ④	Minimum Fixture "T" Number for Chemical	HPS (Watts)				PSMH (Watts)					
			50	70	100	150	70	100	175	200	250	
Group A Atmospheres												
acetylene	305 °C (581 °F)	T2	①②③	①②③	①②③	①②③	①②	①②③	①②③	①	③	①②
Group B Atmospheres												
acrolein (inhibited)	220 °C (428 °F)	T2D	①②③	①②③	①②③		①②	①②③				①②
arsine	NA ⑤											
butadiene	420 °C (788 °F)	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②③	①②
ethylene oxide	429 °C (804 °F)	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②③	①②
hydrogen	500 °C (932 °F)	T1	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②③	①②
propylene oxide	449 °C (840 °F)	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②③	①②
propyl nitrate	175 °C (347 °F)	T3B	①②③	①②③			①②					
Group C Atmospheres												
acetaldehyde	175 °C (347 °F)	T3B	①②③	①	③		①②					
allyl alcohol	378 °C (712 °F)	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②③	①②
n-butylaldehyde	218 °C (424 °F)	T2D	①②③	①②③	①②③		①②	①②③				①②
carbon monoxide	609 °C (1128 °F)	T1	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②③	①②
crotonaldehyde	232 °C (450 °F)	T2C	①②③	①②③	①②③	③	①②	①②③				①②
cyclopropane	498 °C (928 °F)	T1	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②③	①②
diethyl ether (ethyl ether)	160 °C (320 °F)	T3C	①	③	③		①②					
diethylamine	312 °C (594 °F)	T2	①②③	①②③	①②③	①②③	①②	①②③	①②③	①	③	①②
ethylene	450 °C (842 °F)	T1	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②③	①②
ethylenimine	320 °C (608 °F)	T2	①②③	①②③	①②③	①②③	①②	①②③	①②③	①	③	①②
ethyl mercaptan	300 °C (572 °F)	T2	①②③	①②③	①②③	①②③	①②	①②③	①②③	①	③	①②
ethyl sulfide	NA ⑤											
hydrogen cyanide	538 °C (1000 °F)	T1	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②③	①②
hydrogen sulfide	260 °C (500 °F)	T2B	①②③	①②③	①②③	①②③	①②	①②③	①②③	①		①②
morpholine	310 °C (590 °F)	T2	①②③	①②③	①②③	①②③	①②	①②③	①②③	①	③	①②
2-nitropropane	428 °C (802 °F)	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②③	①②
tetrahydrofuran	321 °C (610 °F)	T2	①②③	①②③	①②③	①②③	①②	①②③	①②③	①	③	①②
unsymmetrical dimethyl hydrazine	249 °C (480 °F)	T2C	①②③	①②③	①②③	③	①②	①②③				①②
Group D Atmospheres												
acetic acid (glacial)	464 °C (867 °F)	T1	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②③	①②
acetone	465 °C (869 °F)	T1	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②③	①②
acrylonitrile	481 °C (898 °F)	T1	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②③	①②
ammonia	651 °C (1204 °F)	T1	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②③	①②
benzene	498 °C (928 °F)	T1	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②③	①②
butane	287 °C (549 °F)	T2A	①②③	①②③	①②③	①②③	①②	①②③	①②③	①		①②
1-butanol (butyl alcohol)	343 °C (649 °F)	325	①②③	①②③	①②③	①②③	①②	①②③	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.

Mercmaster™ III HID 50–250 Watt Luminaires

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

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

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

CEC:
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 °C (°F) ④	Minimum Fixture "T" Number for Chemical	HPS (Watts)				PSMH (Watts)				
			50	70	100	150	70	100	175	200	250
Group D Atmospheres											
2-butanol (secondary butyl alcohol)	405 °C (761 °F)	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
n-butyl acetate	425 °C (797 °F)	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
isobutyl acetate	421 °C (790 °F)	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
sec-butyl alcohol	343 °C (649 °F)	325	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
di-isobutylene	391 °C (736 °F)	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
ethane	472 °C (882 °F)	T1	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
ethanol (ethyl alcohol)	363 °C (685 °F)	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
ethyl acetate	426 °C (799 °F)	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
ethylene diamine (anhydrous)	385 °C (725 °F)	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
ethylene dichloride	413 °C (775 °F)	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
gasoline (56-60 octane)	280 °C (536 °F)	T2A	①②③	①②③	①②③	①②③	①②	①②③	①②③	①	①②
heptanes	204 °C (399 °F)	T3	①②③	①②③	①②③		①②	①②③			
hexanes	223 °C (433 °F)	T2D	①②③	①②③	①②③		①②	①②③			
isoprene	395 °C (743 °F)	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
isopropyl ether	443 °C (829 °F)	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
mesityl oxide	344 °C (651 °F)	325	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
methane (natural gas)	537 °C (999 °F)	T1	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
methanol (methyl alcohol)	385 °C (725 °F)	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
3-methyl-1-butanol (isoamyl alcohol)	350 °C (662 °F)	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
methyl ethyl ketone	404 °C (759 °F)	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
methyl isobutyl ketone	448 °C (838 °F)	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
2-methyl-1-propanol (isobutyl alcohol)	415 °C (779 °F)	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
2-methyl-1-propanol (tertiary butyl alcohol)	478 °C (892 °F)	T1	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
petroleum naphtha ⑥	288 °C (550 °F)	T2A	①②③	①②③	①②③	①②③	①②	①②③	①②③	①	①②
pyridine	482 °C (900 °F)	T1	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
octanes	206 °C (403 °F)	T3	①②③	①②③	①②③		①②	①②③			
pentanes	260 °C (500 °F)	T2B	①②③	①②③	①②③	①②③	①②	①②③	①②③	①	①②
1-pentanol (amyl alcohol)	300 °C (572 °F)	T2	①②③	①②③	①②③	①②③	①②	①②③	①②③	① ③	①②
propane	432 °C (810 °F)	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
1-propanol (propyl alcohol)	412 °C (774 °F)	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
2-propanol (isopropyl alcohol)	399 °C (750 °F)	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
propylene	455 °C (851 °F)	T1	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
styrene	490 °C (914 °F)	T1	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
toluene	480 °C (896 °F)	T1	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
vinyl acetate	402 °C (756 °F)	350	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
vinyl chloride	472 °C (882 °F)	T1	①②③	①②③	①②③	①②③	①②	①②③	①②③	①②③	①②
xylenes (o-xylene)	463 °C (865 °F)	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.

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

Mercmaster™ III HID 50–250 Watt Luminaires

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

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

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

CEC:
Type 4X
IP66

Fixture Selection Guide Indicates atmosphere for which fixture is suitable.

② Denotes fixture with Globe and Reflector. ③ Denotes fixture with 8" Refractor.

Class I, Division 2 Chemical	Ignition °C (°F) ④	Minimum Fixture "T" Number for Chemical	HPS (Watts)				PSMH (Watts)				
			50	70	100	150	70	100	175	200	250
Group IIC											
acetylene	305 °C (581 °F)	T2	②③	②③	②③	②③	②③	②③	②③	②③	②③
acetylene	300 °C (572 °F)	T2	②③	②③	②③	②③	②③	②③	②③	②③	②③
hydrogen	500 °C (932 °F)	T1	②③	②③	②③	②③	②③	②③	②③	②③	②③
Group IIB											
ethylene	490 °C (914 °F)	T1	②③	②③	②③	②③	②③	②③	②③	②③	②③
butadiene 1.3	425 °C (797 °F)	T2	②③	②③	②③	②③	②③	②③	②③	②③	②③
carbon monoxide coke oven gas	560 °C (1040 °F)	T1	②③	②③	②③	②③	②③	②③	②③	②③	②③
diethyl ether (ethyl ether)	160 °C (320 °F)	T4	②③	②③	②③	②③	②③				
ethylene	450 °C (842 °F)	T1	②③	②③	②③	②③	②③	②③	②③	②③	②③
ethylenimine ethylene oxide	425 °C (797 °F)	T2	②③	②③	②③	②③	②③	②③	②③	②③	②③
Group IIA											
acetone	465 °C (869 °F)	T1	②③	②③	②③	②③	②③	②③	②③	②③	②③
amyl acetate	375 °C (707 °F)	T2	②③	②③	②③	②③	②③	②③	②③	②③	②③
ammonia	651 °C (1204 °F)	T1	②③	②③	②③	②③	②③	②③	②③	②③	②③
benzene	498 °C (928 °F)	T1	②③	②③	②③	②③	②③	②③	②③	②③	②③
butane	287 °C (549 °F)	T3	②③	②③	②③	②③	②③	②③	②③	②③	
1-butanol (butyl alcohol)	343 °C (649 °F)	T2	②③	②③	②③	②③	②③	②③	②③	②③	②③
n-butyl acetate cyclohexane	260 °C (500 °F)	T3	②③	②③	②③	②③	②③	②③	②③	②③	
ethyl methyl ketone	515 °C (959 °F)	T1	②③	②③	②③	②③	②③	②③	②③	②③	②③
ethanol (ethyl alcohol)	363 °C (685 °F)	T2	②③	②③	②③	②③	②③	②③	②③	②③	②③
ethyl acetate	426 °C (799 °F)	T1	②③	②③	②③	②③	②③	②③	②③	②③	②③
heptanes	204 °C (399 °F)	T3	②③	②③	②③	②③	②③	②③	②③	②③	
hexanes	223 °C (433 °F)	T3	②③	②③	②③	②③	②③	②③	②③	②③	
isoprene isobutanol	430 °C (806 °F)	T2	②③	②③	②③	②③	②③	②③	②③	②③	②③
mesityl oxide methyl acetate	500 °C (932 °F)	T1	②③	②③	②③	②③	②③	②③	②③	②③	②③
methanol (methyl alcohol)	385 °C (725 °F)	T2	②③	②③	②③	②③	②③	②③	②③	②③	②③
n-propyl acetate	500 °C (932 °F)	T1	②③	②③	②③	②③	②③	②③	②③	②③	②③
n-butyl acetate	420 °C (788 °F)	T2	②③	②③	②③	②③	②③	②③	②③	②③	②③
pentanes	260 °C (500 °F)	T3	②③	②③	②③	②③	②③	②③	②③	②③	
propane	432 °C (810 °F)	T2	②③	②③	②③	②③	②③	②③	②③	②③	②③
xylenes (o-xylene)	463 °C (865 °F)	T1	②③	②③	②③	②③	②③	②③	②③	②③	②③

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.




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.

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

CEC:
Type 4X
IP66

Lamp Type	Lamp Watts	Hub Size (Inches)	Catalog Numbers ③④⑤		
			with Globe	with Type V 8" Refractor or G3 Globe ②	
Pendant — One Hub, Rigid Mounting ①					
	HPS	50	3/4 1	KPAL5075 KPAL5010	KPAL5075J5 KPAL5010J5
	HPS	70	3/4 1	KPAL7075 KPAL7010	KPAL7075J5 KPAL7010J5
	HPS	100	3/4 1	KPAL1075 KPAL1010	KPAL1075J5 KPAL1010J5
	HPS	150	3/4 1	KPAL1575 KPAL1510	KPAL1575J5 KPAL1510J5
Pendant Cone — One Hub, Rigid Mounting					
	HPS	50	3/4 1	KPDL5075 KPDL5010	KPDL5075J5 KPDL5010J5
	HPS	70	3/4 1	KPDL7075 KPDL7010	KPDL7075J5 KPDL7010J5
	HPS	100	3/4 1	KPDL1075 KPDL1010	KPDL1075J5 KPDL1010J5
	HPS	150	3/4 1	KPDL1575 KPDL1510	KPDL1575J5 KPDL1510J5
Ceiling — Five Hubs, Four Close-Up Plugs					
	HPS	50	3/4 1	KPCL5075 KPCL5010	KPCL5075J5 KPCL5010J5
	HPS	70	3/4 1	KPCL7075 KPCL7010	KPCL7075J5 KPCL7010J5
	HPS	100	3/4 1	KPCL1075 KPCL1010	KPCL1075J5 KPCL1010J5
	HPS	150	3/4 1	KPCL1575 KPCL1510	KPCL1575J5 KPCL1510J5

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 **Z** suffix:

Lamp Type	Lamp Watts	Voltage Suffixes						
		C2	C3	C6	C7	MT	TT	XP
HPS	50	—	—	—	—	X	X	X
HPS	70	—	—	—	—	X	X	X
HPS	100	—	—	X	X	X	X	X
HPS	150	X	X	X	X	X	X	X
PSMH	70	—	—	—	—	X	X	X
PSMH	100	—	—	—	—	X	X	X
PSMH	150	—	—	—	—	X	X	X
PSMH	175	—	—	—	—	X	X	X
PSMH	200	—	—	—	—	X	X	X
PSMH	250	—	—	—	—	X	X	X
MH ⑥	175	X	X	X	X	—	X	—
MH ⑥	250	X	X	X	X	—	X	—

Voltages:

C2 - 208 V 60 Hz, CWI

C3 - 240 V 60 Hz, CWI

C6 - 480 V 60 Hz, CWI

C7 - 600 V 60 Hz, CWI

LB - Incandescent, 120 V 60 Hz

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

TT - 120/277/347 V 60 Hz, CWA

XP - 220-240 V, 50Hz, CWA

④ Add **Z** for factory sealed restricted breathing protection (Ex nR)

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

⑥ Mercury vapor and metal halide luminaires are not available for purchase within the United States. Please check with your countries governing legislation regarding allowable lamp types before ordering.


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.

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

CEC:
Type 4X
IP66

Lamp Type	Lamp Watts	Hub Size (Inches)	Catalog Numbers ③④⑤ with Type V 8" Refractor with Globe or G3 Globe ②		
			with Globe	with G3 Globe ②	
Wall — Five Hubs, Four Close-Up Plugs					
	HPS	50	3/4	KPWL5075	KPWL5075J5
			1	KPWL5010	KPWL5010J5
	HPS	70	3/4	KPWL7075	KPWL7075J5
			1	KPWL7010	KPWL7010J5
HPS	100	3/4	KPWL1075	KPWL1075J5	
		1	KPWL1010	KPWL1010J5	
HPS	150	3/4	KPWL1575	KPWL1575J5	
		1	KPWL1510	KPWL1510J5	
25° Stanchion — One Hub					
	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	
90° Stanchion — One Hub					
	HPS	50	1-1/4	KPRL50125	KPRL50125J5
			1-1/2	KPRL50150	KPRL50150J5
	HPS	70	1-1/4	KPRL70125	KPRL70125J5
			1-1/2	KPRL70150	KPRL70150J5
HPS	100	1-1/4	KPRL10125	KPRL10125J5	
		1-1/2	KPRL10150	KPRL10150J5	
HPS	150	1-1/4	KPRL15125	KPRL15125J5	
		1-1/2	KPRL15150	KPRL15150J5	

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 **Z** suffix:

Lamp Type	Lamp Watts	Voltage Suffixes						
		C2	C3	C6	C7	MT	TT	XP
HPS	50	—	—	—	—	X	X	X
HPS	70	—	—	—	—	X	X	X
HPS	100	—	—	X	X	X	X	X
HPS	150	X	X	X	X	X	X	X
PSMH	70	—	—	—	—	X	X	X
PSMH	100	—	—	—	—	X	X	X
PSMH	150	—	—	—	—	X	X	X
PSMH	175	—	—	—	—	X	X	X
PSMH	200	—	—	—	—	X	X	X
PSMH	250	—	—	—	—	X	X	X
MH ⑥	175	X	X	X	X	—	X	—
MH ⑥	250	X	X	X	X	—	X	—

Voltagess:
C2 - 208 V 60 Hz, CWI
C3 - 240 V 60 Hz, CWI
C6 - 480 V 60 Hz, CWI
C7 - 600 V 60 Hz, CWI
LB - Incandescent, 120 V 60 Hz
MT - 120/208/240/277 V 60 Hz
TT - 120/277/347 V 60 Hz, CWA
XP - 220-240 V, 50Hz, CWA

④ Add **Z** for factory sealed restricted breathing protection (Ex nR)

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

⑥ Mercury vapor and metal halide luminaires are not available for purchase within the United States. Please check with your countries governing legislation regarding allowable lamp types before ordering.

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

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

CEC:
Type 4X
IP66

Appleton®

HID/AREA: NEC/CEC ENCLOSED AND GASKETED

	Lamp Type	Lamp Watts	Hub Size (Inches)	Catalog Numbers ③④⑤	
				with Globe	with Type V 8" Refractor ②
Pendant — One Hub, Rigid Mounting ①					
	PSMH	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
Pendant Cone — One Hub, Rigid Mounting					
	PSMH	70	3/4 1	KPDH7075 KPDH7010	KPDH7075J5 KPDH7010J5
	PSMH	100	3/4 1	KPDH1075 KPDH1010	KPDH1075J5 KPDH1010J5
	PSMH	150	3/4 1	KPDP1575 KPDP1510	KPDP1575J5 KPDP1510J5
	PSMH	175	3/4 1	KPDP1775 KPDP1710	KPDP1775J5 KPDP1710J5
	PSMH	200	3/4 1	KPDP2075 KPDP2010	KPDP2075J5 KPDP2010J5
	PSMH	250 ⑥	3/4 1	KPDP2575 KPDP2510	KPDP2575J5 KPDP2510J5
Ceiling — Five Hubs, Four Close-Up Plugs					
	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 **Z** suffix:

Lamp Type	Lamp Watts	Voltage Suffixes							
		C2	C3	C6	C7	MT	TT	XP	
HPS	50	—	—	—	—	X	X	X	
HPS	70	—	—	—	—	X	X	X	
HPS	100	—	—	X	X	X	X	X	
HPS	150	X	X	X	X	X	X	X	
PSMH	70	—	—	—	—	X	X	X	
PSMH	100	—	—	—	—	X	X	X	
PSMH	150	—	—	—	—	X	X	X	
PSMH	175	—	—	—	—	X	X	X	
PSMH	200	—	—	—	—	X	X	X	
PSMH	250	—	—	—	—	X	X	X	
MH ⑦	175	X	X	X	X	—	X	—	
MH ⑦	250	X	X	X	X	—	X	—	

Voltages:

C2 - 208 V 60 Hz, CWI

C6 - 480 V 60 Hz, CWI

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

C3 - 240 V 60 Hz, CWI

C7 - 600 V 60 Hz, CWI

TT - 120/277/347 V 60 Hz, CWA

LB - Incandescent, 120 V 60 Hz

XP - 220-240 V, 50Hz, CWA

④ Add **Z** for factory sealed restricted breathing protection (Ex nR)

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

⑥ Available in MT and TT only. MT and TT fixtures are not UL Listed.

⑦ Mercury vapor and metal halide luminaires are not available for purchase within the United States. Please check with your countries governing legislation regarding allowable lamp types before ordering.




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.

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

CEC:
Type 4X
IP66

	Lamp Type	Lamp Watts	Hub Size (Inches)	Catalog Numbers ③④⑤	
				with Globe	with Type V 8" Refractor ②
Wall — Five Hubs, Four Close-Up Plugs					
	PSMH	70	3/4 1	KPWH7075 KPWH7010	KPWH7075J5 KPWH7010J5
	PSMH	100	3/4 1	KPWH1075 KPWH1010	KPWH1075J5 KPWH1010J5
	PSMH	150	3/4 1	KPWP1575 KPWP1510	KPWP1575J5 KPWP1510J5
	PSMH	175	3/4 1	KPWP1775 KPWP1710	KPWP1775J5 KPWP1710J5
	PSMH	200	3/4 1	KPWP2075 KPWP2010	KPWP2075J5 KPWP2010J5
	PSMH	250 ⑥	3/4 1	KPWP2575 KPWP2510	KPWP2575J5 KPWP2510J5
25° Stanchion — One Hub					
	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
90° Stanchion — One Hub					
	PSMH	70	1-1/4 1-1/2	KPRH70125 KPRH70150	KPRH70125J5 KPRH70150J5
	PSMH	100	1-1/4 1-1/2	KPRH10125 KPRH10150	KPRH10125J5 KPRH10150J5
	PSMH	150	1-1/4 1-1/2	KPRP15125 KPRP15150	KPRP15125J5 KPRP15150J5
	PSMH	175	1-1/4 1-1/2	KPRP17125 KPRP17150	KPRP17125J5 KPRP17150J5
	PSMH	200	1-1/4 1-1/2	KPRP20125 KPRP20150	KPRP20125J5 KPRP20150J5
	PSMH	250 ⑥	1-1/4 1-1/2	KPRP25125 KPRP25150	KPRP25125J5 KPRP25150J5

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 **Z** suffix:

Lamp Type	Lamp Watts	Voltage Suffixes						
		C2	C3	C6	C7	MT	TT	XP
HPS	50	—	—	—	—	X	X	X
HPS	70	—	—	—	—	X	X	X
HPS	100	—	—	X	X	X	X	X
HPS	150	X	X	X	X	X	X	X
PSMH	70	—	—	—	—	X	X	X
PSMH	100	—	—	—	—	X	X	X
PSMH	150	—	—	—	—	X	X	X
PSMH	175	—	—	—	—	X	X	X
PSMH	200	—	—	—	—	X	X	X
PSMH	250	—	—	—	—	X	X	X
MH ⑦	175	X	X	X	X	—	X	—
MH ⑦	250	X	X	X	X	—	X	—

Voltages:

C2 - 208 V 60 Hz, CWI

C3 - 240 V 60 Hz, CWI

C6 - 480 V 60 Hz, CWI

C7 - 600 V 60 Hz, CWI

LB - Incandescent, 120 V 60 Hz

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

TT - 120/277/347 V 60 Hz, CWA

XP - 220-240 V, 50Hz, CWA

④ Add **Z** for factory sealed restricted breathing protection (Ex nR)

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

⑥ Available in MT and TT only. MT and TT fixtures are not UL Listed.

⑦ Mercury vapor and metal halide luminaires are not available for purchase within the United States. Please check with your countries governing legislation regarding allowable lamp types before ordering.

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Mercmaster™ III HID 50–250 Watt Luminaires

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

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

CEC:
Type 4X
IP66

Lamp Type ⑦	Lamp Watts	Hub Size (Inches)	Catalog Numbers ③④⑤	
			with Globe	with Type V 8" Refractor ②

Pendant – One Hub, Rigid Mounting ①



MH	175	3/4	KPAH1775	KPAH1775J5
		1	KPAH1710	KPAH1710J5
MH	250 ⑥	3/4	KPAH2575	KPAH2575J5
		1	KPAH2510	KPAH2510J5

Pendant Cone – One Hub, Rigid Mounting



MH	175	3/4	KPDH1775	KPDH1775J5
		1	KPDH1710	KPDH1710J5
MH	250 ⑥	3/4	KPDH2575	KPDH2575J5
		1	KPDH2510	KPDH2510J5

Ceiling – Five Hubs, Four Close-Up Plugs



MH	175	3/4	KPCH1775	KPCH1775J5
		1	KPCH1710	KPCH1710J5
MH	250 ⑥	3/4	KPCH2575	KPCH2575J5
		1	KPCH2510	KPCH2510J5

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 **Z** suffix:

Lamp Type	Lamp Watts	Voltage Suffixes						
		C2	C3	C6	C7	MT	TT	XP
HPS	50	—	—	—	—	X	X	X
HPS	70	—	—	—	—	X	X	X
HPS	100	—	—	X	X	X	X	X
HPS	150	X	X	X	X	X	X	X
PSMH	70	—	—	—	—	X	X	X
PSMH	100	—	—	—	—	X	X	X
PSMH	150	—	—	—	—	X	X	X
PSMH	175	—	—	—	—	X	X	X
PSMH	200	—	—	—	—	X	X	X
PSMH	250	—	—	—	—	X	X	X
MH ⑦	175	X	X	X	X	—	X	—
MH ⑦	250	X	X	X	X	—	X	—

Voltages:

C2 - 208 V 60 Hz, CWI

C3 - 240 V 60 Hz, CWI

C6 - 480 V 60 Hz, CWI

C7 - 600 V 60 Hz, CWI

LB - Incandescent, 120 V 60 Hz

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

TT - 120/277/347 V 60 Hz, CWA

XP - 220-240 V, 50Hz, CWA

④ Add **Z** for factory sealed restricted breathing protection (Ex nR)

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

⑥ Available in MT and TT only. MT and TT fixtures are not UL Listed.

⑦ Mercury vapor and metal halide luminaires are not available for purchase within the United States. Please check with your countries governing legislation regarding allowable lamp types before ordering.

Mercmaster™ III HID 50–250 Watt Luminaires

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

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

CEC:
Type 4X
IP66

Lamp Type ⑦	Lamp Watts	Hub Size (Inches)	Catalog Numbers ③④⑤	
			with Globe	with Type V 8" Refractor ②

Wall — Five Hubs, Four Close-Up Plugs



MH	175	3/4	KPWH1775	KPWH1775J5
		1	KPWH1710	KPWH1710J5
MH	250 ⑥	3/4	KPWH2575	KPWH2575J5
		1	KPWH2510	KPWH2510J5

25° Stanchion — One Hub



MH	175	1-1/4	KPSH17125	KPSH17125J5
		1-1/2	KPSH17150	KPSH17150J5
MH	250 ⑥	1-1/4	KPSH25125	KPSH25125J5
		1-1/2	KPSH25150	KPSH25150J5

90° Stanchion — One Hub



MH	175	1-1/4	KPRH17125	KPRH17125J5
		1-1/2	KPRH17150	KPRH17150J5
MH	250 ⑥	1-1/4	KPRH25125	KPRH25125J5
		1-1/2	KPRH25150	KPRH25150J5

Shown with Globe and Optional Guard

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 **Z** suffix:

Lamp Type	Lamp Watts	C2	C3	C6	Voltage Suffixes				XP
					C7	MT	TT		
HPS	50	—	—	—	—	X	X	X	X
HPS	70	—	—	—	—	X	X	X	X
HPS	100	—	—	X	X	X	X	X	X
HPS	150	X	X	X	X	X	X	X	X
PSMH	70	—	—	—	—	X	X	X	X
PSMH	100	—	—	—	—	X	X	X	X
PSMH	150	—	—	—	—	X	X	X	X
PSMH	175	—	—	—	—	X	X	X	X
PSMH	200	—	—	—	—	X	X	X	X
PSMH	250	—	—	—	—	X	X	X	X
MH ⑦	175	X	X	X	X	—	X	—	—
MH ⑦	250	X	X	X	X	—	X	—	—

Voltages:

C2 - 208 V 60 Hz, CWI

C3 - 240 V 60 Hz, CWI

C6 - 480 V 60 Hz, CWI

C7 - 600 V 60 Hz, CWI

LB - Incandescent, 120 V 60 Hz

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

TT - 120/277/347 V 60 Hz, CWA

XP - 220-240 V, 50Hz, CWA

④ Add **Z** for factory sealed restricted breathing protection (Ex nR)

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

⑥ Available in MT and TT only. MT and TT fixtures are not UL Listed.

⑦ Mercury vapor and metal halide luminaires are not available for purchase within the United States. Please check with your countries governing legislation regarding allowable lamp types before ordering.

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.

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

CEC:
 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 ①

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 ③	Ballast Assembly with Refractor and Guard
100 W PSMH ②	KPBU17P-G2N-TT-L	KPBU17P-G2G-TT-L	—	KPBU17P-J5N-TT-L	KPBU17P-J5G-TT-L
175 W PSMH	KPBU20P-G2N-TT-L	KPBU20P-G2G-TT-L	—	KPBU20P-J5N-TT-L	KPBU20P-J5G-TT-L
70 W HPS	KPBU70L-G2N-TT-L	KPBU70L-G2G-TT-L	—	KPBU70L-J5N-TT-L	KPBU70L-J5G-TT-L
100 W HPS	KPBU10L-G2N-TT-L	KPBU10L-G2G-TT-L	KPBU10L-G3N-TT-L	KPBU10L-J5N-TT-L	KPBU10L-J5G-TT-L
150 W HPS	KPBU15L-G2N-TT-L	KPBU15L-G2G-TT-L	—	KPBU15L-J5N-TT-L	KPBU15L-J5G-TT-L
175 W MH ④	KPBU17H-G2N-TT-L	KPBU17H-G2G-TT-L	—	KPBU17H-J5N-TT-L	KPBU17H-J5G-TT-L
250 W MH ④	KPBU25H-G2N-TT-L	KPBU25H-G2G-TT-L	—	KPBU25H-J5N-TT-L	KPBU25H-J5G-TT-L

Mounting Hoods

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

White Polyester Reflectors

Description	Catalog Number
Standard Dome For Globe Fixtures	KR2-ST
30° Angle For Globe Fixtures	KR2-AN
Standard Dome For Glass Refractor Fixtures	CMR-4ST
30° Angle 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, 277 V OR 347 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 Mercury vapor and metal halide luminaires are not available for purchase within the United States. Please check with your countries governing legislation regarding allowable lamp types before ordering.

Mercmaster™ III HID 50–250 Watt Luminaires

High Pressure Sodium, Pulse Start Metal Halide and Metal Halide


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

CEC:

Class I, Division 2, Groups A, B, C, D
 Class I, Zone 2 Ex nR IIC (Z)
 Class II, Division 1 and 2, Groups E, F, G
 Class III

CEC:

Type 4X
 IP66

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

Appleton®

HID/AREA: NEC/CEC ENCLOSED AND GASKETED

Mercmaster™ III HID 50–250 Watt Luminaires

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 Class III

CEC:
 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 ②④⑤		Voltage Suffixes								
		For Globe	For G3 Globe ①/ Refractor	C2	C3	C6	C7	LB	MT	TT	XP	
HPS	50 ③	KPB50L	KPBR50L	—	—	—	—	—	—	X	X	X
HPS	70 ③	KPB70L	KPBR70L	—	—	—	—	—	—	X	X	X
HPS	100 ③	KPB100L	KPBR100L	—	—	X	X	—	—	X	X	X
HPS	150 ③	KPB150L	KPBR150L	X	X	X	X	—	—	X	X	X
PSMH	70	KPB70H	KPBR70H	—	—	—	—	—	—	X	X	X
PSMH	100	KPB100H	KPBR100H	—	—	—	—	—	—	X	X	X
PSMH	150	KPB150P	KPBR150P	—	—	—	—	—	—	X	X	X
PSMH	175	KPB175P	KPBR175P	—	—	—	—	—	—	X	X	X
PSMH	200	KPB200P	KPBR200P	—	—	—	—	—	—	X	X	X
PSMH ⑥	250	KPBG250P	KPBR250P	—	—	—	—	—	—	X	X	X
MH ⑦	175	KPB175H	KPBR175H	X	X	X	X	—	—	—	X	—
MH ⑦	250	KPB250H	KPBR250H	X	X	X	X	—	—	—	X	—

Voltages:

- C2** - 208 V 60 Hz, CWI
- C3** - 240 V 60 Hz, CWI
- C6** - 480 V 60 Hz, CWI
- C7** - 600 V 60 Hz, CWI
- LB** - Incandescent, 120 V 60 Hz
- MT** - 120/208/240/277 V 60 Hz
- TT** - 120/277/347 V 60 Hz, CWA
- XP** - 220-240 V, 50Hz, CWA

- ① For HPS version fixtures only.
- ② After voltage suffix add: **-S** for Smart Starter.
- ③ After voltage suffix add: **-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 **Z** for factory sealed restricted breathing protection (Ex nR)
- ⑥ MT and TT ballast bodies are not UL Listed for 250W PSMH version fixtures only.
- ⑦ Mercury vapor and metal halide luminaires are not available for purchase within the United States. Please check with your countries governing legislation regarding allowable lamp types before ordering.





Mercmaster™ III HID 50–250 Watt Luminaires

High Pressure Sodium, Pulse Start Metal Halide and Metal Halide

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

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

CEC:
 Type 4X
 IP66

		Description	Catalog Number
Prismatic Glass Globes — Heat-Resistant			
 Glass Globe	For use in areas where fixture is subject to extreme thermal shock Heat-Resistant	Clear	VPGL-2HR
		Amber	VPGL-2AM
		Blue	VPGL-2BL
		Green	VPGL-2GR
		Red	VPGL-2RE
 G3 Glass Globe		Clear	VPGL3HR
Tuff-Skin® Coated Prismatic Glass Globes — For Non-Classified Areas			
 Tuff-Skin® Glass Globe	For use in areas where fixture is subject to extreme thermal shock Heat-Resistant	Clear	VPGL-2HRT
Polycarbonate Globes — Impact-Resistant ①			
 Polycarbonate Globe	Use 100 watt lamp max. Do not use in ambients exceeding 25 °C (77 °F).	Clear	VPGL-2PL
		Amber	VPGL-2AMPL
		Green	VPGL-2GRPL
		Red	VPGL-2REPL

Appleton®

HID/AREA: NEC/CEC ENCLOSED AND GASKETED

① 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 +25 °C (+77 °F). For burning in vertical base-up positions only.

Mercmaster™ III HID 50–250 Watt Luminaires

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 Class III

CEC:
 Type 4X
 IP66

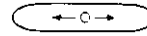
	Light Distribution	IES/NEMA Distribution Curves	Catalog Number
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Closed Prismatic Glass Refractors — Heat-Resistant



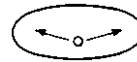
Glass Refractor

NEMA Type I



LPG-R1

NEMA Type III



LPG-R3

NEMA Type V



LPG-R5

Closed Prismatic Polymeric Refractors

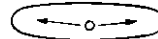
For use with PSMH lamps, 100 W max. +40 °C (+104 °F) max. ambient temperature.

Suitable for Class II, Division 1 and 2, Groups F, G; NEMA 4X, UL 1598A Marine Type Electric Fixtures Outside Type (Salt Water)



Polymeric Refractor

NEMA Type II



LPRF-2CP

NEMA Type III



LPRF-3CP

NEMA Type IV



LPRF-4CP

NEMA Type V



LPRF-5CP







Mercmaster™ III HID 50–250 Watt Luminaires

High Pressure Sodium, Pulse Start Metal Halide and Metal Halide

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CEC:
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 Class I, Zone 2 Ex nR IIC (Z)
 Class II, Division 1 and 2, Groups E, F, G
 Class III

CEC:
 Type 4X
 IP66

Item		Description	Catalog Number
White Polyester Reflectors			
 Standard Dome	 30° Angle	For Globe Fixtures	Standard Dome KR2-ST
			Deep Dome KR2-DD ①
			30° Angle KR2-AN
		For Glass Refractor Fixtures ②	Standard Dome CMR-4ST
			Deep Dome CMR-4DD ①
			30° Angle CMR-4AN
Guards			
 Globe Guard	 Refractor Guard	Globe Guard	KGU2
		G3 Globe/Refractor Guard	KRG2
Replacement Globe Gaskets – Silicone Rubber			
 Globe Gaskets		Globe Gasket	VPGL-GK
		G3 Globe/Refractor Gasket	KRF-GK
Retrofit Pendant Mounting Adapter			
 Mounting Adapter		Permits use of Mercmaster III pendant hood with 3/4" hub on existing V-51 mounting hood.	LPAD-1

① Dark Skies Compliant.

② Fixtures with refractors are not UL Listed when used with reflectors.

Mercmaster™ III HID 50–250 Watt Luminaires

High Pressure Sodium, Pulse Start Metal Halide and Metal Halide

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

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

CEC:
 Type 4X
 IP66

Ballast Housing Weights

Lamp Watts	HPS — Wt. kg (lb) ①②	PSMH — Wt. kg (lb) ①②
Globe Housing with Ballast		
50	5.7 (12.6)	—
70	6.8 (15.0)	6.9 (15.2)
100	7.3 (16.0)	7.4 (16.3)
150	7.7 (17.0)	7.6 (16.8)
175	—	7.8 (17.2)
200	—	8.2 (18.0)
250	—	8.4 (18.5)
Reflector Housing with Ballast		
50	5.9 (13.0)	—
70	7.0 (15.4)	7.1 (15.7)
100	7.5 (16.5)	7.6 (16.8)
150	7.9 (17.4)	7.8 (17.2)
175	—	8.1 (17.9)
200	—	8.4 (18.5)
250	—	8.6 (19.0)

Component and Accessory Weights

Item	Wt. kg (lb) ①
Mounting Hoods	
Pendant	1.0 (2.20)
Pendant Cone	1.1 (2.43)
Ceiling	1.4 (3.09)
Wall	1.8 (3.97)
25° Stanchion	1.5 (3.31)
Straight Stanchion	1.7 (3.75)
Refractors, Globes and Guards	
8" Glass Refractor/G3 Globe	2.4 (5.29)
Glass Globe	1.7 (3.75)
Globe Guard	0.5 (1.10)
Refractor Guard	0.5 (1.10)
Reflectors	
Standard Dome	1.1 (2.43)
30° Angle	1.1 (2.43)

① Weights are approximate.

② Add 0.5 kg (1 lbs) for HPS fixtures with Hot Restrike. Add 0.1 kg (0.25 lbs) for Quartz Emergency Light.

Mercmaster™ III HID 50–250 Watt Luminaires

High Pressure Sodium, Pulse Start Metal Halide and Metal Halide

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

CEC:
 Type 4X
 IP66

Electrical Specifications

Line Voltage	Type of Ballast ①	Starting Amps	Operating Amps	Total Watts
50 Watt High Pressure Sodium				
120	HX-HPF	0.58	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	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	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	HX-HPF	0.45	0.39	130
480	HX-HPF	0.33	0.31	135
480	C.W.I.	0.17	0.30	130
600	C.W.I.	0.14	0.24	130
150 Watt High Pressure Sodium ②				
120	HX-HPF	2.00	1.70	188
208	HX-HPF	1.15	0.95	188
240	HX-HPF	1.00	0.85	188
277	HX-HPF	0.85	0.72	188
347	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	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	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
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 ③	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 ③	Super C.W.A.	0.25	0.65	208
480	Super C.W.A.	0.25	0.50	213
175 Watt Metal Halide ④				
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 ④				
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 ④				
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.

③ Certified to meet the Canadian Electrical Code (CEC) only.

④ Mercury vapor and metal halide luminaires are not available for purchase within the United States. Please check with your countries governing legislation regarding allowable lamp types before ordering.

Mercmaster™ III HID 50–250 Watt Luminaires

High Pressure Sodium, Pulse Start Metal Halide and Metal Halide

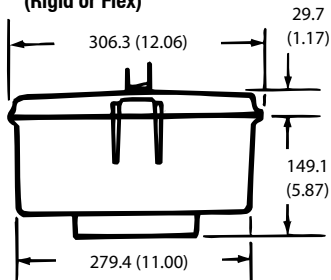
Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

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

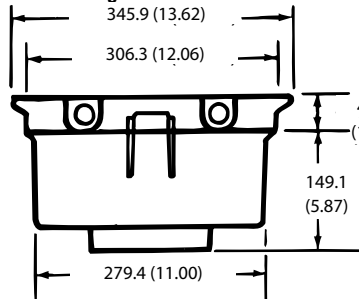
CEC:
 Type 4X
 IP66

Dimensions in Millimeters (Inches)

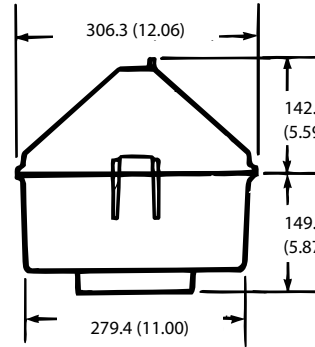
**Pendant
(Rigid or Flex)**



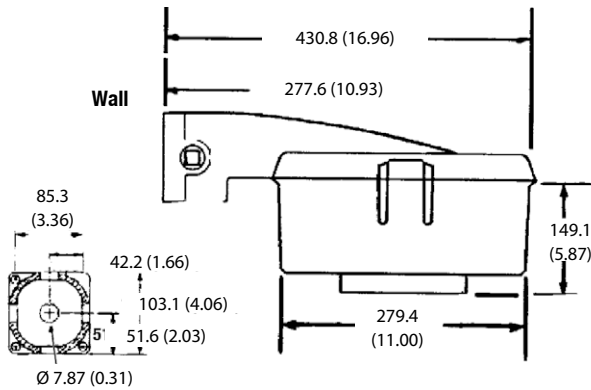
Ceiling



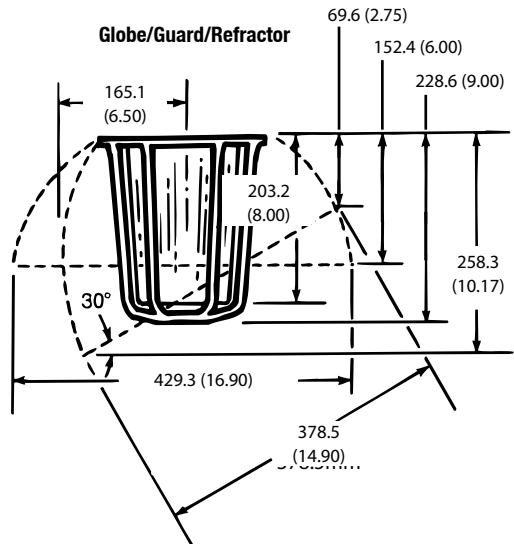
Cone



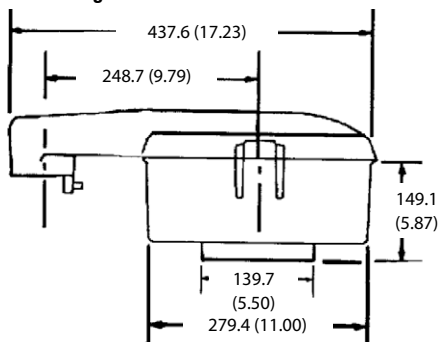
Wall



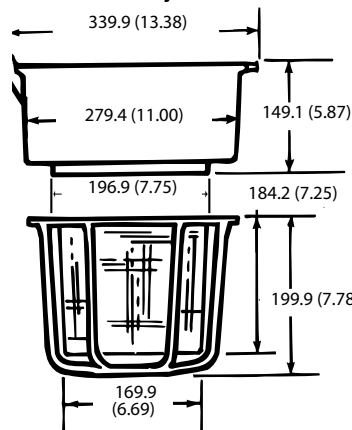
Globe/Guard/Reflector



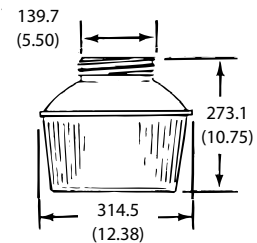
90° Straight Stanchion



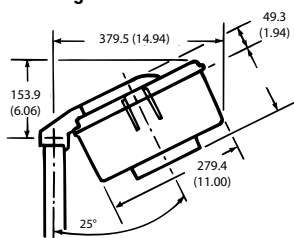
**8" Globe/Reflector
Body/Guard**



Polymeric Refractor



25° Angle Stanchion



Appleton

HID/AREA: NEC/CEC ENCLOSED AND GASKETED

PCD2 Series Factory Sealed Hazardous Location Photocontrol

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

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

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

Applications

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

- 50-400 W HID, incandescent or fluorescent, 50/60 Hz.
- 1000 V.A. Voltage/Ampere
- Minimum time delay: 15 seconds to eliminate nuisance tripping.
- Provided with (3) 18AWG stranded leads 152.4 mm (6 in) in length.
- Will fit through standard 1/2" knockout.
- Supplied with locknut and gasket.

Features




- Factory sealed design eliminates the need for an explosionproof enclosure.
- Can be easily installed in the field.
- Solid state design for performance and reliability.
- Available for 120, 208, 240, or 277 volts.

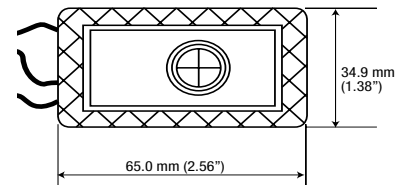
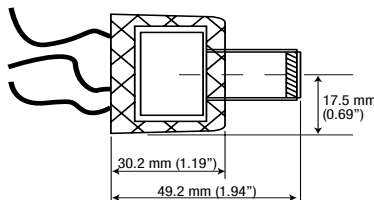
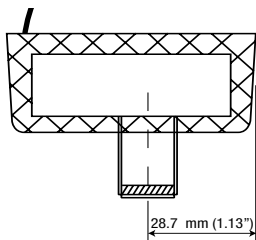
Materials

- Encapsulated with epoxy sealing compound
- FS: aluminum

NEC/CEC Certifications and Compliances

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

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



Mercmaster™ III HID 50–250 Watt Luminaires

150 W HPS

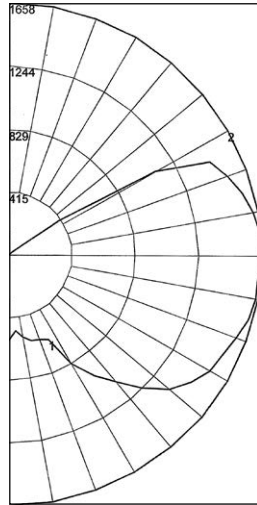
* Photometric data is based on fixtures with 150-watt clear High Pressure Sodium lamp (16,000 lumen). For candlepower values of fixtures with other HPS lamps, use the following multipliers: for 70 W (6,400 lumen) HPS lamp – 0.40; for 50 W (4,000 lumen) HPS lamp – 0.25. For candlepower values of fixture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

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

CEC:
 Type 4X
 IP66

Photometric Data

Zone	Lumens	Total Luminaire Efficiency = 86.1%			
0-10	50.74	CIE Type – Semi-Direct			
10-20	164.55	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	Zonal Lumen Summary			
70-80	1716.10				
80-90	1799.18	Zone	Lumens	% Lamp	% Fixture
90-100	1802.19	0-30	525.75	3.3	3.8
100-110	1676.86	0-40	1136.81	7.1	8.3
110-120	1379.11	0-60	3406.12	21.3	24.7
120-130	441.46	0-90	8463.75	52.9	61.4
130-140	9.61	90-120	4858.16	30.4	35.3
140-150	3.33	90-130	5299.62	33.1	38.5
150-160	0.74	90-150	5312.56	33.2	38.5
160-170	0.00	90-180	5313.30	33.2	38.6
170-180	0.00	180-0	13777.05	86.1	100.0



REPORT NUMBER: **KP15LG**

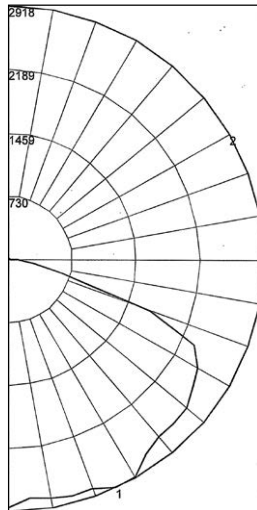
Lamps: 150 W High Pressure Sodium with Globe only *

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

% Ceiling Rcc	% Walls Rw	80		70		50		30		10		0						
		70	50	30	10	70	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	Total Luminaire Efficiency = 73.6%			
0-10	266.98	CIE Type – Direct			
10-20	799.41	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	Zonal Lumen Summary			
70-80	866.77				
80-90	145.09	Zone	Lumens	% Lamp	% Fixture
90-100	14.46	0-30	2403.44	15.0	20.4
100-110	8.75	0-40	4135.50	25.8	35.1
110-120	7.93	0-60	8520.70	53.3	72.3
120-130	4.51	0-90	11743.37	73.4	99.7
130-140	2.16	90-120	31.14	0.2	0.3
140-150	0.48	90-130	35.65	0.2	0.3
150-160	0.00	90-150	38.29	0.2	0.3
160-170	0.00	90-180	38.29	0.2	0.3
170-180	0.00	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	% Walls Rw	80		70		50		30		10		0						
		70	50	30	10	70	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

Mercmaster™ III HID 50–250 Watt Luminaires

150 W HPS

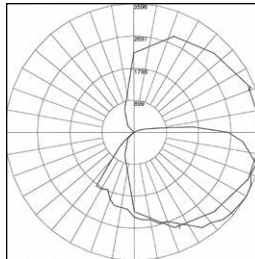
* Photometric data is based on fixtures with 150-watt clear High Pressure Sodium lamp (16,000 lumen). For candlepower values of fixtures with other HPS lamps, use the following multipliers: for 70 W (6,400 lumen) HPS lamp – 0.40; for 50 W (4,000 lumen) HPS lamp – 0.25. For candlepower values of fixture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

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

CEC:
 Type 4X
 IP66

Photometric Data

Zone	Lumens	Total Luminaire Efficiency = 73.1%	
0-10	222.62	CIE Type – Direct	
10-20	664.6	Plane	Spacing Criteria
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		
70-80	1422.36	Zonal Lumen Summary	
80-90	994.54	Zone	Lumens % Lamp % Fixture
90-100	432.23	0-30	1971.54 12.3 16.9
100-110	104.58	0-40	3508.09 21.9 30.0
110-120	20.99	0-60	7051.50 44.1 60.3
120-130	1.21	0-90	11137.33 69.6 95.2
130-140	0.04	90-120	557.80 3.5 4.8
140-150	0.00	90-130	559.01 3.5 4.8
150-160	0.00	90-150	559.04 3.5 4.8
160-170	0.00	90-180	559.04 3.5 4.8
170-180	0.00	180-0	11696.38 73.1 100.0



REPORT NUMBER: **KP15LAN**

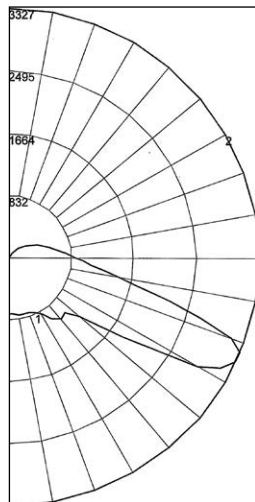
Lamps: 150 W High Pressure Sodium with
 30° Angle Dome Reflector *

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	50	30	10	0		
0	86	86	86	86	84	84	84	84	79	79	79	75	75	75	71	71	71	70
1	76	71	67	63	73	69	65	62	65	62	59	62	59	57	58	56	54	52
2	68	60	54	49	65	58	53	48	55	50	46	52	48	45	49	46	43	41
3	61	52	45	39	59	50	44	39	48	42	37	45	40	36	43	39	35	33
4	55	45	38	32	53	44	37	32	42	36	31	39	34	30	37	33	29	27
5	50	40	33	27	49	39	32	27	37	31	26	35	30	25	33	29	25	23
6	46	36	28	23	45	35	28	23	33	27	22	31	26	22	30	25	21	20
7	43	32	25	20	41	31	25	20	30	24	19	28	23	19	27	22	19	17
8	40	29	22	18	38	28	22	17	27	21	17	26	21	17	25	20	16	15
9	37	26	20	16	36	26	20	16	25	19	15	24	19	15	23	18	15	13
10	35	24	18	14	33	24	18	14	23	17	14	22	17	13	21	16	13	12

Zone	Lumens	Total Luminaire Efficiency = 81.1%	
0-10	72.83	CIE Type – Semi-Direct	
10-20	222.26	Plane	Spacing Criteria
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	
80-90	1230.65	Zone	Lumens % Lamp % Fixture
90-100	450.14	0-30	675.83 4.2 5.2
100-110	712.41	0-40	1296.93 8.1 10.0
110-120	499.15	0-60	3914.76 24.5 30.2
120-130	323.44	0-90	10704.60 66.9 82.5
130-140	185.00	90-120	1661.70 10.4 12.8
140-150	81.31	90-130	1985.14 12.4 15.3
150-160	21.08	90-150	2251.45 14.1 15.3
160-170	2.81	90-180	2275.34 14.2 17.5
170-180	0.00	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	50	30	10	0		
0	93	93	93	93	89	89	89	89	82	82	82	76	76	76	70	70	70	67
1	80	73	68	63	76	70	65	61	64	60	56	58	55	52	53	50	48	45
2	69	59	51	45	65	56	49	43	51	45	40	46	41	37	41	37	34	31
3	61	49	40	33	57	47	38	32	42	35	29	38	32	27	34	29	25	22
4	54	42	32	25	51	40	31	24	35	28	22	32	26	21	28	23	19	16
5	49	36	27	20	46	34	26	19	31	23	18	27	21	16	24	19	15	12
6	45	32	23	16	42	30	22	16	27	20	14	24	18	13	21	16	12	10
7	41	28	20	14	38	27	19	13	24	17	12	21	15	11	19	14	10	8
8	38	25	17	12	36	24	16	11	22	15	10	19	14	9	17	12	8	6
9	35	23	15	10	33	22	15	10	20	13	9	18	12	8	16	11	7	5
10	33	21	14	9	31	20	13	9	18	12	8	16	11	7	15	10	6	5

Mercmaster™ III HID 50–250 Watt Luminaires

175 W PSMH

* 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.

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

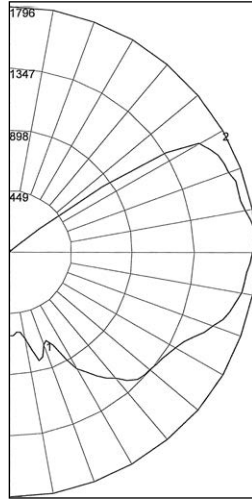
CEC:
 Type 4X
 IP66

Photometric Data

Zone Lumens Total Luminaire Efficiency = 75.4%

Zone	Lumens	CIE Type – General Diffuse
0-10	57.98	
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	
80-90	1902.34	
90-100	1946.09	
100-110	1829.51	
110-120	1657.20	
120-130	750.27	
130-140	14.15	
140-150	4.47	
150-160	0.52	
160-170	1.35	
170-180	0.18	

Zonal Lumen Summary			
Zone	Lumens	% Lamp	% Fixture
0-30	647.99	3.7	4.3
0-40	1344.28	7.7	9.0
0-60	3580.49	20.5	24.0
0-90	8713.89	49.8	58.4
90-120	5432.80	31.0	36.4
90-130	6183.06	35.3	41.4
90-150	6201.69	35.4	41.6
90-180	6203.74	35.4	41.6
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

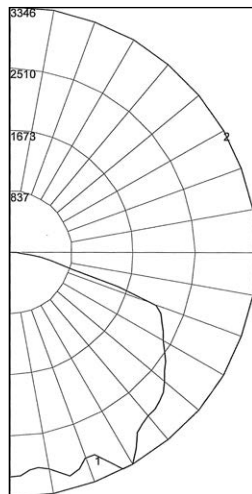
% Ceiling Rcc	% Walls	Rw	80		70		50		30		10		0					
			70	50	30	10	70	50	30	10	50	30		10	0			
0	93	93	93	93	87	87	87	87	75	75	75	64	64	64	54	54	54	50
1	79	73	68	63	73	68	63	59	58	54	50	48	45	43	40	37	35	31
2	70	61	54	47	65	57	50	44	48	42	38	39	35	32	32	29	26	22
3	63	52	44	37	58	48	41	35	40	34	29	33	28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

Zone Lumens Total Luminaire Efficiency = 72.3%

Zone	Lumens	CIE Type – Direct
0-10	285.95	
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	
80-90	198.05	
90-100	3.56	
100-110	0.00	
110-120	0.00	
120-130	0.00	
130-140	0.00	
140-150	0.00	
150-160	0.00	
160-170	0.00	
170-180	0.00	

Plane	Spacing Criteria
0-180	1.50
90-270	1.50
Diagonal	1.66

Zonal Lumen Summary			
Zone	Lumens	% Lamp	% Fixture
0-30	2635.28	15.1	20.8
0-40	4559.67	26.1	36.0
0-60	9078.64	51.9	71.8
0-90	12648.77	72.3	100.0
90-120	3.56	0.00	0.00
90-130	3.56	0.00	0.00
90-150	3.56	0.00	0.00
90-180	3.56	0.00	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	0			
0	86	86	86	86	84	84	84	84	80	80	80	77	77	77	74	74	74	72
1	78	74	71	68	76	72	69	67	69	67	65	67	64	63	64	62	61	59
2	70	63	58	54	68	62	57	53	59	55	52	57	54	50	55	52	49	48
3	63	55	48	43	61	54	48	43	51	46	42	49	45	41	47	44	41	39
4	57	48	41	36	56	47	40	35	45	39	35	43	38	34	42	37	34	32
5	52	42	35	30	51	41	35	30	40	34	30	38	33	29	37	32	29	27
6	48	38	31	26	47	37	30	26	36	30	25	34	29	25	33	29	25	23
7	44	34	27	22	43	33	27	22	32	26	22	31	26	22	30	25	22	20
8	41	31	24	20	40	30	24	20	29	24	19	28	23	19	27	23	19	18
9	38	28	22	18	37	28	22	17	27	21	17	26	21	17	25	21	17	16
10	36	26	20	16	35	25	20	16	25	19	16	24	19	15	23	19	15	14

Mercmaster™ III HID 50–250 Watt Luminaires

175 W PSMH

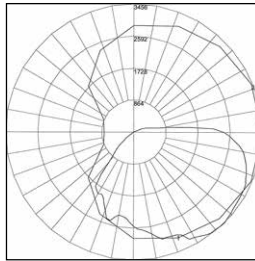
* Photometric data is based on fixtures with a 175-watt clear Pulse Start Metal Halide lamp (17,500 lumen). For candlepower values of fixtures with other PSMH lamps, use the following multipliers: for a 100 W (8,500 lumen) PSMH lamp – 0.49; for 70 W (6,200 lumen) PSMH lamp – 0.36; for a 200 W (21,000 lumen) PSMH lamp – 1.2. For candlepower values of fixture with guard, multiply by 0.95.

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

CEC:
 Type 4X
 IP66

Photometric Data

Zone	Lumens	Total Luminaire Efficiency = 67.1%			
0-10	240.21	CIE Type – Direct			
10-20	750.99	Plane	Spacing Criteria		
20-30	1195.39				
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	Zonal Lumen Summary			
80-90	900.65	Zone	Lumens	% Lamp	% Fixture
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**

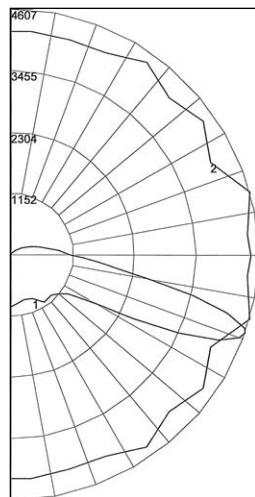
Lamps: 175 W Pulse Start Metal Halide with
 30° Angle Dome Reflector *

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

% Ceiling Rcc	% Walls	Rw	80		70		50		30		10		0							
			70	50	30	10	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	CIE Type – Semi-Direct			
10-20	171.20	Plane	Spacing Criteria		
20-30	325.41				
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	Zonal Lumen Summary			
80-90	1751.05	Zone	Lumens	% Lamp	% Fixture
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	% Walls	Rw	80		70		50		30		10		0							
			70	50	30	10	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 Luminaires

175 W PSMH

* 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.

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

CEC:
 Type 4X
 IP66

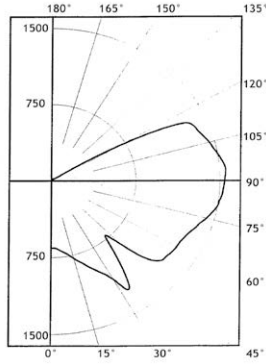
Photometric Data

Degree	Candela	Lumens
0	657	
5	668	65
15	784	224
25	966	451
35	1194	705
45	871	711
55	1267	1142
65	1309	1303
75	1430	1509
85	1528	1661
90	1537	
95	1552	1680
105	1452	1532
115	1339	1232
125	68	143
135	19	16
145	13	11
155	7	3
165	1	1
175	2	0
180	7	

TOTAL LUMINAIRE EFFICIENCY = 70.8%
CIE Type – Semi-Direct
 Spacing Criteria: 1.7

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LAMP	%FIXT.
0-30	740	4.2	6.0
0-40	1445	8.3	11.7
0-60	3297	18.8	26.6
0-90	7770	44.4	62.7
90-120	4444	25.4	35.9
90-130	4586	26.2	37.0
90-150	4613	26.4	37.2
90-180	4617	26.4	37.3
0-180	12387	70.8	100.0



REPORT NUMBER: KPB175PG3
 Lamps: 175 W Pulse Start Metal Halide ED28 Mogul Base with G3 Globe only

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

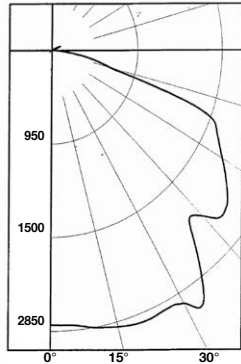
RC	80			70			50			30			10			0	
	RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10		
0	78	78	78	78	73	73	73	64	64	64	56	56	56	48	48	48	44
1	67	61	57	53	62	57	53	49	49	46	43	42	39	37	35	33	28
2	59	51	45	40	54	48	42	37	41	36	32	34	31	27	28	26	23
3	53	44	37	31	49	40	34	29	34	29	25	29	25	21	24	21	18
4	48	38	31	25	44	35	29	24	30	25	20	25	21	17	21	17	14
5	43	33	26	21	40	31	24	20	26	21	17	22	18	14	18	15	12
6	40	29	23	18	37	27	21	16	23	18	14	20	15	12	16	13	10
7	37	26	20	15	34	25	18	14	21	16	12	18	13	10	15	11	9
8	34	24	17	13	31	22	16	12	19	14	11	16	12	9	13	10	7
9	32	22	16	11	29	20	15	11	17	13	9	15	11	8	12	9	7
10	29	20	14	10	27	18	13	9	16	11	8	14	10	7	11	8	6

Degree	Candela	Lumens
0	2785	
5	2797	269
15	2902	823
25	2931	1358
35	2979	1821
45	2388	1874
55	2393	2145
65	2044	2034
75	664	856
85	150	183
90	24	
95	5	11
105	16	17
115	91	73
125	5	9
135	7	3
145	8	2
155	2	2
165	2	0
175	2	1
180	11	

TOTAL LUMINAIRE EFFICIENCY = 65.6%
CIE Type – Direct
 Spacing Criteria: 1.5

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LAMP	%FIXT.
0-30	2450	14.0	21.3
0-40	4271	24.4	37.2
0-60	8290	47.4	72.2
0-90	11363	64.9	99.0
90-120	101	0.6	0.9
90-130	110	0.6	1.0
90-150	115	0.7	1.0
90-180	118	0.7	1.0
0-180	11481	65.6	100.0



REPORT NUMBER: KPB175PG3_ST
 Lamps: 175 W Pulse Start Metal Halide ED28 Mogul Base with G3 Globe and Standard Dome Reflector

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		
0	78	78	78	78	76	76	76	73	73	73	69	69	69	66	66	66	65
1	71	67	64	62	69	66	63	61	63	61	59	60	58	57	58	56	53
2	64	58	53	49	62	57	52	48	54	50	47	52	49	46	50	47	43
3	58	50	44	40	56	49	44	39	47	42	39	45	41	38	43	40	37
4	52	44	38	33	51	43	37	33	41	36	32	39	35	32	38	34	29
5	48	39	32	28	46	38	32	28	36	31	27	35	30	27	34	30	26
6	44	35	28	24	42	34	28	24	33	27	23	31	27	23	30	26	21
7	40	31	25	21	39	30	25	21	29	24	20	28	24	20	27	23	20
8	37	28	22	18	36	28	22	18	27	22	18	26	21	18	25	21	18
9	35	26	20	16	34	25	20	16	24	19	16	24	19	16	23	19	16
10	33	24	18	15	32	23	18	15	23	18	14	22	17	14	21	17	14

Candela Distribution

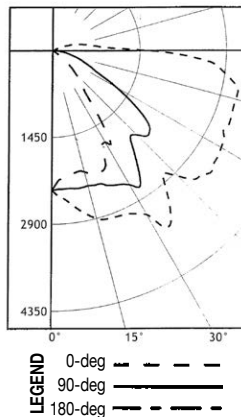
	0.0	45.0	90.0	135.0	180.0	Flux
0	2333	2333	2333	2333	2333	2333
5	2491	2467	2321	2205	2141	223
15	2904	2753	2337	2160	2099	692
25	3010	2891	2480	2242	2120	1170
35	3471	3100	2544	2027	1367	1512
45	2978	2719	1993	832	546	1427
55	3296	2939	1791	421	154	1533
65	3153	2801	776	74	0	1349
75	3175	2621	392	3	0	1140
85	2729	967	117	5	0	709
90	1601	662	11	5	5	
95	790	461	3	11	16	247
105	413	175	11	19	21	109
115	117	8	8	29	56	0
125	5	11	13	13	11	2
135	0	3	3	3	0	1
145	5	5	11	5	0	4
155	0	3	5	5	0	2
165	5	3	8	5	0	1
175	0	5	3	3	0	0
180	6	6	6	6	6	

TOTAL LUMINAIRE EFFICIENCY = 58.2%
CIE Type – Direct
 Spacing Criteria

Plane	Criteria
0°	1.8
90°	1.5
180°	1.1

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LAMP	%FIXT.
0-30	2085	11.9	20.5
0-40	3597	20.6	35.3
0-60	6557	37.5	64.4
0-90	9755	55.7	95.8
90-120	412	2.4	4.1
90-130	415	2.4	4.1
90-150	420	2.4	4.1
90-180	423	2.4	4.2
0-180	10178	58.2	100.0



REPORT NUMBER: KPB175PG3_AN
 Lamps: 175 W Pulse Start Metal Halide ED28 Mogul Base with G3 Globe and 30° Angle Dome Reflector

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		
0	69	69	69	69	67	67	67	63	63	63	60	60	60	57	57	57	56
1	61	57	54	51	59	56	53	50	53	50	48	50	48	46	48	46	43
2	55	49	44	40	53	48	43	40	45	42	38	43	40	37	41	38	34
3	49	42	37	33	48	41	36	32	39	35	31	37	34	31	35	32	30
4	45	37	32	27	43	36	31	27	34	30	26	33	29	26	31	28	25
5	41	33	27	23	40	32	27	23	31	26	22	29	25	22	28	24	21
6	38	30	24	20	37	29	24	20	28	23	19	26	22	19	25	22	19
7	35	27	21	18	34	26	21	17	25	20	17	24	20	17	23	19	16
8	33	24	19	16	32	24	19	15	23	18	15	22	18	15	21	17	15
9	30	22	17	14	29	22	17	14	21	17	14	20	16	13	19	16	13
10	28	20	16	12	28	20	15	12	19	15	12	19	15	12	18	14	12

Mercmaster™ III HID 50–250 Watt Luminaires

100 W HPS

* Photometric data is based on fixtures with a 100-watt clear High Pressure Sodium lamp (9,400 lumen). For candlepower values of fixtures with other HPS lamps, use the following multipliers: for a 70 W (6,400 lumen) HPS lamp – 0.68; for 50 W (4,000 lumen) HPS lamp – 0.43; for candlepower values of fixture with guard, multiply by 0.95.

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

CEC:
 Type 4X
 IP66

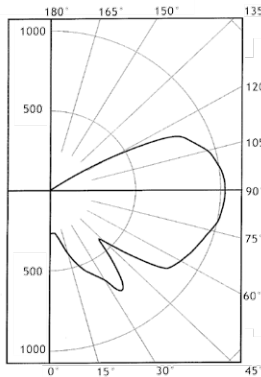
Photometric Data

Degree	Candela	Lumens
0	269	
5	267	27
15	407	117
25	571	267
35	748	442
45	451	380
55	848	735
65	915	908
75	976	1033
85	1021	1113
90	1027	
95	1019	1109
105	953	1002
115	791	734
125	54	103
135	13	9
145	13	8
155	4	2
165	0	0
175	0	0
180	1	

TOTAL LUMINAIRE EFFICIENCY = 84.1%
 CIE Type – Semi-Direct
 Spacing Criteria: 3.1

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LAMP	%FIXT.
0-30	410	4.3	5.1
0-40	852	9.0	10.7
0-60	1967	20.7	24.6
0-90	5021	52.9	62.9
90-120	2845	29.9	35.6
90-130	2948	31.0	36.9
90-150	2965	31.2	37.1
90-180	2967	31.2	37.1
0-180	7988	84.1	100.0



REPORT NUMBER: KPB100LG3
 Lamps: 100 W High Pressure Sodium C100S54 ED23 – 1/2 Mogul Base with G3 Globe only

COEFFICIENTS OF UTILIZATION – ZONAL CAVITY METHOD

EFFECTIVE FLOOR CAVITY REFLECTANCE 0.20

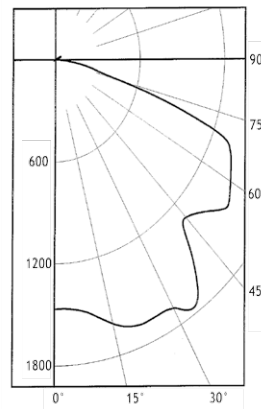
RC	80			70			50			30			10			0		
	RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10			
0	93	93	93	93	87	87	87	87	76	76	76	66	66	66	57	57	57	53
1	79	72	67	62	73	67	62	58	58	54	50	49	46	43	41	39	36	32
2	69	60	52	46	64	56	49	43	48	42	37	40	36	32	33	30	26	23
3	62	51	43	36	57	47	40	34	40	34	29	34	29	24	28	24	20	17
4	56	44	36	29	51	41	33	27	35	28	23	29	24	20	24	19	16	13
5	51	39	30	24	47	36	28	22	30	24	19	25	20	16	21	17	13	10
6	47	34	26	20	43	32	24	19	27	21	16	23	17	13	19	14	11	8
7	43	31	23	17	40	28	21	16	24	18	14	20	15	13	17	13	9	7
8	40	28	20	15	37	26	19	14	22	16	12	19	14	10	15	11	8	6
9	37	25	18	13	34	23	17	12	20	14	10	17	12	9	14	10	7	5
10	34	23	16	11	32	21	15	11	18	13	9	16	11	8	13	9	6	5

Degree	Candela	Lumens
0	1466	
5	1473	142
15	1607	456
25	1675	775
35	1757	1071
45	1316	1047
55	1502	1316
65	1377	1362
75	465	589
85	92	111
90	16	
95	3	5
105	6	6
115	40	33
125	5	8
135	3	2
145	3	1
155	2	1
165	0	1
175	1	0
180	1	

TOTAL LUMINAIRE EFFICIENCY = 72.9%
 CIE Type – Direct
 Spacing Criteria: 1.6

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LAMP	%FIXT.
0-30	1373	14.5	19.8
0-40	2445	25.7	35.3
0-60	4807	50.6	69.4
0-90	6869	72.3	99.2
90-120	45	0.5	0.6
90-130	53	0.6	0.8
90-150	56	0.6	0.8
90-180	58	0.6	0.8
0-180	6927	72.9	100.0



REPORT NUMBER: KPB100LG3 ST
 Lamps: 100 W High Pressure Sodium C100S54 ED23 – 1/2 Mogul Base with G3 Globe and Standard Dome Reflector

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			
0	87	87	87	87	85	85	85	85	81	81	81	77	77	77	74	74	74	72
1	78	74	71	68	76	73	70	67	70	67	65	67	64	62	64	62	60	59
2	70	64	58	53	68	62	57	53	59	55	51	57	53	50	54	52	49	47
3	63	55	48	43	61	54	47	43	51	46	42	49	45	41	47	43	40	38
4	57	48	41	35	55	47	40	35	45	39	34	43	38	34	41	37	33	32
5	52	42	35	30	51	41	34	29	39	34	29	38	33	29	36	32	28	26
6	48	37	30	25	46	37	30	25	35	29	25	34	29	25	33	28	24	23
7	44	34	27	22	43	33	26	22	32	26	22	31	25	21	29	25	21	20
8	41	30	24	19	40	30	24	19	29	23	19	28	23	19	27	22	19	17
9	38	23	21	17	37	27	21	17	26	21	17	25	20	17	25	20	17	15
10	36	25	19	15	35	25	19	15	24	19	15	23	19	15	23	18	15	14

Candela Distribution

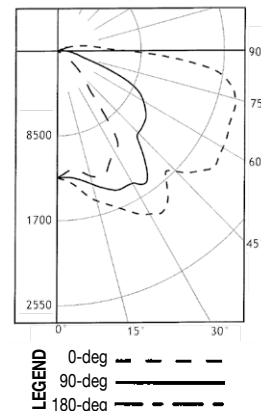
	0.0	45.0	90.0	135.0	180.0	Flux
0	1270	1270	1270	1270	1270	
5	1317	1302	1271	1227	1211	122
15	1554	1471	1384	1341	1298	398
25	1779	1680	1528	1353	1246	694
35	1923	1830	1593	1256	1020	917
45	1715	1564	1163	599	361	848
55	1981	1862	1100	287	122	953
65	1923	1751	869	104	0	869
75	1879	1272	298	9	0	711
85	1371	828	140	1	0	424
90	680	422	89	2	1	
95	416	259	47	4	4	144
105	191	93	4	7	6	59
115	40	18	51	54	92	31
125	1	3	3	3	1	2
135	1	2	3	2	1	1
145	0	1	2	0	0	1
155	0	1	2	1	0	1
165	0	1	1	1	0	0
175	2	2	2	1	0	0
180	2	2	2	2	2	

TOTAL LUMINAIRE EFFICIENCY = 65.0%
 CIE Type – Direct

Plane	Spacing Criteria
0°	1.9
90°	1.7
180°	1.3

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LAMP	%FIXT.
0-30	1213	12.8	19.7
0-40	2131	22.4	34.5
0-60	3932	41.4	63.7
0-90	5936	62.5	96.1
90-120	234	2.5	3.8
90-130	236	2.5	3.8
90-150	238	2.5	3.9
90-180	239	2.5	3.9
0-180	6175	65.0	100.0



REPORT NUMBER: KPB100LG3 AN
 Lamps: 100 W High Pressure Sodium C100S54 ED23 – 1/2 Mogul Base with G3 Globe and 30° Angle Reflector

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

Mercmaster™ III HID 50–250 Watt Luminaires

150 W HPS

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

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

CEC:
 Type 4X
 IP66

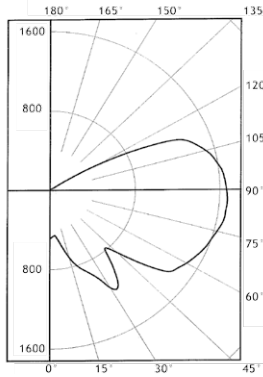
Photometric Data

Degree	Candela	Lumens
0	488	
5	459	46
15	703	202
25	938	442
35	1107	672
45	892	710
55	1420	1253
65	1542	1529
75	1629	1723
85	1675	1824
90	1665	
95	1643	1788
105	1515	1599
115	1072	1042
125	51	115
135	20	16
145	19	12
155	6	4
165	1	0
175	0	0
180	2	

TOTAL LUMINAIRE EFFICIENCY = 81.1%
CIE Type – Semi-Direct
 Spacing Criteria: 3.0

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LAMP	%FIXT.
0-30	689	4.3	5.3
0-40	1361	8.5	10.5
0-60	3324	20.8	25.6
0-90	8400	52.5	64.7
90-120	4429	27.7	34.1
90-130	4544	28.4	35.0
90-150	4572	28.6	35.2
90-180	4576	28.6	35.3
0-180	12976	81.1	100.0



REPORT NUMBER: KP150LG3
Lamps: 150 W High Pressure Sodium C100S54 ED23 – 1/2 Mogul Base with G3 Globe only

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

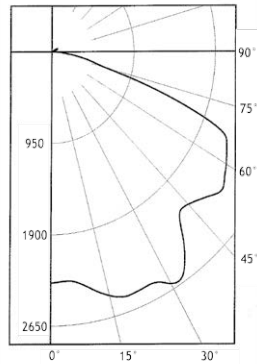
RC	80				70				50				30				10				0
	RW	70	50	30	70	50	30	10	50	30	10	50	30	10	50	30	10	0			
0	90	90	90	90	84	84	84	84	74	74	74	65	65	65	56	56	56	53			
1	76	70	65	60	71	65	60	56	56	53	49	48	45	42	41	38	36	32			
2	67	58	51	44	62	54	47	42	46	41	36	39	35	31	33	29	26	23			
3	60	49	41	34	55	46	38	32	39	33	28	33	28	24	27	23	20	17			
4	54	43	34	29	50	40	32	26	34	27	22	28	23	19	23	19	16	13			
5	49	37	29	23	45	35	27	21	30	23	18	25	20	16	21	16	13	10			
6	45	33	25	19	42	31	23	18	26	20	15	22	17	13	18	14	11	8			
7	41	30	22	16	38	27	20	15	24	18	13	20	15	11	16	12	9	7			
8	38	27	19	14	35	25	18	13	21	16	11	18	13	10	15	11	8	6			
9	36	24	17	12	33	23	16	12	19	14	10	17	12	8	14	10	7	5			
10	33	22	15	11	31	21	14	10	18	12	9	15	11	7	13	9	6	4			

Degree	Candela	Lumens
0	2403	
5	2391	230
15	2624	744
25	2678	1247
35	2705	1673
45	2250	1754
55	2444	2161
65	2246	2192
75	655	851
85	147	174
90	26	
95	6	8
105	11	13
115	73	71
125	7	12
135	6	3
145	4	2
155	4	2
165	2	1
175	2	0
180	1	

TOTAL LUMINAIRE EFFICIENCY = 69.6%
CIE Type – Direct
 Spacing Criteria: 1.6

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LAMP	%FIXT.
0-30	2221	13.9	19.9
0-40	3895	24.3	35.0
0-60	7809	48.8	70.1
0-90	11027	68.9	99.0
90-120	92	0.6	0.8
90-130	104	0.6	0.9
90-150	109	0.7	1.0
90-180	112	0.7	1.0
0-180	11139	69.6	100.0



REPORT NUMBER: KP150LG3_ST
Lamps: 150 W High Pressure Sodium C100S54 ED23 – 1/2 Mogul Base with G3 Globe and Standard Dome Reflector

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

RC	80				70				50				30				10				0
	RW	70	50	30	70	50	30	10	50	30	10	50	30	10	50	30	10	0			
0	83	83	83	83	81	81	81	81	77	77	77	74	74	74	70	70	70	69			
1	75	71	68	65	73	70	67	64	66	64	62	64	62	60	61	59	58	56			
2	67	61	56	51	65	60	55	51	57	53	49	54	51	48	52	49	47	45			
3	61	52	46	41	59	51	46	41	49	44	40	47	43	39	45	41	38	37			
4	55	46	39	34	53	45	38	34	43	37	33	41	36	33	39	35	32	30			
5	50	40	33	28	48	39	33	28	38	32	28	36	31	27	35	31	27	25			
6	46	36	29	24	44	35	29	24	34	28	24	32	27	24	31	27	23	22			
7	42	32	26	21	41	32	25	21	30	25	21	29	24	20	28	24	20	19			
8	39	29	23	18	38	29	23	18	28	22	18	27	22	18	26	22	18	16			
9	36	27	20	16	35	26	20	16	25	20	16	24	20	16	24	19	16	15			
10	34	24	19	15	33	24	18	15	23	18	14	22	18	14	22	17	14	13			

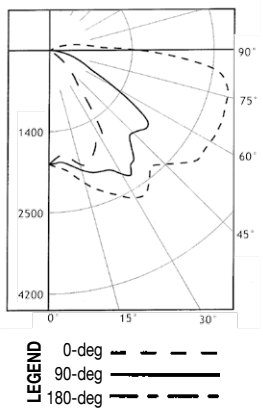
Candela Distribution

	0.0	45.0	90.0	135.0	180.0	Flux
0	1964	1964	1964	1964	1964	
5	2035	2007	1941	1871	1838	187
15	2375	2307	2140	2047	2037	619
25	2755	2587	2288	2095	1853	1081
35	2924	2763	2415	1885	1276	1416
45	2790	2552	2015	780	518	1368
55	3166	2937	1945	410	157	1520
65	3188	2913	777	77	0	1380
75	3145	2547	408	1	0	2118
85	2533	927	117	0	0	663
90	1490	640	14	5	9	
95	765	449	5	8	11	239
105	380	163	6	11	15	106
115	114	4	6	18	63	44
125	2	5	7	8	7	5
135	2	6	7	8	6	4
145	0	2	6	4	2	3
155	2	4	6	6	4	2
165	4	3	5	4	2	1
175	0	2	3	3	2	0
180	2	2	2	2	2	

TOTAL LUMINAIRE EFFICIENCY = 61.0%
CIE Type – Direct
 Spacing Criteria: 1.3

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LAMP	%FIXT.
0-30	1886	11.8	19.3
0-40	3302	20.6	33.8
0-60	6190	38.7	63.5
0-90	9351	58.4	95.9
90-120	389	2.4	4.0
90-130	395	2.5	4.0
90-150	401	2.5	4.1
90-180	404	2.5	4.1
0-180	9754	61.0	100.0



REPORT NUMBER: KP150LG3_AN
Lamps: 150 W High Pressure Sodium C100S54 ED23 – 1/2 Mogul Base with G3 Globe and 30° Angle Reflector

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

RC	80				70				50				30				10				0
	RW	70	50	30	70	50	30	10	50	30	10	50	30	10	50	30	10	0			
0	72	72	72	72	70	70	70	70	66	66	66	63	63	63	60	60	60	58			
1	64	60	57	54	62	58	55	53	55	53	50	52	50	48	50	48	47	45			
2	57	51	46	42	55	50	45	41	47	43	40	45	41	39	42	40	37	36			
3	52	44	38	34	50	43	38	33	41	36	33	39	35	32	37	33	31	29			
4	47	39	33	28	45	38	32	28	36	31	27	34	30	26	32	29	26	24			
5	43	34	28	24	41	33	28	24	32	27	23	30	26	22	29	25	22	21			
6	39	31	25	20	38	30	24	20	28	24	20	27	23	19	26	22	19	18			
7	36	28	22	18	35	27	22	18	26	21	17	25	20	17	24	20	17	15			
8	34	25	20	16	33	24	19	16	23	19	15	22	18	15	22	18	15	14			
9	32	23	18	14	30	22	17	14	21	17	14	21	16	13	20	16	13	12			
10	30	21	16	13	29	21	16	12	20	15	12	19	15	12	18	15	12	11			

Mercmaster™ III HID 50–250 Watt Luminaires

250 W PSMH

* 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.

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

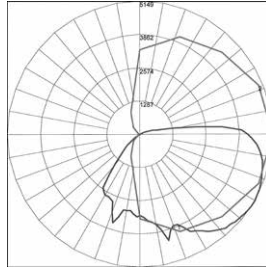
CEC:
 Type 4X
 IP66

Photometric Data

Zone	Lumens
0-10	307.05
10-20	986.27
20-30	1556.63
30-40	2215.28
40-50	2539.71
50-60	2525.66
60-70	2313.2
70-80	1992.57
80-90	1470.76
90-100	689.06
100-110	177.72
110-120	46
120-130	10.39
130-140	6.24
140-150	5.71
150-160	3.95
160-170	2.26
170-180	.8

TOTAL LUMINAIRE EFFICIENCY = 67.4%
 CIE Type – Direct
 Spacing Criteria: 2.16

ZONAL LUMEN SUMMARY			
ZONE	LUMENS	%LAMP	%FIXT.
0-30	2849.95	11.4	16.9
0-40	5065.22	20.3	30.1
0-60	10130.59	40.5	60.1
0-90	15907	63.6	94.4
90-120	912.78	3.7	5.4
90-130	923.17	3.7	5.5
90-150	935.11	3.7	5.5
90-180	942.12	3.8	5.6
0-180	16849.24	67.4	100.0



REPORT NUMBER: KPBG250PAN
 Lamps: 250 W Metal Halide Pulse Start
 Mogul Base

COEFFICIENTS OF UTILIZATION – ZONAL CAVITY METHOD

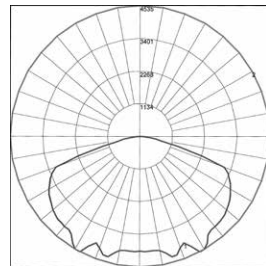
EFFECTIVE FLOOR CAVITY REFLECTANCE 0.20

RC	80			70			50			30			10			0		
	70	50	30	10	70	50	30	10	50	30	10	50	30	10				
0	79	79	79	79	77	77	77	77	73	73	73	69	69	69	65	65	65	64
1	70	65	62	58	67	63	60	57	60	57	54	56	54	52	53	51	50	48
2	62	55	50	45	60	54	49	44	51	46	43	48	44	41	45	42	39	38
3	56	48	41	36	54	46	40	36	44	39	34	41	37	33	39	35	32	30
4	51	42	35	30	49	41	34	29	38	33	29	36	31	28	34	30	27	25
5	47	37	30	25	45	36	30	25	34	28	24	32	27	23	30	26	23	21
6	43	33	26	21	41	32	26	21	30	25	21	29	24	20	27	23	20	18
7	40	30	23	19	38	29	23	18	27	22	18	26	21	18	25	20	17	16
8	37	27	21	16	35	26	20	16	25	20	16	24	19	16	23	18	15	14
9	34	24	19	15	33	24	18	14	23	18	14	22	17	14	21	17	14	12
10	32	22	17	13	31	22	17	13	21	16	13	20	16	12	19	15	12	11

Zone	Lumens
0-10	382.83
10-20	1200.76
20-30	1987.77
30-40	2662.58
40-50	3136.15
50-60	3436.26
60-70	3412.32
70-80	1660.08
80-90	278.17
90-100	3.43
100-110	0
110-120	0
120-130	0
130-140	0
140-150	0
150-160	0
160-170	0
170-180	0

TOTAL LUMINAIRE EFFICIENCY = 72.6%
 CIE Type – Direct
 Spacing Criteria: 1.58

ZONAL LUMEN SUMMARY			
ZONE	LUMENS	%LAMP	%FIXT.
0-30	3571.36	14.3	19.7
0-40	6233.94	24.9	34.3
0-60	12806.35	51.2	70.5
0-90	18156.91	72.6	100
90-120	3.43	0	0
90-130	3.43	0	0
90-150	3.43	0	0
90-180	3.43	0	0
0-180	18160.34	72.6	100.0



REPORT NUMBER: KPBG250PST
 Lamps: 250 W Metal Halide Pulse Start
 Mogul Base

COEFFICIENTS OF UTILIZATION – ZONAL CAVITY METHOD

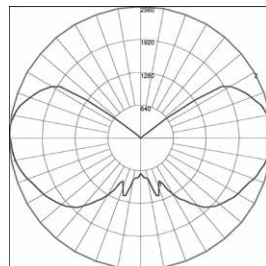
EFFECTIVE FLOOR CAVITY REFLECTANCE 0.20

RC	80			70			50			30			10			0		
	70	50	30	10	70	50	30	10	50	30	10	50	30	10				
0	86	86	86	86	84	84	84	84	81	81	81	77	77	77	74	74	74	73
1	78	74	71	68	76	73	70	67	70	67	65	67	65	63	64	62	61	59
2	70	63	58	53	68	62	57	53	59	55	51	57	53	50	55	52	49	47
3	63	55	48	43	61	53	47	42	51	46	42	49	45	41	47	43	40	38
4	57	48	41	35	55	47	40	35	45	39	34	43	38	34	41	37	33	32
5	52	42	35	30	50	41	34	29	39	34	29	38	33	29	37	32	28	27
6	48	37	30	25	46	37	30	25	35	29	25	34	29	25	33	28	24	23
7	44	33	27	22	43	33	26	22	32	26	22	31	25	21	30	25	21	20
8	41	30	24	19	40	30	23	19	29	23	19	28	23	19	27	22	19	17
9	38	28	21	17	37	27	21	17	26	21	17	25	20	17	25	20	17	15
10	35	25	19	15	35	25	19	15	24	19	15	23	18	15	23	18	15	14

Candela Distribution	
Zone	
0-10	74.54
10-20	304.58
20-30	486.47
30-40	948.61
40-50	1471.61
50-60	1887.31
60-70	2239.17
70-80	2561.7
80-90	2747.67
90-100	2779.02
100-110	2564.95
110-120	2148.15
120-130	1109.49
130-140	37.55
140-150	3.93
150-160	.76
160-170	.09
170-180	.03

TOTAL LUMINAIRE EFFICIENCY = 85.5%
 CIE Type – General Diffuse

ZONAL LUMEN SUMMARY			
ZONE	LUMENS	%LAMP	%FIXT.
0-30	865.59	3.5	4.1
0-40	1814.2	7.3	8.5
0-60	5173.13	20.7	24.2
0-90	12721.67	50.9	59.5
90-120	7492.124	30	35.1
90-130	8601.61	34.4	40.3
90-150	8643.09	34.6	40.5
90-180	8643.97	34.6	40.5
0-180	21365.63	85.5	100.0



REPORT NUMBER: KPBG250PG
 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		
	70	50	30	10	70	50	30	10	50	30	10	50	30	10				
0	94	94	94	94	87	87	87	87	76	76	76	65	65	65	55	55	55	51
1	80	74	68	63	74	68	63	59	58	54	51	49	46	43	40	38	36	31
2	71	61	54	47	65	57	50	44	48	42	38	40	36	32	32	29	26	22
3	63	52	44	37	58	48	41	34	41	34	29	33	29	25	27	23	20	16
4	57	45	36	30	52	42	34	28	35	29	24	29	24	20	23	19	16	13
5	52	40	31	25	47	36	29	23	31	24	19	25	20	16	20	16	13	10
6	47	35	27	21	43	32	25	19	27	21	16	22	17	13	18	14	11	8
7	44	31	23	18	40	29	22	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	37	25	18	13	34	24	17	12	20	14	10	17	12	9	13	10	7	5
10	35	23	16	12	32	22	15	11	18	13	9	15	11	8	12	9	6	4

Mercmaster™ III HID 50–250 Watt Luminaires

250 W PSMH

* 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.

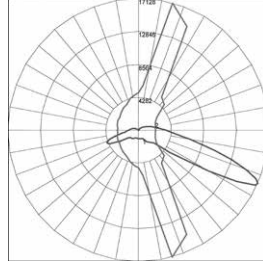
CEC:
 Class I, Division 2, Groups A, B, C, D
 Class I, Zone 2 Ex nR IIC (Z)
 Class II, Division 1 and 2, Groups E, F, G
 Class III

CEC:
 Type 4X
 IP66

Photometric Data

Zone	Lumens	TOTAL LUMINAIRE EFFICIENCY = 79%			
0-10	28.46	CIE Type – Semi-Direct			
10-20	222.99	Spacing Criteria: 1.64			
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				

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

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

Zone	Lumens	TOTAL LUMINAIRE EFFICIENCY = 84%			
0-10	28.96	CIE Type – Semi-Direct			
10-20	214.01	Spacing Criteria: 1.64			
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				

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	

