Code•Master™ 2 HID Factory Sealed Luminaires

Explosionproof, Dust-Ignitionproof

Integrally Ballasted. 50 W, 70 W, 100 W, 150 W, 250 W, 400 W HPS; 175 W, 250 W, 320 W, 350 W, 400 W PSMH; 175 W, 250 W, 400 W MH . Mogul Base. For use with threaded metal conduit.

NEC:
- ***Class I, Division 1 and 2, Groups C, D***
- ***Class II, Division 1 and 2, Groups E, F, G***
- ***Class III***
- ***Marine Type Electric Fixtures***
- ***Outside Type (Salt Water)***

CEC:
- ***Class I, Division 1 and 2, Groups B, C, D***
- ***Class I, Zone 1 and 2; IIB, IIA***
- ***Class II, Division 1, Groups E, F, G***
- ***Class II, Division 2, Groups F, G***
- ***Class III***

CEC:
- ***CSA Type 4X***
- ***Exd IIB, Zone 1***

Applications

- Ideal for use in chemical and petrochemical plants, such as manufacturers of plastics, paints and thinners; in refineries; and in other process areas where ignitable vapors, dust, moisture and corrosive elements may be present.
- Suitable for use in wet locations.

Features

- Fixtures operate safely in high ambient temperatures. For example, in Class I areas the 150 W HPS fixture operates at a maximum temperature of +120 °C (+248 °F) in a +65 °C (+149 °F) ambient [+100 °C (+212 °F) temperature in a +40 °C (+104 °F) ambient].
- Arrangement of heat-producing components results in more efficient heat dissipation for cooler fixture operation.
- "Wireless" design. Threading of fixture unit onto mounting hood makes electrical connection. Only wiring required is attaching two wires to connection block in mounting hood.
- Connection block is easily wired: (a) loosen two screws, (b) make wire connections and (c) re-position connection block.
- Safe, easy servicing without disconnecting any wiring. "Wireless" fixture unit easily threads off mounting hood for convenient servicing or for immediate replacement with a "stand-by" unit.
- Acme double-lead threads speed installation and fixture removal from mounting hood — only half as many turns are required as for single-lead threads. The threads do not stick or gall, eliminating the troublesome problems often encountered with single lead threads during fixture unit removal.
- All threaded joints are flame-tight.
- Integrally ballasted HID lighting fixtures; separate ballasts not required.
- Factory sealed. External seals not required.
- Strategic location of lamp socket in combination with the interior prism design of the glass globe provides optimum light distribution and control.
- Superior corrosion resistance, with epoxy powder coat finish.
- Porcelain socket with nickel-plated phosphor bronze screw shell. Assures long trouble-free operation in high ambient areas.
- Choice of mountings: pendant, ceiling, bracket and stanchion.
- Fiberglass-reinforced polyester reflectors, in standard dome, deep dome or 30° angle, are ideal in installations where luminaire is subject to exceptionally severe corrosive atmospheres. The high bay aluminum reflector is indicated in installations where mounting height from work plane ranges from 20 feet/6 meters and higher.
- Optional guards protect globes from damage. Secured to fixture with three screws.
- Light sources: high pressure sodium, pulse start metal halide or metal halide. HPS is excellent where long lamp life is required. HPS provides high lumens per watt and is less expensive to operate. PSMH/MH is desirable where colors of illuminated areas must be close to natural. PSMH/MH provides better color rendition, increased lumen output, longer lamp life, and faster restrike after momentary power interruption.
- A wide range of ballasts and voltages are available for both domestic and export applications.
- Ballasts operate at low temperatures – PSMH: -29 °C (-20 °F); HPS: -40 °C (-40 °F); MH: -35 °C (-31 °F).

- 50 W through 150 W high pressure sodium ballasts are high reactance, high power factor type.

Standard Materials

- Ballast bodies and guards: copperfree (4/10 of 1% max.) aluminum
- Pendant mounting hoods: diecast copperfree (4/10 of 1% max.) aluminum
- Ceiling, bracket and stanchion mounting hoods: sand cast copperfree (4/10 of 1% max.) aluminum
- Reflectors: aluminum or fiberglass reinforced polyester

Standard Finishes

- Ballast bodies, guards and mounting hoods: epoxy powder coat finish, electrostatically applied for complete, uniform corrosion protection

Options

- Fuses for field installation can be ordered by catalog number from fuse kit table.
- Quartz Auxiliary Emergency Lamp for PSMH/MH and HPS fixtures. Relay switch installed in fixture. Add suffix **-E** to fixture catalog number. ①
- Hot Restrike Option available for 50 W through 150 W HPS only. Add suffix **–R**.
- Smart Starter Option available for 50 W through 400 W HPS and PSMH/MH. Add suffix **–S**.

NEC/CEC Certifications and Compliances

- UL Standard: UL 1598, UL 844
- UL Listed: E10444
- CSA Standard: C22.2 No. 250, C22.2 No. 137
- CSA Certified: 025428

① *Quartz Auxiliary Emergency Lamps for PSMH/MH and HPS fixtures are for ordinary locations only.*

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CEC:
- ***CSA Type 4X***
- ***Exd IIB, Zone 1***

Classified Area Suitability of Code•Master 2 Series HID Fixtures — Suitability includes use of reflector

Lamp Type	Lamp Watts	Supply Wire °C (°F)	Ambient Temp °C (°F)	Class I, Division 1 and 2 With Globe or with Globe and Reflector UL/NEC/CEC Temp. Ident. No.			Class II, Division 1 and 2 With Globe or with Globe and Reflector UL/NEC/CEC Temp. Ident. No. ①	
				Nameplate Marking	NEC Groups	CEC Groups	Nameplate Marking	Groups
High Pressure Sodium	50	60 (140)	40 (104)	**T6**	C,D	B, C, D	**T4**	E,F,G
	50	75 (167)	55 (131)	**T5**	C,D	B, C, D	—	—
	50	85 (185)	65 (149)	**T5**	C,D	B, C, D	—	—
	70	60 (140)	40 (104)	**T6**	C,D	B, C, D	**T4**	E,F,G
	70	75 (167)	55 (131)	**T5**	C,D	B, C, D	—	—
	70	85 (185)	65 (149)	**T5**	C,D	B, C, D	—	—
	100	60 (140)	40 (104)	**T5**	C,D	B, C, D	**T4**	E,F,G
	100	75 (167)	55 (131)	**T5**	C,D	B, C, D	—	—
	100	85 (185)	65 (149)	**T4A**	C,D	B, C, D	—	—
	150	60 (140)	40 (104)	**T5**	C,D	B, C, D	**T3A**	E,F
	150	75 (167)	55 (131)	**T4A**	C,D	B, C, D	**T3**	—
	250	75 (167)	40 (104)	**T3C**	C,D	B, C, D	—	—
	250	75 (167)	55 (131)	**T3C**	C,D	B, C, D	—	—
	400	85 (185)	40 (104)	**T3C**	C,D	B, C, D	—	—
Pulse Start Metal Halide	175	75 (167)	40 (104)	**T4**	C,D	B, C, D	**T3C**	E,F,G
	250	75 (167)	40 (104)	**T4**	C,D	B, C, D	**T3A**	E,F
	320	75 (167)	40 (104)	**T3C**	C,D	B, C, D	—	—
	350	75 (167)	40 (104)	**T3C**	C,D	B, C, D	—	—
	400	75 (167)	40 (104)	**T3C**	C,D	B, C, D	—	—
Metal Halide ②	175	75 (167)	40 (104)	**T4**	—	B, C, D	**T3C**	E, F, G
	250	75 (167)	40 (104)	**T4**	—	B, C, D	**T3A**	E, F
	400	75 (167)	40 (104)	**T3C**	—	B, C, D	—	—

"T" Numbers Represent the Maximum Surface Temperature for Class I, Division 1 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	187-12	185

NOTE: The maximum operating temperature of the fixture must not exceed the ignition temperature of the gas, vapor or dust to be encountered per the National Electrical Code and the Canadian Electrical Code.

① Applies to Code•Master 2 only.

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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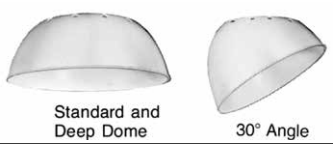
CEC:
CSA Type 4X
Exd IIB, Zone 1

	Description	Catalog Number
Polyester Reflectors — 50 W - 400 W		
 Standard and Deep Dome 30° Angle	Standard Dome	**CMR-4ST**
	Deep Dome	**CMR-4DD**
	30° Angle	**CMR-4AN**
Aluminum High Bay Reflectors — 50 W - 400 W		
		**CMR-4HB**
Prismatic Glass Globes — 50 W - 400 W		
	50, 70, 100, 150 W HPS; 175, 250 W PSMH; 175, 250 W MH	**CGL-250**
	250, 400 W HPS; 320, 350, 400 W PSMH; 400 W MH	**CGL-400**
Aluminum Guards — 50 W - 400 W		
	50, 70, 100, 150 W HPS; 175, 250 W PSMH; 175, 250 W MH	**CGU2**
	250, 400 W HPS; 320, 350, 400 W PSMH; 400 W MH	**CGU4**
Replacement Sockets — 50 W - 400 W (Mogul Base)		
 VPT-7	For all Code•Master 2 HID fixtures	**CMS-400**
	Connection Block – 50 W through 400 W	
	For all Code•Master 2 HID fixtures	**VPT-7**

Quartz Emergency Option for Pulse Start Metal Halide and High Pressure Sodium Fixtures
Fixtures can be supplied with a socket to accept a 150 W or 250 W, 120 V quartz lamp (lamp not included). This D.C. bayonet base socket is in addition to the standard lamp socket, independent of the lighting fixture voltage.

Add suffix **-E**

HPS Hot Restrike

Restrikes HPS lamp immediately when power is restored after a momentary power interruption.

Optional for fixture watts of 50, 70, 100 or 150 (HPS only) — Add suffix **-R**

HPS Smart Starter
Smart Starter is for HPS fixtures only. 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 which reduces maintenance and repair costs.

Optional for all HPS fixtures. — Add suffix **-S**