

# Code•Master 2™ HID Factory Sealed Floodlights

## Marine (Outside Type). Explosionproof

Integrally Ballasted. 150 W, 250 W, 400 W HPS; 150 W, 175 W, 250 W, 320 W, 350 W, 400 W PSMH; 175 W, 250 W, 400 W MH <sup>UL</sup>. Mogul Base.

### NEC:

Class 1, Division 1 and 2, Groups C, D  
Marine Type Electric Fixtures  
Outside Type (Salt Water)

### CEC: <sup>UL</sup>

Class I, Division 1 and 2, Groups B, C, D  
Class II, Division 1, Groups E, F, G  
Class II, Division 2, Groups F, G  
Class III  
CSA 4X

### Applications

- UL Listed for Marine Type Electric Fixtures Outside Type (Salt Water).
- Ideal in Class I, Division 1 and 2 installations in refineries, in pipeline transportation facilities, at drilling rigs and in production facilities on land and marine platforms.
- Class I, Division 1 areas include:
  - (1) enclosed derricks, mud tanks, desander-desilter, gas-operated control devices, oil-gas separation vessels, shale shakers and flowing or beam wells
  - (2) flowing or beam wells in open areas with cellar or below grade sump
  - (3) on refinery docks where tankers are loaded with hoses or loading arms
  - (4) in compressor buildings (open or enclosed) where methane gas is present
- Virtually all enclosed areas at drilling operations or refineries where ventilation is inadequate, or where a cellar or below grade sump exists, are Class I, Division 1.

### Features

- Choice of mountings: (1) crossarm with degree indicator; (2) junction box for horizontal or vertical mount; and (3) swivel for pole mount (screws onto standard 2" pipe threads).
- Fixtures operate safely in high ambient temperatures. For example, in Class I areas the 150 W HPS unit operates at a maximum fixture surface temperature of 248 °F/120 °C in a 149 °F/65 °C ambient (212 °F/100 °C temperature in a 104 °F/40 °C ambient).
- Arrangement of heat-producing components results in more efficient heat dissipation for cooler fixture operation.
- All threaded joints are flame-tight.
- Five threads are always fully engaged in an explosionproof manner.
- 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.
- Heat- and impact-resistant globes have smooth dust-resistant exterior.
- Superior corrosion resistance, with epoxy powder coat finish.
- Ballasts operate at low temperatures – PSMH: -20 °F/-29 °C; HPS: -40 °F/-40 °C.

### Standard Materials

- Ballast housing, guard and junction box, and pole mounts: copperfree (4/10 of 1% max.) aluminum
- Crossarm mount: malleable iron
- Trunnion: steel.
- High bay reflector: aluminum
- Standard dome, deep dome and 30° angle reflectors: fiberglass reinforced polyester
- Socket: porcelain
- Screw shell: nickel-plated phosphor bronze

### Standard Finishes

- Ballast housing, guard, trunnion and mounting accessories: epoxy-clad finish. Powder coat baked finish, electrostatically applied for complete, uniform corrosion protection



Shown with Optional High Bay Reflector

Effective Protected area: 1.8 Square Feet

### Options

- Fuses for field installation are ordered by catalog number from the fuse kit table
- Quartz Auxiliary Emergency Lamp for PSMH and HPS fixtures. Relay switch installed fixture. Add suffix **-E** to fixture catalog number.
- "Smart Hot Restrike" Emergency Option available for 150 W HPS. Add suffix **-SR**.
- Hot Restrike Option available for 150 W HPS. Add suffix **-R**.
- Smart Starter. Add suffix **-S**

### Certifications and Compliances

- UL Standard: UL 1598, UL 844
- UL Listed: E10794
- CSA Standard: C22.2 No. 250, C22.2 No. 137
- CSA Certified: 025428

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

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Class II, Division 2, Groups F, G  
Class III  
CSA 4X

### Classified Area Suitability — Suitability includes use of reflector

Lamp Type	Lamp Watts	Supply Wire (°F/°C)	Ambient Temp (°F/°C)	Class I, Division 1 & 2 With Globe or with Globe & Reflector UL/NEC/CEC Temp. Ident. No.			Class II, Division 1 & 2 With Globe or with Globe & Reflector CEC Temp. Ident. No.	
				Nameplate Marking	NEC Groups	CEC <sup>UL</sup> Groups	Nameplate Marking	CEC <sup>UL</sup> Groups
High Pressure Sodium	150	122/60	104/40	<b>T5</b>	C,D	B, C, D	<b>T3A</b>	E,F
	150	167/75	131/55	—	C,D	B, C, D	<b>T3</b>	—
	250	167/75	104/40	<b>T4</b>	C,D	B, C, D	—	—
	250	167/75	131/55	—	C,D	B, C, D	—	—
	400	185/85	104/40	<b>T3A</b>	C,D	B, C, D	—	—
Pulse Start Metal Halide	175	167/75	104/40	<b>T3B</b>	C,D	B, C, D	<b>T3C</b>	E,F,G
	250	167/75	104/40	<b>T3B</b>	C,D	B, C, D	<b>T3A</b>	E,F
	320	167/75	104/40	<b>T3</b>	C,D	B, C, D	—	—
	350	167/75	104/40	<b>T3</b>	C,D	B, C, D	—	—
	400	167/75	104/40	<b>T3</b>	C,D	B, C, D	—	—
Metal Halide <sup>UL</sup>	175	167/75	104/40	<b>T4</b>	—	B, C, D	<b>T3C</b>	E, F, G
	250	167/75	104/40	<b>T4</b>	—	B, C, D	<b>T3A</b>	E, F
	400	167/75	104/40	<b>T3C</b>	—	B, C, D	—	—

LIGHTING: EXPLOSIONPROOF — FLOODLIGHT

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

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	Lamp Watts	ANSI Lamp Type		Catalog Number ①②	
		HPS	PSMH	HPS	PSMH
<b>Fixture Unit</b>					
	Furnished with Trunnion 3/4" hub. (3/4 – 14 NPT)				
	150	S55	M102	<b>CFL150MT</b>	<b>CFP150MT</b>
	175	—	M137/M152	—	<b>CFP175MT</b>
	250	S50	M138/M153	<b>CFL250MT</b>	<b>CFP250MT</b>
	320	—	M145	—	<b>CFP320MT</b>
	350	—	M131	—	<b>CFP350MT</b>
400	S51	M135/M155	<b>CFL400MT</b>	<b>CFP400MT</b>	
<b>Fixture Unit with Junction Box for Horizontal or Vertical Mounting ③</b>					
	3/4" fixture hub and two conduit openings (3/4 – 14 NPT). 30" Flexible Coupling connects to 3/4" fixture hub and to 1/2" junction box opening. Furnished with one 3/4" Close-up Plug. Has Locking Screw for horizontal adjustment.				
	150	S55	M102	<b>CFL150JBMT</b>	<b>CFP150JBMT</b>
	175	—	M137/M152	—	<b>CFP175JBMT</b>
	250	S50	M138/M153	<b>CFL250JBMT</b>	<b>CFP250JBMT</b>
	320	—	M145	—	<b>CFP320JBMT</b>
	350	—	M131	—	<b>CFP350JBMT</b>
400	S51	M135/M155	<b>CFL400JBMT</b>	<b>CFP400JBMT</b>	
<b>Fixture Unit with Pole-Top Mount (on 2" Threaded Pipe) ③</b>					
	2" tapered threads (2 – 11-1/2 NPT). Locking Screw for horizontal adjustment. 30" Flexible Coupling connects to 3/4" fixture hub (3/4 – 14 NPT) and to 1/2" pole-top opening (1/2-14 NPT).				
	150	S55	M102	<b>CFL150SFMT</b>	<b>CFP150SFMT</b>
	175	—	M137/M152	—	<b>CFP175SFMT</b>
	250	S50	M138/M153	<b>CFL250SFMT</b>	<b>CFP250SFMT</b>
	320	—	M145	—	<b>CFP320SFMT</b>
	350	—	M131	—	<b>CFP350SFMT</b>
400	S51	M135/M155	<b>CFL400SFMT</b>	<b>CFP400SFMT</b>	
<b>Fixture Unit with Crossarm Mounting ③</b>					
	For mounting to flat surface. 180° horizontal adjustment with degree indicator. 30" Flexible Coupling connects to 3/4" fixture hub (3/4 – 14 NPT) and to any 1/2" opening (1/2 – 14 NPT).				
	150	S55	M102	<b>CFL150CAMT</b>	<b>CFP150CAMT</b>
	175	—	M137/M152	—	<b>CFP175CAMT</b>
	250	S50	M138/M153	<b>CFL250CAMT</b>	<b>CFP250CAMT</b>
	320	—	M145	—	<b>CFP320CAMT</b>
	350	—	M131	—	<b>CFP350CAMT</b>
400	S51	M135/M155	<b>CFL400CAMT</b>	<b>CFP400CAMT</b>	

① To order fixture with guard, add suffix **-G** before voltage suffix.

② Fixtures furnished with trunnion and bolts, flexible coupling and fittings, and mounting accessory. The trunnion provides vertical adjustment and the mounting accessory provides horizontal adjustment.

③ Change suffix **-MT** (120/208/240/277 V) to **-480** for 480 V.

# Code•Master 2™ HID Factory Sealed Floodlight Ballast and Fuse Data

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Class III  
CSA 4X

Lamp	Watts	Volts	Ballast Amps						Fuse Quantity Required	Fuse Kit Catalog Number		
			High Pressure Sodium <sup>1</sup>		Pulse Start Metal Halide Super CWA		Metal Halide CWA			HPS	PSMH	MH
			Start	Operating	Start	Operating	Start	Operating				
150	120		2.00	1.66	—	—	—	—	1	CF-10	—	—
	208		1.16	0.96	—	—	—	—	2	CF-5	—	—
	240		1.00	0.83	—	—	—	—	2	CF-5	—	—
	277		0.88	0.75	—	—	—	—	1	CF-5	—	—
	347		0.52	0.56	—	—	—	—	1	CF-5	—	—
	480		0.50	0.44	—	—	—	—	2	CF-3	—	—
175	120		—	—	1.10	1.86	1.30	1.80	1	—	CF-5	CF-5
	208		—	—	0.75	1.23	0.75	1.10	2	—	CF-3	CF-3
	240		—	—	0.65	0.98	0.65	0.90	2	—	CF-3	CF-3
	277		—	—	0.55	0.87	0.55	0.80	1	—	CF-2	CF-2
	347		—	—	0.25	0.65	0.50	0.65	1	—	CF-2	CF-2
	480		—	—	0.25	0.50	—	—	2	—	CF-2	—
250	120		1.75	2.70	1.96	2.50	1.20	2.60	1	CF-8	CF-8	CF-8
	208		1.00	1.50	1.13	1.45	0.65	1.50	2	CF-5	CF-5	CF-5
	240		0.85	1.30	0.98	1.25	0.60	1.30	2	CF-5	CF-5	CF-5
	277		0.75	1.15	0.85	1.10	0.50	1.12	1	CF-5	CF-3	CF-3
	347		0.60	0.93	0.62	0.90	0.80	0.90	1	CF-5	CF-3	CF-3
	480		0.40	0.65	0.32	0.67	—	—	2	CF-2	CF-2	—
320	120		—	—	3.30	3.25	—	—	1	—	CF-8	—
	208		—	—	1.90	1.90	—	—	2	—	CF-6	—
	240		—	—	1.60	1.65	—	—	2	—	CF-5	—
	277		—	—	1.40	1.40	—	—	1	—	CF-5	—
	347		—	—	0.70	1.10	—	—	1	—	CF-5	—
	480		—	—	0.45	0.85	—	—	2	—	CF-3	—
350	120		—	—	3.60	3.70	—	—	1	—	CF-10	—
	208		—	—	2.10	2.10	—	—	2	—	CF-8	—
	240		—	—	1.80	1.80	—	—	2	—	CF-5	—
	277		—	—	1.60	1.60	—	—	1	—	CF-5	—
	347		—	—	0.70	1.01	—	—	1	—	CF-5	—
	480		—	—	0.60	0.90	—	—	2	—	CF-3	—
400	120		3.10	3.90	3.50	4.00	3.25	4.00	1	CF-15	CF-10	CF-10
	208		1.80	2.25	2.00	2.30	1.90	2.30	2	CF-8	CF-8	CF-8
	240		1.60	1.95	1.75	2.00	1.65	2.00	2	CF-5	CF-5	CF-5
	277		1.35	1.70	1.50	1.75	1.40	1.75	1	CF-5	CF-5	CF-5
	347		1.00	1.32	1.10	1.35	1.20	1.40	1	CF-5	CF-5	CF-5
	480		0.80	1.00	0.75	1.00	—	—	2	CF-5	CF-3	—

LIGHTING: EXPLOSIONPROOF – FLOODLIGHT

Fuse Kit includes fuse, fuse holder and necessary hardware for field installation. Mounts easily in ballast body with one screw. Order one fuse for 120 and 277 V, and 2 fuses for 208, 240 and 480 V. **CF-2** = 2 amp; **CF-3** = 3 amp; **CF-5** = 5 amp; **CF-6** = 6 amp; **CF-8** = 8 amp; **CF-10** = 10 amp  
<sup>1</sup> 50 through 150 W HPS have H.P.F. High Reactance ballasts; 250 W and 400 W HPS have CWA ballasts.

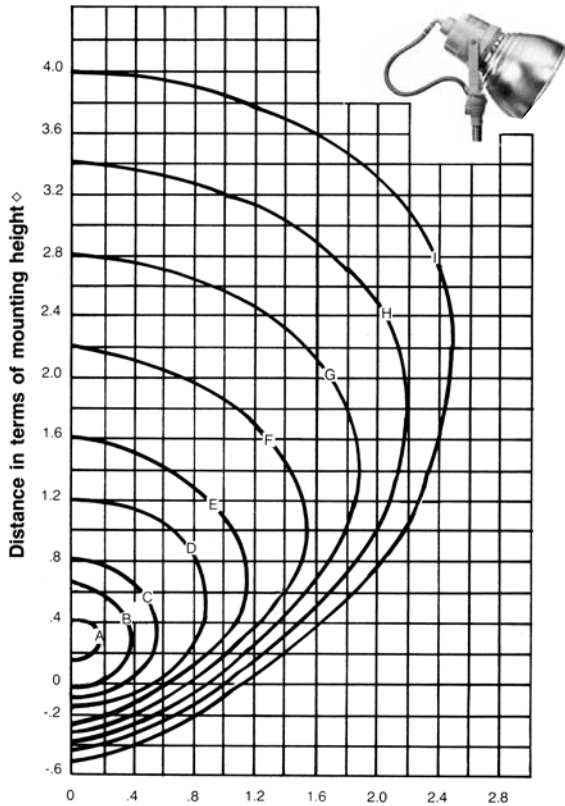
<sup>1</sup> CSA Certification only.

# Code•Master 2™ HID Factory Sealed Floodlight Photometric Data

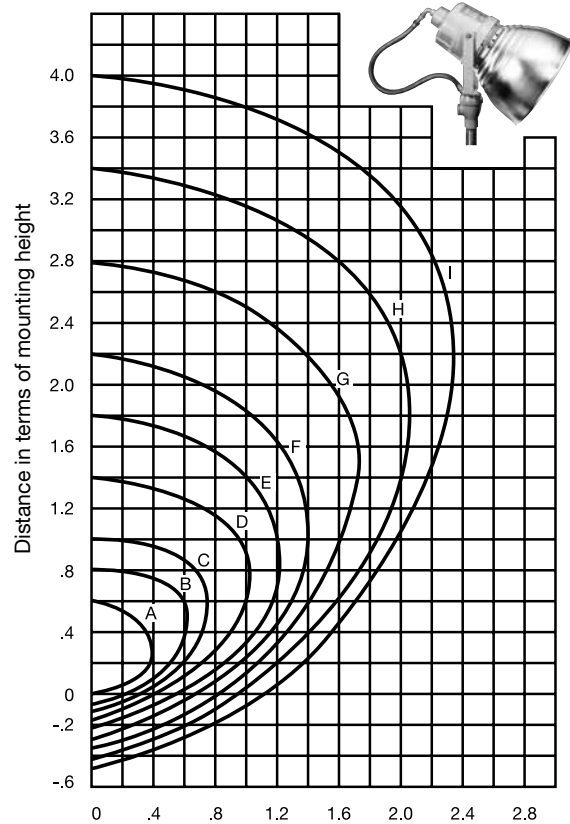
## Marine (Outside Type). Explosionproof

Typical Footcandle Values for Iso-Footcandle Curves. Data Based on 400 W HPS (50,000 Lumens) Clear Mogul Base Lamps.

400 W HPS Floodlight at 45° Angle with High Bay Reflector \*

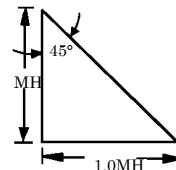
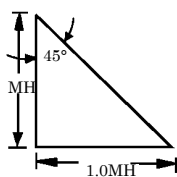


400W MH Floodlight at 45° Angle with High Bay Reflector



Mounting Height (feet)	FOOTCANDLE VALUES FOR ISO-FOOTCANDLE CURVES								
	A	B	C	D	E	F	G	H	I
15	52.52	43.34	31.00	17.05	10.23	4.77	2.43	1.36	0.84
20	29.54	24.38	17.44	9.59	5.75	2.68	1.37	0.77	0.47
25	18.91	15.60	11.16	6.14	3.68	1.72	0.87	0.49	0.30
30	13.13	10.84	7.75	4.26	2.56	1.19	0.61	0.34	0.31
35	9.65	7.96	5.69	3.13	1.88	0.88	0.45	0.25	0.15
40	7.39	6.10	4.36	2.40	1.44	0.67	0.34	0.19	0.12

Mounting Height (feet)	FOOTCANDLE VALUES FOR ISO-FOOTCANDLE CURVES								
	A	B	C	D	E	F	G	H	I
15	33.97	22.10	16.12	9.69	6.40	4.12	2.13	1.13	.67
20	19.11	12.43	9.07	5.45	3.60	2.31	1.20	.64	.38
25	12.23	7.96	5.80	3.49	2.30	1.48	.77	.41	.24
30	8.49	5.52	4.03	2.42	1.60	1.03	.53	.28	.17
35	6.24	4.06	2.96	1.78	1.18	.76	.39	.21	.12
40	4.78	3.11	2.27	1.36	.90	.58	.30	.16	.10



\* For 250 Watt HPS Clear, 30,000 Lumen lamp, multiply all FTC values by 0.60.

LIGHTING: EXPLOSIONPROOF – FLOODLIGHT

Lighting