Marine (Outside Type). Explosionproof

NEC: Class 1, Division 1 and 2, Groups C, D | Marine Type Electric Fixtures | Outside Type (Salt Water) CEC: 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
 - (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 operateSee page 1290 for classified area suitability.
- 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: -29 °C (-20 °F); HPS: -40 °C (-40 °F).

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
- Hot Restrike Option available for 150 W HPS. Add suffix -R.
- Smart Starter. Add suffix -S

NEC/CEC 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

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Classified Area Suitability — Suitability includes use of reflector

			Ambient		Division 1 and 2 With Globe or with and Reflector UL/NEC/CEC Temp. Ident. No.		Class II, Division 1 and 2 With Globe or with Globe and Reflector CEC Temp. Ident. No.	
Lamp Type	Lamp Watts	Supply Wire °C (°F)	Temp °C (°F)	Nameplate Marking	NEC Groups	CEC Groups	Nameplate Marking	CEC Groups
	150	50 (122)	40 (104)	T5	C,D	B, C, D	T3A	E,F
	150	75 (167)	55 (131)	_	C,D	B, C, D	Т3	_
High Pressure Sodium	250	75 (167)	40 (104)	T4	C,D	B, C, D	_	_
Codiaiii	250	75 (167)	55 (131)	_	C,D	B, C, D	_	_
	400	85 (185)	40 (104)	T3A	C,D	B, C, D	_	_
	175	75 (167)	40 (104)	Т3В	C,D	B, C, D	T3C	E,F,G
Pulse Start Metal Halide	250	75 (167)	40 (104)	T3B	C,D	B, C, D	T3A	E,F
motal Flands	400	75 (167)	40 (104)	T3	C,D	B, C, D	_	_
Metal Halide ①	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	_	_

10 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.



Marine (Outside Type). Explosionproof

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

		ANSI Lamp Type	e	Catalog Number	03
	Lamp Watts	HPS	PSMH	HPS	PSMH
Fixture Unit					
4 Den	Furnished with Tru	nnion 3/4" hub. (3/4 –	14 NPT)		
	150	S55	M102	CFL150	_
	175	_	M137/M152	_	CFP175
	250	S50	M138/M153	CFL250	CFP250
	400	S51	M135/M155	CFL400	CFP400

Fixture Unit with Junction Box for Horizontal or Vertical Mounting ②



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	CFL150JB	_
175	_	M137/M152	_	CFP175JB
250	S50	M138/M153	CFL250JB	CFP250JB
400	S51	M135/M155	CFL400JB	CFP400JB

Fixture Unit with Pole-Top Mount (on 2" Threaded Pipe) ②



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	CFL150SF	_
175	_	M137/M152	_	CFP175SF
250	S50	M138/M153	CFL250SF	CFP250SF
400	S51	M135/M155	CFL400SF	CFP400SF

Fixture Unit with Crossarm Mounting ②



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	CFL150CA	_
175	_	M137/M152	_	CFP175CA
250	S50	M138/M153	CFL250CA	CFP250CA
400	S51	M135/M155	CEL 400CA	CEP400CA

XQ - 120/230 V 50 HZ

		Voltage	Suffixes										
Lamp Type	Lamp Watts	MT	5MT	480	226	236	TT	CN	GP	XQ	XK	XR	AM
	150	Χ	_	Χ	Χ	Χ	Χ	Χ	Χ	_	_	_	_
HPS	250	Χ	Χ	_	_	Χ	_	_	_	Χ	_	_	_
	400	Χ	Х	Χ	_	_	Χ	Х	_	Χ	Χ	Х	X
	175	Χ	_	Χ	_	_	_	_	_	_	_		X
PSMH	250	Χ	Χ	Χ	_	_	Χ	_	_	Χ	_	_	_
	400	Χ	Х	Χ	_	_	Х	_	_	X	_	_	_
Voltages:													
MT -120/208/2	240/277 V 60 HZ		220 V 60 H				240/480 \				220/240 V		
5MT - 120/208	3/240/277/480 V 60 HZ	236 - 2	230V 60 HZ	7_		GP - 1	120/220 \	/ 50 HZ		XR - 3	380/415 V	/ 50 HZ	

TT - 120/277/347 V 60 HZ



AM - 127/220 V 60 HZ

480 - 480 V. 60 HZ

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

[©] 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 Add voltage suffix to end of the part number. See chart voltage suffix availability by fixture type.

Marine (Outside Type). Explosionproof

CEC: 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

		ANSI Lamp Type)	Catalog Number	13
	Lamp Watts	HPS	PSMH	HPS	PSMH
Fixture Unit					
47	Furnished with Tru	nnion 3/4" hub. (3/4 – 1	14 NPT)		
The state of the s	150	S55	M102	CFL150	_
	175	_	M137/M152	_	CFP175
	250	S50	M138/M153	CFL250	CFP250
·	400	S51	M135/M155	CFL400	CFP400

Fixture Unit with Junction Box for Horizontal or Vertical Mounting ②



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	CFL150JB	_
175	_	M137/M152	_	CFP175JB
250	S50	M138/M153	CFL250JB	CFP250JB
400	S51	M135/M155	CFL400JB	CFP400JB

Fixture Unit with Pole-Top Mount (on 2" Threaded Pipe) ②



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	CFL150SF	_
175	_	M137/M152	_	CFP175SF
250	S50	M138/M153	CFL250SF	CFP250SF
400	S51	M135/M155	CFL400SF	CFP400SF

Fixture Unit with Crossarm Mounting ②



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	CFL150CA	_
175	_	M137/M152	_	CFP175CA
250	S50	M138/M153	CFL250CA	CFP250CA
400	S51	M135/M155	CEL 400CA	CEP400CA

		Voltage Suff	fixes					
Lamp Type	Lamp Watts	MT	π	C2	C3	C6	C 7	XP
	150	Χ	Χ	Χ	Χ	Χ	Χ	Χ
HPS	250	Χ	Х	Χ	Х	Х	Χ	Χ
	400	X	Х	Х	Х	Х	X	X
	175	Χ	Х	Х	Х	Х	X	Х
MH	250	Χ	Х	Х	Х	Х	X	Χ
	400	Χ	Х	Х	Х	Х	Х	Х
	175	Χ	Х	_	_	_	_	_
PSMH	250	Χ	Х	_	_	_	_	_
	400	Χ	Χ	_	_	_	_	_

Voltages:

MT -120/208/240/277 V 60 HZ C2 - 208V 60 HZ C6 - 480 V 60 HZ TT - 120/277/347 V 60 HZ C3 - 240 V 60 HZ C7 - 600 V 60 HZ **XP** - 120, 220-240 V 50 HZ

[©] 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 Add voltage suffix to end of the part number. See chart voltage suffix availability by fixture type.



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

Marine (Outside Type). Explosionproof

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	Description	Catalog Number
Junction Box for Horizontal of	r Vertical Mounting	
200	Box has 1/2" opening for threading to Flexible Coupling, and two 3/4" conduit openings (3/4 – 14NPT) and is furnished with one 3/4" close-up plug. Locking screw for horizontal adjustment. Trunnion bolts furnished. Aluminum, gray epoxy finish.	AF-JB
Pole-Top Mount (on 2" Thread	ded Pipe)	
	Threads onto 2° pipe with tapered threads (2-11 – 1/2 NPT). Includes floodlight trunnion bolts. Locking screw for horizontal floodlight adjustment. Aluminum, gray epoxy finish.	AF-SF
Crossarm Mounting Bracket		
	Has 180° horizontal adjustment – degree-marked. Facilitates mounting floodlight to crossarm or other flat surface, or to G-AM-8-WB Pole/Wall Mounting Bracket (see photo below). Includes floodlight trunnion bolts. Malleable iron, plated, chromate sealed, architectural bronze EPOXY finish.	G-AM-8-CA
10.4	G-AM-8-CA Crossarm Mounting Bracket can be used with G-AM-8-WB Pipe/Wall Mounting Bracket	G-AM-8-WB
	Shown with G-AM-8-WB Pipe/Wall Mounting Bracket. The G-AM-8-WB bracket is not furnished with fixtures.	
Polyester Reflectors – 150 W	through 400 W	
	Standard Dome	CMR-4ST
	Deep Dome ⊕	CMR-4DD
Standard and Deep Dome 30° Angle	30° Angle	CMR-4AN
Aluminum High Bay Reflecto	rs – 150 W through 400 W	
		CMR-4HB
Flexible Coupling – 30" Long		
	Connects to $3/4$ " Fixture Unit hub $(3/4-14\ NPT)$ and to $1/2$ " Junction Box or Pole-Top Accessory opening $(1/2-14\ NPT)$.	AF-EXL
HPS Smart Hot Restrike — O	ptional for 150 W fixtures (HPS only)	
function removes the hot restrik	ately restrike an HPS lamp when power is restored after a momentary power interruption. The smart e ignitor from the circuit if the lamp burns out or is removed from the socket. Eliminates starter failures with cycling or failing lamps and simplifies finding their location, reducing maintenance and repair costs.	Add Suffix -SR
HPS Hot Restrike — Optional	for 150 W fixtures (HPS only)	

① Fixtures when used with Deep Dome Reflectors are NOT UL Listed.

HPS Smart Starter — Optional for all fixture watts

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

cycling or failing lamps and simplifies finding their location, reducing maintenance and repair costs.



Add Suffix -R

Add Suffix -S

Smart Starter for HPS and PSMH fixtures. 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

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Lamp		Ballast Am	nps sure Sodium ①	Pulse Start M	letal Halide Super CWA	Metal Hal	ide CWA	Fuse	Fusa Kit C	atalog Numb	ner
Watts	Volts	Start	Operating	Start	Operating	Start	Operating	Quantity Required	HPS	PSMH	MH ②
150	120	2.00	1.70	_	_	_	_	1	CF-10	_	_
	208	1.15	0.95	_	_	_	_	2	CF-5	_	_
	240	1.00	0.85	_	_	_	_	2	CF-5	_	_
	277	0.88	0.72	_	_	_	_	1	CF-5	_	_
	347	0.52	0.56	_	_	_	_	1	CF-5	_	_
	480	0.50	0.47	_	_	_	_	2	CF-3	_	_
175	120	_	_	0.80	1.80	1.30	1.80	1	_	CF-5	CF-5
	208	_	_	0.50	1.00	0.75	1.10	2	_	CF-3	CF-3
	240	_	_	0.40	0.90	0.65	0.90	2	_	CF-3	CF-3
	277	_	_	0.40	0.80	0.55	0.80	1	_	CF-2	CF-2
	347	_	_	0.25	0.65	0.50	0.65	1	_	CF-2	CF-2
	480	_	_	0.15	0.45	_	_	2	_	CF-3	_
	120	2.00	2.80	2.00	2.30	1.20	2.60	1	CF-8	CF-10	CF-8
	208	1.20	1.50	1.10	1.40	0.65	1.50	2	CF-5	CF-6	CF-5
250	240	1.00	1.30	1.00	1.20	0.60	1.30	2	CF-5	CF-6	CF-5
230	277	0.85	1.10	0.80	1.00	0.50	1.12	1	CF-5	CF-5	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	0.30	0.60	_	_	2	CF-2	CF-3	_
	120	3.30	3.80	3.10	3.70	3.25	4.00	1	CF-15	CF-12	CF-10
400	208	1.80	2.20	1.70	2.10	1.90	2.30	2	CF-8	CF-6	CF-8
	240	1.60	1.90	1.50	1.90	1.65	2.00	2	CF-8	CF-6	CF-5
	277	1.40	1.70	1.30	1.60	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	0.80	0.95	_	_	2	CF-5	CF-3	

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; CF-12 = 12 amp.

[@] 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.

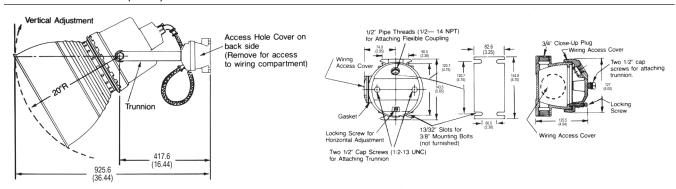


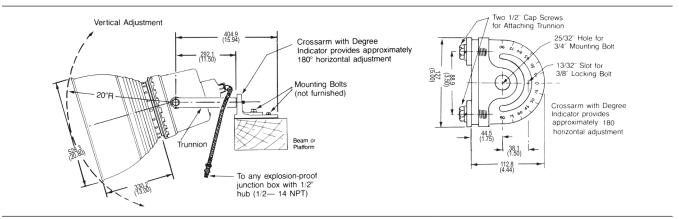
① 50 through 150 W HPS have H.P.F. High Reactance ballasts; 250 W and 400 W HPS have CWA ballasts.

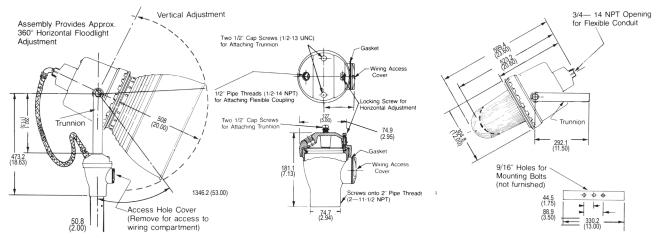
Marine (Outside Type). Explosionproof

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Dimensions in Millimeters (Inches)







Weights kg (lb)

150 W	175 W	250 W	320 W	350 W	400 W
21 (46.30)	21 (46.30)	32 (70.55)	32 (70.55)	32 (70.55)	32 (70.55)

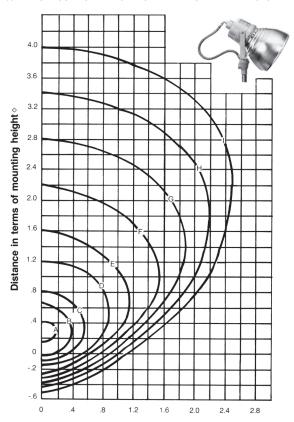


Marine (Outside Type). Explosionproof

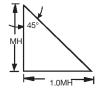
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Photometric Data

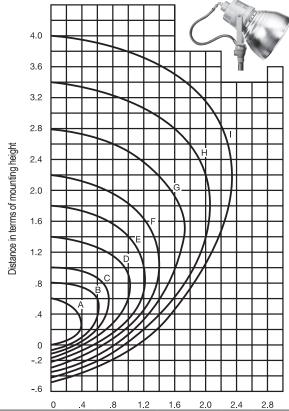
400 W HPS FLOODLIGHT AT 45° ANGLE WITH HIGH BAY REFLECTOR \odot



Mounting Height	FOOTCANDLE VALUES FOR ISO-FOOTCANDLE CURVES									
(feet)	Α	В	С	D	E	F	G	Н	1	
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	



400W MH FLOODLIGHT AT 45° ANGLE WITH HIGH BAY REFLECTOR



Mounting Height	FOOTCANDLE VALUES FOR ISO-FOOTCANDLE CURVES									
(feet)	Α	В	С	D	Ε	F	G	Н	1	
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	



① For 250 Watt HPS Clear, 30,000 Lumen lamp, multiply all FTC values by 0.60.

