### 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. Mogul Base.

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

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

#### **Applications**

- UL Listed for Marine Type Electric Fixtures Outside Type (Salt
- 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, gasoperated 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 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 kit table
- Quartz Auxiliary Emergency Lamp for PSMH and HPS fixtures. Relay switch installed fixture. Add suffix -E to fixture catalog number
- 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



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. Mogul Base.

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

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

rassinea Area Ga			loidado dos ori	Class I, Divis	ion 1 and 2 With (	Class II, Division 1 and 2 With Globe or with Globe ar Reflector CEC Temp. Ident. N		
Lamp Type	Lamp Watts	Supply Wire °C (°F)	Ambient Temp °C (°F)	Nameplate Marking	NEC Groups	CEC Groups	Nameplate Marking	CEC Groups
	150	50 (122)	40 (104)	T5	C,D	B, C, D	ТЗА	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	_	_
	250	75 (167)	55 (131)	_	C,D	B, C, D	_	_
	400	85 (185)	40 (104)	ТЗА	C,D	B, C, D	_	_
	175	75 (167)	40 (104)	ТЗВ	C,D	B, C, D	тзс	E,F,G
5.4.6	250	75 (167)	40 (104)	Т3В	C,D	B, C, D	ТЗА	E,F
Pulse Start Metal Halide	320	75 (167)	40 (104)	Т3	C,D	B, C, D		
otal i lando	350	75 (167)	40 (104)	Т3	C,D	B, C, D	_	_
	400	75 (167)	40 (104)	Т3	C,D	B, C, D		
	175	75 (167)	40 (104)	T4	_	B, C, D	тзс	E, F, G
Metal Halide ①	250	75 (167)	40 (104)	T4	_	B, C, D	ТЗА	E, F
	400	75 (167)	40 (104)	тзс	_	B, C, D	_	_

① 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

Integrally Ballasted. 150 W, 250 W, 400 W HPS; 150 W, 175 W, 250 W, 320 W, 350 W, 400 W PSMH. Mogul Base.

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

	Lamp	ANSI	Lamp Type	Catalog Number ①③		
	Watts	HPS	PSMH	HPS	PSMH	
Fixture Unit						
	Furnished with Trunni	on 3/4" hub. (3/4 –	I4 NPT)			
	150	S55	M102	CFL150MT	CFP150MT	
19/16	175	_	M137/M152	_	CFP175MT	
	250	S50	M138/M153	CFL250MT	CFP250MT	
	320	_	M145	_	CFP320MT	
	350	_	M131	_	CFP350MT	
	400	S51	M135/M155	CFL400MT	CFP400MT	

#### 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.

CFP150JBMT	CFL150JBMT	M102	S55	150
CFP175JBMT	_	M137/M152	_	175
CFP250JBMT	CFL250JBMT	M138/M153	S50	250
CFP320JBMT	_	M145	_	320
CFP350JBMT	_	M131	_	350
CFP400JBMT	CFL400JBMT	M135/M155	S51	400

#### 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).

CFP150SFMT	CFL150SFMT	M102	S55	150
CFP175SFMT	_	M137/M152	_	175
CFP250SFMT	CFL250SFMT	M138/M153	S50	250
CFP320SFMT	_	M145	_	320
CFP350SFMT	_	M131	_	350
CFP400SFMT	CFL400SFMT	M135/M155	S51	400

### 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	CFL150CAMT	CFP150CAMT
175	_	M137/M152	_	CFP175CAMT
250	S50	M138/M153	CFL250CAMT	CFP250CAMT
320	_	M145	_	CFP320CAMT
350	_	M131	_	CFP350CAMT
400	S51	M135/M155	CFL400CAMT	CFP400CAMT

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



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

<sup>©</sup> 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.

# 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. Mogul Base.

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

	Lamp	Lamp ANSI Lamp Type			Catalog Number ①③			
	Watts	HPS	PSMH	МН	HPS	PSMH	МН	
Fixture Unit								
	Furnishe	ed with Tru	nnion 3/4" hub. (3	3/4 – 14 NPT)	1			
	150	S55	M102	_	CFL150TTCN	CFP150TTCN	_	
000	175	_	M137/M152	M57/H39	_	CFP175TTCN	CFH175TTCN	
	250	S50	M138/M153	M58/H37	CFL250TTCN	CFP250TTCN	CFH250TTCN	
	320	_	M145	_	_	CFP320TTCN	_	
L.	350	_	M131	_	_	CFP350TTCN	_	
-	400	S51	M135/M155	M59/H33	CFL400TTCN	CFP400TTCN	CFH400TTCN	

#### 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	_	CFL150JBTTCN	CFP150JBTTCN	_	
175	_	M137/M152	M57/H39	_	CFP175JBTTCN	CFH175JBTTCN	
250	S50	M138/M153	M58/H37	CFL250JBTTCN	CFP250JBTTCN	CFH250JBTTCN	
320	_	M145	_	_	CFP320JBTTCN	_	
350	_	M131	_	_	CFP350JBTTCN	_	
400	S51	M135/M155	M59/H33	CFL400JBTTCN	CFP400JBTTCN	CFH400JBTTCN	

#### 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	-	CFL150SFTTCN	CFP150SFTTCN	_
175	_	M137/M152	M57/H39	_	CFP175SFTTCN	CFH175SFTTCN
250	S50	M138/M153	M58/H37	CFL250SFTTCN	CFP250SFTTCN	CFH250SFTTCN
320	_	M145	_	_	CFP320SFTTCN	_
350	_	M131	_	_	CFP350SFTTCN	_
400	S51	M135/M155	M59/H33	CFL400SFTTCN	CFP400SFTTCN	CFH400SFTTCN

#### 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).

	141 1/6	and to drift 1/2 of	Jenning (1/2	1 <del>- 1 (1)</del> .		
150	S55	M102	_	CFL150CATTCN	CFP150CATTCN	_
175	_	M137/M152	M57/H39	_	CFP175CATTCN	CFH175CATTCN
250	S50	M138/M153	M58/H37	CFL250CATTCN	CFP250CATTCN	CFH250CATTCN
320	_	M145	_	_	CFP320CATTCN	_
350	_	M131	_	_	CFP350CATTCN	_
400	S51	M135/M155	M59/H33	CFL400CATTCN	CFP400CATTCN	CFH400CATTCN

<sup>©</sup> Change voltage suffix -TT (120/277/347 V) to -MT for 120/208/240/277 V, -C2 for 208 V, -C3 for 240 V, -C6 for 480 V, or -C7 for 600 V.



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.

### 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. Mogul Base.

NEC:

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

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

#### Description **Catalog Number Junction Box for Horizontal or Vertical Mounting**



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" Threaded 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

#### Polyester Reflectors - 150 W through 400 W





Standard Dome Deep Dome 30° Angle

CMR-4ST CMR-4DD **CMR-4AN** 

Aluminum High Bay Reflectors - 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** 

#### Quartz Emergency Lamp 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.

This D.C. bayonet base socket is in addition to the standard lamp socket, independent of the lighting fixture voltage.

Add Suffix-**E** 

#### **HPS Smart Hot Restrike**

Smart Hot Restrike will immediately restrike an HPS lamp when power is restored after a momentary power interruption. The smart function removes the hot restrike ignitor from the circuit if the lamp burns out or is removed from the socket. Eliminates starter failures caused by prolonged operation with cycling or failing lamps and simplifies finding their location, reducing maintenance and repair costs.

Optional for 150 W fixtures (HPS only) Add Suffix -SR

#### **HPS Hot Restrike**

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

#### Optional for 150 W fixtures (HPS only)

Add Suffix -R

#### **HPS Smart Starter**

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 cycling or failing lamps and simplifies finding their location, reducing maintenance and repair costs. Add Suffix -S



#### Optional for all fixture watts

G-AM-8-CA Crossarm Mounting Bracket Shown with G-AM-8-WB Pipe/Wall Mounting Bracket.

The G-AM-8-WB bracket is not furnished with fixtures.

# 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. Mogul Base.

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

150	Volts 120 208 240 277	Sodi Start 2.00 1.16	Pressure ium ① Operating 1.66	Supe Start	Metal Halide er CWA Operating		l Halide WA	Fuse			
Watts	120 208 240	2.00 1.16	Operating 1.66	Start		C	1A/ A				
150	120 208 240	2.00 1.16	1.66		Operating		WA	Quantity			
150	208 240	1.16			operating	Start	Operating	Required	HPS	PSMH	MH ②
150	240			_	_	_	_	1	CF-10	_	_
150			0.96	_	_	_	_	2	CF-5	_	_
150	277	1.00	0.83	_	_	_	_	2	CF-5	_	_
	211	0.88	0.75	_	_	_	_	1	CF-5	_	_
	347	0.52	0.56	_	_	_	_	1	CF-5	_	_
	480	0.50	0.44	_	_	_	_	2	CF-3	_	_
	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
175	240	_	_	0.65	0.98	0.65	0.90	2	_	CF-3	CF-3
175	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	_
	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
050	240	0.85	1.30	0.98	1.25	0.60	1.30	2	CF-5	CF-5	CF-5
250	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	_
	120	_	_	3.30	3.25	_	_	1	_	CF-8	_
	208	_	_	1.90	1.90	_	_	2	_	CF-6	_
	240	_	_	1.60	1.65	_	_	2	_	CF-5	_
ならい	277	_	_	1.40	1.40	_	_	1	_	CF-5	_
	347	_	_	0.70	1.10	_	_	1	_	CF-5	_
	480	_	_	0.45	0.85	_	_	2	_	CF-3	_
	120		_	3.60	3.70		_	 1	_	CF-10	
	208	_	_	2.10	2.10	_	_	2	_	CF-8	_
	240	_	_	1.80	1.80	_	_	2	_	CF-5	_
ならい	277	_	_	1.60	1.60	_	_	_ 1	_	CF-5	_
	347	_	_	0.70	1.01	_	_	1	_	CF-5	_
	480	_	_	0.60	0.90	_	_	2	_	CF-3	_
	120	3.10	3.90	3.50	4.00	3.25	4.00	<del>_</del>	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
711111	277	1.35	1.70	1.73	1.75	1.40	1.75	1	CF-5	CF-5	CF-5
	347	1.00	1.70	1.10	1.75	1.20	1.73	1	CF-5	CF-5	CF-5
	480	0.80	1.00	0.75	1.00	1.20	1.40	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 
① 50 through 150 W HPS have H.P.F. High Reactance ballasts; 250 W and 400 W HPS have CWA ballasts.

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.

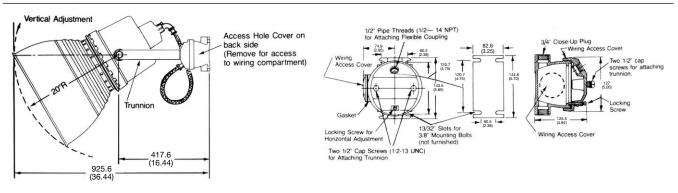


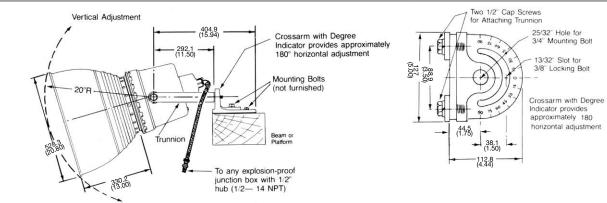
# Marine (Outside Type). Explosionproof

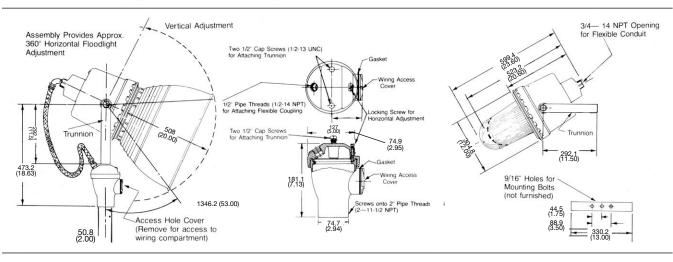
Integrally Ballasted. 150 W, 250 W, 400 W HPS; 150 W, 175 W, 250 W, 320 W, 350 W, 400 W PSMH; 175 W, 250 W, 400 W MH. Mogul Base.

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

#### **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

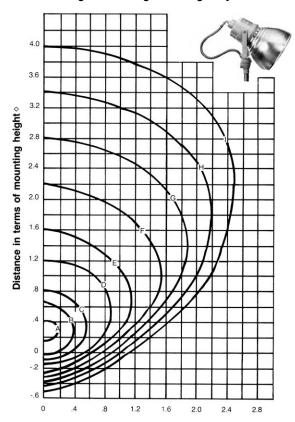
Typical Footcandle Values for Iso-Footcandle Curves. Data Based on 400 W HPS (50,000 Lumens) Clear Mogul Base Lamps.

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

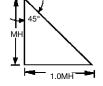
CEC:
Class I, Division 1 and 2, Groups B, C, D
Class II, Division 1, Groups E, F, G
Class II, Division 2, Groups F, G
Class III
CSA 44

#### **Photometric Data**

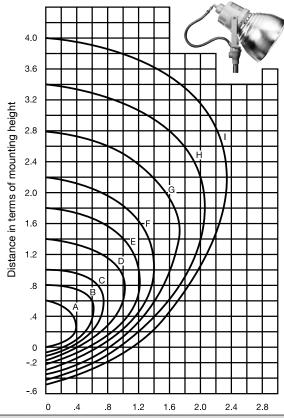
#### 400 W HPS Floodlight at 45° Angle with High Bay Reflector ①



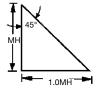
Mounting Height	FOOTCANDLE VALUES FOR ISO-FOOTCANDLE CURVES										
(feet)	A	В	C	D	E	F	G	Н	- 1		
15	52.52	43.34	31.00	17.05	10.23	4.77	2.43	1.36	0.84		
20	29.54	24.38	17.44	9.59	5.75	2.68	1.37	0.77	0.47		
25	18.91	15.60	11.16	6.14	3.68	1.72	0.87	0.49	0.30		
30	13.13	10.84	7.75	4.26	2.56	1.19	0.61	0.34	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)	A	В	C	D	E	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.

