



Champ[®] Floodlight Fixtures

Class I, Division 2
Class I, Zone 2

 **COOPER** Crouse-Hinds



Champ Floodlight Fixtures



Whenever Cooper Crouse-Hinds develops a new product, system, or procedure, we focus on one overriding question: Will it lower the total cost of ownership for our customers?

With our new expanded line of Champ® Floodlights, the answer is most definitely, “Yes.”

Cooper Crouse-Hinds utilized more than 100 years of hazardous lighting expertise to design a global floodlight line of unmatched reliability, quality, and performance for your area lighting needs.

- Energy efficient with optimal light output and beam distribution
- The most accessible ballast assembly in the industry
- Restricted breathing is standard on all floodlights
- Offered with both North American ballast (made to ANSI standard) and European style IEC ballast gear (pending)
- UL Marine rated, NEMA Type 4X and IP66

CHAMP FLOODLIGHT FAMILY

Champ FMV nR Series Floodlight

The Champ FMV nR Series floodlight offers exceptional indoor and outdoor illumination in industrial areas. Because of its superior corrosion resistance and restricted breathing being standard, the FMV floodlight is the ideal choice for diverse industrial applications that include wet and marine environments.

Differentiations:

- Full frame trunnion mounting bracket
- 55°C and 65°C ambient air suitability
- Class I, Division 2/Zone 2
- Restricted breathing standard
- Standard with terminal blocks
- Removable ballast tray



Champ F2MV Mini-Floodlight

The F2MV is a compact floodlight that consists of a Corro-Free™ epoxy coated copper-free aluminum enclosure with stainless steel external hardware and an impact-resistant glass lens. It is suitable for marine and wet locations and is ideal where space constraints restrict the use of larger floodlights.

Differentiations:

- Small compact size
- Easy mounting installation—only 2 bolts!
- Powerful light distribution for floodlight and task applications
- Rated for use in 65°C ambient air for hazardous location applications



Product Selector Chart

		F2MV MINI	FMV nR	FMV1000 nR	VOYAGER nR
Hazardous	Class I, Division 2 Class I, Zone 2	•	•	•	•
Hazardous Restricted Breathing (Ex nR)	NEC/CEC: Class I, Division 2 Class I, Zone 2 IEC Zone 2	•	•	•	•
Atex certification with IEC ballast and lamp socket	IEC Zone 2 Ex nR II ATEX		pending	pending	•
Wet		•	•	•	•
Marine		•	•	•	•
NEMA Type 4, 4X		•	•	•	•
NEMA 7x6		•	•	•	•
Corrosion Resistant		•	•	•	•
Confined Areas		•			•
Wattage	High Pressure Sodium Metal Halide	50–150 70–175	150–400 175–400	600, 750, 1000 1000, 1500	150–400 175–400

Champ FMV1000 nR High Wattage Floodlight

The Champ FMV1000 nR prides itself on offering restricted breathing and easy-to-wire terminal blocks as standard components. It is NEMA Type 4X and IP66 watertight and due to its heavy-duty vapor-tight, copper-free aluminum housing and stainless steel hardware, it is exclusively designed for harsh and industrial areas requiring broad area lighting. The Champ FMV1000 nR provides a robust design for optimal use in the most corrosive/marine environments.

NEW



Differentiations:

- Hazardous location high wattage floodlight for Class I, Division 2, Zone 2
- Restricted breathing standard
- T3 rating in Class I, Zone 2
- 40°C and 55°C ambient air suitability
- Hinged removable door
- Available in 600, 750, 1000 and 1500W systems

Champ Voyager nR™ Stainless Steel Floodlight

The Champ Voyager nR Floodlight offers the industry's coolest temperature rating and is the only mogul-base Class I, Division 2 and Zone 2 stainless steel floodlight with restricted breathing as standard construction. It boasts a wide, powerful beam to deliver more light to your process, and with the standard terminal block and removable ballast-component tray, the Champ Voyager is perfect for outdoor, marine, corrosive, and high temperature locations.



Differentiations:

- Housing, door and external parts are all 316 stainless steel
- Restricted breathing standard with T-ratings of T3 and T4
- Pre-wired with terminal blocks for easy wiring
- Hinged door and removable ballast tray

The Champ FMV nR Series floodlight offers exceptional illumination in industrial areas, both indoors and out. And, it comes standard as a restricted breathing luminaire. The Champ FMV nR Series Floodlight is easily adjusted to aim light where it's needed and is available in a wide variety of energy-saving mogul base HID light sources and wattages including:

- 150–400W High Pressure Sodium
- 175–400W Metal Halide

The FMV is made with heavy-duty, die-cast aluminum components and stainless steel hardware. It offers superior corrosion resistance to ensure longer life, which makes the FMV floodlight the ideal choice for a wide variety of industrial applications including wet and marine environments.

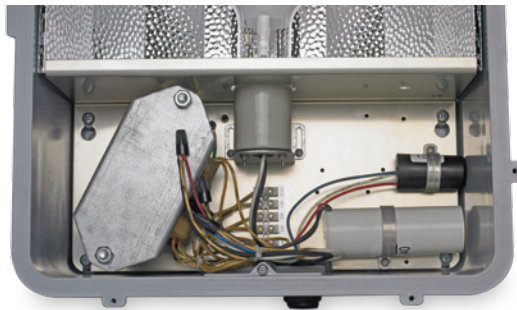


The only full frame trunnion mount floodlight with a T3 rating and a removable ballast tray assembly.

Key Features & Benefits:

- **AEx nR, Ex nR restricted breathing rating is standard**—a hazardous location luminaire without additional accessories or options; restricted breathing offers cooler T-numbers for increased hazardous locations suitability
- **NEMA 7x6 butterfly beam floodlight pattern**—wide, uniform and far reaching to provide excellent efficiency and more light where you need it
- **NEMA Type 4X and IP66 construction is designed for use indoor and outdoors in marine and wet locations**—with stainless steel external hardware suitable for saltwater and corrosive applications
- **Easy wiring**—standard terminal block with marked terminals saves time and eliminates wiring errors
- **Vapor tight sealing cable connector**—standard
- **Will accommodate existing mounting hardware**—SFA6 slipfitter for pole and SWB6 wall mount
- **Optional metric machining will accept M20 or M25** (must be specified on order)
- **40°C, 55°C and 65°C ambient suitability**—addresses high ambients common at industrial facilities
- **Low ambient capability to -40°C**—perfect for colder climates
- **Heavy-duty, die-cast copper-free aluminum enclosure with epoxy coating and stainless steel hardware**—provides a robust design with industrial grade construction and corrosion resistance
- **Hinged door frame assembly**—has captive cover screws for ease of relamping
- **Yoke mount design**—standard construction provides the greatest mounting flexibility, can be mounted vertically (wall), horizontally (rooftop or floor) or any angle in between
- **3-axis resonance withstand and UL844 vibration compliant**—can stand up to the tough jobs
- **Precision formed aluminum reflector**—superior beam control, distribution and efficiency
- **Multi-tap ballasts**—offering a choice of 120, 208, 240 and 277V; 220V 50Hz, 240V 50Hz, Tri-Tap (120, 277 and 347) and 480V ballasts are also available
- **High light output with a low cost of operation**—cost-effectiveness in a high-wattage floodlight
- **For use with SFA6 Slipfitter Adapter and SWB6 Wall Mount Bracket accessories**—further enhances mounting flexibility

Champ® FMV nR Floodlights



Industry Best for Ease of Installation:

1. Removable ballast tray
2. Prewired to terminal blocks
3. Substantial room for wiring

Standard Materials:

- Fixture housing and door frame assembly—die-cast aluminum
- External hardware—stainless steel
- Lens—heat- and impact-resistant tempered glass
- Yoke—aluminum

Standard Finishes:

- Enclosure and Yoke—Corro-Free™ epoxy powder coat
- Stainless steel—natural

Certifications & Compliances:

NEC/CEC (NEC ballast gear and socket)

- Class I, Division 2—Groups A, B, C, D
- Class I, Zone 2—AEx nR II
- Marine locations
- NEMA Type 4X and IP66
- Wet locations

IEC (IEC ballast gear and socket)

- IEC Zone 2, Ex nR II (pending)

UL/cUL STANDARDS

- 844—Hazardous (Divisions Classified) locations
- 60079-15
- 1598—Luminaires
- 1598A—Supplemental requirements for luminaires for installation on marine vessels

IEC STANDARDS

- 60079-15

Ratings (Electrical/Size):

SOURCES/WATTAGES (MOGUL BASE LAMPS)

- HPS—150, 250 and 400W
- MH—175, 250 and 400W

VOLTAGES

Standard voltage ballasts

- Multi-tap (120, 208, 240 and 277V 60Hz)
- Dual-tap (120 and 277V)
- 480V 60Hz
- Tri-tap (120, 277, 347V 60Hz)

Optional voltage ballasts

- 220V or 240V 50Hz (for export)
- 220V 60Hz (for export)

Isolated ballasts

- 208, 240 or 480V (for Canada)

HUB SIZE

- Standard—3/4" NPT
- Optional—25 mm (M25 x 1.5)

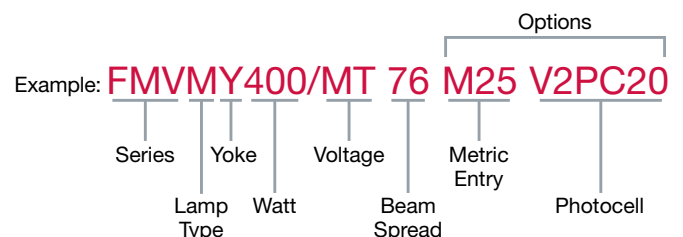
Ordering Information for Floodlight with NEC Ballast:

LAMP TYPE	WATTS	YOKE MOUNT 3/4" NPT HUB
High Pressure Sodium	150 250 400	FMVSY150__76 FMVSY250__76 FMVSY400__76
Metal Halide	175 250 400	FMVMY175__76 FMVMY250__76 FMVMY400__76

VOLTAGE SUFFIXES†

Voltage (60Hz)	Dual-Tap	Tri-Tap	Multi-Tap	480
Suffix	/DT	/TT	/MT	/480

To complete Catalog Number, add Voltage and Options suffix(es).



†150W HPS fixtures are furnished with ANSI spec/S55 ballasts for 55V lamps. For 100V lamps, add suffix "CE" after voltage suffix. Ex: FMVSY150/MT CE 76

Champ® FMV nR Floodlights

Options:

DESCRIPTION	SUFFIX TO ADD TO CATALOG NO.
Instant Restrike And Ballast Guard	
Instant Restrike—enables a hot HPS lamp to immediately restrike after a momentary loss of arc due to voltage fluctuation or power outage.	TIR
Ballast Guard starter cut out switch—prevents starter pulsing when lamp is cycling or inoperative; prolongs ballast and ignitor life. <ul style="list-style-type: none"> 150W LX HPS only 	
Factory assembled w/HID lamp installed	FA
Fused (not suitable for marine applications)	S658
20mm metric thread for conduit opening	M20
25mm metric thread for conduit opening	M25
3/4" NPT hub conduit opening	NPT75
Furnished with lamps (not installed)	S714
Retention chain	S831
Pulse-Start Metal Halide	S828
Enclosure machined for 2 conduit/cable entries	S886

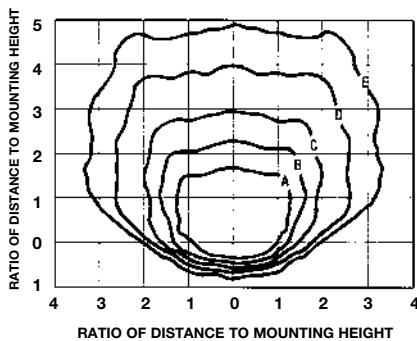
Options for Photocell:

DESCRIPTION	SUFFIX TO ADD TO CATALOG NO.
Photocell 120V, 50/60Hz installed	V2PC20
Photocell 208-240V, 50/60Hz installed	V2PC22
Photocell 277V, 50/60Hz installed	V2PC27

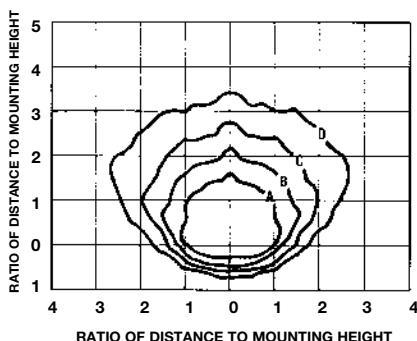
Accessories (Order Separately):

Slipfitter Adapter	
To be mounted to yoke mount fixture Fits onto 2" pipe/conduit	SFA6
Wall Bracket	
Use with slipfitter adapter SFA6 for easy wall mounting and increased adjustability	SWB6

Photometric Data:



Isofootcandle chart FMV
400W High Pressure Sodium (HPS)
 Catalog Number: FMVSY400-76
 Lamp: 400W Clear HPS
 Lumen rating: 50,000
 For 150W HPS, multiply footcandles by .32.
 For 250W HPS, multiply footcandles by 0.6.
 Fixture located at 0°, 0° aiming angle at 45°
 (Note: See Figures 1 and 2 on page 7.)



Isofootcandle chart FMV
400W Metal Halide (MH)
 Catalog Number: FMVMY400-76
 Lamp: 400W Clear MH
 Lumen rating: 34,000
 For 250W MH, multiply footcandles by 0.6.
 Fixture located at 0°, 0° aiming angle 45°
 (Note: See Figures 1 and 2 on page 7.)

Effective Projected Area (EPA):

- For windloading
- For proper pole selection

AIMING ANGLE	EPA
0°	2.9 FT ²
30°	2.5 FT ²
45°	2.1 FT ²

Footcandle Table:

MOUNTING HEIGHT	FOOTCANDLE VALUES FOR ISOFOOTCANDLE LINES				
	A	B	C	D	E
15'	8.00	4.00	2.00	0.80	0.40
20'	4.5	2.3	1.1	0.50	0.23
25'	2.9	1.4	0.7	0.30	0.14
30'	2.0	1.0	0.5	0.20	0.10
35'	1.5	0.7	0.4	0.15	0.07
40'	1.1	0.6	0.3	0.11	0.06

Champ® FMV nR Floodlights



Weight and Dimensions:

NET FIXTURE WEIGHTS (LBS.):

FIXTURES	FMVS	FMVM
150W	37	37
175-250W	40	42
400W	44	44

SFA6 (Slipfitter Adapter)—Add 4 lbs., SWB6 (Wall Bracket)—Add 6 lbs.

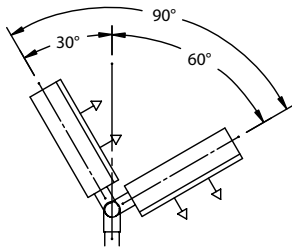


FIGURE 1

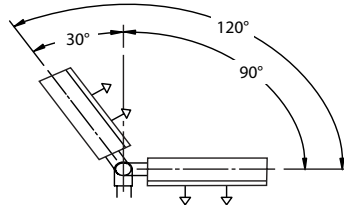
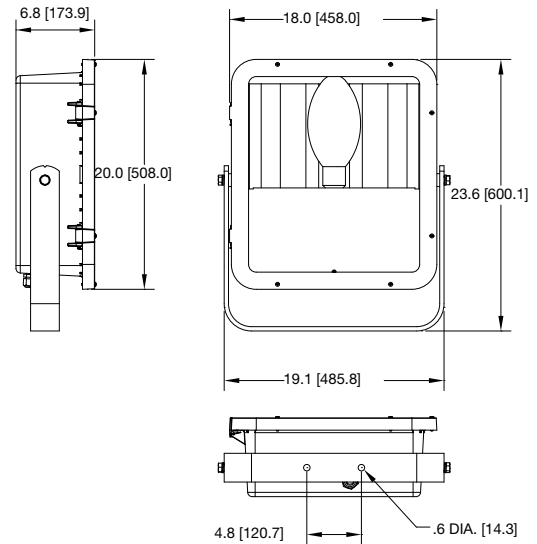


FIGURE 2



Temperature Performance Data:

CATALOG SERIES	LAMP		40°C AMBIENT			55°C AMBIENT			65°C AMBIENT			FIXTURE AIMING RANGE FIGURE	
			TEMPERATURE CODE			TEMPERATURE CODE			TEMPERATURE CODE				
	TYPE	WATTS	CLASS I, ZONE 2	CLASS I, DIV. 2	SUPPLY WIRE °C	CLASS I, ZONE 2	CLASS I, DIV. 2	SUPPLY WIRE °C	CLASS I, ZONE 2	CLASS I, DIV. 2	SUPPLY WIRE °C		
FMVS	High Pressure Sodium	150	T4	325	90	T4	325	90	T3	325	105	90°	1
			T4	325	90	T3	325	105	T3	325	105	120°	2
		250	T4	325	90	T4	325	90	T3	325	105	90°	1
			T4	325	90	T3	325	105	T3	325	105	120°	2
		400**	T3	325	90	T3	T1	105	-	-	-	90°	1
			T3	325	105	T3	T1	125	-	-	-	120°	2
FMVM	Metal Halide	175	T4	325	90	T4	325	90	T3	325	105	90°	1
			T4	325	90	T4	325	105	T3	325	105	120°	2
		250*	T4	325	90	T4	325	90	T3	325	105	90°	1
			T4	325	90	T4	325	105	T3	325	105	120°	2
		400**	T3	325	90	T3	325	105	-	-	-	90°	1
			T3	325	105	T3	325	125	-	-	-	120°	2
	Pulse-Start Metal Halide	175	T4	325	90	T3	325	105	T3	325	105	90°	1
			T4	325	90	T3	325	105	T3	325	105	120°	2
		250*	T4	325	90	T3	325	105	T3	325	105	90°	1
			T4	325	90	T3	325	105	T3	325	105	120°	2
		400**	T3	350	105	T3	350	105	-	-	-	90°	1
			T3	350	105	T3	T1	125	-	-	-	120°	2

*Suitable for use in 65°C ambient without optional fuses. **Suitable for use in 55°C ambient without optional fuses.

Lamp Selection (Mogul Base):

FIXTURE	WATTS TYPE	BULB	G.E.	OSRAM	PHILIPS
FMVSY150	150 HPS	ED23 1/2 BT25	LU150/55	LU150/55	C150S55
FMVSY250	250 HPS	ED18 1/2 OR ET18	LU250	LU250	C250S50
FMVSY400	400 HPS	ED37 1/2 BT37	LU400	LU400	C400S51
FMVMY175	175 MH	ED28 OR BT28	MVR175/U	M175/U	MH175/U
FMVMY250	250 MH	ED28 OR BT28	MVR250/U	M250/U	MH250/U
FMVMY400	400 MH	ED37 OR BT37	MVR400/U	M400/U	MH400/U

Champ® FMV1000 nR High Wattage Floodlights

NEW

The Champ FMV1000 Series high wattage floodlight is the best in its class with heavy-duty vapor-tight housing designed exclusively for harsh industrial areas requiring broad area lighting.

The FMV1000 Series floodlight boasts restricted breathing and easy-to-wire terminal blocks as standard. It is available in the following HID lamp sources and wattages:

- 600, 750, 1000W High Pressure Sodium
- 1000, 1500W Metal Halide

The Champ FMV1000 Series is NEMA Type 4X and IP66 watertight, and its heavy-duty aluminum housing and stainless steel hardware provide a robust design suitable for the most corrosive/marine environments.



Industry Best for Ease of Installation:

1. Removable ballast tray
2. Prewired to terminal blocks
3. Substantial room for wiring

Restricted breathing comes standard with this NEMA Type 4X and IP66 rated floodlight.

Key Features & Benefits:

- **AEx nR, Ex nR restricted breathing rating is standard**—a hazardous location luminaire without additional accessories or options; restricted breathing offers cooler T-numbers for increased hazardous locations suitability
- **NEMA 7x6 butterfly beam floodlight pattern**—wide, uniform and far reaching to provide excellent efficiency and more light where you need it
- **NEMA Type 4X and IP66 construction is designed for use indoor and outdoors in marine and wet locations**—with stainless steel external hardware suitable for saltwater and corrosive applications
- **Easy wiring**—standard terminal block with marked terminals saves time and eliminates wiring errors
- **Vapor tight sealing cable connector**—standard
- **Standard machining**—will accept 3/4 inch NCGB or 3/4 inch Myers® hub (Myers hub is an option). Optional metric machining will accept M20 or M25 (must be specified on order)
- **Low and High ambient capability to -40°C**—perfect for colder climates, 50°C workhorse in hot climates
- **Heavy-duty, extruded copper-free aluminum enclosure with epoxy coating and stainless steel hardware**—provides a robust design with industrial grade construction and corrosion resistance
- **Precision formed aluminum reflector**—superior beam control, distribution and efficiency
- **High light output with a low cost of operation**—cost-effectiveness in a high-wattage floodlight

Standard Materials:

- Housing—extruded aluminum
- External hardware—stainless steel
- Yoke—316 stainless steel
- Lens—heat- and impact-resistant tempered glass
- Gasketing—neoprene

Standard Finishes:

- Aluminum—Corro-Free™ epoxy powder coat
- Stainless steel—natural

Certifications & Compliances:

NEC/CEC (NEC ballast gear and socket)

- Class I, Division 2—Groups A, B, C, D
- Class I, Zone 2—AEx nR II, Group IIC
- Marine locations
- IP56
- Wet locations
- NEMA Type 4X

IEC (IEC ballast gear and socket)—pending

- IEC Ex Class I, Zone 2
- Ex nA nR IIC

Champ® FMV1000 nR High Wattage Floodlights



Ratings (Electrical/Size):

SOURCES/WATTAGES (MOGUL BASE LAMPS)

- HPS—600, 750 and 1000W
- MH—1000W
- MH—1500W non-hazardous location rated

VOLTAGES

Standard Voltage Ballasts

- Multi-tap (120, 208, 240 and 277V 60Hz)
- 480V 60Hz
- Tri-tap (120, 277, 347V 60Hz)

Optional Voltage Ballasts

- 220V or 240V 50Hz (for export)
- 220V 60Hz (for export)

Isolated Ballasts

- 208, 240 or 480V (for Canada)

HUB SIZE

- 3/4" NPT—standard
- M20 or M25—optional
- Dual entry—NPT or metric

Ordering Information for Floodlight with NEC Ballast:

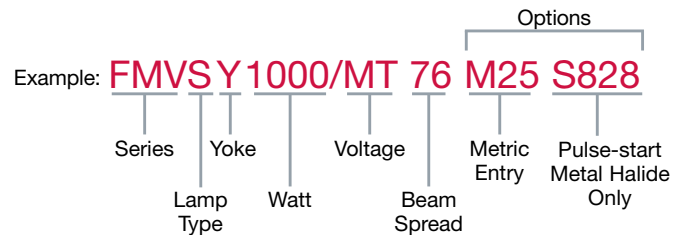
LAMP TYPE	WATTS	BASE CATALOG NUMBER*
High	600	FMVSY600__76
Pressure	750	FMVSY750__76
Sodium	1000	FMVSY1000__76

Metal	1000	FMVMY1000__76
Halide	1500	FMVMY1500__76

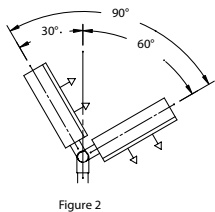
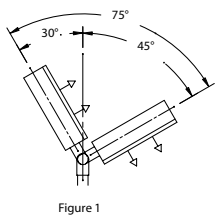
VOLTAGE SUFFIXES

Voltage (60Hz)	Dual-Tap	Tri-Tap	Multi-Tap	480
Suffix	/DT	/TT	/MT	/480

*To complete Catalog Number, add Voltage and Options suffix(es).



Temperature Performance Data:



CATALOG SERIES	LAMP		40°C AMBIENT			50°C AMBIENT			FIXTURE AIMING RANGE FIGURE			
			TYPE	WATTAGE	TEMPERATURE CODE			TEMPERATURE CODE				
					CLASS I, ZONE 2	CLASS I, DIV. 2	SUPPLY WIRE °C	CLASS I, ZONE 2			CLASS I, DIV. 2	SUPPLY WIRE °C
FMVS	High	600	T3	T1	90	TS	T1	105	90°	2		
	Pressure	750	T3	T1	90	T3	T1	105	90°	2		
	Sodium	1000	T3	T1	90	T3	T1	105	90°	2		
FMVM	Metal Halide	1000	T3	T1	90	T3	T1	105	90°	2		
	Pulse-Start	750	T3	T1	90	T3	T1	105	75°	1		
	Metal Halide	750	T3	T1	90	-	-	-	90°	2		
	Metal Halide	1000	T3	T1	90	T3	T1	105	75°	1		
	Metal Halide	1000	T3	T1	90	-	-	-	90°	2		

Accessories (Order Separately):

Slipfitter Adapter: To be mounted to yoke mount fixture. Fits onto 2" pipe/conduit	SFA6
Wall Bracket: Use with slipfitter adapter SFA6 for easy wall mounting and increased adjustability	SWB6
Photocell in DS cover for use with FS/FD box:	
120V, 50/60Hz	D2S20
208-240V, 50/60Hz	D2S22
277V, 50/60Hz	D2S27

Champ® FMV 1000 High Wattage Floodlights

Options:

DESCRIPTION	SUFFIX TO ADD TO CATALOG NO.
20mm metric thread for conduit opening	M20
25mm metric thread for conduit opening	M25
3/4" NPT hub conduit opening	NPT75
Pulse-start metal halide only	S828
Retention chain	S831
Enclosure machined for 2 conduit/cable entries	S886
Factory assembled, lamp installed in lampholder	FA

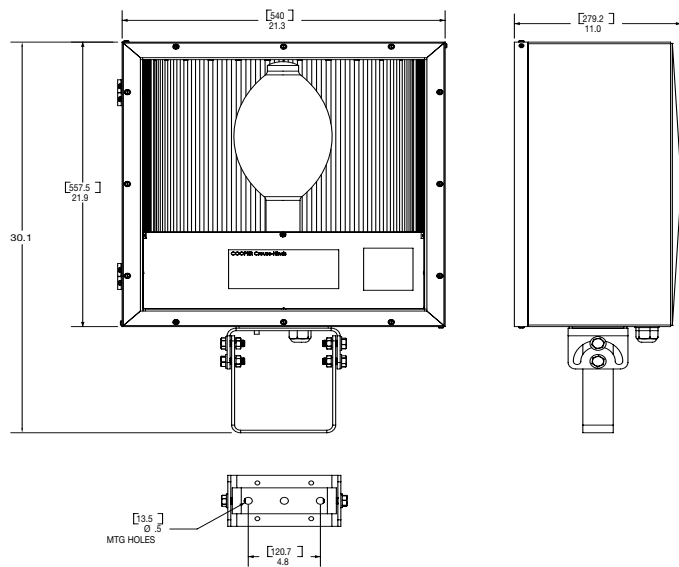
Weight and Dimensions:

NET FIXTURE WEIGHTS (LBS.):	
FIXTURE SERIES	
FMVSY600	78
FMVSY750	76
FMVSY1000	83
FMVMY1000	76
FMVMY1500	84

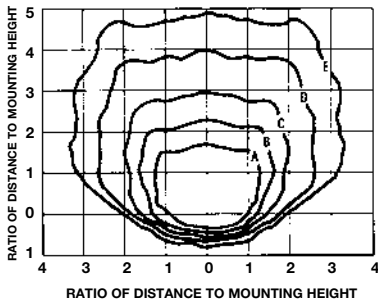
Effective Projected Area (EPA):

- For windloading
- For proper pole selection

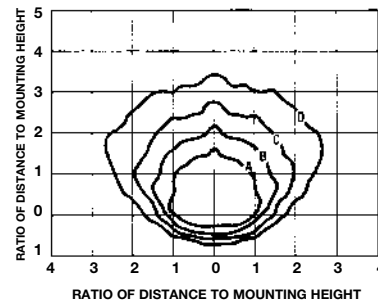
AIMING ANGLE	EPA
0°	3.5 FT ²
30°	3.6 FT ²
60°	2.9 FT ²



Photometric Data:



Isofootcandle chart FMV
1000W High Pressure Sodium (HPS)
 Catalog Number: FMVSY1000-76
 Lamp: 1000W Clear HPS
 Lumen rating: 140,000
 Fixture located at 0°, 0° aiming angle at 45°
 (Note: See Figure on page 9.)



Isofootcandle chart FMV
1000W Metal Halide (MH)
 Catalog Number: FMVMY1000-76
 Lamp: 1000W Clear MH
 Lumen rating: 110,000
 For 1500W MH, multiply footcandles by 1.4
 Fixture located a 0°, 0° aiming angle at 45°
 (Note: See Figure on page 9.)

Lamp Selection (Mogul Base):

FIXTURE	WATTS TYPE	BULB	G.E.	OSRAM	PHILIPS
FMVSY600	600 HPS	T15	LU600/T	—	C600S106
FMVSY750	750 HPS	ED37	LU750	—	—
FMVSY1000	1000 HPS	E25	LU1000	—	C1000S52/ED37
FMVMY1000	1000 MH	BT56	MVR1000/U	—	MH1000/U
FMVSY1500	1500 MH	BT56	MVR1500/U/SPORTS	—	MH1500/BD

Champ® Voyager nR™ Stainless Steel Floodlight

COOPER Crouse-Hinds

At last, a hazardous-area luminaire with complete stainless steel exterior, low temperature ratings and standard with the restricted breathing rating (vapor-tight design).

Cooper Crouse-Hinds® Champ Voyager nR™ Stainless Steel Floodlight offers the industry's coolest temperature ratings—so it can operate below the ignition temperature of vapors and gases in your classified area. The Champ Voyager nR floodlight boasts a wide, powerful beam to deliver more light to your process or pathway. Standard terminal blocks and a removable ballast-component tray bring you the best combination of easy wiring and simple maintenance in one rugged package.

This unique combination of features makes the Champ Voyager nR Floodlight ideal for outdoor, marine, corrosive, and high temperature locations.

And because the Champ Voyager nR Floodlight meets international standards, you can install it anywhere in the world.

Key Features & Benefits:

- **AEx nR, Ex nR restricted breathing rating is standard**—a hazardous location luminaire with excellent T3 and T4 ratings without additional accessories or options
- **NEMA 7x6 “butterfly beam” floodlight pattern**—wide, uniform and far reaching to reduce the number of luminaires you need providing excellent luminaire efficiency—more light where you need it
- **Easy wiring**—standard terminal block with marked terminals saves time and eliminates wiring errors
- **Removable ballast-component tray**—for capacitor, igniter and terminal block to simplify maintenance and save money
- **Housing, hinges, door frame and mounting yoke are all 316 stainless steel for marine and wet locations**—robust construction suitable for saltwater and corrosive applications

Now available with IEC Gear and certified to the IEC Ex ATEX Directive.



The only mogul-base Class I, Division 2 and Zone 2 stainless steel floodlight with restricted breathing (vapor-tight design) as standard construction.



Industry Best for Ease of Installation:

1. Removable ballast tray
2. Prewired to terminal blocks
3. Substantial room for wiring

Champ Voyager nR™ Stainless Steel Floodlight

Standard Materials:

- Enclosure (housing & lens frame)—316 stainless steel
- Lens—heat- and impact-resistant tempered glass
- Gaskets—silicone rubber
- Yoke and yoke bracket—316 stainless steel
- Reflector—formed specular (dimpled glossy surface) aluminum
- Cable gland cord grip and locknut—polyamide 6, neoprene bushing

Standard Finishes:

- 316 stainless steel—natural

Certifications & Compliances:

NEC/CEC (NEC ballast gear and socket)

- Class I, Division 2 Groups A, B, C, D
- Class I, Zone 2 AEx nR II, Group IIC

IEC (IEC ballast gear and socket)

- IEC Zone 2, Ex nR II ATEX

UL/cUL STANDARDS

- 844—Hazardous (Divisions Classified) locations
- 1598—Luminaires
- 1598A—Supplemental requirements for luminaires for installation on marine vessels.

Ordering Information for Floodlight with IEC Ballast:

LAMP TYPE	IEC REF.	WATTS	CATALOG NUMBER*
HPS	HST	150	NSSFMVSY150/220
		250	NSSFMVSY250/220
		400	NSSFMVSY400/220
MH	HIT & HIE	150	NSSFMVMY150/220
		250	NSSFMVMY250/220
		400	NSSFMVMY400/220

*Uses IEC lamp socket E40

NSSFMV Floodlights are designed with IEC ballast gear and lamp socket, providing certification to the IEC Ex ATEX Directive.

Ratings (Electrical/Size):

SOURCES/WATTAGES (MOGUL BASE LAMPS)

- High Pressure Sodium (HPS) 150, 250 and 400W
- Metal Halide (MH) 175, 250 and 400W

VOLTAGES

Standard Voltage Ballasts

- Multi-tap (120, 208, 240 and 277V, 60Hz)
- 480V, 60Hz
- Tri-tap (120, 277, 347V, 60Hz)

Optional Voltage Ballasts: (for export)

- 220V or 240V, 50Hz
- 220V, 60Hz

Isolated Ballasts

- 208, 240, or 480V (for Canada)

HUB SIZE

- Standard: 3/4" NPT with a 3/4" gland sealing connector

Ordering Information for Floodlight with NEC Ballast:

LAMP TYPE	WATTS	CATALOG NUMBER*
High Pressure Sodium	150	SSFMVSY150__76
	250	SSFMVSY250__76
	400	SSFMVSY400__76
Metal Halide	175	SSFMVMY175__76
	250	SSFMVMY250__76
	400	SSFMVMY400__76

VOLTAGE SUFFIXES

Voltage	Suffix	Voltage	Suffix
Tri-Tap (120, 277, 347V, 60Hz)	/TT	220 50Hz	/220 50
Multi-Tap (120, 208, 240, 277V, 60Hz)	/MT	220 60Hz	/220
480V, 60Hz	/480	240 50Hz	/240 50
240V, 60Hz	/MV	240 60Hz	/240 60

*To complete catalog number, add voltage and options suffix(es)
Example: SSFMVSY150/MT 76.

Champ Voyager nR™ Stainless Steel Floodlight

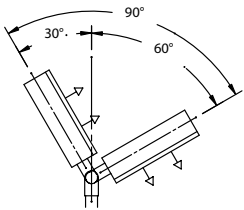


FIGURE 1

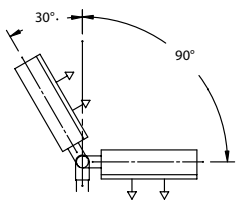


FIGURE 2

Temperature Performance Data:

CATALOG SERIES	LAMP		40°C AMBIENT			55°C AMBIENT			FIXTURE AIMING RANGE FIGURE	
			TEMPERATURE CODE			TEMPERATURE CODE				
			TYPE	WATTS	CLASS I, ZONE 2	CLASS I, DIV. 2	SUPPLY WIRE °C	CLASS I, ZONE 2		
SSFMVS	High Pressure Sodium	150**	T4	T2B	90	T4	T2B	105	120°	2
		250**	T4	350	90	T3	350	105	90°	1
		400	T3	T1	90	-	-	-	90°	1
SSFMVM	Metal Halide	175**	T3	T2	90	T3	T2	105	120°	2
		250**	T3	325	90	T3	325	105	90°	1
		400	T3	325	105	-	-	-	90°	1

**Suitable for use in 55°C ambient without optional fuses.

Accessories (Order Separately):

Stainless Steel Slipfitter Adapter	SFA6 SS
Stainless Steel Wall Mount Bracket	SWB6 SS
Standard Slipfitter Adapter (cast aluminum)	SFA6
Standard Wall Mount Bracket (cast aluminum)	SWB6
Photocell in DS cover for use with FS/FD box:	
120V, 50/60Hz	D2S20
208-240V, 50/60Hz	D2S22
277V, 50/60Hz	D2S27

Effective Projected Area (EPA):

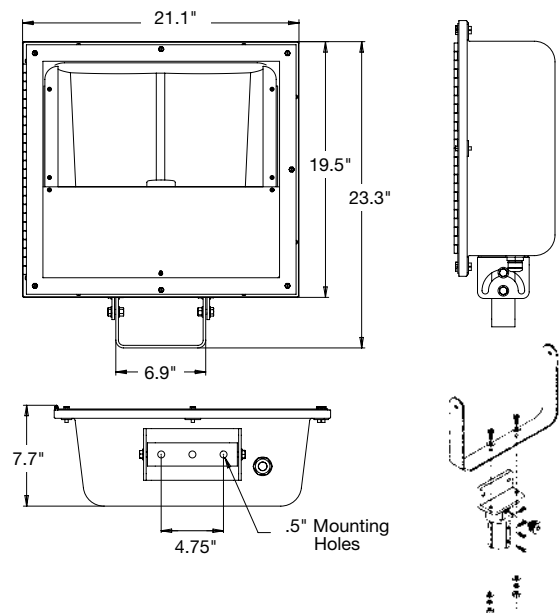
- For windloading
- For proper pole selection

AIMING ANGLE	EPA
0°	2.15 FT ²
30°	1.86 FT ²
60°	1.07 FT ²

Weight and Dimensions:

NET FIXTURE WEIGHTS (LBS.):

LUMINAIRE	HPS	MH
150W	39	39
175W	39	39
250W	43	41
400W	45	43



Champ Voyager nR Stainless Steel Floodlight

Options:

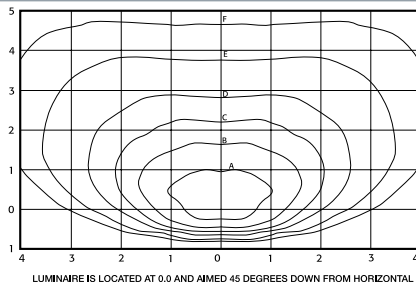
DESCRIPTION	SUFFIX TO ADD TO CATALOG NO.
INSTANT RESTRIKE AND BALLAST GUARD Instant Restrike—enables a hot HPS lamp to immediately restrike after a momentary loss of arc due to voltage fluctuation or power outage. Ballast Guard starter cut out switch—prevents starter pulsing when lamp is cycling or inoperative; prolongs ballast and ignitor life. • 150W LX HPS only	TIR
Factory assembled w/HID lamp installed	FA
Fused (not suitable for marine applications)	S658

Options:

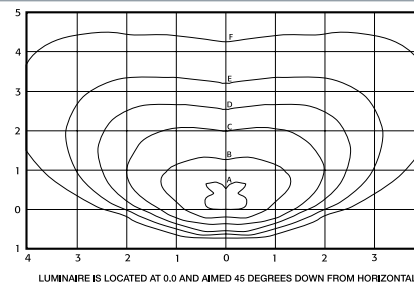
DESCRIPTION	SUFFIX TO ADD TO CATALOG NO.
20mm metric thread for conduit opening	M20
25mm metric thread for conduit opening	M25
3/4" NPT hub conduit opening	NPT75
Furnished with lamps (not installed)	S714
Pulse-start metal halide only	S828
Enclosure machined for 2 conduit/cable entries	S886
Yoke mount and slip fitter	SFA6

Photometric Data:

MH WIDE BEAM REFLECTOR



HPS WIDE BEAM REFLECTOR



ISO FOOTCANDLE CHART

400W Metal Halide (MH)

Catalog Number: SSFMVMY400/MT

Lamp: 400W Clear MH

Lumen Rating: 34,000

Luminaire located at 0,0° aiming angle at 45° down from horizontal

For 175W MH, multiply footcandles by 0.42.
For 250W HPS, multiply footcandles by 0.65.

MOUNTING HEIGHT	FOOTCANDLE VALUES FOR ISO FOOTCANDLE LINES					
	A	B	C	D	E	F
10'	20	39	4	2	.8	.4
15'	8.889	3.555	1.778	.889	.356	.178
20'	5	2	1	.5	.2	.1
25'	3.2	1.28	.64	.32	.128	.064
30'	2.222	.889	.444	.222	.089	.044
35'	1.633	.653	.327	.163	.065	.033
40'	1.250	.5	.25	.125	.05	.025

ISO FOOTCANDLE CHART

400W High Pressure Sodium (HPS)

Catalog Number: SSMVSY400/MT

Lamp: 400W Clear HPS

Lumen Rating: 50,000

Luminaire located at 0,0° aiming angle at 45° down from horizontal

For 150W HPS, multiply footcandles by 0.32.
For 250W HPS, multiply footcandles by 0.57.

MOUNTING HEIGHT	FOOTCANDLE VALUES FOR ISO FOOTCANDLE LINES					
	A	B	C	D	E	F
10'	40	20	8	4	2	.8
15'	17.778	8.889	3.555	1.778	.889	.356
20'	10	5	2	1	.5	.2
25'	6.4	3.2	1.28	.64	.32	.128
30'	4.444	2.222	.889	.444	.222	.089
35'	3.265	1.633	.653	.327	.163	.065
40'	2.5	1.25	.5	.250	.125	.05

Champ® F2MV Mini-Floodlights

F2MV is a compact floodlight consisting of a Corro-Free™ epoxy coated copper-free aluminum enclosure, with stainless steel external hardware and impact-resistant glass. It is available for use with the following energy-saving mogul base HID lamp types and wattages:

- High Pressure Sodium (HPS)—50, 70, 100 and 150W
- Metal Halide (MH)—70, 100 and 175W

Available in a variety of voltage ratings, this compact floodlight is suitable for marine and wet locations.

The F2MV floodlight is:

- UL/cUL Listed, Class I, Division 2; Class I, Zone 2
- UL Classified IEC Zone 2

This floodlight adds to the ever growing line of Cooper Crouse-Hinds products that are truly North American with the ability to address overseas applications as well. The result: the F2MV—a world-class product with global acceptance.



Key Features & Benefits:

- **Small compact size**—easy to install and maintain
- **40°C, 55°C and 65°C ambient suitability**—addresses high ambients common at industrial facilities
- **Low ambient capability to -40°C**—perfect for colder climates
- **Heavy-duty, copper-free aluminum enclosure with epoxy coating and stainless steel hardware**—provides a robust design with industrial grade construction and corrosion resistance
- **Continuous silicone gasketing**—ensure wet and marine locations integrity
- **Stainless steel tether chain and captive cover screws**—secure cover to housing ensures ease of maintenance
- **Trunnion (yoke) mount design**—standard construction provides the greatest mounting flexibility, can be mounted vertically (wall), horizontally (rooftop or floor) or any angle in between
- **Requires only two bolts to mount**—simplifies installation
- **Heat- and impact-resistant tempered glass lens**—provides exceptional stability
- **Shock-absorbing mogul base lamp socket**—cushions lamp, improves lamp life in harsh environments
- **3-axis resonance withstand and UL844 vibration compliant**—stands up to the tough jobs
- **Precision formed aluminum reflector**—superior beam control, distribution and efficiency
- **NEMA 7x6 floodlight pattern with lamp orientation base down**—the ideal light distribution for industrial applications
- **Multi-tap ballasts**—offering a choice of 120, 208, 240 and 277V; 220V, 50Hz, 240V 50Hz, Tri-Tap (120, 277 and 347) and 480V ballasts are also available
- **High light output with a low cost of operation**—a cost-effective, high-wattage floodlight
- **For use with SFA6 Slipfitter Adapter and SWB6 Wall Mount Bracket accessories**—further enhances mounting flexibility
- **Restricted breathing compliance**—cooler T-numbers for increased hazardous locations suitability

Champ® F2MV Mini-Floodlights

Standard Materials:

- Enclosure (housing and lens cover)—copper-free aluminum
- Cover chain and external hardware—stainless steel
- Lens—heat- and impact-resistant glass
- Gaskets—silicone rubber
- Yoke—copper-free aluminum
- Reflector—diffused aluminum lighting sheet

Standard Finishes:

- Enclosure and Yoke—Corro-Free™ epoxy powder coat
- Stainless steel—natural

Certifications & Compliances:

NEC/CEC

- Class I, Division 2—Groups A, B, C, D
- Marine locations
- NEMA Type 4X
- Wet locations

IEC/NEC/CEC

- Class I, Zone 2—Groups IIC
- With suffix—S826 and S826TB—restricted breathing (Ex nR) Option
- Class I, Zone 2
- Class I, Division 2

UL STANDARDS

- 844—Hazardous (Divisions Classified) Locations
- 2279—Hazardous (Zones Classified) Locations
- 1572—Ordinary and wet locations, marine outside type

CSA STANDARDS

- C22.2 No. 137
- CAN/CSA-E79 Series

IEC STANDARDS

- 60079-15

Ratings (Electrical/Size):

SOURCES/WATTAGES (MOGUL BASE LAMPS)

- HPS—50, 70, 100 and 150W
- MH—70, 100, and 175W
- MV—100 and 175W

VOLTAGES

Standard Voltage Ballasts

- Multi-tap (120, 208, 240 and 277V 60Hz)
- Dual-tap (120, 277V 60Hz)—50W HPS only
- 480V 60Hz
- Tri-tap (120, 277, 347V 60Hz)

Optional Voltage Ballasts (Consult Cooper Crouse-Hinds)

- 220V or 240V 50Hz (for export)
- 220V 60Hz (for export)

Isolated Ballasts (Consult Cooper Crouse-Hinds)

- 208, 240 or 480V (for Canada)

HUB SIZE

- Standard—(2) 3/4" NPT
- Optional—(2) 25 mm (M25 x 1.5)

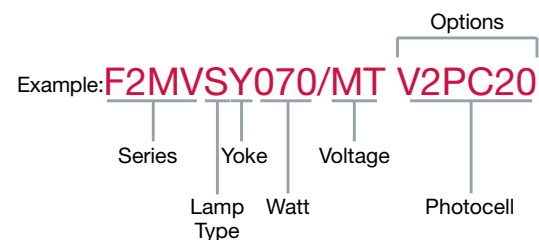
Ordering Information:

LAMP TYPE	WATTS	BASE CATALOG NUMBER*	
		3/4" NPT HUB	25 mm HUB†
High Pressure Sodium	50	F2MVS _Y 050__	F2MVS25Y050__
	70	F2MVS _Y 070__	F2MVS25Y070__
	100	F2MVS _Y 100__	F2MVS25Y100__
	150	F2MVS _Y 150__	F2MVS25Y150__
Metal Halide	70	F2MVM _Y 070__	F2MVM25Y070__
	100	F2MVM _Y 100__	F2MVM25Y100__
	175	F2MVM _Y 175__	F2MVM25Y175__

VOLTAGE SUFFIXES

Voltage (60Hz)	Dual-Tap	Tri-Tap	Multi-Tap	480
Suffix	/DT	/TT	/MT	/480

*To complete catalog number, add voltage and options suffix(es)



†For 20mm metric threads, change 25 to 20 in catalog number.
Ex. F2MVS20Y050/MT

Champ® F2MV Mini-Floodlights

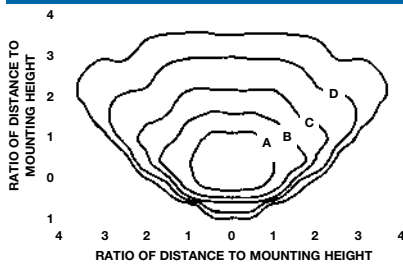
Options:

DESCRIPTION	SUFFIX TO ADD TO CATALOG NO.
INSTANT RESTRIKE AND BALLAST GUARD Instant Restrike—enables a hot HPS lamp to immediately restrike after a momentary loss of arc due to voltage fluctuation or power outage. Ballast Guard starter cut out switch—prevents starter pulsing when lamp is cycling or inoperative; prolongs ballast and ignitor life. • 150W LX HPS only	TIR
Factory assembled w/HID lamp installed	FA
Fused (not suitable for marine applications)	S658

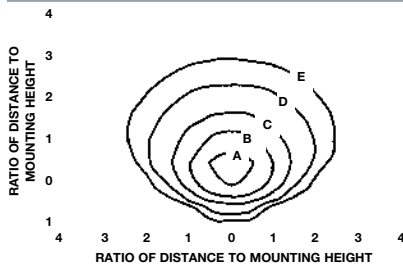
Options:

DESCRIPTION	SUFFIX TO ADD TO CATALOG NO.
Furnished with lamps (not installed)	S714
Pulse-start metal halide only	S828
Photocell 120V, 50/60Hz installed	V2PC20
Photocell 208-240V, 50/60Hz installed	V2PC22
Photocell 277V, 50/60Hz installed	V2PC27

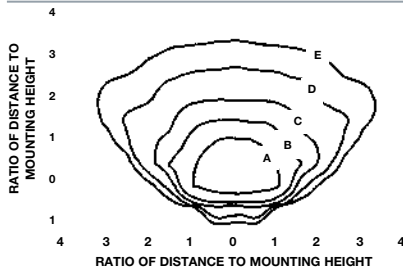
Photometric Data:



Isofootcandle chart F2MV
150W High Pressure Sodium (HPS)
 Catalog Number: F2MVSY150
 Lamp: 150W Clear HPS
 Lumen rating: 16,000
 For 100W HPS, multiply footcandles by .55.
 For 70W HPS, multiply footcandles by .40.
 For 50W HPS, multiply footcandles by .24.



Isofootcandle chart F2MV
175W Mercury Vapor (MV)*
 Catalog Number: F2MVYC175
 Lamp: 175W MV
 Lumen rating: 8,600
 For 100W MV, multiply footcandles by .49
 Fixture located at a 0°, 0° aiming angle 45°
 (Note: Fixture aiming angle limited to 30° past vertical through 60° before vertical.)



Isofootcandle chart F2MV
175W Metal Halide (MH)
 Catalog Number: F2MVMY175
 Lamp: 175W Clear MH
 Lumen rating: 14,000
 For 100W MH, multiply footcandles by .58.
 For 70W MH, multiply footcandles by .37.

*Mercury Vapor only available in the United States until December 31, 2007

Accessories (Order Separately):

Slipfitter Adapter To be mounted to yoke mount fixture Fits onto 2" pipe/conduit	SFA6
Wall Bracket Use with slipfitter adapter SFA6 for easy wall mounting and increased adjustability	SWB6

Effective Projected Area (EPA):

- For windloading
- For proper pole selection

AIMING ANGLE	EPA
0°	1.6 FT ²
30°	1.6 FT ²
60°	1.1 FT ²

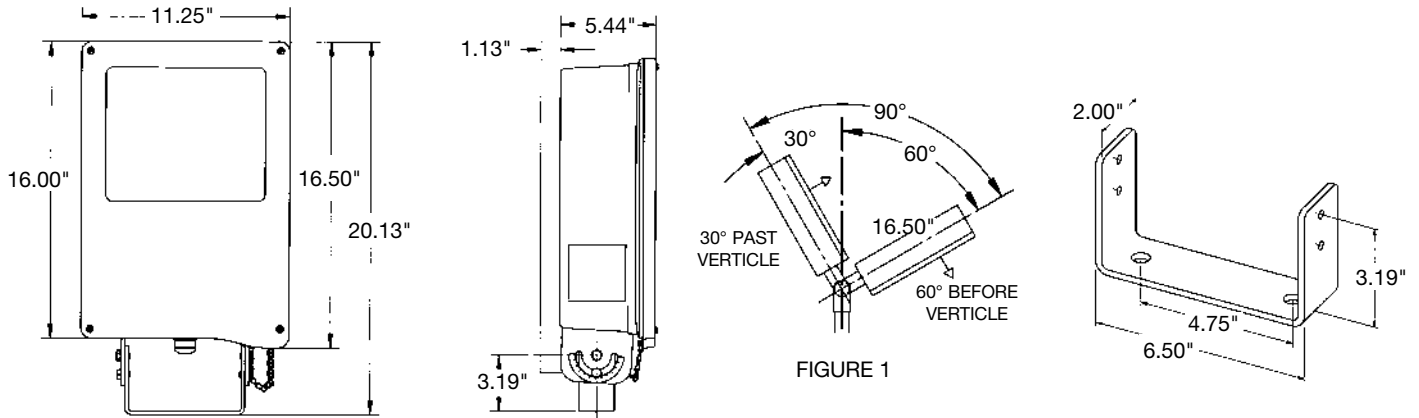
Footcandle Table:

MOUNTING HEIGHT	FOOTCANDLE VALUES FOR ISOFOOTCANDLE LINES				
	A	B	C	D	E
10'	8.00	4.00	2.00	0.80	0.40
15'	3.56	1.78	0.89	0.36	0.18
20'	2.00	1.00	0.50	0.20	0.10
25'	1.28	0.64	0.32	0.13	0.06
30'	0.89	0.44	0.22	0.09	0.04

Champ® F2MV Mini-Floodlights

Weight and Dimensions:

Fixture Weight: 26 LBS.



Temperature Performance Data:

CATALOG SERIES	LAMP		40°C AMBIENT			55°C AMBIENT			65°C AMBIENT			FIXTURE AIMING RANGE FIGURE	
			TEMPERATURE CODE			TEMPERATURE CODE			TEMPERATURE CODE				
			TYPE	WATTS	CLASS I, ZONE 2*	CLASS I, DIV. 2	SUPPLY WIRE °C	CLASS I, ZONE 2*	CLASS I, DIV. 2	SUPPLY WIRE °C	CLASS I, ZONE 2*		
F2MVS	High Pressure Sodium	50	T6	T3C	75	T6	T3C	75	T3B	T5	75	90°	1
		70	T6	T3A	60	T5	T3A	75	T3	T4	85	90°	1
		100	T4	T2D	75	T4	T2C	90	-	-	-	90°	1
		150**	T4	T2A	75	T4	T2A	85	T3	T2A	110	90°	1
F2MVM	Metal Halide	70	T6	T3C	75	T5	T3A	75	T4	T3A	85	90°	1
		100	T4	T2D	75	T4	T2D	75	T4	T2C	85	90°	1
		175**	T3	T2A	75	T3	T2A	85	T3	T2A	110	90°	1

*Restricted breathing explosion protection, requires suffix S826 (TB) **Suitable for use in 65°C ambient without optional fuses.

Lamp Selection (Mogul Base):

FIXTURE	WATTS TYPE	BULB	G.E.	OSRAM	PHILIPS	VENTURE
F2MVS050	50 HPS	ED23 1/2 OR ET23 1/2	LU50	LU50	C50S68	-
F2MVS070	70 HPS	ED23 1/2 OR ET23 1/2	LU70	LU70	C70S62	-
F2MVS100	100 HPS	ED23 1/2 OR ET23 1/2	LU100	LU100	C100S54	-
F2MVS150	150 HPS	ED23 1/2 OR ET23 1/2	LU150/55	LU150/55	C150S55	-
F2MVMY070	70 MH	ED28	-	-	-	MH70W/U/ED28
F2MVMY100	100 MH	ED28	-	-	-	MH100/U/ED28
F2MVMY175	175 MH	ED28 OR BT28	MVR175/C/U	M175/C/U	MH175/C/U	MH175/C/U

Inside Back Cover

For more information:

If further assistance is required, please contact an authorized Cooper Crouse-Hinds Distributor, Sales Office or Customer Service Department:

U.S. (Global Headquarters):

Cooper Crouse-Hinds

Wolf & Seventh North Streets
Syracuse, NY 13221
(866) 764-5454
FAX: (315) 477-5179
FAX Orders Only: (866) 653-0640
crouse.customerctr@cooperindustries.com

Canada:

Cooper Crouse-Hinds Canada

Toll Free: 800-265-0502
FAX: (800) 263-9504
FAX Orders Only: (866) 653-0645

Mexico:

Cooper Crouse-Hinds, S.A. de C.V.

52-555-804-4000
FAX: 52-555-804-4020
mxmercadotecnia@cooperindustries.com

Latin America/Caribbean:

Cooper Crouse-Hinds, S.A. de C.V.

52-555-804-4000
FAX: 52-555-804-4020

Europe (Germany):

Cooper Crouse-Hinds GmbH

49 (0) 6271 806-500
49 (0) 6271 806-476
info-ex@ceag.de

Middle East (Dubai):

Cooper Crouse-Hinds LLC

971-4324-1578
FAX: 971-4324-1640

Singapore:

Cooper Crouse-Hinds Pte. Ltd.

65-6297-4849
FAX: 65-6297-4819
sales@cchspore.com.sg

China:

Cooper Crouse-Hinds Pte. Ltd.

86-21-2899-3600
FAX: 86-21-2899-4055
cchsales@cooperasia.com

Korea:

Cooper Crouse-Hinds Korea

82-2-3484-6783
82-2-3484-6778

Australia:

Cooper Electrical Australia

61-2-8787-2777
FAX: 61-2-9609-2342
sales@cooperelectrical.com.au

India:

Cooper Crouse-Hinds India

91-22-6504-5150
FAX: 91-22-2404-1811

www.crouse-hinds.com

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Cooper Industries, Ltd.
600 Travis, Ste. 5800
Houston, TX 77002-1001
P: 713-209-8400
www.cooperindustries.com