

FZD•SERIES™

Floodlight Luminaire



*Class I, Division 1/Zone 1 • Wide Beam (NEMA 7x6) and
Narrow Beam Light Distribution • Flexible Mounting*

COOPER  Crouse-Hinds

FZD•SERIES™ Floodlight Luminaire



Finally, a true floodlight luminaire for hazardous areas.

Cooper Crouse-Hinds® FZD-Series™ Luminaires are the first to deliver NEMA 7x6 floodlight distribution patterns for Class I, Division 1 and Zone 1 environments. That means you'll need fewer of them to illuminate a given area. With their labor-saving features and flexible mounting options, the FZD series is ideal for:

- heavy process industries where flammable or explosive vapors or gases are present
- hazardous areas, both indoors and outdoors, including those requiring elevated ambient capability, where long life and low maintenance costs are desired
- petroleum refineries, chemical, petrochemical and other heavy-process industrial facilities
- mounting to a wall, structure or pole (with pole mount adapter accessory)

KEY FEATURES AND BENEFITS

- **NEMA 7x6 floodlight distribution pattern is standard**—ideal light distribution for industrial applications; requires fewer luminaires in general lighting applications than required when using general-area luminaires with high-bay reflectors
- **internal reflector**—available in wide and narrow-beam options; enclosed in glass tube, reducing maintenance and enhancing light output
- **heavy-duty, cast copper-free aluminum construction with epoxy powder-coat finish and stainless steel hardware**—provides long life in industrial, abusive environments
- **explosionproof threaded construction**—suitable for hazardous and industrial applications; easy to maintain with no bolted covers
- **O-ring gaskets on all threaded openings**—allow NEMA Type 4X and Marine Listing for the harshest outdoor environments
- **40°C, 55°C and 65°C ambient suitability**—ideal for use in high ambient temperature areas common in industrial facilities
- **factory-sealed ballast housing**—keeps ballast isolated from wiring chamber
- **trunnion (yoke) mount design**—standard construction provides the greatest mounting flexibility; can be vertically (wall) or horizontally (rooftop or floor) mounted
- **simple installation**—requires only two bolts to mount
- **mounting flexibility**—pole mount with SFA6-XP pole mount adapter (shown below) or wall or ceiling mount with FZD-KIT1 mounting accessory kit (shown above).



POLE MOUNT ADAPTER

CERTIFICATIONS AND COMPLIANCES

NEC/CEC

- Class I, Division 1, Groups B (with suffix -GB*), C and D
- Class I, Zone 1, Groups IIB+H₂ (with suffix -GB*), IIB
- AEx d IIB+H₂ (with suffix -GB*), IIB (pending)
- Ex d IIB+H₂ (with suffix -GB*), IIB (pending)
- Marine Locations
- Wet Locations
- Enclosure Type 4X
- IP66
- UL Listed (UL Standards 844, 1598, 1598A, 2279)
- cUL Listed (certified by UL to CSA Standard C22.2 No. 137 and CAN/CSA-E60079-1)

*See options for Group B and IIB+H₂ ordering information

STANDARD MATERIALS

- luminaire housing, covers, socket holder, lamptube end rings—copper-free aluminum
- external hardware—stainless steel
- glass lamp tube—heat and impact-resistant tempered glass
- O-ring gaskets—neoprene/silicone
- yoke—aluminum
- trunnion adapter—brass

STANDARD FINISHES

- aluminum—Corro-free™ epoxy powder coat
- stainless steel—natural
- brass—natural

RATINGS

SOURCES/WATTAGES (MOGUL BASE LAMPS)

- HPS—150, 250 & 400 watts
- MH—175, 250 & 400 watts

VOLTAGES

Standard Voltage Ballasts

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

Optional Voltage Ballasts

- 220 V, 60 Hz
- 220 V, 50 Hz

HUB SIZE

- Standard: Two 3/4" NPT entries
- Optional: Two 25 mm (M25) entries (consult Cooper Crouse-Hinds)

ORDERING INFORMATION

To complete the catalog number, add option suffix(es) if desired.
Example: FZDS2NY400W/MT-S658

LAMP TYPE	WATTS	CATALOG NUMBER* YOKE MOUNT WITH 3/4" NPT HUBS
WIDE-BEAM REFLECTOR—NEMA 7x6 DISTRIBUTION		
High-Pressure Sodium	150**	FZDS2NY150W/MT
	250	FZDS2NY250W/MT
	400	FZDS2NY400W/MT
Metal Halide	175	FZDM2NY175W/MT
	250	FZDM2NY250W/MT
	400	FZDM2NY400W/MT
Pulse-Start Metal Halide	175	FZDM2NY175W/MT-S828
	250	FZDM2NY250W/MT-S828
	400	FZDM2NY400W/MT-S828
NARROW-BEAM REFLECTOR—SPOTLIGHT DISTRIBUTION		
High-Pressure Sodium	150**	FZDS2NY150N/MT
	250	FZDS2NY250N/MT
	400	FZDS2NY400N/MT
Metal Halide	175	FZDM2NY175N/MT
	250	FZDM2NY250N/MT
	400	FZDM2NY400N/MT
Pulse-Start Metal Halide	175	FZDM2NY175N/MT-S828
	250	FZDM2NY250N/MT-S828
	400	FZDM2NY400N/MT-S828

*All FZD catalog numbers shown above are with multi-tap ballasts (120, 208, 240 & 277 V, 60 Hz).
The "MT" in the catalog number may be changed to any of the voltage suffixes listed below.
**150-watt HPS luminaires are furnished with ANSI spec/S55 ballasts for 55 V lamps.

VOLTAGE SUFFIXES

STANDARD VOLTAGES	SUFFIX	OPTIONAL VOLTAGES	SUFFIX
Multi-tap (120, 208, 240, 277 V, 60 Hz)	/MT	220 V, 50 Hz	/220 50
Tri-tap (120, 277, 347 V, 60 Hz)	/TT	220 V, 60 Hz	/220
120 V, 60 Hz	/120		
480 V, 60 Hz	/480		

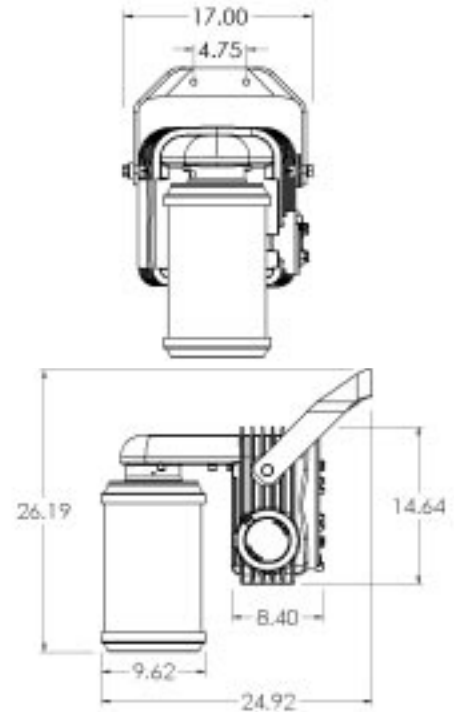
OPTIONS

	SUFFIX TO ADD TO CAT. NO.
Ballast-Gard™ starter cut-out switch prevents starter pulsing when lamp is cycling or inoperative. Prolongs ballast and igniter life. HPS only. Not available with IR option.	-BG
Factory Assembled with HID lamp installed for additional labor savings.	-FA
Factory Certified: Class I, Division 1, Group B and Class I, Zone 1, Group IIB+H ₂	-GB
Instant Restrike enables a hot HPS lamp to immediately restrike after a momentary loss of arc due to voltage fluctuation or power outage. It has no effect on the warm-up period of cold lamps. Available for use with 150-watt HPS only.	-IR
Fusing protects ballast and capacitor against abnormal line conditions.	-S658

ACCESSORIES (order separately)

	CATALOG NO.
FOR POLE MOUNTING	
Pole mount adapter	SFA6-XP
• Class I, Division 1, Groups B, C and D	
• Attach to yoke; fits 2" NPT conduit pole	
Flexible explosionproof coupling	ECLK236
Elbow fitting	EL296-SA
FOR WALL OR CEILING MOUNTING	
Kit includes: EABC26-SA conduit outlet box, ECLK236 flexible explosionproof coupling, and EL296-SA elbow fitting.	FZD-KIT1

DIMENSIONS (inches)



TEMPERATURE PERFORMANCE DATA

LAMP	AMBIENT TEMP. °C	CLASS I, DIVISION 1, ZONE 1	SUPPLY WIRE °C
150-watt HPS	40	T3C	75
	55	T3C	75
	65	T3B	90
250-watt HPS	40	T3C	75
	55	T3C	75
	65	T3B	90
400-watt HPS	40	T3C	75
	55	T3C	75
	65	T3B	90
175-watt Metal Halide	40	T3A	75
	55	T3	75
	65	T3	90
250-watt Metal Halide	40	T3A	75
	55	T3	75
	65	T3	90
400-watt Metal Halide	40	T3A	75
	55	T3	75
	65	T3	90

EFFECTIVE PROJECTED AREA (EPA)

- For windloading
- For proper pole selection

AIMING ANGLE	EPA
0 degrees	1.8 ft ²
45 degrees	2.3 ft ²

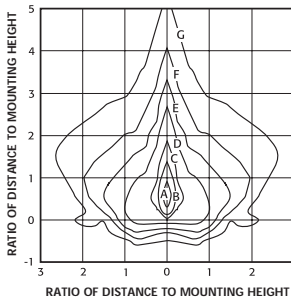
LUMINAIRE WEIGHTS (lbs.)

LUMINAIRE	FZDS (HPS)	FZDM (MH)
150-watt	72	75
175 to 250-watt	77	77
400-watt	80	80

PHOTOMETRICS

Note: There are no aiming angle limitations for the FZD. The only limitations are those encountered by interference of the trunnion arm. The trunnion arm may be mounted on vertical or horizontal surfaces to overcome any limitations.

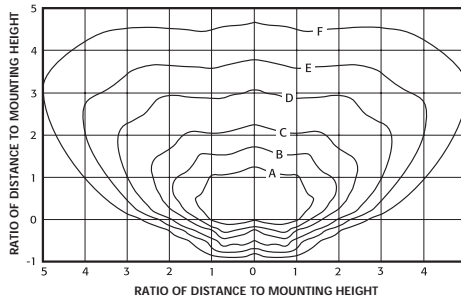
HPS NARROW BEAM REFLECTOR



ISO FOOTCANDLE CHART
 FZD 400 W High Pressure Sodium (HPS)
 Catalog Number FZDS2NY400N
 Lamp: 400 W Clear HPS
 Lumen rating: 50,000
 Luminaire located at 0°, 0° Aiming Angle at 45° down from horizontal
 For 150 W HPS, multiply footcandles by 0.32.
 For 250 W HPS, multiply footcandles by 0.6.

MOUNTING HEIGHT	FOOTCANDLE VALUES FOR ISO FOOTCANDLE LINES						
	A	B	C	D	E	F	G
10'	200.00	100.00	50.00	20.00	10.00	5.00	2.00
12'	138.89	69.44	34.72	13.89	6.94	3.47	1.39
16'	78.13	39.06	19.53	7.81	3.91	1.95	0.78
20'	50.00	25.00	12.50	5.00	2.50	1.25	0.50
25'	32.00	16.00	8.00	3.20	1.60	0.8	0.32

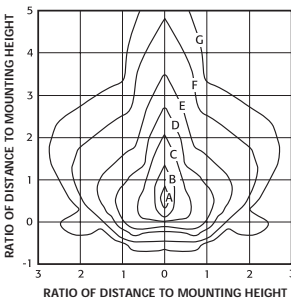
HPS WIDE BEAM REFLECTOR



ISO FOOTCANDLE CHART
 FZD 400 W High Pressure Sodium (HPS)
 Catalog Number FZDS2NY400W
 Lamp: 400 W Clear HPS
 Lumen rating: 50,000
 Luminaire located at 0°, 0° Aiming Angle at 45° down from horizontal
 For 150 W HPS, multiply footcandles by 0.32.
 For 250 W HPS, multiply footcandles by 0.6.

MOUNTING HEIGHT	FOOTCANDLE VALUES FOR ISO FOOTCANDLE LINES					
	A	B	C	D	E	F
10'	20.00	10.00	5.00	2.00	1.00	0.50
12'	13.89	6.94	3.47	1.39	0.69	0.35
16'	7.81	3.91	1.95	0.78	0.39	0.20
20'	5.00	2.50	1.25	0.50	0.25	0.13
25'	3.20	1.60	0.80	0.32	0.16	0.08

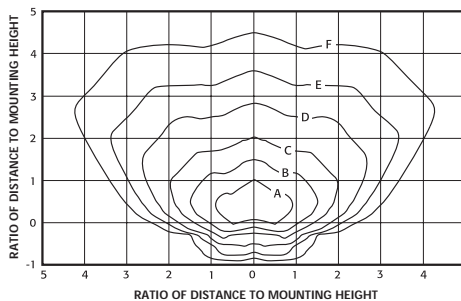
MH NARROW BEAM REFLECTOR



ISO FOOTCANDLE CHART
 FZD 400 W Metal Halide (MH)
 Catalog Number FZDM2NY400N
 Lamp: 400 W Clear MH
 Lumen rating: 34,000
 Luminaire located at 0°, 0° Aiming Angle at 45° down from horizontal
 For 175 W MH, multiply footcandles by 0.38.
 For 250 W MH, multiply footcandles by 0.6.

MOUNTING HEIGHT	FOOTCANDLE VALUES FOR ISO FOOTCANDLE LINES						
	A	B	C	D	E	F	G
10'	100.00	50.00	20.00	10.00	5.00	2.00	1.00
12'	64.99	34.72	13.89	6.94	3.47	1.39	0.69
16'	39.06	19.53	7.81	3.91	1.95	0.78	0.39
20'	25.00	12.50	5.00	2.50	1.25	0.50	0.25
25'	16.00	8.00	3.20	1.60	0.80	0.32	0.16

MH WIDE BEAM REFLECTOR



ISO FOOTCANDLE CHART
 FZD 400 W Metal Halide (MH)
 Catalog Number FZDM2NY400W
 Lamp: 400 W Clear MH
 Lumen rating: 34,000
 Luminaire located at 0°, 0° Aiming Angle at 45° down from horizontal
 For 175 W MH, multiply footcandles by 0.38.
 For 250 W MH, multiply footcandles by 0.6.

MOUNTING HEIGHT	FOOTCANDLE VALUES FOR ISO FOOTCANDLE LINES					
	A	B	C	D	E	F
10'	20.00	10.00	5.00	2.00	1.00	0.50
12'	13.89	6.49	3.47	1.39	0.69	0.35
16'	7.81	3.91	1.95	0.78	0.39	0.20
20'	5.00	2.50	1.25	0.50	0.25	0.13
25'	3.20	1.60	0.80	0.32	0.16	0.08

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