

6L FZD Series Floodlight Luminaire

Cl. I, Div. 1 & 2, Groups C, D
 Cl. I, Zone 1
 Marine Locations
 Wet Locations, IP66

Finally, a true floodlight luminaire for hazardous areas.

Eaton's Crouse-Hinds FZD Series luminaires are the first to deliver NEMA 7 x 6 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:

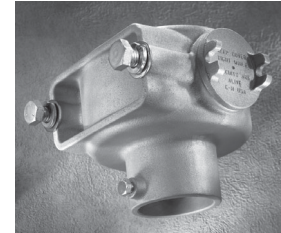
- Heavy process industries where flammable or explosive vapors or gases are present
- Hazardous areas, both indoors and outdoors, including those requiring elevated ambient capability, where long life and low maintenance costs are desired
- Petroleum refineries, chemical, petrochemical, and other heavy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

Features and Benefits:

- NEMA 7 x 6 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)



FZD with separate ballast enclosure



Pole Mount Adapter

Certifications and Compliances:

NEC/CEC

- Class I, Division 1, Group B (with suffix -GB*), C, D
- Class I, Zone 1, Group IIB+H₂ (with suffix -GB*), IIB
- AEx d IIB+H (with suffix -GB*), IIB
- Ex d IIB+H₂ (with suffix -GB*), IIB
- 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, lamp tube 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

Luminaire Weights

(lbs.):

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

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)

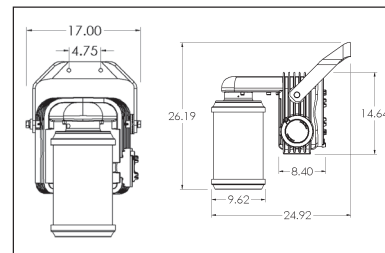
Optional Voltage Ballasts

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

Hub Size

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

Dimensions (In Inches):



Crouse-Hinds
 by **F.T.N**

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6L

Ordering Information:

Lamp Type	Watts	Cat. #* Yoke Mount With 3/4" NPT Hubs
Wide Beam Reflector – 7 x 6 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

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

*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.

FZD With Separate Ballast Enclosure:

Glass Fiber Reinforced Polyester Ballast Enclosure With Cable Entry

Lamp Type	Watts	T-Code	Cat. #
Wide Beam Reflector – NEMA 7 x 6 Distribution			
HPS/MH	250	T4	NOR 000 005 192 506
Metal Halide	400	T3	NOR 000 005 194 106
High Pressure Sodium	400	T3	NOR 000 005 194 006
Narrow Beam Reflector – Spotlight Distribution			
HPS/MH	250	T4	NOR 000 005 192 505
Metal Halide	400	T3	NOR 000 005 194 105
High Pressure Sodium	400	T3	NOR 000 005 194 005

Stainless Steel Ballast Enclosure With Cable Entry

Lamp Type	Watts	T-Code	Cat. #
Wide Beam Reflector – 7 x 6 Distribution			
HPS/MH	250	T4	NOR 000 005 192 502
Metal Halide	400	T3	NOR 000 005 194 102
High Pressure Sodium	400	T3	NOR 000 005 194 002
Narrow Beam Reflector – Spotlight Distribution			
HPS/MH	250	T4	NOR 000 005 192 501
Metal Halide	400	T3	NOR 000 005 194 101
High Pressure Sodium	400	T3	NOR 000 005 194 001

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:

Description	Suffix
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 + H2	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 (not suitable for marine applications).....	S658*

*When ordering fuses for luminaires, option S658, you must specify the operating voltage. S658 cannot be ordered with /MT in the catalog number.

Accessories:

(order separately)	Cat. #
For Pole Mounting	
Pole mount adapter	SFA6-XP
• Class I, Division 1, Groups B, C, D	
• Attach to yoke; fits 2" NPT conduit pole	
Flexible explosionproof coupling	ECLK236
Elbow fitting	EL296-SA
For Wall Or Ceiling Mounting	
Kit includes:	FZD-KIT1
EABC26-SA conduit outlet box, ECLK236 flexible explosionproof coupling, and EL296-SA elbow fitting	

Temperature Performance Data:

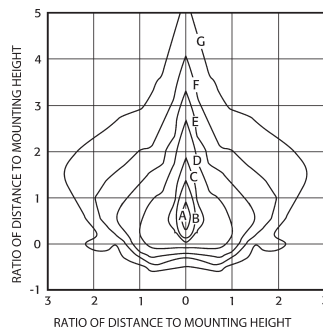
Lamp	Ambient Temp. °C	Class I, Division 1, Zone 1	Supply Wire °C
150 watt HPS	40	T3C	75
	55	T3C	75
	65	T3B	90
250 watt HPS	40	T3C	75
	55	T3C	75
	65	T3B	90
400 watt HPS	40	T3C	75
	55	T3C	75
	65	T3B	90
175 watt Metal Halide	40	T3A	75
	55	T3	75
	65	T3	90
250 watt Metal Halide	40	T3A	75
	55	T3	75
	65	T3	90
400 watt Metal Halide	40	T3A	75
	55	T3	75
	65	T3	90

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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

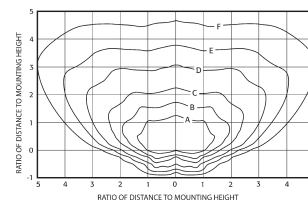


Isofootcandle Chart
 FZD 400W High Pressure Sodium (HPS)
 Catalog Number FZDS2NY400N
 Lamp: 400 W Clear HPS
 Lumen rating: 50,000
 Luminaire located at 0°, 0° Aiming Angle at 45° down from horizontal
 For 150W HPS, multiply footcandles by 0.32.
 For 250 W HPS, multiply footcandles by 0.6.

Footcandle Values For Isofootcandle Lines

Mtg. Ht.	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

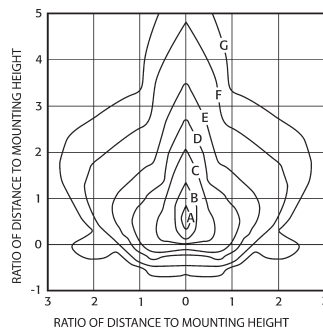


Isofootcandle Chart
 FZD 400W High Pressure Sodium (HPS)
 Catalog Number FZDS2NY400W
 Lamp: 400W Clear HPS
 Lumen rating: 50,000
 Luminaire located at 0°, 0° Aiming Angle at 45° down from horizontal
 For 150W HPS, multiply footcandles by 0.32.
 For 250W HPS, multiply footcandles by 0.6.

Footcandle Values For Isofootcandle Lines

Mtg. Ht.	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

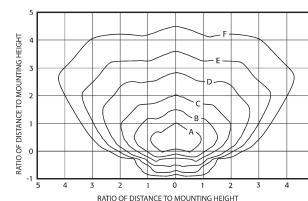


Isofootcandle Chart
 FZD 400W Metal Halide (MH)
 Catalog Number FZDM2NY400N
 Lamp: 400W Clear MH
 Lumen rating: 34,000
 Luminaire located at 0°, 0° Aiming Angle at 45° down from horizontal
 For 175W MH, multiply footcandles by 0.38.
 For 250W MH, multiply footcandles by 0.6.

Footcandle Values For Isofootcandle Lines

Mtg. Ht.	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



Isofootcandle Chart
 FZD 400W Metal Halide (MH) Catalog Number FZDM2NY400W
 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 0.38.
 For 250W MH, multiply footcandles by 0.6.

Footcandle Values For Isofootcandle Lines

Mtg. Ht.	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

Effective Projected Area (EPA):

- For windloading
- For proper pole selection

Aiming Angle	EPA
0°	1.8 ft ²
45°	2.3 ft ²