

Heavy industrial LED lighting
Champ® Pro PFMA LED luminaires

CROUSE-HINDS
SERIES

Champ® PFMA

LED floodlights for heavy industrial areas



EATON

Powering Business Worldwide

Safe. Reliable. Efficient.

Featuring the industry's broadest range of LED luminaires for harsh and heavy industrial environments, Eaton's Crouse-Hinds can deliver a lighting solution that performs reliably in even the worst operating conditions. All the while reducing your energy, maintenance and manpower costs.

Why LED?

Energy efficiency

LED average energy consumption is significantly less than traditional fluorescent and HID fixtures

Start/restart time

Instant illumination vs. 10 minute restrike time for HID

Light quality

Higher color rendering compared to fluorescent and HID

Environmental benefits

Mercury-free LED eliminates disposal costs and lower energy consumption for a smaller carbon footprint

Why Crouse-Hinds?

Industry-best reliability

Built to withstand a wide array of applications

Thermal management

Effective heat sinking ensures longer life

Quality of light

Custom optics designed to maximize light distribution and intensity

Globally certified

Designed to global specifications for IEC and NEC applications

Serviceable drivers

Easy access to drivers for service or replacement

Design features

Versatile design

- Can be used for outdoor or indoor applications, and for a wide range of mounting heights depending on model and light level requirement

Smaller and lighter*

- 25% smaller footprint
- 10 lbs. (4.5 kg) less weight

*Compared to Champ Pro PFM generation I models

Full frame yoke

- Designed to utilize the SFA6 slipfitter and SWB6 wall mount bracket, making it ideal for retrofit or new installations



High lumen output:

- Up to 144 lumens per watt
- Up to 72% energy savings over traditional HID fixtures (compared to 400W MH)



Multiple lens options:

- Tempered clear glass lens standard
- Polycarbonate and diffused glass lens options available

Rugged heat sink

- Heat sink designed to perform and provide maximum light levels in high ambient temperatures up to +65°C and as low as -40°C
- Thick walled castings make for a tough, rugged housing that keeps the internal driver and LED temperature down



Why choose Champ PFMA floodlights?

Reliable floodlights. PFMA LED luminaires are engineered to deliver high lumen output and maintenance-free long life in the toughest conditions.

PFMA13L vs. 400 watt HID



72%
ENERGY
EFFICIENCY



75%
TOTAL COST
OF OWNERSHIP



100%
MAINTENANCE
REDUCTION

Assumptions: Calculations based on overall life of the LED system. Energy cost of \$.09 per kilowatt; 24 hour per day operation; labor rate of \$75 each for 2 workers; average time for fixture maintenance of 1 hour.

Features & specifications

Champ Pro PFMA LED floodlights

Champ PFMA LED floodlights are designed to provide full-spectrum, crisp, white light. Seven versions of the Champ PFMA are available, from 3,000 to 15,000 lumens, providing ideal solutions for a wide range of harsh and heavy industrial applications.

Up to 75% reduction in energy costs and 150,000 hours of continuous operation.

Model number	Nominal lumens*	Wattage	Lumens per watt	Equivalent HID luminaire
PFMA3L	3,312	26	129	70W
PFMA5L	5,381	40	133	100W
PFMA7L	7,274	55	132	175W
PFMA9L	9,479	67	142	250W
PFMA11L	11,776	82	144	320W
PFMA13L	13,362	93	143	400W
PFMA15L	15,183	108	140	500W

*Tolerance +/- 10%; @120 VAC, 25°C ambient, 7x6 optics.

Applications:

- Locations requiring continuous and consistent light levels in extreme ambient temperatures
- Areas requiring frequent on-and-off of lights
- Where extremely corrosive, wet, dusty, hot and/or cold conditions exist
- Manufacturing plants; heavy industrial, chemical, food and beverage facilities; mining; platforms; loading docks; tunnels; outdoor wall and pole mounted areas

LED system:

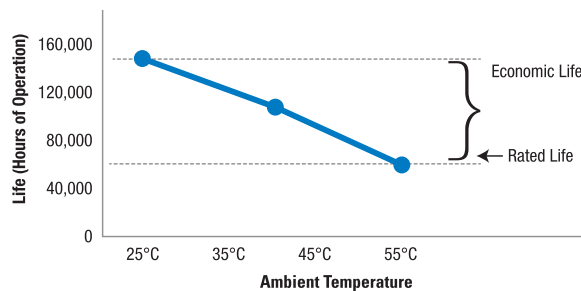
- Cool white (5000K, 70 CRI) and warm white (3000K, 80 CRI)
- Custom designed optics – 7x6 standard, 3x3 optional (3L-15L)

Champ PFMA LED benefits:

- Instant illumination and restrike
- Better visibility with crisp, white light
- Cold temperature operation / no warm-up required
- Serviceable drivers
- Easy installation – yoke design to mount to SFA6
- Energy-efficient technology – up to 72% energy savings over HID fixtures
- 60,000 hours of rated life at 55°C – eliminates need for frequent lamp replacement
- Contains no mercury or other hazardous substances
- Shock- and vibration-resistant solid-state luminaires have no filaments or glass components that could break – greatly reduces the risk of premature failure
- Operating ambient -40°C to 65°C
- 5 year fixture warranty‡

‡Extension of standard terms and conditions to five years. Refer to page 2 of the D-0914 authorized distributor price book for Crouse-Hinds standard Terms and Conditions.

LED system lifetime rated versus economic life:



Economic life can range anywhere between 50,000 to 150,000 hours, or 5 to 20 years of maintenance-free operation.

Fixture life and years of maintenance-free operation

Ambient temperature	Fixture life (hours)	No. of years at 24 hours usage	No. of years at 12 hours usage
25°C	150,000	17	34
40°C	90,000	10	20
55°C	60,000	7	14

*Over 5 years of continuous operation at 65°C ambient.

Fixture life:

- Rated life of 60,000 hours @ 55°C operating ambient and 24/7 continuous operation for 365 days
- Economic life of 150,000 hours @ 25°C ambient

Electrical ratings:

Model number	Input power (watts)	Input amps at 120-277 VAC	PFMA3L - PFMA15L
PFMA3L	25-26	0.27 - 0.10	Voltage range, VAC* 100-277V @ 50/60 Hz, Voltage range, VDC 127-250V Power factor >0.9**
PFMA5L	40-41	0.41 - 0.16	
PFMA7L	54-56	0.56 - 0.21	
PFMA9L	67-69	0.78 - 0.28	
PFMA11L	81-84	0.84 - 0.30	
PFMA13L	91-95	0.95 - 0.34	
PFMA15L	107-113	1.12 - 0.40	

*IEC voltage; 100-240VAC @ 50/60 Hz

**For PFMA3L: PF > 0.9 from 100 -255VAC. From 255-277 it varies +/- 10%. All other lumen levels are above 0.9 PF across full voltage range.

Standard materials:

- Lamp housing and adapter – die cast aluminum with Corro-free™ epoxy powder coat
- Lens – heat- and impact-resistant glass (standard)
- Gaskets – silicone and neoprene
- External hardware – stainless steel

Qualifications and compliances:

- DesignLights Consortium® Qualified (pending)*





Certifications and compliances:

NEC and CEC

- Wet Locations, Type 4X, IP66

UL Standards

- UL1598 Luminaires, UL1598A Marine, UL8750

CSA Standard

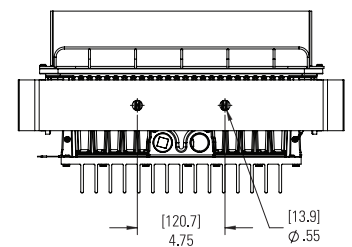
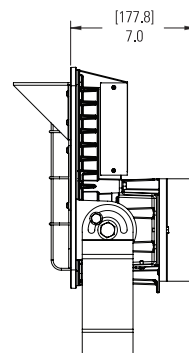
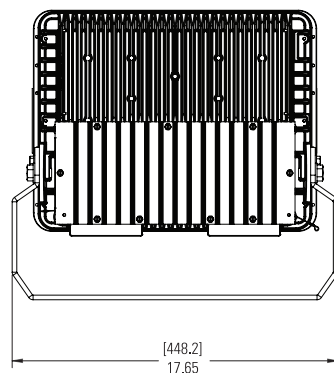
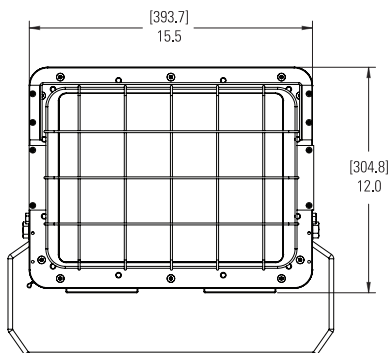
- cUL Listed to CSA Standard CSA C22.2 No. 250

IEC Standard

- IEC 60598
- CE

Weights and dimensions:

Model number	Lbs.	Kg.	Width		Height		Depth	
			in.	mm.	in.	mm.	in.	mm.
PFMA3L-PFMA15L	32	14.5	15.5	393.7	12.0	304.8	7.0	177.8



Ordering information

Part number example

PFMA7LCY-UNV1-76-M20-S891-BZ

Champ PFMA floodlight, 7,274 lumens, cool white, yoke mount, 100-277 VAC driver, 20mm entry, diffused glass lens, bronze paint

PFMA 7L C Y - UNV1 - 76 - M20 - S891 - BZ

Light source/intensity

3L	3,312 nominal lumens*
5L	5,381 nominal lumens*
7L	7,274 nominal lumens*
9L	9,479 nominal lumens*
11L	11,776 nominal lumens*
13L	13,362 nominal lumens*
15L	15,183 nominal lumens*

*7x6 model

Color temperature

C	5000K, 70 CRI (cool white)
W	3000K, 70 CRI (warm white)

Mount

Y	Yoke
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Voltage

UNV1*	100 - 277 VAC, 50/60 Hz; 127 - 250 VDC
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*IEC: 100-240V @ 50/60 Hz; 127-250 VDC

Optical distribution

76	7x6 floodlight pattern optics
33	3x3 floodlight pattern optics

Entries

BLANK	¾" NPT
M20	20mm
M25	25mm

Paint

BLANK	Gray
BZ	Bronze
WH	White

Lens material

BLANK	Clear glass lens
S891	Diffused glass lens
S903	Polycarbonate lens

Accessories (ordered separately)

BLHN	Bull horn, gray	DSV2	Bolt-on visor	SFA6	Slipfitter
BLHN-BZ	Bull horn, bronze	P62	Bolt-on wire guard	SWB6	Slipfitter wall mount
BLHN-WH	Bull horn, white	SC831	Safety cable		

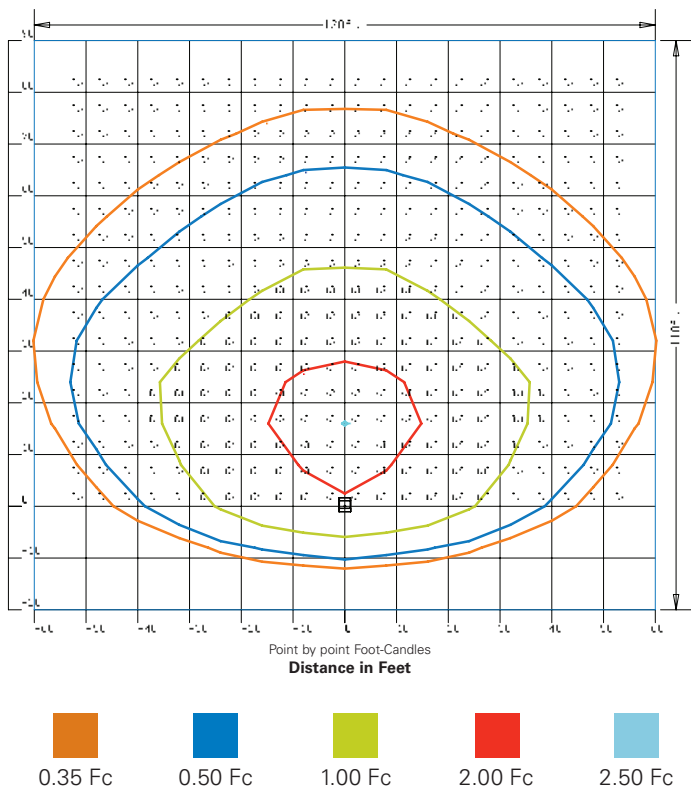
Replacement driver kits (ordered separately)

FMVA 3-5-7L UNV1 DRIVER KIT	Replacement driver kit for 3L, 5L and 7L models
FMVA 9-11-13L UNV1 DRIVER KIT	Replacement driver kit for 9L, 11L and 13L models
FMVA 15L UNV1 DRIVER KIT	Replacement driver kit for 15L model

Photometric data

7x6 optics

PFMA13L Height: 40 ft.; Tilt angle: 45°



Effective projected area (ft.-sq.):

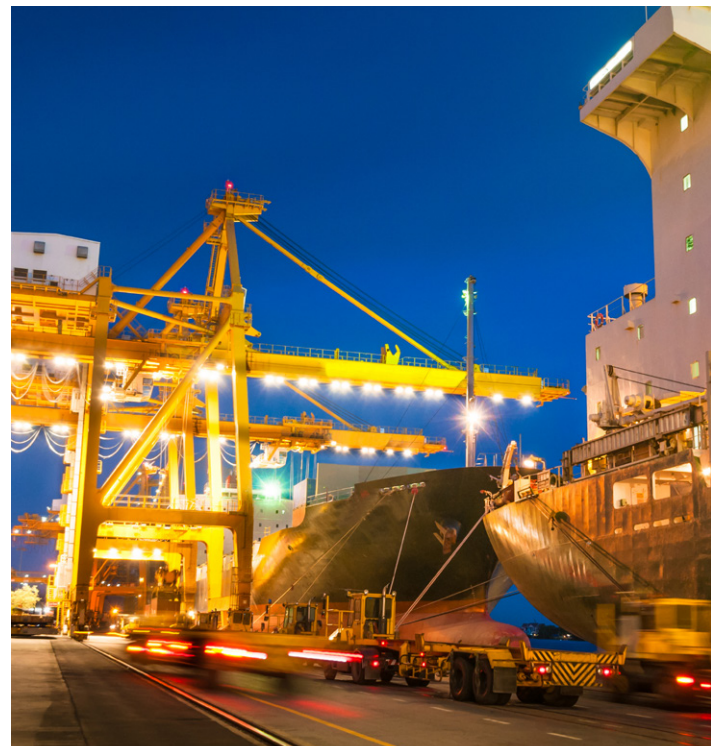
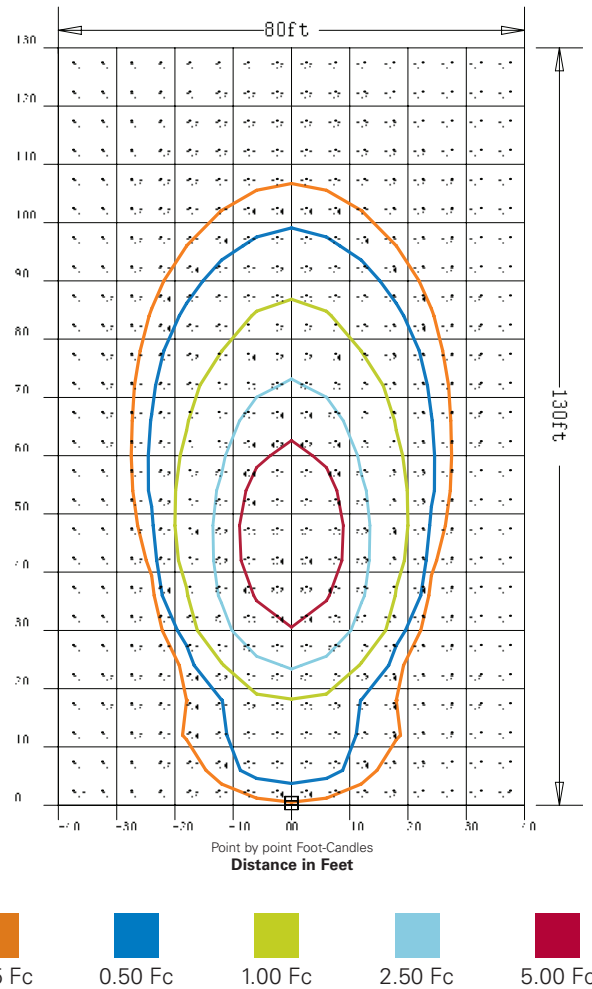
Position	PFMA3L-15L
@ 0° Tilt	1.5
@ 45° Backwards tilt	1.1
@ 60° Forward tilt	0.8

Lumen output for clear glass lens model, 7x6 optics

PFMA3L	PFMA5L	PFMA7L	PFMA9L	PFMA11L	PFMA13L	PFMA15L
3,312	5,381	7,274	9,479	11,776	13,362	15,183

3x3 optics

PFMA11L Height: 30 ft.; Tilt angle: 45°



Higher average footcandles/lux, uniformity and distribution coverage with **72% less energy consumption** compared to 400W metal halide.

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