

Champ® PFMA

LED floodlights for heavy industrial areas



Powering Business Worldwide

Safe. Reliable. Efficient.

Featuring a broad range of LED luminaires for harsh and heavy industrial environments, Eaton's Crouse-Hinds delivers lighting solutions that perform reliably in even the worst operating conditions. This reduces 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



Multiple lens options:

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

Rugged heat sink

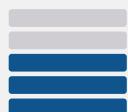
- Heat sink designed to perform and provide maximum light levels in high ambient temperatures up to +65°C and as low as -40°C
- Thick walled castings make for a tough, rugged housing that keeps the internal driver and LED temperature down



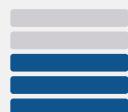
Why choose Champ PFMA floodlights?

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

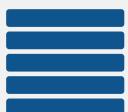
PFMA13L vs. 400 watt HID



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:

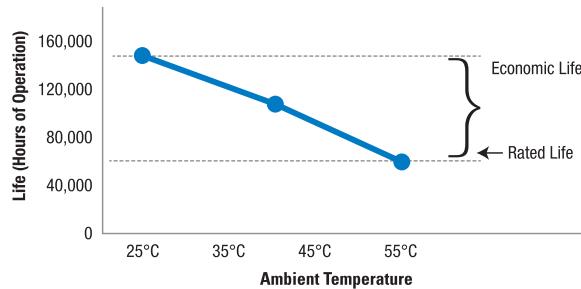
- Cool white (5000K, 70 CRI) and warm white (3000K, 80 CRI)
- Custom designed optics – 7x6 standard, 3x3 optional (3L-15L)

Champ PFMA LED benefits:

- Instant illumination and restrike
- Dimmable driver, 0-10V
- 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.

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; 347-480V @ 50/60 Hz |
| PFMA5L | 40-41 | 0.41 - 0.16 | Voltage range, VDC 127-250V |
| PFMA7L | 54-56 | 0.56 - 0.21 | Power factor >0.9** |
| PFMA9L | 67-69 | 0.78 - 0.28 | *IEC voltage: 100-240VAC @ 50/60 Hz UNV34 option for PFMA9L-15L only |
| PFMA11L | 81-84 | 0.84 - 0.30 | **For PFMA3L: PF> 0.9 from 100 -255VAC. |
| PFMA13L | 91-95 | 0.95 - 0.34 | |
| PFMA15L | 107-113 | 1.12 - 0.40 | |

Drivers:

| Option | PFMA3L - PFMA15L |
|--------|--|
| UNV1 | NEC: 100-277 VAC, 50/60 Hz; 127-250 VDC IEC: 100-240 VAC, 50/60 Hz; 127-250 VDC |
| UNV34* | NEC/CEC only: 347-480 VAC, 50/60 Hz |

*UNV34 driver available for PFMA9L-15L only

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



Certifications and compliances:

NEC and CEC

- Wet Locations, Type 4X, IP66

UL Standards

- UL1598 Luminaires, UL1598A Marine, UL8750

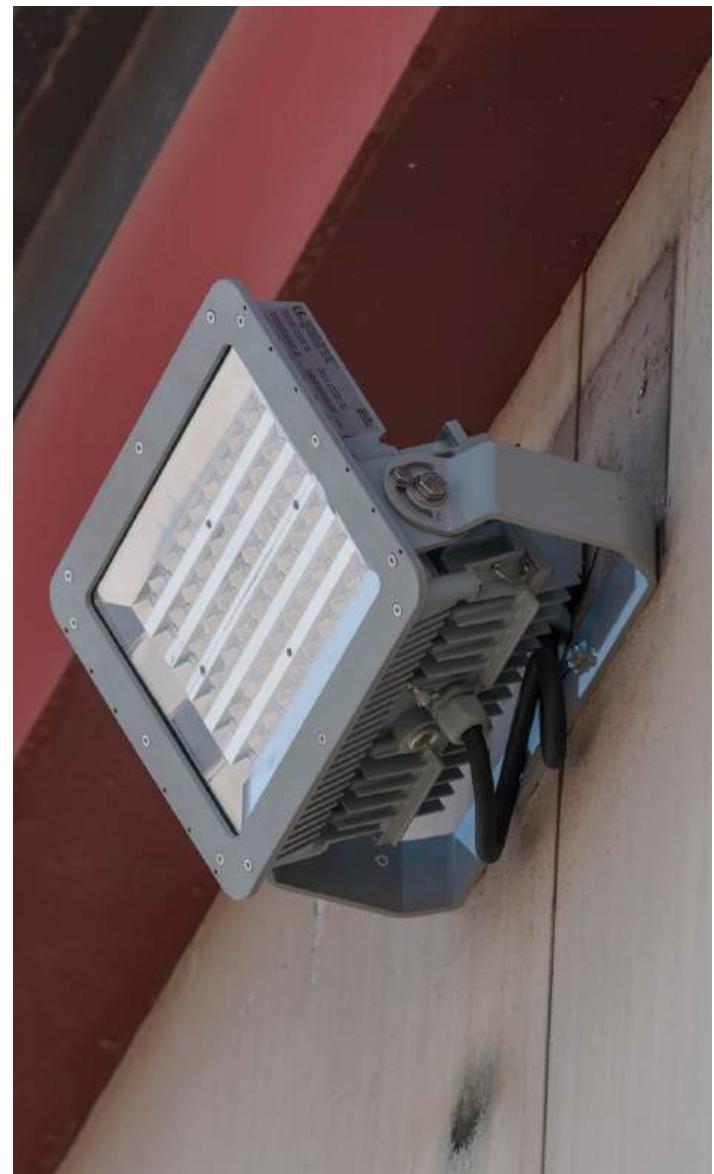
CSA Standard

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

IEC Standard*

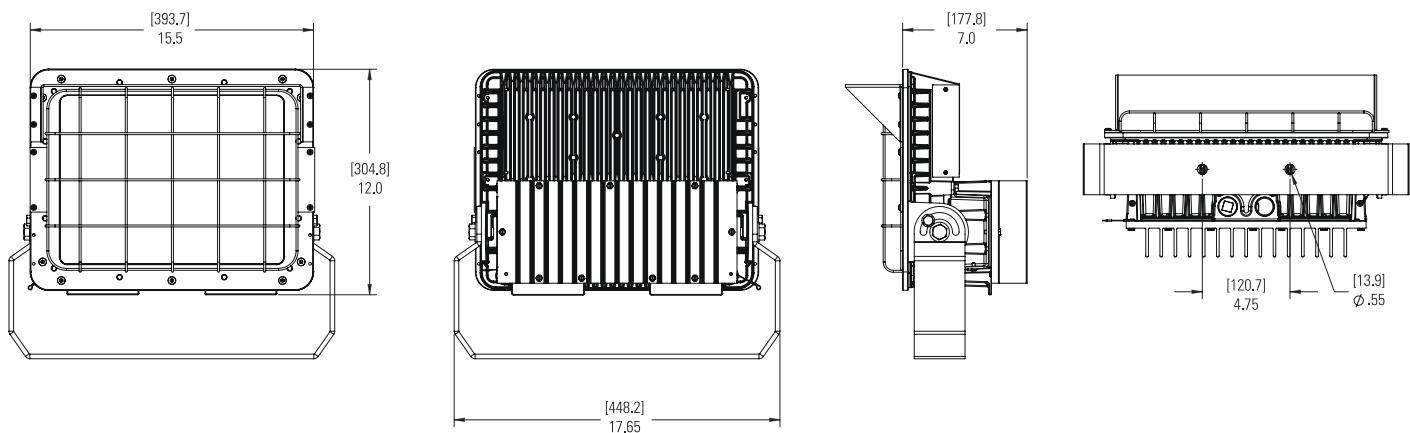
- IEC 60598
- CE

* Not applicable for 9L - 15L UNV34



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, 80 CRI (warm white) |

Mount

| | |
|----------|------|
| Y | Yoke |
|----------|------|

Voltage

| | |
|----------------|---|
| UNV1* | 100 - 277 VAC, 50/60 Hz; 127 - 250 VDC |
| UNV34** | 347-480 VAC, 50/60 Hz |

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

**Available for PFMA9L-15L only

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 | | |

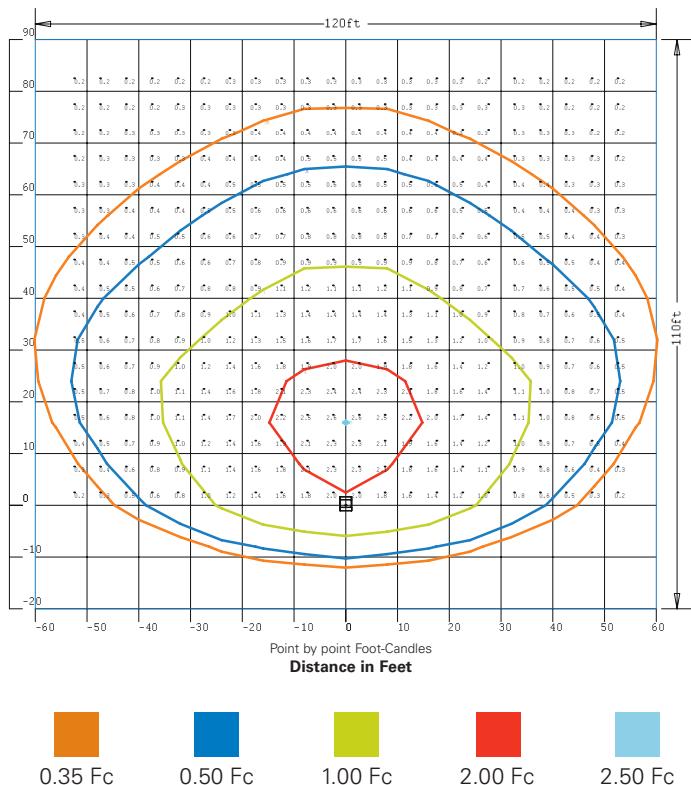
Replacement driver kits (ordered separately)

| | |
|--------------------------------------|--|
| FMVA 3-5-7L UNV1 DRIVER KIT | UNV1 replacement driver kit for 3L, 5L and 7L models |
| FMVA 9-11-13L UNV1 DRIVER KIT | UNV1 replacement driver kit for 9L, 11L and 13L models |
| FMVA 15L UNV1 DRIVER KIT | UNV1 replacement driver kit for 15L model |
| FMVA 9L-11L UNV34 DRIVER KIT | UNV34 replacement driver kit for 9L and 11L models |
| FMVA 13L-15L UNV34 DRIVER KIT | UNV34 replacement driver kit for 13L and 15L models |

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 |

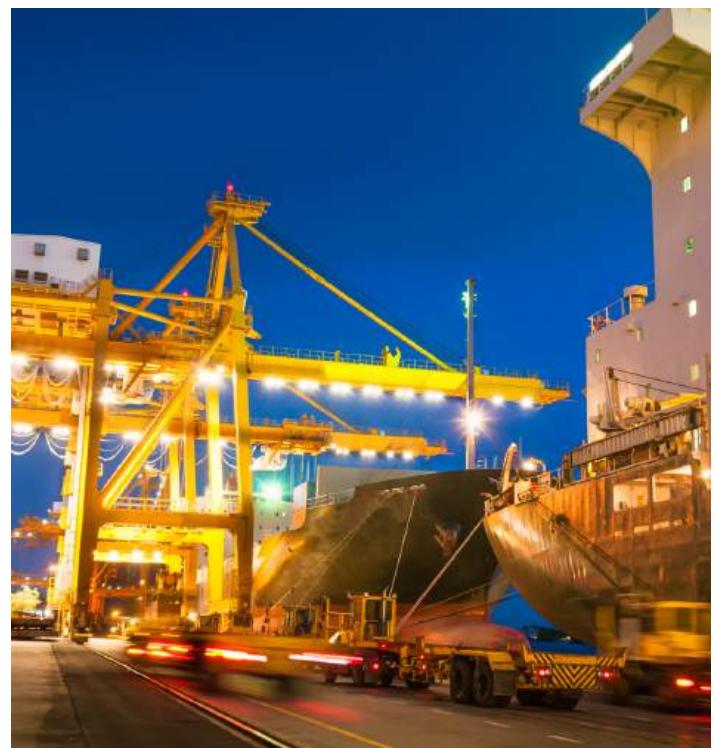
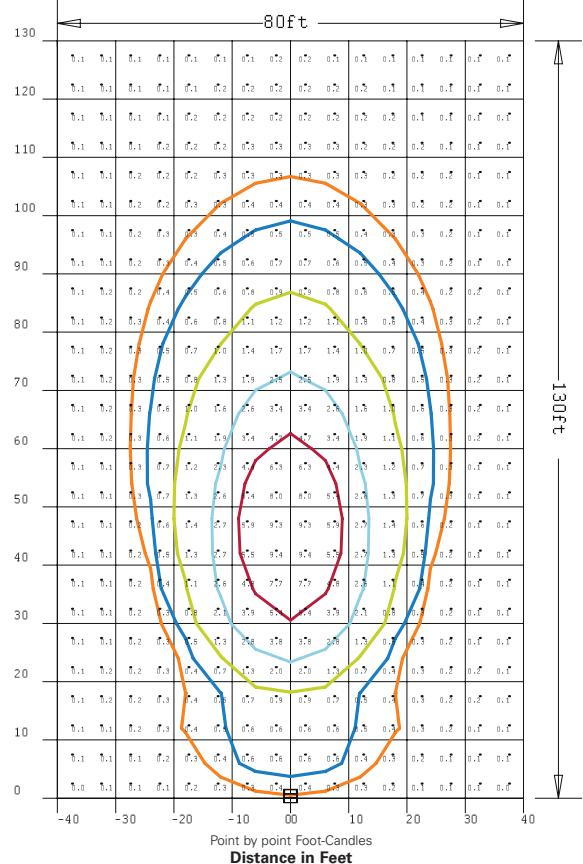
Lumen output for clear glass lens model, 7x6 optics

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

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

3x3 optics

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



**U.S. (global headquarters):
Eaton's Crouse-Hinds business**

1201 Wolf Street
Syracuse, NY 13208
(866) 764-5454
FAX: (315) 477-5179
FAX Orders Only:
(866) 653-0640

crousecustomerctr@eaton.com

Eaton's B-Line business

509 West Monroe Street
Highland, IL 62249
800-851-7415
FAX: 618-654-1917
Eaton.com/b-lineseries

Eaton's Crouse-Hinds
1201 Wolf Street
Syracuse, NY 13208
Crouse-Hinds.com

Eaton
1000 Eaton Boulevard
Cleveland, OH 44122
United States
Eaton.com

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IEC Electrical
(CEAG products)

49 (0) 6271 806-500
FAX: 49 (0) 6271 806-476

Info-ex@eaton.com

Airport Lighting

866-764-5454
CrouseCustomerCTR@Eaton.com

Mexico/Latin America/Caribbean

52-555-804-4000
FAX: 52-555-804-4020
ventascentromex@eaton.com

Haz Area Communications
(MEDC, Hernis, Oxalis, FHF Sonix)

44 (0) 1623 444400
FAX: 44 (0) 1623 444531
MEDCadmin@Eaton.com

Canada

Toll Free: 800-265-0502
FAX: (800) 263-9504
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China

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FAX: 86-21-2899-4055
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Eaton Middle East

9714-8066100
FAX: 9714-8894813
CHBL-ME@eaton.com

Australia

61-2-8787-2777
FAX: 61-2-9609-2342
crousehindsanz@eaton.com

For more information:

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