

Heavy industrial LED lighting  
Champ® Pro PFM LED luminaires

CROUSE-HINDS  
SERIES

# Champ® PFM

LED floodlights for heavy industrial areas



**EATON**

Powering Business Worldwide



Champ® Pro PFM LED floodlights

# 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

# Why PFM LED?

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

## 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 than previous model
- 10 lbs. (4.5 kg) less weight than previous model

## 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 117 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

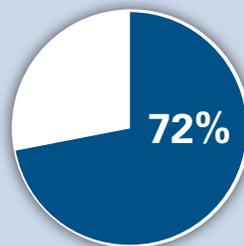
- Heat sink designed to perform and provide maximum light levels in high ambient temperatures up to +65°C and as low as -40°C
- Thick walled castings make for a tough, rugged housing that keeps the internal driver and LED temperature down

## LED vs. HID savings at a glance

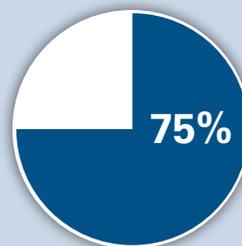
Why are so many facilities making the switch from HID to LED?

The numbers say it all.

### PFM13L/UNV1 vs. 400 watt HID



72% REDUCTION IN ENERGY COSTS



75% LOWER 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 PFM series LED floodlights

Champ PFM LED floodlights are designed to provide full-spectrum, crisp, white light. Seven versions of the Champ PFM 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
PFM3L	3,189	28	114	70W-100W
PFM5L	5,183	45	115	100W-150W
PFM7L	7,095	62	114	150W-175W
PFM9L	9,132	79	116	175W-250W
PFM11L	11,107	99	112	250W-400W
PFM13L	13,100	112	117	400W
PFM15L	15,181	131	116	450W+

\*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:

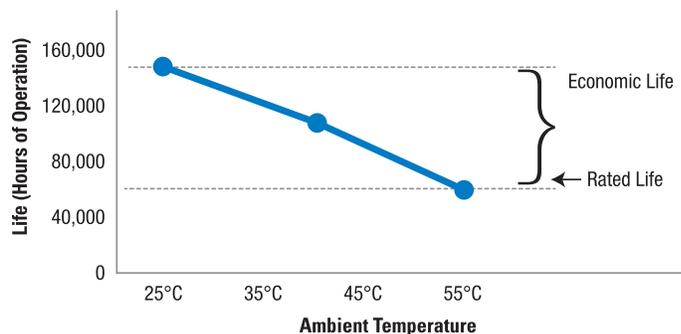
- Cool white (5000K, 70 CRI) and warm white (3000K, 80 CRI)
- Custom designed optics

## Champ PFM 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

\*50,000 hours of life at 65°C ambient.

## Fixture life:

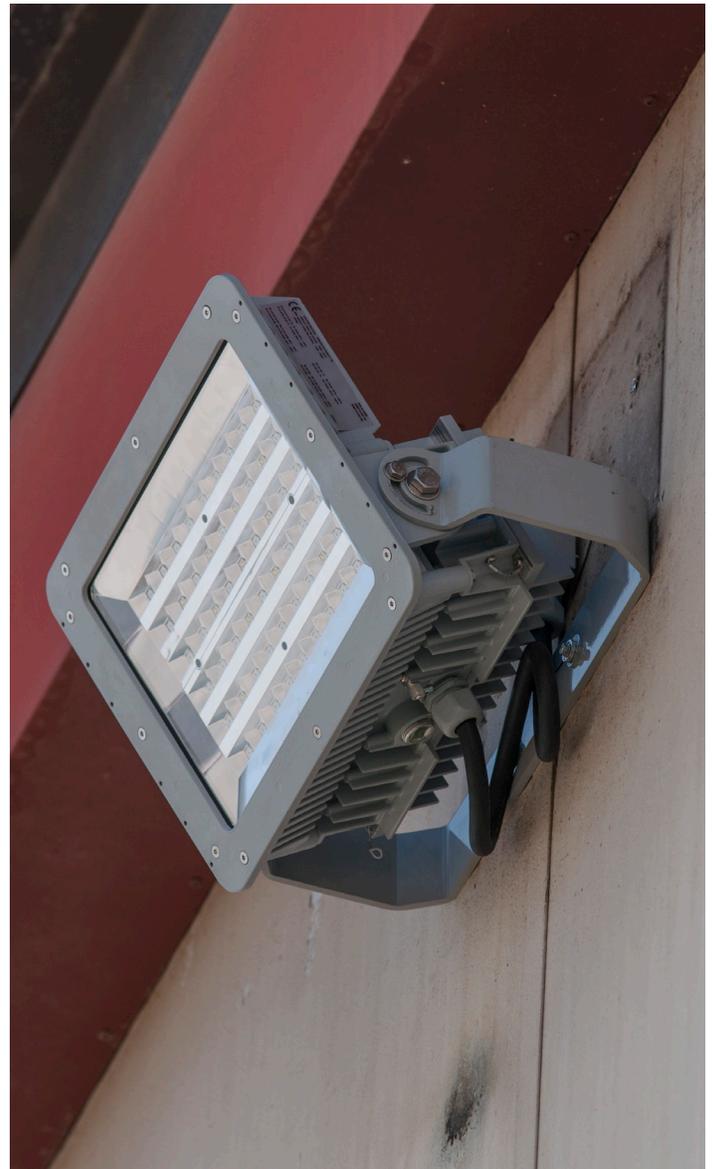
- Rated life of 60,000 hours @ 55°C operating ambient and 24/7 continuous operation for 365 days
- Economic life of 150,000 hours @ 25°C ambient
- L70 LED life >300,000 hours @ 55°C

## Electrical ratings:

Model number	Input power (watts)	Input amps at 120-277 VAC	PFM3L - PFM15L	
PFM3L	28.0 - 29.1	0.24 - 0.11	UNV1 driver	100-277 VAC @ 50/60 Hz; 108-250 VDC @ 50/60 Hz
PFM5L	45.4 - 45.8	0.38 - 0.18	UNV34 driver	347-480 VAC @ 50/60 Hz,
PFM7L	61.8 - 62.5	0.52 - 0.24	Power factor	>0.9
PFM9L	78.8 - 80.3	0.66 - 0.31		
PFM11L	98.8 - 99.9	0.83 - 0.37		
PFM13L	111.8 - 112.4	0.94 - 0.42		
PFM15L	131.4 - 131.5	1.10 - 0.48		

## 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

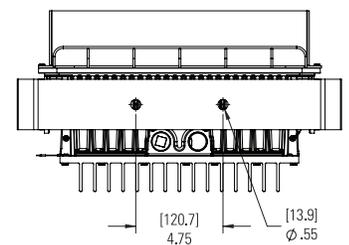
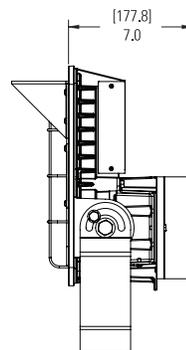
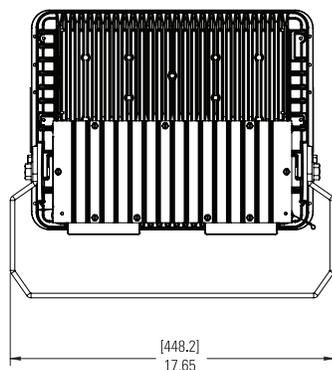
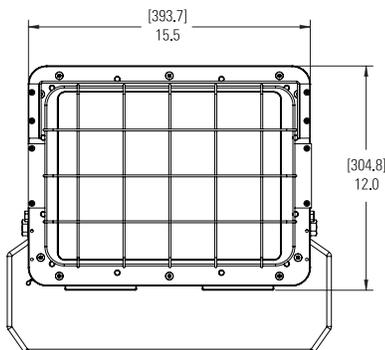
- cUL Listed to CSA Standard CSA C22.2 No. 250

IEC Standards

- IEC 60598
- CE

**Weights and dimensions:**

Model number	Lbs.	Kg.	Width		Height		Depth	
			in.	mm.	in.	mm.	in.	mm.
PFM3L-PFM7L	30.7	13.9	15.5	393.7	12.0	304.8	7.0	177.8
PFM9L-PFM15L	31.8	14.4	15.5	393.7	12.0	304.8	7.0	177.8



# Ordering information

Part number example

**PFM5LCY/UNV1D 76 S903**

## PFM 5L C Y /UNV1 D 76 S903

### Model

**PFM** NEC model

### Mount

**Y** Yoke

### Light source/intensity

**3L** 3,189 nominal lumens\*

**5L** 5,183 nominal lumens\*

**7L** 7,095 nominal lumens\*

**9L** 9,132 nominal lumens\*

**11L** 11,107 nominal lumens\*

**13L** 13,100 nominal lumens\*

**15L** 15,181 nominal lumens\*

\*7x6 model.

### Color temperature

**C** 5000K, 70 CRI (cool white)

**W** 3000K, 80 CRI (warm white)

### Voltage

**/UNV1** 100-277 VAC, 50/60 Hz; 108-250 VDC

**/UNV34** 347-480 VAC 50/60 Hz

### Options

**S891** Diffused glass lens

**S903** Polycarbonate lens

### Entries

**BLANK** ¾" NPT

**M20** 20mm entry

**M25** 25mm entry

### Optical distribution

**76** 7x6 floodlight pattern optics

**33\*** 3x3 floodlight pattern optics

\*Coming soon, consult factory for availability.

### Dimming

**D** Dimmable driver

**BLANK** Non-dimmable

### Accessories (ordered separately)

**DSV2** Bolt-on visor

**P62** Bolt-on wire guard

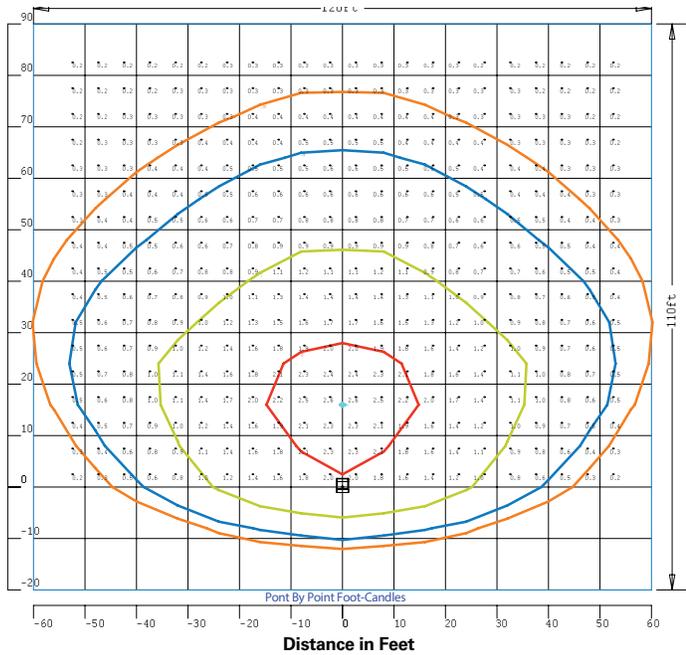
**SC831** Safety cable

**SFA6** Floodlight slipfitter

**SWB6** Slipfitter wall mount adapter

# Photometric data

PFM13L Height: 40 ft.; Tilt angle: 45°



### Effective projected area (ft.-sq.):

Position	PFM3L - PFM15L
@ 0° Tilt	1.5
@ 45° Backwards tilt	1.1
@ 60° Forward tilt	0.8

### Lumen output for diffused glass (S891) models

	PFM3L	PFM5L	PFM7L	PFM9L	PFM11L	PFM13L	PFM15L
Lumens	2,637	4,287	5,878	7,459	8,994	10,613	12,445

### Lumen output for polycarbonate lens (S903) models

	PFM3L	PFM5L	PFM7L	PFM9L	PFM11L	PFM13L	PFM15L
Lumens	3,017	4,903	6,712	8,639	10,507	12,393	14,361

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



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