Champ® PFM
LED floodlights for heavy industrial areas

EAT•N
Powering Business Worldwide
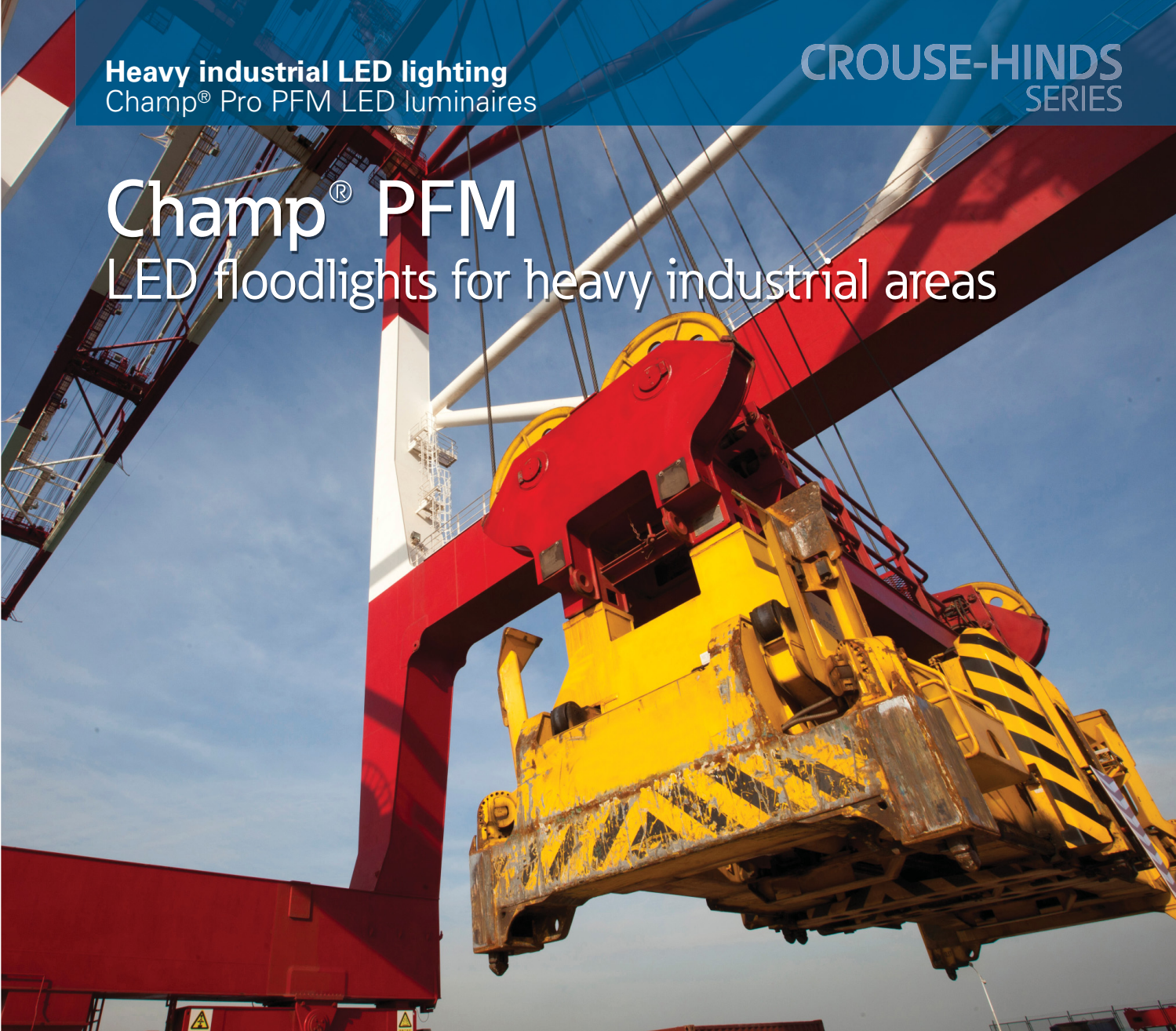
Safe.
Reliable.
Efficient.

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

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
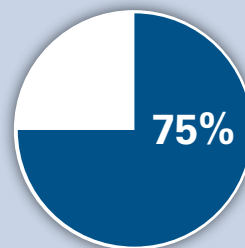
LED vs. HID savings at a glance

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

The numbers say it all.

PFM13L/UNV1 vs. 400 watt HID
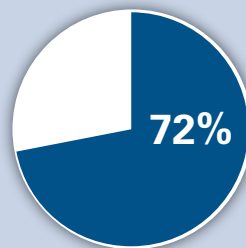
72%
72% REDUCTION IN ENERGY COSTS

75%
75% LOWER TOTAL COST OF OWNERSHIP

100%
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 13,000 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 – 7x6 standard, 3x3 optional (3L-11L)

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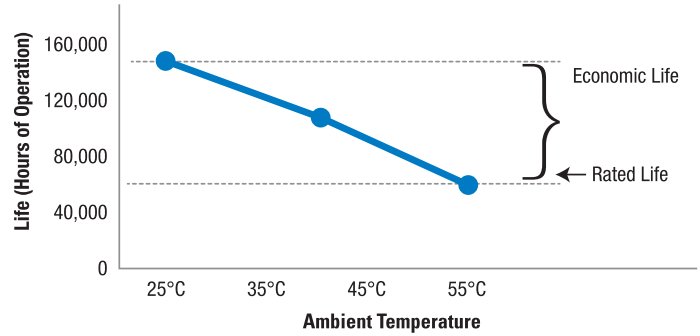
Economic life can range anywhere between 50,000 to 150,000 hours, or 5 to 20 years of maintenance-free operation.

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	28.0 - 29.1	0.24 - 0.11
PFM5L	45.4 - 45.8	0.38 - 0.18
PFM7L	61.8 - 62.5	0.52 - 0.24
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

PFM3L - PFM15L	
UNV1 driver	100-277 VAC @ 50/60 Hz; 108-250 VDC @ 50/60 Hz
UNV34 driver	347-480 VAC @ 50/60 Hz,
Power factor	>0.9

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 (some models are not DLC qualified)*

* Approved models include: PFM3L/UNV1; PFM5L/UNV1; PFM7L/UNV1; PFM9L/UNV1; PFM11L/UNV1; PFM13L/UNV1; PFM3L/UNV34; PFM5L/UNV34; PFM7L/UNV34; PFM9L/UNV34; PFM11L/UNV34; PFM13L/UNV34

7x6 optics on all approved models; 3x3 optics not DLC approved.

Refer to www.designlights.org Qualified Products List under family models for full listing details. Not all models are approved for all application categories.

Certifications and compliances:

NEC and CEC
- Wet Locations, Type 4X, IP66

UL Standards
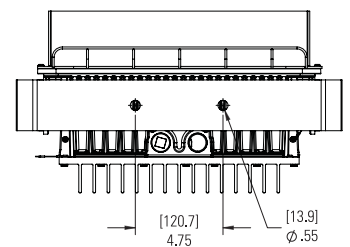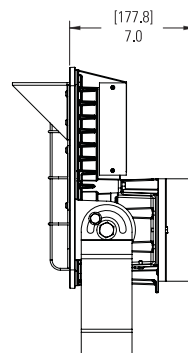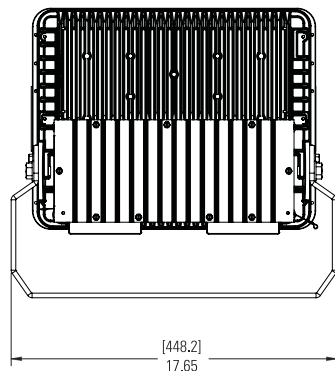- UL1598 Luminaires, UL1598A Marine, UL8750

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 in.	mm.	Height in.	mm.	Depth 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

[393.7]
15.5

[304.8]
12.0

[448.2]
17.65

[177.8]
7.0

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4.75

[13.9]
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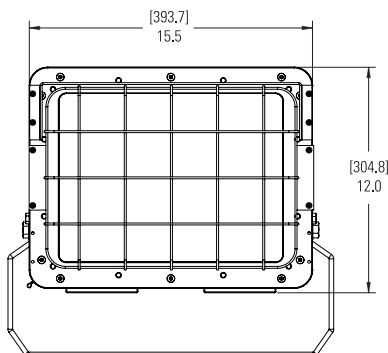
Ordering information

Part number example
PFM5LCY/UNV1D 76 S903

PFM 5L C Y /UNV1 D 76 S903

Model

PFM	NEC model

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

Mount

Y	Yoke

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

*3L - 11L only.

Dimming

D	Dimmable driver
BLANK	Non-dimmable

Accessories (ordered separately)

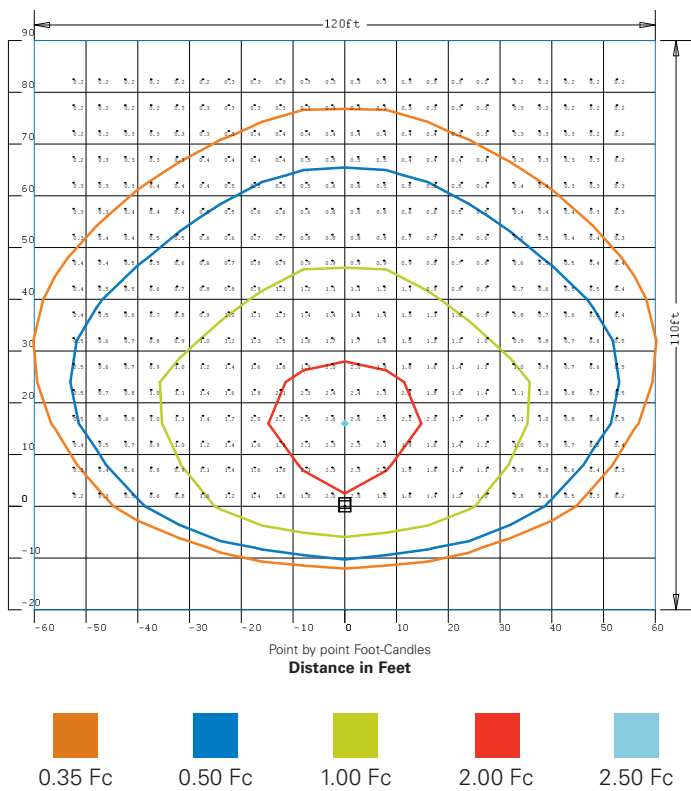| DSV2	Bolt-on visor
P62	Bolt-on wire guard
SC831	Safety cable
SFA6	Floodlight slipfitter
SWB6	Slipfitter wall mount adapter

Photometric data

7x6 optics

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

Point by point Foot-Candles
Distance in Feet

| 0.35 Fc | 0.50 Fc | 1.00 Fc | 2.00 Fc | 2.50 Fc |

3x3 optics

PFM11L Height: 30 ft.; Tilt angle: 45°

Point by point Foot-Candles
Distance in Feet

| 0.35 Fc | 0.50 Fc | 1.00 Fc | 2.50 Fc | 5.00 Fc |
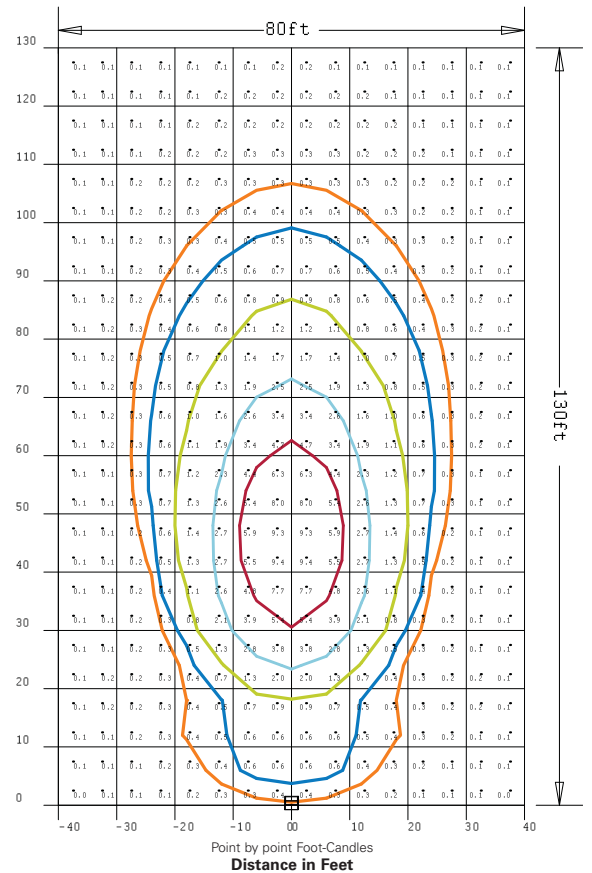
Effective projected area (ft.-sq.):

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

Lumen output for glass lens models

Optic	PFM3L	PFM5L	PFM7L	PFM9L	PFM11L	PFM13L	PFM15L
7x6	3,189	5,183	7,095	9,132	11,107	13,100	15,181
3x3	3,064	5,038	7,000	8,962	10,917	–	–

Lumen output for diffused glass lens (S891) models

Optic	PFM3L	PFM5L	PFM7L	PFM9L	PFM11L	PFM13L	PFM15L
7x6	2,637	4,287	5,878	7,459	8,994	10,613	12,445
3x3	2,546	4,179	5,806	7,433	9,055	–	–

Lumen output for polycarbonate lens (S903) models

Optic	PFM3L	PFM5L	PFM7L	PFM9L	PFM11L	PFM13L	PFM15L
7x6	3,017	4,903	6,712	8,639	10,507	12,393	14,361
3x3	2,924	4,808	6,680	8,552	10,418	–	–

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

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