Champ® FMVA
LED floodlights for harsh and hazardous areas

E·T·N
Powering Business Worldwide

Champ® FMVA LED floodlights

Safe. Reliable. Efficient.

Featuring a broad range of LED luminaires for harsh, hazardous and 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 FMV 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 FMVA floodlights?

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

FMVA13L 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 FMVA LED floodlights

Champ FMVA LED floodlights are designed to provide full-spectrum, crisp, white light. Four versions of the Champ FMVA are available, from 9,000 to 15,000 lumens, providing ideal solutions for a wide range of harsh and hazardous 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
FMVA9L	9,479	69	142	250W
FMVA11L	11,776	84	144	320W
FMVA13L	13,362	95	143	400W
FMVA15L	15,183	113	140	500W

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

Applications:

- Oil and gas refineries, drilling rigs, petrochemical facilities, food and beverage facilities, platforms, loading docks, tunnels, outdoor wall and stanchion mounted general area lighting, and where flammable vapors, gases, ignitable dusts, fibers or flyings are present
- Locations requiring continuous and consistent light levels in extreme ambient temperatures
- Where extremely corrosive, wet, dusty, hot and/or cold conditions exist
- IP66, Type 4X, marine, wet locations and hose-down environments
- Classified and hazardous locations

Champ FMVA LED benefits:

- Instant illumination and restrike
- Dimmable driver, 0-10V
- Better visibility with crisp, white light
- Cold temperature operation / no warm-up required
- Minimum T3C temperature rating – safely operate in the most hazardous environments and any non-hazardous location
- 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 (NEC only; IEC -40°C to 55°C)
- 5 year fixture warranty‡

‡Extension of standard terms and conditions to five years.

LED system lifetime rated versus economic life:
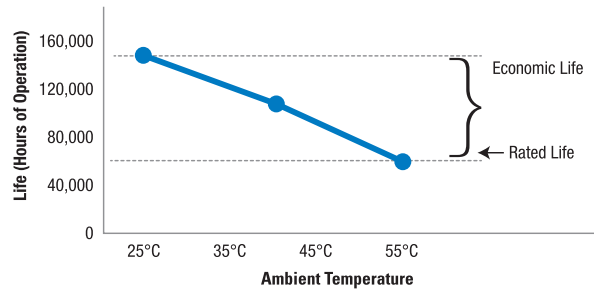
Economic life can range anywhere between 50,000 to 150,000 hours, or 5 to 20 years of maintenance-free operation.

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
FMVA9L	67-69	0.78 - 0.28
FMVA11L	81-84	0.84 - 0.30
FMVA13L	91-95	0.95 - 0.34
FMVA15L	107-113	1.12 - 0.40

FMVA9L - FMVA15L	
Voltage range, VAC*	100-277V @ 50/60 Hz; 347-480V @ 50/60 Hz
Voltage range, VDC	127-250V
Power factor	>0.9

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

LED system:

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

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:

- Class I, Division 2, Groups A, B, C, D
- Class I, Zone 2
- Class II, Groups E, F, G
- Class III
- Simultaneous Presence
- Wet Location, ABS, Type 4X, IP66

UL Standards:

- UL844; UL1598; UL1598A; UL8750
- CSA C22.2 No. 137

**IEC Standards:

- IEC 60079-0, 6th Edition (2011-06) + Corr. 1 (2012-01) + Corr. 2 (2013-12) + I-SH 01 (2013-11) + I-SH 02 (2014-10)/EN 60079-0:2012 + A11:2013
- IEC 60079-7, Edition 5.1 (2017-08)/EN 60079-7: 2015 +A1:2018
- IEC 60079-31, 2nd Edition (2013-11)/EN 60079-31:2014
- IEC 60598-1:2008/EN60598-1:2008
- IEC 60598-2:2008/EN60598-2:2008

**IECEx & ATEX:

- $C\epsilon_{0539}$
- IECEx UL15.0029X
- DEMKO 15 ATEX 1377X
- DEMKO 15 ATEX 1383
- Ex II 3 G Ex ec mb IIC T5 Gc Tamb -40° - +55°C
- Ex II 3 G Ex ec mb IIC T5 Gc Tamb -40° - +40°C*
- Ex ec IIC T5 Gc Tamb -40°C - +40°C
- Ex ec IIC T4 Gc Tamb -40°C - +55°C
- Ex II 2 D Ex tb IIIC T65 Db Tamb -40°C - +40°C
- Ex II 2 D Ex tb IIIC T80 Db Tamb -40°C - +55°C
- Ex tb IIIC T65 Db Tamb -40°C - +40°C
- Ex tb IIIC T80 Db Tamb -40°C - +55°C

*T4 from -40°C to +40°C when used with 3x3 optic
**Not applicable for UNV34

Temperature codes:

Model	Ambient temperature	Class I, Div. 2	Class II, Div. 1	Simultaneous rating Class I, Div. 2, Div. 1	Class I, Zone 2	ATEX 3G	ATEX 2D	Minimum supply wire temperature
	40°C	T5	T4	T4	T5*	T5	T65	90°C
FMVA9L-FMVA15L	55°C	T4A	T3C	T3C	T4	T4	T80	90°C
	65°C	T4A	T3C	T3C	T4	–	–	90°C

* T4 when using the 3x3 floodlight pattern optic.

Weights:

Model number	Lbs.	Kg.
FMVA9L-FMVA15L	32	14.5

Drivers:

Option	FMVA9L - FMVA15L
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

Ordering information

Part number example
FMVA9LCY-UNV1-76-M20-S891-BZ

Champ FMVA floodlight, 9,497 lumens, cool white, yoke mount, 100-277 VAC driver, 20mm entry, diffused glass lens, bronze paint

FMVA 9L C Y - UNV1 - 76 - M20 - S891 - BZ

Light source/intensity

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

Optical distribution

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

Entries

BLANK	¾" NPT
M20	20mm
M25	25mm

Lens material

BLANK	Clear glass lens
S891	Diffused glass lens
S903	Polycarbonate lens

Paint

BLANK	Gray
BZ	Bronze
WH	White

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 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

Dimensions:

Model number	Width in.	mm.	Height in.	mm.	Depth in.	mm.
FMVA9L-FMVA15L	15.5	393.7	12.0	304.8	7.0	177.8
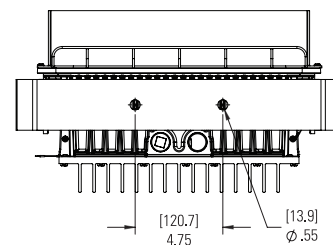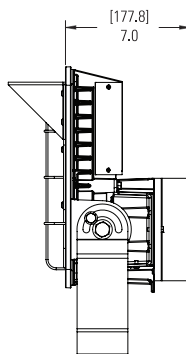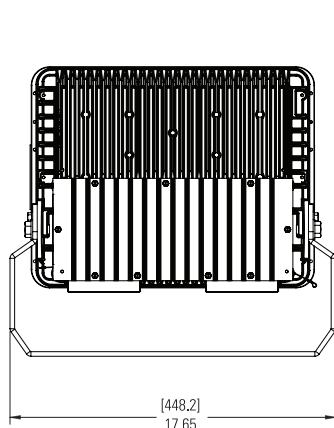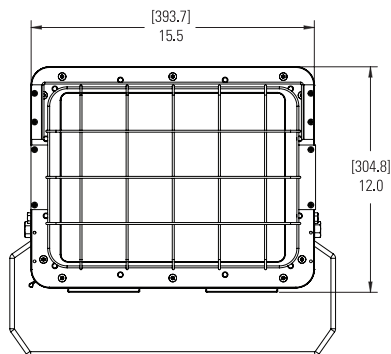
Photometric data

7x6 optics

FMVA13L 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
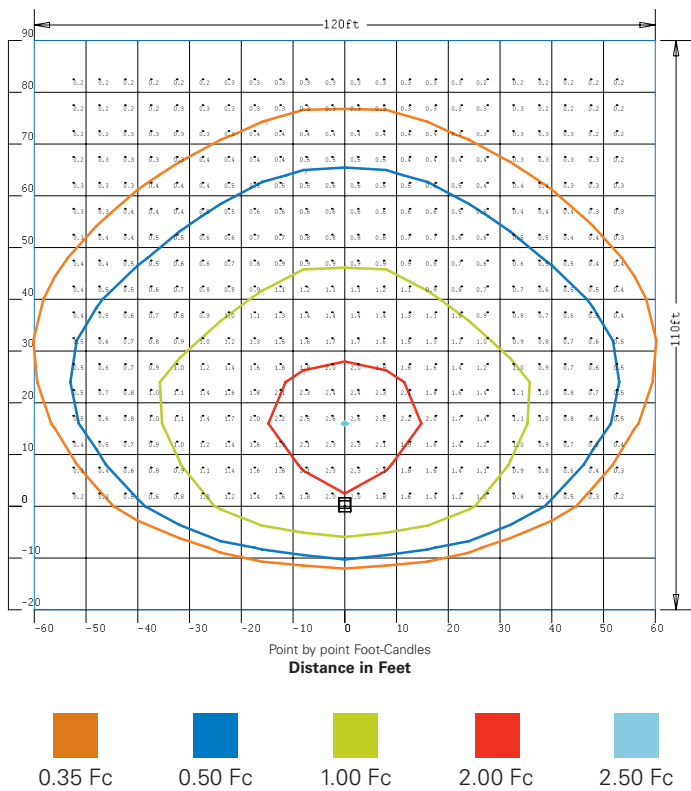
3x3 optics

FMVA11L 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
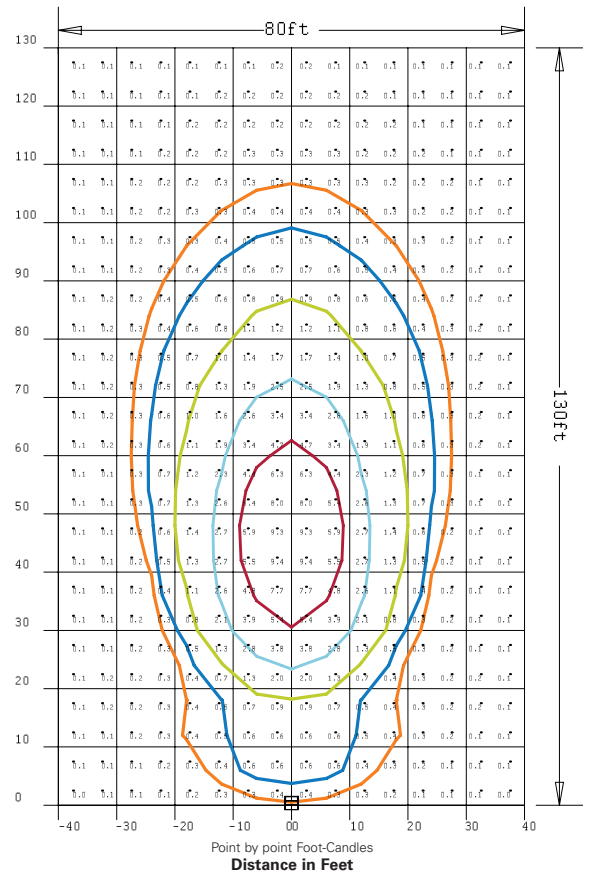
Effective projected area (ft.-sq.):

Position	FMVA9L - FMVA15L
@ 0° Tilt	1.5
@ 45° Backwards tilt	1.1
@ 60° Forward tilt	0.8

Lumen output for glass lens models

Optic	FMVA9L	FMVA11L	FMVA13L	FMVA15L
7x6	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.

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