





# **Champ FMVA LED floodlights**

# Safe. Reliable. Efficient.

Featuring the industry's broadest range of LED luminaires for harsh, hazardous and 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 lowers 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**



#### Smaller and lighter

- 25% smaller footprint than previous model
- · 20 lbs. 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 installation



#### 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

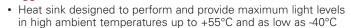
#### **High lumen output:**

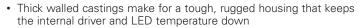
- Up to 120 lumens per watt
- Up to 78% energy savings over traditional HID fixtures (compared to 400W MH)

#### Multiple lens options:

- Tempered clear glass lens standard
- · Diffused glass lens optional











# 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.

FMVA25L vs. 1000 watt HID



78% ENERGY EFFICIENCY



77% 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**

#### 39% lighter than the previous design with a small footprint

Champ FMVA high lumen LED floodlights are designed to provide full-spectrum, crisp, white light. Four versions of the FMVA are available, providing ideal solutions for a wide range of applications.

Model	Nominal lumens	Wattage*	Equivalent MH luminaire	Typical energy savings/lifetime
FMVA20L	20,500	175	600W-750W	Up to 78%
FMVA25L	25,500	216	750W-1000W	energy costs and 120,000
FMVA40L	40,500	340	1500\\/ .	hours of
FMVA50L	50,500	411	1500W +	operation!

<sup>\*</sup>UNV1 at 120 VAC.

#### **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
- 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

#### Design features:

- Rugged design engineered to perform in ambient temperatures from -40°C to 55°C
- High efficiency engineered to deliver 117 lumens per watt
- Full frame yoke designed to utilize the SFA6 slipfitter and SWB6 wall mount bracket, making it ideal for retrofit or new installations
- Custom optics standard 7x6 pattern provides maximum light distribution
- 5 year fixture warranty‡

#### Fixture life:

 Rated life of 60,000 hours at 55°C operating ambient and 24/7 continuous operation for 365 days

#### 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

#### Electrical ratings - NEC model:

	120-277 VAC at 50/60 Hz		34	347-480 VAC at 50/60 Hz		
Model	Input power Input amps		Inp	ut power	Input amps	_
FMVA20L	160-158W	1.35-0.64A	163	3-162W	0.48-0.36A	
FMVA25L	200-197W	1.67-0.75A	201	1-200W	0.59-0.44A	
FMVA40L	330-323W	2.74-1.26A	326	6-322W	0.99-0.72A	
FMVA50L	403-393W	3.37-1.50A	393	3-392W	1.15-0.86A	_

#### All models (UNV1 only)

Voltage range, VDC	7-300V at 50/60 Hz
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ΑII	models	

>0.90



#### T-ratings - NEC models:

20L & 25l	Min. supply		
Ambient temp.	Class I, Div. 2	Class II, Div. 1	wire temp.
+40°C	T4A	T3C	- 105°C
+55°C	T4A	T3C	100 C

40L & 50L	Min. supply		
Ambient temp.	Class I, Div. 2	Class II, Div. 1	wire temp.
+40°C	T4A	T4A	- 105°C
+55°C	T4A	T4A	100 0

#### **Electrical ratings – IEC/ATEX model:**

120-277 VAC at 50/60 Hz			347-440 VAC at 50/60 Hz		
Model	Input power	Input amps		Input power	Input amps
nFMVA20L	160-158W	1.35-0.64A		163-162W	0.48-0.36A
nFMVA25L	200-197W	1.67-0.75A	=	201-200W	0.59-0.44A
nFMVA40L	330-323W	2.74-1.26A		326-322W	0.99-0.72A
nFMVA50L	403-393W	3.37-1.50A	_	393-392W	1.15-0.86A

#### All models (UNV1 only)

Voltage	127-300V at 50/60 Hz
range, VDC	127-3007 at 30/00 112

#### All models

Power factor	>0.90	



#### T-ratings – IEC/ATEX version:

20L & 25I	Min.		
Ambient temp.	IEC Zone 2	IEC Zone 22	supply wire temp.
+40°C	T4	T4	105°C
+55°C	T4	T4	100.0

40L & 50l	Min. supply		
Ambient temp.	IEC Zone 2	IEC Zone 22	wire temp.
+40°C	T81°C	T81°C	105°C
+55°C	T94°C	T94°C	105.0

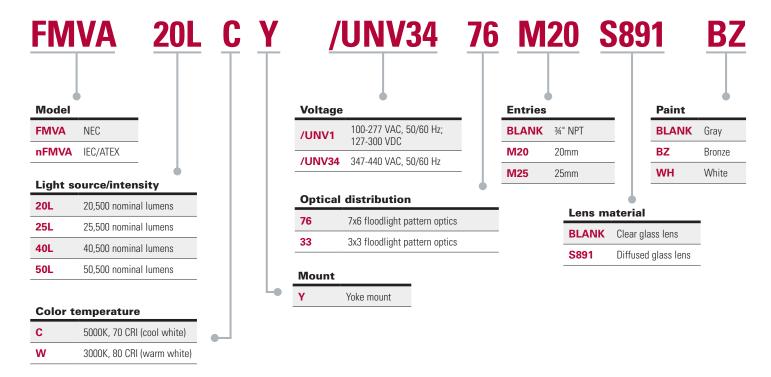
<sup>\*</sup>SFA6 slipfitter and SWB6 wall mount bracket sold separately (20L/25L only). ‡Refer to page 2 of the authorized distributor price book for Crouse-Hinds standard Terms and Conditions.

## **Ordering information**

#### Part number example

#### FMVA20LCY/UNV34 76 M20 S891 BZ

Champ FMVA floodlight, 20,500 lumens, cool white, yoke mount, 347-440 VAC driver, M20 entry, diffused glass lens, bronze paint



#### Accessories (ordered separately)

BLHN2	Bull horn, 2 tenon, gray	BLHN3	Bull horn, 3 tenon, gray	DSV2	Bolt-on visor	SFA6*	Slipfitter
BLHN-BZ2	Bull horn, 2 tenon, bronze	BLHN-BZ3	Bull horn, 3 tenon, bronze	P62	Bolt-on wire guard	SWB6*	Slipfitter wall mount
BLHN-WH2	Bull horn, 2 tenon, white	BLHN-WH3	Bull horn, 3 tenon, white	SC831	Safety cable	*20L and 25	5L models only.

#### Certifications and compliances – NEC model:

#### **NEC and CEC:**

- Class I, Division 2, Groups A, B, C, D
- Class I, Zone 2
- Class II, Division 1, Groups E, F, G
- Type 4X, IP66

#### **UL Standards:**

UL844; UL1598; UL1598A; UL1850

#### **CSA Standard:**

• CSA C22.2 No. 137

#### Qualifications and compliances:

 DesignLights Consortium® Qualified (pending)\*



\*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 – IEC/ATEX model:

#### IEC:

 IEC 60079-0:2011+ Corr.1(2012-01) + Corr. 2 (2013-12) + I-SH 01 (2013-11) + I-SH 02 (2014-10) / EN 60079-0:2012 + A11:2013

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- IEC 60079-7:2017/ EN 60079-7:2015
- IEC 60079-31:2013/ EN 60079-31:2014
- IEC 60598-1:2008/EN60598-1:2008
- IEC 60598-2:2008/EN60598-2:2008
- IP66

#### IECEx/ATEX:

- IECEx UL 15.0029X
- DEMKO 15 ATEX 1377X
- DEMKO 15 ATEX1383
- Ex ec IIC T4 Gc Tamb -40°C to +40°C
- Ex ec IICT4 GcTamb -40°C to +55°C
- Ex tb IIIC T81C Db Tamb -40°C to +40°C
- Ex tb IIIC T65°C Db Tamb -40°C to +40°C
- Ex tb IIIC T65°C Db Tamb -40°C to +55°C

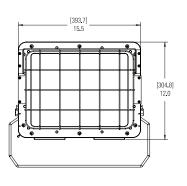
# Weights and dimensions

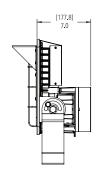
#### FMVA20 & 25L

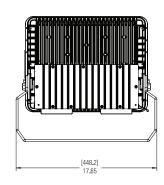
	Width		Height		Depth		Weight	
	in.	mm.	in.	mm.	in.	mm.	lb.	kg.
FMVA20L & 25L	15.5	393.7	12.0	304.8	7.0	177.8	34.0	15.4

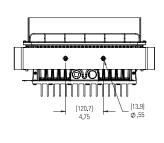
#### Effective projected area 20L & 25L

Position (tilt)	ftsq.			
at 0°	1.5			
at 45° backwards	1.1			
at 60° forward	0.8			







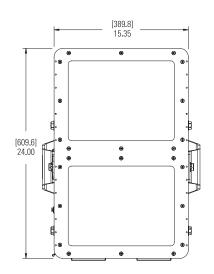


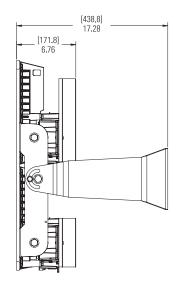
#### **FVMA40L & 50L**

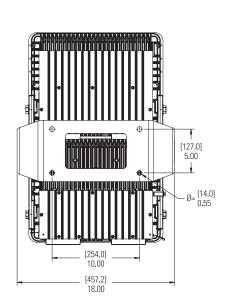
	Width		Height		Depth		Weight	
	In.	mm.	In.	mm.	in.	mm.	lb.	kg.
FMVA40L & 50L	18.0	457.2	24.0	609.6	17.28	438.8	77.0	34.9

#### Effective projected area 40L & 50L

Position (tilt)	ftsq.
at 0°	3.20
at 45° backwards	3.25
at 60° forward	3.62







### Photometric data

7x6 optics

FMVA20L Height: 45 ft.; Tilt angle: 45° 150 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0. 0.f 0.f 0.1 0.1 0.1 0.1 đ.1 đ.1 0.0 0.0 125 100 0.3 0.1 0.3 0.3 75 0.3 50 0.1 25 2.2 8.2 đ. 1 đ. 1 1.4 2.1 2. f 0 0.0 -100 -75 -50 50 75 -125 -25 25 100 125 Point by point Foot-Candles Distance in Feet

7x6 optics FMVA25L Height: 45 ft.; Tilt angle: 45°

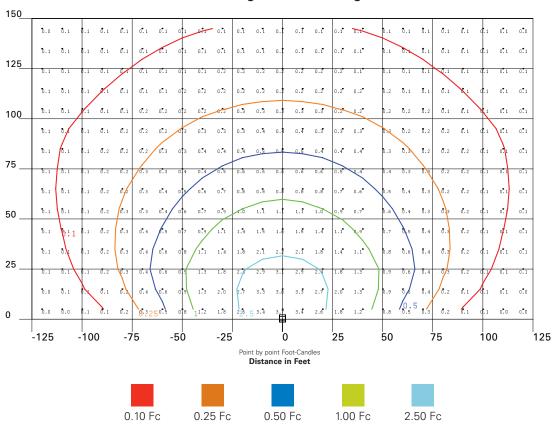
0.50 Fc

1.00 Fc

2.50 Fc

0.10 Fc

0.25 Fc



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