Champ® FMVA
LED floodlights for harsh and hazardous areas
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 $0.09 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. Seven versions of the Champ FMVA are available, from 3,000 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.**

<table>
<thead>
<tr>
<th>Model number</th>
<th>Nominal lumens*</th>
<th>Wattage</th>
<th>Lumens per watt</th>
<th>Equivalent HID luminaire</th>
</tr>
</thead>
<tbody>
<tr>
<td>FMVA3L</td>
<td>3,312</td>
<td>26</td>
<td>129</td>
<td>70W</td>
</tr>
<tr>
<td>FMVA5L</td>
<td>5,381</td>
<td>40</td>
<td>133</td>
<td>100W</td>
</tr>
<tr>
<td>FMVA7L</td>
<td>7,274</td>
<td>55</td>
<td>132</td>
<td>175W</td>
</tr>
<tr>
<td>FMVA9L</td>
<td>9,479</td>
<td>67</td>
<td>142</td>
<td>250W</td>
</tr>
<tr>
<td>FMVA11L</td>
<td>11,776</td>
<td>82</td>
<td>144</td>
<td>320W</td>
</tr>
<tr>
<td>FMVA13L</td>
<td>13,362</td>
<td>93</td>
<td>143</td>
<td>400W</td>
</tr>
<tr>
<td>FMVA15L</td>
<td>15,183</td>
<td>106</td>
<td>140</td>
<td>500W</td>
</tr>
</tbody>
</table>

*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
- 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**

<table>
<thead>
<tr>
<th>Ambient temperature</th>
<th>Fixture life (hours)</th>
<th>No. of years at 24 hours usage</th>
<th>No. of years at 12 hours usage</th>
</tr>
</thead>
<tbody>
<tr>
<td>25°C</td>
<td>150,000</td>
<td>17</td>
<td>34</td>
</tr>
<tr>
<td>40°C</td>
<td>90,000</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>55°C</td>
<td>80,000</td>
<td>7</td>
<td>14</td>
</tr>
</tbody>
</table>

*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:**

<table>
<thead>
<tr>
<th>Model number</th>
<th>Input power (watts)</th>
<th>Input amps at 120-277 VAC</th>
<th>FMVA3L - FMVA15L</th>
</tr>
</thead>
<tbody>
<tr>
<td>FMVA3L</td>
<td>25</td>
<td>0.27 - 0.10</td>
<td></td>
</tr>
<tr>
<td>FMVA5L</td>
<td>40</td>
<td>0.41 - 0.16</td>
<td></td>
</tr>
<tr>
<td>FMVA7L</td>
<td>54-56</td>
<td>0.56 - 0.21</td>
<td></td>
</tr>
<tr>
<td>FMVA9L</td>
<td>67-69</td>
<td>0.78 - 0.28</td>
<td></td>
</tr>
<tr>
<td>FMVA11L</td>
<td>81-84</td>
<td>0.84 - 0.30</td>
<td></td>
</tr>
<tr>
<td>FMVA13L</td>
<td>91-95</td>
<td>0.95 - 0.34</td>
<td></td>
</tr>
<tr>
<td>FMVA15L</td>
<td>107-113</td>
<td>1.12 - 0.40</td>
<td></td>
</tr>
</tbody>
</table>

*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

**Qualifications and compliances:**
- DesignLights Consortium® Qualified (pending)*
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, Type 4X, IP66

UL Standards:
• UL844; UL1598; UL1598A; UL8750

**IEC Standards:
• IEC 60598-1:2008/EN60598-1:2008

**IECEx & ATEX:
• Ex II 3 G Ex ec mb IIC T5 Gc Tamb -40° - +40°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
*Ex from -40°C to +40°C when used with 3x3 optic
**Not applicable for FMVA9L15L UNV34

Temperature codes:

<table>
<thead>
<tr>
<th>Model</th>
<th>Ambient temperature</th>
<th>Class I, Div. 2</th>
<th>Class II, Div. 1</th>
<th>Simultaneous rating</th>
<th>Class I, Zone 2</th>
<th>ATEX 3G</th>
<th>ATEX 2D</th>
<th>Minimum wire temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>FMVA3L-FMVA15L</td>
<td>40°C</td>
<td>T5</td>
<td>T4</td>
<td>T4</td>
<td>T5</td>
<td>T5</td>
<td>T65</td>
<td>90°C</td>
</tr>
<tr>
<td></td>
<td>55°C</td>
<td>T4A</td>
<td>T3C</td>
<td>T3C</td>
<td>T4</td>
<td>T4</td>
<td>T80</td>
<td>90°C</td>
</tr>
<tr>
<td></td>
<td>65°C</td>
<td>T4A</td>
<td>T3C</td>
<td>T3C</td>
<td>T4</td>
<td>–</td>
<td>–</td>
<td>90°C</td>
</tr>
</tbody>
</table>

Weights:

<table>
<thead>
<tr>
<th>Model number</th>
<th>Lbs.</th>
<th>Kg.</th>
</tr>
</thead>
<tbody>
<tr>
<td>FMVA3L-FMVA15L</td>
<td>32</td>
<td>14.5</td>
</tr>
</tbody>
</table>

Drivers:

<table>
<thead>
<tr>
<th>Option</th>
<th>FMVA3L - FMVA15L</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNV1</td>
<td>NEC: 100-277 VAC, 50/60 Hz; 127-250 VDC</td>
</tr>
<tr>
<td></td>
<td>IEC: 100-240 VAC, 50/60 Hz; 127-250 VDC</td>
</tr>
<tr>
<td>UNV34*</td>
<td>NEC/CEC only: 347-480 VAC, 50/60 Hz</td>
</tr>
</tbody>
</table>

*UNV34 driver available for FMVA9L15L only
Ordering information

Part number example
FMVA7LCY-UNV1-76-M20-S891-BZ
Champ FMVA floodlight, 7,274 lumens, cool white, yoke mount, 100-277 VAC driver, 20mm entry, diffused glass lens, bronze paint

**FMVA 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, 70 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 FMVA9L-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
- **BLHN-BZ** Bull horn, bronze
- **BLHN-WH** Bull horn, white
- **DSV2** Bolt-on visor
- **P62** Bolt-on wire guard
- **SC831** Safety cable
- **SFA6** Slipfitter
- **SWB6** Slipfitter wall mount

**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

**Dimensions:**

<table>
<thead>
<tr>
<th>Model number</th>
<th>Width</th>
<th>Height</th>
<th>Depth</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>in.</td>
<td>mm.</td>
<td>in.</td>
</tr>
<tr>
<td>FMVA3L-FMVA15L</td>
<td>15.5</td>
<td>393.7</td>
<td>12.0</td>
</tr>
</tbody>
</table>
Photometric data

7x6 optics
FMVA13L Height: 40 ft.; Tilt angle: 45°

Effective projected area (ft.-sq.):

<table>
<thead>
<tr>
<th>Position</th>
<th>FMVA3L - FMVA15L</th>
</tr>
</thead>
<tbody>
<tr>
<td>@ 0° Tilt</td>
<td>1.5</td>
</tr>
<tr>
<td>@ 45° Backwards tilt</td>
<td>1.1</td>
</tr>
<tr>
<td>@ 80° Forward tilt</td>
<td>0.8</td>
</tr>
</tbody>
</table>

Lumen output for glass lens models

<table>
<thead>
<tr>
<th>Optic</th>
<th>FMVA3L</th>
<th>FMVA5L</th>
<th>FMVA7L</th>
<th>FMVA9L</th>
<th>FMVA11L</th>
<th>FMVA13L</th>
<th>FMVA15L</th>
</tr>
</thead>
<tbody>
<tr>
<td>7x6</td>
<td>3,312</td>
<td>5,381</td>
<td>7,274</td>
<td>9,479</td>
<td>11,776</td>
<td>13,362</td>
<td>15,183</td>
</tr>
</tbody>
</table>

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