

# Champ® LED Floodlight FMV Series LED Fixtures Gen. II Installation & Maintenance Information

**Crouse-Hinds**  
by **EATON**

IF 1737

**SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE**

## APPLICATION

Champ® LED Floodlights are suitable for use in the following hazardous (classified) locations as defined by the National Electrical Code (NEC®):

### FMV:

#### NEC/CEC:

- Class I, Division 2, Groups A, B, C, D
- Class I, Zone 2
- Class II, Groups E, F, G
- Wet location, TYPE 4X, IP66

### IECEX & ATEX:

- IECEX UL15.0029
- DEMKO 15 ATEX 1377
- DEMKO 15 ATEX 1383
- Ex II 3 G Ex nA IIC T5 Gc Tamb -40°C - +40°C
- Ex II 3 G Ex nA IIC T4 Gc Tamb -40°C - +55°C
- Ex nA IIC T5 Gc Tamb -40°C - +40°C
- Ex nA 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



### UL Standards:

- UL 844 Hazardous (classified)
- UL1598 Luminaires, UL1598A Marine, UL8750

### IEC Standards:

- IEC 60079-0:2011/EN60079-0:2012
- IEC 60079-15:2010/EN60079-15:2010
- IEC 60079-31:2008/EN60079-31:2009
- IEC 60598-1:2008/EN60598-1:2008
- IEC 60598-2:2008/EN60598-2:2008
- IEC 61184, IEC 60238, IEC 60400, IEC 61347-1,
- IEC 61347-2-1, IEC 61347-2-2, IEC 61347-2-3,
- IEC 61347-2-4, IEC 61347-2-7, IEC 61347-2-8,
- IEC 61347-2-9, IEC 61048, IEC 60155,
- IEC 60927, and IEC 60998-2-4.

Refer to the floodlight nameplate for specific classification information, maximum ambient temperature suitability, and corresponding operating temperature (T- Code).

Champ® LED Floodlights construction is designed for use indoors and outdoors in marine and wet locations, where moisture, dirt, corrosion, vibration and rough usage may be present.

### Champ® LED Floodlights are supplied for use with a choice of voltages:

- 100VAC - 277VAC, 50/60Hz
- 108VDC - 250VDC
- 347VAC - 480VAC, 50/60Hz

### Champ® LED Floodlights for IEC:

- 100VAC - 252VAC, 50/60 Hz, 2.16
- 111VDC - 227VDC
- 385VAC - 436VAC, 50/60 Hz

Champ® LED Floodlights are compliant with the regulation on the assessment of product compliance for explosive atmospheres.

## ⚠ WARNING

To avoid the risk of fire, explosion, or electric shock, this product should be installed, inspected, and maintained by a qualified electrician only, in accordance with all applicable electrical codes.

## ⚠ WARNING

### To avoid electric shock:

- Be certain electrical power is OFF before and during installation and maintenance.
- Floodlight must be supplied by a wiring system suitable per local code with an equipment grounding conductor.

### To avoid burning hands:

- Make sure LEDs and drivers are cool to touch when performing maintenance.

## ⚠ WARNING

### To avoid explosion:

- Make sure the supply voltage is the same as the rated floodlight voltage.
- Do not install where the marked operating temperatures exceed the ignition temperature of the hazardous atmosphere.
- Do not operate in ambient temperatures above those indicated on the floodlight nameplate.
- Use only replacement parts from Crouse-Hinds.
- Use proper supply wiring as specified on the floodlight nameplate.
- All surfaces must be clean.
- Before opening, electrical power to the floodlight must be turned off and area must be free from hazardous atmosphere. Keep tightly closed when in operation.

## INSTALLATION

### Mounting

#### Yoke Mount - Wall Mount Using Floodlight Yoke Only

1. Using floodlight yoke as a template, mark and drill desired location on mounting surface.
2. Secure floodlight yoke to surface using ½" bolts or lag screws (not provided).

## WIRING

### Wiring the Floodlight

1. Open back cover/heat sink by loosening nine(9) #10-24 x .75" stainless steel cover bolts using a 5/8" nut socket or flat head screw driver (See Figure 1). The heat sink cover should be removed by pulling back on one corner of the top most edge to prevent damage to gasket.
2. All components in the fixture are prewired so only line in, neutral and ground need to be connected in the fixture using the terminal block using methods that comply with all applicable codes. Insert wires into terminal block by pressing down on tabs. Be sure wires are spaced as shown in Figure 2.
  - Wire range from AWG 20-12 (.5-3.3mm<sup>2</sup>).
  - Entries to driver housing shall be sealed with devices rated a minimum of IP66.
  - Standard openings are 3/4 NPT.
  - Optional openings are M20 (20mm) and/or M25 (25mm).

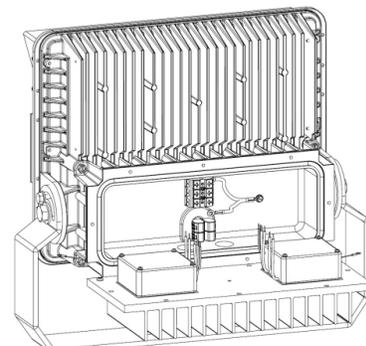
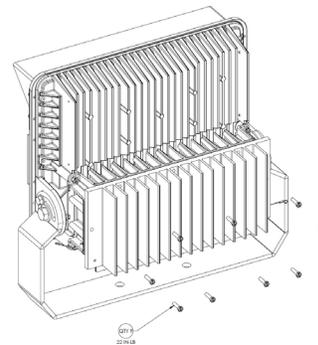


Figure 1

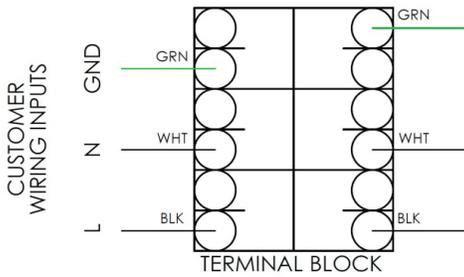


Figure 2

## WIRING DIAGRAM

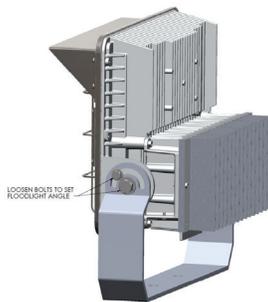
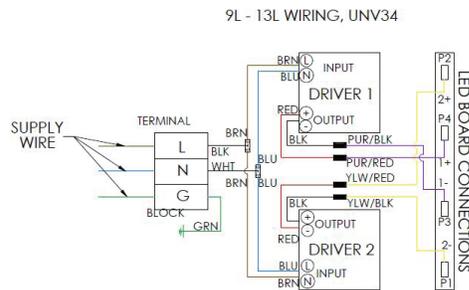
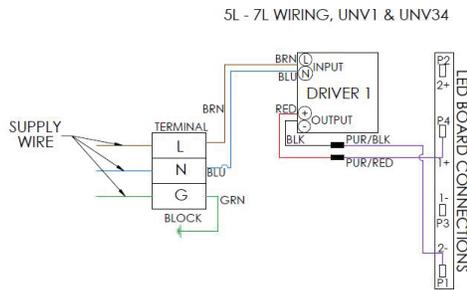
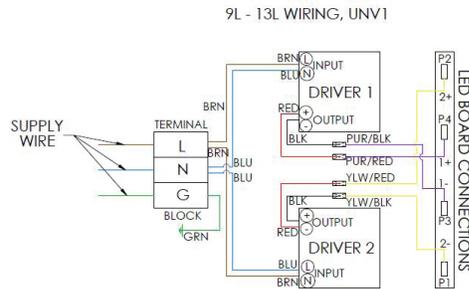
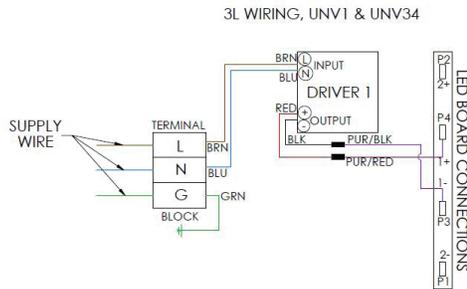


Figure 4

3. Re-install back cover/heat sink and tighten all nine (9) mounting screws to 22 in.-lbs (2.5 N m). Be sure wires are not pinched during cover installation.
  - Replace any damaged or missing cover screws. Use only stainless steel #10-24 x .75" cover screws.
4. To make final vertical adjustment, loosen the pivot bolts on the floodlight yoke to position floodlight at the desired angle.
5. Rotate the floodlight housing to the desired position.
6. Tighten the two (2) pivot bolts to 45 ft.-lbs [61 N m].
7. Turn power on.

### **⚠ WARNING**

**To avoid ignition of the hazardous atmospheres or overheating of the floodlight:**

Do not position the floodlight beyond the aiming range limits.

## MAINTENANCE

- Perform visual, electrical, and mechanical inspections on a regular basis. The environment and frequency of use should determine this. However, it is recommended that checks be made at least once a year. We recommend an Electrical Preventive Maintenance Program as described in the National Fire Protection Association Bulletin NFPA 70B: Recommended Practice for Electrical Equipment Maintenance ([www.nfpa.org](http://www.nfpa.org)).
- The lens should be cleaned periodically to ensure continued lighting performance. To clean, wipe the lens with a clean damp cloth. If this is not sufficient, use a mild soap or a liquid cleaner such as Collinite NCF or Duco #7. Do not use an abrasive, strong alkaline, or acid cleaner. Damage may result.
- Visually check for undue heating evidenced by discoloration of wires or other components, damaged parts, or leakage evidenced by water or corrosion in the interior. Replace all worn, damaged, or malfunctioning components and clean gasket seals before putting the luminaire back into service.
- Electrically check to make sure that all connections are clean and tight.
- Mechanically check that all parts are properly assembled.
- If the lens cover is removed from the fixture, the bezel gasket must be replaced to maintain restricted breathing ratings.

## REPLACEMENT PARTS

Crouse-Hinds Champ® LED Floodlights are designed to provide years of reliable lighting performance. However, should the need for replacement parts arise, they are available through your authorized Crouse-Hinds distributor. Assistance may also be obtained through your local Crouse-Hinds representative or the Crouse-Hinds Sales Service Department, P.O. Box 4999, Syracuse, New York 13221, Phone 866-764-5454.

## DIMENSIONS

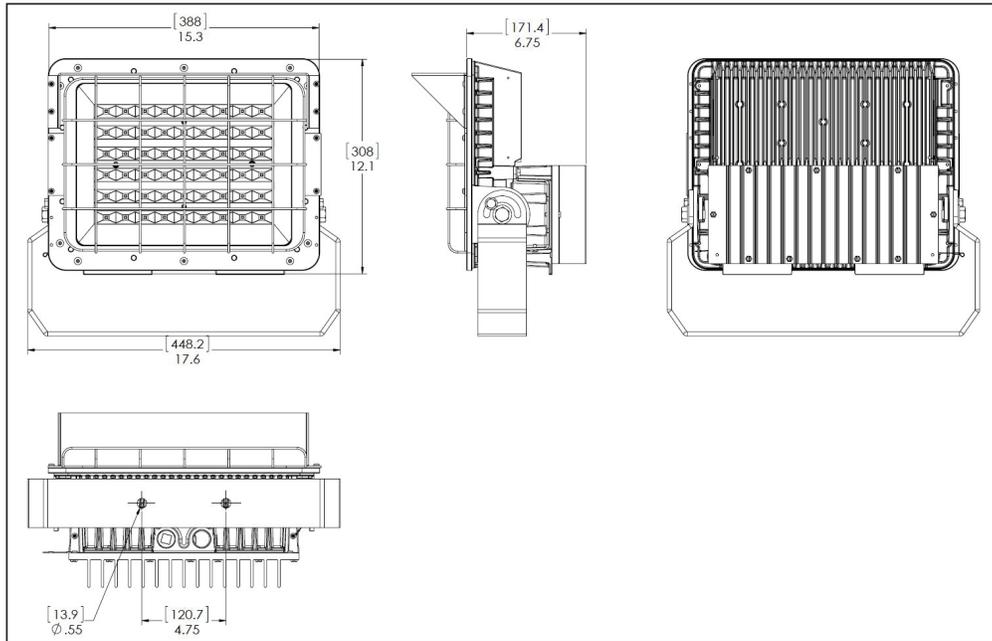
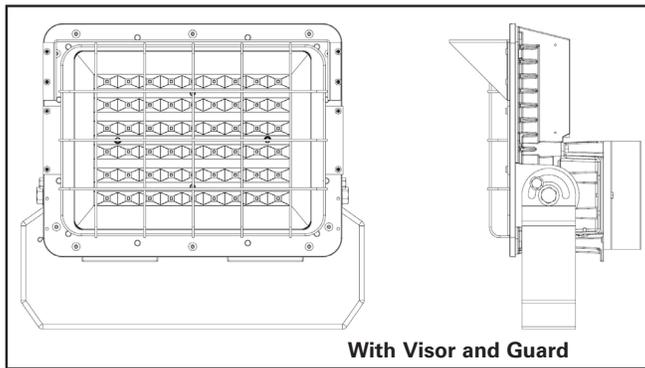
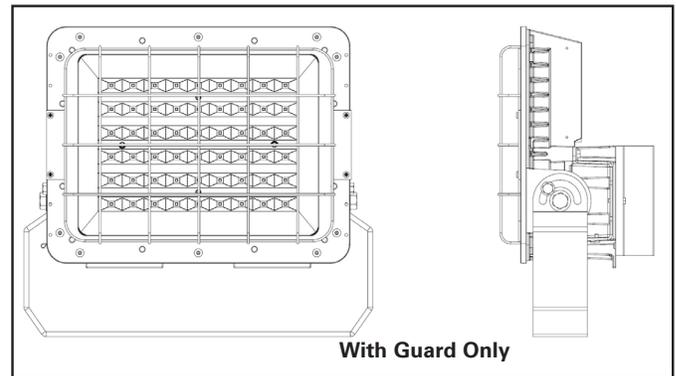


Figure 5



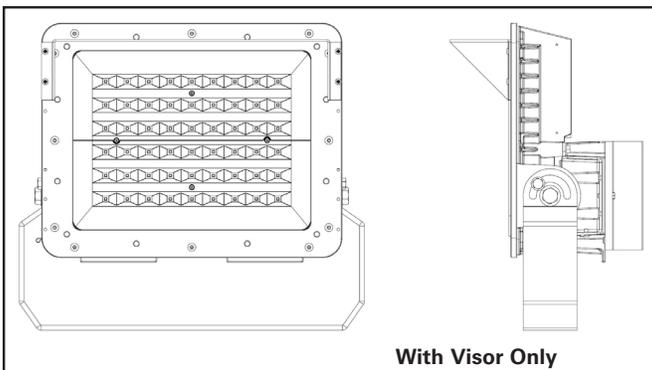
With Visor and Guard

Figure 6



With Guard Only

Figure 7



With Visor Only

Figure 8

## VISOR INSTALLATION INSTRUCTIONS

1. Remove power from floodlight.
2. Place floodlight face up.
3. Carefully align visor with four (4) screw holes at the top of the fixture shown in Figure 8.
4. Install screws provided with visor, taking care to not scratch the finish of the floodlight. Torque to 19 in-lbs. [2.2 N m].
5. Install floodlight per above instructions.

**NOTE:** Visor can be installed before or after floodlight has been in operation.

## GUARD INSTALLATION INSTRUCTIONS

1. Remove power from floodlight.
2. Place floodlight face up.
3. Carefully align guard with four (4) screw holes on each side of the fixture shown in the image above.
4. Install screws provided with guard taking care to not scratch the finish of the floodlight. Torque to 19 in-lbs. [2.2 Nm].
5. Install floodlight per above instructions.

**NOTE:** Guard can be installed before or after floodlight has been in operation.

All statements, technical information and recommendations contained herein are based on information and tests we believe to be reliable. The accuracy or completeness thereof are not guaranteed. In accordance with Crouse-Hinds "Terms and Conditions of Sale," and since conditions of use are outside our control, the purchaser should determine the suitability of the product for his intended use and assumes all risk and liability whatsoever in connection therewith.