EVF Series
Fluorescent Luminaires
Installation & Maintenance Information

SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE

APPLICATION
EVF series luminaires are suitable for use in the following hazardous (classified) areas as defined by the National Electrical Code (NEC®) and Canadian Electrical Code (CEC):

- Class I Division 1 Groups C, D; Class I Zone 1 II B
- Class II Groups E, F, G; Simultaneous Presence; Class III
- Paint spray booths and in locations in the vicinity of spraying and painting operations (with S718 suffix).

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

EVF luminaire 3.3R / IP54 construction (with suffix S718) is designed for use indoors and outdoors in Wet locations, where moisture, dirt, corrosion, vibration and rough usage may be present.

EVF luminaires are supplied for use with a choice of voltages (120-277V 50-60Hz, 347V 60Hz, 120V 60 Hz, 277V 60 Hz, 220V 50Hz, etc) and fluorescent light sources in ratings of 32 through 440 watts. (Lamps not included).

⚠️ 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.
Luminaire must be supplied by a wiring system with an equipment grounding conductor.
To avoid burning hands:
Make sure lamp tube and lamp are cool when performing maintenance.

⚠️ WARNING
To avoid explosion:
Make sure that the supply voltage is the same as the luminaire 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 luminaire nameplate.
Luminaire must be installed with reflector and lamp(s) facing down (pendant mount).
Use only the lamp type and wattage specified on the luminaire nameplate.
Use proper supply wiring as specified on the luminaire nameplate.
Before opening, electrical power to the luminaire must be turned off. Keep tightly closed when in operation.

INSTALLATION
Mounting
1. Select the appropriate Cooper Crouse-Hinds luminaire hangers for the application as follows:

EVF SUPPORT END: This end provides support only.
- Rigid Support (pendants less than 12 inches long) Use EVF20 ¾ NPT saddle.
- Flexible Support (pendants 12 inches or longer) Use EVF021 hook saddle and EVF21 ¾ NPT hook. (CHS2437 conduit clamp with UNH2 hook can also be used.)

2. Mark and drill for desired location on mounting surface. Maintain the minimum distance between luminaires and walls (See Figure 1, Table 1 and Table 2 on next page).

3. Install luminaire hangers in the support position using the appropriate type and size hardware (bolts, lag screws, etc. not provided). Attach the wiring end hanger to conduit system.

EVF WIRING (BALLAST) END: This end (ballast housing side) provides support and routes supply conductors to the luminaire.

- Rigid Support (pendants 12 inches or shorter) Use EFHC2602 union hub hanger, GUXF280 with GUA0687 union cover or CPS12 with CPS022 hub cover.
- Flexible Support (pendants longer than 12 inches)
  Use Rigid Support methods above with ECHF flexible support (available in 10" - 24" lengths) or use CPS12 with EFH02 Flexible cushion hanger.


### Wiring

**Tip:** Wiring (ballast end) is usually easier when done prior to mounting the luminaire.

1. With luminaire on a bench or other working surface (not installed), remove threaded ballast housing cover to obtain access to luminaire leads.
2. Install two ¾ NPT threaded conduit stems of the appropriate lengths to mount luminaire at the required height.
3. Cut a suitable length of conductors (stem conductors) that will feed through the ballast housing conduit stem, connect to the luminaire leads in ballast housing and connect to the supply wiring in the luminaire hanger.
4. Connect these stem conductors to luminaire wire leads per the attached wiring diagrams using methods that comply with all applicable codes. Tighten all electrical connections.
5. Reinstall threaded ballast housing cover and tighten completely.

#### WARNING

**To maintain explosionproof integrity**, make sure all threads are fully engaged.

6. Attach the support end of the EVF.
   - When using EVF021 hook saddle, raise and engage the conduit support stem (with EVF21 hook installed) with the saddle. Then wire and attach the ballast end.
   - When using the EVF20 conduit saddle, raise and attach both stems at the same time.
7. Attach the wiring end of the EVF.
   - When using EFHC2602 union hub hanger, attach the EVF to the hanger first. Then connect the stem conductors to supply wiring.
   - When using GUFX260 with GUA0687 union cover or CPS12 with CPS022 hub cover, first connect the stem conductors to supply wiring. Then attach the EVF to the hanger.
8. Make electrical connections per the attached wiring diagrams using methods that comply with all applicable codes. Tighten all electrical connections.

#### WARNING

To maintain explosionproof integrity, make sure all threads are fully engaged.

9. Install lamp. See LAMP INSTALLATION AND REPLACEMENT section.
10. Turn power on.
LAMP INSTALLATION AND REPLACEMENT

1. Disconnect power to luminaire and allow to cool completely.

2. Remove cover from lamp support end of lamp tube (opposite ballast end).

3. Loosen the two lampholder assembly mounting plate screws. Turn the mounting plate until the mounting screws are in the large opening of the keyhole slots and remove the assembly. Take care to not break the lamp or damage the wire leads attached to the lampholder (See Figure 2).

4. Remove lamp.

   **NOTE:** When luminaires are installed with ends close to each other, space for removing and installing lamps is obtained by lowering one end of the lamp tube assembly (See third picture in Figure 2).

5. Perform cleaning and inspection as noted in the MAINTENANCE section.

6. Replace lamp. New lamp must be identical type, size and wattage as marked on the luminaire nameplate.

   **CAUTION**

   To avoid shortened lamp life, lampholder failure, wiring faults or ballast failure, attach lamp receptacle firmly and completely.

   To avoid injury, guard against lamp breakage.

7. Slide new lamp most of the way into the lamp tube and place lampholder over lamp end contacts.

8. With lampholder on lamp end contacts, slide lamp forward into the tube until opposite end of lamp properly engages the spring loaded lampholder. Turn lamp if necessary. This is assisted by the built-in lamp guide.

9. Depress lampholder and engage the lampholder mounting bracket keyhole slots over mounting screws.

10. To lock in place, turn the mounting plate completely to the small opening of the keyhole slots and retighten the mounting plate screws.

11. Repeat procedure above for the other lamp.

   **WARNING**

   To maintain explosionproof integrity, make sure all threads are fully engaged.

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 No. 70B: Recommended Practice For Electrical Equipment Maintenance (www.nfpa.org).

- The lamp tube(s) and reflector should be cleaned periodically to insure continued lighting performance. To clean, wipe the reflector, then the lamp tube(s) 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 uncue 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.

REPLACEMENT PARTS

Cooper Crouse-Hinds EVF series luminaires are designed to provide years of reliable performance. However, should the need for replacement parts arise, they are available through your authorized Cooper Crouse-Hinds distributor. Assistance may also be obtained through your local Cooper Crouse-Hinds representative or the Cooper Crouse-Hinds Sales/Service Department, P.O. Box 4999, Syracuse, New York 13221, Phone 315-477-7000.

**FIGURE 2**
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.