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107XBR Hazardous Location LED Light Installation Sheet
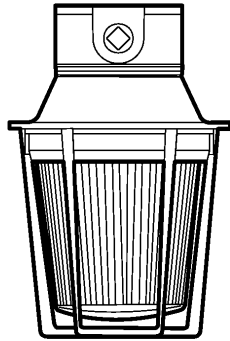
Figure 1: Pendant mount
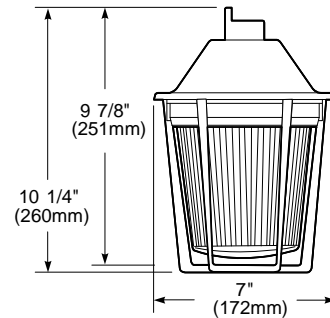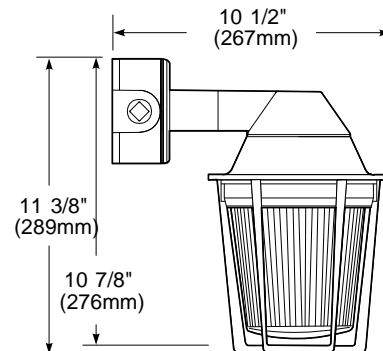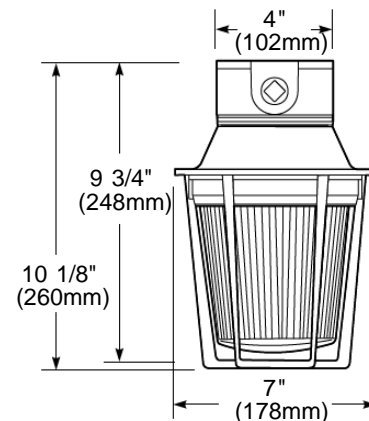

9 7/8"
(251mm)

10 1/4"
(260mm)

7"
(172mm)

Description

The 107XBR Hazardous Location LED Light is part of the XBR series of LED signaling appliances. These are intended for general signaling use. They are available in pendant, bracket, or ceiling mount configurations and in 120 V 60 Hz and 24 VDC versions. The 107XBR is factory configured for steady mode, but switches from steady to flashing mode upon activation of the third (yellow) wire. Flashing mode frequency is approximately 65 fpm.

Figure 2: Bracket mount

10 1/2"
(267mm)

11 3/8"
(289mm)

10 7/8"
(276mm)

Installation

WARNING: To reduce the risks of ignition of hazardous atmospheres and shock, do not apply power to the unit until installation has been completed and the unit is tightly assembled and secured.

Three mounting options are available for the 107XBR:
• Pendant mount
• Bracket mount
• Ceiling mount

Critical dimensions for each option are shown in the following figures.

Figure 3: Ceiling mount

4"
(102mm)

9 3/4"
(248mm)

10 1/8"
(260mm)

7"
(178mm)

WARNINGS

This equipment is suitable for use in Class I, Division 2, Groups A, B, C, and D or non-hazardous locations only.

Explosion hazard. Substitution of any components may impair suitability for Class I, Division 2.

Install this unit in accordance with the applicable requirements in the latest edition of the NFPA 70 *National Electrical Code* or CSA C22.1 *Canadian Electrical Code,* using supply wire rated per "Specifications" on page 3. Select the appropriate method from the three options given below.

To pendant mount the unit:

1. Install an explosion-proof hanger box (not supplied). Pull the unit's wire leads through the 3/4 in. NPT threaded conduit (not supplied).

2. Secure the 3/4 in. threaded conduit to the mounting hood.

3. Ground the unit in accordance with NFPA 70 or CSA C22.1 and local requirements.

4. Wire in accordance with the instructions in "Wiring."

5. Secure the 3/4 in. threaded conduit to the outlet box.

6. Where applicable, install the optional guard assembly over the clear outer globe and secure it using the three screws supplied.

   WARNING: To reduce the risk of ignition of hazardous atmospheres and shock, keep the assembly tightly closed when circuits are energized.

7. Apply power to the unit and ensure proper function.

To bracket mount the unit:

1. Remove the outlet box from the end of the mounting bracket. Install the outlet box using appropriate hardware (not supplied) for the mounting surface. Pull the field wiring through the outlet box.

2. Ground the unit in accordance with NFPA 70 or CSA C22.1 and local requirements.

3. Wire in accordance with the instructions in "Wiring."

4. Mount the wall bracket onto the outlet box.

5. Where applicable, install the optional guard assembly over the clear outer globe and secure it using the three screws supplied.

   WARNING: To reduce the risk of ignition of hazardous atmospheres and shock, keep the assembly tightly closed when circuits are energized.

6. Apply power to the unit and ensure proper function.

To ceiling mount the unit:

1. Unscrew and remove the clear outer globe. Remove the two screws holding the circuit assembly to the bottom of the fixture. To separate the ceiling junction box from the fixture housing, remove the remaining two screws at the bottom of the fixture.

2. Mount the ceiling junction box using appropriate hardware. Pull the field wiring through the ceiling junction box.

3. Wire in accordance with the instructions in "Wiring."

4. Secure the fixture housing on the junction box by replacing the two screws removed above. Reinstall the circuit

assembly to the bottom of the fixture using the two screws removed earlier.

5. Screw the clear outer globe back on to the fixture housing.

6. Where applicable, install the optional guard assembly over the clear outer globe and secure using three screws (supplied).

   WARNING: To reduce the risk of ignition of hazardous atmospheres and shock, keep the assembly tightly closed when circuits are energized.

7. Apply power to the unit and ensure proper function.

Wiring

To wire 24 VDC models:

1. Connect the red wire lead to the positive terminal of the power source and connect the black wire to the negative terminal or ground of the power source.

2. If desired, set the flash pattern to 65 fpm by connecting the yellow wire to the positive terminal.

To wire 120 VAC models:

1. Connect the black wire to the AC hot terminal and the white wire to the AC neutral terminal.

2. If desired, set the flash pattern to 65 fpm by connecting the yellow wire to the hot terminal.
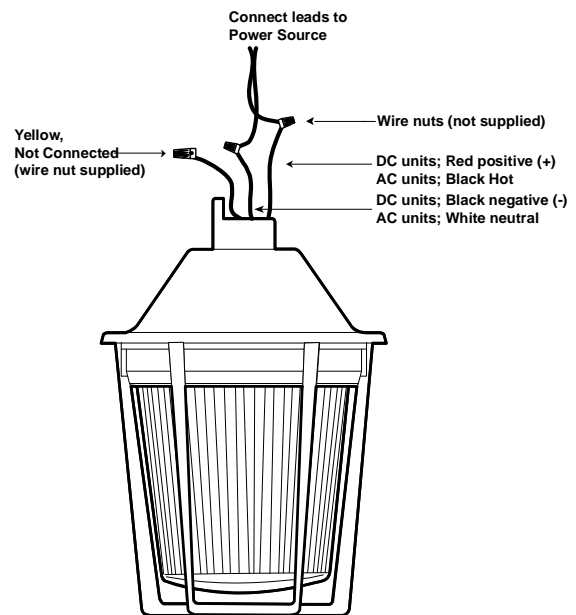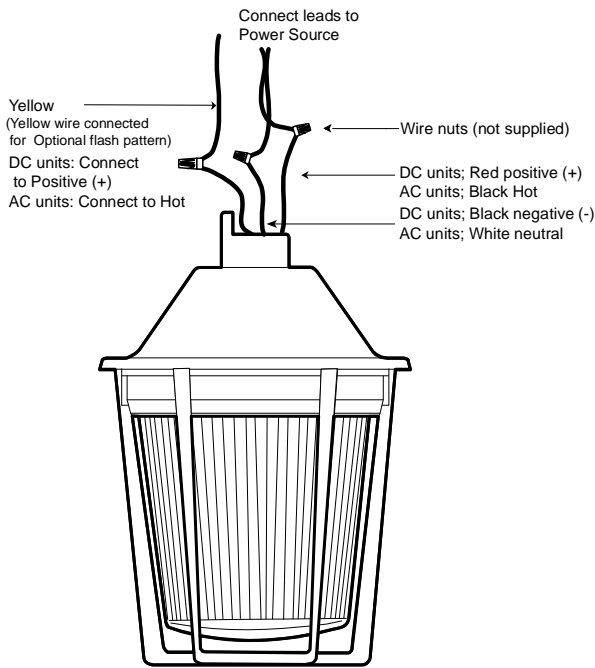
Figure 4: Steady mode wiring

Figure 5: Flashing mode wiring

Connect leads to Power Source

Yellow
(Yellow wire connected for Optional flash pattern)
DC units: Connect to Positive (+)
AC units: Connect to Hot

Wire nuts (not supplied)

DC units; Red positive (+)
AC units; Black Hot

DC units; Black negative (-)
AC units; White neutral

Table 1: Operating temperature codes

Ambient temperature	Class I, Div. 2 Groups A, B, C, D	Class II, Div. 2, Groups F, G; Class III, Div. 2 Class II, Div. 1, Groups E, F, G; Class III, Div. 1
40°C	135°C (T4)	85°C (T6)
55°C	135°C (T4)	85°C (T6)
65°C	135°C (T4)	85°C (T6)

Note: Class II and Class III only apply to the pendant mount versions with clear globes.
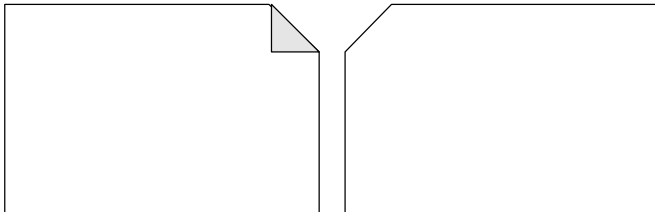
Specifications

	120 VAC	24 VDC
Mounting		
Pendant	107XBRPM*120A	107XBRPM*24D
Bracket	107XBRBM*120A	107XBRBM*24D
Ceiling	107XBRCM*120A	107XBRCM*24D
Current	115 mA	220 mA
Supply wire temperature marking	60°C 75°C 105°C	60°C 75°C 105°C
Operating temperature codes	See Table 1	
Conduit size	3/4 in. NPT	
Flash rate	65 fpm**	

*   Letter in this position denotes color of the inner lens: A = amber, B = blue, G = green, R = red, or W = white

** Only when activated by connecting the third yellow wire (see "Wiring").

Regulatory information

Manufacturer	Edwards, A Division of UTC Fire & Security Americas Corporation, Inc. 8985 Town Center Parkway, Bradenton, FL 34202, USA
North American standards	UL 1638
UL and cUL ratings	Class I, Division 2, Groups A, B, C and D Class II, Division 1, Groups E, F, G* Class II, Division 2, Groups F, G* Class III, Divisions 1 and 2* Type 3R, 4, Marine**

*   Class II and Class III only apply to the pendant mount versions with clear globes.

** Marine Rating applies to UL listing only.

Contact information

For contact information, see www.edwardssignaling.com.

107XBR Hazardous Location LED Light Offset Specification

P/N 3101649 • REV 1.0 • ISS 19JAN12

Print spec: Tabloid, landscape, duplex

Description: One 11 in. x 17 in. sheet printed on both sides

Material: Standard white offset stock

Ink color: Black

Folding: Fold three times to the dimensions shown, with the part number on the outside

Binding: None

P/N: 000000

5-1/2 in. (±1/16 in.)

4-1/4 in. (±1/16 in.)