

## ! CAUTION

- All wiring should be done by a licensed electrician in accordance with state codes, local codes, and National Electric Code (NEC) standards or International Electrotechnical Commission (IEC) standards.
- Improper installation may result in serious injury and void warranty.
- Contains parts and assemblies susceptible to damage by electrostatic discharge (ESD).
- Surge protective devices should be utilized for fixtures installed in environments subject to power surges outside the specified operating parameters.

### RISK OF ELECTRIC SHOCK

- Always ensure power supply is disconnected before and during installation, maintenance and accessory fitting.
- Ensure the wire is connected to the right polarity.
- Ensure the lighting fixture is well grounded.

### RISK OF FIRE

- Use only UL approved wire for input/output connections.
- Do not operate in ambient temperatures above those indicated on the fixture nameplate.

These instructions include information for installations in hazardous locations. Be sure to follow the appropriate warnings and instructions specific to each application.

### PRIOR TO INSTALLATION

- Verify that the entire specification on the fixture nameplate meets your requirements.
- To ensure your fixture is properly sealed, follow all torque requirements (provided below) during installation.
- Fully inspect the lighting fixture and ensure there is no damage prior to installation.
- Read the instructions completely and carefully.

## General Information

The CVO2 Series is designed for use in indoor and outdoor environments.

For hazardous-rated models, the CVO2 Series Area Lights 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 2, Groups A, B, C, D
- CSA 60079-0

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

Rated Voltage Ranges: 120-277V, 50/60Hz or 277-480V, 50/60 Hz (Applicable to UL/cUL only)

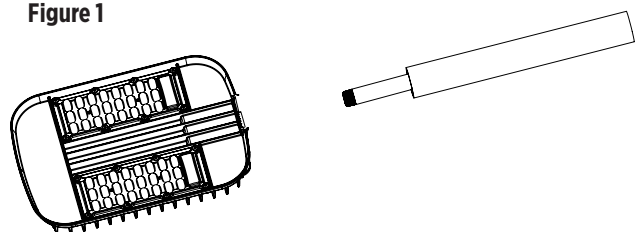
Weight for standard	Weight for EMB	Mounting height	Projected Area	<sup>5</sup> / <sub>16</sub> mounting screws torque value	M6 mounting screws torque value
2.85 kg	4.1 kg	10 m	0.063 m <sup>2</sup>	12 Nm	8 Nm

## Conduit Mount Installation

Use conduit hub on CVO2 to attach to customer-supplied conduit. Refer to Figure 1.

**Note:** You must remove pre-installed cable gland from conduit hub prior to installing conduit.

Figure 1



### Pole Mount Installation

The CVO2 Series fixture accommodates 1.25-1.65 inch (32-42 mm) trade size pipes.

1. Identify the desired mounting location for the fixture. To prevent water intrusion, the CVO2 Series must be mounted in a horizontal, downward-facing position (maximum of 25° from horizontal). If Dark Sky approval is required, fixture must be horizontal.
2. Make wire connections (refer to 'Wiring' section above).
3. Insert wire connections into pipe.
4. Secure fixture to pipe using pipe mount bracket and two (2) M8 bolts (supplied). Refer to Figure 2.

**Note:** For fixtures installed in enclosed spaces, minimum spacing between adjacent luminaires shall be no less than two feet (610 mm).

### Wall Mount Installation

For stationary applications only. For high vibration applications, use Pole Mount installation.

1. Identify the desired mounting location for the fixture. To prevent water intrusion, the CVO2 Series must be mounted in a horizontal, downward-facing position (maximum of 25° from horizontal). If Dark Sky approval is required, fixture must be horizontal.
2. Mount fixture to desired surface using three (3) ¼-20 or M6 hardware (not supplied).
3. Using wall mount wire cover (shown in Figure 3), select which entry point (side or bottom) is appropriate for your application. Knockout corresponding entry point. Either conduit or flexible cable can be used for power supply. When flexible cable is used, a strain relief fitting should be installed to prevent strain on the terminals.
4. Make wire connections (refer to 'Wiring' section above).
5. Using two (2) ¾" bolts (supplied), secure wall mount wire cover to fixture.

**Note:** For fixtures installed in enclosed spaces, minimum spacing between adjacent luminaires shall be no less than two feet (610 mm).

Figure 2

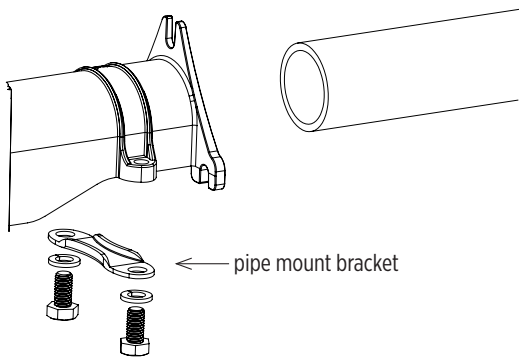
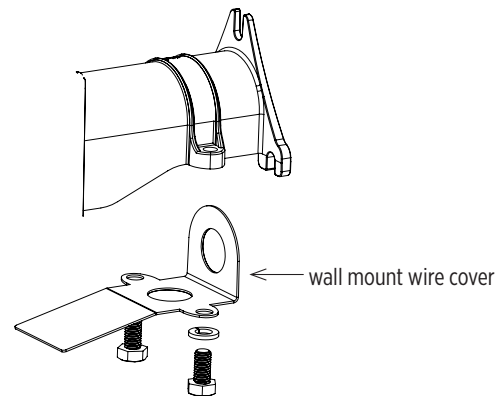
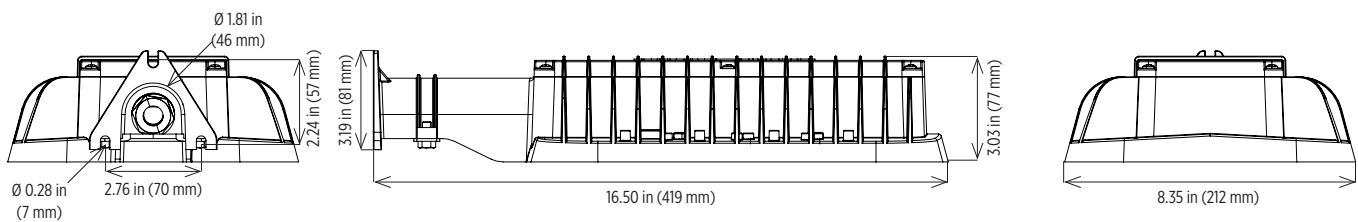


Figure 3



### Standard Fixture Dimensions:



## Standard Fixture Wiring

The standard fixture is supplied with 9.8 inch (250 mm) wire leads. When using Phoenix-supplied wire leads, make wire connections to mains supply using UL listed (for use in UL/cUL area) wire connectors/meeting relevant requirements (for use out of UL/cUL area) wire connectors.

- CVO2-120-277V Units: Green/yellow is ground (PE), brown is line and blue is neutral.
- CVO2-277-480V Units (Applicable to UL/cUL only): Green is ground (PE), black is line and white is neutral.

When making wire connections via customer-supplied cable/conduit (Only applicable for UL area use):

1. Remove cover from housing by loosening the six (6) M5 Phillips head screws.
2. Make wire connections within fixture.
  - CVO2-120-277V Units: Green/yellow is ground (PE), brown is line and blue is neutral.
  - CVO2-277-480V Units: Green is ground (PE), black is line and white is neutral.
3. Replace cover & tighten the six (6) M5 Phillips head screws to 22 in-lb (2.5 N-m).

When using Phoenix-supplied wire leads, make wire connections to mains supply using UL listed wire connectors. Green/yellow is ground (PE), brown is line and blue is neutral.

Additional Notes:

- The light source contained in this luminaire shall only be replaced by the manufacturer or his service agent or a similar qualified person.
- To reduce the risk of strangulation, the flexible wiring connected to this luminaire shall be effectively fixed to the wall if the wiring is within arm's reach.
- Ensure control circuits (dimming circuits) are adequately separated from primary circuits (incoming AC supply circuit) when installing control devices or control wiring.

If the external flexible cable or cord of this luminaire is damaged, it shall be exclusively replaced by the manufacturer or their service agent or a similar qualified person in order to avoid a hazard.

## CVO 2 EMB Fixtures

### **! IMPORTANT EMB SAFEGUARDS**

When using electrical equipment, basic safety precautions should always be followed including the following:

### **READ AND FOLLOW ALL SAFETY INSTRUCTIONS.**

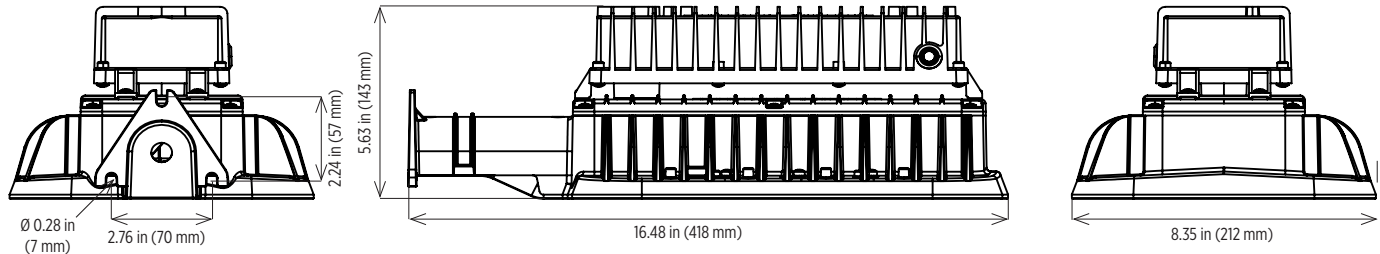
- Do not mount near gas or electric heaters.
- Use caution when servicing batteries. Battery acid can cause burns to skin and eyes. If acid is spilled on skin or eyes, flush acid with fresh water and contact a physician immediately.
- Equipment should be mounted in locations and at heights where it will not readily be subjected to tampering by unauthorized personnel.
- The use of accessory equipment not recommended by the manufacturer may cause an unsafe condition.
- Do not use this equipment for other than intended use.
- All wiring should be done by a licensed electrician in accordance with state codes, local codes, and National Electrical Code (NEC) or International Electric Commission (IEC) standards.
- Improper installation may result in serious injury and void warranty.
- Contains parts and assemblies susceptible to damage by electrostatic discharge (ESD).
- Surge protective devices should be utilized for fixtures installed in environments subject to power surges outside the specified operating parameters.
- Risk of fire and burns. Do not open, crush, heat above 100C or incinerate.
- An unswitched AC power source is required (120-277 VAC, 50/60Hz).
- Servicing should be performed by qualified service personnel.

### **SAVE THESE INSTRUCTIONS.**



**Important:** Customers are advised to charge emergency LED driver 24 hours every 6 months during storage.

### EMB Fixture Dimensions:



**Maximum mounting height:** 34.70 ft (10.58 m)

### EMB Wiring

The standard fixture is supplied with 9.8 inch (250mm) wire leads. When using Phoenix-supplied wire leads, make wire connections to mains supply using UL listed wire connectors. Green/yellow is ground (PE), brown is switched line, blue is neutral, and black is charging line.

#### Additional Notes

1. The light source contained in this luminaire shall only be replaced by the manufacturer or their service agent or a similar qualified person.
2. To reduce the risk of strangulation the flexible wiring connected to this luminaire shall be effectively fixed to the wall if the wiring is within arm's reach.
3. Ensure control circuits (dimming circuits) are adequately separated from primary circuits (incoming AC supply circuit) when installing control devices or control wiring.

**For type Y attachments:** If the external flexible cable or cord of this luminaire is damaged, it shall be exclusively replaced by the manufacturer or their service agent or a similar qualified person in order to avoid a hazard.

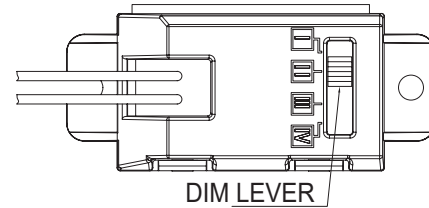
### Repair Parts List

Item	Part Number	Description	Quantity per Fixture
1	1090710	120-277V driver kit	1
	1090711	277-480V driver kit	1
2	1090720	5000K circuit board kit	2
	1090721	2200K circuit board kit	2
	1090722	Amber circuit board kit	2
3	1090730	Type 2 clear lens kit	2
	1090733	Type 2 amber lens kit	2
	1090731	Type 3 clear lens kit	2
	1090732	Type 5 clear lens kit	2
4	1090712	EMB kit	1

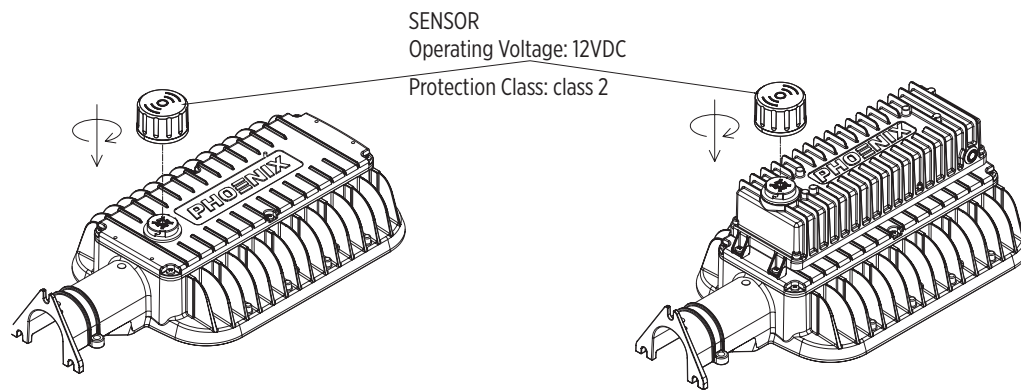
### Dimming Levels

Level	Watts	Output (Lm)
(I) - 100%	75	11000
(II) - 75%	52	8250
(III) - 50%	32	5500
(IV) - 25%	16	2750

### Dim Switch



### CVO 2 fixtures with sensor (not applicable with hazardous location use)



### Maintenance

Periodic maintenance and cleaning is required to keep light fixture in peak operating condition. Buildup of dirt and/or debris will diminish performance, lead to premature failure and void the fixture's warranty.

1. Inspect fixture monthly or (more frequently if conditions require) for dirt and debris buildup on lenses and between fins of heatsink. Wash down with water as needed. Wash fixture with clean water and a soft towel. Do not use an abrasive cleaner or chemicals as this could cause damage to the lens.
2. Inspect fasteners and verify cord grips (if provided) are tight. Retighten as needed.
3. Inspect external flexible cable for damage. If cable is damaged, it shall be replaced with a cable with equivalent markings and ratings or a cord exclusively available from the manufacturer.

### FCC Notice (Class A)

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Federal Communications Commission Statement

**NOTE:** This equipment has been verified and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by tuning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the equipment.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected. Consult the factory, factory representative, or an experienced technician for help.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Product design and specifications are subject to change without notice.