# eColor Cove EC Powercore

Cost-effective linear interior LED cove and accent fixture with solid color light

**PHILIPS**

COLOR
KINETICS

# eColor Cove EC Powercore

## Cost-effective linear interior LED cove and accent fixture with solid color light

eColor Cove EC Powercore is a dimmable, linear LED fixture that provides an affordable, energy-efficient lighting in applications requiring saturated blue or amber light. With its low profile, rotating housing, and end-to-end locking power connectors, eColor Cove EC Powercore is the perfect choice for a wide range of interior retail, exhibit, hospitality, and architectural settings.

- Integrates patented Powercore technology — Powercore rapidly, efficiently, and accurately controls power output to fixtures directly from line voltage, eliminating the need for an external power supply. Contractor-friendly installation dramatically simplifies installation and lowers total system cost.

- Support for multiple voltages — eColor Cove EC Powercore accepts power input of 100, 120, or 220 – 240 VAC, allowing consistent installation in any location around the world.

- Smooth dimming capability — Patented DIMand technology offers smooth dimming capability with selected commercially available reverse-phase ELV-type dimmers.

- Easy installation — Powercore delivers line voltage directly to the fixtures, simplifying installation by eliminating the need for external power supplies and allowing long product runs. Easy-to-install 4 ft (1.2 m) mounting tracks allow quick project setup in linear applications.

- Flexible mounting and positioning — With end-to-end locking power connectors that can make 180° turns, eColor Cove EC Powercore fixtures are easy to position in even the most challenging mounting circumstances. Fixtures rotate in 10° increments through a full 180° for precise aiming and beam mixing. Optional mounting tracks support vertical and overhead positioning. 1 ft (305 mm) and 5 ft (1.5 m) jumper cables can add extra space between fixtures.



**Compact and flexible**
 eColor Cove EC Powercore low-profile fixtures fit in narrow alcoves, display cases, light boxes, and other tight spaces where light sources requiring ballasts, external power supplies, and other auxiliary equipment cannot.

# Specifications

Due to continuous improvements and innovations, specifications may change without notice.



110°
0°    180°

| Item | Specification | 6 in (152 mm) | 12 in (305 mm) |
|---|---|---|---|
| Output | Beam Angle | 110° x 110° | |
| Electrical | Input Voltage | 120 VAC, 50 / 60 Hz | 100 / 120 / 220 – 240 VAC, 50 / 60 Hz |
| | Power Consumption | 1.5 W maximum at full output, steady state | 3.0 W maximum at full output, steady state |
| | Power Factor | .96 @ 120 VAC | |
| Control | Dimming | Compatible with selected commercially available reverse-phase (ELV-type) dimmers* | |
| Physical | Dimensions (Height x Width x Depth) | 1.25 x 6 x 1.4 in (32 x 152 x 35 mm) | 1.25 x 12 x 1.4 in (32 x 305 x 35 mm) |
| | Weight | 0.19 lbs (85 g) | 0.31 lbs (142 g) |
| | Housing | Injection-molded plastic, dark-gray finish | |
| | Lens | Clear polycarbonate | |
| | Fixture Connections | Integral male / female connectors | |
| | Temperature Ranges | -4° – 122° F (-20° – 50° C) Operating  -4° – 122° F (-20° – 50° C) Startup  -40° – 176° F (-40° – 80° C) Storage | |
| | Humidity | 0 – 95%, non-condensing | |
| | Maximum Fixture Run Lengths† | 191 @ 120 VAC | 122 @ 100 VAC  134 @ 120 VAC  191 @ 240 VAC |
| Certification and Safety | Certification | UL / cUL, FCC Class B, CE, CCC, C-Tick, SAA | |
| | Environment | Dry Location, IP20 | |
| | Energy Efficiency | California Title 24 Compliant | |

\* Refer to www.philipscolorkinetics.com/support/appnotes/ for specific details.
† Fixtures installed end-to-end, 20 A circuit, standard 10 ft (3.1 m) Leader Cable.
 These figures, provided as a guideline, are accurate for this configuration only. Changing the configuration can affect the fixture run lengths.

*✸ For help estimating the light output and distribution of eColor lighting fixtures, please contact Philips Color Kinetics Applications Engineering Services at support@colorkinetics.com.*

*✸ To calculate the number of fixtures your specific installation can support, download the Configuration Calculator from www.philipscolorkinetics.com/support/install_tool/*

DIMAND CK TECHNOLOGY | OPTIBIN CK TECHNOLOGY | POWERCORE CK TECHNOLOGY

c(UL)us LISTED    FC    CE

## UL / cUL Wiring Compartment



1.75 in (44.5 mm)

.875 in (22.2 mm)

1.25 in (31.8 mm)

1.75 in (44.5 mm)

4.375 in (111.1 mm)



6 in (152 mm)

5.1 in (130 mm)

5.6 in (142 mm)

1.2 in (30 mm)

1.4 in (35 mm)

1 in (25 mm)



12 in (305 mm)

7.6 in (193 mm)

8.1 in (206 mm)
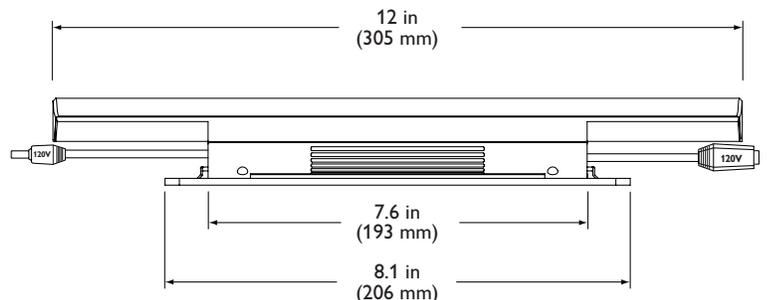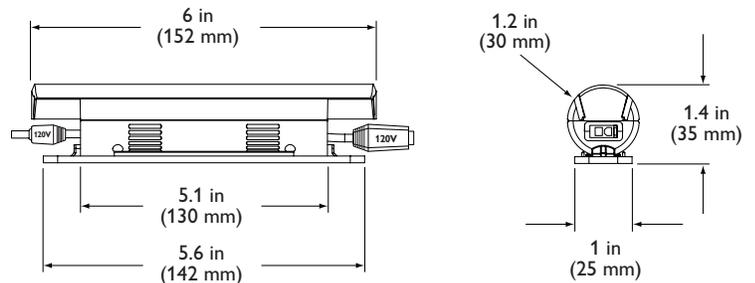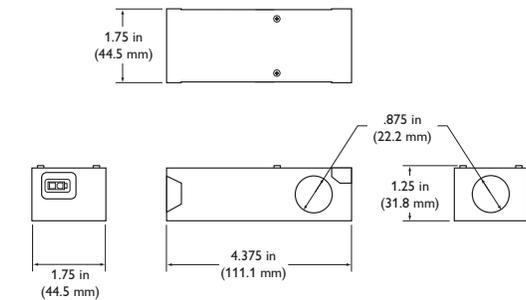
# Product Selection

To order eColor Cove EC Powercore, select a fixture color, a line voltage connection option, a fixture length (120 VAC only), and any extra options you might need.

**1** Choose fixture color

Blue    Amber

**2** Choose length (120 VAC only)
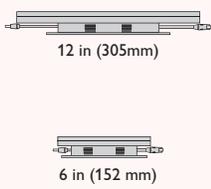
12 in (305mm)

6 in (152 mm)

**3** Choose line voltage connection option

**Permanent Installations**
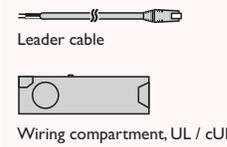
Leader cable

Wiring compartment, UL / cUL

**Portable Installations**
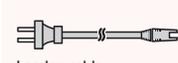
Leader cable

**4** Choose optional accessories
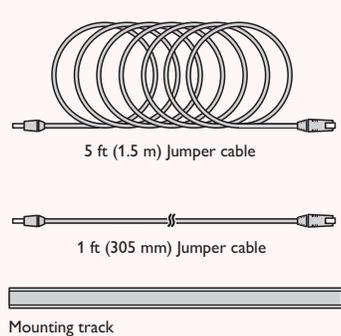
5 ft (1.5 m) Jumper cable

1 ft (305 mm) Jumper cable

Mounting track

# Fixtures and Accessories

| Item | Type | Size | Item Number | Philips 12NC | | |
|---|---|---|---|---|---|---|
| eColor Cove EC Powercore, 100 VAC | Blue | 12 in (305 mm) | 223-000004-70 | 910503701081 | | |
| | Amber | 12 in (305 mm) | 223-000004-71 | 910503701082 | | |
| eColor Cove EC Powercore, 120 VAC | Blue | 6 in (152 mm) | 223-000005-62 | 910503701085 | | eColor Cove EC Powercore fixtures |
| | | 12 in (305 mm) | 223-000004-62 | 910503701073 | | |
| | Amber | 6 in (152 mm) | 223-000005-63 | 910503701086 | | |
| | | 12 in (305 mm) | 223-000004-63 | 910503701074 | | |
| eColor Cove EC Powercore, 220 – 240 VAC / CE | Blue | 12 in (305 mm) | 223-000004-66 | 910503701077 | | |
| | Amber | 12 in (305 mm) | 223-000004-67 | 910503701078 | | |
| eColor Cove EC Powercore, 220 – 240 VAC / CCC | Blue | 12 in (305 mm) | 223-000004-72 | 910503701670 | | |
| | Amber | 12 in (305 mm) | 223-000004-73 | 910503701671 | | |
| Leader Cable with terminator and strain relief | UL / cUL | 10 ft (3 m) | 108-000032-00 | 910503700586 | | For connection to standard junction box |
| | CE | 10 ft (3 m) | 108-000032-02 | 910403325901 | | |
| Wiring Compartment with terminator | UL / cUL | | 120-000076-00 | 910503700597 | | Can be used for direct connection to conduit |
| Leader Cable with plug | UL / cUL | 8 ft (2.4 m) | 108-000032-03 | 910503700394 | | For portable installations |
| Jumper Cable | UL / cUL | 1 ft (305 mm) | 108-000033-00 | 910403600101 | | Depending on the installation's design, you may need jumper cables to add space between fixtures |
| | | 5 ft (1.5 m) | 108-000033-01 | 910403600102 | | |
| | CE | 1 ft (305 mm) | 108-000033-02 | 910403326001 | | |
| | | 5 ft (1.5 m) | 108-000033-03 | 910403326101 | | |
| Mounting Track *Minimum order quantity 25* | | 4 ft (1219 mm) | 523-000006-01 | 910503700452 | | Optional mounting track ensures straight runs of fixtures |
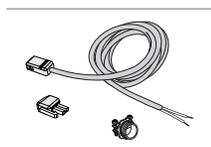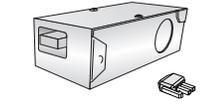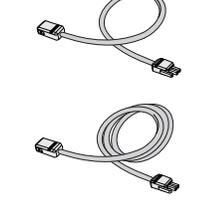
Use Item Number when ordering in North America.

## Included in the box

� *Refer to the eW / eColor EC Cove Powercore Installation Instructions for specific warning and caution statements.*

## Easy turns

End-to-end locking power connectors can make turns of up to 180° without jumper cables.
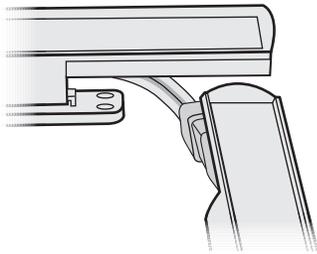
## Distance between fixtures
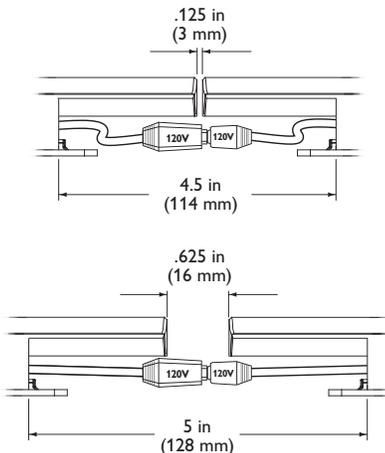
.125 in
(3 mm)

120V  120V

4.5 in
(114 mm)

.625 in
(16 mm)

120V  120V

5 in
(128 mm)

✖ *To calculate the number of fixtures your specific installation can support, download the Configuration Calculator from www.philipscolorkinetics.com/support/ install_tool/, or consult Philips Color Kinetics Application Engineering Services at support@colorkinetics.com.*

✖ *Refer to the installation instructions included with the wall or dimmer switch for installation and wiring information.*

# Installation

eColor Cove EC Powercore offers high-output, energy-efficient indoor white and solid color alcove lighting with Powercore technology. Powercore, which delivers line voltage directly to the fixture, eases installation by eliminating the need for external power supplies or special wiring.

### Owner / User Responsibilities

It is the responsibility of the contractor, installer, purchaser, owner, and user to install, maintain, and operate eColor Cove EC Powercore fixtures in such a manner as to comply with all applicable codes, state and local laws, ordinances, and regulations. Consult with the appropriate electrical inspector to ensure compliance.

# Create a Layout Plan

Regardless of the size and complexity of your installation, the time you spend planning can help minimize installation and configuration issues later. Keep these suggestions in mind as you plan your installation:

- On an architectural diagram or other diagram that shows the physical layout of the installation, create a layout map that specifies the appropriate location of the light fixtures in relation to each other, and to any dimmer switches, wall switches, and line power sources. Identify any obstacles or physical features requiring flexible jumper cables between fixtures.

- Using the fixture's power consumption and efficiency ratings, the lighting designer or architect should calculate the cove dimensions to ensure that operating temperatures remain within safe levels. The designer or architect should also determine the cove's fascia design and fixture setback based on the cove dimensions and room width. We strongly recommend creating dimensional models and mockups prior to installation.

- eColor Cove EC Powercore fixtures are installed in series. The in-line connectors allow end-to-end fixture connections for the best visual effects. When installing fixtures end-to-end, allow a minimum distance of .125 in (3 mm) between fixtures, and a maximum distance of .625 in (16 mm). For more spacing between fixtures, use the 1 ft (305 mm) or 5 ft (1.5 m) jumper cables.

- You can install a run of eColor Cove EC Powercore fixtures using the 10 ft (3 m) Leader Cable with flying leads. This option is preferable when connecting to a third-party junction box, or when retrofitting an existing incandescent or fluorescent cove lighting installation.

- In North America, you can use the Wiring Compartment when you want to run branch conduit all the way to the first fixture in a series, or where local codes require it. You can also create a portable installation by using the 8 ft (2.4 m) Leader Cable with plug.

- If fixtures are installed end-to-end on a 20 A circuit using the standard 10 ft (3 m) Leader Cable, each run can accommodate up 191 12 in (305 mm) fixtures. Using the optional jumper cables can decrease the number of fixtures that you can connect in a single run.

# Install Wall and Dimmer Switches (Optional)

eColor Cove EC Powercore fixtures can be controlled either with a standard wall switch (on / off) or a compatible, commercially available reverse-phase ELV-type dimmer.

For a list of compatible ELV dimmers, and for details on selecting the appropriate dimmer for your lighting installation, visit www.philipscolorkinetics.com/support/ appnotes, or consult Applications Engineering services at support@colorkinetics.com.

# Prepare for the Installation

1. Verify that all supporting equipment (switches, line power sources) is in place.

2. If your installation calls for jumper cables to add space between fixtures, make sure they are available.

3. Ensure that all additional parts (optional mounting tracks, mounting hardware, terminators) and tools are available.

# Install the Fixtures

You can mount eColor Cove EC Powercore fixtures directly to a wall, ceiling, cabinet, or other secure surface. You can install several eColor Cove EC Powercore fixtures in optional 4 ft (1.2 m) lengths of mounting track to ensure a straight run.

**Install Mounting Tracks (Optional)**

1. Field-cut the mounting tracks to the desired length with a hacksaw or tin snips.

2. Install the mounting tracks using hardware suitable for the mounting surface.

   To ensure proper fixture fit, hardware must not extend above the track standoffs after installation. The recommended maximum spacing between screws is 12 in (305 mm).

✳ *You can use the fixture base as a template when pre-drilled pilot holes are required. Hold the fixture in place and mark the four screw holes.*
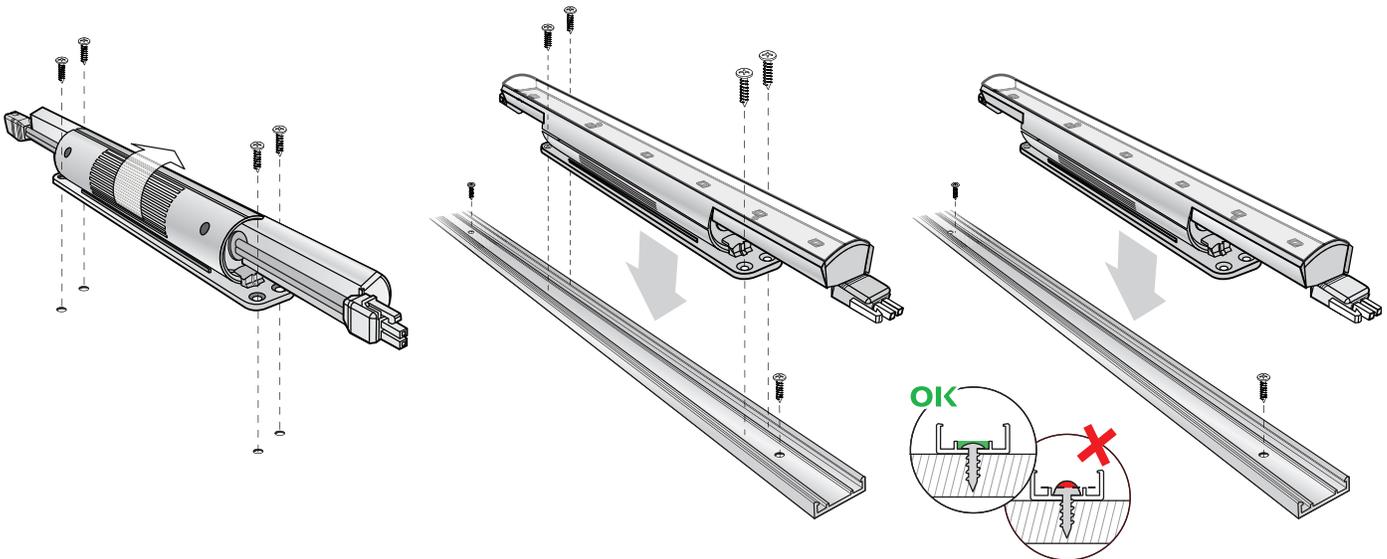


**Mount and Connect the Fixtures**

Make sure the power is OFF before mounting and connecting eW Cove EC Powercore fixtures.

1. Rotate an eW Cove EC Powercore fixture as necessary to provide unobstructed access to the mounting holes.

2. Position the first fixture in a series.

   If using mounting tracks on a horizontal surface, snap the fixture into the track.

   If using mounting tracks on vertical or overhead surfaces, or if not using mounting tracks, attach the fixture with four #6 (3.5 mm) mounting screws (not included) suitable for the mounting surface.

   Ensure that the male connector is in position to receive power from the female connector on the Leader Cable or Wiring Compartment.

3. Position the next fixture in the series, matching the male connector end to the female connector of the previously mounted fixture. Attach the fixture to the surface or snap it into the track.

Terminator

End-to-End

1 ft. or 5 ft
Jumper Cable

CLICK!
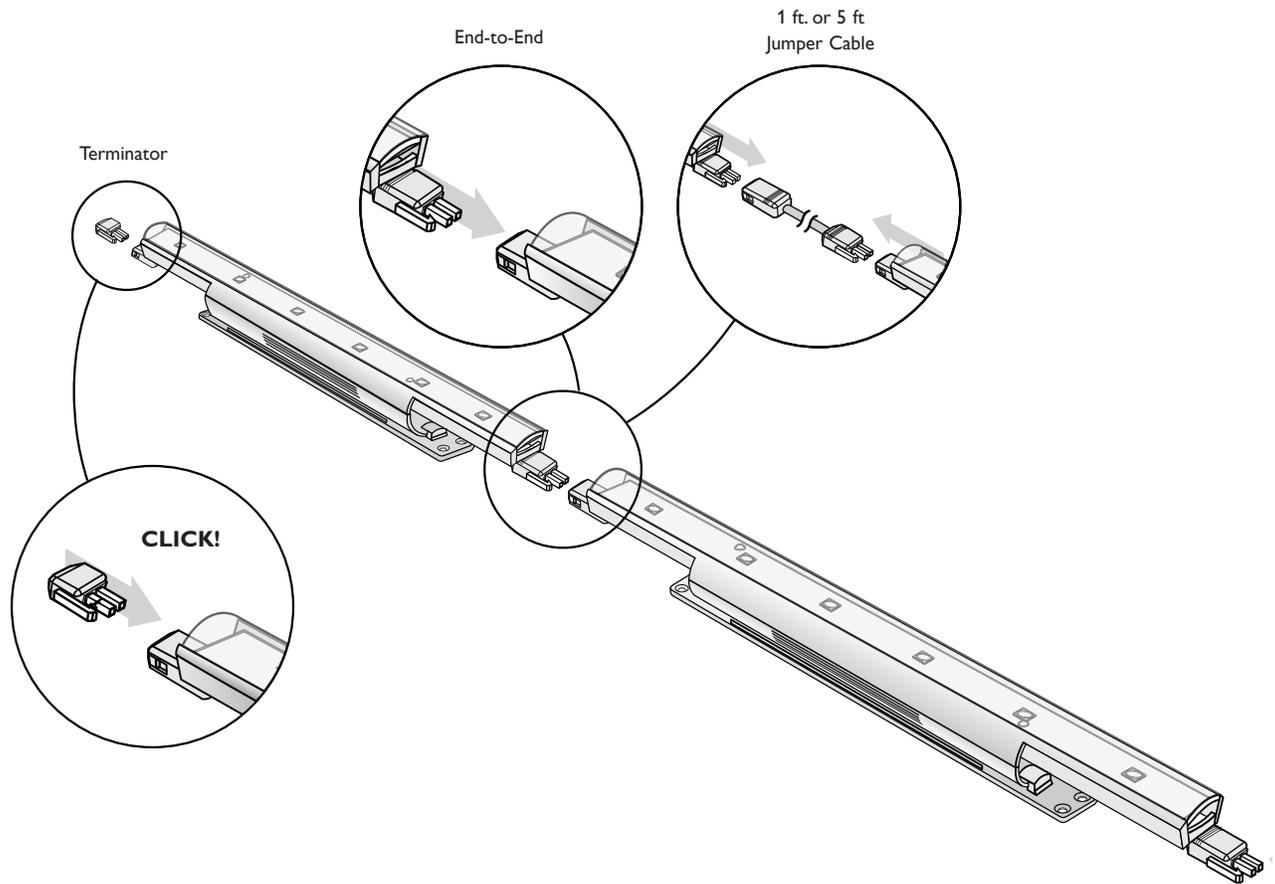
4. Continue mounting the fixtures, making power connections as you go, until all lights in the series are mounted.

5. Insert the provided terminator into the last fixture in the series.

**Make Power Connections**

**To run power or conduit to the first fixture in a series (permanent, UL / cUL installations):**

1. Remove the cover from the eW Cove Powercore Wiring Compartment.

2. Using wire nuts, connect ground, neutral, and line inside the Wiring Compartment housing, then replace the cover.

3. Connect the eW Cove Powercore Wiring Compartment to the first fixture in the series.

UL / cUL Wiring Compartment

1.75 in
(44.5 mm)

.875 in
(22.2 mm)

1.25 in
(31.8 mm)

4.375 in
(111.1 mm)

1.75 in
(44.5 mm)
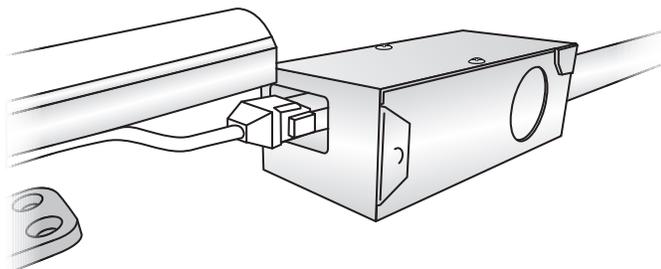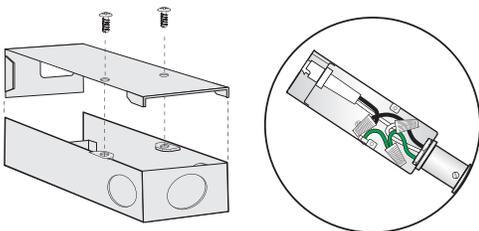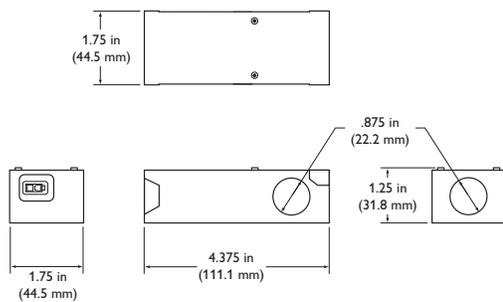
**To connect the first fixture in a series to a third-party junction box using the 10 ft (3 m) Leader Cable (permanent installation):**

1. Remove the cover of the third-party junction box.

2. Connect ground, neutral, and line inside the junction box housing, then replace the junction box cover.

3. Connect the 10 ft (3 m) Leader Cable to the first fixture in the series.
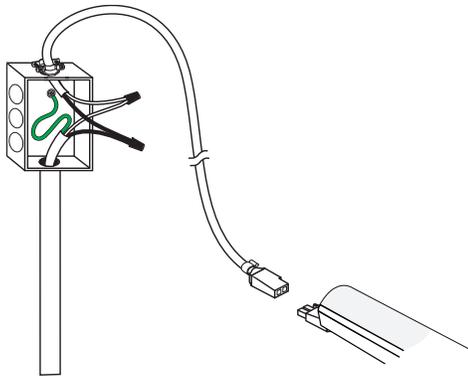


<span style="color:maroon">Leader Cable connector dimensions</span>
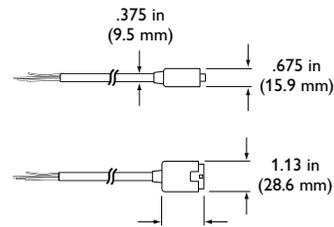


**For portable installations (UL / cUL):**

1. Plug the 8 ft (2.4 m) Leader Cable into a suitable switched outlet.

2. Connect the Leader Cable to the first fixture in the series.
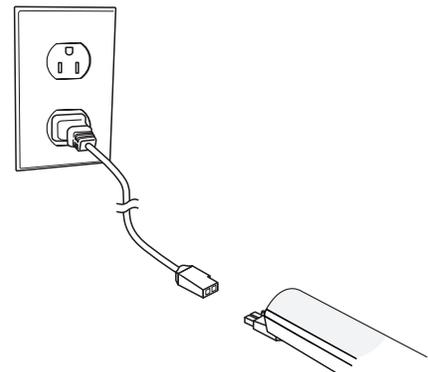
**For CE installations:**

1. Connect the Leader Cable to a terminal block. The terminal block must conform to EN 60998-2-1 or EN 60998-2-2, rated 220 – 240 VAC.

2. Connect ground, neutral, and line to a power source.

3. Connect the Leader Cable to the first fixture in the series.
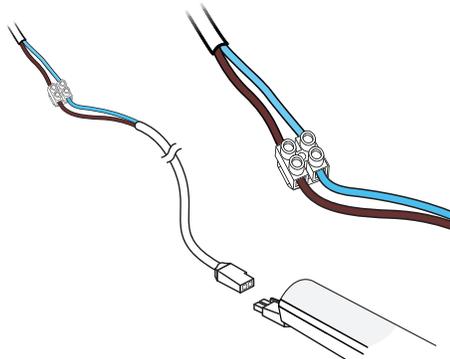




# Aim the Fixtures

Make sure the power is ON before aiming fixtures.

Aim the fixtures by rotating each fixture to the correct angle. There are detents every 10° in the bracket that hold the fixture in position.
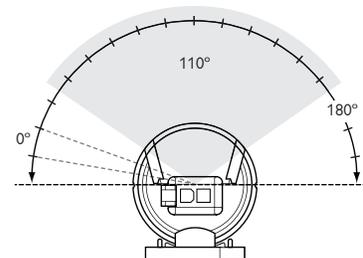


✳ *Do not look directly into beam when aiming fixtures.*