eColor Reach Compact Powercore

Premium long-throw compact exterior LED floodlight with solid color light

PHILIPS

COLOR KINETICS

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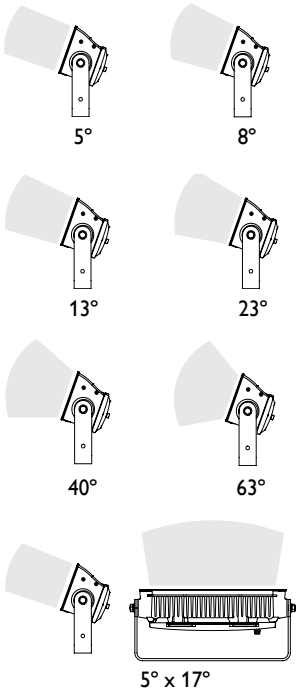
Premium long-throw compact exterior LED floodlight with solid color light

eColor Reach Compact Powercore combines all the benefits of LED-based lighting in a compact fixture specifically designed for large-scale installations calling for high-quality red, green, blue, or amber light, including skyscrapers, casinos, large retail exteriors, bridges, piers, public monuments, and themed attractions. With levels of light output and light projection never before achieved in a compact LED lighting fixture, eColor Reach Compact Powercore delivers intense, energy-efficient output at a reasonable price, opening up new possibilities for exterior illumination.

- Integrates 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.
- Dimming control via DMX — Dim fixtures smoothly and accurately from 0% to 100% with Philips Color Kinetics lighting controllers. including iPlayer 3, and third-party controllers.
- Versatile optics — Exchangeable spread lenses of 8°, 13°, 23°, 40°, 63°, and an asymmetric 5° x 17° support a variety of photometric distributions for a multitude of applications, including spotlighting, wall grazing, and asymmetric wall washing. Bezel and gasket are included with spread lenses for easy user installation.
- Saturated, cost-effective color — High-performance LEDs offer rich, saturated color at significantly less cost for installation, operation and maintenance than traditional light sources.
- Simple fixture positioning — Rugged, slim-profile mounting bracket allows flexible positioning and fixture rotation through a full 360°. Side locking bolts reliably secure fixture with standard wrench.
- Universal power input range — Accepts a universal power input range of 100 – 277 VAC (UL) or 100 – 240 VAC (CQC), allowing simple, location-independent installation.

Intense light output
eColor Reach Compact Powercore outputs thousands of lumens and throws light hundreds of feet, delivering legitimate LED-based illumination of large-scale structures and objects in a compact, fully-sealed housing.

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



Specifications— UL / CE

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

Item	Specification	Details
Output	Beam Angle	5° native 8°, 13°, 23°, 40°, 63°, and 5° x 17° (asymmetric) spread lenses
Electrical	Input Voltage	100 – 277 VAC, auto-switching, 50 / 60 Hz
	Power Consumption	125 W
Control		On / Off; digital dimming by 4 connector cable & DE Pro
Physical	Dimensions *(Height x Width x Depth)*	8.5 x 28.9 x 7.7 in (217 x 733 x 196 mm)
	Weight	51 lb (23 kg)
	Effective Projected Area (EPA)	0.186 m^2
	Housing	Die-cast aluminium, powder-coated finish
	Lens	Tempered glass
	Fixture Connections	Unified power data cable: 10 ft (3.048 m) Leader Cable
	Temperature Ranges	-40° – 122° F (-40° – 50° C) Operating -4° – 122° F (-20° – 50° C) Startup -40° – 176° F (-40° – 80° C) Storage
	Humidity	0 – 95%, non-condensing
Certification and Safety	Certification	UL / cUL, FCC Class A, CE, PSE
	Environment	Dry / Damp / Wet Location, IP66

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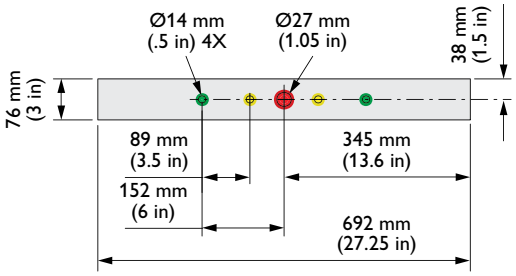

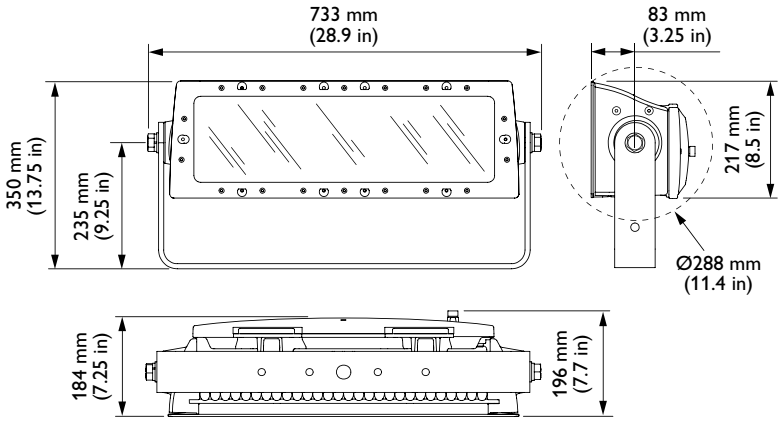

Specifications — CQC

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

Item	Specification	Details
Output	Beam Angle	5° native 8°, 13°, 23°, 40°, 63°, and 5° x 17° (asymmetric) spread lenses
Electrical	Input Voltage	100 – 240 VAC, auto-switching, 50 / 60 Hz
	Power Consumption	125 W
Control		On / Off; digital dimming by 4 connector cable & DE Pro
Physical	Dimensions *(Height x Width x Depth)*	8.5 x 28.9 x 7.7 in (217 x 733 x 196 mm)
	Weight	51 lb (23 kg)
	Effective Projected Area (EPA)	0.186 m^2
	Housing	Die-cast aluminium, powder-coated finish
	Lens	Tempered glass
	Fixture Connections	Unified power data cable:, 6 ft (1.8 m) Leader Cable
	Temperature Ranges	-40° – 122° F (-40° – 50° C) Operating -4° – 122° F (-20° – 50° C) Startup -40° – 176° F (-40° – 80° C) Storage
	Humidity	0 – 95%, non-condensing
Certification and Safety	Certification	CQC, FCC Class A, CE, PSE
	Environment	Dry / Damp / Wet Location, IP66

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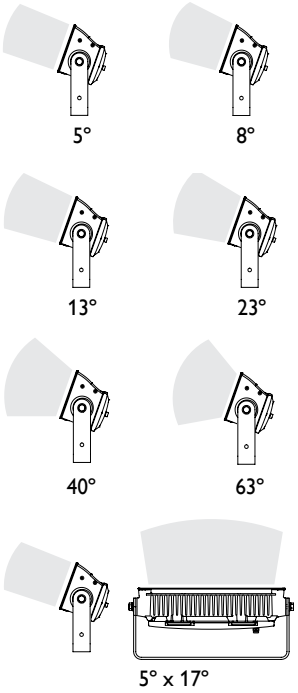
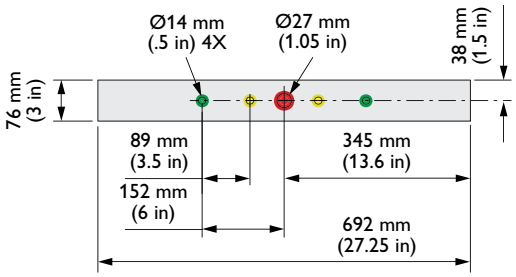
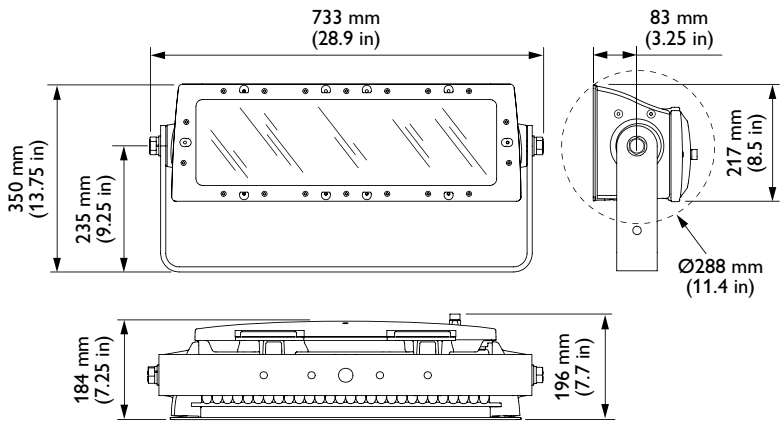






Fixtures and Accessories

eColor Reach Compact Powercore fixtures are part of a complete line-voltage system which includes fixtures and:

- One 6 ft (1.8 m) Leader Cable to connect each eColor Reach Compact Powercore fixture to a power source.
- 3-conductor copper wire to connect eColor Reach Compact Powercore fixtures in series or in parallel. Standard 12 AWG (2.05 mm) stranded wire is recommended.
- 4-conductor copper wire to connect eColor Reach Compact Powercore fixtures in series or in parallel, when digital dimming feature will be used, with a Philips Data Enabler Pro. 4-conductor wire is required for all connections downstream from the DE Pro.
- Philips Data Enabler Pro, when digital dimming feature will be used.

Item	Type		Item Number	Philips 12NC
eColor Reach Compact Powercore *Includes Leader Cable:* *6 ft (1.8 m) - CQC* *10 ft (3.048 m) - UL*	Red	UL / cUL	223-000085-00	912400130185
		CE	223-000085-04	912400130207
		CQC	223-000079-08	912400130271
	Green	UL / cUL	223-000085-01	912400130204
		CE	223-000085-05	912400130208
		CQC	223-000079-09	912400130272
	Blue	UL / cUL	223-000085-02	912400130205
		CE	223-000085-06	912400130209
		CQC	223-000079-10	912400130273
	Amber	UL / cUL	223-000085-03	912400130206
		CE	223-000085-07	912400130210
		CQC	223-000079-11	912400130274
3 Conductor Replacement Leader Cable:, 100 - 240 VAC	6 ft (1.8 m)	CQC / CE	108-000046-01	910503700622
3 Conductor Replacement Leader Cable:, 100 - 277 VAC	10 ft (3.0 m)	UL / cUL	108-000056-03	910503704071
		CE	108-000056-04	910503704072
	50 ft (15.2 m)	UL / cUL	108-000056-00	910503703138
		CE	108-000056-01	910503704069
4 Conductor Replacement Leader Cable: (required to digitally dim unit, w/ DE Pro), 100 - 240 VAC	6 ft (1.8 m)	CQC / CE	108-000043-03	910503700454
4 Conductor Replacement Leader Cable: (required to digitally dim unit, w/ DE Pro), 100 - 277 VAC	10 ft (3.0 m)	UL / cUL	108-000055-03	910503704066
		CE	108-000055-04	910503704067
	50 ft (15.2m)	UL / cUL	108-000055-00	910503703137
		CE	108-000055-01	910503704064
Data Enabler Pro (required to digitally dim unit)	3/4 in / 1/2 in NPT (US trade size conduit)		106-000004-00	910503701210
	PG21 / PG13 (metric size conduit)		106-000004-01	910503701211
Spread Lens with bezel	13°		120-000068-00	910503700506
	23°		120-000068-01	910503700507
	40°		120-000068-02	910503700508
	63°		120-000068-03	910503700509
	Asymmetric (5° x 17°)		120-000068-04	910503700510
	8°		120-000068-05	910503700511

Use Item Number when ordering in North America.

Installation

eColor Reach Compact Powercore, a high-performance exterior architectural floodlight, is designed to brilliantly illuminate signature façades. eColor Reach Powercore has digital dimming capability and can be dimmed from 0% – 100% using DMX or Ethernet lighting controllers. Powercore technology integrates LED power and data management within the fixture, easing installation by eliminating the need for external power supplies. The dimming function requires a Philips Color Kinetics Data Enabler Pro (DE Pro) and 4-wire connector cables between the DE Pro and the fixtures.

Refer to the eColor Reach Compact Powercore Installation Instructions for specific warning and caution statements.

Because each eColor Reach Compact Powercore fixture weighs 51 lb (23 kg), you may need two people to lift the fixture out of the box and position it in the mounting location. Optional accessory optics require the installation of both a spread lens and a bezel over the fixture's primary lens.

Owner / User Responsibilities

It is the responsibility of the contractor, installer, purchaser, owner, and user to install, maintain, and operate eColor Reach Compact 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.

Installing in Damp or Wet Locations

When installing in damp or wet locations, you must seal all junction boxes with electronics-grade RTV silicone sealant so that water or moisture cannot enter or accumulate in wiring compartments, cables, fixtures, or other electrical parts. You must use suitable outdoor-rated junction boxes when installing in wet or damp locations. Additionally, you must use gaskets, clamps, and other parts required for installation to comply with all applicable local and national codes.

Prepare for the Installation

1. Determine the appropriate location of each Data Enabler Pro in relation to the fixtures, and of the fixtures in relation to each other. The Data Enabler Pro and first fixture must be separated by no more than the 10 ft (3.1 m) length of the Leader Cable.

   eColor Reach Compact Powercore fixtures can be installed in series or in parallel (wired to a common junction box). The maximum number of fixtures each circuit can support depends on specific configuration details such circuit size, line voltage, and method of connection (in series or in parallel). As an example, the table to the left lists the maximum number of fixtures each circuit can support at various voltages, assuming a 20A circuit, standard 6 ft (1.8 m) Leader Cables, and 5 ft (1.5 m) jumper cables between fixtures. Keep in mind that these figures, provided as a guideline, are accurate for the specified configuration only. Changing the configuration can affect the fixture run lengths.

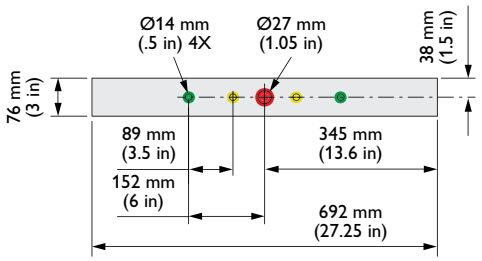
2. Ensure that all additional parts and tools are available, including:

   - A 28 mm hex or adjustable wrench for adjusting the locking bolts on the fixture bracket
   - One electrical junction box per fixture, rated for your application. (Refer to the junction box manufacturer's literature for additional items required for mounting or sealing.)
   - A sufficient length of 3-conductor copper wire. We recommend 12 AWG (2.05 mm) stranded wire.
   - Conduit as required
   - Electronics-grade room temperature vulcanizing (RTV) silicone sealant

Included in the box

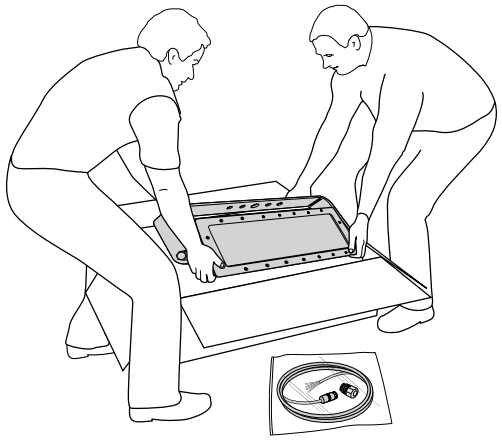
eColor Reach Compact Powercore fixture
6 ft (1.8 m) Leader Cable
Cable Strain Relief
Installation Instructions

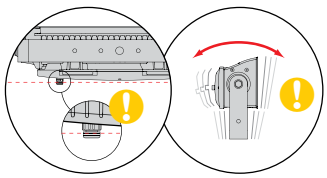
Mounting bracket dimensions for pre-drilling



Start the Installation

1. Install all Data Enabler Pro devices, including any interfaces with controllers. One Leader Cable is required to connect each run or series of fixtures to a Data Enabler Pro. The Data Enabler Pro sends power and control signals to the fixtures over the Leader Cable.
2. Verify that all additional supporting equipment (switches, controllers) is in place.
3. If your installation calls for Jumper Cables to add space between fixtures, make sure they are available.
4. Ensure that all additional parts (optional mounting tracks, mounting hardware, terminators) and tools are available.
5. Unpack eColor Reach Compact Powercore fixtures. You may need two people to lift the fixture out of the box and position it in the mounting location.



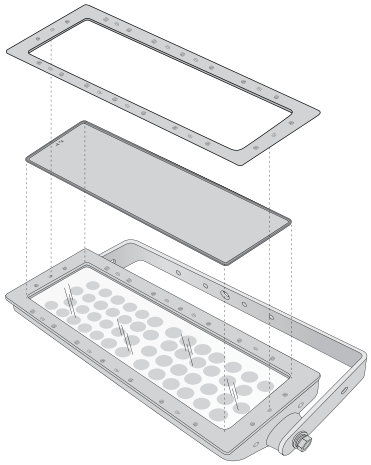


Do not rest eColor Reach Compact Powercore on its back, as doing so may damage the connector port. Be careful not to tip the fixture over during positioning.

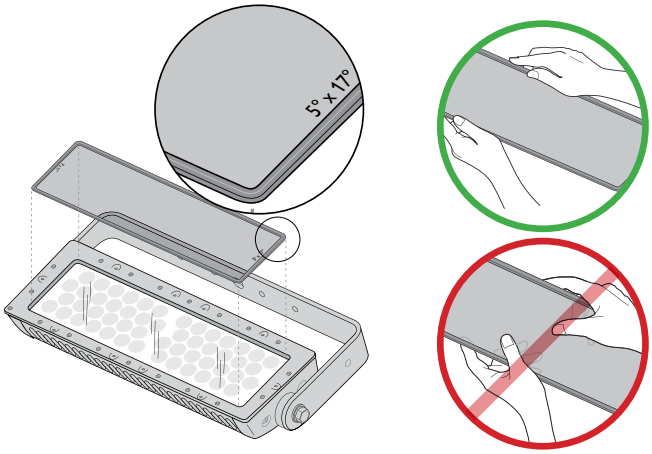
Attach Spread Lenses (Optional)

Exchangeable eColor Reach Compact Powercore spread lenses of 8°, 13°, 23°, 40°, 63°, and an asymmetric 5° x 17° support a variety of photometric distributions for a multitude of applications, including spotlighting, wall grazing, and asymmetric wall washing.

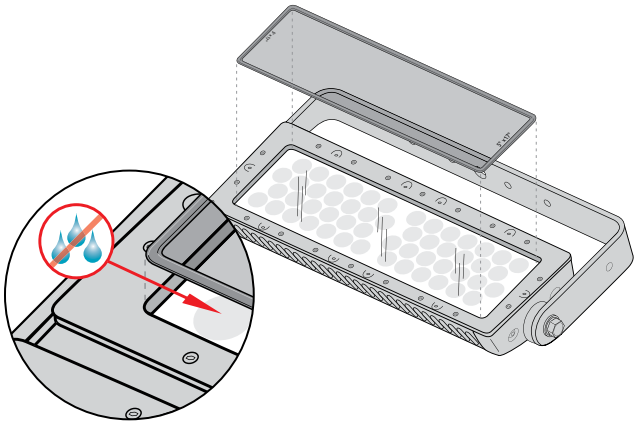
1. Unpack and confirm the contents of the box. Each box contains one lens kit, consisting of a spread lens with attached rubber gasket, and a bezel with 10 captured mounting screws.



2. Clean both sides of the spread lens and the face of the eColor Reach Compact Powercore housing, including glass surfaces, using a mild, non-abrasive cleaner. Ensure that all surfaces are dry, and that the gasket is properly fitted to the lens.
3. Position the spread lens so that the beam-angle designation on the side of the lens is face up. Handle the spread lens by the gasket, making sure not to touch or soil either surface of the spread lens.

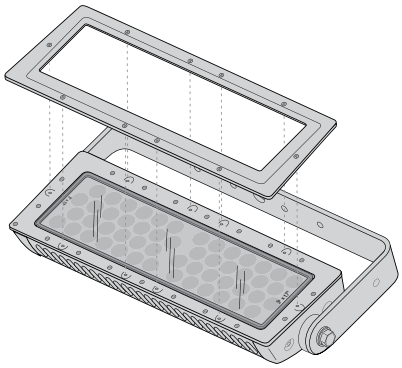


4. Place the spread lens on top of the eColor Reach Compact Powercore housing. Make sure that the spread lens and gasket are seated properly within the fixture housing. Also make sure that there is no moisture between the spread lens and the glass lens, as any moisture will compromise the effectiveness of the spread lens.

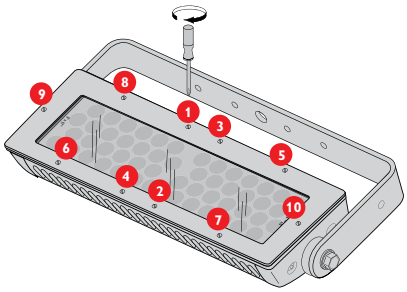


For installations in extreme environments, refer to the Reach Spread Lens Kit Installation Instructions for details on sealing the spread lens and bezel to prohibit water ingress.

5. Position the bezel over the spread lens.



6. With a hex driver, attach the bezel to the fixture housing using the provided screws. To ensure a watertight seal, tighten the screws to approximately 20 – 30 in-lbs (2.2 – 3.4 Nm) in the sequence shown below.

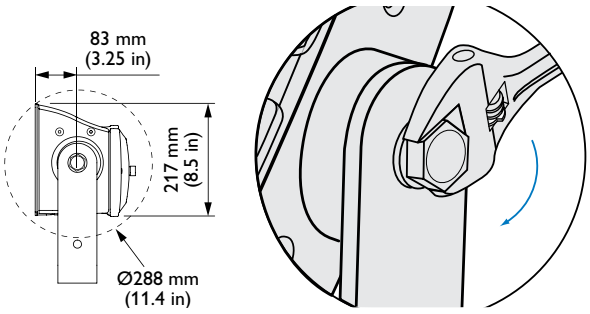


Position and Mount Fixtures

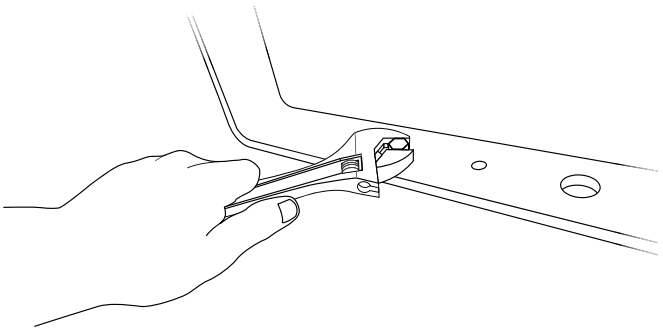
Ensure that the fixture mounting locations and substrates are sufficiently sturdy to bear the weight of each eColor Reach Compact Powercore fixture. Pre-drill holes in the mounting substrate if necessary, making reference to the mounting bracket dimensions. Use at least two screws to secure each fixture, one on either side of the mounting bracket's central screw hole.

If mounting eColor Reach Compact Powercore on a lighting pole, make sure the pole can both support the total weight of the fixtures and withstand the maximum velocity winds to which it will be subjected. Each fixture weighs 51 lb (23 kg), and has an effective projected area (EPA) of 0.186 m^2.

1. Position each eColor Reach Compact Powercore fixture in its designated mounting location. Make sure the mounting area is clear of debris and other obstructions.
2. Loosen the locking bolts, using a 28 mm hex or adjustable wrench, and rotate the fixture to access the mounting bracket. Tilting the fixture 90° affords 9.1 in (231 mm) clearance.



3. If mounting holes have been pre-drilled, align the mounting bracket's screw holes with the pre-drilled holes. Mount the fixture bracket using hardware appropriate for the mounting substrate. Use at least two screw to secure each fixture, one on either side of the mounting bracket's central screw hole.



Connect Fixtures

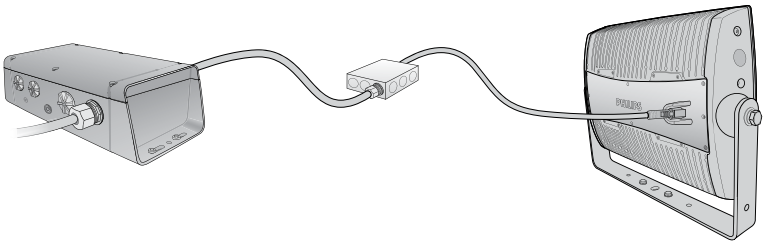
eColor Reach Compact Powercore fixtures can be installed in series or in parallel (wired to a common junction box). Ensure that all junction boxes are suitable for the environment and that all wiring between junction boxes complies with local codes.

Make sure the power is OFF before connecting eColor Reach Compact Powercore fixtures.

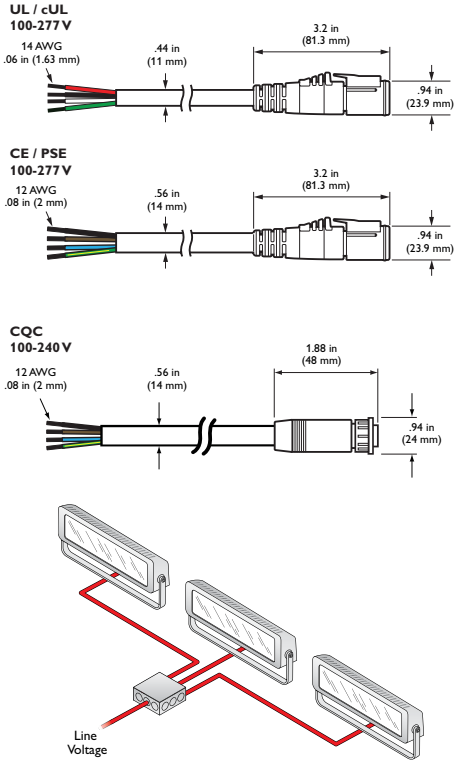
1. Install junction boxes. (Refer to the manufacturer's literature for additional items required for mounting or sealing.)
2. If installing fixtures in a series, pull 3-conductor copper wire between each junction box in the series. If installing fixtures in parallel, pull 3-conductor copper wire from a power source to a common junction box, and from the common junction box to each fixture's junction box.

   If these fixtures are to use digital dimming and control features, there must be a Philips Color Kinetics Data Enabler Pro between the power mains and the first junction box. All cabling between the DE Pro and the downstream fixtures must be 4-conductor cables.

   The maximum cable run from a Data Enabler Pro to any individual eW Reach Powercore gen2 fixture is 53 m (175 ft). When installing in parallel, the total cable length cannot exceed 122 m (400 ft).



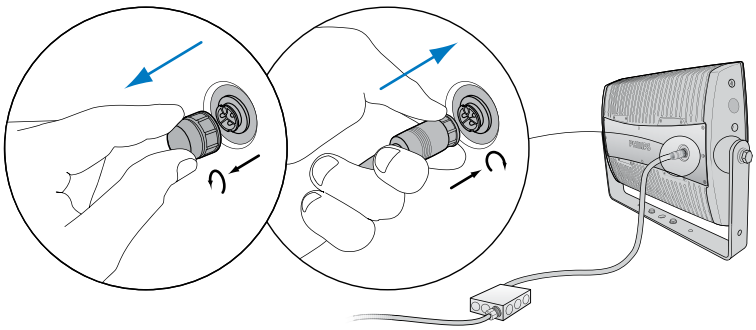
Leader cable dimensions

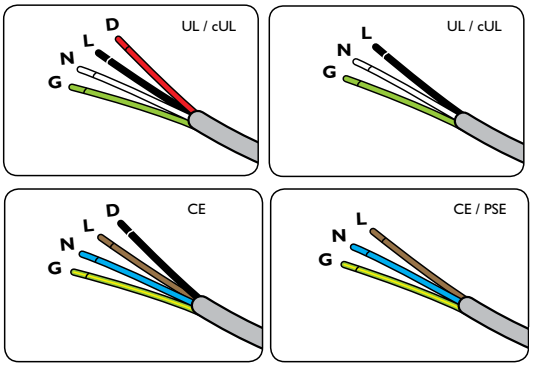


eColor Reach Compact Powercore fixtures installed in parallel

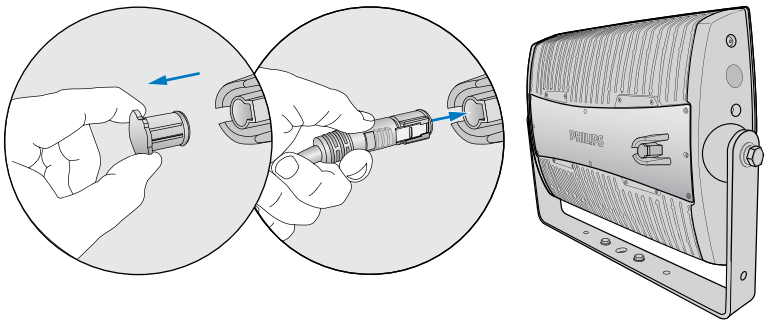
3. If necessary, remove the connector cap from the port on the back of the eColor Reach Compact Powercore housing. Insert the Leader Cable into the port. Turn the Leader Cable's lock nut to the right until it locks into place.

   For installations with CQC-compatible (CE) cabling: Turn the Leader Cable's lock nut to the right until it locks into place.

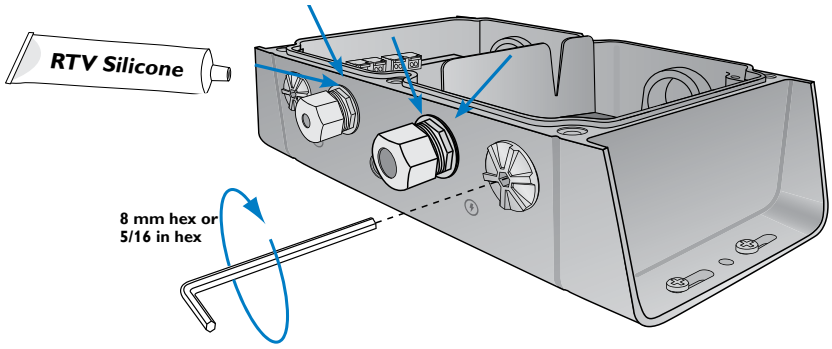




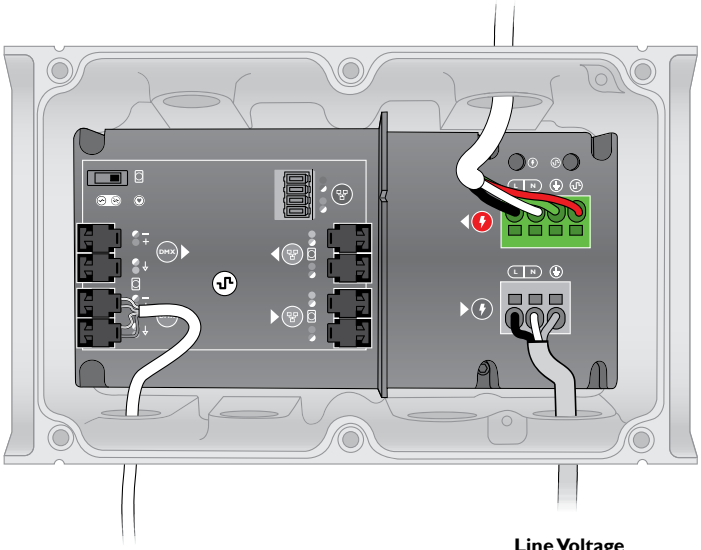
   For installations with UL / cUL-compatible cabling: The Leader Cable snaps into place (it must be oriented to the only way it can fit) in the power port on the fixture.

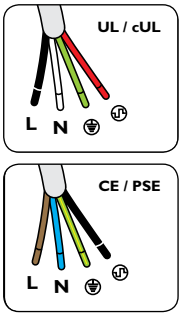


4. Use wire nuts to connect line, neutral, and ground. If installing in series, connect the Leader Cable from each fixture to the fixture's junction box. If installing in parallel, connect the Leader Cable from each fixture to the lead wire from the power source in the common junction box.
5. Tuck wire connections into the junction box.
6. Seal all junction boxes and the DE Pro with electronics-grade RTV silicone sealant. Use gaskets, clamps, and other parts and fittings required to comply with local outdoor wiring codes.



7. Run the wiring from the first junction box in the series to the Data Enabler Pro, or, if installing in parallel, run the wiring from the common junction box to the Data Enabler Pro. Secure connections within the Data Enabler Pro housing.





Do not look directly into the fixture when aiming and locking.

For exterior applications with direct exposure to water, eColor Reach Compact Powercore fixtures should not be aimed directly upwards, as water may pool on the lens and affect beam quality. Instead, the fixture should be angled to allow for proper water drainage.

Connect to Power

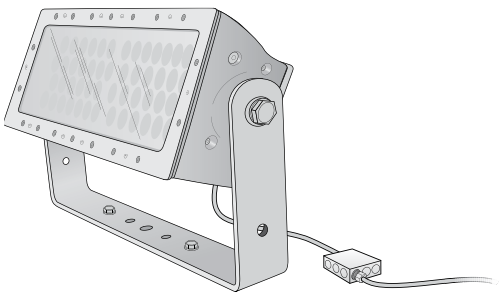
You can connect the first junction box in a series, or a common junction box in a parallel installation, directly to a power source.

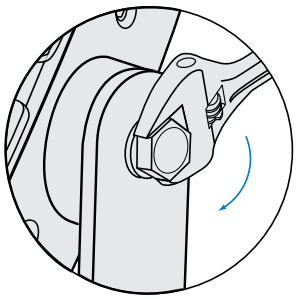
1. Run a sufficient length of 3-conductor wire from the first junction box in the series to the power source, or, if installing in parallel, run the wiring from the common junction box to the power source.
2. If installing in a wet or damp location, seal all junction boxes with electronics-grade RTV silicone sealant. Use gaskets, clamps, and other parts and fittings required to comply with local outdoor wiring codes.

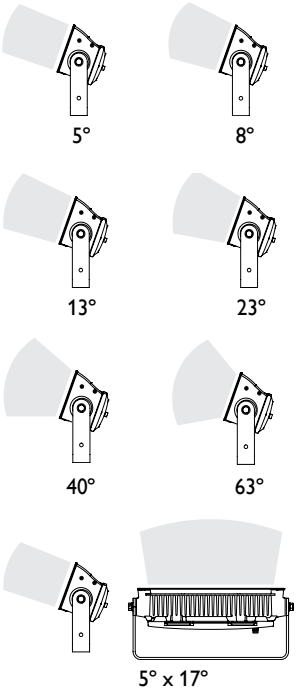
Aim and Lock the Fixtures

Make sure that the power is ON before aiming fixtures.

1. Aim the fixtures by rotating each fixture to the correct angle.
2. Lock the fixtures by tightening the locking bolts using a 28 mm hex or adjustable wrench.







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