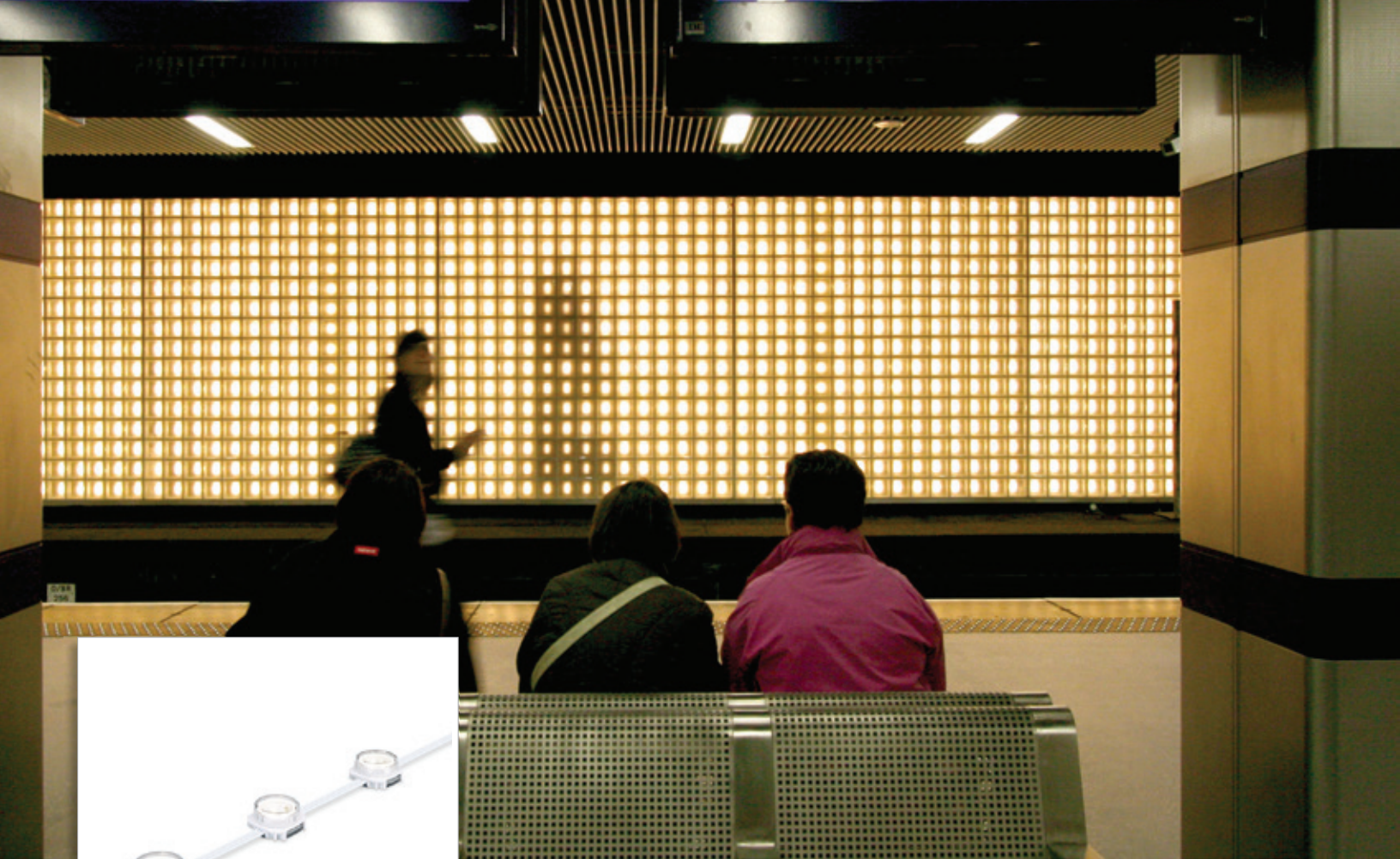


South Hylton 2 On Time
Airport 3 On Time
Time Now: 15:28:41

Time Now: 15:28:41



eW Flex Compact

Flexible strands of high-intensity LED nodes with solid white light

PHILIPS



eW Flex Compact

Flexible strands of high-intensity LED nodes with solid white light

eW Flex Compact is a versatile strand of 50 individually controllable LED nodes. The flexible form factor allows dynamic points of white light to be installed across nearly any interior or exterior surface, including walls, ceilings, floors, three-dimensional sculptures, and set pieces. eW Flex Compact can also light tight alcove spaces and signage, and in certain cases, can even display video.

- **Daylight visible**—At full brightness, each node produces light output of up to 89.6 candela and 129,758 nits.
- **Adaptable mounting**—Strands can be mounted directly to a surface, like traditional string lights. Detachable leader cables in multiple lengths allow you to install strings at the appropriate distance from power/data supplies. Optional mounting tracks ensure straight linear runs, while snap-on spacers hide cabling and mounting hardware. Single node mounts can be positioned individually as anchor points for installations with uneven node spacing or complex geometries.
- **Outdoor rated**—Fully sealed for maximum node life and IP66-rated for outdoor applications.
- **Supports cost-effective video displays**—Flexible form factor, offering maximum lighting control at 50 W per strand, accommodates unique lighting installations, including two- and three-dimensional video displays. White nodes enable classic black and white video or reverse (shadow) video.
- **Multiple lens options**—Standard clear flat, translucent dome, and narrow beam lenses. Optional translucent flat, clear dome, narrow beam, semi-frosted flat, and semi-frosted dome lenses are available.
- **Standard and custom lengths and node spacing**—eW Flex Compact strands are available with standard on-center node spacing of 76 mm (3 in) or 610 mm (24 in) along a three-wire, 18 AWG cable. For information about custom orders, see the eW Flex Compact Ordering Sheet at www.colorkinetics.com/lis/essentialwhite/ewflexcompact/.
- **Custom leader cables**—Custom leader cable lengths are available in addition to standard cables of 7.6 m (25 ft), 15.2 m (50 ft), and 30.5 m (100 ft).
- **Industry-leading controls**—eW Flex Compact works seamlessly with the Philips Color Kinetics full range of controllers, including Light System Manager, Video System Manager Pro, iPlayer 3, Antumbra iColor Keypad, and ColorDial Pro, as well as third-party DMX controllers.



Superior Light Output

eW Flex Compact strands consist of 50 individually controllable, high-intensity LED nodes. Each node produces solid white light output of up to 89.6 candela.

Specifications

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

Item	Specification	Clear Flat Lens	Translucent Dome Lens	Narrow Beam Lens
Output	Lumens Per Node	2700 K	81	35
		4000 K	87	40
	Efficacy (lm/W)	2700 K	80.9	35.0
		4000 K	86.9	39.6
	On-Axis Candela Per Node	2700 K	29.8	7.1
		4000 K	31.5	8.0
	Luminance Per Node	2700 K	45,127 cd/m ²	10,660 cd/m ²
		4000 K	47,679 cd/m ²	12,106 cd/m ²
	CRI	2700 K	82	85
		4000 K	84	86
	Viewing Angle	2700 K	105°	200°
		4000 K	105°	200°
Electrical	Input Voltage	24 VDC via PDS-60ca, sPDS-480ca, sPDS-60ca, and CM-150 CA		
	Power Consumption	1 W (Maximum per node at full output, steady state)		
Control	Interface	PDS-60ca 24V (Pre-programmed or DMX/Ethernet) sPDS-480ca 24V (Ethernet) sPDS-60ca 24V (DMX/Ethernet) CM-150 CA (DMX/Ethernet)		
	Control System	Philips Color Kinetics full range of controllers, including Light System Manager, Video System Manager Pro, iPlayer 3, Antumbra iColor Keypad, and ColorDial Pro, or third-party controllers		
Physical	Node Dimensions (Height x Width x Depth)	31 x 32 x 17 mm (1.2 x 1.3 x 0.7 in)	31 x 32 x 28 mm (1.2 x 1.3 x 1.1 in)	31 x 32 x 27 mm (1.2 x 1.3 x 1.1 in)
	Weight	1.0 kg (2.2 lb) 50-node strand, 4 in on-center node spacing 1.5 kg (3.3 lb) 50-node strand, 12 in on-center node spacing		
	Housing	White or black polycarbonate		
	Lens	Clear UV-protected polycarbonate Translucent UV-protected polycarbonate		
	Luminaire Connections	Integrated watertight 3-pin connector		
	Temperature Ranges	-40 to 50 °C (-40 to 122 °F) Operating -20 to 50 °C (-4 to 122 °F) Startup -40 to 80 °C (-40 to 176 °F) Storage ≥ 0 °C (≥ 32 °F) Handling		
	Humidity	0 to 95%, non-condensing		
	Maximum Luminaires Per Power/Data Supply	PDS-60ca 24V: 1 strand sPDS-480ca 24V (Ethernet): 8 Strands sPDS-60ca 24V: 1 strand CM-150 CA: 1 strand		
Certification and Safety	Certification	UL/cUL, FCC Class A, CE		
	Environment	Dry/Damp/Wet Location, IP66		

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Lumen Maintenance

Threshold§	Ambient Temperature	Reported¶	Calculated¶
L90	@ 25° C	20,000 hrs	20,000 hrs
	@ 50° C	20,000 hrs	20,000 hrs
L80	@ 25° C	37,000 hrs	37,000 hrs
	@ 50° C	37,000 hrs	37,000 hrs
L70	@ 25° C	56,000 hrs	56,000 hrs
	@ 50° C	56,000 hrs	56,000 hrs

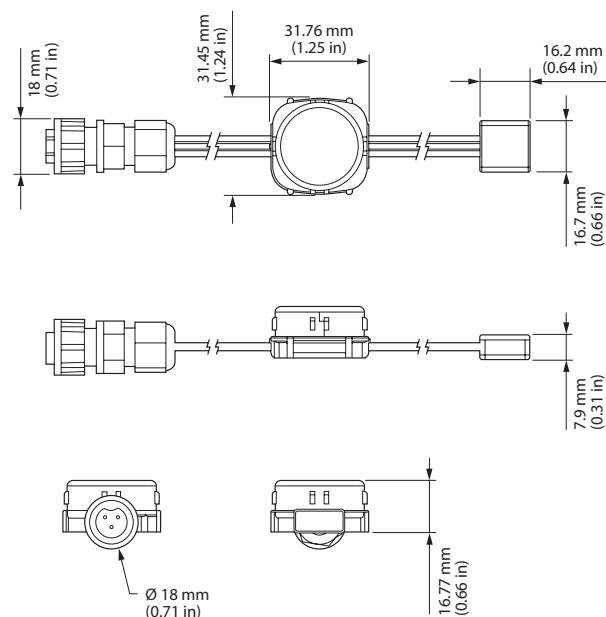
For help estimating the light output and distribution of lighting luminaires, please refer to individual specification sheets at www.colorkinetics.com/ls/essentialwhite/ewflexcompact/.

§ Lxx = xx% lumen maintenance (when light output drops below xx% of initial output). All values are given at B10, or the median value where 90% of the LED population is better than the reported or calculated lumen maintenance measurement.

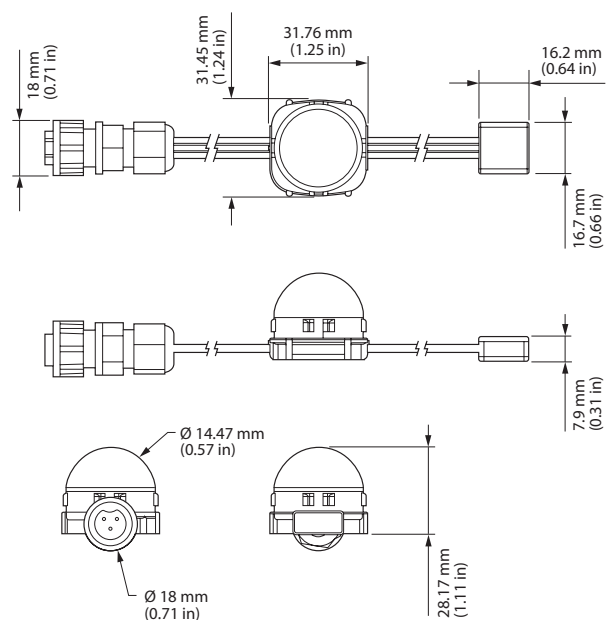
¶ Lumen maintenance figures are based on lifetime prediction graphs supplied by LED source manufacturers. Whenever possible, figures use measurements that comply with IES LM-80-08 testing procedures. In accordance with TM-21-11, Reported values represent the interpolated value based on six times the LM-80-08 total test duration (in hours). Calculated values represent time durations that exceed six times the total test duration.

Dimensional Diagrams

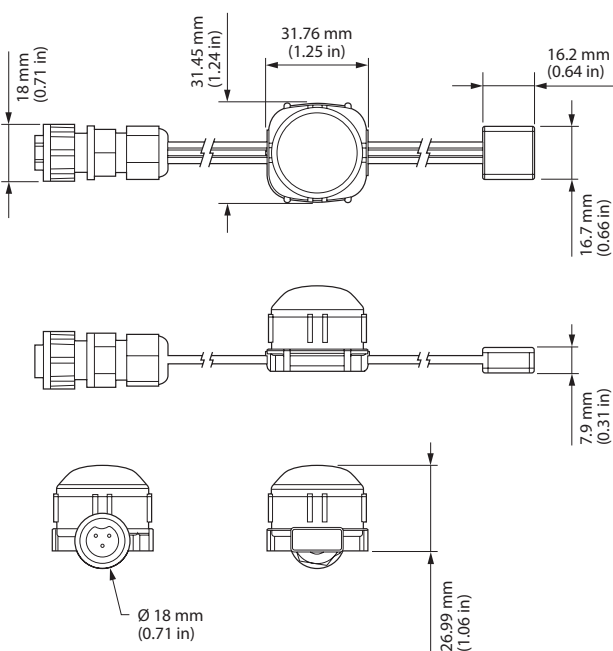
Clear Flat Lens



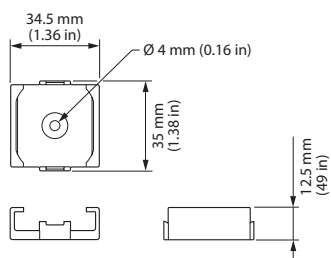
Translucent Dome Lens



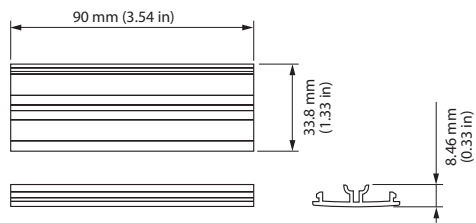
Narrow Beam Lens



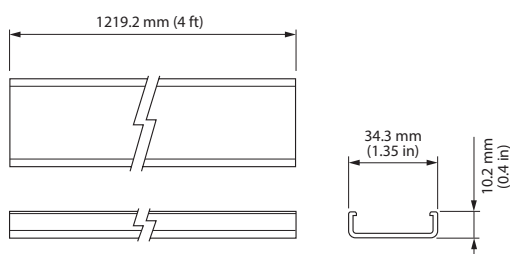
Single Node Mount



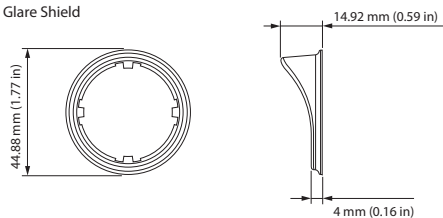
Spacer



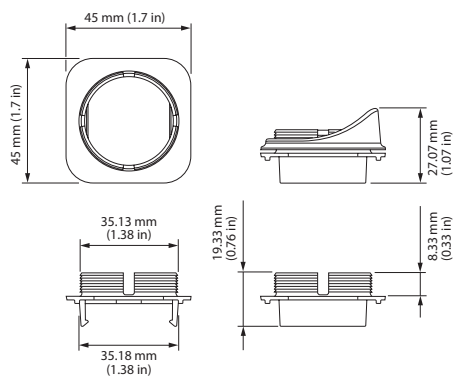
Mounting Track



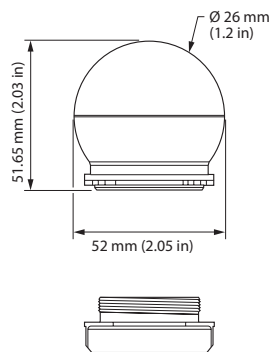
Glare Shield



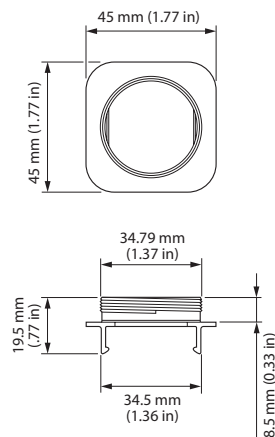
Back Clip (glare shield)



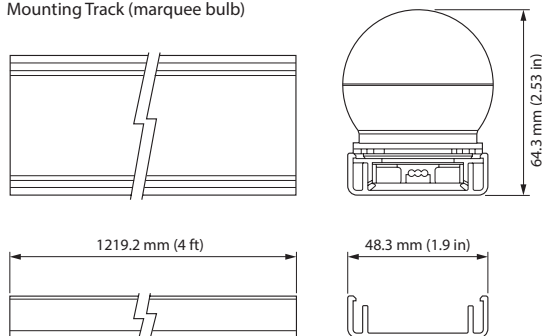
Marquee Bulb



Base (marquee bulb)



Mounting Track (marquee bulb)



Photometrics

For help estimating the light output and distribution of lighting luminaires, please refer to individual specification sheets at www.colorkinetics.com/ls/essentialwhite/ewflexcompact/.

Strands and Power/Data Supplies

eW Flex Compact is part of a complete system which includes strands and:

- One or more power/data supplies.
- One leader cable to attach each strand of eW Flex Compact to a power/data supply port.
- Optional mounting tracks, spacers, or single-node mounts.
- A Philips Color Kinetics controller, including Light System Manager, Video System Manager Pro, iPlayer 3, Antumbra iColor Keypad, and ColorDial Pro, or a third-party controller.

Strands

Item	Type			Item Number	Philips 12NC
eW Flex Compact 50 nodes 4 in on-center node spacing	2700 K	Clear Flat Lens	White	500-000012-00	912400130619
			Black	500-000012-01	912400130620
		Translucent Dome Lens	White	500-000012-02	912400130621
			Black	500-000012-03	912400130622
		Narrow Beam Lens	White	500-000012-56	912400135782
			Black	500-000012-57	912400135783
	3000 K	Clear Flat Lens	White	500-000012-08	912400130627
			Black	500-000012-09	912400130628
		Translucent Dome Lens	White	500-000012-10	912400130629
			Black	500-000012-11	912400130630
		Narrow Beam Lens	White	500-000012-60	912400135786
			Black	500-000012-61	912400135787
	3500 K	Clear Flat Lens	White	500-000012-16	912400130635
			Black	500-000012-17	912400130636
		Translucent Dome Lens	White	500-000012-18	912400130637
			Black	500-000012-19	912400130638
		Narrow Beam Lens	White	500-000012-64	912400135790
			Black	500-000012-65	912400135791
	4000 K	Clear Flat Lens	White	500-000012-24	912400130643
			Black	500-000012-25	912400130644
		Translucent Dome Lens	White	500-000012-26	912400130645
			Black	500-000012-27	912400130646
		Narrow Beam Lens	White	500-000012-72	912400135798
			Black	500-000012-73	912400135799
	5000 K	Clear Flat Lens	White	500-000012-48	912400133735
			Black	500-000012-49	912400133736
		Translucent Dome Lens	White	500-000012-50	912400133737
			Black	500-000012-51	912400133738
		Narrow Beam Lens	White	500-000012-76	912400135803
			Black	500-000012-77	912400135804
	5700 K	Clear Flat Lens	White	500-000012-32	912400130651
			Black	500-000012-33	912400130652
		Translucent Dome Lens	White	500-000012-34	912400130653
			Black	500-000012-35	912400130654
		Narrow Beam Lens	White	500-000012-80	912400135807
			Black	500-000012-81	912400135808

Included in the box

eW Flex Compact strand (50 nodes)
Extra termination cap
Installation Instructions

Custom Configurations

In addition to the standard configurations discussed in this product guide, custom configurations are also available. See the eW Flex Compact Ordering Information sheet at www.colorkinetics.com/ls/essentialwhite/ewflexcompact/ for more information.

Component	Available Non-Standard Options
Node Spacing	76 mm (3 in) to 610 mm (24 in) on-center
Strand Length	1 to 60 nodes
Node/Cable Color	White, black, clear
Lens	Clear flat, translucent flat, semi-frosted flat, clear dome, translucent dome, semi-frosted dome, narrow beam

Item	Type			Item Number	Philips 12NC
eW Flex Compact 50 nodes 4 in on-center node spacing	6500 K	Clear Flat Lens	White	500-000012-40	912400130659
			Black	500-000012-41	912400130660
		Translucent Dome Lens	White	500-000012-42	912400130661
			Black	500-000012-43	912400130662
		Narrow Beam Lens	White	500-000012-84	912400135811
			Black	500-000012-85	912400135812

Use Item Number when ordering in North America.

Item	Type			Item Number	Philips 12NC
eW Flex Compact 50 nodes 12 in on-center node spacing	2700 K	Clear Flat Lens	White	500-000012-04	912400130623
			Black	500-000012-05	912400130624
		Translucent Dome Lens	White	500-000012-06	912400130625
			Black	500-000012-07	912400130626
		Narrow Beam Lens	White	500-000012-58	912400135784
			Black	500-000012-59	912400135785
	3000 K	Clear Flat Lens	White	500-000012-12	912400130631
			Black	500-000012-13	912400130632
		Translucent Dome Lens	White	500-000012-14	912400130633
			Black	500-000012-15	912400130634
		Narrow Beam Lens	White	500-000012-62	912400135788
			Black	500-000012-63	912400135789
	3500 K	Clear Flat Lens	White	500-000012-20	912400130639
			Black	500-000012-21	912400130640
		Translucent Dome Lens	White	500-000012-22	912400130641
			Black	500-000012-23	912400130642
		Narrow Beam Lens	White	500-000012-66	912400135792
			Black	500-000012-67	912400135793
	4000 K	Clear Flat Lens	White	500-000012-28	912400130647
			Black	500-000012-29	912400130648
		Translucent Dome Lens	White	500-000012-30	912400130649
			Black	500-000012-31	912400130650
		Narrow Beam Lens	White	500-000012-74	912400135801
			Black	500-000012-75	912400135802
	5000 K	Clear Flat Lens	White	500-000012-52	912400133739
			Black	500-000012-53	912400133740
		Translucent Dome Lens	White	500-000012-54	912400133741
			Black	500-000012-55	912400133742
		Narrow Beam Lens	White	500-000012-78	912400135805
			Black	500-000012-79	912400135806
	5700 K	Clear Flat Lens	White	500-000012-36	912400130655
			Black	500-000012-37	912400130656
		Translucent Dome Lens	White	500-000012-38	912400130657
			Black	500-000012-39	912400130658
		Narrow Beam Lens	White	500-000012-82	912400135809
			Black	500-000012-83	912400135810
	6500 K	Clear Flat Lens	White	500-000012-44	912400130663
			Black	500-000012-45	912400130664
		Translucent Dome Lens	White	500-000012-46	912400130665
			Black	500-000012-47	912400130666
		Narrow Beam Lens	White	500-000012-86	912400135813
			Black	500-000012-87	912400135814

Use Item Number when ordering in North America.

Power/Data Supplies

Item	Type	Item Number	Philips 12NC
PDS-60ca 24V Power/ Data Supply	Pre-programmed	109-000016-00	910503700095
	DMX/Ethernet	109-000016-04	912400133526
sPDS-60ca 24V Power/ Data Supply	DMX/Ethernet (NA Cord)	109-000021-04	912400133527
	DMX/Ethernet (EU/UK Cord)	109-000021-05	912400133636
sPDS-480ca 24V Power/ Data Supply	Ethernet	109-000026-01	912400133528
CM-150 CA 24V Power/ Data Supply	DMX/Ethernet (4-Wire, DIN Rail Mount)	109-000033-00	912400135766
	DMX/Ethernet (3-Wire, DIN Rail Mount)	109-000033-02	912400135768
	DMX/Ethernet (4-Wire, Surface Mount)	109-000034-00	912400135770
	DMX/Ethernet (3-Wire, Surface Mount)	109-000034-02	912400135772

Use Item Number when ordering in North America.


Accessories

Item	Type	Color	Item Number	Philips 12NC
Leader Cable	7.6 m (25 ft)	Black	108-000045-00	910503700696
	15.2 m (50 ft)	Black	108-000045-01	910503700697
	30.5 m (100 ft)	Black	108-000045-02	910503700698
Mounting Track Qty 1	1.2 m (4 ft) track	White	101-000057-00	910503700044
		Black	101-000057-01	910503700045
Spacers Qty 50	102 mm (4 in) spacers	White	101-000059-00	910503700048
		Black	101-000061-00	910503700052
	305 mm (12 in) spacers	White	101-000059-01	910503700049
		Black	101-000061-01	910503700053
Single-Node Mounts Qty 50		White	101-000058-00	910503700046
		Black	101-000058-01	910503700047

Use Item Number when ordering in North America.

Item	Type	Color	Item Number	Philips 12NC
Marquee Lens Kits Qty 50	Clear Lens	White	999-007997-00	910503702308
		Black	999-007997-01	910503702309
	Semi-Frosted Lens	White	999-007997-04	910503702312
		Black	999-007997-05	910503702313
	Translucent Lens	White	999-007997-02	910503702310
		Black	999-007997-03	910503702311
Glare Shield Kits Qty 50		Black	120-000179-00	912400130036
Accessory Mounting Track Qty 1	1.2 m (4 ft)	White	101-000057-03	910503704266
		Black	101-000057-04	910503704267
Accessory Spacers Qty 50	102 mm (4 in)	White	101-000075-00	910503704272
		Black	101-000075-02	910503704274
	305 mm (12 in)	White	101-000075-01	910503704273
		Black	101-000075-03	910503704275

Use Item Number when ordering in North America.

 Marquee Lens Kits are compatible only with Flat Lens.

✱ *Clean lenses with water and mild detergent using a soft cleaning cloth. Wipe lenses dry. Do not use paper towels, abrasive cleaning products, or window cleaners. Abrasive cleaning products will scratch lenses, and window cleaners will soften and mar the polycarbonate. Do not use cleaning solutions that contain ammonia, sodium hydroxide, or isopropyl alcohol, which can scratch, pit, haze, yellow, or crack lenses.*

✱ *Refer to the eW Flex Compact Installation Instructions for specific warning and caution statements at www.colorkinetics.com/lis/essentialwhite/ewflexcompact/.*

Installation

eW Flex Compact can be used in a wide range of two-dimensional and three-dimensional configurations, including portable video screens and permanent building-covering displays. eW Flex Compact installations are not constrained by luminaire size, shape, or architectural space. For example, eW Flex Compact strands can be wrapped horizontally around the exterior of a 45-story highrise at intervals to transform the façade into a massive three-dimensional video screen that can be viewed from a distance.

Because of their potential complexity, eW Flex Compact installations require up-front planning for configuring, positioning, and mounting the strands. Planning includes understanding how to position strands in relation to power/data supplies and the number of strands each power/data supply can support. Planning for video displays involves additional considerations, such as how to space eW Flex Compact nodes to achieve the desired pixel pitch, minimum and maximum viewing distances, sampling, and display resolution.

All installations involve three main steps:

1. Create a lighting design plan and layout grid
2. Mount strands
3. Address, configure, and test strands

Owner/User Responsibilities

It is the responsibility of the contractor, installer, purchaser, owner, and user to install, maintain, and operate eW Flex Compact strands 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, seal all strand connections, power/data supplies, and junction boxes with electronics-grade RTV silicone sealant so that water or moisture cannot enter or accumulate in wiring compartments, cables, or other electrical parts. Use suitable outdoor-rated junction boxes when installing in wet or damp locations. Additionally, use gaskets, clamps, and other parts required for installation to comply with all applicable local and national codes.

DMX or Ethernet Control?

eW Flex Compact installations can be controlled via either DMX or Ethernet. DMX is appropriate for relatively simple installations, or for installations where all lights operate in unison—for example, for accent, perimeter, or cove lighting applications.

Each node in a strand of eW Flex Compact is identified by a *light number*. A light number corresponds to three sequential DMX addresses. A DMX universe consists of 512 addresses, so the maximum number of light numbers available in a DMX universe is 170 ($170 \times 3 = 510$).

Because it is not subject to the DMX addressing limitations, Ethernet is the preferred environment for dynamic, color-changing light shows and video displays, both of which require large numbers of unique light numbers. In an Ethernet environment, each power/data supply effectively acts as its own universe.

DMX installations require the use of a PDS-60ca 24V, sPDS-60ca 24V, or CM-150 CA power/data supply, while the sPDS-480ca 24V power/data supply is Ethernet-only.

Considerations for Video Displays

In addition to the planning required for all eW Flex Compact installations, planning for video displays involves special considerations such as pixel pitch, minimum and maximum viewing distances, sampling, and display resolution.

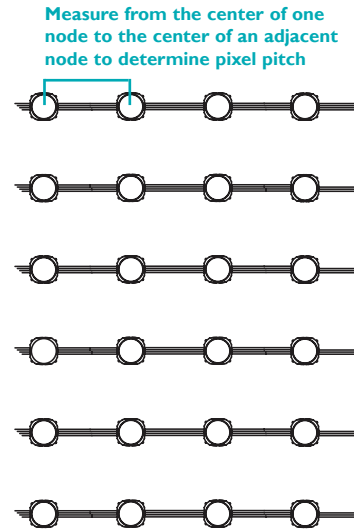
Determining Pixel Pitch and Viewing Distances for Video Displays

When using eW Flex Compact strands to display video, each node acts as a pixel in the display. Images on an LED video display appear to be sharper to the human eye as the distance from the display increases. Likewise, images appear less visible as the distance decreases. The spacing between pixels, known as the *pixel pitch*, determines the minimum and maximum viewing distances for discernible video output. Pixel pitch is measured center-to-center. For an eW Flex Compact strand, you determine pixel pitch by measuring from the center of one node to the center of the next.

Designing a layout with overlapping strands is a common technique for increasing pixel pitch. For example, to create a dense line of nodes, place multiple runs close to each other vertically, with a slight horizontal offset between the nodes. Philips offers eW Flex Compact with both 102 mm (4 in) and 305 mm (12 in) spacing between nodes. Using strands with made-to-order node spacing is another method for adjusting pixel pitch.

The following calculations and examples are general guidelines for determining minimum and maximum viewing distances, based on video displays using grids of evenly spaced pixels:


- To determine minimum viewing distance, multiply pixel pitch by 100 distance units. For example, if the pixel pitch is 76 mm (3 in), the minimum viewing distance is 7.6 m (25 ft).
- To determine the maximum viewing distance for discernible video, multiply the screen height by 20 distance units. For example, if the screen height is 20 m (65.6 ft), then the maximum viewing distance for recognizable video is 400 m (1,312.3 ft).
- LED screens are visible beyond the maximum viewing distance for discernible video. To determine the maximum viewing distance that still creates visual impact, multiply the screen height by 50 units. For example, a screen 20 m (65.6 ft) high will continue to create visual impact at 1,000 m (3,280.8 ft).

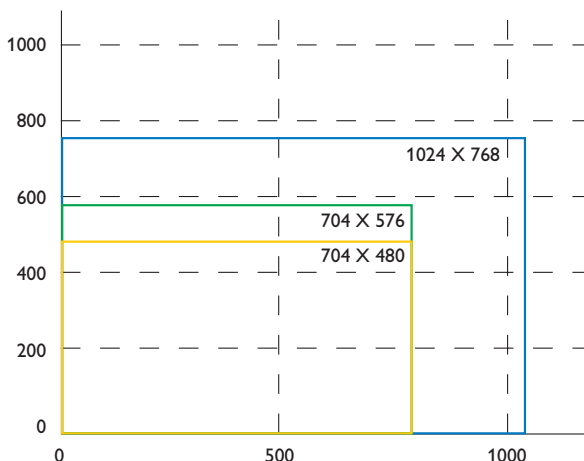


Working with Video Display Resolutions

The resolution of an LED video display equals the total number of vertical and horizontal pixels—the greater the pixel count, the greater the resolution.

- The resolution of VSE digital video is 1024 x 768
- The resolution of PAL video is 704 x 576
- The resolution of NTSC video is 704 x 480

 VSE Pro, or Video System Engine Pro, is the hardware component of Video System Manager Pro, an integrated video controller from Philips Color Kinetics. Visit www.colorkinetics.com/lsl/controllers/vsmprol/ for complete information.



✳ For designs where the acceptable level of discernible video may be more or less demanding, or for help with your specific installation, contact Philips Color Kinetics Application Engineering Services for assistance.

Reproducing a video signal with 1:1 pixel mapping on an LED display requires a substantial pixel count. For example, true NTSC video output requires 337,920 pixels, PAL output requires 405,504 pixels, and digital video output requires 786,432 pixels.

However, you can use a controller such as Philips Video System Manager Pro to reduce the required pixel count for any video format by sampling and distributing pixels from the source video to match your installation.

For example, if you retain the horizontal resolution of a digital video source (1,024 lines wide), but sample every tenth line of pixels vertically (76 lines high, instead of 768 lines), you can retain the correct aspect ratio while exponentially reducing the pixel count. From a distance, even with only 76 lines of vertical output, the human eye can still discern video images because the horizontal resolution is dense.

An installation using 1,024 x 76 nodes would have a pixel count of 77,824 yet still display high-quality digital video output. This method is especially effective when creating an installation that covers a building which, by necessity, already has spacing between lines of video due to windows and other architectural features.

Create a Lighting Design Plan and Layout Grid

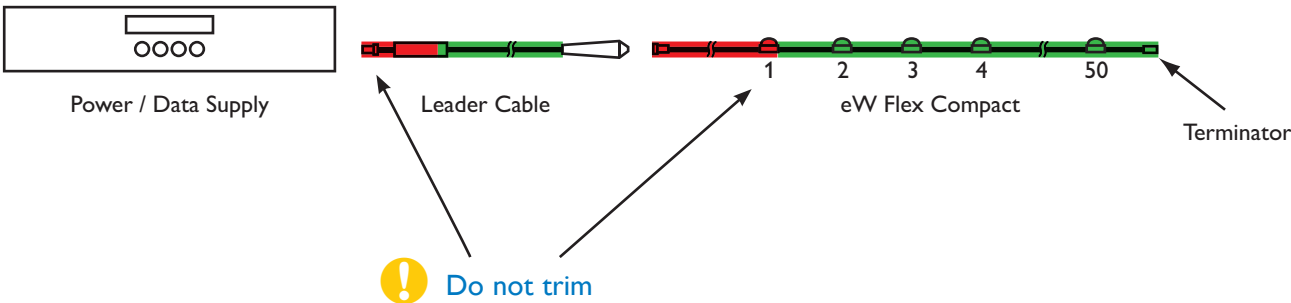
Even for relatively simple installations, it's good practice to create a lighting design plan. For complex installations displaying light shows with dynamic effects, and especially for Ethernet-based video displays, such a plan is essential. A lighting design plan is typically an architectural diagram or other diagram that shows the physical layout of the installation, including the appropriate positioning and spacing of all strands, power/data supplies, power sources, controllers, cables, and other required hardware. For DMX installations, the plan should record the DMX base number and node count for each eW Flex Compact strand. For Ethernet installations, the plan should record the IP address of each power/data supply and the number of nodes per power/data supply port.

✳ Refer to the Installation Instructions or Specification Sheet of your power/data supply for guidelines on configuring and positioning the power/data supply in relation to a controller or Ethernet switch.

Keep the following considerations in mind when creating a lighting design plan and layout grid:

- Determine the appropriate location of each power/data supply in relation to the strands, and of the strands in relation to each other. You connect a strand of eW Flex Compact to an available power/data supply port using a leader cable of 7.6 m (25 ft), 15.2 m (50 ft), or 30.5 m (100 ft).
- eW Flex Compact Leader Cables can be shortened, and strands can be cut to any node length. An extra termination cap is included for sealing the cut end of the strand.

Do not trim the leader cable between the power/data supply connector and the PCA transmitter junction box. Do not trim strands between the connector and the first node.



- On an architectural diagram or other diagram that shows the physical layout of the installation, identify the locations of all switches, controllers, power supplies, and strands.
- Nodes in each strand are sequentially addressed beginning with the node closest to the leader cable. Orientation of the power/data supply is therefore especially critical when using dynamic effects.
- In Ethernet environments, each power/data supply is identified with a unique IP address. We recommend recording the IP address of each power/data supply on a layout grid. For complex installations with many power/data supplies, we recommend assigning meaningful IP addresses to each power/data supply, so their locations are easy to identify.


Start the Installation

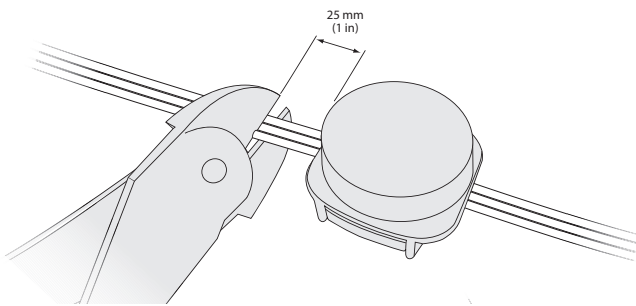
1. Install all power/data supplies, including any interfaces with controllers. Power/data supplies send power and control signals to strands over the leader cable.
2. Verify that all additional supporting equipment (switches, controllers) is in place.
3. Ensure that all additional parts (for example, optional single node mounts, spacers, mounting track, and mounting hardware) and tools are available.

Cut and Seal eW Flex Compact Strands (Optional)


You can cut eW Flex Compact strands to any desired node length. We recommend cutting and sealing the strands before mounting them.

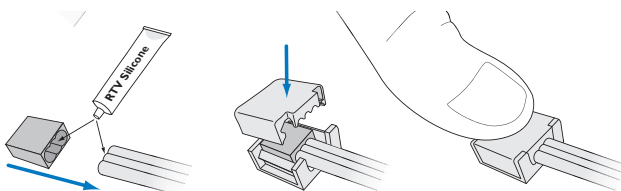
1. Using a wire cutter, cut the cable to the desired length, leaving at least 25 mm (1 in) of cable after the last node. Ensure the cut is clean and there are no frayed wires touching other wires.

 *Never cut a strand between the three-pin connector and the first node.*



2. Apply a liberal amount of electronics-grade RTV silicone sealant to the cable ends and to the opening of the rubber seal boot included with the extra termination cap. Insert the boot onto the cable.
3. Sit the sealed cable boot into the base of the provided termination cap.
4. Firmly press the termination cap onto the base until the top snaps into place. If using pliers, be careful not to crack the housing.

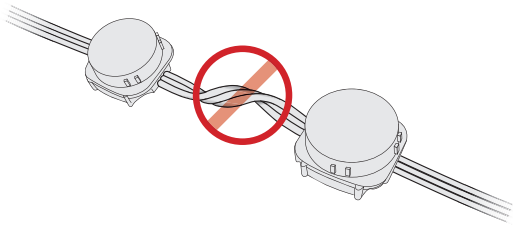
 *Never reuse a termination cap.*



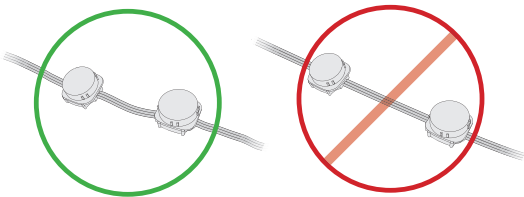
* Optional Marquee Lens and Glare Shield Kits use their own mounting tracks and spacers. Refer to “Mount Strands with Accessories” below for details.

* Single-node mounts are not compatible with marquee lenses or glare shields.

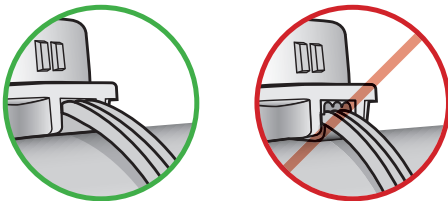
Do not twist or loop cable



Do not overstretch cable



Do not pull cable away from node



Use caution when handling cable in sub-freezing temperatures



Mount eW Flex Compact Strands

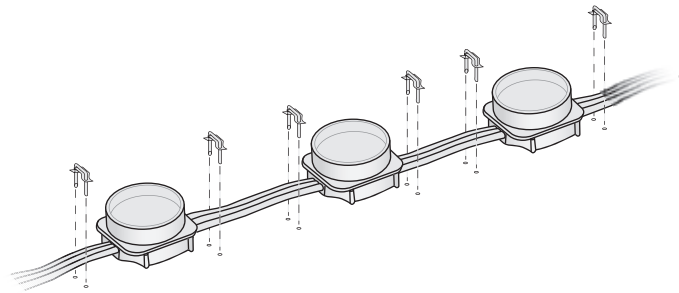
You can mount eW Flex Compact strands directly to a mounting surface, or you can mount them using eW Flex Compact mounting accessories (available separately):

- Mounting tracks ensure straight runs in linear applications. If using strands with standard 4-in or 12-in on-center spacing, you can snap spacers to the mounting tracks for a clean, finished look that hides cables and mounting hardware between nodes.
- Single node mounts can be positioned individually to provide anchor points for nodes in installations with uneven node spacing or complex geometries.

Make sure the power is OFF before mounting and connecting eW Flex Compact strands.

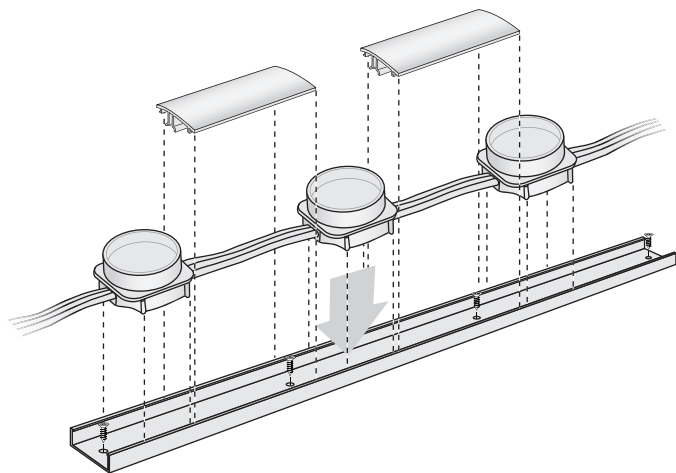
Mounting eW Flex Compact Strands Directly to a Mounting Surface

1. Using a pencil or chalk line, mark a center-line path for the nodes to follow.
2. Fasten eW Flex Compact strands to the mounting surface using a suitable mounting method. For example, you can mount strands to a pipe or cable using plastic cable ties.



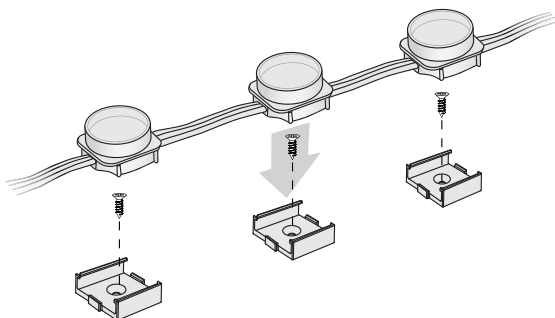
Mounting eW Flex Compact Strands Using Mounting Track

1. Cut mounting track to the desired length with a saw or snips.
2. Using flathead screws suitable for the mounting surface, drive screws through the plastic track into the attaching surface. Recommended maximum spacing between screws is 406 mm (16 in).
3. Snap the eW Flex Compact nodes into the mounting track.
3. If using strands with standard 4-in or 12-in on-center spacing, snap optional spacers into the track to hide mounting hardware and wires.



Mounting eW Flex Compact Strands Using Single-Node Mounts

1. Ensure that the spacing between single node mounts is sufficient to accommodate cable length between nodes and to allow for cable bending as necessary.
2. Using double-sided tape on the base of the mounts, adhere the mounts to the attaching surface. Reinforce installation with #6 flathead screws suitable for the mounting surface.
3. Snap the eW Flex Compact nodes into the mounts.



Mount eW Flex Compact Strands with Accessories (Optional)

Marquee lenses and glare shields clip onto eW Flex Compact strands with flat lenses. Available with clear, semi-frosted, or translucent finishes, marquee lenses create the appearance of bulbs on a traditional theatre marquee. Glare shields block unwanted spill light, and can shield the light sources from being directly visible in certain mounting situations.

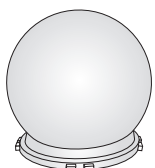
You can mount strands with marquee lenses and glare shields directly to a mounting surface, in front of a substrate, or using optional Accessory Mounting Tracks and Accessory Spacers. Mounting tracks ensure straight runs in linear applications. If using strands with standard 4-in or 12-in on-center spacing, you can snap spacers to the mounting tracks for a clean, finished look that hides cables and mounting hardware between nodes.

Mounting eW Flex Compact Strands with Accessories Directly to a Mounting Surface

1. Using a pencil or chalk line, mark a center-line path for the nodes to follow.
2. Clip a lens or glare shield holder over each eW Flex Compact node.
3. Do one of the following:
 - Screw a marquee lens onto the lens holder. Hand tighten to approximately 1.1 to 1.7 Nm (10 to 15 in-lbs).
 - Align the tabs on the glare shield with the slots in the glare shield holder, and snap the glare shield onto the glare shield holder.

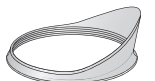
***** You cannot use eW Flex Compact accessories on strands with dome lenses, or when standard mounting tracks or single node mounts. You can install either a marquee lens or glare shield on a node, but not both.

Marquee Lens Kit



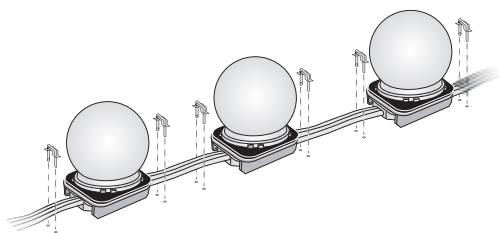
54 mm (2.1 in)
Diameter

Glare Shield Kit



54 mm (2.1 in)
Diameter

3. Fasten assembled eW Flex Compact strands to the mounting surface using a suitable mounting method. For example, you can mount strands to a pipe or cable using plastic cable ties.

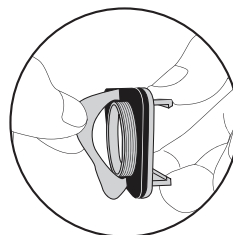


Mounting eW Flex Compact Strands with Accessories in Front of a Substrate

1. Prepare the substrate by cutting openings of the appropriate diameter in the required locations.

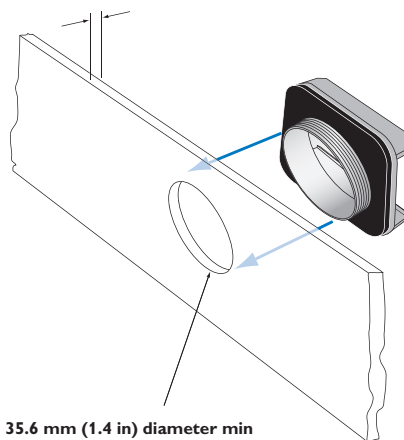
To accommodate the threads on the marquee lens holder or the ridges on the glare shield holder, the recommended substrate thickness is 1.6 mm (0.0625 in), and the maximum thickness is 3.2 mm (0.125 in). We recommend using a 1 3/8 in diameter hole saw to cut openings in the substrate. Openings should be a minimum of 35.6 mm (1.4 in) in diameter, and a maximum of 38 mm (1.5 in) in diameter.

2. Peel the backing from a lens or glare shield holder to expose the adhesive surface.

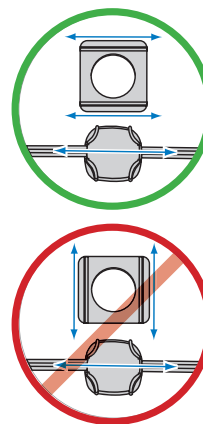


3. Insert the lens or glare shield holder through an opening in the substrate, and temporarily affix the lens holder by pressing the adhesive surface to the back of the substrate. Make sure that the holder is oriented in the direction of the eW Flex Compact strand.

1.6 mm (0.0625 in) recommended
3.2 mm (0.125 in) max

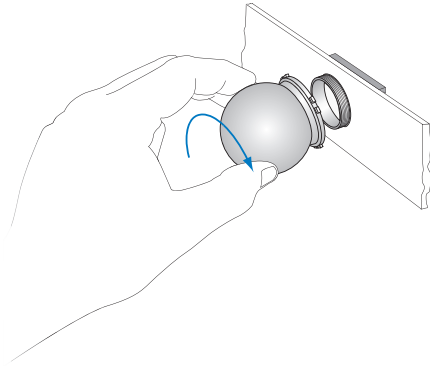


35.6 mm (1.4 in) diameter min
38 mm (1.5 in) diameter max
1 3/8 in diameter hole saw recommended

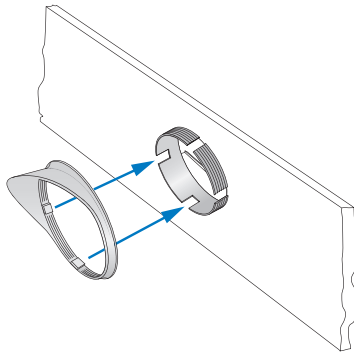


4. Do one of the following:

- Screw a marquee lens onto the lens holder. Hand tighten to approximately 1.1 to 1.7 Nm (10 to 15 in-lbs).

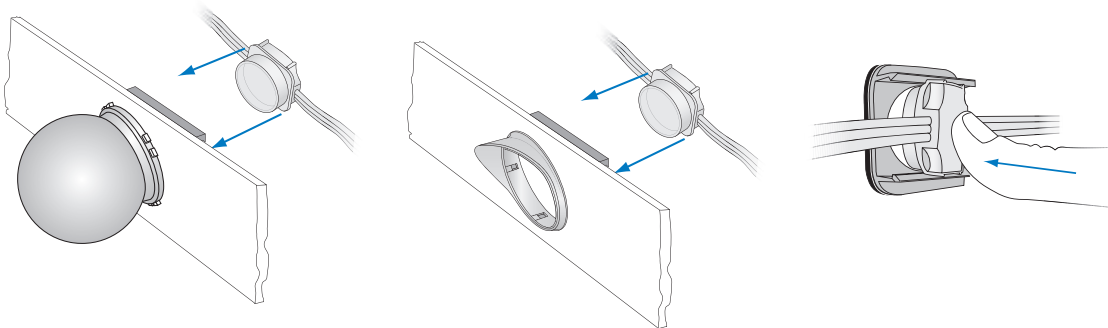


- Align the tabs on the glare shield with the slots in the glare shield holder, and snap the glare shield onto the glare shield holder.



5. Repeat steps 2 – 4 for each opening.

6. Once all accessories are installed on the substrate, mount eW Flex Compact strands by inserting one node into the back of each lens or glare shield holder. Press until the nodes snap firmly into the lens or glare shield holders.



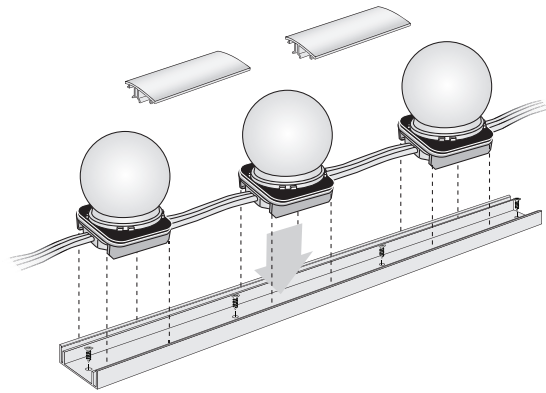
Mounting Marquee Lenses and Glare Shields to Accessory Mounting Track

1. Clip a lens or glare shield holder to each node.

2. Do one of the following:

- Screw a marquee lens onto the lens holder. Hand tighten to approximately 1.1 to 1.7 Nm (10 to 15 in-lbs).

- Align the tabs on the glare shield with the slots in the glare shield holder; and snap the glare shield onto the glare shield holder.
3. Cut the Accessory Mounting Track to the desired length with a saw or snips. Using flathead screws suitable for the mounting surface, drive screws through the plastic track into the attaching surface. Recommended maximum spacing between screws is 406 mm (16 in).
 4. Snap the assembled eW Flex Compact nodes into the mounting track.
 5. If using strands with standard 4-in or 12-in on-center spacing, you can snap optional Accessory Spacers into the track to hide mounting hardware and wires.



Make Power and Data Connections

eW Flex Compact strands are designed to work with 24 VDC power/data supplies from Philips Color Kinetics. Power/data supplies send power and data to eW Flex Compact strands over a leader cable.

PDS-60ca 24V is an IP66-rated power/data supply, suitable for use in damp and wet locations. Although sPDS-480ca 24V and sPDS-60ca 24V are rated for use in dry locations only, you can install them in watertight enclosures for outdoor applications.

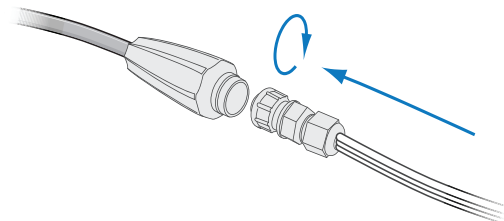
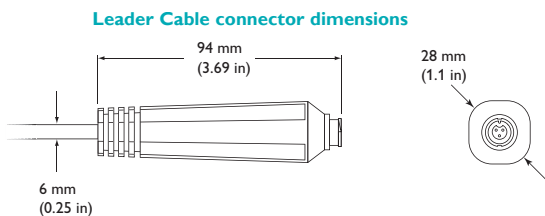
Make sure the power is OFF before connecting eW Flex Compact strands.

Connecting eW Flex Compact Leader Cables

Connect a leader cable to the three-pin connector on the end of each eW Flex Compact strand by turning the strand's grommet clockwise. In wet or damp environments, tighten the grommet on the male connector sufficiently to ensure a watertight seal.

Maximum strands per power/data supply

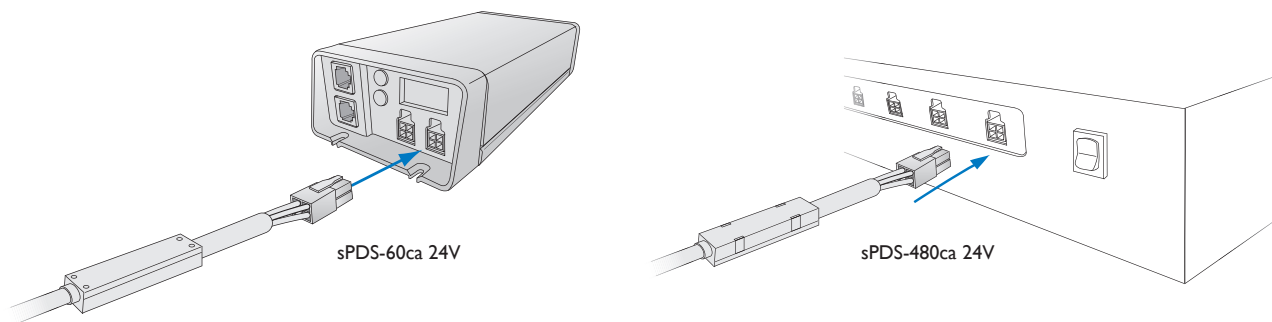
PDS-60ca 24V	1
sPDS-60ca 24V	1
sPDS-480ca 24V	8
CM-150 CA 24V	1



Connecting to the sPDS-60ca 24V and sPDS-480ca 24V Power/Data Supplies

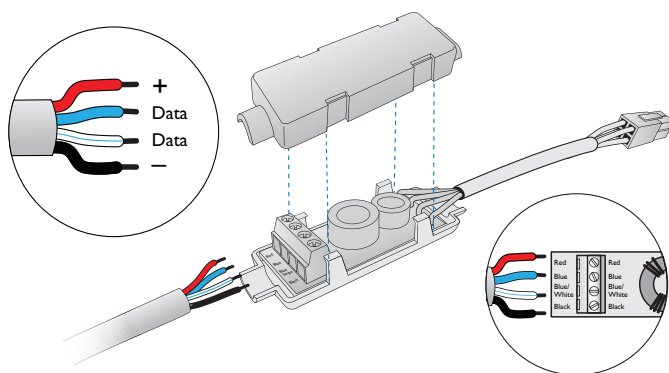
Connect each leader cable to an available power port on the back of a power/data supply housing.

Connecting to the PDS-60ca 24V Power/Data Supply

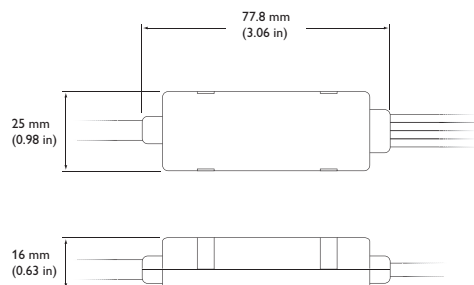


The PDS-60ca 24V is an IP66-rated power/data supply, suitable for use in damp and wet locations. The following procedure describes how to connect and seal a PDS-60ca 24V power/data supply for outdoor applications.

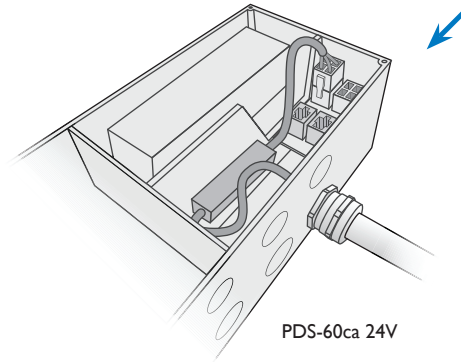
1. Remove the power/data supply cover.
2. Remove the cover of the transmitter PCA junction box by expanding the four tabs on the side and sliding the cover from the base.
3. Connect line, common, ground, and data to the provided terminal block, then replace the cover of the transmitter PCA junction box.
4. Connect the leader cable connector to an available port inside the power/data supply housing.



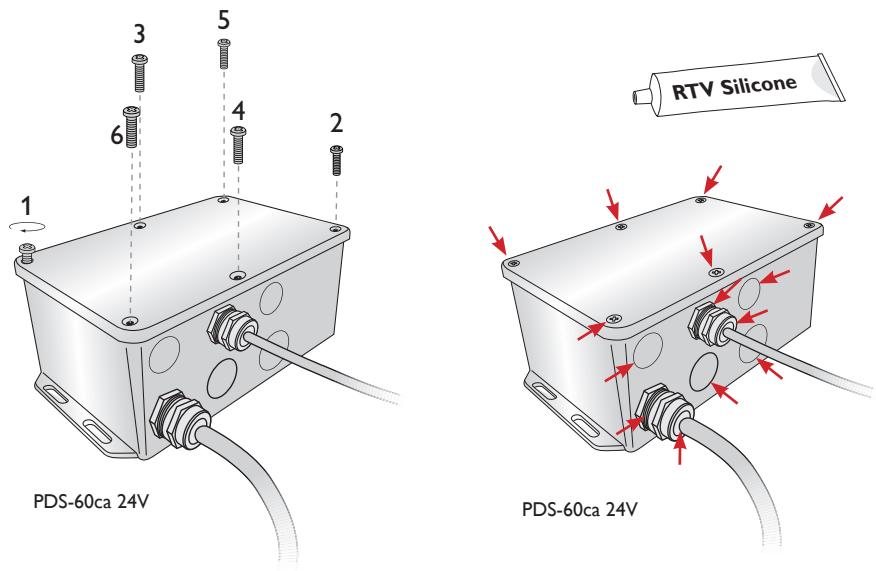
Transmitter PCA junction box dimensions



5. Secure the power/data supply cover. If installing in a wet or damp location, seal the power/data supply with electronics-grade RTV silicone sealant.



6. Repeat steps 1 – 5 for each power/data supply in the installation.



Address and Configure the Strands

Make sure the power is ON before addressing and configuring strands.

Power/data supplies and controllers work together to stream data to the eW Flex Compact strands in your installation.

- Each individual eW Flex Compact node is assigned three sequential DMX addresses. The first channel illuminates half the LEDs on the node, and the second channel illuminates the remaining LEDs on the node. The third channel is not used. A DMX universe consists of 512 addresses, so the maximum number of eW Flex Compact nodes that can be individually addressed in a DMX universe is 170 ($170 \times 3 = 510$).

When using an sPDS-60ca 24V power/data supply with DMX control, you program the power/data supply rather than addressing the eW Flex Compact strands directly. You use SmartJack Pro (or iPlayer 3) with QuickPlay Pro addressing software to set a base DMX address for the power/data supply, and to specify the node quantity of each attached eW Flex Compact strand.

* You can download the QuickPlay Pro software and the Addressing and Configuration Guide from www.colorkinetics.com/support/addressing/.

For lighting designs where nodes work in unison, all nodes should be set to the same DMX addresses. For dynamic light show designs that show different colors on different nodes simultaneously, you must assign unique DMX addresses to each node. Starting with its base DMX address, PDS-60ca automatically assigns addresses to each eW Flex Compact node in sequence, from the first node on output port 1 through the last node on output port 2.

- Because you are limited to 170 uniquely addressed nodes per DMX universe (less than four strands of 50 nodes each), Ethernet is the preferred environment for video displays and dynamic light shows with intricate effects.

Each Ethernet-based power/data supply comes pre-programmed with a unique IP address, so the power/data supply effectively functions as its own universe. When creating a light map with a controller or media server such as Light System Manager or Video System Manager Pro, each eW Flex Compact node automatically receives a unique identifier.

You can discover all power/data supplies by IP address using QuickPlay Pro, Light System Manager, or Video System Manager Pro. For large installations, and especially for video displays, we recommend giving power/data supplies meaningful IP addresses to streamline installation, mapping, testing, and troubleshooting. When readdressing power/data supplies, you will need the layout grid you created when you recorded each power/data supply's IP address during installation planning.

For complete details on addressing and configuring strands, controllers, and power/data supplies, refer to the *Addressing and Configuration Guide* at www.colorkinetics.com/support/addressing/, or the User Guide or Specification Sheet for your controller or power/data supply.

