

Outdoor UltraBright™ Outline Series LED Strip Light

 **PRECAUTION:** Please read all instructions carefully before installation.

Our Outdoor (IP65) UltraBright™ Outline Series offers full-range dimming and long run lengths, all while ensuring colors stay accurate outside. Its easy-to-clean silicone cover protects it against dust and low-pressure water jets. Available in various shades of warm white, its gentle glow is perfect for decorating bathrooms and indoor kitchens or boosting the outdoor mood of homes and businesses.



15 Year
Warranty



**TITLE
24**
REQUIREMENTS



Title 24 is regulated for lamps with color temperatures 4000K and below.

Product Features

Voltage	24V DC
Wattage	1.5 W/ft (4.8 W/m)
Brightness	Up to 132 lm/ft (434 lm/m)
Efficacy	Up to 84 lm/W
CRI	High CRI of up to 97
R9 and R13 Values	High R9 (99) and R13 (97)
Number of LEDs	37 LEDs/ft (120 LEDs/m)
Beam Angle	120°
LED Pitch	5/16" (8 mm)
Strip Width	1/2" (12 mm)
Cutting Points	2" (50 mm)
Max Run Length in Series	82 ft (25 m)
PCB	4 oz Copper
LED Size	2216
Adhesive Type	3M LSE 9495
Ambient Temperature	-4°F to 113°F (-20°C to 45°C)
Operating Temperature	-4°F to 149°F (-20°C to 65°C)
Dimmable	Yes
IP Rating	IP65: Outdoor, Wet Location

*To be in compliance with Class 2 and our UL Listing, the maximum run length of this strip may not exceed 26 ft (8 m). However, in terms of sheer voltage drop and reduction in brightness, the strip can be run 82 ft (25 m), which would be outside the parameters of our UL certification.

Ordering Code

IP Protection

Brand

-

Series

-

CCT

-

Voltage

-

Length

IP65

UB

OL

24V

UltraBright™

Outline Series

27K97C: 2700K/CRI 97+
30K97C: 3000K/CRI 97+
35K97C: 3500K/CRI 97+
40K95C: 4000K/CRI 95+
50K95C: 5000K/CRI 95+

16FT
32FT

Example: IP65-UB-OL-27K97C-24V-16FT

Dimensions



Included Accessories:

x1

36 mm
12 mm
8 mm

Weatherproof
C1 Connector (Female)

x1

36 mm
17 mm
9 mm

Weatherproof
C1 Connector (Male)

x10

Mounting
Bracket
W: 6 mm L: 30 mm

x2

End Cap
W: 14 mm L: 6 mm

x2

End Cap
with holes
W: 14 mm L: 6 mm

Product Specifications

Product SKU	Color* (CCT)	Watts/Foot (Meter)	Lumens/Foot (Meter)	Luminous Efficacy (Lumens/Watt)	CRI	Gamut Score (Rg)	Relative Fidelity Score (Rf)
IP65-UB-OL-27K97C	2700K	1.5 W/ft (4.8 W/m)	123 lm/ft (402 lm/m)	78	97	105	95
IP65-UB-OL-30K97C	3000K	1.5 W/ft (4.8 W/m)	122 lm/ft (399 lm/m)	83	97	103	96
IP65-UB-OL-35K97C	3500K	1.5 W/ft (4.8 W/m)	129 lm/ft (423 lm/m)	83	97	103	96
IP65-UB-OL-40K95C	4000K	1.5 W/ft (4.8 W/m)	130 lm/ft (427 lm/m)	85	97	103	96
IP65-UB-OL-50K95C	5000K	1.5 W/ft (4.8 W/m)	132 lm/ft (434 lm/m)	86	96	103	96

*CCT may be +/-100K but always ordered from same bin and will present no noticeable differences perceived by the human eye.

Complete Your Setup



✓ Drivers



✓ Controllers & Dimmers



✓ Connectors



✓ Extrusions

Compatible Drivers (24V)

Non-dimmable

Power Supply	Diagram	LED Strip Length	Product SKU	Watts	Class 2
Plug-In Power Supply Plug-and-Play Power Supply		1 - 12 ft	24V-WMPS2-1	24W	X
		13 - 51 ft	24V-DPS2-4	96W	X
Mean Well™ HLG Hardwired Power Supply		1 - 36 ft	HLG-60H-24A	60 W	X
		37 - 57 ft	HLG-100H-24A	96 W	X
		58 - 111 ft	HLG-185H-24A	185 W	
		112 - 192 ft	HLG-320H-24A	320 W	
		193 - 360 ft	HLG-600H-24A	600 W	
Mean Well™ LPV Hardwired Power Supply		1 - 34 ft	LPV-60-24	60W	X

Dimmable

Power Supply	Diagram	LED Strip Length	Product SKU	Watts	Class 2
Zurik® EMLV Hardwired Power Supply		1 - 18 ft	ZRK-EMLV2-30W-24VDC	30W	X
		19 - 36 ft	ZRK-EMLV2-60W-24VDC	60W	X
Zurik® Universal Hardwired Power Supply		1 - 18 ft	ZRK-UNV-30W-24VDC	30 W	X
		19 - 36 ft	ZRK-UNV-60W-24VDC	60 W	X
		37 - 57 ft	ZRK-UNV-96W-24VDC	96 W	X
		58 - 72 ft	ZRK-UNV-120W-24VDC	120 W	
		73 - 120 ft	ZRK-UNV-200W-24VDC	200 W	
		121 - 180 ft	ZRK-UNV-300W-24VDC	300 W	
		1 - 228 ft (57ft/output)	ZRK-UNV-C384W-24VDC	384W	X
Lutron® Hi-Lume™ Premier Hardwired Power Supply		1 - 57 ft	L3D0-96W24V-U	96W	X
		Dimming Range: 0.1-100%			

Compatible Controllers & Dimmers



Handheld Remotes



Wall Dimmers



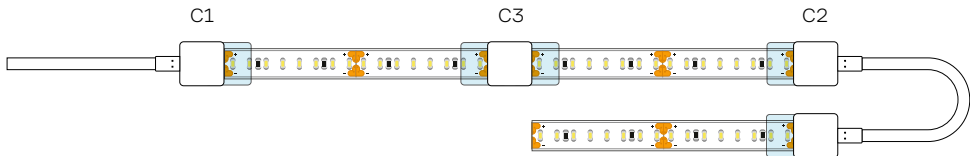
Smart Home Controllers

[See Controllers and Dimmers](#)

Compatible Strip Light Connectors

Product SKU	Diagram	Description	Wire Gauge	Amperage Limit*
IP65-GRIP-SC-C1-10-40		Outdoor connector with 40" of wire to attach the strip to a power supply or low voltage control.	20 AWG	5 Amps
IP65-GRIP-SC-C2-10-08		Jumper connector with 8" of wire to attach two sections of strip together. Wire allows to go around tight corners.	20 AWG	
IP65-GRIP-SC-C3-10-0		Jumper connector with no wire to attach sections of strip together in a continuous run	-	

*Make sure no more than 5 amps are drawn after any solderless connector. Calculate max length of strip light to follow the solderless connector based on an amperage draw of 0.06 A/ft (0.2 A/m) at 24 volts



Strip Light Connectors Installation

1.

Cut the LED strip light and the silicone sleeve at the cutting point where you want to install the connector.
2.

Match positive (+) to positive and negative (-) to negative, then peel off 2" of the 3M adhesive (both the tape and release paper) from the LED strip.
3.

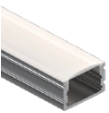
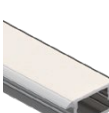
Fill the inside of the silicone sleeve generously with silicone sealant to ensure a complete seal.
4.

Slide the clear case of your outdoor connector into the sleeve, with the window facing up, until the strip makes proper contact.
5.

Insert the metal contacts through the window of the clear case. Use pliers to push and adjust them until you hear a click. Finally, let the sealant cure according to the manufacturer's instructions.

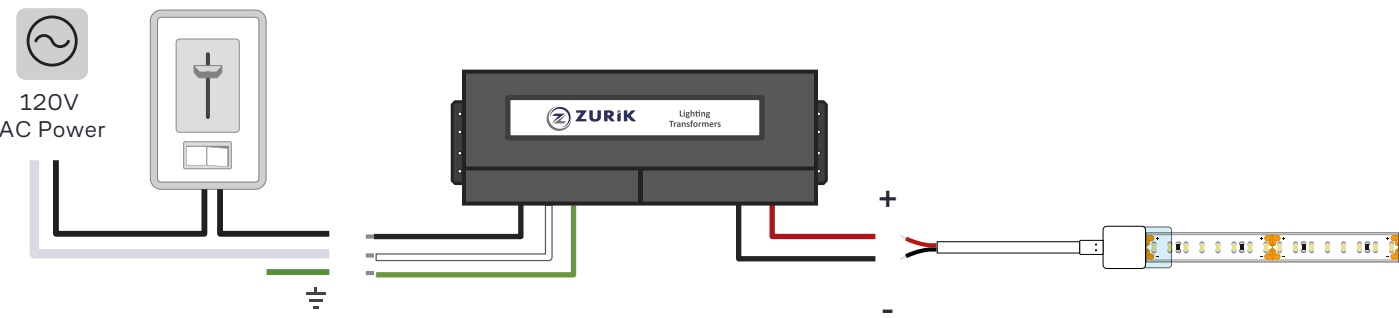
NOTE: Soldering is the preferred method. If you need further assistance, please download our Solderless Connector Installation Guide from our website.

Compatible Aluminum Channel Kits

Diagram	Name	Type	Channel Kit Description	Kit SKU	Included Accessories
	Ion™	 Surface Mount	1 Meter Ion Channe	ION-CH-A-1M	-
	Gemini™	 Surface Mount	1 Meter Channel + Clear Cover Kit	GEM-CH-A-CVR-C-1M	2 Open End Caps 2 Closed End Caps 4 Mounting Clips
			2 Meter Channel + Clear Cover Kit	GEM-CH-A-CVR-C-2M	
			1 Meter Channel + Frosted Cover Kit	GEM-CH-A-CVR-F-1M	
			2 Meter Channel + Frosted Cover Kit	GEM-CH-A-CVR-F-2M	
			1 Meter Channel + Matte Cover Kit	GEM-CH-A-CVR-M-1M	
			2 Meter Channel + Matte Cover Kit	GEM-CH-A-CVR-M-2M	
			Note: Compatible only without connectors.		
	Kepler™	 Surface Mount	1 Meter Channel + Clear Cover Kit	KEP-CH-A-CVR-C-1M	2 Open End Caps 2 Closed End Caps 4 Mounting Clips
			1 Meter Channel + Frosted Cover Kit	KEP-CH-A-CVR-F-1M	
			1 Meter Channel + Matte Cover Kit	KEP-CH-A-CVR-M-1M	
			Note: Compatible only without connectors.		
	Laika™	 Surface Mount	1 Meter Channel + Clear Cover Kit	LAI-CH-A-CVR-C-1M	2 Open End Caps 2 Closed End Caps 4 Mounting Clips
			1 Meter Channel + Frosted Cover Kit	LAI-CH-A-CVR-F-1M	
			2 Meter Channel + Frosted Cover Kit	LAI-CH-A-CVR-F-2M	
			Note: Compatible only without connectors.		
	Titan™	 Surface Mount	1 Meter Channel + Clear Cover Kit	TTN-CH-A-CVR-C-1M	2 Open End Caps 2 Closed End Caps 4 Mounting Clips
			1 Meter Channel + Frosted Cover Kit	TTN-CH-A-CVR-F-1M	
			2 Meter Channel + Frosted Cover Kit	TTN-CH-A-CVR-F-2M	
			1 Meter Channel + Matte Cover Kit	TTN-CH-A-CVR-M-1M	
			2 Meter Channel + Matte Cover Kit	TTN-CH-A-CVR-M-2M	6 Channel Connectors
			1 Meter Channel + 10 Meter Frosted Cover Kit	TTN-CH-A-CVR-F-10MR	10 Open End Caps 10 Closed End Caps 20 Mounting Clips 30 Channel Connectors
			1 Meter Channel + 10 Meter Matte Cover Kit	TTN-CH-A-CVR-M-10MR	
			1 Pendant Kit	TTN-PND-KIT	2 Pendant Mounts with Screws
	Atlas™	 Angled Surface Mount	1 Meter Channel + Clear Cover Kit	ATL-CH-A-CVR-C-1M	2 Open End Caps 2 Closed End Caps 4 Mounting Clips
			1 Meter Channel + Frosted Cover Kit	ATL-CH-A-CVR-F-1M	
			2 Meter Channel + Frosted Cover Kit	ATL-CH-A-CVR-F-2M	
			1 Meter Channel + Matte Cover Kit	ATL-CH-A-CVR-M-1M	
			2 Meter Channel + Matte Cover Kit	ATL-CH-A-CVR-M-2M	
			Note: Compatible only without connectors.		
	Calypso™	 Recessed	1 Meter Channel + Frosted Cover Kit	CAL-CH-A-CVR-F-1M	2 Open End Caps 2 Closed End Caps 4 Mounting Clips
			2 Meter Channel + Frosted Cover Kit	CAL-CH-A-CVR-F-2M	
			1 Meter Channel + Matte Cover Kit	CAL-CH-A-CVR-M-1M	
			2 Meter Channel + Matte Cover Kit	CAL-CH-A-CVR-M-2M	
			1 Meter Channel + 10 Meter Frosted Cover Kit	CAL-CH-A-CVR-F-10MR	10 Open End Caps 10 Closed End Caps 20 Mounting Clips 30 Channel Connectors
			1 Meter Channel + 10 Meter Matte Cover Kit	CAL-CH-A-CVR-M-10MR	
	Cassini™	 Recessed	1 Meter Channel + Clear Cover Kit	CAS-CH-A-CVR-C-1M	2 Open End Caps 2 Closed End Caps 4 Mounting Clips
			1 Meter Channel + Frosted Cover Kit	CAS-CH-A-CVR-F-1M	
			2 Meter Channel + Frosted Cover Kit	CAS-CH-A-CVR-F-2M	
			1 Meter Channel + Matte Cover Kit	CAS-CH-A-CVR-M-1M	
			2 Meter Channel + Matte Cover Kit	CAS-CH-A-CVR-M-2M	
			Note: Compatible only without connectors.		

Wiring Diagrams

120V Wall Dimmer



Input		
● Green	⏏	Ground Wire
● Black	L	Line (hot)
○ White	N	Neutral

Output		
● Red	+	Positive
● Black	-	Negative

In-Line Dimming



Input		
● Green/Yellow	⏏	Ground Wire
● Brown	L	Line (hot)
● Blue	N	Neutral

Output		
● Red	+	Positive
● Black	-	Negative

Safety And Disclosures

- 01.** Installation must comply with local and national electrical codes. A qualified, licensed electrician should install your strips for safety and proper installation.
- 02.** To meet UL requirements, only install with a Class 2 DC Constant Voltage LED driver.
- 03.** Do not install in an environment where excessive heat may exist.
- 04.** LED strip lights must be handled with care. Excessive handling, bending, and pressure may damage the product, voiding the warranty.
- 05.** Do not secure this product with any kind of staples, nails, or materials that could potentially damage the product in any way. Keep these instructions for future reference.
- 06.** Do not cover this product with any kind of combustible material such as paper, fabrics, etc.
- 07.** Do not install with the majority of the product being unsupported. Allowing the product to be suspended or dangling while installing may cause damage to the PCB due to the weight of the strip.
- 08.** Do not install within 5 feet of a swimming pool or spa.
- 09.** Unless otherwise stated as appropriate, do not use the product in direct sunlight or close to caustic substances such as saltwater, chlorine, bromine, etc.
- 10.** Each maximum run requires a dedicated power feed from the driver. Do not extend beyond the recommended maximum run length.
- 11.** Make sure the appropriate gauge wire is installed between the driver, LEDs, and any dimmers. When choosing wire, calculate voltage drop, maximum amperage rating, and the location ratings on the wire. Improper wire selection and installation could overheat the wires and cause a fire.
- 12.** Do not modify the product beyond the instructions, or the warranty will be void.
- 13.** We reserve the right to modify and improve the design of our fixtures without prior notice. Although we try our best to order the same colors every time, we cannot guarantee that existing installed fixtures will match subsequent orders or replacements regarding product appearance, CCT, or lumen output due to changes in technology and phosphors over time.

Warranty Information

Limited Warranty

This product has a 15 year limited warranty from the date of shipment. This warranty only includes the main product outlined in this specification sheet and does not include the additional accessories that are used as a reference. Complete warranty details for fixtures and additional accessories are available at <https://www.flexfireleds.com/warranties/> within the Policies section. For warranty related questions please contact the product support team at support@flexfireleds.com.

Consumer's Acknowledgment

Flexfire LEDs, Inc. stands behind its products when they are used properly and according to our specifications. When you purchase our products, you are agreeing to the terms and conditions outlined in our warranty section. We try our best to make recommendations, but the burden of proper installation, design, and maintenance relies on the purchaser. This limited warranty does not include product failures that are the result of: Not using a voltage regulated power supply to connect the LED product or controls; Connecting LED products to the wrong output voltage; Improper connection of power supplies, LED products, or controls; Connecting LED products or controls directly to any AC power source if they are stated for DC only input; Connecting power supplies backwards to an AC power source; Products used in an inappropriate location or in environmental conditions (temperature, humidity, moisture, etc.) outside the normal specified range; Water damage to products not specifically sold as waterproof products; Electrical power surges and spikes; Damage from hail, flooding, tornado, fire, wind, earthquake, lightning, electrical storm, or any other natural disasters or "force majeure" incidences; Damage caused by a vehicle or other accident; Damage caused when transporting the item; Damage to any products that were modified by the user, used for purposes other than as intended or directed, or connected to LED systems or components not purchased from Flexfire LEDs; Products that have been subjected to misuse, mishandling, misapplication or accident. Products used in connection with any components, devices or systems other than those explicitly approved as compatible with Company's products and listed on Company's website. Excessive wear and tear and/or physical or accidental abuse, loss, or theft. Improper repairs or warranty services performed by someone other than Flexfire LEDs will void this warranty.



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