




UltraBright™
**Outline Series
LED Strip Light**

Product Data Sheet

 Please read all instructions carefully before installation.

Description

Less is more with our UltraBright™ Outline Series. We carefully designed these strips for people who need a lower output strip that will guarantee an elegant, subtle glow with remarkable color accuracy. Longer run lengths also gives you liberated, uninterrupted design as you get creative with larger projects. From embellishing charming coves to outlining industrial spaces, the Outline™ Series is both versatile and specific.

15 Year
Warranty



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

Product Features

CRI	High CRI of up to 97
R9 and R13 Values	High R9 (99) and R13 (97)
Lumens	Up to 132 lm/ft (434 lm/m)
Efficacy	Up to 84 lm/W
Voltage	24V DC Input
LEDs/Foot	37 LEDs/ft (120/m)
Beam Angle	120° Beam Angle
Ambient Temp	-4°F to 113°F (-20°C to 45°C)
PCB	4 oz copper PCB
LED Pitch	5/16" (8 mm)
Strip Width	3/8" (10 mm)
Cutting Points	2" (50 mm)
Max Run Length in Series	82 ft (25 m)
LED Size	2216
Adhesive Type	3M VHB 4930 tape (IP20)
Dimmable	Yes

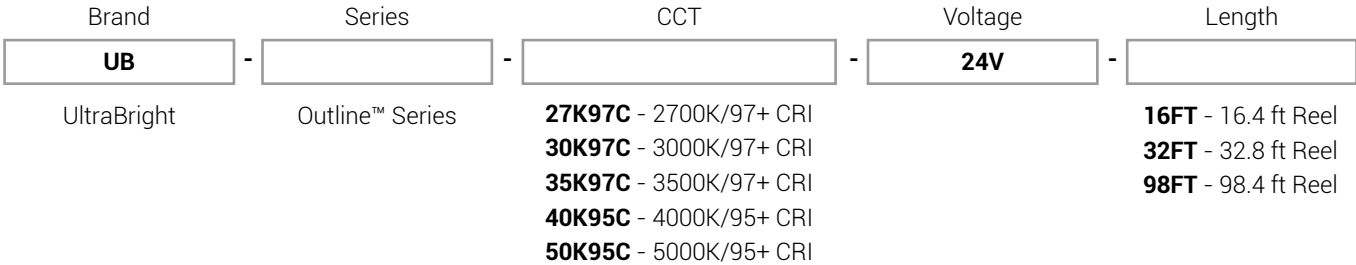


Product Specifications

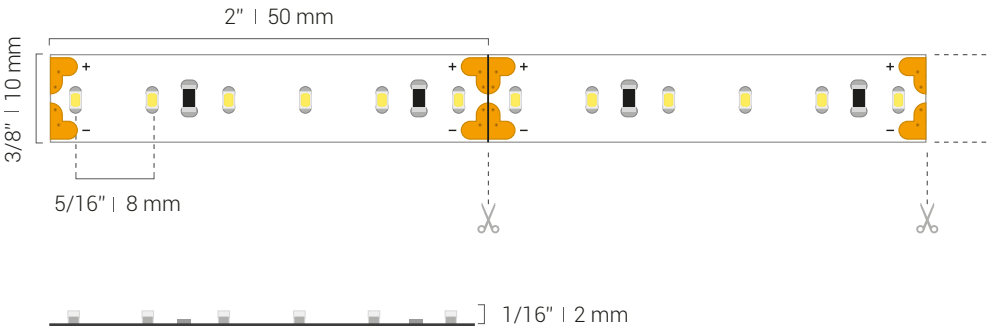
Product SKU	Color* (CCT)	Watts / Foot (Meter)	Lumen / Foot (Meter)	Luminous Efficacy (Lumens / Watt)	CRI	Gamut Score Rg (Color Sat.)	Relative Fidelity Score (RF)	TLCI (Oa)	CQS
UB-OL-27K97C	2700K	1.5 W/ft (4.8 W/m)	123 lm/ft (402 lm/m)	78	97	105	95	95	96
UB-OL-30K97C	3000K	1.5 W/ft (4.8 W/m)	122 lm/ft (399 lm/m)	83	97	103	96	98	97
UB-OL-35K97C	3500K	1.5 W/ft (4.8 W/m)	129 lm/ft (423 lm/m)	83	97	103	96	98	98
UB-OL-40K95C	4000K	1.5 W/ft (4.8 W/m)	130 lm/ft (427 lm/m)	85	97	103	96	98	98
UB-OL-50K95C	5000K	1.5 W/ft (4.8 W/m)	132 lm/ft (434 lm/m)	86	96	103	96	99	98

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

Ordering Code

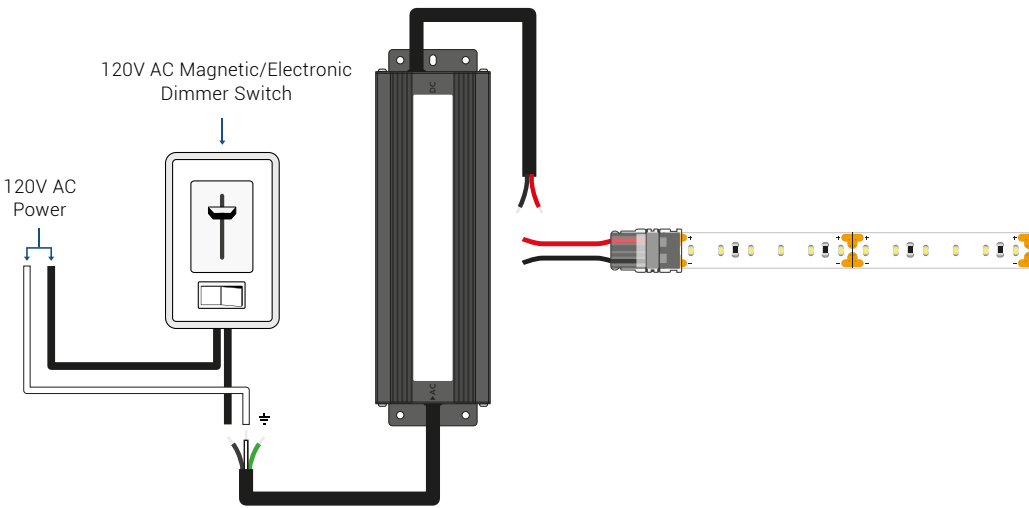


Dimensions



Dimming Options

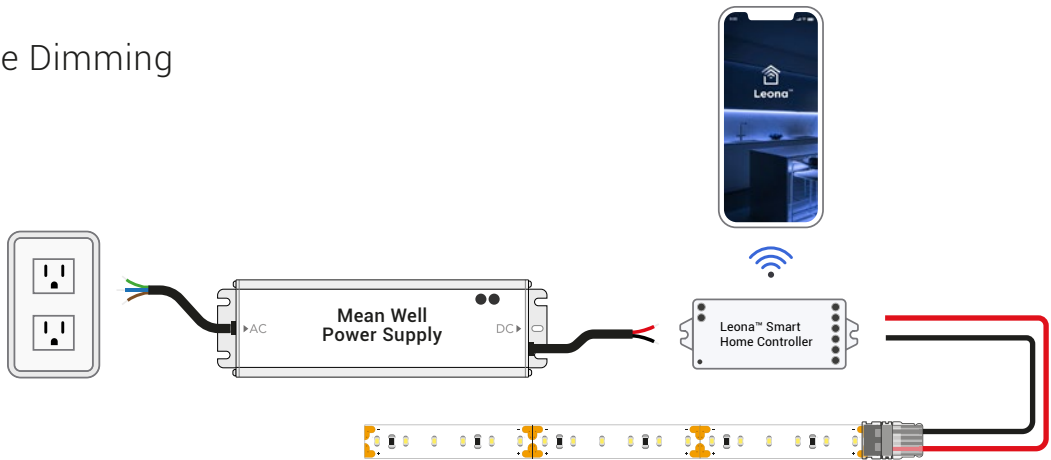
Lutron Style Wall Dimmer







Input		
Color	Symbol	Type
Green		Ground Wire
Black	L	Line (hot)
White	N	Neutral

Output		
Color	Symbol	Type
Black	-	Negative
Red	+	Positive

In-Line Dimming



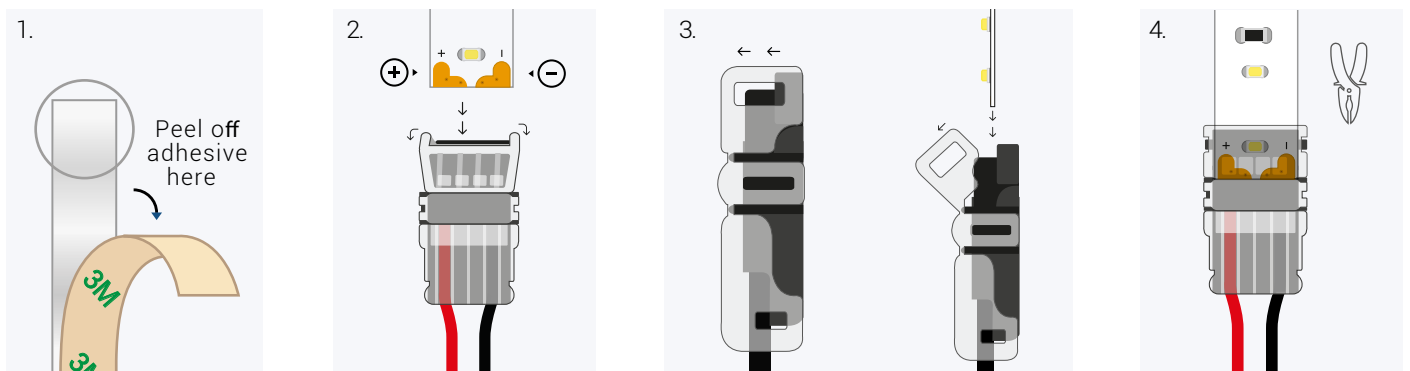
Strip Light Connectors

SKU	Description	Wire Gauge	Amperage** Limit	Diagram
GRIP-SC-C1-10-0*	Attaches LED strip directly to a Power Supply/Driver, low voltage control or DC source.	22 AWG	5 Amps	
GRIP-SC-C1-10-12* GRIP-SC-C1-10-36*	Attaches LED strip directly to a Power Supply/Driver, low voltage control or DC source.	22 AWG		
GRIP-SC-C2-10-06*	Attaches two sections of LED strip together. Wire lead allows for turns around tight corners.	22 AWG		
GRIP-SC-C3-10-0*	Attaches two sections of LED strip together in a continuous run.	-		

*Calculate max length of LED strip to follow the solderless connector based on an amperage draw of 0.060 A/ft (0.20 A/m) at 24 volts.

**Be sure no more than 5 amps is drawn after any solderless connector.

Solderless Connection Guide



1. Remove 1/4" of 3M adhesive tape on the back from the end of the strip that you want to connect. It must be removed to allow it to fit properly with the solderless connector. (See Diagram 1)

2. Double check the polarity of the strip to match the positive (+) markings together and negative (-) markings together. If you accidentally close the connector before you're ready, you can use a small flathead screwdriver to pry the top back open. (See Diagram 2)

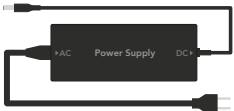





3. Open the top of the grip connector and insert the LED strip inside. Make sure the LED strip is facing up towards the translucent top and the solder pads are directly above the small hooks on the connector. (See Diagram 3)

4. Once everything is in order, use pliers to close and lock the connector. You'll hear a "click" sound when it is properly closed. (See Diagram 4)

NOTE:

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

Compatible Drivers

	Power Supply	LED Strip Length	Product SKU	Diagram	
Non-dimmable	Plug-In Power Supply	1 - 12 ft	24V-WMPS2-1		
		13 - 32 ft	24V-DPS2-2.5		
		33 - 51 ft	24V-DPS2-4		
		52 - 64 ft	24V-DPS2-5		
	Mean Well™ HLG		1 - 24 ft	HLG-40H-24A	
			25 - 36 ft	HLG-60H-24A	
			37 - 60 ft	HLG-100H-24A	
			61 - 72 ft	HLG-120H-24A	
			73 - 111 ft	HLG-185H-24A	
			112 - 144 ft	HLG-240H-24A	
		145 - 192 ft	HLG-320H-24A		
	193 - 360 ft	HLG-600H-24A			
Mean Well™ LPV		1 - 12 ft	LPV-20-24		
		13 - 21 ft	LPV-35-24		
		22 - 36 ft	LPV-60-24		
Dimmable	Zurik® EMLV	1 - 18 ft	ZRK-EMLV2-30W-24VDC		
		19 - 36 ft	ZRK-EMLV2-60W-24VDC		
		37 - 57 ft	ZRK-EMLV2-96W-24VDC-J		
		58 - 72 ft	ZRK-EMLV2-120W-24VDC-J		
		73 - 120 ft	ZRK-EMLV2-200W-24VDC-J		
		121 - 180 ft	ZRK-EMLV2-300W-24VDC-J		
	Zurik® Universal		1 - 31 ft	ZRK-UNV-60W-24VDC	
			32 - 51 ft	ZRK-UNV-96W-24VDC	
			52 - 63 ft	ZRK-UNV-120W-24VDC	
			64 - 110 ft	ZRK-UNV-200W-24VDC	
		111 - 172 ft	ZRK-UNV-300W-24VDC		
	Lutron® Hi-Lume™ Premier	1 - 60 ft	L3D0-96W24V-U		
	0.1% Constant Voltage Driver	Dimming Range: 0.1-100%	Description: Hi-Lume Premier 0.1% EcoSystem 24V constant voltage LED driver with Soft-on, Fade-to-Black dimming technology		

Compatible Aluminum Extrusions

Name	Type	Included Accessories	Covers	Kit SKU	Mockup
Ion™	Surface Mount	-	-	ION-CH-A-1M	
Gemini™	Surface Mount	2 Open End Caps 2 Closed End Caps 4 Metal Mounting Clips	Clear Cover, 1 m (3' 3/8") Frosted Cover, 1 m (3' 3/8") Matte Cover, 1 m (3' 3/8")	GEM-CH-A-CVR-C-1M GEM-CH-A-CVR-F-1M GEM-CH-A-CVR-M-1M	
Nova™	Surface Mount	2 Open End Caps 2 Closed End Caps 4 Metal Mounting Clips	Clear Round Cover, 1 m (3' 3/8") Clear Square, 1 m (3' 3/8") Matte Round Cover, 1 m (3' 3/8") Matte Square Cover, 1 m (3' 3/8")	NOV-CH-A-CVR-C-RD-1M NOV-CH-A-CVR-C-SQ-1M NOV-CH-A-CVR-M-RD-1M NOV-CH-A-CVR-M-SQ-1M	
Titan™	Surface Mount	2 Open End Caps 2 Closed End Caps 4 Metal Mounting Clips	Clear Cover, 1 m (3' 3/8") Frosted Cover, 1 m (3' 3/8") Matte Cover, 1 m (3' 3/8")	TTN-CH-A-CVR-C-1M TTN-CH-A-CVR-F-1M TTN-CH-A-CVR-M-1M	
Kepler™	Surface Mount	2 Open End Caps 2 Closed End Caps 4 Metal Mounting Clips	Clear Cover, 1 m (3' 3/8") Frosted Cover, 1 m (3' 3/8") Matte Cover, 1 m (3' 3/8")	KEP-CH-A-CVR-C-1M KEP-CH-A-CVR-F-1M KEP-CH-A-CVR-M-1M	
		Note: This extrusion only fits the Outline™ Series LED strip without connectors.			
Laika™	Surface Mount	2 Open End Caps 2 Closed End Caps 4 Metal Mounting Clips	Clear Cover, 1 m (3' 3/8") Frosted Cover, 1 m (3' 3/8")	LAI-CH-A-CVR-C-1M LAI-CH-A-CVR-F-1M	
		Note: This extrusion only fits the Outline™ Series LED strip without connectors.			
Atlas™	Angled Mount	2 Open End Caps 2 Closed End Caps 4 Metal Mounting Clips	Clear Cover, 1 m (3' 3/8") Frosted Cover, 1 m (3' 3/8") Matte Cover, 1 m (3' 3/8")	ATL-CH-A-CVR-C-1M ATL-CH-A-CVR-F-1M ATL-CH-A-CVR-M-1M	
Calypso™	Recessed Mount	2 Open End Caps 2 Closed End Caps 4 Metal Mounting Clips	Frosted Cover, 1 m (3' 3/8") Matte Cover, 1 m (3' 3/8")	CAL-CH-A-CVR-F-1M CAL-CH-A-CVR-M-1M	
Cassini™	Recessed Mount	2 Open End Caps 2 Closed End Caps 4 Metal Mounting Clips	Clear Cover, 1 m (3' 3/8") Frosted Cover, 1 m (3' 3/8") Matte Cover, 1 m (3' 3/8")	CAS-CH-A-CVR-C-1M CAS-CH-A-CVR-F-1M CAS-CH-A-CVR-M-1M	
Phoenix™	Recessed Mount	2 Open End Caps 2 Closed End Caps 4 Metal Mounting Clips	Frosted Cover, 1 m (3' 3/8") Matte Cover, 1 m (3' 3/8")	PHO-CH-A-CVR-F-1M PHO-CH-A-CVR-M-1M	

Safety And Disclosures

1. Installation must be in accordance with local and national electrical code regulations.
2. To ensure safety and correct installation, our strips are intended to be installed by a qualified, licensed electrician.
3. Only install with a Class 2 DC Constant Voltage LED driver to meet UL requirements.
4. Do not install in an environment where excessive heat may exist.
5. LED strip lights must be handled with care. Excessive handling, bending, and pressure may damage the product, voiding the warranty.
6. 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.
7. Do not cover this product with any kind of combustible material such as paper, fabrics, etc.
8. Each maximum run requires a dedicated power feed from the driver. Do not extend beyond the recommended maximum run length.
9. 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 wires, and cause fire.
10. Do not modify the product beyond instructions or warranty will be void.
11. 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, due to changes in technology and phosphors over time, we cannot guarantee to match existing installed fixtures for subsequent orders or replacements in regards to product appearance, CCT, or lumen output.
12. Do not install product with the majority of the product unsupported. Allowing the product to be suspended or dangling while installing may cause damage to the PCB due to the weight of the strip and/or spool.

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.



Contact Information



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FLEXFIRELEDs

www.flexfireleds.com