

Outline™ Series

Product Data Sheet



15 Year
Warranty



TITLE
24
REQUIREMENTS

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

Description

Less is more with our UltraBright™ Outline Series. We carefully designed these lights for a specific need for a lower-output strip that will guarantee an elegant, subtle glow with remarkable color accuracy for an unforgettable first impression. 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.

Product Features

- High CRI of 95+
- High R9 (95) & R13 (99) values
- Up to 125 Lumens/ft (411/meter)
- Fully dimmable
- Highest quality components and premium packaged 2216 LEDs
- Single BIN LED selection to ensure color consistency (3-Step MacAdam)
- Thermally Resistant 3M VHB 4930 adhesive for IP20 adhesive for long lasting bond
- 120° Beam Angle
- Efficiency up to 84 Lumens/W
- Only 3/8" (10mm) strip width
- Short LED pitch of 5/16" (8mm)
- 48V DC Input
- Can be cut every 5" (125mm)
- 37 LEDs/Foot (120/Meter)
- Thick double layer 4 oz copper PCB
- Operating Temperature -4°F to +104°F (-20°C to 40°C)
- Maximum Run Length in Series: 67 ft (20 m)

Product Specific Specifications

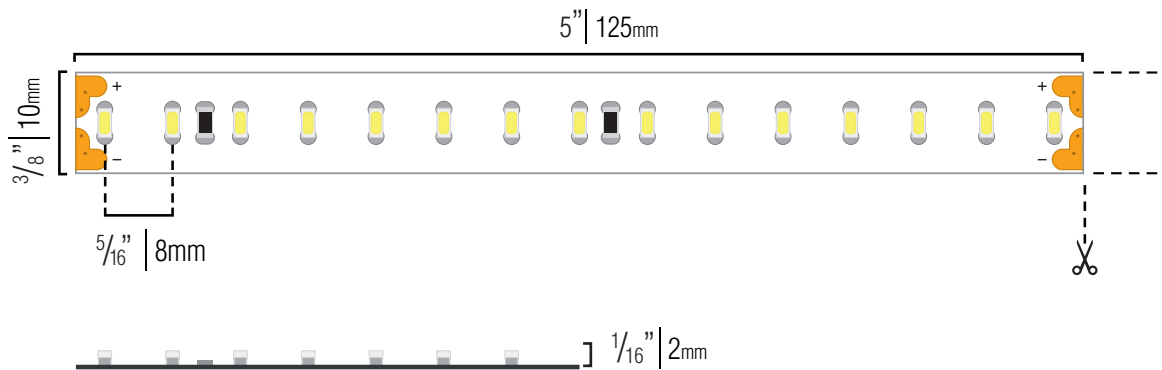
Product. SKU	Color* (CCT)	Watts / foot (Meter)	Lumen / foot (Meter)	Luminous efficacy (Lumens / Watt)	CRI	Gamut Score Rg (Color Sat.)	Relative Fidelity Score (RF)	TLCI (Qa)	CQS
UB-OL-24K97C (special order only)	2400K	1.5 W/ft 4.8 W/m	98 lm/ft (320 lm/m)	65 lm/W	97	104	96	98	97
UB-OL-27K97C	2700K	1.5 W/ft 4.8 W/m	97 lm/ft (318 lm/m)	65 lm/W	97	102	96	99	97
UB-OL-30K97C	3000K	1.5 W/ft 4.8 W/m	100 lm/ft (328 lm/m)	67 lm/W	97	104	96	99	98
UB-OL-35K97C	3500K	1.5 W/ft 4.8 W/m	116 lm/ft (379 lm/m)	77 lm/W	98	103	96	99	98
UB-OL-40K95C	4000K	1.5 W/ft 4.8 W/m	111 lm/ft (363 lm/m)	74 lm/W	95	103	94	98	97
UB-OL-50K95C	5000K	1.5 W/ft 4.8 W/m	125 lm/ft (411 lm/m)	84 lm/W	95	101	94	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

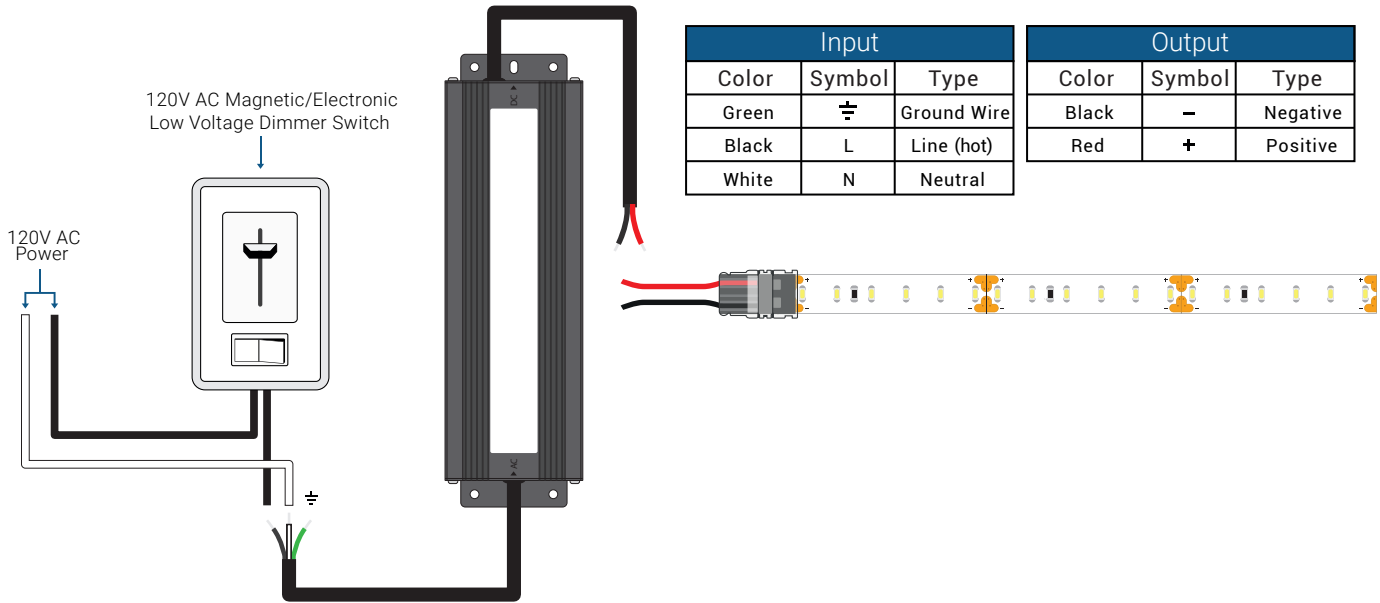
Brand	Series	CCT	Voltage	Length
UB - UltraBright	OL - Outline Series	24K97C - 2400K/97+ CRI * 27K97C - 2700K/97+ CRI 30K97C - 3000K/97+ CRI 35K97C - 3500K/97+ CRI 40K95C - 4000K/95+ CRI 50K95C - 5000K/95+ CRI	48V -	32FT - 32ft Reel 98FT - 98ft Reel

Dimensions 48V

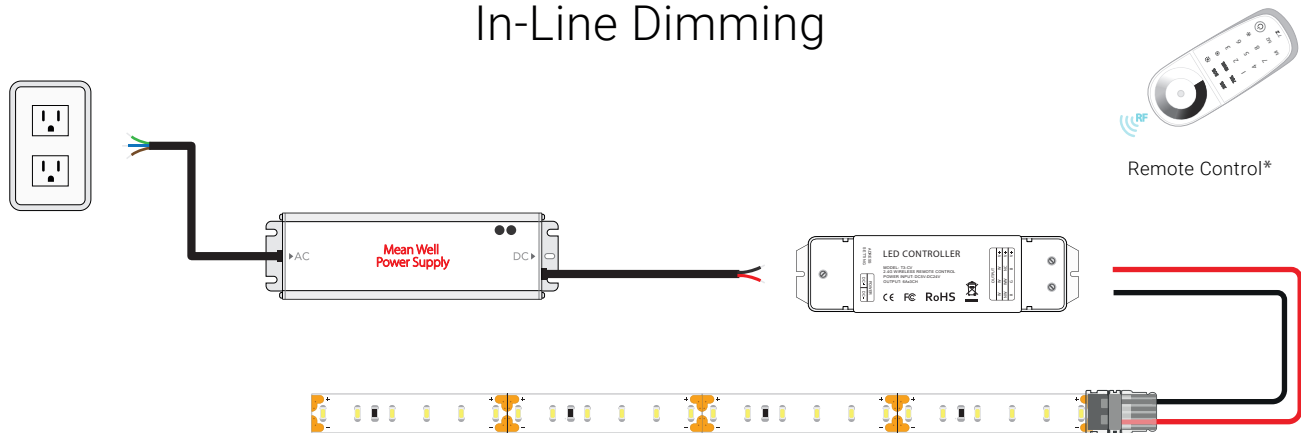


Dimming Options

Lutron Style Wall Dimmer

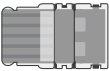





In-Line Dimming



*Remote Control (SKU: SC-MZ-CTRL) can be paired to 8 total receivers. Multiple remotes cannot be paired to a single receiver (max 1)

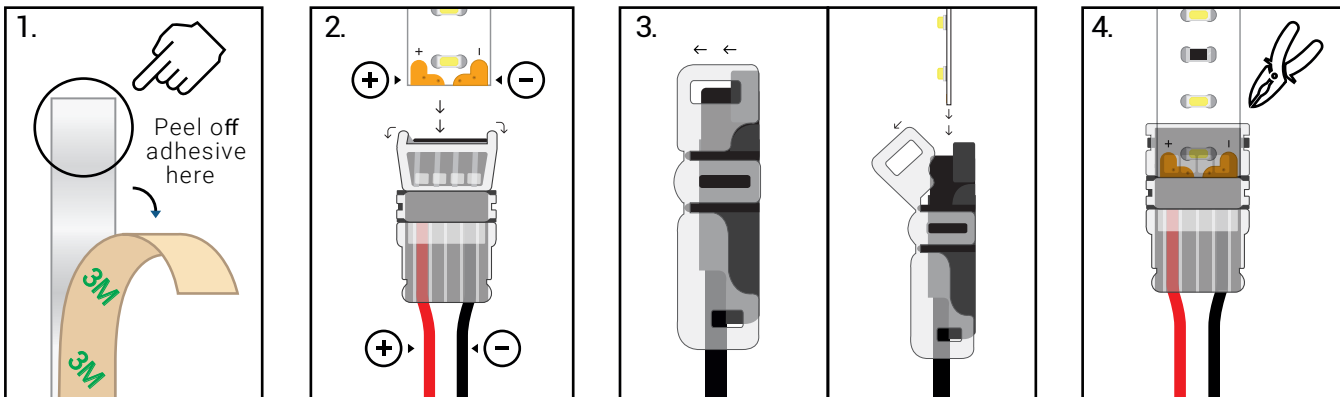
Strip Light Connectors

SKU	Description	Wire Gauge	Amp Limit **	Mockup
GRIP-SC-C1-10-0*	Attaches LED strip directly to a Power Supply/Driver, low voltage control or DC source.	20 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.	20 AWG		
GRIP-SC-C2-10-06*	Attaches two sections of LED strip together. Wire lead allows for turns around tight corners.	20 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 0.03 A/ft (0.10 A/m)

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

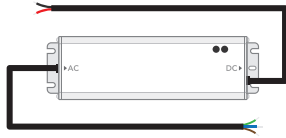

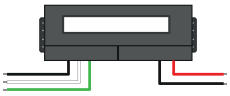
Solderless Connection Guide



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.
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 (48V)

	Power Supply	LED Strip Length	SKU	Diagram
Non-Dimmable	Mean Well™ HLG	1 - 60 ft	HLG-100H-48A	
		61 - 90 ft	HLG-150H-48A	
	91 - 192 ft	HLG-320H-48A		
	193 - 360 ft	HLG-600H-48A		
	Mean Well™ LPV	1 - 36 ft	LPV-60-48	
Dimmable	Zurik® Universal Drivers	1 - 106 ft (up to 53 ft per channel)	ZRK-UNV-C192W-48VDC	
		107 - 163 ft (up to 81 ft per channel)	ZRK-UNV-C288W-48VDC	

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 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 install indoor LED tape light products in outdoor / wet location environments. Only use copper wiring. Use wires rated for at least 176°F (80°C) and certified for use with external connection of electrical equipment.
7. Each maximum run requires a dedicated power feed from the driver. Do not extend beyond the recommended maximum run length.
8. Make sure the appropriate gauge wire is installed between 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.
9. Do not modify product beyond instructions or warranty will be void.
10. 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.

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 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.