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Even-Glow COB LED Strips

RGB+White COB Strip Specifications

Project _____ Date _____

Notes _____

COB2-IP20-RGBW-5m

Voltage 24 VDC | COB LEDs | RGB+W | High CRI 90+ | IP20 | 5yr WARRANTY

Available Models[1]

- ☐ STN-B-D30K90-O28A-12Z5M-24V
- ☐ STN-B-D40K90-O28A-12Z5M-24V
- ☐ STN-B-D50K90-O28A-12Z5M-24V

SAMPLE PART NUMBER BREAKDOWN

STN-B-D30K90-O28A-12Z5M-24V

Series	Type	CCT	CRI	LED Type	LEDs/Segment	IP Rating	Width	Density	Length	Voltage
STN-B	D	30K	90	O	28	A	12	Z	5M	24V
Non-weatherproof	RGBW	30K: 3000K 40K: 4000K 50K: 5000K	90+	COB	28 LEDs/seg	IP20	12mm	840 LEDs/m	5 meters	24 VDC

Overview

The Even-Glow® Series LED strip light uses a high density of chip-on-board (COB) LEDs to create a smooth, dotless line of light ideal for applications on or around reflective surfaces such as granite countertops and tile floors. The strip provides a range of vibrant RGB lighting and up to 351 lm/ft of your choice of available white CCT options. Customize the strip using cut segments every 1.3 inches. Flexible construction and 3M™ adhesive backing make it easy to install, including on round surfaces and edges. Pair with a controller (sold separately) to customize color tone and settings.

Features

- COB LEDs create a dotless line of light - no visible hotspots
- Flexible, cuttable, and 3M™ adhesive-backed for easy install
- Smooth color blending and saturation of RGB and single white
- High density design with 256 LEDs/ft
- 0-100% PWM dimmable

Product Details

- Class 2 Max Run: 16.4ft (5m)
- Cut Segment: 1.3in. (33mm)
- Strip Width: 12mm (0.47in.)
- Pigtail connection
- 24 VDC input

Certifications and Compliances

- UL Listed - UL 2108 (IFDR)
- CE compliant

UL® LISTED CE

Applications

- Backlighting
- Cove Lighting
- Display Cases
- Light Design
- Reflective Surfaces
- Retail Shops
- Stage & Theaters
- Toe Kick Lighting
- Trade Shows
- Under-Cabinets

Warranty

- 5-year warranty

T 866.811.5550 | **F** 314.972.6202
https://www.superbrightleds.com
email: commercial-sales@superbrightleds.com

[1]Contact customer service if interested in other options.

Rev. V1.1 Date: 12/15/2025

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Installation Instructions

1. Plan Your Layout

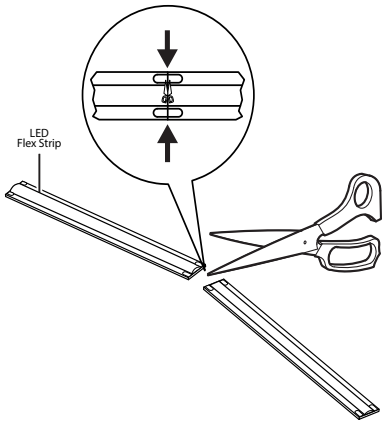
Identify COB strip placement, including how long each run will be and where to place the power supply. Depending on how evenly you want the light to appear, decide on a straight run, center feed, loop-back, or multi-leg. Hidden placements like under cabinets or inside coves produce indirect illumination for ideal lighting results.

2. Match the Power Supply

First, calculate the total strip wattage by multiplying the total strip length by the power used per foot for the total strip wattage. Next, use the following formula to determine the minimum necessary wattage of your power supply

Total Strip Wattage / 0.80 = Minimum Power Supply Wattage

Round up to the nearest wattage, and this number will provide you with the 20% wattage overhead required to maintain power supply longevity.



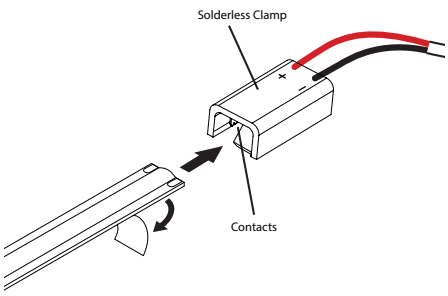
3. Cutting the Strip

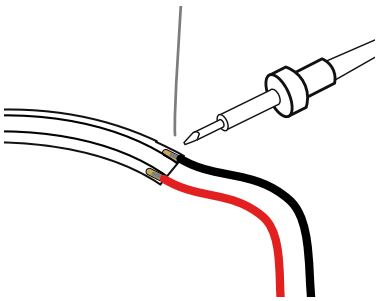
If you need to cut the strip to a custom length, unroll the strip and find the marked cut points, usually between copper pads. Make sure the strip is not powered when cutting. Use sharp scissors to cut only on these lines. Cutting anywhere else can break the circuit.

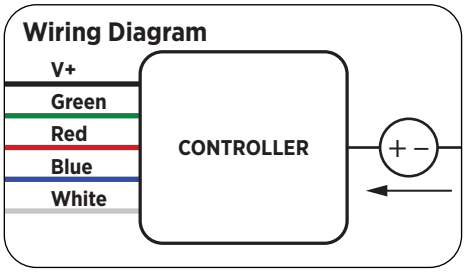
4. Connecting the Strip (Solderless or Soldering)

To connect cut sections of LED strips to a power supply or controller, wires can be soldered directly to the copper pads or solderless connectors may be used as an alternative. To use a solderless connector, open the connector, then slide in the cut end of the strip so the copper pads line up with the contacts inside. Ensure the connector is oriented correctly so the contacts pierce through the top of the strip. Close the connector to lock it in place. Use jumper connectors instead of bending the strip for corners or gaps.

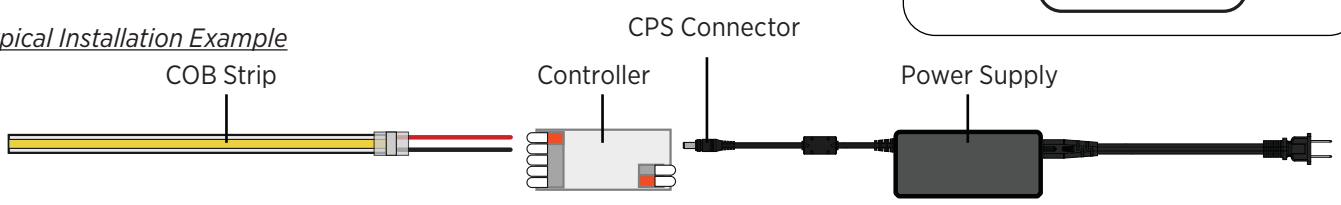
Note: *Illustrations show wiring for single-color strip.*
Follow specific wiring diagram for strip and controller type.







Typical Installation Example



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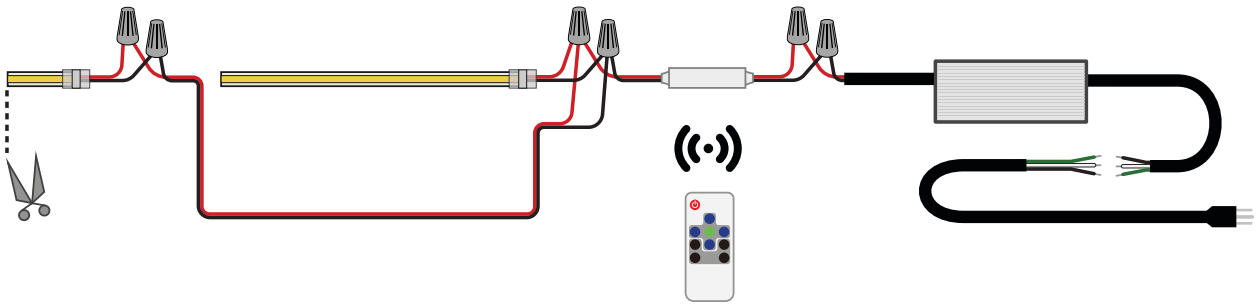
Installation Instructions (cont.)

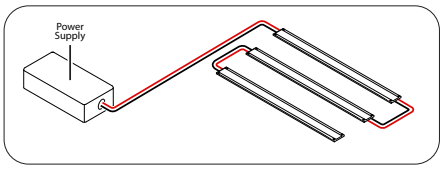
5. Extend the Wiring

Use the lowest gauge wire that's practical for your setup, based on the total current draw and length of the run. As a general guideline, 22 AWG is suitable for short, low-power runs, while 18 AWG or lower is recommended for longer runs or higher-powered strips. Keep the wiring short where possible and double-check polarity. Longer runs can lead to voltage drop and dimming at the far end of the strip.

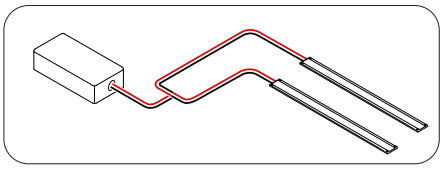
Extended Power Wire Installation Example



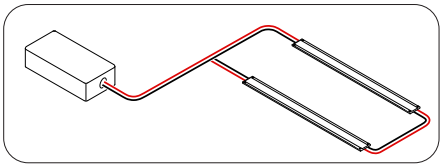
Straight Run Layout



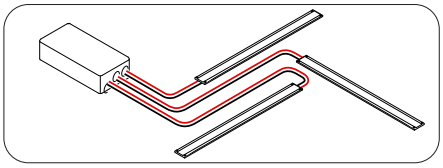
Center Feed Layout



Loop-back Layout



Multi-leg Layout



Voltage Drop

As current travels through the strip, resistance in the circuit causes a drop in voltage over the length of the strip, leading to dimmer light at the far end. Wire length and total power draw of the circuit influence the amount of voltage drop. To reduce it, keep wire lengths short, use thicker gauge wire, or split the power feed (center-feed or loop-back).

6. Prepare the Surface

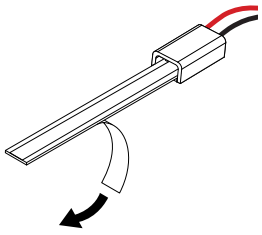
Wipe the mounting area with alcohol or another cleaner that removes dust, oils, and residue. The strong 3M™ adhesive backing is intended for a single application.

7. Connect to Power and Test

Connect the wires from the strip or connector to the output side of the power supply or controller. Match the positive and negative sides. If you're unsure, use a multimeter. If using a dimmer or switch, install it according to the product's installation instructions. Before mounting, test the strip to make sure all sections light up properly and there are no connection issues.

8. Mount the Strip

Peel the paper from the adhesive backing and press the strip firmly into place. Work slowly from one end to the other to avoid bubbles or wrinkles. To prevent damage to the circuit, avoid bending the strip sharply or folding it over itself. Use flexible connectors for any sharp turns or difficult areas.



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SPECIFICATIONS			
Model | STN-B-	**D30K90-O28A-12Z5M-24V**	**D40K90-O28A-12Z5M-24V**	**D50K90-O28A-12Z5M-24V**
PHOTOMETRIC			
LED Color	RGB+WW 3000K	RGB+NW 4000K	RGB+CW 5000K
Lumens Per Foot	318 lm/ft	351 lm/ft	351 lm/ft
Efficacy	58 lm/W	64 lm/W	64 lm/W
CRI	90+		
Beam Angle	160°		
ELECTRICAL			
Operating Voltage	24 VDC		
Current Draw per Foot	232 mA/ft		
Current Draw	3.8A		
Wattage per Foot	5.5 W/ft		
Wattage	90 Watts		
Dimmer Type	PWM		
MECHANICAL			
Max Run (Class 2)	16.4ft (5m)		
Minimum Cut Length	33mm (1.30in.)		
LEDs per Segment	28		
Strip Width	12mm (0.47in.)		
Length	16.4ft (5m)		
LED Density	256 LEDs/ft		
LED Type	COB (chip-on-board)		
Input Connection Type	Pigtail		
LED Lifetime	50000 hours		
ENVIRONMENTAL			
IP Rating	IP20		
Environmental Rating	Non-weatherproof, Suitable for Dry Locations		
Ambient Operating Temperature	-20 to 60°C (-4 to 140°F)		

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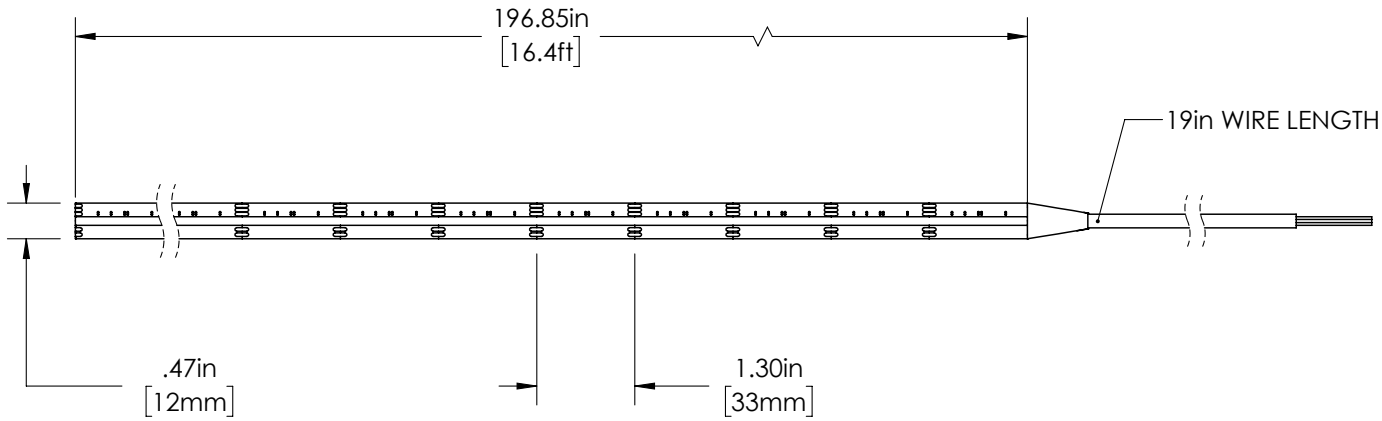
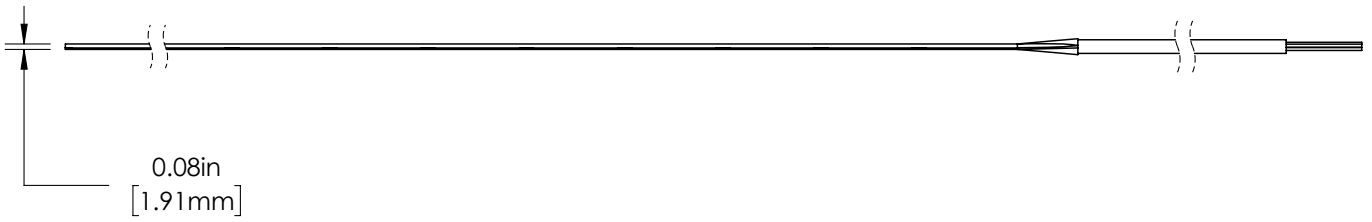
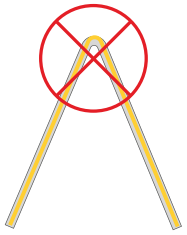
Dimensional Drawings

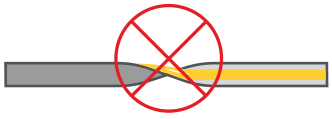




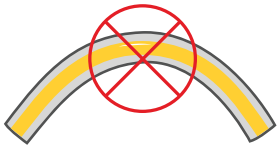
Strip Flexibility



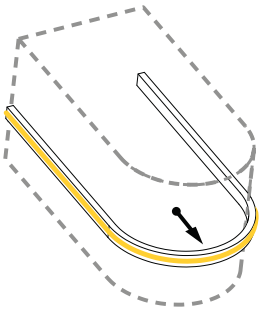
Bending strips at sharp angles will damage circuit traces and void warranty.



Twisting strips will damage circuit traces and void warranty.



Bending strips on horizontal plane will damage circuit traces and void warranty.



Minimum bending radius ≥ 1.97in. [50mm]

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