superbrightleds.com | Even-Glow®

# Even-Glow COB LED Strips

RGB Color Changing COB Strip Specifications

Project _____ Date _____

Notes _____

Voltage 24 VDC | COB LEDs | RGB | IP67 | 5 yr WARRANTY

**Available Models**[1]

☐ STW-B-CRGB-O42D-10Z5M-24V

## SAMPLE PART NUMBER BREAKDOWN

# STW-B-CRGB-O42D-10Z5M-24V

| Series | Strip Type | Color | LED Type | LEDs/Segment | IP Rating | PCB Width | Density | Length | Voltage |
|---|---|---|---|---|---|---|---|---|---|
| STW-B | C | RGB | O | 42 | D | 10 | Z | 5M | 24V |
| Weatherproof | RGB | RGB | COB | 42 LEDs/seg | IP67 | 10mm | 840 LEDs/m | 5 meters | 24 VDC |

## Overview

The Even-Glow® Series RGB 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. It provides a range of vibrant RGB lighting to any application. The IP67 waterproof rating allows the strip the be installed in wet locations such as patios and decks. Easily customize the strip using the cut segments every 1.97 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
- RGB LEDs provides smooth color blending and saturation
- High-density design with 256 LEDs/ft
- IP67 Rated for wet locations
- 0-100% PWM dimmable

## Product Details

- Class 2 Max Run length: 19.7 ft (6 m)
- Cut segment length: 1.97 in. (50 mm)
- Strip Width: 12 mm (0.47 in.)
- 24 VDC input
- Weatherproof pigtail adapter included

## Certifications and Compliances

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

UL LISTED CE

## Applications

- Decks
- Outdoor Accent Lights
- Outdoor Kitchens
- Patios
- Reflective Surfaces
- Toe Kick Lighting
- Under-Cabinets

## Warranty

- 5-year warranty

**T** 866.811.5550 | **F** 314.972.6202
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[1]Contact customer service if interested in other options.

Rev. V1.2 Date: 07/27/2026
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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**

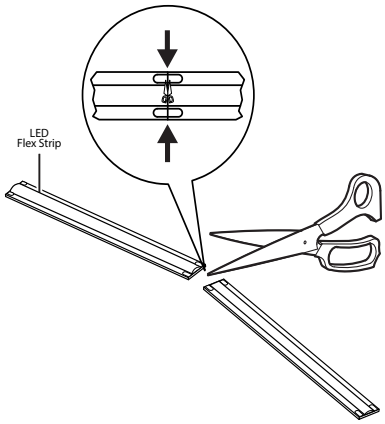
First, calculate the total strip wattage by multiplying the total strip length by the power used per foot for the total strip wattage. Next, use the following formula to determine the minimum necessary wattage of your power supply

*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**

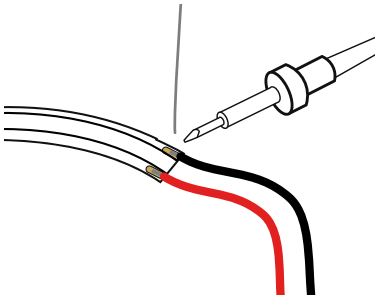
If you need to cut the strip to a custom length, unroll the strip and find the marked cut points, usually between copper pads. Make sure the strip is not powered when cutting. Use sharp scissors to cut only on these lines. Cutting anywhere else can break the circuit.

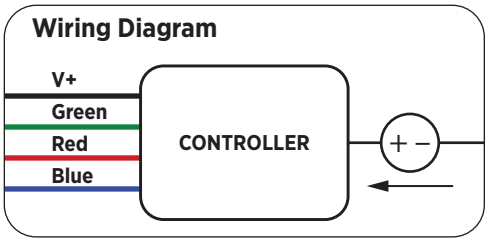



**4. Connecting the Strip (Soldering)**

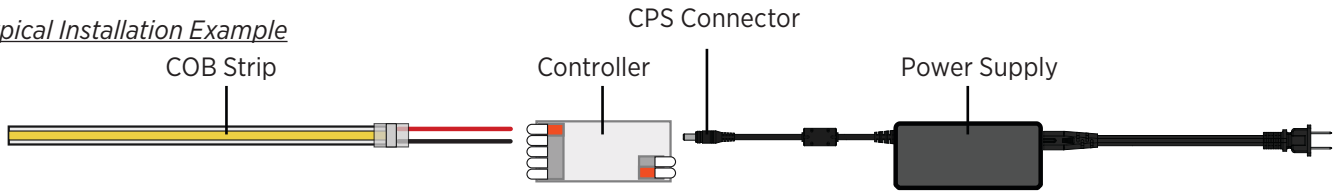
To connect cut sections of LED strips to a power supply or controller, wires can be soldered directly to the copper pads. Use longer jumper wires instead of bending the strip for corners or gaps.

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






*Typical Installation Example*




***NOTE:*** *Use appropriate connectors, installation supplies, and waterproofing measures to maintain waterproof rating for wet location installation.*

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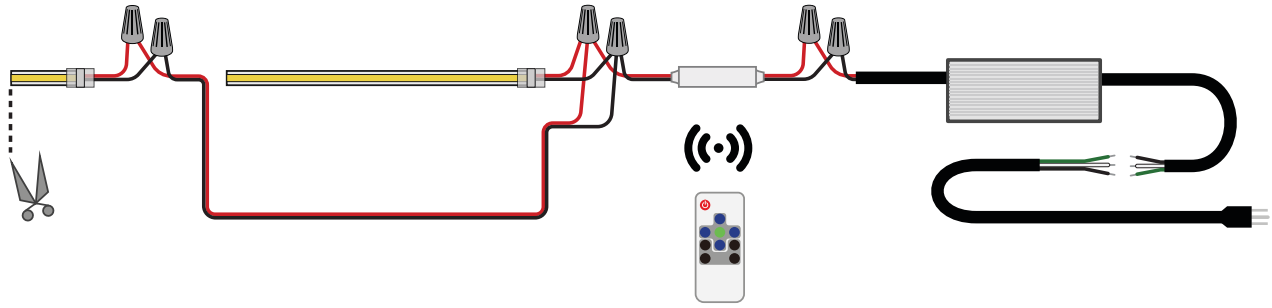
**Installation Instructions (cont.)**

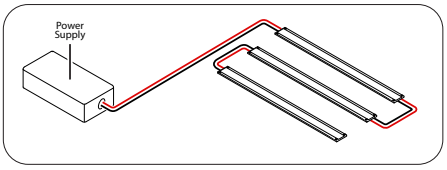
**5. Extend the Wiring**

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.

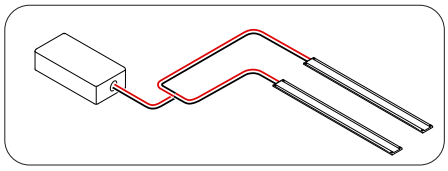
*Extended Power Wire Installation Example*



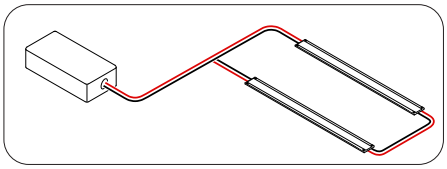
*Straight Run Layout*



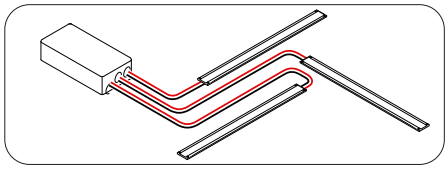

*Center Feed Layout*



*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**

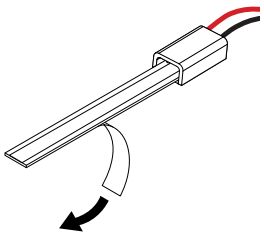
Wipe the mounting area with alcohol or another cleaner that removes dust, oils, and residue. The strong 3M™ adhesive backing is intended for a single application.

**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** | **STW-B-CRGB-O42D-10Z5M-24V** |
| **PHOTOMETRIC** | |
| LED Color | RGB |
| Beam Angle | 160° |
| **ELECTRICAL** | |
| Operating Voltage | 24 VDC |
| Current Draw per Foot | 189 mA/ft |
| Current Draw | 3.1 A |
| Wattage per Foot | 4.6 W/ft |
| Wattage | 75 Watts |
| Dimmer Type | PWM |
| **MECHANICAL** | |
| Max Run (Class 2) | 19.7 ft (6 m) |
| Minimum Cut Length | 50 mm (1.97 in.) |
| LEDs per Segment | 42 |
| Strip Width | 12 mm (0.47 in.) |
| Length | 16.4 ft (5 m) |
| LED Density | 256 LEDs/ft |
| LED Type | COB (chip-on-board) |
| LED Lifetime | 50000 hours |
| Input Connection Type | Pigtail, Weatherproof Connector |
| **ENVIRONMENTAL** | |
| IP Rating | IP67 |
| Environmental Rating | Suitable for Wet Locations, Waterproof |
| Ambient Operating Temperature | -20 to 60°C (-4 to 140°F) |

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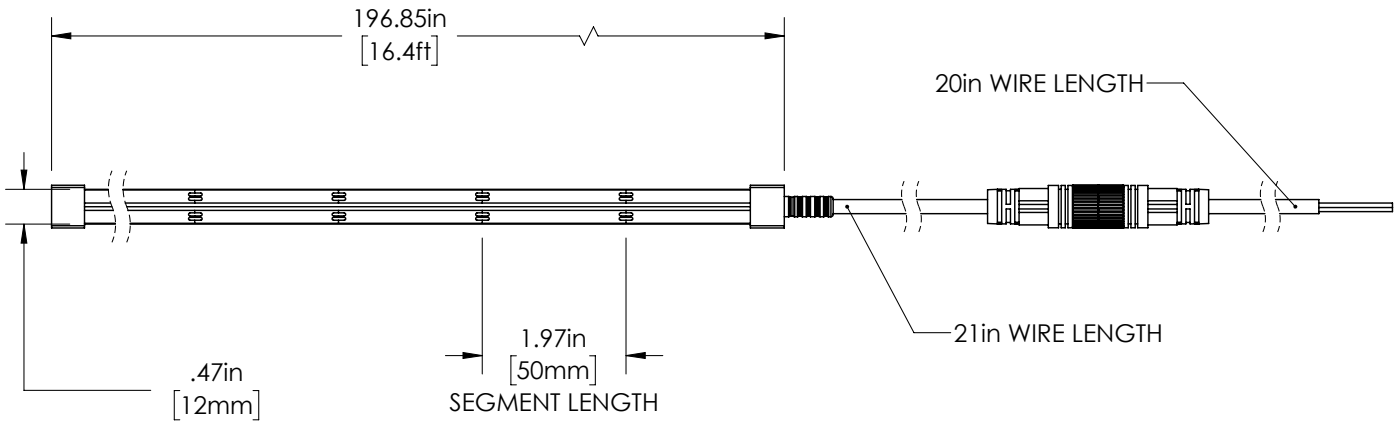
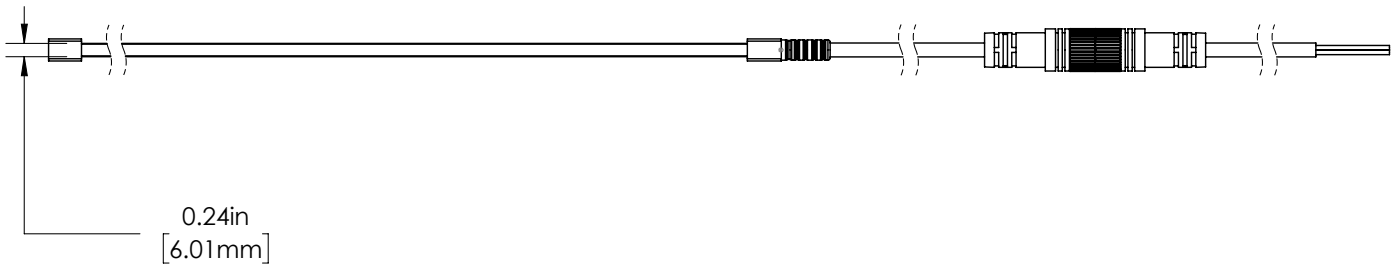
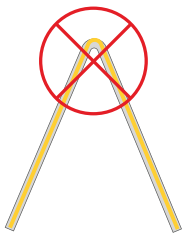
## Dimensional Drawings

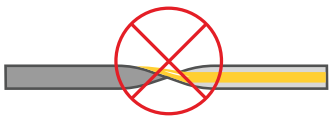


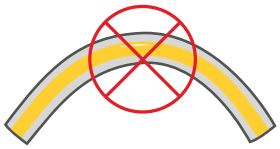

## Strip Flexibility



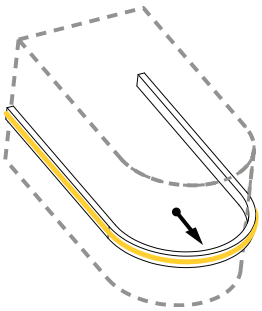
Bending strips at sharp angles will damage circuit traces and void warranty.



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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