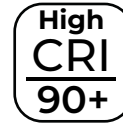
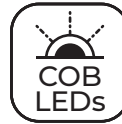




COB-IP20-90CRI-5m



Available Models¹

12 VDC

- STN-B-A22K90-O18A-08P5M-12V
- STN-B-A27K90-O18A-08P5M-12V
- STN-B-A30K90-O18A-08P5M-12V
- STN-B-A40K90-O18A-08P5M-12V
- STN-B-A50K90-O18A-08P5M-12V
- STN-B-A65K90-O18A-08P5M-12V

24 VDC

- STN-B-A22K90-O32A-08L5M-24V
- STN-B-A27K90-O32A-08L5M-24V
- STN-B-A30K90-O32A-08L5M-24V
- STN-B-A40K90-O32A-08L5M-24V
- STN-B-A50K90-O32A-08L5M-24V
- STN-B-A65K90-O32A-08L5M-24V

SAMPLE PART NUMBER BREAKDOWN

STN-B-A27K90-O18A-08P5M-12V

Series	Strip Type	CCT	CRI	LED Type	LEDs/Segment	IP Rating	Width	Density	Length	Voltage
STN-B	A	22K	90	O	18	A	08	P	5M	12V
Non-weatherproof	Single White	22K: 2200K 27K: 2700K 30K: 3000K 40K: 4000K 50K: 5000K 65K: 6500K	90+	COB	18: 18 LEDs/seg 32: 32 LEDs/seg	IP20	8mm	P: 504 LEDs/m L: 512 LEDs/m	5 meters	12V: 12 VDC 24V: 24 VDC

Overview

The COB Series LED strip light creates a fully diffused smooth line of light for applications around reflective surfaces such as granite countertops and tile floors. This high-density tape light has up to 156 LEDs per foot and delivers up to 351 lm/ft with 90+ high CRI lighting for quality color rendering. This low-profile tape light has an 8mm width and 3M™ adhesive backing for easy installation. Cut points marked on the strip allow for easy length customization. Perfect for under-cabinet lighting, toe kick lighting, and retail display cases.

Features

- COB LEDs create an uninterrupted dotless line of light
- Low profile strip delivers up to 351 lm/ft
- 90+ High CRI for accurate color rendering
- Cuttable segments -1.4" (12V), 2.5" (24V)

Product Details

- Max Run: 19.7ft (12V), 29.5ft (24V)
- Strip Width: 8mm
- 0-100% PWM dimmable
- 3M™ adhesive backing
- Connection: pigtail
- 12V or 24V DC input as ordered

Certifications and Compliances

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



Applications

- Bars and Restaurants
- Countertop Lighting
- Cove Lighting
- Display Cases
- Retail Shops
- Task Lighting
- Toe Kick Lighting
- Trade Shows
- Under-Cabinets

Warranty

- 5-year warranty



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

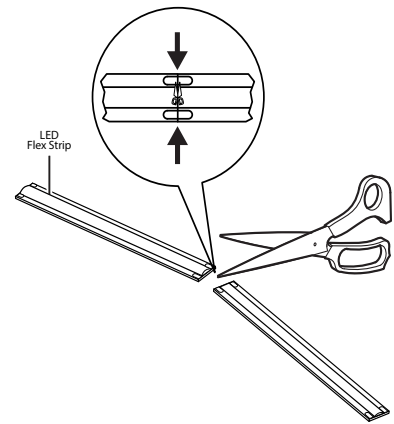
First, calculate the total strip wattage by multiplying the total strip length by the power used per foot for the total strip wattage. Next, use the following formula to determine the minimum necessary wattage of your power supply

$$\text{Total Strip Wattage} / 0.80 = \text{Minimum Power Supply Wattage}$$

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

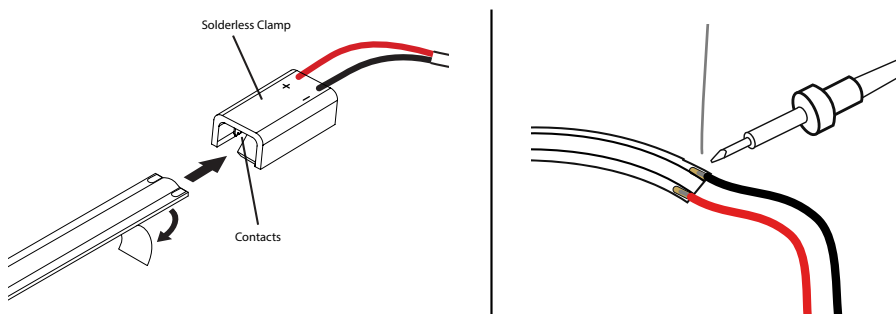
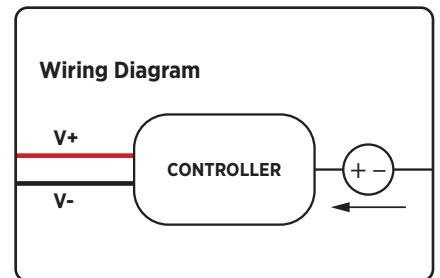
If you need to cut the strip to a custom length, unroll the strip and find the marked cut points, usually between copper pads. Make sure the strip is not powered when cutting. Use sharp scissors to cut only on these lines. Cutting anywhere else can break the circuit.



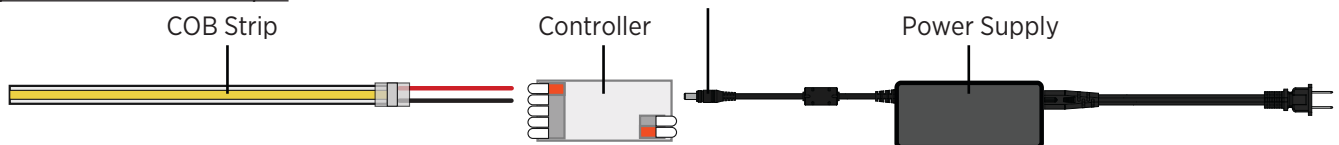
4. Connecting the Strip (Solderless or Soldering)

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

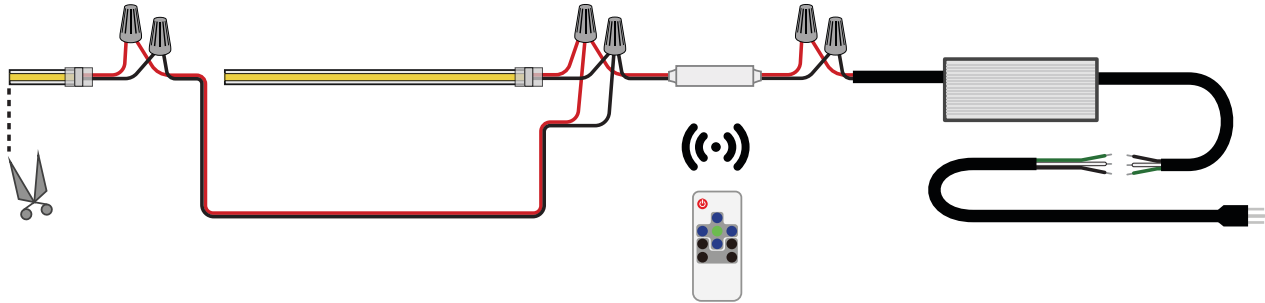


Installation Instructions (cont.)

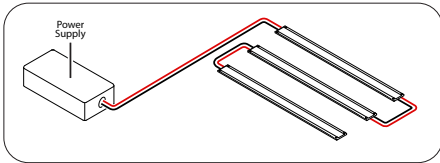
5. Extend the Wiring

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.

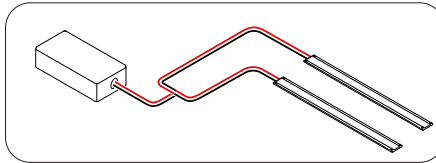
Extended Power Wire Installation Example



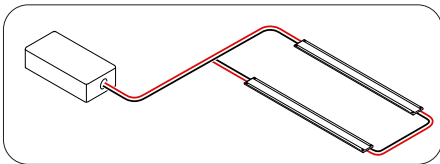
Straight Run Layout



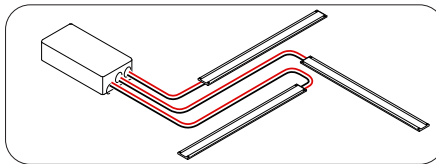
Center Feed Layout



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

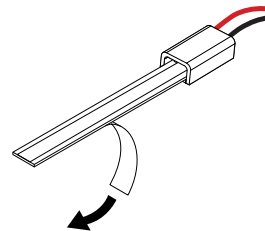
Wipe the mounting area with alcohol or another cleaner that removes dust, oils, and residue. The strong 3M™ adhesive backing is intended for a single application.

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.



Even-Glow COB LED Strips

Single White COB Strip Light Specifications

SPECIFICATIONS						
STN-B-AxK90-018A-08P5M-12V	22K	27K	30K	40K	50K	65K
PHOTOMETRIC						
Color Temperature	2200K	2700K	3000K	4000K	5000K	6500K
Lumens per Foot	167 lm/ft	195 lm/ft	203 lm/ft	217 lm/ft	217 lm/ft	217 lm/ft
Efficacy	61 lm/W	71 lm/W	74 lm/W	79 lm/W	79 lm/W	79 lm/W
CRI	90+					
Beam Angle	160°					
ELECTRICAL						
Operating Voltage	12 VDC					
Current Draw per Foot	232 mA/ft					
Current Draw	3.8A					
Wattage per Foot	2.7 W/ft					
Wattage	45 Watts					
Dimmer Type	PWM					
MECHANICAL						
LED Density	153 LEDs/ft					
LEDs per Segment	18					
Minimum Cut Length	35mm (1.38in.)					
Max Run (Class 2)	19.7ft (6m)					
Length	16.4ft (5m)					
Strip Width	8mm (0.31in.)					
LED Type	COB (chip-on-board)					
LED Lifetime	50000 hours					
Input Connection Type	Pigtail					
ENVIRONMENTAL						
IP Rating	IP20					
Environmental Rating	Non-weatherproof, Suitable for Damp Locations					
Ambient Operating Temperature	-20 to 60 °C (-4 to 140 °F)					



Even-Glow COB LED Strips

Single White COB Strip Light Specifications

SPECIFICATIONS						
STN-B-AxK90-032A-08L5M-24V	22K	27K	30K	40K	50K	65K
PHOTOMETRIC						
Color Temperature	2200K	2700K	3000K	4000K	5000K	6500K
Lumens per Foot	241 lm/ft	287 lm/ft	293 lm/ft	302 lm/ft	329 lm/ft	351 lm/ft
Efficacy	79 lm/W	94 lm/W	96 lm/W	99 lm/W	108 lm/W	115 lm/W
CRI	90+					
Beam Angle	160°					
ELECTRICAL						
Operating Voltage	24 VDC					
Current Draw per Foot	128 mA/ft					
Current Draw	2.1A					
Wattage per Foot	3.1 W/ft					
Wattage	50 Watts					
Dimmer Type	PWM					
MECHANICAL						
LED Density	156 LEDs/ft					
LEDs per Segment	32					
Minimum Cut Length	62.5mm (2.46in.)					
Max Run (Class 2)	29.5ft (9m)					
Length	16.4ft (5m)					
Strip Width	8mm (0.31in.)					
LED Type	COB (chip-on-board)					
LED Lifetime	50000 hours					
Input Connection Type	Pigtail					
ENVIRONMENTAL						
IP Rating	IP20					
Environmental Rating	Non-weatherproof, Suitable for Damp Locations					
Ambient Operating Temperature	-20 to 60 °C (-4 to 140 °F)					

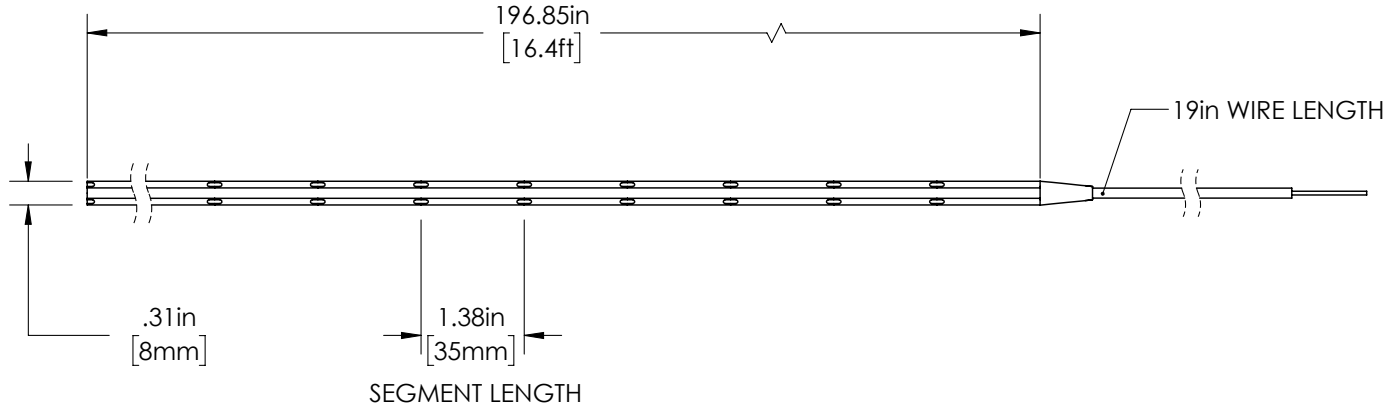


Even-Glow COB LED Strips

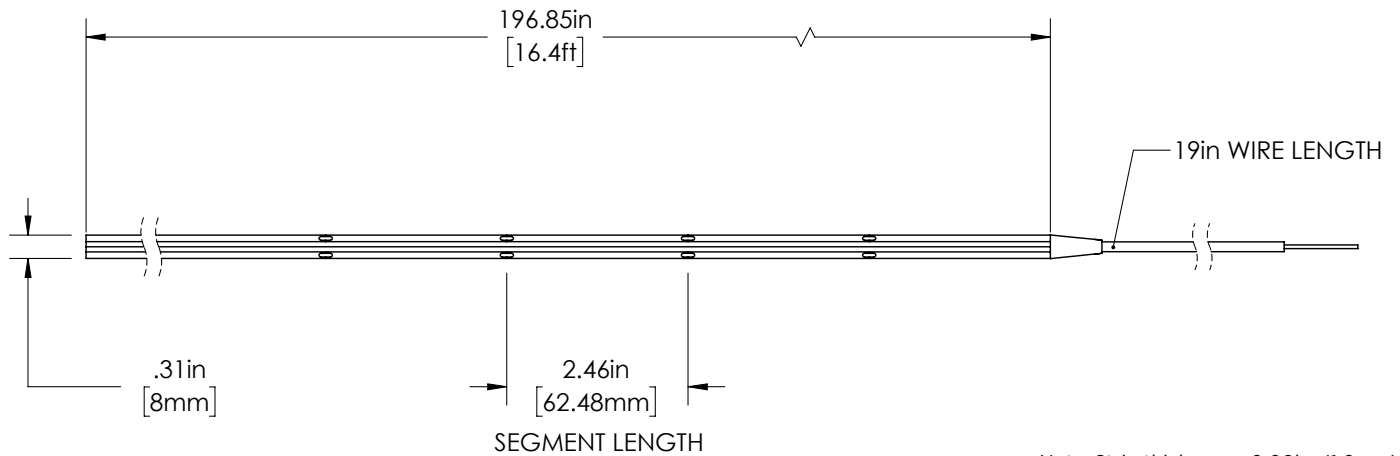
Single White COB Strip Light Specifications

Dimensional Drawings

STN-B-AxK90-O18A-08P5M-12V

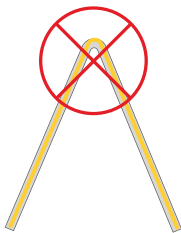


STN-B-AxK90-O32-08L5M-24V

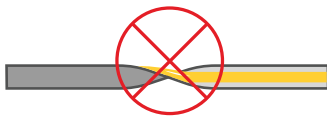


Note: Strip thickness - 0.08in. (1.9mm)

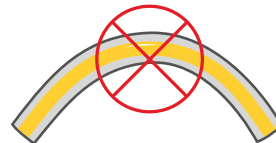
Strip Flexibility



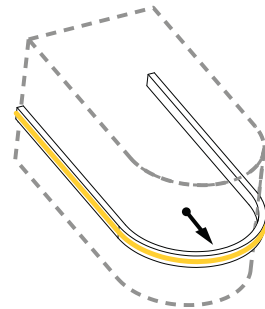
Bending strips at sharp angles will damage circuit traces and void warranty.



Twisting strips will damage circuit traces and void warranty.



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



Minimum bending radius \geq 1.97in. [50mm]

