superbrightleds.com

Single CCT LED Sheet
Flexible LED Sheet Specifications

Project_____

Date_____Type_____

Voltage 24 VDC

180° Beam Angle

CRI 80+

50,000 Hour Lifetime

5yr WARRANTY

LLS-ALxK80-C1A-20D01-24V (XH)

Available Models[1]
- ☐ LLS-AL30K80-C1A-20D01-24V (XH)
- ☐ LLS-AL40K80-C1A-20D01-24V (XH)
- ☐ LLS-AL50K80-C1A-20D01-24V (XH)

SAMPLE PART NUMBER BREAKDOWN
LLS-AL30K80-C1A-20D01-24V (XH)

SERIES / TYPE / COLOR / CRI				LED TYPE / SEGMENT		IP RATING	WATTAGE / DENSITY / SIZE / VOLTAGE / CONNECTOR				
LLS Series	**AL** Type	**30K** CCT	**80** CRI	**C** LED Type	**1** LEDs/Seg	**A** IP Rating	**20** Wattage	**D** LEDs/Sheet	**01** Sheet Size	**24V** Voltage	**(XH)** Type
LLS: Strip Sheet	AL: Single Color (Wide Angle Lens)	30K: 3000K 40K: 4000K 50K: 5000K	80: 80+	C: 2835	1: 1 LEDs/seg	A: IP20	20: 20 W	D: 32 LEDs	01: 18.9 x 9.4 in. (480 x 240 mm)	24V: 24 V	(XH): XH 2-pin

Overview
Trim to fit a unique shape and wrap corners with this 24-volt LED Light Sheet. This flexible sheet can be segmented in any unique shape simply by cutting along the horizontal, vertical, or diagonal black lines. LEDs' distribution ensures even light distribution, even in signs or backlighting with low clearance. On-board XH connectors eliminate soldering and simplify installation. To connect multiple light sheets, use the included interconnect cable. To install, use the 3M™ adhesive backing or fasten it with screws[2] at the indicated spots.

Features
- Customizable sheet of LEDs to fit complex shapes and signage
- 180° optics for wide uniform lighting
- On-board XH connections for plug-and-play use
- Thin and bendable for application even in low-clearance spaces
- Use the 3M™ adhesive backing for easy installation

Product Details
- Segment size: 2.36" x 2.36" - 32 segments per sheet
- Max Run[3] with Class 2 wiring: 4.5 Sheets
- Input connection: 2-pin XH connector
- Includes one 0.5 m pigtail connector and one 8 cm interconnect
- PWM dimmable
- 24 VDC

Applications
- Backlighting
- Billboards
- Channel Letters
- Displays
- Photography Lighting
- Retail Shops
- Showcases
- Sign Lighting
- Translucent Materials

Warranty
- 5-year warranty

Certifications and Compliances
- UL Listed - UL 2108 (IFDR)

UL LISTED

[1] Contact customer service for additional options.
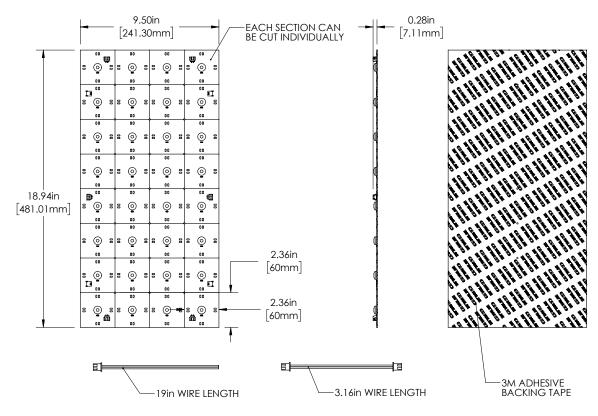[2] Fasteners must have a flat bottom on the head to avoid damage to the sheet.
[3] Max run listed is using a single power supply connected at one end of the run.

Rev V1.0 Date: 10/25/2024
Specifications are subject to change without notice.
Printed in the U.S.A.

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Dimensional Drawings

9.50in [241.30mm]

EACH SECTION CAN BE CUT INDIVIDUALLY

0.28in [7.11mm]

18.94in [481.01mm]

2.36in [60mm]

2.36in [60mm]

19in WIRE LENGTH

3.16in WIRE LENGTH

3M ADHESIVE BACKING TAPE

Specifications

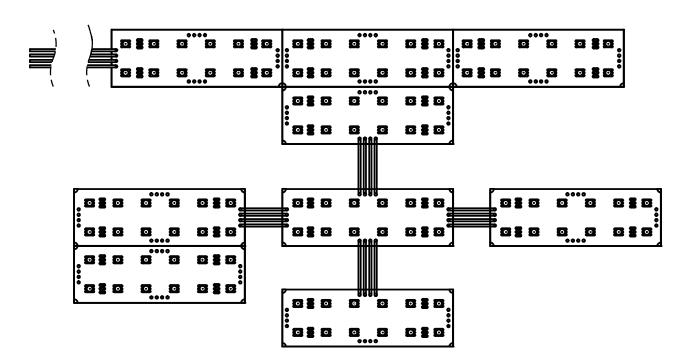| Model	LLS-AL30K80-C1A-20D01-24V (XH)	LLS-AL40K80-C1A-20D01-24V (XH) / LLS-AL50K80-C1A-20D01-24V (XH)
Lumens per Sheet	2,000 lm	2,100 lm
Input Voltage	24 VDC	
Wattage	20 W per sheet (0.26 W per segment)	
Current Draw	833 mA per sheet (11 mA per segment)	
LEDs per Segment	1	
Beam Angle	180°	
Dimmer Type	PWM	
Max Run[3]	4.5 sheets	
IP Rating	IP20	
Environmental Rating	Non-weatherproof, Suitable for Dry Locations	
Enclosure Rating	minimum 1.18 in. (30 mm) spacing	
LED Lifetime	50,000 hours (L70)	
Ambient Operating Temperature	-20–45° C (-4–113° F)	

T 866.811.5550
F 314.972.6202
email: commercial-sales@superbrightleds.com
www.superbrightleds.com/cat/flexible-led-sheet-lights/

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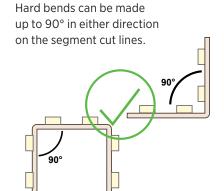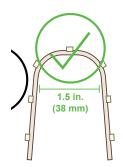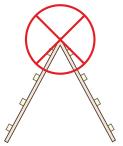
Cutting Segments And Strip Flexibility

When cutting LED sheets into custom shapes, using only the pre-marked cut lines is essential to maintaining electrical connections. Each segment has contacts on all four sides and connects automatically to adjacent sections when uncut. Solder wires to the segments' solder pads to achieve your desired configuration. Additional power can be applied to extend the run length of any segment.

Hard bends can be made up to 90° in either direction on the segment cut lines.

90°

90°

1.5 in.
(38 mm)

Soft bends less than 1.5 in. may damage circuit traces and void warranty.

Bending LED sheets or sections at sharp angles or at places other than designated cut lines will damage circuit traces and void warranty.

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