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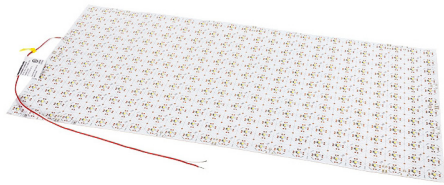## Flexible LED Sheet
Single CCT and Tunable White LED Sheet Specifications

Project_____

Date_____Type_____

LLS-A40K80-C1A-30A02-24V

Voltage 24 VDC

PWM Dimming

120° Beam Angle

Tunable White Available

50,000 Hour Lifetime

5yr WARRANTY

Available Models[1]

Single CCT (18.9in. x 9.4in.)
- ☐ LLS-A27K80-C1A-30A01-24V
- ☐ LLS-A30K80-C1A-30A01-24V
- ☐ LLS-A30K80-C1A-30A01-24V (XH)
- ☐ LLS-A35K80-C1A-30A01-24V
- ☐ LLS-A40K80-C1A-30A01-24V
- ☐ LLS-A40K80-C1A-30A01-24V (XH)
- ☐ LLS-A50K80-C1A-30A01-24V
- ☐ LLS-A50K80-C1A-30A01-24V (XH)
- ☐ LLS-A65K80-C1A-30A01-24V

Tunable White (18.9in. x 9.4in.)
- ☐ LLS-H80-C2A-60B01-24V
- ☐ LLS-H80-C2A-60B01-24V (XH)

Single CCT (24in. x 12in.)
- ☐ LLS-A27K80-C1A-30A02-24V
- ☐ LLS-A30K80-C1A-30A02-24V
- ☐ LLS-A35K80-C1A-30A02-24V
- ☐ LLS-A40K80-C1A-30A02-24V
- ☐ LLS-A50K80-C1A-30A02-24V
- ☐ LLS-A65K80-C1A-30A02-24V

Tunable White (24in. x 12in.)
- ☐ LLS-H80-C2A-30A02-24V

SAMPLE PART NUMBER BREAKDOWN

LLS-A30K80-C1A-30A01-24V (XH)

Series	Type	CCT	CRI	LED Type	LEDs/Segment	IP Rating	Wattage	LEDs/Sheet	Sheet Size	Voltage	Connector
LLS	**A**	**30K**	**80**	**C**	**1**	**A**	**30**	**A**	**01**	**24V**	**(XH)**
Strip Sheet	A: Single White	27K: 2700K 30K: 3000K 35K: 3500K 40K: 4000K 50K: 5000K 65K: 6500K	80+	2835 SMD	1 LED/seg	IP20	30: 30W 60: 60W	A: 288 B: 400	01: 18.9 x 9.4in. 02: 24 x 12in.	24 VDC	(XH): XH Type blank: pigtail
	H: Tunable White	N/A			2 LEDs/seg						

Overview
Fit unique shapes with LLS series LED light sheets. Flexible enough to wrap corners, they can be trimmed to fit custom installations. Cut along the horizontal, vertical, or diagonal black lines to customize the flexible sheet. Even in signs or backlighting with low clearance, the high density of LED chips ensures even light distribution. Peel off the 3M™ adhesive backing, or fasten it with screws at the indicated spots to mount this light sheet.

Note: Using only the pre-marked lines when cutting the sheet is essential to maintaining electrical contact.

Features
- Flexible, cuttable LED sheet adapts to complex shapes
- Single CCT and tunable white (2700K–6500K) available
- 3M™ adhesive backing peels off for easy application
- 24 VDC

Product Details
- Enclosed rated clearance - 36 mm
- IP20 rated for dry conditions
- 50,000-hour L70 LED lifespan

Certifications
- UL Listed - UL 2108 (IFDR)

UL® LISTED

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 for additional options.

Rev V4.1 Date: 03/25/2025
Specifications are subject to change without notice.

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Flexible LED Sheet

Single CCT and Tunable White LED Sheet Specifications

Specifications

Model LLS-	A27K80-C1A-30A01-24V	A30K80-C1A-30A01-24V[3]	A35K80-C1A-30A01-24V
CCT	2700K	3000K	3500K
Lumens per Sheet	2490 lm	2620 lm	2620 lm
Efficacy	83 lm/W	87 lm/W	87 lm/W
Wattage per Sheet	30W		
Current Draw per Sheet	1.25A		
Sheet Size	18.9in. x 9.4in.		
Beam Angle	120°		
Max Run[2]	32.8ft (10m) single column/row max run 3x full sheet max run		

Model LLS-	A40K80-C1A-30A01-24V[3]	A50K80-C1A-30A01-24V[3]	A65K80-C1A-30A01-24V
CCT	4000K	5000K	6500K
Lumens per Sheet	2760 lm		
Efficacy	92 lm/W		
Wattage per Sheet	30W		
Current Draw per Sheet	1.25A		
Sheet Size	18.9in. x 9.4in.		
Beam Angle	120°		
Max Run[2]	32.8ft (10m) single column/row max run 3x full sheet max run		

Model LLS-	H80-C2A-60B01-24V[3]
CCT	2700K–6500K
Lumens per Sheet	5280 lm
Efficacy	88 lm/W
Wattage per Sheet	60W
Current Draw per Sheet	2.5A
Sheet Size	18.9in. x 9.4in.
Beam Angle	120°
Max Run[2]	16.4ft (5m) single column/row max run 1.5x full sheet max run

[2] Max run listed is using one power supply connected at one end of the run.
[3] Models ending in (XH) are identical other than connection type.

Specifications are subject to change without notice.

Flexible LED Sheet
Single CCT and Tunable White LED Sheet Specifications

Specifications (cont.)

Model LLS-	A27K80-C1A-30A02-24V	A30K80-C1A-30A02-24V	A35K80-C1A-30A02-24V
CCT	2700K	3000K	3500K
Lumens per Sheet	2889 lm	3050 lm	3050 lm
Efficacy	96 lm/W	102 lm/W	102 lm/W
Wattage per Sheet	30W		
Current Draw per Sheet	1.25A		
Sheet Size	24in. x 12in.		
Beam Angle	120°		
Max Run²	49.2ft (15m) single column/row max run 3x full sheet max run		

Model LLS-	A40K80-C1A-30A02-24V	A50K80-C1A-30A02-24V	A65K80-C1A-30A02-24V
CCT	4000K	5000K	6500K
Lumens per Sheet	3210 lm		
Efficacy	102 lm/W		
Wattage per Sheet	30W		
Current Draw per Sheet	1.25A		
Sheet Size	24in. x 12in.		
Beam Angle	120°		
Max Run²	49.2ft (15m) single column/row max run 3x full sheet max run		

Model LLS-	H80-C2A-30A02-24V
CCT	2700K–6500K
Lumens	3035 lm
Efficacy	101 lm/W
Wattage per Sheet	30W
Current Draw per Sheet	1.25A
Sheet Size	24in. x 12in.
Beam Angle	120°
Max Run²	49.2ft (15m) single column/row max run 3x full sheet max run

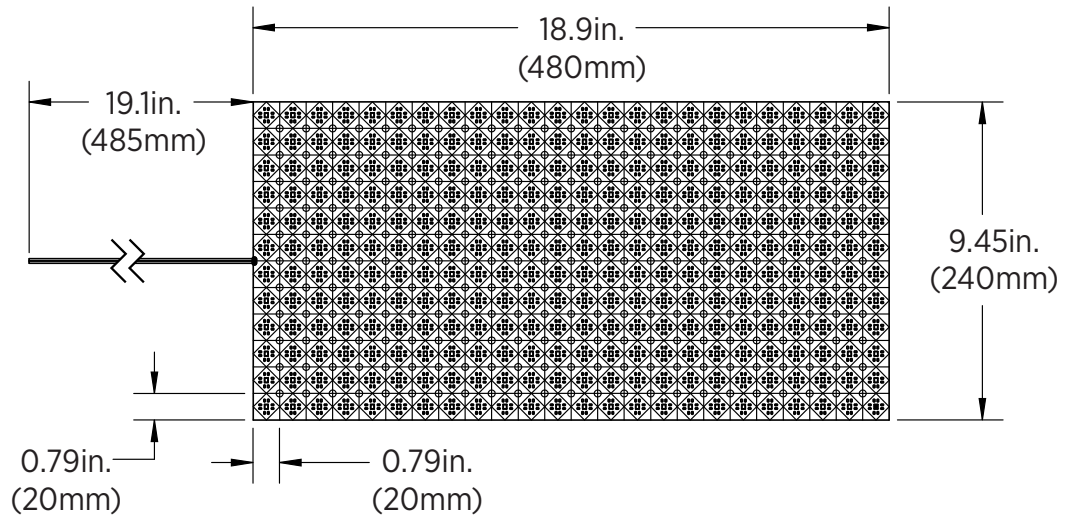² Max run listed is using one power supply connected at one end of the run.

Flexible LED Sheet
Single CCT and Tunable White LED Sheet Specifications
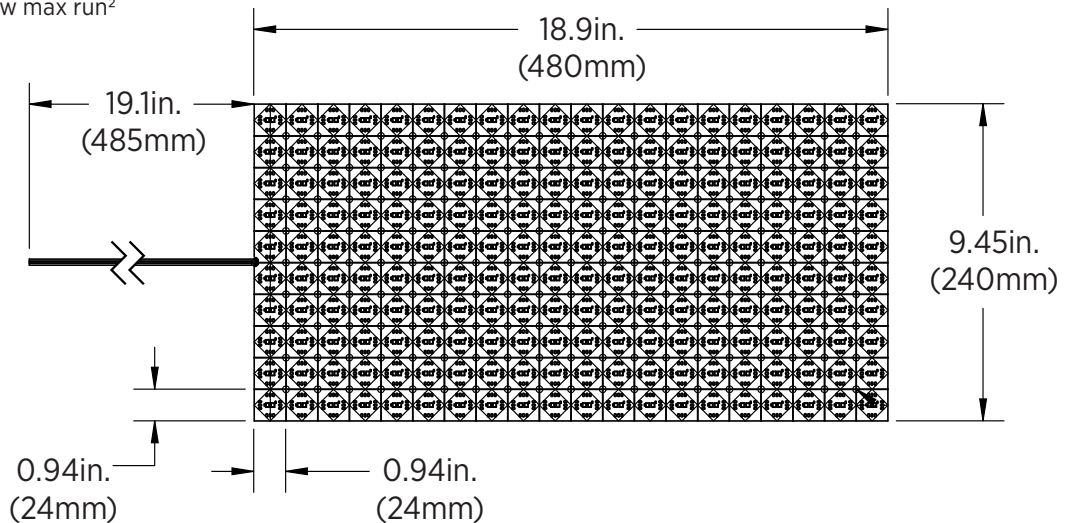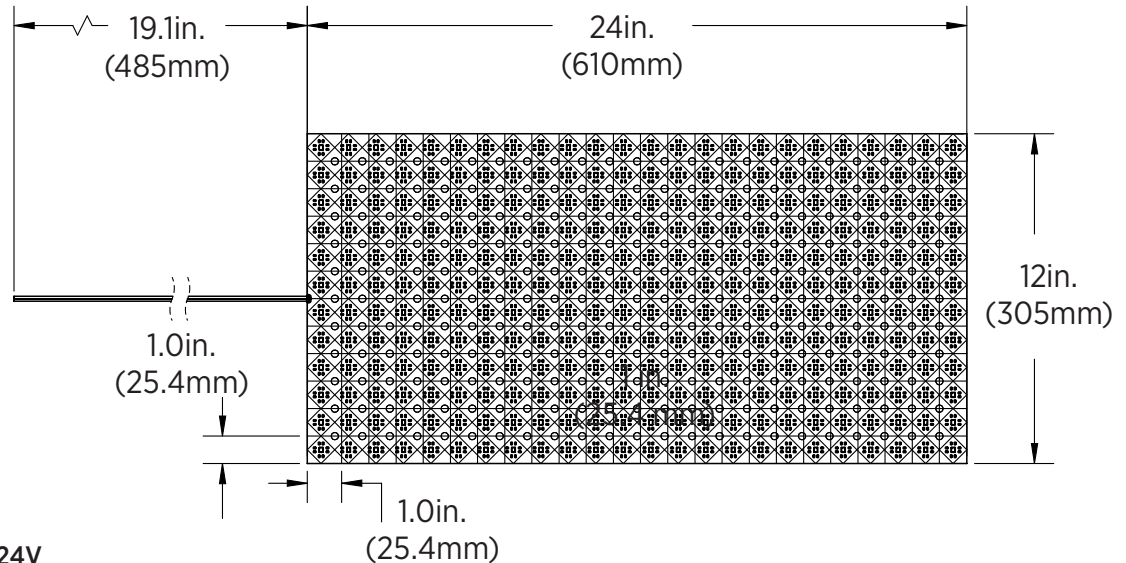
Dimensional Drawings

LLS-AxK80-C1A-30A01-24V[4]

- 32.8ft (10m) single column/row max run[2]
- 3x full sheet max run[2]

18.9in.
(480mm)

19.1in.
(485mm)

9.45in.
(240mm)

0.79in.
(20mm)

0.79in.
(20mm)

LLS-H80-C2A-60B01-24V

- 16.4ft (5m) single column/row max run[2]
- 1.5x full sheet max run[2]

18.9in.
(480mm)

19.1in.
(485mm)

9.45in.
(240mm)

0.94in.
(24mm)

0.94in.
(24mm)

Note: The strip height for all strip sheets shown is 0.06in. (1.5mm).

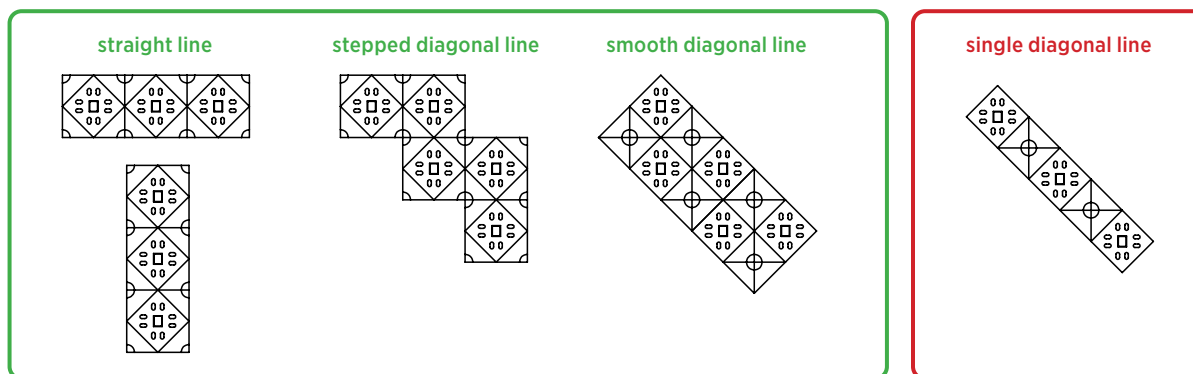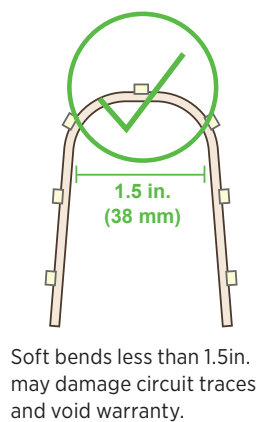[2] Max run listed is using one power supply connected at one end of the run.
[4] (XH) models are the same size but will have connectors on the sheet rather than an attached pigtail. Includes 1x pigtail and 1x interconnect cables.

Specifications are subject to change without notice.

Dimensional Drawings (cont.)

LLS-AxK80-C1A-30A02-24V

- 49.2ft (15m) single column/row max run²
- 3x full sheet max run²

19.1in.
(485mm)

24in.
(610mm)

12in.
(305mm)

1.0in.
(25.4mm)

1.0in.
(25.4mm)

LLS-H80-C2A-30A02-24V

- 49.2 (15 m) single column/row max run²
- 3 full sheet max run²

19.10in.
(485mm)

24in.
(610mm)

12in.
(305mm)

1.0in.
(25.4mm)

2.0in.
(50.8mm)

Note: The strip height for all strip sheets shown is 0.06in. (1.5mm).

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² Max run listed is using a single power supply connected at one end of the run.

Specifications are subject to change without notice.

Flexible LED Sheet

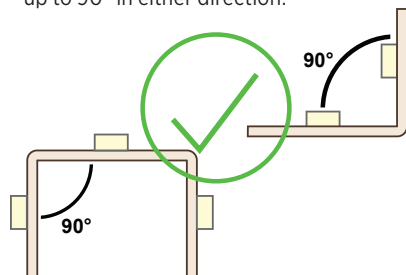Single CCT and Tunable White LED Sheet Specifications

Cutting Segments

Strip sheets can be cut into many custom shapes. Cut using only the pre-marked cut lines on the sheet. Using the cut lines is essential to maintaining the integrity of electrical contacts. The images below represent the minimal linear routing configurations. The green box represents strip routing layouts that work by preserving the electrical connection, and the one in red represents a routing type that will not function correctly due to interruptions of the electrical connection.
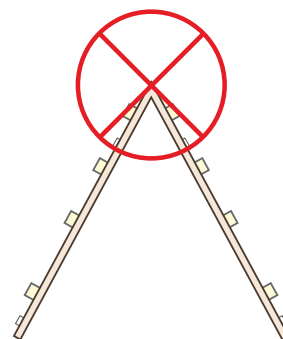

straight line   stepped diagonal line   smooth diagonal line

single diagonal line

Strip Flexibility

Hard bends can be made up to 90° in either direction.
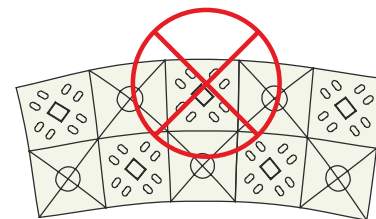

90°

90°

1.5 in.
(38 mm)

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

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

Bending strip sheets or sections on horizontal plane will damage circuit traces and void warranty.
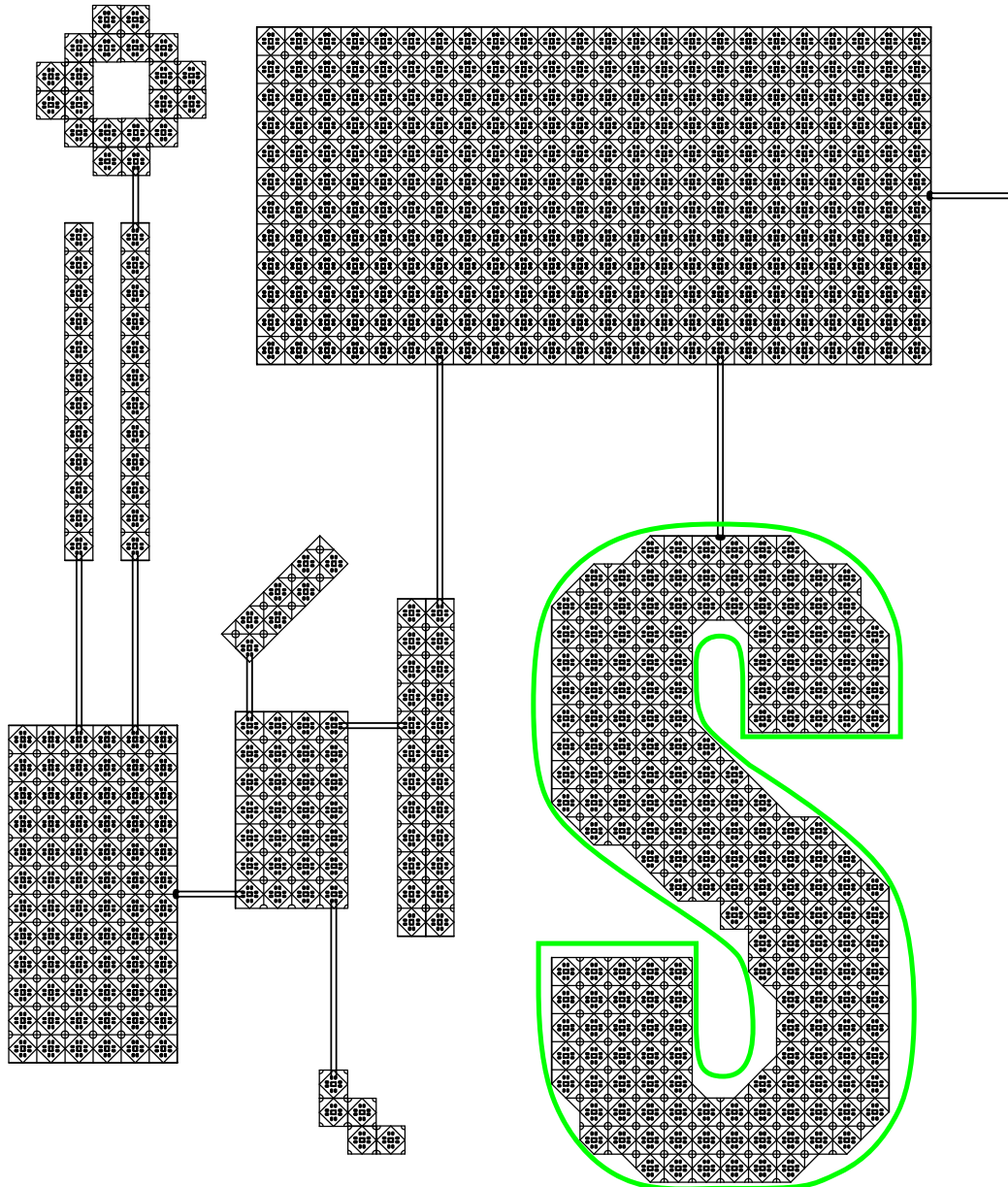
Application

Below are examples of the types of shapes and patterns that can be made and linked as needed to fit nearly any application. The only limiting factor is max run (see spec table), which can be easily extended by connecting additional power supplies[5].

Additional power supplies can connect to any individual square LED segment anywhere in the run for maximum flexibility.

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