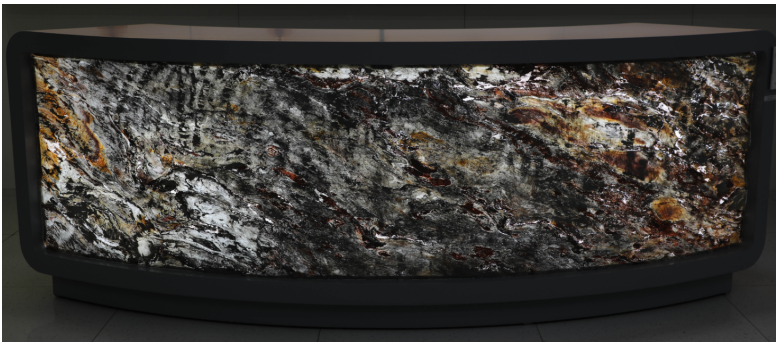
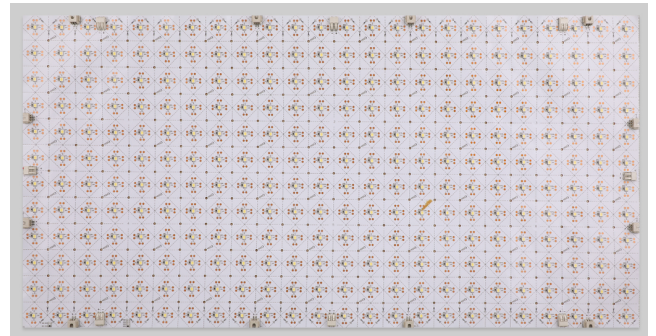
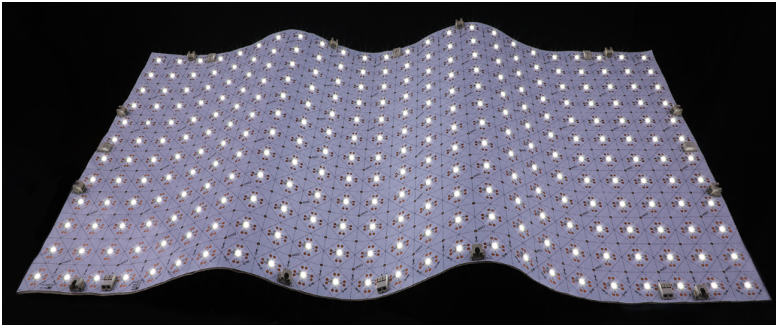


## Back-Lighter Series

### Static White



## Flexible LED Sheet

### Features

The Backlight Series uses high quality LEDs and allows flexible cutting into multiple shapes such as lines, squares, rectangle, circular, "L", "T", "S", or "+" shapes; customization is endless! Customization is possible by every 12 LEDs, and it offers on-site board-to-power or board-to-board split joint. Convenient for advertising board applications due to the on-board connector and additional soldering processing (4-directional solder pads designed on each unit for both square and diamond shape). 3M tape on backside is standard for installation and for applying on any flat or curved mounting surface. Staple guns and/or nails can also be applied for further security due to the inside open circles being a "non-electrified" area where it can be stapled through.

### Applications

The SBLS is engineered for flat or curvy, space-sensitive, backlighting applications. It is perfect for back-lighting projects where a lighting solution that is both thin and bendable may be needed to fit into soft and/or curving surfaces and spaces.

The SBLS is also engineered to serve as the backlight for under translucent stone counters, showcases, shelving, billboards, signage and more for applications of small size and thin width.



# LED Flexible Sheet

## Specification

Part No.	Dimension (L*W*H)	IP Rating	Lumen Flux +-10% @CRI80&4000k&10w	Light Efficacy @CRI80&4000k&10w	Lumen Flux +-10% @CRI90&4000k&10w
SBLS-10-xxK-20-24V	610*305*1mm [24*12*0.04in.]	IP20 [dry]	1100lm/sheet, 3.8lm/unit piece 5910lm/m <sup>2</sup> [550lm/ft <sup>2</sup> .]	110lm/W	940lm/sheet, 3.2lm/unit piece 5050lm/m <sup>2</sup> [470lm/ft <sup>2</sup> .]
SBLS-10-xxK-54-24V	610*305*1.5mm [24*12*0.06in.]	IP54 Thin [damp]	1100*95%lm/sheet, 3.8*95%lm/unit piece 5910*95%lm/m <sup>2</sup> [550*95%lm/ft <sup>2</sup> .]	110*95%lm/W	940*95%lm/sheet, 3.2*95%lm/unit piece 5050*95%lm/m <sup>2</sup> [470*95%lm/ft <sup>2</sup> .]
Part No.	Dimension (L*W*H)	IP Rating	Lumen Flux +-10% @CRI80&4000k&20w	Light Efficacy @CRI80&4000k&20w	Lumen Flux +-10% @CRI90&4000k&20w
SBLS-20-xxK-20-24V	610*305*1mm [24*12*0.04in.]	IP20 [dry]	2160lm/sheet, 7.4lm/unit piece 11610lm/m <sup>2</sup> [1080lm/ft <sup>2</sup> .]	108lm/W	1840lm/sheet, 6.3lm/unit piece 9890lm/m <sup>2</sup> [920lm/ft <sup>2</sup> .]
SBLS-20-xxK-54-24V	610*305*1.5mm [24*12*0.06in.]	IP54 Thin [damp]	2160*95%lm/sheet, 7.4*95%lm/unit piece 11610*95%lm/m <sup>2</sup> [1080*95%lm/ft <sup>2</sup> .]	108*95%lm/W	1840*95%lm/sheet, 6.3*95%lm/unit piece 9890*95%lm/m <sup>2</sup> [920*95%lm/ft <sup>2</sup> .]
Part No.	Dimension (L*W*H)	IP Rating	Lumen Flux +-10% @CRI80&4000k&30w	Light Efficacy @CRI80&4000k&30w	Lumen Flux +-10% @CRI90&4000k&30w
SBLS-30-xxK-20-24V	610*305*1mm [24*12*0.04in.]	IP20 [dry]	3210lm/sheet, 11lm/unit piece 17250lm/m <sup>2</sup> [1610lm/ft <sup>2</sup> .]	107lm/W	2730lm/sheet, 9.4lm/unit piece 14670lm/m <sup>2</sup> [1370lm/ft <sup>2</sup> .]
SBLS-30-xxK-54-24V	610*305*1.5mm [24*12*0.06in.]	IP54 Thin [damp]	3210*95%lm/sheet, 11*95%lm/unit piece 17250*95%lm/m <sup>2</sup> [1610*95%lm/ft <sup>2</sup> .]	107*95%lm/W	2730*95%lm/sheet, 9.4*95%lm/unit piece 14670*95%lm/m <sup>2</sup> [1370*95%lm/ft <sup>2</sup> .]
Part No.	Dimension (L*W*H)	IP Rating	Lumen Flux +-10% @CRI80&4000k&40w	Light Efficacy @CRI80&4000k&40w	Lumen Flux +-10% @CRI90&4000k&40w
SBLS-40-xxK-20-24V	610*305*1mm [24*12*0.04in.]	IP20 [dry]	4160lm/sheet, 14lm/unit piece 22360lm/m <sup>2</sup> [2080lm/ft <sup>2</sup> .]	104lm/W	3540lm/sheet, 12lm/unit piece 19030lm/m <sup>2</sup> [1770lm/ft <sup>2</sup> .]
SBLS-40-xxK-54-24V	610*305*1.5mm [24*12*0.06in.]	IP54 Thin [damp]	4160*95%lm/sheet, 14*95%lm/unit piece 22360*95%lm/m <sup>2</sup> [2080*95%lm/ft <sup>2</sup> .]	104*95%lm/W	3540*95%lm/sheet, 12*95%lm/unit piece 19030*95%lm/m <sup>2</sup> [1770*95%lm/ft <sup>2</sup> .]

### General Parameters

### Photoelectric Parameters

Dimension	Sheet: 2'x1' (L610mm*W305mm), Unit Piece 1"x1" (L25.4mm*W25.4mm)(Wago or XH Female Connector for options) Total Height with On-Board Wago Female Connector: 0.26" (6.5mm) Total Height with On-Board XH Female Connector: 0.31" (8mm)	Power±10%	Sheet: 10W, 20W, 30W, 40W, Unit Piece: 0.035W, 0.069W, 0.104W, 0.139W 54W/m <sup>2</sup> [5W/ft <sup>2</sup> ], 108W/m <sup>2</sup> [10W/ft <sup>2</sup> ], 162W/m <sup>2</sup> [15W/ft <sup>2</sup> ], 216W/m <sup>2</sup> [20W/ft <sup>2</sup> ] (Equated to 1.4W/M[0.4W/ft.], 2.8W/M[0.8W/ft.], 4.2W/M[1.2W/ft.], 5.6W/M[1.6W/ft.] base on Min. cutting row)
Operating Ambient	Ta: -20~45°C[-4~113°F]	Input Voltage	24VDC
LED Type	SMD2835 white	LED Current	1.5mA/LED, 3mA/LED, 4.5mA/LED, 5.8mA/LED
LED Pitch	1"x1" (L25.4xW25.4mm)	CRI	W: Ra≥80 & 90
PCB Type	2oz white FPC, OSP	SDCM	ErP & ANSI Norm, 3 step
LED QTY	Sheet: 24(Row)*12(Column)=288pcs, Unit Piece: 1pc (Equated to12LED/ft (39LED/M) based on Min. Cutting Row)	LED CCT & Wavelength	R: 625~630nm, G: 520~525nm, B: 460~470nm, Y:585~595nm W: 2700k, 3000k, 3500k, 4000k, 5000k, 6500k A:1600k
Warranty	5 years	Beam Angle	120°
Lifespan	50kh (L70B50@Tc<65°C, Tc is temperature of LED pin)	Dimming Method	PWM (dimmable driver like RF, Bluetooth, 0/1-10V, Triac, DALI, DMX, WIFI, etc.)
Certification	CE, UL, RoHS		
Rated Current/Power	Sheet: 10A/240W, (Wago or XH Female Connector for options) On-Board XH Female Connector: 3A/24V (Available for AWG22 Cable) On-Board Wago Female Connector: 6A/24V (Available for AWG22-18 Cable)	Max. Load Sheet QTY	23pcs@10W, 11pcs@20W, 7pcs@30W, 5pcs@40W (for 240W) 9pcs@10W, 4pcs@20W, 3pcs@30W, 2pcs@40W (for 100W)

## LED Flexible Sheet

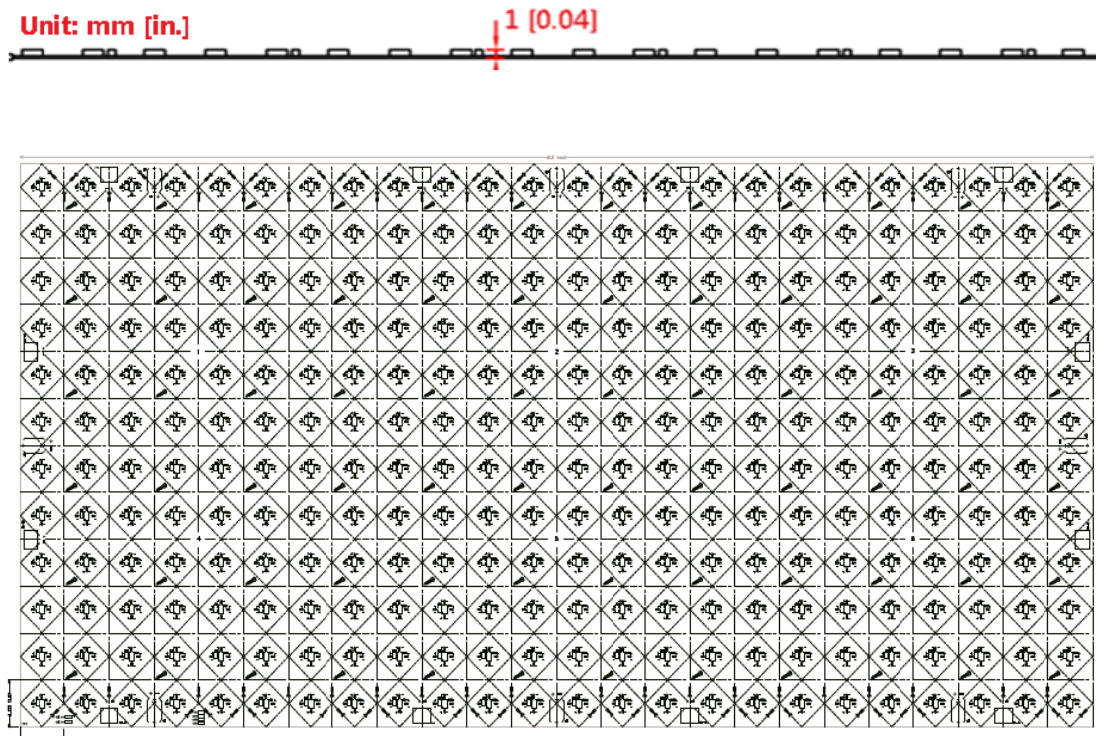
### Specification Notes

- Note 1: Luminous flux for CCT 2700K is 10% lower, for CCT 3000K/3500K is 5% lower, for CCT 5000K/6500K is the same, compared with 4000K.
- Note 2: Applying with extra heat sink is not necessary with self-cooling capacity
- Note 3: 3M 300LSE yellow adhesive tape attached on backside, is standard configuration of Plus Series.
- Note 4: (1) With XH connector: Split joint of sheet-to-sheet or sheet-to-power supply in soldering-free, using 12pcs on-board XH 2-pins female connectors (4pcs on each long side and 2pcs on each short side), L=300mm[11.8in.] AWG22 red/black power cable with male plug in one end, and L=50mm[1.97in.] AWG22 red/black extension cable with male plug in two ends.
- (2) With Wago connector: Split joint of sheet-to-sheet or sheet-to-power supply in soldering-free, using 8pcs on-board Wago 2-pins female connectors (3pcs on each long side and 1pc on each short side), L=300mm[11.8in.] AWG18 red/black power cable and L=50mm[1.97in.] AWG18 red/black extension cable.
- (3) Without connector: Split joint of sheet-to-sheet or sheet-to-power supply by soldering process.



- Note 5: Transparent ESD bag, is standard configuration of Plus Series.
- Note 6: 3M tape on backside is a standard configuration for installation, applying to any flat or curved mounting surface. Staple gun or nails can also be applied for further secure, through the diagram of circular screw hole.
- Note 7: Flexible cut to be desired shape following any solid lines in the direction of horizontal, vertical and 45 degree tilted.
- Note 8: In order to get uniform area light without light-spot, the distance between light sheet and sign should be  $\geq 38\text{mm}[1.49\text{in.}]$ , means 1.5 times of LED pitch. (Measured with a milky PC sheet in 2mm thickness and 50% light transmittance).
- Note 9: To ensure the proper illumination for any customized shape by the processing of cutting and split joint, the outline of route with single strip only in any position, must be kept as a complete quadrilateral shape without any notch.

### Technical Drawing

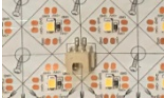






## LED Flexible Sheet

### Ordering Information

MODEL	COLOR	IP RATING	VOLTAGE
SBLS-10 10w/sheet	27K 2700K	20 IP20	24 24 Volt DC
SBLS-20 20w/sheet	30K 3000K	54 IP54	
SBLS-30 30w/sheet	35K 3500K	65 IP65	
SBLS-40 40w/sheet	40K 4000K		
	50K 5000K		
	65K 6500K		
	A Amber		

### Accessories

FS-SLBS-WL	Wire lead connector		
FS-SLBS-JC	Jumper		
FS-SBLS-BFC	Bare wire connection		

### Recommended Power Supplies

Dimmable with 0-10v, ELV, MLV, TRIAC

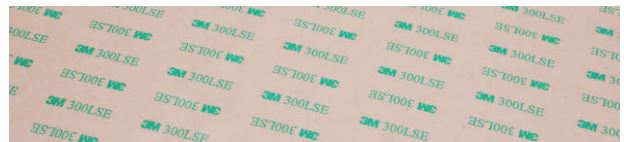
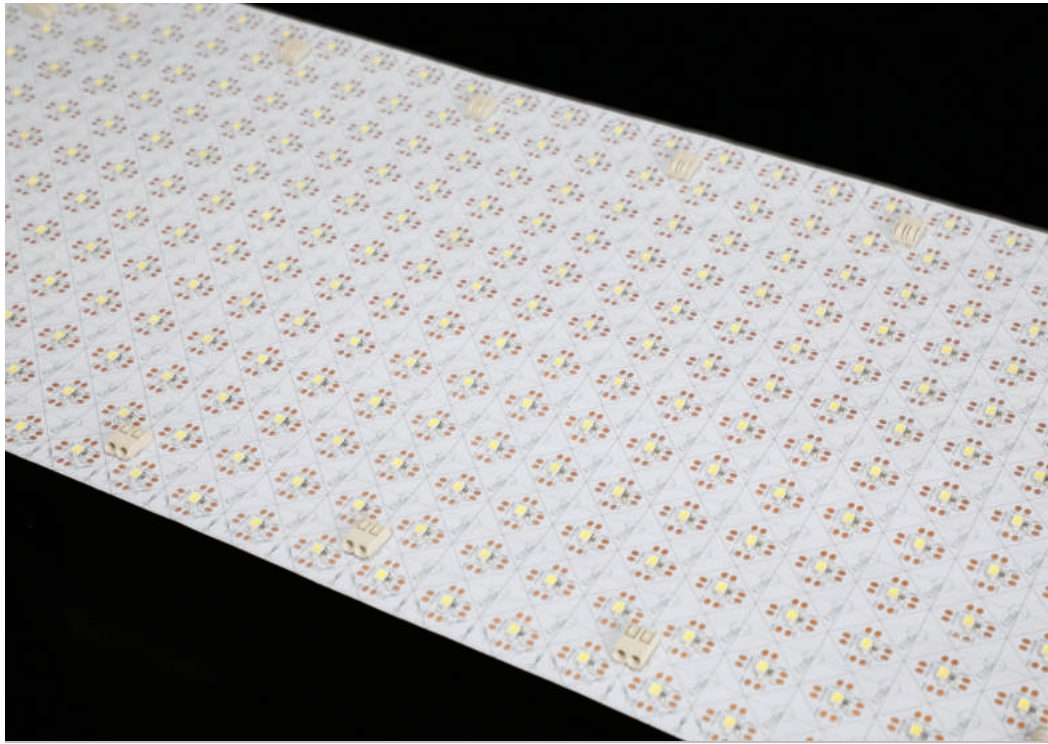
Item Number	Description	Max/Min Load	Input Voltage	Output Voltage	Dimmable	Dimensions
PS-TSLC-UNV-24V-30WDHV2	30W	30W / 3W	100-277V AC	24V DC	Yes*	6.49"L x 3.6"W x 1.02"H
PS-TSLC-UNV-24V-60WDHV2	60W	60W / 6W	100-277V AC	24V DC	Yes*	7.4"L x 3.6"W x 1.02"H
PS-TSLC-UNV-24V-96WDHV2	96W	96W / 9.6W	100-277V AC	24V DC	Yes*	8.66"L x 3.6"W x 1.61"H
PS-TSLC-UNV-24V-288WDHV2	288W (3 x 96W)	288W / 28.8W	100-277V AC	24V DC	Yes*	11.85"L x 4.25"W x 1.8"H



## LED Flexible Sheet

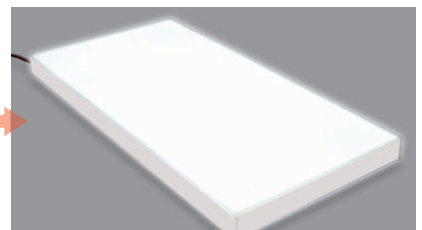
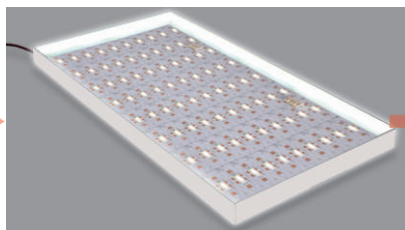
### SIGN BACKLIGHT SERIES

Highlight your brand concept.



### LED Full Sheet Utilization

#### LIGHT SHEET

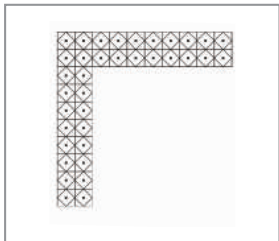
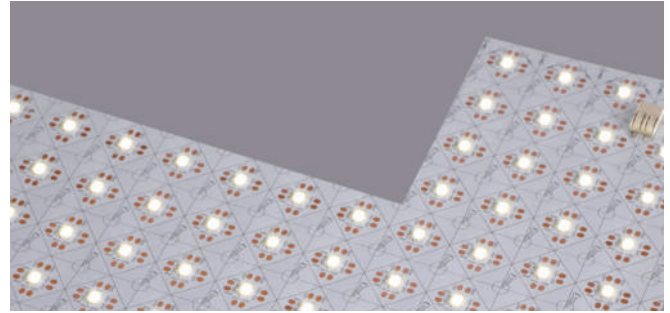
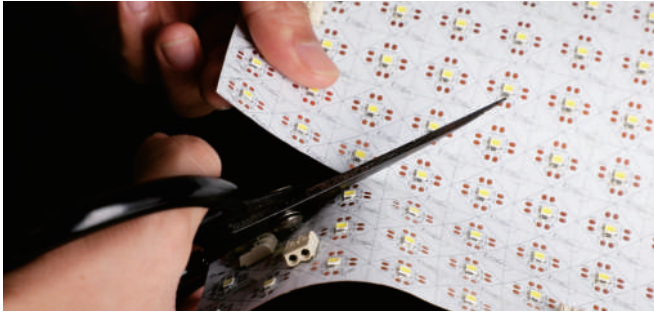


## LED Flexible Sheet

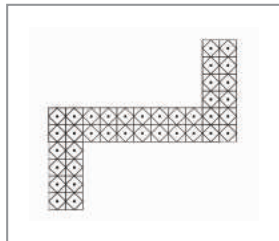
### Cutting Options

Flexible cut per single LED to desired shape, following any solid line in the direction of horizontal, vertical or 45-degree tilted solid line, and apply as the back-light of customized brand sign.

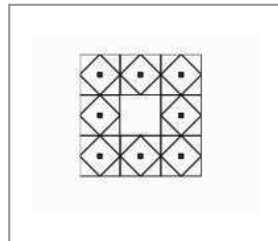
Examples of cutting options below.



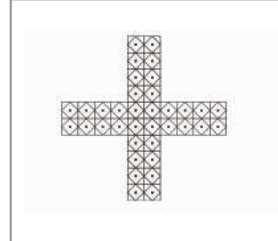
"L" shaped run



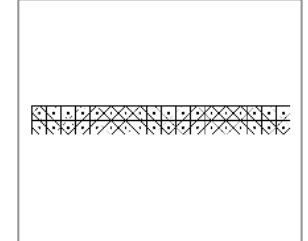
"S" shaped run



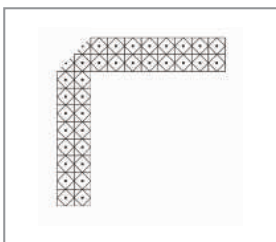
Donut-shaped run



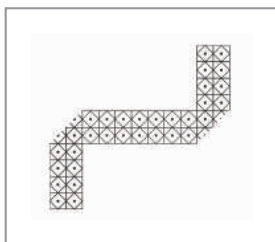
Cross-shaped run



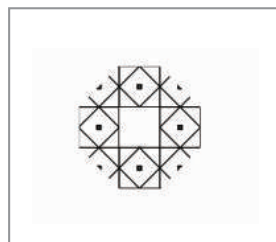
Straight run



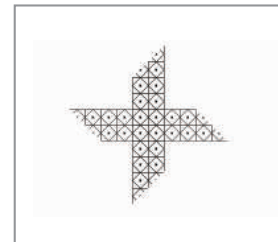
"L" shaped run



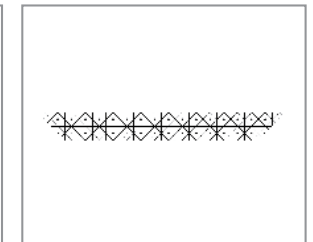
"S" shaped run



Donut-shaped run



Cross-shaped run



Straight run