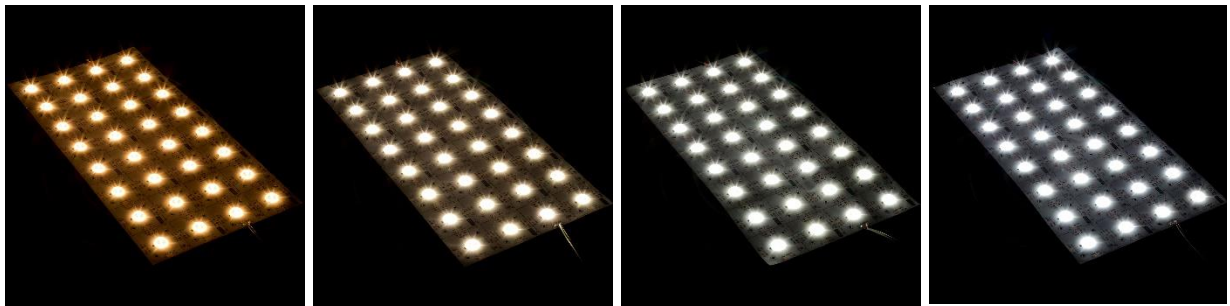


Performance 160 Degree Modular LED Light Sheet

Part numbers: XXXX-2835-LS160-YxY



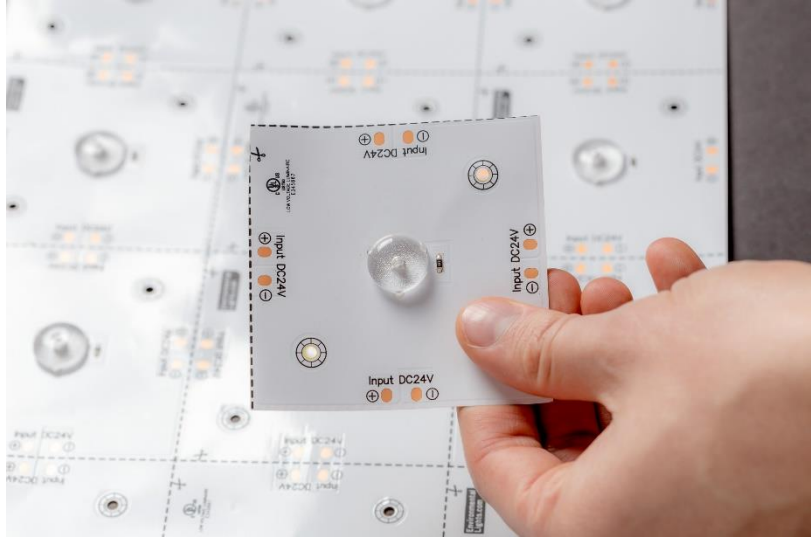
Specifically engineered to be UL-listed and provide high-quality light output that fits any budget, the Performance 160 Degree Modular Light Sheet is the perfect solution for lighting graphics and light boxes. It is a fantastic choice for large, scalable jobs that require maximum value from a reliable product.

Rollouts are complex. We get it. We understand the issues that can arise and the need for a streamlined workflow. We know that sometimes you don't need a feature-heavy product, you just want something that is high-quality and reliable. That's why we've designed a line of products that are optimized for performance and consistency.

This LED light sheet utilizes an optical lens around each LED to evenly distribute the output of the light at a wide beam angle of 160°. This allows for the ability to light shallow light boxes with consistent brightness and no visible hot spots. The Performance 160 Degree Modular Light Sheet is rectangular with the dimensions of 48 cm x 24 cm. It features either 6 LEDs x 3 LEDs or 8 LEDs x 4 LEDs per rectangular sheet. Due to its modular design, you can cut apart each singular LED to space throughout your installation in any way that you choose. This light sheet features a range of CCTs from 3,000K to 6,000K.

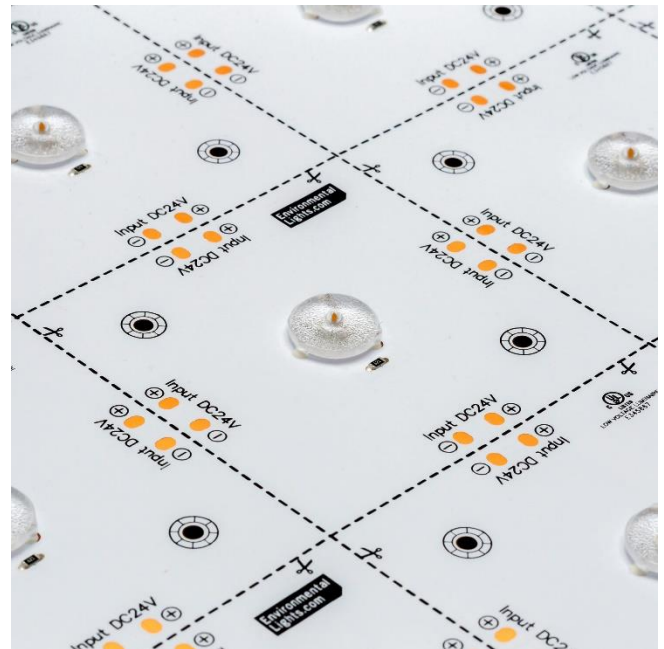
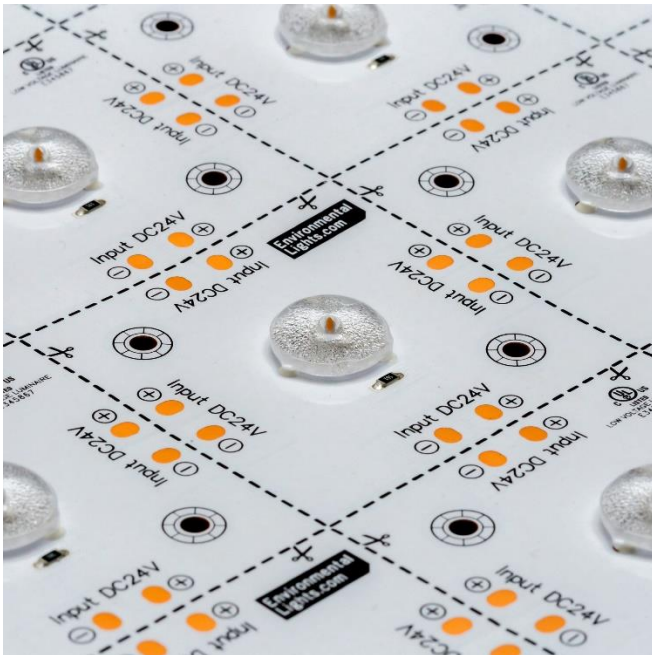
FEATURES

- Cost Effective
- Wide beam angle
- Modular
- Cuttable every 1 LED
- Fully dimmable
- UL-Listed
- Durable



Applications

Performance 160 Degree Modular Light Sheets from Environmental Lights are designed and optimized for large-scale retail rollouts where budget is just as important as quality and consistency. This makes it perfect for retail graphics, displays and storefront applications.



Safety Precautions

Please take the following precautions:

1. This equipment, like all electrical equipment, should be installed by a qualified person.
2. Do not expose these LEDs, dimmers or power supplies to intense electro-magnetic fields, including lightning.
3. The controllers and power supplies are not waterproof. Keep them dry.
4. Install in a well-ventilated area to prevent over-heating.
5. Always observe proper polarity.

When installing LED lighting, it is a good idea to follow this “dry-run” procedure:

1. Be sure you have everything you need before you start.
2. Lay out your lights and power supply on the floor or table.
3. There is some resistance in the LED lighting. If you see any color fading or dimming at the end of a long run, you may have too many LEDs for your power supply and you might need a bigger supply or shorter runs. Use a bus structure as described in [rgb_manual.pdf](#). Call if you need assistance with larger projects.
4. Connect everything and test it to be sure it works and you have it connected properly. It is unlikely, but possible, that some part of your system is defective or was damaged during shipment. If that is the case, it will be very helpful to you to know that before you do all the work involved in installing custom LED lighting systems. You will also know if you damage anything during installation, which is really helpful in trouble-shooting because manufacturing defects and installation damage typically have very different solutions.

Once you have tested the system successfully, you are ready to install it. We recommend you install LEDs, electronic controls and dimmers in such a way that you have access to them in case they fail. All electrical components can fail.

Specifications

2835-LS160-8x4

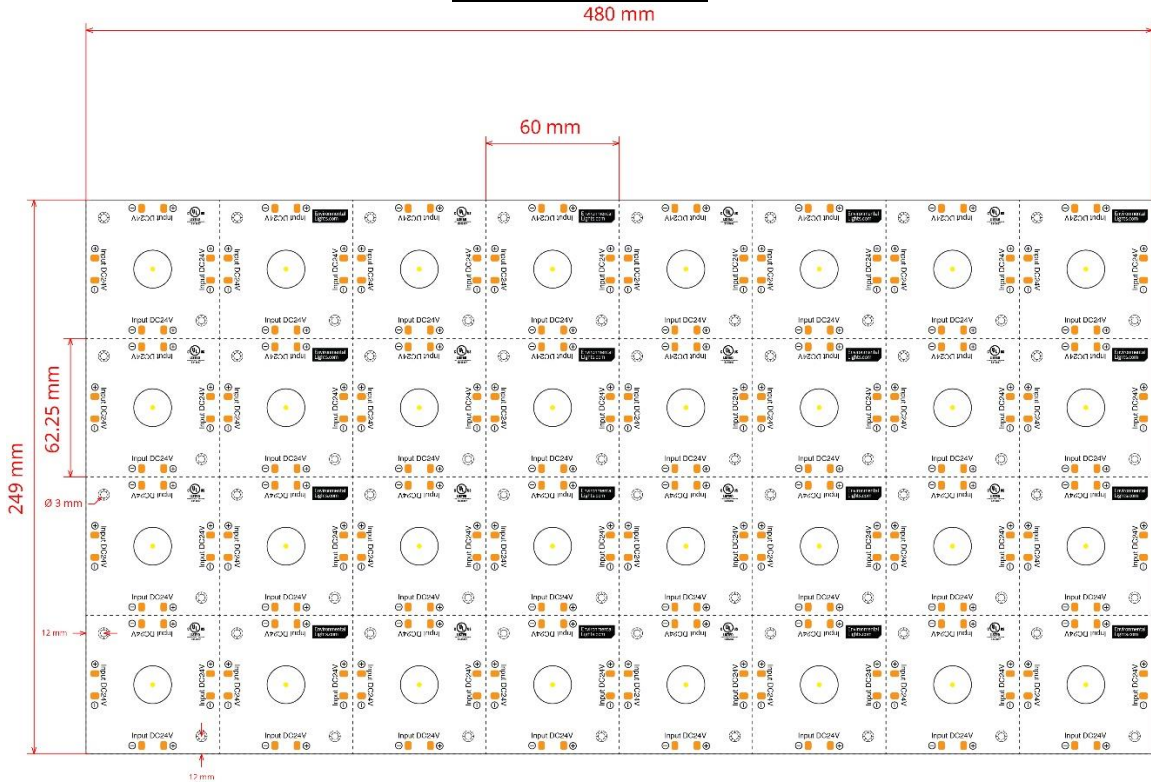
Output	160 Degree LED Light Sheet - 3,000K - 8x4 LEDs	160 Degree LED Light Sheet - 4,000K - 8x4 LEDs	160 Degree LED Light Sheet - 5,000K - 8x4 LEDs	160 Degree LED Light Sheet - 6,000K - 8x4 LEDs
	3000K-2835-LS160-8x4	4000K-2835-LS160-8x4	5000K-2835-LS160-8x4	6000K-2835-LS160-8x4
Beam Angle	160°	160°	160°	160°
Brightness (lm/sheet)	863	966	971	993
Color Rendering Index	90+	90+	90+	90+
Color temperature	3,000K	4,000K	5,000K	6,000K
Electrical				
Voltage (DC)	24	24	24	24
Power (W)	11	11	11	11
Density (LEDs/sheet)	32	32	32	32
Input Current (mA)	459	459	459	459
LED Node Size	2835	2835	2835	2835
Dimming Specifications	Fully dimmable	Fully dimmable	Fully dimmable	Fully dimmable
Physical				
Length (m)	480	480	480	480
Width (mm)	249	249	249	249
Warranty	3-year limited	3-year limited	3-year limited	3-year limited
Rating	UL Listed, RoHS	UL Listed, RoHS	UL Listed, RoHS	UL Listed, RoHS

2835-LS160-6x3

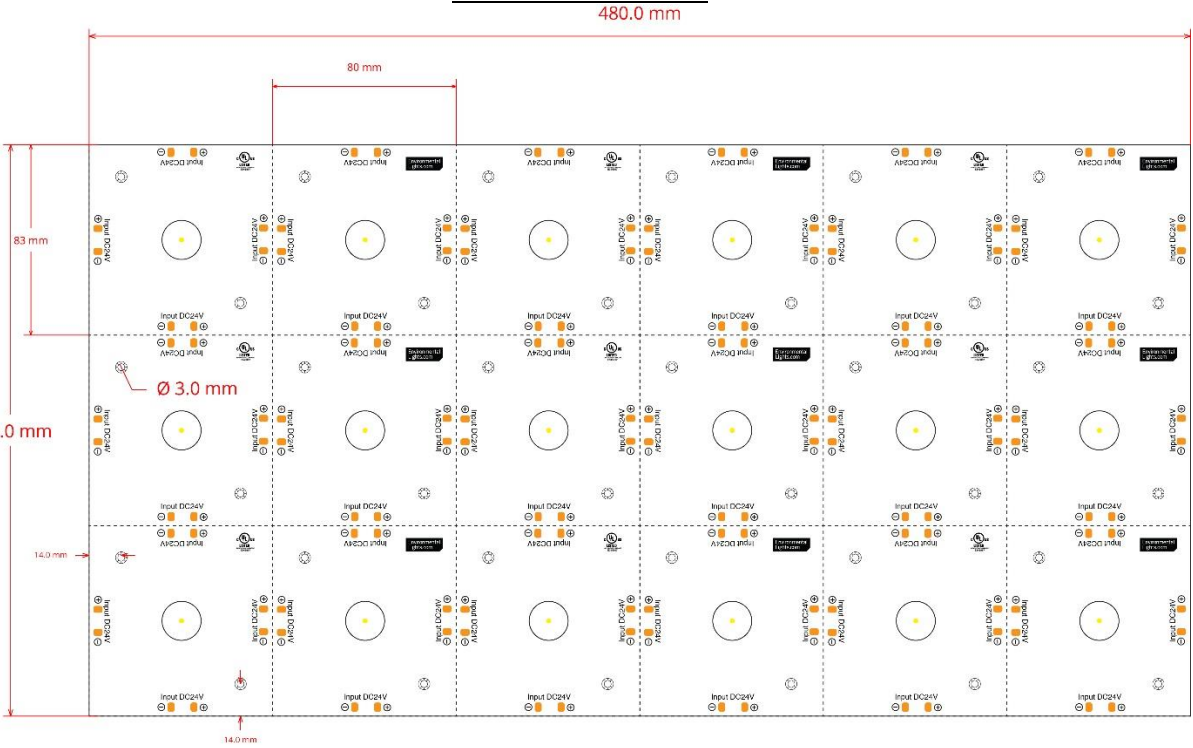
Output	160 Degree LED Light Sheet - 3,000K - 6x3 LEDs	160 Degree LED Light Sheet - 4,000K - 6x3 LEDs	160 Degree LED Light Sheet - 5,000K - 6x3 LEDs	160 Degree LED Light Sheet - 6,000K - 6x3 LEDs
	3000K-2835-LS160-6x3	4000K-2835-LS160-6x3	5000K-2835-LS160-6x3	6000K-2835-LS160-6x3
Beam Angle	160°	160°	160°	160°
Brightness (lm/sheet)	454	484	495	503
Color Rendering Index	90+	90+	90+	90+
Color temperature	3,000K	4,000K	5,000K	6,000K
Electrical				
Voltage (DC)	24	24	24	24
Power (W)	5.5	5.5	5.5	5.5
Density (LEDs/sheet)	18	18	18	18
Input Current (mA)	229	229	229	229
LED Node Size	2835	2835	2835	2835
Dimming Specifications	Fully dimmable	Fully dimmable	Fully dimmable	Fully dimmable
Physical				
Length (m)	480	480	480	480
Width (mm)	249	249	249	249
Warranty	3-year limited	3-year limited	3-year limited	3-year limited
Rating	UL Listed, RoHS	UL Listed, RoHS	UL Listed, RoHS	UL Listed, RoHS

Dimensional Diagrams

2835-LS160-8x4



2835-LS160-6x3



Installation

Wiring Instructions

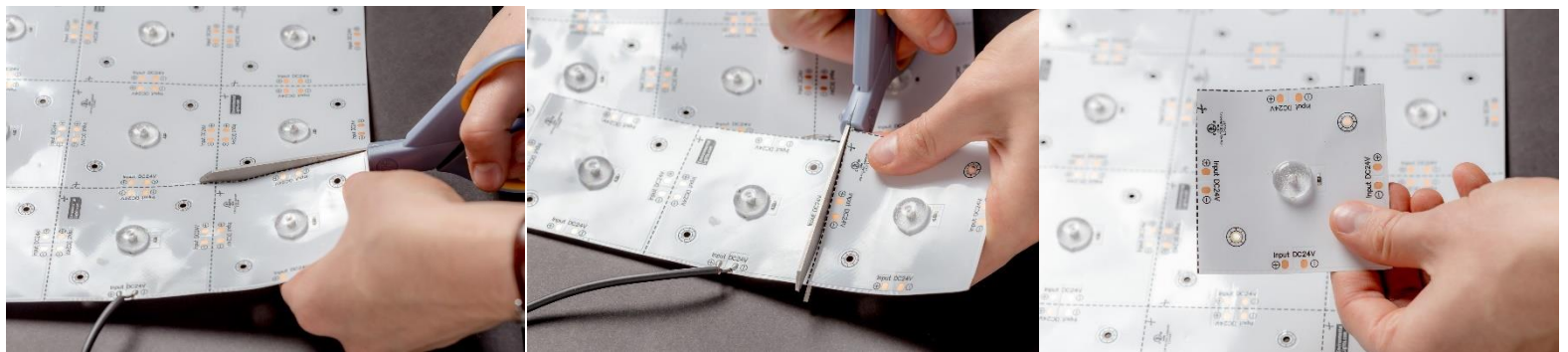
Each light sheet comes with a pre-installed male and female DC barrel connector. All tiles on the same sheet are connected electrically, so uncut sheets only need power supplied in one location. Once cut, each partial sheet will need its own cable to connect it to a DC 24V source. We recommend using 18 AWG wire as for any connecting cables.

To make an electrical connection, solder directly to the copper solder pads. Each tile comes with four solder pads. Only one of the locations needs to be connected to power. Each solder pad can be used as either a power input and output.

CAUTION: When connecting multiple sheets, do not connect more than 10 of the 8x4 sheets on a single power supply and do not connect more than 20 of the 6x3 sheets on a single power supply.

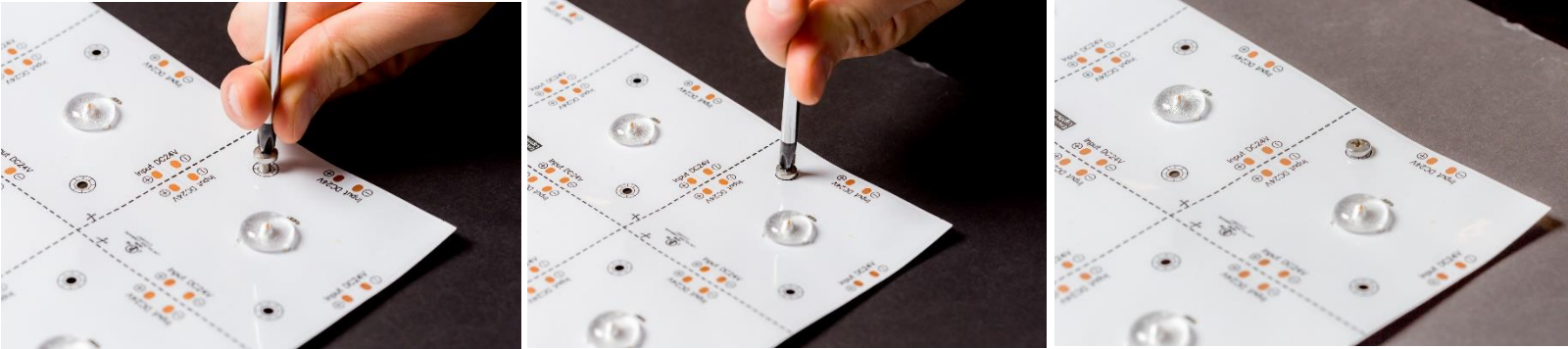
Cutting and Installing

1. Cutting light sheets is easy! Making sure the light sheet is not disconnected from power just cut along the dotted line using scissors.
 - a. **WARNING:** Cutting anywhere except the dotted line will result in product failure. Do not attempt!



2. Light sheets can be mounted in two ways. Each sheet comes with an adhesive backing as well as mounting holes. All sheets and partial sheets should have electrical connections before mounting.

- a. Mounting Holes: Using fasteners (screws or bolts) with mounting holes will provide a longer lasting installation due to the nature of adhesive to wear over time. This method will also be less permanent than the adhesive solution.



- b. Adhesive: To use the adhesive backing, peel back the paper layer on the back of the sheet. Properly clean any surface of dust before applying the sheet. Press the light sheet down and hold firm for 10 seconds to ensure a long-lasting attachment.

