

# Backlighting Surfaces

### United States (Headquarters)

1320 N. Boulevard  
Richmond, VA 23230  
Tel: 804 355 1692  
thelighttapeteam@lighttape.com

### Australia

27 Jones Street, O'Connor  
Western Australia, 6163  
Tel: (08) 9337 5217  
australia@lighttape.com

### Europe

Russell Conway  
Business Development Leader  
Tel: +44 7860 967410  
europe@lighttape.com

### India

75/6, Shipra Path, Mansarover  
Jaipur (Rajasthan) INDIA  
Tel: +91 9829056623  
india@lighttape.com

### South Africa

1st Ave East Parktown North  
The Warehouse Unit 3, JHB 2193  
Tel: 011 447 9709  
southafrica@lighttape.com

### South America

Cra. 5A No. 2Sur-45, CA12  
Chia, Cundinamarca - Colombia, Sur  
America  
Tel: 313 819 2209  
southamerica@lighttape.com

### Turkey

Russell Conway  
Business Development Leader  
Tel: +44 7860 967410  
europe@lighttape.com

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# Light Tape® Color Options

Our base colors are the Classic Natural Blue and Extreme Blue-Green. These colors appear white when off and lightly colored when illuminated. We then add filters to produce alternative color options.

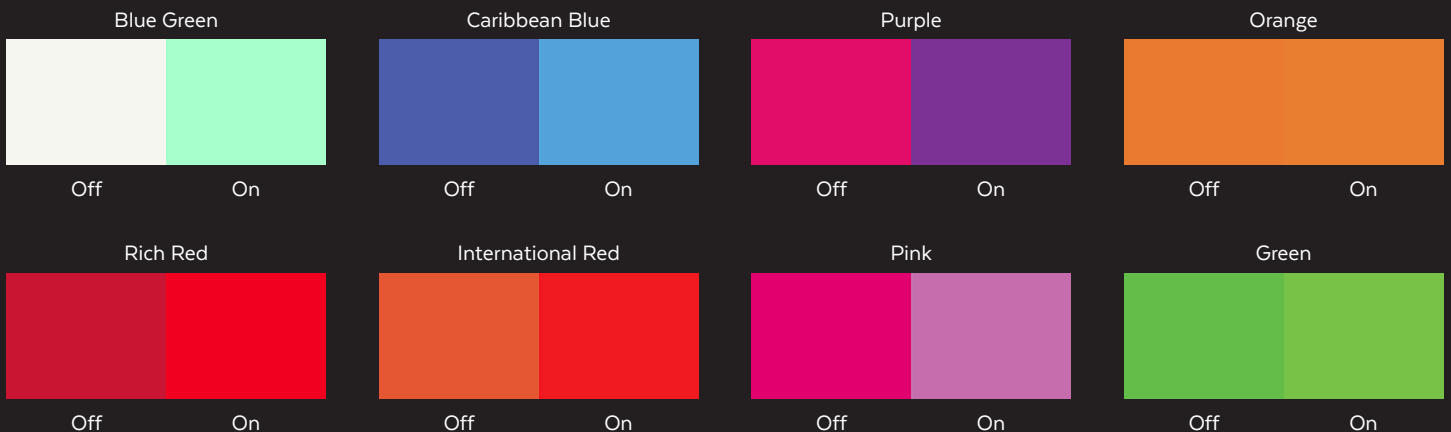
Our Media White and Glacier White colors are perfect for backlighting and applications requiring white, unfiltered light, these will appear lightly colored when switched off.

Our remaining range of colors will retain their vibrance when not illuminated so you don't lose the desired effect even when it's switched off, perfect for branding and advertising.

## CLASSIC SERIES



## EXTREME SERIES



NOTE: The colors in this guide are simulated and as such the final product may vary. If an exact color is required, we recommend seeing a physical sample of the lamp. Custom colors and widths are available, but may be subject to minimum order quantities, set-up fees, and approval testing.





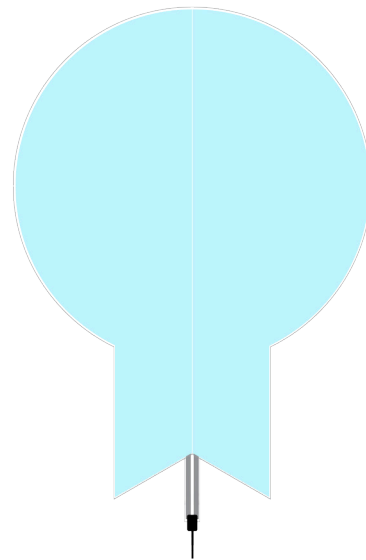
# Backlighting Custom Shapes

Light Tape® can be cut into just about any shape and size whilst maintaining its uniform illumination.

No shape is impossible to illuminate, regardless of the size. This makes Light Tape® the most versatile lamp in the world, suitable for any kind of bespoke design.

## SYMMETRICAL SHAPES

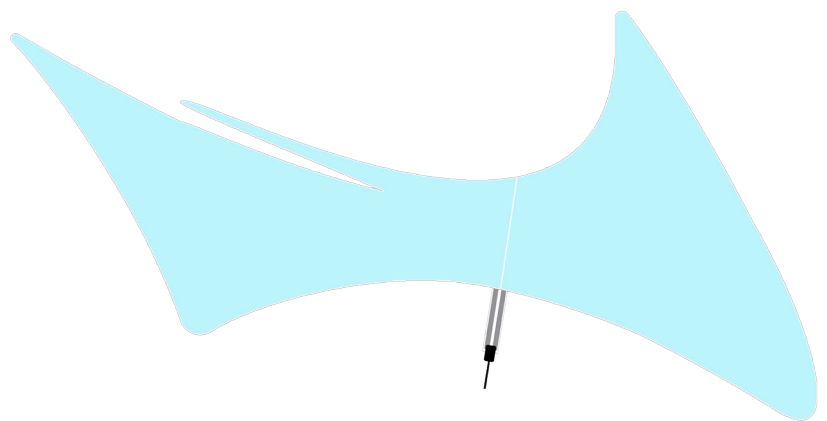
Both hemispheres need to be equal in surface area to ensure that Light Tape® illuminates evenly. Symmetrical shapes such as the one shown are easily produced, with the SEMP (split electrode midpoint) dividing the shape into two equal hemispheres.



## ASYMMETRICAL SHAPES

Creating a custom shaped light source would usually be a daunting process, but with Light Tape®, bespoke lighting has never been easier. For Asymmetrical shapes, we require an Adobe illustrator or PDF file to be submitted with your design. From this file, we can determine the total surface area of your shape and place the SEMP so that the shape is divided into two equal hemispheres.

If you do not have an AI file for your shape, it is possible for our team to create one for you. In this case, simply provide a template of your shape, and we can do the rest.





# Indoor Installation Tips



1. Clean surface with isopropyl alcohol to remove all dust, oil and grease. Surface should be smooth and clean for strong adhesion.
2. Determine where you will make the electrical connection. It is important to consider the connector and cap lengths. The conductive electrodes can be located behind the Light Tape®. We recommend all electrical connections are made in a suitably rated junction box. Always consult local electrical codes for wiring regulations and installation requirements.
3. Mount in a manner that allows the Light Tape® to be easily serviced (i.e. wall studs behind sheet rock wall). Do not step on Light Tape® during installation. Avoid hard creases. We recommend using our VibraMount™ adhesive as a backing when indoors. Place adhesive on wall, trim to size if needed, and remove liner.
4. Hide the connector. The conductive electrodes are essentially flat conductors. Be care not to rip the surrounding lamination around the lamp; lamination can be trimmed around the tabs if needed. Ensure a sufficient lamination border surrounding the connection tabs.
5. Be very careful when applying Light Tape®, make sure the coiled lamp is straight before you start to unroll. Once it has been applied, pulling Light Tape® off without care may damage the lamp.

## Please note:

For larger panels, it is easier to unroll the Light Tape® into place. Begin with the connector end, make sure the leading edge is square, and slowly unroll the panel into position.

## Remote Power Supply Installation

Sometimes, the power supply must be located far from the lamps. In this case, shielded conduit may be required to protect against high frequency and high voltage.

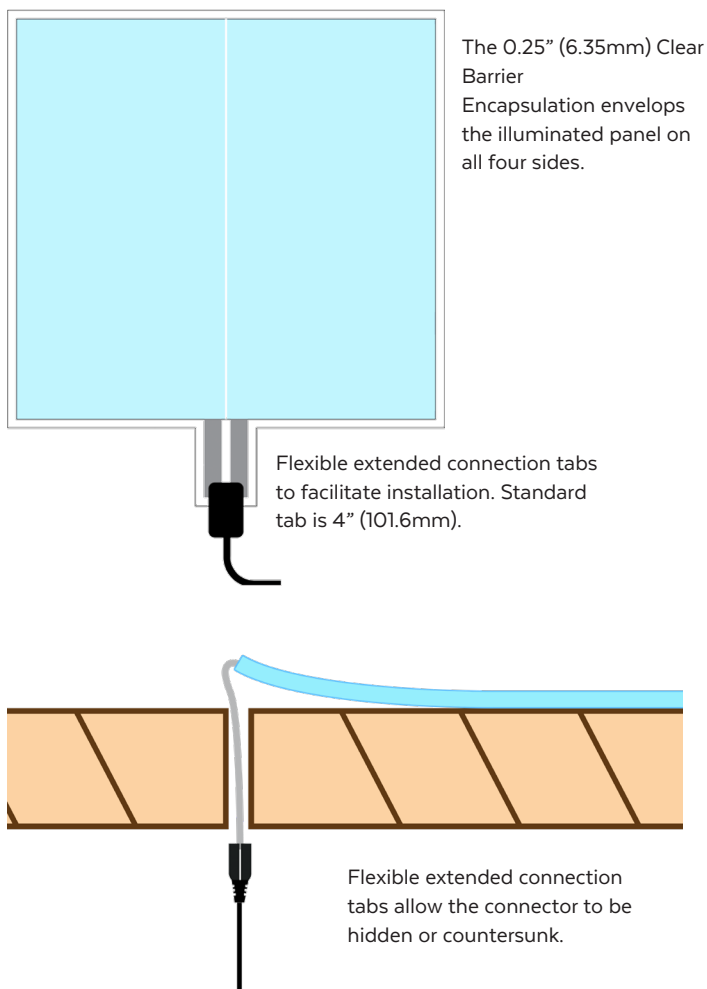
- A suitably rated enclosure is required to store power supply when located outdoors to ensure protection against the elements.
- 50 foot connection radius - it is possible to install the Light Tape® up to 50 feet (15.25m) from the Smart Driver™ Power Supply. Multiple connections are possible from one central location.
- Electrical Metallic Tubing (EMT) conduit is required to shield the high voltage and high frequency AC signals for remote installations. All wiring should be within a conduit and 600 volt rated.
- Always consult local electrical codes for wiring regulations and installation requirements.

# Installing Panels for Backlighting

It is important to consider the following when installing large panels for backlighting

- Light Tape® panels utilized for backlighting are equipped with extension tabs. The tabs are designed to position the electrical connection under the mounting surface.
- Light Tape® panels do not have polarity (+ or -)
- Multiple panels, connected in parallel, can be powered by a single Smart Driver™ lighting ballast.
- Do not crease or hard fold Light Tape®, keep out of work area until ready to install. Ensure it is placed on a clean, smooth surface.
- Plan panel placement before adhering to surface with foam adhesive panels.
- Do not mount Light Tape® or Smart Driver™ directly to resonant surfaces such as metal, as this may produce amplified harmonics. Please note, audible harmonics will be minimised once Light Tape is secured and installation is complete.
- In many cases, very little adhesive is necessary to hold light tape® in position. Please note, LightTape® is designed for compressive loading only, tensional and shear loads must be avoided.

1. To test the backlighting layout, lay the Light Tape® panels on the surface of the substructure. Adjust the placement of the Light Tape® panels to make sure the entire surface area is covered and there are no seams. It is acceptable for the Light Tape® panels to overlap if necessary, to maintain light uniformity.
2. Once preliminary test layout is complete, identify the position of any clearance cutouts required to conceal the connector into the substructure. Then remove all Light Tape® panels prior to creating the cutout/s.
3. Remove release paper from one side of the foam adhesive and adhere into place on the subsurface.
4. Feed the connectors and leads through the cutouts and connect all leads in parallel to the Smart Driver™ power supply. The Light Tape® panels utilized for backlighting are equipped with flexible extension tabs to allow for concealed connections.
5. Peel off release paper from the other side of the foam adhesive.
6. Making sure to replicate preliminary layout, begin to mount the Light Tape® panels. Starting with connector end, unroll panel in a straight path being careful to avoid bumps or ridges, ensuring the Light Tape® is flat to the surface.
7. Once first panel is set in place, continue placing panels one by one until surface is covered, overlapping adjoining panels to cover entire surface area.
8. Test operation of the Light Tape® panels once all are installed and connected to corresponding power supplies prior to installation of the final backlit surface.



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