

# What is LightTape<sup>®</sup>?

# Bring your imagination to Light™

The thinnest, widest, and longest, light  
in the world. Light Tape® lamps redefine  
electroluminescent technology.

Manufactured utilizing a novel continuous coating process  
resulting in an ultra-low-profile, lightweight panels and strips that  
seamlessly and evenly illuminate from edge to edge over long  
distances. The philosophy behind the product is simple: a light's  
form factor should not restrict design or artistic vision. With Light  
Tape®, you have the possibility to turn anything into light.

# Prepare to be illuminated.

Light Tape® will change the way you think about lighting.



## Even Illumination

No hot or cold spots at any size, a uniform light source up to 762mm wide, without the need for diffusion.



## Thin & Flexible

Thinner than a credit card & up to a meter wide. Light Tape fits into tight areas and can flow over any surface easily.



## Easy Installation

Flexible illumination of 45 meters or more with a single connection. Cuts your installation time by 75%.



## Unmatched Durability

Heavy load capable, vibration and impact resistant. Able to withstand high physical impact and still illuminate.



## More Energy Efficient

Light Tape® uses 40% less power than traditional LEDs at equal brightness.



## Custom-Cut Shapes

Illuminate non-symmetrical shapes with an ultra-thin, light source. Let your creativity to determine your design.



## Made in the USA

Top quality, built with pride utilizing the best materials and manufactured to last.



## No Heat

Unlike LEDs, Light Tape® can run for 40,000 hours and never get hot. Plus operates in extreme temperatures.

# LightTape® lamps set a new standard in EL.

Compared to alternative Electroluminescent technologies, no one comes close to our quality or performance.

We start by employing only the best materials to deliver amazing performance. We have a unique manufacturing process, a departure from traditional batch silk screening. Would you want your light made on the same machine as a t-shirt printer? We don't either, but that is how most alternate EL lamps are made.

## AMERICAN MADE

Light Tape® is manufactured in the United States under strict quality control standards. Our proprietary manufacturing methods create an electroluminescent light source unlike any other in the world.

## BEST MATERIALS

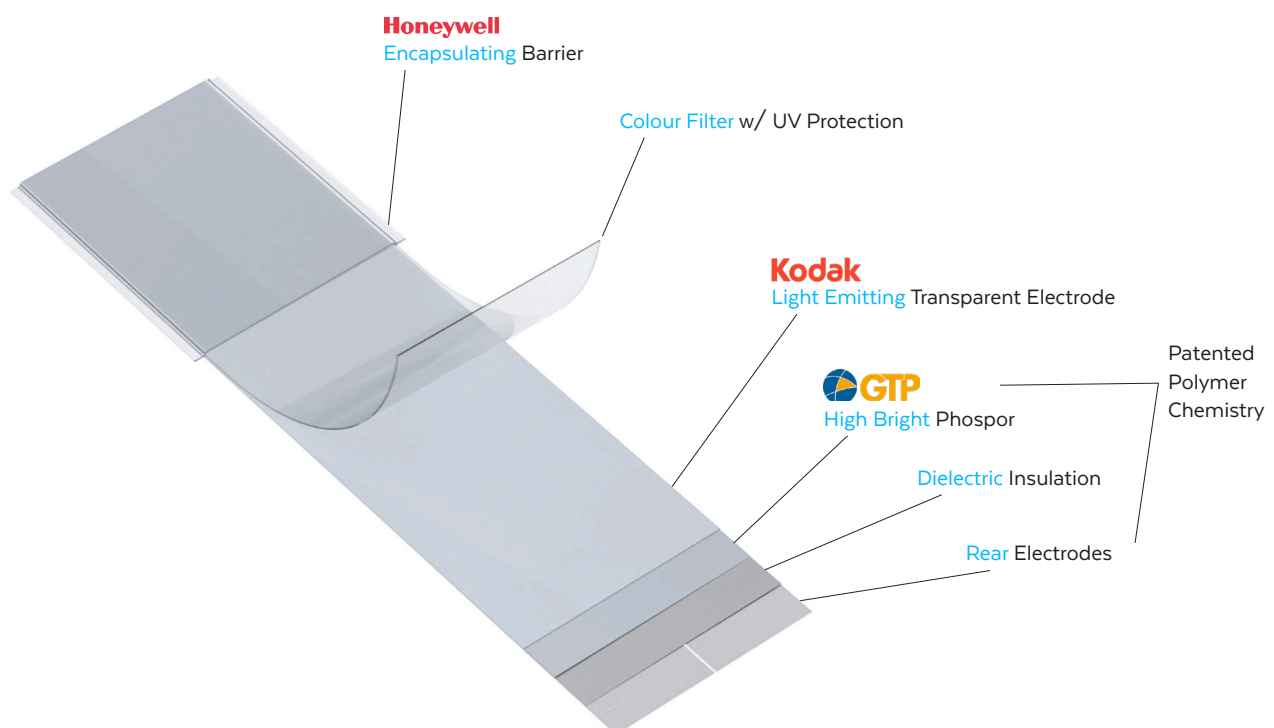
Only the best phosphors and conductive materials are used in Light Tape®. The combination produces a brighter, more durable light that uses less energy. Other EL producers use low grade phosphors and poor conductive materials resulting in nonuniformity of brightness and poor much shorter lifetimes.

## NOVEL CHEMISTRY

Light Tape®'s one-of-a-kind chemistry is protected by numerous patents. Our material's layers are bonded at the chemical level, producing a brighter, more durable lighting source. Light Tape® is a true solid state system. Other EL producers simply glue the rear electrode to the material, which easily separates with flexing or temperature changes, leading to electrical failure.

## UNPRECEDENTED LIFETIMES

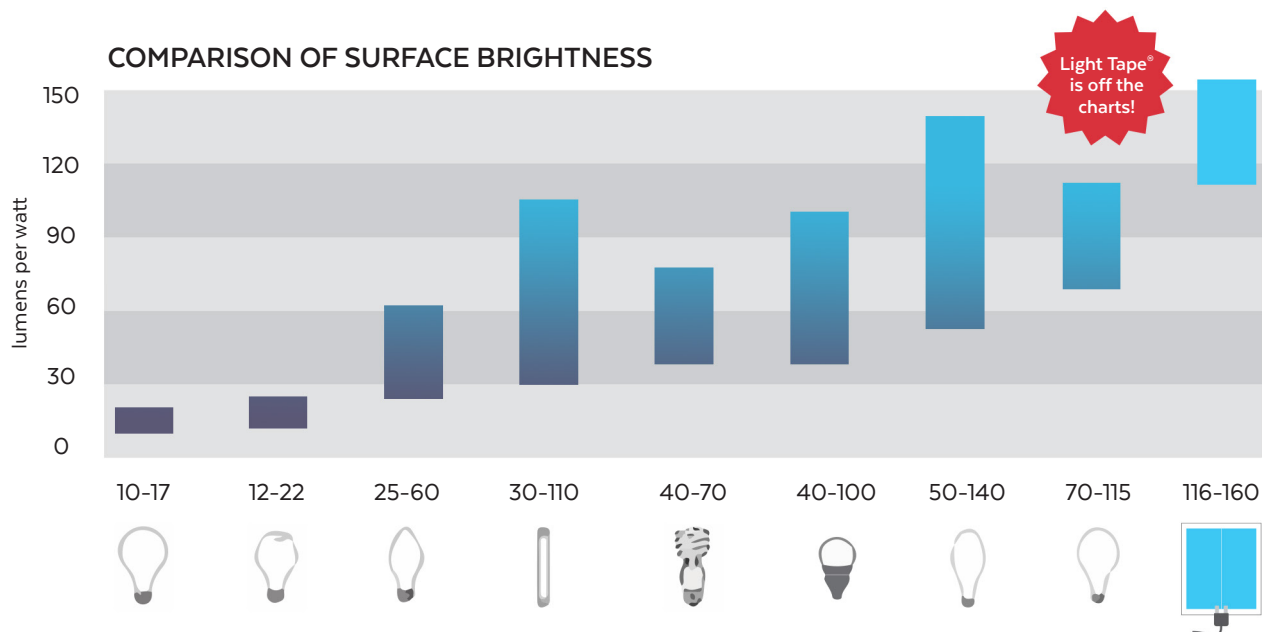
We are producing a lamp that is built to last, able to withstand the toughest applications.



# Energy Consumption

Light Tape® is an incredibly efficient flat accent light, with a completely uniform illuminated surface.

Other light sources, like LEDs, directionally emit light with a great deal of the desired light either wasted or diffused in order to accomplish even illumination. When comparing the surface brightness of an accent light, there is nothing more efficient than Light Tape®.



## LIGHT TAPE® VS. LED'S

	ACCENT LIGHTING				BACKLIGHTING	
	LIGHT TAPE	LED'S	LIGHT TAPE	LED'S	LIGHT TAPE	LED'S
ILLUMINATED WIDTH	1.27 cm	0.8 cm	2.54 cm	0.8 cm	100% Backlit	edge lit
AREA/LENGTH	1 linear meter	1 linear meter	1 linear meter	1 linear meter	1 square meter	1 square meter
ILLUMINATION SOURCE	100% phosphors	30 led's	100% phosphors	60 led's	100% phosphors	240 led's
CURRENT - AMPS	0.005	3	0.01	6	0.5	24
TOTAL WATTS	0.5	7.2	1.1	14.4	44	57.6
ILLUMINATION COVERAGE	100% uniform	2 cm gaps	100% uniform	1 cm gaps	100% uniform	60% uniform

## HEIRARCHY OF TRADITIONAL MEASUREMENT OF BRIGHTNESS

BRIGHTNESS	IMPERIAL		METRIC	
	W/in <sup>2</sup>	A/in <sup>2</sup>	W/cm <sup>2</sup>	A/cm <sup>2</sup>
HIGH	0.028	0.342	0.0044	0.0530
AVERAGE	0.016	0.191	0.0025	0.0296
LOW	0.011	0.133	0.0016	0.020

Light Tape® consumes power in a linear fashion. With every increase in area there is an equal increase in energy required to illuminate. Multiply the illuminated surface area by the multiples to get total watts and amps.

Total Watts = W x surface area  
Total Amps = A x surface area

# Light Tape® Standard Sizes

Item No.	Illuminated Width		Laminated Width (Interior)		Laminated Width (Exterior)	
LT-025	0.25"	6.35mm	0.5"	12.7mm	0.75"	19.05mm
LT-050	0.5"	12.7mm	0.75"	19.05mm	1"	25.4mm
LT-100	1"	25.4mm	1.25"	31.75mm	1.5"	38mm
LT-150	1.5"	38mm	1.75"	44.45mm	2"	50.8mm
LT-200	2"	50.8mm	2.25"	57.15mm	2.5"	63.5mm
LT-300	3"	76.2mm	3.25"	82.55mm	3.5"	88.9mm
LT-400	4"	101.6mm	4.25"	107.95mm	4.5"	114.3mm
LT-600	6"	152.4mm	6.25"	158.75mm	6.5"	165.1mm
LT-1200	12"	304.8mm	12.25"	311.15mm	12.5"	317.5mm
LT-1800	18"	457.2mm	18.25"	463.55mm	18.5"	469.9mm
LT-2400	24"	609.6mm	24.25"	615.95mm	24.5"	622.3mm
LT-3000	30"	762mm	30.25"	768.35mm	30.5"	774.7mm
Please note: Custom widths available to order						

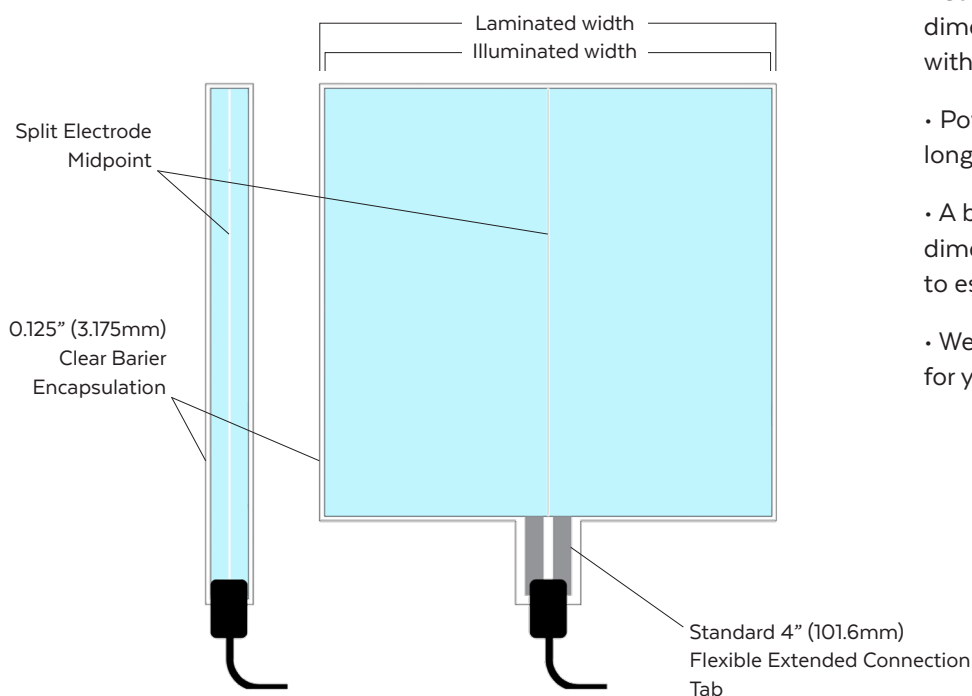
## WHEN ORDERING, PLEASE SPECIFY:

- Installation location - Interior (INT) or Exterior (EXT)
- Desired illuminated color
- Illuminated width item number
- What length for each Light Tape® lamp? (min order length of 25 ft / 7.62m required)
- Total number of lamps required
- Power Input - AC or DC? What input voltage?
- Flexible extension connection tabs for backlighting applications are standard at 4" long. This allows connector to be hidden. Please advise if longer lengths are required.

## ADDITIONAL INFORMATION:

- Custom widths are possible to fit any dimensions. Light Tape® can be tiled together with no seams or gaps in illumination.
- Power input location (please specify short or long side of lamp).
- A basic top or front view drawing with dimensions is helpful to our engineering team to estimate materials needed.
- We will suggest best electrical configurations for your project based on site layout.

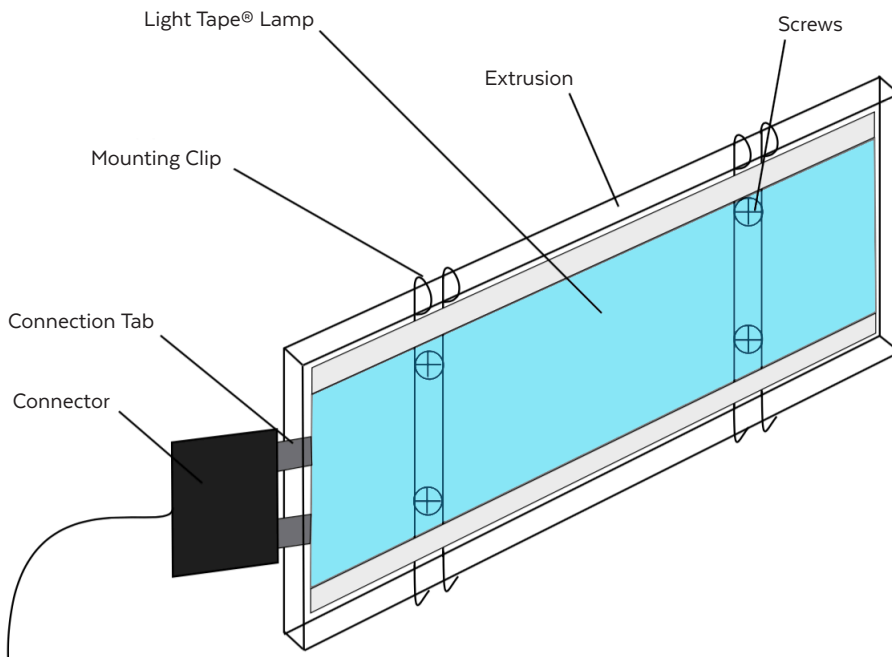
## TOP VIEW



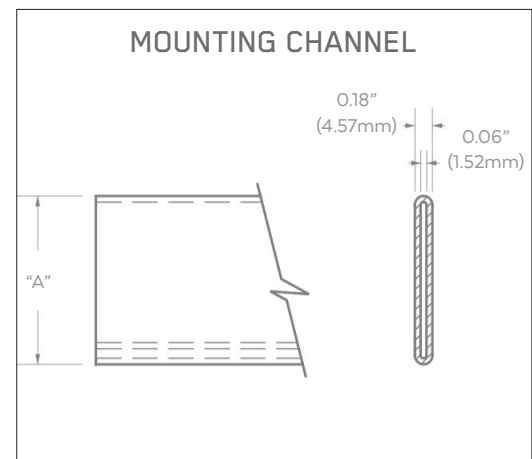
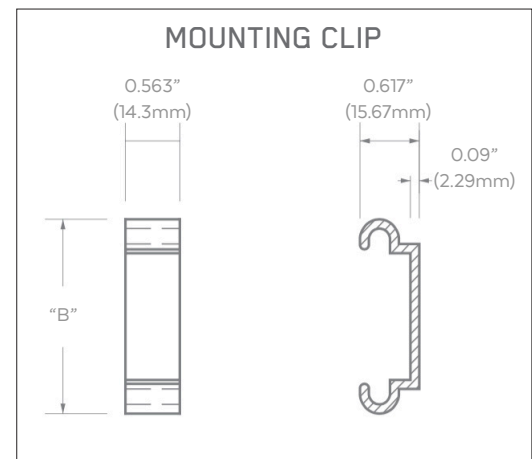
NOTE: the split electrode midpoint (SEMP) is a critical element of Light Tape®'s engineering that runs centered through the entire length.

# Light Tape® Snap-N-Light™ Specifications

Item No.	Illuminated Width		Channel Width (A)		Clip Width (B)	
P-LT-100	1"	25.4mm	1.67"	42.42mm	1.92"	48.9mm
P-LT-200	2"	50.8mm	2.67"	67.82mm	2.92"	74.3mm
P-LT-400	4"	101.6mm	4.67"	119mm	4.92"	125mm
Please note: All Snap-N-Light™ runs are made to order						



NOTE: Mounting Clip is attached to mounting surface.  
Light Tape® lamps slides into Mounting Channel which then snaps onto the pre-attached mounting clips.



Material	Clear UV Stablised Polycarbonate Mounting Channel
Mounting Screw	No. 10
Clip Placement	One clip per 1 to 3 feet (30-90cm), depending on surface
UV Protection	Yes, non-yellowing
Roll Format	Standard sizes: 25ft (7.62m), 50ft (15.24m), 75ft (22.86m), 100ft (30.48m) rolls

# 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.

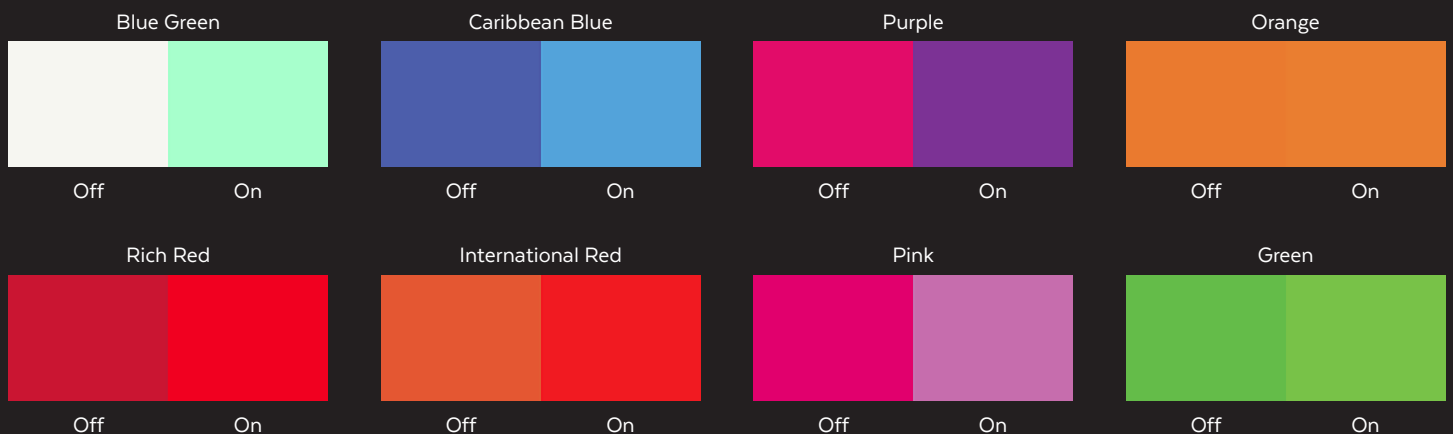
Our Media White and Glacier White colors are perfect for backlighting and applications requiring white, unfiltered light, these will appear lightly colored when switched off.

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.



# Technical Specifications

## Light Tape® Physical Specifications

Thickness (varies depending on color)	0.010 to 0.020 inches / 0.254 to 0.305 millimeters
Protective Encapsulation Seal	1/8" (3.18mm) on each side (+/- 1/16 inch, +/-0.159 cm)
Light Tape® Illumination Width	0.25" to 30" / 6.25mm to 762mm
Illumination Coverage	Infinite, can be tiled without a break in light

## EELC Smart Driver™ Power Supplies

AC Power Supply Input Voltage Range	90V - 260V AC
AC Power Supply Output Voltage (dimmmable)	0 - 350V AC
AC Power Supply Control	Dimming, 0 - 10V DC and DMX 512 Capable
AC Power Supply Output Cable	22AWG, 105°C, 600V, VW-1
DC Power Supply Input Voltage Range	3V - 24V DC (12V DC Standard)
DC Power Supply Output Voltage	260V AC
Light Tape® Operating Frequency	800Hz, ± 300Hz (Dependant on tuning)
Phase Angle	78° Leading Edge

## Light Tape® System

Light Tape® Load	Capacitive Load
Light Tape® Power consumption	16W - 44W per m <sup>2</sup> based on low to high brightness dimming (Average: .023W per in <sup>2</sup> / 0.0035W per cm <sup>2</sup> )
Light Tape® Power consumption (Per Linear Meter at 25.4 mm wide)	0.4W - 1.1W (Dependant on tuning)
Light Tape® Current Consumption*	0.19mA per in <sup>2</sup> / 0.0296mA per cm <sup>2</sup> 27.36mA per ft <sup>2</sup> / 296mA per m <sup>2</sup>

## Light Tape® Performance

Rated Lifetime**	40,000+ hours
Rated Lifetime - Years**	20+ years
Average Brightness	125 cd/m <sup>2</sup>
Brightness Range	0 - 200 cd/m <sup>2</sup>
Uniformity	Completely Uniform, max ± 1 cd/m <sup>2</sup> , independant of total surface area
Operating Temperature - Ambient	-22°F +122°F / -30°C +50°C
Heat Gain During Operation	Does not produce heat during operation
Compressive Strength - Ground Pressure	500psi + (more depending on mounting system)
Impact Strength - Izod (73F)	6.5 ft-lbs/in <sup>2</sup>
Flexural Strength	700 > 15,000 cycles ASTM D2176
Flexibility - Bend Radius	Contours around 6mm ø curve
Punctureable	Will continue to illuminate even if punctured.
Maximum Processing Temperature	350°F / 177°C (depending on residence time)
Product Warranty***	3-5 year limited warranty for Light Tape Lamps, 1 Year warranty for power supplies

## Health and Safety

Safety Features	Overload and short circuit protection. UL listed.
UL Certifications	File number E319670, 2006/95/EC
CE Certifications	EC-Attestation of conformity - No. 0704 63147 001
AS/NZS Certifications	Certificate of suitability - IEC 61347.2.13:2013, 61347.1:2016
Low Voltage Directive	Compliant
Environmental Compliance	ROHS and WEEE Directive
EMC Emissions Compliant	EN55015 (CISPR15) Radiated and Conducted Emission
Flame Resistance	UL 94VTM-O
International Protection Marking	IP67, EN60529

\*Data recorded at average brightness, with AC Driver output of 250 Volts and 850 Hertz.

\*\* based on 5 hr usage per day, average brightness, not operating when exposed to direct sunlight

\*\*\* Please refer to our Product Warranty Policy for additional details.

# Light Tape® Connector Specifications

The entire back side of Light Tape® is conductive. Unlike other antiquated technologies, you can make a connection anywhere and Light Tape® will illuminate evenly. No need to worry about the electrode detaching from the Light Tape®, we offer a variety of high performance connection options utilising industry leading Nicomatic Crimpflex™ contacts, providing the best contact resistance with high mechanical force, and resistance to mechanical failures with integrated strain relief. IP67 Epoxy potting and Tyco quick disconnects also available upon request.

**Large Connector Cap**, with 3M™ rubber mastic lining. Suitable for 0.5" (12.7mm) Light Tape® and wider. Supplied with standard connector, integrated strain relief, Nicomatic Crimpflex™ 11612-12 soldered contact pins, with 6ft (1.8m) black lead.



**Low Profile Connector Cap**, with dual adhesive EVA lining. Supplied with low profile connector, integrated strain relief, Nicomatic Crimpflex™ 11612-12 soldered contact pins, with 3ft (0.9m) white lead.



**Small Connector Cap**, with 3M™ rubber mastic lining. Suitable for 0.25" (6.35mm) Light Tape®. Supplied with standard connector, integrated strain relief, Nicomatic Crimpflex™ 11612-12 soldered contact pins, with 6ft (1.8m) black lead.



**Crimpflex™ DFM locked/semi-locked housing**. Suitable for 0.25" (6.35mm) - 0.5" (12.7mm) Light Tape®. With Nicomatic Crimpflex™ 10025-1X soldered contact pins. Please note, micro connections are made to order, please contact us to determine application suitability. 0.25" (6.35mm) model specifications shown.



WWW.LIGHTTAPE.COM