

Belle and James Restaurant - Richmond, VA



#### TIME TO CHANGE THE WAY YOU THINK ABOUT BACKLIGHTING.

Light Tape® has been developed and engineered to be the perfect backlight. Light Tape® evenly illuminates natural stone, glass, and solid surfaces, delivering a "WOW" with a form factor that delights any designer or architect. Thin, light, and shipped in wide rolls for a quick and easy installation, Light Tape® is a lighting medium like no other.

# **Backlighting Surfaces**



Linder NY

# Redefining The Art of Backlighting

#### **EVEN ILLUMINATION WITHOUT DIFFUSION**

Place your surface directly on top of the Light Tape® lamps. Never a hot or cold spot no matter the size of your surface. Tile the panels together to cover any surface without a seam or break in light.

#### NO MORE BULKY LIGHT BOXES TO BUILD

Flatter than a credit card and as light as a poster. No need to design and fabricate a complicated light box to diffuse light. Stop spending so much time and money on something you really don't need.

#### **SUPER FAST AND EASY TO INSTALL**

Cover a 50 foot bar in a matter of hours. If your surface is flat, you're good to go. Roll out the Light Tape® on a counter top, or stick it to the wall and apply your translucent material. It's that easy!

#### NO HEAT WITH THE ABILITY TO DIM

Never gets hot like LED's, no more warm surfaces. Cool to the touch no matter how long you leave Light Tape® running. Can be integrated with standard dimmers so you can dial in the optimum light level.

# **Materials Options**

#### **STONE**

Bring to life the colors, depths and marbling of natural stone. The true beauty and complexity of a stone is often found within the layers that form stone. Backlighting with Light Tape® enables one to see nature's work hidden beneath the surface. When illuminated, the material transforms from one to a multi dimensional piece of art, a true centerpiece.







Off

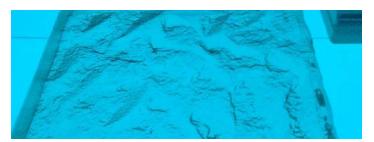
On

#### **GLASS**

The ability to create works of art using glass as the medium has been around for centuries. The craft has developed over time from decorative to structural applications. However, the ability to illuminate glass so evenly, following the form factor of the artist is only now possible with Light Tape®.



Stained Glass



Nathan Allen Glass

#### **SOLID SURFACE MATERIALS**

The development of unique engineered translucent surfaces is on the rise. However, not all light penetrates the same through these surfaces and some colors are traditionally difficult to illuminate. Our engineering team at Light Tape® can help you select the perfect light to enhance your selection and not wash out the effect.



NBC communication desk

# Prepare to be illuminated.



#### **FORM FACTOR**

Light Tape allows for complex surfaces to be evenly lit with no break in illumination. Curved surfaces and difficult shapes can all be easily backlit.



#### THINNER THAN A CREDIT CARD.

With a thickness of 1/100 of an inch, Light Tape® is the ultimate low-profile backlight. It can be mounted directly to a sub-surface.



irregular areas



holes for support stanchions

#### **CUSTOM SHAPES**

We have a patented process for cutting Light Tape® lamp into complex shapes to fit your design.



sink cutouts



oversaturation



hot and cold spots

### AVOID THE COMMON PITFALLS OF BACKLIGHTING

# **Light Tape**® will change the way you think about a light bulb.



Even illumination: a uniform light source without the need for diffusion, no hot-spots at any size!



No heat: Unlike LEDs, Light Tape® can run for 40,000 hours and never gets hot. Ability to withstand extreme temperatures.



Made in the USA: Built with pride, manufactured to last.



Thinner than a credit card and flexible. Fit into specs others cannot.



Easy Installation: Our technology is easy to install. Light Tape® illuminates up to150 feet on a single connection.



Energy efficient: Light Tape® uses 40% less power than traditional LEDs



Unmatched Durability: Impact and vibration resistant, heavy load capable. Light Tape® can withstand punctures and still illuminate.



Custom shapes: allow your creativity to determine your light's design.

## **Light Tape®** stands alone in the world of EL.

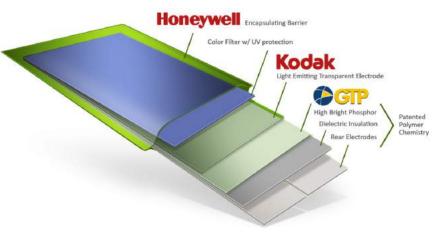
Compared to alternate EL technologies, no one comes close to our quality. We start by employing only the best materials to deliver shocking performance. We have a unique manufacturing process, a departure from traditional batch silk screening. Would you want your light made on the same machine as a t-shirt printer? We don't either, but that is how most alternate lamps are made.

#### **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 glue the rear electrode to the material, which easily separates with flexing or temperature changes, leading to electrical failure.

#### **BEST MATERIALS**

Only the best phosphors and conductive films 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 non-uniformity of brightness and poor energy efficiency, not to mention much shorter lifetimes.



#### **AMERICAN MADE**

Light Tape® is manufactured in the United States under strict quality control standards. Our own proprietary

production methods create an electroluminescent light source unlike any other in the world.

#### **UNPRECEDENTED LIFETIMES**

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



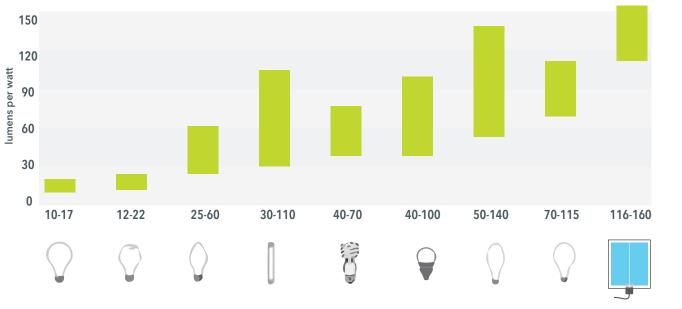
There are dozens of things that cause a lamp to fail, but most do not affect Light Tape®.

# **Energy Consumption**

Light Tape® is a flat capacitor emitting light only on the surface. Versus other light sources like an LED who directionally emit light with a great deal of the desired light either wasted or diffused for even illumination. When comparing the surface brightness of an accent light, there is nothing more efficient.







#### LIGHT TAPE VS. LED ENERGY COMPARISON BY AREA

	LIGHT TAPE	LEDS				
ILLUMINATED WIDTH	2.54 cm	0.8 cm	1.27 cm	0.8 cm	100% backlit	edge lit
AREA/LENGTH	1 linear meter	1 linear meter	1 linear meter	1 linear meter	square meter	square meter
ILLUMINATION SOURCE	100% phospors	30 LEDs	100% phosphors	60 LEDs	100% phosphors	240 LEDs
CURRENT - AMPS	0.01	3	0.005	6	0.5	24
TOTAL WATTS	1	7.2	0.5	14.4	44	57.6
ILLUMINATION COVERAGE	100% even	2 cm gaps	100% even	1 cm gaps	100% even	30% dimmer in center

 $<sup>\</sup>hbox{$^*$Light Tape}{}^{\circledast}\ data\ based\ on\ full\ brightness,\ consumption\ results\ can\ be\ much\ lower\ when\ dimming.}$ 

#### LIGHT TAPE TOTAL POWER CONSUMPTION BY AREA

BRIGHTNESS	W/in²	mA/in²	W/cm <sup>2</sup>	mA/cm <sup>2</sup>
HIGH	0.028	0.342	0.0043	0.0530
AVERAGE	0.016	0.191	0.0025	0.0296
LOW	0.011	0.133	0.0017	0.020

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

# **Light Tape® Standard Sizes**

ITEM NUMBER	ILLUMINATED WIDTH - B	LAMINATED WIDTH - A
lt-025	0.25" (6.35mm)	0.75" (19.05mm)
lt-050	0.5" (12.7mm)	1.0" (25.4mm)
lt-100	1" (25.4mm)	1.5" (38.1mm)
lt-150	1.5" (38mm)	2" (5.07cm)
lt-200	2" (5.08cm)	2.5" (6.35cm)
lt-300	3" (7.62cm)	3.5" (8.89cm)
lt-400	4" (10.16cm)	4.5" (11.43cm)
lt-600	6" (15.24cm)	6.5" (16.51cm)
p-lt-1200	12" (30.48cm)	12.5"(31.75cm)
p-lt-1800	18" (45.72cm)	18.5"(46.99cm)
p-lt-2400	24" (60.96cm)	24.5"(62.23cm)
	*custom widths availal	ole

# Split Electrode Line Standard 2" Extended Connection Tabs O.25" Clear Barrier Encapsulation NOTE: the split electrode line is a critical element of Light Tape's engineering that runs centered through the entire length.

**CROSS SECTION - SPLIT ELECTRODE** 

#### WHEN ORDERING, PLEASE SPECIFY:

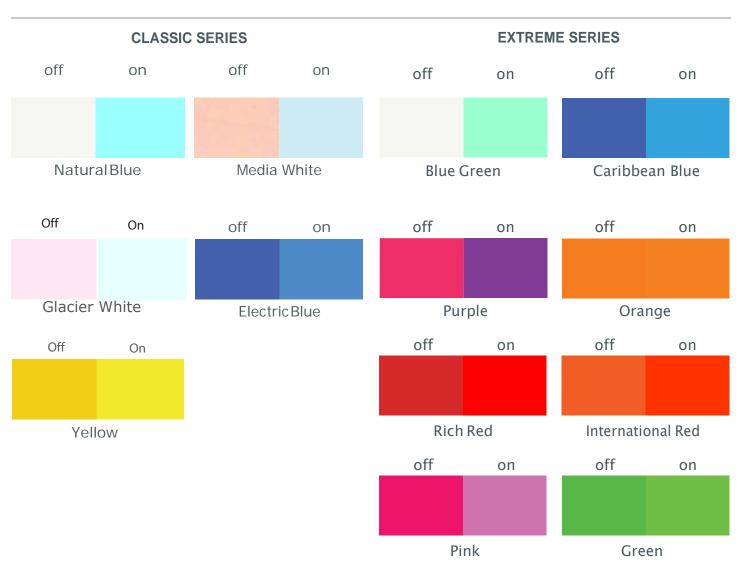
- Installation location Interior (INT) or Exterior (EXT)
- Desired illuminated color
- Illuminated width item number.
- What length for each Light Tape lamp?
- Total number of lamps required.
- Power Input AC or DC? What input voltage?
- Extension connection tabs for backlighting applications are standard at 2" 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 and joined together with no seams or gaps.
- 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 configuration for your project based on site layout.

## **Color Options**

Our base colors are Classic Natural Blue and Extreme Blue-Green. These colors appear white when off and colored when illuminated. We then add a filter to produce specific color options. All other colors will remain that color when not illuminated. Please check our website for updated and newcolors.



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

# **Light Tape® System 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	1/4" on each side (+/-1/16" of an inch, +/- 0.159 cm)		
Light Tape® Illuminated Width	0.25 to 30 inches / 0.625 to 90 cm		
Illumination Coverage	Infinite, can be tiled without a break in light		
Power System			
Light Tape® Load	Capacitive Load		
Phase Angle	78° Leading Edge		
Light Tape® Power Consumption by Area	0.016 watts per in <sup>2</sup> / 0.106 watts per cm <sup>2</sup>		
Light Tape® Amperage Consumption by Area**	0.19 milliamps per in <sup>2</sup> / 1.23 milliamps per cm <sup>2</sup>		
Light Tape <sup>®</sup> Watts per Linear Meter at 2.54 cm wide	0.4 to 1.1 watts based on low to full brightness dimming		
Light Tape <sup>®</sup> Watts per Square Meter	0.21 to 0.53 watts based on low to full brightness dimming		
Light Tape <sup>®</sup> Output Voltage (dimmable)	250 Volts AC, +/- 50 Volts AC		
Light Tape® Operating Frequency	800 Hertz, +/- 300 Hertz (depending on tuning)		
AC Driver Input Voltage Range	90 to 260 Volts AC		
DC Driver Input Voltage Range	3 to 24 Volts DC (12 Volts DC standard)		
Power Source	ELLC Smart Driver™ Power Supplies		
Controllable	Dimming, 0 to 10 Volts DC and DMX 512 Capable		
Light Tape® Performance			
Useful Life - Hours	20,000 hours to excess of 40,000 hours		
Jseful Life - Years	up to 20 years (dependent on drive parameters)		
Average Brightness	125 cd/m <sup>2</sup>		
Brightness Range	0 to 200 cd/m <sup>2</sup>		
Brightness Differential - Completely Uniform	+/- 1 cd/m <sup>2</sup> , independent of total surface area		
Operating Temperature - Ambient	-40°C to +65°C		
Heat Gain During Operation	Does not produce heat during operation		
Compressive Strength - Ground Pressure	500 psi or 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 - Wrap Angle	Contours around 6 millimeter diameter object		
Punctureable	Yes, will illuminate after puncturing		
Maximum Processing Temperature	350°F / 177°C (depending on residence time)		
Health and Safety			
Safety Features	Overload and short circuit protection. UL listed.		
UL Certifications	File number E319670, 2006/95/EC		
CE Certification	EC-Attestation of conformity – No.0704 63147 001		
Low Voltage Directive	Compliant		
Environmental Compliance	ROHS and WEES Directive		
EMC Emissions Compliant	EN55015 (CISPR15) Radiated and Conducted Emission		

# BROUGHT TO YOU BY: ELECTRO-LUMINX® LIGHTING CORPORATION

Electro-LuminX® Lighting Corporation, the manufacturer of Light Tape®, is located in the booming Mid-Atlantic creative hub of Richmond, Virginia. The company formed in 2004 in order to bring a truly unique lighting source to market that challenges preconceived notions of lighting.



#### **Electro-LuminX Lighting Corporation**

#### USA

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