

Split Electrode

Knema offers two types of electroluminescent lamp (EL), **Split Electrode**, a roll type material in lengths up to hundreds of feet long and up to 30-inches wide. This type of EL lamp has a 1/100-inch unilluminated scribe line down the center and is a good back light source for signs where a small center line will not detract from your graphic or where long length strips are needed as accent or pathway lighting. The split Electrode lamp is available in WHITE and BLUE-GREEN, when on.

The second type of electroluminescent lamp is **Parallel Electrode**, sometimes called an EL panel. This type of electroluminescent material does not have a center line and would be a good source for backlighting signs and artwork. The Parallel Electrode lamp is stocked in WHITE, when on, in several standard sheet sizes and available as a special order in custom sizes and shapes.



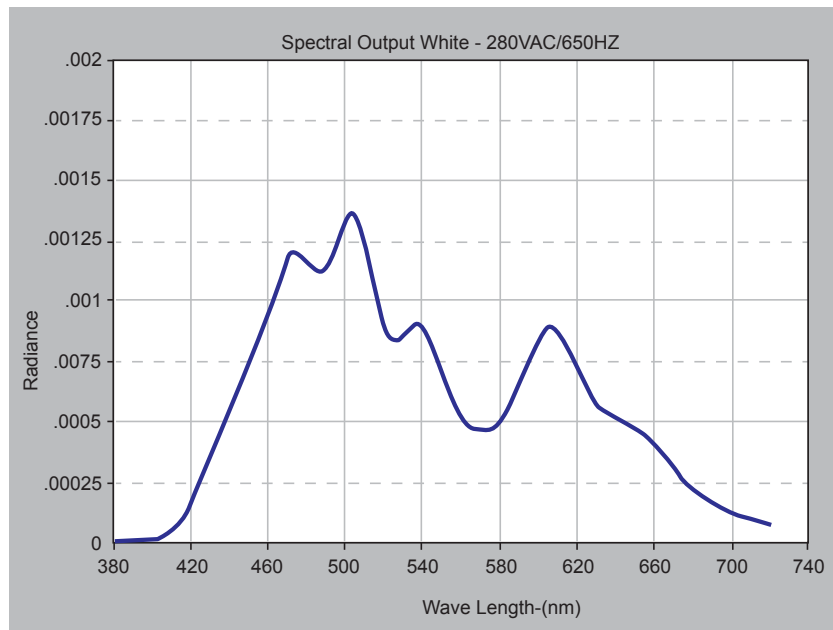
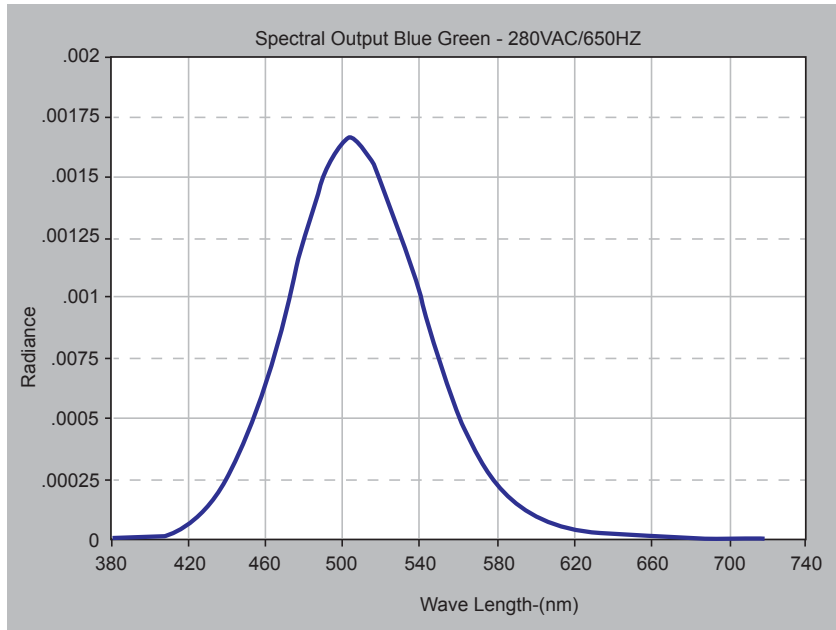
Blue-Green



White

Description:	
Voltage	Electroluminescent strips have a recommended working voltage of ~250-volts @ ~650Hz.
Weight	4oz per square foot
Size (maximum)	-widths of 0.25, 0.50, & 1 inch with a length up to 300 ft -widths of 2, 3, & 6 inches with a length up to 100 ft -widths of 9, 12, 15, 18, 21, 24, 30 inches with a length up to 50 ft Lighted size.
Color	White x = 0.333, y = 0.365, when on Blue-Green x = 0.117, y = 0.414 when on
Dimming	Yes
UL	Yes, UL48 standards, file # E175045
Operating Temperature	-20 ~ + 140°F
Estimated Half Life	5,000-10,000-hours
Brightness	69 cd/m ² for White, 82 cd/m ² for Blue-Green
Application	Indoor
Construction	Polycarbonate, Aluminum

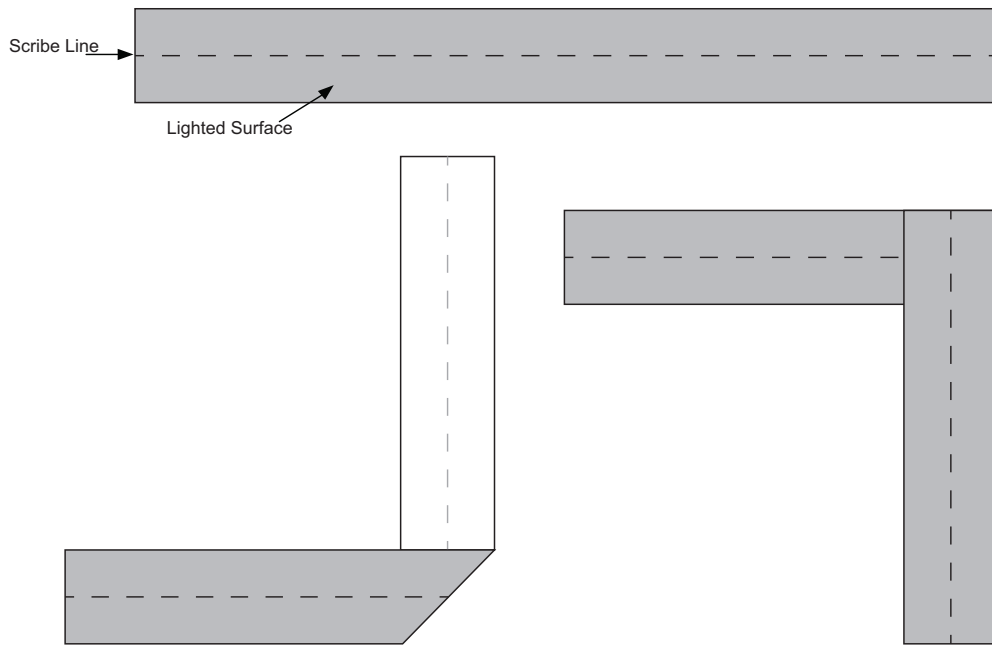
Spectral Data



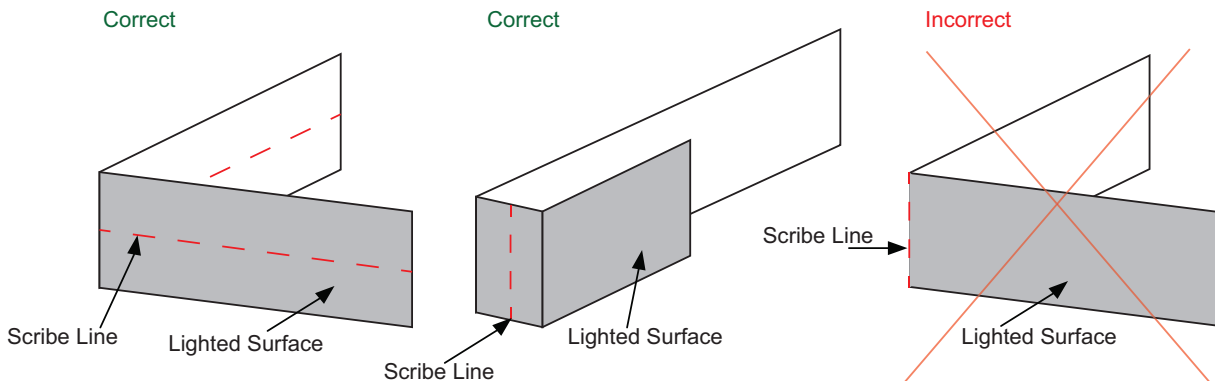
Practical Application

Folding: Electroluminescent strips can be loosley folded.

Fold Twice To Make A 90-Degree Turn



The electroluminescent strips can safely be folded anywhere except directly along the scribe line. Excessive bending and folding in the same location will damage the lamp.

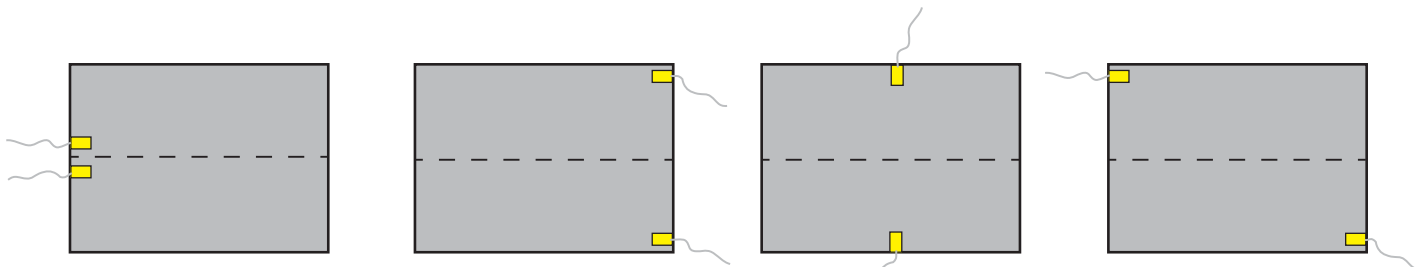


Practical Application

Connections: Place one connector on each side of the center scribe line. Compress eyelet and apply insulation.



Electroluminescent lamps are high voltage devices! Note: All cut edges should be sealed, to prevent electrical shock or moisture migration.



Place connectors anywhere on each side of the center line. One pair of Ecto connectors for each 5,000 square inches of electroluminescent lamp area, or one pair of eyelets for up to 1000 square inches.



Ecto Leads

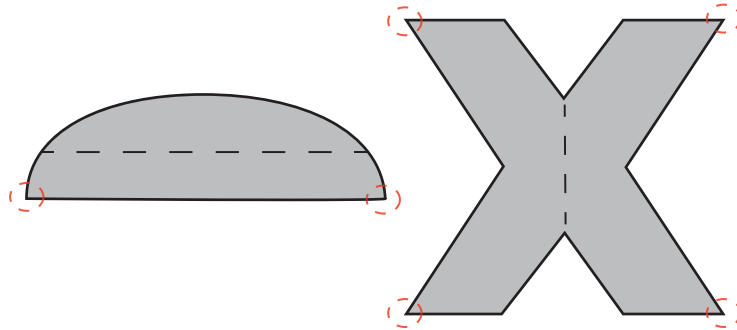


Eyelet Leads

Practical Application

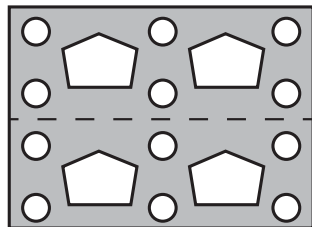
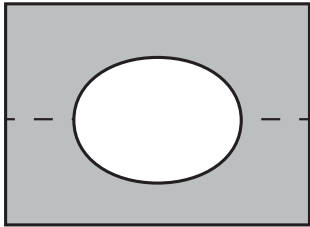
Cutting: The distance from the scribe line to any point that is both asymmetric and beyond the plane of the end of the line should be minimal to avoid uneven luminance.

Incorrect

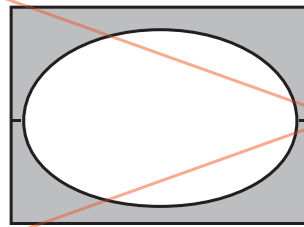


Circled areas will be darker than the rest of the lamp.

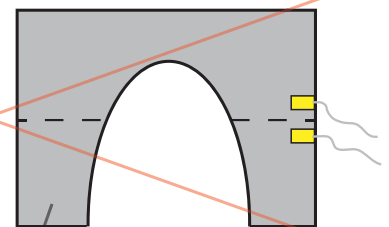
Correct



Incorrect



Area of void is greater than the overall lamp area.

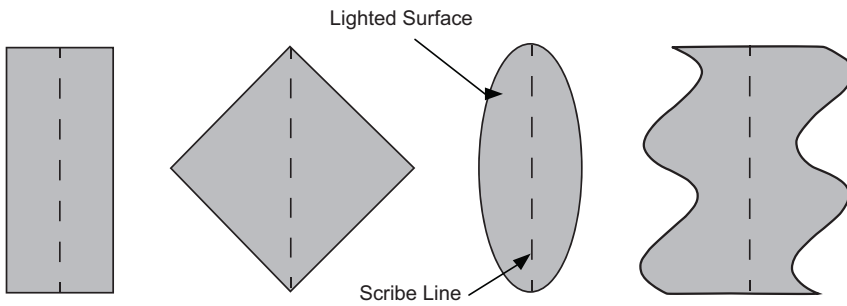


This area will not light.

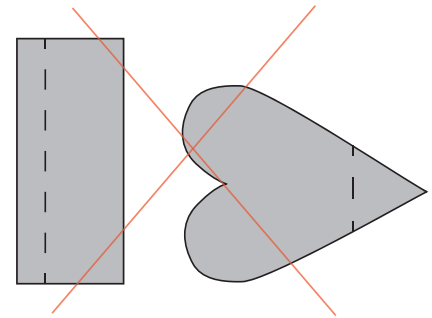
Practical Application

Fabrication: The shape and area should be symmetrical to the scribe line for uniform luminance.

Correct

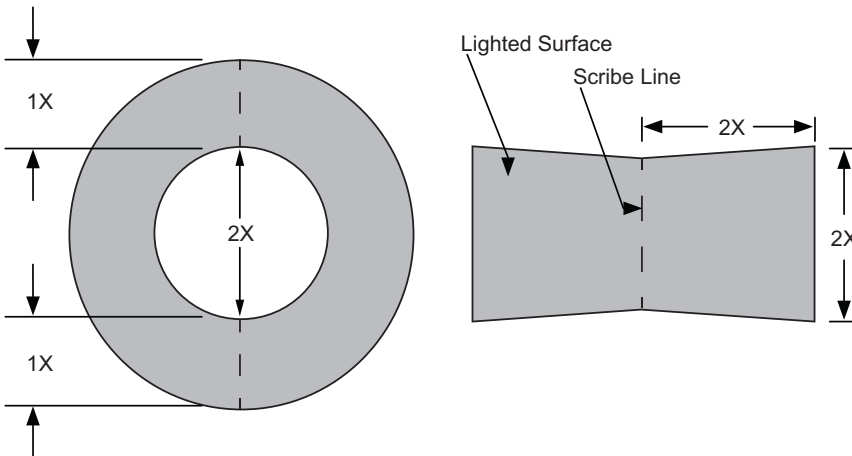


Incorrect

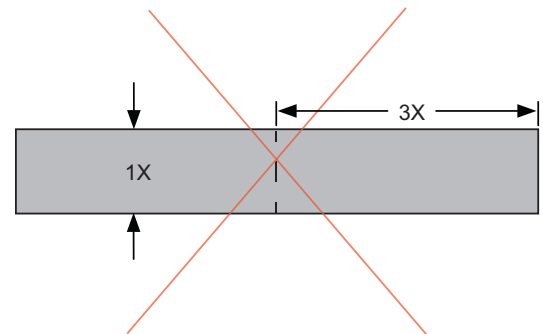


The proportion of the lamp area to the scribe length should be close enough to allow adequate electrical conduction and to avoid scribe line heating, uneven luminance, and premature lamp failure.

Correct



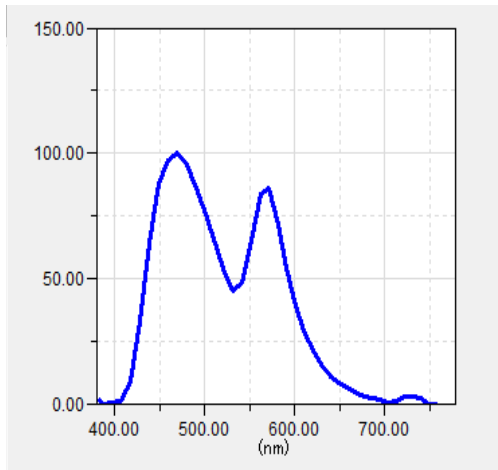
Incorrect



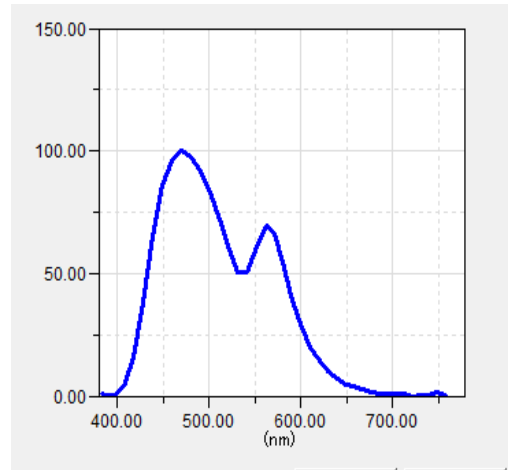
Parallel Electrode

About our Electroluminescent Panel (EL Panel): To make a white panel, manufacturers add a pink fluorescent dye to blue-green phosphor making the panel appear pink when “off” and blueish white when “on”. EL panels can have an acceptable white appearance when a graphic printed on white film is placed on the panel. However; some white areas in a graphic overlay can have a pink cast, this is caused by light reflecting off the graphic back onto the EL panel.

White Electroluminescent Panel



With white graphic placed over EL panel



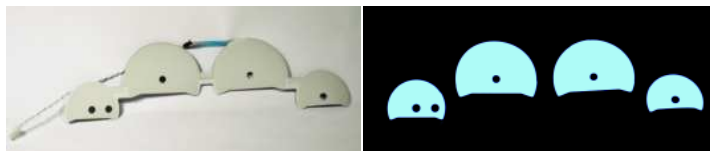
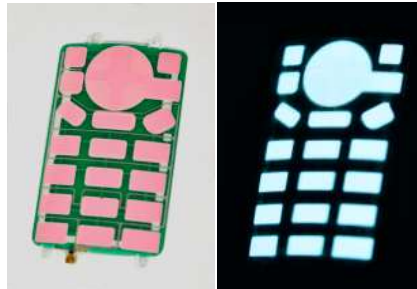
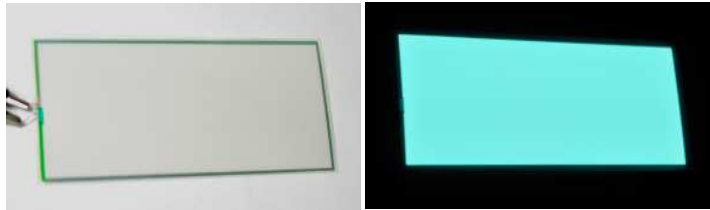
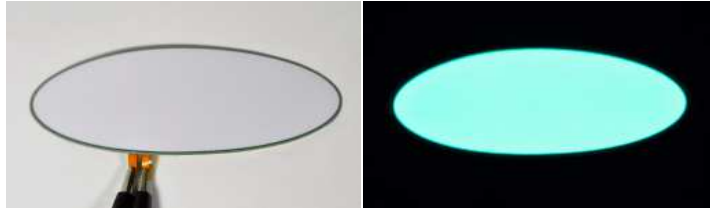
No graphic placed over EL panel

Description:	
Voltage	Parallel Electrode Electroluminescent panels have a recommended working voltage of ~100-volts @ ~600Hz.
Weight	4oz per square foot
Stock Sizes	16.54 x 23.39-inches 11.69 x 16.54-inches 8.27 x 11.69-inches 5.83 x 8.27-inches 4.500 x 6.125-inches 6.00 x 6.00-inches
Colors	White, blue-green
Dimming	Yes
UL	No
Operating Temperature	-13 ~ + 158°F
Estimated Half Life	5,000-10,000-hours
Brightness	~100cd/m ²
Application	Indoor
Construction	Polycarbonate

Practical Application

Custom Designs

Custom designs require a CAD file in the DWG format.



Limited Warranty

Knema, LLC., dba LuminousFilm (hereinafter 'Company'), provides the following limited warranty for LED lighting, Electroluminescent (EL) products and accessories purchased from Company by any Individual, Distributor, or OEM (hereinafter 'Purchaser'). This limited warranty applies as follows to new LED and EL Products purchased by Purchasers in the United States or Canada, which are accompanied by this written warranty.

Subject to the exclusions contained below, Company warrants its lighting products and accessories ("Products"), which are sold to Purchaser for the purpose of commercial and/or residential lighting uses, to be free from defects in materials and workmanship under normal usage for the period(s) stated below unless otherwise stated in product-specific documentation as longer or shorter term.

Electroluminescent Panels, 120-days

Flexible LED Strips, 1-year

Electroluminescent Inverters, 1-year

LED Edge-lit panels [with or without flip-open frame], 3-years

LED Modules Premium [Cree LEDs] manufactured by US Solid State, LLC., 7-years

LED Modules Economy [non Cree LEDs] manufactured by US Solid State, LLC., 3-years

Power Supplies, manufacturers warranty

Accessories, 90-days

EXCLUSIONS

Normal Wear, Periodic Maintenance:

Repair and replacement of parts due to normal wear and tear are excluded from coverage.

Abuse & Misuse:

Defects or damage that result from: (a) improper operation, improper installation, storage, misuse or abuse, accident or neglect, to the product resulting from misuse; (b) contact with liquid, water, rain, extreme humidity, or dirt or the like, or extreme heat, or other extreme environmental conditions.

There is no warranty, expressed or implied, as to fitness of any product for a particular purpose, nor for any certain level or type of performance in any particular environment or application. Warranty coverage is limited to the sale price of the product, regardless of consequential or inconsequential damages that may be incurred.

GENERAL TERMS

Replacement Policy for Defective Products:

The Company will replace (either brand new or factory reconditioned) or repair defective products, upon our approved inspection of the defective product [in the case of LED lighting products: 10% defective LEDs in the unit]. Knema, LLC., reserves the right to deliver a similar (equivalent) type of product, if the type of the original product is no longer available at the time of complaint. The repair, replacement, or additional delivery of the product neither renews nor extends the period of the Limited Warranty. The replaced product will become the property of the Company.

Limited Warranty Claim:

The Company will repair or replace the defective product at the Company's discretion. Company reserves the right to examine any products and/or accessories to determine the cause of failure and patterns of usage. The date of the purchase and installation must be verified to validate the elapsed operating hours if a warranty claim is made. If product life is not validated, the product date code will be used to establish elapsed time based on Company's estimate of usage. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from state to state. Warranty coverage does not include original or return freight costs. If warranty service is needed, contact Knema, LLC., 7288 Greenwood Road, Shreveport, Louisiana 71119 USA. You will receive instructions on how to ship the Product(s), at your expense, to the Company. To obtain the benefits of this warranty service, you must include a copy of your receipt, bill of sale or other comparable proof of purchase.