

## LED Light Panel

### CUSTOMIZABLE

- // Available in custom sizes & shapes
- // Can be used in "frameless" designs

### BRIGHT AND EVEN ILLUMINATION

- // 3D V-Cutting technology
- // High brightness (2,000 - 10,000 LUX)
- // Superior consistent light quality

### LONG LIFESPAN

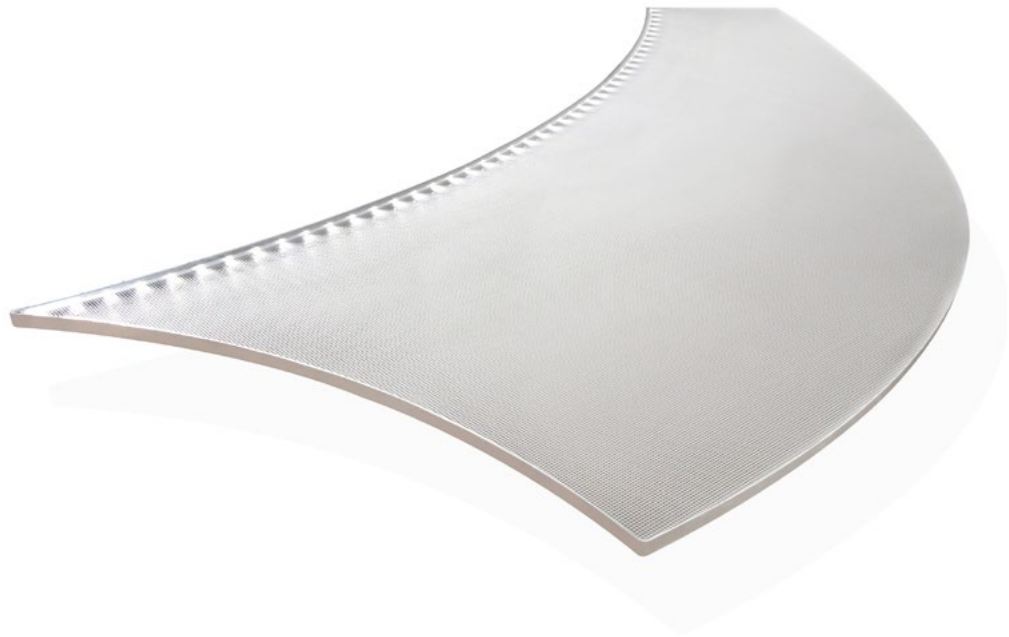
- // Patented heat sink technology to maximize LED lifespan (70,000 hours)

### ENERGY EFFICIENT

- // Low power consumption  
(70% less than fluorescent)
- // Energy saving and maintenance free

### WARRANTY

- // Advanced 3-year warranty



## PERFECT BACKLIGHTING SOLUTION

Lumilight™ is designed to emit a bright, even output of light across the entire surface of the panel. Unlike traditional light panels, which have the light source mounted on the exterior of the LGP (Light Guide Plate), Lumilight™ integrates high brightness LEDs and the heat sink into our exclusive 3D V-cutting LGP which makes it possible to produce "frameless", rectangular or special shaped LED light panels for various application needs.

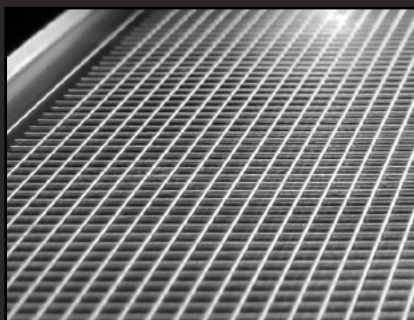
### INTEGRATED HIGH QUALITY LEDs

Lumilight™ integrates high quality 12V, constant voltage LEDs into the perimeter of the Lumilight™ panel without the use of rigid frame materials. This process allows the LEDs to conform to almost any shape.



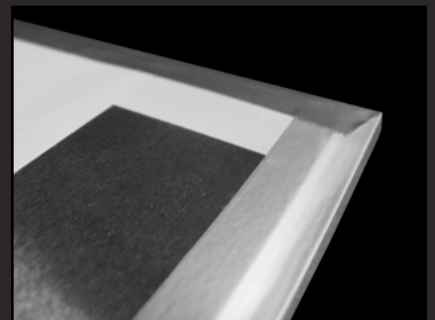
### 3D V-GROOVE LIGHT GUIDE PLATE (LGP)

Lumilight™ utilizes crystal clear acrylic combined with a patented 3D V-groove etched grid pattern that provides an even illumination to almost any shape imaginable.

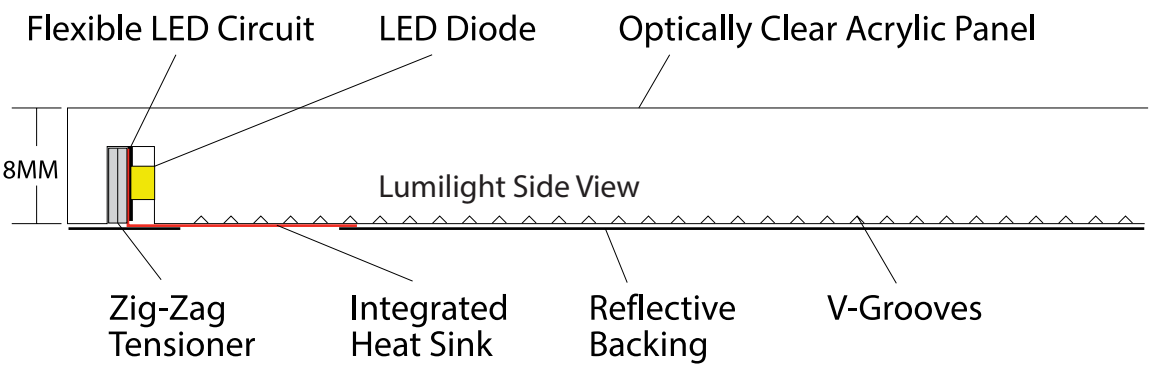


### INTEGRATED THERMAL MANAGEMENT

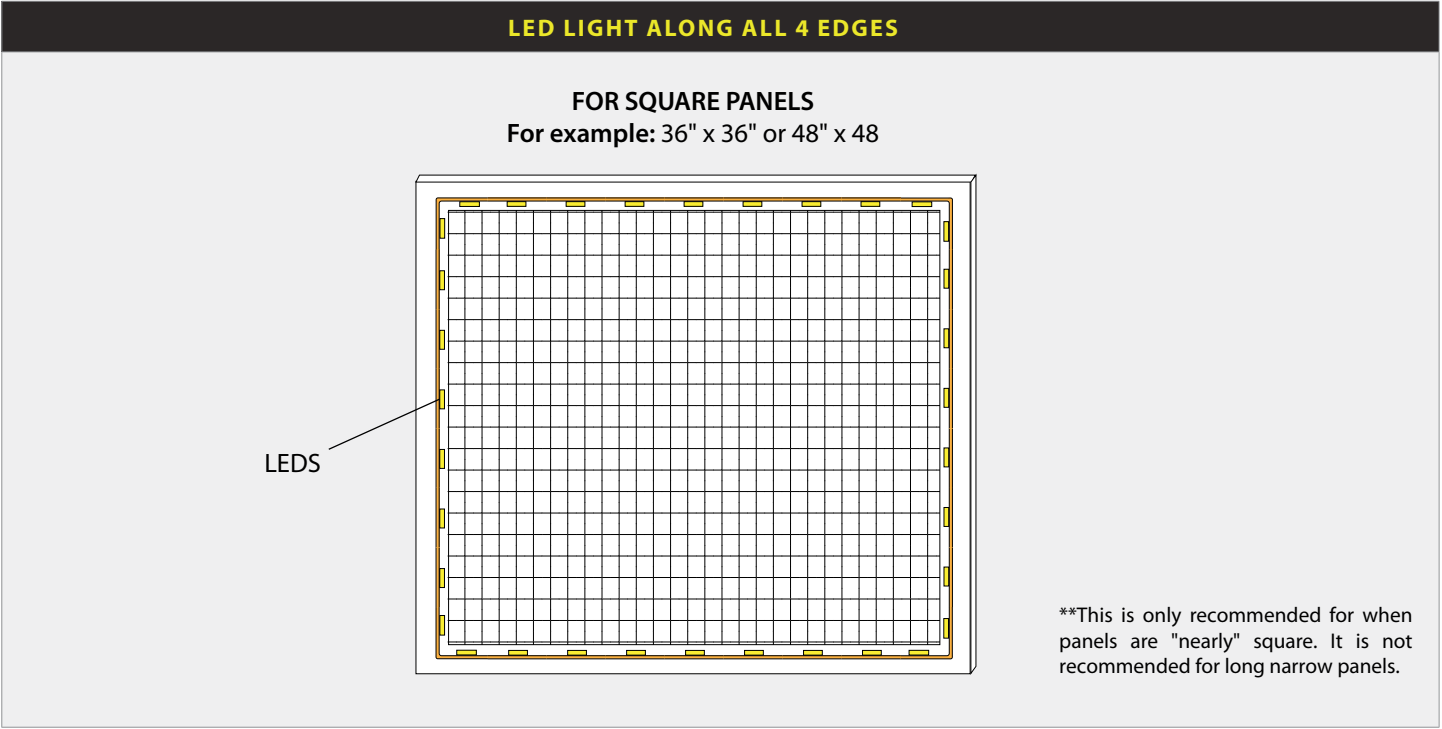
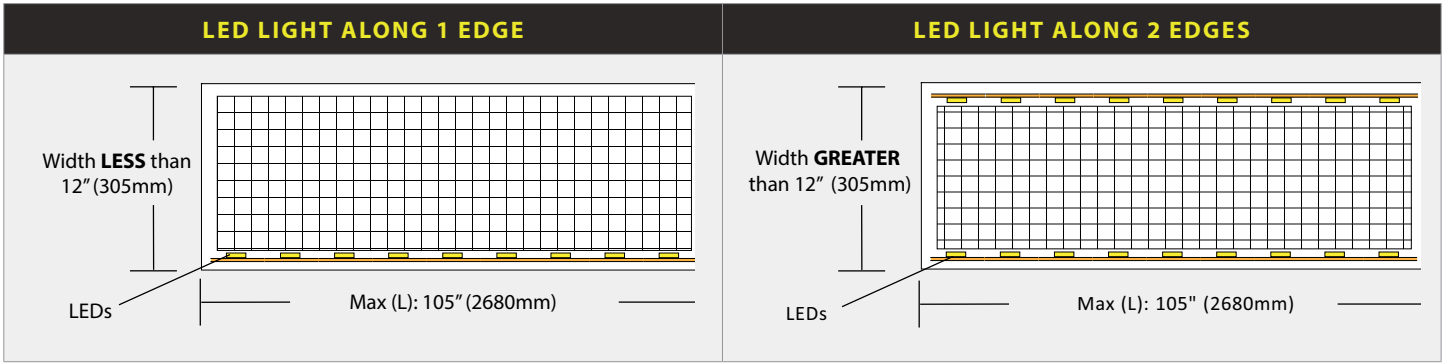
All LEDs create heat which is detrimental to their life span. Lumilight™ implements a patented technology which integrates the heat sink into the LGP that is easily conformable which allows for customizable shapes.



PROFILE OF LUMILIGHT

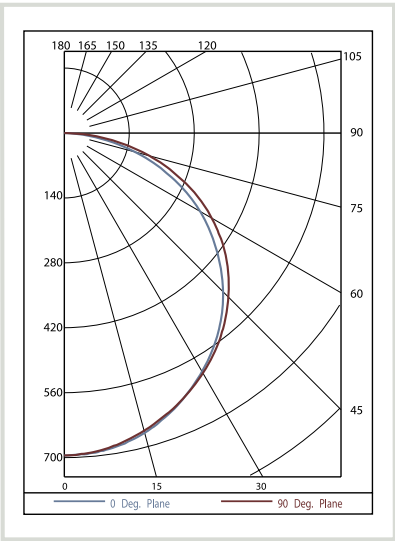
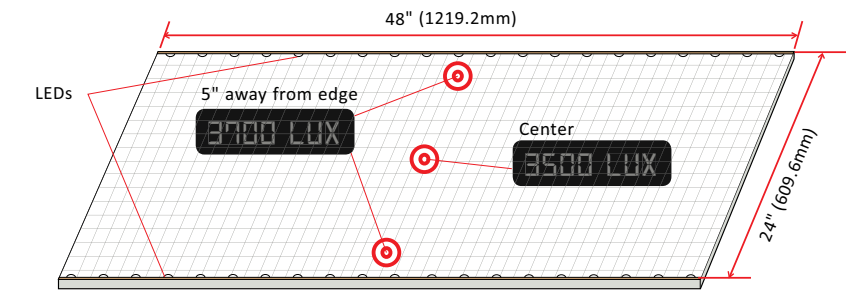


LED LIGHT LOCATIONS

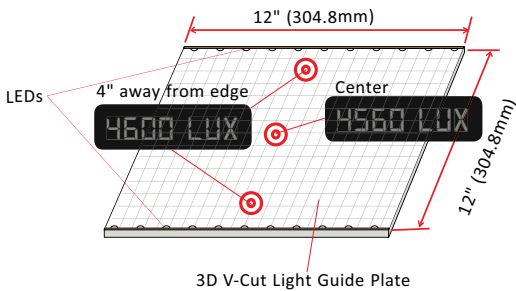


TYPICAL SURFACE BRIGHTNESS MEASURE

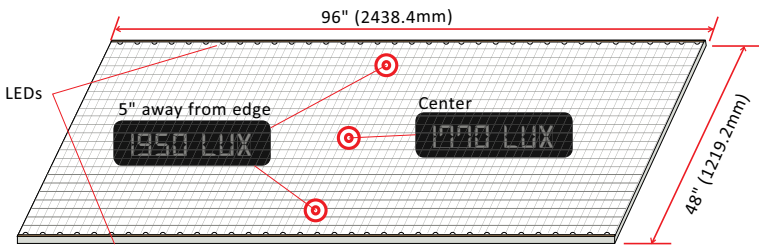
24" x 48" Lumilight with high output 5300K LEDs lit along edges (40W)



12" x 12" panel with regular 5300K LED lit along 2 edges (8W)



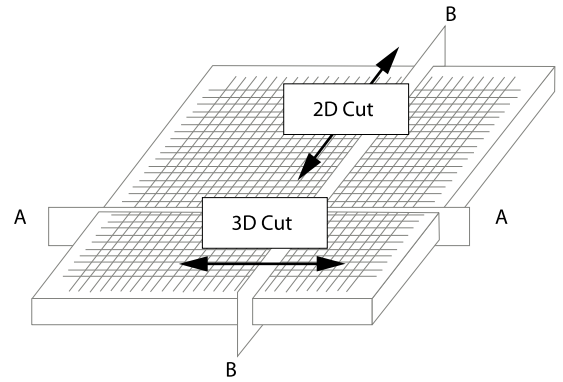
48" x 96" Lumilight with high output 5300K LEDs lit along 2 long edges (80W)



\*Brightness readings are for reference only. Actual reading may differ for different LEDs, LGPs or even different meters.

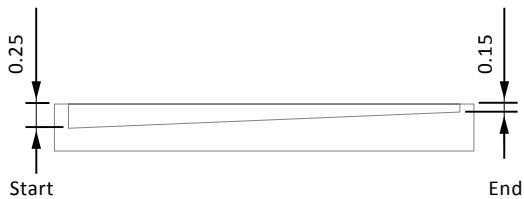
## 3D V-CUTTING TECHNOLOGY

A significant advantage to Lumilight lies in the production of the Light Guide Plate (LGP). Sourced for its rigidity and light transmission properties, and optical grade PMMA acrylic is etched with multiple grooves using patented 3D V-cutting technology to create a uniform matrix. This etched matrix acts as a vehicle to transport light from the unit's embedded LEDs across the entire surface of the panel to deliver homogeneous illumination.

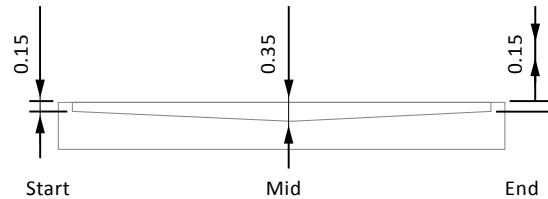


**Section A-A**

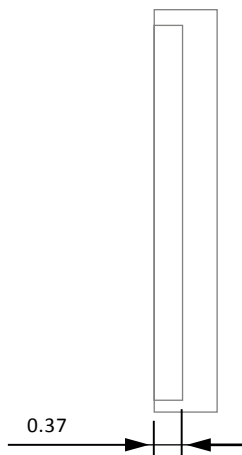
**1 Side LED**



**2 Sides LED**



**Section B-B**



3D V-cutting technology ensures that light is evenly reflected throughout the surface of the acrylic Light Guide Plate (LGP) by making grooves on the LGP at specific intervals according to the location of the light source and the direction of irradiation. The vertical V-grooves are widely spaced when they are close to the light source, but narrowly spaced when they are farther away from the light source. The horizontal V-grooves gradually grow wider and deeper as their distance from the light source increases. Therefore, the brightness of the front surface of the LGP is able to remain uniform.

## SPECIFICATIONS

ELECTRICAL					
Input Voltage	12 Volt DC - Constant Voltage				
Power Consumption	4.0 Watts/ft (Standard LEDs)	5.0 Watts/ft (High Output LEDs)	5.0 Watts/ft (White Adjustable LEDs)	4.5 Watts/ft (RGB LEDs)	
Wire Size	20 AWG 2 wire (Standard/HO LEDs)		20 AWG 3 wire (White Adjustable LEDs)	22 AWG 4 wire (RGB LEDs)	
Wiring	Each panel must have direct connection to power supply. Do not wire panels in series.				
*Connector	2.1/5.5mm barrel plug (Standard/HO LEDs)	3 pin molex (White Adjustable LEDs)		No connector (RGB LEDs)	
Certification	UL / cUL				
PHYSICAL					
Color Temperature	Warm White approx. 3000K	Neutral White approx. 4100K	Pure/Cool White approx. 5300K	White Adjustable 3000K - 6500K	Color Adjustable **RGB
Mounting Examples	Wall mounted with screws, Z-clips, U-channel, mirror clips or standoffs				
Operating Temperature	-30°C (-22°F) ~ +40 °C (+104 °F)				
Environment	Dry location (Standard)				
Thickness	8MM (Standard), 4MM, 6MM and 10MM also available depending on application				
Minimum Size	2"W x 2"L x 5/16" D (50mm x 50mm x 8mm)				
Maximum Size	59"W x 118"L x 5/16"D (1499mm x 2997mm x 8mm)				
Weight	1.95 lbs/sq. ft.			9.54 kg/sq. M	
STANDARD PLUG-IN POWER ADAPTORS					
Power Adaptors	12V DC, 1A, 12W, UL listed			12V DC, 5A, 60W UL class 2 listed	
Spider Cables	PL-2: 2-way long spider cable	PL-4: 4-way long spider cable		PS-2 / PS-4 / PS-6: 2/4/6-way short spider	
STANDARD HARDWIRE POWER ADAPTORS					
Power Adaptors	PA-60W-HW 60W 12V Hardwire power adaptor Input 110V AC ~ 240V AC			PA-150W-HW 150W 12V Hardwire power adaptor Input 110V AC ~ 240V AC	
Dimming & Controls	Refer to dimming & control options				

\* Standard 5', Optional 10'

\*\*See RGB product line for more details

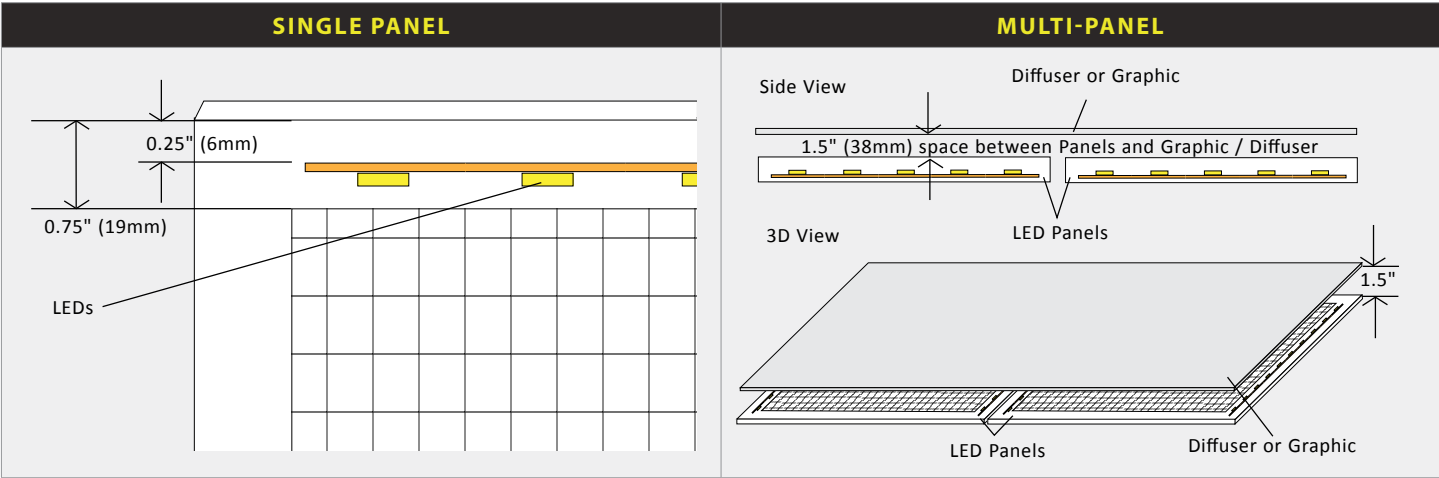
Color Temperature:  Warm White 3000K  Neutral White 4100K  Pure / Cool White 5300K  White Adjustable 3000K - 6500K  Color Adjustable RGB

## BRIGHTNESS & POWER CONSUMPTION REFERENCE

SIZE (INCH)	SIZE (MM)	LED STRIP	*AVERAGE SURFACE BRIGHTNESS (LUX)	POWER CONSUMPTION (W)
6 x 6	150 x 150	1 side	5,000 (DL)	2.0
12 x 12	300 x 300	1 side	3,500 (DL)	4.0
24 x 24	600 x 600	2 sides	2,800 (DL)	15.0
36 x 36	900 x 900	2 sides	2,000 (DL)	23.0
48 x 48	1200 x 1200	2 sides	1,800 (HO)	40.0
48 x 96	1200 x 2400	2 sides	1,800 (HO)	80.0
Ø 6	Ø 150	all around	17,000 (DL)	5.8
Ø 12	Ø 300	all around	11,000 (DL)	11.2
Ø 24	Ø 600	all around	4,500 (DL)	24.0
Ø 36	Ø 900	all around	3,000 (DL)	36.0
Ø 48	Ø 1200	all around	2,200 (DL)	48.0

\*Brightness data was measured from Jan. to Aug., 2009. "DL" denotes regular LEDs. "HO" denoted high output LEDs.

# INSTALLATION TIPS



LEDs are typically installed along a groove 0.25" away from the edge. The hot spots created by the LEDs can be managed in many ways. We recommend testing the material to be backlit in order to determine if diffusion is necessary.

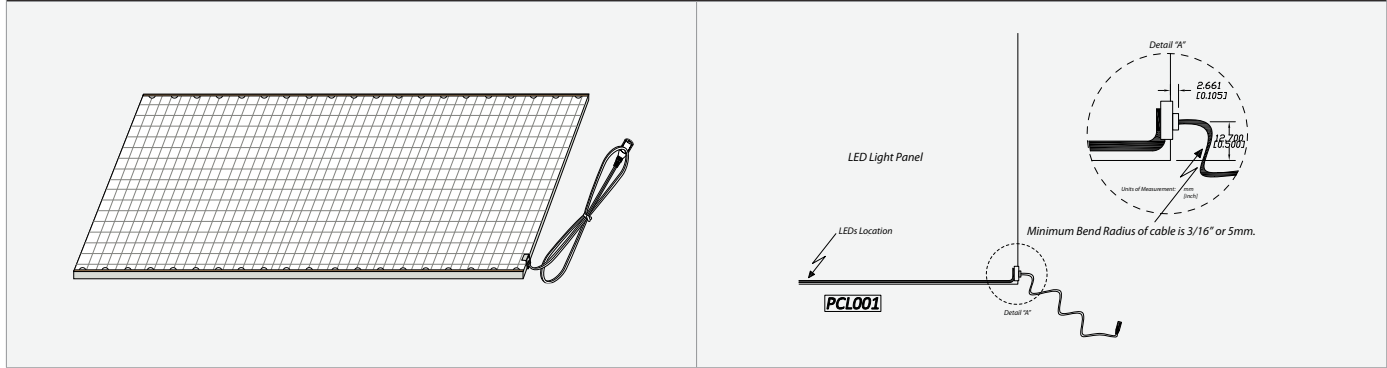
When placing panels side by side to create a larger illuminated area, you may see a bright line (LED illuminated edge) or dark line (non-illuminated edge) where they meet. These areas show differently depending on the overlay material being used. We recommend testing the material to be backlit in order to determine if additional diffusion or space is necessary.

# SURFACE MOUNTING EXAMPLES

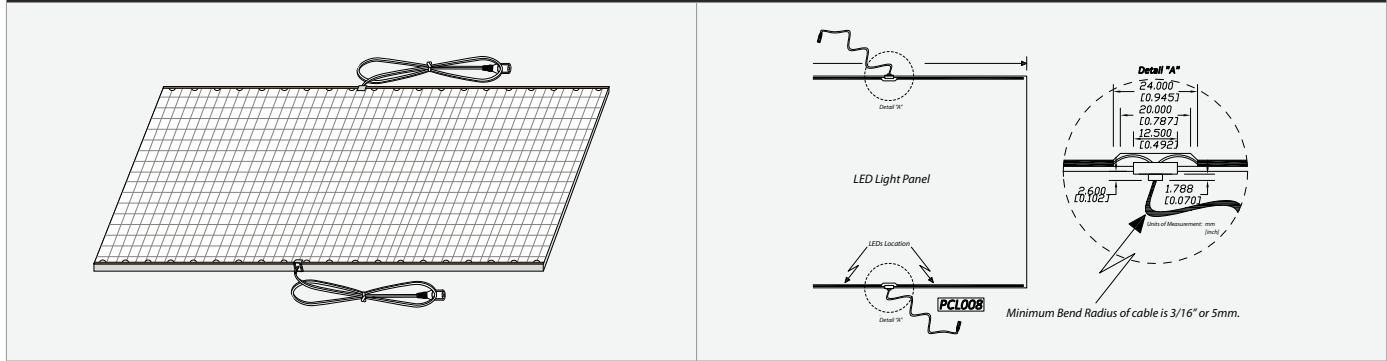
OPTION 1 Screw mounting with pre-drilled holes	OPTION 2 Mounting with mirror clips
<p>Diagram showing a panel being mounted with screws. A close-up image of a screw is provided.</p>	<p>Diagram showing a panel being mounted with mirror clips. A close-up image of a mirror clip is provided.</p>
OPTION 3 Mounting with Z-clips	OPTION 4 Mounting with standoffs
<p>Diagram showing a panel being mounted with Z-clips. A close-up image of a Z-clip is provided.</p>	<p>Diagram showing a panel being mounted with standoffs. A close-up image of a standoff is provided.</p>

TYPICAL POWER EXITS

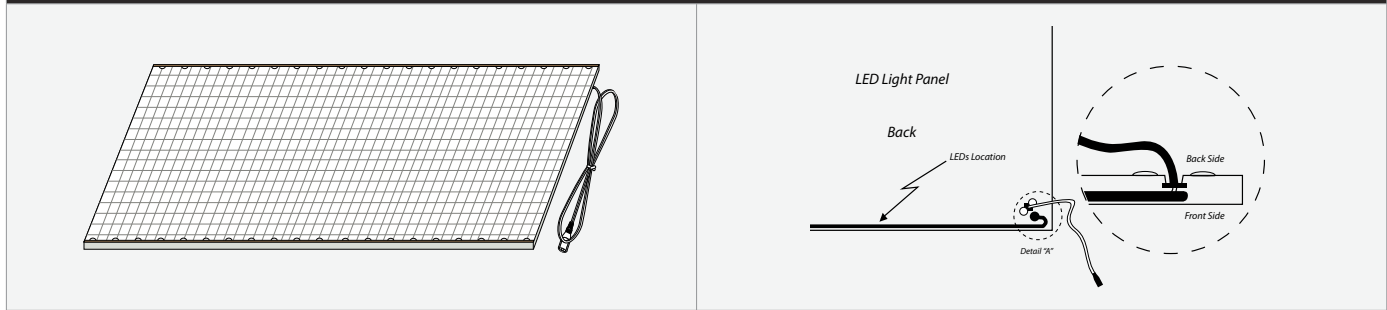
STANDARD 1  
Power cord exits from short side (edge) corner (standard)



STANDARD 2  
Power cord exits from the middle of each long side for Lumilight longer than 6ft



OPTION 1  
Power cord exits from the back side of Lumilight.



OPTION 2  
Recessed (notched) power cord exits

