

Light Panels

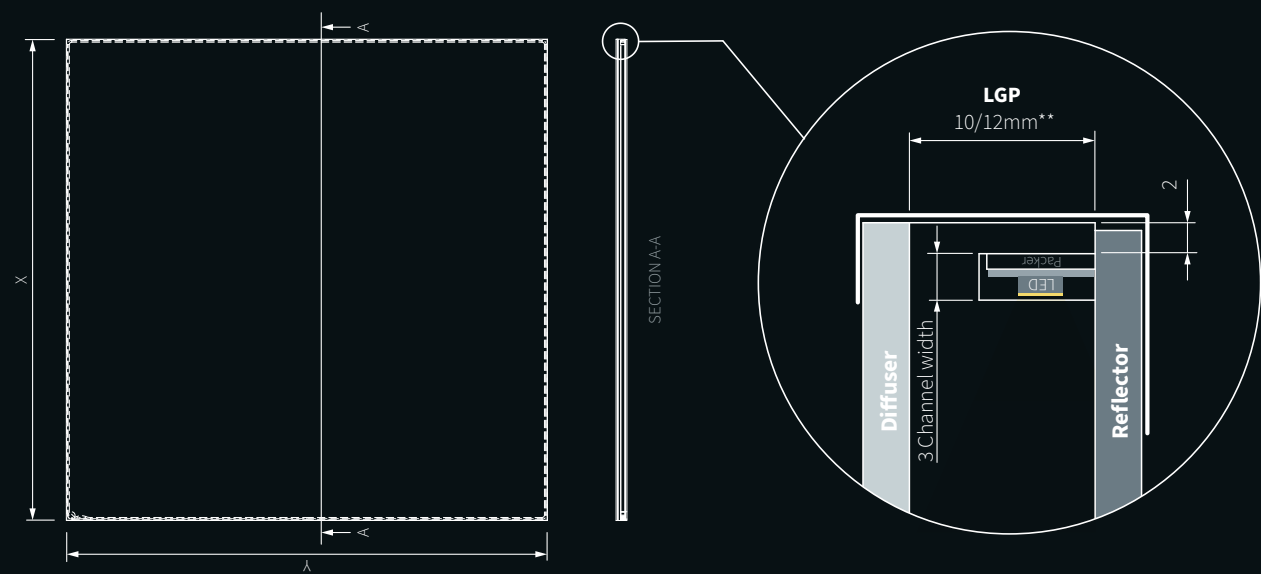
*Transform Your Space with Precision Lighting:
LED Light Panels for Homogenous Illumination.*

The Unibox Light Panel has been engineered in direct response to these needs. A sub-assembly LED light engine, it delivers flawless illumination from within a range of different surfaces, materials and architectural recesses.

Unibox Light Panels are built using high-quality materials and specialist manufacturing processes to create a product that is premium in both form and function. They provide crisp, consistent illumination using energy-efficient technologies that align with the values and aesthetic preferences of modern users.



Configure your Light Panel



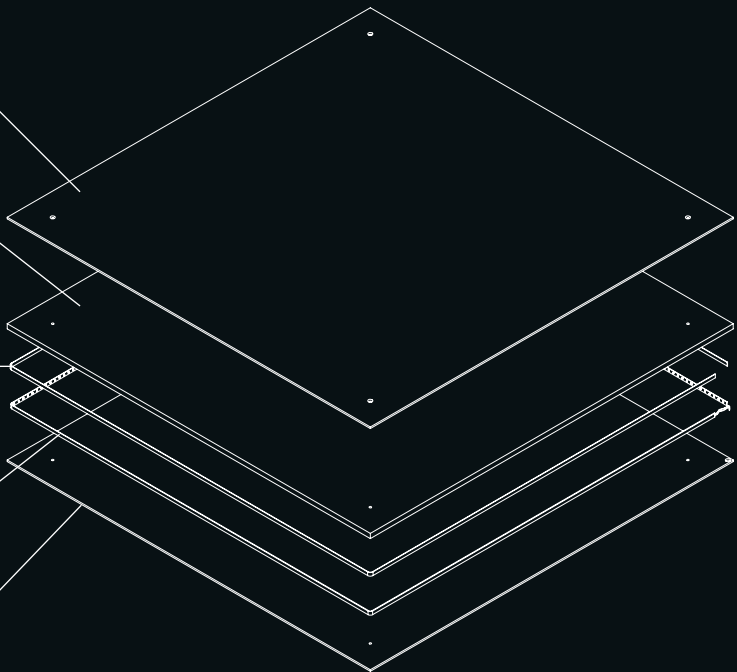
Diffuser

Acrylic LGP (Light Guide Plate)

PET-G Strip

LED

Reflector



Configure your Light Panel

Diffuser

Diffusers are required to ensure that the light emitted through the light guide plate is softened across the entire front face of the Light Panel. They transform individual beams of light into a low-glare wash of illumination that preserves the elegant aesthetic of the surface or material within which the Light Panel is installed. A range of diffusers are available to suit the aesthetic and functional objectives of specific applications.

LGP (Light Guide Plate)

Formed from sheets of optical grade acrylic, light guide plates are laser-engraved with a carefully calculated matrix of dots that capture and redirect the light emitted by the LED modules so that it shines through the front face of the plate homogeneously. Unibox rigorously tests its light guide plates to guarantee that there is no measurable light drop-off in the centre of the Light Panel.

Illumination

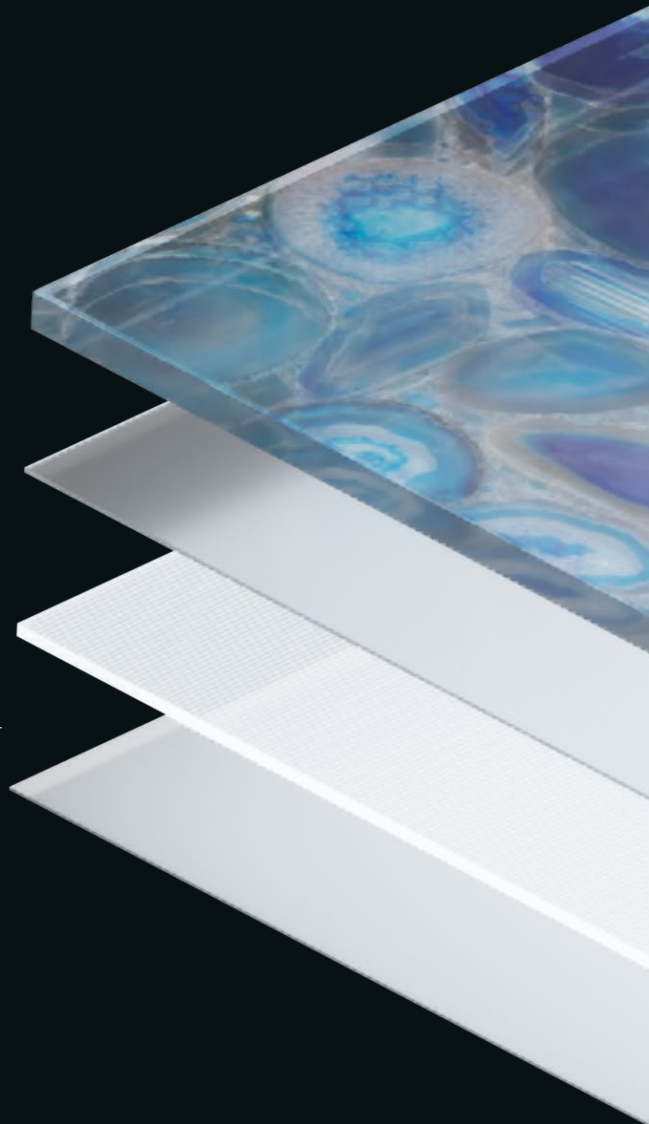
LED modules fixed directly onto the perimeter edge of the light guide plate. Light Panels can be specified to operate with a range of different LEDs to suit the dimensional requirements and aesthetic objectives of individual applications.

Illumination options for LGP thicknesses below.

LGP-10 LGP-12

Reflector

Reflectors maximise the efficiency of Light Panels by redirecting all the available light to one face. Reflectors work in conjunction with the diffuser and light guide plate to ensure that the light output is homogeneous throughout. A range of reflectors are available to suit the aesthetic and functional objectives of specific applications.

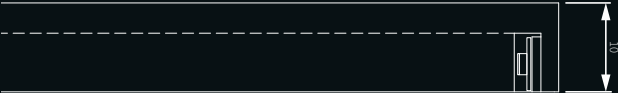


LGP-10

IP54

LGP-10 is a 10mm thick light guide plate formed from sheets of optical grade clear acrylic (PMMA). Being ultra-slim, LGP-10 is ideal for use in applications with limited installation space or weight restrictions. LGP-10 is compatible with the full spectrum of white LED modules.

LGP

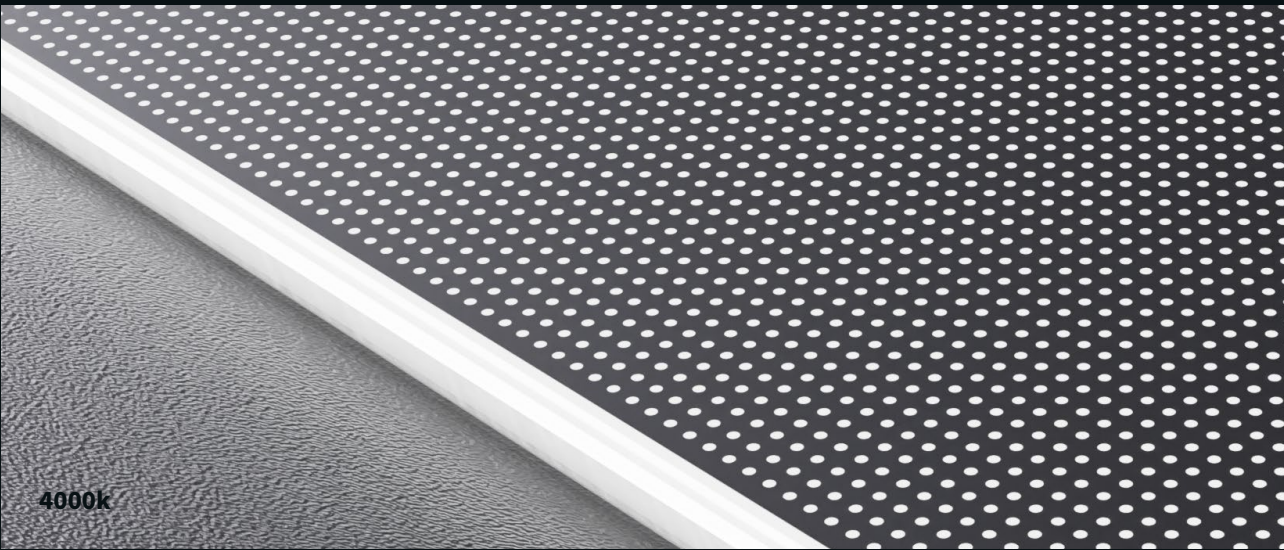


LGP Thickness (mm)	Material	Weight per/m² (kg)	Max size (m)
10	Optical grade clear acrylic (PMMA)	12	1.2 x 2

Illumination - options



LGP Ref.	LED (V)	Watt/m	Lumens/m	Lumens/w	Colour binning	CRI	Colour temp (k)
LGP10-24-14.4-2400	24	14.4	1886	131	3 SDCM	90+	2400±70
LGP10-24-14.4-2500	24	14.4	1886	131	3 SDCM	90+	2500±70
LGP10-24-14.4-2700	24	14.4	1972	137	3 SDCM	90+	2700±70
LGP10-24-14.4-3000	24	14.4	2016	140	3 SDCM	90+	3000±80
LGP10-24-14.4-4000	24	14.4	2131	148	3 SDCM	90+	4000±120
LGP10-24-14.4-6500	24	14.4	2160	150	3 SDCM	90+	6500±240



LGP-12

IP54

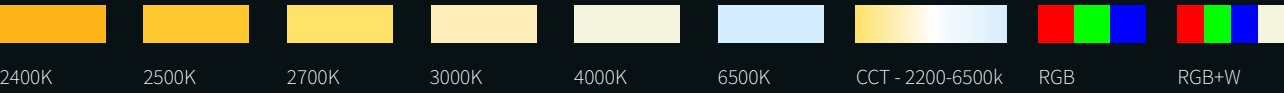
LGP-12 is a 12mm thick light guide plate formed from sheets of optical grade clear acrylic (PMMA). LGP-12 is ideal for use in a wide range of applications where space restrictions need to be managed alongside aesthetic objectives. LGP-12 is compatible with the full spectrum of white, RGB and RGB-W LED modules.

LGP

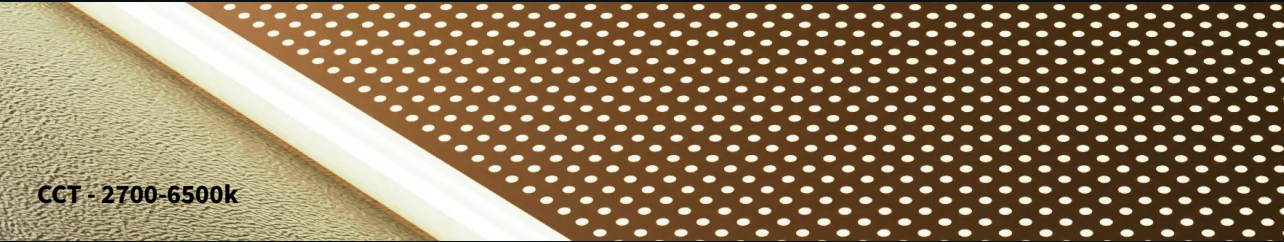


LGP Thickness (mm)	Material	Weight per/m² (kg)	Max size (m)
12	Optical grade clear acrylic (PMMA)	14.4	1.2 x 2

Illumination - options



LGP ref.	LED (V)	Watt/m	Lumens/m			Lumens/w			Colour binning	CRI	Colour temp (k)					
LGP12-24-14.4-2400	24	14.4	1886			131			3 SDCM	90+	2400±70					
LGP12-24-14.4-2500	24	14.4	1886			131			3 SDCM	90+	2500±70					
LGP12-24-14.4-2700	24	14.4	1972			137			3 SDCM	90+	2700±70					
LGP12-24-14.4-3000	24	14.4	2016			140			3 SDCM	90+	3000±80					
LGP12-24-14.4-4000	24	14.4	2131			148			3 SDCM	90+	4000±120					
LGP12-24-14.4-6500	24	14.4	2160			150			3 SDCM	90+	6500±240					
LGP12-24-28-22/6500	24	28	N 1945	W 2160	N+W 1030		N 135	W 150	N+W 140		3 SDCM	90+	2200k(N) - 6500k(W)			
LGP12-24-19.2-RGB	24	19.2	R 211	B 384	G 87	RGB 614	R 33	B 60	G 135	RGB 32	-	-	R 622	B 522	G 465	RGB -
LGP12-24-19.2-RGBW	24	19.2	R 161	B 83	G 368	W 814	R 27	B 14	G 63	W 105	W 3 SDCM	W 90+	R 0	B 0	G 0	W 4000K
RGBW 1383				RGBW 55												



Diffusers & Reflectors

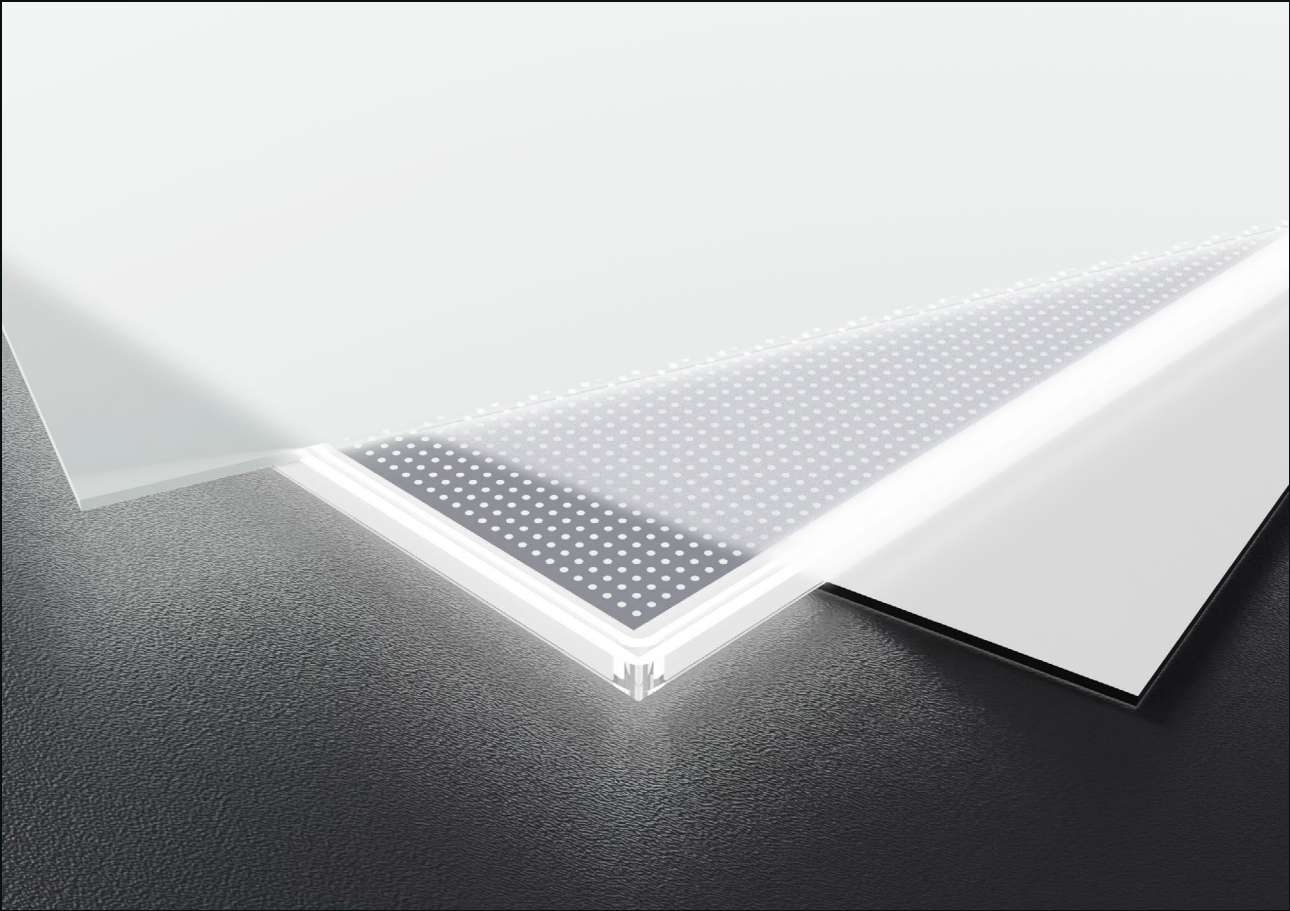
Light Panels can be supplied with a range of different diffusers and reflectors in varying depths, materials and light transmissions and reflective values to provide you with the flexibility and choice you need to achieve your creative vision. Our team of in-house LED experts are happy to advise on the most appropriate diffuser and reflector types for your individual application.

Diffusers

Diffuser Ref.	Material	Thickness (mm)	Transmission	Weight per/m (kg)	Max size (m)
D3	Opal Acrylic 030	3±10%	70%	3.6	1.2 x 2.0
D2	Opal Frost 80	2±3%	80%	2.4	1.25 x 1.85
D02	Polycarbonate Flim	0.2	80%	-	0.6x 2.0

Reflectors

Reflector Ref.	Thickness (mm)	Relative reflectance	Weight per/m (kg)	Max size
R3	3±10%	90%	3.8	1.2 x 2.0
R2	2±10%	90%	-	1.2 x 2.0
R0.2	0.225	97%	-	0.6 x 2.0



Sizing guide

To protect the quality of the overall aesthetic of Light Panels, we recommend that certain size, shape and illumination limits be followed. Our team is happy to advise you on the most effective options for your individual application.

Below sizes are indicative and suggested optimum sizes.

Key

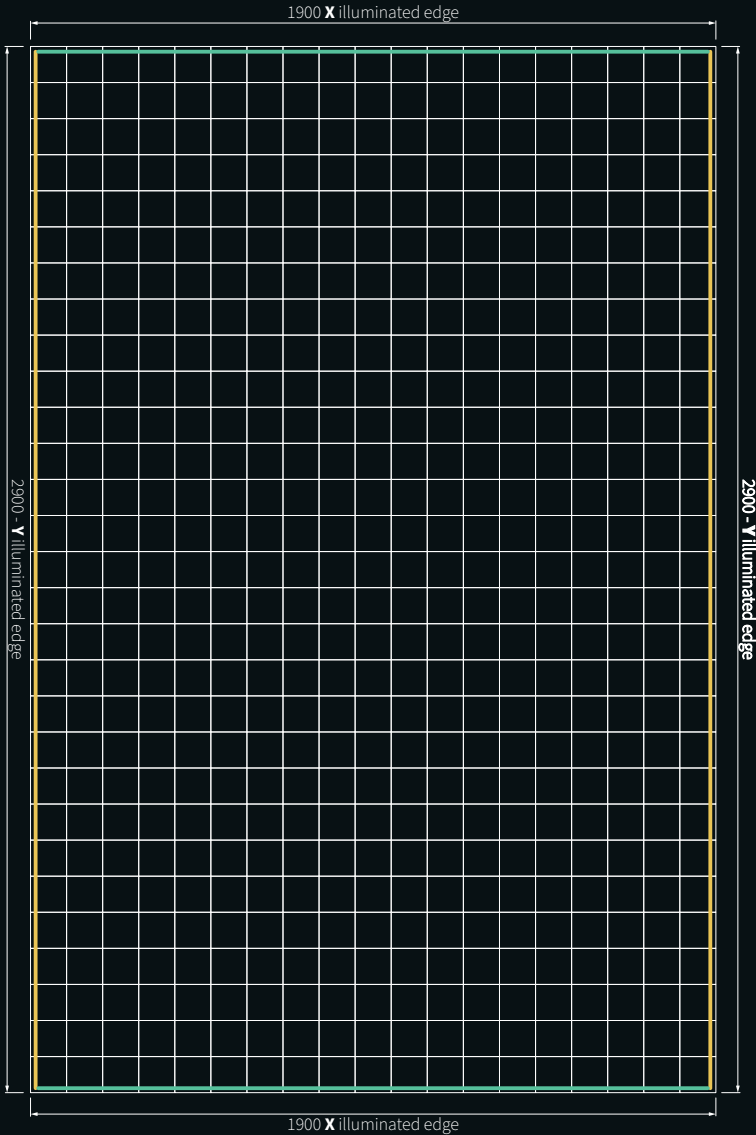


One edge illumination



Two/Four edge illumination

PLEASE NOTE: unibox recommend 1:1 ratio on X & Y lengths for 4 sided illumination.

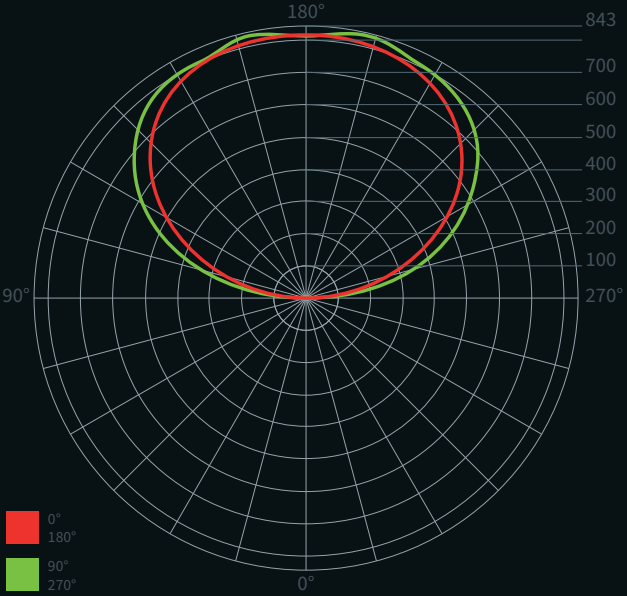


Photometry

Below figures based on the following specification:
1m² - LGP10 / 4000K / Illuminated 2 sides / 3mm Reflector.

Luminous flux (lm)	Luminous efficacy (lm/w)	Peak intensity (cd)
3142	100	843

Please see above table for diffuser losses.



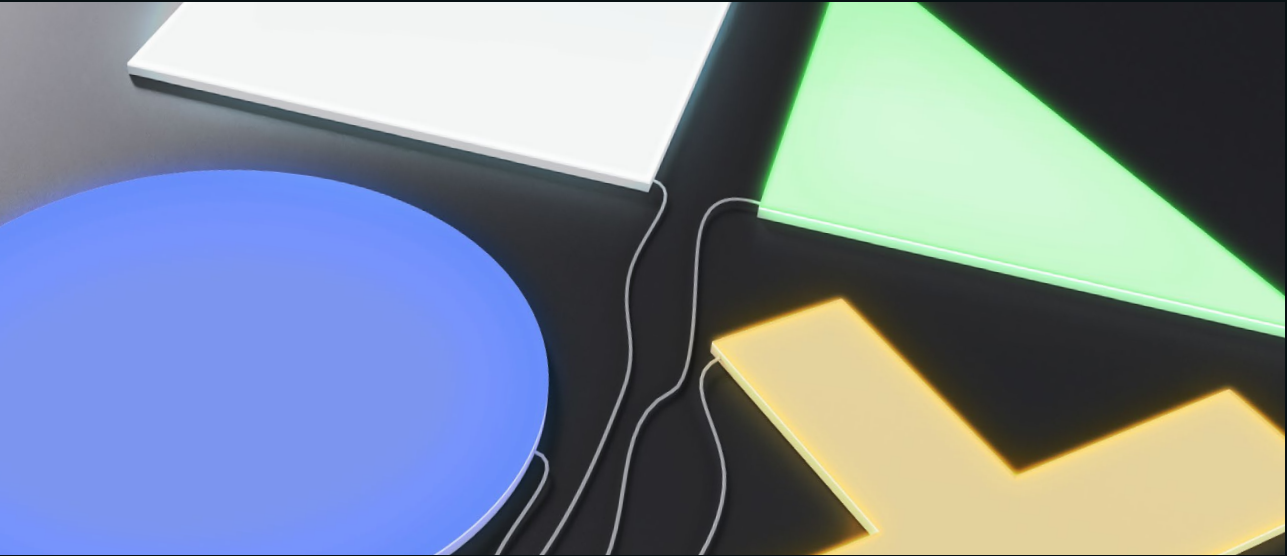
Please get in touch for LDT and IES files.



Custom shapes

We have the expertise to cut custom shapes in your required dimensions. Our in-house manufacturing facility houses a range of advanced, high-capacity CNC machines meaning we can deliver for large roll-out projects with short lead times. High-quality LED modules are fixed directly onto the perimeter edge of the light guide plate for illumination. We offer a choice of cool white, warm white or RGB LEDs. Light guide plates are laser-engraved with a carefully calculated matrix of dots that capture and redirect the light emitted by the LEDs so that the Panel is illuminated homogeneously. Optional lighting controls can be added to help achieve the chosen lighting effect.

To protect the quality of the overall aesthetic of your Light Panels, we do recommend following guidance on certain sizes, shapes, and illumination limits. Our team are happy to advise you on the most effective option for your desired output.



Powering options

Plug top drivers

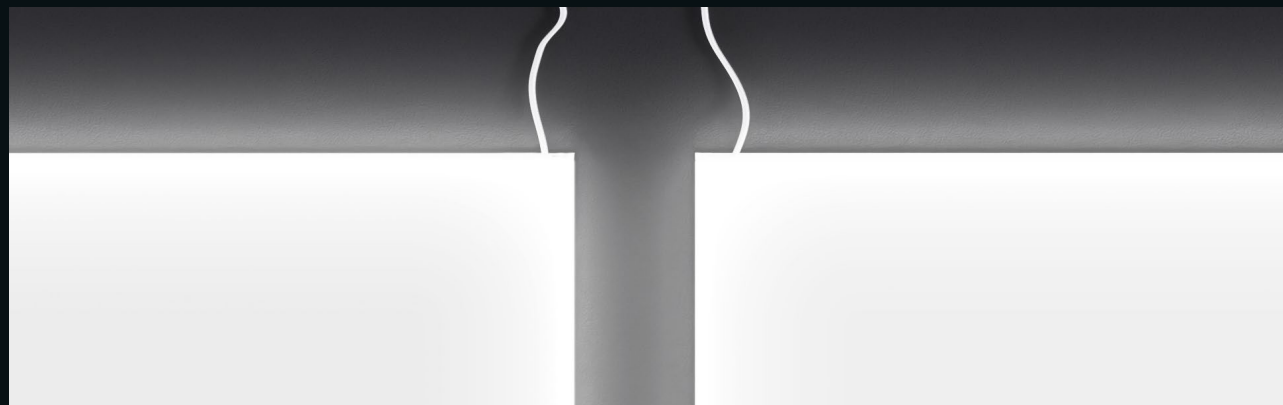
This type of driver is one of the simplest ways of delivering power to LED lightbars. As the two components are wired directly into one another, illuminating shelving displays required nothing more than plugging in and switching on.

Jack lead

Using small, slimline push-fit connections, jack leads allow lightbars to be wired to power supplies even if cables need to be passed through narrow gaps or holes.

Splitter boxes

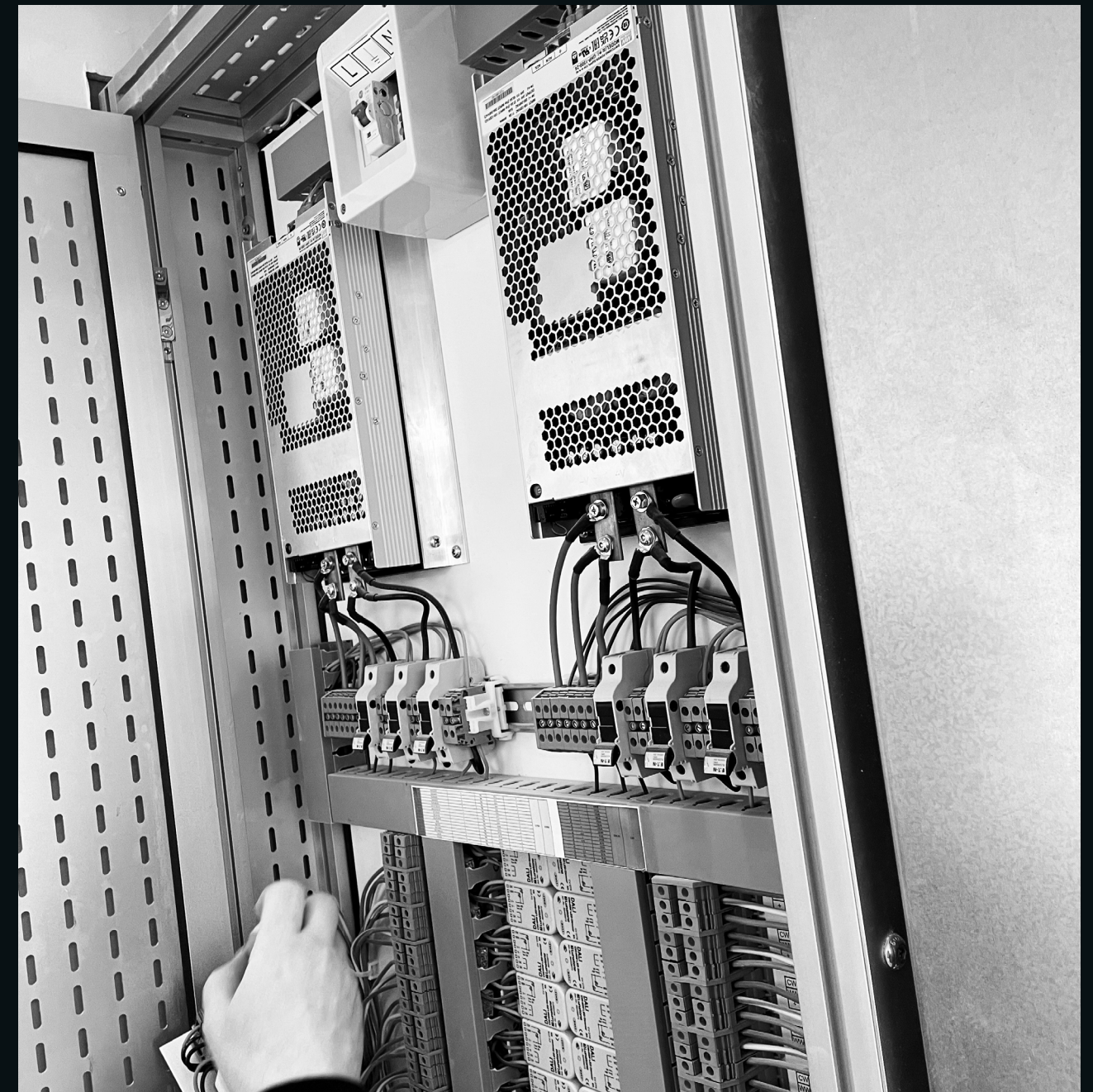
By splitting power between a number of separate cables, several light panels can be illuminated from a single output source. This makes splitter boxes an incredibly convenient solution for spaces in which there is limited access to power. They have mechanical fixings that secure them in position and preventing them from being disconnected accidentally.



Industrial drivers

For large-scale projects with multiple Light Panels used in series, industrial drivers are the best powering option.

They have higher current ratings and fuse protection to ensure that large areas can be illuminated from fewer power sources.



Changing materials

Light Panels are designed to serve as a sub-assembly light source meaning that, in both form and function, they are ideal for use in applications where materials or surfaces can be enhanced with integrated illumination.

This provides designers and architects with the opportunity to use traditionally one-dimensional materials in new and exciting ways. The translucent fluidity that is unique to the structure of materials like marble, agate and onyx, for example, can be transformed, becoming all the more sensational when paired with LED modules housed discreetly within.



Non-illuminated



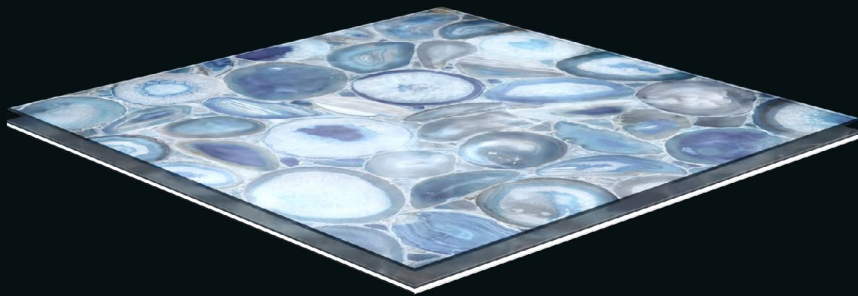
Illuminated using 2200K



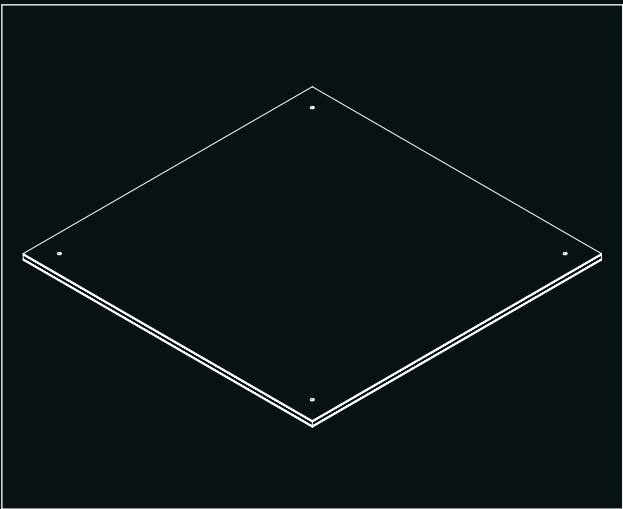
Illuminated using 6500K



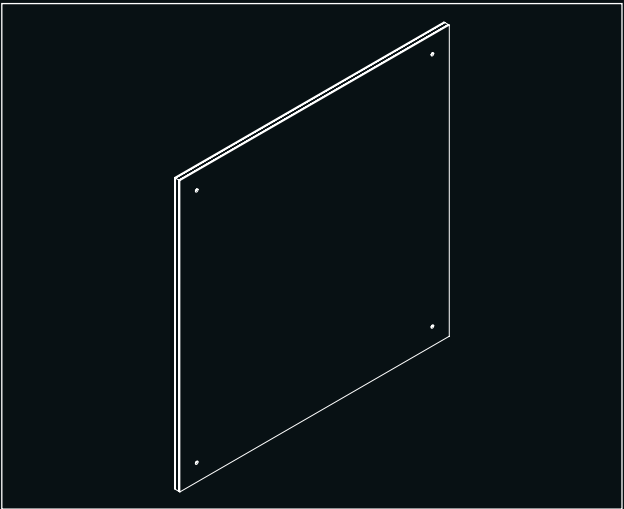
Illuminated using RGBW



Floor Mounted



Wall Mounted

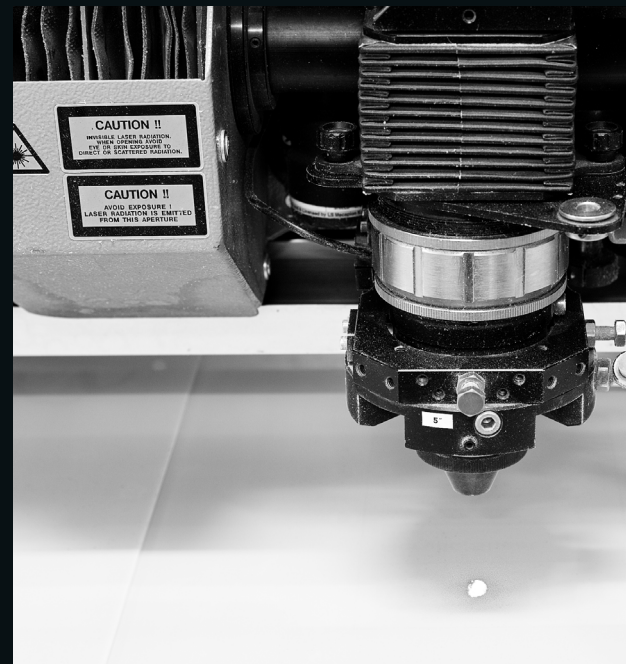


Our process

Light Panels are engineered to provide you with the quality, reliability and design flexibility you need to realise your creative vision.

Panels can be built in sizes and depths to suit client-specific requirements and are available with a range of different LED types, material compositions and powering options.

In specifying a Unibox Light Panel for your next project, you are specifying quality guarantees, expert technical support and bespoke consultancy services; all from a trusted UK-based manufacturer with over 30 years of industry experience.

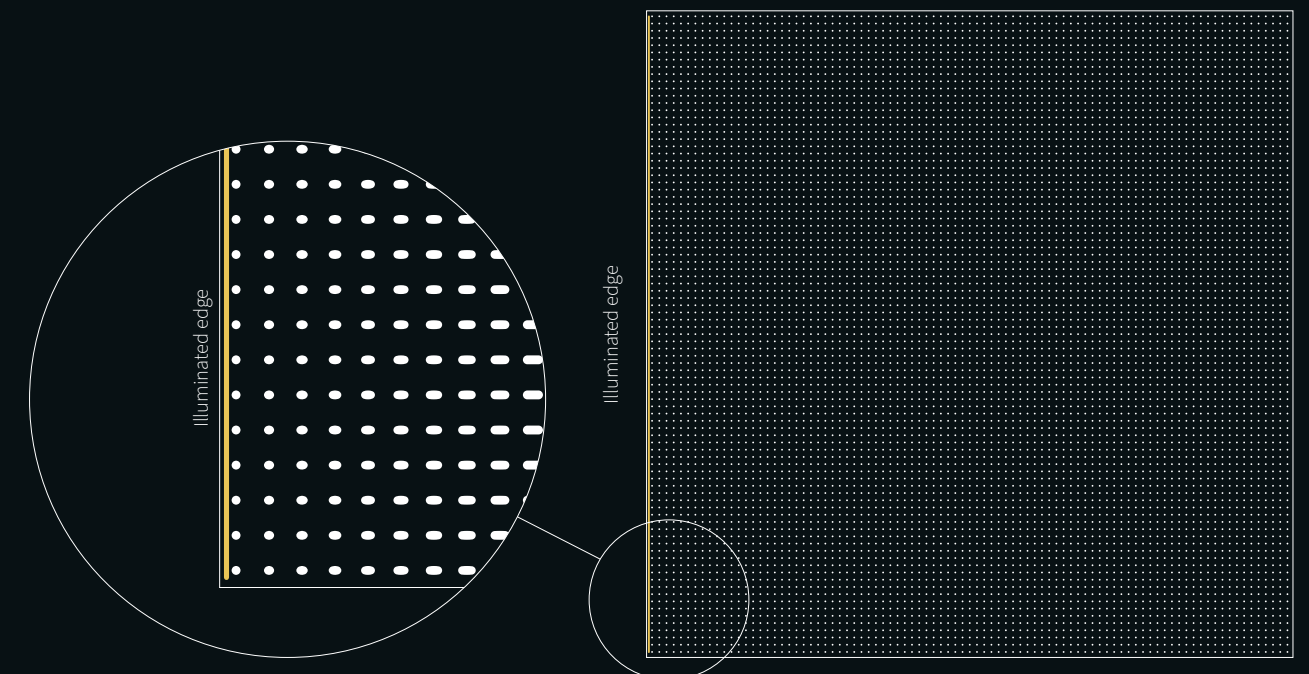


Dot dot dot...

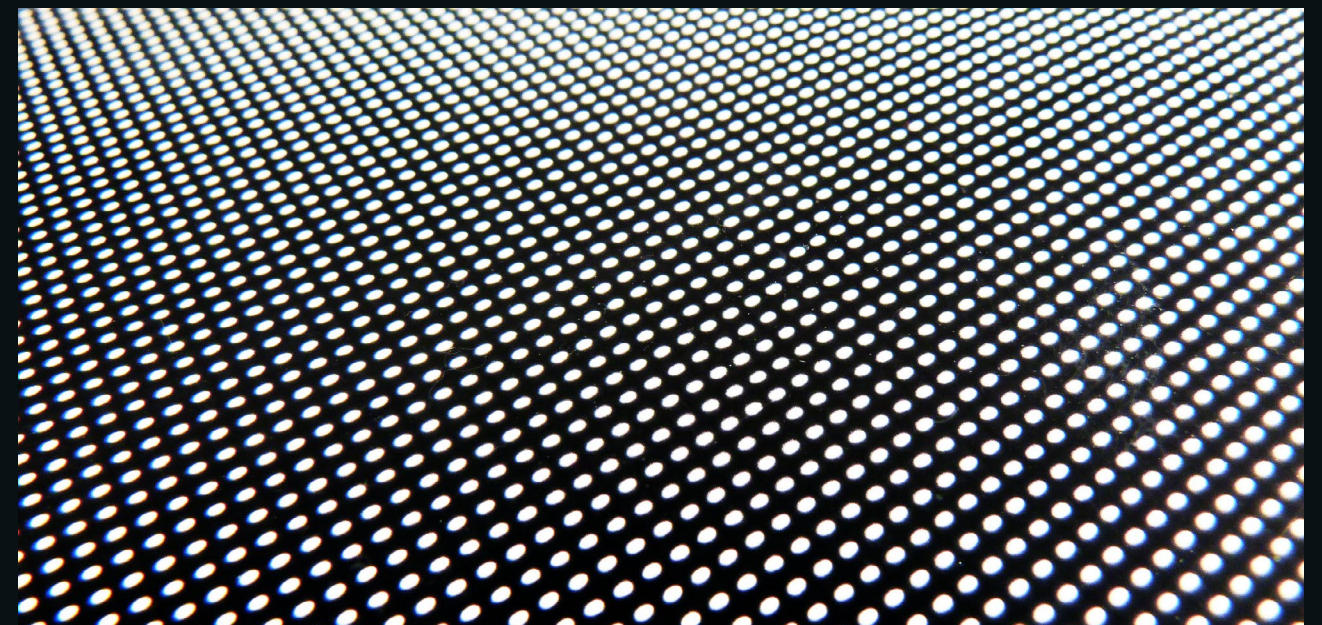
For lighting designers in all sectors, uniformity and consistency are of paramount importance for ensuring that spaces are illuminated flawlessly.

Each Unibox Light Panel operates using a light guide plate formed from optical-grade acrylic that is laser-etched with a matrix of dots to refract the light emitted by the LED modules, transmitting it up through the diffuser and out into the space beyond.

We use a specially-developed algorithm to calculate the configuration and diameter of these dots based on the surface area of the light guide plate to guarantee that there are no visible discrepancies between the light levels at different points across the entire face of the Light Panel.



Dot pattern shown for illustrative purposes only.





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