LED LIGHT SHEET
ILLUMINATING THE POSSIBILITIES
The unique construction of LED Light Sheet harnesses a number of patented processes which unite to create an innovative lighting unit which is adaptable to suit each new project. Using patented 3D V-cutting technology, a clear PMMA acrylic is etched with a uniform matrix and cut to a specified shape and size.

A choice of warm and cool white colour temperatures or RGB colour-changing thermally managed LEDs are then securely embedded into the sheet in a second patented technique, which ensures the unit is robustly constructed and runs cool to the touch.

The etched 3D V-cut matrix acts as a vehicle to transport light from the LEDs across the entire surface of the panel to deliver homogeneous illumination.

A standard LED Light Sheet unit features an acrylic thickness of 8mm and a 2.8mm grid, with alternative thicknesses and grid options available to deliver a project specific solution.

LED Light Sheet can be created to suit internal or external installations and fitted with lighting controllers to comply with the aesthetic requirements of each application. Each unit is manufactured in the UK by Applelec.
Sourced for its rigidity and light transmission properties, a clear PMMA acrylic is etched using 3D V-cutting technology. This patented engraving technology ensures light is evenly distributed across the surface of the acrylic.

**UK manufacture:** provides short lead times

**Low maintenance:** components made to last

**EVENLY DISTRIBUTED LIGHT**

**BESPOKE REQUIREMENTS**

Cut to specified measurements and manufactured to suit internal or external applications, each unit is embedded with cool white or warm white LEDs in a variety of Kelvin temperatures or RGB colour-changing LEDs. The unit can be manufactured to meet an IP67 rating.

**Made to measure:** with customised sizes and shapes, and IP67 rating on request

**Colour choice:** various Kelvin temperatures or RGB colour-changing LEDs
LED LIGHT SHEET

THERMALLY MANAGED LEDS

LED Light Sheet incorporates a unique patented heat sink which dissipates the heat generated by the LEDs. This ensures the unit runs cool to the touch and maximises the longevity of the LED modules.

Bright: high powered thermally managed LED modules
Longevity: lifespan over 50,000 hours

EASE OF INSTALLATION

Supplied with the LEDs securely embedded and all internal connections and wiring complete, LED Light Sheet is delivered ready to install. The power cord is positioned in a chosen location at the side or reverse around the perimeter of the unit.

Ease of wiring: simple plug and play connectors
LEDs installed: robust, user friendly design
Luxury British cosmetics brand Molton Brown specifies LED Light Sheet to backlight shelving in its store display systems. For this Covent Garden store, 5300 Kelvin temperature LEDs provide a cool white light against which the colourful cosmetics appear suitably tempting. The cool operation of the unit provides a lighting solution for heat sensitive products, in this instance cosmetics and candles, and can be manufactured in narrow panels to fit slim shelving or counter display units.

Image courtesy of Molton Brown
Leading to a 59% increase in sales upon opening, the retail space of Durham Cathedral has been transformed as part of a £1.2 million renovation by architectural practice Purcell. Designed to sit sympathetically within the medieval space, oak display cabinets employ LED Light Sheet to create a focus on the merchandise. Providing an illuminated surface on which gifts including jewellery are presented, LED Light Sheet is further used to cast light down onto gifts and illuminate the cabinet backs of perimeter display units.

Image courtesy of Purcell and Durham Cathedral
Exterior signage and light-boxes at The Prince of Wales Theatre were retrofitted with IP67 rated LED Light Sheet to achieve an impressive 85% reduction in energy consumption. The decision to replace fluorescent tubes was made for aesthetic reasons with the venue’s large curved light-box and entrance door-streamer illuminated by faceting multiple panels of LED Light Sheet; a technique often employed for large curved installations. Representing an annual energy saving of £3,900 to the theatre’s energy bill, the system reduces maintenance costs into the bargain.

Image courtesy of Newman Displays
For design agency Karmarama’s office refurbishment, a sense of fun was high on the agenda. Reflecting the agency’s creative spirit, an LED Light Sheet colour-changing entrance tunnel extends a psychedelic welcome to staff and visitors alike. Designed by bluu Solutions, the tunnel was created using LED Light Sheet fitted with RGB LEDs and programmed by Applelec to run a variety of colour-changing sequences. With an i-Pad remote control system, the tunnel can be set to run pulse and chasing effects or even display the corporate colours of clients as they arrive for pitches.

Image courtesy of bluu Solutions, by Keith van-Loen Photography
RESTAURANT & BAR DESIGN AWARDS

LED Light Sheet was used to illuminate sections of a pop-up bar and portable canapé trays at the Restaurant & Bar Design Awards, held at the RIBA building in London. Lightweight in construction, the glowing canapé trays were powered by a small rechargeable battery which was concealed on the underside of each tray. The display of fresh food is possible due to the cool running of LED Light Sheet which ensured delicacies including oysters could be presented on the trays. Waiters moving around the dark and busy event with the brightly lit trays were unmissable.

Image courtesy of the Restaurant & Bar Design Awards
Created specifically for the entrance to the 100% Design exhibition by artists Neil Musson and Jono Retallick, Collider is an extraordinary light installation composed of suspended LED Light Sheet shapes. The installation references the positive effects of artistic collaboration and networks of ideas leading to unexpected conclusions, with light a metaphor for new ideas. A series of hand-drawn LED Light Sheet shapes were cut to specification to produce a simpler and more delicate finish to the bespoke lighting unit, which informed the fluid structure of Collider.

Image courtesy of Musson+Retallick, by Emma Brown Photography
THE GARDEN ROOM

Subtly glowing against a cool central London night sky, this bespoke garden installation features long, straight, unembellished Corian benches and a hypnotic fire and water feature, all illuminated by LED Light Sheet. Created with an IP67 rating suitable for this exterior garden room, 3700K warm white LED Light Sheet has been manufactured to fit perfectly behind each Corian panel within the installation. Used to bring light to a wide range of decorative surface materials, LED Light Sheet can illuminate striking exterior features for gardens, terraces and rooftops.

Image courtesy of Lite House Europe
Titled Light Impression, Martha Freud’s collection of imprinted porcelain is a result of her continued fascination with nature and explores capturing the ephemeral beauty of short lived organisms using a more permanent medium. Warm white LED Light Sheet provided a straightforward solution to illuminate Martha’s porcelain tiles and once lit, the impressions - including sprat fish and feathers - are seen with heightened clarity and detail. From solitary tiles to those grouped together to form larger sequences, the pieces glow softly and evocatively.

Image courtesy of Martha Freud Design
A range of accessories is available to compliment the installation and functionality of LED Light Sheet.

**SNAP FRAMES**

Bespoke snap frames fitted with LED Light Sheet panels create an evenly illuminated light-box with a depth of just 25mm. Constructed from aluminium and supplied with a silver anodised coating as standard, the frames can alternatively be painted to match a project colour scheme. A single snap frame can be manufactured to a maximum size of 1200mm by 3000mm.

**CURVED ILLUMINATION**

Without compromising the slim profile of the unit, LED Light Sheet can be curved to create an interior design feature or for graphic display. Each curved panel is created to bespoke requirements using a specially constructed drum to heat-form the acrylic into the desired curved shape. Curved light-boxes, suitable for the display of graphics and advertising messages, are created with a frame manufactured in a choice of materials including polished stainless steel.

**FIXINGS**

A versatile range of fixings is available for the installation of each LED Light Sheet panel. The range includes stand-off wall mounts in stainless steel, hanging rod and cable systems, and angle fixing frames.
ACCESSORIES

LED LIGHT REEL
The powerful LED strips embedded within LED Light Sheet are available on reels in a variety of Kelvin colour temperatures. Providing a complimentary solution to any lighting scheme using white LED Light Sheet, the LED reels can be colour temperature matched or used independently. Highly flexible, the LED reels are suitable for perimeter and contour marking and a variety of other purposes. A range of aluminium extrusions and lenses is available to house the LEDs.

LED SABRE LIGHT
LED Light Sheet is complimented by bespoke LED bin matched linear lighting units suitable for internal display, pelmet and coving lighting. The ultra slim profile units are created in extruded aluminium and available in any length up to a maximum of 2000mm. Transparent and translucent lenses feature a choice of three beam angles of 30°, 60° and 90°; alternatively, transparent, white and diffuse covers are available.

TOUCH TECHNOLOGY
Programmed using a capacitive touch sensor, LED Light Sheet is now contact sensitive. The sensor recognises changes of conductivity in the air which enables the charge emitted from the human body to control whether the LED Light Sheet panels are lit or not. This means turning LED Light Sheet on and off is as easy as a touch of the fingertips.
ACCESSORIES

POWER SUPPLY
Each LED Light Sheet unit is delivered with a power supply to suit project requirements. For indoor applications, each standard unit is fitted with a power unit with a three pin plug. For IP67 rated panels, an IP66 driver is supplied for hardwiring. Alternatively, a bare end wire up to a maximum length of 3000mm may be fitted to the unit.

POWER BOXES
When multiple LED Light Sheet panels are used, the power box provides an efficient management system to minimise wiring and reduce contractor time onsite. The range includes 300W power boxes, 240W power boxes for dimmable panels, and 216W power boxes for RGB panels. Spider connectors can further increase the number of LED Light Sheet units powered by one box, depending on the combined load of the panels.

SPIDER CONNECTORS
Allowing up to four LED Light Sheet panels (LED load dependant) to be linked together and run from a single power supply, spider connectors are available in two wire lengths. The short four port spider links together panels positioned in close proximity, whilst the long spider features four ports each with a wiring range of 1500mm. Efficiency is maximised by utilising the LED load on the driver, whilst reducing the number of driver units required overall.
ACCESSORIES

CONTROLLERS
The LINEARdrive DC is a highly versatile, enclosed and easy to configure constant voltage driver/controller for indoor LED Light Sheet applications. The unit can be integrated within a network or used as a stand-alone device. To discuss a lighting effect, please contact the LED Light Sheet product specialists with details of project requirements.

DIMMERS
The LED dimmer features a compact design and can be switched on and off without altering preselected dimmer settings. The LED Light Sheet range of dimmers includes units that act as stand-alone devices with a manual lighting control function, or which can be used as a slave unit and interfaced within larger systems. Dimmers can be used with RGB Light Sheet to select colours.

PORTABLE BATTERIES
For LED Light Sheet panels located in areas without easy access to power, a range of portable, rechargeable batteries is a useful option. Fully waterproof and suitable for exterior locations, these 12v lithium polymer batteries are available in a range of sizes including small hand-held units. With a built in fuel gauge, the lightweight batteries are available in 4Ah, 8Ah, 10Ah, 14Ah and 22Ah sizes.
For LED Light Sheet and related accessory specifications, including colour temperature and surface brightness, please download the technical manual from www.ledlightsheet.co.uk

LED Light Sheet qualifies under the government’s ECA (Enhanced Capital Allowances) Energy Scheme to help manage climate change. For further details please contact an LED Light Sheet advisor.

Please contact our technical advisors to discuss your project requirements

Head Office
Applelec, Appleby House, Walker Terrace
Bradford, West Yorkshire BD4 7HP
Tel: +44 (0)1274 774 477
Fax: +44 (0)1274 774 478
sales@ledlightsheet.co.uk

Southern Office
Applelec, Suite 12, George House
High Street, Tring, Hertfordshire HP23 4HF
Tel: +44 (0)1442 500 050
Fax: +44 (0)1442 822 501
sales@ledlightsheet.co.uk

LED Light Sheet Twitter
www.twitter.com/ledlightsheet

LED Light Sheet You Tube
www.youtube.com/ledlightpanels

LED Light Sheet is exhibited yearly at a number of design shows. Full details are available at www.ledlightsheet.co.uk

LED Light Sheet is manufactured in the UK by Applelec. www.applelec.co.uk