# hansen
## technologie · elektronik · licht

# Luminous Panels
## ... providing light in slices

**Low weight**
**Extremely thin design**
**Custom shapes and sizes**

# Luminous Panel

The **hansen** **Luminous Panel** is a very flat, large-surface luminaire for built-in purposes. The **Basic** and **Eco versions** are suitable for both indoor and outdoor installation, whereas the **Slim** and **Power versions** are suitable for indoor use only.

**12 V / 24 V**

*hansen*
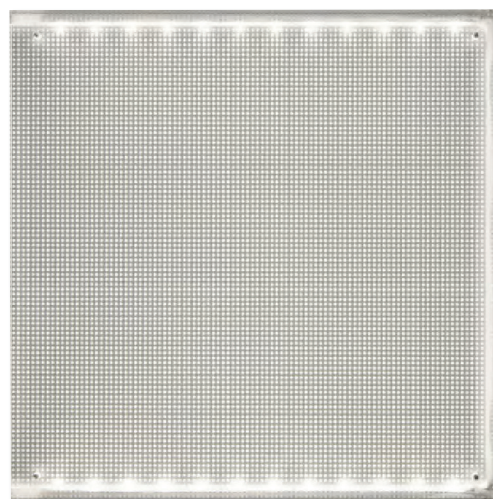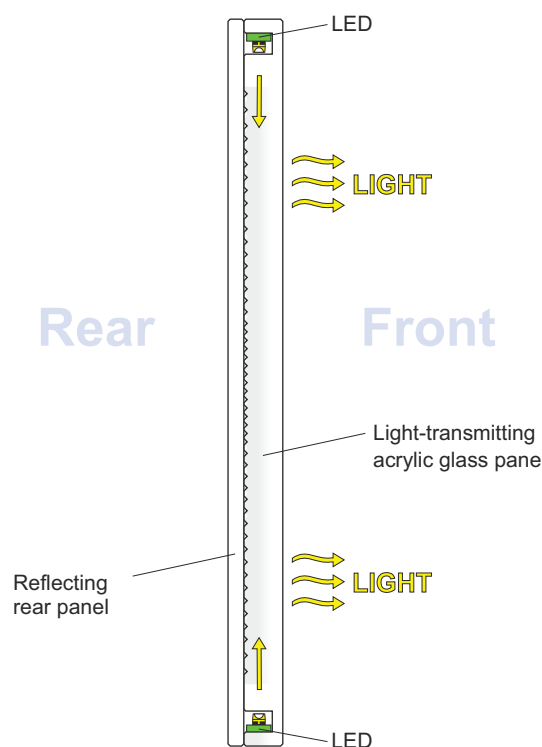technologie · elektronik · licht

## Typical applications

· **Lighting element** for walls or ceilings
· **Glare-free wall luminaire** for kitchens and bathrooms
· **Illumination** of decorative glass elements
· **Backlighting** of artificial stone, acrylic or textiles
· **Illumination** of flat light boxes
· **Light for traffic signs, pictograms, direction signs**
· **Double-sided illumination** of signs and boxes
· **Recessed luminaires** in 600 mm or 625 mm grid ceilings

## Advantages at a glance

▪ *Custom dimensions:* The Luminous Panel is made to customer specification only. Additional features (e.g. round or oval shapes, rounded corners, cut-outs, etc.) are possible as well.

▪ *Extremely thin:* The panel has an overall depth of only 8 mm in the Slim version, 11 mm in the Basic and Eco version, and 13 mm in the Power version.

▪ *Controllable:* The brightness or colour temperature of the Luminous Panel can be harmoniously dimmed with our innovative remote controls. RGB or RGB-W control is also possible.

▪ *Low energy consumption:* Thanks to modern LED technology, the Luminous Panel has a very low power consumption of 25 watts per square metre, i.e. a Luminous Panel of 2 m² would have the same energy costs as a small candle-type incandescent light bulb.

▪ *Different colour temperatures:* The Luminous Panel can be supplied with warm (2,700 K, 3,000 K), daylight-like (4,000 K, 5,000 K) or cool white light (6,500 K).

▪ *Mixing of warm an cool white light:* Allows the generation of daylight scenarios.

▪ *Coloured light:* The Luminous Panel can also be fitted with coloured or RGB-(W) LEDs allowing attractive colour changes or impressive light scenes to be implemented.

▪ *Low maintenance:* The light sources, i.e. the LEDs, do not have to be replaced during their entire service life of approx. 50,000 operating hours.
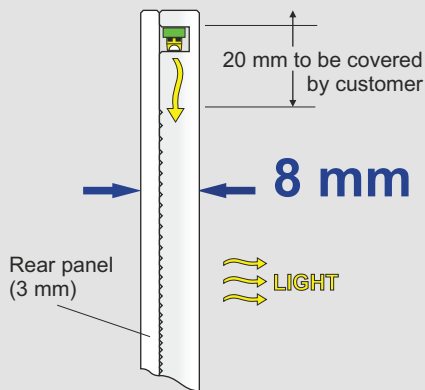
## Sectional view of the *hansen* Luminous Panel

LED

LIGHT

**Rear**　　**Front**

Light-transmitting acrylic glass pane

Reflecting rear panel

LIGHT

LED

# Available Versions of the Luminous Panel

## Slim



20 mm to be covered by customer

**8 mm**

Rear panel (3 mm)

≈> LIGHT

### 24 V

| | |
|---|---|
| Max. height | 1,000 mm |
| Max. width | 2,000 mm |
| Overall depth (thickness) | 8 mm |
| Weight per m$^2$ | 9.5 kg |
| Operating voltage | **24 V** |
| Wattage per m$^2$ | 25 W |
| Luminous flux per m$^2$ | 1,400 lm |
| Degree of protection | IP20 |
| Conformity | CE |
| Dimmable | yes |
| Available without rear panel | yes |
| Available with 3 mm opal cover | yes |

Technical data for 1 m$^2$, illuminated from two sides

## Basic / Eco



20 mm to be covered by customer

**11 mm**

Rear panel (3 mm)

≈> LIGHT
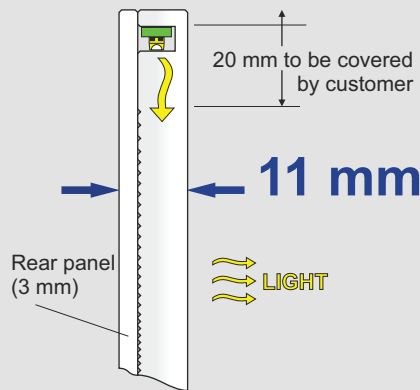
### 12 V

| | |
|---|---|
| Max. height | 1,500 mm |
| Max. width | 3,000 mm |
| Overall depth (thickness) | 11 mm |
| Weight per m$^2$ | 13 kg |
| Operating voltage | **12 V** |
| Wattage per m$^2$ | 25 W / 12.5 W |
| Luminous flux per m$^2$ | 1,400 lm / 700 lm |
| Degree of protection | IP20 |
| Conformity | CE |
| Dimmable | yes |
| Available without rear panel | yes |
| Available with 3 mm opal cover | yes |

Technical data for 1 m$^2$, illuminated from two sides

## Power



Aluminium profile

20 mm to be covered by customer

**13 mm**

Rear panel (5 mm)

≈> LIGHT
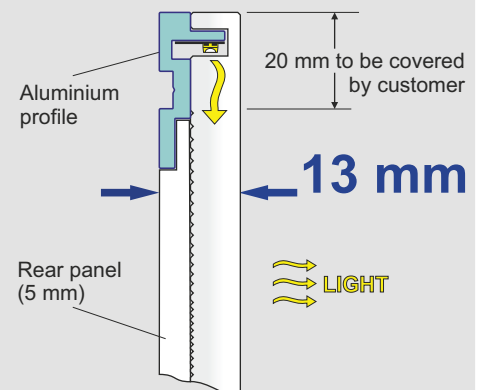
### 24 V

| | |
|---|---|
| Max. height | 1,500 mm |
| Max. width | 2,000 mm |
| Overall depth (thickness) | 13 mm |
| Weight per m$^2$ | 15.5 kg |
| Operating voltage | **24 V** |
| Wattage per m$^2$ | 45 W |
| Luminous flux per m$^2$ | 2,600 lm |
| Degree of protection | IP20 |
| Conformity | CE |
| Dimmable | yes |
| Available without rear panel | yes |
| Available with 3 mm opal cover | yes |

Technical data for 1 m$^2$, illuminated from two sides

Available colour temperatures: 2,700 K | 3,000 K | 4,000 K | 5,000 K | 6,500 K

The Basic and Eco versions are also available for outdoor use.

## W-W

### ... for warm/cool white light ...

- Power consumption: **approx. 25 W/m$^2$** (same as Basic version)
- Overall depth: **13 mm**
- Colour temperatures: **continuously variable between 2,700 and 6,500 K**
- Typical luminous flux: **1,400 lm**
- Indoor operation: parallel connection (12 V)
- Radio-controllable with receiver 2501M
- Operation with hand-held transmitter or wall-mount transmitter

## RGB-W

### ... for colour changing effects ...

- Power consumption: **30 W/m²** (RGB) | **40 W/m$^2$** (RGB-W)
- Overall depth: **11 mm** (RGB) | **13 mm** (RGB-W)
- Light colours: **RGB** | **RGB-W**
- Indoor operation: parallel connection (12 V)
- Radio-controllable with receiver 1009FA
- Operation with hand-held transmitter or wall-mount transmitter

PLEASE NOTE: For a more accurate calculation of the luminous flux different EULUMDAT files are available on our website.
For further details and up-to-date data sheets of the Luminous Panel please visit www.hansen-led.com.

# Luminous Panel – Details

## Custom dimensions

The **hansen** Luminous Panel is made to customer specification only. The smallest possible size is 80 x 80 mm, the largest is 1,500 x 3,000 mm (Basic version). Within these dimensions any size can be supplied.

## Maximum size

The **Luminous Panel** can be produced with a maximum height of 1,500 mm. This is the distance between the LED-illuminated edges. The light distribution over the surface area is very uniform. The maximum possible width is 3,000 mm for the Basic version and 2,000 mm for the Power version. Other dimensions are possible on request.

## Small Luminous Panels

The smallest available size for the **Luminous Panel** is 80 x 80 mm. For such small panels illumination from one side, i.e. with one LED strip, is perfectly sufficient. The maximum height for panels illuminated from one side is approx. 750 mm.

## Special shapes

Special shapes could be round or oval panels or even free shapes. Nearly every shape can be custom-made in the Basic version. Whether your desired shape is feasible can be checked in advance with our sales team.

## Double-sided illumination (no rear panel)

Direction signs (e.g. on airports) are often illuminated on both sides, shining towards the front and rear. For these and similar applications, the **Luminous Panel** can be supplied without reflecting rear panel.
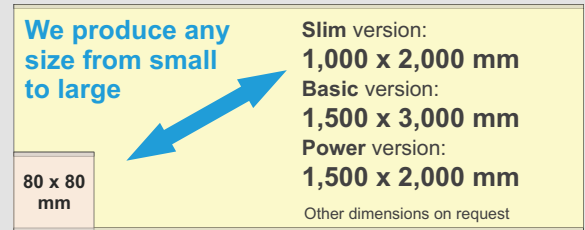
## Opal/transparent cover

An opal front pane can be supplied when the **Luminous Panel** is to be used as a luminaire with a high-quality visible surface.
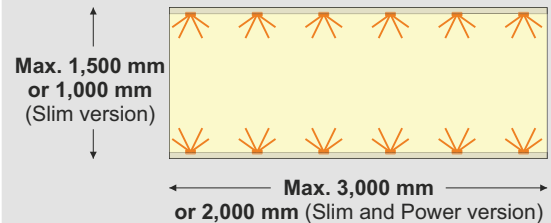The 3 mm transparent pane can be used as a carrier for self-adhesive vinyl lettering and graphics.
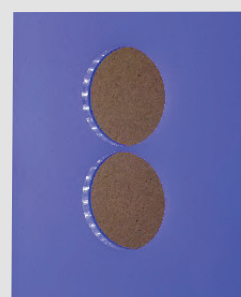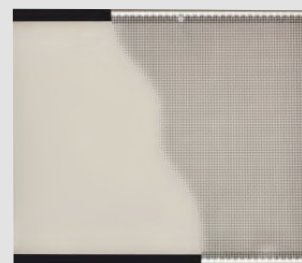
## Lead-throughs, openings, cut-outs

A variety of openings (e.g. for screwed connections), cut-outs (e.g. for switches) or lateral recesses (e.g. to avoid an existing strut or bracing) can be machined into the **Luminous Panel**.

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We produce any size from small to large

80 x 80 mm

**Slim** version:
**1,000 x 2,000 mm**
**Basic** version:
**1,500 x 3,000 mm**
**Power** version:
**1,500 x 2,000 mm**
Other dimensions on request

Recommendation for uniform illumination:

Max. 1,500 mm or 1,000 mm (Slim version)

Max. 3,000 mm or 2,000 mm (Slim and Power version)

Illumination from one side (max. height 750 mm):

750 mm

# Magnetic Frame
## (for "Basic" power class panels)

The magnetic frame is the perfect fit for the **hansen Luminous Panel** in the Basic version.

The aluminium frame and the acrylic glass pane protect the motif, which is attractively illuminated by the **Luminous Panel**.

The 12 V **Luminous Panel** can be illuminated by LED strips from one, two or four sides. The LED strips use Standard-PLUS LEDs spaced at 15 mm intervals. Other LED types and spacings are available on request.

Magnetic frame sizes from 200 x 200 mm to 1,100 x 2,400 mm allow a variety of individual designs. Customized solutions are possible as well.

**The frame simply clicks together!**

click
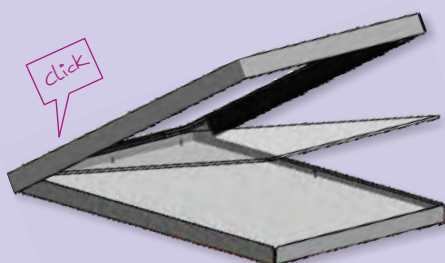
Frame width:
30 mm all round

Frame depth:
30 mm

Magnetic frame
(front view)

# RGB-W Panel
## ("Basic" power class)

The **hansen Luminous Panels** cannot only be illuminated with white LEDs, they can also be supplied as **RGB** and **RGB-W** (RGB combined with a white channel) versions. **Warm/cool light mixing** can be implemented as well to create atmospheric light scenes.

The **radio remote control** offers the following functions:
• Manual adjustment of the light colours
• Mixing of the three primary colours red, green and blue
• Manual mixing of RGB and white light (RGB-W)
• Dimming of RGB and white light (RGB-W)
• 10 pre-set automatic programs
• Splitting of the LEDs into zones
• Storage function for customer-defined mixed colours

A particularly intense and uniform brightness and colour impression can be achieved by covering the Luminous Panel with an opal acrylic glass pane.
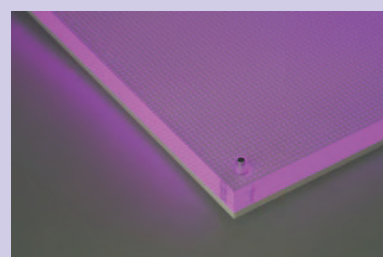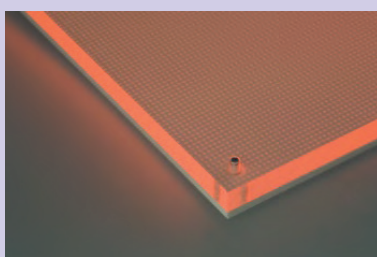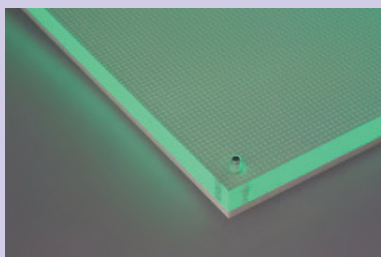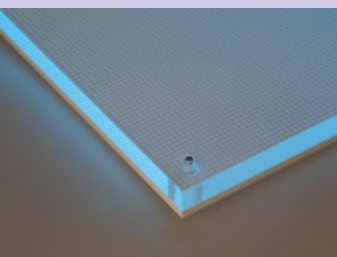
**Radio remote control for RGB | RGB-W**

Wall-mount transmitter

Hand-held transmitter

## Sectional view of the RGB Panel

Light-transmitting acrylic glass pane

Opal-white cover (optional)

**14 mm overall thickness with opal cover**

RGB LEDs

- Since 1984 -

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