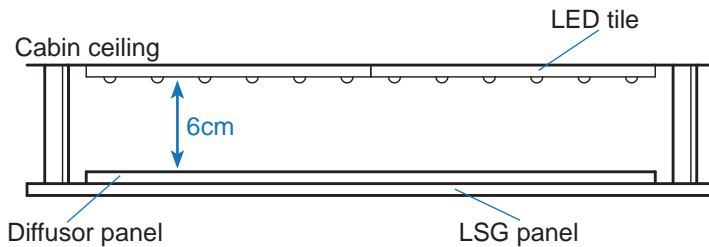


new!

## Homogeneous LED cabin lighting

The new LED tiles "Homogen-LED" have been developed for cabin ceilings, which shall show an absolutely homogeneous light radiation. So far this is usually achieved by using a frosted glass ceiling (LSG). A row of fluorescent lamps are placed behind this ceiling at a distance of 15-20cm. The individual tubes behind the glass panel may partly still be visible. In the course of headrooms getting smaller and smaller a deep intermediate ceiling is not always feasible. Here the W+W tiles find a remedy:



### Suspended ceiling:

A special diffusor panel is laid on the clear laminated sheet glass in the suspended ceiling. In conjunction with the LED tiles an absolutely homogeneous light is created at a distance of only 6cm between the LED tiles and the diffusor panel!

### Mounting form:

The tiles are available in three different sizes:  
24cm x 24cm, equipped with 36LEDs  
24cm x 12cm, equipped with 18LEDs  
12cm x 12cm, equipped with 9LEDs  
The tiles are screwed or glued on the cabin ceiling next to each other. They are interconnected with pluggable cables.

### Diffusor panel

Only panels constructed especially for LED lightings (e.g. truLED-plexiglass) can be used as diffusor panels. These panels are available in the specialised trade or can be customized directly at our company.



### Technical support

Siegfried Stock: phone +49(0)-211/73848-187

## Homogeneous LED cabin lighting



### Technical data

**Switching power supply** Input 100-240V AC 50Hz/60Hz,  
Output 24V- / 2,2A / 50W  
sufficient for about 1m<sup>2</sup>  
cabin ceiling

**LED tile 24 x 24cm** 36 x LEDs with a total of 2.8W

**LED tile 24 x 12cm** 18 x LEDs with a total of 1.4W

**LED tile 12 x 12cm** 9 x LEDs with a total of 1W

**Luminous flux:** about 75lm / watt

**Illumination level:** For one square metre about  
16 tiles 24x24cm are used  
(that makes 576 LEDs with  
a luminous flux of about 3360lm).

**Luminous intensity:** For a surface of 1m<sup>2</sup> and a  
ceiling height of 2.2m about 200 lux  
werde measured in a cabin covered  
with stainless steel.

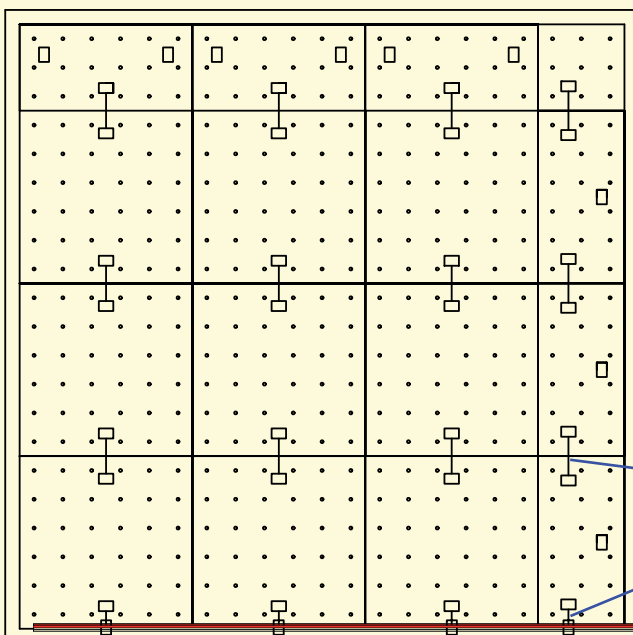
**Durability:** 90% efficiency after 50.000 operating hours

**Diffuser panel:** 3mm thick, especially developed for an  
LED technique, cut according to your  
requirements.  
**(Please order the diffuser panel with the  
same measurements as your glass panel)**

**The distance between the LED tile and the diffuser panel has  
to be at least 60mm in order to create a homogeneous light  
field.**

The lighting is **dimnable**.

### Example connection diagram LED tiles



When laying the tiles make sure that you start at the left side on the bottom of the ceiling and lay as many 24x24 tiles as possible to the right side. Then lay as many 24x24 tiles as possible from the bottom to the top. A possible remaining space can be filled with 24x12 tiles. In that case, in the right corner at the top a 12x12 tile is placed (see diagram at left).

Take care that the connections of the tiles are placed in a way that the connecting lines are long enough and do not have to be guided over the LEDs.

Tiles of the same type have to be laid in the same direction.

Therefore look at the inscription on the tiles.

The flat cable always has to be laid on the same side of the cabin ceiling where the first LED 24x24 tile is placed. At a suitable place provide a feedthrough of the connecting cable to the power supply unit.

**At most 10 LED tiles in a row may be connected to one tap cable.**

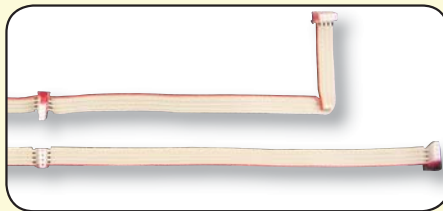
Connecting cable (art.no. 20106)

Tap cable, with one plug side marked with **RED**.  
(art.no. 20105)

Flat cable with one wire marked with **RED**.  
(art.no. 20104)



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### Homogeneous LED tile 24x24cm

art.no.	
20100	H-LED tile 2424

LED tile 24x24cm with 2.8W with 36 LEDs.  
Prepared for a homogeneous LED cabin lighting in combination with a diffuser panel.

### Homogeneous LED tile 24x12cm

art.no.	
20101	H-LED tile 2412

LED tile 24x12cm with 1.4W with 18 LEDs.  
Prepared for a homogeneous LED cabin lighting in combination with a diffuser panel.

### Homogeneous LED tile 12x12cm

art.no.	
20102	H-LED tile 1212

LED tile 12x12cm with 1W with 9 LEDs.  
Prepared for a homogeneous LED cabin lighting in combination with a diffuser panel.

### Switching power supply for homogeneous LED tile-PS 24V

art.no.	
20103	H-LED-PS 24V

1x switching power supply 100-240V, 50Hz - Out = 24V DC/2,2A  
1x outgoing cable with plug for H-LED-FB  
(This cable is guided through the ceiling and connects the switching power supply with the flat cable)

### Flat cable for the distribution of the individual tile strings

Art.no.	
20104	H-LED-FB

4-pole flat cable 24cm with tap plug  
Pre-assembled. 1 wire marked with red  
Please order according to the number of taps + 1 for the feed-in  
(Example: Please order for 4 feed-in points: 5 x 20104)

### Tap cable for LED tiles

art.no.	
20105	H-LED-AL

Side 1: with a plug for a flat cable, marked with red on one side  
Side 2: plug with protection against reverse polarity for the LED tile

### Connecting cable for LED tiles

art.no.	
20106	H-LED-VL

Plug with protection against reverse polarity on both sides for the connection LED/ tile

### Diffuser panel for LED tile

art.no.	
20107	H-LED-Diffusor

Diffuser panel especially developed for an LED technique.  
Product sold by m<sup>2</sup>, cut according to your requirements.  
Delivery with protective foil

### Dimmer, suitable for the connection to power supply art.no. 20103

art.no.	
20110	H-LED-dimmer

1x dimmer by pulse width modulation