

LINEAR OPTICS 1R FOR SMD LIGHT&DARK



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The highly efficient optics with light emission angles of 65° and 90°, especially in conjunction with a grid, offer very glare-free light with high color consistency (CLC) while at the same time ensuring maximum uniformity of lighting even at low ceiling heights.

The optics have a light point distance and are available in the designs 1Rx2, 1Rx4 and 1Rx7.

The optics are fixed together with the module by a screw and a grid can subsequently be snapped onto the optics.

The lenses are optimized for four 3030 or 2835 midpower LEDs from the leading LED manufacturers. Two 5630 or one 5050 LED fit as well under the lens (max LED height 1mm).

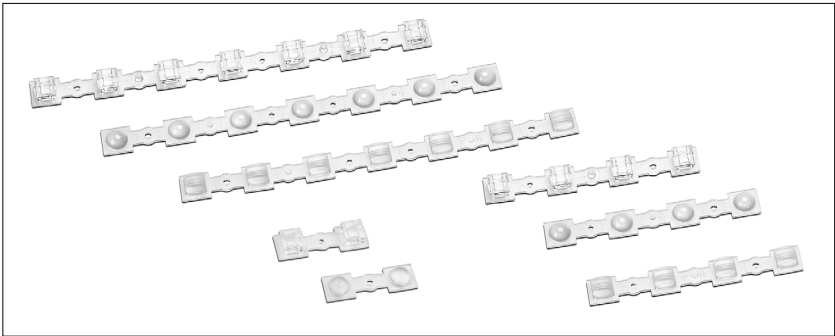
Typical LED types for use with this optic are Seoul STW8A2PD, STW8C12C, STW9C2PB (including the Sunlike LEDs), Samsung LM301B and Nichia 757 (also as Tuneable White).

Linear Optics 1R for SMD Light&Dark

- **HIGH-QUALITY OPTICAL MATERIALS**
- **OPTICAL EFFICIENCY UP TO 92%**
- **LIGHT EMISSION ANGLE 65° AND 90°
FOR HIGH UNIFORMITY**
- **ASYMMETRIC LIGHT DISTRIBUTION FOR
WALL LIGHTING**
- **OPTICS WITH CONSTANT LIGHT
COLOUR OVER BEAM ANGLE
(CLC)**
- **UGR OPTIMIZED OPTICS FOR GRIDS**



**Linear Optics 1R
for SMD Light&Dark**
1Rx7 280 mm
1Rx4 160 mm
1Rx2 80 mm



Technical Notes

- For 2835, 3030, 5630 and 5050 LEDs of the most common LED manufacturers, with up to four LEDs per lens (for 2835 and 3030).
- Material: PMMA
- Max. allowed temperature: 80 °C
- Light point distance 40 mm
- Through holes for M3 screws and rivets
- Max. tightening torque for M3 screw: 0.5 Nm



Lighting properties

- CLC (constant light colour): very low colour temperature deviations over beam angle
- UGR: optimized glare reduction

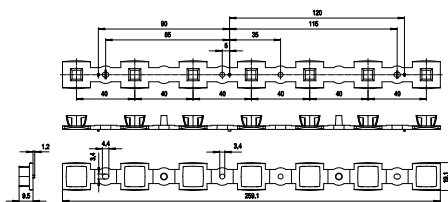
Light distribution	Type	Ref. No.	Lighting properties	Type of construction	Efficiency %	Weight g	Packaging unit pcs.
Medium 65°	91451	571826	UGR, CLC	1Rx7	91	14	324
Wide 90°	91452	571827	UGR, CLC	1Rx7	92	18	324
ASYM	91453	572478	UGR, CLC	1Rx7	88	14.8	324
Medium 65°	91461	571884	UGR, CLC	1Rx4	91	7,7	540
Wide 90°	91462	571885	UGR, CLC	1Rx4	92	10	540
ASYM	91463	572479	UGR, CLC	1Rx4	88	8.2	540
Medium 65°	91471	572628	UGR, CLC	1Rx2	91	3.5	390
Wide 90°	91472	572636	UGR, CLC	1Rx2	92	4.7	390

* Measured with a white grid

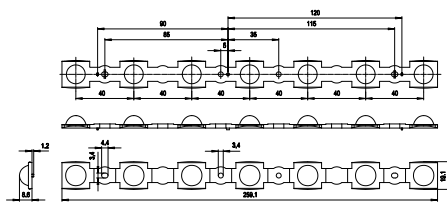
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Drawings

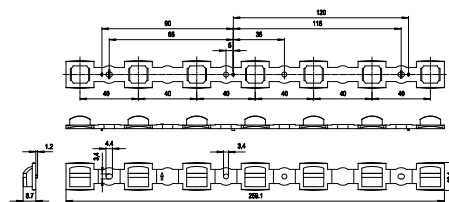
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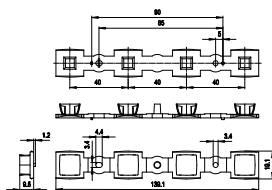
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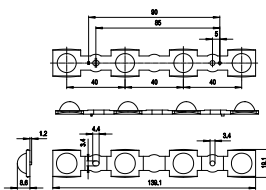
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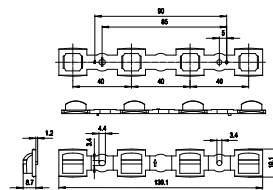
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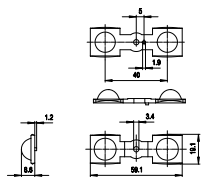
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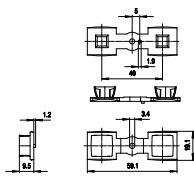
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Type 91471



Type 91472

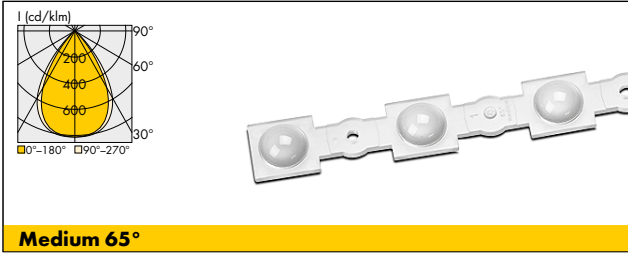
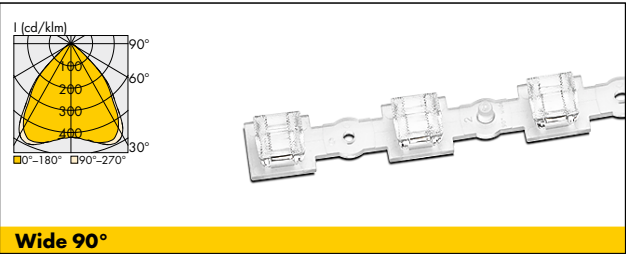


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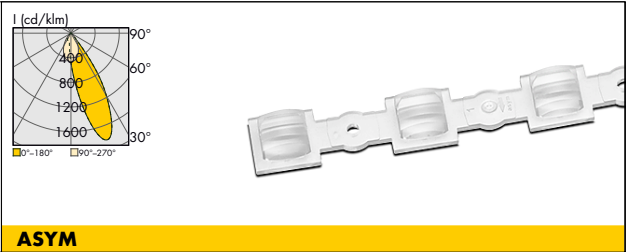
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Typ. light distributions with VS LED modules (With 2x2 Seoul 2835 LEDs (STW8A2PD))

At www.vossloh-schwabe.com you will find further light distribution curves with other LED types as well as all data in .ldt and .ies format for download.



Typ. light distribution with LED module with LEDs arranged linearly under the lens



Suitable VS LED modules

For optics 65° and 90°

VS LED modules	Module type	Optics type		
		1Rx7	1Rx4	1Rx2
LED Line SMD W2.5 Light&Dark	WU-M-684, WU-M-684-LV, WU-M-685, WU-M-685-LV	65°, 90°	—	—
LED Line SMD W6.2 Light&Dark Square	WU-M-709	—	—	65°, 90°

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