



a
more
green
option
for
light



SBL13WB PRODUCT FAMILY

Low glare & high efficiency SBL system general LED luminaire

SBL point/directional light source distribution control system (patent pending) represents a new big step forward in led lighting with **real concrete solutions** for :

- ◆ light beam & distribution control
- ◆ glare control
- ◆ energy efficiency

In existing back-lit and /or edge-lit LED general lighting luminaires, **point / directional light source** is simply transformed into **a plane/surface light source** again, by means of opal or prismatic diffusers. This mainly visual transformation is achieved at a cost of average 30% light/energy loss but they are still **raw** light sources as, they are not providing a meaningful control over light distribution or other optical properties demanded from an adequate luminaire.

UGR level <19, said to be acceptable industry glare upper limit in general low ceiling (office etc.) indoor lighting, is, in reality causing not merely simple eye discomfort but adverse side effects as well, like tenseness and focusing difficulty resulting with production loss, mistakes, work accidents and even insomnia.

LIBUS® SBL13WB luminaire family provides a genuine glare-free, well controlled, high performance / low energy lighting solution for many indoor (including some low bay / with higher power versions) applications.

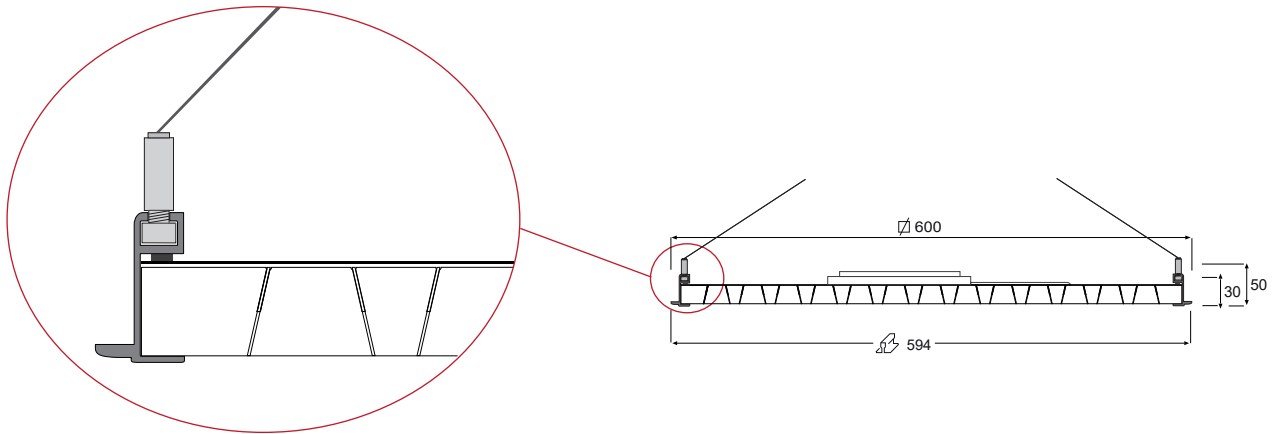
Product family comprises :

- ◆ size options : 60x60 - 30x120 - 30x60 | 10x60 - 15x120 - 19x120 - 23x120 - 27x120 - 31x180
- ◆ underlay options : standard : blank (open)
optional : pmma clear transparent / micro-line/ micro-mid
- ◆ reflector options : standard : pre-anodized
optional : pvd silver – pvd aluminum – optic white painted – optic film laminated
- ◆ mounting options : recessed T24 - 600x600 / 625x625 | clip-in | plaster ceiling | pendant
- ◆ Power / flux options : 6w (850lm) - 10w (1420lm) - 14w (2000lm) - 16w (2270lm)
22w (3700lm) - 25w (3550lm) - 28w (3250lm)

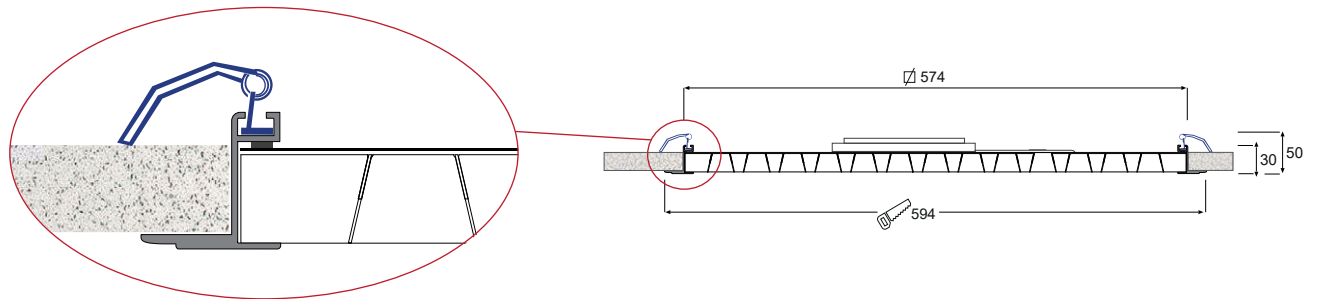
LIBUS[®] SBL13WB LUMINAIRE FAMILY

LUMINAIRE PROPERTIES		SBL13WBBL SMA-ST	SBL13WB BL LMP-HF	SBL13WP BL LMP-HP
		STANDARD	EFFICIENCY	PERFORMANCE
OPTICAL	Input power	28w	25w	22w
	Luminous flux - lumens	3250	3550	3700
	UGR ^{ave} .	<9	<9	<9
	Luminaire LOR	74%	89%	91%
	luminaire efficacy lm/w	116	142	168
	Luminaire light beam spread	72 ⁰	70 ⁰	70 ⁰
	Initial chromaticity	3-steps MacAdam		
	CRI – Color rendering index	standard : > 80 - optional : > 90		
	Light source color options	2700 - 3000 - 4000 - 5000 - 6500K		
ELECTRICAL	Driver	standard : CE - flicker free - PF>0,90 - Eff.>0,8- MTBF:25 ⁰ C>50.000hr. optional : Dali - tunable white		
	Input voltage	220 - 240 V		
	Input frequency	50 to 60 Hz		
	Connection	Push-in connector and pull relief		
HOUSING & MECHANICAL	Housing material	Anodized aluminum		
	Housing finish & colors	standard : silver & bronze satine anodized optional : mirror– brushed – other colors		
	Luminaire weight	3.6 Kgs		
	Luminaire dimensions	595 x 595 x 30 mm		
MISCELLANEOUS	Ambient temperature range	-10 to +50 °C		
	Performance ambient temp.	25 °C		
	Mean rated service life L80 (tq25°C)	> 50,000 h.		
	Mounting options	T24 600x600 / T24 625x625 / Clip - in / Pendant / Plaster ceiling		

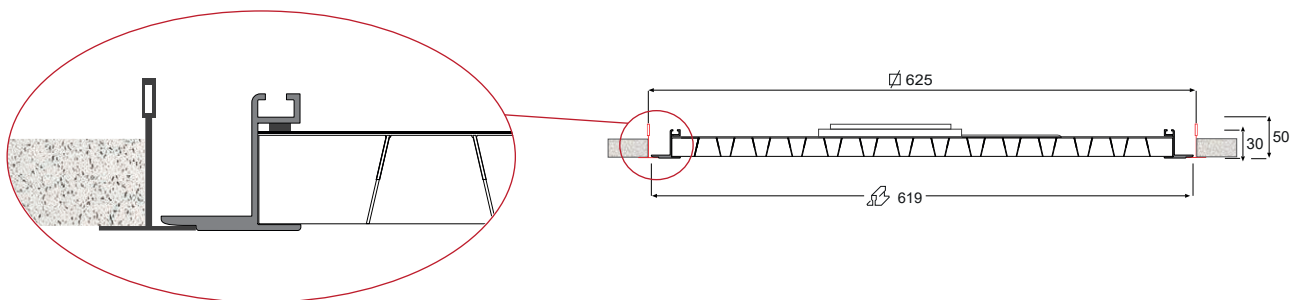
pendant



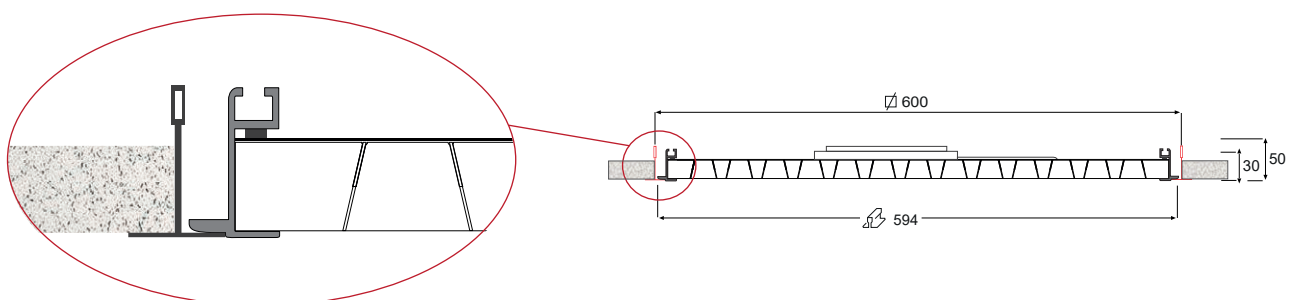
plaster ceiling



T24 625x625 ceiling

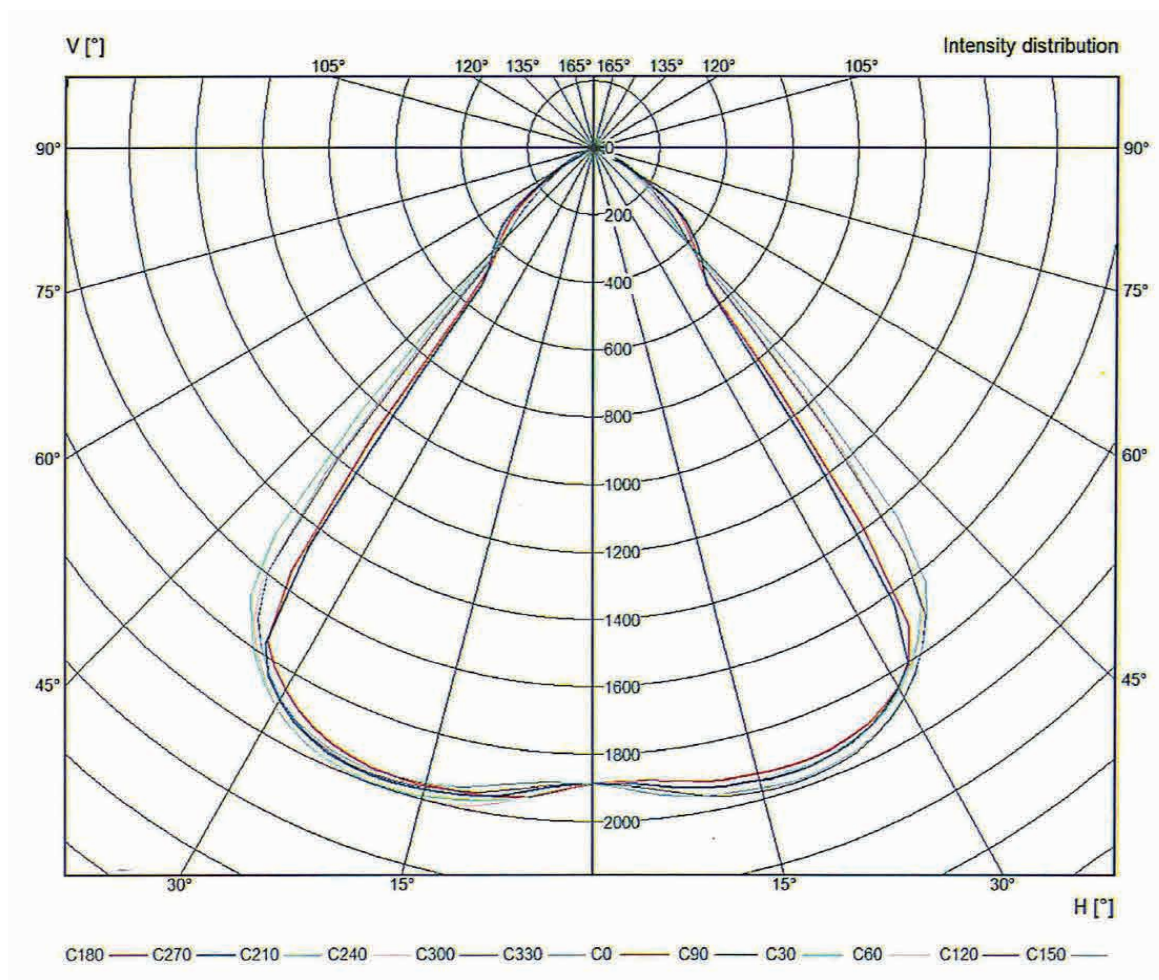


T24 600x600 ceiling





Polar diagram (cd/klm)



UGR glare ratios

Ceiling reflectance		0.7		0.5		0.3	0.7		0.5		0.3
Wall reflectance		0.5	0.3	0.5	0.3		0.5	0.3	0.5	0.3	
Floor cavity reflectance		0.2									
Room dimension		Viewed crosswise					Viewed endwise				
2H	2H	8.3	9.6	8.7	9.9	10.2	8.4	9.6	8.7	9.9	10.2
	3H	8.3	9.4	8.7	9.8	10.1	8.4	9.5	8.8	9.8	10.2
	4H	8.3	9.3	8.7	9.6	10.0	8.3	9.4	8.7	9.7	10.1
	6H	8.2	9.2	8.6	9.5	9.9	8.3	9.2	8.7	9.6	10.0
	8H	8.2	9.0	8.6	9.4	9.8	8.2	9.1	8.6	9.5	9.9
	12H	8.1	8.9	8.5	9.3	9.8	8.2	9.0	8.6	9.4	9.8
4H	2H	8.2	9.3	8.6	9.6	10.0	8.3	9.3	8.7	9.6	10.0
	3H	8.2	9.1	8.6	9.5	9.9	8.3	9.1	8.7	9.5	9.9
	4H	8.2	8.9	8.7	9.4	9.8	8.3	9.0	8.7	9.4	9.9
	6H	8.1	8.8	8.6	9.2	9.7	8.2	8.8	8.7	9.3	9.7
	8H	8.1	8.7	8.6	9.1	9.6	8.1	8.8	8.6	9.2	9.7
	12H	8.0	8.6	8.5	9.0	9.6	8.1	8.7	8.6	9.1	9.6
8H	4H	8.1	8.7	8.5	9.1	9.6	8.1	8.7	8.6	9.2	9.7
	6H	8.0	8.5	8.5	8.9	9.4	8.0	8.5	8.5	9.0	9.5
	8H	8.0	8.4	8.5	8.9	9.4	8.1	8.5	8.6	9.0	9.5
	12H	7.9	8.3	8.5	8.8	9.3	8.0	8.4	8.6	8.9	9.4
12H	4H	8.0	8.6	8.5	9.0	9.5	8.1	8.7	8.6	9.1	9.6
	6H	8.0	8.4	8.5	8.9	9.4	8.0	8.5	8.6	9.0	9.5
	8H	7.9	8.3	8.5	8.8	9.3	8.0	8.4	8.5	8.9	9.4

- ◆ full photometric report / ldt and ies files available on request



Ihr persönlicher Ansprechpartner:

Berliner Lichtwerkstatt - Günther Gdanietz

Sachkundiger für die Bewertung von bestehenden Beleuchtungsanlagen und Lichtplaner (TÜV-Zertifiziert)

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