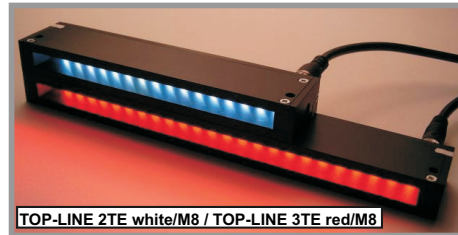


Professional Lighting Systems for Industrial Imaging

TOP-LINE Serie

the high-quality, luminous, line-shaped LED lighting system in various lengths for a homogeneous, parallel focused illumination of objects

- luminous, compact, homogeneous
- suited for most different arrangements, including employed in piles 1)
- strong, high-quality execution
- long lifecycle for industrial use
- manifold possibilities of mounting
- as standard available in lengths of 129, 185 and 241mm 2)
- models for 12VDC, 24VDC or flash operation 3)
- highly suitable for darkfield illumination
- standard colors: red, IR or white



Optical properties:

Color	wavelength/ angle	light intensity per LED	luminance of lighting system
IR	880 nm / 50°	140 mW/sr	approx. 20 W/m2**
red	617 nm / 30°	4700 mCd.	approx. 20 W/m2**
white	x:0,32 y:0,33 / 40°	750 mCd.	approx. 4 W/m2**

** highest luminance on the measuring level obtained at a distance of 5cm in DC mode, for further values see page 2

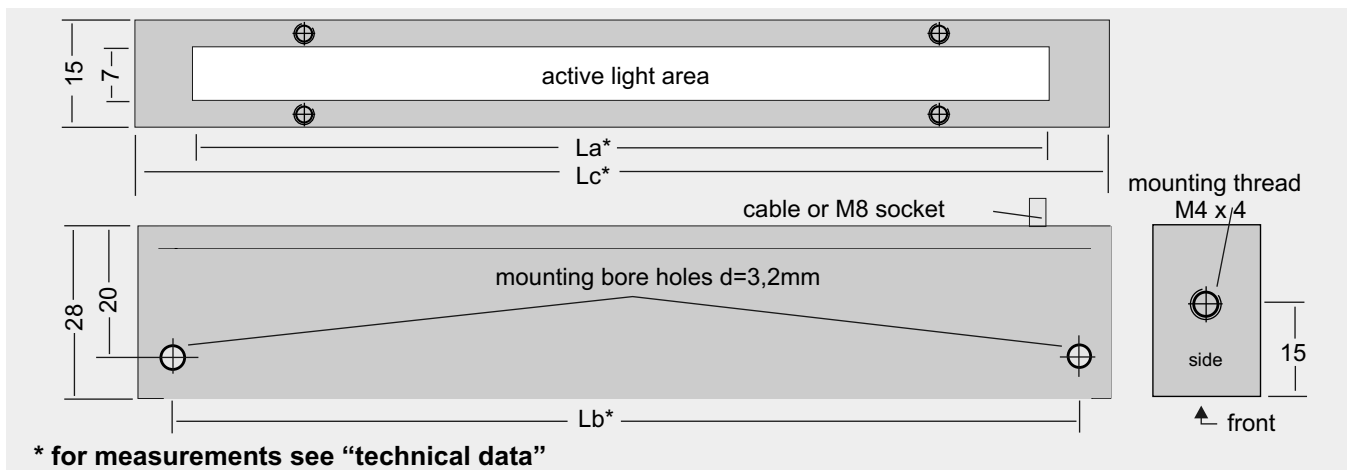
Accessories / optional equipment

- model with M8 socket equipped
- mounting sheet for fixing combinations of two (or more) lamp boxes
- adjustable slit diaphragm
- antireflecting / clear frontcover or diffusor 017 and 010

technical data of TOP-LINE models:

TOP-LINE-	2TE	3TE	4TE
case	alu, black anodised		
L _a / L _b / L _c in mm	113/119/129	169/175/185	225/231/241
weight	approx. 100g	approx. 145 g	approx. 190g
number of LED's	16	24	32
power consumption 12VDC type (red / IR)	approx. 140mA	approx. 210mA	approx. 280mA
power consumption 24VDC type (red / IR)	approx. 70mA	approx. 105mA	approx. 140mA
power consumption 12VDC type (white)	approx. 100mA	approx. 150mA	approx. 200mA
power consumption 24VDC type (white)	approx. 50mA	approx. 75mA	approx. 100mA

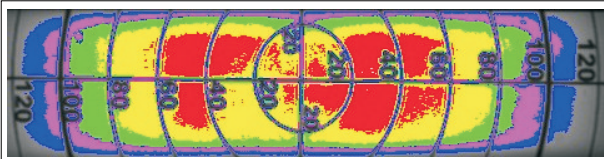
Dimensions:



explanation of footnotes:

- 1) see illustration of various arrangements on the back
- 2) the extension of a model can be varied by the systematical screening measurement of 56 mm
- 3) the 12VDC models can be combined with the U-CONTROL unit. the Strobe models can be supplied matching the flash modules MAX, DUO or LFC

Distribution of light intensity:



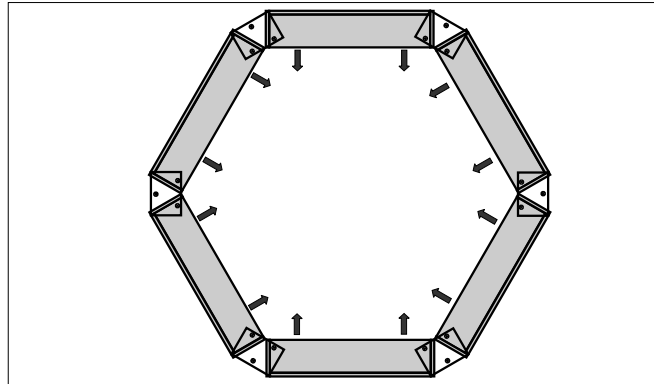
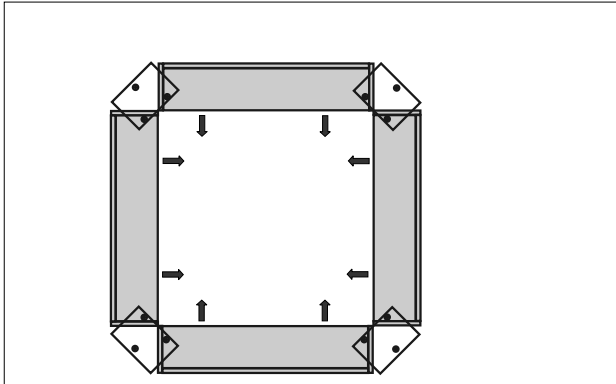
Luminous spot of TOP-LINE 2TE red 12VDC in wrong colors (at a working distance of 5cm).
Applying the look-up table the intensity is shown in steps of 10%, starting with blue (50-60%), then magenta (60-70%), green (70-80%), yellow (80-90%) up to red

Intensity of irradiation:

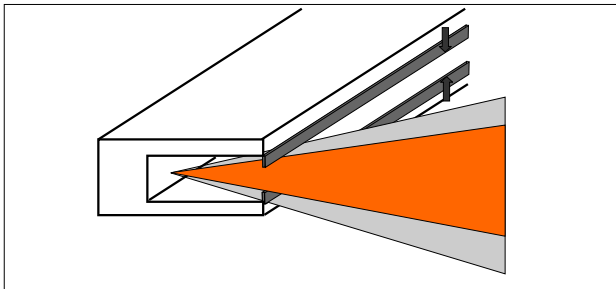
Table of the highest irradiation on the measuring level at different distances taken in the DC mode

Distance	Colors		
	red	IR	white
5cm	approx. 20 W/m ²	approx. 20 W/m ²	approx. 4 W/m ²
10cm	approx. 12 W/m ²	approx. 11 W/m ²	approx. 2 W/m ²
15cm	approx. 8 W/m ²	approx. 6 W/m ²	approx. 1 W/m ²

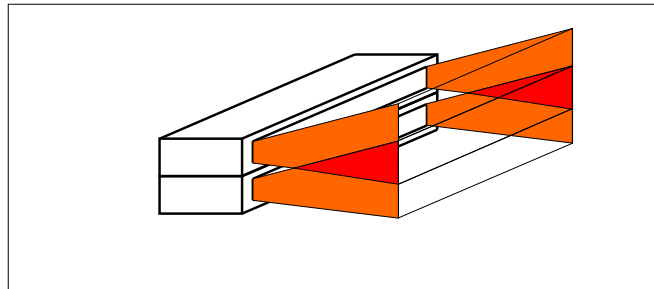
Illustration of various possible arrangements:



TOP-LINE with employed slit diaphragm:



two TOP-LINE lighting systems piled up:



TOP-LINE designation for ordering:

Order-No.	Designation
S120-0001	TOP-LINE-2TE R617/30° 12VDC
S120-0002	TOP-LINE-2TE R617/30° 24VDC
S120-0003	TOP-LINE-2TE R617/30° Strobe
S120-0004	TOP-LINE-2TE white 40° 12VDC
S120-0005	TOP-LINE-2TE white 40° 24VDC
S120-0006	TOP-LINE-2TE white 40° Strobe
S120-0007	TOP-LINE-2TE IR880/50° 12VDC
S120-0008	TOP-LINE-2TE IR880/50° 24VDC
S120-0009	TOP-LINE-2TE IR880/50° Strobe
S120-0010	TOP-LINE-3TE R617/30° 12VDC
S120-0011	TOP-LINE-3TE R617/30° 24VDC
S120-0012	TOP-LINE-3TE R617/30° Strobe
S120-0013	TOP-LINE-3TE white 40° 12VDC
S120-0014	TOP-LINE-3TE white 40° 24VDC
S120-0015	TOP-LINE-3TE white 40° Strobe
S120-0016	TOP-LINE-3TE IR880/50° 12VDC
S120-0017	TOP-LINE-3TE IR880/50° 24VDC
S120-0018	TOP-LINE-3TE IR880/50° Strobe

Order-No.	Designation
S120-0019	TOP-LINE-4TE R617/30° 12VDC
S120-0020	TOP-LINE-4TE R617/30° 24VDC
S120-0021	TOP-LINE-4TE R617/30° Strobe
S120-0022	TOP-LINE-4TE white 40° 12VDC
S120-0023	TOP-LINE-4TE white 40° 24VDC
S120-0024	TOP-LINE-4TE white 40° Strobe
S120-0025	TOP-LINE-4TE IR880/50° 12VDC
S120-0026	TOP-LINE-4TE IR880/50° 24VDC
S120-0027	TOP-LINE-4TE IR880/50° Strobe

Accessories / optional equipment:

S120-M8	M8-socket employed with DC models
S120-1	slit diaphragm for model 2TE (two pieces)
S120-2	slit diaphragm for model 3TE (two pieces)
S120-3	slit diaphragm for model 4TE (two pieces)
S120-4	mounting sheet
S120-5	tiltable frame for mounting sheet
S120-6	frontcover ARF (antireflecting) f. Model 2TE
S120-7	frontcover ARF (antireflecting) f. Model 3TE
S120-8	frontcover ARF (antireflecting) f. Model 4TE

Attention - Security Advice!

LED Lighting Systems may produce highly intense radiation that might damage your eyesight. Never look into the cone of light without eye protection!