

Module SLE G6 ADV

Modules SLE ADVANCED

Product description

- For spotlights and downlights
- TIM variants for easy and fast assembly
- Housing with Snap-On feature for easy reflector mounting
- 50 mm housing with 35 mm mounting hole distance acc. to Zhaga
- 35 mm housing with 25 mm mounting hole distance acc. to Zhaga
- Luminous flux up to 9,960 lm at $t_p = 65^\circ\text{C}$
- High efficacy up to 180 lm/W for the LED module at $t_p = 25^\circ\text{C}$
- High system efficacy up to 154 lm/W at $t_p = 65^\circ\text{C}$
- High colour consistency (MacAdam 3)
- Small LES (light emitting surface) diameter enables small beam angle for spotlights
- Excellent thermal management by COB technology
- Uniform radiation with Dam&Fill technology
- Fixing holes for M3 screws
- Integrated LED module
- Cooling required
- Flexible operating modes
- 5-year guarantee



Standards, page 9

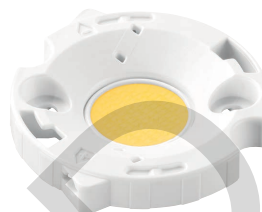
Colour temperatures and tolerances, page 20



LES19 + LES23 with housing



LES15 + LES17 D50 with housing



LES15 with housing



LES19 + LES23



LES17



LES15



LES10



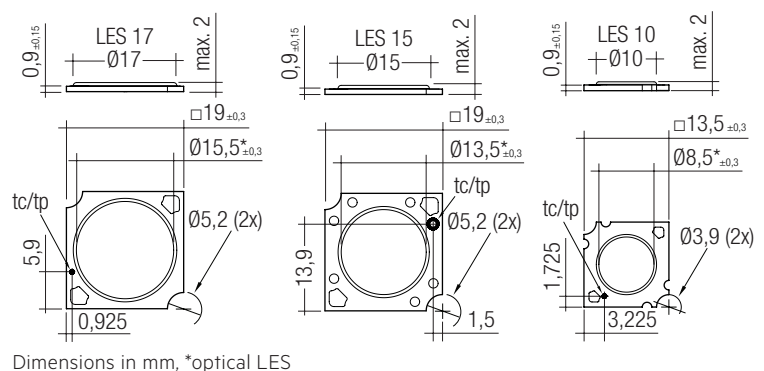
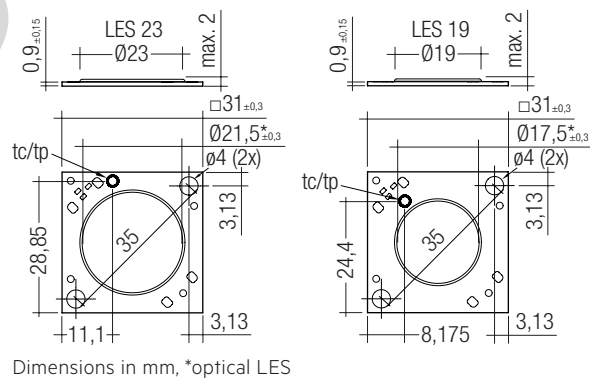
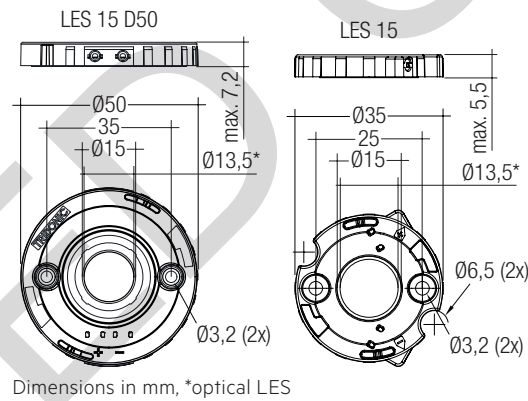
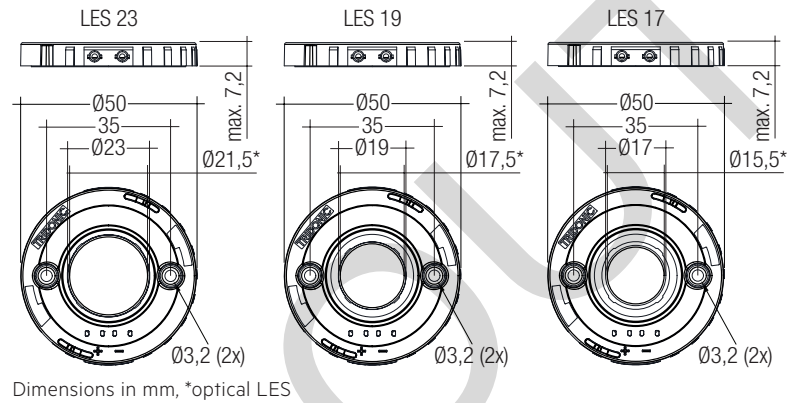


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Technical data

Beam characteristic	115°
Ambient temperature range	-25 ... +50 °C
tp rated	65 °C
tc ^①	Up to 100 °C
Max. allowed Silicontemperature	150 °C
Irated for LES10	350 mA
Irated for LES15	500 mA
Irated for LES17	900 mA
Irated for LES19	1,050 mA
Irated for LES23	1,400 mA
Imax for LES10	500 mA
Imax for LES15	900 mA
Imax for LES17	1,200 mA
Imax for LES19	1,400 mA
Imax for LES23	2,000 mA
Max. DC forward current for LES10 ^②	720 mA
Max. DC forward current for LES15 ^②	1,200 mA
Max. DC forward current for LES17 ^②	1,440 mA
Max. DC forward current for LES19 ^②	1,680 mA
Max. DC forward current for LES23 ^②	2,400 mA
Max. permissible LF current ripple for LES10	720 mA
Max. permissible LF current ripple for LES15	1,200 mA
Max. permissible LF current ripple for LES17	1,440 mA
Max. permissible LF current ripple for LES19	1,680 mA
Max. permissible LF current ripple for LES23	2,400 mA
Max. permissible peak current for LES10	1,080 mA / max. 8 ms
Max. permissible peak current for LES15	1,800 mA / max. 8 ms
Max. permissible peak current for LES17	2,160 mA / max. 8 ms
Max. permissible peak current for LES19	2,520 mA / max. 8 ms
Max. permissible peak current for LES23	3,600 mA / max. 8 ms
Max. working voltage for insulation nonSELV ^③	50 V
Max. working voltage for insulation SELV for	60 V
LES10, LES15, LES17 ^③	
Max. working voltage for insulation SELV for	75 V
LES19, LES23 ^③	
Insulation test voltage	0.5 kV
CTI of the printed circuit board	< 600 V
ESD classification	Severity level 4
Risk group (EN 62471:2008) for LES10	RG2 (Ethr = 1547 lx, RG1 at d = 80 cm)
Risk group (EN 62471:2008) for LES15	RG1
Risk group (EN 62471:2008) for LES17	RG1
Risk group (EN 62471:2008) for LES19	RG1
Risk group (EN 62471:2008) for LES23	RG1
Type of protection	IPO0



Module SLE G6 ADV
Modules SLE ADVANCED

Ordering data

Type	Article number	Colour temperature	Colour rendering index CRI	Housing	Connection cable	Thermal interface material	Packaging	Weight per pc.
SLE G6 10mm 1200lm 830 R ADV	28001680	3,000 K	> 80	no	no	no	36 pc(s).	0.001 kg
SLE G6 10mm 1200lm 840 R ADV	28001681	4,000 K	> 80	no	no	no	36 pc(s).	0.001 kg
SLE G6 10mm 1200lm 927 R ADV	28001805	2,700 K	> 90	no	no	no	36 pc(s).	0.001 kg
SLE G6 10mm 1200lm 930 R ADV	28001682	3,000 K	> 90	no	no	no	36 pc(s).	0.001 kg
SLE G6 10mm 1200lm 940 R ADV	28001683	4,000 K	> 90	no	no	no	36 pc(s).	0.001 kg
SLE G6 15mm 3000lm 827 R ADV	89602627	2,700 K	> 80	no	no	no	25 pc(s).	0.001 kg
SLE G6 15mm 3000lm 830 R ADV	89602628	3,000 K	> 80	no	no	no	25 pc(s).	0.001 kg
SLE G6 15mm 3000lm 835 R ADV	89602629	3,500 K	> 80	no	no	no	25 pc(s).	0.001 kg
SLE G6 15mm 3000lm 840 R ADV	89602630	4,000 K	> 80	no	no	no	25 pc(s).	0.001 kg
SLE G6 15mm 3000lm 927 R ADV	89602631	2,700 K	> 90	no	no	no	25 pc(s).	0.001 kg
SLE G6 15mm 3000lm 930 R ADV	89602632	3,000 K	> 90	no	no	no	25 pc(s).	0.001 kg
SLE G6 15mm 3000lm 935 R ADV	89602633	3,500 K	> 90	no	no	no	25 pc(s).	0.001 kg
SLE G6 15mm 3000lm 940 R ADV	89602634	4,000 K	> 90	no	no	no	25 pc(s).	0.001 kg
SLE G6 17mm 4000lm 827 R ADV	89602712	2,700 K	> 80	no	no	no	25 pc(s).	0.001 kg
SLE G6 17mm 4000lm 830 R ADV	89602713	3,000 K	> 80	no	no	no	25 pc(s).	0.001 kg
SLE G6 17mm 4000lm 835 R ADV	89602714	3,500 K	> 80	no	no	no	25 pc(s).	0.001 kg
SLE G6 17mm 4000lm 840 R ADV	89602715	4,000 K	> 80	no	no	no	25 pc(s).	0.001 kg
SLE G6 17mm 4000lm 927 R ADV	89602716	2,700 K	> 90	no	no	no	25 pc(s).	0.001 kg
SLE G6 17mm 4000lm 930 R ADV	89602717	3,000 K	> 90	no	no	no	25 pc(s).	0.001 kg
SLE G6 17mm 4000lm 935 R ADV	89602718	3,500 K	> 90	no	no	no	25 pc(s).	0.001 kg
SLE G6 17mm 4000lm 940 R ADV	89602719	4,000 K	> 90	no	no	no	25 pc(s).	0.001 kg
SLE G6 19mm 5000lm 827 R ADV	89602647	2,700 K	> 80	no	no	no	15 pc(s).	0.003 kg
SLE G6 19mm 5000lm 830 R ADV	89602648	3,000 K	> 80	no	no	no	15 pc(s).	0.003 kg
SLE G6 19mm 5000lm 835 R ADV	89602649	3,500 K	> 80	no	no	no	15 pc(s).	0.003 kg
SLE G6 19mm 5000lm 840 R ADV	89602650	4,000 K	> 80	no	no	no	15 pc(s).	0.003 kg
SLE G6 19mm 5000lm 927 R ADV	89602651	2,700 K	> 90	no	no	no	15 pc(s).	0.003 kg
SLE G6 19mm 5000lm 930 R ADV	89602652	3,000 K	> 90	no	no	no	15 pc(s).	0.003 kg
SLE G6 19mm 5000lm 935 R ADV	89602653	3,500 K	> 90	no	no	no	15 pc(s).	0.003 kg
SLE G6 19mm 5000lm 940 R ADV	89602654	4,000 K	> 90	no	no	no	15 pc(s).	0.003 kg
SLE G6 23mm 6000lm 827 R ADV	89602676	2,700 K	> 80	no	no	no	15 pc(s).	0.003 kg
SLE G6 23mm 6000lm 830 R ADV	89602677	3,000 K	> 80	no	no	no	15 pc(s).	0.003 kg
SLE G6 23mm 6000lm 835 R ADV	89602678	3,500 K	> 80	no	no	no	15 pc(s).	0.003 kg
SLE G6 23mm 6000lm 840 R ADV	89602679	4,000 K	> 80	no	no	no	15 pc(s).	0.003 kg
SLE G6 23mm 6000lm 927 R ADV	89602680	2,700 K	> 90	no	no	no	15 pc(s).	0.003 kg
SLE G6 23mm 6000lm 930 R ADV	89602681	3,000 K	> 90	no	no	no	15 pc(s).	0.003 kg
SLE G6 23mm 6000lm 935 R ADV	89602682	3,500 K	> 90	no	no	no	15 pc(s).	0.003 kg
SLE G6 23mm 6000lm 940 R ADV	89602683	4,000 K	> 90	no	no	no	15 pc(s).	0.003 kg
SLE G6 10mm 1200lm 830 C ADV	28001666	3,000 K	> 80	no	yes	no	20 pc(s).	0.001 kg
SLE G6 10mm 1200lm 840 C ADV	28001692	4,000 K	> 80	no	yes	no	20 pc(s).	0.001 kg
SLE G6 10mm 1200lm 930 C ADV	28001693	3,000 K	> 90	no	yes	no	20 pc(s).	0.001 kg
SLE G6 10mm 1200lm 940 C ADV	28001694	4,000 K	> 90	no	yes	no	20 pc(s).	0.001 kg
SLE G6 15mm 3000lm 830 C ADV	89602639	3,000 K	> 80	no	yes	no	20 pc(s).	0.004 kg
SLE G6 15mm 3000lm 840 C ADV	89602640	4,000 K	> 80	no	yes	no	20 pc(s).	0.004 kg
SLE G6 15mm 3000lm 930 C ADV	89602641	3,000 K	> 90	no	yes	no	20 pc(s).	0.004 kg
SLE G6 15mm 3000lm 940 C ADV	89602642	4,000 K	> 90	no	yes	no	20 pc(s).	0.004 kg
SLE G6 17mm 4000lm 830 C ADV	89602724	3,000 K	> 80	no	yes	no	20 pc(s).	0.004 kg
SLE G6 17mm 4000lm 840 C ADV	89602725	4,000 K	> 80	no	yes	no	20 pc(s).	0.004 kg
SLE G6 17mm 4000lm 930 C ADV	89602726	3,000 K	> 90	no	yes	no	20 pc(s).	0.004 kg
SLE G6 17mm 4000lm 940 C ADV	89602727	4,000 K	> 90	no	yes	no	20 pc(s).	0.004 kg
SLE G6 19mm 5000lm 827 C ADV	89602663	2,700 K	> 80	no	yes	no	20 pc(s).	0.008 kg
SLE G6 19mm 5000lm 830 C ADV	89602664	3,000 K	> 80	no	yes	no	20 pc(s).	0.008 kg
SLE G6 19mm 5000lm 835 C ADV	89602665	3,500 K	> 80	no	yes	no	20 pc(s).	0.008 kg
SLE G6 19mm 5000lm 840 C ADV	89602666	4,000 K	> 80	no	yes	no	20 pc(s).	0.008 kg
SLE G6 19mm 5000lm 927 C ADV	89602667	2,700 K	> 90	no	yes	no	20 pc(s).	0.008 kg
SLE G6 19mm 5000lm 930 C ADV	89602668	3,000 K	> 90	no	yes	no	20 pc(s).	0.008 kg
SLE G6 19mm 5000lm 935 C ADV	89602669	3,500 K	> 90	no	yes	no	20 pc(s).	0.008 kg
SLE G6 19mm 5000lm 940 C ADV	89602670	4,000 K	> 90	no	yes	no	20 pc(s).	0.008 kg

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Type	Article number	Colour temperature	Colour rendering index CRI	Housing	Connection cable	Thermal interface material	Packaging	Weight per pc.
SLE G6 23mm 6000lm 830 C ADV	89602692	3,000 K	> 80	no	yes	no	20 pc(s).	0.008 kg
SLE G6 23mm 6000lm 835 C ADV	89602693	3,500 K	> 80	no	yes	no	20 pc(s).	0.008 kg
SLE G6 23mm 6000lm 840 C ADV	89602694	4,000 K	> 80	no	yes	no	20 pc(s).	0.008 kg
SLE G6 23mm 6000lm 930 C ADV	89602695	3,000 K	> 90	no	yes	no	20 pc(s).	0.008 kg
SLE G6 23mm 6000lm 935 C ADV	89602696	3,500 K	> 90	no	yes	no	20 pc(s).	0.008 kg
SLE G6 23mm 6000lm 940 C ADV	89602697	4,000 K	> 90	no	yes	no	20 pc(s).	0.008 kg
SLE G6 15mm 3000lm 830 H ADV	89602635	3,000 K	> 80	yes	no	no	50 pc(s).	0.003 kg
SLE G6 15mm 3000lm 830 H ADV D50	89602643	3,000 K	> 80	yes	no	no	50 pc(s).	0.009 kg
SLE G6 15mm 3000lm 840 H ADV	89602636	4,000 K	> 80	yes	no	no	50 pc(s).	0.003 kg
SLE G6 15mm 3000lm 840 H ADV D50	89602644	4,000 K	> 80	yes	no	no	50 pc(s).	0.009 kg
SLE G6 15mm 3000lm 930 H ADV	89602637	3,000 K	> 90	yes	no	no	50 pc(s).	0.003 kg
SLE G6 15mm 3000lm 930 H ADV D50	89602645	3,000 K	> 90	yes	no	no	50 pc(s).	0.009 kg
SLE G6 15mm 3000lm 940 H ADV	89602638	4,000 K	> 90	yes	no	no	50 pc(s).	0.003 kg
SLE G6 15mm 3000lm 940 H ADV D50	89602646	4,000 K	> 90	yes	no	no	50 pc(s).	0.009 kg
SLE G6 17mm 4000lm 830 H ADV D50	89602720	3,000 K	> 80	yes	no	no	50 pc(s).	0.003 kg
SLE G6 17mm 4000lm 840 H ADV D50	89602721	4,000 K	> 80	yes	no	no	50 pc(s).	0.003 kg
SLE G6 17mm 4000lm 930 H ADV D50	89602722	3,000 K	> 90	yes	no	no	50 pc(s).	0.003 kg
SLE G6 17mm 4000lm 940 H ADV D50	89602723	4,000 K	> 90	yes	no	no	50 pc(s).	0.003 kg
SLE G6 19mm 5000lm 827 H ADV	89602655	2,700 K	> 80	yes	no	no	50 pc(s).	0.007 kg
SLE G6 19mm 5000lm 830 H ADV	89602656	3,000 K	> 80	yes	no	no	50 pc(s).	0.007 kg
SLE G6 19mm 5000lm 835 H ADV	89602657	3,500 K	> 80	yes	no	no	50 pc(s).	0.007 kg
SLE G6 19mm 5000lm 840 H ADV	89602658	4,000 K	> 80	yes	no	no	50 pc(s).	0.007 kg
SLE G6 19mm 5000lm 927 H ADV	89602659	2,700 K	> 90	yes	no	no	50 pc(s).	0.007 kg
SLE G6 19mm 5000lm 930 H ADV	89602660	3,000 K	> 90	yes	no	no	50 pc(s).	0.007 kg
SLE G6 19mm 5000lm 935 H ADV	89602661	3,500 K	> 90	yes	no	no	50 pc(s).	0.007 kg
SLE G6 19mm 5000lm 940 H ADV	89602662	4,000 K	> 90	yes	no	no	50 pc(s).	0.007 kg
SLE G6 23mm 6000lm 827 H ADV	89602684	2,700 K	> 80	yes	no	no	50 pc(s).	0.007 kg
SLE G6 23mm 6000lm 830 H ADV	89602685	3,000 K	> 80	yes	no	no	50 pc(s).	0.007 kg
SLE G6 23mm 6000lm 835 H ADV	89602686	3,500 K	> 80	yes	no	no	50 pc(s).	0.007 kg
SLE G6 23mm 6000lm 840 H ADV	89602687	4,000 K	> 80	yes	no	no	50 pc(s).	0.007 kg
SLE G6 23mm 6000lm 927 H ADV	89602688	2,700 K	> 90	yes	no	no	50 pc(s).	0.007 kg
SLE G6 23mm 6000lm 930 H ADV	89602689	3,000 K	> 90	yes	no	no	50 pc(s).	0.007 kg
SLE G6 23mm 6000lm 935 H ADV	89602690	3,500 K	> 90	yes	no	no	50 pc(s).	0.007 kg
SLE G6 23mm 6000lm 940 H ADV	89602691	4,000 K	> 90	yes	no	no	50 pc(s).	0.007 kg
SLE G6 19mm 5000lm 830 H ADV T	89602672	3,000 K	> 80	yes	no	yes	50 pc(s).	0.007 kg
SLE G6 19mm 5000lm 840 H ADV T	89602673	4,000 K	> 80	yes	no	yes	50 pc(s).	0.007 kg
SLE G6 19mm 5000lm 930 H ADV T	89602674	3,000 K	> 90	yes	no	yes	50 pc(s).	0.007 kg
SLE G6 19mm 5000lm 935 H ADV T	89602824	3,500 K	> 90	yes	no	yes	50 pc(s).	0.007 kg
SLE G6 19mm 5000lm 940 H ADV T	89602675	4,000 K	> 90	yes	no	yes	50 pc(s).	0.007 kg
SLE G6 23mm 6000lm 830 H ADV T	89602699	3,000 K	> 80	yes	no	yes	50 pc(s).	0.007 kg
SLE G6 23mm 6000lm 840 H ADV T	89602700	4,000 K	> 80	yes	no	yes	50 pc(s).	0.007 kg
SLE G6 23mm 6000lm 930 H ADV T	89602701	3,000 K	> 90	yes	no	yes	50 pc(s).	0.007 kg
SLE G6 23mm 6000lm 940 H ADV T	89602702	4,000 K	> 90	yes	no	yes	50 pc(s).	0.007 kg

Specific technical data

Type ^②	Photo-metric code	Forward current	Luminous flux at tp = 25 °C ^④	Luminous flux at tp = 65 °C ^④	Power consumption ^⑤	Min. forward voltage at tp = 65 °C	Max. forward voltage at tp = 25 °C	Luminous efficacy module at tp = 25 °C	Luminous efficacy module at tp = 65 °C	Luminous efficacy system at tp = 65 °C ^⑥	Colour rendering index CRI
SLE 10mm 1200lm – Operating mode HE at 250 mA											
SLE G6 10mm 1200lm 830 ADV	830/359	250 mA	1,300 lm	1,220 lm	8.8 W	32.2 V	39.1 V	146 lm/W	139 lm/W	125 lm/W	> 80
SLE G6 10mm 1200lm 840 ADV	840/359	250 mA	1,360 lm	1,270 lm	8.8 W	32.2 V	39.1 V	153 lm/W	144 lm/W	130 lm/W	> 80
SLE G6 10mm 1200lm 927 ADV	927/359	250 mA	1,080 lm	1,010 lm	8.8 W	32.2 V	39.1 V	121 lm/W	115 lm/W	104 lm/W	> 90
SLE G6 10mm 1200lm 930 ADV	930/359	250 mA	1,100 lm	1,040 lm	8.8 W	32.2 V	39.1 V	124 lm/W	118 lm/W	106 lm/W	> 90
SLE G6 10mm 1200lm 940 ADV	940/359	250 mA	1,180 lm	1,110 lm	8.8 W	32.2 V	39.1 V	133 lm/W	126 lm/W	114 lm/W	> 90
SLE 10mm 1200lm – Operating mode NM at 350 mA											
SLE G6 10mm 1200lm 830 ADV	830/359	350 mA	1,740 lm	1,640 lm	12.7 W	33.2 V	40.3 V	136 lm/W	129 lm/W	116 lm/W	> 80
SLE G6 10mm 1200lm 840 ADV	840/359	350 mA	1,810 lm	1,710 lm	12.7 W	33.2 V	40.3 V	141 lm/W	135 lm/W	121 lm/W	> 80
SLE G6 10mm 1200lm 927 ADV	927/359	350 mA	1,440 lm	1,350 lm	12.7 W	33.2 V	40.3 V	112 lm/W	106 lm/W	95 lm/W	> 90
SLE G6 10mm 1200lm 930 ADV	930/359	350 mA	1,470 lm	1,390 lm	12.7 W	33.2 V	40.3 V	115 lm/W	109 lm/W	99 lm/W	> 90
SLE G6 10mm 1200lm 940 ADV	940/359	350 mA	1,580 lm	1,490 lm	12.7 W	33.2 V	40.3 V	123 lm/W	117 lm/W	106 lm/W	> 90
SLE 10mm 1200lm – Operating mode HO at 500 mA											
SLE G6 10mm 1200lm 830 ADV	830/359	500 mA	2,340 lm	2,200 lm	19.1 W	34.9 V	42.4 V	121 lm/W	115 lm/W	104 lm/W	> 80
SLE G6 10mm 1200lm 840 ADV	840/359	500 mA	2,440 lm	2,290 lm	19.1 W	34.9 V	42.4 V	126 lm/W	120 lm/W	108 lm/W	> 80
SLE G6 10mm 1200lm 927 ADV	927/359	500 mA	1,930 lm	1,820 lm	19.1 W	34.9 V	42.4 V	100 lm/W	96 lm/W	86 lm/W	> 90
SLE G6 10mm 1200lm 930 ADV	930/359	500 mA	1,980 lm	1,860 lm	19.1 W	34.9 V	42.4 V	103 lm/W	97 lm/W	88 lm/W	> 90
SLE G6 10mm 1200lm 940 ADV	940/359	500 mA	2,120 lm	1,990 lm	19.1 W	34.9 V	42.4 V	110 lm/W	104 lm/W	94 lm/W	> 90
SLE 15mm 3000lm – Operating mode HE at 350 mA											
SLE G6 15mm 3000lm 827 ADV	827/359	350 mA	1,920 lm	1,800 lm	11.8 W	30.8 V	37.4 V	161 lm/W	153 lm/W	137 lm/W	> 80
SLE G6 15mm 3000lm 830 ADV	830/359	350 mA	1,970 lm	1,850 lm	11.8 W	30.8 V	37.4 V	166 lm/W	157 lm/W	141 lm/W	> 80
SLE G6 15mm 3000lm 835 ADV	835/359	350 mA	2,010 lm	1,890 lm	11.8 W	30.8 V	37.4 V	169 lm/W	160 lm/W	144 lm/W	> 80
SLE G6 15mm 3000lm 840 ADV	840/359	350 mA	2,050 lm	1,930 lm	11.8 W	30.8 V	37.4 V	172 lm/W	164 lm/W	147 lm/W	> 80
SLE G6 15mm 3000lm 927 ADV	927/359	350 mA	1,630 lm	1,530 lm	11.8 W	30.8 V	37.4 V	137 lm/W	130 lm/W	117 lm/W	> 90
SLE G6 15mm 3000lm 930 ADV	930/359	350 mA	1,670 lm	1,570 lm	11.8 W	30.8 V	37.4 V	140 lm/W	133 lm/W	120 lm/W	> 90
SLE G6 15mm 3000lm 935 ADV	935/359	350 mA	1,740 lm	1,630 lm	11.8 W	30.8 V	37.4 V	146 lm/W	138 lm/W	124 lm/W	> 90
SLE G6 15mm 3000lm 940 ADV	940/359	350 mA	1,790 lm	1,680 lm	11.8 W	30.8 V	37.4 V	150 lm/W	142 lm/W	128 lm/W	> 90
SLE 15mm 3000lm – Operating mode NM at 500 mA											
SLE G6 15mm 3000lm 827 ADV	827/359	500 mA	2,660 lm	2,500 lm	17.3 W	31.6 V	38.4 V	153 lm/W	145 lm/W	130 lm/W	> 80
SLE G6 15mm 3000lm 830 ADV	830/359	500 mA	2,730 lm	2,560 lm	17.3 W	31.6 V	38.4 V	157 lm/W	148 lm/W	133 lm/W	> 80
SLE G6 15mm 3000lm 835 ADV	835/359	500 mA	2,790 lm	2,620 lm	17.3 W	31.6 V	38.4 V	160 lm/W	151 lm/W	136 lm/W	> 80
SLE G6 15mm 3000lm 840 ADV	840/359	500 mA	2,840 lm	2,670 lm	17.3 W	31.6 V	38.4 V	163 lm/W	154 lm/W	139 lm/W	> 80
SLE G6 15mm 3000lm 927 ADV	927/359	500 mA	2,250 lm	2,120 lm	17.3 W	31.6 V	38.4 V	129 lm/W	123 lm/W	110 lm/W	> 90
SLE G6 15mm 3000lm 930 ADV	930/359	500 mA	2,310 lm	2,170 lm	17.3 W	31.6 V	38.4 V	133 lm/W	125 lm/W	113 lm/W	> 90
SLE G6 15mm 3000lm 935 ADV	935/359	500 mA	2,410 lm	2,270 lm	17.3 W	31.6 V	38.4 V	139 lm/W	131 lm/W	118 lm/W	> 90
SLE G6 15mm 3000lm 940 ADV	940/359	500 mA	2,480 lm	2,330 lm	17.3 W	31.6 V	38.4 V	143 lm/W	135 lm/W	121 lm/W	> 90
SLE 15mm 3000lm – Operating mode HO at 900 mA											
SLE G6 15mm 3000lm 827 ADV	827/359	900 mA	4,410 lm	4,150 lm	33.1 W	33.7 V	40.9 V	132 lm/W	125 lm/W	113 lm/W	> 80
SLE G6 15mm 3000lm 830 ADV	830/359	900 mA	4,530 lm	4,250 lm	33.1 W	33.7 V	40.9 V	135 lm/W	128 lm/W	116 lm/W	> 80
SLE G6 15mm 3000lm 835 ADV	835/359	900 mA	4,620 lm	4,340 lm	33.1 W	33.7 V	40.9 V	138 lm/W	131 lm/W	118 lm/W	> 80
SLE G6 15mm 3000lm 840 ADV	840/359	900 mA	4,720 lm	4,440 lm	33.1 W	33.7 V	40.9 V	141 lm/W	134 lm/W	121 lm/W	> 80
SLE G6 15mm 3000lm 927 ADV	927/359	900 mA	3,740 lm	3,520 lm	33.1 W	33.7 V	40.9 V	112 lm/W	106 lm/W	96 lm/W	> 90
SLE G6 15mm 3000lm 930 ADV	930/359	900 mA	3,830 lm	3,600 lm	33.1 W	33.7 V	40.9 V	114 lm/W	109 lm/W	98 lm/W	> 90
SLE G6 15mm 3000lm 935 ADV	935/359	900 mA	4,000 lm	3,760 lm	33.1 W	33.7 V	40.9 V	119 lm/W	114 lm/W	102 lm/W	> 90
SLE G6 15mm 3000lm 940 ADV	940/359	900 mA	4,110 lm	3,860 lm	33.1 W	33.7 V	40.9 V	123 lm/W	117 lm/W	105 lm/W	> 90

^① See derating curves in data sheet section 2.3.^② Max. DC forward current varies over the temperature of the LED module. See derating curves in data sheet section 2.3.^③ The detailed explanation, see data sheet section 3.1.^④ Tolerance range for optical and electrical data: ±10 %.^⑤ Assumed efficiency for the LED Driver is 0.9.^⑥ All values at tp = 65 °C.^⑦ HE ... high efficiency, NM ... nominal mode, HO ... high output.

Specific technical data

Type ^②	Photo-metric code	Forward current	Luminous flux at tp = 25 °C ^③	Luminous flux at tp = 65 °C ^③	Power consumption ^④	Min. forward voltage at tp = 65 °C	Max. forward voltage at tp = 25 °C	Luminous efficacy module at tp = 25 °C	Luminous efficacy module at tp = 65 °C	Luminous efficacy system at tp = 65 °C ^⑤	Colour rendering index CRI
SLE 17mm 4000lm – Operating mode HE at 500 mA											
SLE G6 17mm 4000lm 827 ADV	827/359	500 mA	2,690 lm	2,530 lm	170 W	311 V	377 V	156 lm/W	149 lm/W	134 lm/W	> 80
SLE G6 17mm 4000lm 830 ADV	830/359	500 mA	2,760 lm	2,600 lm	170 W	311 V	377 V	160 lm/W	153 lm/W	138 lm/W	> 80
SLE G6 17mm 4000lm 835 ADV	835/359	500 mA	2,820 lm	2,650 lm	170 W	311 V	377 V	164 lm/W	156 lm/W	140 lm/W	> 80
SLE G6 17mm 4000lm 840 ADV	840/359	500 mA	2,880 lm	2,710 lm	170 W	311 V	377 V	167 lm/W	159 lm/W	143 lm/W	> 80
SLE G6 17mm 4000lm 927 ADV	927/359	500 mA	2,280 lm	2,150 lm	170 W	311 V	377 V	133 lm/W	126 lm/W	114 lm/W	> 90
SLE G6 17mm 4000lm 930 ADV	930/359	500 mA	2,340 lm	2,200 lm	170 W	311 V	377 V	136 lm/W	129 lm/W	116 lm/W	> 90
SLE G6 17mm 4000lm 935 ADV	935/359	500 mA	2,440 lm	2,290 lm	170 W	311 V	377 V	142 lm/W	135 lm/W	121 lm/W	> 90
SLE G6 17mm 4000lm 940 ADV	940/359	500 mA	2,510 lm	2,360 lm	170 W	311 V	377 V	146 lm/W	139 lm/W	125 lm/W	> 90
SLE 17mm 4000lm – Operating mode NM at 900 mA											
SLE G6 17mm 4000lm 827 ADV	827/359	900 mA	4,550 lm	4,280 lm	324 W	329 V	400 V	139 lm/W	132 lm/W	119 lm/W	> 80
SLE G6 17mm 4000lm 830 ADV	830/359	900 mA	4,670 lm	4,390 lm	324 W	329 V	400 V	143 lm/W	135 lm/W	122 lm/W	> 80
SLE G6 17mm 4000lm 835 ADV	835/359	900 mA	4,770 lm	4,480 lm	324 W	329 V	400 V	146 lm/W	138 lm/W	124 lm/W	> 80
SLE G6 17mm 4000lm 840 ADV	840/359	900 mA	4,870 lm	4,580 lm	324 W	329 V	400 V	149 lm/W	141 lm/W	127 lm/W	> 80
SLE G6 17mm 4000lm 927 ADV	927/359	900 mA	3,860 lm	3,630 lm	324 W	329 V	400 V	118 lm/W	112 lm/W	101 lm/W	> 90
SLE G6 17mm 4000lm 930 ADV	930/359	900 mA	3,960 lm	3,720 lm	324 W	329 V	400 V	121 lm/W	115 lm/W	103 lm/W	> 90
SLE G6 17mm 4000lm 935 ADV	935/359	900 mA	4,130 lm	3,880 lm	324 W	329 V	400 V	126 lm/W	120 lm/W	108 lm/W	> 90
SLE G6 17mm 4000lm 940 ADV	940/359	900 mA	4,240 lm	3,990 lm	324 W	329 V	400 V	130 lm/W	123 lm/W	111 lm/W	> 90
SLE 17mm 4000lm – Operating mode HO at 1,200 mA											
SLE G6 17mm 4000lm 827 ADV	827/359	1,200 mA	5,770 lm	5,430 lm	449 W	342 V	416 V	127 lm/W	121 lm/W	109 lm/W	> 80
SLE G6 17mm 4000lm 830 ADV	830/359	1,200 mA	5,920 lm	5,570 lm	449 W	342 V	416 V	130 lm/W	124 lm/W	112 lm/W	> 80
SLE G6 17mm 4000lm 835 ADV	835/359	1,200 mA	6,050 lm	5,690 lm	449 W	342 V	416 V	133 lm/W	127 lm/W	114 lm/W	> 80
SLE G6 17mm 4000lm 840 ADV	840/359	1,200 mA	6,170 lm	5,800 lm	449 W	342 V	416 V	136 lm/W	129 lm/W	116 lm/W	> 80
SLE G6 17mm 4000lm 927 ADV	927/359	1,200 mA	4,900 lm	4,600 lm	449 W	342 V	416 V	108 lm/W	102 lm/W	92 lm/W	> 90
SLE G6 17mm 4000lm 930 ADV	930/359	1,200 mA	5,020 lm	4,720 lm	449 W	342 V	416 V	111 lm/W	105 lm/W	95 lm/W	> 90
SLE G6 17mm 4000lm 935 ADV	935/359	1,200 mA	5,230 lm	4,920 lm	449 W	342 V	416 V	115 lm/W	110 lm/W	99 lm/W	> 90
SLE G6 17mm 4000lm 940 ADV	940/359	1,200 mA	5,380 lm	5,060 lm	449 W	342 V	416 V	119 lm/W	113 lm/W	101 lm/W	> 90
SLE 19mm 5000lm – Operating mode HE at 500 mA											
SLE G6 19mm 5000lm 827 ADV	827/359	500 mA	2,820 lm	2,650 lm	168 W	307 V	373 V	166 lm/W	158 lm/W	142 lm/W	> 80
SLE G6 19mm 5000lm 830 ADV	830/359	500 mA	2,890 lm	2,720 lm	168 W	307 V	373 V	170 lm/W	162 lm/W	146 lm/W	> 80
SLE G6 19mm 5000lm 835 ADV	835/359	500 mA	2,950 lm	2,770 lm	168 W	307 V	373 V	174 lm/W	165 lm/W	148 lm/W	> 80
SLE G6 19mm 5000lm 840 ADV	840/359	500 mA	3,010 lm	2,830 lm	168 W	307 V	373 V	177 lm/W	168 lm/W	152 lm/W	> 80
SLE G6 19mm 5000lm 927 ADV	927/359	500 mA	2,390 lm	2,240 lm	168 W	307 V	373 V	141 lm/W	133 lm/W	120 lm/W	> 90
SLE G6 19mm 5000lm 930 ADV	930/359	500 mA	2,450 lm	2,300 lm	168 W	307 V	373 V	144 lm/W	137 lm/W	123 lm/W	> 90
SLE G6 19mm 5000lm 935 ADV	935/359	500 mA	2,550 lm	2,400 lm	168 W	307 V	373 V	150 lm/W	143 lm/W	129 lm/W	> 90
SLE G6 19mm 5000lm 940 ADV	940/359	500 mA	2,620 lm	2,470 lm	168 W	307 V	373 V	154 lm/W	147 lm/W	132 lm/W	> 90
SLE 19mm 5000lm – Operating mode NM at 1,050 mA											
SLE G6 19mm 5000lm 827 ADV	827/359	1,050 mA	5,470 lm	5,150 lm	378 W	330 V	401 V	143 lm/W	136 lm/W	123 lm/W	> 80
SLE G6 19mm 5000lm 830 ADV	830/359	1,050 mA	5,620 lm	5,280 lm	378 W	330 V	401 V	147 lm/W	140 lm/W	126 lm/W	> 80
SLE G6 19mm 5000lm 835 ADV	835/359	1,050 mA	5,730 lm	5,390 lm	378 W	330 V	401 V	150 lm/W	143 lm/W	128 lm/W	> 80
SLE G6 19mm 5000lm 840 ADV	840/359	1,050 mA	5,850 lm	5,500 lm	378 W	330 V	401 V	153 lm/W	146 lm/W	131 lm/W	> 80
SLE G6 19mm 5000lm 927 ADV	927/359	1,050 mA	4,640 lm	4,360 lm	378 W	330 V	401 V	121 lm/W	115 lm/W	104 lm/W	> 90
SLE G6 19mm 5000lm 930 ADV	930/359	1,050 mA	4,760 lm	4,470 lm	378 W	330 V	401 V	125 lm/W	118 lm/W	106 lm/W	> 90
SLE G6 19mm 5000lm 935 ADV	935/359	1,050 mA	4,960 lm	4,660 lm	378 W	330 V	401 V	130 lm/W	123 lm/W	111 lm/W	> 90
SLE G6 19mm 5000lm 940 ADV	940/359	1,050 mA	5,100 lm	4,790 lm	378 W	330 V	401 V	134 lm/W	127 lm/W	114 lm/W	> 90
SLE 19mm 5000lm – Operating mode HO at 1,400 mA											
SLE G6 19mm 5000lm 827 ADV	827/359	1,400 mA	6,950 lm	6,530 lm	525 W	343 V	417 V	131 lm/W	124 lm/W	112 lm/W	> 80
SLE G6 19mm 5000lm 830 ADV	830/359	1,400 mA	7,130 lm	6,700 lm	525 W	343 V	417 V	135 lm/W	128 lm/W	115 lm/W	> 80
SLE G6 19mm 5000lm 835 ADV	835/359	1,400 mA	7,280 lm	6,840 lm	525 W	343 V	417 V	137 lm/W	130 lm/W	117 lm/W	> 80
SLE G6 19mm 5000lm 840 ADV	840/359	1,400 mA	7,430 lm	6,980 lm	525 W	343 V	417 V	140 lm/W	133 lm/W	120 lm/W	> 80
SLE G6 19mm 5000lm 927 ADV	927/359	1,400 mA	5,890 lm	5,540 lm	525 W	343 V	417 V	111 lm/W	106 lm/W	95 lm/W	> 90
SLE G6 19mm 5000lm 930 ADV	930/359	1,400 mA	6,040 lm	5,670 lm	525 W	343 V	417 V	114 lm/W	108 lm/W	97 lm/W	> 90
SLE G6 19mm 5000lm 935 ADV	935/359	1,400 mA	6,300 lm	5,920 lm	525 W	343 V	417 V	119 lm/W	113 lm/W	101 lm/W	> 90
SLE G6 19mm 5000lm 940 ADV	940/359	1,400 mA	6,470 lm	6,080 lm	525 W	343 V	417 V	122 lm/W	116 lm/W	104 lm/W	> 90

① See derating curves in data sheet section 2.3.

② Max. DC forward current varies over the temperature of the LED module. See derating curves in data sheet section 2.3.

③ The detailed explanation, see data sheet section 3.1.

④ Tolerance range for optical and electrical data: ±10 %.

⑤ Assumed efficiency for the LED Driver is 0.9.

⑥ All values at tp = 65 °C.

⑦ HE ... high efficiency, NM ... nominal mode, HO ... high output.

Specific technical data

Type ^②	Photo-metric code	Forward current	Luminous flux at tp = 25 °C ^③	Luminous flux at tp = 65 °C ^④	Power consumption ^⑤	Min. forward voltage at tp = 65 °C	Max. forward voltage at tp = 25 °C	Luminous efficacy module at tp = 25 °C	Luminous efficacy module at tp = 65 °C	Luminous efficacy system at tp = 65 °C ^⑥	Colour rendering index CRI
SLE 23mm 6000lm – Operating mode HE at 700 mA											
SLE G6 23mm 6000lm 827 ADV	827/359	700 mA	3,980 lm	3,740 lm	23.4 W	30.6 V	37.2 V	168 lm/W	160 lm/W	144 lm/W	> 80
SLE G6 23mm 6000lm 830 ADV	830/359	700 mA	4,080 lm	3,840 lm	23.4 W	30.6 V	37.2 V	172 lm/W	164 lm/W	148 lm/W	> 80
SLE G6 23mm 6000lm 835 ADV	835/359	700 mA	4,170 lm	3,920 lm	23.4 W	30.6 V	37.2 V	176 lm/W	168 lm/W	151 lm/W	> 80
SLE G6 23mm 6000lm 840 ADV	840/359	700 mA	4,260 lm	4,000 lm	23.4 W	30.6 V	37.2 V	180 lm/W	171 lm/W	154 lm/W	> 80
SLE G6 23mm 6000lm 927 ADV	927/359	700 mA	3,380 lm	3,170 lm	23.4 W	30.6 V	37.2 V	143 lm/W	135 lm/W	122 lm/W	> 90
SLE G6 23mm 6000lm 930 ADV	930/359	700 mA	3,460 lm	3,250 lm	23.4 W	30.6 V	37.2 V	146 lm/W	139 lm/W	125 lm/W	> 90
SLE G6 23mm 6000lm 935 ADV	935/359	700 mA	3,610 lm	3,390 lm	23.4 W	30.6 V	37.2 V	152 lm/W	145 lm/W	130 lm/W	> 90
SLE G6 23mm 6000lm 940 ADV	940/359	700 mA	3,710 lm	3,490 lm	23.4 W	30.6 V	37.2 V	157 lm/W	149 lm/W	134 lm/W	> 90
SLE 23mm 6000lm – Operating mode NM at 1,400 mA											
SLE G6 23mm 6000lm 827 ADV	827/359	1,400 mA	7,380 lm	6,940 lm	49.9 W	32.6 V	39.6 V	146 lm/W	139 lm/W	125 lm/W	> 80
SLE G6 23mm 6000lm 830 ADV	830/359	1,400 mA	7,570 lm	7,120 lm	49.9 W	32.6 V	39.6 V	150 lm/W	143 lm/W	128 lm/W	> 80
SLE G6 23mm 6000lm 835 ADV	835/359	1,400 mA	7,730 lm	7,270 lm	49.9 W	32.6 V	39.6 V	153 lm/W	146 lm/W	131 lm/W	> 80
SLE G6 23mm 6000lm 840 ADV	840/359	1,400 mA	7,890 lm	7,420 lm	49.9 W	32.6 V	39.6 V	157 lm/W	149 lm/W	134 lm/W	> 80
SLE G6 23mm 6000lm 927 ADV	927/359	1,400 mA	6,260 lm	5,880 lm	49.9 W	32.6 V	39.6 V	124 lm/W	118 lm/W	106 lm/W	> 90
SLE G6 23mm 6000lm 930 ADV	930/359	1,400 mA	6,410 lm	6,030 lm	49.9 W	32.6 V	39.6 V	127 lm/W	121 lm/W	109 lm/W	> 90
SLE G6 23mm 6000lm 935 ADV	935/359	1,400 mA	6,690 lm	6,290 lm	49.9 W	32.6 V	39.6 V	133 lm/W	126 lm/W	113 lm/W	> 90
SLE G6 23mm 6000lm 940 ADV	940/359	1,400 mA	6,880 lm	6,460 lm	49.9 W	32.6 V	39.6 V	137 lm/W	129 lm/W	117 lm/W	> 90
SLE 23mm 6000lm – Operating mode HO at 2,000 mA											
SLE G6 23mm 6000lm 827 ADV	827/359	2,000 mA	9,910 lm	9,320 lm	74.8 W	34.2 V	41.6 V	131 lm/W	125 lm/W	112 lm/W	> 80
SLE G6 23mm 6000lm 830 ADV	830/359	2,000 mA	10,160 lm	9,550 lm	74.8 W	34.2 V	41.6 V	134 lm/W	128 lm/W	115 lm/W	> 80
SLE G6 23mm 6000lm 835 ADV	835/359	2,000 mA	10,380 lm	9,760 lm	74.8 W	34.2 V	41.6 V	137 lm/W	130 lm/W	117 lm/W	> 80
SLE G6 23mm 6000lm 840 ADV	840/359	2,000 mA	10,600 lm	9,960 lm	74.8 W	34.2 V	41.6 V	140 lm/W	133 lm/W	120 lm/W	> 80
SLE G6 23mm 6000lm 927 ADV	927/359	2,000 mA	8,400 lm	7,900 lm	74.8 W	34.2 V	41.6 V	111 lm/W	106 lm/W	95 lm/W	> 90
SLE G6 23mm 6000lm 930 ADV	930/359	2,000 mA	8,610 lm	8,090 lm	74.8 W	34.2 V	41.6 V	114 lm/W	108 lm/W	97 lm/W	> 90
SLE G6 23mm 6000lm 935 ADV	935/359	2,000 mA	8,980 lm	8,440 lm	74.8 W	34.2 V	41.6 V	119 lm/W	113 lm/W	102 lm/W	> 90
SLE G6 23mm 6000lm 940 ADV	940/359	2,000 mA	9,230 lm	8,680 lm	74.8 W	34.2 V	41.6 V	122 lm/W	116 lm/W	104 lm/W	> 90

^① See derating curves in data sheet section 2.3.

^② Max. DC forward current varies over the temperature of the LED module. See derating curves in data sheet section 2.3.

^③ The detailed explanation, see data sheet section 3.1.

^④ Tolerance range for optical and electrical data: ±10 %.

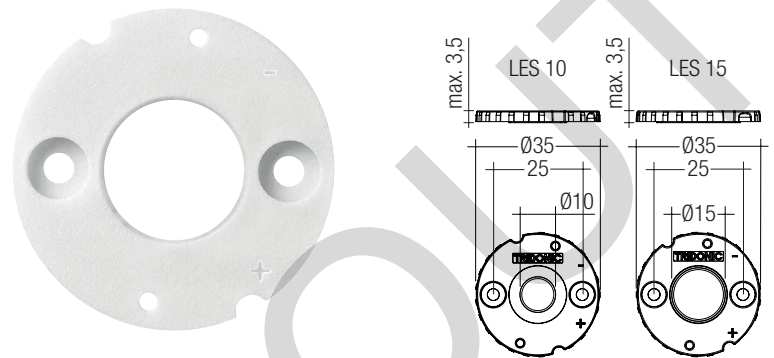
^⑤ Assumed efficiency for the LED Driver is 0.9.

^⑥ All values at tp = 65 °C.

^⑦ HE ... high efficiency, NM ... nominal mode, HO ... high output.

Product description

- Housing for LES 10 / LES 15
- Diameter: 35 mm
- Material: Lexan Resin 943



Ordering data

Type	Article number	Packaging bag	Weight per pc.
SLE housing for LES 10	28001038	100 pc(s).	0.002 kg
SLE housing for LES 15	28001039	100 pc(s).	0.002 kg

1. Standards

EN 62031
EN 62471
IEC 62717
IEC 61000-4-2
UL 8750 - certificate number: E366084

1.1 Glow wire test

according to EN 62031 with increased temperature of 850 °C passed.

1.2 Photometric code

Key for photometric code, e. g. 830 / 359

1 st digit		2 nd + 3 rd digit		4 th digit	5 th digit	6 th digit	
Code	CRI	Colour temperature in Kelvin x 100	McAdam initial	McAdam after 25% of the life-time (max.6000h)	Luminous flux after 25% of the life-time (max.6000h)		
	Code				Luminous flux		
	7				70 – 79	≥ 70 %	
	8				80 – 89	≥ 80 %	
9	≥90				9	≥ 90 %	

1.3 Energy classification

Type	Forward current	Energy classification
SLE G6 10mm 1200lm 830 ADV	250 mA	A++
	350 mA	A+
	500 mA	A+
SLE G6 10mm 1200lm 840 ADV	250 mA	A++
	350 mA	A+
	500 mA	A+
SLE G6 10mm 1200lm 927 ADV	250 mA	A+
	350 mA	A+
	500 mA	A+
SLE G6 10mm 1200lm 930 ADV	250 mA	A+
	350 mA	A+
	500 mA	A+
SLE G6 10mm 1200lm 940 ADV	250 mA	A+
	350 mA	A+
	500 mA	A+
SLE G6 15mm 3000lm 827 ADV	350 mA	A++
	500 mA	A++
	900 mA	A+
SLE G6 15mm 3000lm 830 ADV	350 mA	A++
	500 mA	A++
	900 mA	A+
SLE G6 15mm 3000lm 835 ADV	350 mA	A++
	500 mA	A++
	900 mA	A+
SLE G6 15mm 3000lm 840 ADV	350 mA	A++
	500 mA	A++
	900 mA	A+
SLE G6 15mm 3000lm 927 ADV	350 mA	A+
	500 mA	A+
	900 mA	A+
SLE G6 15mm 3000lm 930 ADV	350 mA	A+
	500 mA	A+
	900 mA	A+
SLE G6 15mm 3000lm 935 ADV	350 mA	A++
	500 mA	A+
	900 mA	A+
SLE G6 15mm 3000lm 940 ADV	350 mA	A++
	500 mA	A+
	900 mA	A+
SLE G6 17mm 4000lm 827 ADV	500 mA	A++
	900 mA	A+
	1,200 mA	A+

Type	Forward current	Energy classification
SLE G6 17mm 4000lm 830 ADV	500 mA	A++
	900 mA	A+
	1,200 mA	A+
SLE G6 17mm 4000lm 835 ADV	500 mA	A++
	900 mA	A++
	1,200 mA	A+
SLE G6 17mm 4000lm 840 ADV	500 mA	A++
	900 mA	A++
	1,200 mA	A+
SLE G6 17mm 4000lm 927 ADV	500 mA	A+
	900 mA	A+
	1,200 mA	A+
SLE G6 17mm 4000lm 930 ADV	500 mA	A+
	900 mA	A+
	1,200 mA	A+
SLE G6 17mm 4000lm 935 ADV	500 mA	A+
	900 mA	A+
	1,200 mA	A+
SLE G6 17mm 4000lm 940 ADV	500 mA	A++
	900 mA	A+
	1,200 mA	A+
SLE G6 19mm 5000lm 827 ADV	500 mA	A++
	1,050 mA	A++
	1,400 mA	A+
SLE G6 19mm 5000lm 830 ADV	500 mA	A++
	1,050 mA	A++
	1,400 mA	A+
SLE G6 19mm 5000lm 835 ADV	500 mA	A++
	1,050 mA	A++
	1,400 mA	A+
SLE G6 19mm 5000lm 840 ADV	500 mA	A++
	1,050 mA	A++
	1,400 mA	A+
SLE G6 19mm 5000lm 927 ADV	500 mA	A+
	1,050 mA	A+
	1,400 mA	A+
SLE G6 19mm 5000lm 930 ADV	500 mA	A++
	1,050 mA	A+
	1,400 mA	A+
SLE G6 19mm 5000lm 935 ADV	500 mA	A++
	1,050 mA	A+
	1,400 mA	A+
SLE G6 19mm 5000lm 940 ADV	500 mA	A++
	1,050 mA	A+
	1,400 mA	A+
SLE G6 23mm 6000lm 827 ADV	700 mA	A++
	1,400 mA	A++
	2,000 mA	A+
SLE G6 23mm 6000lm 830 ADV	700 mA	A++
	1,400 mA	A++
	2,000 mA	A+
SLE G6 23mm 6000lm 835 ADV	700 mA	A++
	1,400 mA	A++
	2,000 mA	A+
SLE G6 23mm 6000lm 840 ADV	700 mA	A++
	1,400 mA	A++
	2,000 mA	A+
SLE G6 23mm 6000lm 927 ADV	700 mA	A+
	1,400 mA	A+
	2,000 mA	A+
SLE G6 23mm 6000lm 930 ADV	700 mA	A++
	1,400 mA	A+
	2,000 mA	A+
SLE G6 23mm 6000lm 935 ADV	700 mA	A++
	1,400 mA	A+
	2,000 mA	A+
SLE G6 23mm 6000lm 940 ADV	700 mA	A++
	1,400 mA	A+
	2,000 mA	A+

2. Thermal details

2.1 tp point, ambient temperature and life-time

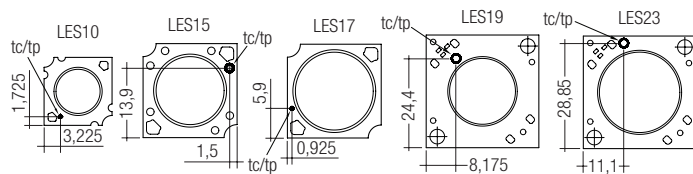
The temperature at tp reference point is crucial for the light output and life-time of a LED product.

For SLE G6 a tp temperature of 65 °C has to be complied in order to achieve an optimum between heat sink requirements, light output and life-time.

Compliance with the maximum permissible reference temperature at the tp point must be checked under operating conditions in a thermally stable state. The maximum value must be determined under worst-case conditions for the relevant application.

The tc and tp temperature of LED modules from Tridonic are measured at the same reference point.

To check the tc / tp temperature, the temperature sensor has to be mounted on the PCB at the marked position as stated in the drawing.



2.2 Storage and humidity

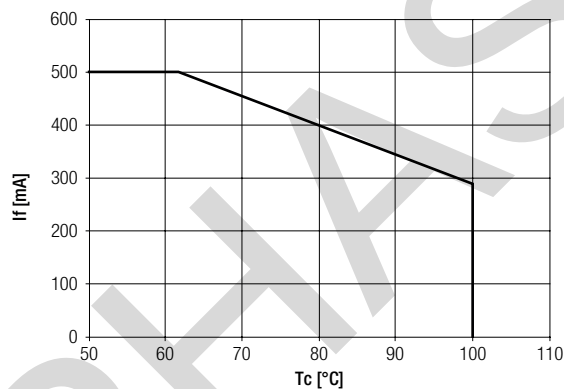
storage temperature	-30 ... +80 °C
---------------------	----------------

Operation only in non condensing environment.

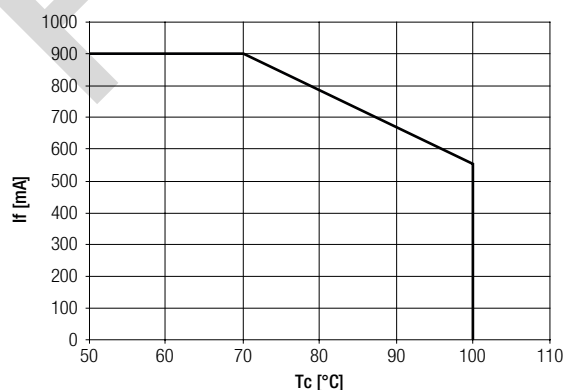
Humidity during processing of the module should be between 30 to 70 %.

2.3 Derating curves

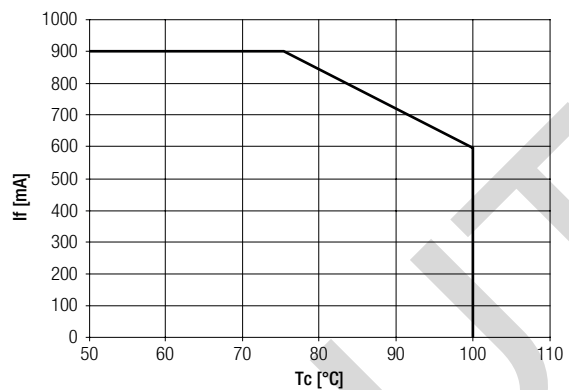
SLE G6 10mm 1200lm xxx ADVANCED



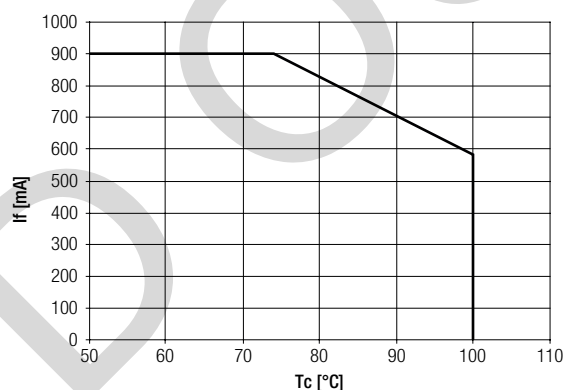
SLE G6 15mm 3000lm 827 ADVANCED



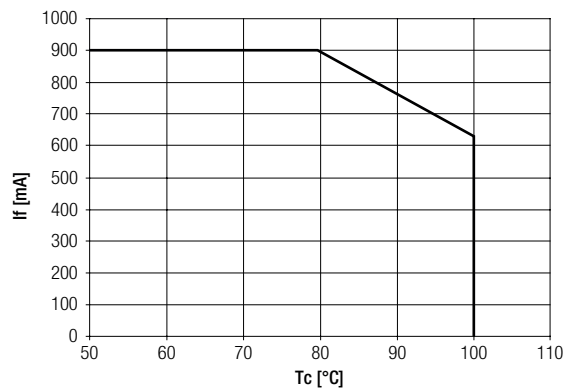
SLE G6 15mm 3000lm 830 ADVANCED



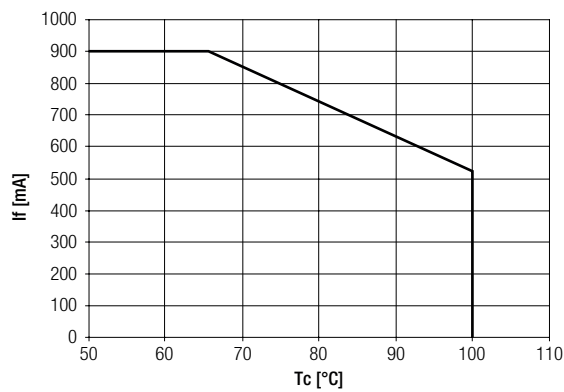
SLE G6 15mm 3000lm 835 ADVANCED



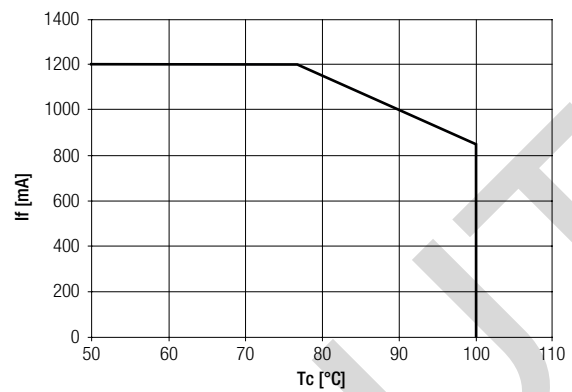
SLE G6 15mm 3000lm 840 ADVANCED



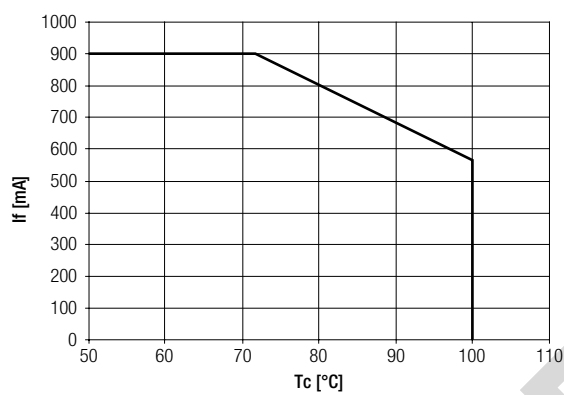
SLE G6 15mm 3000lm 927 ADVANCED



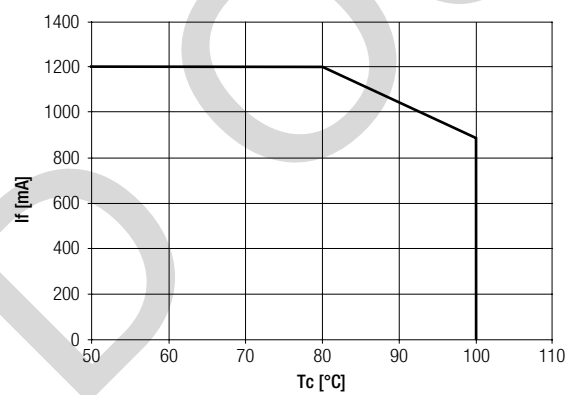
SLE G6 17mm 4000lm 827 ADVANCED



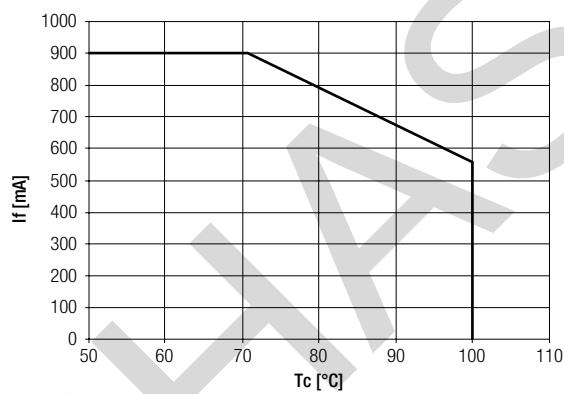
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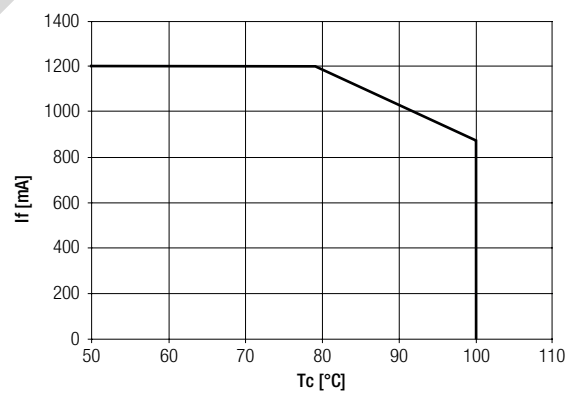
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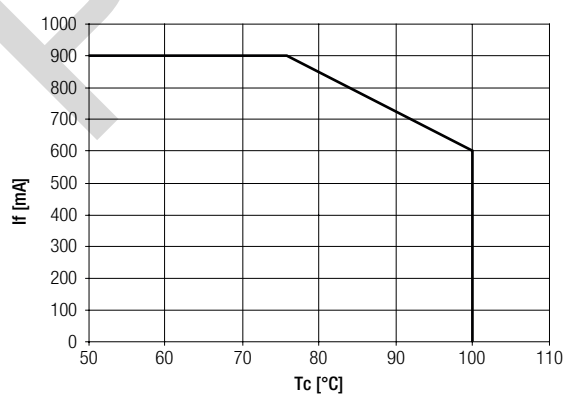
SLE G6 15mm 3000lm 935 ADVANCED



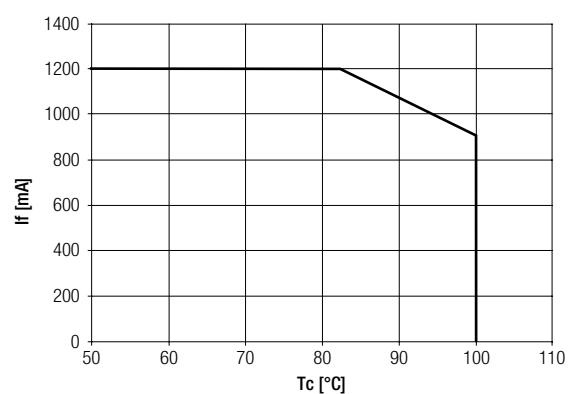
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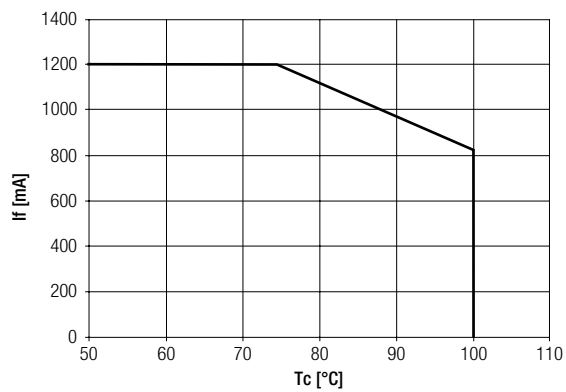
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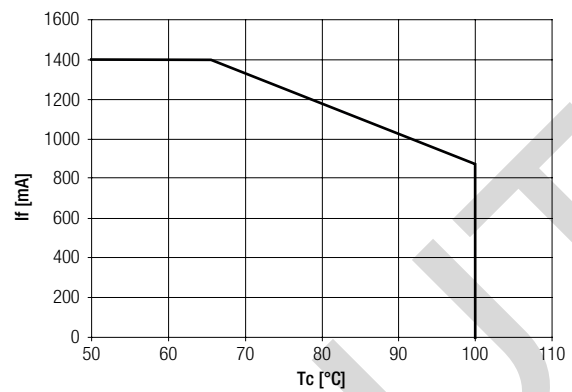
SLE G6 17mm 4000lm 840 ADVANCED



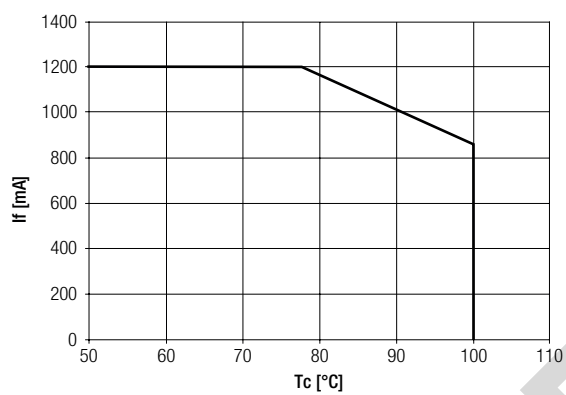
SLE G6 17mm 4000lm 927 ADVANCED



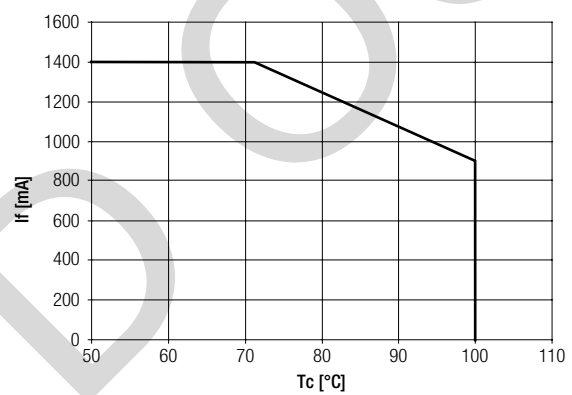
SLE G6 19mm 5000lm 827 ADVANCED



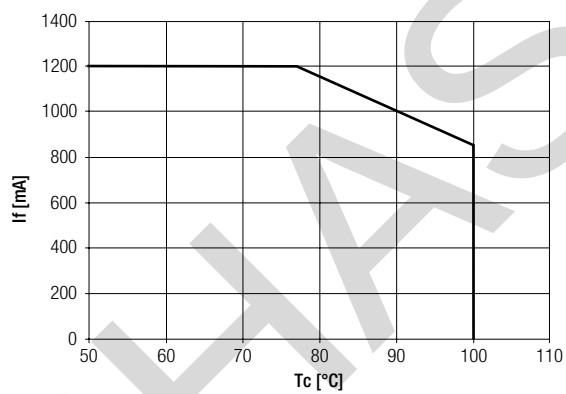
SLE G6 17mm 4000lm 930 ADVANCED



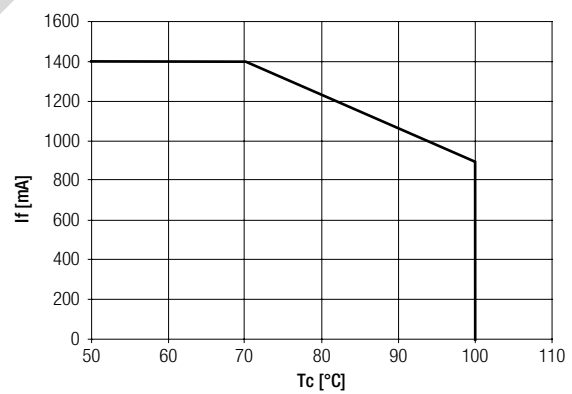
SLE G6 19mm 5000lm 830 ADVANCED



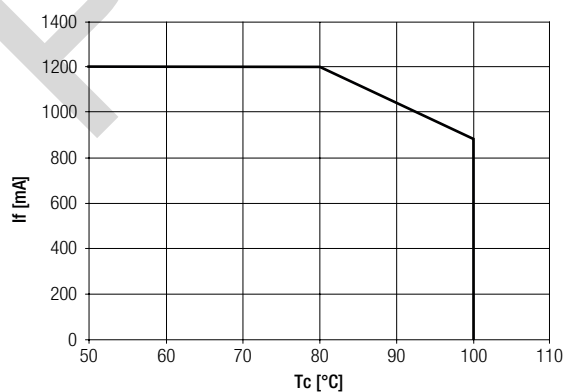
SLE G6 17mm 4000lm 935 ADVANCED



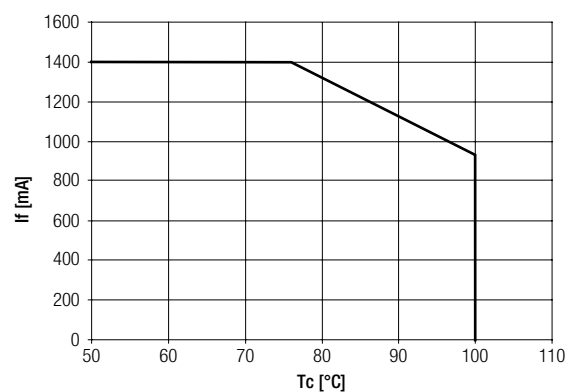
SLE G6 19mm 5000lm 835 ADVANCED



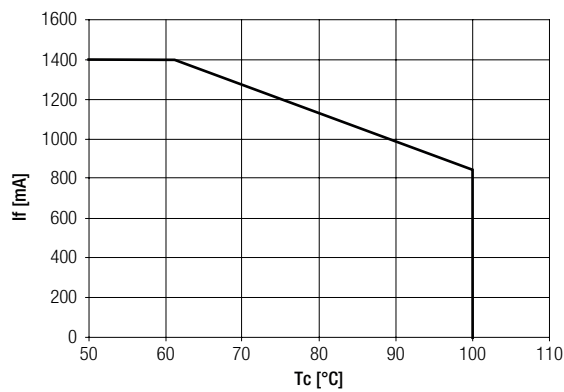
SLE G6 17mm 4000lm 940 ADVANCED



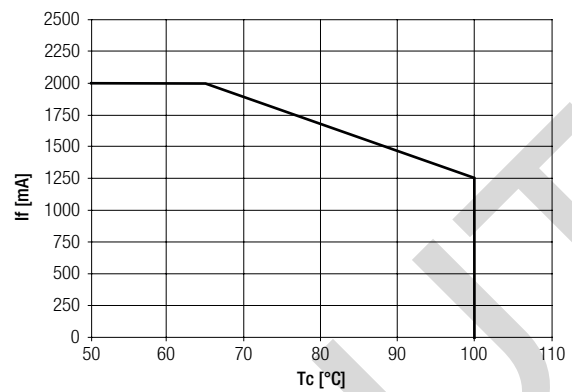
SLE G6 19mm 5000lm 840 ADVANCED



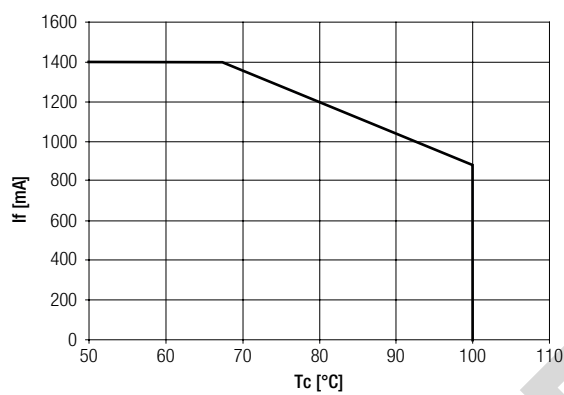
SLE G6 19mm 5000lm 927 ADVANCED



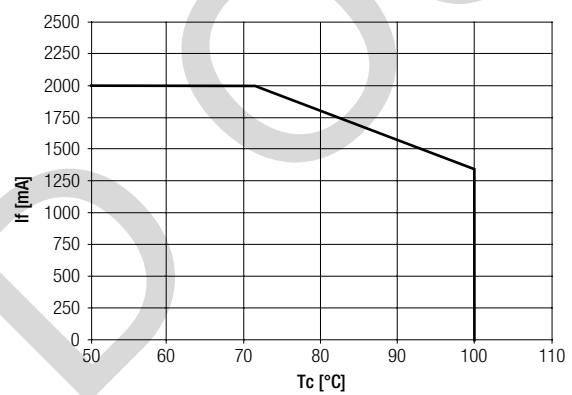
SLE G6 23mm 6000lm 827 ADVANCED



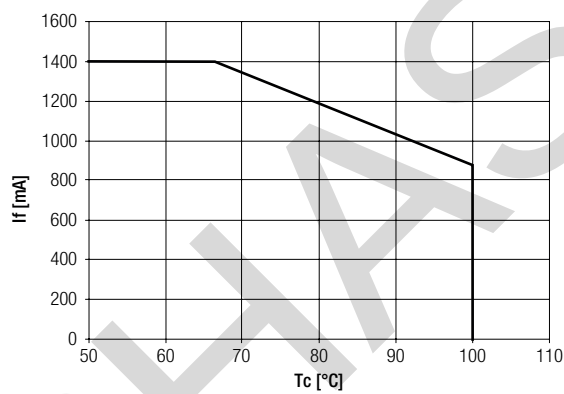
SLE G6 19mm 5000lm 930 ADVANCED



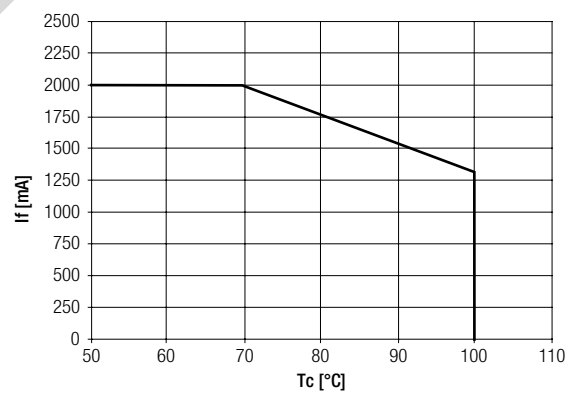
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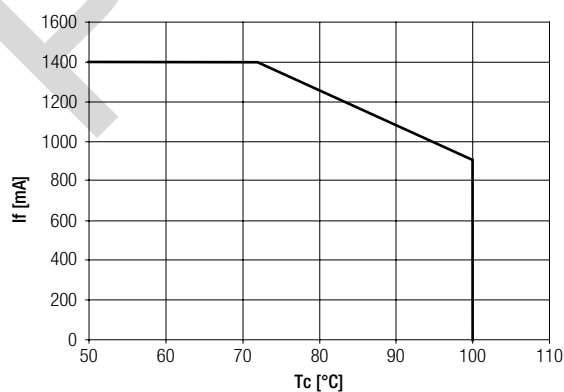
SLE G6 19mm 5000lm 935 ADVANCED



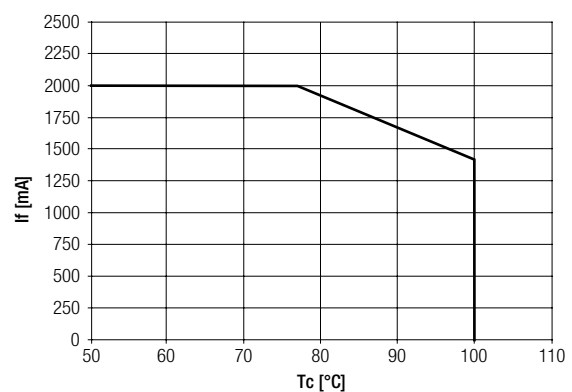
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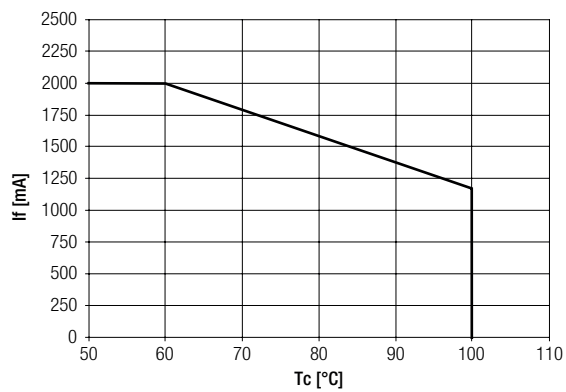
SLE G6 19mm 5000lm 940 ADVANCED



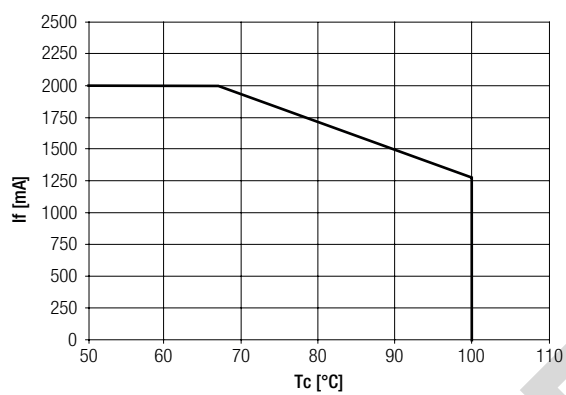
SLE G6 23mm 6000lm 840 ADVANCED



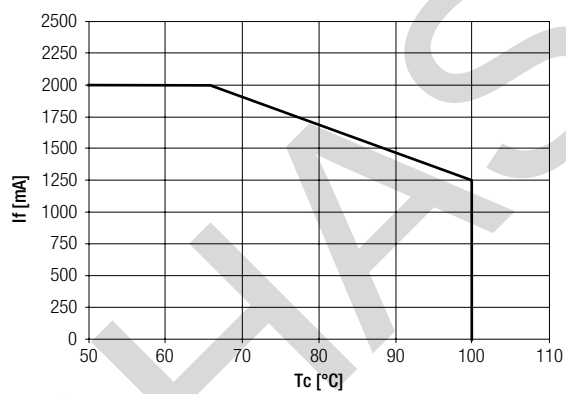
SLE G6 23mm 6000lm 927 ADVANCED



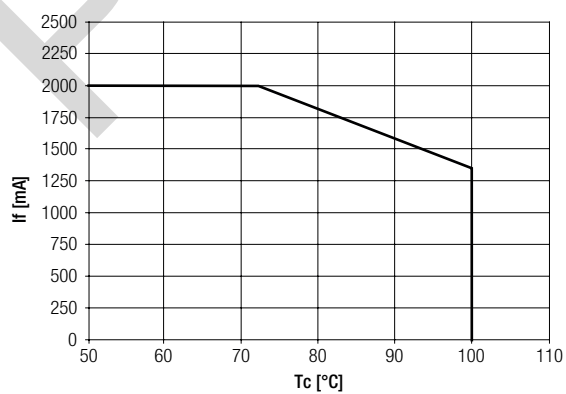
SLE G6 23mm 6000lm 930 ADVANCED



SLE G6 23mm 6000lm 935 ADVANCED



SLE G6 23mm 6000lm 940 ADVANCED



2.4 Thermal design and heat sink

The rated life of LED products depends to a large extent on the temperature. If the permissible temperature limits are exceeded, the life of the SLE G6 will be greatly reduced or the SLE G6 may be destroyed.

2.5 Heat sink values

SLE G6 10mm 1200lm 8xx ADVANCED, CRI80

ta	tp	Operating current	R _{th, hs-a}
25 °C	65 °C	250 mA	7.69 K/W
30 °C	65 °C	250 mA	6.73 K/W
40 °C	65 °C	250 mA	4.81 K/W
50 °C	65 °C	250 mA	2.88 K/W
25 °C	65 °C	350 mA	5.06 K/W
30 °C	65 °C	350 mA	4.43 K/W
40 °C	65 °C	350 mA	3.16 K/W
50 °C	65 °C	350 mA	1.90 K/W
25 °C	65 °C	500 mA	3.17 K/W
30 °C	65 °C	500 mA	2.77 K/W
40 °C	65 °C	500 mA	1.98 K/W
50 °C	65 °C	500 mA	1.19 K/W

SLE G6 10mm 1200lm 9xx ADVANCED, CRI90

ta	tp	Operating current	R _{th, hs-a}
25 °C	65 °C	250 mA	7.47 K/W
30 °C	65 °C	250 mA	6.53 K/W
40 °C	65 °C	250 mA	4.67 K/W
50 °C	65 °C	250 mA	2.80 K/W
25 °C	65 °C	350 mA	4.93 K/W
30 °C	65 °C	350 mA	4.32 K/W
40 °C	65 °C	350 mA	3.08 K/W
50 °C	65 °C	350 mA	1.85 K/W
25 °C	65 °C	500 mA	3.10 K/W
30 °C	65 °C	500 mA	2.71 K/W
40 °C	65 °C	500 mA	1.94 K/W
50 °C	65 °C	500 mA	1.16 K/W

SLE G6 15mm 3000lm 8xx ADVANCED, CRI80

ta	tp	Operating current	R _{th, hs-a}
25 °C	65 °C	350 mA	6.10 K/W
30 °C	65 °C	350 mA	5.33 K/W
40 °C	65 °C	350 mA	3.81 K/W
50 °C	65 °C	350 mA	2.29 K/W
25 °C	65 °C	500 mA	3.98 K/W
30 °C	65 °C	500 mA	3.48 K/W
40 °C	65 °C	500 mA	2.48 K/W
50 °C	65 °C	500 mA	1.49 K/W
25 °C	65 °C	900 mA	1.88 K/W
30 °C	65 °C	900 mA	1.65 K/W
40 °C	65 °C	900 mA	1.18 K/W
50 °C	65 °C	900 mA	0.71 K/W

SLE G6 15mm 3000lm 9xx ADVANCED, CRI90

ta	tp	Operating current	R _{th, hs-a}
25 °C	65 °C	350 mA	5.71 K/W
30 °C	65 °C	350 mA	4.97 K/W
40 °C	65 °C	350 mA	3.51 K/W
50 °C	65 °C	350 mA	2.04 K/W
25 °C	65 °C	500 mA	3.68 K/W
30 °C	65 °C	500 mA	3.20 K/W
40 °C	65 °C	500 mA	2.24 K/W
50 °C	65 °C	500 mA	1.28 K/W
25 °C	65 °C	900 mA	1.68 K/W
30 °C	65 °C	900 mA	1.45 K/W
40 °C	65 °C	900 mA	1.00 K/W
50 °C	65 °C	900 mA	0.53 K/W

SLE G6 17mm 4000lm 8xx ADVANCED, CRI80

ta	tp	Operating current	R _{th, hs-a}
25 °C	65 °C	500 mA	3.98 K/W
30 °C	65 °C	500 mA	3.47 K/W
40 °C	65 °C	500 mA	2.43 K/W
50 °C	65 °C	500 mA	1.40 K/W
25 °C	65 °C	900 mA	1.84 K/W
30 °C	65 °C	900 mA	1.59 K/W
40 °C	65 °C	900 mA	1.09 K/W
50 °C	65 °C	900 mA	0.59 K/W
25 °C	65 °C	1,200 mA	1.21 K/W
30 °C	65 °C	1,200 mA	1.04 K/W
40 °C	65 °C	1,200 mA	0.70 K/W
50 °C	65 °C	1,200 mA	0.36 K/W

SLE G6 17mm 4000lm 9xx ADVANCED, CRI90

ta	tp	Operating current	R _{th, hs-a}
25 °C	65 °C	500 mA	3.83 K/W
30 °C	65 °C	500 mA	3.33 K/W
40 °C	65 °C	500 mA	2.34 K/W
50 °C	65 °C	500 mA	1.34 K/W
25 °C	65 °C	900 mA	1.78 K/W
30 °C	65 °C	900 mA	1.53 K/W
40 °C	65 °C	900 mA	1.05 K/W
50 °C	65 °C	900 mA	0.57 K/W
25 °C	65 °C	1,200 mA	1.18 K/W
30 °C	65 °C	1,200 mA	1.00 K/W
40 °C	65 °C	1,200 mA	0.68 K/W
50 °C	65 °C	1,200 mA	0.34 K/W

SLE G6 19mm 5000lm 8xx ADVANCED, CRI80

ta	tp	Operating current	R _{th, hs-a}
25 °C	65 °C	500 mA	4.31 K/W
30 °C	65 °C	500 mA	3.77 K/W
40 °C	65 °C	500 mA	2.67 K/W
50 °C	65 °C	500 mA	1.58 K/W
25 °C	65 °C	1,050 mA	1.67 K/W
30 °C	65 °C	1,050 mA	1.46 K/W
40 °C	65 °C	1,050 mA	1.02 K/W
50 °C	65 °C	1,050 mA	0.59 K/W
25 °C	65 °C	1,400 mA	1.13 K/W
30 °C	65 °C	1,400 mA	0.98 K/W
40 °C	65 °C	1,400 mA	0.68 K/W
50 °C	65 °C	1,400 mA	0.39 K/W

SLE G6 19mm 5000lm 9xx ADVANCED, CRI90

ta	tp	Operating current	R _{th, hs-a}
25 °C	65 °C	500 mA	4.13 K/W
30 °C	65 °C	500 mA	3.61 K/W
40 °C	65 °C	500 mA	2.56 K/W
50 °C	65 °C	500 mA	1.51 K/W
25 °C	65 °C	1,050 mA	1.62 K/W
30 °C	65 °C	1,050 mA	1.41 K/W
40 °C	65 °C	1,050 mA	1.00 K/W
50 °C	65 °C	1,050 mA	0.57 K/W
25 °C	65 °C	1,400 mA	1.09 K/W
30 °C	65 °C	1,400 mA	0.95 K/W
40 °C	65 °C	1,400 mA	0.66 K/W
50 °C	65 °C	1,400 mA	0.37 K/W

SLE G6 23mm 6000lm 8xx ADVANCED, CRI80

ta	tp	Operating current	R _{th, hs-a}
25 °C	65 °C	700 mA	311 K/W
30 °C	65 °C	700 mA	271 K/W
40 °C	65 °C	700 mA	192 K/W
50 °C	65 °C	700 mA	113 K/W
25 °C	65 °C	1,400 mA	128 K/W
30 °C	65 °C	1,400 mA	111 K/W
40 °C	65 °C	1,400 mA	078 K/W
50 °C	65 °C	1,400 mA	044 K/W
25 °C	65 °C	2,000 mA	077 K/W
30 °C	65 °C	2,000 mA	067 K/W
40 °C	65 °C	2,000 mA	046 K/W
50 °C	65 °C	2,000 mA	025 K/W

SLE G6 23mm 6000lm 9xx ADVANCED, CRI90

ta	tp	Operating current	R _{th, hs-a}
25 °C	65 °C	700 mA	297 K/W
30 °C	65 °C	700 mA	259 K/W
40 °C	65 °C	700 mA	184 K/W
50 °C	65 °C	700 mA	108 K/W
25 °C	65 °C	1,400 mA	123 K/W
30 °C	65 °C	1,400 mA	107 K/W
40 °C	65 °C	1,400 mA	075 K/W
50 °C	65 °C	1,400 mA	043 K/W
25 °C	65 °C	2,000 mA	075 K/W
30 °C	65 °C	2,000 mA	065 K/W
40 °C	65 °C	2,000 mA	045 K/W
50 °C	65 °C	2,000 mA	025 K/W

Notes

The actual cooling can differ because of the material, the structural shape, outside influences and the installation situation. A thermal connection between SLE G6 and heat sink with heat-conducting paste or heat conducting adhesive film is absolutely necessary.

Additionally the SLE G6 has to be fixed on the heat sink with M3 screws to optimise the thermal connection.

Use of thermal interface material with thermal conductivity of $\lambda > 1 \text{ W/mK}$ and layer thickness of interface material with max. 50 μm or a similar interface material where the quotient of layer thickness and thermal conductivity $b < 50 \mu\text{mmK/W}$.

The SLE G6 TIM modules will be delivered with thermal interface foil of type Tgard 3000.

The bottom side of the thermal pad is glued to the module, the upper side is not adhesive. This makes it easier to position the module when it is connected to the heat sink.



The thermal pad is an integral part of the "TIM" module and must not be confused with a protective foil. The thermal pad must not pulled off!

For further information about the thermal interface foil please refer to the data sheet of the product Tgard 3000.

3. Installation / wiring

3.1 Electrical supply/choice of LED Driver

SLE G6 from Tridonic are not protected against overvoltages, overcurrents, overloads or short-circuit currents. Safe and reliable operation can only be guaranteed in conjunction with a LED Driver which complies with the relevant standards. The use of LED Drivers from Tridonic in combination with SLE G6 guarantees the necessary protection for safe and reliable operation.

If a LED Driver other than Tridonic is used, it must provide the following protection:

- Short-circuit protection
- Overload protection
- Overtemperature protection



SLE G6 must be supplied by a constant current LED Driver. Operation with a constant voltage LED Driver will lead to an irreversible damage of the module. Wrong polarity can damage the SLE G6.



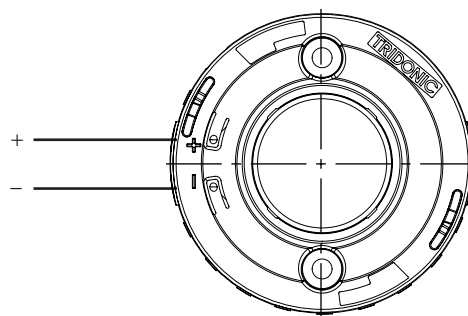
SLE G6 are basic isolated up to 75 V SELV (LES19 and LES23) / 60 V SELV (LES10, LES15 and LES17) / 50 V nonSELV against ground and can be mounted directly on earthed metal parts of the luminaire. If the max. output voltage of the LED Driver (also against earth) is above 75 V SELV (LES19 and LES23) / 60 V SELV (LES10, LES15 and LES17) / 50 V nonSELV, an additional isolation between LED module and heat sink is required (for example by isolated thermal pads) or by a suitable luminaire construction.

At voltages > 60 V an additional protection against direct touch (test finger) to the light emitting side of the module has to be guaranteed.

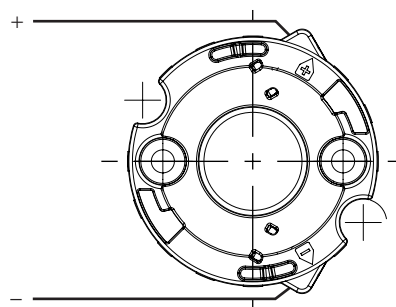
This is typically achieved by means of a non removable light distributor over the module.

3.2 Wiring

Wiring with housing (LES15 D50, LES17 D50, LES19 and LES23)

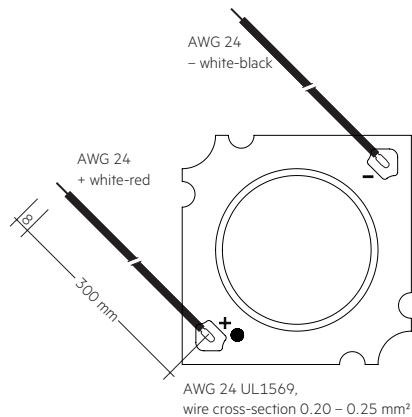


Wiring with housing (LES15)

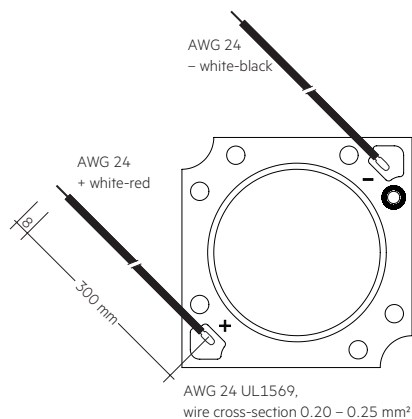


Wiring without housing

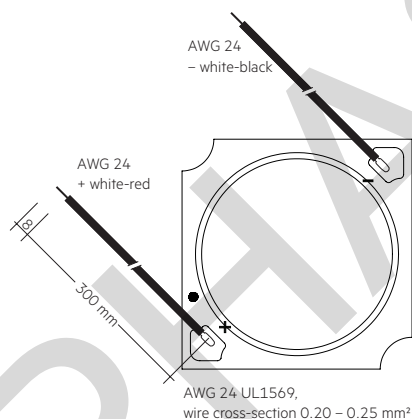
LES10



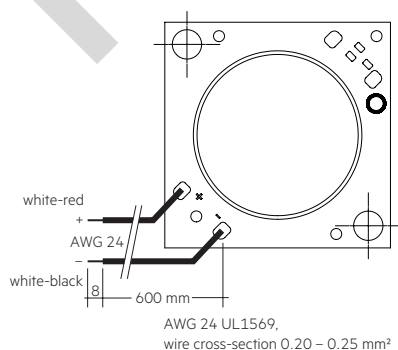
LES15



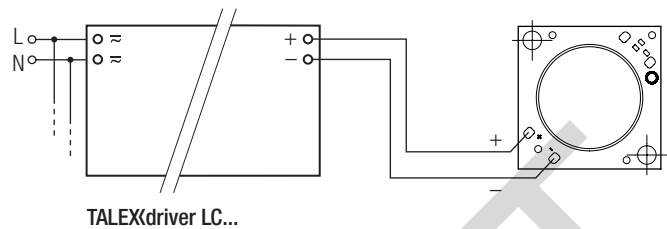
LES17



LES19 and LES23



Wiring example

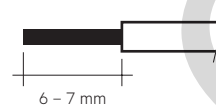


3.3 Wiring type and cross section

The wiring has to be solid cable with a cross section of 0.5 to 0.75 mm² or with stranded wire with soldered ends with a cross section of 0.5 mm². For the push-wire connection you have to strip the insulation (6 – 7 mm).

Loosen wire through twisting and pulling.

wire preparation:



3.4 Mounting instruction



SLE G6 from Tridonic which have to be installed on a heat sink have to be connected with heat-conducting paste or heat conducting adhesive film and fixed with M3 screws.

The fixing/cooling surface must be cleaned by removing all dirt, dust and grease before installing the LED modules.

None of the components of the SLE G6 (substrate, LED, electronic components etc.) may be exposed to tensile or compressive stresses.



Max. torque for fixing: 0.5 Nm.

The LED modules are mounted with 2 screws per module. In order not to damage the modules only rounded head screws and an additional plastic flat washer should be used for LED modules without housing.

For further information please refer to the brochure entitled "Technical Design-In-Guide SLE GEN6".



Chemical substance may harm the LED module. Chemical reactions could lead to colour shift, reduced luminous flux or a total failure of the module caused by corrosion of electrical connections.

Materials which are used in LED applications (e.g. sealings, adhesives) must not produce dissolver gas. They must not be condensation curing based, acetate curing based or contain sulfur, chlorine or phthalate.

Avoid corrosive atmosphere during usage and storage.

3.5 EOS/ESD safety guidelines



The device / module contains components that are sensitive to electrostatic discharge and may only be installed in the factory and on site if appropriate EOS/ESD protection measures have been taken. No special measures need be taken for devices/modules with enclosed casings (contact with the pc board not possible), just normal installation practice.

For further information for EOS/ESD safety guidelines and the ESD classification please refer to the brochure entitled <http://www.tridonic.com/esd-protection>.

4. Life-time

4.1 Life-time, lumen maintenance and failure rate

The light output of an LED Module decreases over the life-time, this is characterized with the L value. L70 means that the LED module will give 70 % of its initial luminous flux. This value is always related to the number of operation hours and therefore defines the life-time of an LED module.

As the L value is a statistical value and the lumen maintenance may vary over the delivered LED modules. The B value defines the amount of modules which are below the specific L value, e.g. L70B10 means 10 % of the LED modules are below 70 % of the initial luminous flux, respectively 90 % will be above 70 % of the initial value.

In addition the percentage of failed modules (fatal failure) is characterized by the C value.

The F value is the combination of the B and C value. That means for F degradation and complete failures are considered, e.g. L70F10 means 10 % of the LED modules may fail or be below 70 % of the initial luminous flux.

4.2 Lumen maintenance

Life-time declarations are informative and represent no warranty claim. Preliminary calculated lifetime data until LM80 test reports are available.

SLE G6 10mm 1200lm ADVANCED

Operating current	tp temperature	L80 / F10	L80 / F50	L70 / F10	L70 / F50
250 mA	65 °C	49,000 h	>60,000 h	>60,000 h	>60,000 h
	75 °C	43,000 h	>60,000 h	>60,000 h	>60,000 h
	85 °C	38,000 h	57,000 h	>60,000 h	>60,000 h
350 mA	65 °C	46,000 h	>60,000 h	>60,000 h	>60,000 h
	75 °C	40,000 h	>60,000 h	>60,000 h	>60,000 h
	85 °C	35,000 h	53,000 h	56,000 h	>60,000 h
500 mA	65 °C	40,000 h	>60,000 h	>60,000 h	>60,000 h
	75 °C	35,000 h	53,000 h	56,000 h	>60,000 h
	85 °C	31,000 h	47,000 h	50,000 h	>60,000 h

SLE G6 15mm 3000lm ADVANCED

Operating current	tp temperature	L80 / F10	L80 / F50	L70 / F10	L70 / F50
350 mA	65 °C	51,000 h	>60,000 h	>60,000 h	>60,000 h
	75 °C	44,000 h	>60,000 h	>60,000 h	>60,000 h
	85 °C	39,000 h	58,000 h	>60,000 h	>60,000 h
500 mA	65 °C	48,000 h	>60,000 h	>60,000 h	>60,000 h
	75 °C	42,000 h	>60,000 h	>60,000 h	>60,000 h
	85 °C	37,000 h	55,000 h	58,000 h	>60,000 h
900 mA	65 °C	39,000 h	59,000 h	>60,000 h	>60,000 h
	75 °C	34,000 h	51,000 h	54,000 h	>60,000 h
	85 °C	30,000 h	45,000 h	48,000 h	>60,000 h

SLE G6 17mm 4000lm ADVANCED

Operating current	tp temperature	L80 / F10	L80 / F50	L70 / F10	L70 / F50
500 mA	65 °C	49,000 h	>60,000 h	>60,000 h	>60,000 h
	75 °C	43,000 h	>60,000 h	>60,000 h	>60,000 h
	85 °C	38,000 h	57,000 h	>60,000 h	>60,000 h
900 mA	65 °C	42,000 h	>60,000 h	>60,000 h	>60,000 h
	75 °C	37,000 h	55,000 h	59,000 h	>60,000 h
	85 °C	32,000 h	49,000 h	52,000 h	>60,000 h
1,200 mA	65 °C	37,000 h	55,000 h	59,000 h	>60,000 h
	75 °C	32,000 h	48,000 h	51,000 h	>60,000 h
	85 °C	28,000 h	42,000 h	45,000 h	>60,000 h

SLE G6 19mm 5000lm ADVANCED

Operating current	tp temperature	L80 / F10	L80 / F50	L70 / F10	L70 / F50
500 mA	65 °C	51,000 h	>60,000 h	>60,000 h	>60,000 h
	75 °C	44,000 h	>60,000 h	>60,000 h	>60,000 h
	85 °C	39,000 h	58,000 h	>60,000 h	>60,000 h
1,050 mA	65 °C	42,000 h	>60,000 h	>60,000 h	>60,000 h
	75 °C	37,000 h	55,000 h	59,000 h	>60,000 h
	85 °C	32,000 h	49,000 h	52,000 h	>60,000 h
1,400 mA	65 °C	37,000 h	55,000 h	59,000 h	>60,000 h
	75 °C	32,000 h	48,000 h	51,000 h	>60,000 h
	85 °C	28,000 h	42,000 h	45,000 h	>60,000 h

SLE G6 23mm 6000lm ADVANCED

Operating current	tp temperature	L80 / F10	L80 / F50	L70 / F10	L70 / F50
700 mA	65 °C	51,000 h	>60,000 h	>60,000 h	>60,000 h
	75 °C	44,000 h	>60,000 h	>60,000 h	>60,000 h
	85 °C	39,000 h	58,000 h	>60,000 h	>60,000 h
1,400 mA	65 °C	43,000 h	>60,000 h	>60,000 h	>60,000 h
	75 °C	38,000 h	57,000 h	>60,000 h	>60,000 h
	85 °C	33,000 h	50,000 h	53,000 h	>60,000 h
2,000 mA	65 °C	37,000 h	55,000 h	59,000 h	>60,000 h
	75 °C	32,000 h	48,000 h	51,000 h	>60,000 h
	85 °C	28,000 h	42,000 h	45,000 h	>60,000 h

5. Electrical values

5.1 Declaration of electrical parameters

Irated ... Nominal operating current the module is designed for.

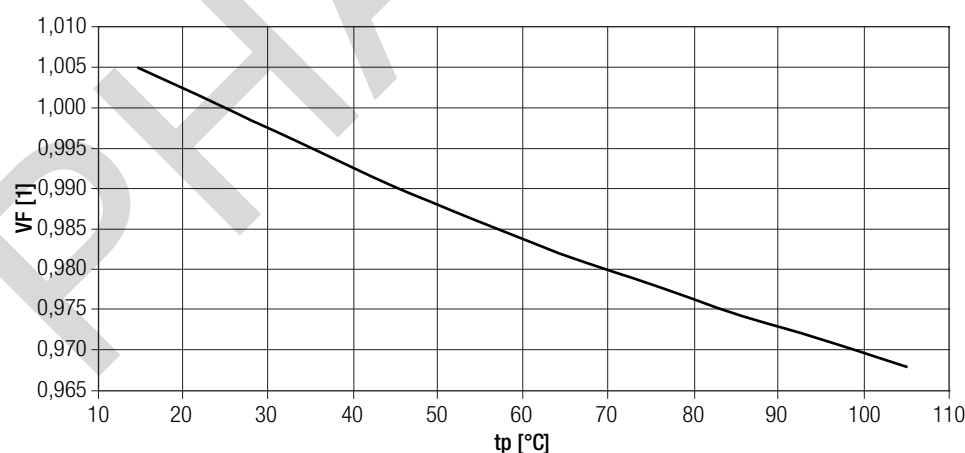
I_{max} ... Max. permissible continuous operating current.

Max. DC forward current ... Max. permissible continuous operating current incl. the tolerances of the LED Driver. LED module may be destroyed if this value is exceeded.

Max. permissible LF current ripple ... Max. output current of the LED Driver incl. Tolerances and LF current ripple must not exceed this value.

Max. permissible peak current ... The max. output peak current of the LED Driver must not exceed this value.

5.2 Forward voltage vs. tp temperature



The diagrams based on statistic values.
The real values can be different.

6. Photometric characteristics

6.1 Coordinates and tolerances according to CIE 1931

The specified colour coordinates are measured integral after a settling time of 100 ms. The current impuls depends on the module type.

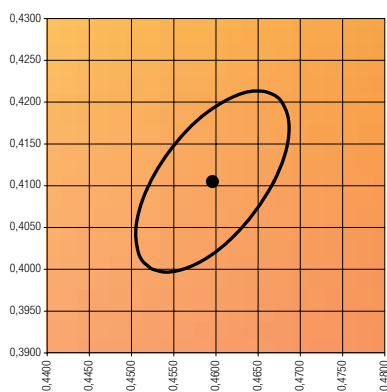
Module type	Current impulse
SLE G6 10mm 1200lm xxx ADV	350 mA
SLE G6 15mm 3000lm xxx ADV	500 mA
SLE G6 17mm 4000lm xxx ADV	900 mA
SLE G6 19mm 5000lm xxx ADV	1,050 mA
SLE G6 23mm 6000lm xxx ADV	1,400 mA

The ambient temperature of the measurement is $t_a = 25^\circ\text{C}$.

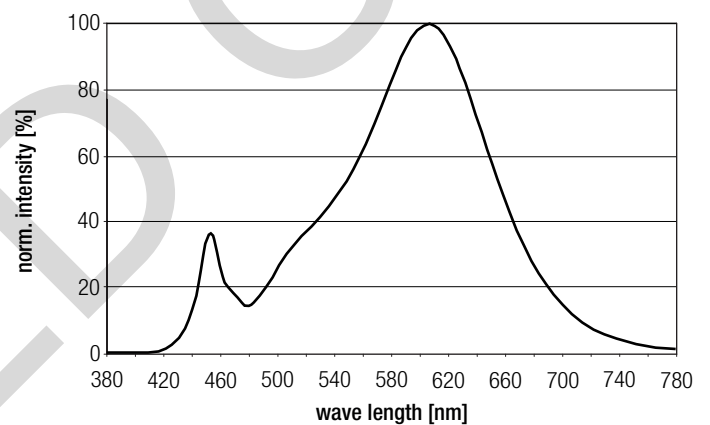
The measurement tolerance of the colour coordinates are ± 0.01 .

2,700 K

	x0	y0
Centre	0.4599	0.4106

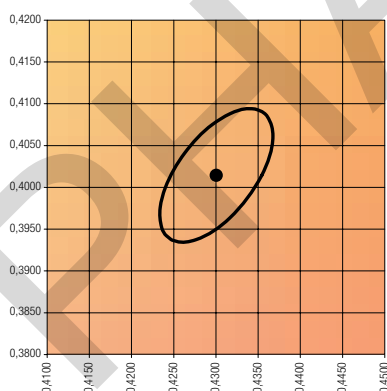


MacAdam ellipse: 3SDCM

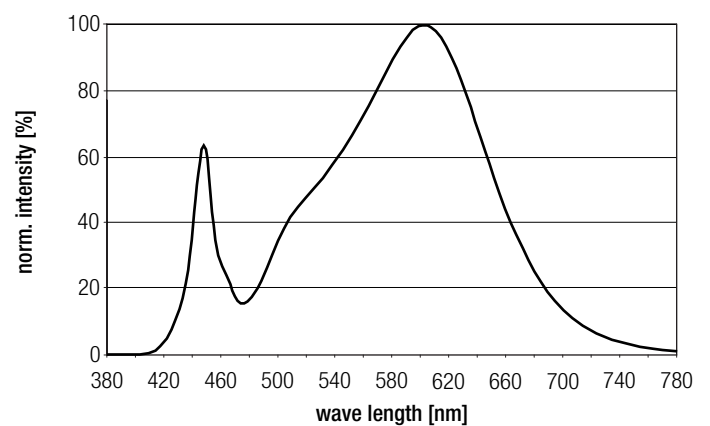


3,000 K

	x0	y0
Centre	0.4300	0.4016

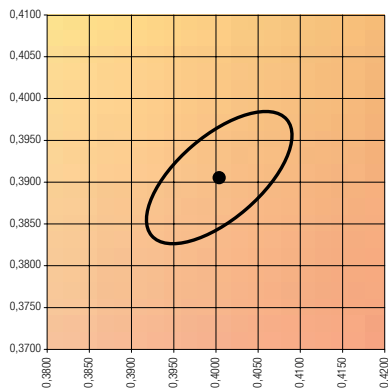


MacAdam ellipse: 3SDCM

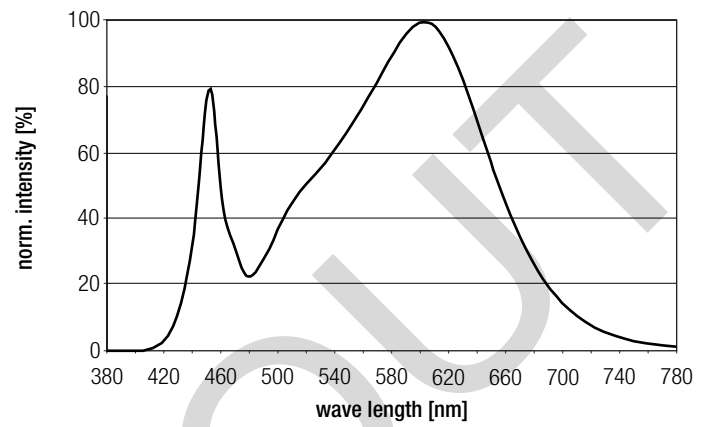


3,500 K

	x0	y0
Centre	0.4053	0.3907

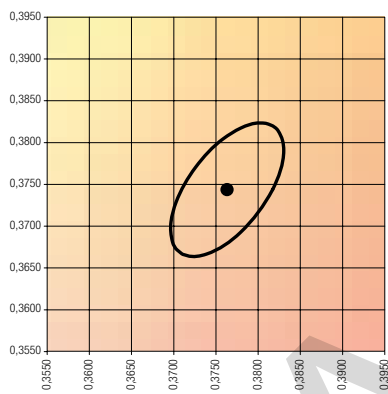


MacAdam ellipse: 3SDCM

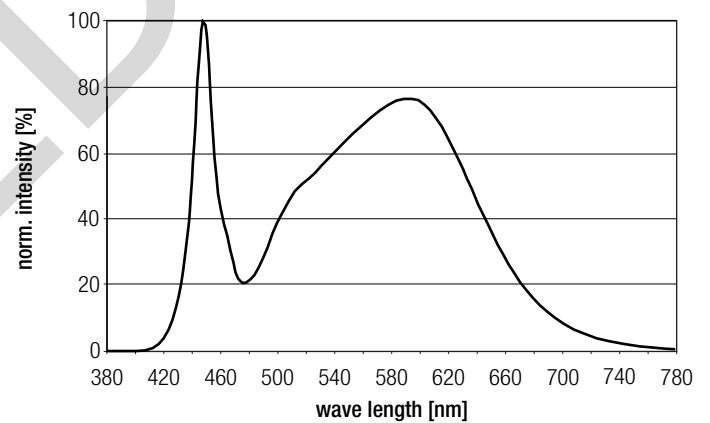


4,000 K

	x0	y0
Centre	0.3761	0.3740

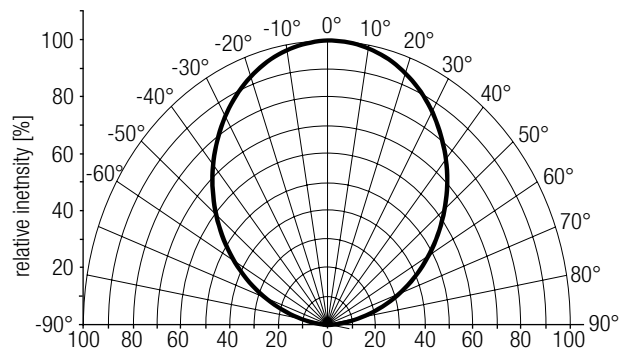


MacAdam ellipse: 3SDCM



6.2 Light distribution

The optical design of the SLE product line ensures optimum homogeneity for the light distribution.



For further information see Design-in Guide, 3D data and photometric data on www.tridonic.com or on request.

6.3 Relative luminous flux vs. tp temperature

