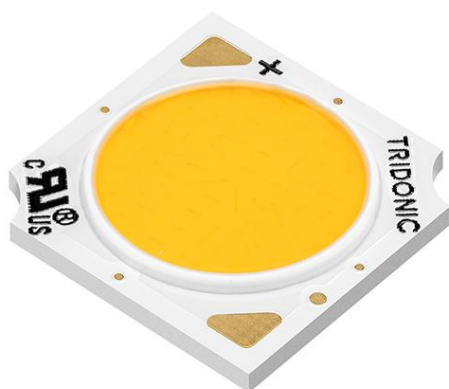
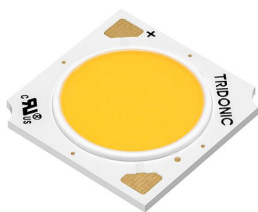


Module SLE SNC8+

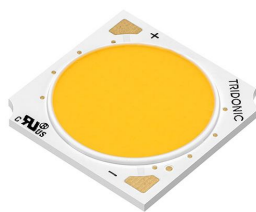
Modules SLE essence



SLE 9mm R SNC8+



SLE 13mm R SNC8+



SLE 15mm R SNC8+

Product description

- _ For spotlights and downlights
- _ For operating with SELV Driver suitable
- _ CRI 90 product achieves the similar efficacy as traditional CRI 80 products
- _ Uniform high-quality illumination
- _ Integrated LED module
- _ Cooling required
- _ Flexible operating mode
- _ HE ... High Efficiency, NM ... Nominal Mode, HO ... High Output
- _ Long lifetime up to 100,000 hours
- _ 5 years guarantee (conditions at <https://www.tridonic.com/en/int/services/manufacture-guarantee-conditions>)

Optical properties

- _ Colour temperatures 2,700, 3,000, 3,500 and 4,000 K
- _ Useful luminous flux 8,530 lm at Irated and tp = 25 °C
- _ Efficacy of the LED module 176 lm/W at Irated and tp = 25 °C
- _ High colour rendering index CRI > 90
- _ Small colour tolerance (MacAdam 3)

Mechanical properties

- _ Module dimension LES09, LES13, LES15, LES17 and LES21
- _ Fixing holes for M3 screws

System solution

- _ Combine Tridonic's LED modules and dimmable drivers to achieve an outstanding system efficacy (configuration possible via <https://setbuilder.tridonic.com/>)

Website
<http://www.tridonic.com/28006547>


Linear



High bay



Decorative



Downlights



Spotlights



Free-standing



Area



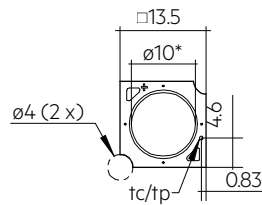
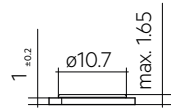
Floor | Wall



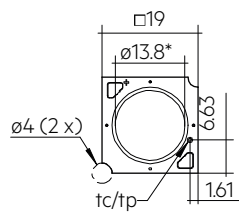
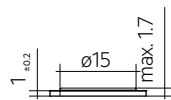
Street

Module SLE SNC8+

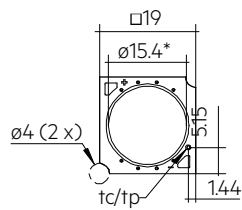
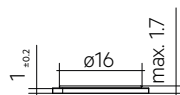
Modules SLE essence



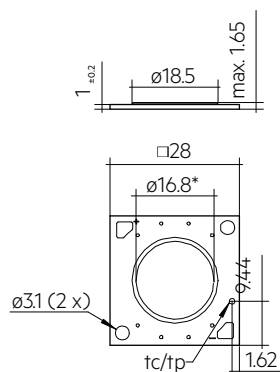
SLE 9mm R SNC8+



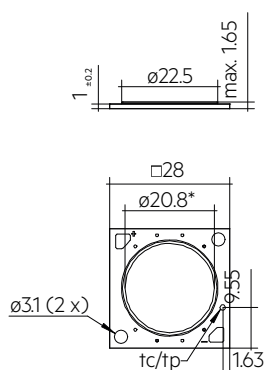
SLE 13mm R SNC8+



SLE 15mm R SNC8+



SLE 17mm R SNC8+



SLE 21mm R SNC8+

Ordering data

Type	Article number	Colour temperature	Colour rendering index CRI	Packaging, carton	Weight per pc.
SLE 09mm 1200lm 927 R SNC8+	28006547	2,700 K	>90	35 pc(s).	0.001 kg
SLE 09mm 1200lm 930 R SNC8+	28006548	3,000 K	>90	35 pc(s).	0.001 kg
SLE 09mm 1200lm 935 R SNC8+	28006549	3,500 K	>90	35 pc(s).	0.001 kg
SLE 09mm 1200lm 940 R SNC8+	28006550	4,000 K	>90	35 pc(s).	0.001 kg
SLE 09mm 2600lm 927 R SNC8+	28006551	2,700 K	>90	35 pc(s).	0.001 kg
SLE 09mm 2600lm 930 R SNC8+	28006552	3,000 K	>90	35 pc(s).	0.001 kg
SLE 09mm 2600lm 935 R SNC8+	28006553	3,500 K	>90	35 pc(s).	0.001 kg
SLE 09mm 2600lm 940 R SNC8+	28006554	4,000 K	>90	35 pc(s).	0.001 kg
SLE 13mm 3000lm 927 R SNC8+	28006558	2,700 K	>90	25 pc(s).	0.001 kg
SLE 13mm 3000lm 930 R SNC8+	28006559	3,000 K	>90	25 pc(s).	0.001 kg
SLE 13mm 3000lm 935 R SNC8+	28006560	3,500 K	>90	25 pc(s).	0.001 kg
SLE 13mm 3000lm 940 R SNC8+	28006561	4,000 K	>90	25 pc(s).	0.001 kg
SLE 15mm 4000lm 927 R SNC8+	28006565	2,700 K	>90	25 pc(s).	0.001 kg
SLE 15mm 4000lm 930 R SNC8+	28006566	3,000 K	>90	25 pc(s).	0.001 kg
SLE 15mm 4000lm 935 R SNC8+	28006567	3,500 K	>90	25 pc(s).	0.001 kg
SLE 15mm 4000lm 940 R SNC8+	28006568	4,000 K	>90	25 pc(s).	0.001 kg
SLE 17mm 5000lm 927 R SNC8+	28006572	2,700 K	>90	15 pc(s).	0.002 kg
SLE 17mm 5000lm 930 R SNC8+	28006573	3,000 K	>90	15 pc(s).	0.002 kg
SLE 17mm 5000lm 935 R SNC8+	28006574	3,500 K	>90	15 pc(s).	0.002 kg
SLE 17mm 5000lm 940 R SNC8+	28006575	4,000 K	>90	15 pc(s).	0.002 kg
SLE 21mm 6000lm 927 R SNC8+	28006579	2,700 K	>90	15 pc(s).	0.002 kg
SLE 21mm 6000lm 930 R SNC8+	28006580	3,000 K	>90	15 pc(s).	0.002 kg
SLE 21mm 6000lm 935 R SNC8+	28006581	3,500 K	>90	15 pc(s).	0.002 kg
SLE 21mm 6000lm 940 R SNC8+	28006582	4,000 K	>90	15 pc(s).	0.002 kg

Technical data

Beam characteristic	120°
Ambient temperature t_a	-40 ... +95 °C
t_p rated	65 °C
t_c ^①	105 °C
I _{rated} for LES09 1,200 lm	350 mA
I _{rated} for LES09 2,600 lm	500 mA
I _{rated} for LES13	600 mA
I _{rated} for LES15	800 mA
I _{rated} for LES17	1,050 mA
I _{rated} for LES21	1,400 mA
I _{max} for LES09 1,200 lm	540 mA
I _{max} for LES09 2,600 lm	720 mA
I _{max} for LES13	900 mA
I _{max} for LES15	1,440 mA
I _{max} for LES17	1,800 mA
I _{max} for LES21	2,520 mA
Max. perm. LF current ripple for LES09 1,200 lm	594 mA
Max. perm. LF current ripple for LES09 2,600 lm	792 mA
Max. permissible LF current ripple for LES13	990 mA
Max. permissible LF current ripple for LES15	1,584 mA
Max. permissible LF current ripple for LES17	1,980 mA
Max. permissible LF current ripple for LES21	2,772 mA
Max. perm. peak current for LES09 1,200lm	750 mA / max. 10 ms
Max. perm. peak current for LES09 2,600 lm	1,000 mA / max. 10 ms
Max. permissible peak current for LES13	1,250 mA / max. 10 ms
Max. permissible peak current for LES15	2,000 mA / max. 10 ms
Max. permissible peak current for LES17	2,500 mA / 10 ms
Max. permissible peak current for LES21	3,500 mA / max. 10 ms
Max. working voltage for insulation SELV ^②	< 60 V
Insulation test voltage	0.5 kV
Colour tolerance	3 SDCM
ESD classification	Severity level 1
Risk group (IEC 62471) for LES09 1,200lm at I _{max}	RG1
Risk group (IEC 62471) for LES09 2,600lm (2700K, 3000K) at I _{max}	RG1
Risk group (IEC 62471) for LES09 2,600lm (3500K, 4000K)	RG2 (E _{thr} = 1980 lx, RG1 at d ≥ 213 cm (I _{max})), RG1 (l ≤ 560 mA)
Risk group (IEC 62471) for LES13 3,000lm at I _{max}	RG1
Risk group (IEC 62471) for LES15 4,000lm (2700K, 3000K) at I _{max}	RG1
Risk group (IEC 62471) for LES15 4,000lm (3500K, 4000K)	RG2 (E _{thr} = 1980 lx, RG1 at d ≥ 213 cm (I _{max})), RG1 (l ≤ 1360 mA)
Risk group (IEC 62471) for LES17 5,000lm (2700K, 3000K) at I _{max}	RG1
Risk group (IEC 62471) for LES17 5,000lm (3500K, 4000K)	RG2 (E _{thr} = 1980 lx, RG1 at d ≥ 213 cm (I _{max})), RG1 (l ≤ 1620 mA)
Risk group (IEC 62471) for LES21 6,000lm at I _{max}	RG1
Classification acc. to IEC 62031	Built-in
Type of protection	IP00
Lumen maintenance L70B50	100,000 h
Guarantee (conditions at www.tridonic.com)	5 Year(s)

Approval marks**Standards**

EN 62031, EN 62471, UL 8750, IEC 62778

Specific technical data

Type	Article number	Photometric code	Useful luminous flux at tp = 25 °C [®]	Expected luminous flux at tp rated [®]	Typ. forward current	Min. forward voltage at tp rated	Max. forward voltage at tp = 25 °C	Power consumption Pon at tp = 25 °C [®]	Efficacy of the module at tp = 25 °C	Expected efficacy of the module at tp rated	Colour rendering index CRI
SLE 09mm 1200lm – Operating mode HE at 250 mA											
SLE 09mm 1200lm 927 R SNC8+	28006547	927/359	–	1,356 lm	250 mA	31.2 V	36.9 V	–	–	161 lm/W	>90
SLE 09mm 1200lm 930 R SNC8+	28006548	930/359	–	1,394 lm	250 mA	31.2 V	36.9 V	–	–	165 lm/W	>90
SLE 09mm 1200lm 935 R SNC8+	28006549	935/359	–	1,419 lm	250 mA	31.2 V	36.9 V	–	–	168 lm/W	>90
SLE 09mm 1200lm 940 R SNC8+	28006550	940/359	–	1,437 lm	250 mA	31.2 V	36.9 V	–	–	170 lm/W	>90
SLE 09mm 1200lm – Operating mode NM at 350 mA											
SLE 09mm 1200lm 927 R SNC8+	28006547	927/359	1,966 lm	1,851 lm	350 mA	32.2 V	38.0 V	12.4 W	159 lm/W	152 lm/W	>90
SLE 09mm 1200lm 930 R SNC8+	28006548	930/359	2,021 lm	1,902 lm	350 mA	32.2 V	38.0 V	12.4 W	163 lm/W	156 lm/W	>90
SLE 09mm 1200lm 935 R SNC8+	28006549	935/359	2,057 lm	1,936 lm	350 mA	32.2 V	38.0 V	12.4 W	166 lm/W	159 lm/W	>90
SLE 09mm 1200lm 940 R SNC8+	28006550	940/359	2,083 lm	1,961 lm	350 mA	32.2 V	38.0 V	12.4 W	168 lm/W	161 lm/W	>90
SLE 09mm 1200lm – Operating mode HO at 450 mA											
SLE 09mm 1200lm 927 R SNC8+	28006547	927/359	–	2,323 lm	450 mA	33.1 V	39.1 V	–	–	144 lm/W	>90
SLE 09mm 1200lm 930 R SNC8+	28006548	930/359	–	2,388 lm	450 mA	33.1 V	39.1 V	–	–	148 lm/W	>90
SLE 09mm 1200lm 935 R SNC8+	28006549	935/359	–	2,430 lm	450 mA	33.1 V	39.1 V	–	–	151 lm/W	>90
SLE 09mm 1200lm 940 R SNC8+	28006550	940/359	–	2,461 lm	450 mA	33.1 V	39.1 V	–	–	153 lm/W	>90
SLE 09mm 2600lm – Operating mode HE at 300 mA											
SLE 09mm 2600lm 927 R SNC8+	28006551	927/359	–	1,600 lm	300 mA	31.0 V	36.6 V	–	–	159 lm/W	>90
SLE 09mm 2600lm 930 R SNC8+	28006552	930/359	–	1,641 lm	300 mA	31.0 V	36.6 V	–	–	163 lm/W	>90
SLE 09mm 2600lm 935 R SNC8+	28006553	935/359	–	1,682 lm	300 mA	31.0 V	36.6 V	–	–	168 lm/W	>90
SLE 09mm 2600lm 940 R SNC8+	28006554	940/359	–	1,676 lm	300 mA	31.0 V	36.6 V	–	–	167 lm/W	>90
SLE 09mm 2600lm – Operating mode NM at 500 mA											
SLE 09mm 2600lm 927 R SNC8+	28006551	927/359	2,725 lm	2,565 lm	500 mA	32.4 V	38.3 V	17.8 W	153 lm/W	146 lm/W	>90
SLE 09mm 2600lm 930 R SNC8+	28006552	930/359	2,795 lm	2,631 lm	500 mA	32.4 V	38.3 V	17.8 W	157 lm/W	150 lm/W	>90
SLE 09mm 2600lm 935 R SNC8+	28006553	935/359	2,865 lm	2,697 lm	500 mA	32.4 V	38.3 V	17.8 W	161 lm/W	154 lm/W	>90
SLE 09mm 2600lm 940 R SNC8+	28006554	940/359	2,855 lm	2,688 lm	500 mA	32.4 V	38.3 V	17.8 W	160 lm/W	153 lm/W	>90
SLE 09mm 2600lm – Operating mode HO at 650 mA											
SLE 09mm 2600lm 927 R SNC8+	28006551	927/359	–	3,248 lm	650 mA	33.5 V	39.5 V	–	–	138 lm/W	>90
SLE 09mm 2600lm 930 R SNC8+	28006552	930/359	–	3,332 lm	650 mA	33.5 V	39.5 V	–	–	142 lm/W	>90
SLE 09mm 2600lm 935 R SNC8+	28006553	935/359	–	3,415 lm	650 mA	33.5 V	39.5 V	–	–	145 lm/W	>90
SLE 09mm 2600lm 940 R SNC8+	28006554	940/359	–	3,403 lm	650 mA	33.5 V	39.5 V	–	–	145 lm/W	>90
SLE 13mm 3000lm – Operating mode HE at 350 mA											
SLE 13mm 3000lm 927 R SNC8+	28006558	927/359	–	1,986 lm	350 mA	30.8 V	36.4 V	–	–	171 lm/W	>90
SLE 13mm 3000lm 930 R SNC8+	28006559	930/359	–	2,029 lm	350 mA	30.8 V	36.4 V	–	–	174 lm/W	>90
SLE 13mm 3000lm 935 R SNC8+	28006560	935/359	–	2,081 lm	350 mA	30.8 V	36.4 V	–	–	179 lm/W	>90
SLE 13mm 3000lm 940 R SNC8+	28006561	940/359	–	2,075 lm	350 mA	30.8 V	36.4 V	–	–	178 lm/W	>90
SLE 13mm 3000lm – Operating mode NM at 600 mA											
SLE 13mm 3000lm 927 R SNC8+	28006558	927/359	3,480 lm	3,276 lm	600 mA	32.3 V	38.1 V	21.3 W	164 lm/W	157 lm/W	>90
SLE 13mm 3000lm 930 R SNC8+	28006559	930/359	3,555 lm	3,346 lm	600 mA	32.3 V	38.1 V	21.3 W	167 lm/W	160 lm/W	>90
SLE 13mm 3000lm 935 R SNC8+	28006560	935/359	3,645 lm	3,431 lm	600 mA	32.3 V	38.1 V	21.3 W	171 lm/W	164 lm/W	>90
SLE 13mm 3000lm 940 R SNC8+	28006561	940/359	3,635 lm	3,422 lm	600 mA	32.3 V	38.1 V	21.3 W	171 lm/W	164 lm/W	>90
SLE 13mm 3000lm – Operating mode HO at 800 mA											
SLE 13mm 3000lm 927 R SNC8+	28006558	927/359	–	4,297 lm	800 mA	33.5 V	39.5 V	–	–	148 lm/W	>90
SLE 13mm 3000lm 930 R SNC8+	28006559	930/359	–	4,390 lm	800 mA	33.5 V	39.5 V	–	–	152 lm/W	>90
SLE 13mm 3000lm 935 R SNC8+	28006560	935/359	–	4,501 lm	800 mA	33.5 V	39.5 V	–	–	156 lm/W	>90
SLE 13mm 3000lm 940 R SNC8+	28006561	940/359	–	4,489 lm	800 mA	33.5 V	39.5 V	–	–	155 lm/W	>90
SLE 15mm 4000lm – Operating mode HE at 500 mA											
SLE 15mm 4000lm 927 R SNC8+	28006565	927/359	–	2,825 lm	500 mA	30.5 V	36.0 V	–	–	171 lm/W	>90
SLE 15mm 4000lm 930 R SNC8+	28006566	930/359	–	2,891 lm	500 mA	30.5 V	36.0 V	–	–	175 lm/W	>90
SLE 15mm 4000lm 935 R SNC8+	28006567	935/359	–	2,950 lm	500 mA	30.5 V	36.0 V	–	–	179 lm/W	>90
SLE 15mm 4000lm 940 R SNC8+	28006568	940/359	–	2,971 lm	500 mA	30.5 V	36.0 V	–	–	180 lm/W	>90
SLE 15mm 4000lm – Operating mode NM at 800 mA											
SLE 15mm 4000lm 927 R SNC8+	28006565	927/359	4,663 lm	4,389 lm	800 mA	31.7 V	37.5 V	27.9 W	167 lm/W	160 lm/W	>90
SLE 15mm 4000lm 930 R SNC8+	28006566	930/359	4,771 lm	4,491 lm	800 mA	31.7 V	37.5 V	27.9 W	171 lm/W	164 lm/W	>90
SLE 15mm 4000lm 935 R SNC8+	28006567	935/359	4,869 lm	4,583 lm	800 mA	31.7 V	37.5 V	27.9 W	175 lm/W	167 lm/W	>90
SLE 15mm 4000lm 940 R SNC8+	28006568	940/359	4,903 lm	4,615 lm	800 mA	31.7 V	37.5 V	27.9 W	176 lm/W	168 lm/W	>90
SLE 15mm 4000lm – Operating mode HO at 1,050 mA											
SLE 15mm 4000lm 927 R SNC8+	28006565	927/359	–	5,627 lm	1,050 mA	32.6 V	38.5 V	–	–	152 lm/W	>90
SLE 15mm 4000lm 930 R SNC8+	28006566	930/359	–	5,758 lm	1,050 mA	32.6 V	38.5 V	–	–	156 lm/W	>90
SLE 15mm 4000lm 935 R SNC8+	28006567	935/359	–	5,876 lm	1,050 mA	32.6 V	38.5 V	–	–	159 lm/W	>90
SLE 15mm 4000lm 940 R SNC8+	28006568	940/359	–	5,917 lm	1,050 mA	32.6 V	38.5 V	–	–	160 lm/W	>90
SLE 17mm 5000lm – Operating mode HE at 700 mA											
SLE 17mm 5000lm 927 R SNC8+	28006572	927/359	–	3,922 lm	700 mA	30.8 V	36.4 V	–	–	168 lm/W	>90
SLE 17mm 5000lm 930 R SNC8+	28006573	930/359	–	3,996 lm	700 mA	30.8 V	36.4 V	–	–	172 lm/W	>90
SLE 17mm 5000lm 935 R SNC8+	28006574	935/359	–	4,047 lm	700 mA	30.8 V	36.4 V	–	–	174 lm/W	>90
SLE 17mm 5000lm 940 R SNC8+	28006575	940/359	–	4,089 lm	700 mA	30.8 V	36.4 V	–	–	176 lm/W	>90
SLE 17mm 5000lm – Operating mode NM at 1,050 mA											
SLE 17mm 5000lm 927 R SNC8+	28006572	927/359	6,080 lm	5,723 lm	1,050 mA	31.8 V	37.6 V	36.8 W	165 lm/W	158 lm/W	>90
SLE 17mm 5000lm 930 R SNC8+	28006573	930/359	6,195 lm	5,832 lm	1,050 mA	31.8 V	37.6 V	36.8 W	169 lm/W	161 lm/W	>90

Type	Article number	Photometric code	Useful luminous flux at $t_p = 25^\circ\text{C}$ ^③	Expected luminous flux at t_p rated ^④	Typ. forward current	Min. forward voltage at t_p rated	Max. forward voltage at $t_p = 25^\circ\text{C}$	Power consumption P_{on} at $t_p = 25^\circ\text{C}$	Efficacy of the module at $t_p = 25^\circ\text{C}$	Expected efficacy of the module at t_p rated	Colour rendering index CRI
SLE 17mm 5000lm 935 R SNC8+	28006574	935/359	6,275 lm	5,907 lm	1,050 mA	31.8 V	37.6 V	36.8 W	171 lm/W	163 lm/W	>90
SLE 17mm 5000lm 940 R SNC8+	28006575	940/359	6,340 lm	5,968 lm	1,050 mA	31.8 V	37.6 V	36.8 W	173 lm/W	165 lm/W	>90
SLE 17mm 5000lm – Operating mode HO at 1,400 mA											
SLE 17mm 5000lm 927 R SNC8+	28006572	927/359	–	7,436 lm	1,400 mA	32.8 V	38.8 V	–	–	150 lm/W	>90
SLE 17mm 5000lm 930 R SNC8+	28006573	930/359	–	7,577 lm	1,400 mA	32.8 V	38.8 V	–	–	153 lm/W	>90
SLE 17mm 5000lm 935 R SNC8+	28006574	935/359	–	7,675 lm	1,400 mA	32.8 V	38.8 V	–	–	155 lm/W	>90
SLE 17mm 5000lm 940 R SNC8+	28006575	940/359	–	7,754 lm	1,400 mA	32.8 V	38.8 V	–	–	156 lm/W	>90
SLE 21mm 6000lm – Operating mode HE at 900 mA											
SLE 21mm 6000lm 927 R SNC8+	28006579	927/359	–	5,107 lm	900 mA	30.6 V	36.1 V	–	–	172 lm/W	>90
SLE 21mm 6000lm 930 R SNC8+	28006580	930/359	–	5,256 lm	900 mA	30.6 V	36.1 V	–	–	177 lm/W	>90
SLE 21mm 6000lm 935 R SNC8+	28006581	935/359	–	5,268 lm	900 mA	30.6 V	36.1 V	–	–	177 lm/W	>90
SLE 21mm 6000lm 940 R SNC8+	28006582	940/359	–	5,309 lm	900 mA	30.6 V	36.1 V	–	–	178 lm/W	>90
SLE 21mm 6000lm – Operating mode NM at 1,400 mA											
SLE 21mm 6000lm 927 R SNC8+	28006579	927/359	8,205 lm	7,724 lm	1,400 mA	31.7 V	37.5 V	48.8 W	168 lm/W	161 lm/W	>90
SLE 21mm 6000lm 930 R SNC8+	28006580	930/359	8,445 lm	7,950 lm	1,400 mA	31.7 V	37.5 V	48.8 W	173 lm/W	166 lm/W	>90
SLE 21mm 6000lm 935 R SNC8+	28006581	935/359	8,465 lm	7,969 lm	1,400 mA	31.7 V	37.5 V	48.8 W	174 lm/W	166 lm/W	>90
SLE 21mm 6000lm 940 R SNC8+	28006582	940/359	8,530 lm	8,030 lm	1,400 mA	31.7 V	37.5 V	48.8 W	175 lm/W	167 lm/W	>90
SLE 21mm 6000lm – Operating mode HO at 2,100 mA											
SLE 21mm 6000lm 927 R SNC8+	28006579	927/359	–	11,168 lm	2,100 mA	33.1 V	39.1 V	–	–	149 lm/W	>90
SLE 21mm 6000lm 930 R SNC8+	28006580	930/359	–	11,494 lm	2,100 mA	33.1 V	39.1 V	–	–	153 lm/W	>90
SLE 21mm 6000lm 935 R SNC8+	28006581	935/359	–	11,521 lm	2,100 mA	33.1 V	39.1 V	–	–	153 lm/W	>90
SLE 21mm 6000lm 940 R SNC8+	28006582	940/359	–	11,610 lm	2,100 mA	33.1 V	39.1 V	–	–	155 lm/W	>90

① See derating curves in data sheet section 2.3.

② If mounted with M3 screws (screw thread Ø3 mm, screw head Ø6 mm) and plastic washers with 0.5 mm thickness.

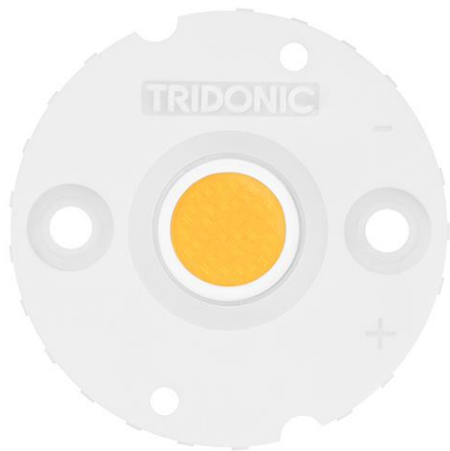
③ Tolerance of useful light flux - 0 % / + 15 %. Measurement uncertainty ± 10 %.

④ Tolerance of expected light flux - 0 % / + 15 %. Measurement uncertainty ± 10 %. Based on calculation.

⑤ Tolerance of power consumption P_{on} ± 10 %. Measurement uncertainty ± 5 %.

Housing for SLE

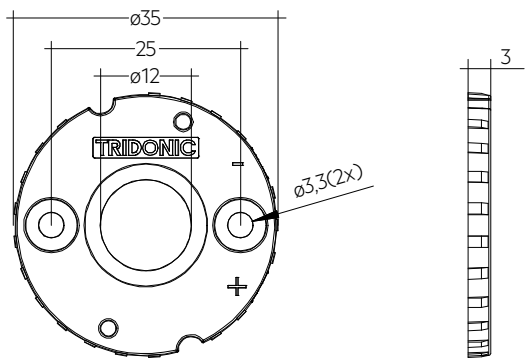
Accessory



LES09

- Product description**
- _ Housing for SLE
 - _ Diameter: 35 mm
 - _ Material: Lexan Resin 943
 - _ M3 screws with flat head, max. head diameter of 6 mm and max. torque for fixing is 0.5 Nm

Website
<http://www.tridonic.com/28003024>



SLE G7 HOUSING LES09

Ordering data			
Type	Article number	Packaging, bag	Weight per pc.
SLE G7 HOUSING LES 09	28003024	500 pc(s).	0.002 kg

1. Standards

EN 62031

EN 62471

UL 8750

IEC 62778

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	MacAdam initial	MacAdam after 25% of the lifetime (max.6000h)
7	70 – 79			Luminous flux after 25% of the lifetime (max.6000h)
8	80 – 89			Code
9	≥90			Luminous flux
				7
				8
				9

1.3 Energy classification

Type	Colour temperature	Forward current	Energy classification	Energy consumption
SLE 09mm – 1200lm				
SLE 09mm 1200lm 927 R SNC8+	2,700 K	350 mA	D	13 kWh / 1,000 h
SLE 09mm 1200lm 930 R SNC8+	3,000 K	350 mA	D	13 kWh / 1,000 h
SLE 09mm 1200lm 935 R SNC8+	3,500 K	350 mA	D	13 kWh / 1,000 h
SLE 09mm 1200lm 940 R SNC8+	4,000 K	350 mA	D	13 kWh / 1,000 h
SLE 09mm – 2600lm				
SLE 09mm 2600lm 927 R SNC8+	2,700 K	500 mA	D	18 kWh / 1,000 h
SLE 09mm 2600lm 930 R SNC8+	3,000 K	500 mA	D	18 kWh / 1,000 h
SLE 09mm 2600lm 935 R SNC8+	3,500 K	500 mA	D	18 kWh / 1,000 h
SLE 09mm 2600lm 940 R SNC8+	4,000 K	500 mA	D	18 kWh / 1,000 h
SLE 13mm – 3000lm				
SLE 13mm 3000lm 927 R SNC8+	2,700 K	600 mA	D	22 kWh / 1,000 h
SLE 13mm 3000lm 930 R SNC8+	3,000 K	600 mA	D	22 kWh / 1,000 h
SLE 13mm 3000lm 935 R SNC8+	3,500 K	600 mA	D	22 kWh / 1,000 h
SLE 13mm 3000lm 940 R SNC8+	4,000 K	600 mA	D	22 kWh / 1,000 h
SLE 15mm – 4000lm				
SLE 15mm 4000lm 927 R SNC8+	2,700 K	800 mA	D	28 kWh / 1,000 h
SLE 15mm 4000lm 930 R SNC8+	3,000 K	800 mA	D	28 kWh / 1,000 h
SLE 15mm 4000lm 935 R SNC8+	3,500 K	800 mA	C	28 kWh / 1,000 h
SLE 15mm 4000lm 940 R SNC8+	4,000 K	800 mA	C	28 kWh / 1,000 h
SLE 17mm – 5000lm				
SLE 17mm 5000lm 927 R SNC8+	2,700 K	1,050 mA	D	37 kWh / 1,000 h
SLE 17mm 5000lm 930 R SNC8+	3,000 K	1,050 mA	D	37 kWh / 1,000 h
SLE 17mm 5000lm 935 R SNC8+	3,500 K	1,050 mA	D	37 kWh / 1,000 h
SLE 17mm 5000lm 940 R SNC8+	4,000 K	1,050 mA	D	37 kWh / 1,000 h
SLE 21mm – 6000lm				
SLE 21mm 6000lm 927 R SNC8+	2,700 K	1,400 mA	D	49 kWh / 1,000 h
SLE 21mm 6000lm 930 R SNC8+	3,000 K	1,400 mA	C	49 kWh / 1,000 h
SLE 21mm 6000lm 935 R SNC8+	3,500 K	1,400 mA	C	49 kWh / 1,000 h
SLE 21mm 6000lm 940 R SNC8+	4,000 K	1,400 mA	C	49 kWh / 1,000 h

Energy label and further information at www.tridonic.com in the certificates tab of the corresponding product page and at the EPREL data base <https://eprel.ec.europa.eu/>

2. Thermal details

2.1 tp point, ambient temperature and lifetime

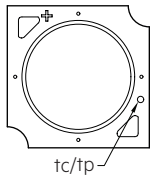
The temperature at tp reference point is crucial for the light output and lifetime of a LED product.

For SLE SNC8+ a tp temperature of 65°C has to be complied in order to achieve an optimum between heat sink requirements, light output and lifetime.

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 one of both contact pads at the marked position as stated in the drawing.



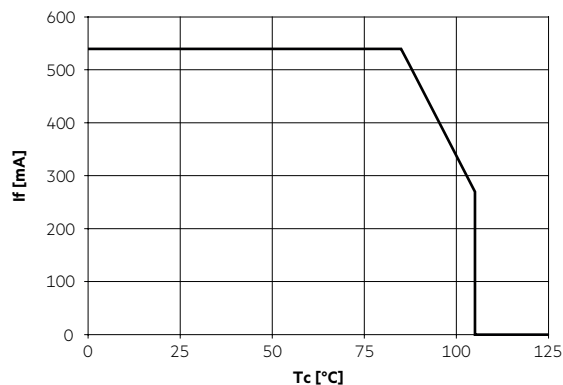
2.2 Storage and humidity

storage temperature	-40 ... +95 °C
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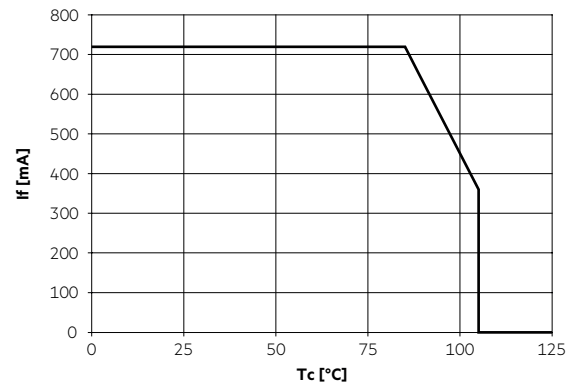
Operation only in dry environment with a relative humidity lower than 60 %. The module needs to be soldered within 24 hours after opening the ESD packaging. Humidity during processing should be between 30 to 60 %. Unused modules must be stored in waterproof packages.

2.3 Derating curves

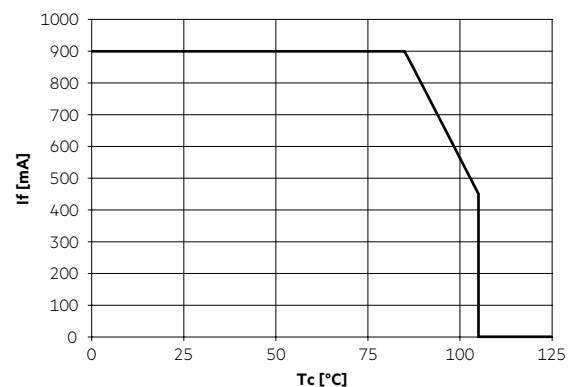
SLE 09mm 1200lm



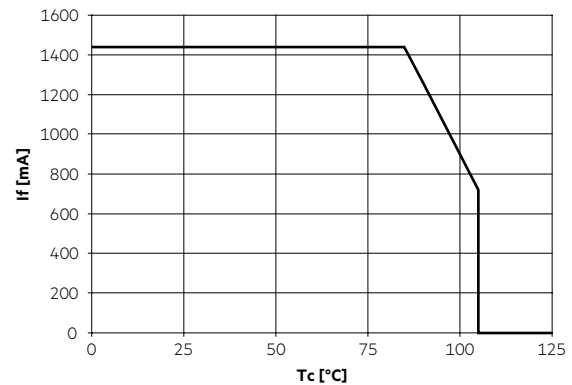
SLE 09mm 2600lm



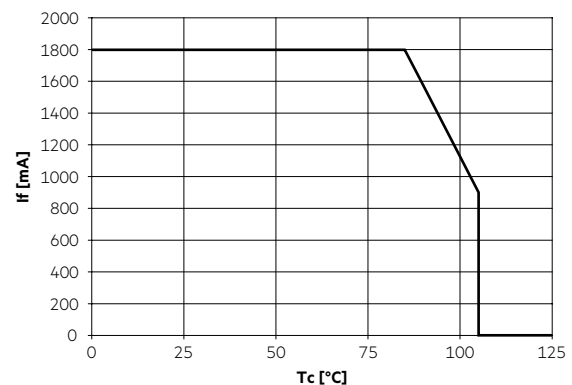
SLE 13mm 3000lm

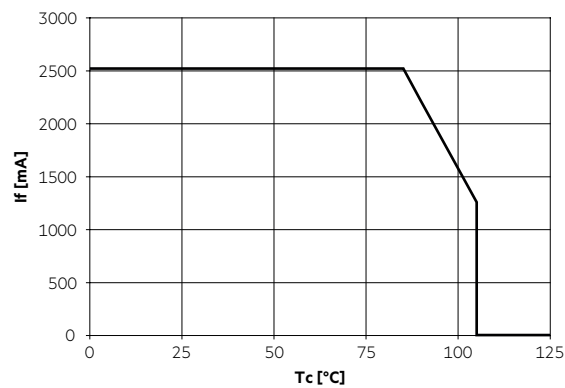


SLE 15mm 4000lm



SLE 17mm 5000lm



SLE 21mm 6000lm**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 will be greatly reduced or the SLE may be destroyed.

2.5 Heat sink values**SLE 09mm 1200lm**

ta	tp	Operating current	R _{th, hs-a}	Cooling area
25 °C	65 °C	250 mA	8.35 K/W	80 cm²
35 °C	65 °C		6.26 K/W	107 cm²
40 °C	65 °C		5.21 K/W	128 cm²
45 °C	65 °C		4.16 K/W	160 cm²
50 °C	65 °C		3.12 K/W	214 cm²
55 °C	65 °C		2.07 K/W	322 cm²
60 °C	65 °C		1.02 K/W	650 cm²
25 °C	65 °C	350 mA	5.48 K/W	122 cm²
35 °C	65 °C		4.10 K/W	162 cm²
40 °C	65 °C		3.42 K/W	195 cm²
45 °C	65 °C		2.73 K/W	244 cm²
50 °C	65 °C		2.04 K/W	327 cm²
55 °C	65 °C		1.35 K/W	492 cm²
60 °C	65 °C		0.67 K/W	1,001 cm²
25 °C	65 °C	450 mA	3.98 K/W	168 cm²
35 °C	65 °C		2.98 K/W	224 cm²
40 °C	65 °C		2.48 K/W	269 cm²
45 °C	65 °C		1.98 K/W	337 cm²
50 °C	65 °C		1.48 K/W	451 cm²
55 °C	65 °C		0.98 K/W	682 cm²
60 °C	65 °C		0.48 K/W	1,394 cm²

SLE 09mm 2600lm

ta	tp	Operating current	R _{th, hs-a}	Cooling area
25 °C	65 °C	300 mA	6.98 K/W	96 cm²
35 °C	65 °C		5.23 K/W	128 cm²
40 °C	65 °C		4.35 K/W	153 cm²
45 °C	65 °C		3.48 K/W	192 cm²
50 °C	65 °C		2.60 K/W	256 cm²
55 °C	65 °C		1.73 K/W	386 cm²
60 °C	65 °C		0.85 K/W	781 cm²
25 °C	65 °C	500 mA	3.71 K/W	180 cm²
35 °C	65 °C		2.77 K/W	240 cm²
40 °C	65 °C		2.31 K/W	289 cm²
45 °C	65 °C		1.84 K/W	362 cm²
50 °C	65 °C		1.38 K/W	484 cm²
55 °C	65 °C		0.91 K/W	732 cm²
60 °C	65 °C		0.44 K/W	1,500 cm²
25 °C	65 °C	650 mA	2.62 K/W	255 cm²
35 °C	65 °C		1.96 K/W	341 cm²
40 °C	65 °C		1.63 K/W	410 cm²
45 °C	65 °C		1.30 K/W	514 cm²
50 °C	65 °C		0.97 K/W	689 cm²
55 °C	65 °C		0.64 K/W	1,045 cm²
60 °C	65 °C		0.31 K/W	2,162 cm²

SLE 13mm 3000lm

ta	tp	Operating current	R _{th, hs-a}	Cooling area
25 °C	65 °C	350 mA	6.30 K/W	106 cm²
35 °C	65 °C		4.72 K/W	141 cm²
40 °C	65 °C		3.93 K/W	169 cm²
45 °C	65 °C		3.14 K/W	212 cm²
50 °C	65 °C		2.36 K/W	283 cm²
55 °C	65 °C		1.57 K/W	425 cm²
60 °C	65 °C		0.78 K/W	857 cm²
25 °C	65 °C	600 mA	3.19 K/W	209 cm²
35 °C	65 °C		2.39 K/W	279 cm²
40 °C	65 °C		1.99 K/W	336 cm²
45 °C	65 °C		1.59 K/W	420 cm²
50 °C	65 °C		1.19 K/W	561 cm²
55 °C	65 °C		0.79 K/W	846 cm²
60 °C	65 °C		0.39 K/W	1,715 cm²
25 °C	65 °C	800 mA	2.16 K/W	309 cm²
35 °C	65 °C		1.62 K/W	412 cm²
40 °C	65 °C		1.35 K/W	495 cm²
45 °C	65 °C		1.07 K/W	621 cm²
50 °C	65 °C		0.80 K/W	830 cm²
55 °C	65 °C		0.53 K/W	1,254 cm²
60 °C	65 °C		0.26 K/W	2,560 cm²

SLE 15mm 4000lm

ta	tp	Operating current	R _{th, hs-a}	Cooling area
25 °C	65 °C	500 mA	4.46 K/W	149 cm²
35 °C	65 °C		3.34 K/W	199 cm²
40 °C	65 °C		2.78 K/W	239 cm²
45 °C	65 °C		2.23 K/W	300 cm²
50 °C	65 °C		1.67 K/W	400 cm²
55 °C	65 °C		1.11 K/W	602 cm²
60 °C	65 °C		0.55 K/W	1,216 cm²
25 °C	65 °C	800 mA	2.51 K/W	266 cm²
35 °C	65 °C		1.88 K/W	355 cm²
40 °C	65 °C		1.56 K/W	426 cm²
45 °C	65 °C		1.25 K/W	534 cm²
50 °C	65 °C		0.93 K/W	713 cm²
55 °C	65 °C		0.62 K/W	1,076 cm²
60 °C	65 °C		0.30 K/W	2,191 cm²
25 °C	65 °C	1,050 mA	1.98 K/W	336 cm²
35 °C	65 °C		1.49 K/W	449 cm²
40 °C	65 °C		1.24 K/W	539 cm²
45 °C	65 °C		0.99 K/W	676 cm²
50 °C	65 °C		0.74 K/W	904 cm²
55 °C	65 °C		0.49 K/W	1,367 cm²
60 °C	65 °C		0.24 K/W	2,796 cm²

SLE 17mm 5000lm

ta	tp	Operating current	R _{th, hs-a}	Cooling area
25 °C	65 °C	700 mA	3.58 K/W	186 cm²
35 °C	65 °C		2.68 K/W	249 cm²
40 °C	65 °C		2.23 K/W	299 cm²
45 °C	65 °C		1.79 K/W	373 cm²
50 °C	65 °C		1.34 K/W	498 cm²
55 °C	65 °C		0.89 K/W	749 cm²
60 °C	65 °C		0.44 K/W	1,506 cm²
25 °C	65 °C	1,050 mA	2.12 K/W	315 cm²
35 °C	65 °C		1.59 K/W	420 cm²
40 °C	65 °C		1.32 K/W	504 cm²
45 °C	65 °C		1.06 K/W	631 cm²
50 °C	65 °C		0.79 K/W	843 cm²
55 °C	65 °C		0.53 K/W	1,268 cm²
60 °C	65 °C		0.26 K/W	2,561 cm²
25 °C	65 °C	1,400 mA	1.45 K/W	460 cm²
35 °C	65 °C		1.09 K/W	614 cm²
40 °C	65 °C		0.90 K/W	737 cm²
45 °C	65 °C		0.72 K/W	923 cm²
50 °C	65 °C		0.54 K/W	1,233 cm²
55 °C	65 °C		0.36 K/W	1,858 cm²
60 °C	65 °C		0.18 K/W	3,769 cm²

SLE 21mm 6000lm

ta	tp	Operating current	R _{th, hs-a}	Cooling area
25 °C	65 °C	900 mA	2.50 K/W	267 cm²
35 °C	65 °C		1.87 K/W	356 cm²
40 °C	65 °C		1.56 K/W	427 cm²
45 °C	65 °C		1.25 K/W	534 cm²
50 °C	65 °C		0.93 K/W	713 cm²
55 °C	65 °C		0.62 K/W	1,073 cm²
60 °C	65 °C		0.31 K/W	2,163 cm²
25 °C	65 °C	1,400 mA	1.45 K/W	459 cm²
35 °C	65 °C		1.09 K/W	612 cm²
40 °C	65 °C		0.91 K/W	735 cm²
45 °C	65 °C		0.72 K/W	921 cm²
50 °C	65 °C		0.54 K/W	1,230 cm²
55 °C	65 °C		0.36 K/W	1,854 cm²
60 °C	65 °C		0.18 K/W	3,760 cm²
25 °C	65 °C	2,100 mA	0.47 K/W	1,412 cm²
35 °C	65 °C		0.35 K/W	1,890 cm²
40 °C	65 °C		0.29 K/W	2,274 cm²
45 °C	65 °C		0.23 K/W	2,855 cm²
50 °C	65 °C		0.17 K/W	3,834 cm²
55 °C	65 °C		0.11 K/W	5,835 cm²
60 °C	65 °C		0.05 K/W	12,203 cm²

Notes

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

Additionally the SLE 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 $b < 50 \mu\text{mmK/W}$.

3. Installation / wiring

3.1 Electrical supply/choice of LED driver

SLE 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 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 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.



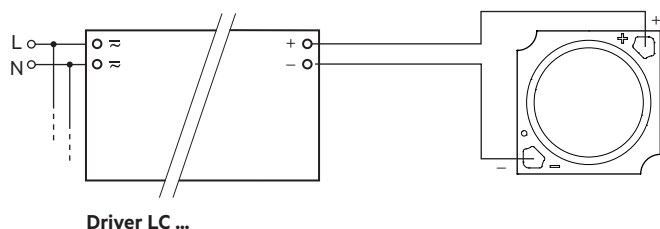
SLE must not be operated with nonSELV LED driver.



SLE are basic insulated up to 60 V SELV 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 60 V SELV, an additional insulation between LED module and heat sink is required (for example by insulated 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



3.3 Soldering guidelines



The modules are suitable only for manual soldering (max. 350 °C, 3 seconds).

3.4 Mounting instruction



SLE 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 and washer.

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 (substrate, LED, electronic components etc.) may be exposed to tensile or compressive stresses.



Torque for fixing: 0.3 – 0.5 Nm



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. Lifetime

4.1 Lifetime, lumen maintenance and failure rate

The light output of an LED module decreases over the lifetime, 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 lifetime 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

SLE 09mm 1200lm

Operating current	tp temperature	L90 / B10	L90 / B50	L80 / B10	L80 / B50	L70 / B10	L70 / B50
250 mA	60 °C	>100k h	>100k h	>100k h	>100k h	>100k h	>100k h
	70 °C	>100k h	>100k h	>100k h	>100k h	>100k h	>100k h
	85 °C	>100k h	>100k h	>100k h	>100k h	>100k h	>100k h
	95 °C	>100k h	>100k h	>100k h	>100k h	>100k h	>100k h
350 mA	60 °C	>100k h	>100k h	>100k h	>100k h	>100k h	>100k h
	70 °C	>100k h	>100k h	>100k h	>100k h	>100k h	>100k h
	85 °C	>100k h	>100k h	>100k h	>100k h	>100k h	>100k h
	95 °C	>100k h	>100k h	>100k h	>100k h	>100k h	>100k h
450 mA	60 °C	>100k h	>100k h	>100k h	>100k h	>100k h	>100k h
	70 °C	>100k h	>100k h	>100k h	>100k h	>100k h	>100k h
	85 °C	>100k h	>100k h	>100k h	>100k h	>100k h	>100k h
	95 °C	>100k h	>100k h	>100k h	>100k h	>100k h	>100k h

SLE 09mm 2600lm

Operating current	tp temperature	L90 / B10	L90 / B50	L80 / B10	L80 / B50	L70 / B10	L70 / B50
300 mA	60 °C	>100k h	>100k h	>100k h	>100k h	>100k h	>100k h
	70 °C	>100k h	>100k h	>100k h	>100k h	>100k h	>100k h
	85 °C	>100k h	>100k h	>100k h	>100k h	>100k h	>100k h
	95 °C	>100k h	>100k h	>100k h	>100k h	>100k h	>100k h
500 mA	60 °C	>100k h	>100k h	>100k h	>100k h	>100k h	>100k h
	70 °C	>100k h	>100k h	>100k h	>100k h	>100k h	>100k h
	85 °C	>100k h	>100k h	>100k h	>100k h	>100k h	>100k h
	95 °C	>100k h	>100k h	>100k h	>100k h	>100k h	>100k h
650 mA	60 °C	>100k h	>100k h	>100k h	>100k h	>100k h	>100k h
	70 °C	>100k h	>100k h	>100k h	>100k h	>100k h	>100k h
	85 °C	>100k h	>100k h	>100k h	>100k h	>100k h	>100k h
	95 °C	>100k h	>100k h	>100k h	>100k h	>100k h	>100k h

SLE 13mm 3000lm

Operating current	tp temperature	L90 / B10	L90 / B50	L80 / B10	L80 / B50	L70 / B10	L70 / B50
350 mA	60 °C	>100k h	>100k h	>100k h	>100k h	>100k h	>100k h
	70 °C	>100k h	>100k h	>100k h	>100k h	>100k h	>100k h
	85 °C	>100k h	>100k h	>100k h	>100k h	>100k h	>100k h
	95 °C	>100k h	>100k h	>100k h	>100k h	>100k h	>100k h
600 mA	60 °C	>100k h	>100k h	>100k h	>100k h	>100k h	>100k h
	70 °C	>100k h	>100k h	>100k h	>100k h	>100k h	>100k h
	85 °C	>100k h	>100k h	>100k h	>100k h	>100k h	>100k h
	95 °C	>100k h	>100k h	>100k h	>100k h	>100k h	>100k h
800 mA	60 °C	>100k h	>100k h	>100k h	>100k h	>100k h	>100k h
	70 °C	>100k h	>100k h	>100k h	>100k h	>100k h	>100k h
	85 °C	>100k h	>100k h	>100k h	>100k h	>100k h	>100k h
	95 °C	>100k h	>100k h	>100k h	>100k h	>100k h	>100k h

SLE 15mm 4000lm

Operating current	tp temperature	L90 / B10	L90 / B50	L80 / B10	L80 / B50	L70 / B10	L70 / B50
500 mA	60 °C	>100k h	>100k h	>100k h	>100k h	>100k h	>100k h
	70 °C	>100k h	>100k h	>100k h	>100k h	>100k h	>100k h
	85 °C	>100k h	>100k h	>100k h	>100k h	>100k h	>100k h
	95 °C	>100k h	>100k h	>100k h	>100k h	>100k h	>100k h
800 mA	60 °C	>100k h	>100k h	>100k h	>100k h	>100k h	>100k h
	70 °C	>100k h	>100k h	>100k h	>100k h	>100k h	>100k h
	85 °C	>100k h	>100k h	>100k h	>100k h	>100k h	>100k h
	95 °C	>100k h	>100k h	>100k h	>100k h	>100k h	>100k h
1,050 mA	60 °C	>100k h	>100k h	>100k h	>100k h	>100k h	>100k h
	70 °C	>100k h	>100k h	>100k h	>100k h	>100k h	>100k h
	85 °C	>100k h	>100k h	>100k h	>100k h	>100k h	>100k h
	95 °C	>100k h	>100k h	>100k h	>100k h	>100k h	>100k h

SLE 17mm 5000lm

Operating current	tp temperature	L90 / B10	L90 / B50	L80 / B10	L80 / B50	L70 / B10	L70 / B50
700 mA	60 °C	>100k h	>100k h	>100k h	>100k h	>100k h	>100k h
	70 °C	>100k h	>100k h	>100k h	>100k h	>100k h	>100k h
	85 °C	>100k h	>100k h	>100k h	>100k h	>100k h	>100k h
	95 °C	>100k h	>100k h	>100k h	>100k h	>100k h	>100k h
1,050 mA	60 °C	>100k h	>100k h	>100k h	>100k h	>100k h	>100k h
	70 °C	>100k h	>100k h	>100k h	>100k h	>100k h	>100k h
	85 °C	>100k h	>100k h	>100k h	>100k h	>100k h	>100k h
	95 °C	>100k h	>100k h	>100k h	>100k h	>100k h	>100k h
1,400 mA	60 °C	>100k h	>100k h	>100k h	>100k h	>100k h	>100k h
	70 °C	>100k h	>100k h	>100k h	>100k h	>100k h	>100k h
	85 °C	>100k h	>100k h	>100k h	>100k h	>100k h	>100k h
	95 °C	>100k h	>100k h	>100k h	>100k h	>100k h	>100k h

SLE 21mm 6000lm

Operating current	tp temperature	L90 / B10	L90 / B50	L80 / B10	L80 / B50	L70 / B10	L70 / B50
900 mA	60 °C	>100k h	>100k h	>100k h	>100k h	>100k h	>100k h
	70 °C	>100k h	>100k h	>100k h	>100k h	>100k h	>100k h
	85 °C	>100k h	>100k h	>100k h	>100k h	>100k h	>100k h
	95 °C	>100k h	>100k h	>100k h	>100k h	>100k h	>100k h
1,400 mA	60 °C	>100k h	>100k h	>100k h	>100k h	>100k h	>100k h
	70 °C	>100k h	>100k h	>100k h	>100k h	>100k h	>100k h
	85 °C	>100k h	>100k h	>100k h	>100k h	>100k h	>100k h
	95 °C	>100k h	>100k h	>100k h	>100k h	>100k h	>100k h
2,100 mA	60 °C	>100k h	>100k h	>100k h	>100k h	>100k h	>100k h
	70 °C	>100k h	>100k h	>100k h	>100k h	>100k h	>100k h
	85 °C	>100k h	>100k h	>100k h	>100k h	>100k h	>100k h
	95 °C	>100k h	>100k h	>100k h	>100k h	>100k h	>100k h

L00C03 >100 kh. At Irated and tp rated, based on 10 swichting cycles per day.

4.3 Switching capability

50,000 cycles

Test according to IEC 62717 CI 10.3.3

30 s on / 30 s off at I_{max}

5. Electrical values

5.1 Declaration of electrical parameters

I_{rated} ... Nominal operating current the module is designed for.

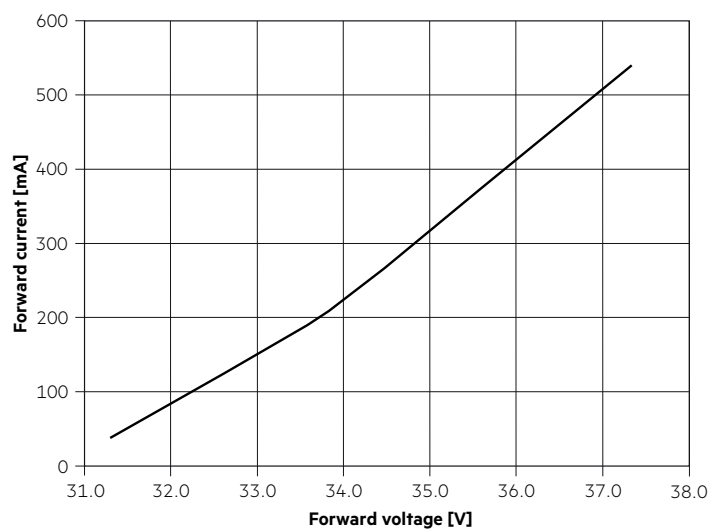
I_{max} ... Max. permissible continuous operating current incl. The tolerances of the LED driver.

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

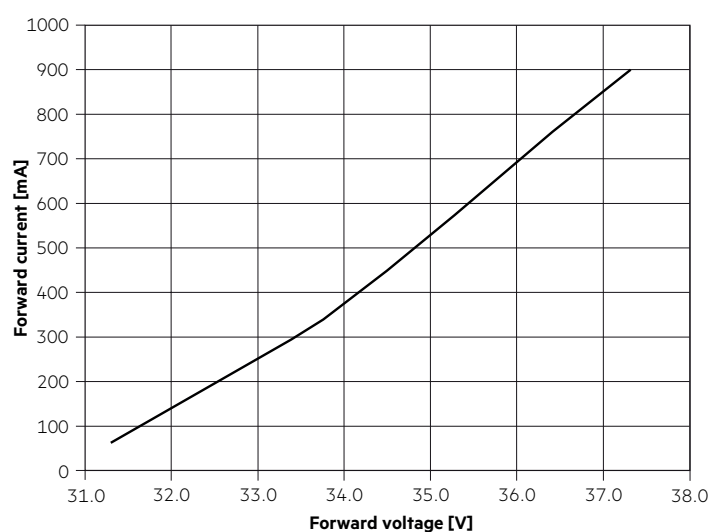
Max. permissible peak current ... The max. output peak current of the LED driver must not exceed this value.

5.2 Typ. forward voltage vs. forward current

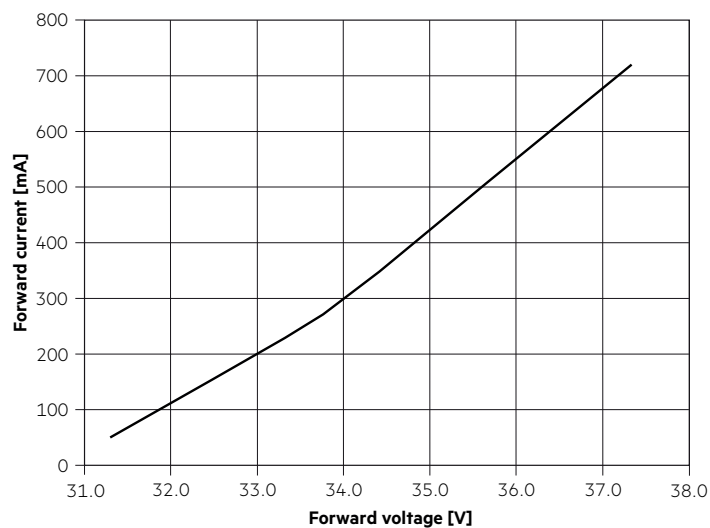
SLE 09mm 1200lm



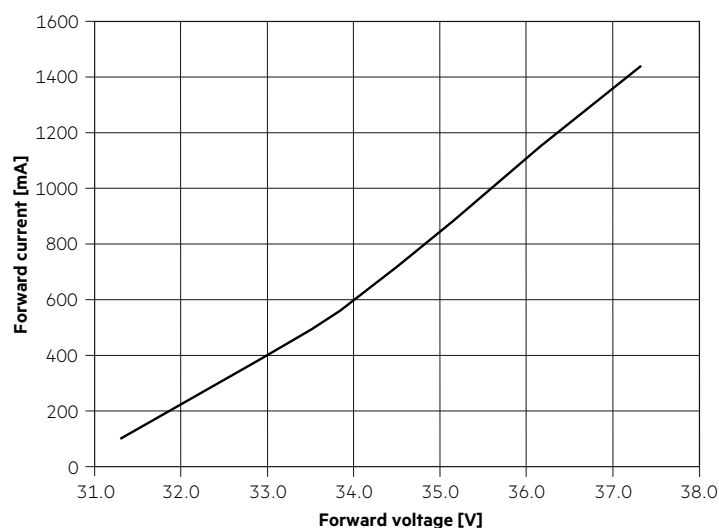
SLE 13mm 3000lm



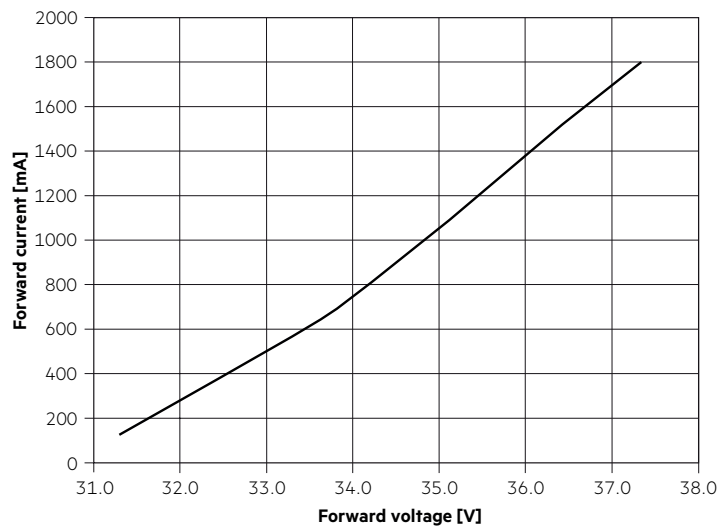
SLE 09mm 2600lm



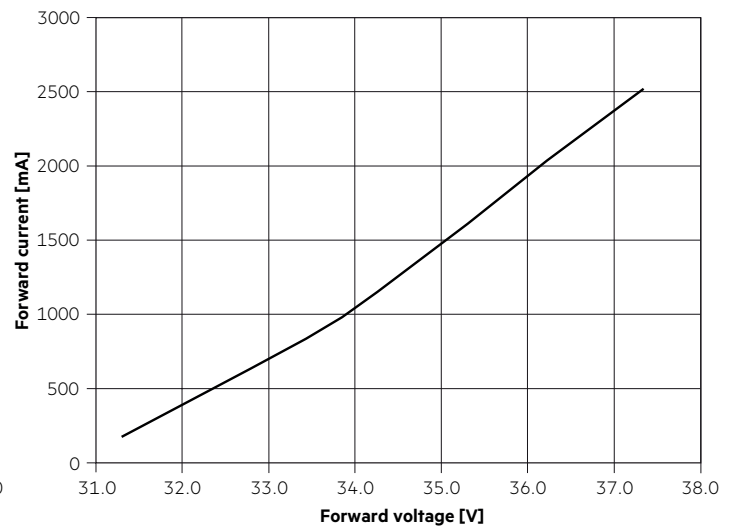
SLE 15mm 4000lm



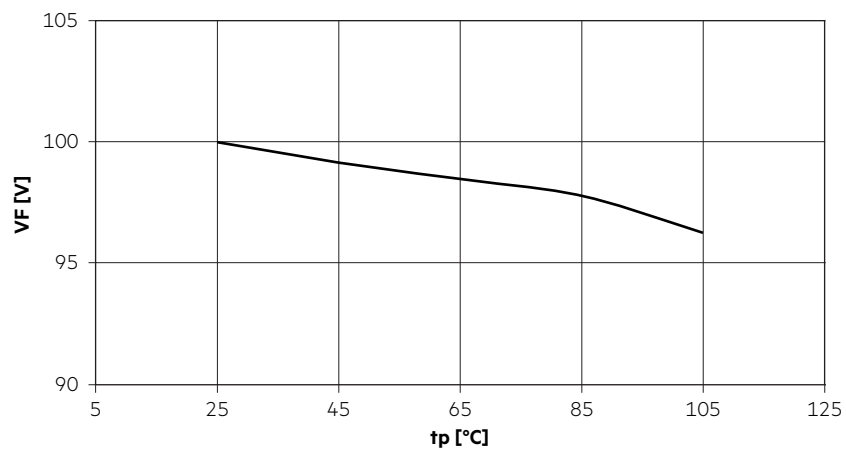
SLE 17mm 5000lm



SLE 21mm 6000lm



5.3 Forward voltage vs. t_p temperature



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

6. Photometric characteristics

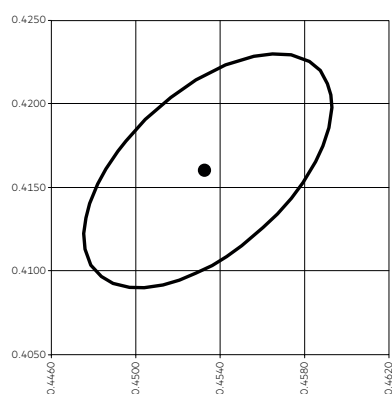
6.1 Coordinates and tolerances according to CIE 1931 and colour rendering

The specified colour coordinates are measured integral after a settling time of 50 ms. The current impulse depends on the module type. The ambient temperature of the measurement is $t_a = 25^\circ\text{C}$. The measurement tolerance of the colour coordinates are ± 0.005 .

Module type	Current impulse
SLE 09mm 1200lm	350 mA
SLE 09mm 2600lm	500 mA
SLE 13mm 3000lm	600 mA
SLE 15mm 4000lm	800 mA
SLE 17mm 5000lm	1050 mA
SLE 21mm 6000lm	1400 mA

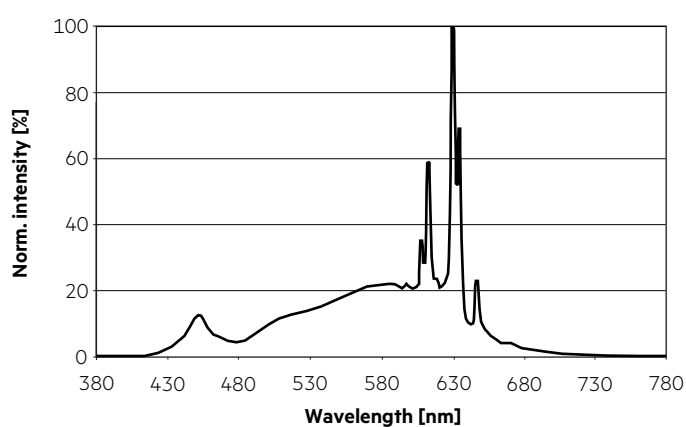
2,700 K – CRI90

	x0	y0
Centre	0.4534	0.4160

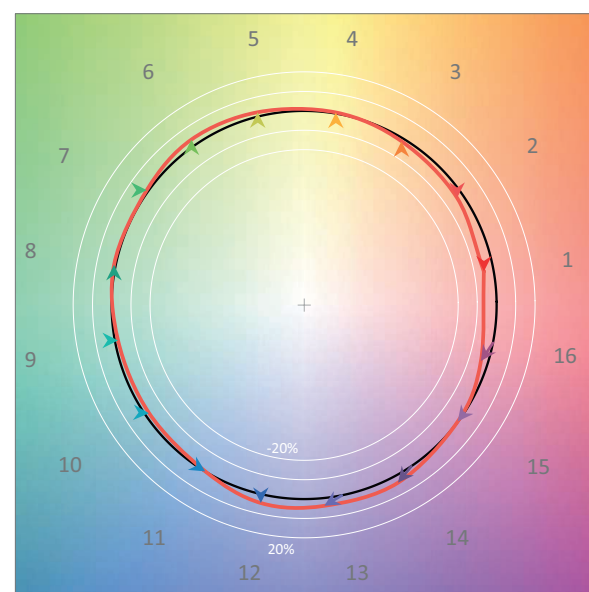


MacAdam ellipse: 3SDCM

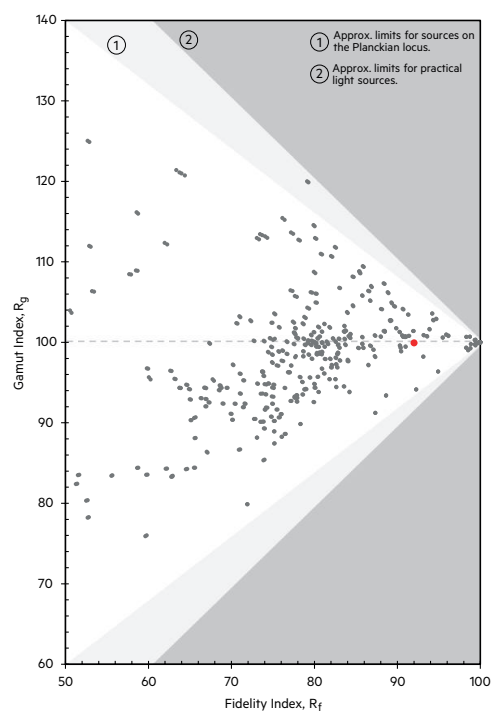
TM30		CRI	
Rf	Rg	Ra	R9
92	100	93	62



Colour vector graphic

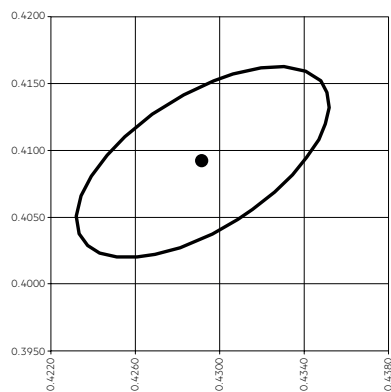


— Reference source
— Test source



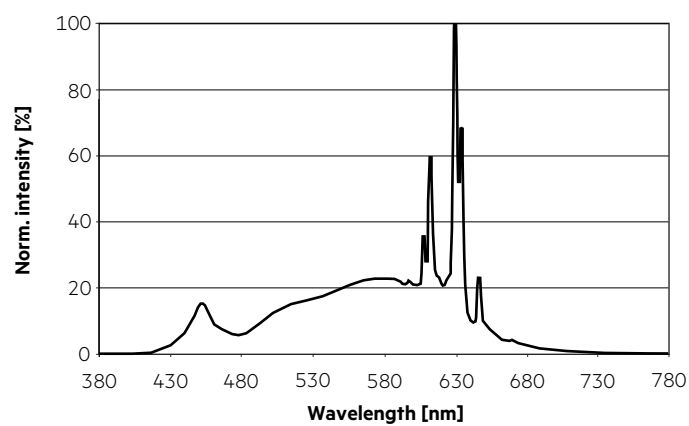
3,000 K – CRI90

	x0	y0
Centre	0.4292	0.4091

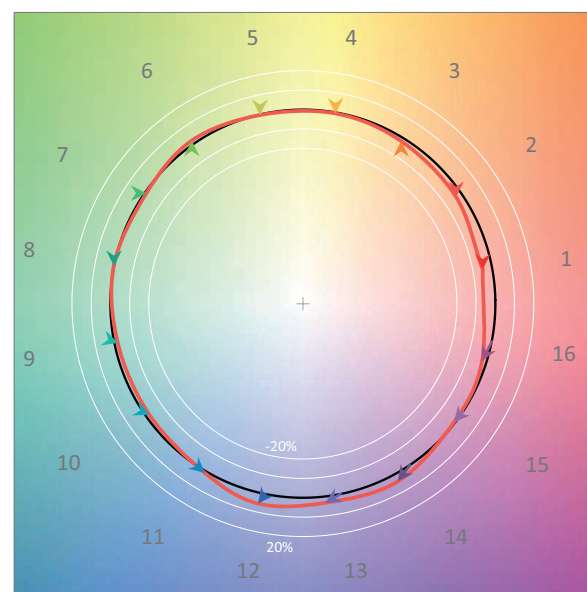


MacAdam ellipse: 3SDCM

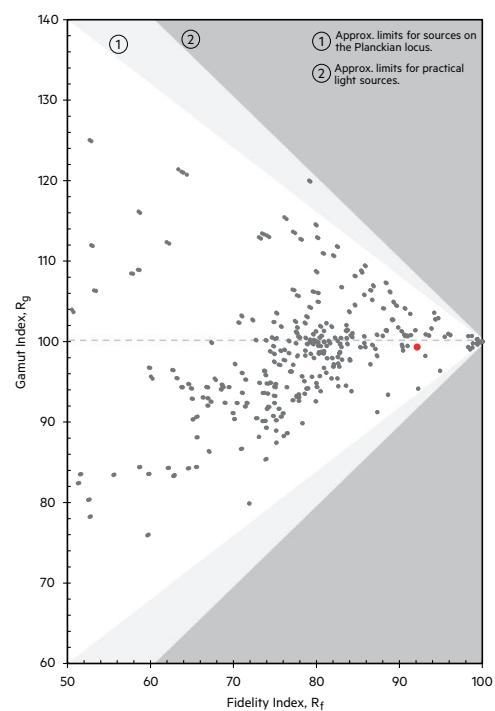
TM30		CRI	
Rf	Rg	Ra	R9
92	99	93	63



Colour vector graphic

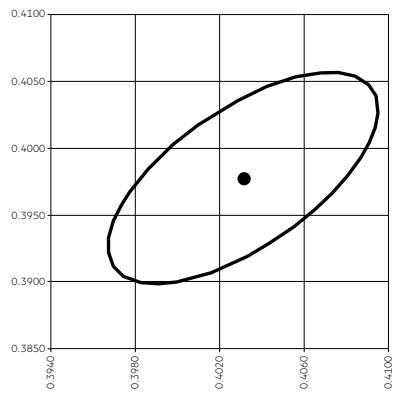


— Reference source
— Test source

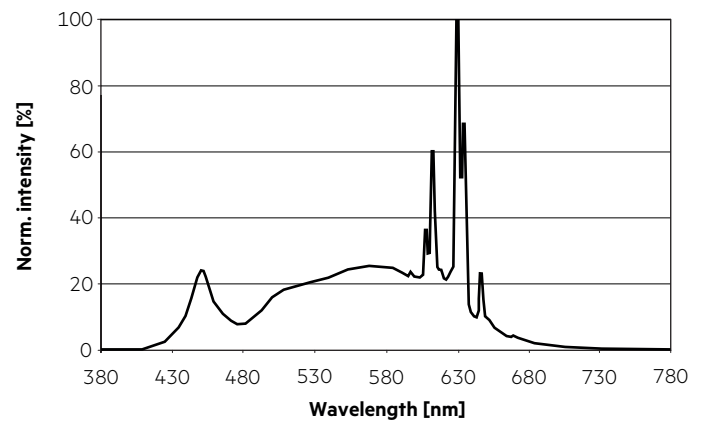


3,500 K – CRI90

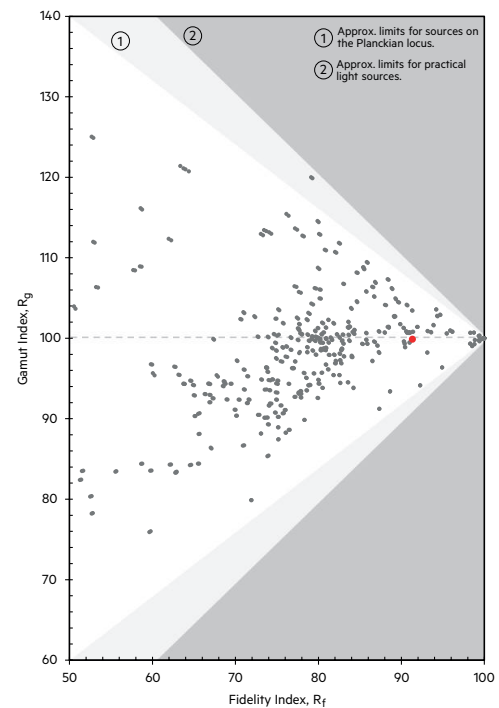
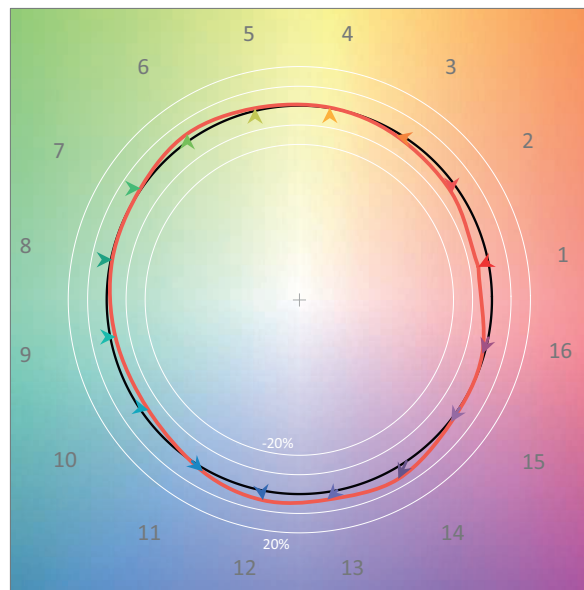
	x0	y0
Centre	0.4031	0.3978



TM30		CRI	
Rf	Rg	Ra	R9
91	100	92	62

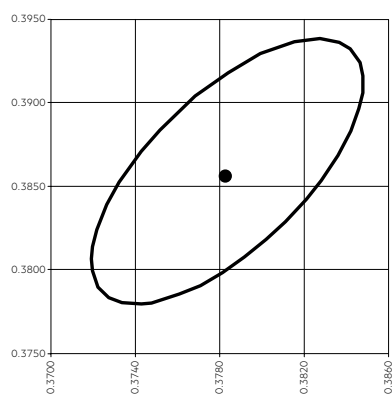


Colour vector graphic



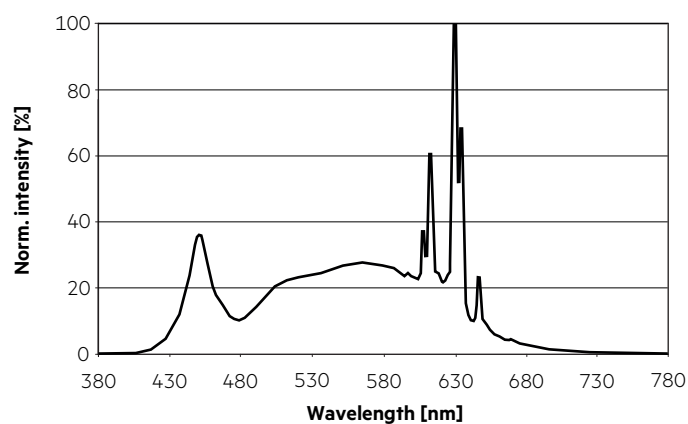
4,000 K – CRI90

	x0	y0
Centre	0.3783	0.3859

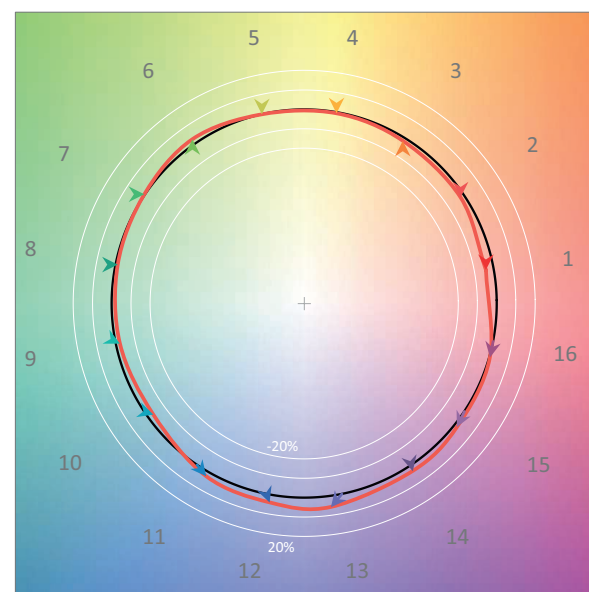


MacAdam ellipse: 3SDCM

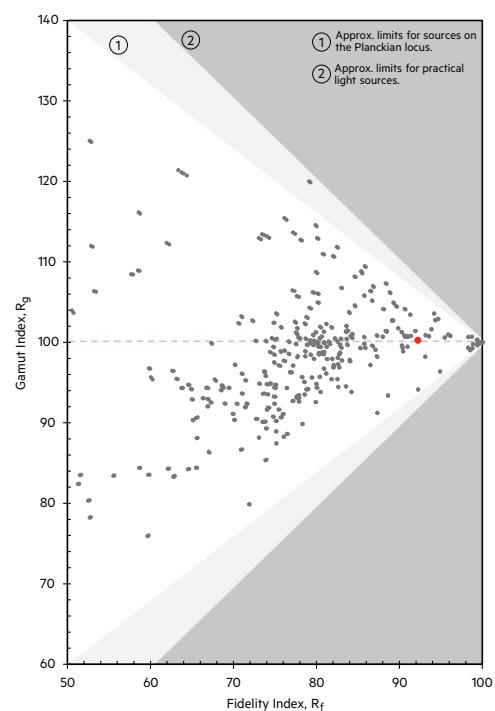
TM30		CRI	
Rf	Rg	Ra	R9
92	100	93	74



Colour vector graphic

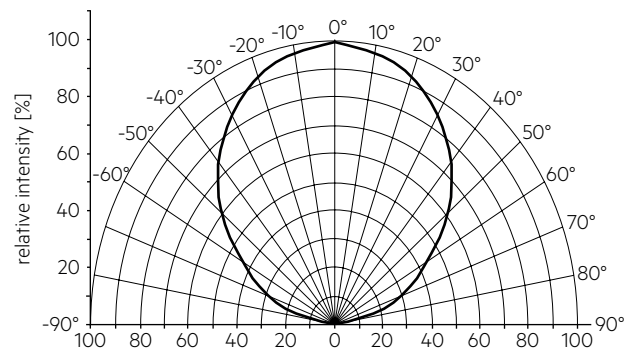


— Reference source
— Test source

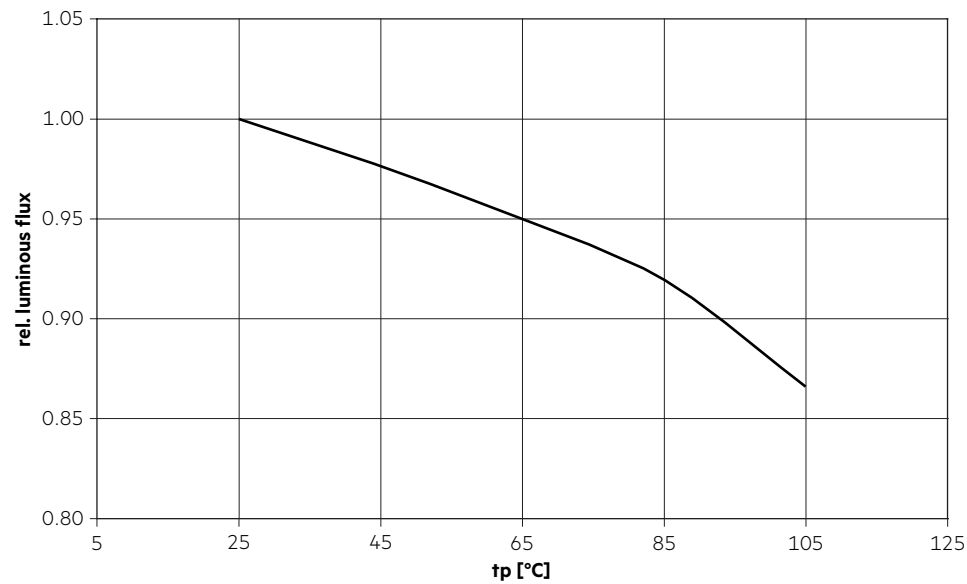


6.2 Light distribution

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

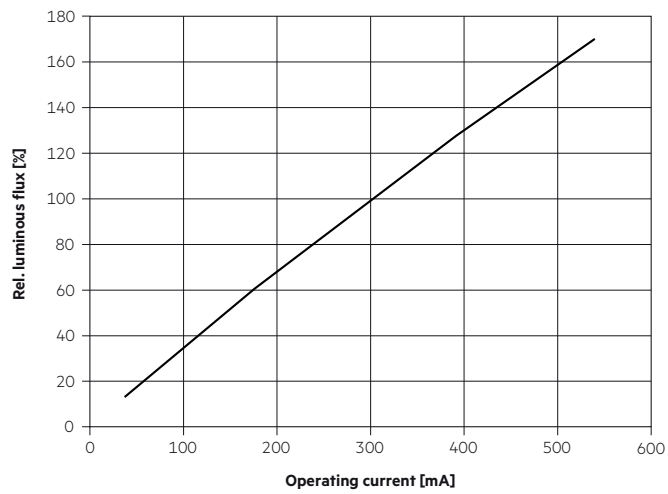


6.3 Relative luminous flux vs. tp temperature

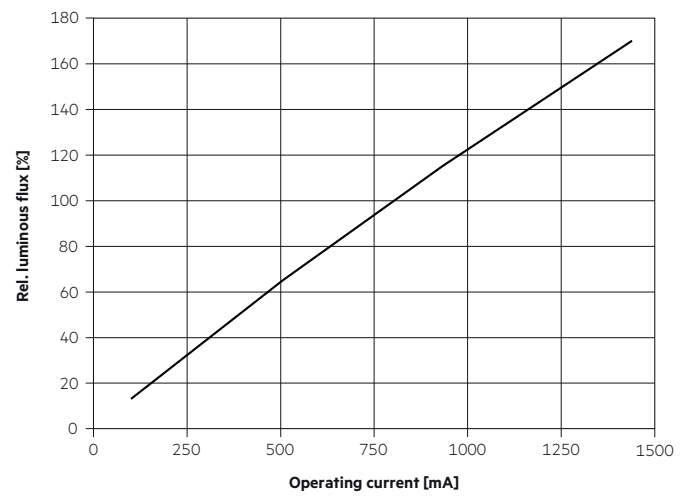


6.4 Relative luminous flux vs. operating current

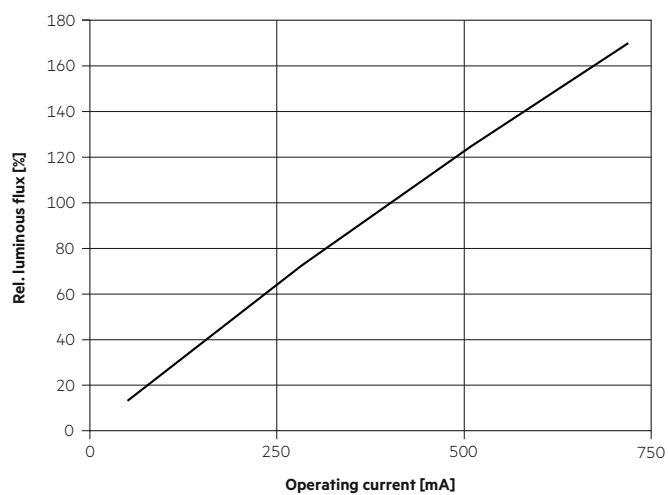
SLE 09mm 1200lm



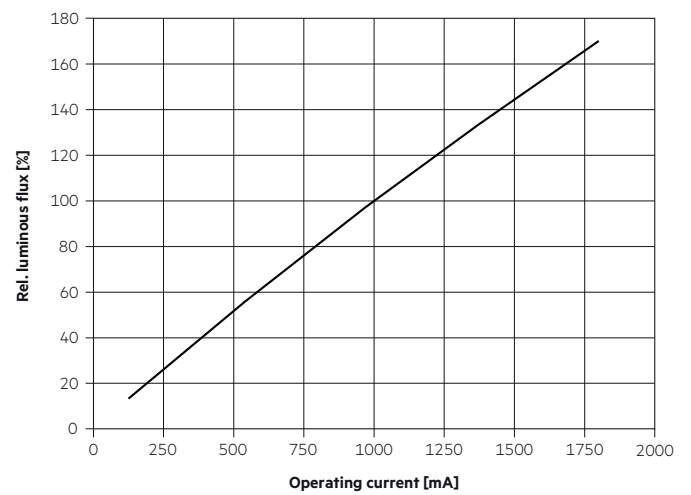
SLE 15mm 4000lm



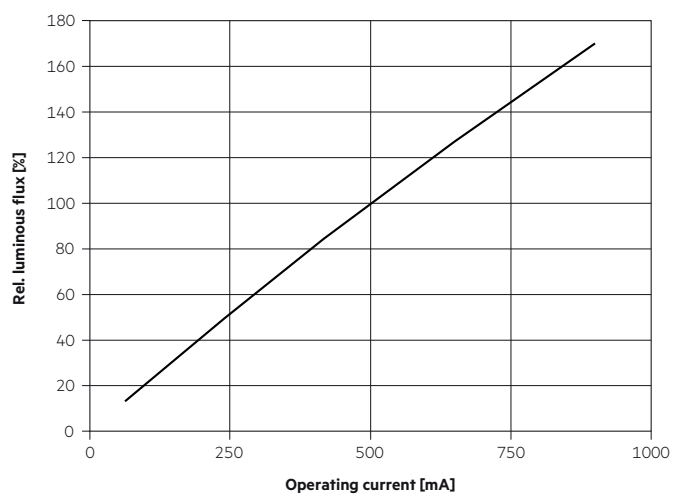
SLE 09mm 2600lm



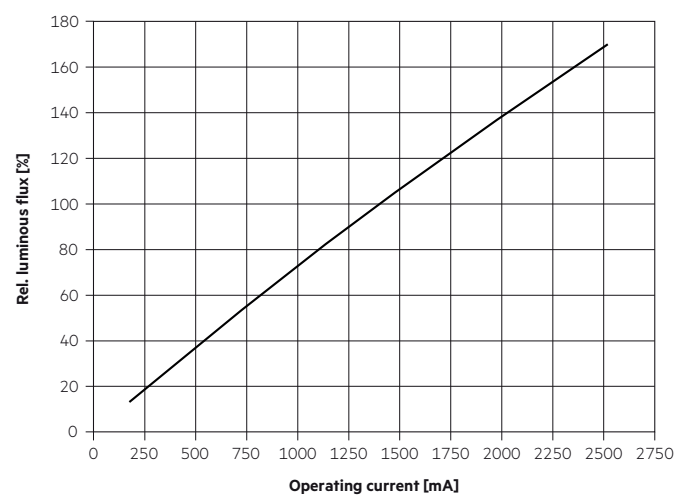
SLE 17mm 5000lm



SLE 13mm 3000lm



SLE 21mm 6000lm



7. Miscellaneous

7.1 Additional information

Additional technical information at www.tridonic.com → Technical Data

Guarantee conditions at www.tridonic.com → Services

Lifetime declarations are informative and represent no warranty claim.

Colour rendering information are typical values and represent no warranty claim.