

PHILIPS

LED Modules

Fortimo SLM Crisp White

1211 L19 2828 G6



Philips Fortimo LED spotlight module (SLM) crisp white gen 6 continues to focus on the combination of quality of light and performance. By offering the CoB separate from the holder, even more flexibility in possible system combinations and specifications is achieved. This results in an extensive portfolio of lumen ranges, CCTs and spectra. Please also check the online Easy Design-in Tool for your perfect system combination (www.na.easydesignintool.philips.com).

Ordering Data

Commercial product name	12NC	Minimum order quantity
Fortimo SLM C 930 CW 1211 L19 2828 G6	9290 014 48506	10

Not all products are currently available as make-to-stock. Please contact your local Philips representative for specific availability and lead time.

Fortimo SLM crisp white 1211 L19 2828 G6

Features

- Excellent quality of light available for all applications
- Extensive range of CCT
- Small LES for narrow beam angles and small reflector designs
- Flexibility to select a different lumen output between 800 lm and 10000 lm
- State-of-the-art chip-on-board (CoB) technology, enabling high system efficacy
- System proposition (CoB + holder + driver)

- Flexibility to optimize luminaire performance (lm/W or high lumen output)
- Philips Advance Xitanium LED window drivers with SimpleSet technology for maximum flexibility
- Mini drivers for smallest possible luminaire designs
- Three dedicated product lines:
 - SLM gen 6 premium white
 - SLM gen 6 crisp white
 - SLM gen 6 food

Benefits

- 5-year limited system warranty with over 50,000 hours lifetime¹

Applications

- Architectural lighting
- Retail spot lighting
- Recessed downlight

Drive Currents

Parameter	Nominal*	Life**	Max***	Unit
Fortimo SLM C 930 CW 1211 L19 2828 G6	1200	1500	1500	mA

Module Temperatures

Parameter	Nominal*	Life**	Max***	Unit
Tc (case temperature at Tc point)	85	85	95	°C

* Nominal value at which typical performance is specified

** Value at which life time is specified

*** Maximum value for safe operation, do not operate above this value

1. View limited warranty at <http://www.usa.lighting.philips.com/support/support/warranty> for details and restrictions.

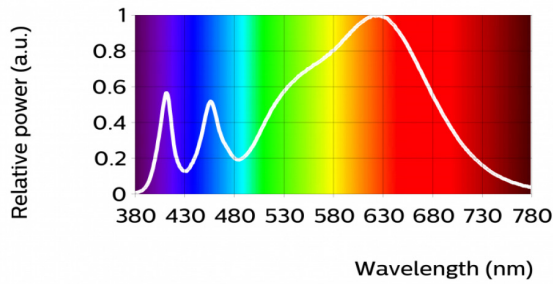
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Optical Characteristics – Table per CCT

Fortimo SLM C 930 CW 1211 L19 2828 G6				
Parameter	Min	Typ	Max	Unit
Luminous Flux	3700	4110	4520	lm
Module Efficiency		97		lm/W
Correlated Color Temperature (CCT)		3000		K
Color Coordinates (CIEx, CIEy)		(0.430, 0.395)		–
Color Consistency			3	SDCM
CRI	90	92		–

Measurement tolerances are: ±5% on flux, ±6% on efficiency, +0.005 on x,y, and ±1.5 on CRI.

Measurement precision for flux +/- 5%.
Measurement precision for efficacy +/- 6%.
Measurement precision for x, y +/- 0.005.
Measurement precision for CRI +/- 1.5.

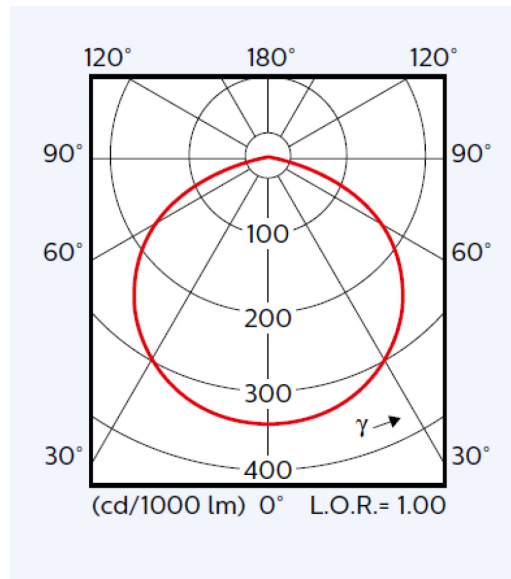


R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
91	93	93	90	90	91	92	83	83	82	89	79	92	95	

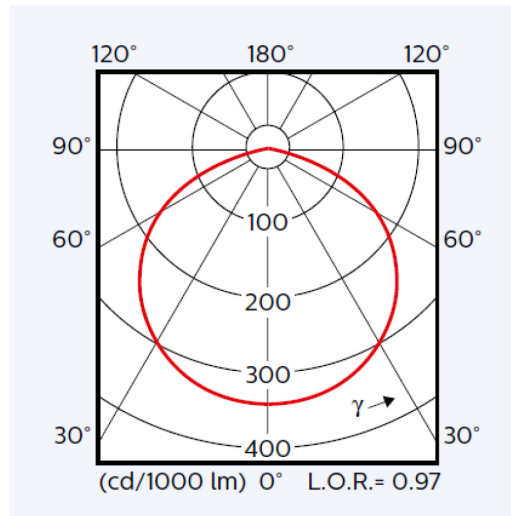
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Beam Shape

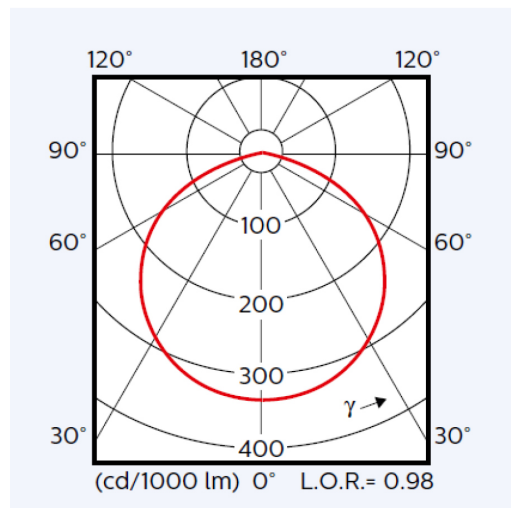
Bare CoB



CoB with a standard/downlight/Zhaga poke-in holder



CoB with a poke-in holder



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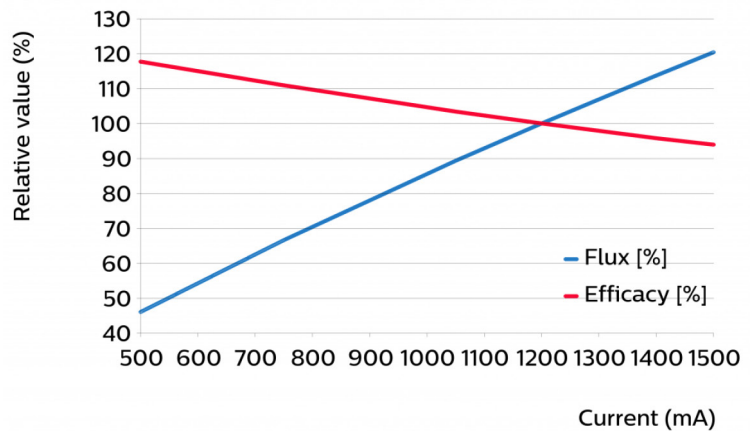
Parameter	Min	Typ	Max	Unit
Forward Voltage		35.3	37.8	V
Power Consumption		42.4	45.4	W
Thermal Power		27.2		W

Measurement precision for Vf +/- 3%. Measurement precision for power +/- 3.3%.

Tuning Information

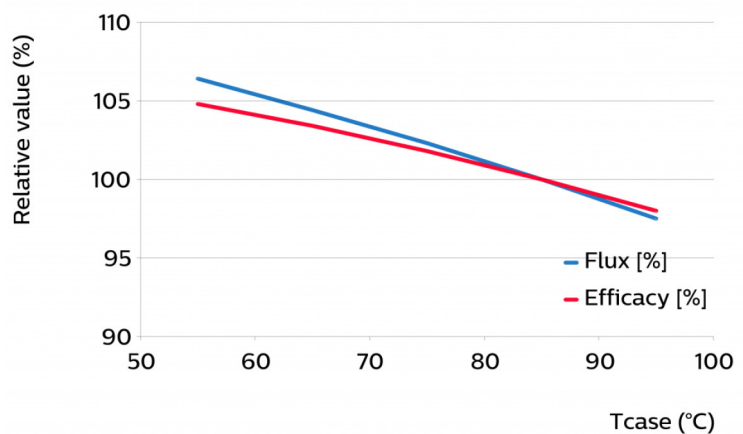
Flux and efficacy vs. current (at Tc nominal)

I [mA]	Flux [%]	Efficacy [%]
500	46	118
750	67	111
1050	89	103
1200	100	100
1300	107	98
1400	114	96
1500	120	94



Flux and efficacy vs. temperature at Tc (at I nominal)

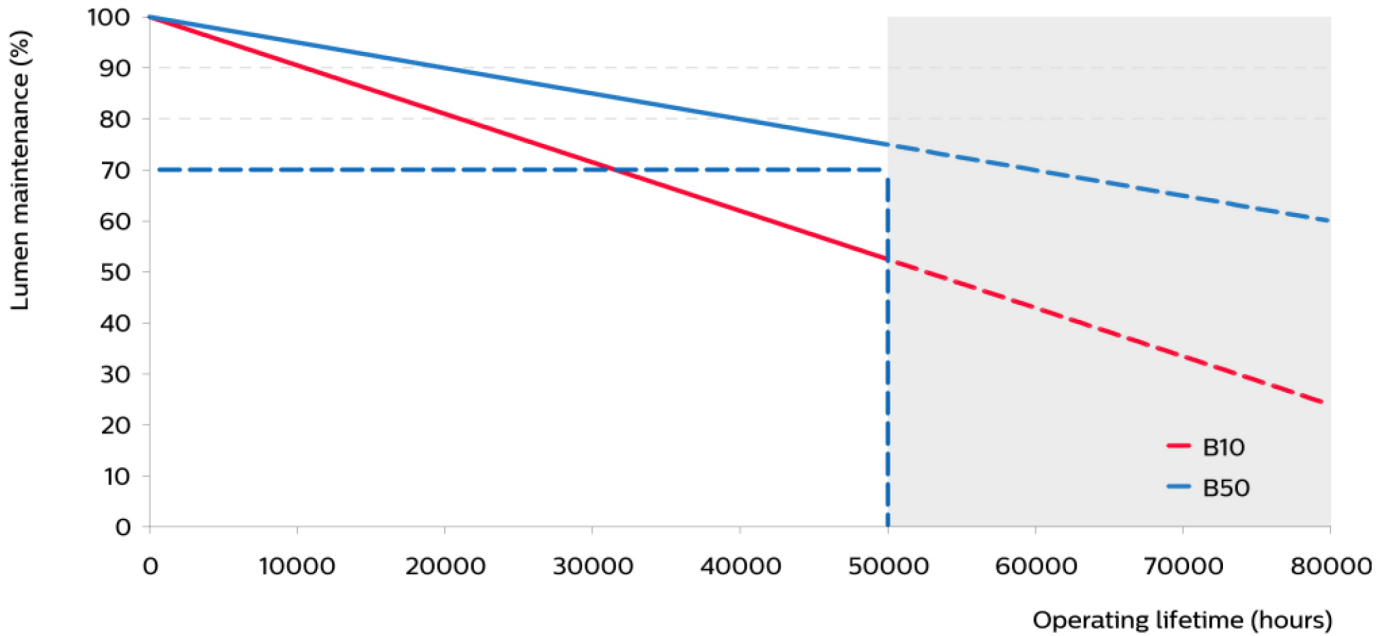
Tcase [°C]	Flux [%]	Efficacy [%]
55	106	105
65	104	103
75	102	102
85	100	100
95	98	98



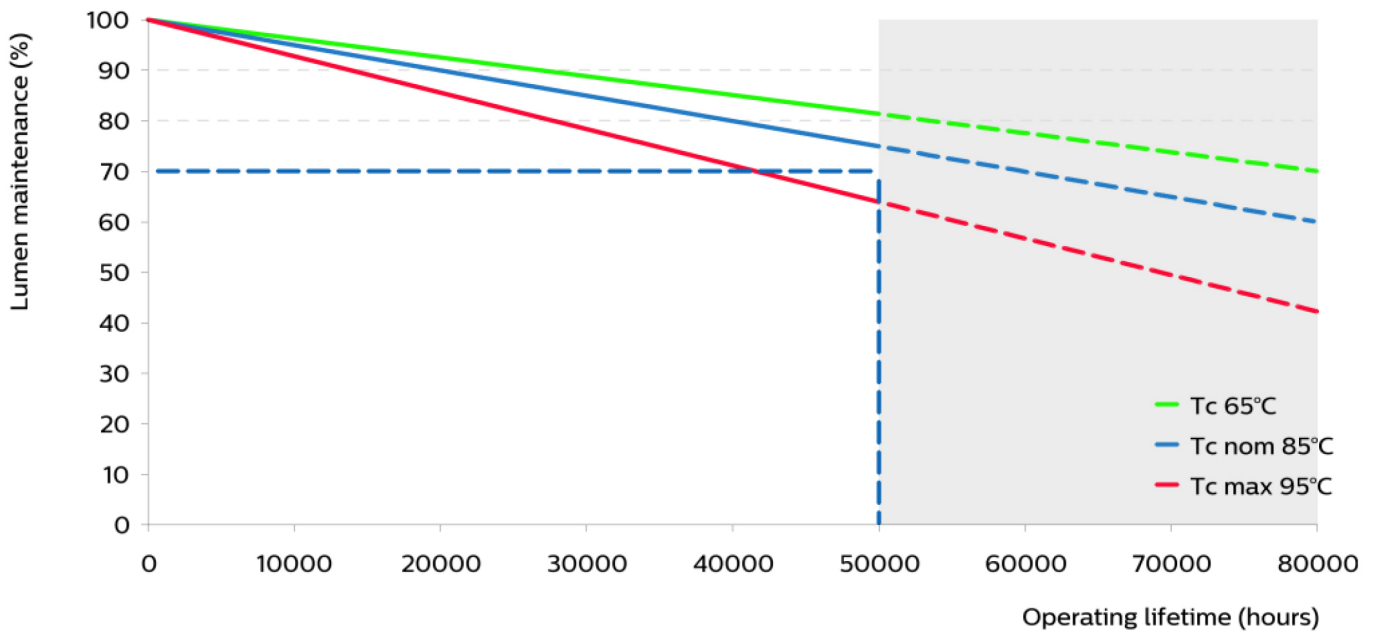
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Lumen Maintenance

Lumen maintenance at I-life and Tc-life conditions



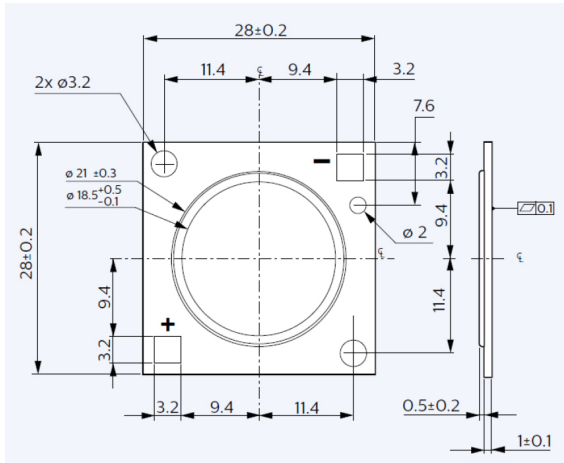
Lumen maintenance for B50 at current I-life conditions



Fortimo SLM crisp white 1211 L19 2828 G6

Mechanical Characteristics

Parameter	Min	Typ	Max	Unit
Length	27.8	28	28.2	mm
Width	27.8	28	28.2	mm
Height PCB	0.9	1	1.1	mm
Height including dam	1.2	1.5	1.8	mm



Absolute Ratings

Parameter	Min	Typ	Max	Unit
Current Through the LED Module (I-max)			1500	mA
Case Temperature (Tc-max)			95	°C
Power at Rated Vf-max and I-max			58.1	W
ESD Human Body Model (HBM) Class 3A JESD22-A114-E 8 kV			8	kV
ESD Machine Model (MM) Class B JESD22-A115-B			400	kV
Ambient Temperature	-20		40	°C
Storage Temperature	-40		80	°C

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Application Information

Environmental

RoHS/REACH

Certificates and standards

IEC 62031:2008 (First Edition) + A1:2012 + A2:2014

EN 62031:2008 + A1:2013 + A2:2015 without differences

Relevant clauses of IEC 62471:2006 (Incl. IEC/TR 62471-2: 2009 and IEC/TR 62778: 2014)

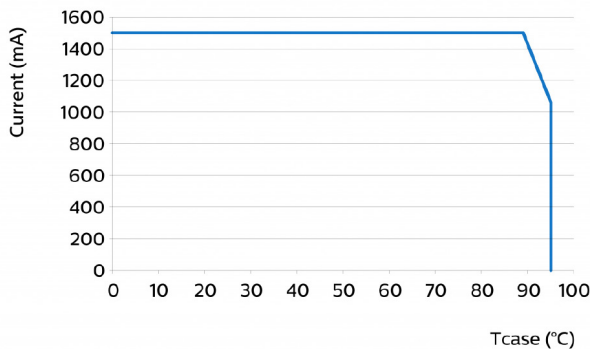
Relevant clauses of EN 62471:2008 (With IEC/TR 62471-2: 2009 and IEC/TR 62778: 2014)

Relevant clauses of IEC 60838-1:2004 + A1:2008 + A2:2011 with IEC 60838-2-2:2006 + A1:2012

Relevant clauses of EN 60838-1:2004 + A1:2008 + A2:2011 with EN 60838-2-2:2006 + A1:2012

Application	
IP Rating	No IP-rating
Overheating Protection	No
Luminaire Class	IEC Class I and Class II
Dimming	Yes

Warranty Window



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