

PHILIPS

Fortimo

LED

Fortimo LED SLM Food
1211 L19 2828 G6



Datasheet

Experience bright and vivid colors

Fortimo LED SLM Food 1211 L19 2828 G 6

Fortimo LED SLM Gen6 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.easydesignintool.com)

Key features and benefits

- Best quality of light available for all applications
- Extensive range of CCT's
- Small LES for narrow beam angles and small reflector designs
- Flexibility to select a different lumen output between 800 and 10000 lm
- State of the art Chip-on-Board (CoB) technology, enabling highest system efficacy
- System proposition (CoB + Holder + driver)
- Flexibility to optimize luminaire performance (lm/W or high lm output)
- Xitanium window drivers with SimpleSet for maximum flexibility
- Mini drivers for smallest possible luminaire designs
- Five years system warranty with over 50,000 hours lifetime
- Three dedicated product lines:
 - SLM Gen6 Premium White
 - SLM Gen6 CrispWhite
 - SLM Gen6 Food

December 2016

Ordering data

Commercial product name	EOC	12NC	Box quantity
Fortimo SLM C 925 FWW 1211 L19 2828 G6	8718696 646632 00	9290 014 52280	10
Fortimo SLM C 930 FPR 1211 L19 2828 G6	8718696 646656 00	9290 014 52580	10

Not all products are globally available by default.
Please contact your local Philips Lighting representative for local availability.

Drive currents

Parameter	Nominal*	Life**	Max***	Unit
Fortimo LED SLM Food 1211 L19 2828 G6	1200	1500	1500	mA

Module temperatures

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

* Nominal value at which typical performance is specified

** Value at which life time is specified

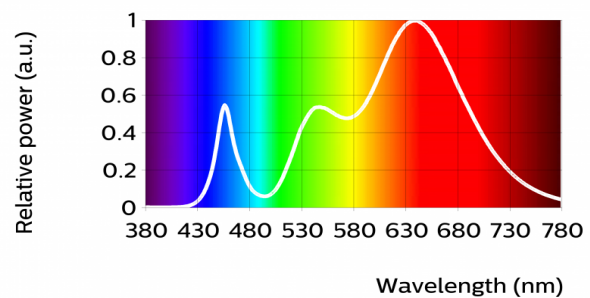
*** Maximum value for safe operation, do not operate above this value

Optical characteristics - table per color (CCT)

Fortimo SLM C 925 FWW 1211 L19 2828 G6

Parameter	Min	Typ	Max	Unit
Luminous flux	3120	3460	3810	lm
Module efficacy		84		lm/W
Color coordinates (CIEx, CIEy)		(0.457, 0.385)		-
Color consistency			3	SDCM
CRI		92		
Photobiological safety			RG1	
Energy efficiency label		A		

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



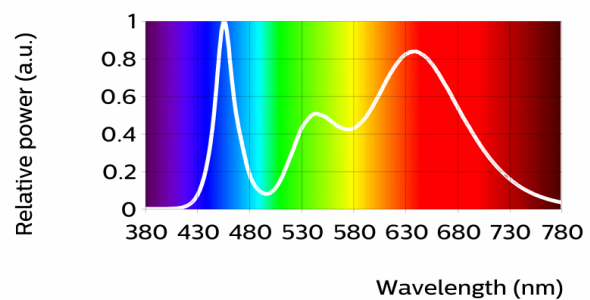
R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
94	97	83	93	99	94	95	92	88	89	91	77	94	87	

Fortimo SLM C 930 FPR 1211 L19 2828 G6

Parameter	Min	Typ	Max	Unit
Luminous flux	3250	3620	3980	lm
Module efficacy		85		lm/W
Color coordinates (CIEx, CIEy)		(0.397, 0.330)		-
Color consistency			3	SDCM
CRI		87		
Photobiological safety			RG1	
Energy efficiency label		A		

At currents higher than 1458 mA the module might be classified as RG2

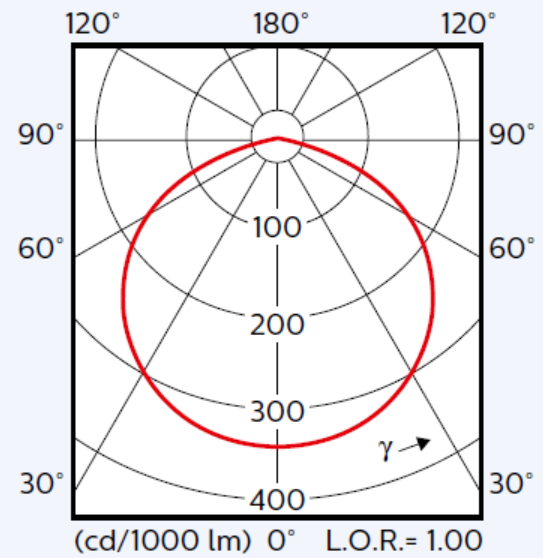
Measurement precision for flux +/- 5%. Measurement precision for efficacy +/- 6%. Measurement precision for x, y +/- 0.005. Measurement precision for CRI +/- 1.5



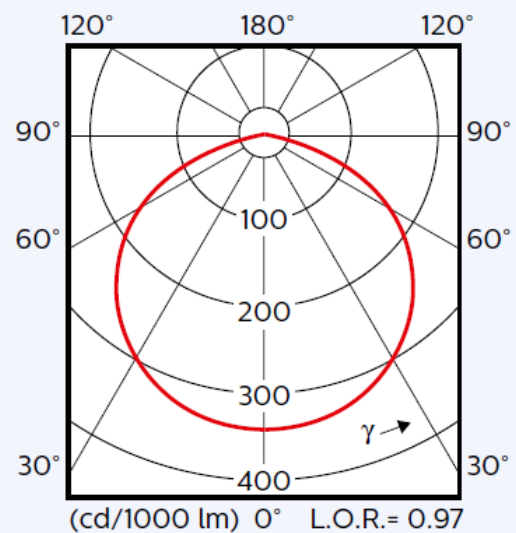
R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
83	89	87	91	88	88	96	80	51	89	90	74	83	89	

Beam shape

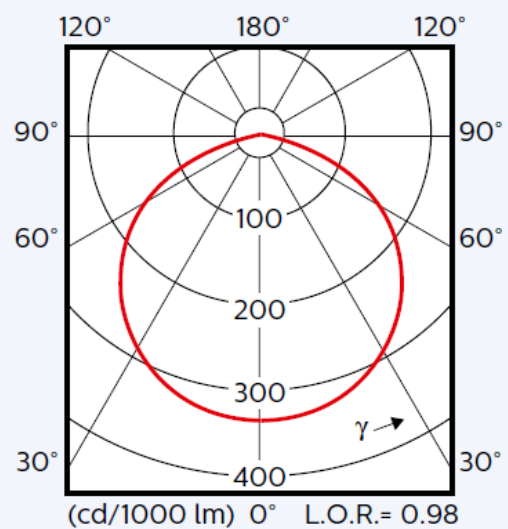
Bare CoB



CoB with a standard/ down-light/ Zhaga poke-in holder



CoB with a poke-in holder



Fortimo SLM C 925 FWW 1211 L19 2828 G6

Parameter	Min	Typ	Max	Unit
Forward voltage		34.7	37.2	V
Power consumption		41.6	44.6	W
Thermal power		27.4		W

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

Fortimo SLM C 930 FPR 1211 L19 2828 G6

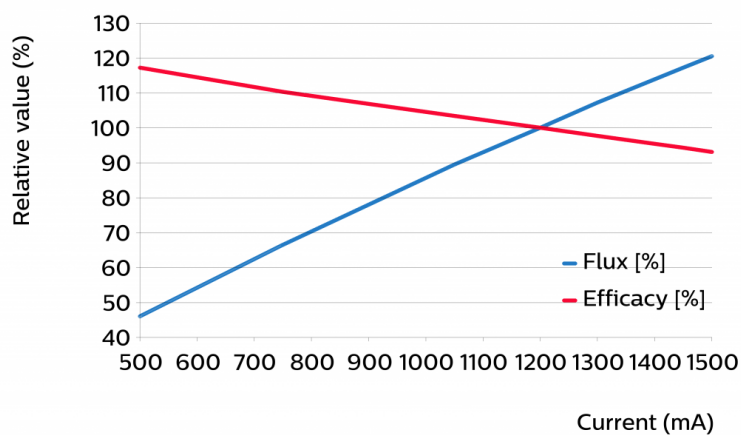
Parameter	Min	Typ	Max	Unit
Forward voltage		34.7	37.2	V
Power consumption		41.6	44.6	W
Thermal power		26.2		W

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

Tuning information

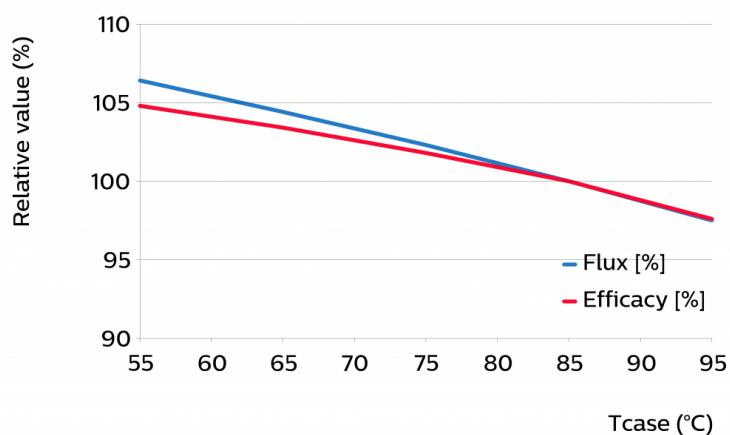
Flux and efficacy versus current (at Tc nominal)

I [mA]	Flux [%]	Efficacy [%]
500	46	117
750	67	110
1050	90	103
1200	100	100
1300	107	98
1400	114	95
1450	117	94
1500	121	93



Flux and efficacy versus 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



Lumen maintenance

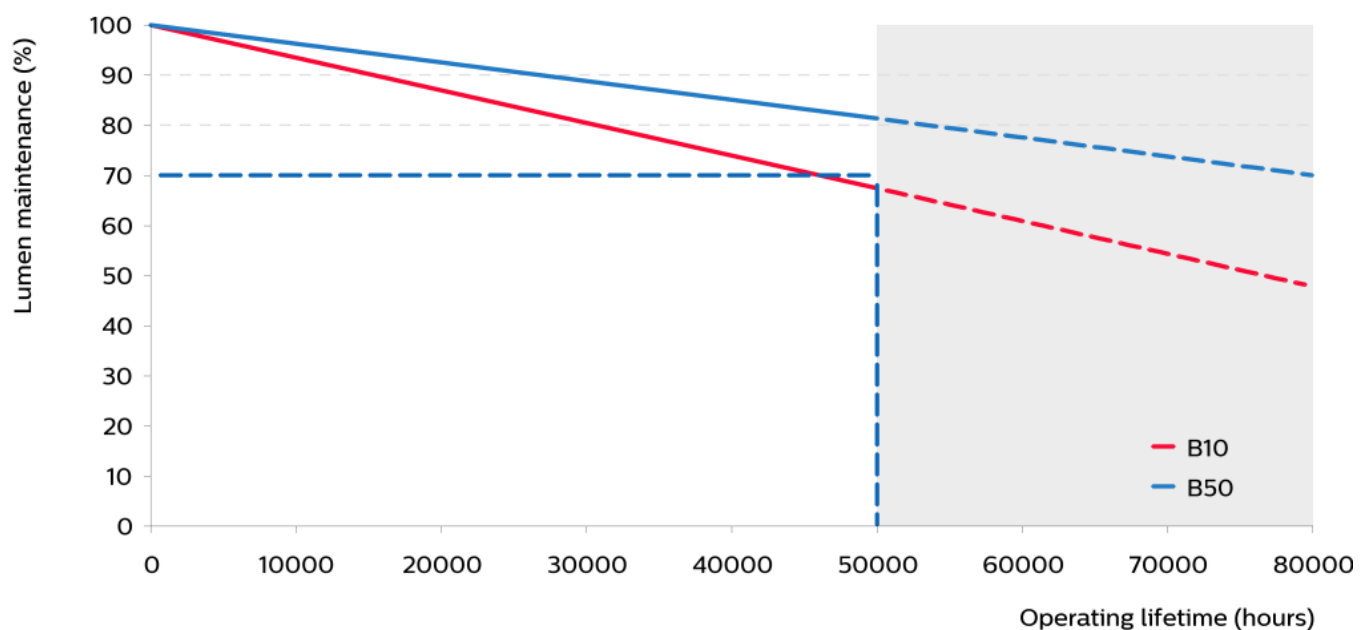
Operation point	Lumen maintenance x 1000 hours	L70			L80			L90		
		B50	B20	B10	B50	B20	B10	B50	B20	B10
80% I nom 960 mA	Tc 65 °C	>50	>50	>50	>50	>50	>50	>50	48	39
	Tc nom 85°C	>50	>50	>50	>50	46	37	33	21	17
	Tc max 95 °C	>50	>50	40	48	31	25	23	15	12
I nom 1200 mA	Tc 65 °C	>50	>50	>50	>50	>50	>50	>50	43	35
	Tc nom 85°C	>50	>50	>50	>50	41	33	30	19	16
	Tc max 95 °C	>50	50	36	43	28	23	20	13	11
I life 1500 mA	Tc 65 °C	>50	>50	>50	>50	>50	>50	>50	37	30
	Tc nom 85°C	>50	>50	>50	>50	36	29	26	17	14
	Tc max 95 °C	>50	40	32	38	25	20	18	12	9

Parameter	Value	Unit
C10 at Tc life	50000	hours

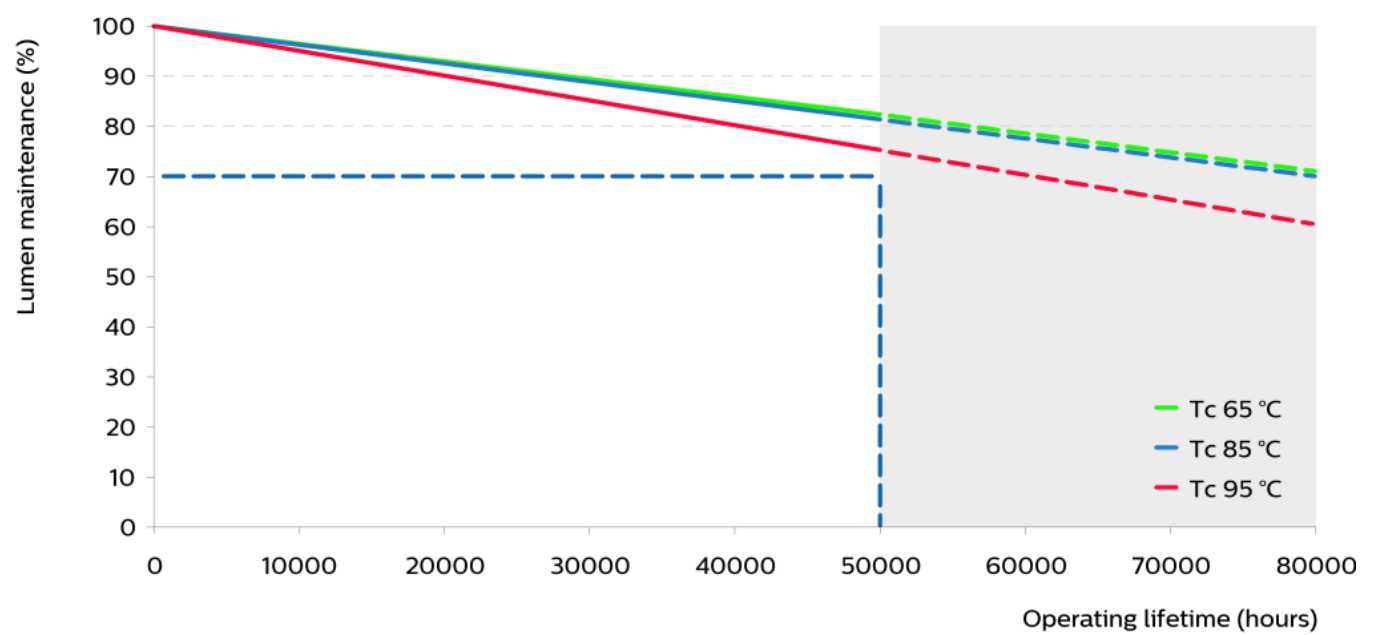
Please refer to the warranty window to ensure that your operating conditions are covered.
>50 k hours claim is based on extrapolating raw LM80-data by using statistical techniques.

Lumen maintenance graphs

Lumen maintenance at I-life and Tc-life conditions



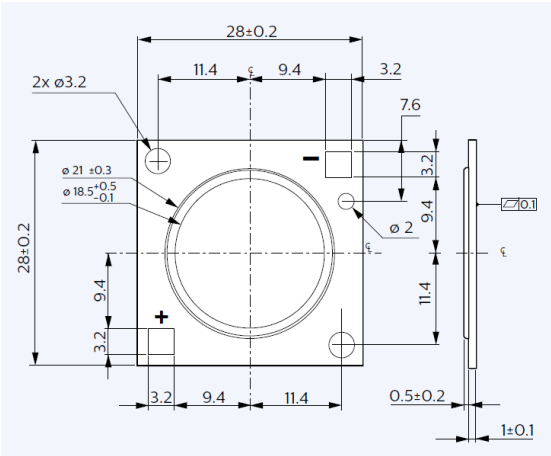
Lumen maintenance for B50 at current I-life conditions



Mechanical characteristics

Fortimo SLM C 925 FWW 1211 L19 2828 G6
Fortimo SLM C 930 FPR 1211 L19 2828 G6

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			57.3	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	V
Ambient temperature	-20		40	°C
Storage temperature	-40		80	°C

Application information

Certificates and Standards

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

EN 62031:2008 (First Edition) + A1:2013 + A2:2015

Relevant clauses of IEC 62471:2006 (Incl. 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 62471:2008 (With IEC/TR 62471-2: 2009 and IEC/TR 62778: 2014)

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

UL 8750

ENEC+

CE

Environmental

RoHS/REACH

Application

IP rating	No IP-rating
Overheating protection	No
Luminaire class	IEC Class I and Class II
Dimming	Yes

Warranty Window

