

PHILIPS

LED Modules

Fortimo SLM
Premium White

1203 L9 1619 G6



Philips Fortimo LED spotlight module (SLM) premium 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 830 PW 1203 L09 1619 G6	9290 014 55306	20
Fortimo SLM C 930 PW 1203 L09 1619 G6	9290 014 55406	20
Fortimo SLM C 935 PW 1203 L09 1619 G6	9290 014 55506	20
Fortimo SLM C 940 PW 1203 L09 1619 G6	9290 014 55606	20

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

Fortimo SLM premium white 1203 L9 1619 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 LED SLM PW 1203 L9 1619 G6	300	510	510	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.

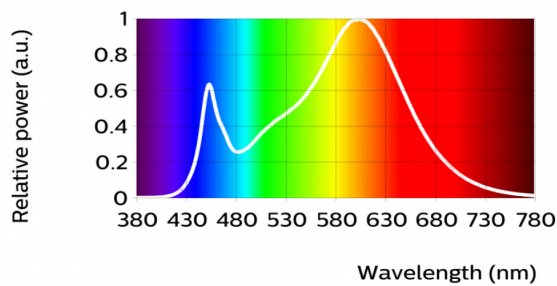
Fortimo SLM premium white 1203 L9 1619 G6

Optical Characteristics – Table per CCT

Fortimo SLM C 830 PW 1203 L09 1619 G6				
Parameter	Min	Typ	Max	Unit
Luminous Flux	1250	1390	1530	lm
Module Efficiency		133		lm/W
Correlated Color Temperature (CCT)		3000		K
Color Coordinates (CIEx, CIEy)		(0.422, 0.386)		–
Color Consistency			3	SDCM
CRI	80	82		–

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

Measurement precision for flux $\pm 5\%$.
Measurement precision for efficacy $\pm 6\%$.
Measurement precision for x, y ± 0.005 .
Measurement precision for CRI ± 1.5 .

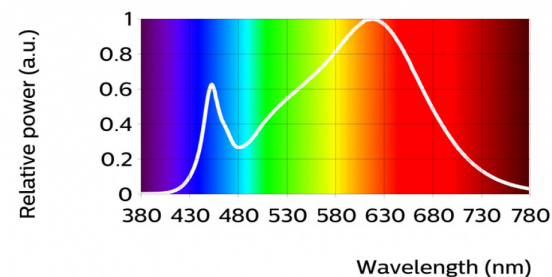


R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
83	95	92	80	84	93	80	58	10	88	79	79	86	96	

Fortimo SLM C 930 PW 1203 L09 1619 G6				
Parameter	Min	Typ	Max	Unit
Luminous Flux	1060	1170	1290	lm
Module Efficiency		113		lm/W
Correlated Color Temperature (CCT)		3000		K
Color Coordinates (CIEx, CIEy)		(0.422, 0.386)		–
Color Consistency			3	SDCM
CRI	90	92		–

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

Measurement precision for flux $\pm 5\%$.
Measurement precision for efficacy $\pm 6\%$.
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
93	97	97	91	93	95	90	80	58	93	91	83	95	99	

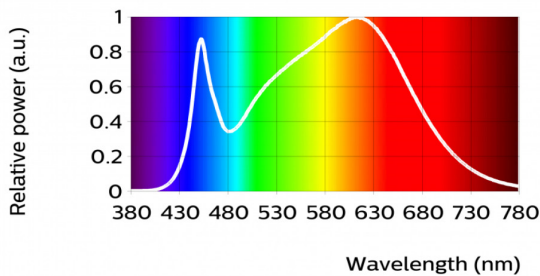
Fortimo SLM premium white 1203 L9 1619 G6

Optical Characteristics – Table per CCT

Fortimo SLM C 935 PW 1203 L09 1619 G6				
Parameter	Min	Typ	Max	Unit
Luminous Flux	1120	1240	1370	lm
Module Efficiency		119		lm/W
Correlated Color Temperature (CCT)		3500		K
Color Coordinates (CIEx, CIEy)		(0.398, 0.376)		–
Color Consistency			3	SDCM
CRI	90	92		–

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

Measurement precision for flux $\pm 5\%$.
Measurement precision for efficacy $\pm 6\%$.
Measurement precision for x, y ± 0.005 .
Measurement precision for CRI ± 1.5 .

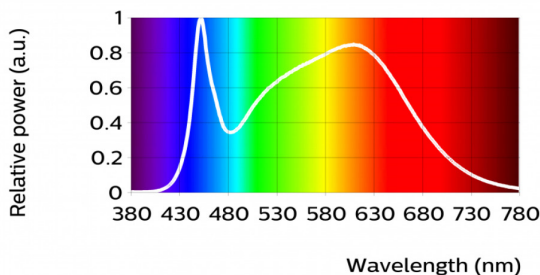


R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
93	96	97	91	92	93	92	82	59	89	91	77	94	98	

Fortimo SLM C 940 PW 1203 L09 1619 G6				
Parameter	Min	Typ	Max	Unit
Luminous Flux	1150	1270	1400	lm
Module Efficiency		122		lm/W
Correlated Color Temperature (CCT)		4000		K
Color Coordinates (CIEx, CIEy)		(0.422, 0.386)		–
Color Consistency			3	SDCM
CRI	90	92		–

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

Measurement precision for flux $\pm 5\%$.
Measurement precision for efficacy $\pm 6\%$.
Measurement precision for x, y ± 0.005 .
Measurement precision for CRI ± 1.5 .

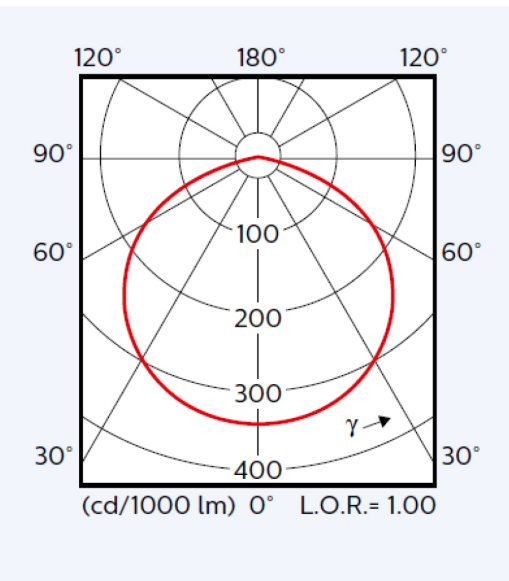


R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
92	96	96	91	92	92	92	83	60	88	90	72	94	97	

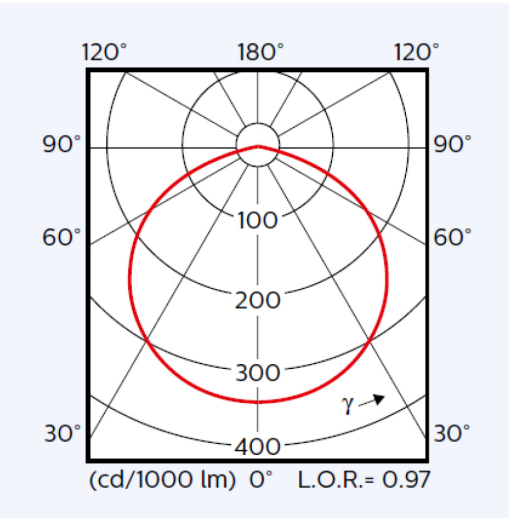
Fortimo SLM premium white 1203 L9 1619 G6

Beam Shape

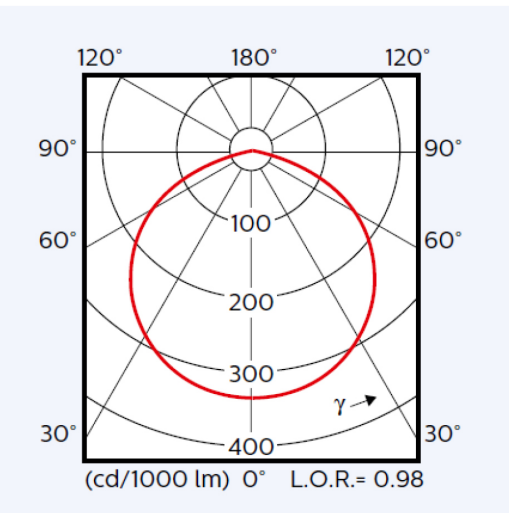
Bare CoB



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



CoB with a poke-in holder



Fortimo SLM premium white 1203 L9 1619 G6

Fortimo SLM C 830 PW 1203 L09 1619 G6

Fortimo SLM C 930 PW 1203 L09 1619 G6

Fortimo SLM C 935 PW 1203 L09 1619 G6

Fortimo SLM C 940 PW 1203 L09 1619 G6

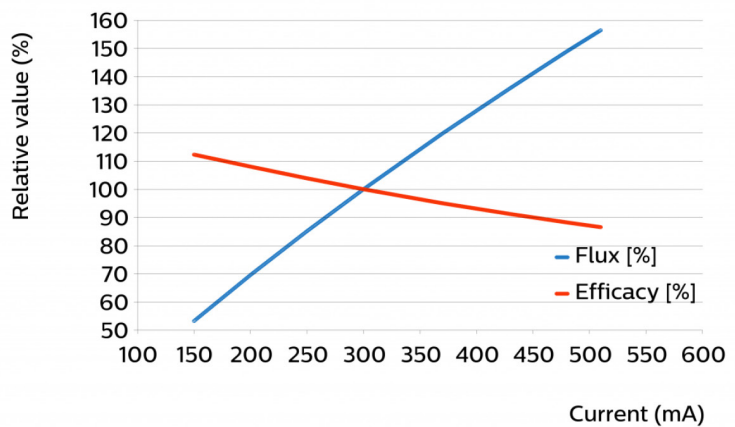
Parameter	Min	Typ	Max	Unit
Forward Voltage		34.7	37.2	V
Power Consumption		10.4	11.2	W
Thermal Power		6.3		W

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

Tuning Information

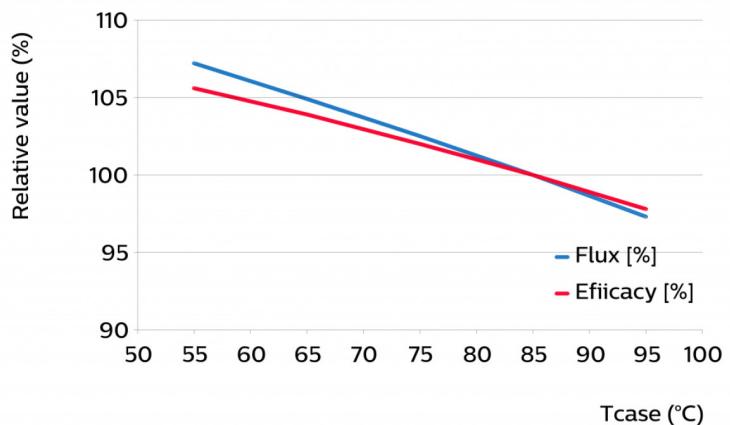
Flux and efficacy vs. current (at Tc nominal)

I [mA]	Flux [%]	Efficacy [%]
150	53	112
200	70	108
250	85	104
300	100	100
370	120	95
430	136	91
480	149	88
510	156	87



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

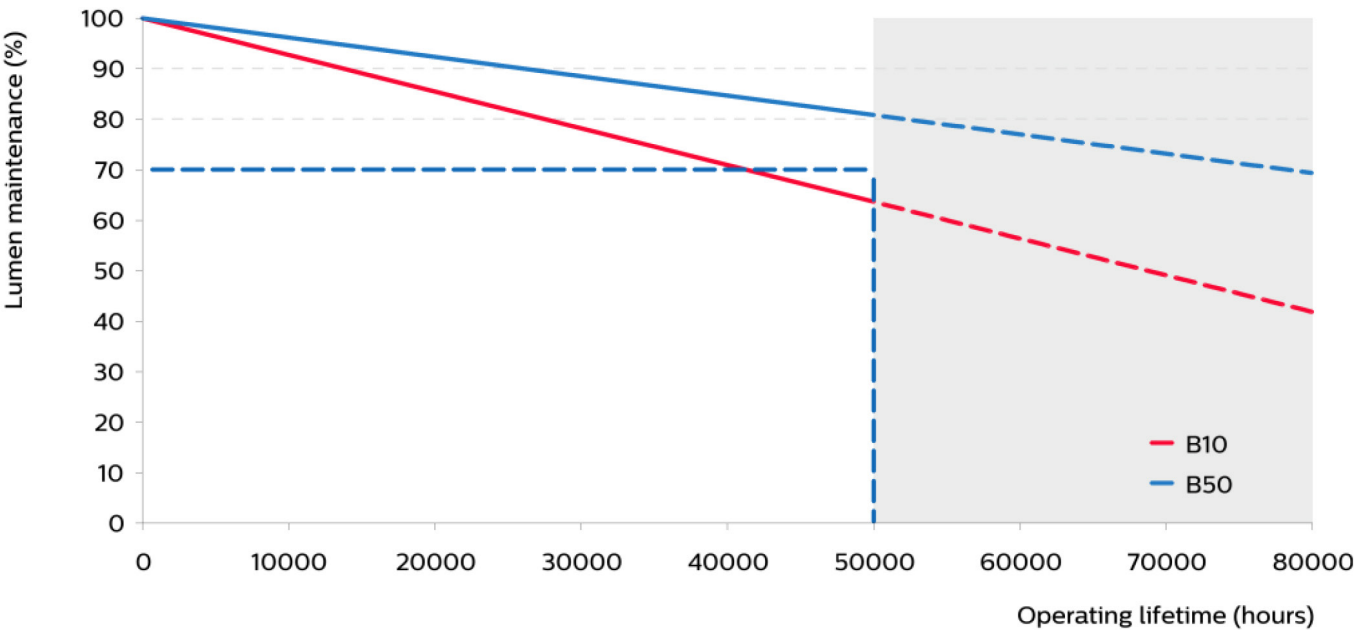
Tcase [°C]	Flux [%]	Efficacy [%]
55	107	106
65	105	104
75	103	102
85	100	100
95	97	98



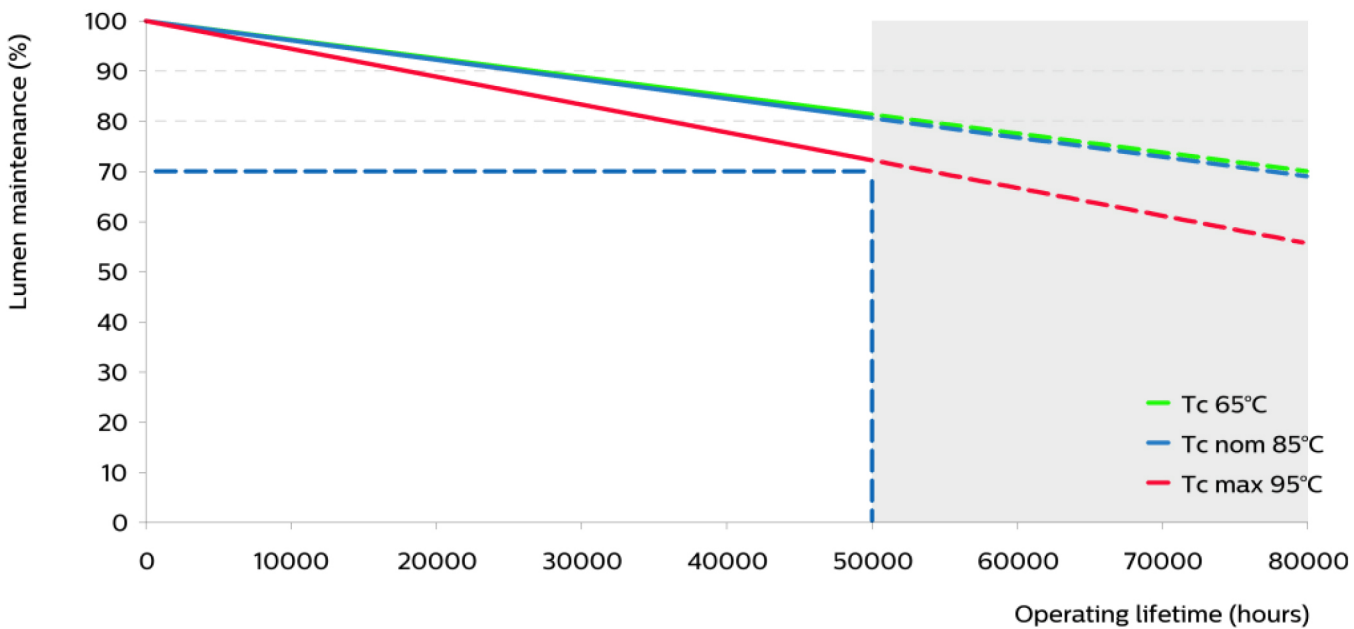
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Lumen Maintenance

Lumen maintenance at I-life and Tc-life conditions



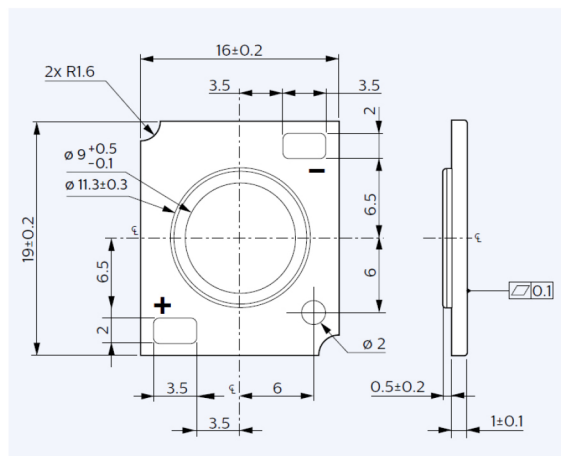
Lumen maintenance for B50 at current I-life conditions



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Mechanical Characteristics

Parameter	Min	Typ	Max	Unit
Length	18.8	19	19.2	mm
Width	15.8	16	16.2	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)			510	mA
Case Temperature (Tc-max)			95	°C
Power at Rated Vf-max and I-max			20.1	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)

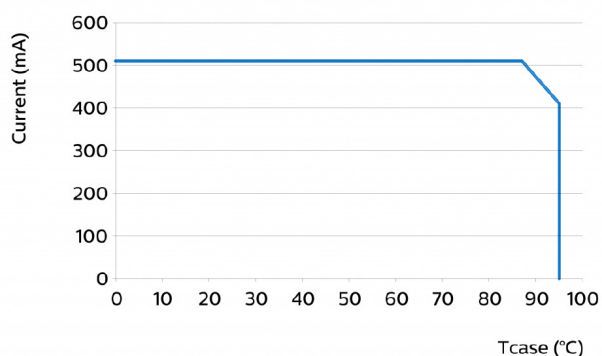
Relevant clauses of EN 62471:2008 (With IEC/TR 62471-2: 2009 and IEC/TR 62778: 2014)

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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