PHILIPS

Fortimo

LED

Fortimo SLM PW
1208 L15 2024 G7

Datasheet

Experience bright and vivid colors

Fortimo LED SLM PW 1208 L15 2024 G7

Fortimo LED SLM Gen7 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 CCTs
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
Instant full light

March 2018

Ordering data

Commercial product name	EOC	12NC	Box quantity
Fortimo SLM C 830 PW 1208 L15 2024 G7	8718699 590291 00	9290 015 90606	20
Fortimo SLM C 930 PW 1208 L15 2024 G7	8718699 590321 00	9290 015 90706	20
Fortimo SLM C 935 PW 1208 L15 2024 G7	8718699 590352 00	9290 015 90806	20
Fortimo SLM C 940 PW 1208 L15 2024 G7	8718699 590383 00	9290 015 90906	20

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

Drive currents

Parameter	Nominal*	Life**	Max***	Unit
Fortimo SLM PW 1208 L15 2024 G7	750	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

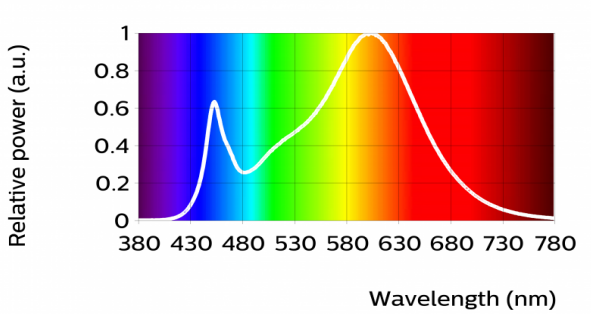
Optical characteristics - table per color (CCT)

Fortimo SLM C 830 PW 1208 L15 2024 G7

Parameter	Min	Typ	Max	Unit
Luminous flux	3456	3840	4224	lm
Module efficacy	136	151		lm/W
Correlated color temperature (CCT)		3000		K
Color coordinates (CIEx, CIEy)		(0.422, 0.386)		-
Color consistency			3	SDCM
CRI	80	82		
Photobiological safety			RG1 unlimited	
Energy efficiency label		A++		

At currents higher than 1237 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

Operation point	830	lm	lm/W
80% I-nom 600mA	Tc 25 °C	3434	165
	Tc-nom 85 °C	3154	158
	Tc-max 95 °C	3105	157
I-nom 750mA	Tc 25 °C	4207	159
	Tc-nom 85 °C	3840	151
	Tc-max 95 °C	3776	149
I-life 1500mA	Tc 25 °C	7592	132
	Tc-nom 85 °C	6820	123
	Tc-max 95 °C	6684	122



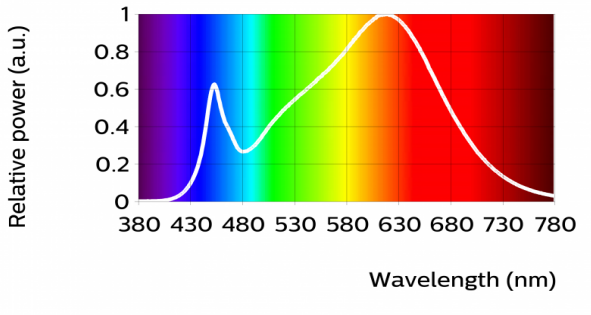
R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14
83	95	92	80	84	93	80	58	10	88	79	79	86	96

Fortimo SLM C 930 PW 1208 L15 2024 G7

Parameter	Min	Typ	Max	Unit
Luminous flux	2943	3270	3597	lm
Module efficacy	116	129		lm/W
Correlated color temperature (CCT)		3000		K
Color coordinates (CIEx, CIEy)		(0.422, 0.386)		-
Color consistency			3	SDCM
CRI	90	92		
Photobiological safety			RG1 unlimited	
Energy efficiency label		A++		

At currents higher than 1453 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

Operation point	930	lm	lm/W
80% I-nom 600mA	Tc 25 °C	2925	141
	Tc-nom 85 °C	2687	135
	Tc-max 95 °C	2645	133
I-nom 750mA	Tc 25 °C	3583	135
	Tc-nom 85 °C	3270	129
	Tc-max 95 °C	3215	127
I-life 1500mA	Tc 25 °C	6461	113
	Tc-nom 85 °C	5803	105
	Tc-max 95 °C	5688	103



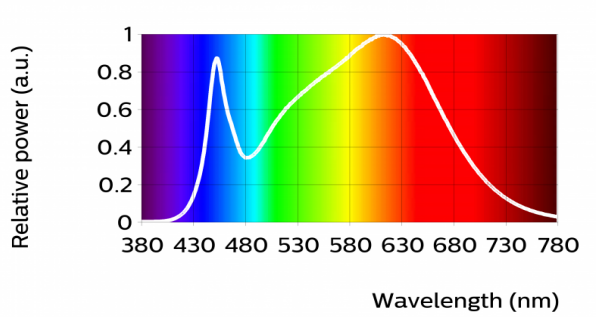
R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14
93	97	97	91	93	95	90	80	58	93	91	83	95	99

Fortimo SLM C 935 PW 1208 L15 2024 G7

Parameter	Min	Typ	Max	Unit
Luminous flux	3096	3440	3784	lm
Module efficacy	122	135		lm/W
Correlated color temperature (CCT)		3500		K
Color coordinates (CIEx, CIEy)		(0.398, 0.376)		-
Color consistency			3	SDCM
CRI	90	92		
Photobiological safety			RG1 unlimited	
Energy efficiency label		A++		

At currents higher than 1143 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

Operation point	935	lm	lm/W
80% I-nom 600mA	Tc 25 °C	3077	148
	Tc-nom 85 °C	2826	142
	Tc-max 95 °C	2782	140
I-nom 750mA	Tc 25 °C	3769	142
	Tc-nom 85 °C	3440	135
	Tc-max 95 °C	3383	134
I-life 1500mA	Tc 25 °C	6800	119
	Tc-nom 85 °C	6107	110
	Tc-max 95 °C	5986	109



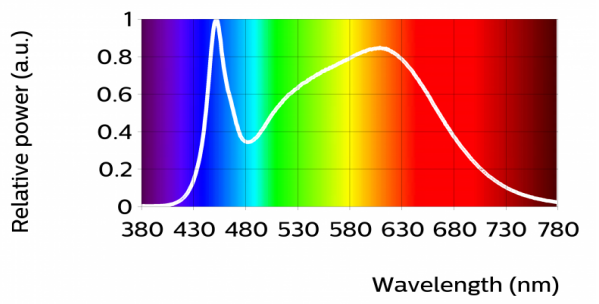
R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14
93	96	97	91	92	93	92	82	59	89	91	77	94	98

Fortimo SLM C 940 PW 1208 L15 2024 G7

Parameter	Min	Typ	Max	Unit
Luminous flux	3177	3530	3883	lm
Module efficacy	125	139		lm/W
Correlated color temperature (CCT)		4000		K
Color coordinates (CIEx, CIEy)		(0.374, 0.364)		-
Color consistency			3	SDCM
CRI	90	92		
Photobiological safety			RG1 unlimited	
Energy efficiency label		A++		

At currents higher than 930 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

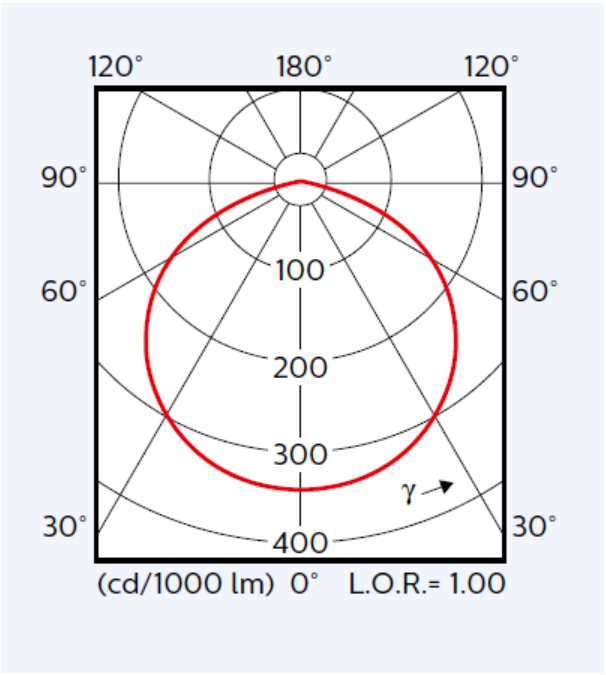
Operation point	940	lm	lm/W
80% I-nom 600mA	Tc 25 °C	3157	152
	Tc-nom 85 °C	2900	145
	Tc-max 95 °C	2855	144
I-nom 750mA	Tc 25 °C	3867	146
	Tc-nom 85 °C	3530	139
	Tc-max 95 °C	3471	137
I-life 1500mA	Tc 25 °C	6980	122
	Tc-nom 85 °C	6269	113
	Tc-max 95 °C	6145	112



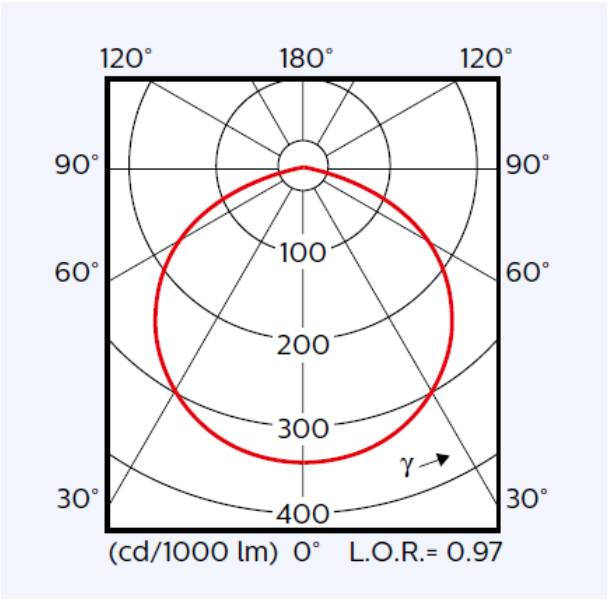
R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14
92	96	96	91	92	92	92	83	60	88	90	72	94	97

Beam shape

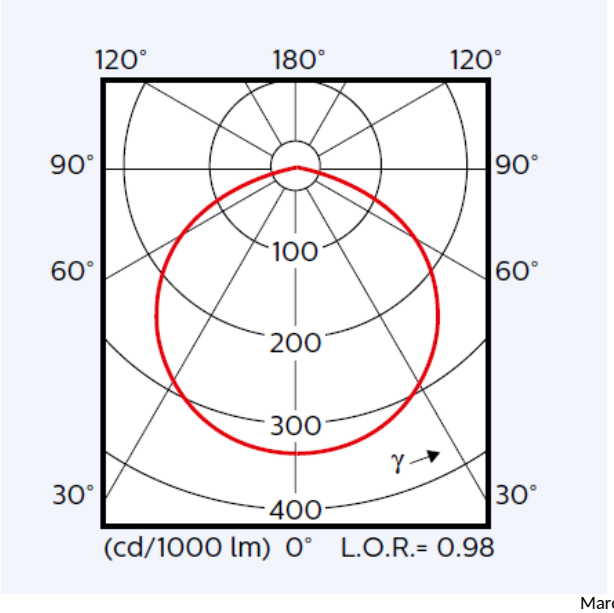
Bare CoB



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



CoB with a poke-in holder



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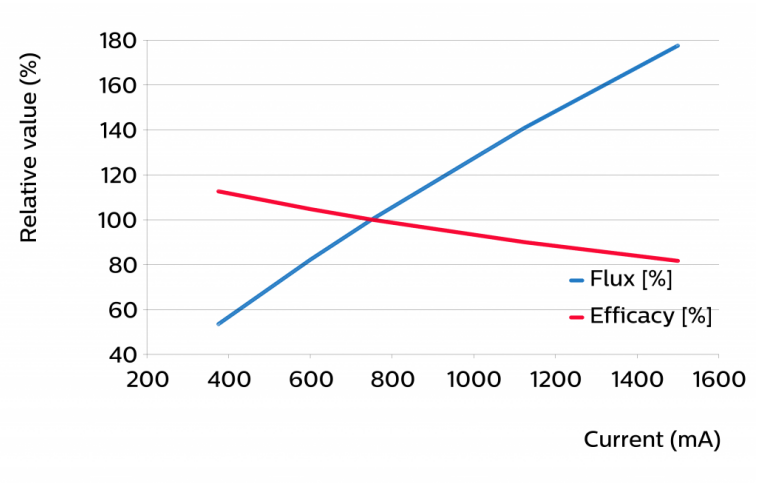
Fortimo SLM C 940 PW 1208 L15 2024 G7

Parameter	Min	Typ	Max	Unit
Forward voltage	31.6	33.9	36.6	V
Power consumption	23.7	25.4	27.5	W

Tuning information

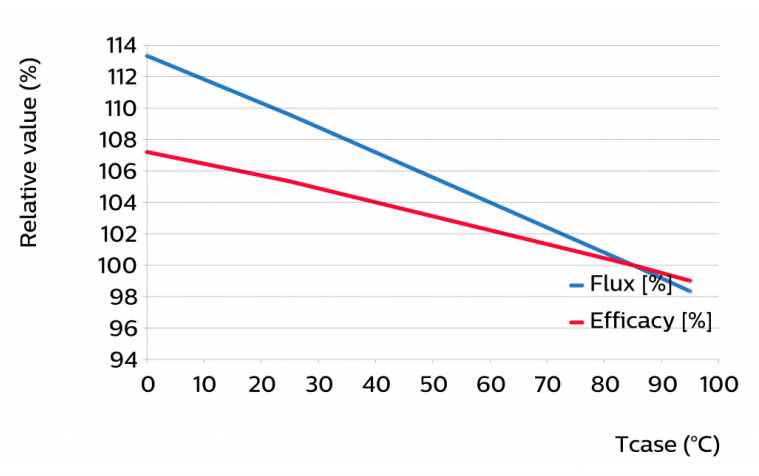
Flux and efficacy versus current (at Tc nominal)

I [mA]	Flux [%]	Efficacy [%]
1500	177	82
1125	141	90
750	100	100
600	82	105
375	54	113



Flux and efficacy versus temperature at Tc (at I nominal)

Tcase [°C]	Flux [%]	Efficacy [%]
95	98	99
85	100	100
25	110	105
0	113	107



Lumen maintenance

Operation point	Lumen maintenance	L70			L80			L90		
	x 1000 hours	B50	B20	B10	B50	B20	B10	B50	B20	B10
80% Inom 600 mA	Tc 65°C	>50	>50	>50	>50	>50	>50	>50	>50	40
	Tc nom 85°C	>50	>50	>50	>50	47	38	34	22	18
	Tc max 95°C	>50	>50	41	49	32	26	23	15	12
Inom 750 mA	Tc 65°C	>50	>50	>50	>50	>50	>50	>50	45	36
	Tc nom 85°C	>50	>50	>50	>50	43	34	31	20	16
	Tc max 95°C	>50	47	38	45	29	24	21	14	11
Ilife 1500 mA	Tc 65°C	>50	>50	>50	>50	>50	42	37	24	20
	Tc nom 85°C	>50	39	31	37	24	20	18	12	9
	Tc max 95°C	42	27	22	26	17	14	12	8	7

Lifetime

Parameter	Value	Unit
C10 at Tc life	50000	hours

Please refer to the performance window to ensure that your operating conditions are covered.
>50 k hours claim is based on extrapolating raw LM80-data by using statistical techniques.
Switching cycles in accordance to EU 1194/2012: >15000.

Mechanical characteristics

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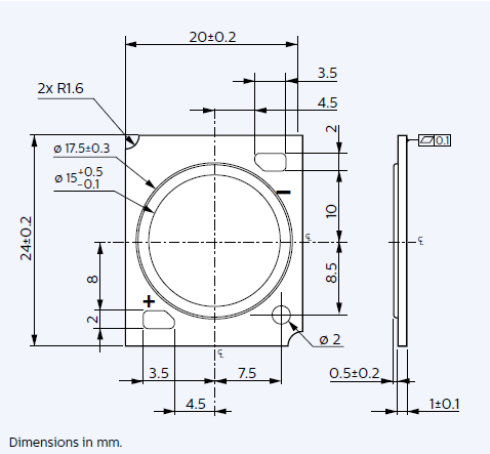
Fortimo SLM C 940 PW 1208 L15 2024 G7

Parameter	Min	Typ	Max	Unit
Length	23.8	24	24.2	mm
Width	19.8	20	20.2	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			59.4	W
ESD (direct contact)			8	kV
Ambient temperature	-20		40	°C
Storage temperature	-40		80	°C

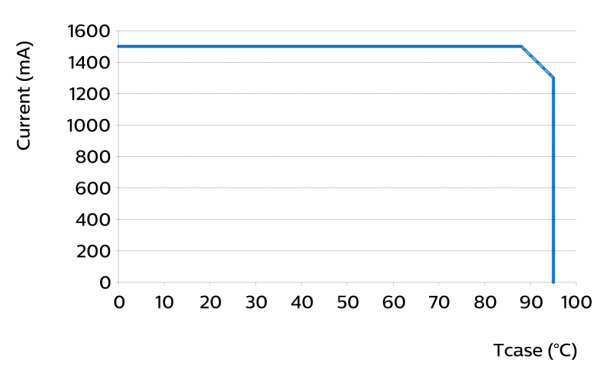
Application information

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

Performance Window



03/2018

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