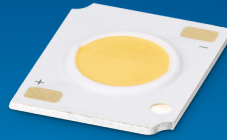


PHILIPS

Fortimo

LED

Fortimo SLM 1202
L06 1215 G7



Datasheet

Experience bright and vivid colors

Fortimo LED SLM 1202 L06 1215 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

August 2018

Ordering data

Commercial product name	EOC	12NC	Box quantity
Fortimo SLM C 827 1202 L06 1215 G7	8718696 844519 00	9290 015 81806	20
Fortimo SLM C 830 1202 L06 1215 G7	8718696 844540 00	9290 015 81906	20
Fortimo SLM C 835 1202 L06 1215 G7	8718696 844571 00	9290 015 82006	20
Fortimo SLM C 840 1202 L06 1215 G7	8718696 844625 00	9290 015 82106	20
Fortimo SLM C 927 1202 L06 1215 G7	8718696 844656 00	9290 015 82406	20
Fortimo SLM C 930 1202 L06 1215 G7	8718696 844700 00	9290 015 82506	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 1202 L06 1215 G7	200	450	540	mA

Module temperatures

Parameter	Nominal*	Life**	Max***	Unit
T _c (case temperature at T _c point)	85	75	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

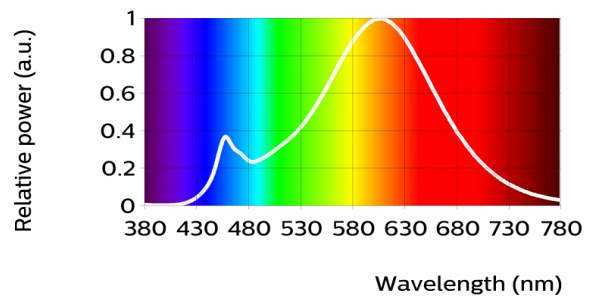
Optical characteristics - table per color (CCT)

Fortimo SLM C 827 1202 L06 1215 G7

Parameter	Min	Typ	Max	Unit
Luminous flux	756	840	924	lm
Module efficacy	109	121		lm/W
Correlated color temperature (CCT)		2700		K
Color coordinates (CIEx, CIEy)		(0.458, 0.410)		-
Color consistency			3	SDCM
CRI	80	82		
Photobiological safety			RG1 unlimited	
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

Operation point	827	lm	lm/W
80% I-nom 160mA	Tc 25 °C	754	135
	Tc-nom 85 °C	691	127
	Tc-max 95 °C	681	126
I-nom 200mA	Tc 25 °C	930	131
	Tc-nom 85 °C	840	121
	Tc-max 95 °C	825	120
I-life 450mA	Tc 25 °C	1814	103
	Tc-nom 85 °C	1577	92
	Tc-max 95 °C	1538	90



R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14
79	92	94	76	79	90	82	59	12	82	72	73	82	97

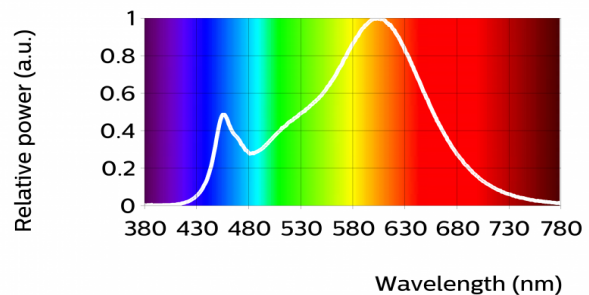
Fortimo SLM C 830 1202 L06 1215 G7

Parameter	Min	Typ	Max	Unit
Luminous flux	801	890	979	lm
Module efficacy	116	129		lm/W
Correlated color temperature (CCT)		3000		K
Color coordinates (CIEx, CIEy)		(0.434, 0.403)		-
Color consistency			3	SDCM
CRI	80	82		
Photobiological safety			RG1 unlimited	
Energy efficiency label		A+		

At currents higher than 533 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 160mA	Tc 25 °C	799	143
	Tc-nom 85 °C	732	134
	Tc-max 95 °C	721	133
I-nom 200mA	Tc 25 °C	986	138
	Tc-nom 85 °C	890	129
	Tc-max 95 °C	874	127
I-life 450mA	Tc 25 °C	1923	110
	Tc-nom 85 °C	1672	98
	Tc-max 95 °C	1631	96



R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14
83	94	93	80	84	94	81	59	12	87	80	76	86	97

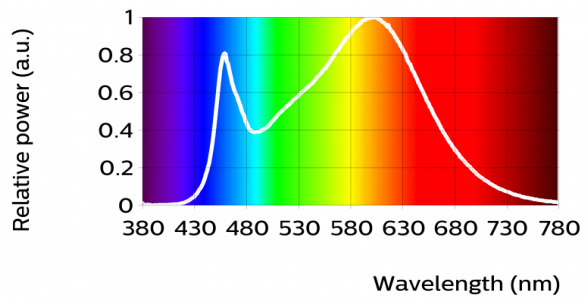
Fortimo SLM C 835 1202 L06 1215 G7

Parameter	Min	Typ	Max	Unit
Luminous flux	837	930	1023	lm
Module efficacy	121	134		lm/W
Correlated color temperature (CCT)		3500		K
Color coordinates (CIEx, CIEy)		(0.407, 0.392)		-
Color consistency			3	SDCM
CRI	80	82		
Photobiological safety			RG1 unlimited	
Energy efficiency label		A+		

At currents higher than 412 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	835	lm	lm/W
80% I-nom 160mA	Tc 25 °C	834	149
	Tc-nom 85 °C	765	140
	Tc-max 95 °C	753	139
I-nom 200mA	Tc 25 °C	1030	145
	Tc-nom 85 °C	930	134
	Tc-max 95 °C	913	132
I-life 450mA	Tc 25 °C	2012	115
	Tc-nom 85 °C	1749	102
	Tc-max 95 °C	1706	100



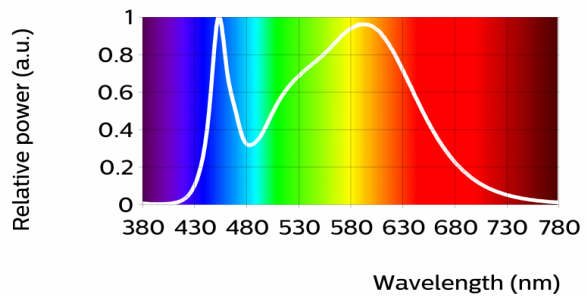
R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14
86	96	93	80	85	94	83	65	22	90	79	70	89	97

Fortimo SLM C 840 1202 L06 1215 G7

Parameter	Min	Typ	Max	Unit
Luminous flux	864	960	1056	lm
Module efficacy	125	139		lm/W
Correlated color temperature (CCT)		4000		K
Color coordinates (CIEx, CIEy)		(0.382, 0.380)		-
Color consistency			3	SDCM
CRI	80	82		
Photobiological safety			RG2	
Ethr			1836	lux
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

Operation point	840	lm	lm/W
80% I-nom 160mA	Tc 25 °C	861	154
	Tc-nom 85 °C	790	145
	Tc-max 95 °C	778	143
I-nom 200mA	Tc 25 °C	1063	149
	Tc-nom 85 °C	960	139
	Tc-max 95 °C	943	137
I-life 450mA	Tc 25 °C	2077	118
	Tc-nom 85 °C	1806	105
	Tc-max 95 °C	1761	103



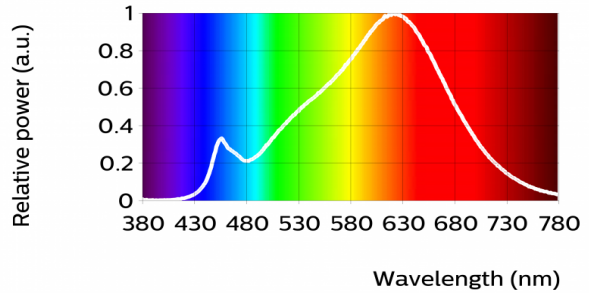
R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14
84	96	91	77	83	93	81	62	13	90	77	67	88	96

Fortimo SLM C 927 1202 L06 1215 G7

Parameter	Min	Typ	Max	Unit
Luminous flux	639	710	781	lm
Module efficacy	92	103		lm/W
Correlated color temperature (CCT)		2700		K
Color coordinates (CIEx, CIEy)		(0.458, 0.410)		-
Color consistency			3	SDCM
CRI	90	92		
Photobiological safety			RG1 unlimited	
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

Operation point	927	lm	lm/W
80% I-nom 160mA	Tc 25 °C	637	114
	Tc-nom 85 °C	584	107
	Tc-max 95 °C	575	106
I-nom 200mA	Tc 25 °C	786	111
	Tc-nom 85 °C	710	103
	Tc-max 95 °C	697	101
I-life 450mA	Tc 25 °C	1532	87
	Tc-nom 85 °C	1332	78
	Tc-max 95 °C	1299	76



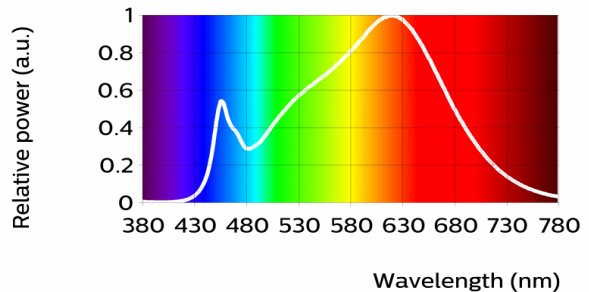
R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14
92	98	98	92	93	97	91	81	60	94	93	83	95	100

Fortimo SLM C 930 1202 L06 1215 G7

Parameter	Min	Typ	Max	Unit
Luminous flux	684	760	836	lm
Module efficacy	99	110		lm/W
Correlated color temperature (CCT)		3000		K
Color coordinates (CIEx, CIEy)		(0.434, 0.403)		-
Color consistency			3	SDCM
CRI	90	92		
Photobiological safety			RG1 unlimited	
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

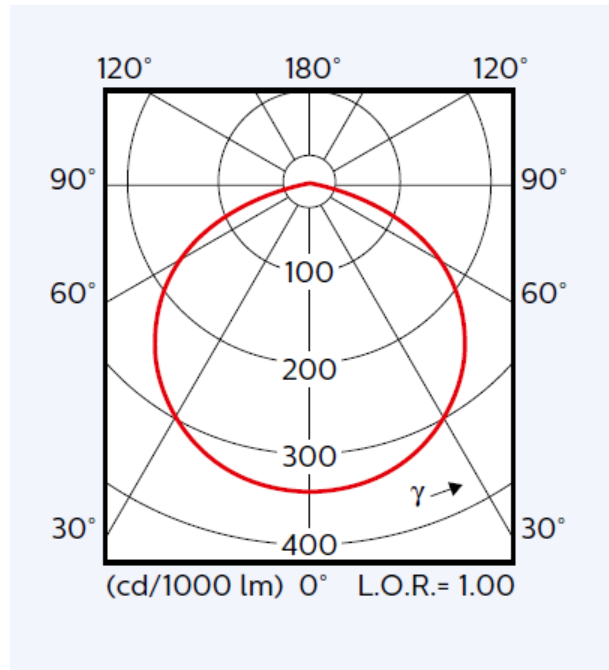
Operation point	930	lm	lm/W
80% I-nom 160mA	Tc 25 °C	682	122
	Tc-nom 85 °C	625	115
	Tc-max 95 °C	616	114
I-nom 200mA	Tc 25 °C	842	118
	Tc-nom 85 °C	760	110
	Tc-max 95 °C	746	108
I-life 450mA	Tc 25 °C	1641	94
	Tc-nom 85 °C	1427	83
	Tc-max 95 °C	1392	82



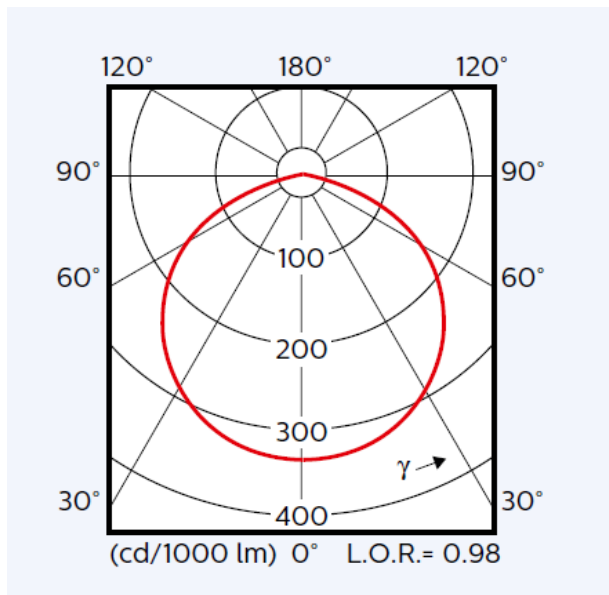
R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14
94	98	99	92	93	96	91	83	62	94	92	79	95	99

Beam shape

Bare CoB



CoB with a poke-in holder



Electrical characteristics

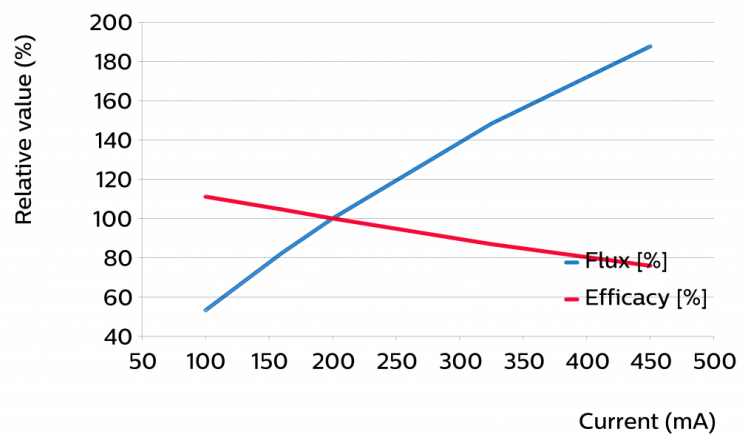
[Fortimo SLM C 827 1202 L06 1215 G7](#)
[Fortimo SLM C 830 1202 L06 1215 G7](#)
[Fortimo SLM C 835 1202 L06 1215 G7](#)
[Fortimo SLM C 840 1202 L06 1215 G7](#)
[Fortimo SLM C 927 1202 L06 1215 G7](#)
[Fortimo SLM C 930 1202 L06 1215 G7](#)

Parameter	Min	Typ	Max	Unit
Forward voltage	32.1	34.6	37.1	V
Power consumption	6.4	6.9	7.4	W
Number of modules in series per chain			1	
Number of modules in parallel per chain			1	

Tuning information

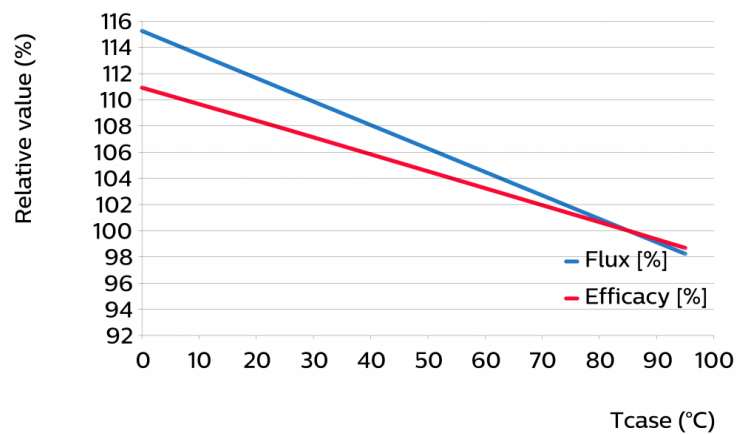
Flux and efficacy versus current (at Tc nominal)

I [mA]	Flux [%]	Efficacy [%]
450	188	76
325	148	87
200	100	100
160	82	105
100	53	111



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

Tcase [°C]	Flux [%]	Efficacy [%]
95	98	99
85	100	100
25	111	108
0	115	111



Lumen maintenance

Operation point	Lumen maintenance x 1000 hours	L70			L80			L90		
		B50	B20	B10	B50	B20	B10	B50	B20	B10
80% I-nom 160mA	Tc 75°C	>50	>50	>50	>50	>50	>50	39	34	30
	Tc 85°C	>50	>50	>50	50	43	39	24	20	19
	Tc 95°C	50	43	39	31	27	25	15	13	12
I-nom 200mA	Tc 75°C	>50	>50	>50	>50	>50	>50	33	28	25
	Tc 85°C	>50	>50	>50	42	36	33	20	17	15
	Tc 95°C	42	36	33	26	23	21	12	11	10
I-life 450mA	Tc 75°C	>50	45	42	33	28	26	15	13	12
	Tc 85°C	35	30	28	22	19	18	10	9	8
	Tc 95°C	22	19	17	14	12	11	6	6	5

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

Fortimo SLM C 827 1202 L06 1215 G7

Fortimo SLM C 830 1202 L06 1215 G7

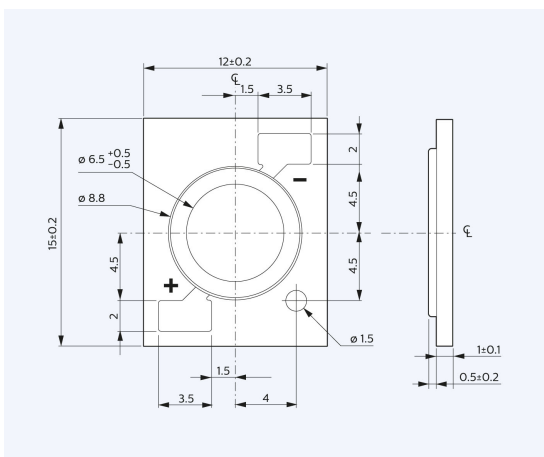
Fortimo SLM C 835 1202 L06 1215 G7

Fortimo SLM C 840 1202 L06 1215 G7

Fortimo SLM C 927 1202 L06 1215 G7

Fortimo SLM C 930 1202 L06 1215 G7

Parameter	Min	Typ	Max	Unit
Length	14.8	15	15.2	mm
Width	11.8	12	12.2	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)			540	mA
Case temperature (Tc-max)			95	°C
Power at rated Vf-max and I-max			22.4	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

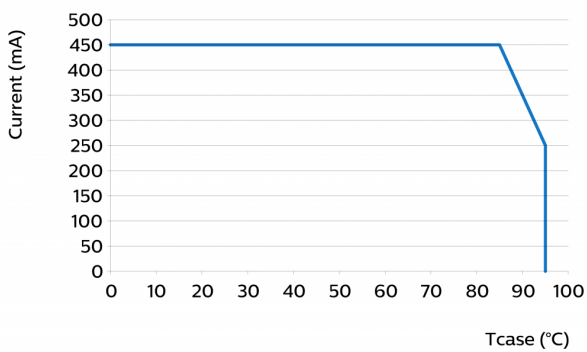
Environmental

RoHS/REACH

Application

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

Performance Window





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08/2018