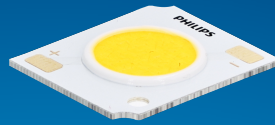


PHILIPS

Fortimo

LED

Fortimo SLM C 8xx 1203
L09 1619 G8



Datasheet

Best offer of performance and value

Fortimo LED SLM CRI80 G8 Standard

The Fortimo SLM family is Signify's core portfolio, now in its latest generation - Gen 8. This new generation boasts improved efficacy compared to the previous one and an expanded portfolio that includes specific spectrums such as Premium White, Premium Color, and standard color for all applications. It maintains the same two footprints as the previous generation, enabling easy upgrades. Together with other Fortimo SLM G8 product lines, our Fortimo SLM G8 will continuously unlock the extraordinary potential of light, facilitate innovation, and inspire the next generation of luminaire design for our OEM customers. Please also visit the online Easy Design-in Tool for your perfect system combination at www.easydesignintool.com.

Key features and benefits

- +5% efficacy further improvement Vs G7
- Best quality of light available for all applications
- More complete portfolio for easy choice
- Same footprint for easy upgrade
- System proposition

March 2025



Ordering data

Commercial product name	EOC	12NC	EPREL registration #	Box quantity
Fortimo SLM C 827 1203 L09 1619 G8	8721103 074232 00	9290 039 39501	2270207	20
Fortimo SLM C 830 1203 L09 1619 G8	8721103 074263 00	9290 039 39601	2270216	20
Fortimo SLM C 835 1203 L09 1619 G8	8721103 074294 00	9290 039 39701	2270261	20
Fortimo SLM C 840 1203 L09 1619 G8	8721103 074324 00	9290 039 39801	2270224	20
Fortimo SLM C 850 1203 L09 1619 G8	8721103 074355 00	9290 039 39901	2270251	20
Fortimo SLM C 857 1203 L09 1619 G8	8721103 074386 00	9290 039 40001	2270188	20
Fortimo SLM C 830 PW 1203 L09 1619 G8	8721103 074416 00	9290 039 40101	2270238	20

Drive currents

Parameter	Nominal*	Life**	Max***	Unit
Fortimo SLM C 8xx 1203 L09 1619 G8	300	see performance window	690	mA

Module temperatures

Parameter	Nominal*	Life**	Max***	Unit
T _c (case temperature at T _c point)	65	see performance window	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

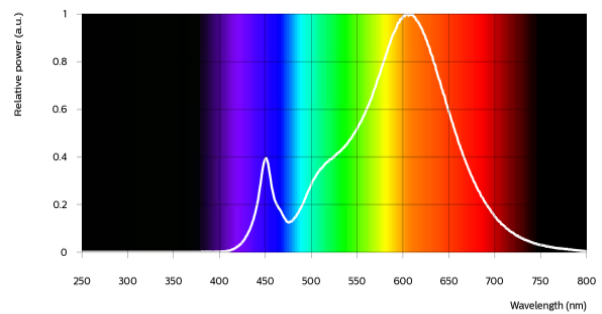
Optical characteristics - table per color (CCT)

Fortimo SLM C 827 1203 L09 1619 G8


Parameter	Min	Typ	Max	Unit
Luminous flux	1468	1545	1700	lm
Efficacy		149		lm/W
Correlated color temperature (CCT)		2700		K
Color coordinates (CIEx, CIEy)		(0.458, 0.410)		-
Color consistency			3	SDCM
CRI	80			
R9	>0			
Photometric code		827/359		
Photobiological safety		RG1 unlimited		

Measurement precision $\pm 5\%$ for the flux data and $\pm 6\%$ for the efficacy data. Measurement precision for color coordinates ± 0.005 . Measurement precision for CRI ± 1.5 .

Operation point	827	lm	lm/W
80% I-nom 240mA	Tc 25 °C	1315	158
	Tc-nom 65 °C	1257	153
	Tc-max 95 °C	1201	148
I-nom 300mA	Tc 25 °C	1617	154
	Tc-nom 65 °C	1545	149
	Tc-max 95 °C	1476	143
I-max 690mA	Tc 25 °C	3399	126
	Tc-nom 65 °C	3232	122
	Tc-max 95 °C	3072	116

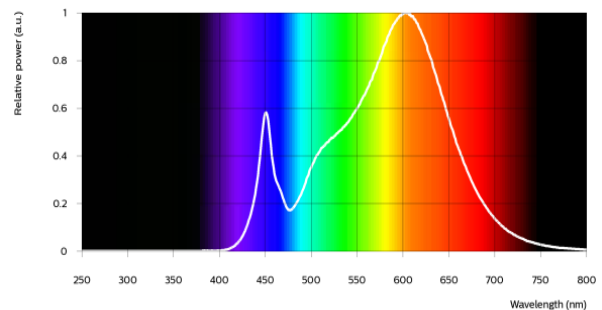


Fortimo SLM C 830 1203 L09 1619 G8


Parameter	Min	Typ	Max	Unit
Luminous flux	1563	1645	1810	lm
Efficacy		158		lm/W
Correlated color temperature (CCT)		3000		K
Color coordinates (CIEx, CIEy)		(0.434, 0.403)		-
Color consistency			3	SDCM
CRI	80			
R9	>0			
Photometric code		830/359		
Photobiological safety		RG1 unlimited		

Measurement precision $\pm 5\%$ for the flux data and $\pm 6\%$ for the efficacy data. Measurement precision for color coordinates ± 0.005 . Measurement precision for CRI ± 1.5 .

Operation point	830	lm	lm/W
80% I-nom 240mA	Tc 25 °C	1400	169
	Tc-nom 65 °C	1339	163
	Tc-max 95 °C	1279	158
I-nom 300mA	Tc 25 °C	1722	164
	Tc-nom 65 °C	1645	158
	Tc-max 95 °C	1571	153
I-max 690mA	Tc 25 °C	3620	135
	Tc-nom 65 °C	3443	129
	Tc-max 95 °C	3273	124

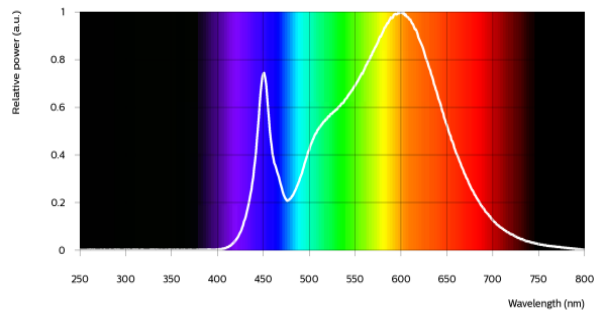


Fortimo SLM C 835 1203 L09 1619 G8


Parameter	Min	Typ	Max	Unit
Luminous flux	1601	1685	1854	lm
Efficacy		162		lm/W
Correlated color temperature (CCT)		3500		K
Color coordinates (CIEx, CIEy)		(0.407, 0.392)		-
Color consistency			3	SDCM
CRI	80			
R9	>0			
Photometric code		835/359		
Photobiological safety		RG1 unlimited		

Measurement precision ± 5% for the flux data and ± 6% for the efficacy data. Measurement precision for color coordinates ± 0.005. Measurement precision for CRI ± 1.5.

Operation point	835	lm	lm/W
80% I-nom 240mA	Tc 25 °C	1434	173
	Tc-nom 65 °C	1371	167
	Tc-max 95 °C	1310	162
I-nom 300mA	Tc 25 °C	1764	168
	Tc-nom 65 °C	1685	162
	Tc-max 95 °C	1609	156
I-max 690mA	Tc 25 °C	3708	138
	Tc-nom 65 °C	3527	133
	Tc-max 95 °C	3353	127

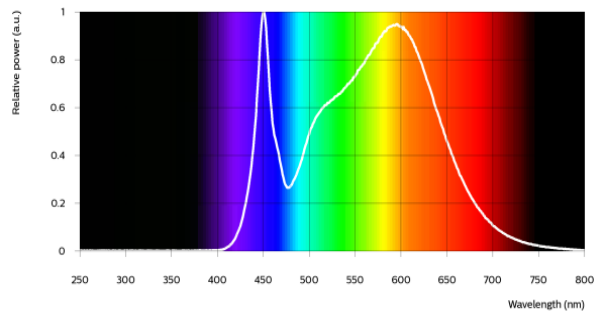


Fortimo SLM C 840 1203 L09 1619 G8


Parameter	Min	Typ	Max	Unit
Luminous flux	1624	1710	1881	lm
Efficacy		164		lm/W
Correlated color temperature (CCT)		4000		K
Color coordinates (CIEx, CIEy)		(0.382, 0.380)		-
Color consistency			3	SDCM
CRI	80			
R9	>0			
Photometric code		840/359		
Photobiological safety		RG1 unlimited		

Measurement precision ± 5% for the flux data and ± 6% for the efficacy data. Measurement precision for color coordinates ± 0.005. Measurement precision for CRI ± 1.5.

Operation point	840	lm	lm/W
80% I-nom 240mA	Tc 25 °C	1456	175
	Tc-nom 65 °C	1391	170
	Tc-max 95 °C	1330	164
I-nom 300mA	Tc 25 °C	1790	170
	Tc-nom 65 °C	1710	164
	Tc-max 95 °C	1633	159
I-max 690mA	Tc 25 °C	3764	140
	Tc-nom 65 °C	3580	135
	Tc-max 95 °C	3404	129

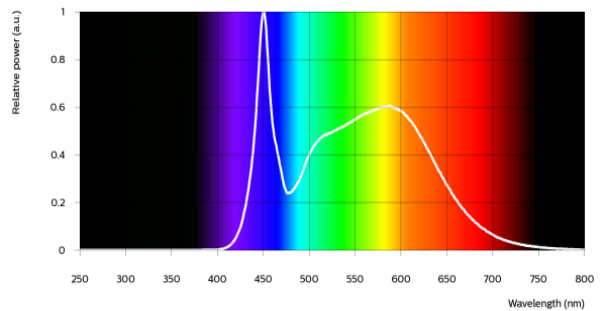


Fortimo SLM C 850 1203 L09 1619 G8


Parameter	Min	Typ	Max	Unit
Luminous flux	1624	1710	1881	lm
Efficacy		164		lm/W
Correlated color temperature (CCT)		5000		K
Color coordinates (CIEx, CIEy)		(0.345, 0.355)		-
Color consistency			3	SDCM
CRI	80			
R9	>0			
Photometric code		850/359		
Photobiological safety		RG1 unlimited		

Measurement precision ± 5% for the flux data and ± 6% for the efficacy data. Measurement precision for color coordinates ± 0.005. Measurement precision for CRI ± 1.5.

Operation point	850	lm	lm/W
80% I-nom 240mA	Tc 25 °C	1456	175
	Tc-nom 65 °C	1391	170
	Tc-max 95 °C	1330	164
I-nom 300mA	Tc 25 °C	1790	170
	Tc-nom 65 °C	1710	164
	Tc-max 95 °C	1633	159
I-max 690mA	Tc 25 °C	3764	140
	Tc-nom 65 °C	3580	135
	Tc-max 95 °C	3404	129

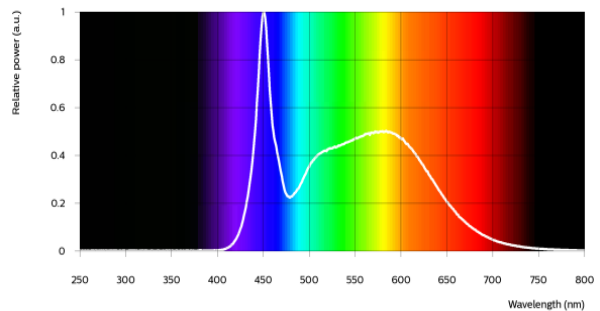



Fortimo SLM C 857 1203 L09 1619 G8

Parameter	Min	Typ	Max	Unit
Luminous flux	1624	1710	1881	lm
Efficacy		164		lm/W
Correlated color temperature (CCT)		5700		K
Color coordinates (CIEx, CIEy)		(0.329, 0.342)		-
Color consistency			3	SDCM
CRI	80			
R9	>0			
Photometric code		857/359		
Photobiological safety		RG1 unlimited		

Measurement precision ± 5% for the flux data and ± 6% for the efficacy data. Measurement precision for color coordinates ± 0.005. Measurement precision for CRI ± 1.5.

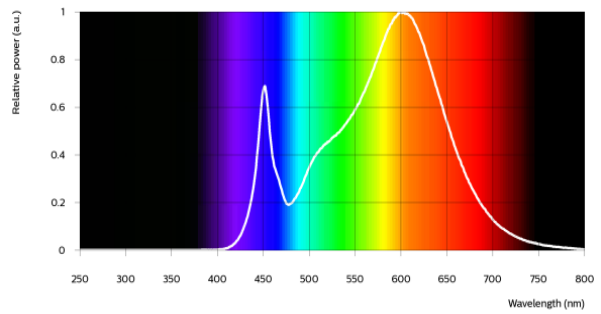
Operation point	857	lm	lm/W
80% I-nom 240mA	Tc 25 °C	1456	175
	Tc-nom 65 °C	1391	170
	Tc-max 95 °C	1330	164
I-nom 300mA	Tc 25 °C	1790	170
	Tc-nom 65 °C	1710	164
	Tc-max 95 °C	1633	159
I-max 690mA	Tc 25 °C	3764	140
	Tc-nom 65 °C	3580	135
	Tc-max 95 °C	3404	129



Parameter	Min	Typ	Max	Unit
Luminous flux	1548	1630	1793	lm
Efficacy		157		lm/W
Correlated color temperature (CCT)		3000		K
Color coordinates (CIEx, CIEy)		(0.422, 0.386)		-
Color consistency			3	SDCM
CRI	80			
R9	>0			
Photometric code		830/359		
Photobiological safety		RG1 unlimited		

Measurement precision ± 5% for the flux data and ± 6% for the efficacy data. Measurement precision for color coordinates ± 0.005. Measurement precision for CRI ± 1.5.

Operation point	830	lm	lm/W
80% I-nom 240mA	Tc 25 °C	1388	167
	Tc-nom 65 °C	1326	162
	Tc-max 95 °C	1268	156
I-nom 300mA	Tc 25 °C	1706	162
	Tc-nom 65 °C	1630	157
	Tc-max 95 °C	1557	151
I-max 690mA	Tc 25 °C	3587	133
	Tc-nom 65 °C	3412	128
	Tc-max 95 °C	3243	123





Electrical characteristics

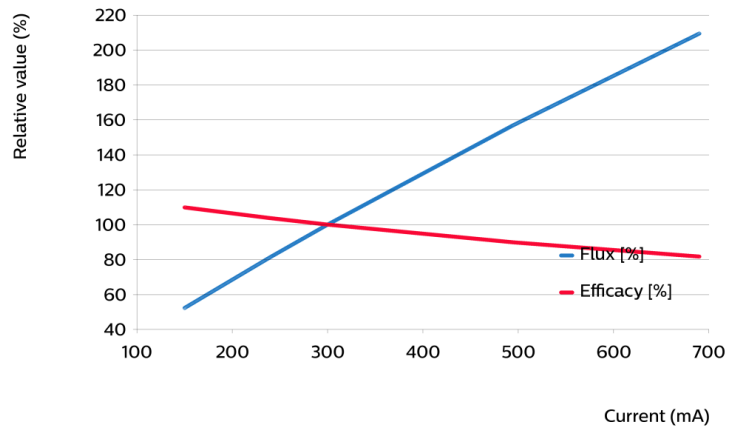
Parameter	Min	Typ	Max	Unit
Forward voltage	32.5	34.7	37.0	V
Power consumption	9.8	10.4	11.1	W = kWh/1000h
Number of modules in series per chain			1	
Number of modules per chain			1	
Number of modules in parallel			1	

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

Tuning information

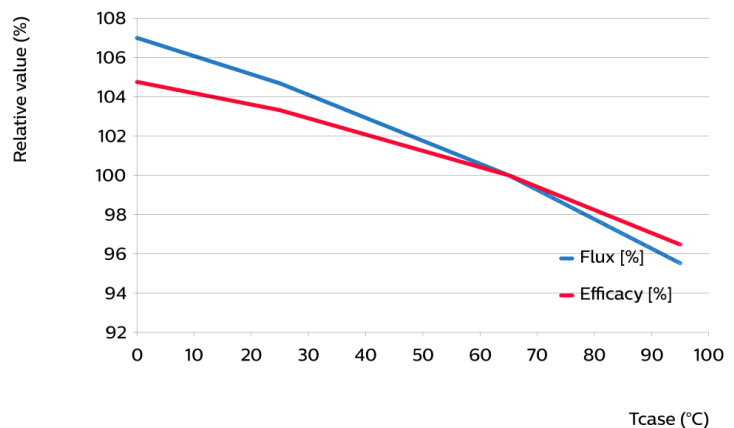
Flux and efficacy versus current (at Tc nominal)

I [mA]	Flux [%]	Efficacy [%]
690	209	82
495	157	90
300	100	100
240	81	104
150	52	110



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

Tc [°C]	Flux [%]	Efficacy [%]
95	96	96
65	100	100
25	105	103
0	107	105



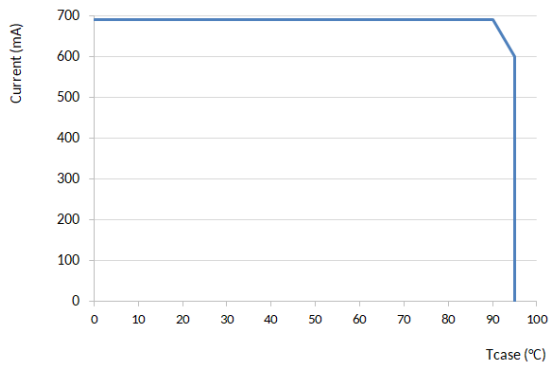
Lumen maintenance

Operation point	Lumen maintenance x 1000 hours	L70			L80			L90		
		B50	B20	B10	B50	B20	B10	B50	B20	B10
80% I-nom 240mA	Tc 50°C	>66	>66	>66	>66	>66	>66	>66	>66	>66
	Tc 65°C	>66	>66	>66	>66	>66	>66	>66	>66	>66
	Tc 95°C	>66	>66	>66	>66	>66	>66	>66	>66	>66
I-nom 300mA	Tc 50°C	>66	>66	>66	>66	>66	>66	>66	>66	>66
	Tc 65°C	>66	>66	>66	>66	>66	>66	>66	>66	>66
	Tc 95°C	>66	>66	>66	>66	>66	>66	>66	56	51
I-max 690mA	Tc 50°C	>66	>66	>66	>66	58	53	32	27	25
	Tc 65°C	>66	>66	64	51	43	40	24	20	18
	Tc 95°C	50	42	39	31	26	24	14	12	11

Lifetime

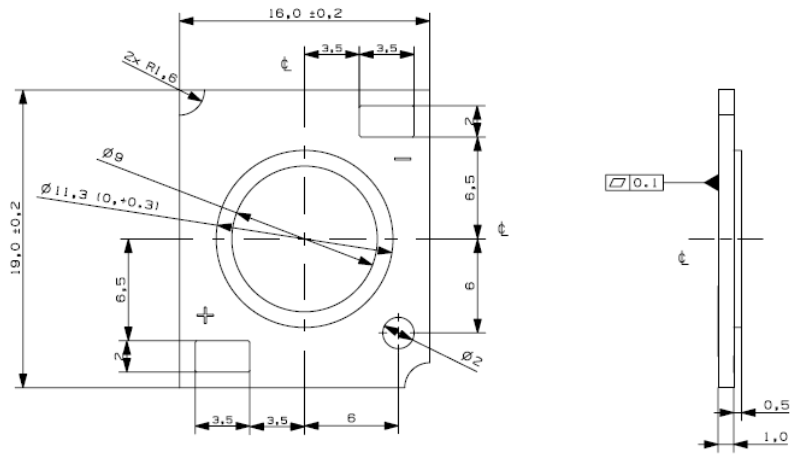
Parameter	Value	Unit
M70F50 nominal	>66000	hours

Performance Window



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
Product mass		0.8		gram



Absolute ratings

Parameter	Min	Max	Unit
Current through the LED module (I-max)		690	mA
Case temperature (Tc-max)		95	°C
ESD (direct contact)	8		kV
Working voltage		60	V _{dc}
Ambient temperature	-20	40	°C
Storage temperature	-40	80	°C

At illumination levels exceeding 1372 lux risk group classification may be RG2.

Application information

Certificates and Standards

CB
CE
ENEC
IEC 62031
UKCA
UL
UL 8750

Environmental

RoHS/REACH

Application

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



© 2025 Signify Holding, IBRS 10461, 5600VB, NL. All rights reserved. The information provided herein is subject to change, without notice. Signify does not give any representation or warranty as to the accuracy or completeness of the information included herein and shall not be liable for any action in reliance thereon. The information presented in this document is not intended as any commercial offer and does not form part of any quotation or contract, unless otherwise agreed by Signify.

www.philips.com/oem

Philips and the Philips Shield Emblem are registered trademarks of Koninklijke Philips N.V. All other trademarks are owned by Signify Holding or their respective owners.
UK importer address: Signify Commercial UK Limited, 3 Guildford Business Park, GU2 8XG

05/03/2025