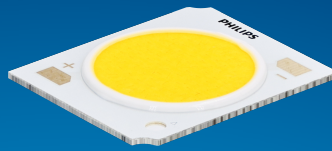


PHILIPS

Fortimo

LED

Fortimo SLM C 8xx 1208
L15 2024 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 1208 L15 2024 G8	8721103 076755 00	9290 039 47901	2270301	20
Fortimo SLM C 830 1208 L15 2024 G8	8721103 076786 00	9290 039 48001	2270315	20
Fortimo SLM C 835 1208 L15 2024 G8	8721103 076816 00	9290 039 48101	2270250	20
Fortimo SLM C 840 1208 L15 2024 G8	8721103 076847 00	9290 039 48201	2270282	20
Fortimo SLM C 850 1208 L15 2024 G8	8721103 076878 00	9290 039 48301	2270246	20
Fortimo SLM C 857 1208 L15 2024 G8	8721103 076908 00	9290 039 48401	2270273	20
Fortimo SLM C 830 PW 1208 L15 2024 G8	8721103 076939 00	9290 039 48501	2270319	20

Drive currents

Parameter	Nominal*	Life**	Max***	Unit
Fortimo SLM C 8xx 1208 L15 2024 G8	750	see performance window	1840	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

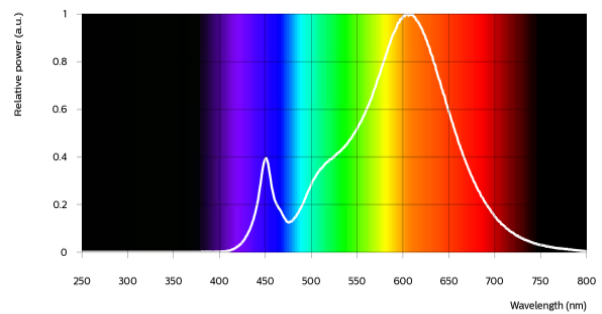
Optical characteristics - table per color (CCT)

Fortimo SLM C 827 1208 L15 2024 G8


Parameter	Min	Typ	Max	Unit
Luminous flux	3734	3930	4323	lm
Efficacy		151		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 600mA	Tc 25 °C	3338	162
	Tc-nom 65 °C	3197	157
	Tc-max 95 °C	3067	153
I-nom 750mA	Tc 25 °C	4105	156
	Tc-nom 65 °C	3930	151
	Tc-max 95 °C	3770	147
I-max 1840mA	Tc 25 °C	9125	123
	Tc-nom 65 °C	8707	119
	Tc-max 95 °C	8324	114

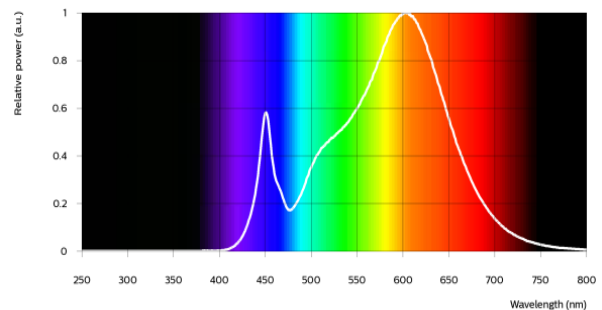


Fortimo SLM C 830 1208 L15 2024 G8


Parameter	Min	Typ	Max	Unit
Luminous flux	3971	4180	4598	lm
Efficacy		161		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 600mA	Tc 25 °C	3550	172
	Tc-nom 65 °C	3400	167
	Tc-max 95 °C	3262	162
I-nom 750mA	Tc 25 °C	4366	165
	Tc-nom 65 °C	4180	161
	Tc-max 95 °C	4010	156
I-max 1840mA	Tc 25 °C	9708	131
	Tc-nom 65 °C	9264	126
	Tc-max 95 °C	8857	122

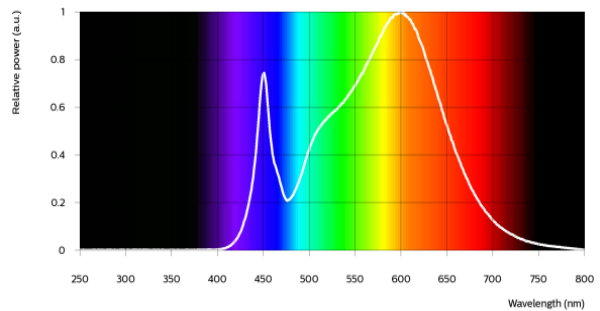


Fortimo SLM C 835 1208 L15 2024 G8


Parameter	Min	Typ	Max	Unit
Luminous flux	4071	4285	4714	lm
Efficacy		165		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 600mA	Tc 25 °C	3639	177
	Tc-nom 65 °C	3485	172
	Tc-max 95 °C	3344	166
I-nom 750mA	Tc 25 °C	4476	170
	Tc-nom 65 °C	4285	165
	Tc-max 95 °C	4110	160
I-max 1840mA	Tc 25 °C	9952	134
	Tc-nom 65 °C	9497	129
	Tc-max 95 °C	9080	125

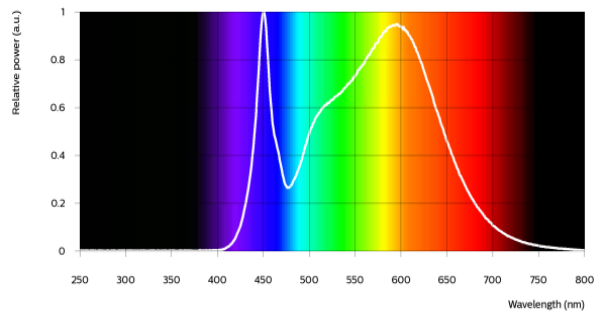


Fortimo SLM C 840 1208 L15 2024 G8


Parameter	Min	Typ	Max	Unit
Luminous flux	4132	4350	4785	lm
Efficacy		167		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 600mA	Tc 25 °C	3694	179
	Tc-nom 65 °C	3538	174
	Tc-max 95 °C	3395	169
I-nom 750mA	Tc 25 °C	4544	172
	Tc-nom 65 °C	4350	167
	Tc-max 95 °C	4173	162
I-max 1840mA	Tc 25 °C	10104	136
	Tc-nom 65 °C	9643	131
	Tc-max 95 °C	9220	127

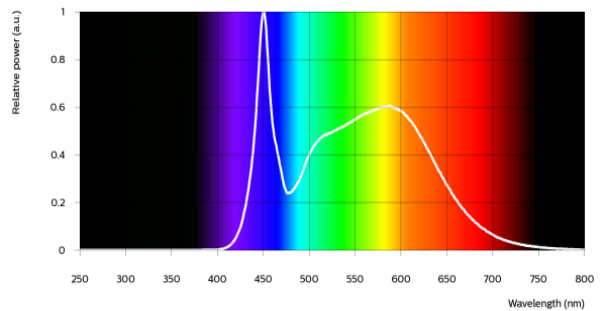


Fortimo SLM C 850 1208 L15 2024 G8


Parameter	Min	Typ	Max	Unit
Luminous flux	4132	4350	4785	lm
Efficacy		167		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 600mA	Tc 25 °C	3694	179
	Tc-nom 65 °C	3538	174
	Tc-max 95 °C	3395	169
I-nom 750mA	Tc 25 °C	4544	172
	Tc-nom 65 °C	4350	167
	Tc-max 95 °C	4173	162
I-max 1840mA	Tc 25 °C	10104	136
	Tc-nom 65 °C	9643	131
	Tc-max 95 °C	9220	127

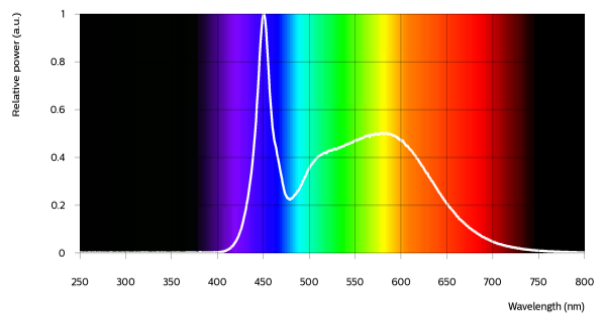


Fortimo SLM C 857 1208 L15 2024 G8


Parameter	Min	Typ	Max	Unit
Luminous flux	4132	4350	4785	lm
Efficacy		167		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 600mA	Tc 25 °C	3694	179
	Tc-nom 65 °C	3538	174
	Tc-max 95 °C	3395	169
I-nom 750mA	Tc 25 °C	4544	172
	Tc-nom 65 °C	4350	167
	Tc-max 95 °C	4173	162
I-max 1840mA	Tc 25 °C	10104	136
	Tc-nom 65 °C	9643	131
	Tc-max 95 °C	9220	127

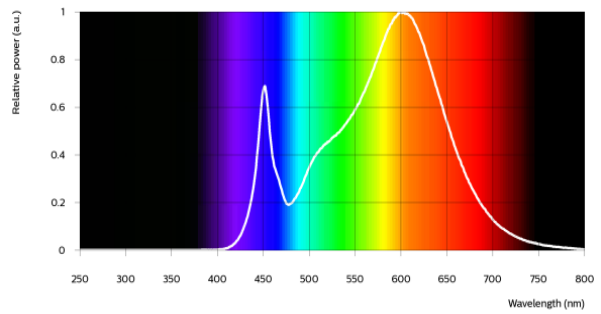


Fortimo SLM C 830 PW 1208 L15 2024 G8

Parameter	Min	Typ	Max	Unit
Luminous flux	3933	4140	4554	lm
Efficacy		159		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 600mA	Tc 25 °C	3516	171
	Tc-nom 65 °C	3367	166
	Tc-max 95 °C	3231	161
I-nom 750mA	Tc 25 °C	4324	164
	Tc-nom 65 °C	4140	159
	Tc-max 95 °C	3971	155
I-max 1840mA	Tc 25 °C	9615	129
	Tc-nom 65 °C	9176	125
	Tc-max 95 °C	8773	121





Electrical characteristics

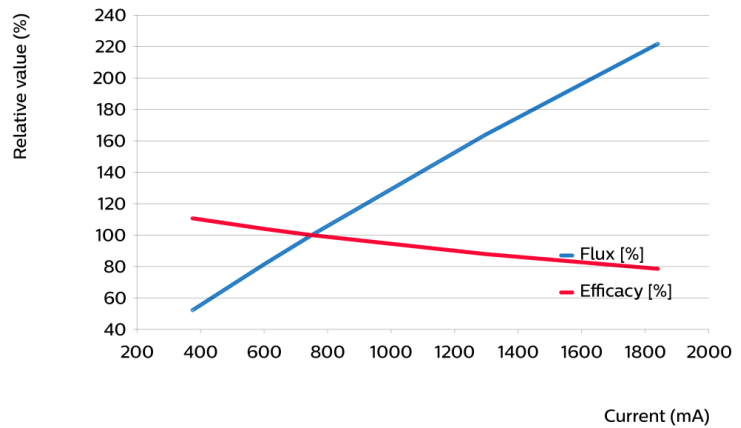
Parameter	Min	Typ	Max	Unit
Forward voltage	32.5	34.7	37.0	V
Power consumption	24.4	26.0	27.8	W = kWh/1000h
Number of modules in series per chain			1	
Number of modules per chain			1	
Number of modules in parallel			1	

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

Tuning information

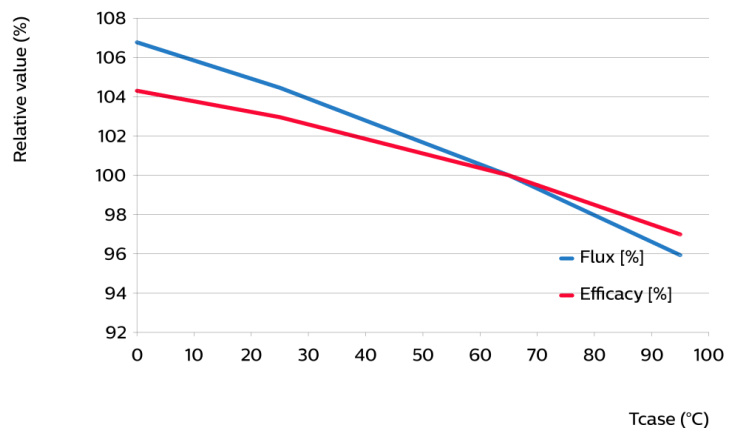
Flux and efficacy versus current (at Tc nominal)

I [mA]	Flux [%]	Efficacy [%]
1840	222	78
1295	164	88
750	100	100
600	81	104
375	52	111



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

Tc [°C]	Flux [%]	Efficacy [%]
95	96	97
65	100	100
25	104	103
0	107	104



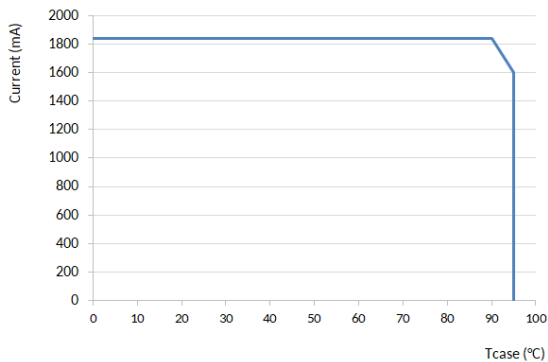
Lumen maintenance

Operation point	Lumen maintenance x 1000 hours	L70			L80			L90		
		B50	B20	B10	B50	B20	B10	B50	B20	B10
80% I-nom 600mA	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 750mA	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	63	58
I-max 1840mA	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

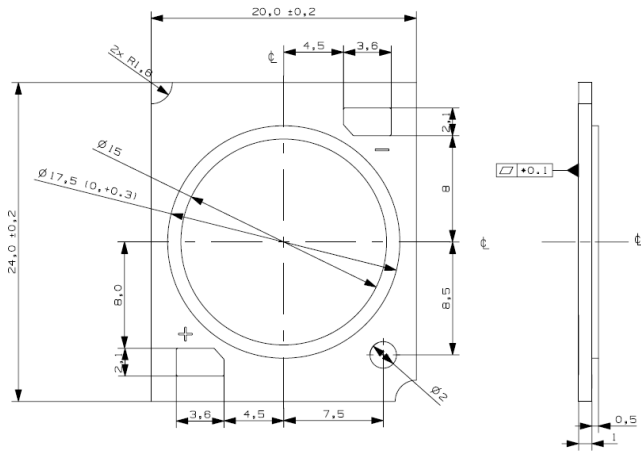
Parameter	Value	Unit
M70F50 nominal	>66000	hours

Performance Window



Mechanical characteristics

Parameter	Min	Typ	Max	Unit
Length	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
Product mass		1.3		gram



Absolute ratings

Parameter	Min	Max	Unit
Current through the LED module (I-max)		1840	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



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05/03/2025