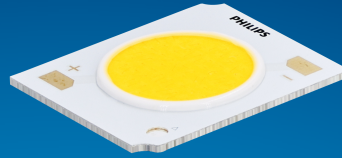


PHILIPS

Fortimo

LED

Fortimo SLM C 8xx 1205
L13 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 1205 L13 2024 G8	8721103 075499 00	9290 039 43701	2270194	20
Fortimo SLM C 830 1205 L13 2024 G8	8721103 075529 00	9290 039 43801	2270328	20
Fortimo SLM C 835 1205 L13 2024 G8	8721103 075550 00	9290 039 43901	2270309	20
Fortimo SLM C 840 1205 L13 2024 G8	8721103 075581 00	9290 039 44001	2270305	20
Fortimo SLM C 850 1205 L13 2024 G8	8721103 075611 00	9290 039 44101	2270330	20
Fortimo SLM C 857 1205 L13 2024 G8	8721103 075642 00	9290 039 44201	2270279	20
Fortimo SLM C 830 PW 1205 L13 2024 G8	8721103 075673 00	9290 039 44301	2270241	20

Drive currents

Parameter	Nominal*	Life**	Max***	Unit
Fortimo SLM C 8xx 1205 L13 2024 G8	500	see performance window	1150	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

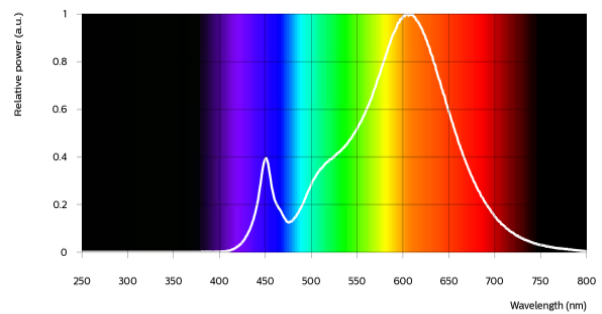
Optical characteristics - table per color (CCT)

Fortimo SLM C 827 1205 L13 2024 G8


Parameter	Min	Typ	Max	Unit
Luminous flux	2460	2590	2849	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 400mA	Tc 25 °C	2199	161
	Tc-nom 65 °C	2108	155
	Tc-max 95 °C	2013	149
I-nom 500mA	Tc 25 °C	2703	154
	Tc-nom 65 °C	2590	149
	Tc-max 95 °C	2471	144
I-max 1150mA	Tc 25 °C	5669	126
	Tc-nom 65 °C	5401	121
	Tc-max 95 °C	5120	116

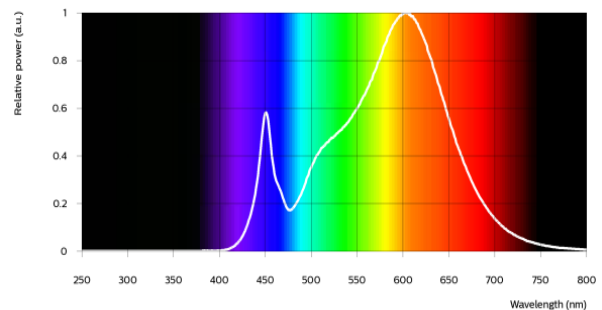


Fortimo SLM C 830 1205 L13 2024 G8


Parameter	Min	Typ	Max	Unit
Luminous flux	2622	2760	3036	lm
Efficacy		159		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 400mA	Tc 25 °C	2343	171
	Tc-nom 65 °C	2247	165
	Tc-max 95 °C	2146	159
I-nom 500mA	Tc 25 °C	2880	165
	Tc-nom 65 °C	2760	159
	Tc-max 95 °C	2634	153
I-max 1150mA	Tc 25 °C	6042	135
	Tc-nom 65 °C	5759	129
	Tc-max 95 °C	5460	123

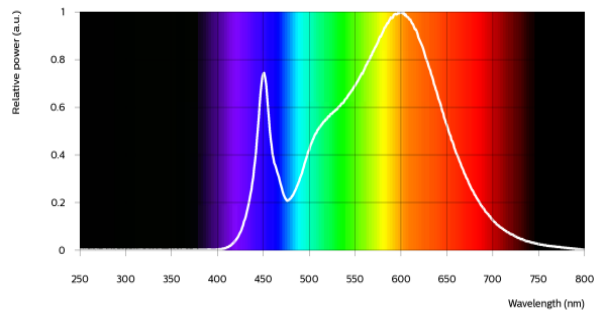


Fortimo SLM C 835 1205 L13 2024 G8


Parameter	Min	Typ	Max	Unit
Luminous flux	2684	2825	3108	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 400mA	Tc 25 °C	2398	175
	Tc-nom 65 °C	2299	169
	Tc-max 95 °C	2196	163
I-nom 500mA	Tc 25 °C	2948	168
	Tc-nom 65 °C	2825	162
	Tc-max 95 °C	2696	157
I-max 1150mA	Tc 25 °C	6184	138
	Tc-nom 65 °C	5895	132
	Tc-max 95 °C	5589	126

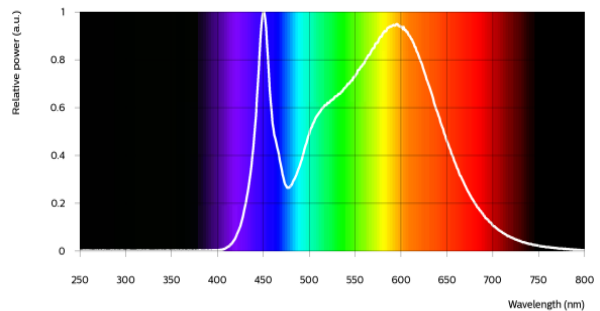


Fortimo SLM C 840 1205 L13 2024 G8


Parameter	Min	Typ	Max	Unit
Luminous flux	2726	2870	3157	lm
Efficacy		165		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 400mA	Tc 25 °C	2436	178
	Tc-nom 65 °C	2336	172
	Tc-max 95 °C	2231	165
I-nom 500mA	Tc 25 °C	2995	171
	Tc-nom 65 °C	2870	165
	Tc-max 95 °C	2739	159
I-max 1150mA	Tc 25 °C	6283	140
	Tc-nom 65 °C	5990	135
	Tc-max 95 °C	5680	128

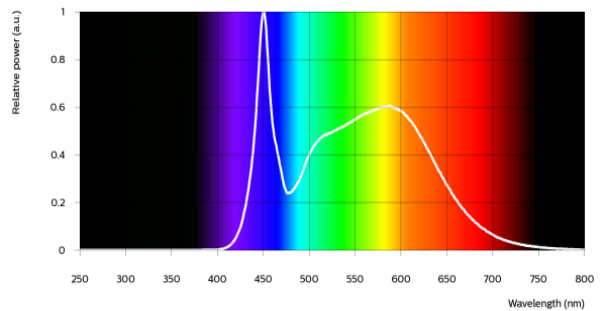


Fortimo SLM C 850 1205 L13 2024 G8


Parameter	Min	Typ	Max	Unit
Luminous flux	2726	2870	3157	lm
Efficacy		165		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 400mA	Tc 25 °C	2436	178
	Tc-nom 65 °C	2336	172
	Tc-max 95 °C	2231	165
I-nom 500mA	Tc 25 °C	2995	171
	Tc-nom 65 °C	2870	165
	Tc-max 95 °C	2739	159
I-max 1150mA	Tc 25 °C	6283	140
	Tc-nom 65 °C	5990	135
	Tc-max 95 °C	5680	128

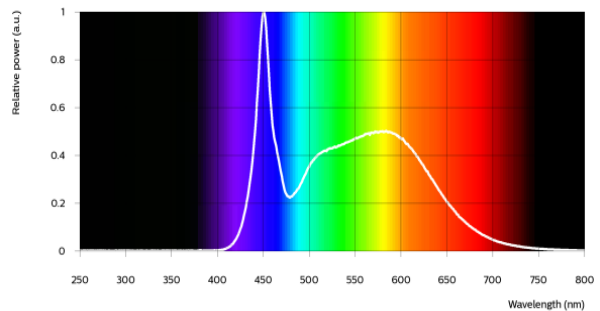


Fortimo SLM C 857 1205 L13 2024 G8


Parameter	Min	Typ	Max	Unit
Luminous flux	2726	2870	3157	lm
Efficacy		165		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 400mA	Tc 25 °C	2436	178
	Tc-nom 65 °C	2336	172
	Tc-max 95 °C	2231	165
I-nom 500mA	Tc 25 °C	2995	171
	Tc-nom 65 °C	2870	165
	Tc-max 95 °C	2739	159
I-max 1150mA	Tc 25 °C	6283	140
	Tc-nom 65 °C	5990	135
	Tc-max 95 °C	5680	128

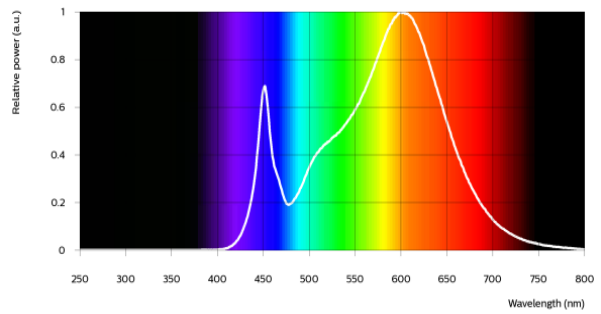


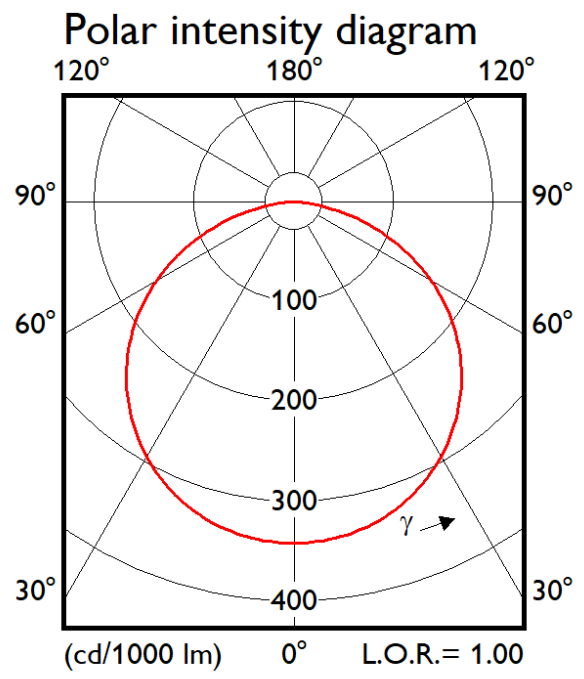
Fortimo SLM C 830 PW 1205 L13 2024 G8

Parameter	Min	Typ	Max	Unit
Luminous flux	2594	2730	3003	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 400mA	Tc 25 °C	2317	169
	Tc-nom 65 °C	2222	163
	Tc-max 95 °C	2122	157
I-nom 500mA	Tc 25 °C	2849	163
	Tc-nom 65 °C	2730	157
	Tc-max 95 °C	2605	151
I-max 1150mA	Tc 25 °C	5976	133
	Tc-nom 65 °C	5696	128
	Tc-max 95 °C	5401	122





Electrical characteristics

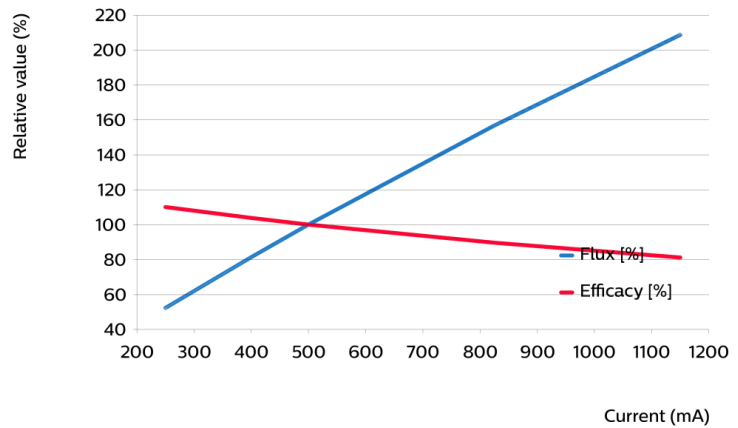
Parameter	Min	Typ	Max	Unit
Forward voltage	32.5	34.7	37.0	V
Power consumption	16.3	17.4	18.5	W = kWh/1000h
Number of modules in series per chain			1	
Number of modules per chain			1	
Number of modules in parallel			1	

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

Tuning information

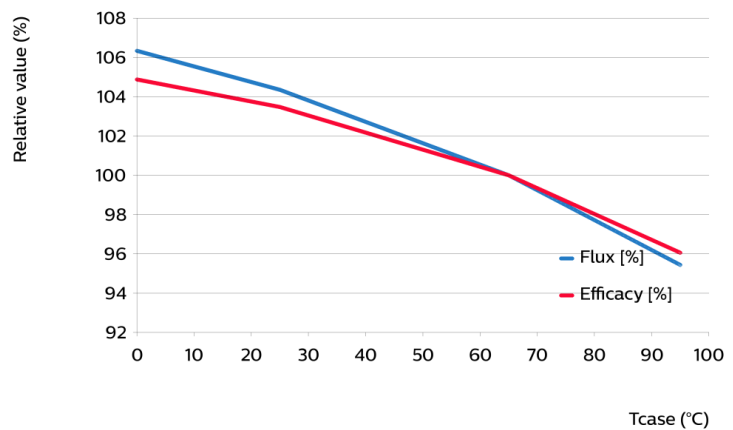
Flux and efficacy versus current (at Tc nominal)

I [mA]	Flux [%]	Efficacy [%]
1150	209	81
825	157	90
500	100	100
400	81	104
250	52	110



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

Tc [°C]	Flux [%]	Efficacy [%]
95	95	96
65	100	100
25	104	103
0	106	105



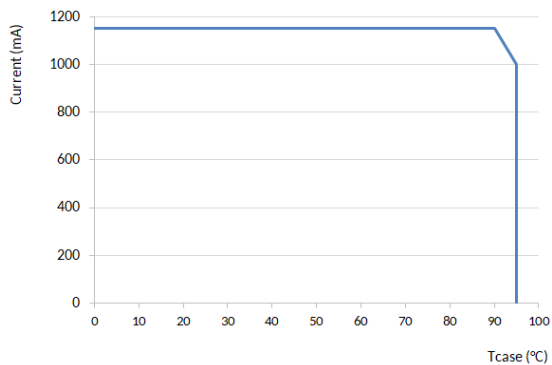
Lumen maintenance

Operation point	Lumen maintenance x 1000 hours	L70			L80			L90		
		B50	B20	B10	B50	B20	B10	B50	B20	B10
80% I-nom 400mA	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 500mA	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 1150mA	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

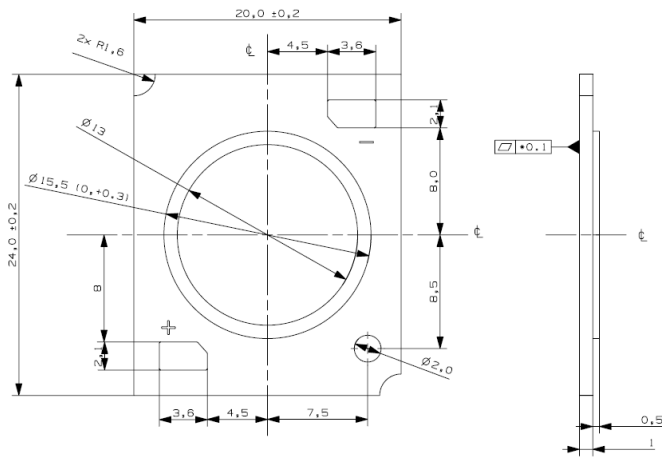
Parameter	Value	Unit
M70F50 nominal	>66000	hours

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		1.27		gram



Absolute ratings

Parameter	Min	Max	Unit
Current through the LED module (I-max)		1150	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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10/03/2025