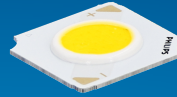


PHILIPS

Fortimo

LED

Fortimo SLM C 8xx 1202
L06 1313 G8N



Datasheet

Best offer of performance and value

Fortimo LED SLM CRI80 G8N 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 1202 L06 1313 G8N	8721103 078957 00	9290 039 55101	2270408	20
Fortimo SLM C 830 1202 L06 1313 G8N	8721103 078988 00	9290 039 55201	2270353	20
Fortimo SLM C 835 1202 L06 1313 G8N	8721103 079015 00	9290 039 55301	2270355	20
Fortimo SLM C 840 1202 L06 1313 G8N	8721103 079046 00	9290 039 55401	2270351	20
Fortimo SLM C 850 1202 L06 1313 G8N	8721103 079077 00	9290 039 55501	2270401	20
Fortimo SLM C 857 1202 L06 1313 G8N	8721103 079107 00	9290 039 55601	2270404	20

Drive currents

Parameter	Nominal*	Life**	Max***	Unit
Fortimo SLM C 8xx 1202 L06 1313 G8N	180	see performance window	460	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)

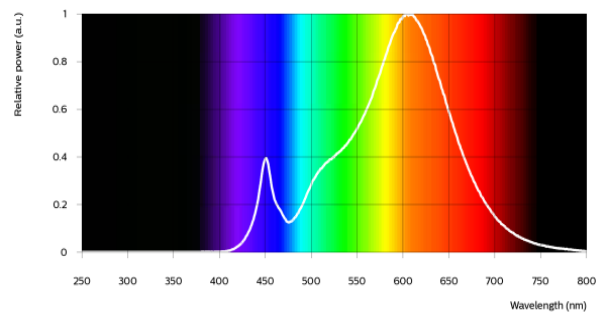
Fortimo SLM C 827 1202 L06 1313 G8N

Parameter	Min	Typ	Max	Unit
Luminous flux	869	915	1006	lm
Efficacy		148		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 144mA	Tc 25 °C	778	159
	Tc-nom 65 °C	743	152
	Tc-max 95 °C	711	148
I-nom 180mA	Tc 25 °C	959	152
	Tc-nom 65 °C	915	148
	Tc-max 95 °C	876	144
I-max 460mA	Tc 25 °C	2225	124
	Tc-nom 65 °C	2117	120
	Tc-max 95 °C	2020	115



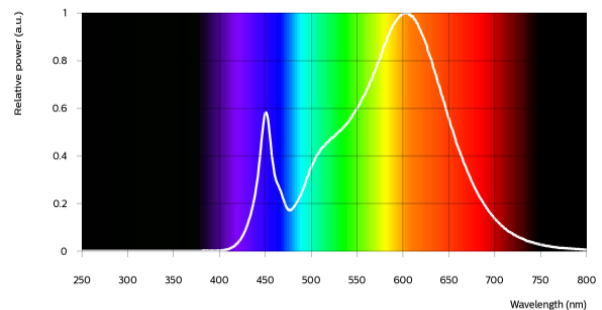
Fortimo SLM C 830 1202 L06 1313 G8N

Parameter	Min	Typ	Max	Unit
Luminous flux	922	970	1067	lm
Efficacy		156		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 144mA	Tc 25 °C	825	168
	Tc-nom 65 °C	788	161
	Tc-max 95 °C	754	157
I-nom 180mA	Tc 25 °C	1016	161
	Tc-nom 65 °C	970	156
	Tc-max 95 °C	928	152
I-max 460mA	Tc 25 °C	2360	132
	Tc-nom 65 °C	2245	127
	Tc-max 95 °C	2142	122

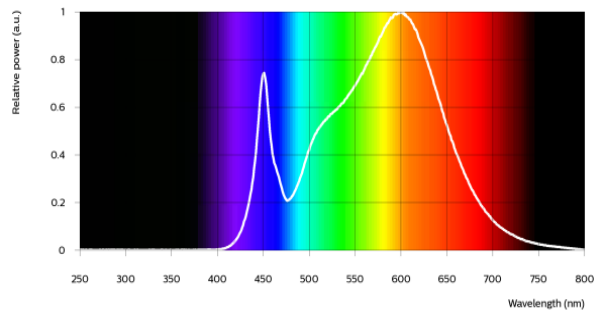


Fortimo SLM C 835 1202 L06 1313 G8N


Parameter	Min	Typ	Max	Unit
Luminous flux	945	995	1094	lm
Efficacy		160		lm/W
Correlated color temperature (CCT)		3500		K
Color coordinates (CIEx, CIEy)		(0.408, 0.393)		-
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 144mA	Tc 25 °C	846	173
	Tc-nom 65 °C	808	165
	Tc-max 95 °C	773	161
I-nom 180mA	Tc 25 °C	1043	166
	Tc-nom 65 °C	995	160
	Tc-max 95 °C	952	156
I-max 460mA	Tc 25 °C	2421	135
	Tc-nom 65 °C	2303	130
	Tc-max 95 °C	2197	125

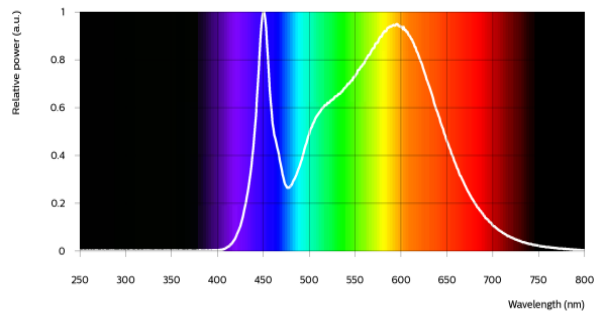


Fortimo SLM C 840 1202 L06 1313 G8N


Parameter	Min	Typ	Max	Unit
Luminous flux	960	1010	1111	lm
Efficacy		163		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 144mA	Tc 25 °C	859	175
	Tc-nom 65 °C	820	167
	Tc-max 95 °C	785	164
I-nom 180mA	Tc 25 °C	1058	168
	Tc-nom 65 °C	1010	163
	Tc-max 95 °C	967	158
I-max 460mA	Tc 25 °C	2457	137
	Tc-nom 65 °C	2338	132
	Tc-max 95 °C	2231	127

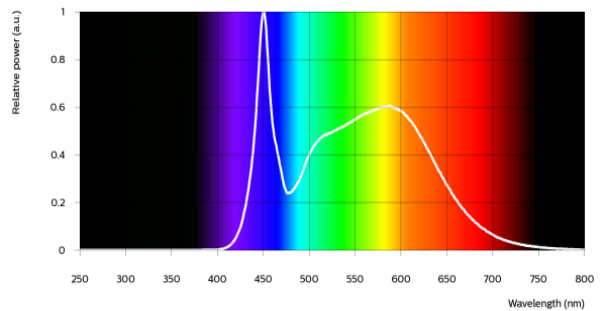


Fortimo SLM C 850 1202 L06 1313 G8N


Parameter	Min	Typ	Max	Unit
Luminous flux	960	1010	1111	lm
Efficacy		163		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 144mA	Tc 25 °C	859	175
	Tc-nom 65 °C	820	167
	Tc-max 95 °C	785	164
I-nom 180mA	Tc 25 °C	1058	168
	Tc-nom 65 °C	1010	163
	Tc-max 95 °C	967	158
I-max 460mA	Tc 25 °C	2457	137
	Tc-nom 65 °C	2338	132
	Tc-max 95 °C	2231	127

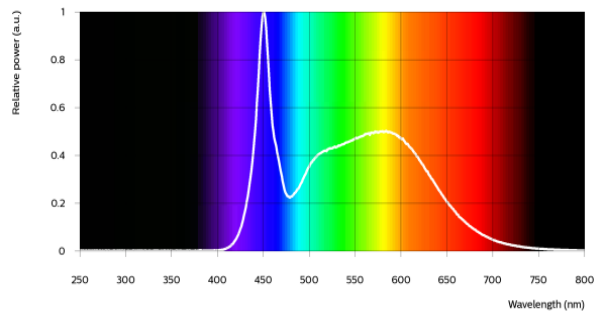


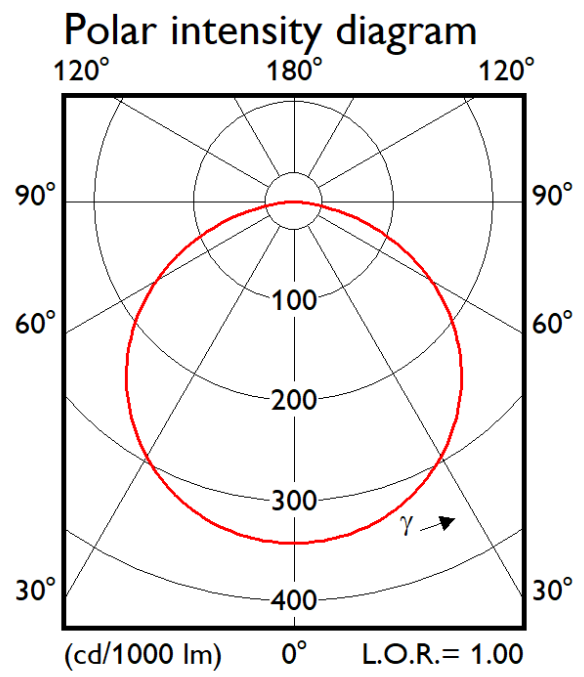
Fortimo SLM C 857 1202 L06 1313 G8N

Parameter	Min	Typ	Max	Unit
Luminous flux	960	1010	1111	lm
Efficacy		163		lm/W
Correlated color temperature (CCT)		5700		K
Color coordinates (CIEx, CIEy)		(0.329, 0.343)		-
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 144mA	Tc 25 °C	859	175
	Tc-nom 65 °C	820	167
	Tc-max 95 °C	785	164
I-nom 180mA	Tc 25 °C	1058	168
	Tc-nom 65 °C	1010	163
	Tc-max 95 °C	967	158
I-max 460mA	Tc 25 °C	2457	137
	Tc-nom 65 °C	2338	132
	Tc-max 95 °C	2231	127





Electrical characteristics

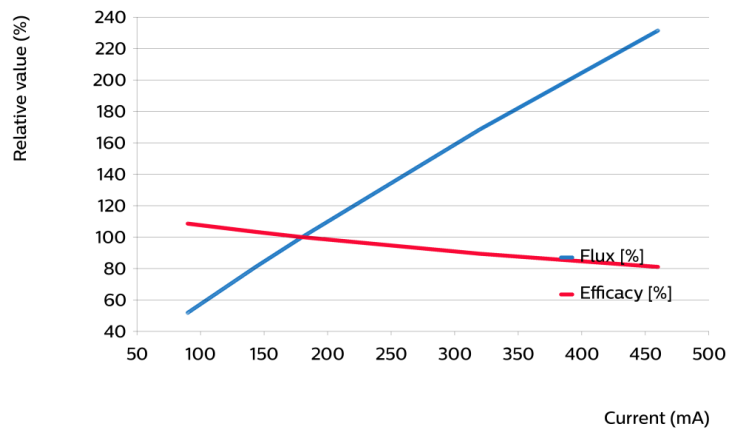
Parameter	Min	Typ	Max	Unit
Forward voltage	32.5	34.5	37.0	V
Power consumption	5.9	6.2	6.7	W = kWh/1000h
Number of modules in series per chain			1	
Number of modules per chain			1	
Number of modules in parallel			1	

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

Tuning information

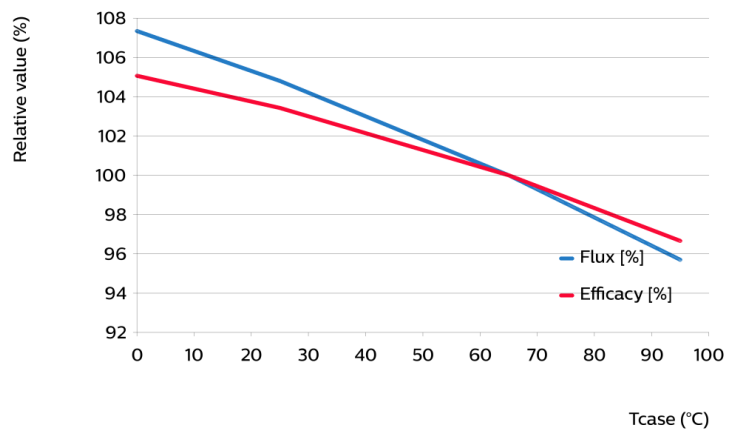
Flux and efficacy versus current (at Tc nominal)

I [mA]	Flux [%]	Efficacy [%]
460	231	81
320	169	89
180	100	100
144	81	103
90	52	109



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

Tc [°C]	Flux [%]	Efficacy [%]
95	96	97
65	100	100
25	105	103
0	107	105



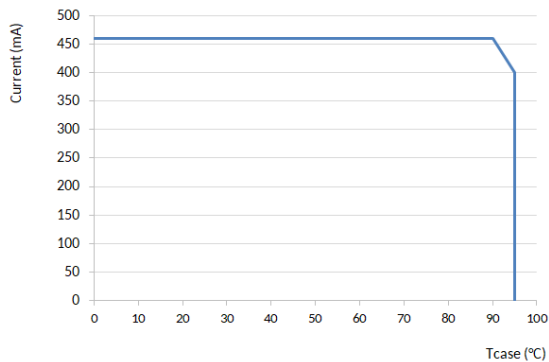
Lumen maintenance

Operation point	Lumen maintenance x 1000 hours	L70			L80			L90		
		B50	B20	B10	B50	B20	B10	B50	B20	B10
80% I-nom 144mA	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 180mA	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	62
I-max 460mA	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	13.25	13.5	13.75	mm
Width	13.25	13.5	13.75	mm
Height PCB	0.8	0.9	1	mm
Height including dam	1.1	1.4	1.7	mm
Product mass		0.43		gram



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