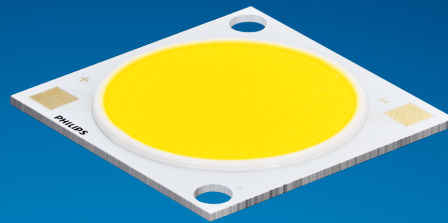


**PHILIPS**

**Fortimo**

**LED**

Fortimo SLM C 8xx 1211  
L22 2828 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](http://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 1211 L22 2828 G8N	8721103 082947 00	9290 048 19501	2270461	10
Fortimo SLM C 830 1211 L22 2828 G8N	8721103 082978 00	9290 048 19601	2270389	10
Fortimo SLM C 835 1211 L22 2828 G8N	8721103 083005 00	9290 048 19701	2270382	10
Fortimo SLM C 840 1211 L22 2828 G8N	8721103 083036 00	9290 048 19801	2270386	10
Fortimo SLM C 850 1211 L22 2828 G8N	8721103 083067 00	9290 048 19901	2270437	10
Fortimo SLM C 857 1211 L22 2828 G8N	8721103 083098 00	9290 048 20001	2270446	10

## Drive currents

Parameter	Nominal*	Life**	Max***	Unit
Fortimo SLM C 8xx 1211 L22 2828 G8N	990	see performance window	2530	mA

## Module temperatures

Parameter	Nominal*	Life**	Max***	Unit
T <sub>c</sub> (case temperature at T <sub>c</sub> 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)

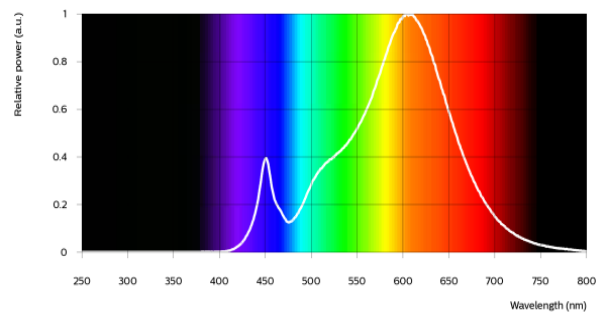
### Fortimo SLM C 827 1211 L22 2828 G8N

Parameter	Min	Typ	Max	Unit
Luminous flux	5049	5315	5846	lm
Efficacy		155		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  $\pm 0.005$ . Measurement precision for CRI  $\pm 1.5$ .

Operation point	827	lm	lm/W
80% I-nom 792mA	Tc 25 °C	4505	165
	Tc-nom 65 °C	4314	160
	Tc-max 95 °C	4109	154
I-nom 990mA	Tc 25 °C	5553	160
	Tc-nom 65 °C	5315	155
	Tc-max 95 °C	5060	149
I-max 2530mA	Tc 25 °C	12975	129
	Tc-nom 65 °C	12375	124
	Tc-max 95 °C	11729	119



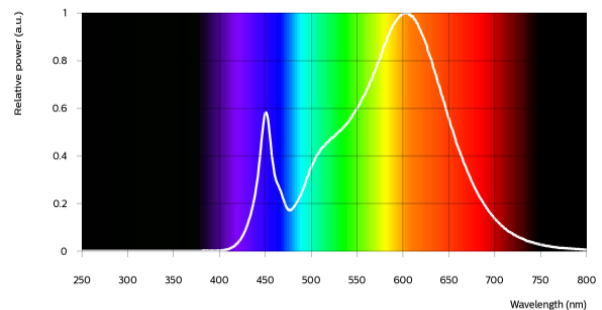
### Fortimo SLM C 830 1211 L22 2828 G8N

Parameter	Min	Typ	Max	Unit
Luminous flux	5372	5655	6220	lm
Efficacy		164		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  $\pm 0.005$ . Measurement precision for CRI  $\pm 1.5$ .

Operation point	830	lm	lm/W
80% I-nom 792mA	Tc 25 °C	4793	176
	Tc-nom 65 °C	4590	171
	Tc-max 95 °C	4372	164
I-nom 990mA	Tc 25 °C	5907	170
	Tc-nom 65 °C	5655	164
	Tc-max 95 °C	5385	158
I-max 2530mA	Tc 25 °C	13807	137
	Tc-nom 65 °C	13170	132
	Tc-max 95 °C	12485	127

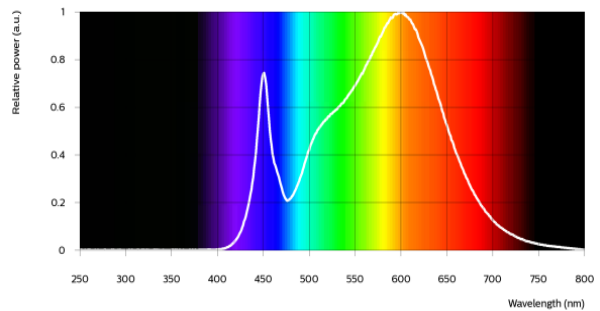


Fortimo SLM C 835 1211 L22 2828 G8N


Parameter	Min	Typ	Max	Unit
Luminous flux	5505	5795	6374	lm
Efficacy		168		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 792mA	Tc 25 °C	4912	180
	Tc-nom 65 °C	4704	175
	Tc-max 95 °C	4481	168
I-nom 990mA	Tc 25 °C	6054	174
	Tc-nom 65 °C	5795	168
	Tc-max 95 °C	5518	162
I-max 2530mA	Tc 25 °C	14149	141
	Tc-nom 65 °C	13497	136
	Tc-max 95 °C	12795	130

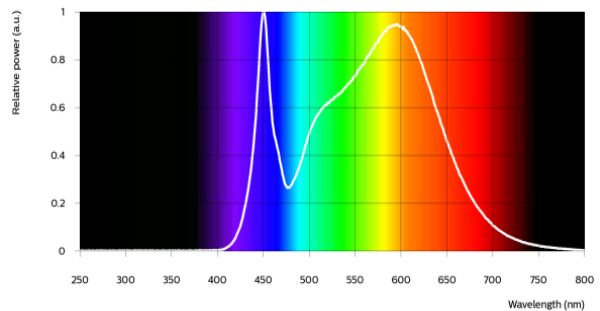


Fortimo SLM C 840 1211 L22 2828 G8N


Parameter	Min	Typ	Max	Unit
Luminous flux	5591	5885	6474	lm
Efficacy		171		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 792mA	Tc 25 °C	4988	183
	Tc-nom 65 °C	4777	178
	Tc-max 95 °C	4550	170
I-nom 990mA	Tc 25 °C	6147	177
	Tc-nom 65 °C	5885	171
	Tc-max 95 °C	5604	165
I-max 2530mA	Tc 25 °C	14370	143
	Tc-nom 65 °C	13708	138
	Tc-max 95 °C	12997	132

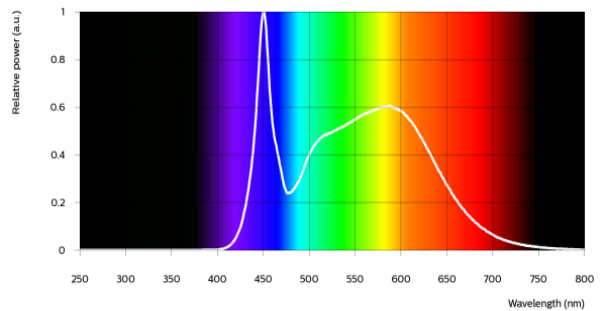


Fortimo SLM C 850 1211 L22 2828 G8N


Parameter	Min	Typ	Max	Unit
Luminous flux	5591	5885	6474	lm
Efficacy		171		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 792mA	Tc 25 °C	4988	183
	Tc-nom 65 °C	4777	178
	Tc-max 95 °C	4550	170
I-nom 990mA	Tc 25 °C	6147	177
	Tc-nom 65 °C	5885	171
	Tc-max 95 °C	5604	165
I-max 2530mA	Tc 25 °C	14370	143
	Tc-nom 65 °C	13708	138
	Tc-max 95 °C	12997	132

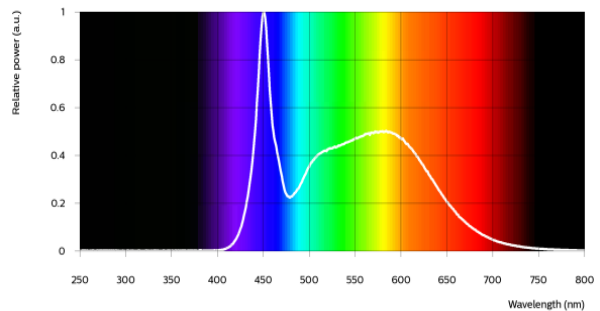


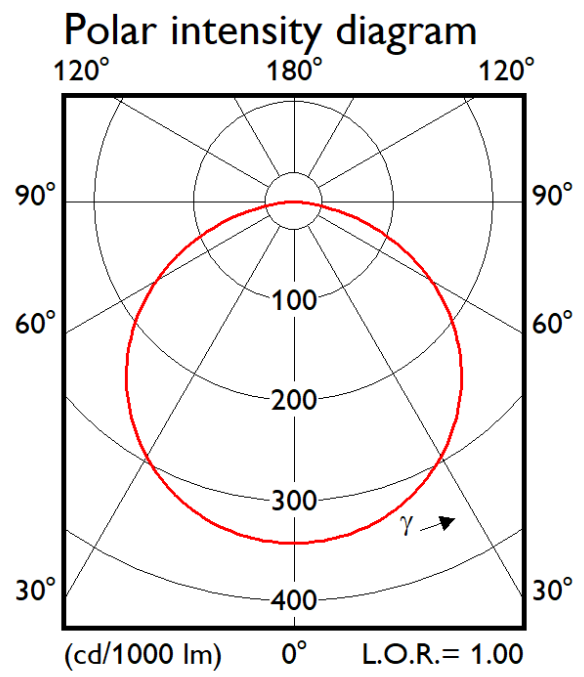
Fortimo SLM C 857 1211 L22 2828 G8N

Parameter	Min	Typ	Max	Unit
Luminous flux	5591	5885	6474	lm
Efficacy		171		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 792mA	Tc 25 °C	4988	183
	Tc-nom 65 °C	4777	178
	Tc-max 95 °C	4550	170
I-nom 990mA	Tc 25 °C	6147	177
	Tc-nom 65 °C	5885	171
	Tc-max 95 °C	5604	165
I-max 2530mA	Tc 25 °C	14370	143
	Tc-nom 65 °C	13708	138
	Tc-max 95 °C	12997	132





## Electrical characteristics

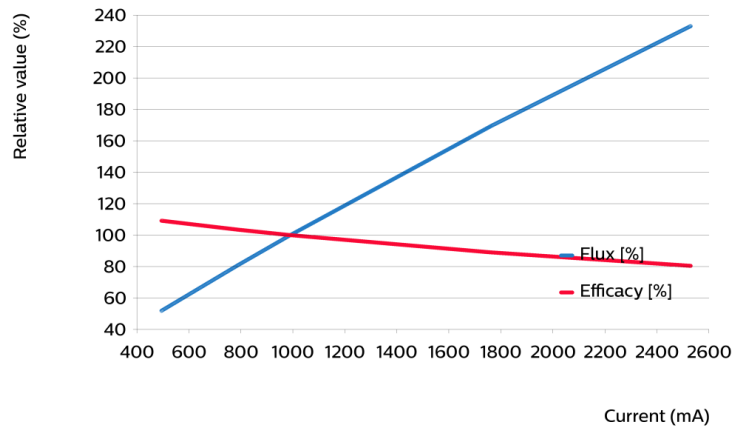
Parameter	Min	Typ	Max	Unit
Forward voltage	32.5	34.7	37.0	V
Power consumption	32.2	34.4	36.6	W = kWh/1000h
Number of modules in series per chain			1	
Number of modules per chain			1	
Number of modules in parallel			1	

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

## Tuning information

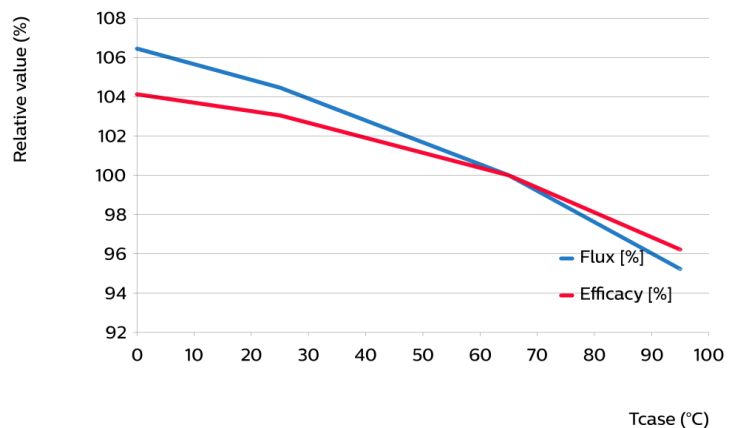
Flux and efficacy versus current (at Tc nominal)

I [mA]	Flux [%]	Efficacy [%]
2530	233	80
1760	169	89
990	100	100
792	81	103
495	52	109



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	104



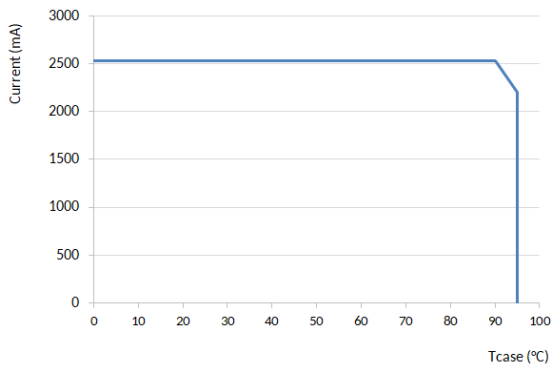
## Lumen maintenance

Operation point	Lumen maintenance x 1000 hours	L70			L80			L90		
		B50	B20	B10	B50	B20	B10	B50	B20	B10
80% I-nom 792mA	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 990mA	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 2530mA	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

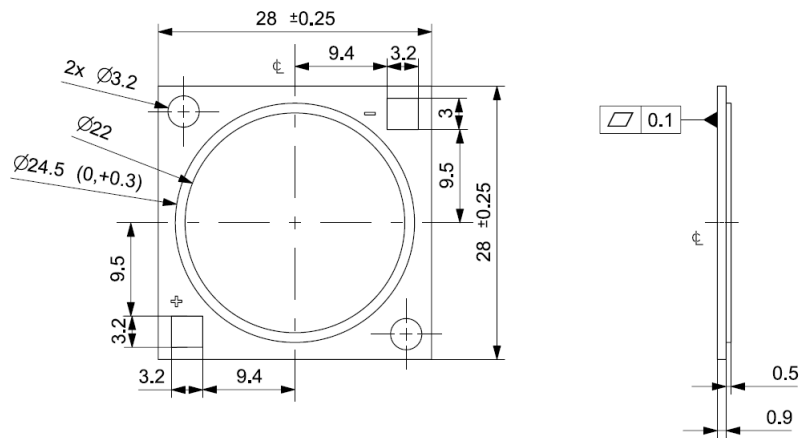
Parameter	Value	Unit
M70F50 nominal	>66000	hours

## Performance Window



## Mechanical characteristics

Parameter	Min	Typ	Max	Unit
Length	27.75	28	28.25	mm
Width	27.75	28	28.25	mm
Height PCB	0.8	0.9	1	mm
Height including dam	1.1	1.4	1.7	mm
Product mass		2.03		gram



## Absolute ratings

Parameter	Min	Max	Unit
Current through the LED module (I-max)		2530	mA
Case temperature (Tc-max)		95	°C
ESD (direct contact)	8		kV
Working voltage		60	V <sub>dc</sub>
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/EN 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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