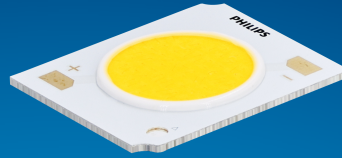


**PHILIPS**

**Fortimo**

**LED**

Fortimo SLM C 8xx 1206  
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](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 1206 L13 2024 G8	8721103 076120 00	9290 039 45801	2270253	20
Fortimo SLM C 830 1206 L13 2024 G8	8721103 076151 00	9290 039 45901	2270285	20
Fortimo SLM C 835 1206 L13 2024 G8	8721103 076182 00	9290 039 46001	2270254	20
Fortimo SLM C 840 1206 L13 2024 G8	8721103 076212 00	9290 039 46101	2270324	20
Fortimo SLM C 850 1206 L13 2024 G8	8721103 076243 00	9290 039 46201	2270244	20
Fortimo SLM C 857 1206 L13 2024 G8	8721103 076274 00	9290 039 46301	2270231	20
Fortimo SLM C 830 PW 1206 L13 2024 G8	8721103 076304 00	9290 039 46401	2270225	20

## Drive currents

Parameter	Nominal*	Life**	Max***	Unit
Fortimo SLM C 8xx 1206 L13 2024 G8	600	see performance window	1380	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)

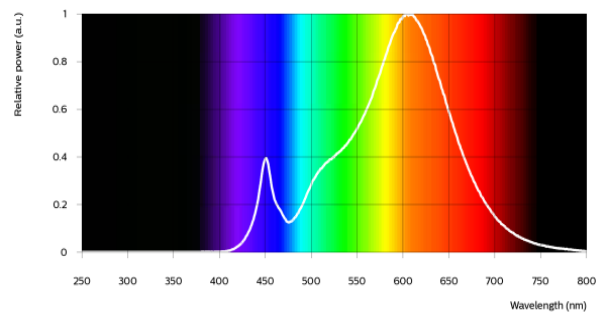
### Fortimo SLM C 827 1206 L13 2024 G8

Parameter	Min	Typ	Max	Unit
Luminous flux	2936	3090	3399	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  $\pm 0.005$ . Measurement precision for CRI  $\pm 1.5$ .

Operation point	827	lm	lm/W
80% I-nom 480mA	Tc 25 °C	2633	160
	Tc-nom 65 °C	2515	154
	Tc-max 95 °C	2400	149
I-nom 600mA	Tc 25 °C	3236	154
	Tc-nom 65 °C	3090	149
	Tc-max 95 °C	2947	143
I-max 1380mA	Tc 25 °C	6789	125
	Tc-nom 65 °C	6454	121
	Tc-max 95 °C	6127	115



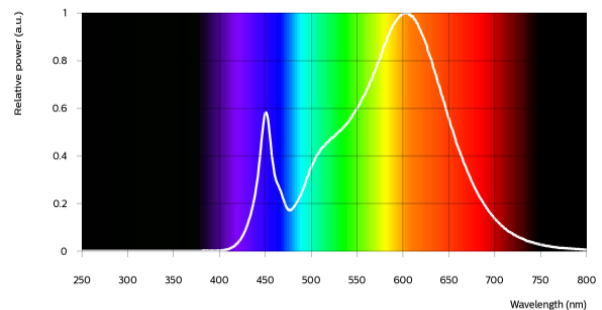
### Fortimo SLM C 830 1206 L13 2024 G8

Parameter	Min	Typ	Max	Unit
Luminous flux	3121	3285	3614	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  $\pm 0.005$ . Measurement precision for CRI  $\pm 1.5$ .

Operation point	830	lm	lm/W
80% I-nom 480mA	Tc 25 °C	2799	170
	Tc-nom 65 °C	2673	164
	Tc-max 95 °C	2551	158
I-nom 600mA	Tc 25 °C	3440	163
	Tc-nom 65 °C	3285	158
	Tc-max 95 °C	3133	152
I-max 1380mA	Tc 25 °C	7219	133
	Tc-nom 65 °C	6864	128
	Tc-max 95 °C	6517	123

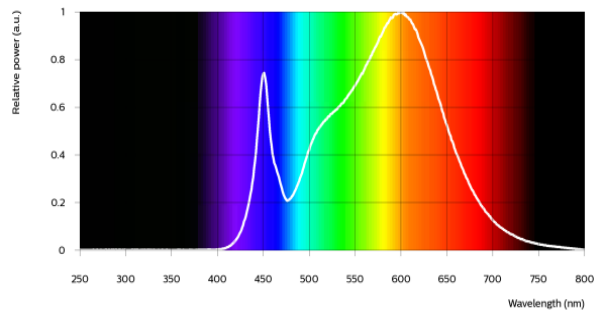


Fortimo SLM C 835 1206 L13 2024 G8


Parameter	Min	Typ	Max	Unit
Luminous flux	3202	3370	3707	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 480mA	Tc 25 °C	2871	174
	Tc-nom 65 °C	2743	168
	Tc-max 95 °C	2618	163
I-nom 600mA	Tc 25 °C	3529	167
	Tc-nom 65 °C	3370	162
	Tc-max 95 °C	3215	156
I-max 1380mA	Tc 25 °C	7406	137
	Tc-nom 65 °C	7042	132
	Tc-max 95 °C	6687	126

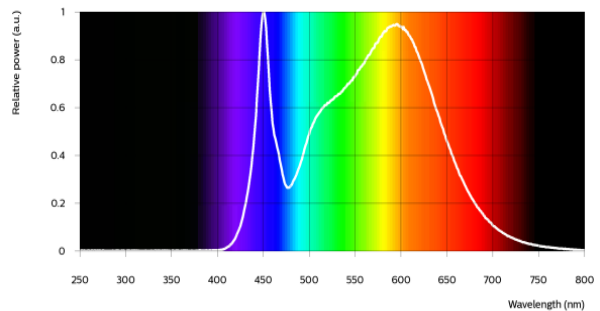


Fortimo SLM C 840 1206 L13 2024 G8


Parameter	Min	Typ	Max	Unit
Luminous flux	3249	3420	3762	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 480mA	Tc 25 °C	2913	177
	Tc-nom 65 °C	2783	171
	Tc-max 95 °C	2656	165
I-nom 600mA	Tc 25 °C	3582	170
	Tc-nom 65 °C	3420	164
	Tc-max 95 °C	3262	158
I-max 1380mA	Tc 25 °C	7516	139
	Tc-nom 65 °C	7148	134
	Tc-max 95 °C	6788	128

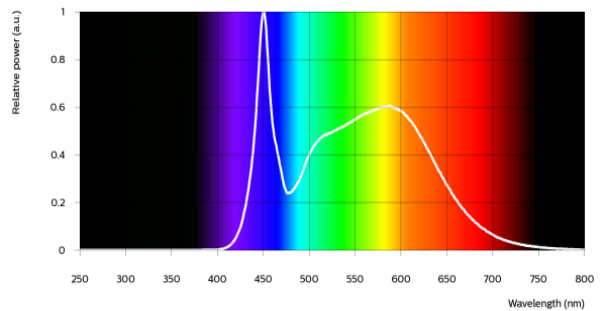


Fortimo SLM C 850 1206 L13 2024 G8


Parameter	Min	Typ	Max	Unit
Luminous flux	3249	3420	3762	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 480mA	Tc 25 °C	2913	177
	Tc-nom 65 °C	2783	171
	Tc-max 95 °C	2656	165
I-nom 600mA	Tc 25 °C	3582	170
	Tc-nom 65 °C	3420	164
	Tc-max 95 °C	3262	158
I-max 1380mA	Tc 25 °C	7516	139
	Tc-nom 65 °C	7148	134
	Tc-max 95 °C	6788	128

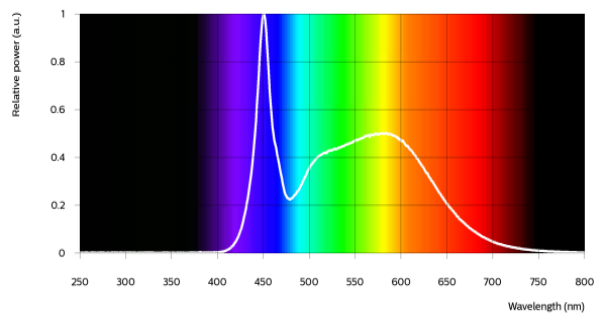



Fortimo SLM C 857 1206 L13 2024 G8

Parameter	Min	Typ	Max	Unit
Luminous flux	3249	3420	3762	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.

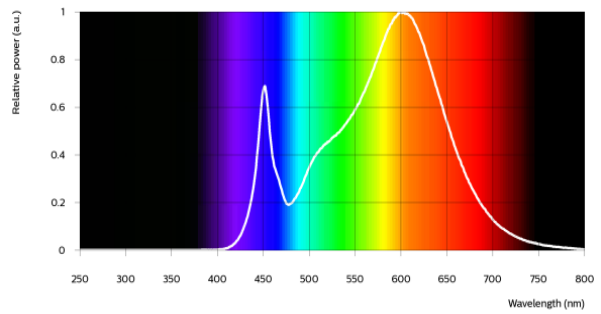
Operation point	857	lm	lm/W
80% I-nom 480mA	Tc 25 °C	2913	177
	Tc-nom 65 °C	2783	171
	Tc-max 95 °C	2656	165
I-nom 600mA	Tc 25 °C	3582	170
	Tc-nom 65 °C	3420	164
	Tc-max 95 °C	3262	158
I-max 1380mA	Tc 25 °C	7516	139
	Tc-nom 65 °C	7148	134
	Tc-max 95 °C	6788	128



Parameter	Min	Typ	Max	Unit
Luminous flux	3092	3255	3580	lm
Efficacy		156		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 480mA	Tc 25 °C	2773	168
	Tc-nom 65 °C	2649	163
	Tc-max 95 °C	2528	157
I-nom 600mA	Tc 25 °C	3409	162
	Tc-nom 65 °C	3255	156
	Tc-max 95 °C	3105	151
I-max 1380mA	Tc 25 °C	7153	132
	Tc-nom 65 °C	6802	127
	Tc-max 95 °C	6458	122





## Electrical characteristics

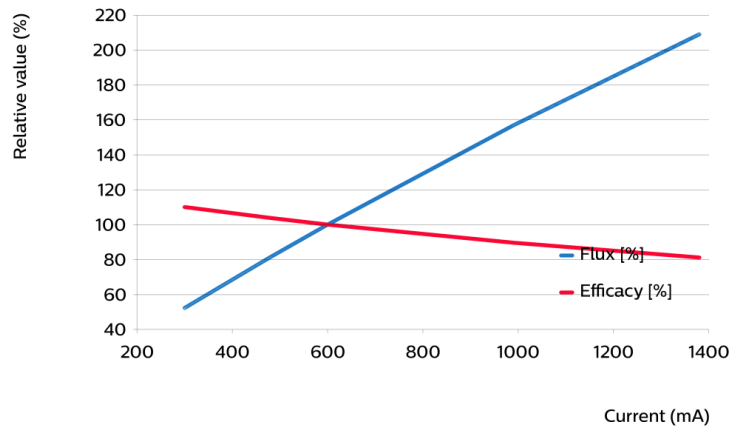
Parameter	Min	Typ	Max	Unit
Forward voltage	32.5	34.7	37.0	V
Power consumption	19.5	20.8	22.2	W = kWh/1000h
Number of modules in series per chain			1	
Number of modules per chain			1	
Number of modules in parallel			1	

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

## Tuning information

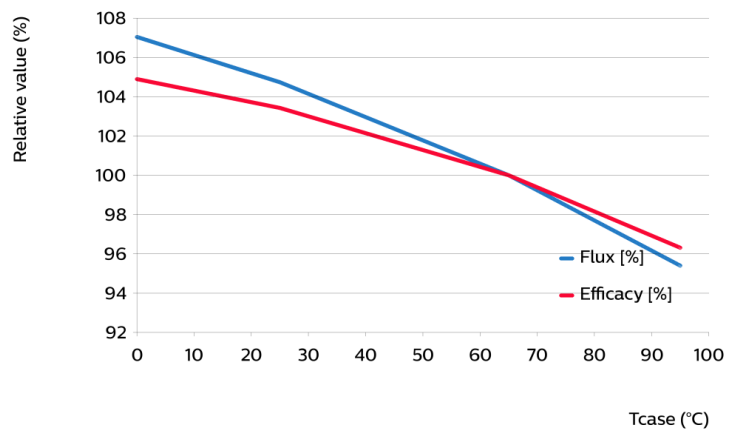
Flux and efficacy versus current (at Tc nominal)

I [mA]	Flux [%]	Efficacy [%]
1380	209	81
990	157	90
600	100	100
480	81	104
300	52	110



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

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



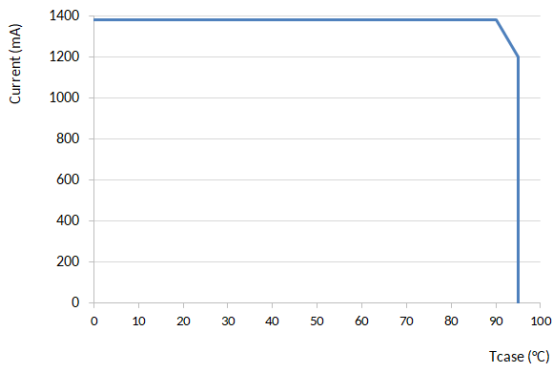
## Lumen maintenance

Operation point	Lumen maintenance x 1000 hours	L70			L80			L90		
		B50	B20	B10	B50	B20	B10	B50	B20	B10
80% I-nom 480mA	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 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	56	51
I-max 1380mA	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

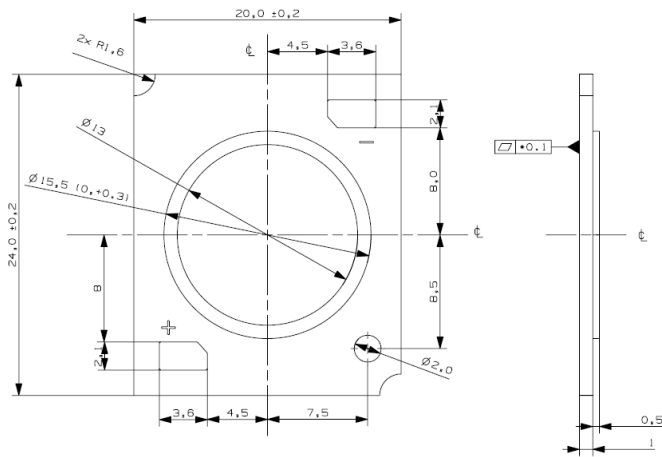
Parameter	Value	Unit
M70F50 nominal	>66000	hours

## 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		1.28		gram



## Absolute ratings

Parameter	Min	Max	Unit
Current through the LED module (I-max)		1380	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 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