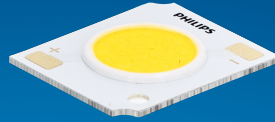


PHILIPS

Fortimo

LED

Fortimo SLM C 8xx 1204
L09 1619 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 1204 L09 1619 G8	8721103 074867 00	9290 039 41601	2270220	20
Fortimo SLM C 830 1204 L09 1619 G8	8721103 074898 00	9290 039 41701	2270190	20
Fortimo SLM C 835 1204 L09 1619 G8	8721103 074928 00	9290 039 41801	2270292	20
Fortimo SLM C 840 1204 L09 1619 G8	8721103 074959 00	9290 039 41901	2270269	20
Fortimo SLM C 850 1204 L09 1619 G8	8721103 074980 00	9290 039 42001	2270306	20
Fortimo SLM C 857 1204 L09 1619 G8	8721103 075017 00	9290 039 42101	2270289	20
Fortimo SLM C 830 PW 1204 L09 1619 G8	8721103 075048 00	9290 039 42201	2270193	20

Drive currents

Parameter	Nominal*	Life**	Max***	Unit
Fortimo SLM C 8xx 1204 L09 1619 G8	400	see performance window	920	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)

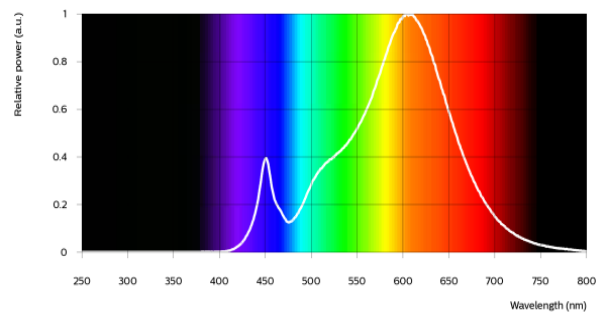
Fortimo SLM C 827 1204 L09 1619 G8

Parameter	Min	Typ	Max	Unit
Luminous flux	1919	2020	2222	lm
Efficacy		145		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 320mA	Tc 25 °C	1717	156
	Tc-nom 65 °C	1645	151
	Tc-max 95 °C	1575	146
I-nom 400mA	Tc 25 °C	2109	151
	Tc-nom 65 °C	2020	145
	Tc-max 95 °C	1933	141
I-max 920mA	Tc 25 °C	4410	123
	Tc-nom 65 °C	4205	118
	Tc-max 95 °C	4003	114



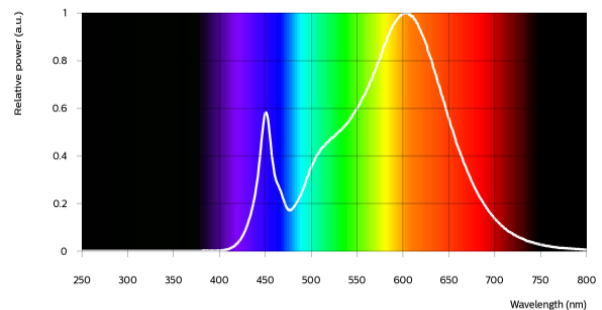
Fortimo SLM C 830 1204 L09 1619 G8

Parameter	Min	Typ	Max	Unit
Luminous flux	2042	2150	2365	lm
Efficacy		155		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 320mA	Tc 25 °C	1827	166
	Tc-nom 65 °C	1751	161
	Tc-max 95 °C	1677	155
I-nom 400mA	Tc 25 °C	2244	160
	Tc-nom 65 °C	2150	155
	Tc-max 95 °C	2058	150
I-max 920mA	Tc 25 °C	4694	131
	Tc-nom 65 °C	4477	126
	Tc-max 95 °C	4263	121

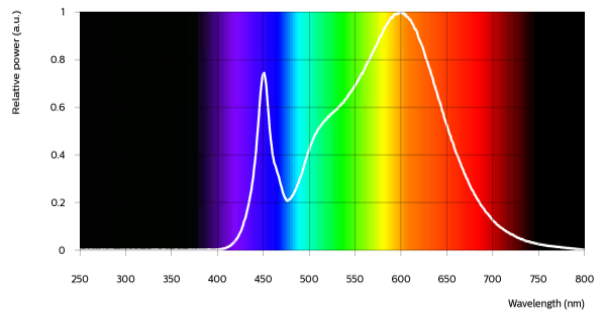


Fortimo SLM C 835 1204 L09 1619 G8


Parameter	Min	Typ	Max	Unit
Luminous flux	2095	2205	2426	lm
Efficacy		159		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 320mA	Tc 25 °C	1874	170
	Tc-nom 65 °C	1796	165
	Tc-max 95 °C	1720	159
I-nom 400mA	Tc 25 °C	2302	164
	Tc-nom 65 °C	2205	159
	Tc-max 95 °C	2110	154
I-max 920mA	Tc 25 °C	4815	134
	Tc-nom 65 °C	4592	129
	Tc-max 95 °C	4373	125

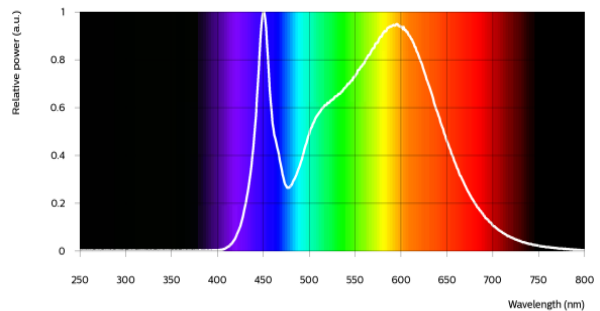


Fortimo SLM C 840 1204 L09 1619 G8


Parameter	Min	Typ	Max	Unit
Luminous flux	2128	2240	2464	lm
Efficacy		161		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 320mA	Tc 25 °C	1903	173
	Tc-nom 65 °C	1824	167
	Tc-max 95 °C	1747	162
I-nom 400mA	Tc 25 °C	2338	167
	Tc-nom 65 °C	2240	161
	Tc-max 95 °C	2144	156
I-max 920mA	Tc 25 °C	4892	136
	Tc-nom 65 °C	4666	131
	Tc-max 95 °C	4444	127

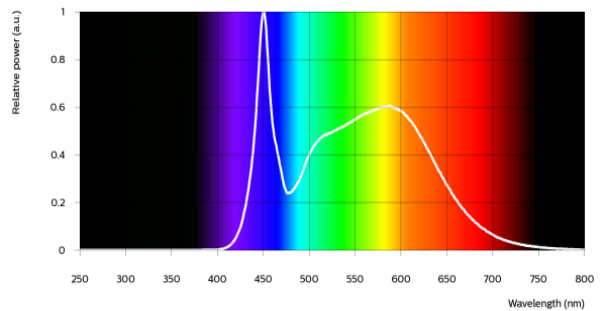


Fortimo SLM C 850 1204 L09 1619 G8


Parameter	Min	Typ	Max	Unit
Luminous flux	2128	2240	2464	lm
Efficacy		161		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 320mA	Tc 25 °C	1903	173
	Tc-nom 65 °C	1824	167
	Tc-max 95 °C	1747	162
I-nom 400mA	Tc 25 °C	2338	167
	Tc-nom 65 °C	2240	161
	Tc-max 95 °C	2144	156
I-max 920mA	Tc 25 °C	4892	136
	Tc-nom 65 °C	4666	131
	Tc-max 95 °C	4444	127

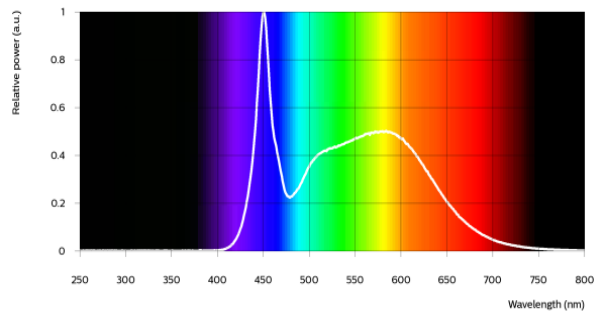



Fortimo SLM C 857 1204 L09 1619 G8

Parameter	Min	Typ	Max	Unit
Luminous flux	2128	2240	2464	lm
Efficacy		161		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.

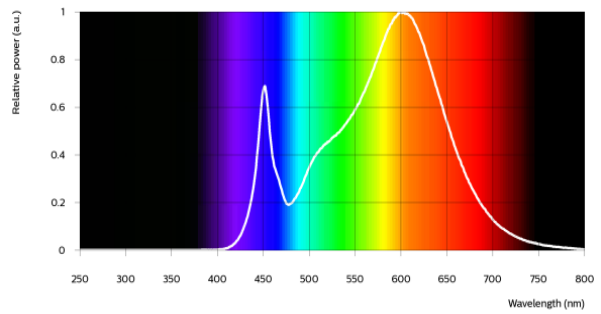
Operation point	857	lm	lm/W
80% I-nom 320mA	Tc 25 °C	1903	173
	Tc-nom 65 °C	1824	167
	Tc-max 95 °C	1747	162
I-nom 400mA	Tc 25 °C	2338	167
	Tc-nom 65 °C	2240	161
	Tc-max 95 °C	2144	156
I-max 920mA	Tc 25 °C	4892	136
	Tc-nom 65 °C	4666	131
	Tc-max 95 °C	4444	127



Parameter	Min	Typ	Max	Unit
Luminous flux	2024	2130	2343	lm
Efficacy		153		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 320mA	Tc 25 °C	1810	165
	Tc-nom 65 °C	1735	159
	Tc-max 95 °C	1661	154
I-nom 400mA	Tc 25 °C	2223	159
	Tc-nom 65 °C	2130	153
	Tc-max 95 °C	2039	149
I-max 920mA	Tc 25 °C	4651	130
	Tc-nom 65 °C	4436	125
	Tc-max 95 °C	4224	120





Electrical characteristics

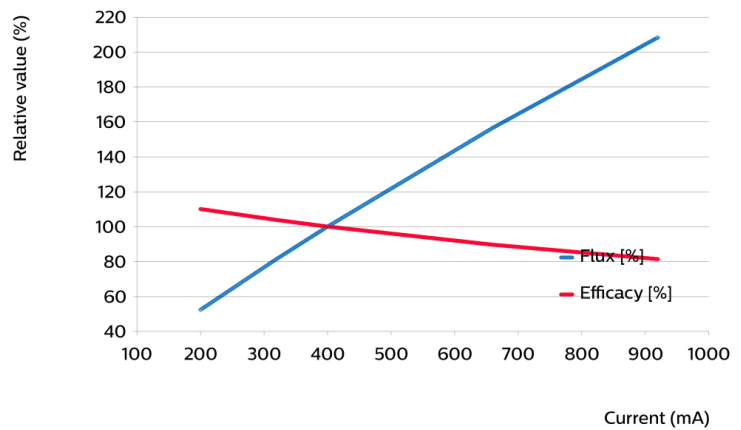
Parameter	Min	Typ	Max	Unit
Forward voltage	32.5	34.7	37.0	V
Power consumption	13.0	13.9	14.8	W = kWh/1000h
Number of modules in series per chain			1	
Number of modules per chain			1	
Number of modules in parallel			1	

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

Tuning information

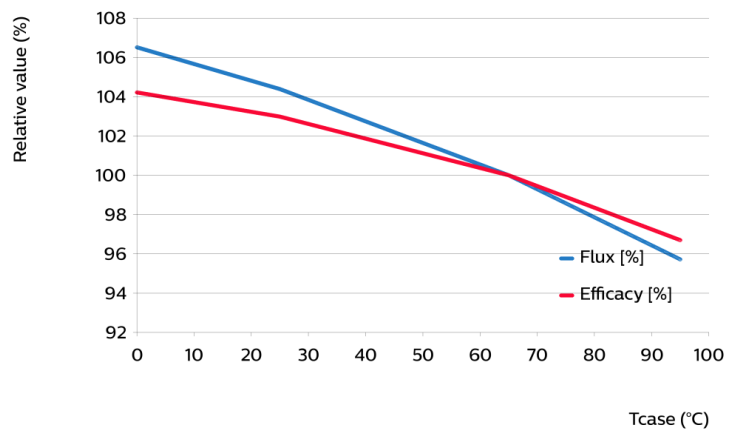
Flux and efficacy versus current (at Tc nominal)

I [mA]	Flux [%]	Efficacy [%]
920	208	81
660	157	90
400	100	100
320	81	104
200	52	110



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



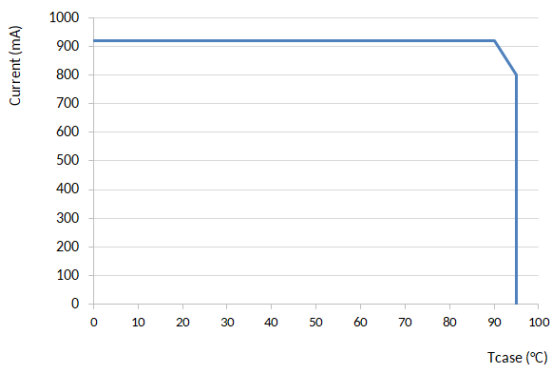
Lumen maintenance

Operation point	Lumen maintenance x 1000 hours	L70			L80			L90		
		B50	B20	B10	B50	B20	B10	B50	B20	B10
80% I-nom 320mA	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 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	56	51
I-max 920mA	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

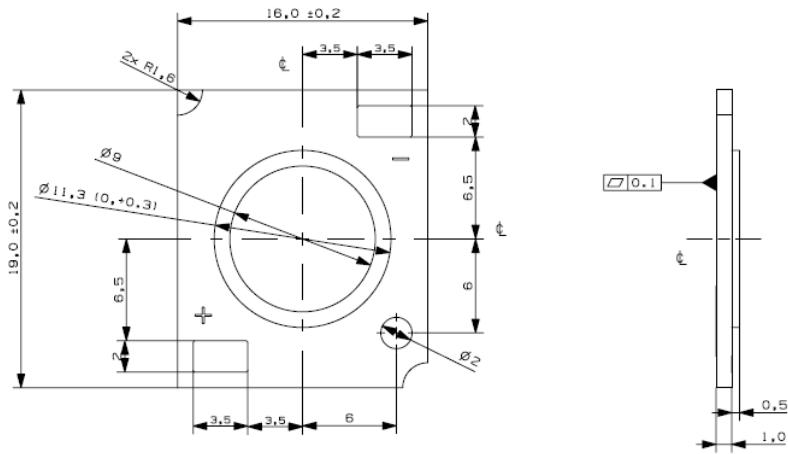
Parameter	Value	Unit
M70F50 nominal	>66000	hours

Performance Window



Mechanical characteristics

Parameter	Min	Typ	Max	Unit
Length	18.8	19	19.2	mm
Width	15.8	16	16.2	mm
Height PCB	0.9	1	1.1	mm
Height including dam	1.2	1.5	1.8	mm
Product mass		0.8		gram



Absolute ratings

Parameter	Min	Max	Unit
Current through the LED module (I-max)		920	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