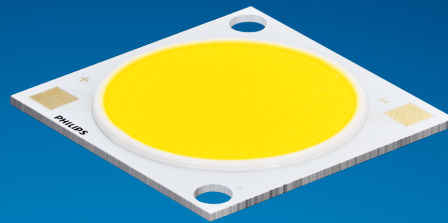


PHILIPS

Fortimo

LED

Fortimo SLM C 9xx 1812
L22 2828 G8N



Datasheet

Best offer of performance and value

Fortimo LED SLM CRI90 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 927 1812 L22 2828 G8N	8721103 084835 00	9290 048 25801	2270151	10
Fortimo SLM C 930 1812 L22 2828 G8N	8721103 084866 00	9290 048 25901	2270149	10
Fortimo SLM C 935 1812 L22 2828 G8N	8721103 084897 00	9290 048 26001	2270185	10
Fortimo SLM C 940 1812 L22 2828 G8N	8721103 084927 00	9290 048 26101	2270091	10
Fortimo SLM C 930 PW 1812 L22 2828 G8N	8721103 084958 00	9290 048 26201	2270157	10
Fortimo SLM C 935 PW 1812 L22 2828 G8N	8721103 084989 00	9290 048 26301	2270184	10
Fortimo SLM C 940 PW 1812 L22 2828 G8N	8721103 085016 00	9290 048 26401	2270480	10

Drive currents

Parameter	Nominal*	Life**	Max***	Unit
Fortimo SLM C 9xx 1812 L22 2828 G8N	1080	see performance window	2760	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

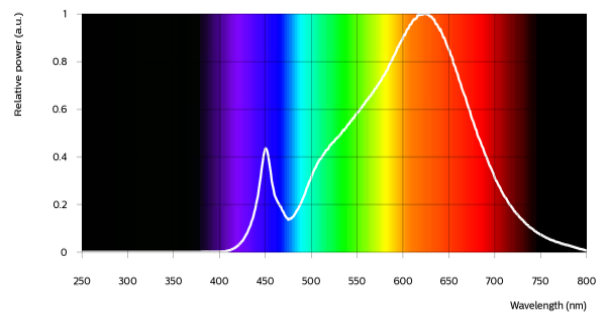
Optical characteristics - table per color (CCT)

Fortimo SLM C 927 1812 L22 2828 G8N


Parameter	Min	Typ	Max	Unit
Luminous flux	6802	7160	7876	lm
Efficacy		127		lm/W
Correlated color temperature (CCT)		2700		K
Color coordinates (CIEx, CIEy)		(0.458, 0.410)		-
Color consistency			3	SDCM
CRI	90			
R9	50			
Photometric code		927/359		
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	927	lm	lm/W
80% I-nom 864mA	Tc 25 °C	6101	136
	Tc-nom 65 °C	5833	132
	Tc-max 95 °C	5572	128
I-nom 1080mA	Tc 25 °C	7491	132
	Tc-nom 65 °C	7160	127
	Tc-max 95 °C	6838	123
I-max 2760mA	Tc 25 °C	17096	105
	Tc-nom 65 °C	16292	102
	Tc-max 95 °C	15508	98

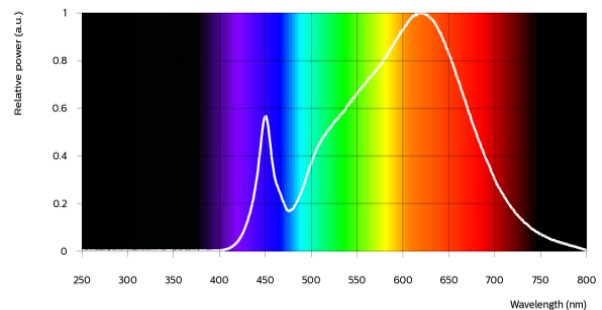


Fortimo SLM C 930 1812 L22 2828 G8N


Parameter	Min	Typ	Max	Unit
Luminous flux	7230	7610	8371	lm
Efficacy		135		lm/W
Correlated color temperature (CCT)		3000		K
Color coordinates (CIEx, CIEy)		(0.434, 0.403)		-
Color consistency			3	SDCM
CRI	90			
R9	50			
Photometric code		930/359		
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	930	lm	lm/W
80% I-nom 864mA	Tc 25 °C	6484	145
	Tc-nom 65 °C	6199	141
	Tc-max 95 °C	5923	136
I-nom 1080mA	Tc 25 °C	7961	140
	Tc-nom 65 °C	7610	135
	Tc-max 95 °C	7268	131
I-max 2760mA	Tc 25 °C	18173	112
	Tc-nom 65 °C	17320	108
	Tc-max 95 °C	16488	104

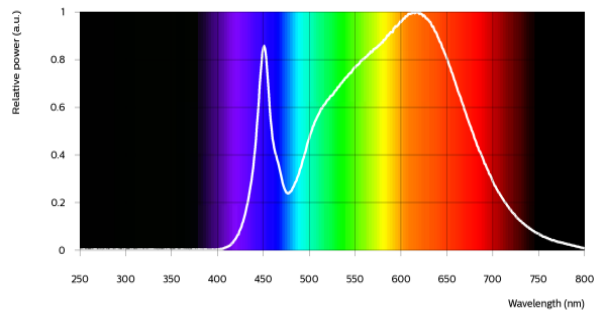


Fortimo SLM C 935 1812 L22 2828 G8N


Parameter	Min	Typ	Max	Unit
Luminous flux	7443	7835	8618	lm
Efficacy		139		lm/W
Correlated color temperature (CCT)		3500		K
Color coordinates (CIEx, CIEy)		(0.408, 0.393)		-
Color consistency			3	SDCM
CRI	90			
R9	50			
Photometric code		935/359		
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	935	lm	lm/W
80% I-nom 864mA	Tc 25 °C	6675	149
	Tc-nom 65 °C	6383	145
	Tc-max 95 °C	6098	140
I-nom 1080mA	Tc 25 °C	8197	144
	Tc-nom 65 °C	7835	139
	Tc-max 95 °C	7483	135
I-max 2760mA	Tc 25 °C	18711	115
	Tc-nom 65 °C	17833	111
	Tc-max 95 °C	16977	107

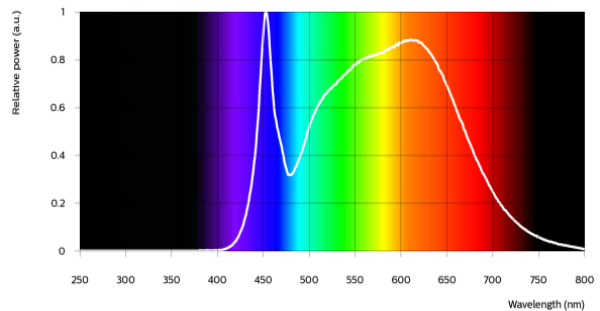


Fortimo SLM C 940 1812 L22 2828 G8N


Parameter	Min	Typ	Max	Unit
Luminous flux	7614	8015	8816	lm
Efficacy		143		lm/W
Correlated color temperature (CCT)		4000		K
Color coordinates (CIEx, CIEy)		(0.382, 0.380)		-
Color consistency			3	SDCM
CRI	90			
R9	50			
Photometric code		940/359		
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	940	lm	lm/W
80% I-nom 864mA	Tc 25 °C	6829	153
	Tc-nom 65 °C	6529	148
	Tc-max 95 °C	6238	143
I-nom 1080mA	Tc 25 °C	8385	147
	Tc-nom 65 °C	8015	143
	Tc-max 95 °C	7655	138
I-max 2760mA	Tc 25 °C	19141	118
	Tc-nom 65 °C	18244	114
	Tc-max 95 °C	17369	109

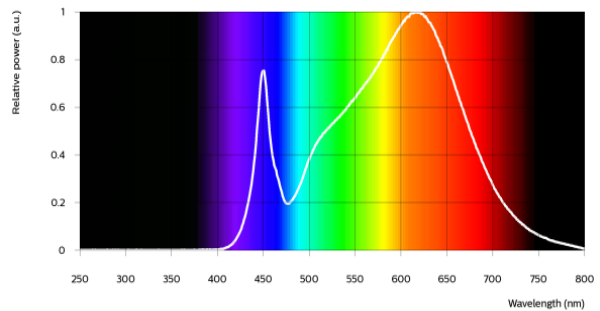


Fortimo SLM C 930 PW 1812 L22 2828 G8N


Parameter	Min	Typ	Max	Unit
Luminous flux	7230	7610	8371	lm
Efficacy		135		lm/W
Correlated color temperature (CCT)		3000		K
Color coordinates (CIEx, CIEy)		(0.422, 0.386)		-
Color consistency			3	SDCM
CRI	90			
R9	50			
Photometric code		930/359		
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	930	lm	lm/W
80% I-nom 864mA	Tc 25 °C	6484	145
	Tc-nom 65 °C	6199	141
	Tc-max 95 °C	5923	136
I-nom 1080mA	Tc 25 °C	7961	140
	Tc-nom 65 °C	7610	135
	Tc-max 95 °C	7268	131
I-max 2760mA	Tc 25 °C	18173	112
	Tc-nom 65 °C	17320	108
	Tc-max 95 °C	16488	104

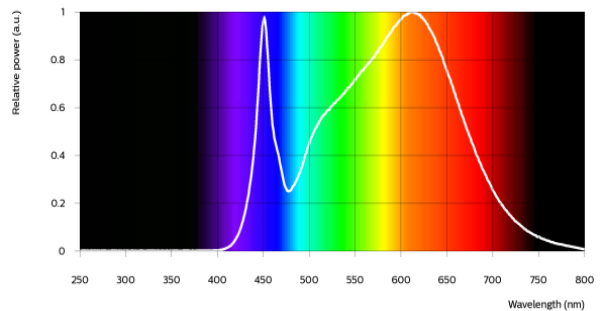



Fortimo SLM C 935 PW 1812 L22 2828 G8N

Parameter	Min	Typ	Max	Unit
Luminous flux	7443	7835	8618	lm
Efficacy		139		lm/W
Correlated color temperature (CCT)		3500		K
Color coordinates (CIEx, CIEy)		(0.398, 0.376)		-
Color consistency			3	SDCM
CRI	90			
R9	50			
Photometric code		935/359		
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.

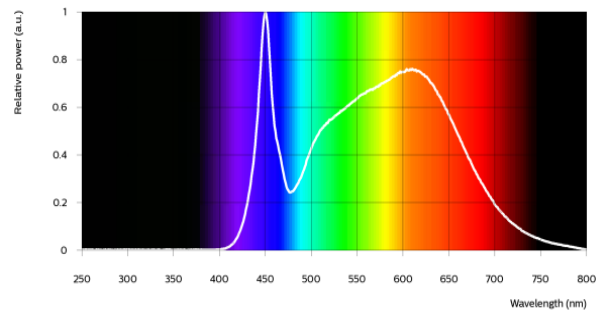
Operation point	935	lm	lm/W
80% I-nom 864mA	Tc 25 °C	6675	149
	Tc-nom 65 °C	6383	145
	Tc-max 95 °C	6098	140
I-nom 1080mA	Tc 25 °C	8197	144
	Tc-nom 65 °C	7835	139
	Tc-max 95 °C	7483	135
I-max 2760mA	Tc 25 °C	18711	115
	Tc-nom 65 °C	17833	111
	Tc-max 95 °C	16977	107



Parameter	Min	Typ	Max	Unit
Luminous flux	7614	8015	8816	lm
Efficacy		143		lm/W
Correlated color temperature (CCT)		4000		K
Color coordinates (CIEx, CIEy)		(0.374, 0.364)		-
Color consistency			3	SDCM
CRI	90			
R9	50			
Photometric code		940/359		
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	940	lm	lm/W
80% I-nom 864mA	Tc 25 °C	6829	153
	Tc-nom 65 °C	6529	148
	Tc-max 95 °C	6238	143
I-nom 1080mA	Tc 25 °C	8385	147
	Tc-nom 65 °C	8015	143
	Tc-max 95 °C	7655	138
I-max 2760mA	Tc 25 °C	19141	118
	Tc-nom 65 °C	18244	114
	Tc-max 95 °C	17369	109





Electrical characteristics

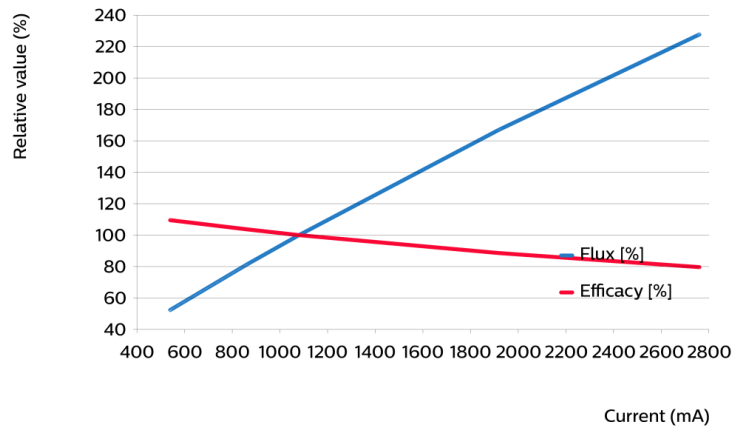
Parameter	Min	Typ	Max	Unit
Forward voltage	49.5	52.0	54.5	V
Power consumption	53.5	56.2	58.9	W = kWh/1000h
Number of modules in series per chain			1	
Number of modules per chain			1	
Number of modules in parallel			1	

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

Tuning information

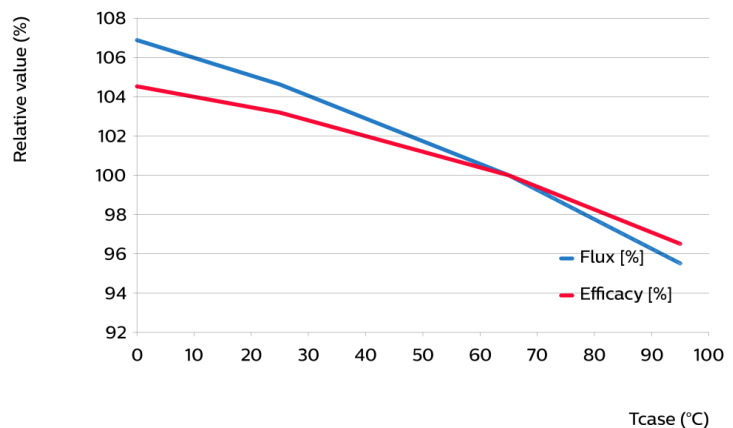
Flux and efficacy versus current (at Tc nominal)

I [mA]	Flux [%]	Efficacy [%]
2760	228	80
1920	167	88
1080	100	100
864	81	104
540	52	110



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



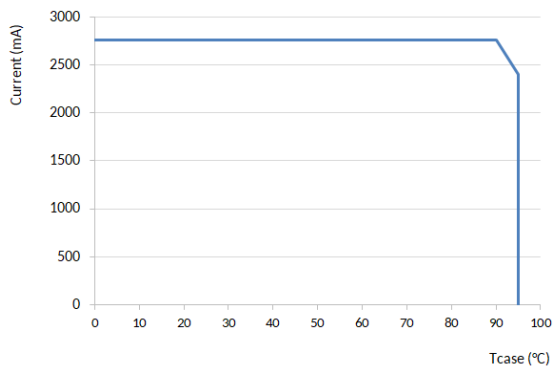
Lumen maintenance

Operation point	Lumen maintenance x 1000 hours	L70			L80			L90		
		B50	B20	B10	B50	B20	B10	B50	B20	B10
80% I-nom 864mA	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 1080mA	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 2760mA	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

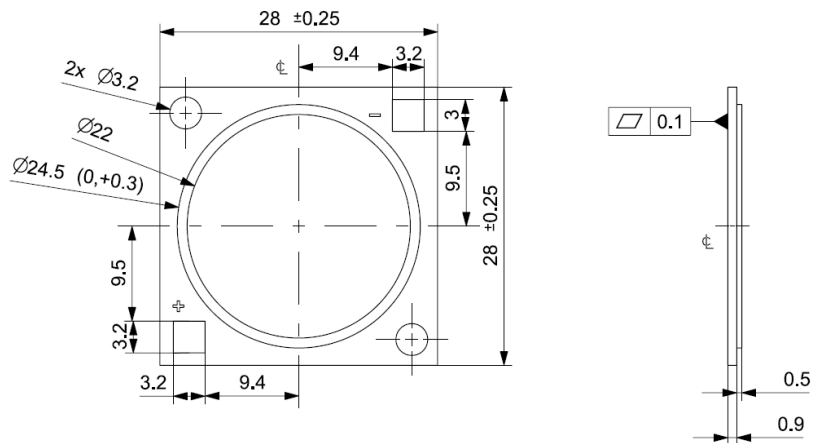
Parameter	Value	Unit
M70F50 nominal	>66000	hours

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		2.1		gram



Absolute ratings

Parameter	Min	Max	Unit
Current through the LED module (I-max)		2760	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/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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10/03/2025