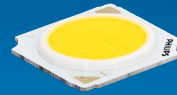


**PHILIPS**

**Fortimo**

**LED**

Fortimo SLM C 9xx 1203  
L09 1313 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](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 927 1203 L09 1313 G8N	8721103 079701 00	9290 039 57601	2270439	20
Fortimo SLM C 930 1203 L09 1313 G8N	8721103 079732 00	9290 039 57701	2270357	20
Fortimo SLM C 935 1203 L09 1313 G8N	8721103 079763 00	9290 039 57801	2270413	20
Fortimo SLM C 940 1203 L09 1313 G8N	8721103 079794 00	9290 039 57901	2270406	20
Fortimo SLM C 930 PW 1203 L09 1313 G8N	8721103 079824 00	9290 039 58001	2270415	20
Fortimo SLM C 935 PW 1203 L09 1313 G8N	8721103 079855 00	9290 039 58101	2270449	20
Fortimo SLM C 940 PW 1203 L09 1313 G8N	8721103 079886 00	9290 039 58201	2270419	20

## Drive currents

Parameter	Nominal*	Life**	Max***	Unit
Fortimo SLM C 9xx 1203 L09 1313 G8N	270	see performance window	690	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

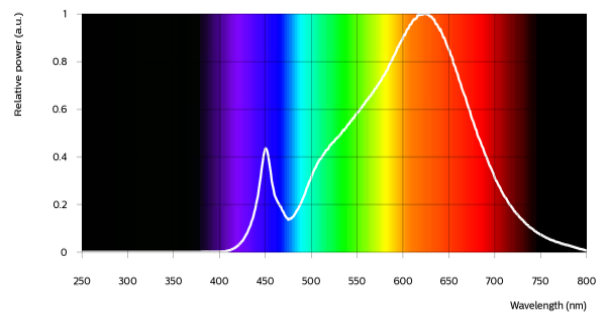
## Optical characteristics - table per color (CCT)

### Fortimo SLM C 927 1203 L09 1313 G8N


Parameter	Min	Typ	Max	Unit
Luminous flux	1154	1215	1336	lm
Efficacy		131		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  $\pm 0.005$ . Measurement precision for CRI  $\pm 1.5$ .

Operation point	927	lm	lm/W
80% I-nom 216mA	Tc 25 °C	1033	140
	Tc-nom 65 °C	988	135
	Tc-max 95 °C	944	131
I-nom 270mA	Tc 25 °C	1271	135
	Tc-nom 65 °C	1215	131
	Tc-max 95 °C	1160	126
I-max 690mA	Tc 25 °C	2941	109
	Tc-nom 65 °C	2800	105
	Tc-max 95 °C	2660	101

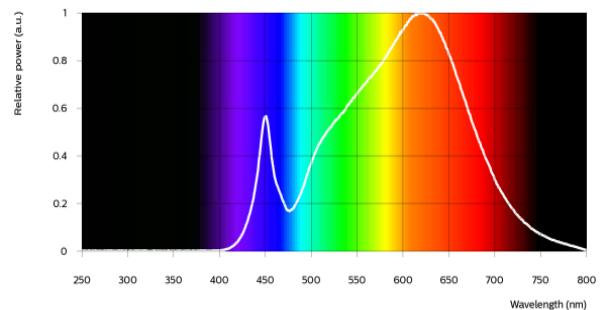


### Fortimo SLM C 930 1203 L09 1313 G8N


Parameter	Min	Typ	Max	Unit
Luminous flux	1226	1290	1419	lm
Efficacy		139		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  $\pm 0.005$ . Measurement precision for CRI  $\pm 1.5$ .

Operation point	930	lm	lm/W
80% I-nom 216mA	Tc 25 °C	1096	148
	Tc-nom 65 °C	1049	144
	Tc-max 95 °C	1002	139
I-nom 270mA	Tc 25 °C	1349	144
	Tc-nom 65 °C	1290	139
	Tc-max 95 °C	1232	134
I-max 690mA	Tc 25 °C	3123	116
	Tc-nom 65 °C	2973	112
	Tc-max 95 °C	2825	107

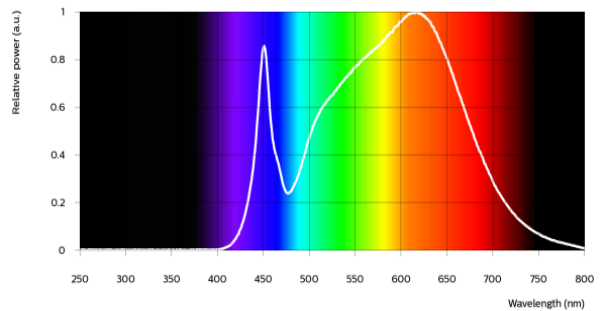


Fortimo SLM C 935 1203 L09 1313 G8N


Parameter	Min	Typ	Max	Unit
Luminous flux	1264	1330	1463	lm
Efficacy		143		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 216mA	Tc 25 °C	1130	153
	Tc-nom 65 °C	1081	148
	Tc-max 95 °C	1033	143
I-nom 270mA	Tc 25 °C	1391	148
	Tc-nom 65 °C	1330	143
	Tc-max 95 °C	1270	138
I-max 690mA	Tc 25 °C	3221	119
	Tc-nom 65 °C	3066	115
	Tc-max 95 °C	2914	110

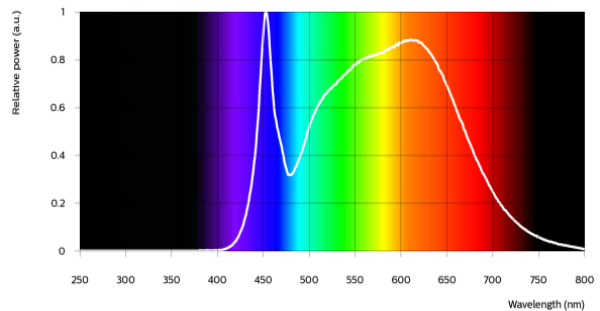


Fortimo SLM C 940 1203 L09 1313 G8N


Parameter	Min	Typ	Max	Unit
Luminous flux	1292	1360	1496	lm
Efficacy		146		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 216mA	Tc 25 °C	1156	156
	Tc-nom 65 °C	1106	151
	Tc-max 95 °C	1056	147
I-nom 270mA	Tc 25 °C	1422	151
	Tc-nom 65 °C	1360	146
	Tc-max 95 °C	1299	141
I-max 690mA	Tc 25 °C	3293	122
	Tc-nom 65 °C	3135	118
	Tc-max 95 °C	2980	113

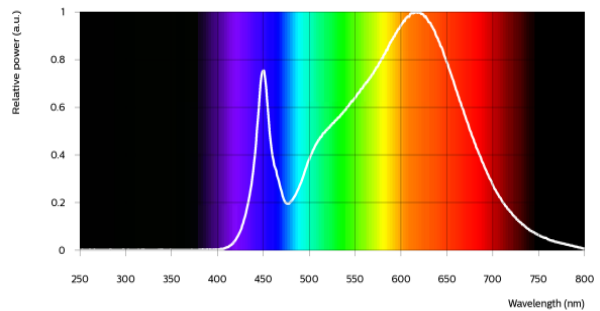


Fortimo SLM C 930 PW 1203 L09 1313 G8N


Parameter	Min	Typ	Max	Unit
Luminous flux	1226	1290	1419	lm
Efficacy		139		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 216mA	Tc 25 °C	1096	148
	Tc-nom 65 °C	1049	144
	Tc-max 95 °C	1002	139
I-nom 270mA	Tc 25 °C	1349	144
	Tc-nom 65 °C	1290	139
	Tc-max 95 °C	1232	134
I-max 690mA	Tc 25 °C	3123	116
	Tc-nom 65 °C	2973	112
	Tc-max 95 °C	2825	107

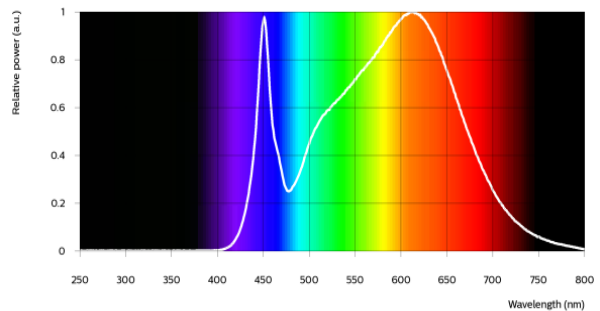


Fortimo SLM C 935 PW 1203 L09 1313 G8N


Parameter	Min	Typ	Max	Unit
Luminous flux	1264	1330	1463	lm
Efficacy		143		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 216mA	Tc 25 °C	1130	153
	Tc-nom 65 °C	1081	148
	Tc-max 95 °C	1033	143
I-nom 270mA	Tc 25 °C	1391	148
	Tc-nom 65 °C	1330	143
	Tc-max 95 °C	1270	138
I-max 690mA	Tc 25 °C	3221	119
	Tc-nom 65 °C	3066	115
	Tc-max 95 °C	2914	110

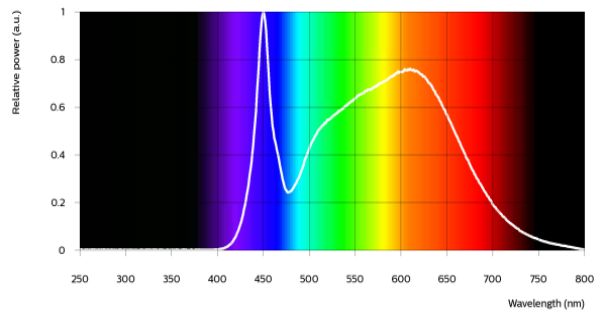


Fortimo SLM C 940 PW 1203 L09 1313 G8N

Parameter	Min	Typ	Max	Unit
Luminous flux	1292	1360	1496	lm
Efficacy		146		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 216mA	Tc 25 °C	1156	156
	Tc-nom 65 °C	1106	151
	Tc-max 95 °C	1056	147
I-nom 270mA	Tc 25 °C	1422	151
	Tc-nom 65 °C	1360	146
	Tc-max 95 °C	1299	141
I-max 690mA	Tc 25 °C	3293	122
	Tc-nom 65 °C	3135	118
	Tc-max 95 °C	2980	113





## Electrical characteristics

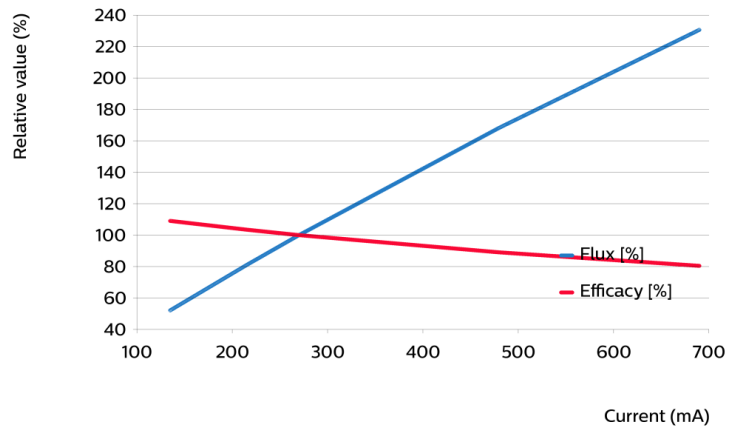
Parameter	Min	Typ	Max	Unit
Forward voltage	32.5	34.5	37.0	V
Power consumption	8.8	9.3	10.0	W = kWh/1000h
Number of modules in series per chain			1	
Number of modules per chain			1	
Number of modules in parallel			1	

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

## Tuning information

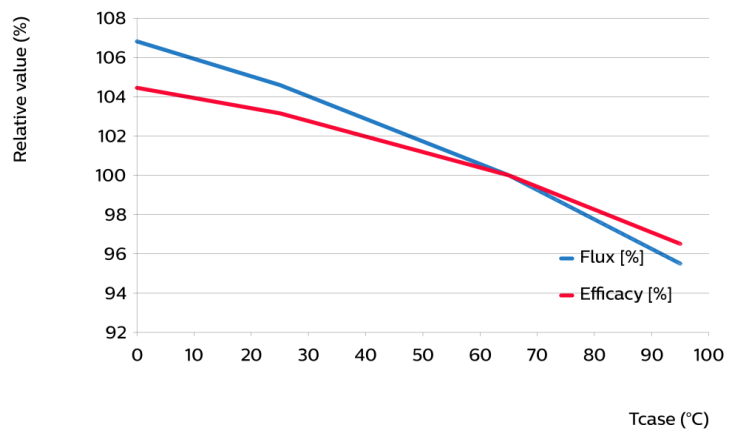
Flux and efficacy versus current (at Tc nominal)

I [mA]	Flux [%]	Efficacy [%]
690	231	80
480	168	89
270	100	100
216	81	103
135	52	109



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

Tc [°C]	Flux [%]	Efficacy [%]
95	95	97
65	100	100
25	105	103
0	107	104



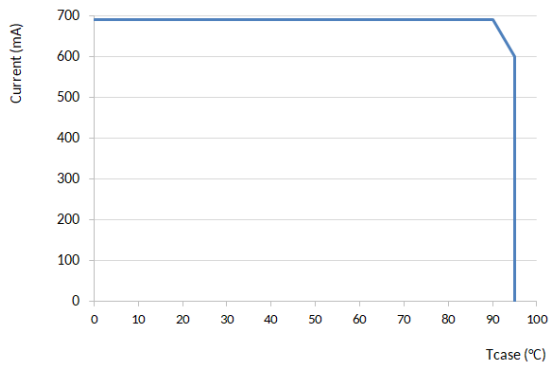
## Lumen maintenance

Operation point	Lumen maintenance x 1000 hours	L70			L80			L90		
		B50	B20	B10	B50	B20	B10	B50	B20	B10
80% I-nom 216mA	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 270mA	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 690mA	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

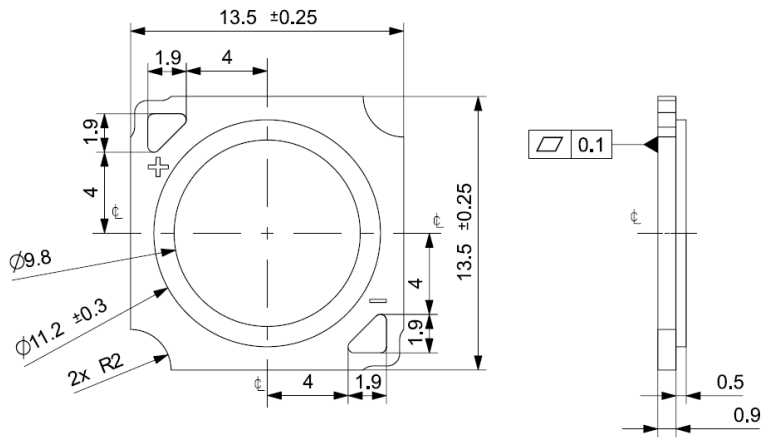
Parameter	Value	Unit
M70F50 nominal	>66000	hours

## 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		0.47		gram



## Absolute ratings

Parameter	Min	Max	Unit
Current through the LED module (I-max)		690	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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