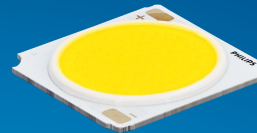


# PHILIPS

## Fortimo

### LED

Fortimo SLM C 9xx 1210  
L15 1919 G8N HE



## Datasheet

# Best combination of quality of light and efficacy with industry standard footprint

## Fortimo LED SLM CRI90 G8N HE

Philips continues to develop its tried and trusted high efficiency COB range of products (since 2020) by introducing the third generation Fortimo SLM G8 HE. The Fortimo SLM CRI90 G8 HE range boasts an impressive 5% increase in efficacy and maintains color consistency of 2 SDCM similar to its predecessor, Fortimo SLM CRI90 G7HE+. Drawing on our four years of industry and R&D experience with high efficacy COB platforms, we have further optimized the quality of light and enhanced the product's robustness.

With the superior efficiency and color consistency, Fortimo SLM G8 HE helps unlock the extraordinary potential of light, facilitating innovation and inspiring the next generation of luminaire design for our OEM customers. Check out the online Easy Design-in Tool for your perfect system combination ([www.easydesignintool.com](http://www.easydesignintool.com)).

### Key features and benefits

- Most widely used footprint to enable ease of use
- Best quality of light available for all applications
- ~5% efficacy improvement vs. current Fortimo SLM G7 HE+ range
- Excellent color consistency management (2 SDCM)
- System proposition (Module + Driver + Holder)
- Flexibility to optimize luminaire performance (high efficacy or high lm output)
- 50,000 hours lifetime

October 2024



## Ordering data

Commercial product name	EOC	12NC	EPREL registration #	Box quantity
Fortimo SLM C 927 1210 L15 1919 G8N HE	8720169 382961 00	9290 039 05980	2093647	20
Fortimo SLM C 930 1210 L15 1919 G8N HE	8720169 382992 00	9290 039 06080	2093656	20
Fortimo SLM C 935 1210 L15 1919 G8N HE	8720169 383029 00	9290 039 06180	2093797	20
Fortimo SLM C 940 1210 L15 1919 G8N HE	8720169 383050 00	9290 039 06280	2093652	20
Fortimo SLM C 950 1210 L15 1919 G8N HE	8720169 383081 00	9290 039 06380	2093644	20
Fortimo SLM C 930 PW 1210 L15 1919 G8N HE	8720169 383111 00	9290 039 06480	2093830	20
Fortimo SLM C 935 PW 1210 L15 1919 G8N HE	8720169 383142 00	9290 039 06580	2093827	20
Fortimo SLM C 940 PW 1210 L15 1919 G8N HE	8720169 383173 00	9290 039 06680	2093835	20

Not all products are globally available by default.

Please contact your local sales representative for local availability and activation conditions.

## Drive currents

Parameter	Nominal*	Life**	Max***	Unit
Fortimo SLM C 9xx 1210 L15 1919 G8N HE	900	1800	1800	mA

## Module temperatures

Parameter	Nominal*	Life**	Max***	Unit
T <sub>c</sub> (case temperature at T <sub>c</sub> point)	65	95	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)

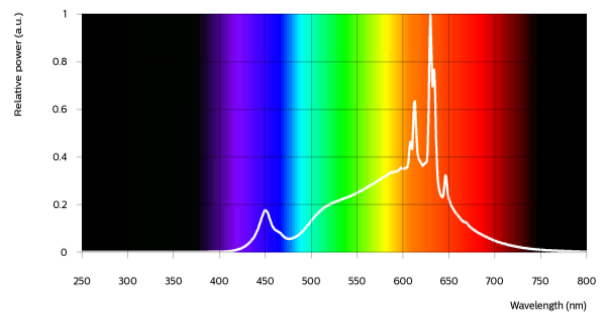
### Fortimo SLM C 927 1210 L15 1919 G8N HE

Parameter	Min	Typ	Max	Unit
Luminous flux	4517	4755	5230	lm
Efficacy		153		lm/W
Correlated color temperature (CCT)		2700		K
Color coordinates (CIEx, CIEy)		(0.458, 0.410)		-
Color consistency			2	SDCM
CRI	90			
R9	>50			
Photometric code		927/259		
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 720mA	Tc 25 °C	4079	166
	Tc-nom 65 °C	3867	159
	Tc-max 95 °C	3677	153
I-nom 900mA	Tc 25 °C	5018	160
	Tc-nom 65 °C	4755	153
	Tc-max 95 °C	4519	147
I-max 1800mA	Tc 25 °C	9355	137
	Tc-nom 65 °C	8842	131
	Tc-max 95 °C	8379	125



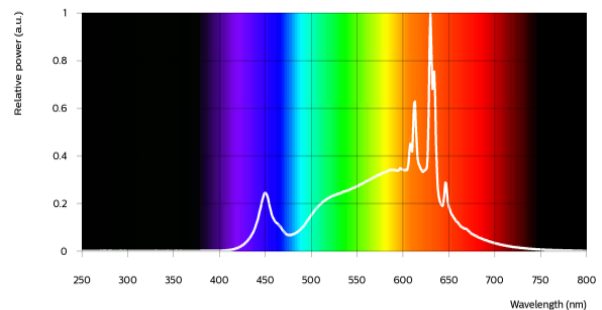
### Fortimo SLM C 930 1210 L15 1919 G8N HE

Parameter	Min	Typ	Max	Unit
Luminous flux	4802	5055	5560	lm
Efficacy		163		lm/W
Correlated color temperature (CCT)		3000		K
Color coordinates (CIEx, CIEy)		(0.434, 0.403)		-
Color consistency			2	SDCM
CRI	90			
R9	>50			
Photometric code		930/259		
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 720mA	Tc 25 °C	4336	176
	Tc-nom 65 °C	4111	169
	Tc-max 95 °C	3909	162
I-nom 900mA	Tc 25 °C	5334	170
	Tc-nom 65 °C	5055	163
	Tc-max 95 °C	4804	156
I-max 1800mA	Tc 25 °C	9947	145
	Tc-nom 65 °C	9402	139
	Tc-max 95 °C	8911	133

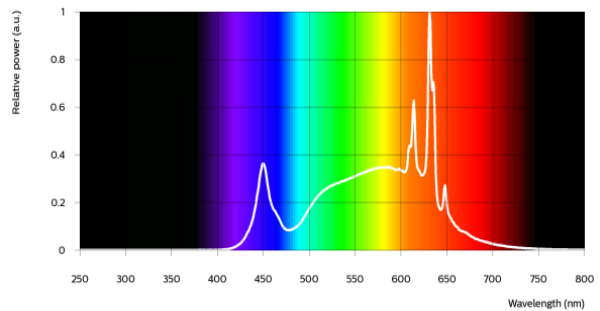


Fortimo SLM C 935 1210 L15 1919 G8N HE


Parameter	Min	Typ	Max	Unit
Luminous flux	4902	5160	5676	lm
Efficacy		166		lm/W
Correlated color temperature (CCT)		3500		K
Color coordinates (CIEx, CIEy)		(0.408, 0.393)		-
Color consistency			2	SDCM
CRI	90			
R9	>50			
Photometric code		935/259		
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 720mA	Tc 25 °C	4426	180
	Tc-nom 65 °C	4196	173
	Tc-max 95 °C	3990	166
I-nom 900mA	Tc 25 °C	5445	173
	Tc-nom 65 °C	5160	166
	Tc-max 95 °C	4904	160
I-max 1800mA	Tc 25 °C	10155	148
	Tc-nom 65 °C	9599	142
	Tc-max 95 °C	9097	135

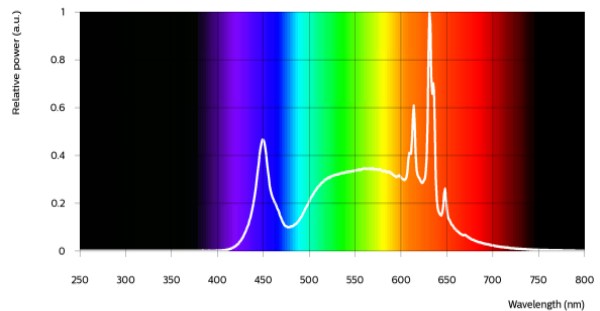


Fortimo SLM C 940 1210 L15 1919 G8N HE


Parameter	Min	Typ	Max	Unit
Luminous flux	4973	5235	5758	lm
Efficacy		169		lm/W
Correlated color temperature (CCT)		4000		K
Color coordinates (CIEx, CIEy)		(0.382, 0.380)		-
Color consistency			2	SDCM
CRI	90			
R9	>50			
Photometric code		940/259		
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 720mA	Tc 25 °C	4490	183
	Tc-nom 65 °C	4257	175
	Tc-max 95 °C	4048	168
I-nom 900mA	Tc 25 °C	5524	176
	Tc-nom 65 °C	5235	169
	Tc-max 95 °C	4975	162
I-max 1800mA	Tc 25 °C	10303	150
	Tc-nom 65 °C	9740	144
	Tc-max 95 °C	9231	137

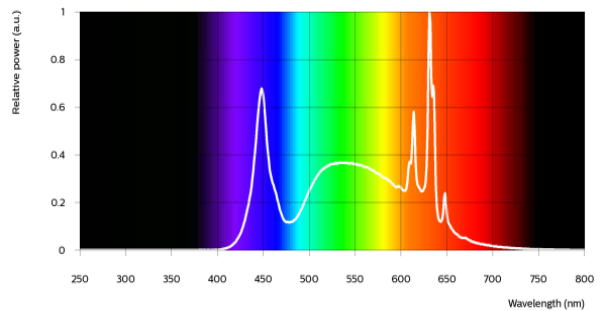


Fortimo SLM C 950 1210 L15 1919 G8N HE


Parameter	Min	Typ	Max	Unit
Luminous flux	4926	5185	5704	lm
Efficacy		167		lm/W
Correlated color temperature (CCT)		5000		K
Color coordinates (CIEx, CIEy)		(0.345, 0.355)		-
Color consistency			2	SDCM
CRI	90			
R9	>50			
Photometric code		950/259		
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	950	lm	lm/W
80% I-nom 720mA	Tc 25 °C	4447	181
	Tc-nom 65 °C	4216	174
	Tc-max 95 °C	4009	166
I-nom 900mA	Tc 25 °C	5471	174
	Tc-nom 65 °C	5185	167
	Tc-max 95 °C	4928	161
I-max 1800mA	Tc 25 °C	10206	149
	Tc-nom 65 °C	9649	143
	Tc-max 95 °C	9146	136

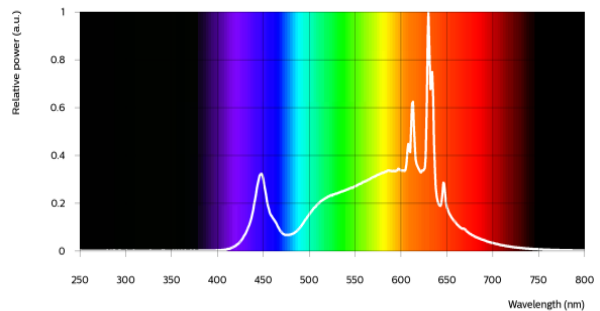


Fortimo SLM C 930 PW 1210 L15 1919 G8N HE


Parameter	Min	Typ	Max	Unit
Luminous flux	4760	5010	5511	lm
Efficacy		162		lm/W
Correlated color temperature (CCT)		3000		K
Color coordinates (CIEx, CIEy)		(0.422, 0.386)		-
Color consistency			2	SDCM
CRI	90			
R9	>50			
Photometric code		930/259		
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 720mA	Tc 25 °C	4297	175
	Tc-nom 65 °C	4074	168
	Tc-max 95 °C	3874	161
I-nom 900mA	Tc 25 °C	5286	168
	Tc-nom 65 °C	5010	162
	Tc-max 95 °C	4761	155
I-max 1800mA	Tc 25 °C	9860	144
	Tc-nom 65 °C	9320	138
	Tc-max 95 °C	8833	131

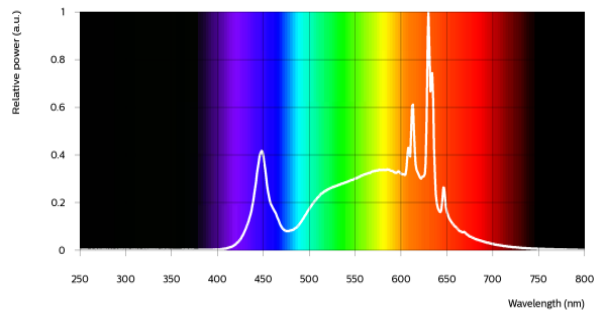


Fortimo SLM C 935 PW 1210 L15 1919 G8N HE


Parameter	Min	Typ	Max	Unit
Luminous flux	4902	5160	5676	lm
Efficacy		166		lm/W
Correlated color temperature (CCT)		3500		K
Color coordinates (CIEx, CIEy)		(0.398, 0.376)		-
Color consistency			2	SDCM
CRI	90			
R9	>50			
Photometric code		935/259		
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 720mA	Tc 25 °C	4426	180
	Tc-nom 65 °C	4196	173
	Tc-max 95 °C	3990	166
I-nom 900mA	Tc 25 °C	5445	173
	Tc-nom 65 °C	5160	166
	Tc-max 95 °C	4904	160
I-max 1800mA	Tc 25 °C	10155	148
	Tc-nom 65 °C	9599	142
	Tc-max 95 °C	9097	135

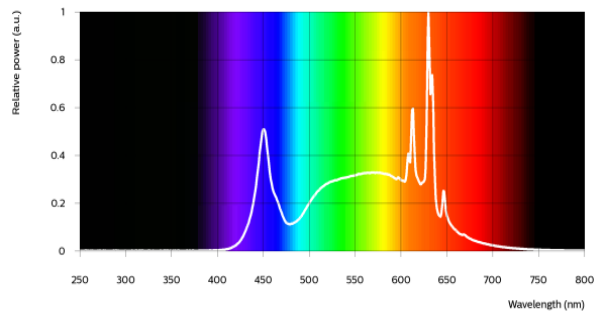


Fortimo SLM C 940 PW 1210 L15 1919 G8N HE

Parameter	Min	Typ	Max	Unit
Luminous flux	4926	5185	5704	lm
Efficacy		167		lm/W
Correlated color temperature (CCT)		4000		K
Color coordinates (CIEx, CIEy)		(0.374, 0.364)		-
Color consistency			2	SDCM
CRI	90			
R9	>50			
Photometric code		940/259		
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 720mA	Tc 25 °C	4447	181
	Tc-nom 65 °C	4216	174
	Tc-max 95 °C	4009	166
I-nom 900mA	Tc 25 °C	5471	174
	Tc-nom 65 °C	5185	167
	Tc-max 95 °C	4928	161
I-max 1800mA	Tc 25 °C	10206	149
	Tc-nom 65 °C	9649	143
	Tc-max 95 °C	9146	136





## Electrical characteristics

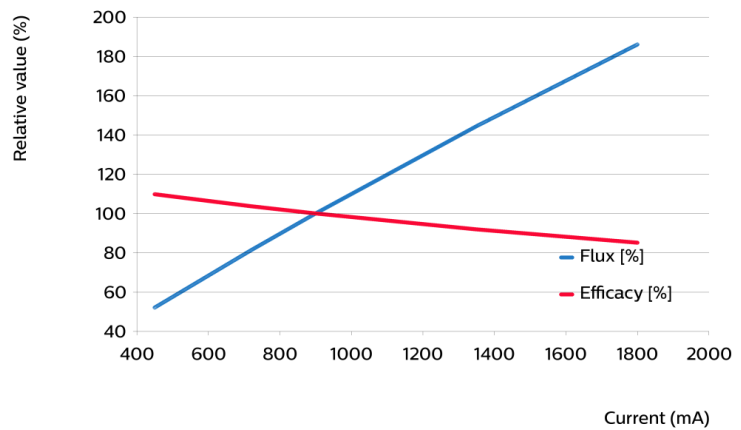
Parameter	Min	Typ	Max	Unit
Forward voltage	32.5	34.5	37.0	V
Power consumption	29.3	31.1	33.3	W = kWh/1000h
Number of modules in series per chain			1	
Number of modules per chain			1	
Number of modules in parallel			1	

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

## Tuning information

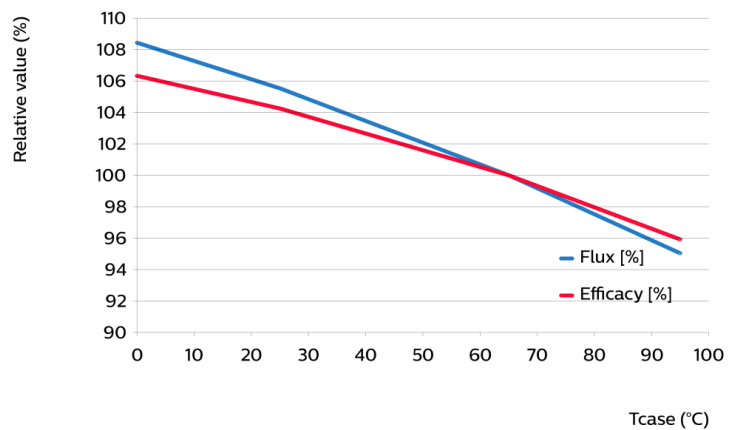
Flux and efficacy versus current (at Tc nominal)

I [mA]	Flux [%]	Efficacy [%]
1800	186	85
1350	144	92
900	100	100
720	81	104
450	52	110



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

Tc [°C]	Flux [%]	Efficacy [%]
95	95	96
65	100	100
25	106	104
0	108	106



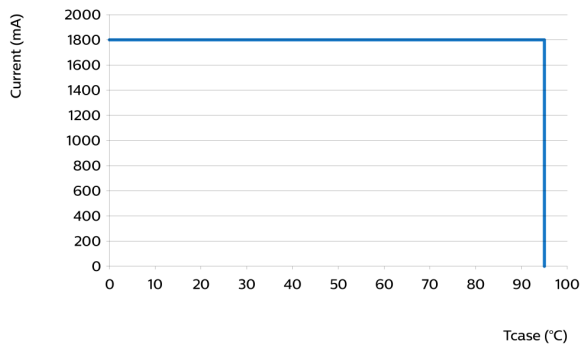
## Lumen maintenance

Operation point	Lumen maintenance x 1000 hours	L70			L80			L90		
		B50	B20	B10	B50	B20	B10	B50	B20	B10
80% I-nom 720mA	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 900mA	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 1800mA	Tc 50°C	>66	>66	>66	>66	>66	>66	50	42	39
	Tc 65°C	>66	>66	>66	>66	>66	62	38	32	29
	Tc 95°C	>66	>66	60	49	41	38	23	19	17

## Lifetime

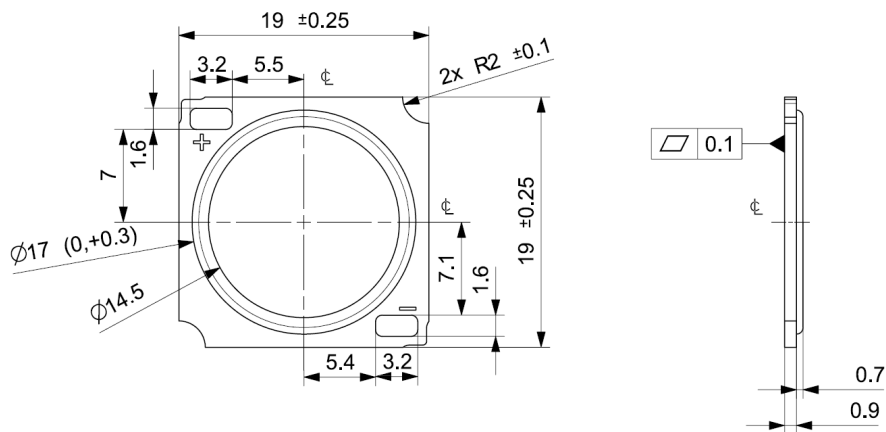
Parameter	Value	Unit
M70F50 nominal	>66000	hours

## Performance Window



## Mechanical characteristics

Parameter	Min	Typ	Max	Unit
Length	18.75	19	19.25	mm
Width	18.75	19	19.25	mm
Height	0.8	0.9	1	mm
Height	1.3	1.6	1.9	mm
Product mass		1.04		gram



## Absolute ratings

Parameter	Min	Max	Unit
Current through the LED module (I-max)		1800	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 1342 lux risk group classification may be RG2.

## Application information

### Certificates and Standards

CB  
 CE  
 ENEC  
 ENEC+  
 EPRS 001  
 IEC 62031  
 UKCA  
 UL  
 UL 8750

### Environmental

RoHS/REACH

### Application

Dimming

Yes



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11/10/2024