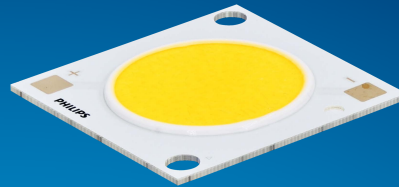


**PHILIPS**

**Fortimo**

**LED**

Fortimo SLM C 9xx 1211  
L19 2828 G8 HE



Datasheet

# Best combination of quality of light and efficacy

## Fortimo LED SLM CRI90 G8 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

- 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 1211 L19 2828 G8 HE	8720169 379121 00	9290 038 93180	2093875	10
Fortimo SLM C 930 1211 L19 2828 G8 HE	8720169 379152 00	9290 038 93280	2093769	10
Fortimo SLM C 935 1211 L19 2828 G8 HE	8720169 379183 00	9290 038 93380	2093857	10
Fortimo SLM C 940 1211 L19 2828 G8 HE	8720169 379213 00	9290 038 93480	2093770	10
Fortimo SLM C 950 1211 L19 2828 G8 HE	8720169 379244 00	9290 038 93580	2093711	10
Fortimo SLM C 930 PW 1211 L19 2828 G8 HE	8720169 379275 00	9290 038 93680	2093763	10
Fortimo SLM C 935 PW 1211 L19 2828 G8 HE	8720169 379305 00	9290 038 93780	2093866	10
Fortimo SLM C 940 PW 1211 L19 2828 G8 HE	8720169 379336 00	9290 038 93880	2093780	10
Fortimo SLM C 930 PC 1211 L19 2828 G8 HE	8720169 379367 00	9290 038 93980	2093788	10

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 1211 L19 2828 G8 HE	1200	1980	1980	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)

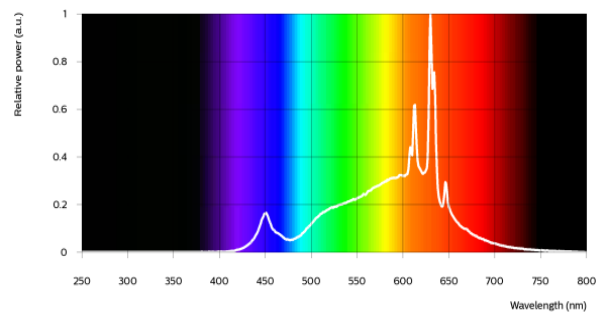
### Fortimo SLM C 927 1211 L19 2828 G8 HE

Parameter	Min	Typ	Max	Unit
Luminous flux	6218	6545	7200	lm
Efficacy		154		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 960mA	Tc 25 °C	5622	168
	Tc-nom 65 °C	5319	161
	Tc-max 95 °C	5020	153
I-nom 1200mA	Tc 25 °C	6921	161
	Tc-nom 65 °C	6545	154
	Tc-max 95 °C	6175	147
I-max 1980mA	Tc 25 °C	10937	143
	Tc-nom 65 °C	10324	137
	Tc-max 95 °C	9720	130



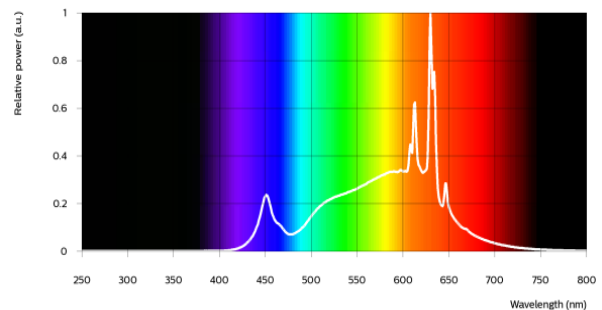
### Fortimo SLM C 930 1211 L19 2828 G8 HE

Parameter	Min	Typ	Max	Unit
Luminous flux	6541	6885	7574	lm
Efficacy		162		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 960mA	Tc 25 °C	5913	177
	Tc-nom 65 °C	5595	169
	Tc-max 95 °C	5281	161
I-nom 1200mA	Tc 25 °C	7280	170
	Tc-nom 65 °C	6885	162
	Tc-max 95 °C	6496	154
I-max 1980mA	Tc 25 °C	11505	151
	Tc-nom 65 °C	10862	144
	Tc-max 95 °C	10227	137

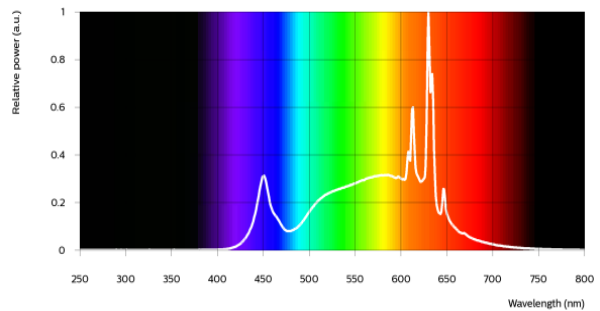


Fortimo SLM C 935 1211 L19 2828 G8 HE


Parameter	Min	Typ	Max	Unit
Luminous flux	6674	7025	7728	lm
Efficacy		165		lm/W
Correlated color temperature (CCT)		3500		K
Color coordinates (CIEx, CIEy)		(0.407, 0.392)		-
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 960mA	Tc 25 °C	6033	180
	Tc-nom 65 °C	5708	172
	Tc-max 95 °C	5388	164
I-nom 1200mA	Tc 25 °C	7428	173
	Tc-nom 65 °C	7025	165
	Tc-max 95 °C	6628	157
I-max 1980mA	Tc 25 °C	11739	154
	Tc-nom 65 °C	11083	147
	Tc-max 95 °C	10436	140

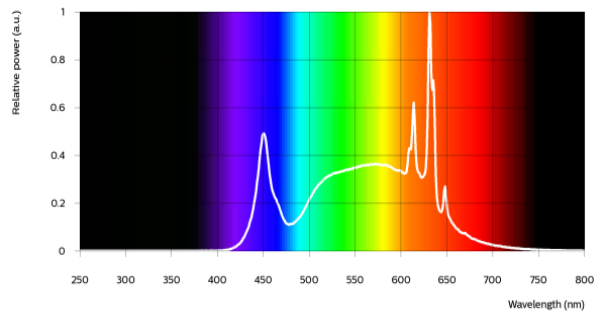


Fortimo SLM C 940 1211 L19 2828 G8 HE


Parameter	Min	Typ	Max	Unit
Luminous flux	6769	7125	7838	lm
Efficacy		168		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 960mA	Tc 25 °C	6119	183
	Tc-nom 65 °C	5789	175
	Tc-max 95 °C	5465	167
I-nom 1200mA	Tc 25 °C	7534	176
	Tc-nom 65 °C	7125	168
	Tc-max 95 °C	6722	160
I-max 1980mA	Tc 25 °C	11907	156
	Tc-nom 65 °C	11242	149
	Tc-max 95 °C	10586	142

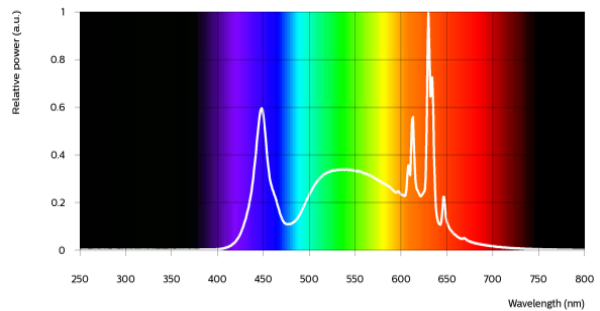


Fortimo SLM C 950 1211 L19 2828 G8 HE


Parameter	Min	Typ	Max	Unit
Luminous flux	6707	7060	7766	lm
Efficacy		166		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 960mA	Tc 25 °C	6063	181
	Tc-nom 65 °C	5736	173
	Tc-max 95 °C	5415	165
I-nom 1200mA	Tc 25 °C	7465	174
	Tc-nom 65 °C	7060	166
	Tc-max 95 °C	6661	158
I-max 1980mA	Tc 25 °C	11799	155
	Tc-nom 65 °C	11140	148
	Tc-max 95 °C	10491	140

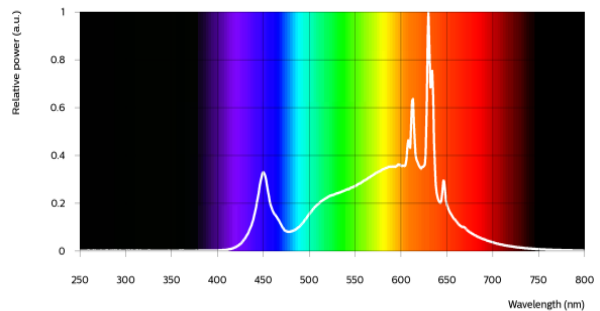


Fortimo SLM C 930 PW 1211 L19 2828 G8 HE


Parameter	Min	Typ	Max	Unit
Luminous flux	6479	6820	7502	lm
Efficacy		160		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 960mA	Tc 25 °C	5857	175
	Tc-nom 65 °C	5542	167
	Tc-max 95 °C	5231	159
I-nom 1200mA	Tc 25 °C	7211	168
	Tc-nom 65 °C	6820	160
	Tc-max 95 °C	6434	153
I-max 1980mA	Tc 25 °C	11397	149
	Tc-nom 65 °C	10760	143
	Tc-max 95 °C	10131	135

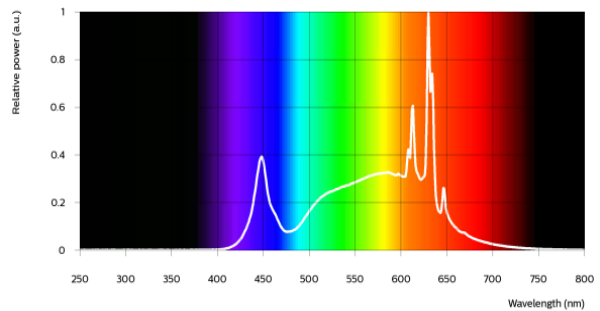


Fortimo SLM C 935 PW 1211 L19 2828 G8 HE


Parameter	Min	Typ	Max	Unit
Luminous flux	6574	6920	7612	lm
Efficacy		163		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 960mA	Tc 25 °C	5943	177
	Tc-nom 65 °C	5623	170
	Tc-max 95 °C	5308	162
I-nom 1200mA	Tc 25 °C	7317	171
	Tc-nom 65 °C	6920	163
	Tc-max 95 °C	6529	155
I-max 1980mA	Tc 25 °C	11564	152
	Tc-nom 65 °C	10917	145
	Tc-max 95 °C	10280	137

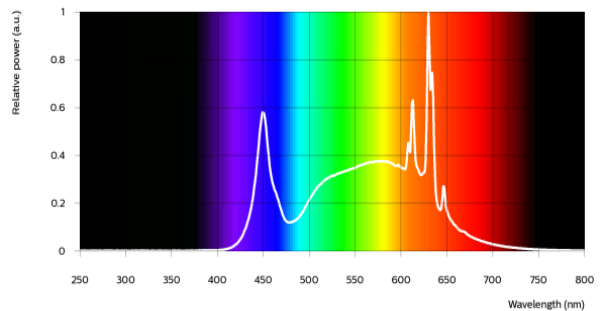


Fortimo SLM C 940 PW 1211 L19 2828 G8 HE


Parameter	Min	Typ	Max	Unit
Luminous flux	6650	7000	7700	lm
Efficacy		165		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 960mA	Tc 25 °C	6011	179
	Tc-nom 65 °C	5688	172
	Tc-max 95 °C	5369	164
I-nom 1200mA	Tc 25 °C	7401	173
	Tc-nom 65 °C	7000	165
	Tc-max 95 °C	6604	157
I-max 1980mA	Tc 25 °C	11698	153
	Tc-nom 65 °C	11045	146
	Tc-max 95 °C	10400	139

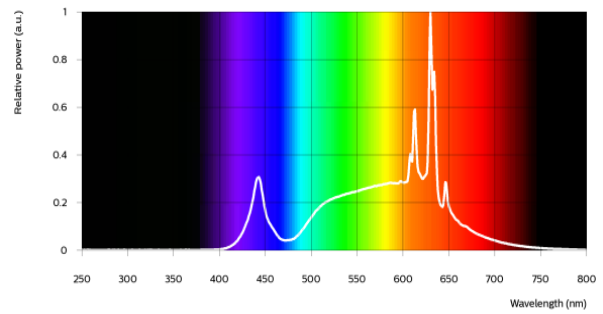


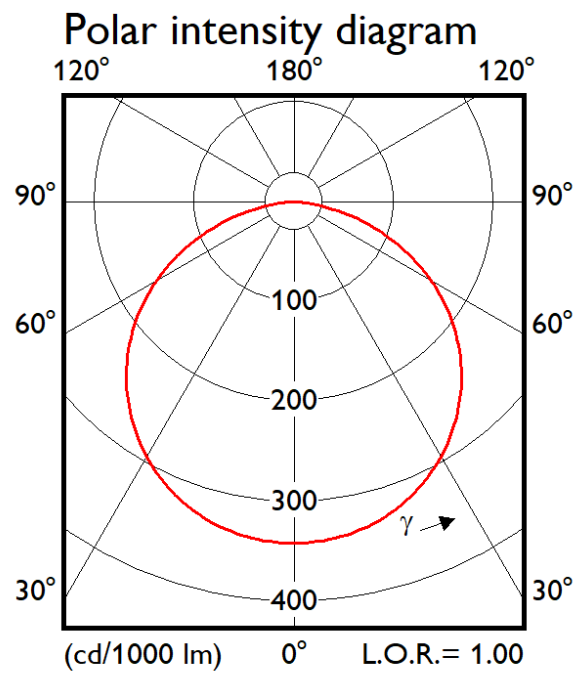
Fortimo SLM C 930 PC 1211 L19 2828 G8 HE

Parameter	Min	Typ	Max	Unit
Luminous flux	6023	6340	6974	lm
Efficacy		149		lm/W
Correlated color temperature (CCT)		3000		K
Color coordinates (CIEx, CIEy)		(0.422, 0.386)		-
Color consistency			2	SDCM
CRI	90			
R9	>70			
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 960mA	Tc 25 °C	5445	163
	Tc-nom 65 °C	5152	156
	Tc-max 95 °C	4863	148
I-nom 1200mA	Tc 25 °C	6704	156
	Tc-nom 65 °C	6340	149
	Tc-max 95 °C	5981	142
I-max 1980mA	Tc 25 °C	10594	139
	Tc-nom 65 °C	10001	132
	Tc-max 95 °C	9416	126





## Electrical characteristics

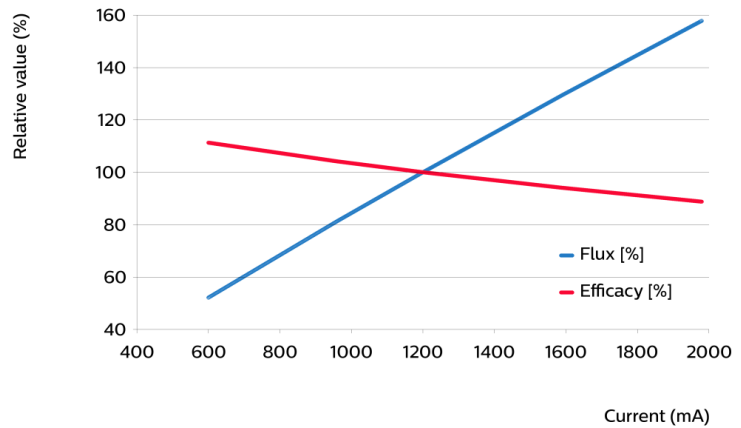
Parameter	Min	Typ	Max	Unit
Forward voltage	32.5	35.4	37.0	V
Power consumption	39.0	42.5	44.4	W = kWh/1000h
Number of modules in series per chain			1	
Number of modules per chain			1	
Number of modules in parallel			1	

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

## Tuning information

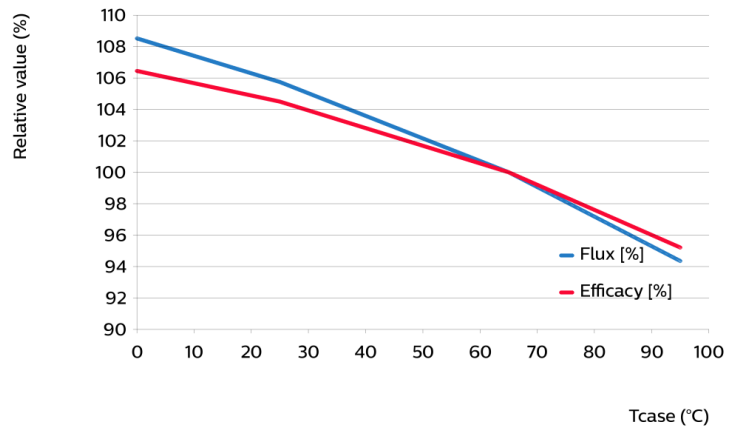
Flux and efficacy versus current (at Tc nominal)

I [mA]	Flux [%]	Efficacy [%]
1980	158	89
1590	129	94
1200	100	100
960	81	104
600	52	111



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

Tc [°C]	Flux [%]	Efficacy [%]
95	94	95
65	100	100
25	106	104
0	109	106



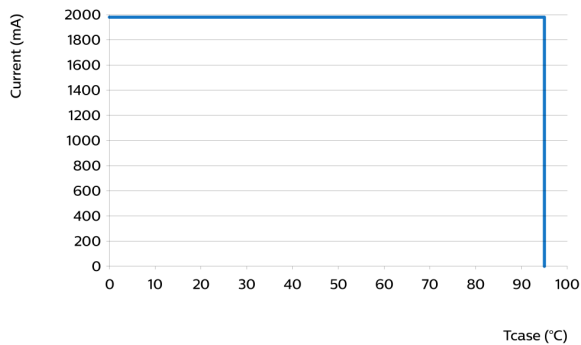
## Lumen maintenance

Operation point	Lumen maintenance x 1000 hours	L70			L80			L90		
		B50	B20	B10	B50	B20	B10	B50	B20	B10
80% I-nom 960mA	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 1200mA	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	57	48	44
I-max 1980mA	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

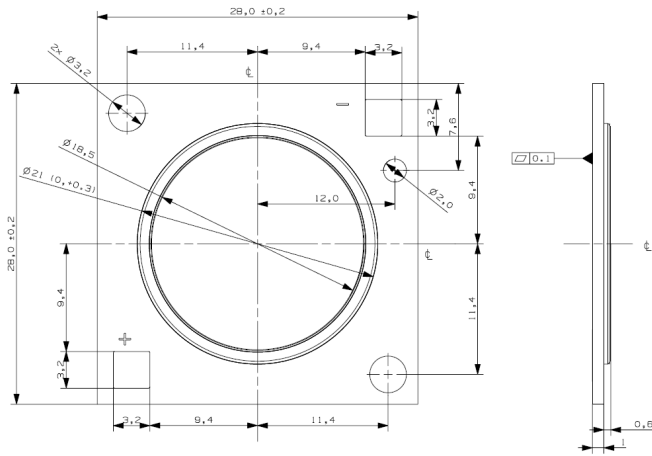
Parameter	Value	Unit
M70F50 nominal	>66000	hours

## Performance Window



## Mechanical characteristics

Parameter	Min	Typ	Max	Unit
Length	27.8	28	28.2	mm
Width	27.8	28	28.2	mm
Height	0.9	1	1.1	mm
Height	1.3	1.6	1.9	mm
Product mass		2.17		gram



## Absolute ratings

Parameter	Min	Max	Unit
Current through the LED module (I-max)		1980	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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