PHILIPS

Fortimo

LED

Fortimo SLM C 9xx 1202
L06 1215 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).

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 1202 L06 1215 G8 HE	8720169 376427 00	9290 038 84180	2093755	20
Fortimo SLM C 930 1202 L06 1215 G8 HE	8720169 376458 00	9290 038 84280	2093851	20
Fortimo SLM C 935 1202 L06 1215 G8 HE	8720169 376489 00	9290 038 84380	2093751	20
Fortimo SLM C 940 1202 L06 1215 G8 HE	8720169 376519 00	9290 038 84480	2093669	20
Fortimo SLM C 950 1202 L06 1215 G8 HE	8720169 376540 00	9290 038 84580	2093683	20
Fortimo SLM C 930 PW 1202 L06 1215 G8 HE	8720169 376571 00	9290 038 84680	2093745	20
Fortimo SLM C 935 PW 1202 L06 1215 G8 HE	8720169 376601 00	9290 038 84780	2093666	20
Fortimo SLM C 940 PW 1202 L06 1215 G8 HE	8720169 376632 00	9290 038 84880	2093754	20
Fortimo SLM C 930 PC 1202 L06 1215 G8 HE	8720169 376663 00	9290 038 84980	2093677	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 1202 L06 1215 G8 HE	200	360	360	mA

Module temperatures

Parameter	Nominal*	Life**	Max***	Unit
T_c (case temperature at T_c 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

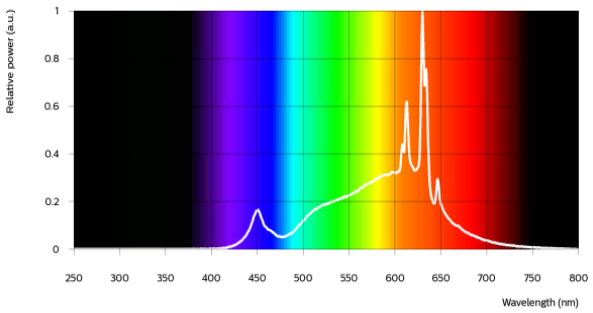
Optical characteristics - table per color (CCT)

Fortimo SLM C 927 1202 L06 1215 G8 HE

Parameter	Min	Typ	Max	Unit
Luminous flux	978	1030	1133	lm
Efficacy		149		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 ± 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	927	lm	lm/W
80% I-nom 160mA	Tc 25 °C	892	162
	Tc-nom 65 °C	840	156
	Tc-max 95 °C	793	147
I-nom 200mA	Tc 25 °C	1094	156
	Tc-nom 65 °C	1030	149
	Tc-max 95 °C	972	141
I-max 360mA	Tc 25 °C	1841	136
	Tc-nom 65 °C	1728	130
	Tc-max 95 °C	1624	123

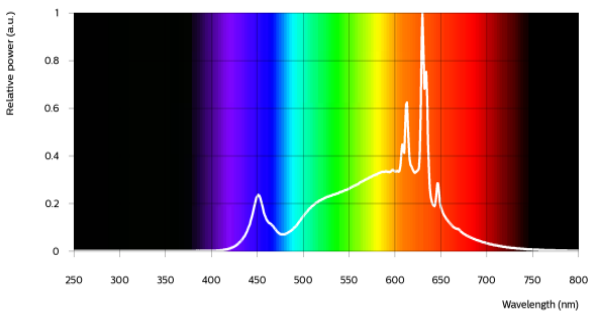


Fortimo SLM C 930 1202 L06 1215 G8 HE

Parameter	Min	Typ	Max	Unit
Luminous flux	1031	1085	1194	lm
Efficacy		157		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 ± 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 160mA	Tc 25 °C	939	171
	Tc-nom 65 °C	885	164
	Tc-max 95 °C	836	155
I-nom 200mA	Tc 25 °C	1152	165
	Tc-nom 65 °C	1085	157
	Tc-max 95 °C	1024	148
I-max 360mA	Tc 25 °C	1940	144
	Tc-nom 65 °C	1820	137
	Tc-max 95 °C	1712	130

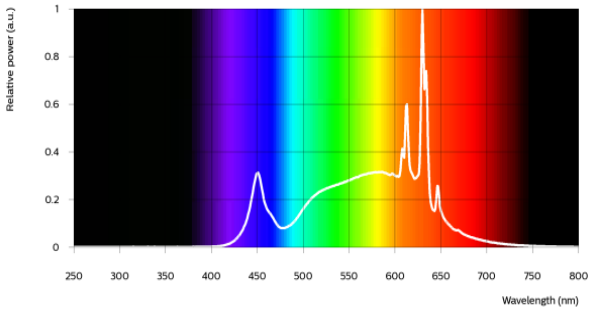


Fortimo SLM C 935 1202 L06 1215 G8 HE

Parameter	Min	Typ	Max	Unit
Luminous flux	1054	1110	1221	lm
Efficacy		161		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 160mA	Tc 25 °C	961	175
	Tc-nom 65 °C	905	168
	Tc-max 95 °C	855	158
I-nom 200mA	Tc 25 °C	1179	168
	Tc-nom 65 °C	1110	161
	Tc-max 95 °C	1047	152
I-max 360mA	Tc 25 °C	1985	147
	Tc-nom 65 °C	1863	140
	Tc-max 95 °C	1752	133

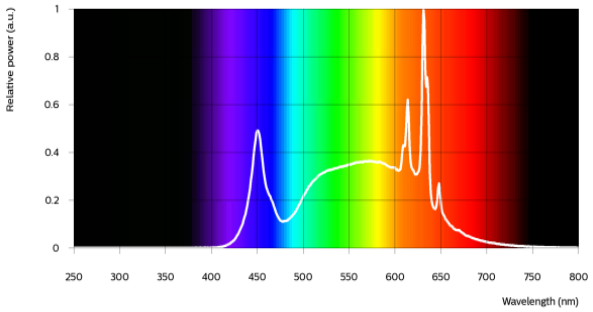


Fortimo SLM C 940 1202 L06 1215 G8 HE

Parameter	Min	Typ	Max	Unit
Luminous flux	1069	1125	1238	lm
Efficacy		163		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 160mA	Tc 25 °C	974	177
	Tc-nom 65 °C	917	170
	Tc-max 95 °C	866	160
I-nom 200mA	Tc 25 °C	1195	171
	Tc-nom 65 °C	1125	163
	Tc-max 95 °C	1062	154
I-max 360mA	Tc 25 °C	2012	149
	Tc-nom 65 °C	1888	142
	Tc-max 95 °C	1776	135

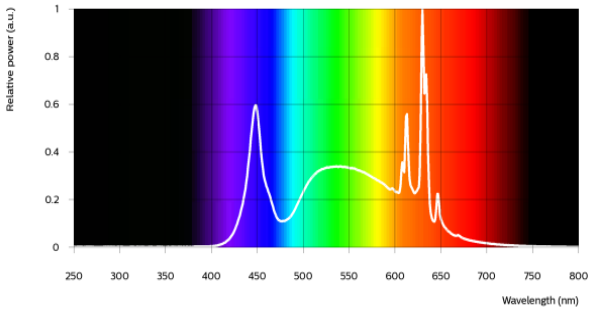


Fortimo SLM C 950 1202 L06 1215 G8 HE

Parameter	Min	Typ	Max	Unit
Luminous flux	1059	1115	1226	lm
Efficacy		162		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 160mA	Tc 25 °C	965	175
	Tc-nom 65 °C	909	168
	Tc-max 95 °C	859	159
I-nom 200mA	Tc 25 °C	1184	169
	Tc-nom 65 °C	1115	162
	Tc-max 95 °C	1052	152
I-max 360mA	Tc 25 °C	1994	148
	Tc-nom 65 °C	1872	141
	Tc-max 95 °C	1761	133

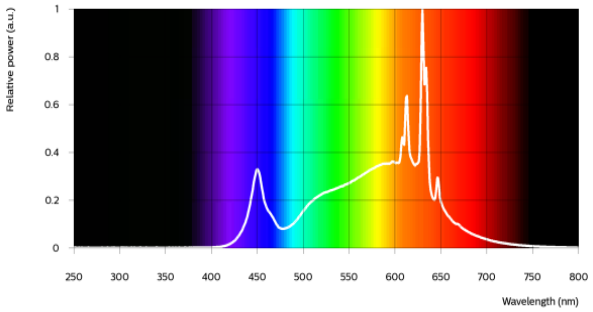


Fortimo SLM C 930 PW 1202 L06 1215 G8 HE

Parameter	Min	Typ	Max	Unit
Luminous flux	1021	1075	1182	lm
Efficacy		156		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		

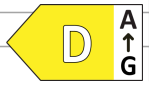
Measurement precision ± 5% for the flux data and ± 6% for the efficacy data. Measurement precision for color coordinates ± 0.005. Measurement precision for CRI ± 1.5.

Operation point	930	lm	lm/W
80% I-nom 160mA	Tc 25 °C	931	169
	Tc-nom 65 °C	877	162
	Tc-max 95 °C	828	153
I-nom 200mA	Tc 25 °C	1142	163
	Tc-nom 65 °C	1075	156
	Tc-max 95 °C	1014	147
I-max 360mA	Tc 25 °C	1922	142
	Tc-nom 65 °C	1804	136
	Tc-max 95 °C	1696	129



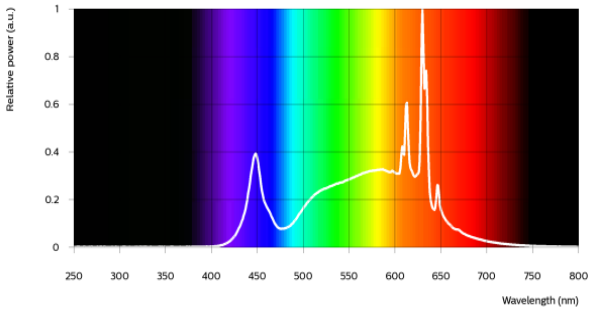
Fortimo SLM C 935 PW 1202 L06 1215 G8 HE

Parameter	Min	Typ	Max	Unit
Luminous flux	1036	1090	1199	lm
Efficacy		158		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		



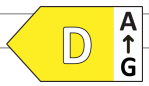
Measurement precision ± 5% for the flux data and ± 6% for the efficacy data. Measurement precision for color coordinates ± 0.005. Measurement precision for CRI ± 1.5.

Operation point	935	lm	lm/W
80% I-nom 160mA	Tc 25 °C	943	172
	Tc-nom 65 °C	889	165
	Tc-max 95 °C	839	155
I-nom 200mA	Tc 25 °C	1158	165
	Tc-nom 65 °C	1090	158
	Tc-max 95 °C	1028	149
I-max 360mA	Tc 25 °C	1949	144
	Tc-nom 65 °C	1829	138
	Tc-max 95 °C	1720	130



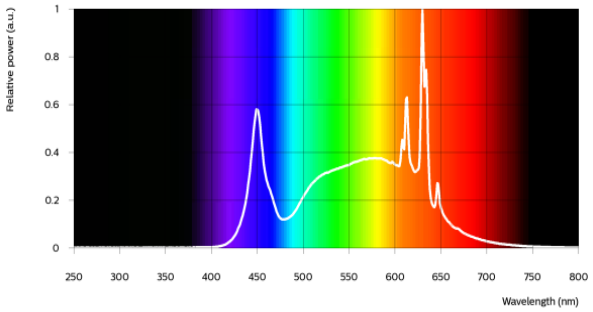
Fortimo SLM C 940 PW 1202 L06 1215 G8 HE

Parameter	Min	Typ	Max	Unit
Luminous flux	1045	1100	1210	lm
Efficacy		159		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 160mA	Tc 25 °C	952	173
	Tc-nom 65 °C	897	166
	Tc-max 95 °C	847	157
I-nom 200mA	Tc 25 °C	1168	167
	Tc-nom 65 °C	1100	159
	Tc-max 95 °C	1038	150
I-max 360mA	Tc 25 °C	1967	146
	Tc-nom 65 °C	1846	139
	Tc-max 95 °C	1736	132

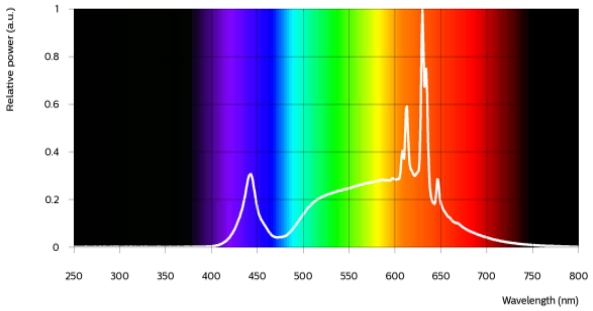


Fortimo SLM C 930 PC 1202 L06 1215 G8 HE

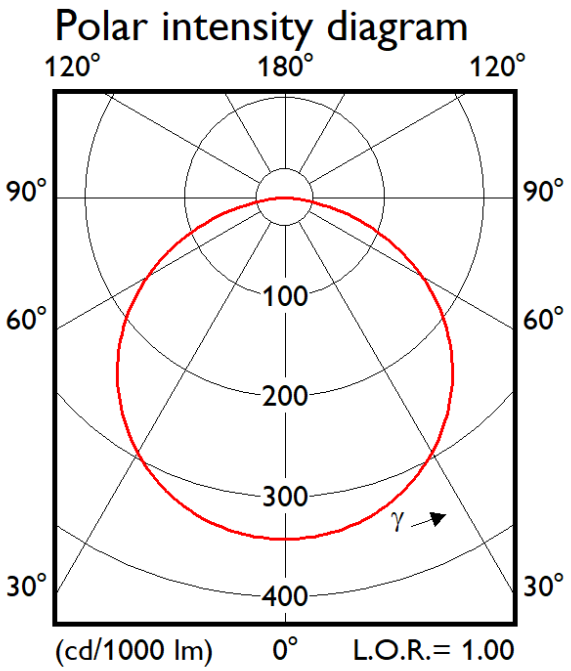
Parameter	Min	Typ	Max	Unit
Luminous flux	950	1000	1100	lm
Efficacy		145		lm/W
Correlated color temperature (CCT)		3000		K
Color coordinates (CIEx, CIEy)		(0.422, 0.386)		-
Color consistency			2	SDCM
CRI	90			
R9	>70			
Photometric code		930/259		
Photobiological safety		RG1 unlimited		

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 160mA	Tc 25 °C	866	157
	Tc-nom 65 °C	816	151
	Tc-max 95 °C	770	143
I-nom 200mA	Tc 25 °C	1062	152
	Tc-nom 65 °C	1000	145
	Tc-max 95 °C	944	137
I-max 360mA	Tc 25 °C	1788	132
	Tc-nom 65 °C	1678	126
	Tc-max 95 °C	1577	119



Beam shape


Polar intensity diagram
120°
180°
120°
90°
90°
60°
60°
100
200
300
γ
30°
30°
400
(cd/1000 lm)
0°
L.O.R.= 1.00

Electrical characteristics

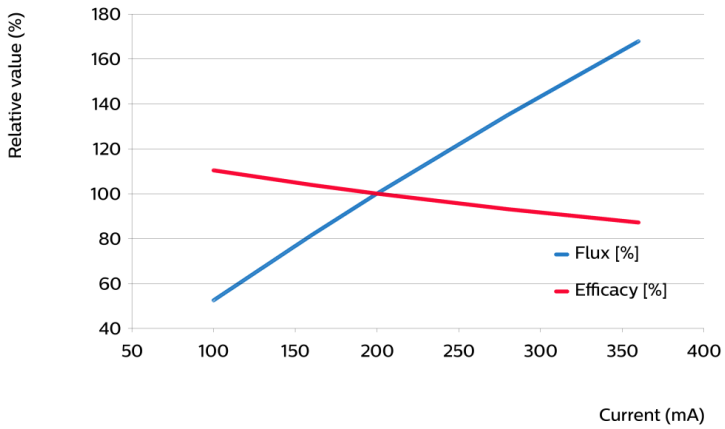
Parameter	Min	Typ	Max	Unit
Forward voltage	32.5	34.7	37.0	V
Power consumption	6.5	6.9	7.4	W = kWh/1000h
Number of modules in series per chain			1	
Number of modules per chain			1	
Number of modules in parallel			1	

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

Tuning information

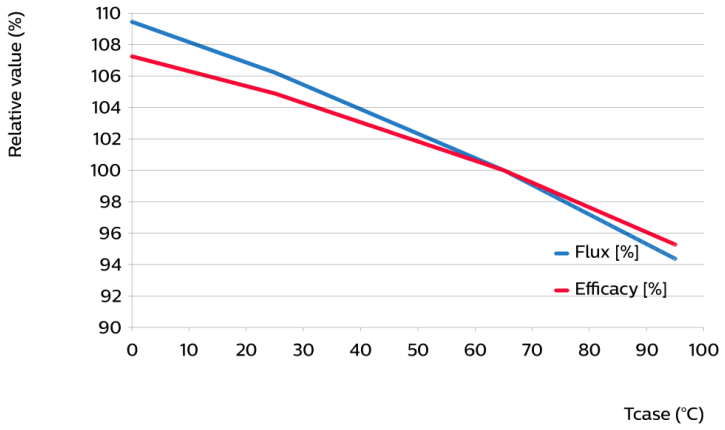
Flux and efficacy versus current (at Tc nominal)

I [mA]	Flux [%]	Efficacy [%]
360	168	87
280	135	93
200	100	100
160	82	104
100	52	110



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

Tc [°C]	Flux [%]	Efficacy [%]
95	94	95
65	100	100
25	106	105
0	109	107



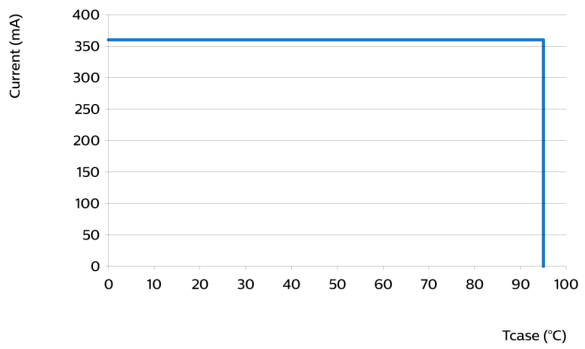
Lumen maintenance

Operation point	Lumen maintenance x 1000 hours	L70			L80			L90		
		B50	B20	B10	B50	B20	B10	B50	B20	B10
80% I-nom 160mA	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 200mA	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 360mA	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

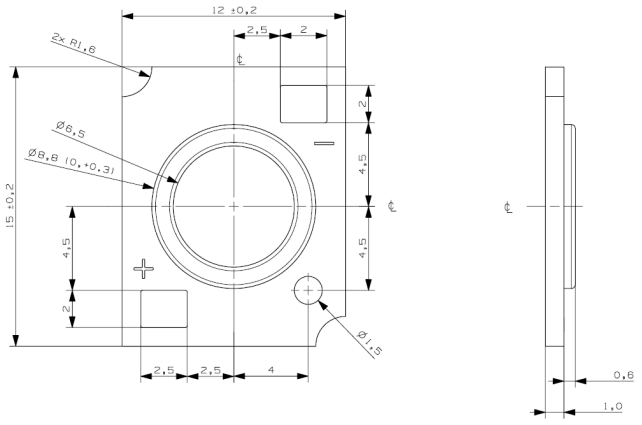
Parameter	Value	Unit
M70F50 nominal	>66000	hours

Performance Window



Mechanical characteristics

Parameter	Min	Typ	Max	Unit
Length	14.8	15	15.2	mm
Width	11.8	12	12.2	mm
Height	0.9	1	1.1	mm
Height	1.3	1.6	1.9	mm
Product mass		0.46		gram



Absolute ratings

Parameter	Min	Max	Unit
Current through the LED module (I-max)		360	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 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

© 2024 Signify Holding, IBRS 10461, 5600VB, NL. All rights reserved. The information provided herein is subject to change, without notice. Signify does not give any representation or warranty as to the accuracy or completeness of the information included herein and shall not be liable for any action in reliance thereon. The information presented in this document is not intended as any commercial offer and does not form part of any quotation or contract, unless otherwise agreed by Signify.

Philips and the Philips Shield Emblem are registered trademarks of Koninklijke Philips N.V. All other trademarks are owned by Signify Holding or their respective owners.
UK importer address: Signify Commercial UK Limited, 3 Guildford Business Park, GU2 8XG

11/10/2024

www.philips.com/oem