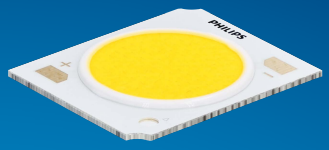
PHILIPS

Fortimo

LED

Fortimo SLM C 9xx 1208
L15 2024 G8 HE



Datasheet

Best combination of quality of light and efficacy

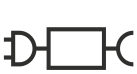
Fortimo LED SLM CRI90 G8 HE

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 1208 L15 2024 G8 HE	8720169 378674 00	9290 038 91680	2093865	20
Fortimo SLM C 930 1208 L15 2024 G8 HE	8720169 378704 00	9290 038 91780	2093872	20
Fortimo SLM C 935 1208 L15 2024 G8 HE	8720169 378735 00	9290 038 91880	2093850	20
Fortimo SLM C 940 1208 L15 2024 G8 HE	8720169 378766 00	9290 038 91980	2093884	20
Fortimo SLM C 950 1208 L15 2024 G8 HE	8720169 378797 00	9290 038 92080	2093704	20
Fortimo SLM C 930 PW 1208 L15 2024 G8 HE	8720169 378827 00	9290 038 92180	2093861	20
Fortimo SLM C 935 PW 1208 L15 2024 G8 HE	8720169 378858 00	9290 038 92280	2093773	20
Fortimo SLM C 940 PW 1208 L15 2024 G8 HE	8720169 378889 00	9290 038 92380	2093757	20
Fortimo SLM C 930 PC 1208 L15 2024 G8 HE	8720169 378919 00	9290 038 92480	2093761	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 1208 L15 2024 G8 HE	750	1440	1440	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

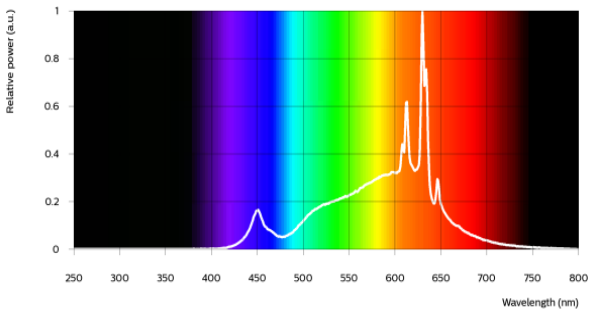
Optical characteristics - table per color (CCT)

Fortimo SLM C 927 1208 L15 2024 G8 HE

Parameter	Min	Typ	Max	Unit
Luminous flux	3924	4130	4543	lm
Efficacy		159		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 600mA	Tc 25 °C	3526	171
	Tc-nom 65 °C	3361	165
	Tc-max 95 °C	3195	158
I-nom 750mA	Tc 25 °C	4335	165
	Tc-nom 65 °C	4130	159
	Tc-max 95 °C	3924	152
I-max 1440mA	Tc 25 °C	7790	142
	Tc-nom 65 °C	7399	136
	Tc-max 95 °C	7007	130

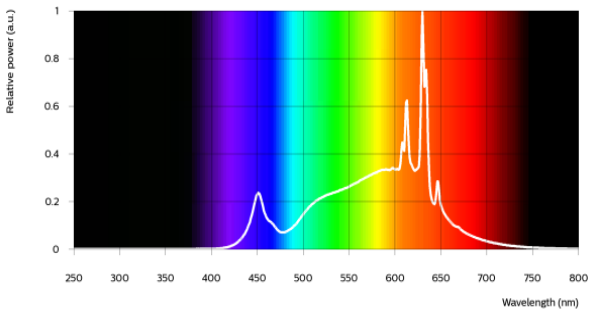


Fortimo SLM C 930 1208 L15 2024 G8 HE

Parameter	Min	Typ	Max	Unit
Luminous flux	4132	4350	4785	lm
Efficacy		167		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 600mA	Tc 25 °C	3714	180
	Tc-nom 65 °C	3540	174
	Tc-max 95 °C	3366	167
I-nom 750mA	Tc 25 °C	4566	174
	Tc-nom 65 °C	4350	167
	Tc-max 95 °C	4134	160
I-max 1440mA	Tc 25 °C	8206	149
	Tc-nom 65 °C	7795	143
	Tc-max 95 °C	7383	137

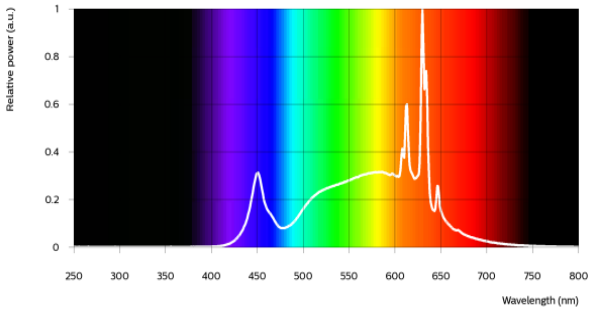


Fortimo SLM C 935 1208 L15 2024 G8 HE

Parameter	Min	Typ	Max	Unit
Luminous flux	4213	4435	4878	lm
Efficacy		171		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 600mA	Tc 25 °C	3786	184
	Tc-nom 65 °C	3609	177
	Tc-max 95 °C	3431	170
I-nom 750mA	Tc 25 °C	4655	177
	Tc-nom 65 °C	4435	171
	Tc-max 95 °C	4215	163
I-max 1440mA	Tc 25 °C	8366	152
	Tc-nom 65 °C	7948	146
	Tc-max 95 °C	7528	139

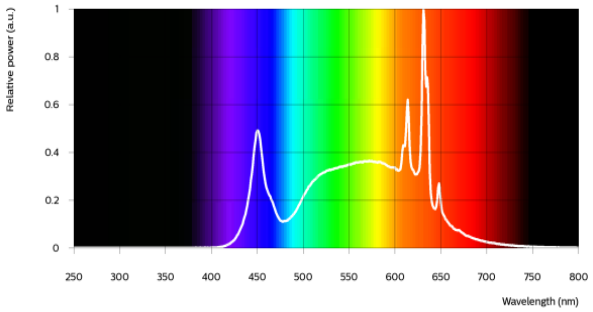


Fortimo SLM C 940 1208 L15 2024 G8 HE

Parameter	Min	Typ	Max	Unit
Luminous flux	4275	4500	4950	lm
Efficacy		173		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 600mA	Tc 25 °C	3841	186
	Tc-nom 65 °C	3662	179
	Tc-max 95 °C	3482	172
I-nom 750mA	Tc 25 °C	4723	180
	Tc-nom 65 °C	4500	173
	Tc-max 95 °C	4276	166
I-max 1440mA	Tc 25 °C	8489	154
	Tc-nom 65 °C	8066	148
	Tc-max 95 °C	7640	141

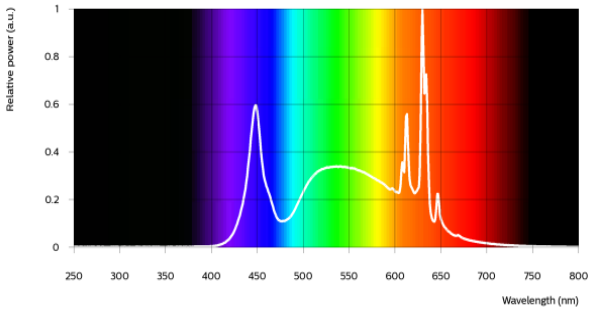


Fortimo SLM C 950 1208 L15 2024 G8 HE

Parameter	Min	Typ	Max	Unit
Luminous flux	4237	4460	4906	lm
Efficacy		172		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 600mA	Tc 25 °C	3807	185
	Tc-nom 65 °C	3629	178
	Tc-max 95 °C	3451	171
I-nom 750mA	Tc 25 °C	4681	178
	Tc-nom 65 °C	4460	172
	Tc-max 95 °C	4239	164
I-max 1440mA	Tc 25 °C	8415	153
	Tc-nom 65 °C	7996	147
	Tc-max 95 °C	7575	140

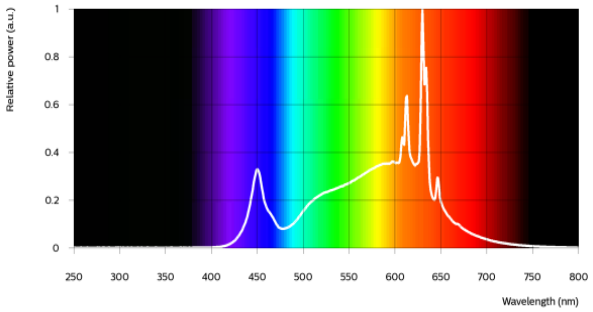


Fortimo SLM C 930 PW 1208 L15 2024 G8 HE

Parameter	Min	Typ	Max	Unit
Luminous flux	4090	4305	4736	lm
Efficacy		166		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		

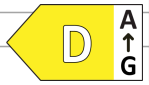
Measurement precision ± 5% for the flux data and ± 6% for the efficacy data. Measurement precision for color coordinates ± 0.005. Measurement precision for CRI ± 1.5.

Operation point	930	lm	lm/W
80% I-nom 600mA	Tc 25 °C	3675	178
	Tc-nom 65 °C	3503	172
	Tc-max 95 °C	3331	165
I-nom 750mA	Tc 25 °C	4519	172
	Tc-nom 65 °C	4305	166
	Tc-max 95 °C	4091	159
I-max 1440mA	Tc 25 °C	8121	148
	Tc-nom 65 °C	7715	142
	Tc-max 95 °C	7308	135



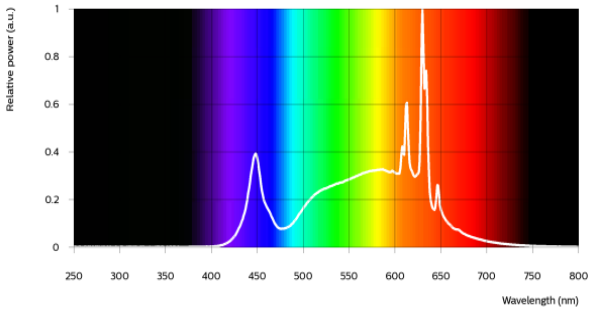
Fortimo SLM C 935 PW 1208 L15 2024 G8 HE

Parameter	Min	Typ	Max	Unit
Luminous flux	4152	4370	4807	lm
Efficacy		168		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		



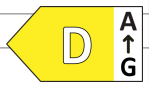
Measurement precision ± 5% for the flux data and ± 6% for the efficacy data. Measurement precision for color coordinates ± 0.005. Measurement precision for CRI ± 1.5.

Operation point	935	lm	lm/W
80% I-nom 600mA	Tc 25 °C	3730	181
	Tc-nom 65 °C	3556	174
	Tc-max 95 °C	3381	167
I-nom 750mA	Tc 25 °C	4587	174
	Tc-nom 65 °C	4370	168
	Tc-max 95 °C	4153	161
I-max 1440mA	Tc 25 °C	8244	150
	Tc-nom 65 °C	7832	144
	Tc-max 95 °C	7419	137



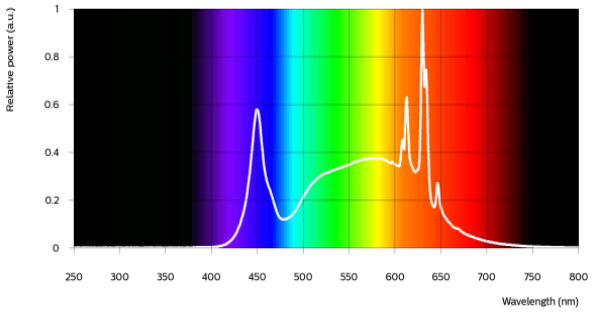
Fortimo SLM C 940 PW 1208 L15 2024 G8 HE

Parameter	Min	Typ	Max	Unit
Luminous flux	4199	4420	4862	lm
Efficacy		170		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 600mA	Tc 25 °C	3773	183
	Tc-nom 65 °C	3596	176
	Tc-max 95 °C	3420	169
I-nom 750mA	Tc 25 °C	4639	176
	Tc-nom 65 °C	4420	170
	Tc-max 95 °C	4200	163
I-max 1440mA	Tc 25 °C	8339	152
	Tc-nom 65 °C	7923	146
	Tc-max 95 °C	7505	139

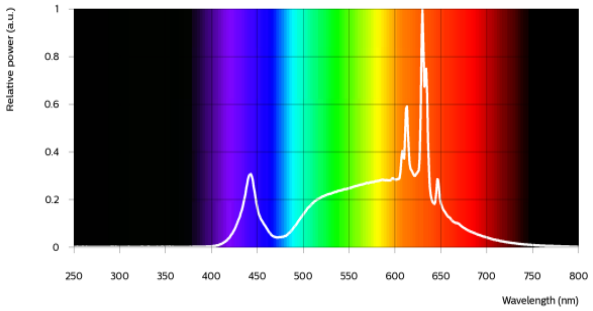


Fortimo SLM C 930 PC 1208 L15 2024 G8 HE

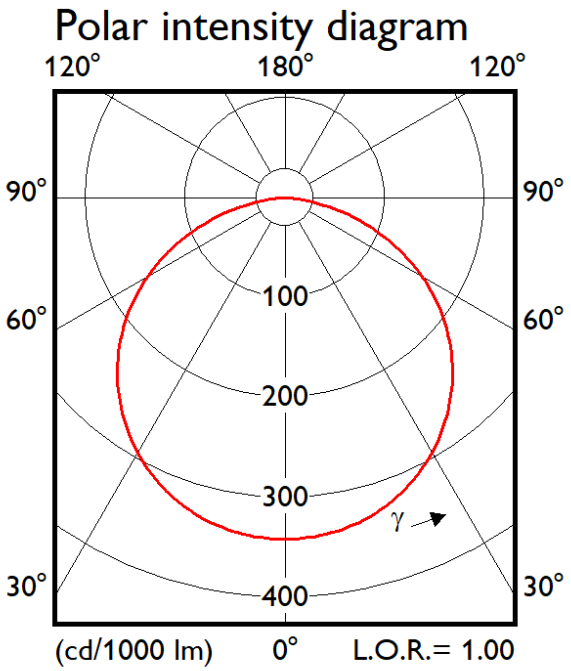
Parameter	Min	Typ	Max	Unit
Luminous flux	3805	4005	4406	lm
Efficacy		154		lm/W
Correlated color temperature (CCT)		3000		K
Color coordinates (CIEx, CIEy)		(0.422, 0.386)		-
Color consistency			2	SDCM
CRI	90			
R9	>70			
Photometric code		930/259		
Photobiological safety		RG1 unlimited		

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 600mA	Tc 25 °C	3419	166
	Tc-nom 65 °C	3259	160
	Tc-max 95 °C	3099	153
I-nom 750mA	Tc 25 °C	4204	160
	Tc-nom 65 °C	4005	154
	Tc-max 95 °C	3806	148
I-max 1440mA	Tc 25 °C	7555	137
	Tc-nom 65 °C	7176	132
	Tc-max 95 °C	6796	126



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

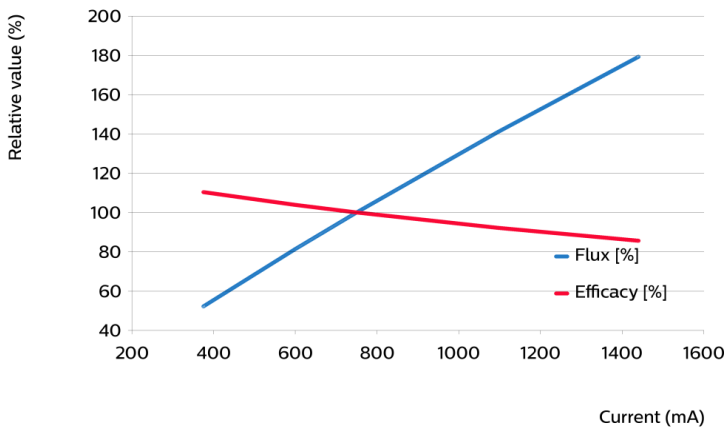
Parameter	Min	Typ	Max	Unit
Forward voltage	32.5	34.7	37.0	V
Power consumption	24.4	26.0	27.8	W = kWh/1000h
Number of modules in series per chain			1	
Number of modules per chain			1	
Number of modules in parallel			1	

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

Tuning information

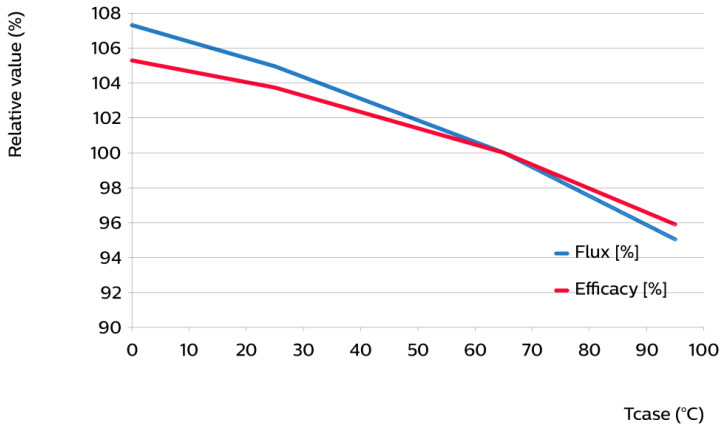
Flux and efficacy versus current (at Tc nominal)

I [mA]	Flux [%]	Efficacy [%]
1440	179	86
1095	141	92
750	100	100
600	81	104
375	52	110



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

Tc [°C]	Flux [%]	Efficacy [%]
95	95	96
65	100	100
25	105	104
0	107	105



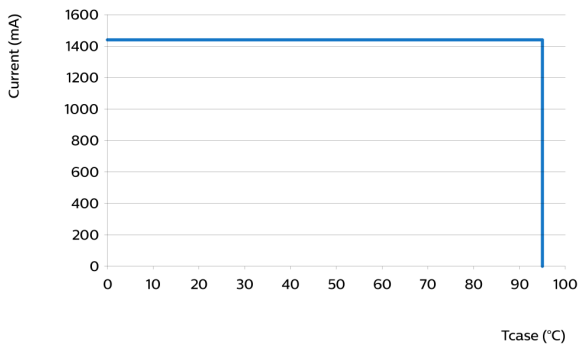
Lumen maintenance

Operation point	Lumen maintenance x 1000 hours	L70			L80			L90		
		B50	B20	B10	B50	B20	B10	B50	B20	B10
80% I-nom 600mA	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 750mA	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	63	58
I-max 1440mA	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

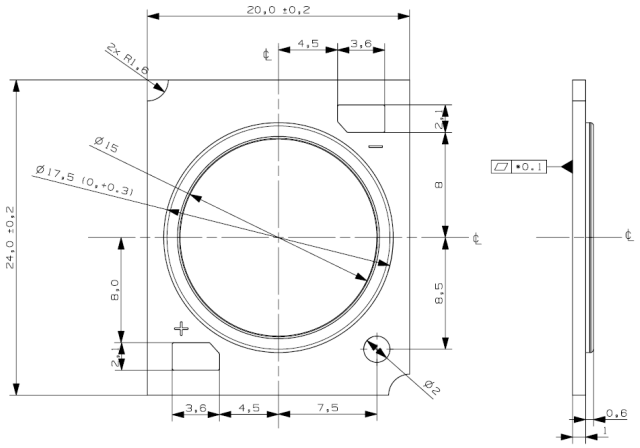
Parameter	Value	Unit
M70F50 nominal	>66000	hours

Performance Window



Mechanical characteristics

Parameter	Min	Typ	Max	Unit
Length	23.8	24	24.2	mm
Width	19.8	20	20.2	mm
Height	0.9	1	1.1	mm
Height	1.3	1.6	1.9	mm
Product mass		1.33		gram



Absolute ratings

Parameter	Min	Max	Unit
Current through the LED module (I-max)		1440	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

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