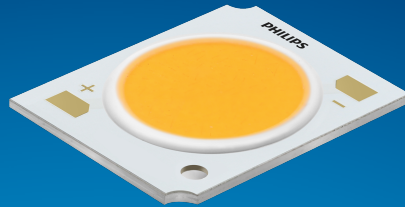


PHILIPS

Fortimo

LED

Fortimo SLM C 1208 L15
2024 G7 HE+



Datasheet

Fortimo SLM C 1208 L15 2024 G7 HE+

Fortimo LED SLM Gen 7 CRI90 HE+ continues to focus on the combination of Quality of Light and efficacy. The new HE+ range has additional improvement on current HE efficacy and close the efficacy gap vs. CRI80 range. Still, the new HE+ range will be delivered with 2 SDCM color consistency as current HE. The superior efficacy and color consistency of Fortimo SLM G7 HE+ will further unlock the extraordinary potential of light, facilitate the innovation and inspire the next generation luminaire design at our OEM customers'. Please also check 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 application
- 15% efficacy improvement vs. current G7 CRI90 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

January 2023



Ordering data

Commercial product name	EOC	12NC	EPREL registration #	Box quantity
Fortimo SLM C 927 1208 L15 2024 G7 HE+	8720169 238039 00	9290 034 47680	1411536	20
Fortimo SLM C 930 1208 L15 2024 G7 HE+	8720169 199200 00	9290 034 47780	1411584	20
Fortimo SLM C 935 1208 L15 2024 G7 HE+		9290 034 47880	1411537	20
Fortimo SLM C 940 1208 L15 2024 G7 HE+	8720169 199231 00	9290 034 47980	1411585	20
Fortimo SLM C 930 PW 1208 L15 2024 G7 HE+	8720169 199347 00	9290 034 48080	1411586	20
Fortimo SLM C 935 PW 1208 L15 2024 G7 HE+	8720169 199378 00	9290 034 48180	1411587	20
Fortimo SLM C 940 PW 1208 L15 2024 G7 HE+	8720169 199408 00	9290 034 48280	1411588	20
Fortimo SLM C 930 PC 1208 L15 2024 G7 HE+	8720169 199439 00	9290 034 48380	1411589	20

The products with EOC number are globally available by default. For those without EOC number are open only on request. Please contact your local sales representative for local availability and activation conditions.

Drive currents

Parameter	Nominal*	Life**	Max***	Unit
Fortimo SLM C 1208 L15 2024 G7 HE+	750	See performance window	1200	mA

Module temperatures

Parameter	Nominal*	Life**	Max***	Unit
T _c (case temperature at T _c point)	85	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)

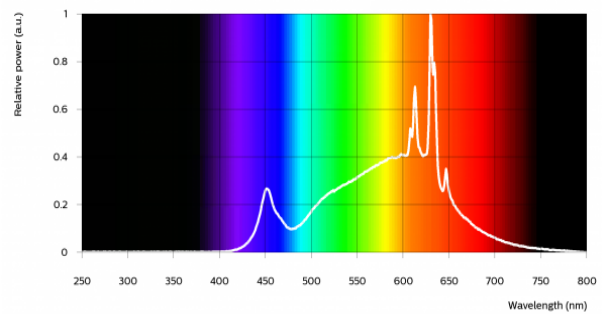
Fortimo SLM C 927 1208 L15 2024 G7 HE+

Parameter	Min	Typ	Max	Unit
Luminous flux	3534	3720	4092	lm
Efficacy		145		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 ± 0.005 . Measurement precision for CRI ± 1.5 .

Operation point	927	lm	lm/W
80% I-nom 600mA	Tc 25 °C	3328	163
	Tc-nom 85 °C	3023	150
	Tc-max 95 °C	2962	148
I-nom 750mA	Tc 25 °C	4099	157
	Tc-nom 85 °C	3720	145
	Tc-max 95 °C	3643	142
I-max 1200mA	Tc 25 °C	6273	142
	Tc-nom 85 °C	5671	130
	Tc-max 95 °C	5550	128



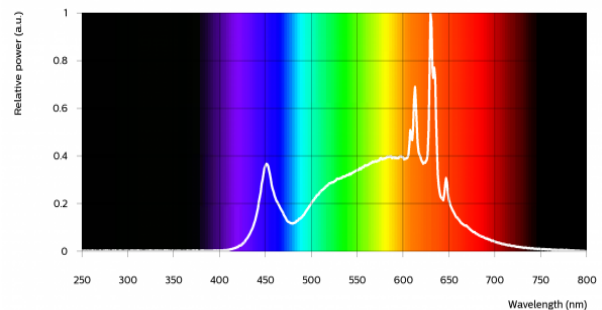
Fortimo SLM C 930 1208 L15 2024 G7 HE+

Parameter	Min	Typ	Max	Unit
Luminous flux	3705	3900	4290	lm
Efficacy		152		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 ± 0.005 . Measurement precision for CRI ± 1.5 .

Operation point	930	lm	lm/W
80% I-nom 600mA	Tc 25 °C	3489	171
	Tc-nom 85 °C	3170	157
	Tc-max 95 °C	3105	155
I-nom 750mA	Tc 25 °C	4298	165
	Tc-nom 85 °C	3900	152
	Tc-max 95 °C	3820	149
I-max 1200mA	Tc 25 °C	6578	149
	Tc-nom 85 °C	5947	136
	Tc-max 95 °C	5820	134

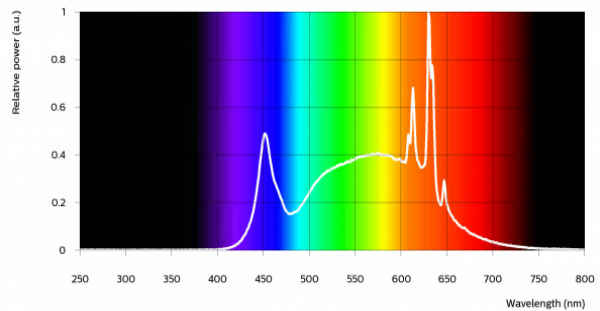


Fortimo SLM C 935 1208 L15 2024 G7 HE+


Parameter	Min	Typ	Max	Unit
Luminous flux	3861	4065	4471	lm
Efficacy		158		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	3636	178
	Tc-nom 85 °C	3303	164
	Tc-max 95 °C	3236	161
I-nom 750mA	Tc 25 °C	4479	172
	Tc-nom 85 °C	4065	158
	Tc-max 95 °C	3981	155
I-max 1200mA	Tc 25 °C	6855	155
	Tc-nom 85 °C	6199	142
	Tc-max 95 °C	6066	139

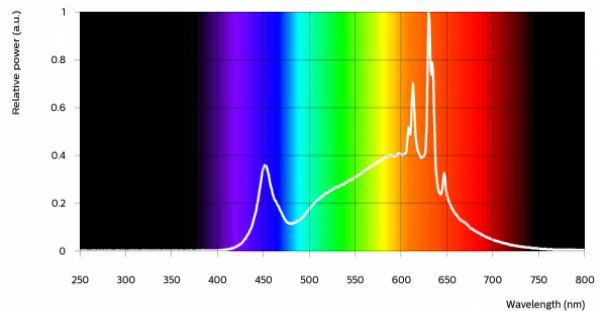


Fortimo SLM C 940 1208 L15 2024 G7 HE+


Parameter	Min	Typ	Max	Unit
Luminous flux	3971	4180	4598	lm
Efficacy		162		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	3739	183
	Tc-nom 85 °C	3397	169
	Tc-max 95 °C	3328	166
I-nom 750mA	Tc 25 °C	4606	177
	Tc-nom 85 °C	4180	162
	Tc-max 95 °C	4094	160
I-max 1200mA	Tc 25 °C	7050	159
	Tc-nom 85 °C	6376	146
	Tc-max 95 °C	6240	143

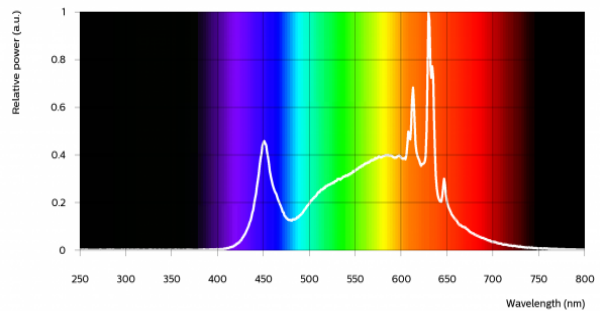


Fortimo SLM C 930 PW 1208 L15 2024 G7 HE+


Parameter	Min	Typ	Max	Unit
Luminous flux	3743	3940	4334	lm
Efficacy		153		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	3525	172
	Tc-nom 85 °C	3202	159
	Tc-max 95 °C	3137	156
I-nom 750mA	Tc 25 °C	4341	166
	Tc-nom 85 °C	3940	153
	Tc-max 95 °C	3859	151
I-max 1200mA	Tc 25 °C	6645	150
	Tc-nom 85 °C	6008	138
	Tc-max 95 °C	5880	135

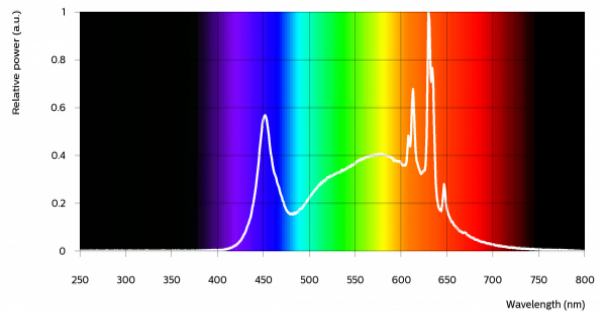


Fortimo SLM C 935 PW 1208 L15 2024 G7 HE+


Parameter	Min	Typ	Max	Unit
Luminous flux	3862	4065	4472	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 600mA	Tc 25 °C	3636	178
	Tc-nom 85 °C	3303	164
	Tc-max 95 °C	3236	161
I-nom 750mA	Tc 25 °C	4479	172
	Tc-nom 85 °C	4065	158
	Tc-max 95 °C	3981	155
I-max 1200mA	Tc 25 °C	6855	155
	Tc-nom 85 °C	6199	142
	Tc-max 95 °C	6066	139

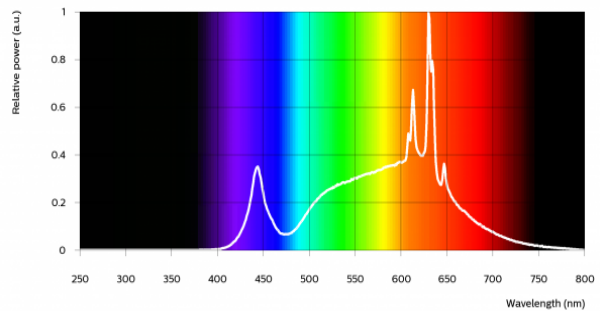


Fortimo SLM C 940 PW 1208 L15 2024 G7 HE+


Parameter	Min	Typ	Max	Unit
Luminous flux	3971	4180	4598	lm
Efficacy		162		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	3739	183
	Tc-nom 85 °C	3397	169
	Tc-max 95 °C	3328	166
I-nom 750mA	Tc 25 °C	4606	177
	Tc-nom 85 °C	4180	162
	Tc-max 95 °C	4094	160
I-max 1200mA	Tc 25 °C	7050	159
	Tc-nom 85 °C	6376	146
	Tc-max 95 °C	6240	143

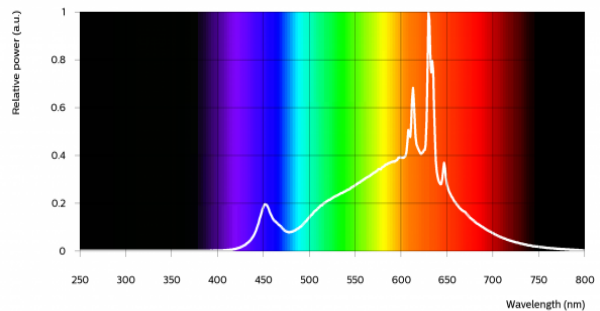


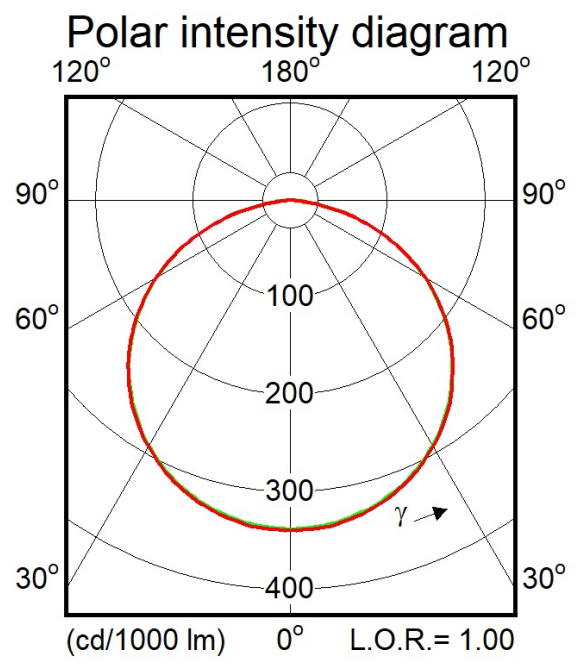
Fortimo SLM C 930 PC 1208 L15 2024 G7 HE+

Parameter	Min	Typ	Max	Unit
Luminous flux	3415	3595	3954	lm
Efficacy		140		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	3216	157
	Tc-nom 85 °C	2921	145
	Tc-max 95 °C	2862	143
I-nom 750mA	Tc 25 °C	3961	152
	Tc-nom 85 °C	3595	140
	Tc-max 95 °C	3521	137
I-max 1200mA	Tc 25 °C	6062	137
	Tc-nom 85 °C	5481	126
	Tc-max 95 °C	5363	123





Electrical characteristics

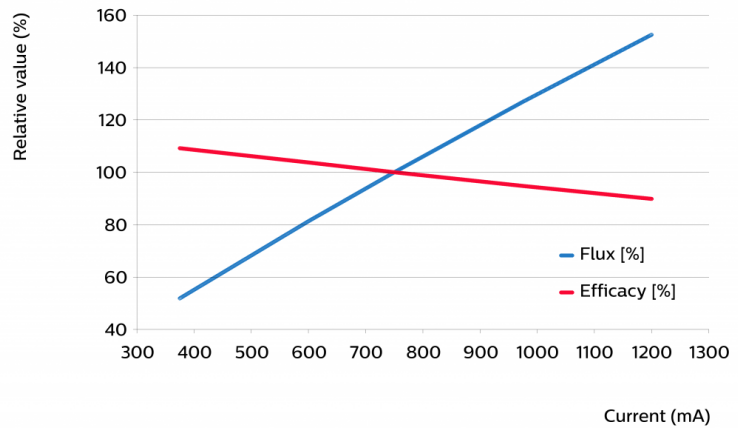
Parameter	Min	Typ	Max	Unit
Forward voltage	32.0	34.3	37.0	V
Power consumption	24.0	25.7	27.8	W = kWh/1000h
Number of modules in series per chain			1	
Number of modules per chain			1	
Number of modules in parallel			1	

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

Tuning information

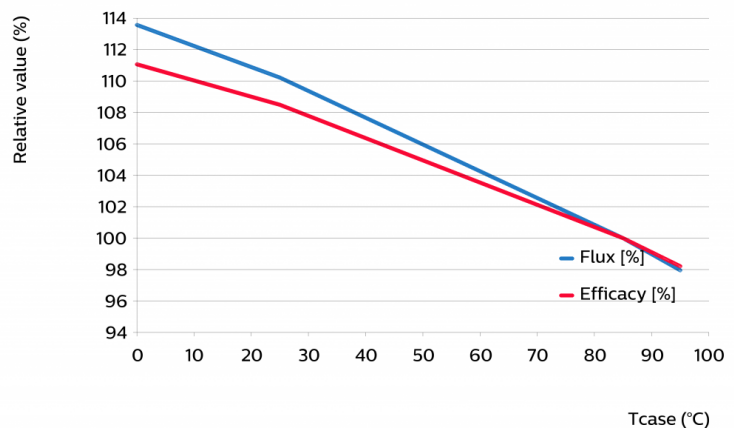
Flux and efficacy versus current (at Tc nominal)

I [mA]	Flux [%]	Efficacy [%]
1200	152	90
975	127	95
750	100	100
600	81	104
375	52	109



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

Tc [°C]	Flux [%]	Efficacy [%]
95	98	98
85	100	100
25	110	108
0	114	111



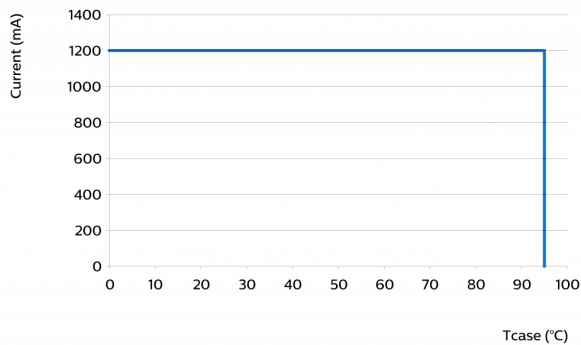
Lumen maintenance

Operation point	Lumen maintenance x 1000 hours	L70			L80			L90		
		B50	B20	B10	B50	B20	B10	B50	B20	B10
80% I nom 600 mA	Tc 75°C	>66	>66	>66	>66	>66	>66	>66	>66	>66
	Tc 85°C	>66	>66	>66	>66	>66	>66	>66	>66	>66
	Tc 95°C	>66	>66	>66	>66	>66	>66	>66	>66	>66
I nom 750 mA	Tc 75°C	>66	>66	>66	>66	>66	>66	>66	>66	>66
	Tc 85°C	>66	>66	>66	>66	>66	>66	>66	>66	>66
	Tc 95°C	>66	>66	>66	>66	>66	>66	>66	>66	>66
I max 1200 mA	Tc 75°C	>66	>66	>66	>66	>66	>66	>66	63	57
	Tc 85°C	>66	>66	>66	>66	>66	>66	63	53	48
	Tc 95°C	>66	>66	>66	>66	>66	>66	54	45	41

Lifetime

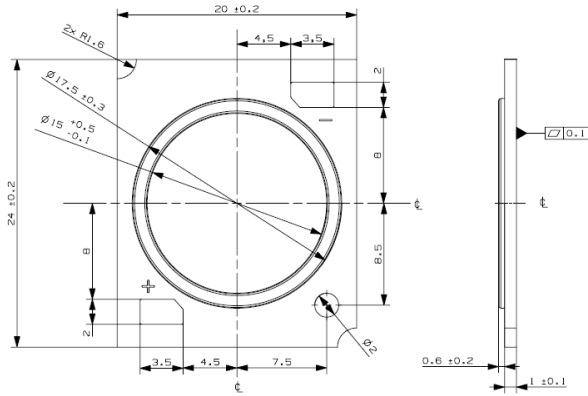
Parameter	Value	Unit
M70F50 nominal	>66000	hours

Performance Window



Mechanical characteristics

Parameter	Min	Typ	Max	Unit
Length	23.8	24	24.2	mm
Width	19.8	20	20.2	mm
Height PCB	0.9	1	1.1	mm
Height including dam	1.3	1.6	1.9	mm
Product mass		1.23		gram



Absolute ratings

Parameter	Min	Max	Unit
Current through the LED module (I-max)		1200	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

Application information

Certificates and Standards

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

Environmental

RoHS/REACH

Application

Dimming	Yes
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06/01/2023