PHILIPS

Fortimo

LED

Fortimo SLM Food
1211 G7

Datasheet

Fortimo LED SLM Food 1211 L19 2828 G7

Fortimo LED SLM Gen7 continues to focus on the combination of Quality of Light and performance. Food Gen 7 range extends more application with dedicated design on the spectrum to deliver a more appealing light effect to deliver excellent shopping experiences.

Key features and benefits

Extensive flux ranges from 2000lm to 5000lm (@norm)
Extensive application covers Meat, Bread, Iced Seafood, Live Seafood, Vegetables and Fruit.
Flexibility to optimize luminaire performance (lm/w or high lm output)
System approach (CoB + Holder + Driver)
50,000 hours lifetime

August 2020

indirect

100%
instant

Ordering data

Commercial product name	EOC	12NC	Box quantity
Fortimo SLM C 925 FWW 1211 L19 2828 G7	8718699 730925 00	9290 021 44606	10
Fortimo SLM C 930 FPR 1211 L19 2828 G7	8718699 730901 00	9290 021 44306	10
Fortimo SLM C 865 FIS 1211 L19 2828 G7	8718699 730963 00	9290 021 45206	10

Drive currents

Parameter	Nominal*	Life**	Max***	Unit
Fortimo SLM Food 1211 G7	1200	see performance window	2000	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

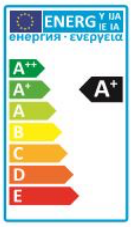
** Value at which life time is specified

*** Maximum value for safe operation, do not operate above this value

Optical characteristics - table per color (CCT)

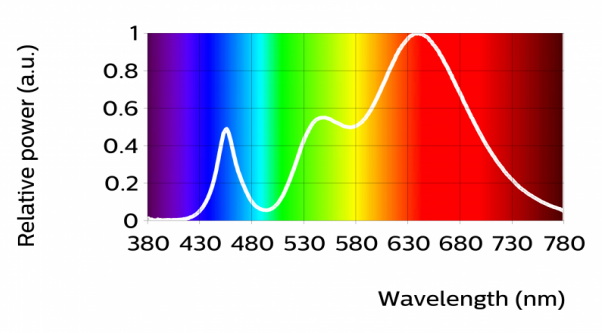
Fortimo SLM C 925 FWW 1211 L19 2828 G7

Parameter	Min	Typ	Max	Unit
Luminous flux	3426	3680	4048	lm
Module efficacy		89		lm/W
Correlated color temperature (CCT)		2500		K
Color coordinates (CIEx, CIEy)		(0.457, 0.385)		-
Color consistency			3	SDCM
CRI	88	90		
R9	88			
Photometric code		925/359		
Photobiological safety			RG1 unlimited	



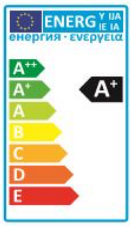
Measurement precision ± 5% for the flux data and ± 6% for the efficacy data. Measurement precision for color coordinates ± 0.005. Measurement precision for CRI ± 1.5

Operation point	825	lm	lm/W
80% I-nom 960mA	Tc 25 °C	3274	99
	Tc-nom 85 °C	3013	93
	Tc-max 95 °C	2961	91
I-nom 1200mA	Tc 25 °C	4002	95
	Tc-nom 85 °C	3680	89
	Tc-max 95 °C	3595	87
I-max 2000mA	Tc 25 °C	6199	83
	Tc-nom 85 °C	5580	76
	Tc-max 95 °C	5454	74



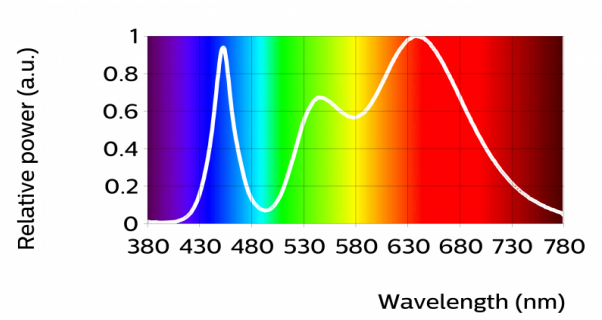
Fortimo SLM C 930 FPR 1211 L19 2828 G7

Parameter	Min	Typ	Max	Unit
Luminous flux	3636	3910	4301	lm
Module efficacy		94		lm/W
Correlated color temperature (CCT)		3000		K
Color coordinates (CIEx, CIEy)		(0.406, 0.350)		-
Color consistency			3	SDCM
CRI	87	89		
R9	73			
Photometric code		830/359		
Photobiological safety			RG1 unlimited	



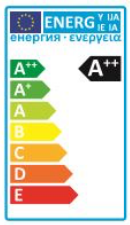
Measurement precision ± 5% for the flux data and ± 6% for the efficacy data. Measurement precision for color coordinates ± 0.005. Measurement precision for CRI ± 1.5

Operation point	830	lm	lm/W
80% I-nom 960mA	Tc 25 °C	3462	105
	Tc-nom 85 °C	3210	98
	Tc-max 95 °C	3164	97
I-nom 1200mA	Tc 25 °C	4235	100
	Tc-nom 85 °C	3910	94
	Tc-max 95 °C	3851	93
I-max 2000mA	Tc 25 °C	6577	88
	Tc-nom 85 °C	6012	81
	Tc-max 95 °C	5910	80



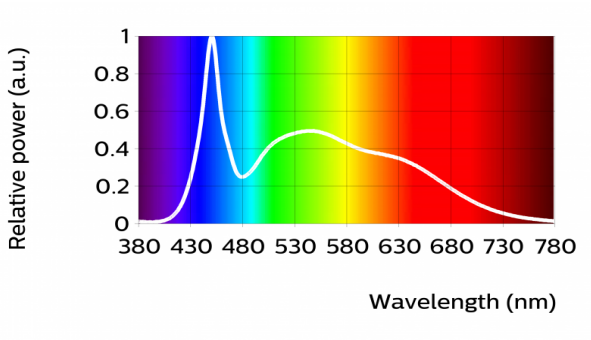
Fortimo SLM C 865 FIS 1211 L19 2828 G7

Parameter	Min	Typ	Max	Unit
Luminous flux	5267	5660	6226	lm
Module efficacy		136		lm/W
Correlated color temperature (CCT)		6500		K
Color coordinates (CIEx, CIEy)		(0.312, 0.328)		-
Color consistency			3	SDCM
CRI	81	83		
R9	43			
Photometric code		865/359		
Photobiological safety			RG2	
Ethr			932	lux



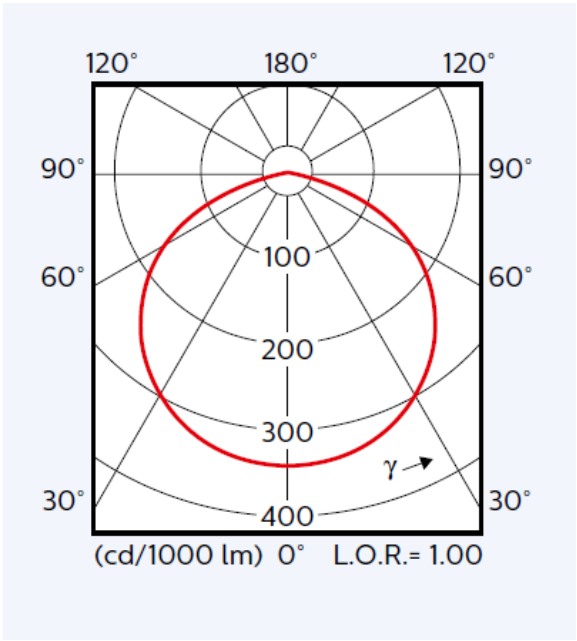
Measurement precision ± 5% for the flux data and ± 6% for the efficacy data. Measurement precision for color coordinates ± 0.005. Measurement precision for CRI ± 1.5

Operation point	865	lm	lm/W
80% I-nom 960mA	Tc 25 °C	5083	153
	Tc-nom 85 °C	4640	142
	Tc-max 95 °C	4559	140
I-nom 1200mA	Tc 25 °C	6221	147
	Tc-nom 85 °C	5660	136
	Tc-max 95 °C	5558	134
I-max 2000mA	Tc 25 °C	9689	130
	Tc-nom 85 °C	8734	119
	Tc-max 95 °C	8561	117

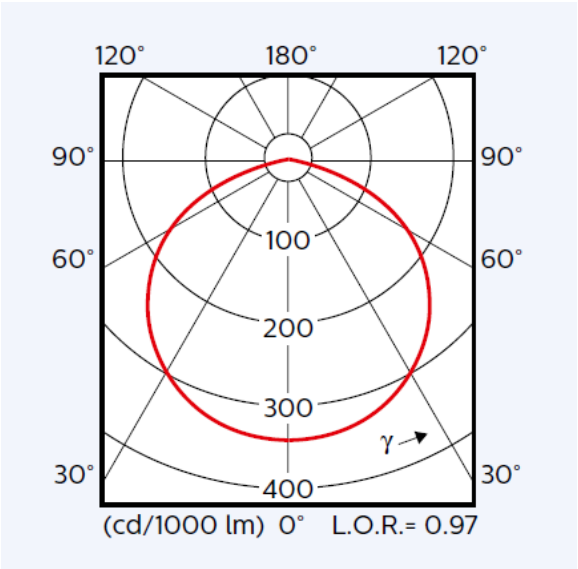


Beam shape

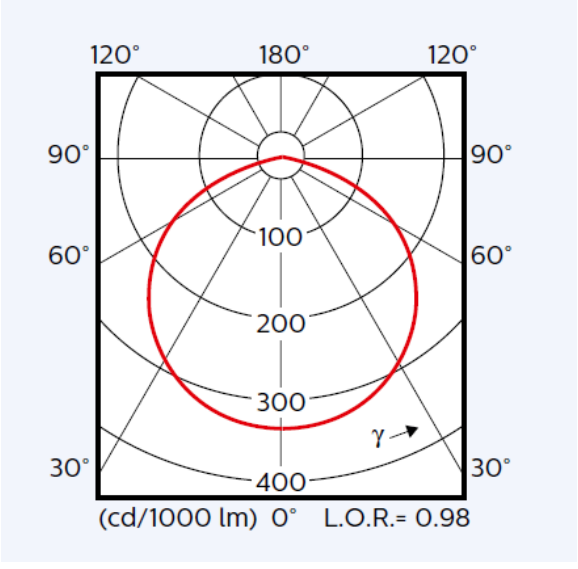
Bare CoB



CoB with a standard/ down-light/ Zhaga poke-in holder



CoB with a poke-in holder



Electrical characteristics

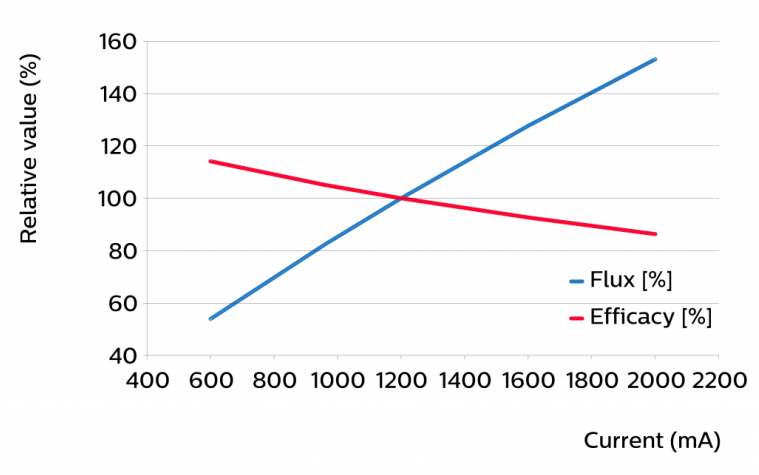
Parameter	Min	Typ	Max	Unit
Forward voltage	32.4	34.7	37.4	V
Power consumption	38.9	41.6	44.8	W = kWh/1000h
Number of modules in parallel			1	

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

Tuning information

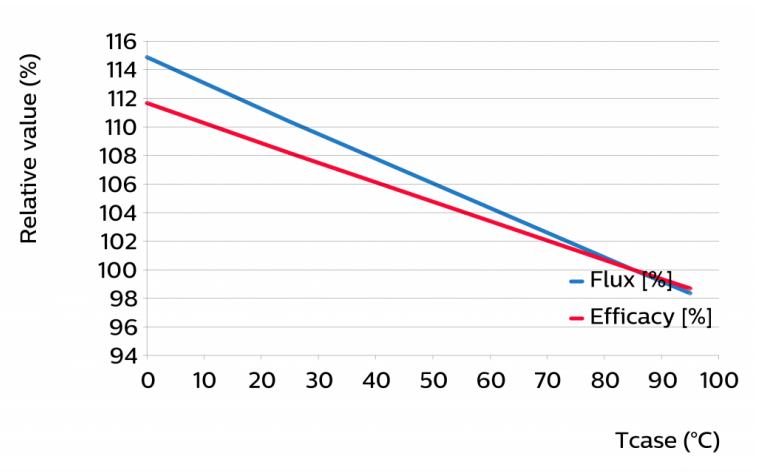
Flux and efficacy versus current (at Tc nominal)

I [mA]	Flux [%]	Efficacy [%]
2000	153	86
1600	128	93
1200	100	100
960	82	105
600	54	114



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

Tc [°C]	Flux [%]	Efficacy [%]
95	98	99
85	100	100
25	110	108
0	115	112



Lumen maintenance

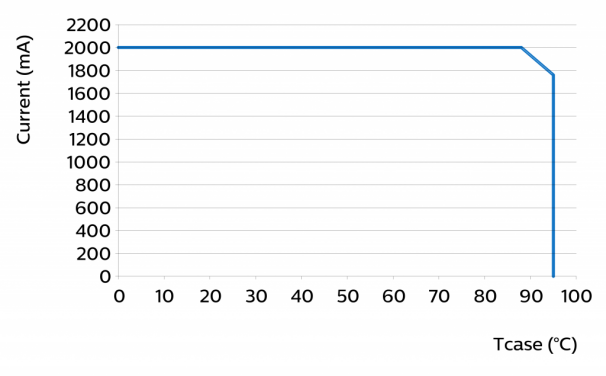
Operation point	Lumen maintenance	L70			L80			L90		
	x 1000 hours	B50	B20	B10	B50	B20	B10	B50	B20	B10
80% i nom 960 mA	Tc 65°C	>50	>50	>50	>50	>50	>50	>50	>50	43
	Tc nom 85°C	>50	>50	>50	>50	50	40	36	24	19
	Tc max 95°C	>50	>50	44	>50	34	27	25	16	13
i nom 1200 mA	Tc 65°C	>50	>50	>50	>50	>50	>50	>50	50	40
	Tc nom 85°C	>50	>50	>50	>50	46	37	33	22	18
	Tc max 95°C	>50	>50	71	48	32	25	23	15	12
I max 2000 mA	Tc 65°C	>50	>50	>50	>50	>50	>50	>50	36	29
	Tc nom 85°C	>50	>50	45	>50	35	28	25	16	13
	Tc max 95°C	>50	39	31	37	24	19	17	11	9

Lifetime

Parameter	Value	Unit
C10 at Tc life	50000	hours
M70F50 nominal	>50000	hours
M70F50 life	>50000	hours

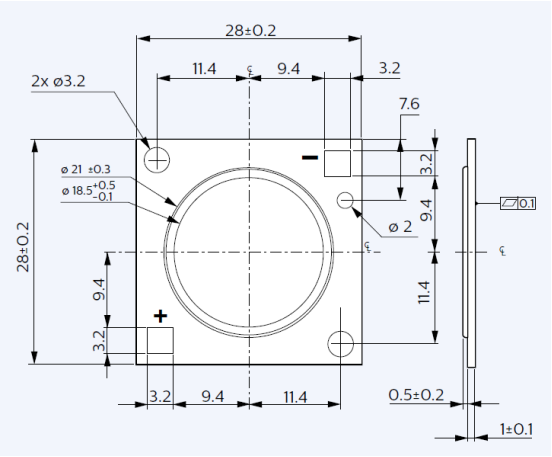
Switching cycles in accordance to EU 1194/2012: >15000

Performance Window



Mechanical characteristics

Parameter	Min	Typ	Max	Unit
Length	27.8	28	28.2	mm
Width	27.8	28	28.2	mm
Height PCB	0.9	1	1.1	mm
Height including dam	1.2	1.5	1.8	mm
Product mass		2.05		gram



Absolute ratings

Parameter	Min	Max	Unit
Current through the LED module (I-max)		2000	mA
Case temperature (Tc-max)		95	℃
Power at rated Vf-max and I-max		79	W
ESD (direct contact)		8	kV
Working voltage		235	V_{dc}
Ambient temperature	-20	40	℃
Storage temperature	-40	80	℃

Application information

Certificates and Standards
IEC 62031:2008/A1:2012/A2:2014
EN 62031:2008/A1:2013/A2:2015
Relevant clauses of IEC 62471:2006 (Incl. IEC/TR 62471-2: 2009 and IEC/TR 62778: 2014)
Relevant clauses of IEC 60838-1:2004/A1:2008/A2:2011 with IEC 60838-2-2:2006 /A1:2012
Relevant clauses of EN 62471:2008 (With IEC/TR 62471-2: 2009 and IEC/TR 62778: 2014)
Relevant clauses of EN 60838-1:2004/A1:2008/A2:2011 with EN 60838-2-2:2006/A1:2012
UL 8750
ENEC+
CE

Application	
IP rating	No IP-rating
Overheating protection	No
Luminaire class	IEC Class I and Class II
Dimming	Yes

© 2020 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.

26/08/2020

www.philips.com/oem