

# PHILIPS

## LED Modules

### Fortimo SLM

#### 1205 L13 2024 G6



Philips Fortimo LED spotlight module (SLM) gen 6 continues to focus on the combination of quality of light and performance. By offering the CoB separate from the holder, even more flexibility in possible system combinations and specifications is achieved. This results in an extensive portfolio of lumen ranges, CCTs and spectra. Please also check the online Easy Design-in Tool for your perfect system combination ([www.na.easydesignintool.philips.com](http://www.na.easydesignintool.philips.com)).

#### Ordering Data

Commercial Product Name	12NC	Minimum Order Quantity
Fortimo SLM C 827 1205 L13 2024 G6	9290 014 58706	20
Fortimo SLM C 830 1205 L13 2024 G6	9290 014 58806	20
Fortimo SLM C 835 1205 L13 2024 G6	9290 014 58906	20
Fortimo SLM C 840 1205 L13 2024 G6	9290 014 59006	20
Fortimo SLM C 927 1205 L13 2024 G6	9290 014 59306	20
Fortimo SLM C 930 1205 L13 2024 G6	9290 014 59406	20

Not all products are currently available as make-to-stock. Please contact your local Philips representative for specific availability and lead time.

# Fortimo SLM 1205 L13 2024 G6

## Features

- Excellent quality of light available for all applications
- Extensive range of CCT
- Small LES for narrow beam angles and small reflector designs
- Flexibility to select a different lumen output between 800 lm and 10000 lm
- State-of-the-art chip-on-board (CoB) technology, enabling high system efficacy
- System proposition (CoB + holder + driver)

- Flexibility to optimize luminaire performance (lm/W or high lumen output)
- Philips Advance Xitanium LED window drivers with SimpleSet technology for maximum flexibility
- Mini drivers for smallest possible luminaire designs
- Three dedicated product lines:
  - SLM gen 6 premium white
  - SLM gen 6 crisp white
  - SLM gen 6 food

## Benefits

- 5-year limited system warranty with over 50,000 hours lifetime<sup>1</sup>

## Applications

- Architectural lighting
- Retail spot lighting
- Recessed downlight

## Drive Currents

Parameter	Nominal*	Life**	Max***	Unit
Fortimo LED SLM 1205 L13 2024 G6	500	830	1050	mA

## Module Temperatures

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

1. View limited warranty at <http://www.usa.lighting.philips.com/support/support/warranty> for details and restrictions.

# Fortimo SLM 1205 L13 2024 G6

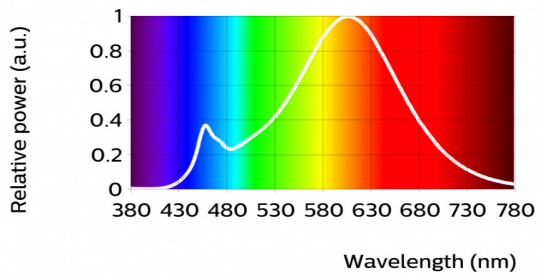
## Optical Characteristics – Table per CCT

### Fortimo SLM C 827 1205 L13 2024 G6

Parameter	Min	Typ	Max	Unit
Luminous Flux	2100	2330	2560	lm
Module Efficiency		158		lm/W
Correlated Color Temperature (CCT)		2700		K
Color Coordinates (CIEx, CIEy)		(0.458, 0.410)		–
Color Consistency			3	SDCM
CRI	80	82		–

Measurement tolerances are:  $\pm 5\%$  on flux,  $\pm 6\%$  on efficiency,  $+0.005$  on x,y, and  $\pm 1.5$  on CRI.

Measurement precision for flux  $\pm 5\%$ .  
Measurement precision for efficacy  $\pm 6\%$ .  
Measurement precision for x, y  $\pm 0.005$ .  
Measurement precision for CRI  $\pm 1.5$ .



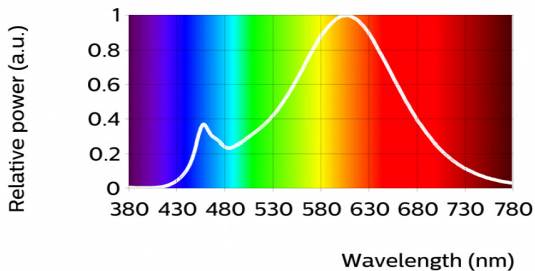
R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
79	92	94	76	79	90	82	59	59	82	72	73	82	97	

### Fortimo SLM C 830 1205 L13 2024 G6

Parameter	Min	Typ	Max	Unit
Luminous Flux	2180	2420	2660	lm
Module Efficiency		144		lm/W
Correlated Color Temperature (CCT)		3000		K
Color Coordinates (CIEx, CIEy)		(0.434, 0.403)		–
Color Consistency			3	SDCM
CRI	80	82		–

Measurement tolerances are:  $\pm 5\%$  on flux,  $\pm 6\%$  on efficiency,  $+0.005$  on x,y, and  $\pm 1.5$  on CRI.

Measurement precision for flux  $\pm 5\%$ .  
Measurement precision for efficacy  $\pm 6\%$ .  
Measurement precision for x, y  $\pm 0.005$ .  
Measurement precision for CRI  $\pm 1.5$ .



R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
83	94	93	80	84	94	81	59	59	87	80	76	86	97	

# Fortimo SLM 1205 L13 2024 G6

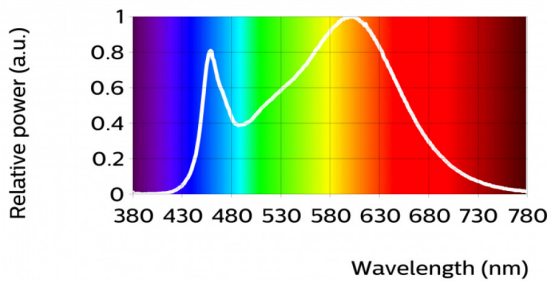
## Optical Characteristics – Table per CCT

### Fortimo SLM C 835 1205 L13 2024 G6

Parameter	Min	Typ	Max	Unit
Luminous Flux	2220	2470	2720	lm
Module Efficiency		146		lm/W
Correlated Color Temperature (CCT)		3500		K
Color Coordinates (CIEx, CIEy)		(0.407, 0.392)		–
Color Consistency			3	SDCM
CRI	80	82		–

Measurement tolerances are: ±5% on flux, ±6% on efficiency, +0.005 on x,y, and ±1.5 on CRI.

Measurement precision for flux +/- 5%.  
Measurement precision for efficacy +/- 6%.  
Measurement precision for x, y +/- 0.005.  
Measurement precision for CRI +/- 1.5.



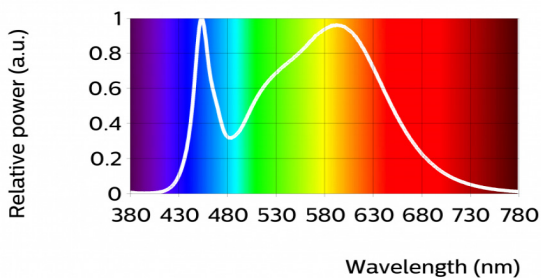
R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
86	96	93	80	85	94	83	65	65	90	79	70	89	97	

### Fortimo SLM C 840 1205 L13 2024 G6

Parameter	Min	Typ	Max	Unit
Luminous Flux	2270	2530	2780	lm
Module Efficiency		150		lm/W
Correlated Color Temperature (CCT)		4000		K
Color Coordinates (CIEx, CIEy)		(0.382, 0.380)		–
Color Consistency			3	SDCM
CRI	80	82		–

Measurement tolerances are: ±5% on flux, ±6% on efficiency, +0.005 on x,y, and ±1.5 on CRI.

Measurement precision for flux +/- 5%.  
Measurement precision for efficacy +/- 6%.  
Measurement precision for x, y +/- 0.005.  
Measurement precision for CRI +/- 1.5.



R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
80	89	96	79	80	85	86	63	63	74	77	58	82	98	

# Fortimo SLM 1205 L13 2024 G6

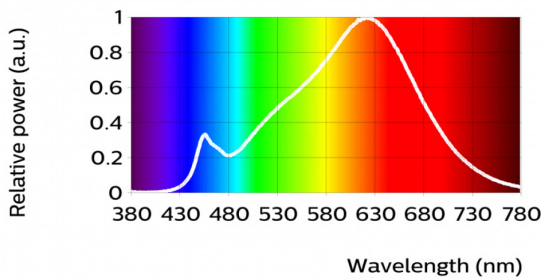
## Optical Characteristics – Table per CCT

### Fortimo SLM C 927 1205 L13 2024 G6

Parameter	Min	Typ	Max	Unit
Luminous Flux	1740	1930	2120	lm
Module Efficiency		114		lm/W
Correlated Color Temperature (CCT)		2700		K
Color Coordinates (CIEx, CIEy)		(0.458, 0.410)		–
Color Consistency			3	SDCM
CRI	90	92		–

Measurement tolerances are: ±5% on flux, ±6% on efficiency, +0.005 on x,y, and ±1.5 on CRI.

Measurement precision for flux +/- 5%.  
Measurement precision for efficacy +/- 6%.  
Measurement precision for x, y +/- 0.005.  
Measurement precision for CRI +/- 1.5.



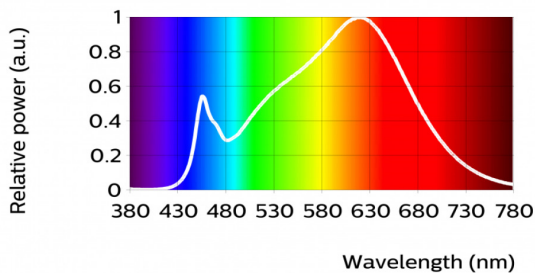
R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
92	96	99	91	91	96	91	79	79	90	91	81	93	99	

### Fortimo SLM C 930 1205 L13 2024 G6

Parameter	Min	Typ	Max	Unit
Luminous Flux	1810	2010	2210	lm
Module Efficiency		119		lm/W
Correlated Color Temperature (CCT)		3000		K
Color Coordinates (CIEx, CIEy)		(0.434, 0.403)		–
Color Consistency			3	SDCM
CRI	90	92		–

Measurement tolerances are: ±5% on flux, ±6% on efficiency, +0.005 on x,y, and ±1.5 on CRI.

Measurement precision for flux +/- 5%.  
Measurement precision for efficacy +/- 6%.  
Measurement precision for x, y +/- 0.005.  
Measurement precision for CRI +/- 1.5.

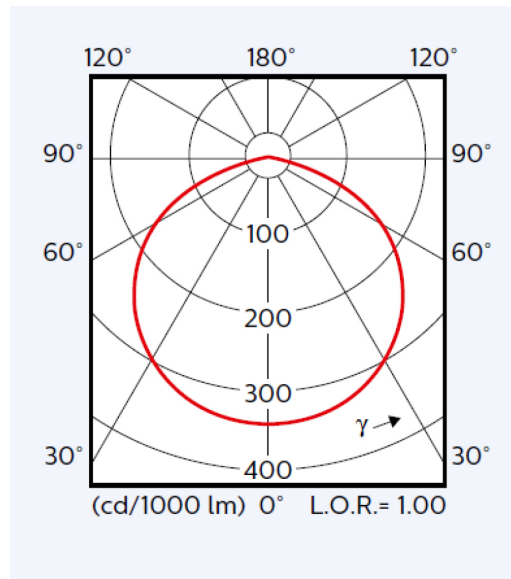


R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
93	97	99	91	92	96	91	81	81	92	91	77	94	99	

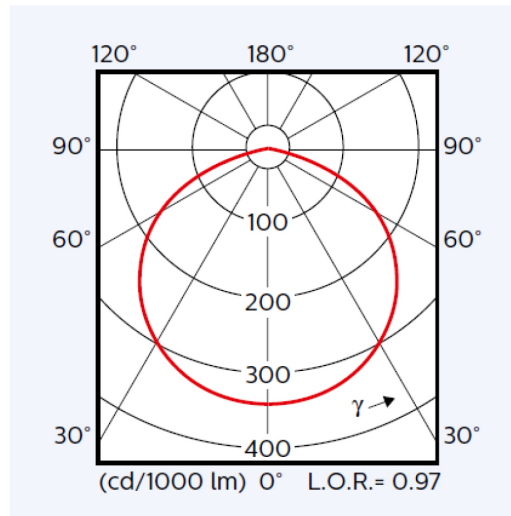
# Fortimo SLM 1205 L13 2024 G6

## Beam Shape

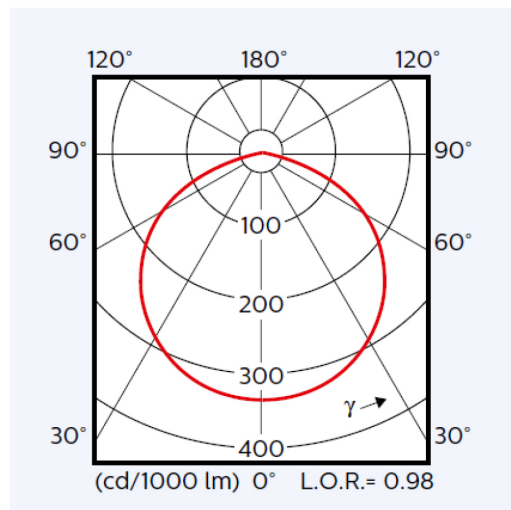
Bare CoB



CoB with a standard/downlight/Zhaga poke-in holder



CoB with a poke-in holder



# Fortimo SLM 1205 L13 2024 G6

## Fortimo SLM C 827 1205 L13 2024 G6

## Fortimo SLM C 830 1205 L13 2024 G6

## Fortimo SLM C 835 1205 L13 2024 G6

## Fortimo SLM C 840 1205 L13 2024 G6

Parameter	Min	Typ	Max	Unit
Forward Voltage		33.7	36.2	V
Power Consumption		16.8	18.1	W
Thermal Power		9.5		W

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

## Fortimo SLM C 927 1205 L13 2024 G6

## Fortimo SLM C 930 1205 L13 2024 G6

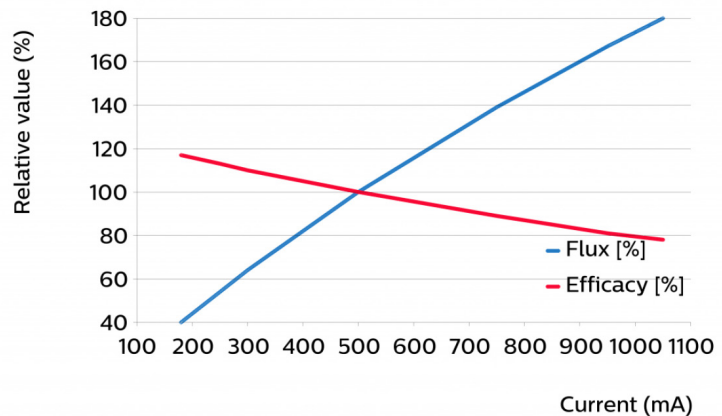
Parameter	Min	Typ	Max	Unit
Forward Voltage		33.6	36.1	V
Power Consumption		16.8	18.1	W
Thermal Power		10.2		W

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

## Tuning Information

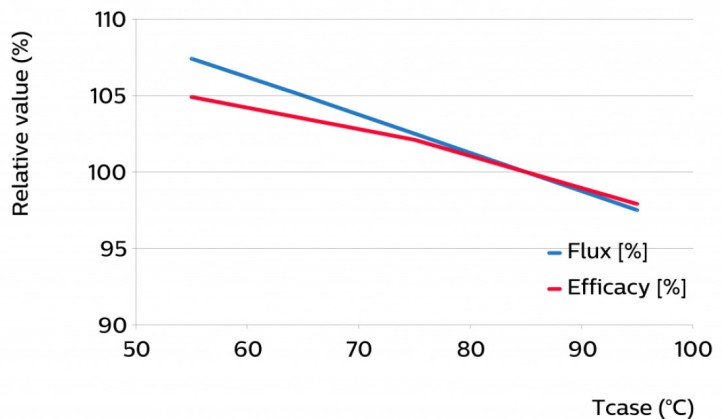
Flux and efficacy vs. current (at Tc nominal)

I [mA]	Flux [%]	Efficacy [%]
180	40	117
250	54	113
300	64	110
500	100	100
750	139	89
800	146	87
950	167	81
1050	180	78



Flux and efficacy vs. temperature at Tc (at I nominal)

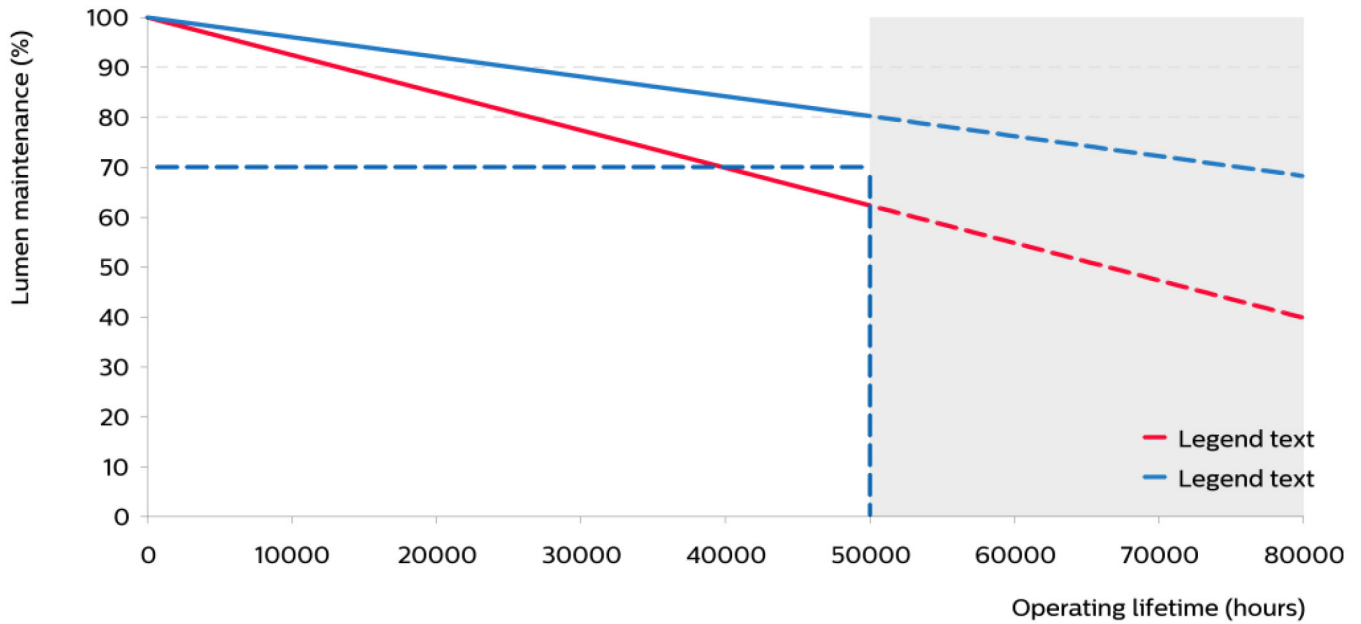
Tcase [°C]	Flux [%]	Efficacy [%]
55	107	105
65	105	104
75	103	102
85	100	100
95	98	98



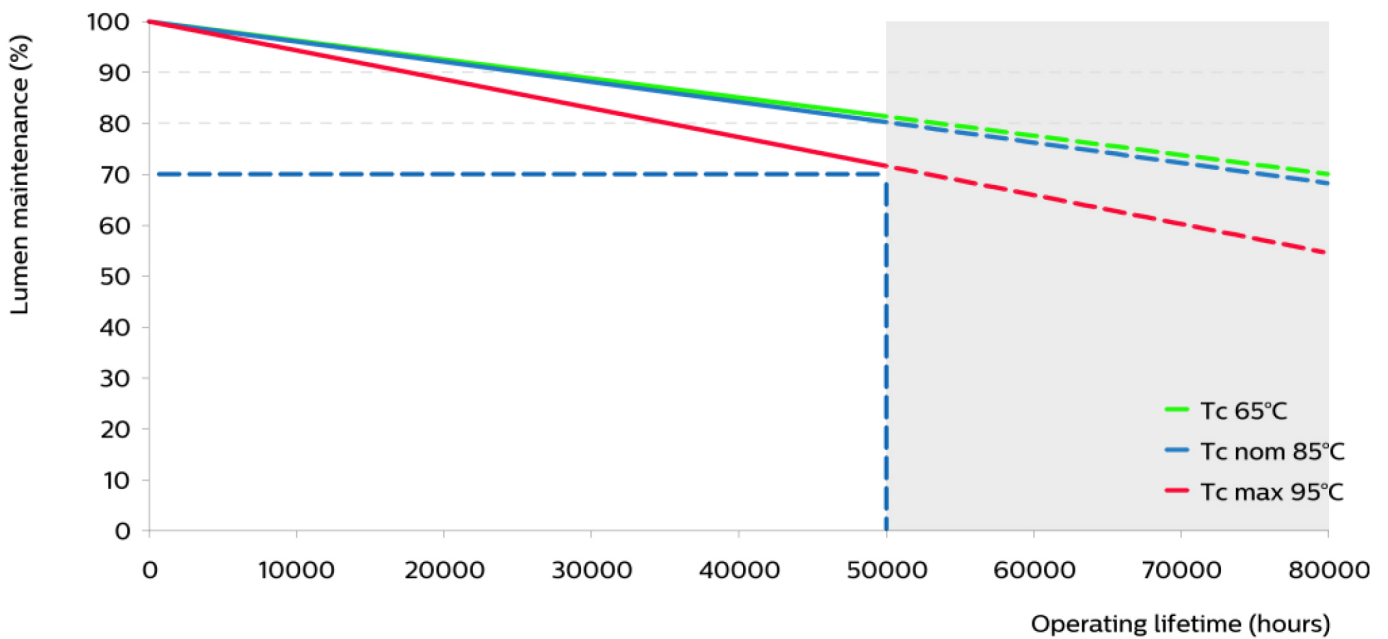
# Fortimo SLM 1205 L13 2024 G6

## Lumen Maintenance

Lumen maintenance at I-life and Tc-life conditions



Lumen maintenance for B50 at current I-life conditions





# Fortimo SLM 1205 L13 2024 G6

## Mechanical Characteristics

Fortimo SLM C 827 1205 L13 2024 G6

Fortimo SLM C 830 1205 L13 2024 G6

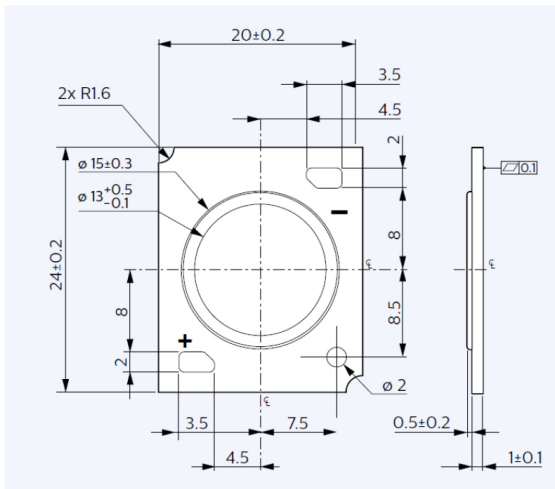
Fortimo SLM C 835 1205 L13 2024 G6

Fortimo SLM C 840 1205 L13 2024 G6

Fortimo SLM C 927 1205 L13 2024 G6

Fortimo SLM C 930 1205 L13 2024 G6

Parameter	Min	Typ	Max	Unit
Length	23.8	24	34.2	mm
Width	19.8	20	20.2	mm
Height PCB	0.9	1	1.1	mm
Height including dam	1.2	1.5	1.8	mm



## Absolute Ratings

Parameter	Min	Typ	Max	Unit
Current Through the LED Module (I-max)			1050	mA
Case Temperature (Tc-max)			95	°C
Power at Rated Vf-max and I-max			41.5	W
ESD Human Body Model (HBM) Class 3A JESD22-A114-E 8 kV			8	kV
ESD Machine Model (MM) Class B JESD22-A115-B			400	kV
Ambient Temperature	-20		40	°C
Storage Temperature	-40		80	°C

# Fortimo SLM 1205 L13 2024 G6

## Application Information

### Environmental

RoHS/REACH

### Certificates and standards

IEC 62031:2008 (First Edition) + A1:2012 + A2:2014

EN 62031:2008 + A1:2013 + A2:2015 without differences

Relevant clauses of IEC 62471:2006 (Incl. IEC/TR 62471-2: 2009 and IEC/TR 62778: 2014)

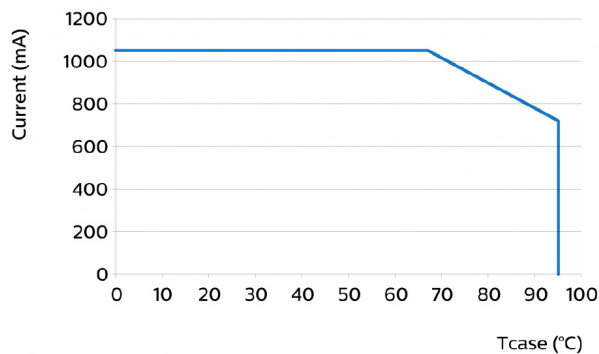
Relevant clauses of EN 62471:2008 (With IEC/TR 62471-2: 2009 and IEC/TR 62778: 2014)

Relevant clauses of IEC 60838-1:2004 + A1:2008 + A2:2011 with IEC 60838-2-2:2006 + A1:2012

Relevant clauses of EN 60838-1:2004 + A1:2008 + A2:2011 with EN 60838-2-2:2006 + A1:2012

Application	
IP Rating	No IP-rating
Overheating Protection	No
Luminaire Class	IEC Class I and Class II
Dimming	Yes

## Warranty Window



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Philips Lighting North America Corporation  
10275 W. Higgins Road, Rosemont IL 60018  
Tel: 800-322-2086 Fax: 888-423-1882  
Customer/Technical Service: 800-372-3331  
OEM Support: 866-915-5886

Philips Lighting Canada Ltd.  
281 Hillmount Rd, Markham, ON, Canada L6C 2S3  
Tel. 800-668-9008