

**PHILIPS**



**Certaflux**

**LED System**

CertaFlux SLM C  
1205 L12 G1

Datasheet

# Experience good performance with affordable cost

## **CertaFlux SLM C 1205 L12 G1**

Certaflux LED SLM is a new CoB family from Philips. This range provides a more affordable CoB solution to customers with wide portfolio, flux range from 600lm - 4000lm, available in 2700K, 3000K, 3500K, 4000K, 5000K with CRI 80 and CRI90, and fully compatible with our Philips Drivers.

### **Key features and benefits**

Cost effective SLM CoB

Complete portfolio

Flexibility to select a different lumen output between 600lm to 4000lm

System approach (CoB+Driver)

Flexibility to design Luminaire performance (high efficacy or high output)

50,000 hours lifetime @ Tc 85

September 2016

## Ordering data

Commercial product name	EOC	12NC	Minimum order quantity
CertaFlux SLM C 830 1205 L12 G1	8718696 693872 00	9290 014 41880	100
CertaFlux SLM C 835 1205 L12 G1	8718696 693896 00	9290 014 41980	100
CertaFlux SLM C 840 1205 L12 G1	8718696 693919 00	9290 014 42080	100
CertaFlux SLM C 850 1205 L12 G1	8718696 693933 00	9290 014 42180	100
CertaFlux SLM C 930 1205 L12 G1	8718696 693957 00	9290 014 42280	100
CertaFlux SLM C 935 1205 L12 G1	8718696 693971 00	9290 014 42380	100
CertaFlux SLM C 940 1205 L12 G1	8718696 693995 00	9290 014 42480	100

Not all products are globally available by default.

Please contact your local Philips Lighting representative for local availability.

## Drive currents

Parameter	Nominal*	Life**	Max***	Unit
CertaFlux SLM C 1205 L12 G1	550	925	925	mA

## Module temperatures

Parameter	Nominal*	Life**	Max***	Unit
T <sub>c</sub> (case temperature at T <sub>c</sub> point)	85	85	95	°C

\* Nominal value at which typical performance is specified

\*\* Value at which life time is specified

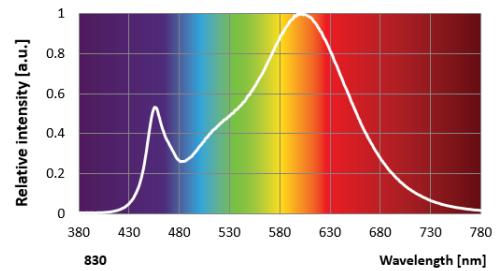
\*\*\* Maximum value for safe operation, do not operate above this value

## Optical characteristics - table per color (CCT)

### CertaFlux SLM C 830 1205 L12 G1

Parameter	Min	Typ	Max	Unit
Luminous flux	2231	2478	2726	lm
Module efficacy		130		lm/W
Correlated color temperature (CCT)		3000		K
Color coordinates (CIEx, CIEy)		(0.4338, 0.4030)		-
Color consistency			3	SDCM
CRI	80	82		
Photobiological safety			RG1	
Energy efficiency label		A++		

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

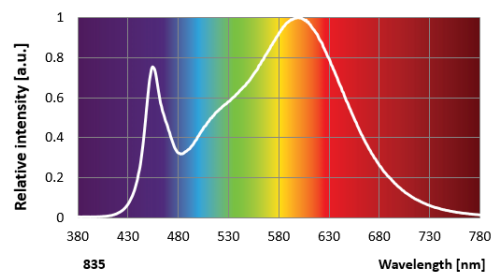


R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
81	93	93	79	82	92	81	57	6	84	78	73	84	97	

### CertaFlux SLM C 835 1205 L12 G1

Parameter	Min	Typ	Max	Unit
Luminous flux	2275	2528	2780	lm
Module efficacy		133		lm/W
Correlated color temperature (CCT)		3500		K
Color coordinates (CIEx, CIEy)		(0.4073, 0.3818)		-
Color consistency			3	SDCM
CRI	80	82		
Photobiological safety			RG1	
Energy efficiency label		A++		

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

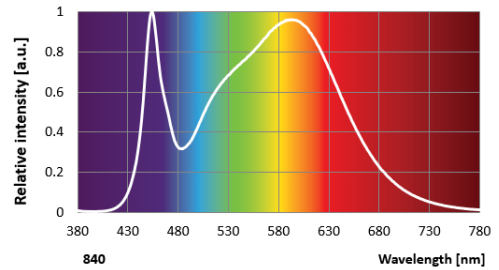


R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
83	93	95	80	83	91	83	62	11	84	79	69	86	98	

CertaFlux SLM C 840 1205 L12 G1

Parameter	Min	Typ	Max	Unit
Luminous flux	2319	2577	2834	lm
Module efficacy		135		lm/W
Correlated color temperature (CCT)		4000		K
Color coordinates (CIEx, CIEy)		(0.3818, 0.3797)		-
Color consistency			3	SDCM
CRI	80	82		
Photobiological safety			RG1	
Energy efficiency label		A++		

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

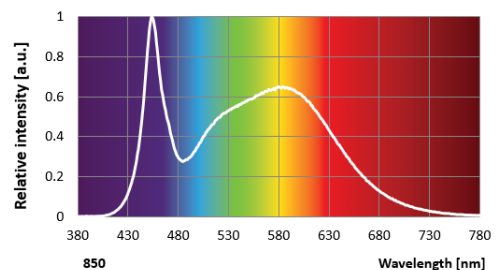


R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
80	89	96	79	80	85	86	63	5	74	77	58	82	98	

CertaFlux SLM C 850 1205 L12 G1

Parameter	Min	Typ	Max	Unit
Luminous flux	2319	2577	2834	lm
Module efficacy		135		lm/W
Correlated color temperature (CCT)		5000		K
Color coordinates (CIEx, CIEy)		(0.3447, 0.3553)		-
Color consistency			3	SDCM
CRI	80	82		
Photobiological safety			RG1	
Energy efficiency label		A++		

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

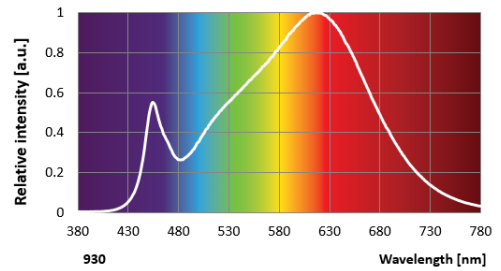


R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
80	90	94	79	80	84	86	65	4	74	77	55	83	97	

CertaFlux SLM C 930 1205 L12 G1

Parameter	Min	Typ	Max	Unit
Luminous flux	1850	2056	2261	lm
Module efficacy		108		lm/W
Correlated color temperature (CCT)		3000		K
Color coordinates (CIEx, CIEy)		(0.4338, 0.4030)		-
Color consistency			3	SDCM
CRI	90	92		
Photobiological safety			RG1	
Energy efficiency label		A+		

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

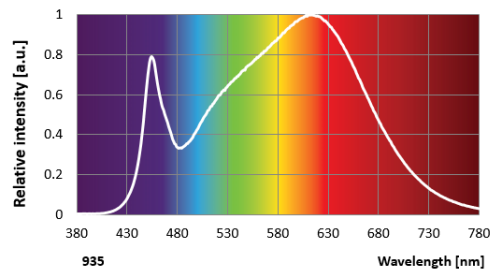


R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
91	96	98	90	90	94	90	79	53	89	90	77	92	99	

CertaFlux SLM C 935 1205 L12 G1

Parameter	Min	Typ	Max	Unit
Luminous flux	1940	2156	2371	lm
Module efficacy		113		lm/W
Correlated color temperature (CCT)		3500		K
Color coordinates (CIEx, CIEy)		(0.4073, 0.3818)		-
Color consistency			3	SDCM
CRI	90	92		
Photobiological safety			RG1	
Energy efficiency label		A+		

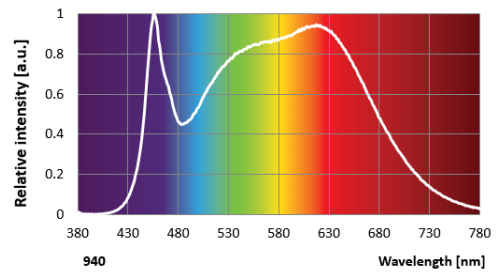
Measurement precision for flux +/- 5%. Measurement precision for efficacy +/- 6%. Measurement precision for x, y +/- 0.005. Measurement precision for CRI +/- 1.5



R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
91	96	98	90	91	94	91	80	55	89	89	74	93	99	

Parameter	Min	Typ	Max	Unit
Luminous flux	1985	2205	2426	lm
Module efficacy		116		lm/W
Correlated color temperature (CCT)		4000		K
Color coordinates (CIEx, CIEy)		(0.3818, 0.3797)		-
Color consistency			3	SDCM
CRI	90	92		
Photobiological safety			RG1	
Energy efficiency label		A++		

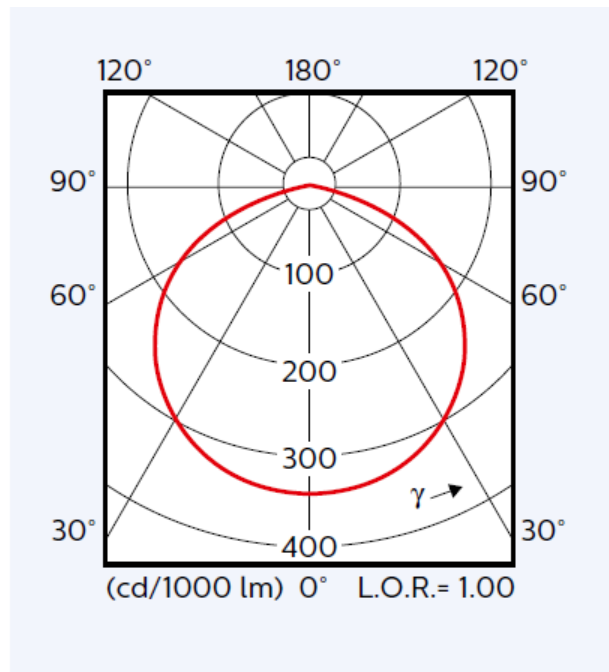
Measurement precision for flux +/- 5%. Measurement precision for efficacy +/- 6%. Measurement precision for x, y +/- 0.005. Measurement precision for CRI +/- 1.5



R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
93	96	98	90	91	94	94	86	68	90	90	69	94	98	

## Beam shape

Bare CoB



[CertaFlux SLM C 830 1205 L12 G1](#)[CertaFlux SLM C 940 1205 L12 G1](#)

Parameter	Min	Typ	Max	Unit
Forward voltage		34.6	37.6	V
Power consumption		19	20.7	W
Thermal power		11.5		W

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

[CertaFlux SLM C 835 1205 L12 G1](#)

Parameter	Min	Typ	Max	Unit
Forward voltage		34.6	37.6	V
Power consumption		19	20.7	W
Thermal power		11.3		W

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

[CertaFlux SLM C 840 1205 L12 G1](#)[CertaFlux SLM C 850 1205 L12 G1](#)

Parameter	Min	Typ	Max	Unit
Forward voltage		34.6	37.6	V
Power consumption		19	20.7	W
Thermal power		11.1		W

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

[CertaFlux SLM C 930 1205 L12 G1](#)

Parameter	Min	Typ	Max	Unit
Forward voltage		34.6	37.6	V
Power consumption		19	20.7	W
Thermal power		12.0		W

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

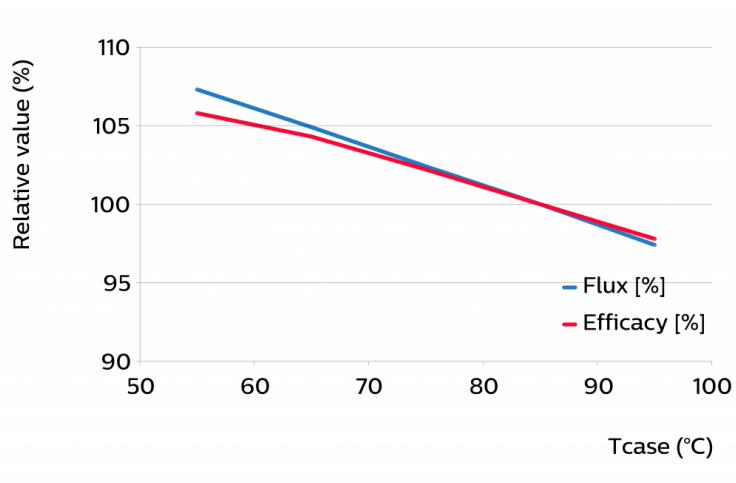
[CertaFlux SLM C 935 1205 L12 G1](#)

Parameter	Min	Typ	Max	Unit
Forward voltage		34.6	37.6	V
Power consumption		19	20.7	W
Thermal power		11.8		W

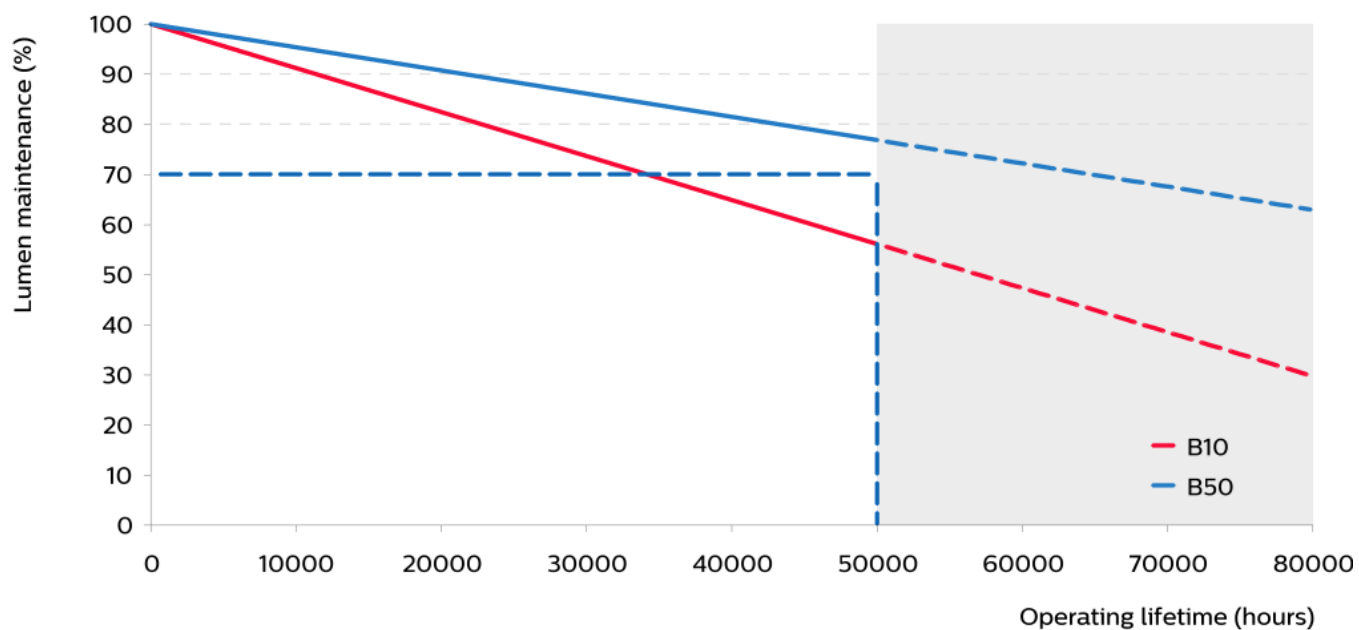
Measurement precision for Vf +/- 3%. Measurement precision for power +/- 3.3%

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

Tcase [°C]	Flux [%]	Efficacy [%]
55	107	106
65	105	104
75	102	102
85	100	100
95	97	98



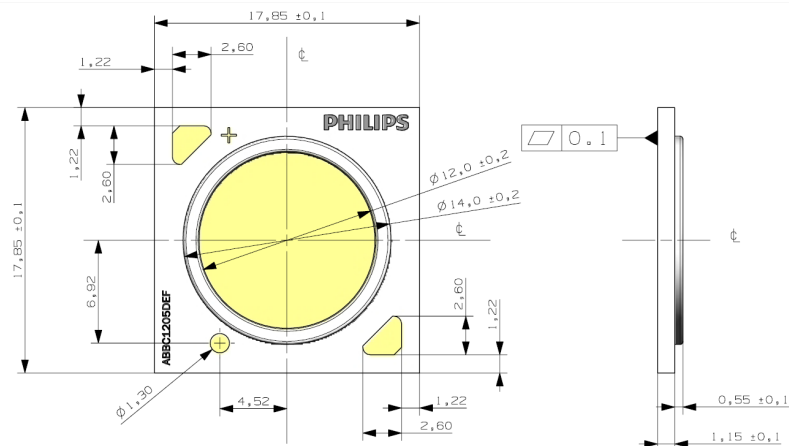
Lumen maintenance at I-life and Tc-life conditions



## Mechanical characteristics

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 CertaFlux SLM C 850 1205 L12 G1  
 CertaFlux SLM C 930 1205 L12 G1  
 CertaFlux SLM C 935 1205 L12 G1  
 CertaFlux SLM C 940 1205 L12 G1

Parameter	Min	Typ	Max	Unit
Length	17.75	17.85	17.95	mm
Width	17.75	17.85	17.95	mm
Height PCB	1.05	1.15	1.25	mm
Height including dam	1.5	1.7	1.9	mm



## Absolute ratings

Parameter	Min	Typ	Max	Unit
Current through the LED module (I-max)			925	mA
Case temperature (Tc-max)			95	°C
Power at rated Vf-max and I-max			36.9	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	V
Ambient temperature	-20		35	°C
Storage temperature	-40		65	°C

## Application information

### Environmental

RoHS/REACH

### Certificates and standards

IEC/TR 62278:2014

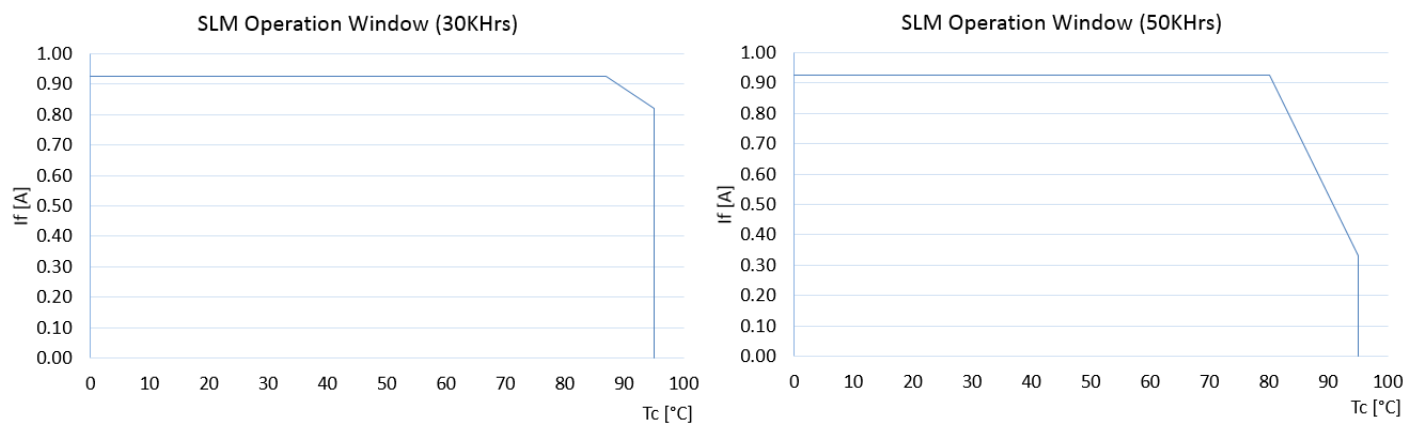
IEC 62031:2008 (First Edition) + A1:2012 + A2:2014

EN 62031:2008 (First Edition) + A1:2013 + A2:2015

### Application

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

## Warranty Window



### Notes

The slanted edge of the warranty window graph is defined for 3 switches per day or less.

In case more switching cycles are required, please contact the Philips design-in team for more detailed information and support.

