

**PHILIPS**

**CertaFlux**

**LED**

CertaFlux LED SLM  
1201 L06 G1



Datasheet

# Experience good performance with affordable cost

## CertaFlux LED SLM 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 500lm - 5800lm, 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 500lm to 5800lm

System approach (CoB + Driver)

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

Up to 50,000 hours lifetime

June 2017

## Ordering data

Commercial product name	EOC	12NC	Box quantity
CertaFlux SLM C 827 1201 L06 G1	8718696 693100 00	9290 014 38480	100
CertaFlux SLM C 830 1201 L06 G1	8718696 693193 00	9290 014 38580	100
CertaFlux SLM C 835 1201 L06 G1	8718696 693216 00	9290 014 38680	100
CertaFlux SLM C 840 1201 L06 G1	8718696 693230 00	9290 014 38780	100
CertaFlux SLM C 850 1201 L06 G1	8718696 693254 00	9290 014 38880	100
CertaFlux SLM C 927 1201 L06 G1	8718696 693278 00	9290 014 38980	100
CertaFlux SLM C 930 1201 L06 G1	8718696 693292 00	9290 014 39080	100
CertaFlux SLM C 935 1201 L06 G1	8718696 693315 00	9290 014 39180	100
CertaFlux SLM C 940 1201 L06 G1	8718696 693339 00	9290 014 39280	100

## Drive currents

Parameter	Nominal*	Life**	Max***	Unit
CertaFlux LED SLM 1201 L06 G1	100	129	200	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

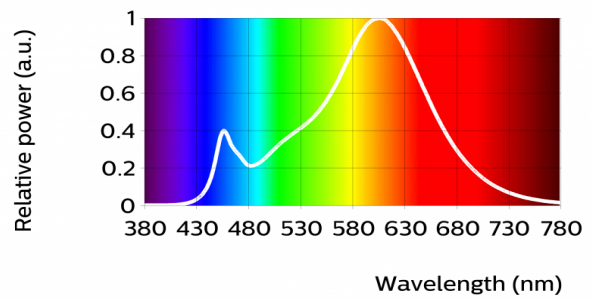
\*\*\* Maximum value for safe operation, do not operate above this value

## Optical characteristics - table per color (CCT)

### CertaFlux SLM C 827 1201 L06 G1

Parameter	Min	Typ	Max	Unit
Luminous flux	370	411	452	lm
Module efficacy		120		lm/W
Correlated color temperature (CCT)		2700		K
Color coordinates (CIEx, CIEy)		(0.458, 0.410)		-
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

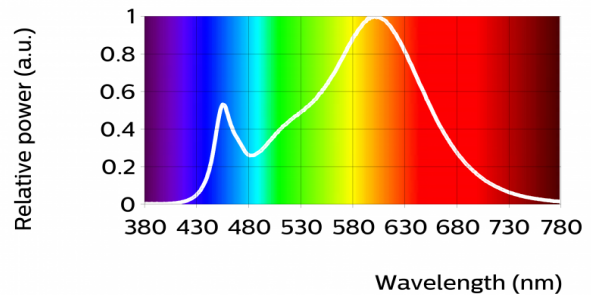


R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14
81	94	91	77	81	93	79	54	4	86	77	77	84	96

### CertaFlux SLM C 830 1201 L06 G1

Parameter	Min	Typ	Max	Unit
Luminous flux	389	433	476	lm
Module efficacy		126		lm/W
Correlated color temperature (CCT)		3000		K
Color coordinates (CIEx, CIEy)		(0.434, 0.403)		-
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

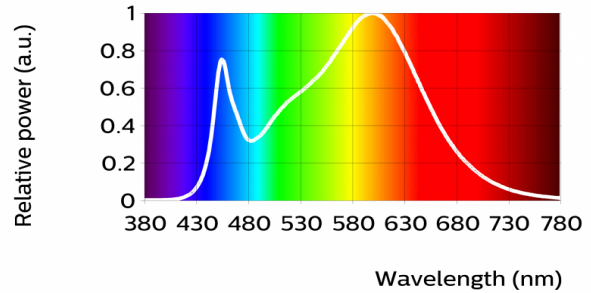


R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14
81	93	93	79	82	92	81	57	6	84	78	73	84	97

CertaFlux SLM C 835 1201 L06 G1

Parameter	Min	Typ	Max	Unit
Luminous flux	397	441	486	lm
Module efficacy		129		lm/W
Correlated color temperature (CCT)		3500		K
Color coordinates (CIEx, CIEy)		(0.407, 0.392)		-
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

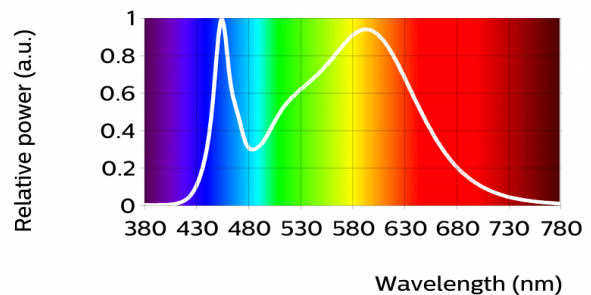


R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14
83	93	95	80	83	91	83	62	11	84	79	69	86	98

CertaFlux SLM C 840 1201 L06 G1

Parameter	Min	Typ	Max	Unit
Luminous flux	405	450	495	lm
Module efficacy		131		lm/W
Correlated color temperature (CCT)		4000		K
Color coordinates (CIEx, CIEy)		(0.382, 0.380)		-
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

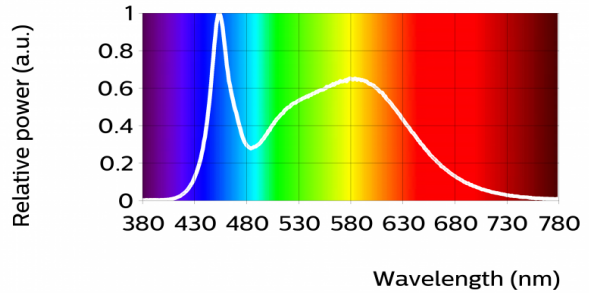


R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14
80	90	95	78	80	86	84	60	1	76	76	60	82	98

CertaFlux SLM C 850 1201 L06 G1

Parameter	Min	Typ	Max	Unit
Luminous flux	405	450	495	lm
Module efficacy		131		lm/W
Correlated color temperature (CCT)		5000		K
Color coordinates (CIEx, CIEy)		(0.345, 0.355)		-
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

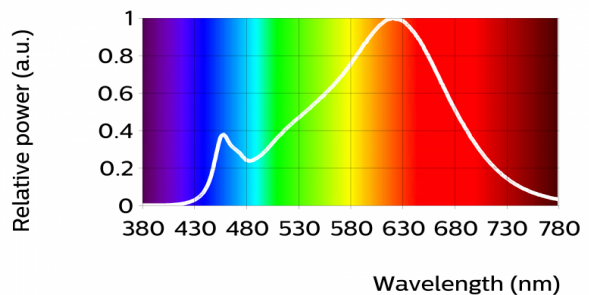


R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14
80	90	94	79	80	84	86	65	4	74	77	55	83	97

CertaFlux SLM C 927 1201 L06 G1

Parameter	Min	Typ	Max	Unit
Luminous flux	315	350	385	lm
Module efficacy		102		lm/W
Correlated color temperature (CCT)		2700		K
Color coordinates (CIEx, CIEy)		(0.458, 0.410)		-
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

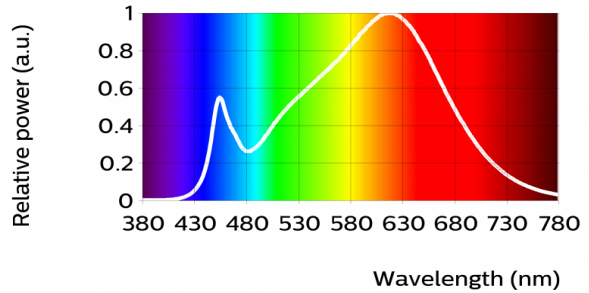


R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14
91	96	99	90	91	96	90	78	52	91	90	81	93	99

CertaFlux SLM C 930 1201 L06 G1

Parameter	Min	Typ	Max	Unit
Luminous flux	331	368	405	lm
Module efficacy		107		lm/W
Correlated color temperature (CCT)		3000		K
Color coordinates (CIEx, CIEy)		(0.434, 0.403)		-
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

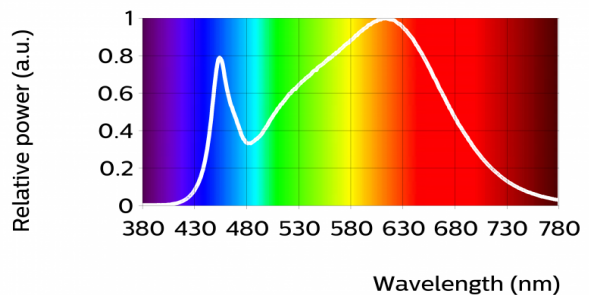


R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14
91	96	98	90	90	94	90	79	53	89	90	77	92	99

CertaFlux SLM C 935 1201 L06 G1

Parameter	Min	Typ	Max	Unit
Luminous flux	350	389	428	lm
Module efficacy		113		lm/W
Correlated color temperature (CCT)		3500		K
Color coordinates (CIEx, CIEy)		(0.407, 0.392)		-
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

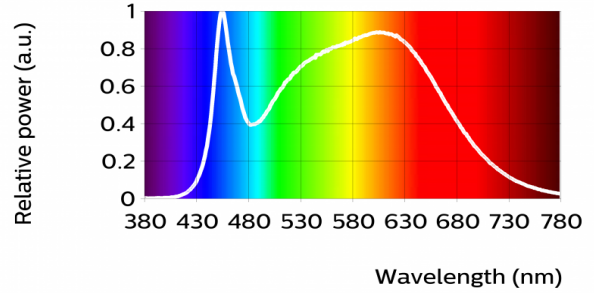


R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14
91	96	98	90	91	94	91	80	80	89	89	74	93	99

CertaFlux SLM C 940 1201 L06 G1

Parameter	Min	Typ	Max	Unit
Luminous flux	350	389	428	lm
Module efficacy		113		lm/W
Correlated color temperature (CCT)		4000		K
Color coordinates (CIEx, CIEy)		(0.382, 0.380)		-
Color consistency			3	SDCM
CRI	90	92		
Photobiological safety			RG1	
Energy efficiency label		A++		

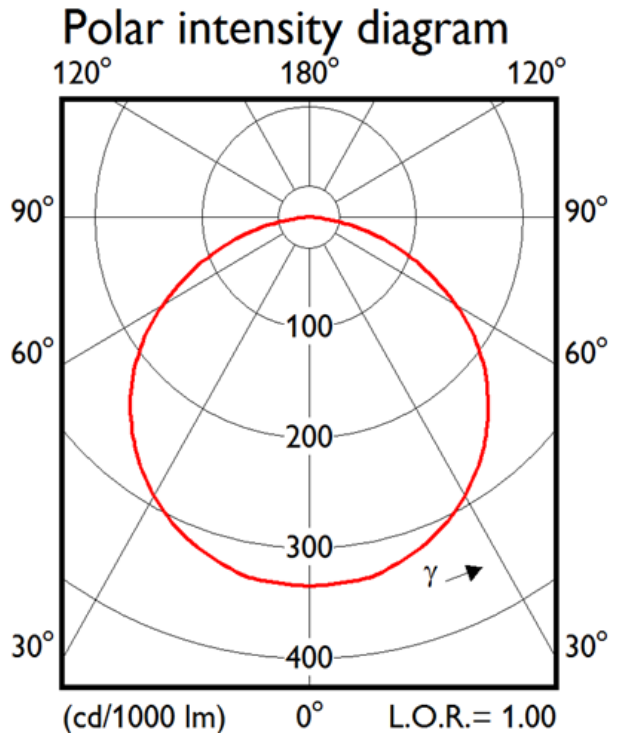
Measurement precision for flux +/- 5%. Measurement precision for efficacy +/- 6%. Measurement precision for x, y +/- 0.005. Measurement precision for CRI 1.5



R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14
91	96	97	89	90	92	92	82	82	88	88	68	93	98

## Beam shape

The Philips LED module generates a Lambertian beam shape, which is a pragmatic starting point for OEMs wishing to design secondary optics.



## Electrical characteristics

[CertaFlux SLM C 827 1201 L06 G1](#)

[CertaFlux SLM C 927 1201 L06 G1](#)

[CertaFlux SLM C 930 1201 L06 G1](#)

Parameter	Min	Typ	Max	Unit
Forward voltage		34.3	37.3	V
Power consumption		3.4	3.7	W
Thermal power		2.2		W

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

[CertaFlux SLM C 830 1201 L06 G1](#)

[CertaFlux SLM C 835 1201 L06 G1](#)

[CertaFlux SLM C 935 1201 L06 G1](#)

[CertaFlux SLM C 940 1201 L06 G1](#)

Parameter	Min	Typ	Max	Unit
Forward voltage		34.3	37.3	V
Power consumption		3.4	3.7	W
Thermal power		2.1		W

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

[CertaFlux SLM C 840 1201 L06 G1](#)

[CertaFlux SLM C 850 1201 L06 G1](#)

Parameter	Min	Typ	Max	Unit
Forward voltage		34.3	37.3	V
Power consumption		3.4	3.7	W
Thermal power		2.0		W

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



## Lumen maintenance

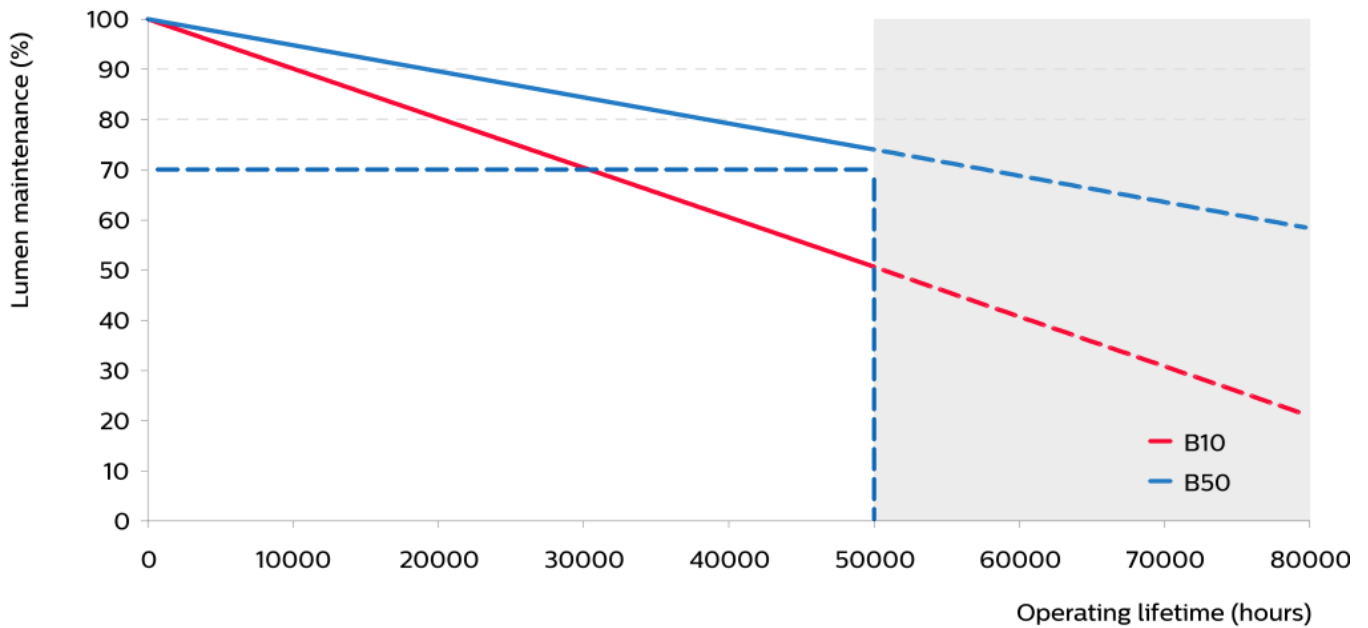
Operation point	Lumen maintenance x 1000 hours	L70			L80			L90		
		B50	B20	B10	B50	B20	B10	B50	B20	B10
I-nom 100mA	Tc 65°C	>50	>50	>50	>50	>50	48	43	29	23
	Tc-nom 85°C	>50	43	34	41	27	21	19	13	10
	Tc-max 95°C	>50	35	28	33	22	18	16	10	8
I-life129mA	Tc 65°C	>50	>50	>50	>50	>50	43	38	25	20
	Tc-nom 85°C	>50	38	30	36	24	19	17	11	9
	Tc-max 95°C	48	31	25	30	20	16	14	9	7
I-max 200mA	Tc 65°C	>50	>50	49	>50	38	31	27	18	14
	Tc-nom 85°C	43	28	23	27	18	14	13	8	7
	Tc-max 95°C	36	24	19	23	15	12	11	7	6

Parameter	Value	Unit
C10 at Tc life	50000	hours

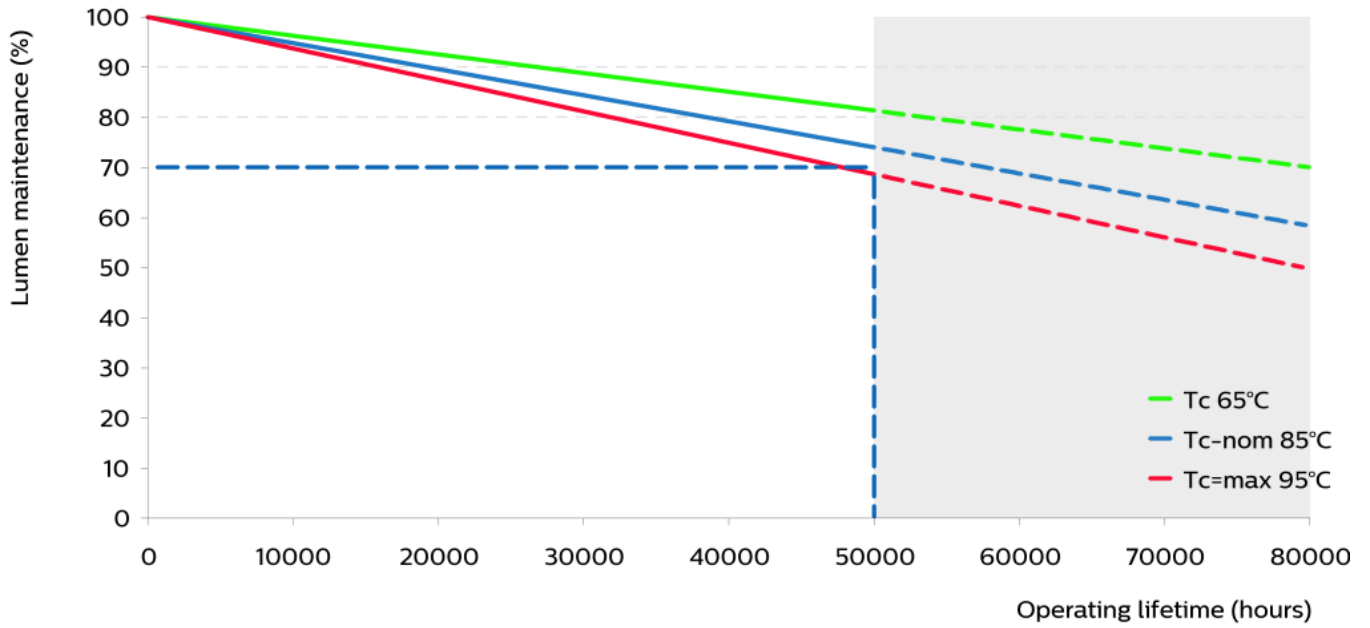
3 switches per day

## Lumen maintenance graphs

Lumen maintenance at I-life and Tc-life conditions



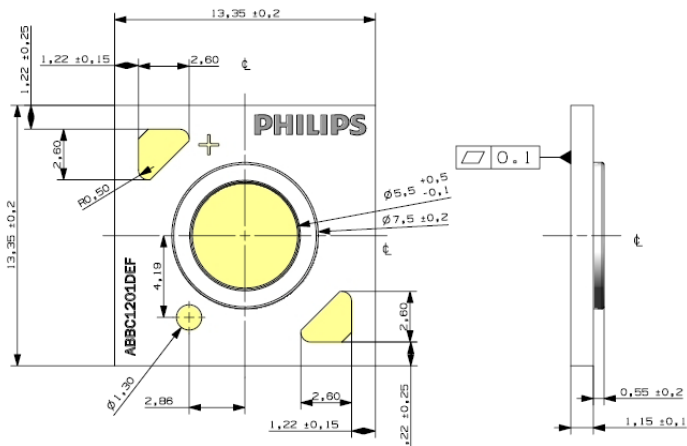
Lumen maintenance for B50 at current I-life conditions



Mechanical characteristics

- CertaFlux SLM C 827 1201 L06 G1
- CertaFlux SLM C 830 1201 L06 G1
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- CertaFlux SLM C 840 1201 L06 G1
- CertaFlux SLM C 850 1201 L06 G1
- CertaFlux SLM C 927 1201 L06 G1
- CertaFlux SLM C 930 1201 L06 G1
- CertaFlux SLM C 935 1201 L06 G1
- CertaFlux SLM C 940 1201 L06 G1

Parameter	Min	Typ	Max	Unit
Length	13.15	13.35	13.55	mm
Width	13.15	13.35	13.55	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)			200	mA
Case temperature (Tc-max)			95	°C
Power at rated Vf-max and I-max			8.2	W
ESD (direct contact)			8	kV
ESD (air)			400	kV
Ambient temperature	-20		40	°C
Storage temperature	-40		80	°C

## Application information

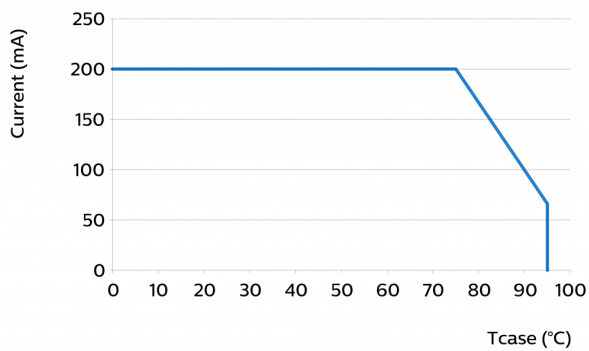
### Certificates and Standards

CE  
EN 62471  
EN 62031:2008 (First Edition) + A1:2013 + A2:2015

### Application

Dimming	Yes
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## Operating Window





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06/2017