

PHILIPS

CertaFlux

LED

CertaFlux LED SLM
1202 L09 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, and 6000K 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 + Holder + Driver)

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

Up to 50,000 hours lifetime

July 2018

Ordering data

Commercial product name	EOC	12NC	Box quantity
CertaFlux SLM C 827 1202 L09 1515 G1	8718696 693353 00	9290 014 39380	100
CertaFlux SLM C 830 1202 L09 1515 G1	8718696 693377 00	9290 014 39480	100
CertaFlux SLM C 835 1202 L09 1515 G1	8718696 693391 00	9290 014 39580	100
CertaFlux SLM C 840 1202 L09 1515 G1	8718696 693414 00	9290 014 39680	100
CertaFlux SLM C 850 1202 L09 1515 G1	8718696 693438 00	9290 014 39780	100
CertaFlux SLM C 860 1202 L09 1515 G1	8718699 623524 00	9290 014 72406	100
CertaFlux SLM C 927 1202 L09 1515 G1	8718696 693452 00	9290 014 39880	100
CertaFlux SLM C 930 1202 L09 1515 G1	8718696 693476 00	9290 014 39980	100
CertaFlux SLM C 935 1202 L09 1515 G1	8718696 693490 00	9290 014 40080	100
CertaFlux SLM C 940 1202 L09 1515 G1	8718696 693513 00	9290 014 40180	100

Drive currents

Parameter	Nominal*	Life**	Max***	Unit
CertaFlux LED SLM 1202 L09 G1	200	242	310	mA

Module temperatures

Parameter	Nominal*	Life**	Max***	Unit
T _c (case temperature at T _c point)	85	85	95	°C

* Nominal value at which typical performance is specified

** Value at which life time is specified

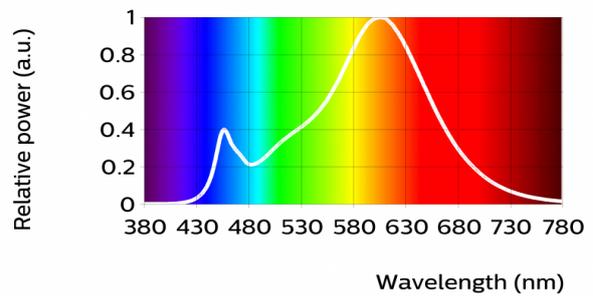
*** Maximum value for safe operation, do not operate above this value

Optical characteristics - table per color (CCT)

CertaFlux SLM C 827 1202 L09 1515 G1

Parameter	Min	Typ	Max	Unit
Luminous flux	760	845	929	lm
Module efficacy		123		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 unlimited	
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

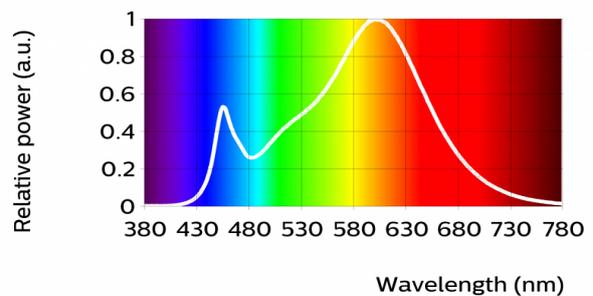


R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14
81	94	91	77	81	93	79	54	4	86	77	77	84	96

CertaFlux SLM C 830 1202 L09 1515 G1

Parameter	Min	Typ	Max	Unit
Luminous flux	800	889	978	lm
Module efficacy		129		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 unlimited	
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

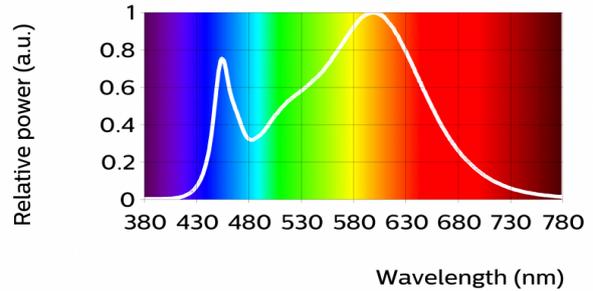


R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14
81	93	93	79	82	92	81	57	6	84	78	73	84	97

CertaFlux SLM C 835 1202 L09 1515 G1

Parameter	Min	Typ	Max	Unit
Luminous flux	816	907	997	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 unlimited	
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

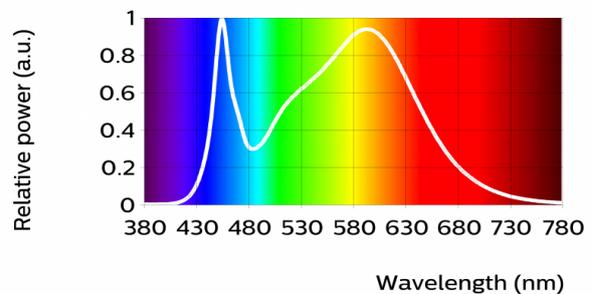


R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14
83	93	95	80	83	91	83	62	11	84	79	69	86	98

CertaFlux SLM C 840 1202 L09 1515 G1

Parameter	Min	Typ	Max	Unit
Luminous flux	832	925	1017	lm
Module efficacy		134		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 unlimited	
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

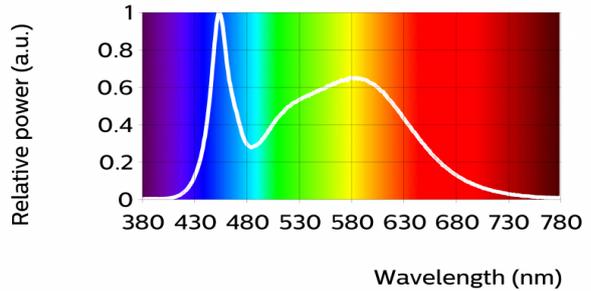


R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14
80	90	95	78	80	86	84	60	1	76	76	60	82	98

CertaFlux SLM C 850 1202 L09 1515 G1

Parameter	Min	Typ	Max	Unit
Luminous flux	832	925	1017	lm
Module efficacy		134		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 unlimited	
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

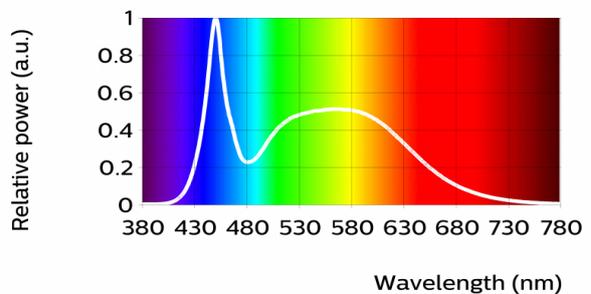


R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14
80	90	94	79	80	84	86	65	4	74	77	55	83	97

CertaFlux SLM C 860 1202 L09 1515 G1

Parameter	Min	Typ	Max	Unit
Luminous flux	832	925	1018	lm
Module efficacy		134		lm/W
Correlated color temperature (CCT)		6000		K
Color coordinates (CIEx, CIEy)		(0.322, 0.337)		-
Color consistency			3	SDCM
CRI	80	82		
Photobiological safety			RG1 unlimited	
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

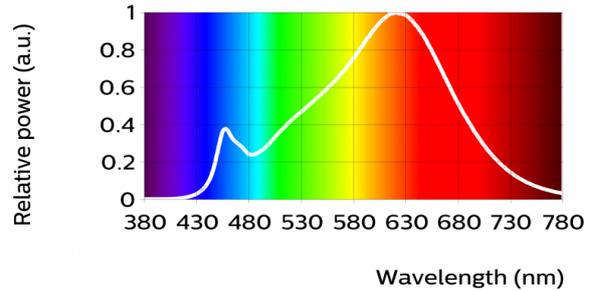


R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14
82	87	89	84	83	81	88	71	13	68	84	61	83	94

CertaFlux SLM C 927 1202 L09 1515 G1

Parameter	Min	Typ	Max	Unit
Luminous flux	648	720	792	lm
Module efficacy		105		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 unlimited	
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

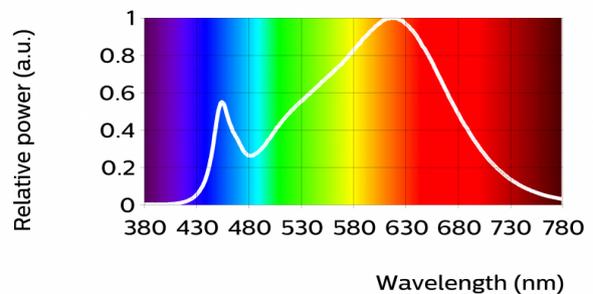


R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14
91	96	99	90	91	96	90	78	52	91	90	81	93	99

CertaFlux SLM C 930 1202 L09 1515 G1

Parameter	Min	Typ	Max	Unit
Luminous flux	680	756	831	lm
Module efficacy		110		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 unlimited	
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

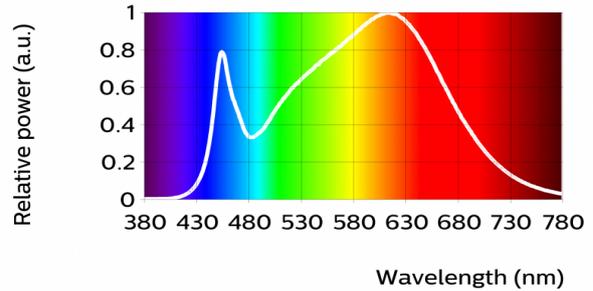


R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14
91	96	98	90	90	94	90	79	53	89	90	77	92	99

CertaFlux SLM C 935 1202 L09 1515 G1

Parameter	Min	Typ	Max	Unit
Luminous flux	720	800	880	lm
Module efficacy		116		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 unlimited	
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

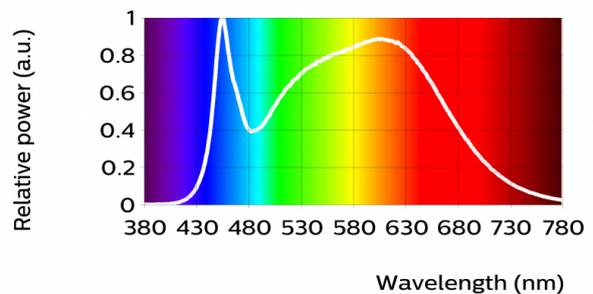


R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14
91	96	98	90	91	94	91	80	80	89	89	74	93	99

CertaFlux SLM C 940 1202 L09 1515 G1

Parameter	Min	Typ	Max	Unit
Luminous flux	720	800	880	lm
Module efficacy		116		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 unlimited	
Energy efficiency label		A++		

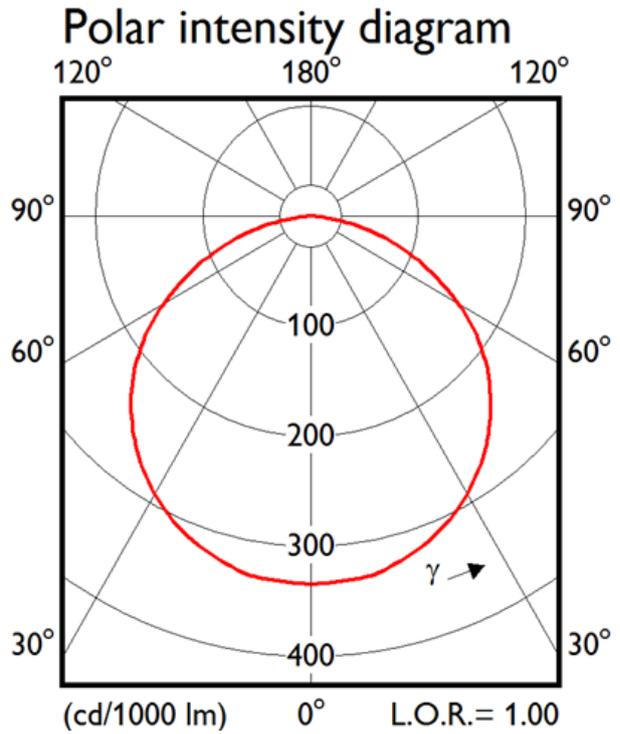
Measurement precision for flux +/- 5%. Measurement precision for efficacy +/- 6%. Measurement precision for x, y +/- 0.005. Measurement precision for CRI 1.5



R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14
91	96	97	89	90	92	92	82	57	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 1202 L09 1515 G1](#)

[CertaFlux SLM C 930 1202 L09 1515 G1](#)

Parameter	Min	Typ	Max	Unit
Forward voltage		34.4	37.4	V
Power consumption	6.4	6.9	7.5	W
Thermal power		4.3		W

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

[CertaFlux SLM C 830 1202 L09 1515 G1](#)

[CertaFlux SLM C 935 1202 L09 1515 G1](#)

[CertaFlux SLM C 940 1202 L09 1515 G1](#)

Parameter	Min	Typ	Max	Unit
Forward voltage		34.4	37.4	V
Power consumption	6.4	6.9	7.5	W
Thermal power		4.2		W

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

[CertaFlux SLM C 835 1202 L09 1515 G1](#)

Parameter	Min	Typ	Max	Unit
Forward voltage		34.4	37.4	V
Power consumption	6.4	6.9	7.5	W
Thermal power		4.1		W

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

CertaFlux SLM C 840 1202 L09 1515 G1
 CertaFlux SLM C 850 1202 L09 1515 G1

Parameter	Min	Typ	Max	Unit
Forward voltage		34.4	37.4	V
Power consumption	6.4	6.9	7.5	W
Thermal power		4.0		W

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

CertaFlux SLM C 860 1202 L09 1515 G1
 CertaFlux SLM C 927 1202 L09 1515 G1

Parameter	Min	Typ	Max	Unit
Forward voltage		34.4	37.4	V
Power consumption	6.4	6.9	7.5	W
Thermal power		4.4		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 200mA	Tc 65°C	>50	>50	>50	>50	>50	>50	47	31	25
	Tc-nom 85°C	>50	45	36	43	28	23	20	13	11
	Tc-max 95°C	>50	37	30	36	23	19	17	11	9
I-life 242mA	Tc 65°C	>50	>50	>50	>50	>50	48	43	28	23
	Tc-nom 85°C	>50	42	34	40	26	21	19	13	10
	Tc-max 95°C	>50	35	28	33	22	18	16	10	8
I-max 310mA	Tc 65°C	>50	>50	>50	>50	>50	42	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

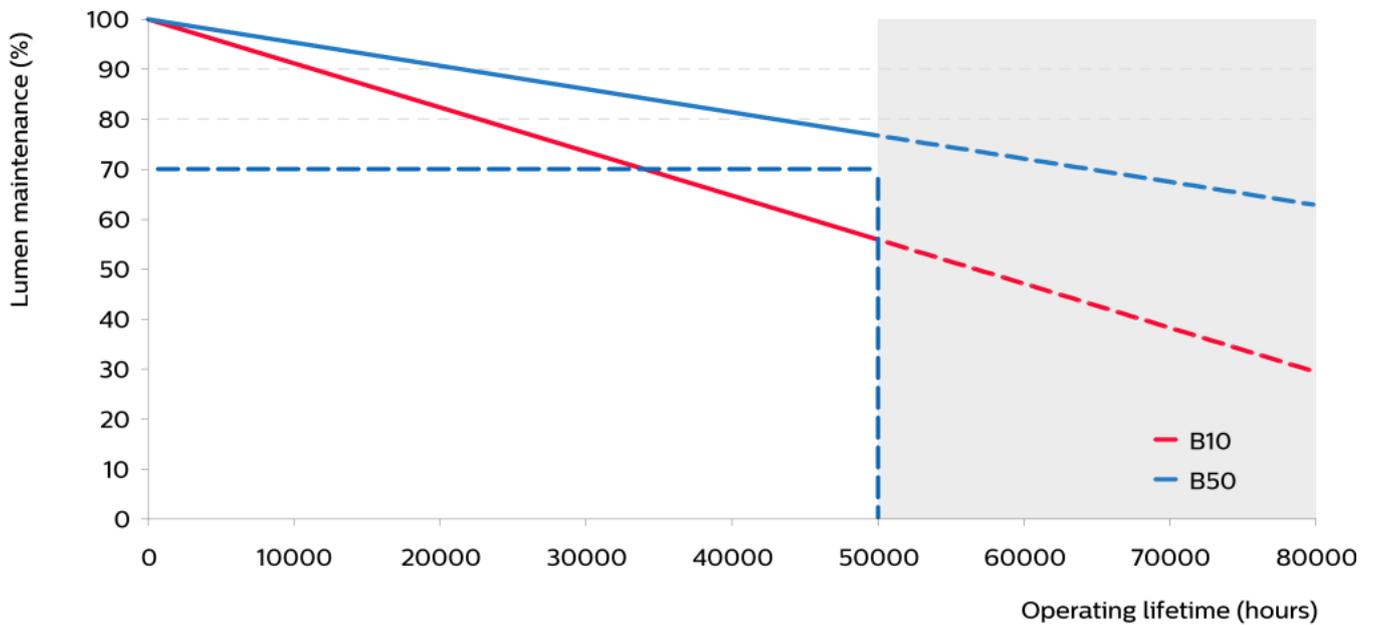
Lifetime

Parameter	Value	Unit
C10 at Tc life	50000	hours

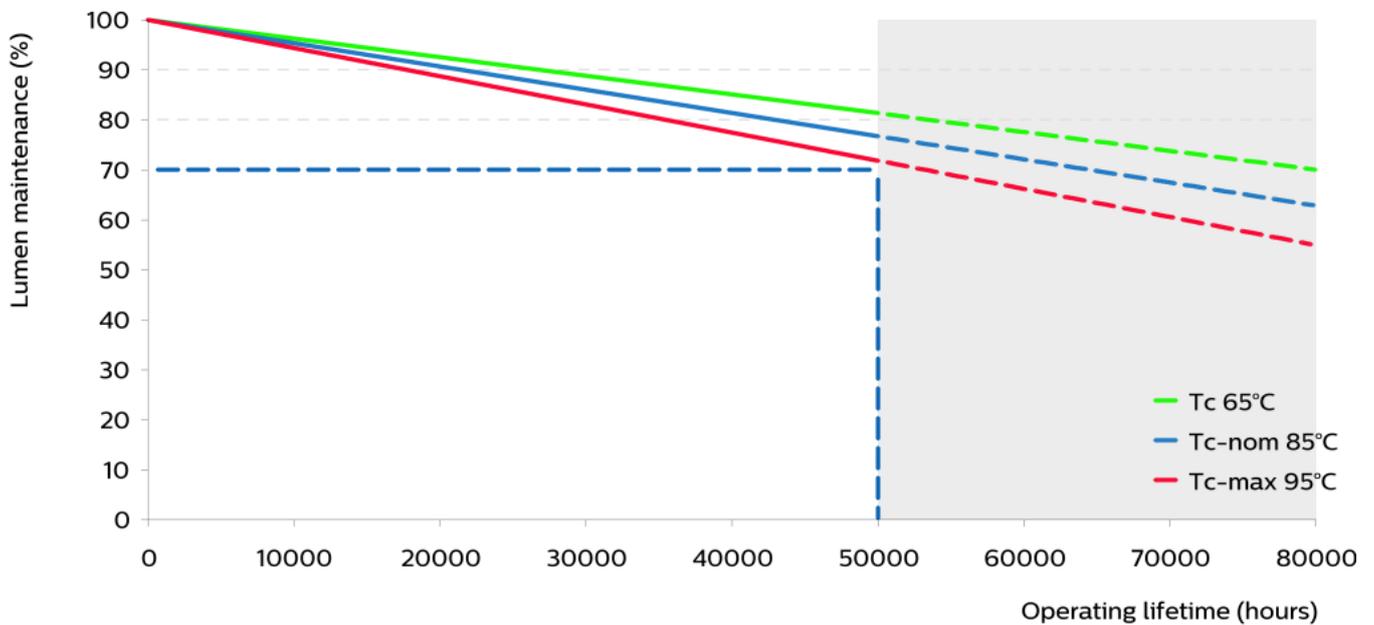
3 switches per day

Lumen maintenance graphs

Lumen maintenance at I-life and Tc-life conditions



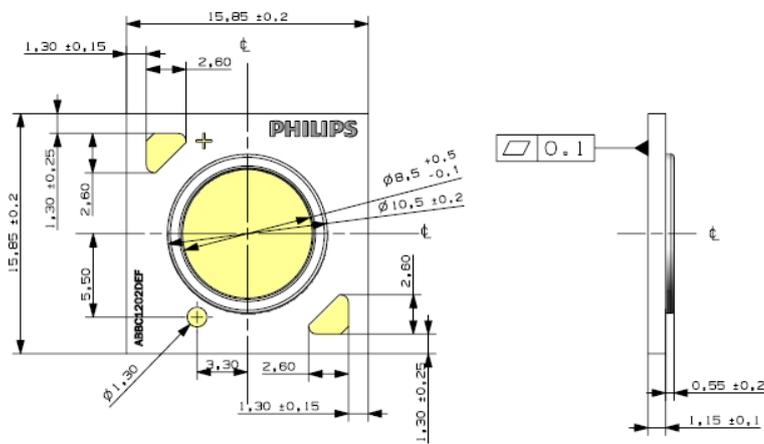
Lumen maintenance for B50 at current I-life conditions



Mechanical characteristics

CertaFlux SLM C 827 1202 L09 1515 G1
 CertaFlux SLM C 830 1202 L09 1515 G1
 CertaFlux SLM C 835 1202 L09 1515 G1
 CertaFlux SLM C 840 1202 L09 1515 G1
 CertaFlux SLM C 850 1202 L09 1515 G1
 CertaFlux SLM C 860 1202 L09 1515 G1
 CertaFlux SLM C 927 1202 L09 1515 G1
 CertaFlux SLM C 930 1202 L09 1515 G1
 CertaFlux SLM C 935 1202 L09 1515 G1
 CertaFlux SLM C 940 1202 L09 1515 G1

Parameter	Min	Typ	Max	Unit
Length	15.65	15.85	16.05	mm
Width	15.65	15.85	16.05	mm
Height PCB	1.05	1.15	1.25	mm
Height including dam	1.4	1.7	2	mm



Absolute ratings

Parameter	Min	Typ	Max	Unit
Current through the LED module (I-max)			310	mA
Case temperature (Tc-max)			95	°C
Power at rated Vf-max and I-max			12.2	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

EN 62471

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

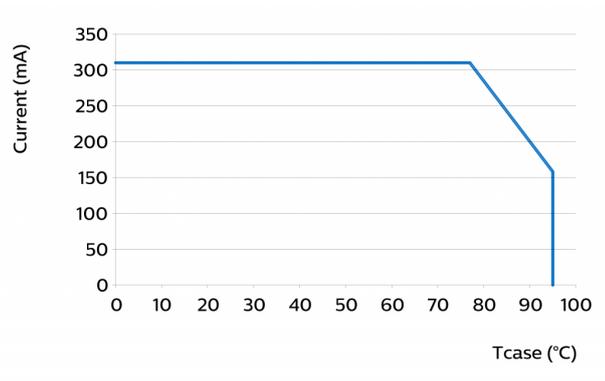
CE

Application

Dimming

Yes

Performance Window





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