PHILIPS

Certaflux

LED System

CertaFlux SLM C
1202 L09 G1

Datasheet

Experience good performance with affordable cost

CertaFlux SLM C 1202 L09 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 selesct 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 827 1202 L09 G1	8718696 693353 00	9290 014 39380	100
CertaFlux SLM C 830 1202 L09 G1	8718696 693377 00	9290 014 39480	100
CertaFlux SLM C 835 1202 L09 G1	8718696 693391 00	9290 014 39580	100
CertaFlux SLM C 840 1202 L09 G1	8718696 693414 00	9290 014 39680	100
CertaFlux SLM C 850 1202 L09 G1	8718696 693438 00	9290 014 39780	100
CertaFlux SLM C 927 1202 L09 G1	8718696 693452 00	9290 014 39880	100
CertaFlux SLM C 930 1202 L09 G1	8718696 693476 00	9290 014 39980	100
CertaFlux SLM C 935 1202 L09 G1	8718696 693490 00	9290 014 40080	100
CertaFlux SLM C 940 1202 L09 G1	8718696 693513 00	9290 014 40180	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 1202 L09 G1	200	310	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

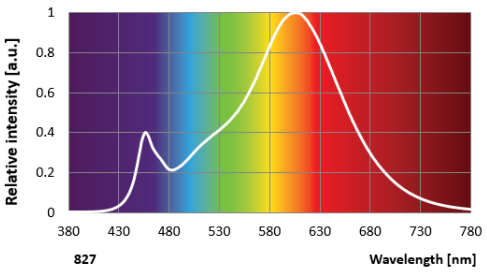
*** Maximum value for safe operation, do not operate above this value

Optical characteristics - table per color (CCT)

CertaFlux SLM C 827 1202 L09 G1

Parameter	Min	Typ	Max	Unit
Luminous flux	765	850	934	lm
Module efficacy		124		lm/W
Correlated color temperature (CCT)		2700		K
Color coordinates (CIEx, CIEy)		(0.4578, 0.4101)		-
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

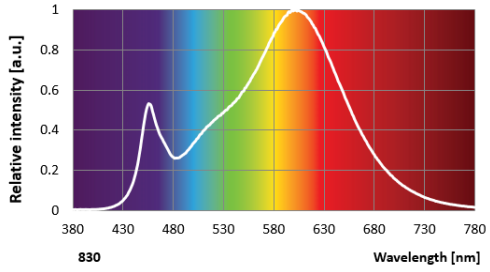


R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
81	94	91	77	81	93	79	54	4	86	77	77	84	96	

CertaFlux SLM C 830 1202 L09 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)		(0.4338, 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

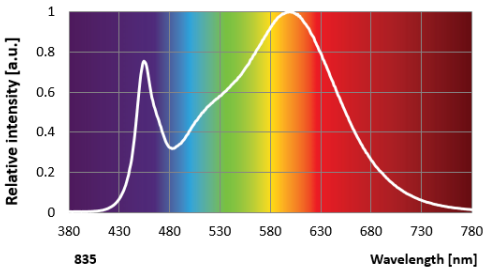


R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
81	93	93	79	82	92	81	57	6	84	78	73	84	97	

CertaFlux SLM C 835 1202 L09 G1

Parameter	Min	Typ	Max	Unit
Luminous flux	816	907	997	lm
Module efficacy		132		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

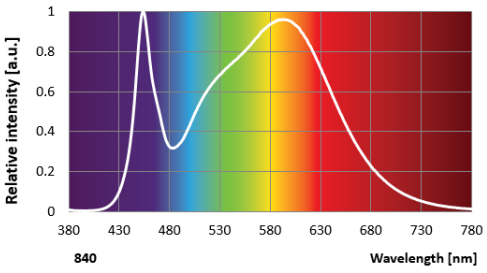


R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
83	93	95	80	83	91	83	62	11	84	79	69	86	98	

CertaFlux SLM C 840 1202 L09 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)		(0.3818, 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

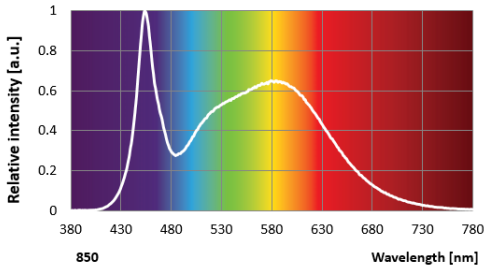


R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
80	89	96	79	80	85	86	63	5	74	77	58	82	98	

CertaFlux SLM C 850 1202 L09 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)		(0.3447, 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

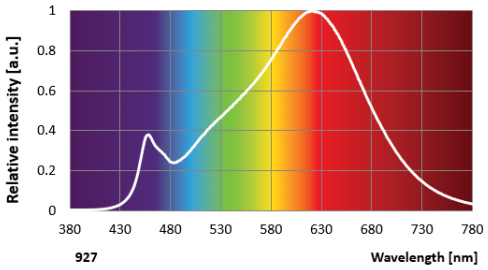


R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
80	90	94	79	80	84	86	65	4	74	77	55	83	97	

CertaFlux SLM C 927 1202 L09 G1

Parameter	Min	Typ	Max	Unit
Luminous flux	632	702	773	lm
Module efficacy		102		lm/W
Correlated color temperature (CCT)		2700		K
Color coordinates (CIEx, CIEy)		(0.4578, 0.4101)		-
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

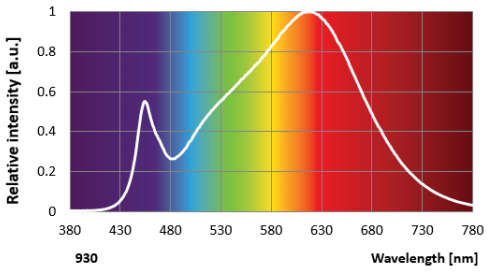


R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
91	96	99	90	91	96	90	78	52	91	90	81	93	99	

CertaFlux SLM C 930 1202 L09 G1

Parameter	Min	Typ	Max	Unit
Luminous flux	664	738	812	lm
Module efficacy		107		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

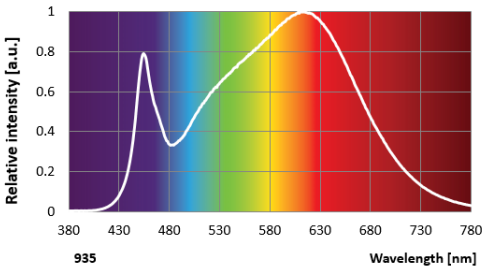


R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
91	96	98	90	90	94	90	79	53	89	90	77	92	99	

CertaFlux SLM C 935 1202 L09 G1

Parameter	Min	Typ	Max	Unit
Luminous flux	696	773	851	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

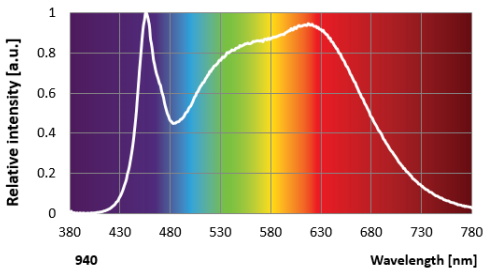


R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
91	96	98	90	91	94	91	80	55	89	89	74	93	99	

CertaFlux SLM C 940 1202 L09 G1

Parameter	Min	Typ	Max	Unit
Luminous flux	711	790	869	lm
Module efficacy		115		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++		

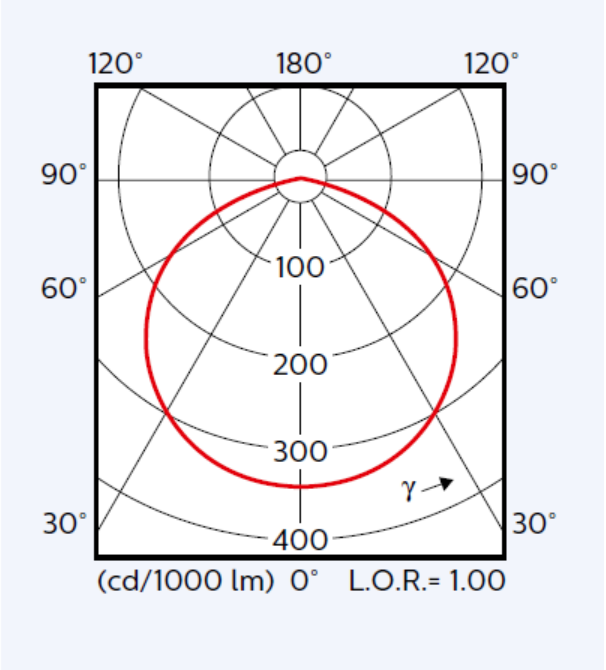
Measurement precision for flux +/- 5%.Measurement precision for efficacy +/- 6%. Measurement precision for x, y +/- 0.005. Measurement precision for CRI +/- 1.5



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 827 1202 L09 G1
CertaFlux SLM C 830 1202 L09 G1
CertaFlux SLM C 940 1202 L09 G1

Parameter	Min	Typ	Max	Unit
Forward voltage		34.4	37.4	V
Power consumption		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 G1

Parameter	Min	Typ	Max	Unit
Forward voltage		34.4	37.4	V
Power consumption		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 G1
CertaFlux SLM C 850 1202 L09 G1

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

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

CertaFlux SLM C 927 1202 L09 G1
CertaFlux SLM C 930 1202 L09 G1

Parameter	Min	Typ	Max	Unit
Forward voltage		34.4	37.4	V
Power consumption		6.9	7.5	W
Thermal power		4.4		W

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

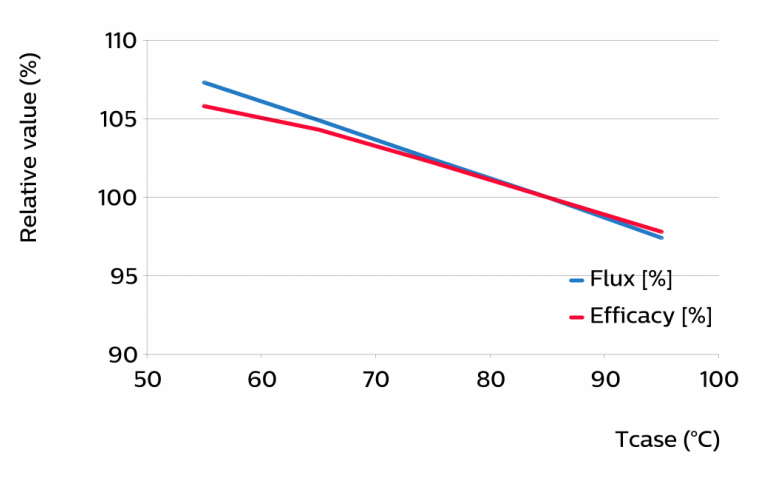
CertaFlux SLM C 935 1202 L09 G1

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

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

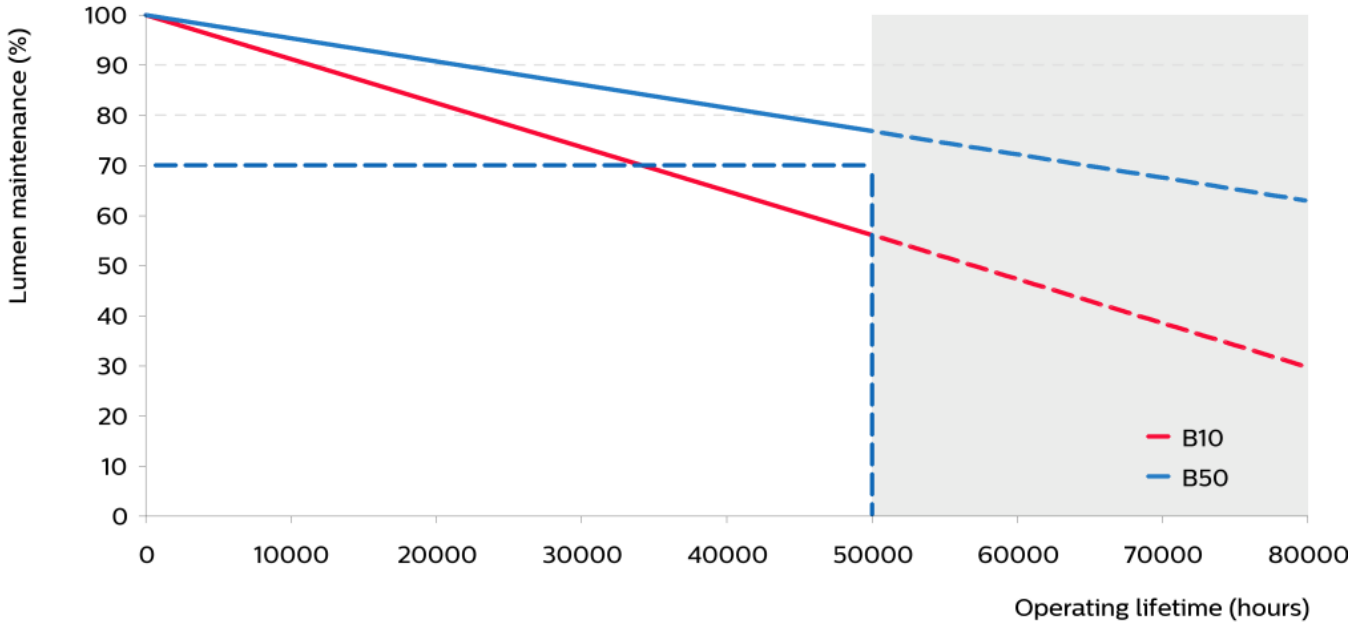
Flux and efficacy versus temperature at Tc (at I nominal)

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



Lumen maintenance graphs

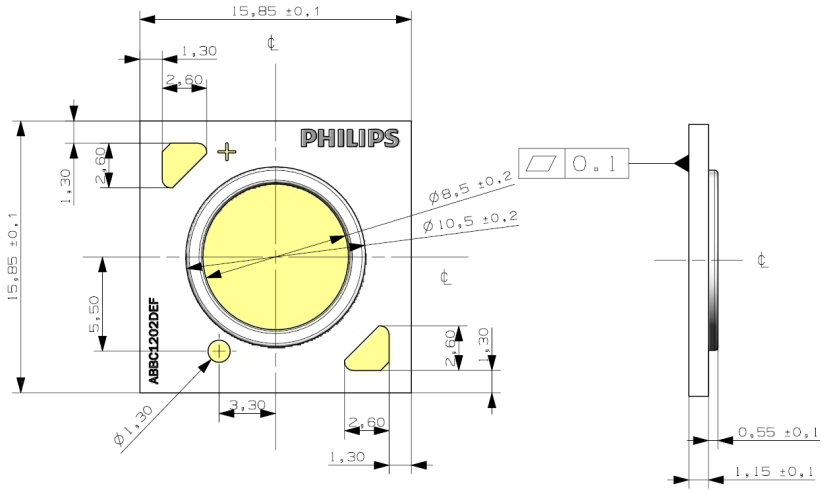
Lumen maintenance at I-life and Tc-life conditions



Mechanical characteristics

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

Parameter	Min	Typ	Max	Unit
Length	15.75	15.85	15.95	mm
Width	15.75	15.85	15.95	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)			310	mA
Case temperature (Tc-max)			95	℃
Power at rated Vf-max and I-max			12.2	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	℃
Storage temperature	-40		65	℃

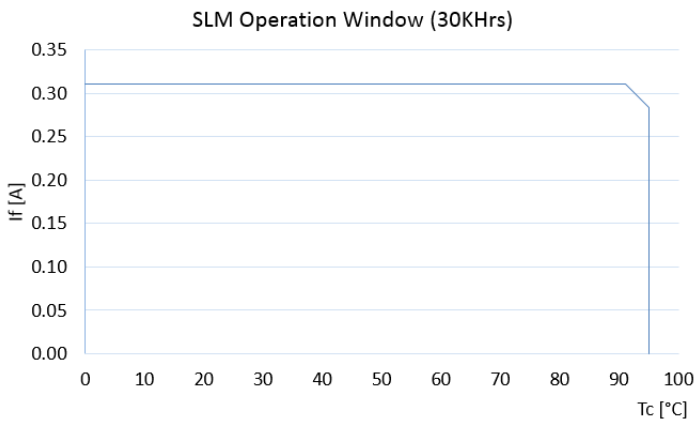
Application information

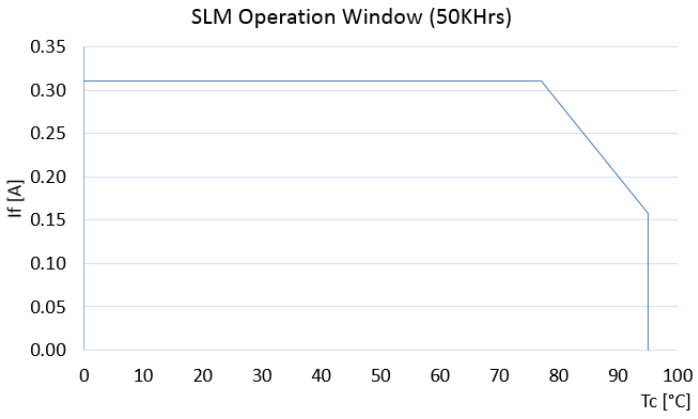
Environmental
RoHS/REACH

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.

09/2016
Data subject to change.

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