

The Philips logo is displayed in white capital letters on a blue background.

Certaflux

LED System

CertaFlux SLM C
1203 L09 G1



Datasheet

Experience good performance with affordable cost

CertaFlux SLM C 1203 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 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 827 1203 L09 G1	8718696 693537 00	9290 014 40280	100
CertaFlux SLM C 830 1203 L09 G1	8718696 693551 00	9290 014 40380	100
CertaFlux SLM C 835 1203 L09 G1	8718696 693575 00	9290 014 40480	100
CertaFlux SLM C 840 1203 L09 G1	8718696 693612 00	9290 014 40580	100
CertaFlux SLM C 850 1203 L09 G1	8718696 693636 00	9290 014 40680	100
CertaFlux SLM C 927 1203 L09 G1	8718696 693650 00	9290 014 40780	100
CertaFlux SLM C 930 1203 L09 G1	8718696 693674 00	9290 014 40880	100
CertaFlux SLM C 935 1203 L09 G1	8718696 693698 00	9290 014 40980	100
CertaFlux SLM C 940 1203 L09 G1	8718696 693711 00	9290 014 41080	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 1203 L09 G1	350	545	545	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

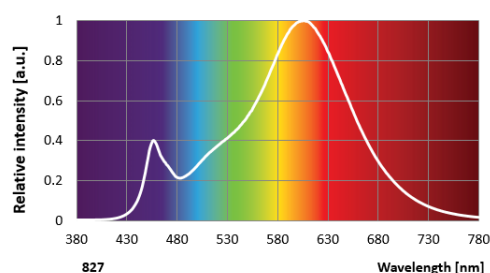
*** Maximum value for safe operation, do not operate above this value

Optical characteristics - table per color (CCT)

CertaFlux SLM C 827 1203 L09 G1

Parameter	Min	Typ	Max	Unit
Luminous flux	1285	1428	1571	lm
Module efficacy		117		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

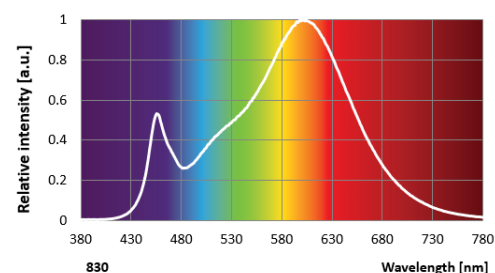


R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
81	94	91	77	81	93	79	54	4	86	77	77	84	96	

CertaFlux SLM C 830 1203 L09 G1

Parameter	Min	Typ	Max	Unit
Luminous flux	1346	1496	1645	lm
Module efficacy		123		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

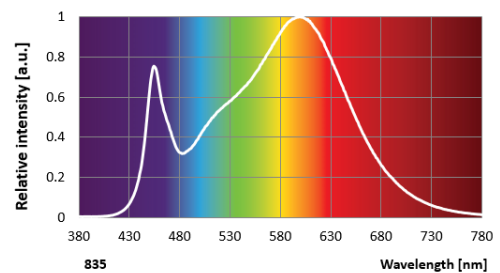


R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
81	93	93	79	82	92	81	57	6	84	78	73	84	97	

CertaFlux SLM C 835 1203 L09 G1

Parameter	Min	Typ	Max	Unit
Luminous flux	1372	1525	1677	lm
Module efficacy		125		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

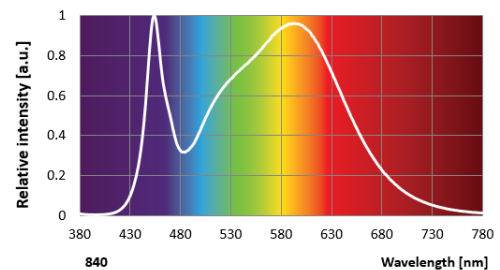


R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
83	93	95	80	83	91	83	62	11	84	79	69	86	98	

CertaFlux SLM C 840 1203 L09 G1

Parameter	Min	Typ	Max	Unit
Luminous flux	1399	1554	1709	lm
Module efficacy		128		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

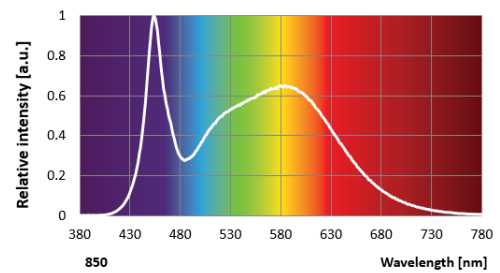


R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
80	89	96	79	80	85	86	63	5	74	77	58	82	98	

CertaFlux SLM C 850 1203 L09 G1

Parameter	Min	Typ	Max	Unit
Luminous flux	1399	1554	1709	lm
Module efficacy		128		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

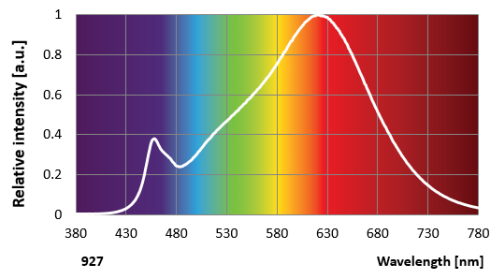


R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
80	90	94	79	80	84	86	65	4	74	77	55	83	97	

CertaFlux SLM C 927 1203 L09 G1

Parameter	Min	Typ	Max	Unit
Luminous flux	1063	1181	1299	lm
Module efficacy		97		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

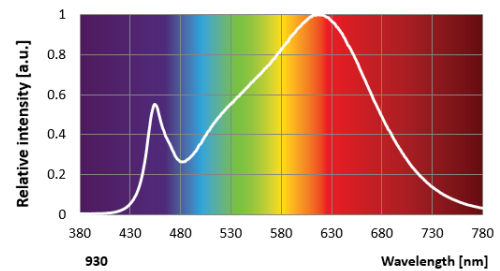


R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
91	96	99	90	91	96	90	78	52	91	90	81	93	99	

CertaFlux SLM C 930 1203 L09 G1

Parameter	Min	Typ	Max	Unit
Luminous flux	1117	1241	1365	lm
Module efficacy		102		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

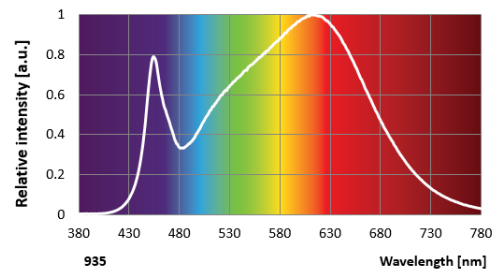


R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
91	96	98	90	90	94	90	79	53	89	90	77	92	99	

CertaFlux SLM C 935 1203 L09 G1

Parameter	Min	Typ	Max	Unit
Luminous flux	1171	1302	1432	lm
Module efficacy		107		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+		

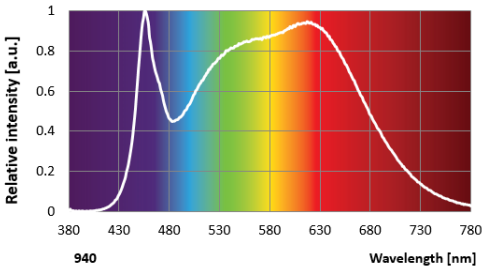
Measurement precision for flux +/- 5%. Measurement precision for efficacy +/- 6%. Measurement precision for x, y +/- 0.005. Measurement precision for CRI +/- 1.5



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	1198	1331	1464	lm
Module efficacy		109		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+		

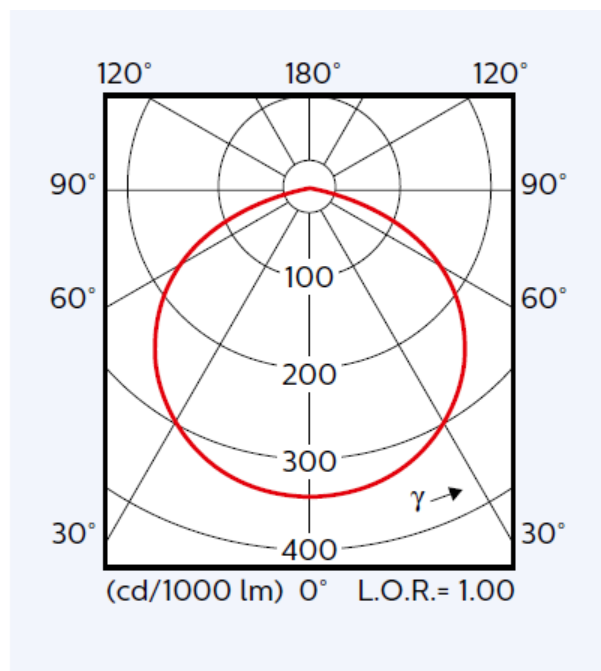
Measurement precision for flux +/- 5%.Measurement precision for efficacy +/- 6%. Measurement precision for x, y +/- 0.005. Measurement precision for CRI +/- 1.5



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 1203 L09 G1](#)

Parameter	Min	Typ	Max	Unit
Forward voltage		34.7	37.7	V
Power consumption		12.2	13.2	W
Thermal power		7.7		W

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

[CertaFlux SLM C 830 1203 L09 G1](#)[CertaFlux SLM C 940 1203 L09 G1](#)

Parameter	Min	Typ	Max	Unit
Forward voltage		34.7	37.7	V
Power consumption		12.2	13.2	W
Thermal power		7.6		W

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

[CertaFlux SLM C 835 1203 L09 G1](#)

Parameter	Min	Typ	Max	Unit
Forward voltage		34.7	37.7	V
Power consumption		12.2	13.2	W
Thermal power		7.5		W

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

[CertaFlux SLM C 840 1203 L09 G1](#)[CertaFlux SLM C 850 1203 L09 G1](#)

Parameter	Min	Typ	Max	Unit
Forward voltage		34.7	37.7	V
Power consumption		12.2	13.2	W
Thermal power		7.3		W

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

[CertaFlux SLM C 927 1203 L09 G1](#)

Parameter	Min	Typ	Max	Unit
Forward voltage		34.7	37.7	V
Power consumption		12.2	13.2	W
Thermal power		8.0		W

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

[CertaFlux SLM C 930 1203 L09 G1](#)

Parameter	Min	Typ	Max	Unit
Forward voltage		34.7	37.7	V
Power consumption		12.2	13.2	W
Thermal power		7.9		W

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

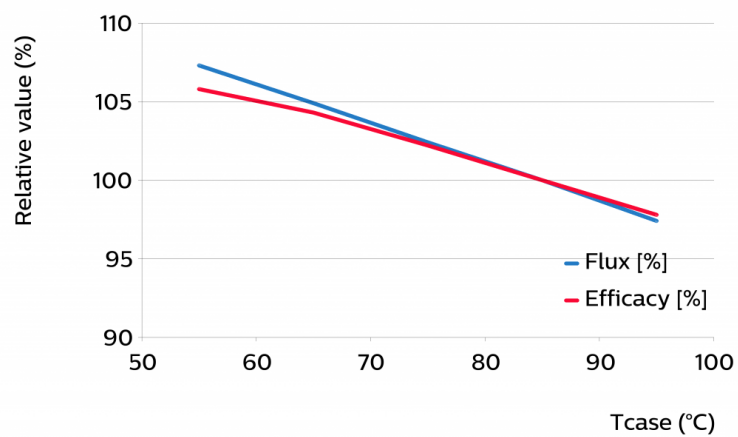
[CertaFlux SLM C 935 1203 L09 G1](#)

Parameter	Min	Typ	Max	Unit
Forward voltage		34.7	37.7	V
Power consumption		12.2	13.2	W
Thermal power		7.8		W

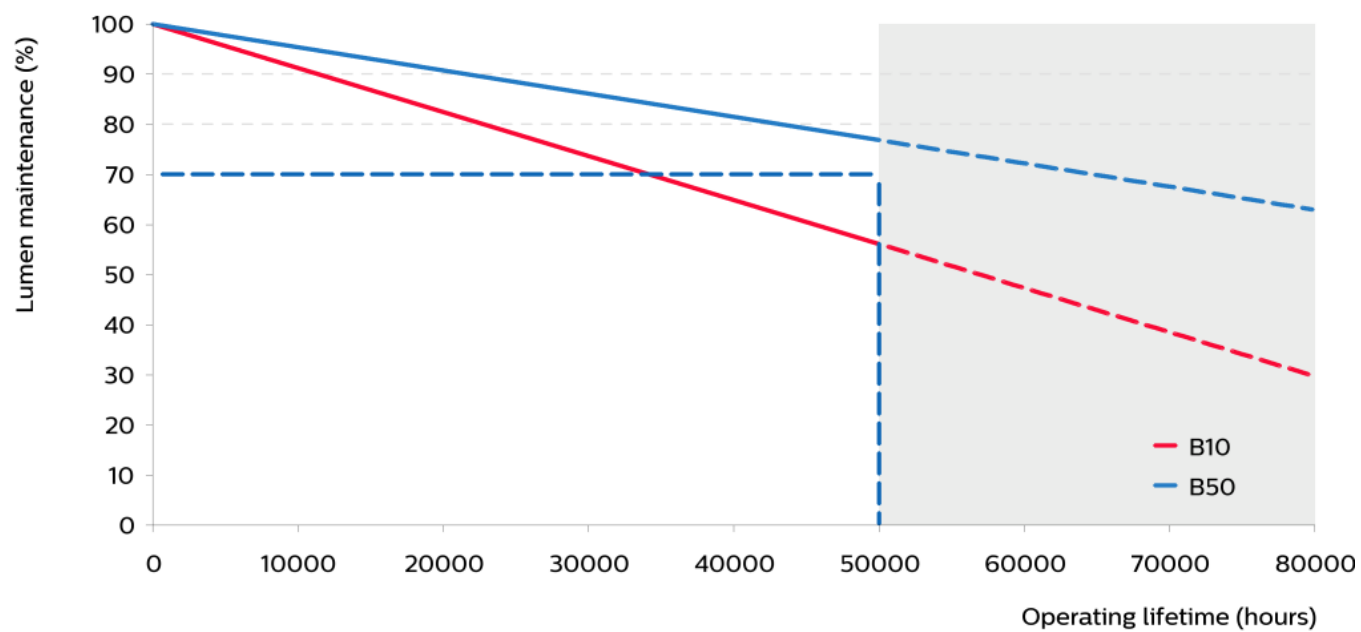
Measurement precision for Vf +/- 3%. Measurement precision for power +/- 3.3%

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



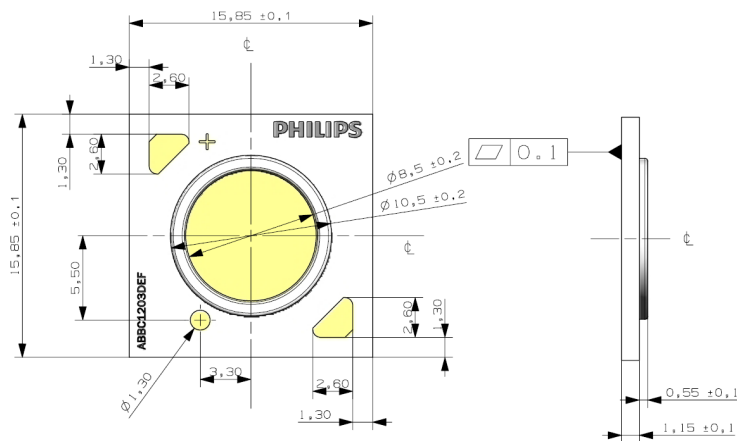
Lumen maintenance at I-life and Tc-life conditions



Mechanical characteristics

CertaFlux SLM C 827 1203 L09 G1
 CertaFlux SLM C 830 1203 L09 G1
 CertaFlux SLM C 835 1203 L09 G1
 CertaFlux SLM C 840 1203 L09 G1
 CertaFlux SLM C 850 1203 L09 G1
 CertaFlux SLM C 927 1203 L09 G1
 CertaFlux SLM C 930 1203 L09 G1
 CertaFlux SLM C 935 1203 L09 G1
 CertaFlux SLM C 940 1203 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)			545	mA
Case temperature (Tc-max)			95	°C
Power at rated Vf-max and I-max			21.7	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

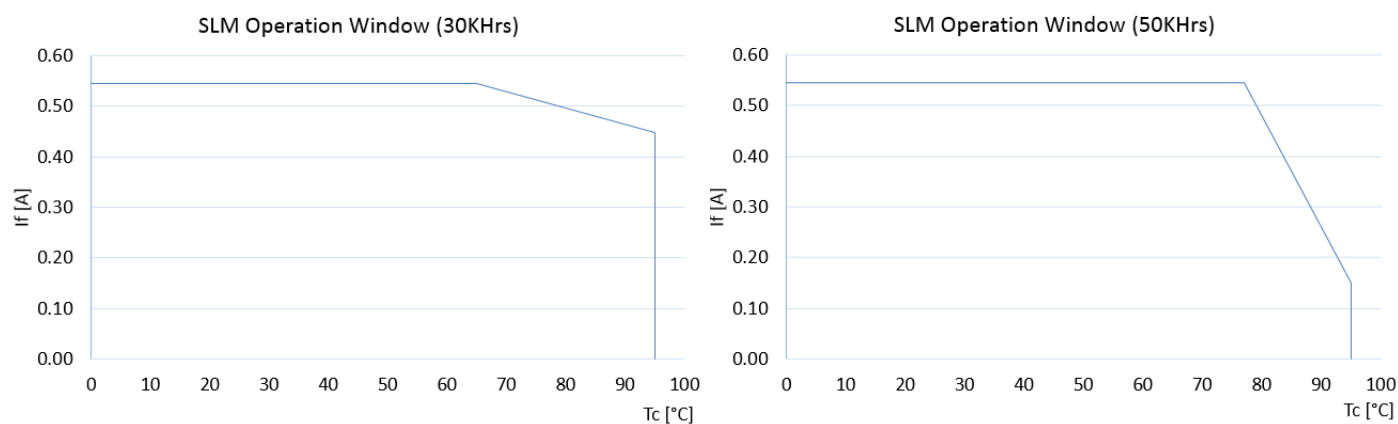
IEC 62031:2008 (First Edition) + A1:2012 + A2:2014

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.

