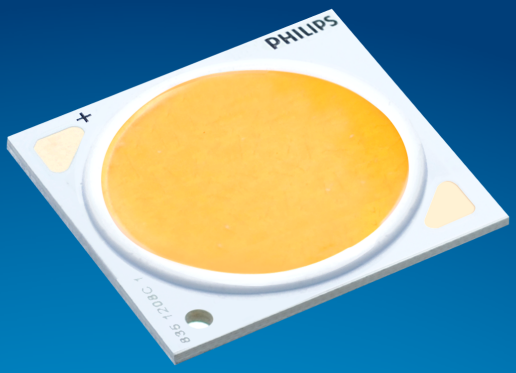
PHILIPS

CertaFlux

LED

CertaFlux LED SLM
1208 L14 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 @ Tc-nom and I-life

December 2016

Ordering data

Commercial product name	EOC	12NC	Box quantity
CertaFlux SLM C 830 1208 L14 G1	8718696 694015 00	9290 014 42580	100
CertaFlux SLM C 835 1208 L14 G1	8718696 694039 00	9290 014 42680	100
CertaFlux SLM C 840 1208 L14 G1	8718696 694053 00	9290 014 42780	100
CertaFlux SLM C 850 1208 L14 G1	8718696 694077 00	9290 014 42880	100
CertaFlux SLM C 930 1208 L14 G1	8718696 694091 00	9290 014 42980	100
CertaFlux SLM C 935 1208 L14 G1	8718696 694114 00	9290 014 43080	100
CertaFlux SLM C 940 1208 L14 G1	8718696 694138 00	9290 014 43180	100

Drive currents

Parameter	Nominal*	Life**	Max***	Unit
CertaFlux LED SLM 1208 L14 G1	800	1120	1340	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

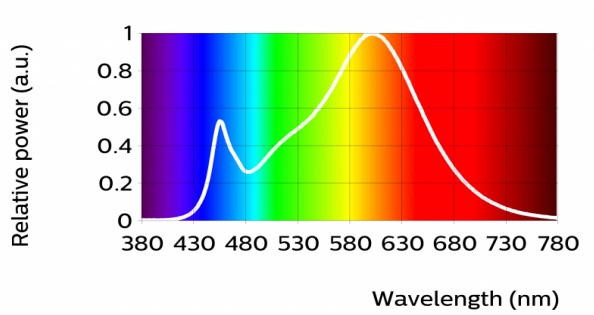
*** Maximum value for safe operation, do not operate above this value

Optical characteristics - table per color (CCT)

CertaFlux SLM C 830 1208 L14 G1

Parameter	Min	Typ	Max	Unit
Luminous flux	3312	3680	4048	lm
Module efficacy		134		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

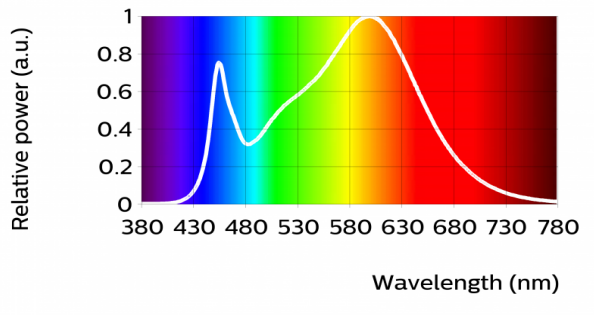


R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14
81	93	93	79	82	92	81	57	6	84	78	73	84	97

CertaFlux SLM C 835 1208 L14 G1

Parameter	Min	Typ	Max	Unit
Luminous flux	3378	3753	4129	lm
Module efficacy		136		lm/W
Correlated color temperature (CCT)		3500		K
Color coordinates (CIEx, CIEy)		(0.407, 0.382)		-
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

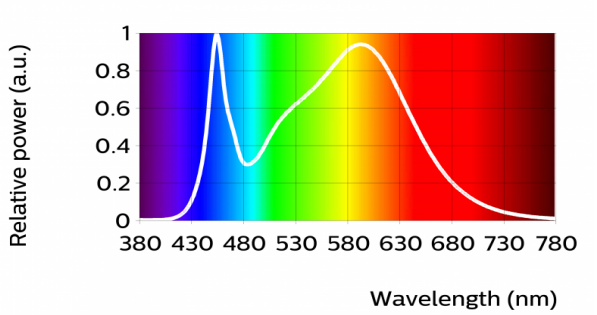


R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14
83	93	95	80	83	91	83	62	11	84	79	69	86	98

CertaFlux SLM C 840 1208 L14 G1

Parameter	Min	Typ	Max	Unit
Luminous flux	3444	3827	4210	lm
Module efficacy		139		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

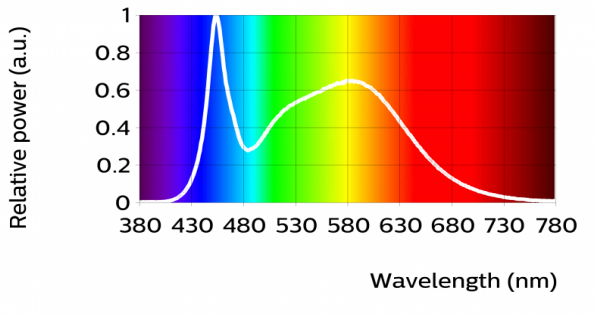


R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14
80	90	95	78	80	86	84	60	1	76	76	60	82	98

CertaFlux SLM C 850 1208 L14 G1

Parameter	Min	Typ	Max	Unit
Luminous flux	3444	3827	4210	lm
Module efficacy		139		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

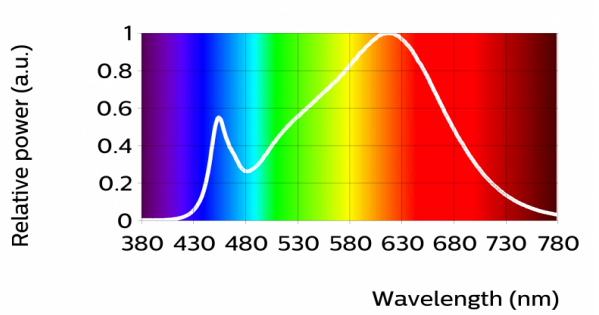


R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14
80	90	94	79	80	84	86	65	4	74	77	55	83	97

CertaFlux SLM C 930 1208 L14 G1

Parameter	Min	Typ	Max	Unit
Luminous flux	2816	3128	3441	lm
Module efficacy		114		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

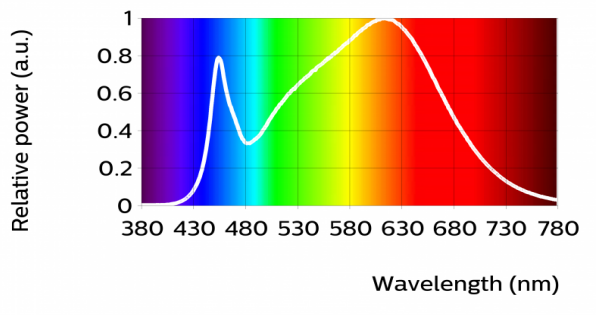


R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14
91	96	98	90	90	94	90	79	53	89	90	77	92	99

CertaFlux SLM C 935 1208 L14 G1

Parameter	Min	Typ	Max	Unit
Luminous flux	2981	3312	3643	lm
Module efficacy		120		lm/W
Correlated color temperature (CCT)		3500		K
Color coordinates (CIEx, CIEy)		(0.407, 0.382)		-
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

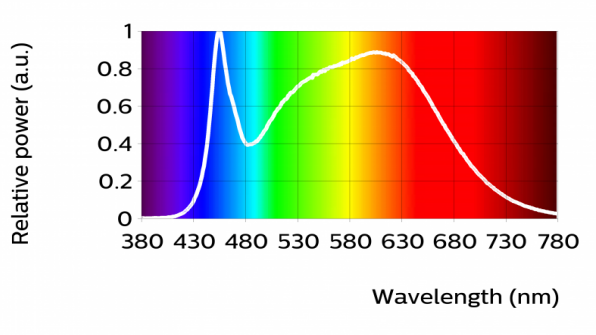


R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14
91	96	98	90	91	94	91	80	80	89	89	74	93	99

CertaFlux SLM C 940 1208 L14 G1

Parameter	Min	Typ	Max	Unit
Luminous flux	2981	3312	3643	lm
Module efficacy		120		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++		

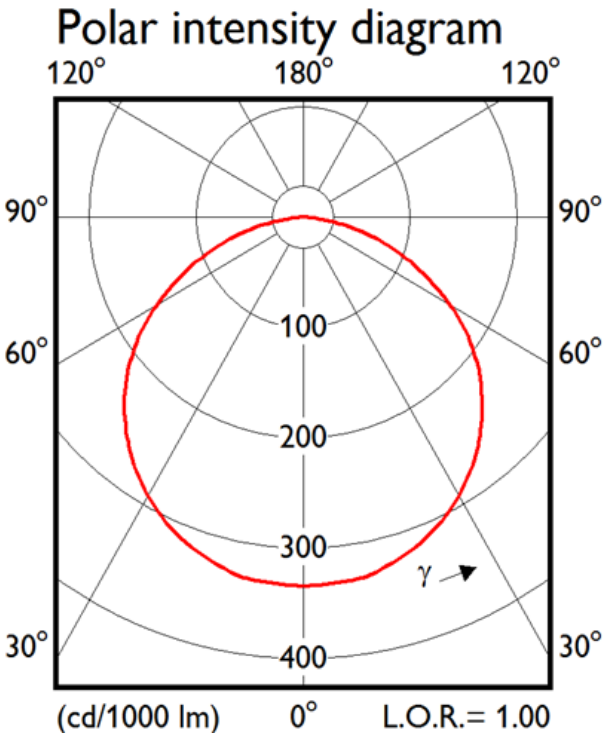
Measurement precision for flux +/- 5%.Measurement precision for efficacy +/- 6%. Measurement precision for x, y +/- 0.005. Measurement precision for CRI 1.5



R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14
91	96	97	89	90	92	92	82	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 830 1208 L14 G1

Parameter	Min	Typ	Max	Unit
Forward voltage		34.4	37.4	V
Power consumption		27.5	29.9	W
Thermal power		16.2		W

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

CertaFlux SLM C 835 1208 L14 G1
CertaFlux SLM C 940 1208 L14 G1

Parameter	Min	Typ	Max	Unit
Forward voltage		34.4	37.4	V
Power consumption		27.5	29.9	W
Thermal power		16.1		W

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

CertaFlux SLM C 840 1208 L14 G1
CertaFlux SLM C 850 1208 L14 G1

Parameter	Min	Typ	Max	Unit
Forward voltage		34.4	37.4	V
Power consumption		27.5	29.9	W
Thermal power		15.7		W

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

CertaFlux SLM C 930 1208 L14 G1

Parameter	Min	Typ	Max	Unit
Forward voltage		34.4	37.4	V
Power consumption		27.5	29.9	W
Thermal power		16.9		W

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

CertaFlux SLM C 935 1208 L14 G1

Parameter	Min	Typ	Max	Unit
Forward voltage		34.4	37.4	V
Power consumption		27.5	29.9	W
Thermal power		16.3		W

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

Lumen maintenance

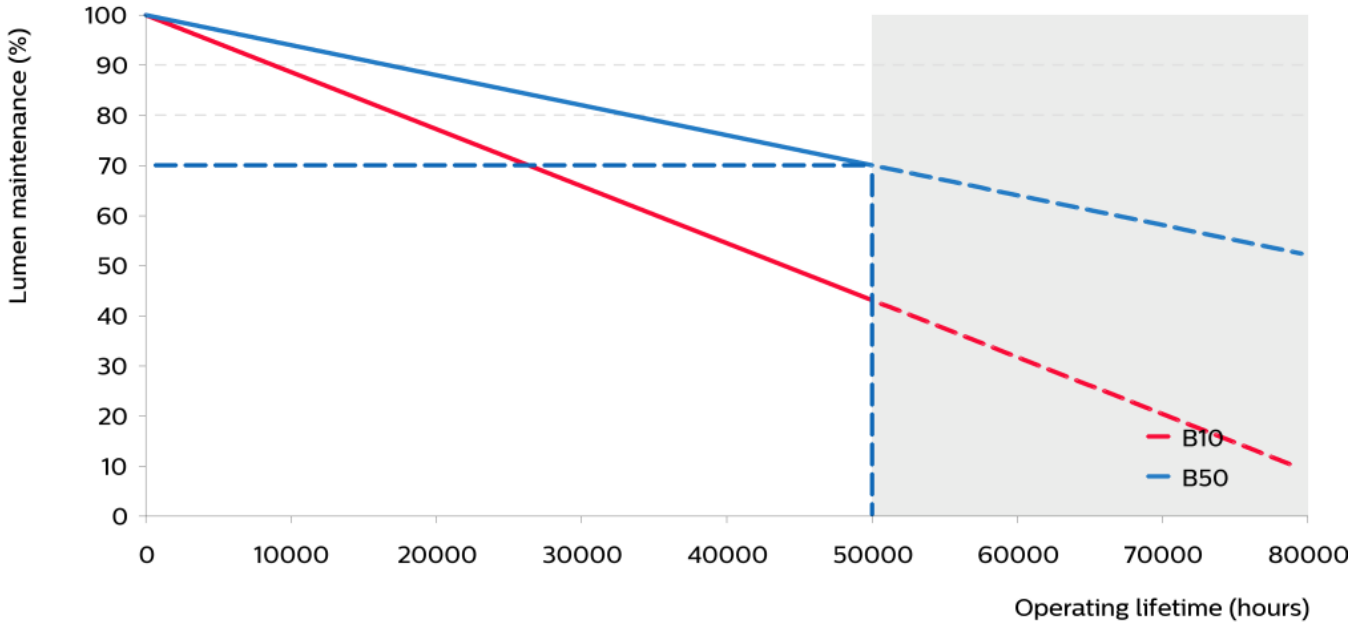
Operation point	Lumen maintenance x 1000 hours	L70			L80			L90		
		B50	B20	B10	B50	B20	B10	B50	B20	B10
I-nom 800mA	Tc 65°C	>50	>50	>50	>50	>50	46	41	27	21
	Tc-nom 85°C	>50	40	32	38	25	20	18	12	9
	Tc-max 95°C	>50	33	27	32	21	17	15	10	8
I-life 1120mA	Tc 65°C	>50	>50	>50	>50	46	39	33	22	17
	Tc-nom 85°C	>50	33	26	31	21	17	15	10	8
	Tc-max 95°C	42	27	22	26	17	14	12	8	6
I-max 1340mA	Tc 65°C	>50	>50	50	>50	39	31	28	18	15
	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

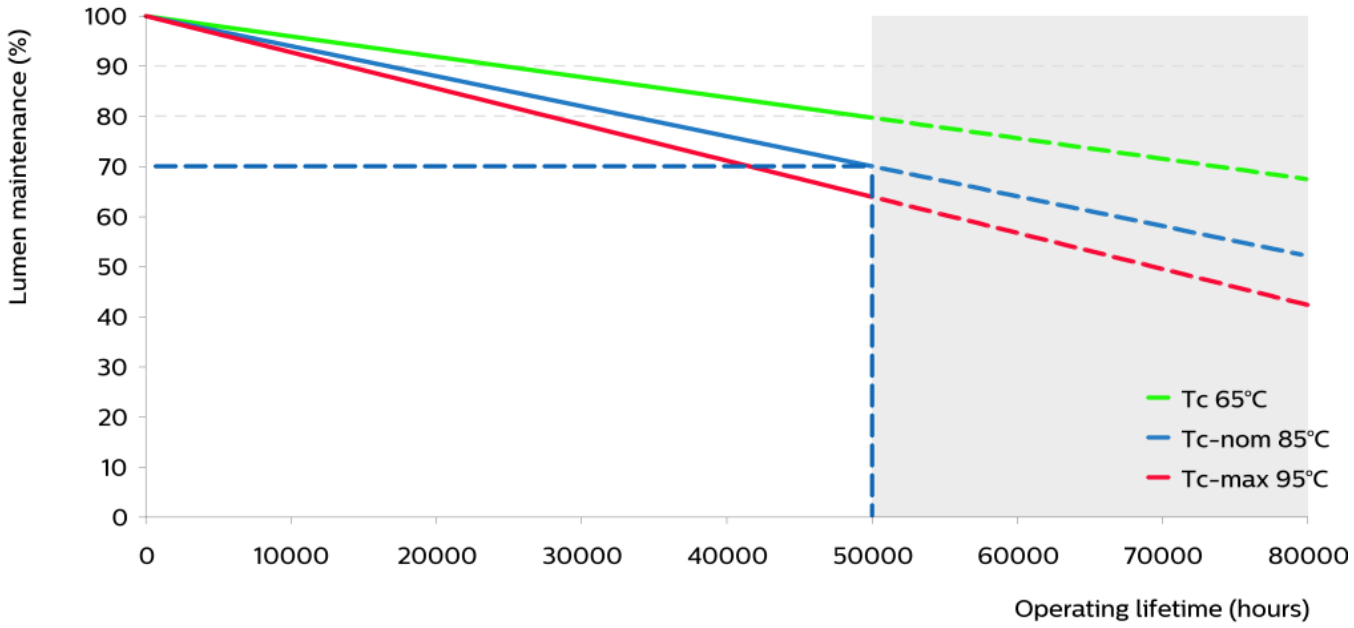
3 swiitches per day

Lumen maintenance graphs

Lumen maintenance at I-life and Tc-life conditions



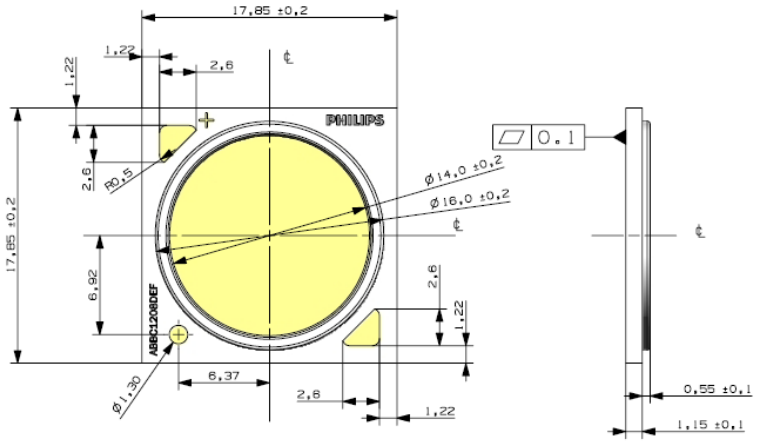
Lumen maintenance for B50 at current I-life conditions



Mechanical characteristics

CertaFlux SLM C 830 1208 L14 G1
CertaFlux SLM C 835 1208 L14 G1
CertaFlux SLM C 840 1208 L14 G1
CertaFlux SLM C 850 1208 L14 G1
CertaFlux SLM C 930 1208 L14 G1
CertaFlux SLM C 935 1208 L14 G1
CertaFlux SLM C 940 1208 L14 G1

Parameter	Min	Typ	Max	Unit
Length	17.65	17.85	18.05	mm
Width	17.65	17.85	18.05	mm
Height PCB	1.05	1.15	1.25	mm
Height including dam	1.5	1.7	1.9	mm



Absolute ratings

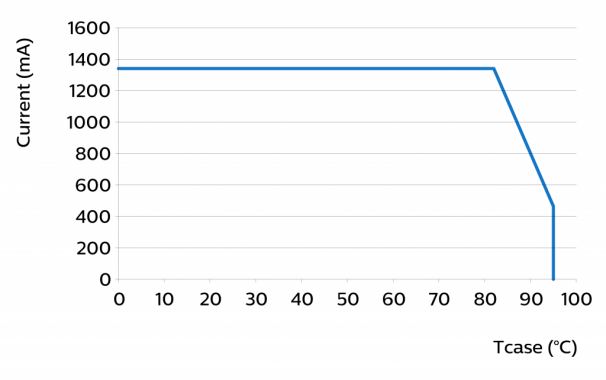
Parameter	Min	Typ	Max	Unit
Current through the LED module (I-max)			1340	mA
Case temperature (Tc-max)			95	°C
Power at rated Vf-max and I-max			53.2	W
ESD Human Body Model (HBM) Class 3A JESD22-A114-E 8 kV			8	kV
ESD Machine Model (MM) Class B JESD22-A115-B			400	V
Ambient temperature	-20		40	°C
Storage temperature	-40		80	°C

Application information

Certificates and Standards
EN 62471
EN 62031:2008 (First Edition) + A1:2013 + A2:2015

Application	
Dimming	Yes

Operation Window for 50000 hours lifetime



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Data subject to change.

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