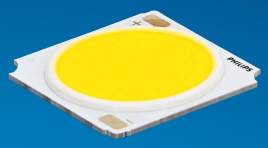
PHILIPS

Fortimo

LED

Fortimo SLM C 9xx 1208
L15 1919 G8N HE



Datasheet

Best combination of quality of light and efficacy with industry standard footprint

Fortimo LED SLM CRI90 G8N HE

Philips continues to develop its tried and trusted high efficiency COB range of products (since 2020) by introducing the third generation Fortimo SLM G8 HE. The Fortimo SLM CRI90 G8 HE range boasts an impressive 5% increase in efficacy and maintains color consistency of 2 SDCM similar to its predecessor, Fortimo SLM CRI90 G7HE+. Drawing on our four years of industry and R&D experience with high efficacy COB platforms, we have further optimized the quality of light and enhanced the product's robustness.
With the superior efficiency and color consistency, Fortimo SLM G8 HE helps unlock the extraordinary potential of light, facilitating innovation and inspiring the next generation of luminaire design for our OEM customers.
Check out the online Easy Design-in Tool for your perfect system combination (www.easydesignintool.com).

Key features and benefits

- Most widely used footprint to enable ease of use
- Best quality of light available for all applications
- ~5% efficacy improvement vs. current Fortimo SLM G7 HE+ range
- Excellent color consistency management (2 SDCM)
- System proposition (Module + Driver + Holder)
- Flexibility to optimize luminaire performance (high efficacy or high lm output)
- 50,000 hours lifetime

October 2024

Ordering data

Commercial product name	EOC	12NC	EPREL registration #	Box quantity
Fortimo SLM C 927 1208 L15 1919 G8N HE	8720169 382541 00	9290 039 04580	2093885	20
Fortimo SLM C 930 1208 L15 1919 G8N HE	8720169 382572 00	9290 039 04680	2093785	20
Fortimo SLM C 935 1208 L15 1919 G8N HE	8720169 382602 00	9290 039 04780	2093878	20
Fortimo SLM C 940 1208 L15 1919 G8N HE	8720169 382633 00	9290 039 04880	2093837	20
Fortimo SLM C 950 1208 L15 1919 G8N HE	8720169 382664 00	9290 039 04980	2093643	20
Fortimo SLM C 930 PW 1208 L15 1919 G8N HE	8720169 382695 00	9290 039 05080	2093831	20
Fortimo SLM C 935 PW 1208 L15 1919 G8N HE	8720169 382725 00	9290 039 05180	2093821	20
Fortimo SLM C 940 PW 1208 L15 1919 G8N HE	8720169 382756 00	9290 039 05280	2093766	20

Not all products are globally available by default.
Please contact your local sales representative for local availability and activation conditions.

Drive currents

Parameter	Nominal*	Life**	Max***	Unit
Fortimo SLM C 9xx 1208 L15 1919 G8N HE	720	1440	1440	mA

Module temperatures

Parameter	Nominal*	Life**	Max***	Unit
T_c (case temperature at T_c point)	65	95	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

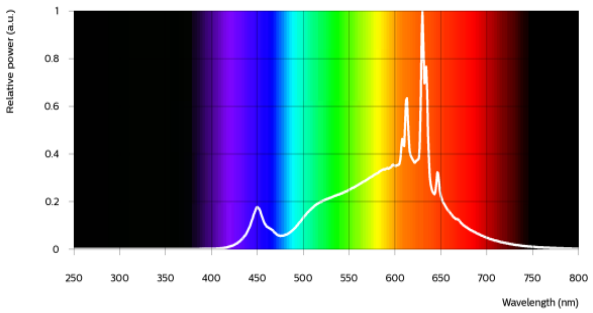
Optical characteristics - table per color (CCT)

Fortimo SLM C 927 1208 L15 1919 G8N HE

Parameter	Min	Typ	Max	Unit
Luminous flux	3696	3890	4279	lm
Efficacy		157		lm/W
Correlated color temperature (CCT)		2700		K
Color coordinates (CIEx, CIEy)		(0.458, 0.410)		-
Color consistency			2	SDCM
CRI	90			
R9	>50			
Photometric code		927/259		
Photobiological safety		RG1 unlimited		

Measurement precision ± 5% for the flux data and ± 6% for the efficacy data. Measurement precision for color coordinates ± 0.005. Measurement precision for CRI ± 1.5.

Operation point	927	lm	lm/W
80% I-nom 576mA	Tc 25 °C	3345	170
	Tc-nom 65 °C	3160	162
	Tc-max 95 °C	2986	155
I-nom 720mA	Tc 25 °C	4119	164
	Tc-nom 65 °C	3890	157
	Tc-max 95 °C	3674	149
I-max 1440mA	Tc 25 °C	7703	141
	Tc-nom 65 °C	7250	134
	Tc-max 95 °C	6821	127

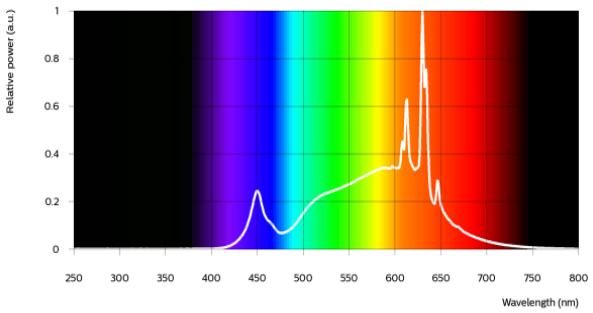


Fortimo SLM C 930 1208 L15 1919 G8N HE

Parameter	Min	Typ	Max	Unit
Luminous flux	3933	4140	4554	lm
Efficacy		167		lm/W
Correlated color temperature (CCT)		3000		K
Color coordinates (CIEx, CIEy)		(0.434, 0.403)		-
Color consistency			2	SDCM
CRI	90			
R9	>50			
Photometric code		930/259		
Photobiological safety		RG1 unlimited		

Measurement precision ± 5% for the flux data and ± 6% for the efficacy data. Measurement precision for color coordinates ± 0.005. Measurement precision for CRI ± 1.5.

Operation point	930	lm	lm/W
80% I-nom 576mA	Tc 25 °C	3559	181
	Tc-nom 65 °C	3363	172
	Tc-max 95 °C	3178	165
I-nom 720mA	Tc 25 °C	4383	175
	Tc-nom 65 °C	4140	167
	Tc-max 95 °C	3910	159
I-max 1440mA	Tc 25 °C	8200	150
	Tc-nom 65 °C	7719	143
	Tc-max 95 °C	7263	136

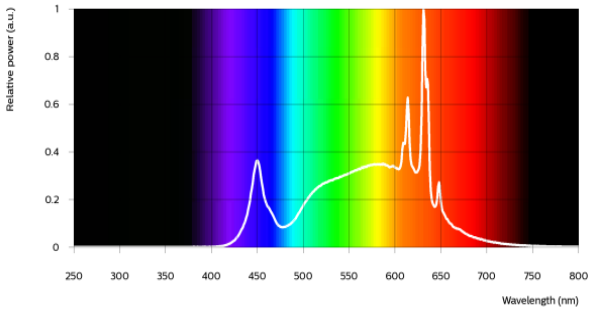


Fortimo SLM C 935 1208 L15 1919 G8N HE

Parameter	Min	Typ	Max	Unit
Luminous flux	4009	4220	4642	lm
Efficacy		170		lm/W
Correlated color temperature (CCT)		3500		K
Color coordinates (CIEx, CIEy)		(0.408, 0.393)		-
Color consistency			2	SDCM
CRI	90			
R9	>50			
Photometric code		935/259		
Photobiological safety		RG1 unlimited		

Measurement precision ± 5% for the flux data and ± 6% for the efficacy data. Measurement precision for color coordinates ± 0.005. Measurement precision for CRI ± 1.5.

Operation point	935	lm	lm/W
80% I-nom 576mA	Tc 25 °C	3628	184
	Tc-nom 65 °C	3428	176
	Tc-max 95 °C	3240	168
I-nom 720mA	Tc 25 °C	4468	178
	Tc-nom 65 °C	4220	170
	Tc-max 95 °C	3986	162
I-max 1440mA	Tc 25 °C	8359	153
	Tc-nom 65 °C	7869	146
	Tc-max 95 °C	7404	138

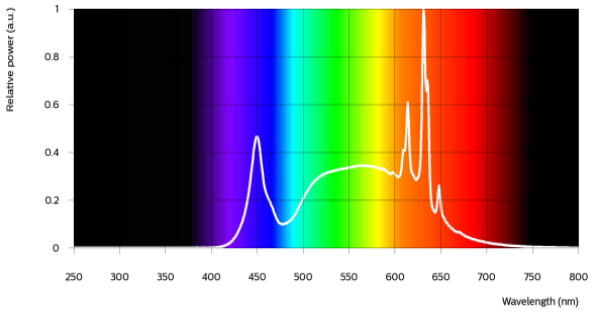


Fortimo SLM C 940 1208 L15 1919 G8N HE

Parameter	Min	Typ	Max	Unit
Luminous flux	4066	4280	4708	lm
Efficacy		173		lm/W
Correlated color temperature (CCT)		4000		K
Color coordinates (CIEx, CIEy)		(0.382, 0.380)		-
Color consistency			2	SDCM
CRI	90			
R9	>50			
Photometric code		940/259		
Photobiological safety		RG1 unlimited		

Measurement precision ± 5% for the flux data and ± 6% for the efficacy data. Measurement precision for color coordinates ± 0.005. Measurement precision for CRI ± 1.5.

Operation point	940	lm	lm/W
80% I-nom 576mA	Tc 25 °C	3679	187
	Tc-nom 65 °C	3477	178
	Tc-max 95 °C	3286	170
I-nom 720mA	Tc 25 °C	4531	181
	Tc-nom 65 °C	4280	173
	Tc-max 95 °C	4043	164
I-max 1440mA	Tc 25 °C	8478	155
	Tc-nom 65 °C	7982	148
	Tc-max 95 °C	7512	140

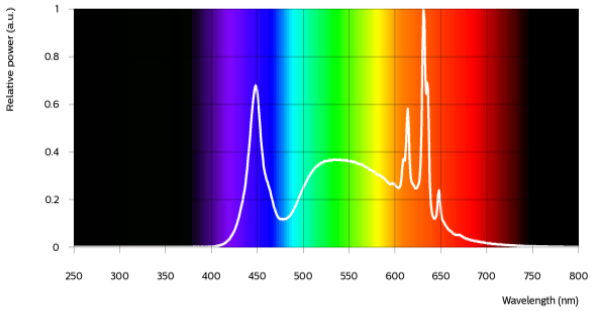


Fortimo SLM C 950 1208 L15 1919 G8N HE

Parameter	Min	Typ	Max	Unit
Luminous flux	4028	4240	4664	lm
Efficacy		171		lm/W
Correlated color temperature (CCT)		5000		K
Color coordinates (CIEx, CIEy)		(0.345, 0.355)		-
Color consistency			2	SDCM
CRI	90			
R9	>50			
Photometric code		950/259		
Photobiological safety		RG1 unlimited		

Measurement precision ± 5% for the flux data and ± 6% for the efficacy data. Measurement precision for color coordinates ± 0.005. Measurement precision for CRI ± 1.5.

Operation point	950	lm	lm/W
80% I-nom 576mA	Tc 25 °C	3644	185
	Tc-nom 65 °C	3444	177
	Tc-max 95 °C	3255	169
I-nom 720mA	Tc 25 °C	4489	179
	Tc-nom 65 °C	4240	171
	Tc-max 95 °C	4005	163
I-max 1440mA	Tc 25 °C	8400	154
	Tc-nom 65 °C	7909	146
	Tc-max 95 °C	7444	139

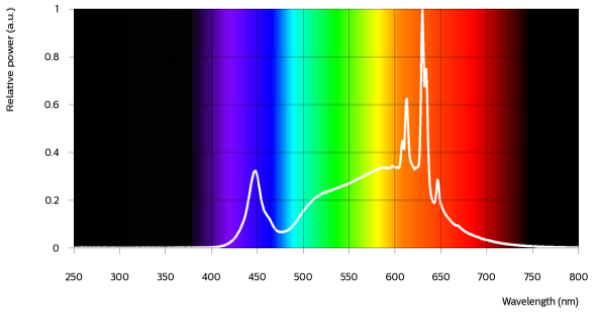


Fortimo SLM C 930 PW 1208 L15 1919 G8N HE

Parameter	Min	Typ	Max	Unit
Luminous flux	3890	4095	4504	lm
Efficacy		165		lm/W
Correlated color temperature (CCT)		3000		K
Color coordinates (CIEx, CIEy)		(0.422, 0.386)		-
Color consistency			2	SDCM
CRI	90			
R9	>50			
Photometric code		930/259		
Photobiological safety		RG1 unlimited		

Measurement precision ± 5% for the flux data and ± 6% for the efficacy data. Measurement precision for color coordinates ± 0.005. Measurement precision for CRI ± 1.5.

Operation point	930	lm	lm/W
80% I-nom 576mA	Tc 25 °C	3520	179
	Tc-nom 65 °C	3327	171
	Tc-max 95 °C	3144	163
I-nom 720mA	Tc 25 °C	4336	173
	Tc-nom 65 °C	4095	165
	Tc-max 95 °C	3868	157
I-max 1440mA	Tc 25 °C	8111	149
	Tc-nom 65 °C	7636	141
	Tc-max 95 °C	7185	134

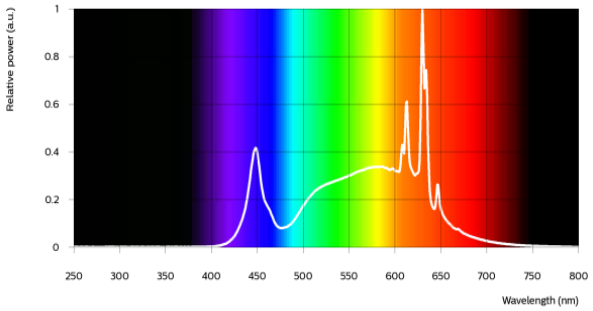


Fortimo SLM C 935 PW 1208 L15 1919 G8N HE

Parameter	Min	Typ	Max	Unit
Luminous flux	4009	4220	4642	lm
Efficacy		170		lm/W
Correlated color temperature (CCT)		3500		K
Color coordinates (CIEx, CIEy)		(0.398, 0.376)		-
Color consistency			2	SDCM
CRI	90			
R9	>50			
Photometric code		935/259		
Photobiological safety		RG1 unlimited		

Measurement precision ± 5% for the flux data and ± 6% for the efficacy data. Measurement precision for color coordinates ± 0.005. Measurement precision for CRI ± 1.5.

Operation point	935	lm	lm/W
80% I-nom 576mA	Tc 25 °C	3628	184
	Tc-nom 65 °C	3428	176
	Tc-max 95 °C	3240	168
I-nom 720mA	Tc 25 °C	4468	178
	Tc-nom 65 °C	4220	170
	Tc-max 95 °C	3986	162
I-max 1440mA	Tc 25 °C	8359	153
	Tc-nom 65 °C	7869	146
	Tc-max 95 °C	7404	138

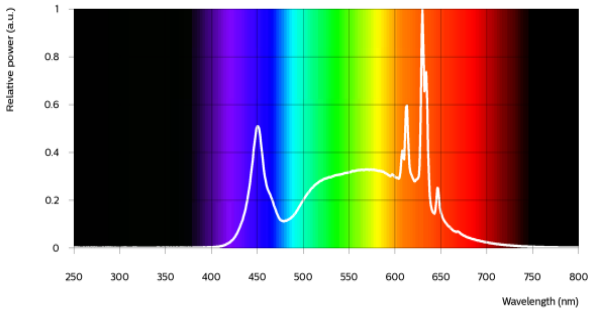


Fortimo SLM C 940 PW 1208 L15 1919 G8N HE

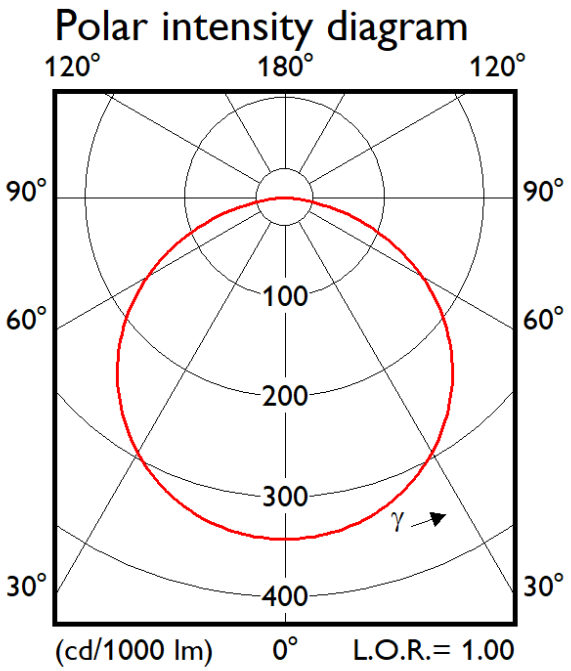
Parameter	Min	Typ	Max	Unit
Luminous flux	4028	4240	4664	lm
Efficacy		171		lm/W
Correlated color temperature (CCT)		4000		K
Color coordinates (CIEx, CIEy)		(0.374, 0.364)		-
Color consistency			2	SDCM
CRI	90			
R9	>50			
Photometric code		940/259		
Photobiological safety		RG1 unlimited		

Measurement precision ± 5% for the flux data and ± 6% for the efficacy data. Measurement precision for color coordinates ± 0.005. Measurement precision for CRI ± 1.5.

Operation point	940	lm	lm/W
80% I-nom 576mA	Tc 25 °C	3644	185
	Tc-nom 65 °C	3444	177
	Tc-max 95 °C	3255	169
I-nom 720mA	Tc 25 °C	4489	179
	Tc-nom 65 °C	4240	171
	Tc-max 95 °C	4005	163
I-max 1440mA	Tc 25 °C	8400	154
	Tc-nom 65 °C	7909	146
	Tc-max 95 °C	7444	139



Beam shape


Polar intensity diagram
120°
180°
120°
90°
90°
60°
60°
100
200
300
γ
30°
30°
400
(cd/1000 lm)
0°
L.O.R.= 1.00

Electrical characteristics

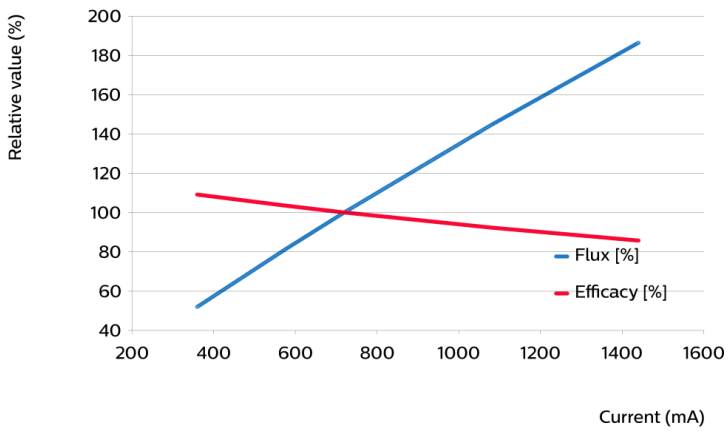
Parameter	Min	Typ	Max	Unit
Forward voltage	32.5	34.5	37.0	V
Power consumption	23.4	24.8	26.6	W = kWh/1000h
Number of modules in series per chain			1	
Number of modules per chain			1	
Number of modules in parallel			1	

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

Tuning information

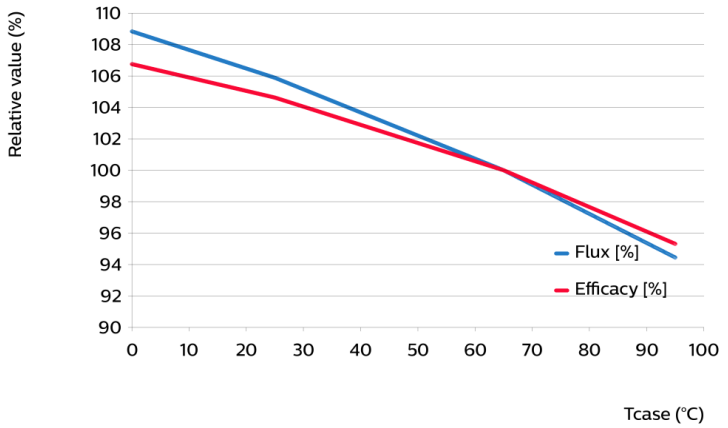
Flux and efficacy versus current (at Tc nominal)

I [mA]	Flux [%]	Efficacy [%]
1440	186	86
1080	145	92
720	100	100
576	81	103
360	52	109



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

Tc [°C]	Flux [%]	Efficacy [%]
95	94	95
65	100	100
25	106	105
0	109	107



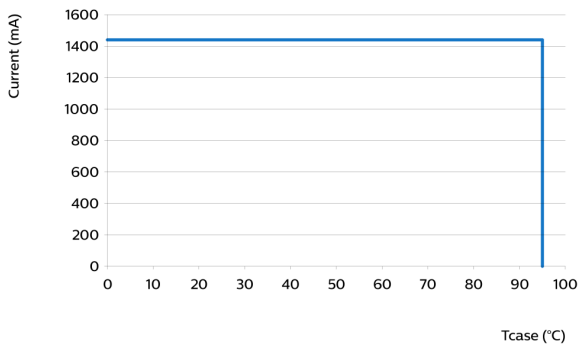
Lumen maintenance

Operation point	Lumen maintenance x 1000 hours	L70			L80			L90		
		B50	B20	B10	B50	B20	B10	B50	B20	B10
80% I-nom 576mA	Tc 50°C	>66	>66	>66	>66	>66	>66	>66	>66	>66
	Tc 65°C	>66	>66	>66	>66	>66	>66	>66	>66	>66
	Tc 95°C	>66	>66	>66	>66	>66	>66	>66	>66	>66
I-nom 720mA	Tc 50°C	>66	>66	>66	>66	>66	>66	>66	>66	>66
	Tc 65°C	>66	>66	>66	>66	>66	>66	>66	>66	>66
	Tc 95°C	>66	>66	>66	>66	>66	>66	>66	>66	62
I-max 1440mA	Tc 50°C	>66	>66	>66	>66	>66	>66	50	42	39
	Tc 65°C	>66	>66	>66	>66	>66	62	38	32	29
	Tc 95°C	>66	>66	60	49	41	38	23	19	17

Lifetime

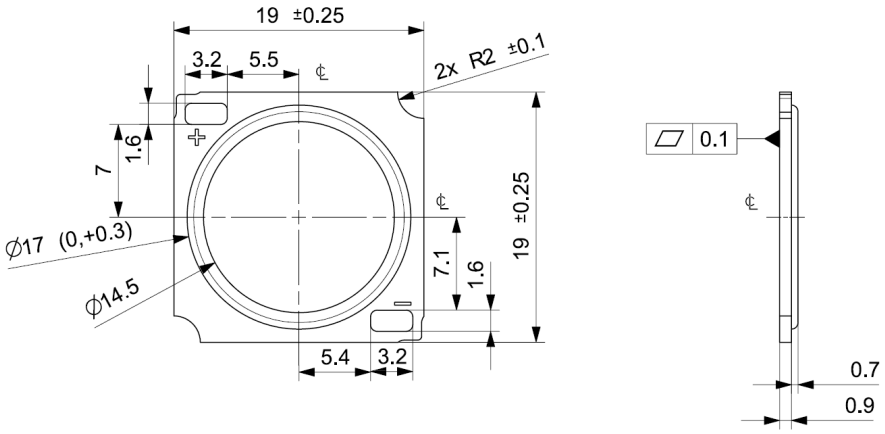
Parameter	Value	Unit
M70F50 nominal	>66000	hours

Performance Window



Mechanical characteristics

Parameter	Min	Typ	Max	Unit
Length	18.75	19	19.25	mm
Width	18.75	19	19.25	mm
Height	0.8	0.9	1	mm
Height	1.3	1.6	1.9	mm
Product mass		1.01		gram



Absolute ratings

Parameter	Min	Max	Unit
Current through the LED module (I-max)		1440	mA
Case temperature (Tc-max)		95	°C
ESD (direct contact)	8		kV
Working voltage		60	V_{dc}
Ambient temperature	-20	40	°C
Storage temperature	-40	80	°C

At illumination levels exceeding 1342 lux risk group classification may be RG2.

Application information

Certificates and Standards
CB
CE
ENEC
ENEC+
EPRS 001
IEC 62031
UKCA
UL
UL 8750

Environmental
RoHS/REACH

Application	
Dimming	Yes

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11/10/2024

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