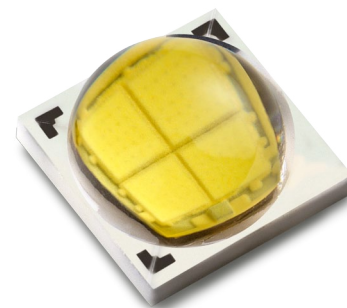


LUXEON M

High Flux Density and Efficacy



LUXEON® M emitters are illumination grade LEDs designed to enable outdoor and indoor applications optimized either for high efficiency or low cost where exceptional flux density and/or image uniformity are critical. With *Freedom From Binning* and leading performance, LUXEON M emitters deliver high efficacy and high flux density from a uniform source with tight correlated color temperature control.

Features

- Freedom From Binning
 - Single 3-step and 5-step MacAdam ellipse
- Hot tested at T_j 85°C
- Full portfolio of CRI / CCT combinations
- Superior efficacy and light output
- Proven LUXEON reliability

Benefits

- Exceptional uniformity and flux density enable street lighting optics and compact spot applications
- BOM and manufacturing cost reduction due to fewer components
- Higher system efficiency from use of low costs, high efficiency, highly reliable drivers
- System design flexibility: efficacy or low costs enabling product differentiation

Key Applications

- Outdoor
- High bay and low bay
- Downlights
- Lamps
- Indoor Area Lighting
- Spotlights

Absolute Maximum Ratings

Parameter	Maximum Performance
DC Forward Current	1050 mA
Peak Pulsed Forward Current	1200 mA
ESD Sensitivity	$\leq 8000V$ Human Body Model (HBM) Class 3B JESD22-A114-E < 400V Machine Model (MM) Class B JESD22-A115-B
LED Junction Temperature	135°C
Operating Case Temperature at 700 mA	-40°C - 120°C
Storage Temperature	-40°C - 120°C
Lead Soldering Temperature	JEDEC 020c 260°C
Allowable Reflow Cycles	3
Autoclave Conditions	121°C at 2 ATM 100% Relative Humidity for 96 Hours Maximum
Reverse Voltage (Vr)	LUXEON M LEDs are not designed to be driven in reverse bias

LUXEON M Product Characteristics

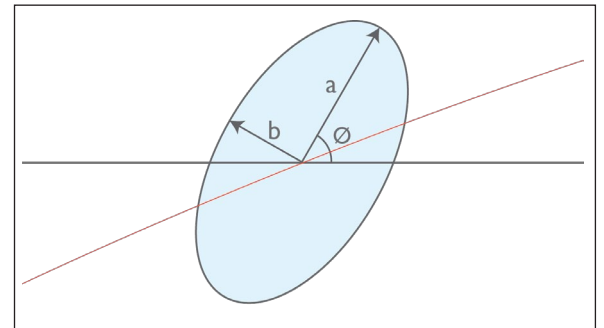
Typical Performance Characteristics at 350 mA, 700 mA, and 1000 mA for LUXEON M, Junction Temperature = 85°C												
Part Number	Nominal ANSI CCT	CRI	Luminous Flux (lm) Min	Typical Luminous Flux (lm)			Typical Forward Voltage (V _f)			Typical Efficacy (lm/W)		
		700 mA	700 mA	350 mA	700 mA	1000 mA	350 mA	700 mA	1000 mA	350 mA	700 mA	1000 mA
LXR7-SW30	3000K	70	800	456	845	1130	10.88	11.20	11.43	120	108	99
LXR7-SW40	4000K	70	840	488	905	1211	10.88	11.20	11.43	128	115	106
LXR7-SW50	5000K	70	840	488	905	1211	10.88	11.20	11.43	128	115	106
LXR7-SW57	5700K	70	840	488	905	1211	10.88	11.20	11.43	128	115	106
LXR7-SW65	6500K	70	840	488	905	1211	10.88	11.20	11.43	128	115	106
LXR8-SW27	2700K	80	680	391	725	970	10.88	11.20	11.43	102	92	85
LXR8-SW30	3000K	80	710	408	760	1010	10.88	11.20	11.43	107	96	88
LXR8-SW35	3500K	80	745	443	820	1097	10.88	11.20	11.43	116	105	96
LXR8-SW40	4000K	80	780	464	860	1150	10.88	11.20	11.43	122	110	101
LXR8-SW50	5000K	80	800	475	880	1177	10.88	11.20	11.43	125	112	103
LXR9-SW27	2700K	90	540	310	575	769	10.88	11.20	11.43	81	73	67
LXR9-SW30	3000K	90	560	321	595	796	10.88	11.20	11.43	84	76	70

Note: additional CCT/CRI's coming soon

LUXEON M Color Bin Definitions

Part Number	Nominal ANSI CCT	Color Space	Center Point (cx, cy)	Major Axis, a	Minor Axis, b	Ellipse Rotation Angle (degrees)
LXR7-SW30	3000K	Single 5SDCM	0.4338, 0.4030	0.01390	0.00680	53.22
LXR7-SW40	4000K	Single 5SDCM	0.3818, 0.3797	0.01565	0.00670	53.72
LXR7-SW50	5000K	Single 5SDCM	0.3447, 0.3553	0.01370	0.00590	59.62
LXR7-SW57	5700K	Single 5SDCM	0.3287, 0.3417	0.01243	0.00533	59.09
LXR7-SW65	6500K	Single 5SDCM	0.3123, 0.3282	0.01115	0.00475	58.57
LXR8-SW27 LXR9-SW27	2700K	Single 3SDCM	0.4578, 0.4101	0.00810	0.00420	53.70
LXR8-SW30 LXR9-SW30	3000K	Single 3SDCM	0.4338, 0.4030	0.00834	0.00408	53.22
LXR8-SW35	3500K	Single 3SDCM	0.4073, 0.3917	0.00927	0.00414	54.00
LXR8-SW40	4000K	Single 3SDCM	0.3818, 0.3797	0.00939	0.00402	53.72
LXR8-SW50	5000K	Single 3SDCM	0.3447, 0.3553	0.00822	0.00354	59.62

LUXEON M Single 3-step and 5-step SDCM



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