



Product Brief

LUXEON R

Industry Leading Application Performance and Design Flexibility



LUXEON® R brings Illumination Grade LED light sources to the lighting market. It has never been simpler to design LED solutions and bring them to market. With hot testing, every LUXEON R LED falls within a single 5-step MacAdam ellipse and now, luminaire manufacturers can be confident in color consistency from LED to LED. There's never been a more supportable and consistent light emitting diode. The superior quality of light, light output, and real world efficacy enable leading performance and efficient solution development in a wide variety of lighting applications.

Key Applications:

- Street and Parking
- Urban Area
- Tunnel
- Petroleum Under Canopy
- Office
- Task and Retrofit Bulb

Features:

- Freedom From Binning
 - Single 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:

- Shorter and simpler design-in cycles
- Reduced inventory management and costs
- Reduced operating and maintenance costs
- Solutions that deliver real energy savings

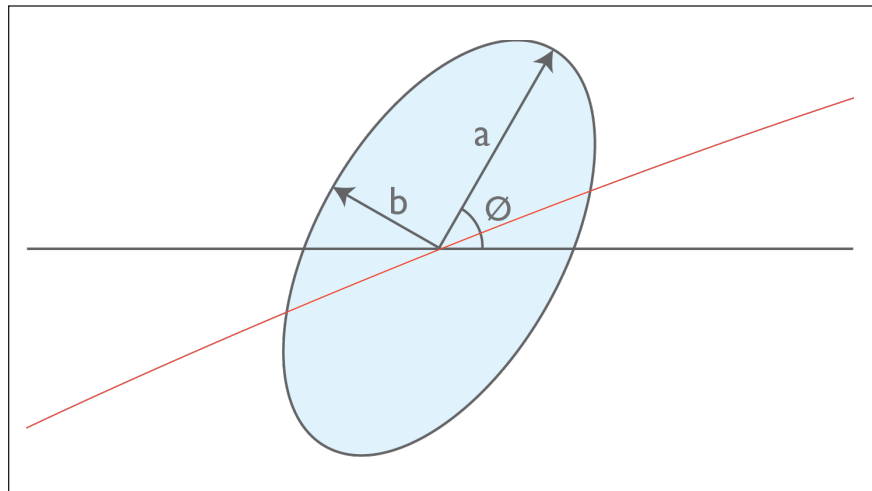
LUXEON R Product Characteristics

Part Number	Nominal ANSI CCT	CRI Min	Performance @ 700 mA		Typical Performance @ $T_j = 85^\circ\text{C}$								
			Minimum Luminous Flux (lm)	Test Condition	Luminous Flux (lm)			Forward Voltage (V)			Efficacy (lm/W)		
					350 mA	700 mA	1000 mA	350 mA	700 mA	1000 mA	350 mA	700 mA	1000 mA
LXA7-PW30	3000K	70	160	$T_j = 85^\circ\text{C}$	104	185	252	2.73	2.88	2.98	109	92	85
LXA7-PW40	4000K	70	200	$T_j = 85^\circ\text{C}$	120	215	292	2.73	2.88	2.98	126	107	98
LXA7-PW50	5000K	70	200	$T_j = 85^\circ\text{C}$	120	215	292	2.73	2.88	2.98	126	107	98
LXA7-PW57	5700K	70	200	$T_j = 85^\circ\text{C}$	120	215	292	2.73	2.88	2.98	126	107	98
LXA7-PW65	6500K	70	200	$T_j = 85^\circ\text{C}$	120	215	292	2.73	2.88	2.98	126	107	98



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LUXEON R Single 5-step MacAdam Ellipse Definition



LUXEON R Product Characteristics

Part Number	Nominal ANSI CCT	Color Space	Center Point (cx, cy)	Major Axis, a	Minor Axis, b	Ellipse Rotation Angle
LXA7-PW30	3000K	Single 5-step MacAdam ellipse	0.4338, 0.4030	0.0139	0.0068	53.22
LXA7-PW40	4000K	Single 5-step MacAdam ellipse	0.3818, 0.3797	0.01565	0.00670	53.72
LXA7-PW50	5000K	Single 5-step MacAdam ellipse	0.3447, 0.3553	0.01370	0.00590	59.62
LXA7-PW57	5700K	Single 5-step MacAdam ellipse	0.3287, 0.3417	0.01243	0.00533	59.09
LXA7-PW65	6500K	Single 5-step MacAdam ellipse	0.3123, 0.3282	0.01115	0.00475	58.57

Absolute Maximum Ratings

Parameter	Value
DC Forward Current (mA)	1000
Peak Pulsed Forward Current (mA)	1200
Average Forward Current (mA)	1000
ESD Sensitivity	< 8000V Human Body Model (HBM) Class 3A JESD22-A114-E
LED Junction Temperature	150°C
Operating Case Temperature at 700 mA	-40°C - 135°C
Storage Temperature	-40°C - 135°C
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 R LEDs are not designed to be driven in reverse bias

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