



Product Brief

LUXEON A

Consistent, Reliable, Quality Light



LUXEON® A 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 A LED falls within a single 3-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:

- Retrofit bulbs
- Downlights
- Retail lighting
- Home lighting
- Office lighting
- Linear lighting

Features:

- Freedom From Binning
 - Single 3-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
- Confidence in consistent, high quality light
- Reduced operating and maintenance costs
- Solutions that deliver real energy savings

LUXEON A Product Characteristics

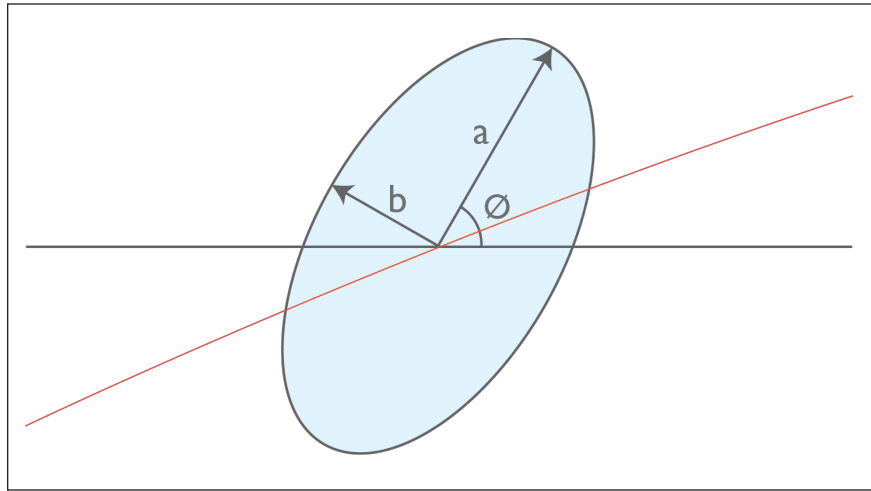
Typical Performance Characteristics at 350 mA, 700 mA, and 1000 mA for LUXEON A, Junction Temperature = 85°C

Part Number	Nominal ANSI CCT	CRI		Lum Flux (lm)	Typ. Lum Flux (lm)			Typ. Forward Voltage (V_f)			Typ. Efficacy (lm/W)		
		@ 700 mA	@ 700 mA	Min. @ 700 mA	@ 350 mA	@ 700 mA	@ 1000 mA	@ 350 mA	@ 700 mA	@ 1000 mA	@ 350 mA	@ 700 mA	@ 1000 mA
LXH8-PW27	2700K	80	85	140	89	160	218	2.72	2.81	2.85	93	81	76
LXH8-PW30	3000K	80	85	150	97	174	237	2.72	2.81	2.85	102	88	83
LXH9-PW30	3000K	90	95	120	83	150	204	2.72	2.81	2.85	88	76	72
LXH8-PW40	4000K	80	85	160	102	183	249	2.72	2.81	2.85	107	93	87
LXH8-PW50	5000K	80	85	170	106	190	258	2.72	2.81	2.85	111	97	91



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LUXEON A Single 3-Step MacAdam Ellipse Definition



LUXEON A Product Characteristics

Part Number	Nominal ANSI CCT	Color Space	Center Point (cx, cy)	Major Axis, a	Minor Axis, b	Ellipse Rotation Angle
LXH8-PW27	2700K	Single 3-step MacAdam ellipse	0.4578, 0.4101	0.00810	0.00420	53.70
LXH8-PW30	3000K	Single 3-step MacAdam ellipse	0.4338, 0.4030	0.00834	0.00408	53.22
LXH9-PW30	3000K	Single 3-step MacAdam ellipse	0.4338, 0.4030	0.00834	0.00408	53.22
LXH8-PW40	4000K	Single 3-step MacAdam ellipse	0.3818, 0.3797	0.00939	0.00402	53.72
LXH8-PW50	5000K	Single 3-step MacAdam ellipse	0.3447, 0.3553	0.00822	0.00354	59.62

Absolute Maximum Ratings

Parameter	Maximum Performance
DC Forward Current	1050 mA
Peak Pulsed Forward Current	1200 mA
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 A LEDs are not designed to be driven in reverse bias

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