

XLamp® CXA1507 LED



PRODUCT DESCRIPTION

The XLamp® CXA1507 LED array expands Cree LED’s family of high-flux, multi-die arrays in a smaller, easy-to-use platform. With XLamp LED lighting-class reliability, the CXA1507’s small, uniform emitting surface enables both directional and non-directional lighting applications including lamp retrofit and luminaire designs. Available in 2-step, 3-step and 4-step color consistency, and featuring a 9-mm optical source, the CXA1507 brings new levels of flux and efficacy to this form factor.

The [CX Family LED Design Guide](#) provides basic information on the requirements to use the CXA1507 LED successfully in luminaire designs.

FEATURES

- Available in 4-step, 3-step and 2-step EasyWhite® bins at 2700 K, 3000 K, 3500 K, 4000 K & 5000 K CCT and 4-step EasyWhite bins at 5700 K & 6500 K CCT
- Available in ANSI white bins at 4000 K, 5000 K, 5700 K & 6500 K CCT
- Available in 70-, 80-, 90- and 93-minimum CRI options
- Forward voltage options: 18-V class & 36-V class
- 85 °C binning and characterization
- Maximum drive current: 750 mA (18 V), 375 mA (36 V)
- 115° viewing angle, uniform chromaticity profile
- Top-side solder connections
- Thermocouple attach point
- NEMA SSL-3 2011 standard flux bins
- RoHS and REACH compliant
- UL® recognized component (E349212)

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CHARACTERISTICS

Characteristics	Unit	Minimum	Typical	Maximum
Viewing angle (FWHM)	degrees		115	
ESD withstand voltage (HBM per Mil-Std-883D)	V			8000
DC forward current (18 V)	mA			750*
DC forward current (36 V)	mA			375*
Reverse current 18 V, 36 V)	mA			0.1
Forward voltage (18 V, 400 mA, 85 °C)	V		17.5	
Forward voltage (18 V, 400 mA, 25 °C)	V			21
Forward voltage (36 V, 200 mA, 85 °C)	V		35	
Forward voltage (36 V, 200 mA, 25 °C)	V			42

* Refer to the Operating Limits section.

FLUX CHARACTERISTICS, ANSI WHITE ORDER CODES AND BINS - 36 V (I_F = 200 mA, T_J = 85 °C)

The following table provides order codes for XLamp CXA1507 LEDs. For a complete description of the order code nomenclature, please see the Bin and Order Code Formats section (page 21).

Nominal CCT	CRI		Minimum Luminous Flux			Chromaticity Regions	Order Code
	Min	Typ	Group	Flux (lm) @ 85 °C	Flux (lm) @ 25 °C*		
6500 K	70	75	G4	840	938	1A0, 1B0, 1C0, 1D0, 65F	CXA1507-0000-000N00G40E1
			H2	900	1005		CXA1507-0000-000N00H20E1
			H4	970	1084		CXA1507-0000-000N00H40E1
	80	---	G2	780	871	1A0, 1B0, 1C0, 1D0, 65F	CXA1507-0000-000N0HG20E1
			G4	840	938		CXA1507-0000-000N0HG40E1
			H2	900	1005		CXA1507-0000-000N0HH20E1
5700 K	70	75	G4	840	938	2A0, 2B0, 2C0, 2D0, 57F	CXA1507-0000-000N00G40E2
			H2	900	1005		CXA1507-0000-000N00H20E2
			H4	970	1084		CXA1507-0000-000N00H40E2
	80	---	G2	780	871	2A0, 2B0, 2C0, 2D0, 57F	CXA1507-0000-000N0HG20E2
			G4	840	938		CXA1507-0000-000N0HG40E2
			H2	900	1005		CXA1507-0000-000N0HH20E2
5000 K	70	75	G4	840	938	3A0, 3B0, 3C0, 3D0, 50F	CXA1507-0000-000N00G40E3
			H2	900	1005		CXA1507-0000-000N00H20E3
			H4	970	1084		CXA1507-0000-000N00H40E3
	80	---	G2	780	871	3A0, 3B0, 3C0, 3D0, 50F	CXA1507-0000-000N0HG20E3
			G4	840	938		CXA1507-0000-000N0HG40E3
			H2	900	1005		CXA1507-0000-000N0HH20E3
4000 K	70	75	G4	840	938	5A0, 5B0, 5C0, 5D0, 40F	CXA1507-0000-000N00G40E5
			H2	900	1005		CXA1507-0000-000N00H20E5
			H4	970	1084		CXA1507-0000-000N00H40E5

- Notes**
- Cree LED maintains a tolerance of ±7% on flux and power measurements, ±0.005 on chromaticity (CCx, CCy) measurements and a tolerance of ±2 on CRI measurements. See the Measurements section (page 24).
 - CXA1507 LED order codes specify only a minimum flux bin and not a maximum. Cree LED may ship reels in flux bins higher than the minimum specified by the order code without advance notice. Shipments will always adhere to the chromaticity bin restrictions specified by the order code.
 - * Flux values @ 25 °C are calculated and for reference only.