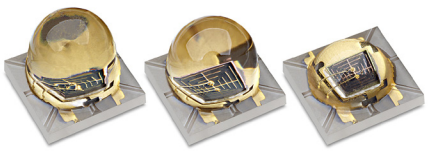


LUXEON IR Domed Line

High power infrared emitters with engineered primary optics for high efficiency and beam control



The LUXEON IR Domed Line is a product line of high power infrared emitters tailored to application needs by offering a variety of products at multiple infrared wavelengths and optical radiation patterns. LUXEON IR Domed Line is designed with innovative LUXEON technology to provide industry-leading performance. Through best-in-class thermal conductivity, LUXEON IR Domed Line has excellent performance at actual operating conditions. The LUXEON IR Domed Line uses an industry standard footprint for ease of integration and upgrading existing system designs.

FEATURES AND BENEFITS

- Available in 850nm and 940nm wavelengths to provide optimized performance for each type of application
- Radiant Power: 1350mW (850nm) and 1450mW (940nm) for a greater system performance
- Three emission patterns: 60°, 90° and 150° to address diverse application needs, high punch, long range and high uniformity
- 3.7mm x 3.7mm package with a 3 pad configuration that is compatible with the industry standard footprint to enable a direct upgrade in existing designs
- Ultra-low R_{th} of 2.5°C/W, the industry's best thermal conductivity, solves thermal challenges and supports space saving designs

PRIMARY APPLICATIONS

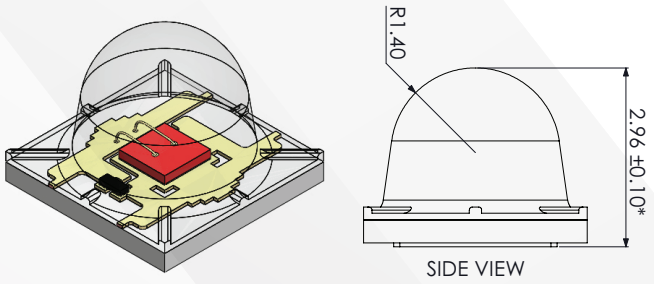
- Surveillance / CCTV
- Machine Vision
- 3D Scanning / Time of Flight
- Biometric Identification
- User Interface Control
- Augmented / Virtual Reality

LUXEON IR Domed Line product performance at 1000mA, T_j=25°C.

PEAK WAVELENGTH [1] (nm)	TYPICAL FWHM BEAM ANGLE (°)	RADIOMETRIC POWER [2] (mW)		TYPICAL RADIANT INTENSITY (mW/sr)	TYPICAL SPECTRUM FWHM (nm)	PART NUMBER
		MINIMUM	TYPICAL			
850	150	1000	1350	335	35	L1I0-0850150000000
850	90	1000	1350	750	35	L1I0-0850090000000
850	60	1000	1350	1150	35	L1I0-0850060000000
940	150	1100	1450	350	50	L1I0-0940150000000
940	90	1100	1450	780	50	L1I0-0940090000000
940	60	1100	1450	1190	50	L1I0-0940060000000

Notes:
1. Lumileds maintains a tolerance of ±0.5nm on peak wavelength measurements.
2. Lumileds maintains a tolerance of ±7% on radiometric power measurements.

Mechanical Dimensions.



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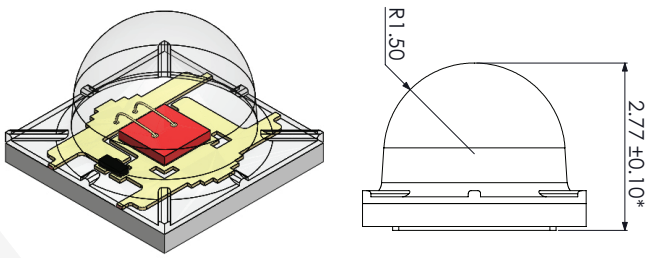

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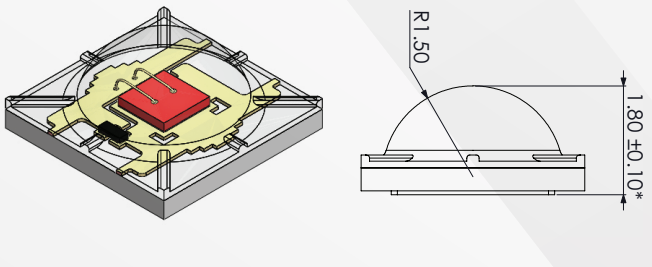

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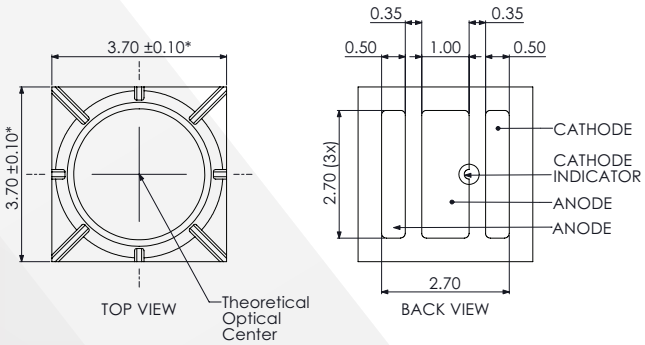

Notes:
1. Drawings are not to scale.
2. All dimensions are in millimeters.