

LUXEON IR Domed Asymmetric

High power infrared emitters with engineered primary optics for optimal field-of-view coverage in infrared sensing and monitoring applications



The LUXEON IR Domed Asymmetric infrared emitter has a radiation pattern specifically designed to match the ratio of infrared sensors used in various applications. LUXEON IR Domed Asymmetric is part of the LUXEON IR Domed Line consisting of high power infrared emitters tailored to application needs by offering a variety of products at multiple infrared wavelengths and radiation patterns. 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

Radiant Power: 1350mW (850nm) and 1450mW (940nm) for a greater system performance

Asymmetric radiation pattern of 95 x 58° 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

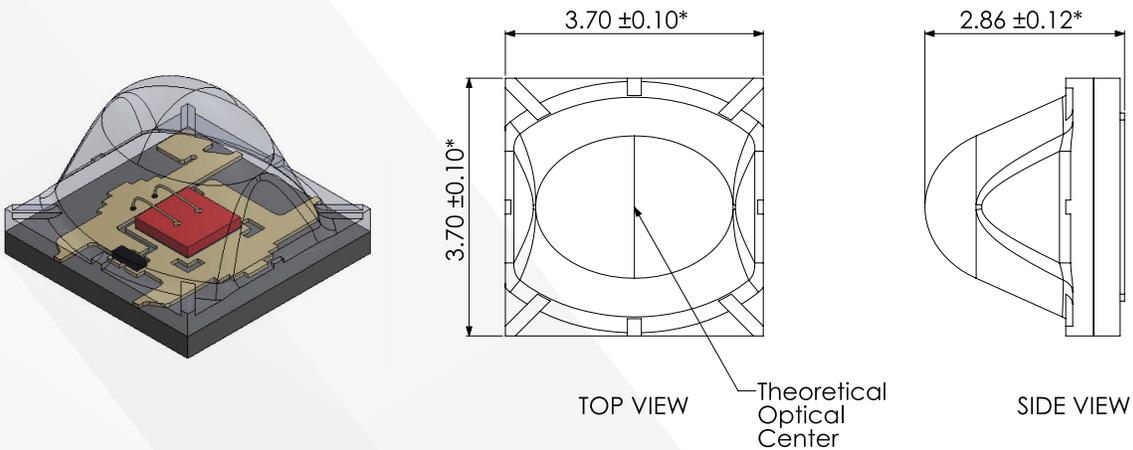
LUXEON IR Domed Asymmetric product performance and optical characteristics at 1000mA, $T_j=25^\circ\text{C}$.

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	95 x 58	1000	1350	650	35	L110-0850955800000
940	95 x 58	1100	1450	700	50	L110-0940955800000

Notes:

1. Lumileds maintains a tolerance of $\pm 2\text{nm}$ on peak wavelength measurements.
2. Lumileds maintains a tolerance of $\pm 7\%$ on radiometric power measurements.

Mechanical Dimensions.



Notes:

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