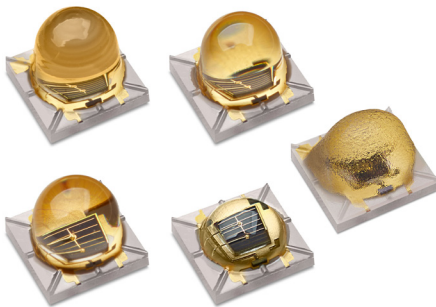




# LUXEON IR Domed Line

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



The LUXEON IR Domed Line high power infrared emitters are 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 of 1350mW (850nm) and 1450mW (940nm) for a greater system performance

Option for higher drive current (up to 1.5A DC and 5A pulsed) available for applications requiring more performance

Five emission patterns: 50°, 60°, 90°, 150° and an asymmetric radiation pattern of 95 x 58°

The five emission patterns address diverse application needs, high punch, long range and high uniformity

3.7mm x 3.7mm package with 3 pad configuration compatible with the industry standard footprint, enabling a direct upgrade in existing designs

Ultra-low  $R_{th}$  of 2.5°C/W typ, 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<sub>j</sub>=25°C.

PEAK WAVELENGTH <sup>[1]</sup> (nm)	TYPICAL FWHM BEAM ANGLE (°)	RADIOMETRIC POWER <sup>[2]</sup> (mW)		TYPICAL RADIANT INTENSITY (mW/sr)	MAX DRIVE CURRENT (DC)/(PULSE)	PART NUMBER
		MINIMUM	TYPICAL			
850	150	1000	1350	335	1A/3A	L110-0850150000000
850	90	1000	1350	750	1A/3A	L110-0850090000000
850	60	1000	1350	1150	1A/3A	L110-0850060000000
850	95 x 58	1000	1350	650	1A/3A	L110-0850955800000
940	150	1100	1450	350	1A/3A	L110-0940150000000
940	90	1100	1450	780	1A/3A	L110-0940090000000
940	60	1100	1450	1190	1A/3A	L110-0940060000000
940	95 x 58	1100	1450	700	1A/3A	L110-0940955800000
850	150	1050	1350	335	1.5A/5A	L110-0850150200000
850	90	1050	1350	750	1.5A/5A	L110-0850090200000
850	60	1050	1350	1150	1.5A/5A	L110-0850060200000
850	50	1050	1350	1255	1.5A/5A	L110-0850050200000
940	150	1125	1450	350	1.5A/5A	L110-0940150200000
940	90	1125	1450	780	1.5A/5A	L110-0940090200000
940	60	1125	1450	1190	1.5A/5A	L110-0940060200000
940	50	1125	1450	1335	1.5A/5A	L110-0940050200000

Notes:

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