



NIR Intensity Lens

For Near-Infrared Angular Emission Measurement

Applications

- Angular measurement of near-infrared (NIR) light sources used in facial recognition and other 3D sensing applications
- Turnkey evaluation of 850 or 940 nanometer (nm)* light sources for accurate radiant intensity output at all angles
- In-line measurement for both R&D and quality control during production, ensuring safety and performance

Benefits

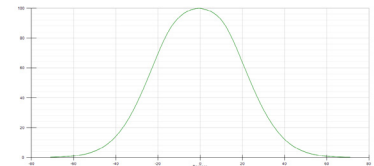
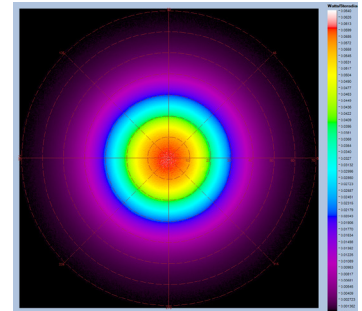
- Accurate and reliable measurement of angular emissions up to $\pm 70^\circ$ at once
- Faster than goniometric systems; more accurate than measuring distributions on a wall
- High angular resolution
- Compact form factor
- Combination of low cost, high performance, and flexibility

Key Features

- Highly accurate NIR emission measurement as a function of angle
- Analysis of Diffractive Optical Element (DOE) patterns available in optional TT-NIRI™ software module
- High-speed operation, capturing data for all angles simultaneously
- Easy-to-use measurement control and analysis software

Fast, accurate radiant intensity measurement solution for evaluation of near-infrared light sources

The Radiant Vision Systems NIR Intensity Lens system is an integrated camera/lens solution that measures the angular distribution of near-infrared (NIR) emissions from LEDs and lasers. The NIR Intensity Lens system captures a full cone of data in a single measurement up to ± 70 degrees. This provides extremely fast, accurate results, making the system ideal for in-line quality control. The lens is mounted to a Radiant Vision Systems ProMetric® Y16 Imaging Radiometer and is used with ProMetric or TrueTest™ Software for intuitive setup and customizable automated measurement sequences. Extensive data analysis and display functions are also supported, including isometric plots, cross-sectional graphs, radar plots, and bitmaps.



Radar plot in TrueTest Software showing radiant intensity of a near-infrared LED.

Specifications

Parameter	NIR Intensity Lens (Camera and Lens Solution)	
Primary application	Near-IR radiant intensity distribution measurement	
Integrated camera	ProMetric® Y16 Imaging Radiometer	
Working distance	30 mm	3 mm
Sampling size	Up to 4 mm diameter	
Field of view	$\pm 50^\circ$	$\pm 70^\circ$
Approx. Resolution	0.03° / sensor pixel	0.05° / sensor pixel
Wavelength	850 nm, 940 nm*	
Measurement capabilities	Radiant Intensity, Power, Radiant Flux	
Units	W/sr, W	
Additional analysis features	Export to text file, cross-sections, points of interest, radar plots	

Specifications subject to change without notice.

* For applications at wavelengths outside of 850 or 940 nm, please speak to a Radiant sales representative.