




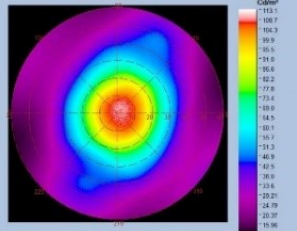
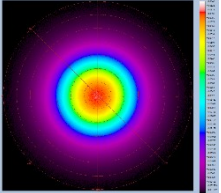
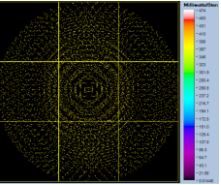
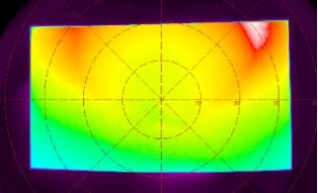
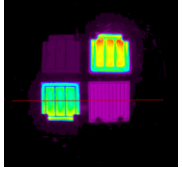
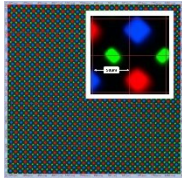

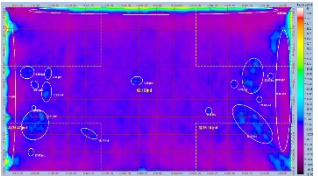




For more than 25 years, Radiant Vision Systems ProMetric® Imaging Photometers and Colorimeters have set the standard for visual inspection that matches the perception of the human eye. Now you can leverage the power of a ProMetric camera for a range of applications using lenses designed for unique applications and measurement geometries. Whether you need to evaluate view-angle performance of flat panel displays, replicate the parameters of human visualization through an AR/VR headset, or capture the angular distribution of near-infrared lasers and LEDs, Radiant has the right lens for the job.

					
Product*	FPD Conoscope Lens	NIR (Near-Infrared) Intensity Lens	AR/VR Lens	Microscope Lens	Electronic Lenses (Standard Options)
Recommended Software	TrueTest™, ProMetric®; multiple software modules	TT-NIRI™	TT-ARVR™	TrueTest™, ProMetric®; multiple software modules	TrueTest™, ProMetric®; multiple software modules
Key Feature	<ul style="list-style-type: none"> Measure visible luminance (and optionally color) as a function of angle Simultaneously measure all angular emissions up to ±70° In-line measurement, far faster than goniometric systems No need to rotate detector or device to capture angular performance 	<ul style="list-style-type: none"> Measure highly accurate near-infrared (NIR) source output intensity as a function of angle Simultaneously measure all angular emissions up to ±70° Measure lasers or LEDs emitting at 850 or 940 nm** In-line measurement, far faster than goniometric systems No need to rotate detector or device to capture angular performance 	<ul style="list-style-type: none"> Measure luminance (and optionally color) across a wide field of view Aperture located at the front of lens simulates the size (3.6mm) and position of the human eye. Wide field of view measurements up to 120° horizontal by 80° vertical 	<ul style="list-style-type: none"> 5X (to 10X) microscope Add-on 2X teleconverter (converts 5X to 10X) High-resolution imaging of extremely small features Evaluation of display pixels and pixel structures Evaluation of individual LEDs 	<ul style="list-style-type: none"> Electronically controlled focus and aperture (controlled in imaging system software) Options: 24, 35, 50, 100, 200 mm Standard lenses for 2D imaging Connected camera provides Smart Calibration™ for variable focal and aperture settings, adjusted automatically via software
Example measurements*	Luminance, radiance, chromaticity, angular contrast, correlated color temperature (CCT)	Radiant intensity, power, radiant flux	Luminance, chromaticity, contrast, uniformity, mura, MTF (line pair, slant edge), distortion, focus uniformity, field of view	Luminance, chromaticity, radiant intensity, contrast, uniformity, mura, luminance/intensity fall-off	Luminance, chromaticity, radiant intensity, contrast, uniformity, mura
Primary unit(s) of measure*	Luminance (cd/m ²), Chromaticity (x,y) and (u',v')	Intensity (W/sr), Power (W)	Luminance (cd/m ²), Chromaticity (x,y) and (u',v')	Luminance (cd/m ²), Chromaticity (x,y) and (u',v')	Luminance (cd/m ²), Chromaticity (x,y) and (u',v'), Intensity (W/sr)
Example measurement output	 <p>Measurement Image: LCD Display</p>	 <p>Measurement Image: Near-IR LED</p>  <p>Measurement Image: Dot Pattern</p>	 <p>Measurement Image: VR Display</p>	 <p>Measurement Image: LED</p>  <p>Measurement Image: Display Subpixels</p>	 <p>Measurement Image: Backlit Instrument Panel</p>  <p>Measurement Image: LCD Display</p>
Photopic or Radiometric	Photopic, designed for visible wavelengths	Radiometric, designed for near infrared wavelengths	Photopic, designed for visible wavelengths	Photopic or Radiometric	Photopic or Radiometric
Common Applications	Angular measurement of flat panel displays in consumer electronics, automotive, aerospace, and others	Angular measurement for devices used in facial & gesture recognition, automotive LIDAR, eye tracking, and other 3D sensing	Wide field of view measurement of near-eye displays within augmented reality (AR), mixed reality (MR), and virtual reality (VR) headsets	High-resolution (magnified) imaging of extremely small features such as individual display (sub)pixels and LEDs	Two-dimensional imaging for photopic or radiometric analysis of displays, backlit components, light sources, and surfaces
Example DUTs	LCD, OLED displays	Lasers or LEDs emitting at 850 or 940 nm**, less than 4 mm in diameter	VR headsets and wearables, AR smart glasses and headsets, MR displays	Displays pixels and subpixels; individual LED light sources	Displays (LCD, LED, OLED, microLED, etc.), backlit signs and panels, LEDs and light sources, electronic device housing and cover glass
Recommended Cameras	Exchangeable lens option, recommended for use with ProMetric I16 or Y16 imaging systems to optimize resolution across imaged area	Non-removable lens operates only with ProMetric Y16 imaging radiometer	Exchangeable lens option, recommended for use with ProMetric I29, Y29, or Y43 imaging systems to maximize field of view	Exchangeable lens option for use with ProMetric I16, I29, Y16, Y29, Y43 imaging systems	Exchangeable lens options for use with any ProMetric imaging system

* Refer to lens, camera, and software Spec Sheets for full specifications, including complete units of measure and available analyses.

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