



FPD Conoscope Lens

For View Angle Performance Measurement

Applications

- View angle performance measurement for LCD and OLED flat panel displays
- Technology evaluation and characterization in display R&D and quality control
- In-line quality control during display manufacturing

Benefits

- Accurate, reliable measurement of luminance, chromaticity and contrast to $\pm 70^\circ$ view angle
- Faster than goniometric systems
- Pairs with ProMetric® Imaging Colorimeters and Photometers
- Combination of low cost, high performance and flexibility, designed for R&D and quality assurance labs

Key Features

- Proven accuracy in view-angle measurement of luminance and chromaticity for flat panel displays
- High-speed operation, capturing data for all angles simultaneously
- Optional photopic or colorimetric measurement
- Easy-to-use measurement control and analysis software

Fast, accurate, low-cost view angle performance measurement for flat panel displays

The Radiant Vision Systems conoscope lens measures the angular distribution of color, brightness, and contrast from flat panel displays and display components. The conoscope lens captures a full cone of view-angle data in a single measurement to ± 70 degrees. The lens is well suited to a wide range of display types including those based on LCD and OLED technologies, as well as backlights.

The conoscope lens mounts directly to a Radiant Vision Systems ProMetric® Imaging Photometer or Colorimeter. All Radiant Vision Systems cameras feature ProMetric Software, which provides intuitive camera set-up and extensive data analysis and display functions, including isometric plots, cross-section graphs, radar plots, bitmaps and CIE color plots.

Specifications

Parameter	FPD Conoscope Lens		
Application	View angle measurement		
Working Distance	3 mm		
Minimum Sampling Area (uniform emission)	15 mm diameter		
View Angle	$\pm 70^\circ$		
Resolution	0.05° / sensor pixel (29MP)	0.03° / sensor pixel (45MP)	0.03° / sensor pixel (61MP)
Luminance - Minimum	0.01 cd/m ²		
Luminance - Maximum	3,000 cd/m ² (Y-series); 30,000 cd/m ² (I-series*)		
System Accuracy**	0-60° Inclination Luminance (Y) $\pm 4\%$ Color Coordinates (x,y) ± 0.004	60-70° Inclination Luminance (Y) $\pm 5\%$ Color Coordinates (x,y) ± 0.007	
Measurement Capabilities***	Luminance, Radiance, Angular Contrast, CIE Chromaticity Coordinates, Correlated Color Temperature (CCT)		
Units***	cd/m ² , nit, W/sr/m ² , foot-lambert, CIE (x, y) and (u', v'), Kelvin (CCT)		

Specifications subject to change without notice.

* Based on ND1 configuration for I-series. For higher luminance sources, contact Info@RadiantVS.com.

** Accuracy dependent on spectrum under test and color calibration methods applied

*** Color measurement available with I-series cameras only