



## 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 any display
- 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, luminance (brightness), and contrast from displays and display components. The conoscope lens captures a full cone of view angle data in a single measurement to  $\pm 70$  degrees. This provides quick, accurate results, making the system ideal for both R&D projects and in-line production quality control. 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	PM-CO-070-Y / PM-CO-070-I	
Application	View angle measurement	
Working distance	3 mm	
Minimum sampling area	11 mm diameter	
View angle	$\pm 70^\circ$	
Resolution	0.05° / CCD pixel	
Luminance - Minimum	0.01 cd/m <sup>2</sup>	
Luminance - Maximum	3,000 cd/m <sup>2</sup>	
System Accuracy**	0-60° Inclination Luminance (Y) $\pm 4\%$ Color Coordinates (x,y) $\pm 0.004$	60-70° Inclination Luminance (Y) $\pm 5\%$ Color Coordinates (x,y) $\pm 0.007$
Short-term Repeatability	Luminance (Y) $\pm 0.02\%$	
Measurement capabilities***	Luminance, Radiance, Angular Contrast, CIE Chromaticity Coordinates, Correlated Color Temperature (CCT)	

\* Specifications subject to change without notice.

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

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