

## SIG-400

Source Imaging Goniometer®

### Applications

- LED design
- LED package design
- LED characterization
- Provide LED models to customer

### Benefits

- Collect both image and ray set data
- Generate industry-standard Radiant Source Model™ (RSM) files
- Export ray sets to all major optical design programs using Radiant Vision Systems ProSource® Software platform



Precise measurement of near-field luminous intensity, specifically for LEDs and other small light sources

The SIG-400 generates highly accurate near-field models of small light sources by capturing image data describing the spatial structure of the luminance and chromaticity of the light source from multiple viewing angles. Stored in industry-standard Radiant Source Model™ format, this data is readily available for both detailed analysis and subsequent export to all major optical design packages.

The SIG-400 is the fourth generation of Source Imaging Goniometer® and realization of decades of Radiant Vision Systems engineering and application experience in light source management. The SIG-400 can be applied to a broad range of measurement applications by merging our latest advances in imaging colorimetry, robust mechanical design, industry-leading accuracy, and easy-to-use control software. The SIG-400 provides a cost-effective solution by focusing on the needs of LED measurement applications.

Source Imaging Goniometer®  
SIG-400



## Key Features

- Optimized for LED die and device measurement
- Multiple optical configurations for field of view and resolution
- Provides near-field models for luminance and color
- Generates Radiant Source Model™ (RSM) files with integrated image data for complete analysis
- Easy and intuitive setup for optional spectrometer

## Specifications\*

### Optical Specifications and Capabilities

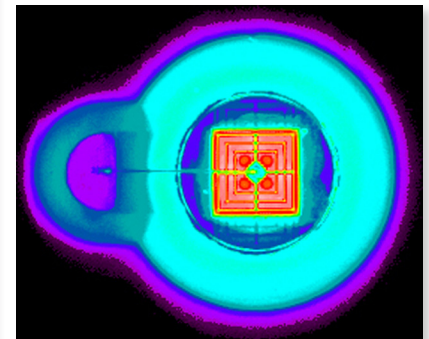
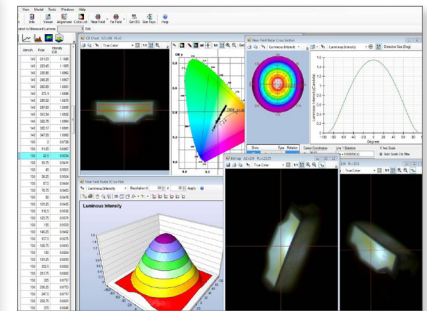
CCD Type	Interline, cooled, and temperature-stabilized CCD	
System Dynamic Range	> 60 dB	
Resolution	600 x 600	1081 x 1081
Standard Field of View (FOV)	2.3 mm, 4.7 mm, 9.1 mm, 13 mm, 25 mm and 54 mm	4.9 mm, 10 mm, 20 mm, 28.7 mm, 57 mm and 122 mm
Extended FOV: Micro (with SIG-400MF20 option)	0.6 mm	1.3 mm
Extended FOV: Micro (with SIG-400MF10 option)	1.1 mm	2.4 mm
SIG-400EF option	98 mm	212 mm
Color Measurement <sup>1</sup>	CIE 1931 matched XYZ filters	
Neutral Density Filters	ND 0, 1, 2, 3, 4, and 5 standard	
Measurement Capability:	Luminance, luminous intensity Color: CCT; CIE x,y; u',v'; ΔE	

### Mechanical Specifications

Overall Size	71 cm x 56 cm x 125 cm
Operating Footprint	74 cm x 127 cm
Azimuth Motion	0° to 360°
Inclination	± 140°
Angular Step Size	0.10° minimum for both azimuth motion and inclination
Run Out	0.015 mm mechanical-optical-software run out
Weight	130 kg
Construction	Welded steel frame for thermal stability and rigidity

### Control and Analysis Software Features

SIG Software	<p>Automated motion and image capture control</p> <p>Scan set-up checklist with direct links for ease of use</p> <p>Completely configurable scan resolution</p> <p>Real-time, on-screen luminance image display, with playback option</p> <p>Record ambient alignment images, operating conditions, and product info for sample</p> <p>Generate Near Field and Far Field luminous intensity distribution</p> <p>Data visualization tools: cross section, 2D iso-plot, 3D iso-plot, CIE color chart plot</p>
ProSource® Software	<p>Generate illuminance on a plane for user-entered plane distance</p> <p>Create IES and ELUMDAT files</p> <p>Generate rays for import into optical design software</p>



## System Requirements

- 3.0 GHz or faster processor
- 16 - 32 GB RAM
- Windows® 10, 64 bit
- Dual-monitor video output
- Ethernet 100/1000 or USB 2.0

\* Specifications subject to change without notice

<sup>1</sup> Photopic-only option available for purchase