

Compact Imaging Sphere - LID Measurement

IS-LITE™



Applications

- LED luminous intensity distribution measurement
- Small light source luminous intensity distribution measurement
- Production quality control
- Measurement of color output by angle

Benefits

- Provides detailed angular light output information
- Nearly instantaneous characterization of LED output
- Cost optimized for production applications

Rapid, low cost, production measurement of far field luminous intensity distributions

The IS-LI TE (Imaging Sphere for Luminous Intensity measurement, TE version) is a **economic, compact version** of Radiant's IS-LI system. It is designed for applications in production and R&D where speed of measurement and small size are important.

The IS-LI TE uses a smaller imaging dome and a faster, lower dynamic range imaging photometer or colorimeter to image the light source and capture luminous intensity data, as a function of angle, enabling the IS-LI TE to provide **measurement precision** and **lower cost** appropriate for production applications.

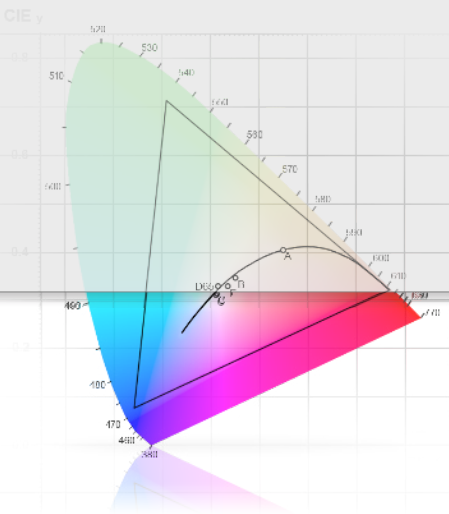
The IS-LI TE provides **rapid, comprehensive measurement** of far field luminous intensity, radiant intensity, CIE chromaticity coordinates, and correlated color temperature (CCT) all as a function of angle, for LEDs and other small lights.

By capturing full luminous intensity distribution data in a matter of seconds or less with no moving parts, this robust system is ideal for **production line Quality Control** measurements of LEDs.

The IS-LI TE is provided with Radiant Imaging's sophisticated **IS control and analysis software**, which supports measurement set-up, and automated and customized measurement sequences. Additionally, extensive data analysis and display functions are available, including isometric plots, cross-sectional graphs, radar plots, bit maps and color graphs.

Radiant Imaging offers a **full line of Image Sphere's** from the IS-LI TE to the IS-LI for luminous intensity, and IS-SA for scatter and appearance measurement and the IS-VA for view angle performance measurement.

To see how much information is captured in an Image Sphere and how easy it is to use visit www.radiantimaging.com for a IS-LI TE demo download.





Key Features

- Complete luminous intensity distribution measurement in a single image
- Compact, portable form factor
- Rugged and reliable mechanical design for production applications
- Includes full version of IS-LI measurement and analysis software

Specification*

Optical Specifications

CCD type	Interline CCD
Luminous intensity range	Minimum: 0.05 cd Maximum: 1×10^5 cd
Field of view	Approximately 2π steradians
System accuracy	Luminous Intensity: $\pm 5\%$ ₁ Chromaticity coordinates [x,y]: ± 0.006 ₁
Color measurement	CID 1931 matched X,Y,Z filters (photopic only option also available)
Minimum measurement time	Photopic measurement: < 1 sec Colorimetric measurement: 5 sec

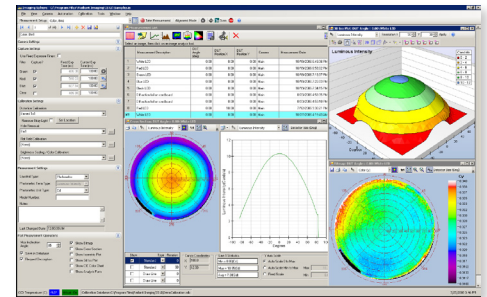
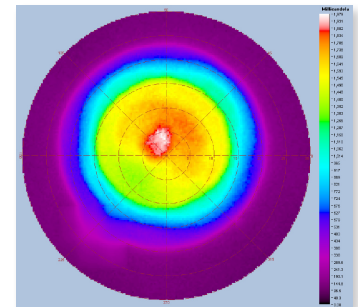
Mechanical Specifications

Overall size	310mm x 350mm x 320mm (WxHxD)
Orientation	Vertical, face-down, or face-up
Test distance	100mm (CIE "Condition B")
Angular resolution	0.5°
Weight (approximate)	14kg
Construction	Integrated imaging dome and imaging colorimeter

Control and Analysis Software Specifications

Measurement capabilities	Intensity: cd, mcd Color: CCT; CIE x,y, u',v'; ΔE
IS 1.x software function	Measurement set-up and image capture control Gray-scale and false color display Intensity and chromaticity cross-sections 3D surface plot of intensity or chromaticity Isometric plot of intensity or chromaticity Graph and image comparison for multiple captures Intensity data export to multiple formats Process measurements (rotate, add, threshold, etc.)

* Specifications subject to change without notice



System Requirements

- 2.0 GHz or faster processor
- 1GB or greater RAM
- Windows®, XP, Vista or 7 (32-bit)
- USB 2.0 interface

¹ Based on a virtual detector radius of 10 pixels. Specification is for every point within the field of view of the camera.