

# OL 1272-LED

## Partial and Total Flux Integrating Sphere



The OL 1272-LED Partial and Total Flux Integrating Sphere is the next generation of integrating spheres designed for accurately measuring the luminous flux of LEDs. It is specifically designed to comply with CIE 127.2 LED measurement recommendations for total luminous flux and partial LED flux measurements by utilizing a single, easy-to-use accessory in conjunction with the OL 770-LED Test and Measurement System.

The OL 1272-LED Sphere consists of a 9.75-inch (24.75 cm) diameter, PTFE-coated, high reflectance integrating sphere with a 90° entrance port to exit port configuration. The sphere design and geometry is optimized for maximum efficiency and includes coated internal baffles to prevent non-integrated light from exiting the sphere. The OL 1272-LED Sphere yields spectral reflectance properties > 99% in the 300 – 1700 nm wavelength range.

The OL 1272-LED Sphere includes an attached enclosure that houses the appropriate OL Series 700 LED Holder. The enclosure incorporates a fully retracting, sliding cover for easy internal access for installing the LED to be measured. The LED holder is mounted on a manually controlled, belt driven rail assembly to position the LED under test at various measurement positions. The LED can be located inside the sphere for total luminous flux measurements or at the sphere's entrance port for partial LED flux measurements. The LED holder can also be positioned at one of four different viewing angle positions external to the sphere's entrance port. The standard viewing angle positions are 40°, 60°, 90°, and 120°. A wide range of standard Optronic Laboratories, Inc. LED holders are available for use with the OL 1272-LED Sphere, as well as custom LED holders for specific device applications.



A unique feature of the OL 770-LED/ OL 1272-LED Sphere combination is that it includes an internal reference/ auxiliary lamp not found in systems available from other manufacturers. This built in lamp is used to calibrate the integrating sphere and compensate for changes in the spectral efficiency of the integrating sphere due to self-absorption and reflectance properties of LEDs and their packages. This provides for accurate on-site calibrations and is so easy to use that inexperienced personnel can perform them. It sharply contrasts with competitor's systems that need to be shipped back for calibration since:

- It eliminates system downtime.
- It eliminates costly recalibrations
- It provides assurance that calibrations are not affected by changes during transportation.
- It provides calibration history, rather than annual 'panics' and wasted results if the calibration has changed.
- It is specific to the user's LEDs and holders, eliminating major sources of error.

### SPECIFICATIONS

Spectral Range .....	300 – 1700 nm
Sphere Diameter .....	9.8" (25 cm)
Sphere Coating .....	PTFE
Entrance Port Size .....	1.97" (5 cm)
Exit Port Size.....	0.97" (2.46 cm - with opal diffuser installed)
Viewing Angle Positions .....	40°, 60°, 90°, 120°
Size .....	22.0" L x 11.0" W x 13.0" H (56 cm x 28 cm x 33 cm)
Weight .....	24 lbs. (10.9 kg)

