

LMS-3M 3 Meter Lamp Measurement Integrating Sphere

For Complete Characterization of Large Light Sources



With lighting technology advancing to include larger more complex devices, Labsphere has introduced the LMS-3M three meter integrating sphere for complete optical characterization of large lamps and luminaires. The sphere is designed per IESNA LM-79 guidelines to deliver accurate and reproducible measurements.

The three meter lamp measurement integrating sphere accommodates light sources positioned base up, base down or longitudinally to easily and efficiently measure virtually any lamp type, including tubular lamps up to 2 meter in length. The design also allows for forward and partial flux measurement of test sources that are board-mounted or heat-sinked. The large sphere better integrates light for more reliable testing of a device's photometric and colorimetric performance with measurements of Total Spectral Flux, Luminous Flux, Correlated Color Temperature (CCT), Color Rendering Index and Chromaticity. Measurement data relies only on the test device's true power, not on the size, shape or spectral distribution.

The near lambertian properties of the sphere's interior coating, Spectrafect, provides a uniform dispersion of light that integrates and reduces hotspots better than any other sphere coating available. Spectrafect exhibits reflectance values of >98% and is spectrally flat throughout the visible spectrum, therefore providing higher optical efficiency for low lumen lamps.

DETAILS

Provision for base up and base down mounting of DUT

Allows for test sources that are board mounted or heat-sinked

Baffled ambient temperature control intake and output ports

Design meets IESNA LM-79 requirements for 4 pi measurement

The LMS-3M is designed to measure a variety of lamps and luminaire types on the same system with little adjustment. The standard sphere geometry accommodates 4 pi measurement and can easily be configured for 2 pi measurement with optional 2 pi post. The new sphere size fully integrates with all Labsphere photometric and spectroradiometric components and software, making it easy for current user to upgrade to this new size sphere.

SPECIFICATIONS

Efficiency Range:	UV-VIS-NIR
Effective Calibration Range:	350 to 850 nm
Sphere Coating:	98% diffuse reflectance
Weight:	1020 lbs (462 kg)
Max Height:	140 inches (3.6 cm)
Foot Print Open/Closed:	150 in W x 201 L

Note: Sphere is shipped in two crates for final assembly at the customer site. Each crate contains two wedges and measures 130 inch L x 90 inch W x 62 inch H. The sphere system is secured to the floor with six L-brackets with lag bolts. The customer is responsible to assure the floor is level and able to accept the weight of the sphere.

 **SphereOptics**

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