3 Meter Light Measurement Spheres For Complete Characterization Of Large Light Sources

Measures Large and Complex Devices
Complete optical characterization of large lamps and luminaires in 4π geometry.

Accurate, Reproducible Results
Complies with IESNA LM-79 and LM-78 standards. Enabling photometric and colorimetric data for Total Spectral Flux, Luminous Flux, Correlated Color Temperature (CCT), Color Rendering Index (CRI), and Chromaticity.

Base Up, Base Down, Longitudinally
Easily and efficiently accommodates virtually any lamp type, including linear lamps up to 2.5 meters; indoor, outdoor and roadway lighting.

Patented Spectraflect® Coating
Near-Lambertian interior coating provides a uniform dispersion of light for reduced hot spots.

Value

Reinforced structure for base up/base down mounting of DUT
External jack for easy switch from base up to base down mounting of DUT
Great for testing indoor and outdoor lighting
Baffled ambient temperature control intake and output ports
Design meets IESNA LM79 and LM-78 requirements for 4π measurements
Stress-free pneumatic open and close
Compatible with Labsphere light measurement systems, software, and accessories
Two cosine receiver ports allow for mounting of more than one detector for simultaneous broadband and spectral measurements

Specifications

Efficiency Range:	UV-VIS-NIR
Effective Range:	350 to 1050 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
Part Number:	AS-30000-300

Efficient and Reliable

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 design complies with IESNA LM-79 and LM-78 and many other recommended guidelines and standards to deliver accurate, reproducible and compliant 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 or luminaire type. The design also allows for directional and non-directional flux and color measurement of light sources. The large sphere better integrates light enabling 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 (CRI), Chromaticity, and more.

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

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 4π measurement and can easily be configured for 2π measurement with optional apertures. Baffled intake and output ports and an ambient air temperature controller module are available to maintain and monitor temperature inside the measurement environment enabling elevated temperature testing. The larger sphere size fully integrates with all Labsphere photometric and spectroradiometric components and software, making it easy for current users to upgrade to this new size sphere.

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