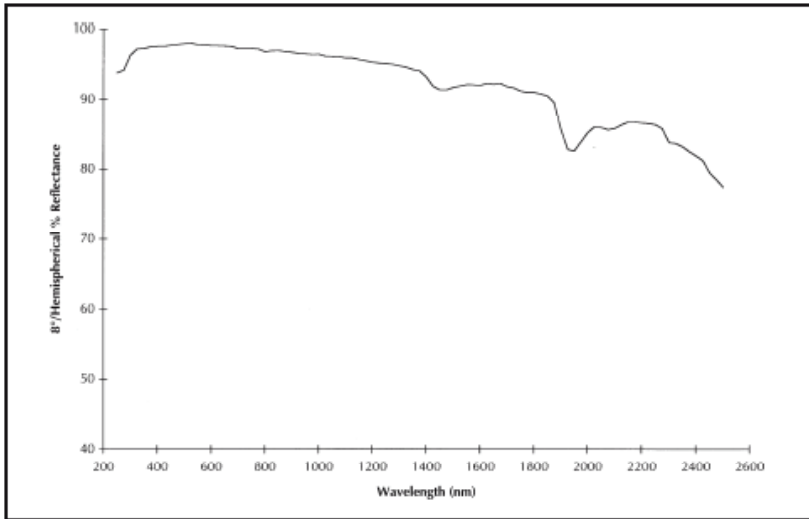


LIGHT MEASUREMENT SPHERES

Accurate and flexible, designed to measure total and forward flux of LEDs, lamps and other light sources.

SPECTRAFLECT® REFLECTANCE COATING



FEATURES

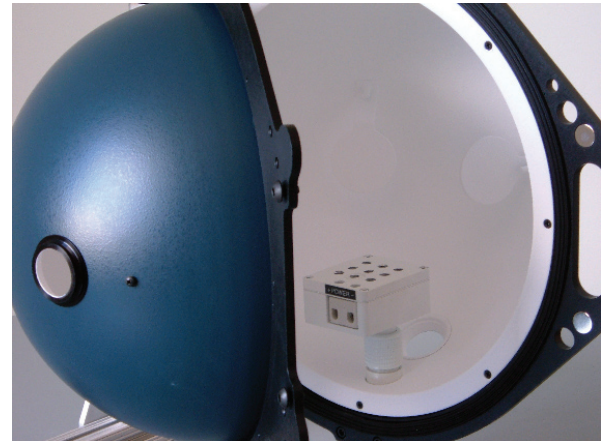
- Light tight closure
- Base-up or Base-down lamp mounting
- Socket Mounting Plate
- Adjustable fluorescent lamp holder
- Variable height electrical supply tube
- Interchangeable baffle
- Temperature sensor mounting port
- 50mm directional light source or LED port
- Absorption correction lamp port
- Absorption correction lamp baffle

ACCURATE

The LMS Light Measurement Spheres are integrating spheres designed for the measurement of the total flux of lamps. The total flux of an unknown lamp is not measured directly; instead this measurement is based on comparison to a NIST traceable standard lamp. Labsphere's Light Measurement Spheres range in size from 4 to 76 inches in diameter. Six different sphere diameters accommodate lamp sizes from miniature incandescent to 52 inch fluorescent lamps, highly and packaged, or clustered LEDs. The sphere interior is coated with Spectralect®, a diffuse white reflectance coating specifically formulated for light measurement spheres.

Labsphere offers an 80% reflectance coating for spheres used in photopically filtered applications. The integrating sphere design conforms to recommendations of CIE Publication 84 and CIE 127, providing an easy-to-operate, highly accurate measurement component.

An electrical feed-through to connect the lamp to a power supply terminates at the lamp socket mounting plate in the sphere. The design of the spheres make sources that are considered difficult to measure easier to do so with accessible ports and framing. The larger LMS sphere is equipped with a near cosine collector sphere assembly that consists of a three inch diameter sphere with two detector ports the 4 and 10 inch spheres incorporate a diffuser based cosine receiver. This reduces errors associated with baffle shadow and improves spatial collection, uniformity and accuracy. The assembly adapts to the measurement port of the sphere and offers a wide field-of view, necessary for accurate total flux measurements. The spheres provide measurement data that depends only on the light source's true power and not the shape size, spectral or spatial light distribution. All light measurement spheres are compatible with Labsphere's photometers, CCD array and diode array spectrometers.

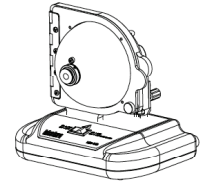


Sphere Specifications

| Model Number | LMS-040 | LMS-100 | LMS-200 | LMS-400 | LMS-650 | LMS-760 |
|-----------------------------|---------------------|--------------------|-------------------|-------------------|-------------------|-------------------|
| Sphere Diameter: | 4 inches (10.25 cm) | 10 inches (0.25 m) | 20 inches (0.5 m) | 40 inches (1 m) | 65 inches (1.5 m) | 76 inches (2 m) |
| Sphere Coating: | Spectrafect® | Spectrafect® | Spectrafect® | Spectrafect® | Spectrafect® | Spectrafect® |
| Maximum Lamp Length: | 1 cm | 5 inches (13 cm) | 10 inches (25 cm) | 24 inches (61 cm) | 34 inches (86 cm) | 52 inches (1.3 m) |
| Maximum Lamp Wattage: | 25 W | 100 W | 400 W | 1500 W | 4000 W | 5000 W |
| Minimum Lamp Luminous Flux: | 0.005 lumens | 0.01 lumens | 0.04 lumens | 0.5 lumens | 3 lumens | 6 lumens |
| Sphere Assembly Frame: | Bench-top | Bench-top | Bench-top | On casters | On casters | On casters |
| Order Number: | | AS-02477-000 | AS-02478-000 | AS-02479-000 | AS-02480-000 | AS-02481-000 |

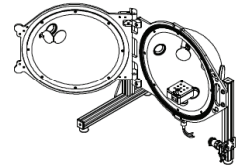
LMS-040 4-INCH LIGHT MEASUREMENT SPHERE

Labsphere's LMS-040 Light Measurement Sphere is a 4-inch diameter sphere assembly specifically designed to measure the light output from a light-emitting diode or subminiature light source. The sphere may be purchased separately or as part of a Labsphere SLMS-400 Series Spectral Lamp Measurement System.



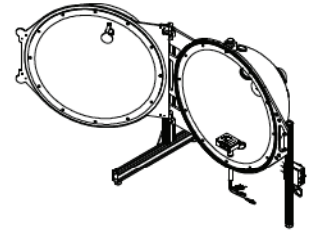
LMS-100 10-INCH LIGHT MEASUREMENT SPHERE

Labsphere's LMS-100 Light Measurement Sphere has a 10-inch diameter for the measure of miniature and subminiature lamps with maximum lamp wattage up to 100 watts and high brightness LEDs. The sphere is designed to accommodate rail mounted heat sinked LEDs measurements as well as other forward flux measurements without having to open the sphere.



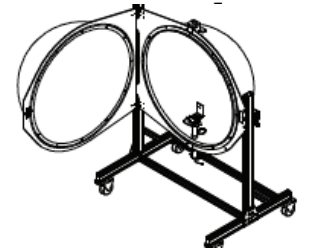
LMS-200 20-INCH LIGHT MEASUREMENT SPHERE

Labsphere's LMS-200 Light Measurement Sphere has a 20-inch diameter integrating sphere mounted on a hinged frame designed for bench-top use. The hinged configuration allows the sphere to be easily opened and closed to change lamps or perform a measurement. The sphere is designed for measurement of miniature and small lamps with a maximum lamp wattage up to 400 watts.



LMS-400 40-INCH LIGHT MEASUREMENT SPHERE

Labsphere's LMS-400 Light Measurement Sphere has a 40-inch diameter and is mounted on a hinged frame equipped with rugged locking casters to allow the sphere to be rolled and locked into position. The hinged configuration allows the sphere to be easily opened and closed to change lamps or perform a measurement. The sphere contains a lamp mounting bracket designed to accept a variety of sockets for single contact and double contact lamps and accommodates small and medium lamps with a maximum length of 24 inches and a maximum lamp wattage up to 1500 watts.



LMS-650 65-INCH LIGHT MEASUREMENT SPHERE

Labsphere's LMS-650 Light Measurement Sphere has a 65-inch diameter integrating sphere mounted on rails to allow the non-stationed hemisphere to be rolled open for interior access. The dual, rail-mounted configuration of the two hemispheres allows the sphere to be opened and closed easily to change lamps or perform a measurement. The sphere contains a lamp mounting bracket designed to accept a variety of sockets for single contact and double contact lamps and accepts medium to large lamps with a maximum length of 48 inches, and a maximum lamp wattage up to 4000 watts.



LMS-760 76-INCH LIGHT MEASUREMENT SPHERE

Labsphere's LMS-760 Light Measurement Sphere has a 76-inch diameter integrating sphere mounted on rails to allow the non-stationed hemisphere to be rolled open for interior access. Each hemisphere is mounted to a separate carriage, allowing the sphere to be easily opened and closed to change lamps or perform a measurement. The sphere contains a lamp mounting bracket designed to accept a variety of sockets for single contact and double contact lamps and accepts medium to large lamps with a maximum length of 52 inches and a maximum lamp wattage up to 5000 watts.

