Integrating Sphere for Irradiation

SIM-3001 Series

The integrating sphere is a universal optical device that utilizes its highly reflective and diffusive inner surface to uniformly distribute light through multiple random reflections, enabling precise energy measurement. Designed with customization ports (including entrance, exit, and sample apertures), it serves as a core component in radiometric systems when combined with spectrometers, optical fibers, and light sources for measurement such as transmittance and source radiometry.

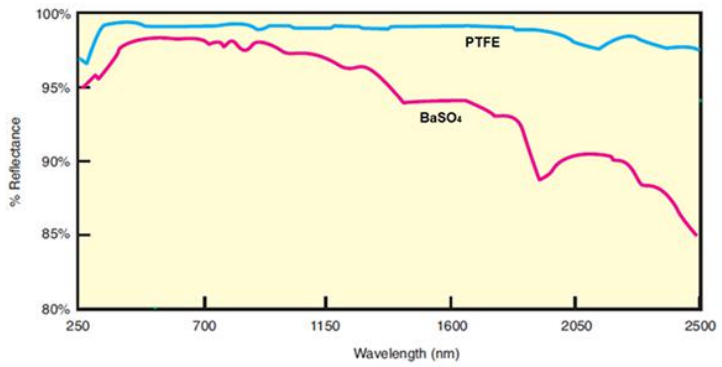
Features

- Compact design with customization aperture configuration (quantity/size)
- Broad spectral range covering UV, VIS, and IR (250-2500nm)
- Customization Adaptable light source mounting options

Applications

- Optical lighting, laser technology, material analysis, and medical technology
- Transmission characterization of translucent materials
- Radiometric measurement of light sources (luminous flux, intensity, color temperature, spectrum)
- Power and radiation profile measurement of emission sources

Reflectivity of integrating sphere coating



The reflectivity for the two coating materials PTFE/ $BaSO_4$

Specifications

Model	SIM-3001 -10001	SIM-3001 -15001	SIM-3001 -02501	SIM-3001 -03801	SIM-3001 -06301
Sphere Diameter	100mm	150mm	1inch	1.5inch	2.5inch
Outline Size	sphere, Φ100mm	sphere, Φ150mm	40×40×43mm	56.5×56.5×55.5mm	82×82×81mm
Detection Port	2ea photodetector adapter and optical fiber adapter (Optional)		1ea optical fiber adapter (optional)		
Entrance Port	Customization size with optional fixed-mount adapters				
Coating Material	$BaSO_4$、PTFE				
Wavelength Range	250~2500nm				

Optional

Single-point Reflection Stage
*Used for fixing the optical fiber probe. It can be used in conjunction with the square radiation integrating sphere to measure the transmission spectrum of materials.