

# Cosine Corrector

BIM-6320-01

The BIM-6320-01 Cosine corrector are spectroradiometric sampling optics designed to collect radiation (light) from approximately a 180 ° field of view, thus eliminating light collection interface problems inherent to other sampling devices.

The BIM-6320-01 Cosine Corrector features:

- Direct SMA905 coupling for seamless connection to optical fibers or spectrometers
- 3.9mm effective aperture
- High-quality PTFE diffuser for optimal performance
- Broad wavelength range: 200~1100 nm

It can be used for measuring Solar irradiance measurement , LED & laser light analysis, ambient light sensing, and for analyzing and other Luminous source testing.



## Features

- Collect light within 180° field of view
- PTFE (Teflon) diffuser material for uniform scattering
- Fiber-optic compatible with easy coupling to SMA905 connectors

## Applications

1. Solar Radiation Measurement

  - UV-A/UV-B Monitoring (280–400 nm) for:
    - ✓ Solar irradiance studies
    - ✓ Photobiology research (e.g., skin cancer risk assessment)
  - Pyranometers for meteorological stations
2. Artificial Light Analysis

  - LED Testing:
    - ✓ Spectral power distribution (SPD)
    - ✓ Angular intensity uniformity
  - Laser Beam Profiling:
    - ✓ Divergence angle measurement
    - ✓ Power spatial distribution
3. Ambient Light Sensing

  - Lux Meters for:
    - ✓ Architectural lighting design
    - ✓ Workplace illumination compliance (e.g., EN 12464)
  - Environmental Studies:
    - ✓ Light pollution mapping
    - ✓ Circadian lighting research
4. Photometric Calibration

  - Spectrometer Calibration:
    - ✓ NIST-traceable irradiance standards
    - ✓ Hemispherical response verification
5. Display Testing:

  - ✓ OLED/QLED angular color shift
5. Specialized Fields

  - UV Curing Systems: Intensity uniformity validation
  - Plant Growth Lighting: PPFD (Photosynthetic Photon Flux Density) mapping

## Specifications

Item	Specifications
Wavelength Range	200 - 1100nm
Optical Diffuser	Spectralon® *
Dimension	Φ6.4 × 17.5mm
Diffuser Diameter	3.9mm
Diffuser Thickness	1mm
Solid Angle	180°
Fiber Connector	SMA905

Remark \*: Spectralon® is a proprietary diffuse reflectance material developed by LabSphere (now part of Viavi Solutions).