

# 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
- 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).