

Cosine Receptors for SpectroRadiometry



- **Cosine Receptors** collect light with an 180° field of view using demountable diffusers with ~10% loss. A perfect cosine response provides accurate absolute intensity when multiple lights are measured at same time.
- **Fiber-Less** adapter eliminates the need for fiber optics by enabling cosine receptors to be connected directly to the spectrometer using the SMA-Coupler.
- **Irradiance Calibrations** are performed using NIST traceable light sources for 200-400nm and 300-1700nm.
- **Applications** include laser & light source characterization and varieties of UV light emission, LED color and spectral intensity, solar irradiance measurements, and a variety of light measurement in the field including under water.

- **CR1-UVN** is a ½” diameter **near** cosine receptor using sanded fused silica diffuser for 200-1700nm. Has reduced 90° FOV and low 7% loss.
- **CR2** is a ¼” diameter UV-NIR cosine receptor using a polymer diffuser for 200-1100nm & 180° FOV.
- **CR2-AP** is a 10% aperture for the CR2 that extends the system dynamic range by an order of magnitude, thus enabling spectral measurements of sources that are 10 times brighter without the need for re-calibration using a brighter IRRAD-CAL lamp.
- **CR2-RA** is a 90° right-angle Cosine Receptor cube.
- **CR1-TP or CR2-TP** miniature tripods for the CR1-UVN or CR2.
- **CR-LENS** is a cosine receptor lens assembly that reduces the field of view from 180 degrees to a small spot. Adjustable focus allows variable distance from target surface such as OLED displays.



SpectroRadiometry Accessories

Item	Description	Price
CR1-UVN	Near Cosine Receptor, 0.25” diameter	\$115
CR1-TP or CR2-TP	Tripod for CR1-UVN, CR2, IC2, or IC6	\$50
CR2	Cosine Receptor, UV-Vis-NIR	\$125
CR2-AP	Aperture for CR2, screw on attachment	\$125
CR2-RA	Cosine Receptor at 90° right angle	\$375
CR-LENS	Focus measurement to small spots on displays	\$250
SMA-Coupler	Fiber-less cosine receptor attachment	\$35

Specifications

	CR1	CR1-UVN	CR2	CR2-RA
Wavelength	300-1100nm	190-1700nm	200-1100 nm	200-1100 nm
Diameter	½ inches	½ inches	¼ inches	¼ inches
Field of View	180°	90°	180°	180°