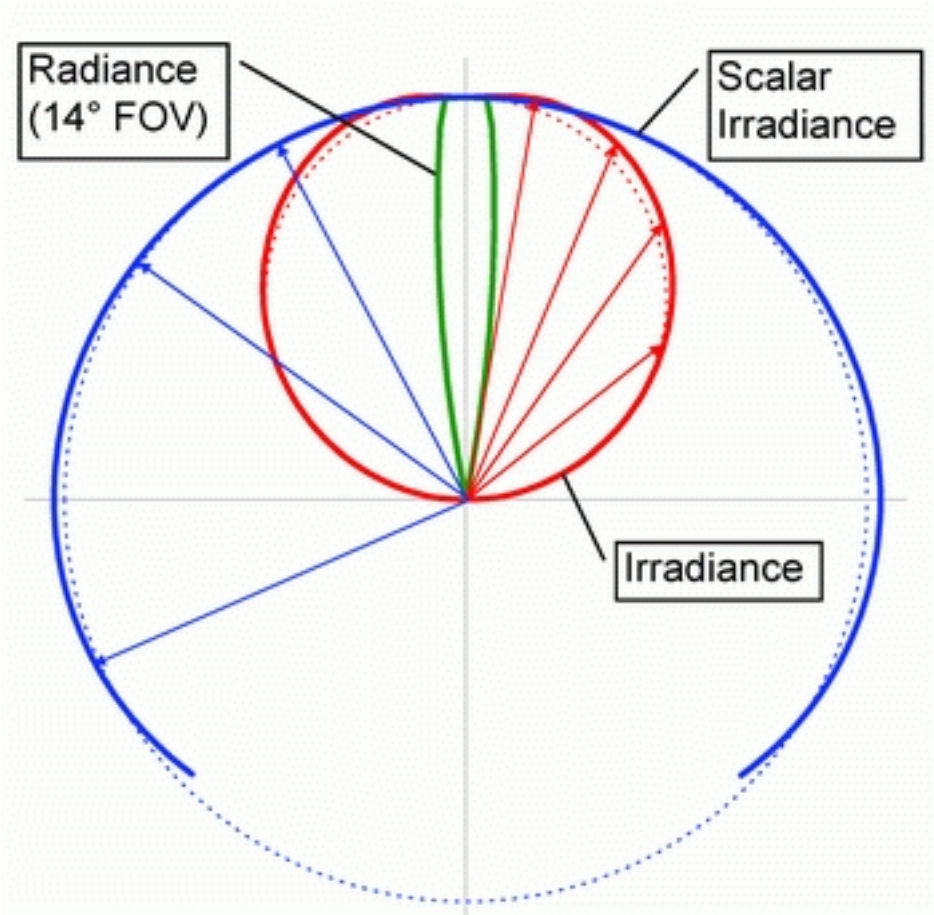

Biospherical radiometers are available with a variety of light collection geometries. With the AMOUR device, the user can select from the following measurement geometries. Calibration data for every type is available.

- **Irradiance**

Measurement of radiation incident on a flat surface. This geometry is used for most radiometric applications, including illumination and solar energy studies. The AMOUR collector deviates from the ideal cosine response by less than ±5% for incidence angles up to 85°. C-OPS, PRR, and GUV radiometers all measure irradiance, and most configurations of C-OPS and PRR radiometers also measure radiance.

- **Scalar irradiance**

The scalar response is independent of the direction of the incident radiation. This geometry is commonly used for oceanographic and limnological studies involving algae or microorganisms as effects caused in cells do not depend on the direction of light. Scalar collectors measure as much as 3.7π steradians out of 4π steradians, depending on the length of the shaft used. Scalar collectors are found on our QSL-2100 series and various models of QSP sensors.

- **Radiance**

Measurement of radiance allows us to quantify how bright an object is. Objects may include the ocean viewed from above, the sky, or an indoor object. More formally, radiance describes

the radiative power per area and solid angle subtended by the observation. AMOUR's radiance fore-optics have field of views ranging from 2.5° to 20°. The figure shows a 14° field of view. Other sensors measuring radiance include the MRP series, and PRR and C-OPS radiometers.

- **Fiber Optics**

AMOUR radiometer can be ordered with an SMA connector for coupling to optical fibers. This configuration allows measurements in difficult-to-reach locations such as algae mats. Fibers and also be coupled to an integrating sphere or other components on an optical bench.