FOIS-1 Fiber Optic Integrating Sphere

The **FOIS-1 Fiber Optic Integrating Sphere** is a sampling optic that accepts light energy through its 0.375" input port and funnels it to an optical fiber for emission experiments -- such as measuring the spectral properties of LEDs and other light sources. The FOIS-1 consists of a 1.5" Spectralon sphere encased in an aluminum housing, with a 0.375" input port that accepts light energy from 200-1100 nm and a SMA connector for coupling to the spectrometer.

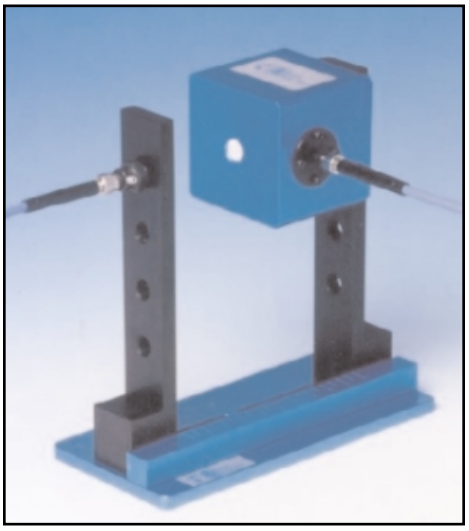
Application Tips

- The FOIS-1 is small and compact -- it's just 2.25" x 2.25" x 2.125" and weighs less than 1 pound -- yet is durable enough for use outside the laboratory.
- The inside of the FOIS-1 is made from Spectralon, a white diffusing material that provides a highly lambertian reflecting surface.

Operation

The FOIS-1 is very easy to operate.

1. Connect an optical fiber (the read fiber) from the FOIS-1's SMA-terminated output port to the SMA termination of the spectrometer.
2. Insert your emission source into the 0.375" black input port of the FOIS-1. Or, configure your setup so that the emission source is aligned so that the light energy can enter the input port.
3. To collect radiation (light) from a 180° field of view, thus eliminating light collection interface problems inherent to other sampling devices, make sure that you do not insert your emission source too deeply into the FOIS-1. If you insert the emission source into the FOIS-1 to the point where it interferes with the SMA-terminated output port, you will not collect radiation from a 180° field of view.
4. Use the 2 mounting holes for mounting the FOIS-1 to other components. There is a 1/4"-20 threaded hole and an 8-32 threaded hole.



FOIS-1 mounted onto one arm of the 74-ACH

Specifications

Spectral range:	200-1100 nm
Dimensions:	2.25" x 2.25" x 2.125" (LWH)
Sample port aperture:	0.375"
Sphere coating:	Spectralon
Top cap mounts:	(2) 6-32 threaded holes (2) 8-32 threaded holes (1) 1/4"-20 threaded hole in center
Side mounts:	SMA connector for coupling optical fiber to the spectrometer 8-32 threaded hole for 74-OPM Optical Post Mount
Connector:	SMA 905