



SOG-120C multi-component glass optical fibers have a wide opening angle of 119 degrees. Using in combination with a wide-angle light source allows for illuminating a large area in a short working distance.

RoHS compliant. Free of harmful substances like lead and arsenic. Suitable for medical applications including endoscopy light guides.

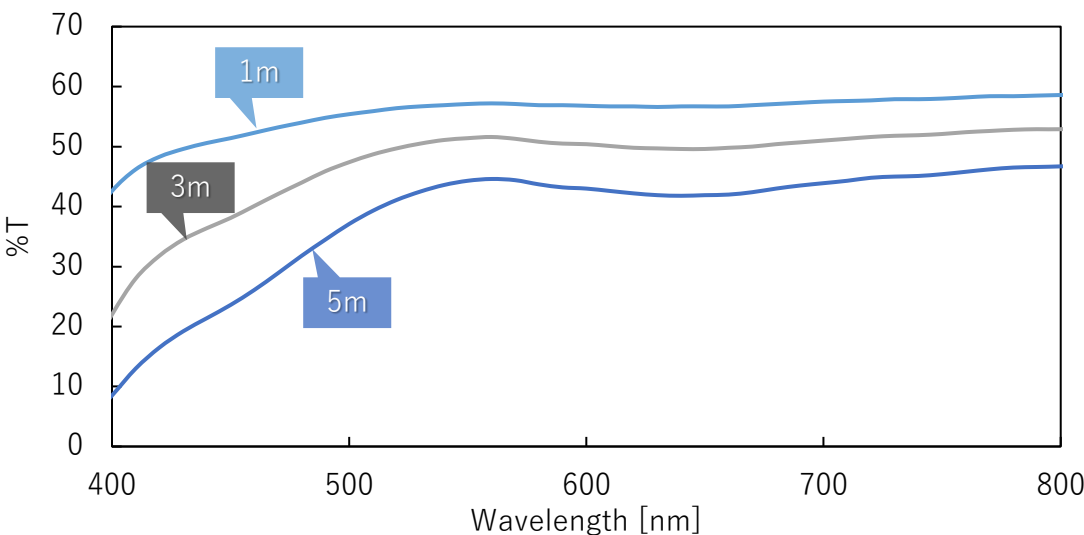
Technical Data		
Fiber Type	A multimode/step index optical fiber	
Numerical Aperture	0.86 @587nm	
Opening Angle	119° @587nm	
Optical Attenuation * Reference value	2.00 dB/m @400nm 0.50 dB/m @550nm	
Single Fiber Diameter	30 μm, 50 μm ± 3 μm	Core:115μm Cladding:125μm Coating: 150μm* ¹
Heat Resistance	< 200 °C	< 80°C
Chemical Resistance* ²	Core Glass	Cladding Glass
Acid Resistance	4	2
Water Resistance	1	2

* 1:Minimum bending radius(Reference value) : R10mm

Tensile strength (Φ125μm , Reference value) : 2kg

* 2:Class according to JOGIS (Japanese Optical Glass Industrial Standard)

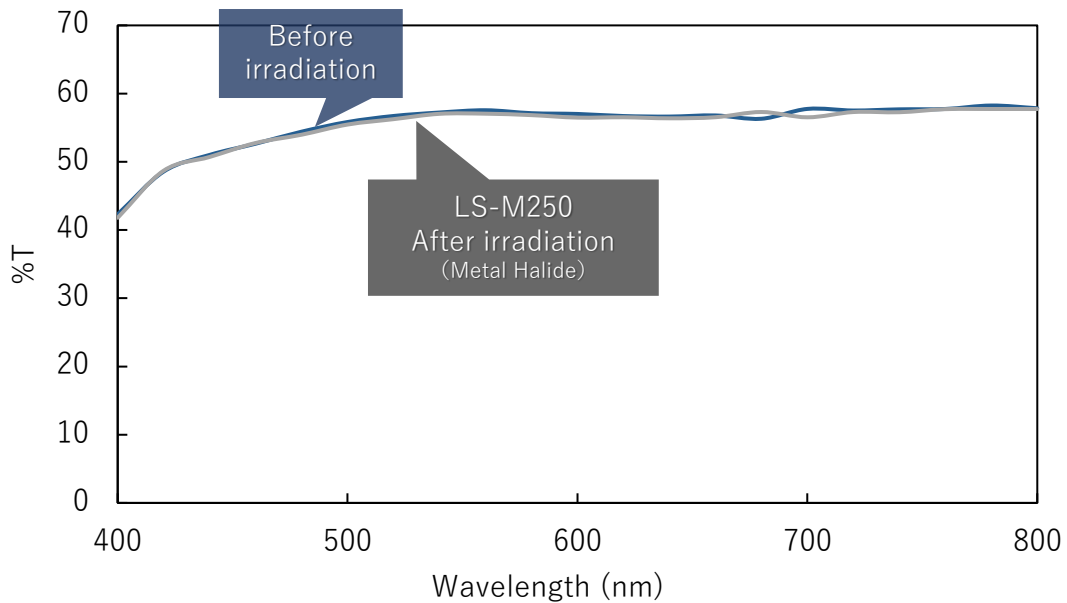
Transmittance



Measurement conditions

Light guide bundle with 5 mm diameter (Single fiber diameter: 50 μm)

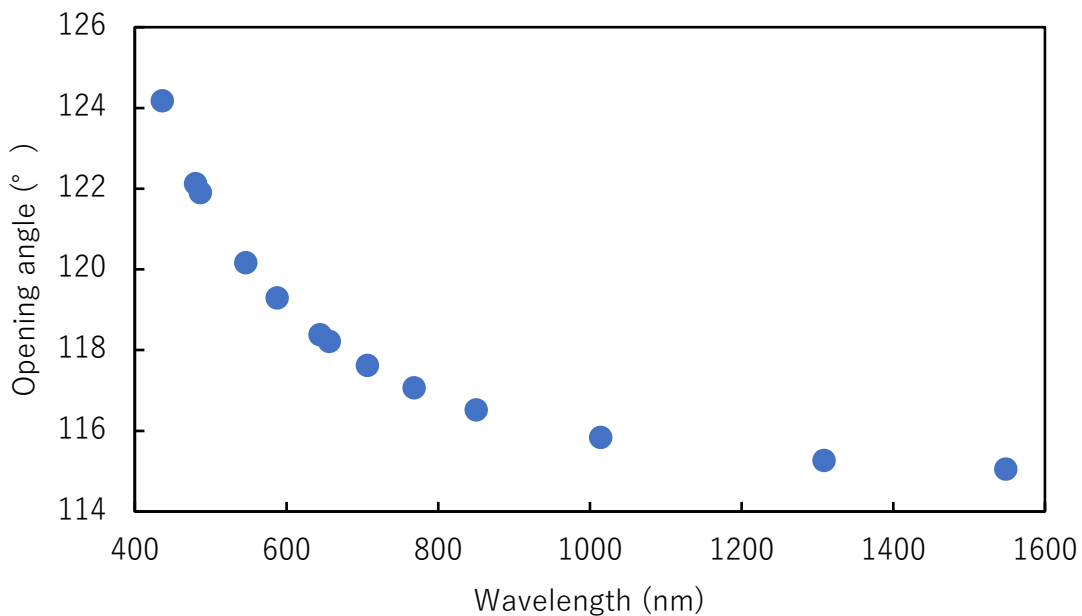
Solarization Stability



Measurement conditions

A light guide bundle with 5 mm diameter of 1 m length is exposed to Metal Halide Lamp (400 nm Cut Longpass Filter) for 100 hours.

Wavelength Dependence of Opening Angle (calculated from the refractive index)



Measurement conditions

The opening angle varies with wavelength, depending on the wavelength dispersion of the core and cladding glass materials. In the plot above, the opening angle calculated from the refractive indices of the core and cladding glass materials is plotted for each wavelength.