

Zenith Lite™ Diffuse Reflectance Targets

For use over the UV, VIS and NIR Spectral Regions



Ideal for Field Radiance Calibrations

Zenith Polymer® reflectance material provides the highest diffuse reflectance of any known material over the UV-VIS-NIR region. The reflectance is very flat and generally > 99% over a range from 400 nm to 1500 nm and > 95% from 250 nm to 2500 nm. Surface or subsurface contamination may lower the reflectance at the extreme upper and lower ends of the spectral range.

The surface and the porous structure of Zenith exhibits highly Lambertian behavior. The material is extremely hydrophobic and shows no signs of optical or physical degradation after long-term immersion testing in fresh water.

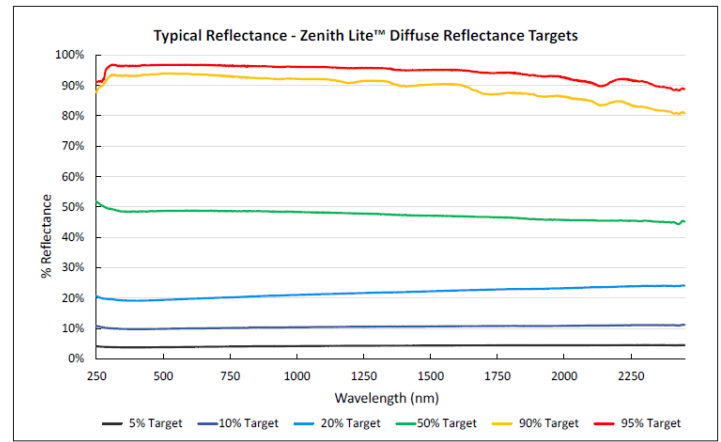
Targets for Field Applications

Zenith Lite diffuse targets provide nearly ideal diffuse Lambertian reflectance over the wavelength range from 250 nm to 2450 nm. Zenith Lite targets are constructed using a 1 mm or 2 mm thick Zenith Polymer® diffuser laminated to a 10 mm - 20 mm thick aluminum honeycomb structured plate that serves as a solid, lightweight backing.

They are the ideal choice for both laboratory and field applications since they are lightweight and can withstand harsh environments for long exposure periods. Due to their design, very flexible mounting solutions are possible.

The laminating technique used with Zenith Lite diffuse targets allows for multiple reflectance values in one target with almost no visible seams. Targets can be made to any size and combination of white or grayscale reflectance. The aluminum backing can be drilled to allow attachment to a variety of mounting devices. Even with a 1 mm or 2 mm Zenith Polymer film, the diffuse optical properties are maintained.

All targets can be provided with National Institute of Standards and Technology (NIST) / Physikalisch-Technische Bundesanstalt (PTB) traceable calibration certificates from 250 nm and 2450 nm. For targets larger than 300 mm x 300 mm a smaller witness sample is provided and the calibration is performed on the reference.



Art.-No	Reflectivity	Dimensions
SG 3151	Λ 95%	200 x 200 x 12 mm (approx. 8 x 8 inch)
SG 3152	Λ 90%	200 x 200 x 11 mm (approx. 8 x 8 inch)
SG 3153	Λ 50%	200 x 200 x 11 mm (approx. 8 x 8 inch)
SG 3154	Λ 20%	200 x 200 x 11 mm (approx. 8 x 8 inch)
SG 3171	Λ 10%	200 x 200 x 11 mm (approx. 8 x 8 inch)
SG 3155	Λ 5%	200 x 200 x 11 mm (approx. 8 x 8 inch)
SG 3166	Λ 95%	300 x 300 x 12 mm (approx. 12 x 12 inch)
SG 3167	Λ 90%	300 x 300 x 11 mm (approx. 12 x 12 inch)
SG 3168	Λ 50%	300 x 300 x 11 mm (approx. 12 x 12 inch)
SG 3169	Λ 20%	300 x 300 x 11 mm (approx. 12 x 12 inch)
SG 3172	Λ 10%	300 x 300 x 11 mm (approx. 12 x 12 inch)
SG 3170	Λ 5%	300 x 300 x 11 mm (approx. 12 x 12 inch)
SG 3156	Λ 95%	500 x 500 x 12 mm (approx. 20 x 20 inch)
SG 3157	Λ 90%	500 x 500 x 11 mm (approx. 20 x 20 inch)
SG 3158	Λ 50%	500 x 500 x 11 mm (approx. 20 x 20 inch)
SG 3159	Λ 20%	500 x 500 x 11 mm (approx. 20 x 20 inch)
SG 3173	Λ 10%	500 x 500 x 11 mm (approx. 20 x 20 inch)
SG 3160	Λ 5%	500 x 500 x 11 mm (approx. 20 x 20 inch)
SG 3161	Λ 95%	1000 x 1000 x 12 mm (approx. 40 x 40 inch)
SG 3162	Λ 90%	1000 x 1000 x 11 mm (approx. 40 x 40 inch)
SG 3163	Λ 50%	1000 x 1000 x 11 mm (approx. 40 x 40 inch)
SG 3164	Λ 20%	1000 x 1000 x 11 mm (approx. 40 x 40 inch)
SG 3174	Λ 10%	1000 x 1000 x 11 mm (approx. 40 x 40 inch)
SG 3165	Λ 5%	1000 x 1000 x 11 mm (approx. 40 x 40 inch)

Calibration will be performed on a Perkin Elmer Lambda 950, data will be supplied electronically in 1 nm steps, 50 nm step printed documentation with NIST/PTB traceability with certificate for the 250 nm - 2450 nm range.