

# OL 25RS, 25RS-S, 55RS & 10RS

*Diffuse and Specular Reflectance Standards*

## DIFFUSE REFLECTANCE STANDARDS

### OL 25RS AND OL 55RS

The Optronic Laboratories diffuse reflectance standards are available in 2 x 2 inch (OL 25RS) or 5 X 5 inch (OL 55RS) sizes.

The standards consist of pressed PTFE powder (Polytetrafluoroethylene) packed to a density of 1.0g/cm<sup>3</sup> in a blackened aluminum holder. They are ideal as standards of diffuse reflectance, bi-directional reflectance distribution factor (BRDF), and as a target for irradiance to radiance conversion.

They are available in calibrated and uncalibrated versions:

- OL 25RS-U and OL 55RS-U: Uncalibrated
- OL 25RS and OL 55RS: Certified for hemispherical diffuse reflectivity relative to NIST (350 - 1100nm)
- Optional certifications:
  - Extended hemispherical diffuse reflectivity certification (350 - 2500nm)
  - Bi-directional reflectance distribution factor for any specified wavelength range (350 - 2500nm) and incidence/reflection angles (e.g. 0°/45°)

## SPECULAR REFLECTANCE STANDARDS

### OL 25RS-S AND OL 10RS-S



The Optronic Laboratories specular reflectance standards are available in 2 x 2 inch (OL 25RS-S) or circular 1-inch diameter (OL 10RS-S) sizes. These are front surface coated aluminum mirrors with a magnesium fluoride overcoat. They are used as specular

reflectance standards for a wide variety of instruments and applications.

They are only available in calibrated versions:

- OL 25RS-S: Calibrated for unpolarized specular reflectance at 10° incidence angle (350 - 1100nm)
- OL 10RS-S: Calibrated for unpolarized specular reflectance at 10° incidence angle (350 - 1100nm)
- Optional calibrations:
  - Over specified wavelength ranges (200nm-30µm)

- At specified incidence angles (10° to 75° [OL 25RS-S] or 60° [OL 10RS-S])
- At s-, p-, or other specified polarizations

Specular reflectance is based on the OL 750 Automated Spectroradiometric Measurement System with the OL 750-75MA Variable Angle Specular Reflectance Attachment. The measurement is performed using a “self-calibrating” technique that consists of performing a spectral scan with the detector measuring the incident flux. Following the calibration scan, the sample is placed in the sample holder, rotated to the specified incident angle, and reflected flux is measured. The specular reflectance is the ratio of the scans.



For more information visit [OptronicLabs.com](http://OptronicLabs.com)  
or contact [Info@OptronicLabs.com](mailto:Info@OptronicLabs.com)

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As part of our policy of continuous product improvement, we reserve the right to change specifications at any time.