

# Spectralon® Wavelength Calibration Standards

Covering the UV-VIS-NIR region of the spectrum



## Accurate

Labsphere's Spectralon Wavelength Calibration Standard Sets consist of three calibration standards covering the UV-VIS-NIR region of the spectrum. Each standard is formulated by impregnating a Spectralon substrate with the oxide of a rare earth element which displays sharp absorption spikes at specific wavelengths. Complete absorption spectral data is supplied with each standard. The three standards available are Holmium Oxide for the UV-VIS-NIR calibrations, Dysprosium Oxide for NIR calibrations and Erbium Oxide - for VIS-NIR calibrations.

These durable and chemically inert standards are ideal for wavelength calibration of spectrophotometers, reflectometers and other spectral instruments. Custom wavelength calibration standards are also available to meet your individual needs.

## Consistent

The Spectralon multi-component wavelength calibration standard combines three rare earth oxides — holmium oxide, erbium oxide, and dysprosium oxide — to provide a consistently stable standard that exhibits high resolvable peaks and strong absorbance characteristics. The standard is used for establishing the accuracy of the wavelength scale of reflectance spectrophotometers.

## Durable

Made from Labsphere's proprietary Spectralon diffuse reflectance material, these durable, washable, and chemically inert standards are ideal for calibration of monochromators and reflectance spectrophotometer system arrays.

Calibration data for peak absorbance wavelengths, and relative to maximum absorbance is provided with the standard. Calibration is traceable to National Institute of Standards and Technology (NIST).

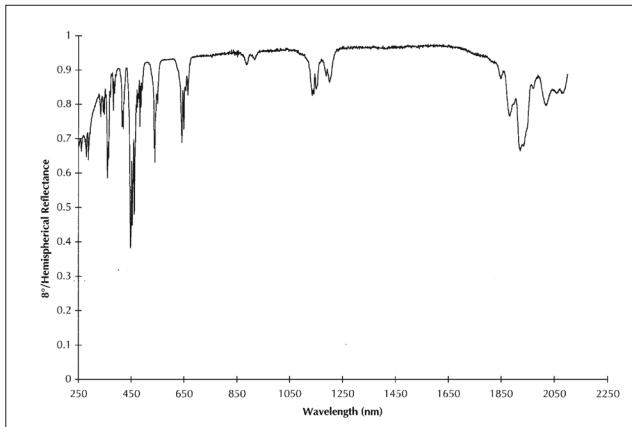
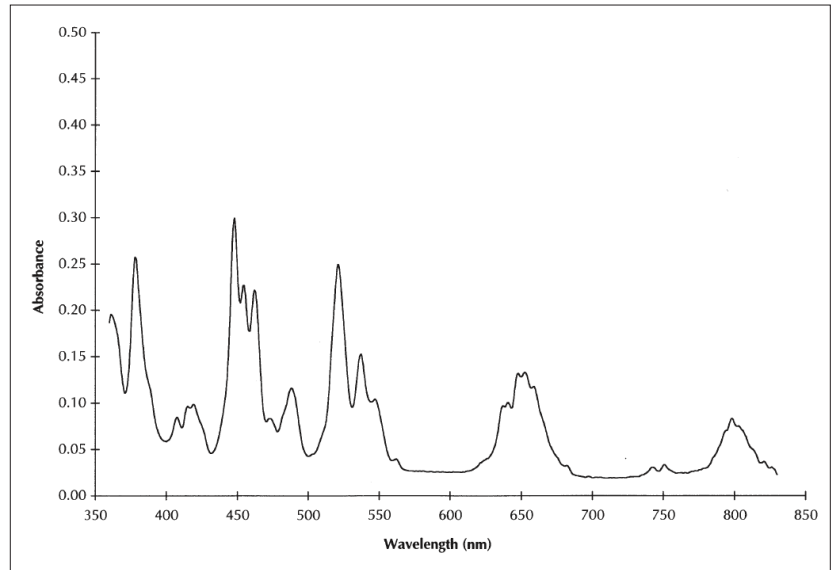
## Value

- Consistent reflectance
- Highly diffuse
- Thermally stable
- Durable

## Measure

- Spectrophotometers
- Spectrofluorometers
- Industry standards for biomedical, paper, pharmaceutical and textiles

## Absorbance Spectrum - Multi-Component Wavelength Calibration Standard



## Holmium Oxide Standard

With wavelengths including:

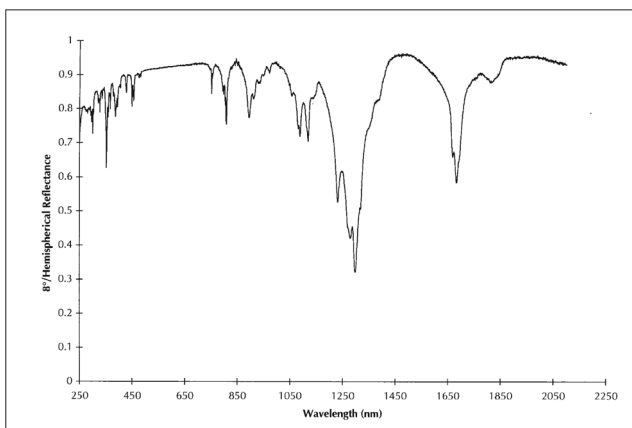
447.6 - 449.6 nm

453.6 - 455.6 nm

1134.1 - 1138.1 nm

1198.6 - 1202.6 nm

1932.5 - 1936.5 nm



## Dysprosium Oxide Standard

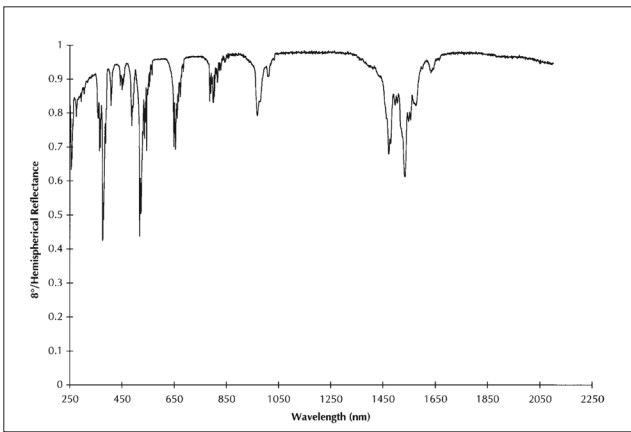
With wavelengths including:

1087.8 - 1091.8 nm

1230.5 - 1234.5 nm

1299.3 - 1303.3 nm

1682.0 - 1686.0 nm



## Erbium Oxide Standard

With wavelengths including:

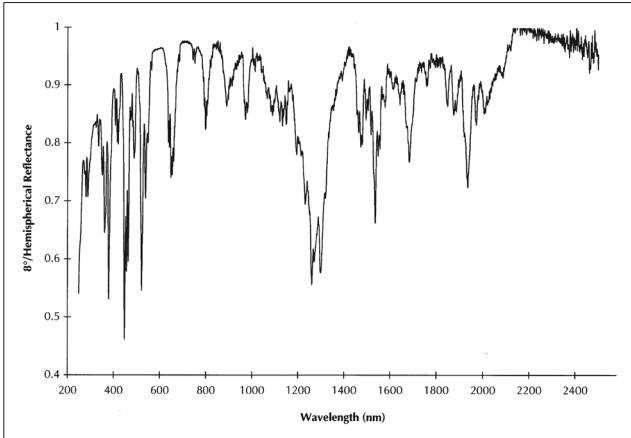
378.9 - 380.9 nm

521.4 - 523.4 nm

1009.5 - 1013.5 nm

1470.0 - 1474.0 nm

1476.0 - 1478.0 nm



## Multi-Component Wavelength Calibration Standard

With wavelengths including:

378.9 - 380.9 nm

447.6 - 449.6 nm

453.6 - 455.6 nm

521.4 - 523.4 nm

1009.5 - 1013.5 nm

1134.1 - 1138.1 nm

1198.6 - 1202.6 nm

1230.5 - 1234.5 nm

1299.3 - 1303.3 nm

1470.0 - 1474.0 nm

1476.0 - 1478.0 nm

1682.0 - 1686.0 nm

1932.5 - 1936.5 nm

## Specifications

### Wavelength Calibration Sets

Set Part Numbers	Standards Included	Order Numbers	Standard Type	Reflective Area (Inches)
WSS-03-010		AS-01183-060		
	WCS-HO-010	AS-01181-060	Holmium Oxide	1.25 D
	WCS-DO-010	AS-01181-160	Dysprosium Oxide	1.25 D
WSS-03-020	WCS-EO-010	AS-01181-260	Erbium Oxide	1.25 D
		AS-01183-160		
	WCS-HO-020	AS-01185-060	Holmium Oxide	2.00 D
	WCS-DO-020	AS-01185-160	Dysprosium Oxide	2.00 D
	WCS-EO-020	AS-01185-160	Erbium Oxide	2.00 D

### Multi-Component Wavelength Standards

Part Number	Order Numbers	Reflective Area (inches)	Dimensions (inches)
WCS-MC-010	AS-01827-000	1.25 D	1.50 D X 0.55 H
WCS-MC-020	AS-01185-360	2.00 D	2.38 D X 0.60 H