

# Spectralon® Wavelength Calibration Standards

Covering the UV-VIS-NIR region of the spectrum



## VALUE

Consistent reflectance  
Highly diffuse  
Thermally stable  
Durable

## MEASURE

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

## 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.

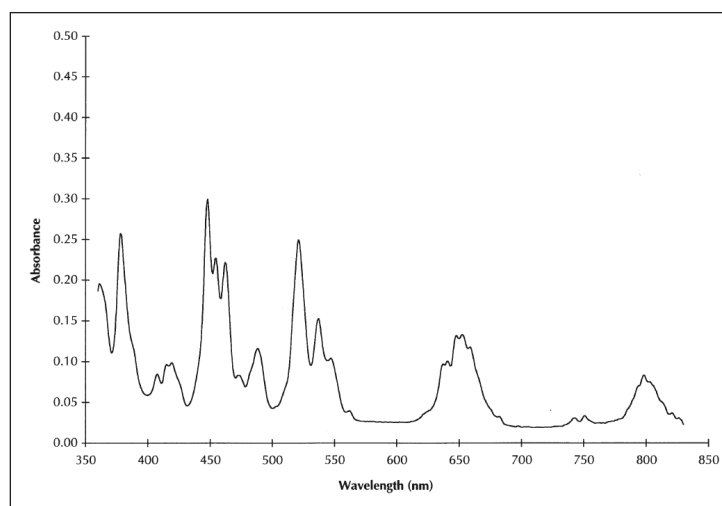
## Consistent

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).



Absorbance Spectrum - Multi-Component Wavelength Calibration Standard

# Specifications

## Wavelength Calibration Sets

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

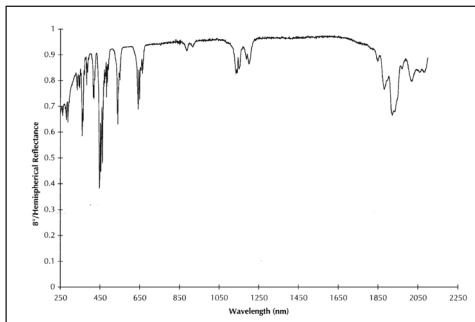
## Multi-Component Wavelength Standards

| 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     |

### Holmium Oxide Standard

With wavelengths including:

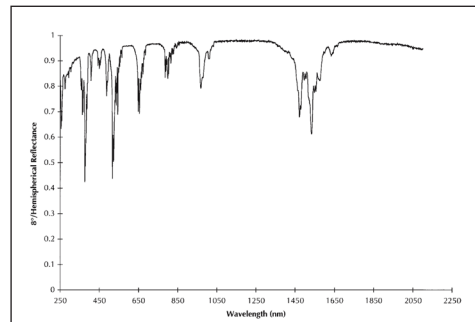
447.6 - 449.6 nm  
453.6 - 455.6 nm  
1134.1 - 1138.1 nm  
1198.6 - 1202.6 nm  
1932.5 - 1936.5 nm



### Erbium Oxide Standard

With wavelengths including:

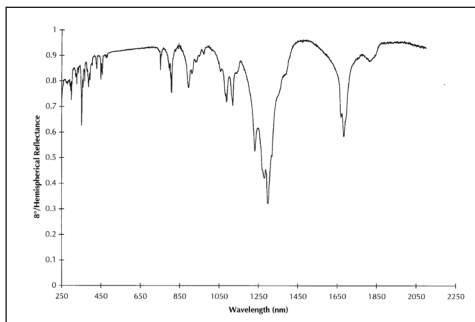
378.9 - 380.9 nm  
521.4 - 523.4 nm  
1009.5 - 1013.5 nm  
1470.0 - 1474.0 nm  
1476.0 - 1478.0 nm



### Dysprosium Oxide Standard

With wavelengths including:

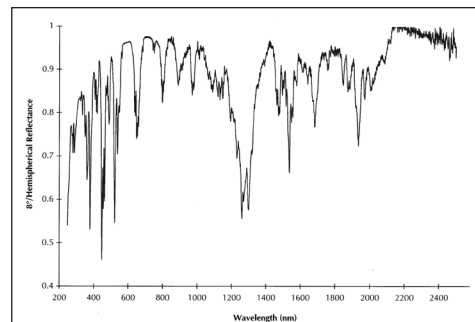
1087.8 - 1091.8 nm  
1230.5 - 1234.5 nm  
1299.3 - 1303.3 nm  
1682.0 - 1686.0 nm



### 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



**Ocean Photonics**

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