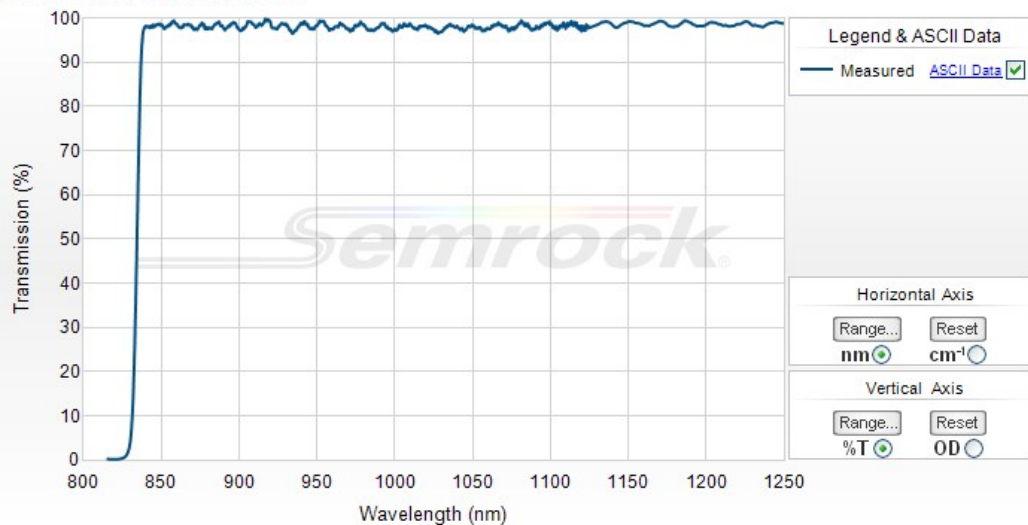


830 nm RazorEdge Dichroic™ laser-flat beamsplitter

Part Number: LPD02-830RU-25



Semrock, Inc

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(within US and Canada)

Your filter spectrum may differ slightly from the typical spectrum above, but is certified to meet the optical specifications noted below.



830 nm RazorEdge Dichroic™ laser-flat beamsplitter

Each beamsplitter reflects a standard laser line incident at 45° while efficiently passing the longer Raman-shifted wavelengths. The filters exhibit ultra-steep transitions from reflection to transmission, with a guaranteed transition width of < 1% of the laser wavelength for the U-grade version.

Part Number	Size	Price ¹	Stock Status
LPD02-830RU-25	25 mm x 3.5 mm	\$575	In Stock
LPD02-830RU-25x36x1.1	25.2 mm x 35.6 mm x 1.1 mm (unmounted)	\$795	In Stock
LPD02-830RU-25x36x2.0	25.2 mm x 35.6 mm x 2.0 mm (unmounted)	\$795	In Stock

This part is not available for custom sizing - [contact us](#) (semrock@idexcorp.com) for 50.8mm sizes

1) US domestic pricing only. If you are ordering from outside the US, please contact your nearest [regional distributor](#) for the correct list price.

Optical Specifications

Specification	Value
Reflection Band 1	R _{abs} > 94% 830 nm
Reflection Band 1 (p-pol)	R _{abs} > 90% 830 nm
Reflection Band 1 (s-pol)	R _{abs} > 98% 830 nm
Edge Wavelength 1	836 nm
Transmission Band 1	T _{avg} > 93% 840.8 – 1286.5 nm

General Filter Specifications

Specification	Value
Angle of Incidence	45 degrees with a shift of ≤ 0.20%/degree (35 – 55 degrees) see MyLight for performance
Cone Half-angle	0.5 degrees
Optical Damage Rating	1 J/cm ² @ 532 nm (10 ns pulse width)
Flatness	Laser Flat
Steepness	Ultra Steep
Laser Wavelength 1	830 nm
Edge Steepness (%)	0.5%
Edge Steepness (nm)	4.2 nm
Edge Steepness (cm-1)	59.9 cm ⁻¹
Transition Width (nm)	8.3 nm
Transition Width (cm-1)	119 cm ⁻¹
Effective Index	2.23

Physical Filter Specifications (applies to standard sized parts; contact us regarding other sizes)

Specification	Value
Transverse Dimensions (Diameter)	25 mm
Transverse Tolerance (mounted)	+ 0.0 / - 0.1 mm
Filter Thickness (Mounted)	3.5 mm
Filter Thickness Tolerance (Mounted)	± 0.1 mm
Clear Aperture (mounted)	≥ 22 mm
Transverse Dimensions (L x W)	25.2 mm x 35.6 mm
Transverse Tolerance (unmounted)	± 0.1 mm
Clear Aperture (unmounted)	≥ 80%
Scratch-Dig	60-40
Substrate Type	Fused Silica
Substrate Thickness 1 (unmounted)	2.0 mm
Substrate Thickness Tolerance 1 (unmounted)	± 0.1 mm
Substrate Thickness 2 (unmounted)	1.05 mm
Substrate Thickness Tolerance 2 (unmounted)	± 0.05 mm
Orientation (Diameter)	Arrow on ring indicates preferred direction of propagation of light.
Orientation (L x W)	Reflective surface marked with part number - Orient in direction of incoming light