StopLine Common Specifications

Property		Value	Comment
Laser Line Blocking:	"E" &"U" grade	> 6 OD	At the design laser wavelength; OD = – $\log_{10}$ (transmission)
	"S" grade	> 4 OD	
Typical 50% Notch Bandwidth	"E" &"U" grade	NBW = $55 \times 10^{-6} \times \lambda_L^2 + 14 \times 10^{-3} \times \lambda_L - 5.9$ e.g. 17 nm (600 cm^{-1}) for 532.0 nm filter	Full width at 50% transmission; λ_L is design laser wavelength (NBW and λ_L in nm)
	"S" grade	NBW = $10 \times 10^{-6} \times \lambda_L^2 - 29 \times 10^{-3} \times \lambda_L + 7.2$ e.g. 20 nm (700 cm^{-1}) for 532.0 nm filter	
Maximum 50% Notch Bandwidth		< 1.1 × NBW	
90% Notch Bandwidth		< 1.3 × NBW [1]	Full width at 90% transmission
Passband	"E" grade	350 –1600 nm	Excluding notch λ_L is design laser wavelength (nm)
	"U" & "S" grade	from 0.75 × λ_L to λ_L / 0.75 [1]	
Average Passband Transmission	"E" grade	> 80% 350 – 400 nm, 93% 400 – 1600 nm	Lowest wavelength is 330 nm for NF03-405E Excluding notch
	"U" & "S" grade	> 90%	
Passband Transmission Ripple		< 2.5%	Calculated as standard deviation
Angle of Incidence		0.0° ± 5.0°	
Angle Tuning Range [2]		– 1% of laser wavelength (– 5.3 nm or + 190 cm^{-1} for 532 nm filter)	Wavelength "blue-shift" attained by increasing angle from 0° to 14°
Laser Damage Threshold		1 J/cm^2 @ 532 nm (10 ns pulse width)	Tested for 532 nm filter only
Coating Type		"Hard" ion-beam-sputtered	
Clear Aperture		≥ 22 mm	For all optical specifications
Outer Diameter		25.0 + 0.0 / – 0.1 mm	Black-anodized aluminum ring
Overall Thickness		3.5 ± 0.1 mm	

All other General Specifications are the same as the RazorEdge® specifications

[1] For NF02-405 filter, 90% bandwidth is < 1.3 × Maximum 50% Bandwidth, and Passband short wavelength is 330 nm.

[2] For small angles θ (in degrees), the wavelength shift near the laser wavelength is $\Delta\lambda$ (nm) = $-5.0 \times 10^{-5} \times \lambda_L \times \theta^2$ and the wavenumber shift is Δ(wavenumbers) (cm^{-1}) = $500 \times \theta^2 / \lambda_L$, where λ_L (in nm) is the laser wavelength.