

Index of Refraction of Air

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Wavelength in Ambient Air and Refractive Index of Air Based on *Modified Edlén Equation*

Input	Amount
Vacuum Wavelength:	486.135 Nanometers [nm]
Air Temperature:	20.1 Degrees Celsius
Atmospheric Pressure:	20.4 Inches of Mercury
Air Humidity:	24.83 Relative Humidity, Percent

Output	Result
Wavelength in Ambient Air:	486.044156 Nanometers [nm]
Refractive Index of Air¹:	1.000186905
Uncertainty of Calculated Index²:	0.000000059

¹ This is the phase refractive index, appropriate for typical displacement measuring interferometers but not appropriate for many ranging instruments. See documentation for details.

² Estimated expanded uncertainty (coverage factor of k=2) from Edlen calculation, but not including uncertainties of the input parameters.

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