

Table R. Class IV Laser Specifications (continued)

Parameter	Specification <sup>1</sup>	Notes
Average Power Stability for 8 Hours	< 1%	Measurement defined in ISO Standard 11554: $\Delta P = \frac{2s}{P}$ where $P$ is the mean value & $s$ is the standard deviation of the measurement set.
Energy Stability for 5 Minutes	< 2%	Measurement defined in ISO Standard 11554: $\Delta Q = \frac{2s}{Q}$ where $Q$ is the mean value & $s$ is the standard deviation of the measurement set.
Amplified Spontaneous Emission	< 1%	Total average power contribution from the integrated signal outside the 10 ps pulse centroid.
Beam Propagation Ratio: M <sub>2</sub> (M-Squared)	< 1.5	Measurement defined in ISO Standard 11146-2.
Beam Ellipticity	> 0.8	Ratio of the minimum to the maximum beam width. Defined in ISO Standards 11146-1 and 11145.
Beam Angular Stability	< 25 μrad / °C	Measurement defined in ISO Standard 11670. Tests performed on three representative systems inside a controlled thermal chamber using 0.1°C/min. ramp rate, 3 hr soak at each temperature, & 18 to 26 °C total range.
Beam Diameter at Output	4 mm	± 3% tolerance. Diameter that contains 86.5% of the total power, i.e. the 1/e <sup>2</sup> points. Measurement performed with a Nanoscan (Photon Inc.) beam profiler. Further information on Gaussian beams available in ISO Standard 11146-3.
Beam Divergence Angle	< 1 mrad	Full angle as defined in ISO Standard 11145.
Beam Static Position	<0.25 mm	Unit to unit variation relative to amp box mechanical datums
Beam Static Angle	<2.5 mrad	Unit to unit variation relative to amp box mechanical datums