

# ISO 11146-2:2005-02 (E)

## Lasers and laser-related equipment - Test methods for laser beam widths, divergence angles and beam propagation ratios - Part 2: General astigmatic beams

---

<b>Contents</b>		<b>Page</b>
Foreword .....		iv
Introduction .....		v
1	Scope .....	1
2	Normative references .....	1
3	Terms and definitions .....	1
4	Coordinate system .....	5
5	Test principles .....	5
5.1	General .....	5
5.2	Spatial second order moments of the Wigner distribution .....	5
5.3	Second order moments of the Wigner distribution .....	5
5.4	Derived quantities .....	5
6	Measurement arrangement and test equipment .....	6
6.1	General .....	6
6.2	Preparation .....	6
6.3	Control of environment .....	6
6.4	Detector system .....	6
6.5	Beam-forming optics and optical attenuators .....	7
7	Measurement of the second order moments .....	7
7.1	General .....	7
7.2	Measurement of the second order moments of power density distributions .....	7
7.3	Measurement of all second order moments of the Wigner distribution .....	9
8	Determination of effective beam propagation ratio .....	11
9	Determination of intrinsic astigmatism .....	11
10	Determination of the twist parameter .....	12
11	Test report .....	12
Bibliography .....		15