

# DIN EN ISO 13694:2019-06 (E)

**Optics and photonics - Lasers and laser-related equipment - Test methods for laser beam power (energy) density distribution ( ISO 13694:2018)**

---

Contents	Page
European foreword .....	3
Foreword .....	4
Introduction .....	5
1 Scope .....	6
2 Normative references .....	6
3 Terms and definitions .....	6
3.1 Measured quantities .....	6
3.2 Characterizing parameters .....	8
4 Coordinate system .....	12
5 Characterizing parameters derived from the measured spatial distribution .....	12
6 Test principle .....	12
7 Measurement arrangement and test equipment .....	13
7.1 General .....	13
7.2 Preparation .....	13
7.3 Control of environment .....	13
7.4 Detector system .....	13
7.5 Beam-forming optics, optical attenuators, and beam splitters .....	14
8 Test procedure .....	14
8.1 Equipment preparation .....	14
8.2 Detector calibration procedure .....	15
8.2.1 Spatial calibration .....	15
8.2.2 Power (energy) calibration .....	15
8.3 Data recording and noise correction .....	15
8.3.1 General .....	15
8.3.2 Correction by background-map subtraction .....	16
8.3.3 Correction by average background subtraction .....	16
9 Evaluation .....	17
10 Test report .....	17
Annex A (informative) Test report .....	18
Bibliography .....	21