

ISO 13696:2022-06 (E)

Optics and photonics - Test method for total scattering by optical components

Contents	Page
Foreword	iv
Introduction	vi
1 Scope	1
2 Normative references	1
3 Terms, definitions and symbols	1
3.1 Terms and definitions.....	1
3.2 Symbols and units of measure.....	3
4 Test method	3
4.1 Principle.....	3
4.2 Measurement arrangement and test equipment.....	3
4.2.1 General.....	3
4.2.2 Radiation source.....	4
4.2.3 Beam preparation system.....	4
4.2.4 Integrating sphere.....	5
4.2.5 Detection system.....	6
4.2.6 Specimen holder.....	6
4.3 Arrangement with high sensitivity.....	6
4.4 Preparation of specimens.....	7
5 Procedure	7
5.1 General.....	7
5.2 Alignment procedure.....	8
5.2.1 General.....	8
5.2.2 Alignment of the beam.....	8
5.2.3 Alignment of the specimen.....	8
5.3 Measurement procedure.....	8
6 Evaluation	9
6.1 Determination of the total scattering value.....	9
6.2 Error budget.....	12
7 Test report	12
Annex A (informative) Set-up with a Coblentz hemisphere	14
Annex B (informative) Example of test report	17
Annex C (informative) Statistical evaluation example	21
Annex D (informative) Example for selection of spacing	26
Annex E (informative) Alternative method for calibrating total scatter measurements using a calcium fluoride diffuser disk	29
Bibliography	31