ISO 10110-1:2019-10 (E)

Optics and photonics - Pre paration of drawings for optical elements and systems - Part 1: General

Contents

Page

Foreword iv

1 Scope 1

2 Normative references 1

3 Termsanddefinitions 1

4 Fundamental stipulations 2

5 Presentation and dimensioning 3
5.1 Drawing format 3
5.1.1 General 3
5.1.2 Drawing field 3
5.1.3 Table field 3
5.1.4 Title field 5
5.1.5 Alternative drawing layout 5
5.1.6 Examples 5
5.2 Views 6
5.3 Global and Local Coordinate Systems 8
5.4 Axes 9
5.5 Leader lines 10
5.6 Test regions 10
5.7 Test fields 11
5.8 Test volumes 11
5.9 Dimensioning 13
5.9.1 General 13
5.9.2 Radius of curvature 13
5.9.3 Thickness 14
5.9.4 Diameter 15
5.9.5 Presentation of shapes of edges, bevels and chamfers 15
5.9.6 Linear dimensions 17
5.9.7 Angles 18
5.9.8 Special surfaces 19
5.10 Material specification 20
5.10.1 General 20
5.10.2 Crystallographic axes 20
5.11 Indication of optical tolerances and various properties 20
5.11.1 Tolerances for the position of the local coordinate systems 20
5.11.2 Optical properties and tolerances 20
5.11.3 Optical subassembly 21

6 Additional indications for optical layout drawings 22
6.1 General 22
6.2 Axial separations 25
6.2.1 General 25
6.2.2 Fixed axial separations 25
6.2.3 Adjustable axial separations 25
6.2.4 Variable axial separations 26
6.3 Images, pupils, field stops and other apertures 26

Annex A (informative) Examples of drawings of optical elements 28

Bibliography 45