

# ISO 9039:2008-02 (E)

## Optics and photonics - Quality evaluation of optical systems - Determination of distortion

---

<b>Contents</b>		<b>Page</b>
Foreword .....		iv
Introduction .....		v
<b>1</b>	<b>Scope .....</b>	<b>1</b>
<b>2</b>	<b>Terms and definitions .....</b>	<b>1</b>
<b>3</b>	<b>Classes of application .....</b>	<b>3</b>
3.1	Infinite object distance, finite image distance .....	3
3.2	Infinite object distance, infinite image distance .....	3
3.3	Finite object distance, finite image distance .....	3
3.4	Finite object distance, infinite image distance .....	4
<b>4</b>	<b>Test methods .....</b>	<b>4</b>
4.1	General .....	4
4.2	Apparatus .....	5
<b>5</b>	<b>Procedure .....</b>	<b>11</b>
5.1	Reference angle of the optical system to be tested .....	11
5.2	Coordinate origin .....	11
5.3	Selection of image heights .....	11
<b>6</b>	<b>Evaluation .....</b>	<b>12</b>
6.1	Calculation of the reference quantities $a$ , $a$ , $m$ or .....	12
6.2	Calculation of the distortion .....	12
<b>7</b>	<b>Presentation of the results .....</b>	<b>12</b>
<b>8</b>	<b>Test report .....</b>	<b>13</b>
<b>Annex A (informative) Example for a method of shifting the zero point .....</b>		<b>14</b>
<b>Annex B (informative) Picture-height distortion value .....</b>		<b>17</b>
<b>Bibliography .....</b>		<b>19</b>