SLOVENSKI STANDARD
SIST EN ISO 14880-1:2016

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Nadomešča:
SIST EN ISO 14880-1:2005
SIST EN ISO 14880-1:2005/AC:2009

Optika in fotonska tehnologija - Vrste mikroleč - 1. del: Slovar in splošne lastnosti (ISO 14880-1:2016)

Optics and photonics - Microlens arrays - Part 1: Vocabulary and general properties (ISO 14880-1:2016)

Optik und Photonik - Mikrolinsenarrays - Teil 1: Begriffe und allgemeine Eigenschaften (ISO 14880-1:2016)

Optique et photonique - Réseaux de microlentilles - Partie 1: Vocabulaire et propriétés générales (ISO 14880-1:2016)

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ICS:

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31.260	Optoelektronika, laserska oprema	Optoelectronics. Laser equipment

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English Version

Optics and photonics - Microlens arrays - Part 1: Vocabulary and general properties (ISO 14880-1:2016)

Optique et photonique - Réseaux de microlentilles - Partie 1: Vocabulaire et propriétés générales (ISO 14880-1:2016)

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
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CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

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European foreword

The text of ISO 14880-1:2016 has been prepared by Technical Committee ISO/TC 172 “Optics and photonics” of the International Organization for Standardization (ISO) and has been taken over as EN ISO 14880-1:2016 by Technical Committee CEN/TC 123 “Lasers and photonics” the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by February 2017, and conflicting national standards shall be withdrawn at the latest by February 2017.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

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Endorsement notice

The text of ISO 14880-1:2016 has been approved by CEN as EN ISO 14880-1:2016 without any modification.

INTERNATIONAL STANDARD

ISO 14880-1

Second edition
2016-04-01

Optics and photonics — Microlens arrays —

Part 1: Vocabulary and general properties

Optique et photonique — Réseaux de microlentilles —

Partie 1: Vocabulaire et propriétés générales

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ISO copyright office
Ch. de Blandonnet 8 • CP 401
CH-1214 Vernier, Geneva, Switzerland
Tel. +41 22 749 01 11
Fax +41 22 749 09 47
copyright@iso.org
www.iso.org

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Foreword

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

The committee responsible for this document is ISO/TC 172, *Optics and photonics*, Subcommittee SC 9, *Electro-optical systems*.

This second edition cancels and replaces the first edition (ISO 14880-1:2001), which has been technically revised. It also incorporates the Technical Corrigenda ISO 14880-1:2001/Cor 1:2003 and ISO 14880-1:2001/Cor 2:2005.

ISO 14880 consists of the following parts, under the general title *Optics and photonics — Microlens arrays*:

— *Part 1: Vocabulary and general properties*

— *Part 2: Test methods for wavefront aberrations*

— *Part 3: Test methods for optical properties other than wavefront aberrations*

— *Part 4: Test methods for geometrical properties*

— *Part 5: Guidance on testing*

Introduction

The aim of this part of ISO 14880 is to clarify the terms used in the field of microlens arrays.

Microoptics and microlens arrays are found in many modern optical devices.[1] They are used as coupling optics for detector arrays, the digital camera being an example of a mass market application. They are used to enhance the optical performance of liquid crystal displays to couple arrays of light sources and to direct illumination for example in 2D and 3D television, mobile phone and portable computer displays. Microlens arrays are used in wavefront sensors for optical metrology and astronomy, lightfield sensors for three–dimensional photography and microscopy and in optical parallel processor elements.

Multiple arrays of microlenses can be assembled to form optical systems such as optical condensers, controlled diffusers and superlenses.[2][3] Furthermore, arrays of microoptical elements such as micro-prisms and micro-mirrors are used.[4][5]

The expanded market in microlens arrays has generated a need to agree on basic terms and definitions for microlens arrays and systems and this part of ISO 14880 aims to satisfy that need.