



SLOVENSKI STANDARD
SIST EN ISO 8429:2000
01-januar-2000

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Optics and optical instruments - Ophthalmology - Graduated dial scale (ISO 8429:1986)

Optik und optische Instrumente - Ophthalmologie - Gradbogenschema (ISO 8429:1986)

Optique et instruments d'optique - Ophtalmologie - Echelle graduée (ISO 8429:1986)

Ta slovenski standard je istoveten z: EN ISO 8429:1996

[SIST EN ISO 8429:2000](https://standards.iteh.ai/catalog/standards/sist/5a997c5d-bbb3-4968-96c2-84aa73a60a71/sist-en-iso-8429-2000)

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ICS:

11.040.70 Oftalmološka oprema Ophthalmic equipment

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en

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EUROPEAN STANDARD

EN ISO 8429

NORME EUROPÉENNE

EUROPÄISCHE NORM

June 1996

ICS 11.040.70

Descriptors: See ISO document

English version

**Optics and optical instruments - Ophthalmology -
Graduated dial scale (ISO 8429:1986)**

Optique et instruments d'optique Ophthalmologie - Echelle graduée (ISO 8429:1986) Optik und optische Instrumente - Ophthalmologie - Gradbogenschema (ISO 8429:1986)

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This European Standard was approved by CEN on 1996-06-01. CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

The European Standards exist in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

Central Secretariat: rue de Stassart, 36 B-1050 Brussels

Foreword

The text of the International Standard from ISO/TC 172 „Optics and optical instruments“ of the International Organization for Standardization (ISO) has been taken over as a European Standard by the Technical Committee CEN/TC 170 „Ophthalmic optics“, 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 December 1996, and conflicting national standards shall be withdrawn at the latest by December 1996.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom

Endorsement notice

The text of the International Standard ISO 8429:1986 was approved by CEN as a European Standard without any modification.

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International Standard



8429

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

**Optics and optical instruments — Ophthalmology —
Graduated dial scale**

Optique et instruments d'optique — Ophtalmologie — Échelle graduée

First edition — 1986-09-15

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UDC 681.2.085 : 681.7

Ref. No. ISO 8429-1986 (E)

Descriptors : optical equipment, ophthalmic optics, measuring scales, specifications.

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council. They are approved in accordance with ISO procedures requiring at least 75 % approval by the member bodies voting.

International Standard ISO 8429 was prepared by Technical Committee ISO/TC 172, *Optics and optical instruments*.

Users should note that all International Standards undergo revision from time to time and that any reference made herein to any other International Standard implies its latest edition, unless otherwise stated.

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Optics and optical instruments — Ophthalmology — Graduated dial scale

1 Scope and field of application

This International Standard gives specifications for the angular coordinate system to be used in the design of scales, reticles or other display means incorporated in instruments for determining optical data on human eyes or corrective lenses for human eyes.

2 Description of the system

The coordinate system, specified in this International Standard and sometimes called the TABO system, describes

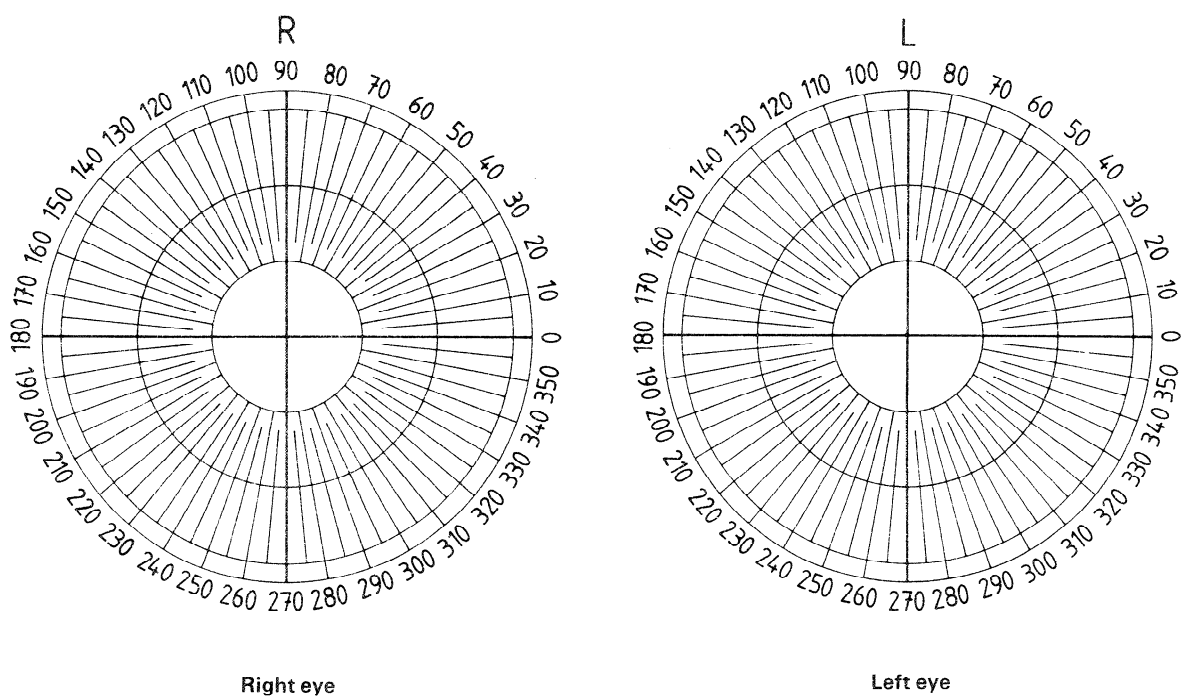
- the angular orientation of the cylinder axis, when used to describe the refractive error of the eye or the refractive effect of a contact or spectacle lens;
- the angular orientation of the prism base, when used to describe the prismatic effect of a contact or spectacle lens in polar coordinates;
- the angular orientation of the principal curvature meridians, when used to describe the curvature of a surface such as the cornea or a lens.

The coordinate system is the same whether it refers to the right eye or to the left eye. When used, the coordinate system is described as it appears to a person viewing the eyes and the spectacle lenses — correctly placed in front of the eyes — from outside.

The zero axis of the coordinate system is horizontal and, in the case where the numbering is from 0° to 360° , it is the right-hand portion of the horizontal axis. The angular value increases in the counter-clockwise direction with 90° corresponding to the vertical axis. When used to define cylinder axis or orientation of principal curvature meridians, the angular value shall be expressed as a number between 0° and 180° . When used to define prism base orientation, the angular value shall be expressed as a number between 0° and 360° , marked by the point where the base of the prism touches the TABO circle.

3 Example

An example of a scale designed using the coordinate system, as described in clause 2, is shown in the figure. Although it is shown with a specific angular scale design, this is by no means meant to imply that other designs cannot be used and still be considered as within the scope and intent of this International Standard.



Figure