American National Standard

for Ophthalmics –

Methods of Reporting Optical Aberrations of Eyes

ANSI Z80.28-2017

Approved American National Standard

ANSI

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Methods for Reporting Optical Aberrations of Eyes

Secretariat

The Vision Council

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American National Standard

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Developed by

The Accredited Committee Z80 for Ophthalmic Standards -

The Vision Council
Z80 Secretariat
225 Reinekers Lane
Suite 700
Alexandria, VA 22314

Published by

The Vision Council
225 Reinekers Lane
Suite 700
Alexandria, VA 22314

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Foreword (This foreword is not part of American National Standard ANSI Z80.28-2017.)

This American National Standard addresses the communication of aberrations of the eye. With the dramatic increase in applications associated with aberrations, it is important to have uniform methods for reporting data so that it is understandable across applications.

ANSI Z80.28-2017 was adapted by a group of experts within the ANSI Instruments and Low Vision Devices Subcommittee under the chair of William L. Brown, O.D., Ph.D. It is a performance standard.

The major change made in this edition of the standard is a clarification of 5.2 that 1) changes the term "wavefront gradient fields" to "wavefront ray deflection", and 2) places the emphasis of the clause on describing the direction of propagation of rays that are the normals to the wavefront error surface being measured.

Suggestions for improvement of this standard will be welcome. They should be sent to the Vision Council, 225 Reinekers Lane, Suite 700, Alexandria, VA 22314.

This standard was processed and approved for submittal to ANSI by the Accredited Standards Committee on Ophthalmic Optics, Z80. Committee approval of this standard does not necessarily imply that all committee members voted for its approval. At the time of approval of this standard, the Z80 Committee consisted of the following members:

Thomas White, M.D., Chair
Quido Cappelli, Vice-Chair
William Benjamin, Secretary
Michael Vitale, Secretariat

Organization Represented	*Name of Representative*
Abbott Medical Optics	Leonard Bormann
Advance Medical Technologies Association	Michael Pfleger
American Academy of Ophthalmology	Thomas C. White
American Academy of Optometry	David S. Loshin
American Ceramic Society	Lyle Rubin
American Glaucoma Society	Steven Gedde
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National Association of Optometrists and Opticians	Nick Mileti
Opticians Association of America	Tom Hicks
Optical Laboratory Association	Steve Sutherlin
Sunglass Association of America	Tibor Gross
The Vision Council	Michael Vitale
US ISO TC 172/SC7	Michael Vitale

The Subcommittee on Instruments and Low Vision Devices, which modified this American National Standard, had the following members:

William L. Brown, O.D., Ph.D., Chair

Michael Belin
Donald Calogero
Charles E. Campbell
Bruce Drum
Matthew Everett
Thomas Garrido
David Glasser
Priya Janakiraman
Tony Ko
Stephen Klyce
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Nick Mileti
Sharon Miller
Eli Peli
Michael Pfleger
Robert Rosenberg
Dexiu Shi
John Townsend
Michael Vitale
Thomas White

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Methods for Reporting Optical Aberrations of Eyes

1. Scope

This standard specifies standardized methods for reporting the optical aberrations of eyes.

2. Normative References

The following standards contain provisions which, through reference in this text, constitute provisions of this American National Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this American National Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below.

ISO 8429: 1986, *Optics and Optical Instruments – Ophthalmology – Graduated Dial Scale*