

# American National Standard

*for Ophthalmics –  
Methods of Reporting  
Optical Aberrations of Eyes*

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**ANSI®**  
**Z80.28-2010**  
Revision of  
ANSI Z80.28-2004

American National Standard  
for Ophthalmics –

**Methods for Reporting  
Optical Aberrations of Eyes**

Secretariat  
**The Vision Council**

Approved March 5, 2010

**American National Standards Institute, Inc.**

# American National Standard

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## *Developed by*

The Accredited Committee Z80 for Ophthalmic Standards -

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**Foreword** (This foreword is not part of American National Standard ANSI Z80.28-2010.)

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 accepted methods for reporting data so that it is understandable across applications.

ANSI Z80.28-2009 was adapted by a group of experts within the ANSI Ophthalmic Instruments Subcommittee under the chair of William L. Brown, O.D., Ph.D. It is a performance standard.

Many of the changes made in this edition of the standard are corrections made to mathematical expressions. Such corrections are found in Clauses 3.4, 3.6, and in Annex E. In Clause 6 (Presentation of data representing the aberrations of the human eye) changes were made to standardize both the communication of data to others and the presentation of data in papers, talks, etc. Clause 6 also includes the standardization of presentations in the form of bar graphs.

Suggestions for improvement of this standard will be welcome. They should be sent to the Vision Council, 1700 Diagonal Road, Suite 500, Alexandria, VA 22304.

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:

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Guido Cappelli, Vice-Chairman  
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The Subcommittee on Ophthalmic Instruments, which modified this American National Standard, had the following members:

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

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for Ophthalmics –

## 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, constitutes 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*