

# American National Standard

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

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**ANSI®**  
**Z80.28-2017**  
Revision of  
ANSI Z80.28-2010

American National Standard  
for Ophthalmics –

**Methods for Reporting  
Optical Aberrations of Eyes**

Secretariat  
**The Vision Council**

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# American National Standard

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## *Developed by*

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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 ray 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

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Advance Medical Technologies Association .....	Michael Pfleger
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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, 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*