ANSI Z80.9-2004

# AMERICAN NATIONAL STANDARI

for Ophthalmics -

Devices for Low Vision



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ANSI<sup>®</sup>
Z80.9-2004
Revision of
ANSI Z80.9-1998

American National Standard for Ophthalmics –

**Devices for Low Vision** 

Secretariat

**Optical Laboratories Association** 

Approved January 10, 2005

American National Standards Institute, Inc.

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### Developed by

The Accredited Committee Z80 for Ophthalmic Standards -

Optical Laboratories Association Z80 Secretariat P. O. Box 2000 Merrifield, VA 22116-2000

Published by

Optical Laboratories Association P. O. Box 2000 Merrifield, VA 22116-2000

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Printed in the United States of America

### **Contents**

Page Foreword iii 1 2 3 4 5 Requirements......5 Optical devices......5 5.1 5.1.1 Spatial resolution ...... 5 Equivalent power - magnifiers...... 5 5.1.2 5.1.3 Angular Magnification - telescopes ...... 5 5.1.4 5.1.5 5.1.6 Transmittance ...... 6 5.1.7 Materials and construction ...... 6 5.2 5.2.1 5.2.2 Materials and construction .......8 Electrical .......8 5.2.3 6 Test methods .......9 7 Equivalent power - Magnifiers.......9 7.1 7.2 7.3 7.4 7.4.1 7.4.2 7.5 Test for the determination of lateral variation of magnification .......... 13 7.6 Marking, packaging and instructions for use......14 8 **Tables** 1 Magnifiers/Near telescopes ...... 6 2 3

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|         |   | Page |
|---------|---|------|
| Figures |   |      |
| 1       | Example for an optotype with Ronchi rulings       | 10   |
| 2       | Example for a test set-up for near-vision devices | 11   |
| 3       | Example for a test set-up for telescopic systems  | 12   |
| Annex   |   |      |
| Α       | Mechanical design                                 | 15   |

### Foreword (This foreword is not part of American National Standard ANSI Z80.9-2004.)

The Z80 Standards Committee for Ophthalmic Lenses was organized in 1956. The Committee's initial standard was issued in 1964. At the beginning of 1970, the Z80 Standards Committee was reorganized, with the Optical Society of America serving as secretariat. In 1972, the Committee was authorized to broaden its scope from "prescription glass ophthalmic lenses" to "prescription ophthalmic lenses." In 1975, the scope of the committee was further broadened to "ophthalmic standards." On May 21, 1985, the Z80 Committee became the Accredited Standards Committee on Ophthalmic Standards with the Optical Laboratories Association serving as secretariat. Current ophthalmic standards are drafted by subcommittees of the Z80 Committee. These subcommittees, in turn, establish working groups and consultant appointments,

In 1998, the Z80 Committee approved adoption of ISO 15253, Optical Devices for Low Vision, as ANSI Z80.9-1998. In 2004, upon review of ANSI Z80.9-1998, the Z80 Committee further approved inclusion of ISO 15254, Electro-Optical Devices for Low Vision, into the revision of ANSI Z80.9, thus creating a single standard that includes all classes of devices for Low Vision.

Suggestions for improvement of this standard will be welcome. They should be sent to the Optical Laboratories Association, P.O. Box 2000, Merrifield, VA 22116-2000.

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

Thomas C. White, M.D., Chair Quido Cappelli, Vice-Chair Robert Rosenberg, O.D., Secretary Dan Torgersen, Secretariat

| Organization Represented AR Council  | Name of Representative  |  |
|--|---|--|
| Advance Medical Technologies Association   | Lee K. Anderson (Alt.) John W. Quinn (Alt.) Douglas J. Fortunato Carolyn Jones (Alt.) Glenn Davies (Alt.) |  |
| American Academy of Optometry  American Academy of Ophthalmology                         |   |  |
|  | Gerhard Cibis (Alt.)<br>Keith Baratz (Alt.)<br>Paul F.Vinger (Alt.)                                       |  |
| American Optometric Association  | William J. Benjamin (Alt.)<br>Robert Rosenberg (Alt.)<br>Jeffrey Weaver (Alt.)                            |  |
| American Society of Cataract and Refractive Surgery                                      | Stephen Klyce, Ph.D.<br>Jack T. Holladay (Alt.)<br>Stephen H. Johnson (Alt.)                              |  |
| Contact Lens Institute Contact Lens Manufacturers Association Food & Drug Administration | . Ed Schilling<br>. Quido Cappelli  |  |

| Organization Represented                            | Name of Representative   |
|---|--|
| National Association of Optometrists & Opticians    | Diane L. Finisecy<br>Daniel Torgersen<br>Henry A. Hart (Alt.)<br>Richard A. Phillips |
| Opticians Association of America                    | Carl Helton<br>Jeff Todd (Alt.)  |
| Sunglass Association of America                     | Kenneth L. Frederick<br>Rick Van Arnam (Alt.)  |
| US Leader to ISO TC 172/SC7 Veterans Administration | Charles E. Campbell  |
| Vision Council of America                           |  |

The individuals who worked on the revision of ANSI Z80.9 were:

Robert Rosenberg, O.D. (AOA) Donald Pitts, O.D., Ph.D. (Commission on Ophthalmic Standards -American Optometric Association) Kathleen F. Freeman, O.D. (Chair, Low Vision Section, American Optometric Association) Ian Bailey, O.D. (University of California -Berkeley) Members of the Low Vision Section, American Optometric Association Members of the Low Vision Section, American Academy of Optometry

### **AMERICAN NATIONAL STANDARD**

ANSI Z80.9-2004

American National Standard for Ophthalmics –

## **Devices for Low Vision**

### 1 Scope

This Standard applies to optical and electro-optical devices specified by the manufacturer for use by visually impaired persons as low-vision devices. It specifies optical and mechanical requirements and test methods. It includes devices with optical and/or electrical and/or electronic components used for image capture or display.

### 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.

ANSI Z80.1-1999, Ophthalmics – Prescription ophthalmic lenses – Recommendation

ANSI Z80.3-2001, Ophthalmics – Nonprescription sunglasses and fashion eyewear – Requirements

ANSI Z80.5-2004, Requirements for ophthalmic frames

ISO/DIS 15004, Ophthalmic instruments - Fundamental requirements and test methods

IEC 598-1, Safety of Luminaires - Part 1: General requirements and tests

IEC-CCISPR 15, Limits and methods of measurement of radio interference characteristics of power supply with high frequency

IEC 801-2

IEC 801-3

MPRII: MPR 1990:8/MPR 1990:10, Requirements for low frequency discharge

UL 60606-1, Requirements for electrostatic discharge

ISO 12870, Ophthalmic optics – Spectacle frames – General requirements and test methods