

*ANSI Z136.7—2008*

# American National Standard

*American National Standard  
for Testing and Labeling of  
Laser Protective Equipment*

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**Laser Institute  
of America**  
*Laser Applications and Safety*



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**American National Standard  
for Testing and Labeling of  
Laser Protective Equipment**

**Secretariat**  
**Laser Institute of America**

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**American  
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Standard**

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**Foreword** (This introduction is not a normative part of ANSI Z136.7-2008, American National Standard for Testing and Labeling of Laser Protective Equipment.)

In 1968, the American National Standards Institute (ANSI) approved the initiation of the Safe Use of Lasers Standards Project under the sponsorship of the Telephone Group.

Prior to 1985, Z136 standards were developed by ANSI Committee Z136 and submitted for approval and issuance as ANSI Z136 standards. Since 1985, Z136 standards are developed by ANSI Accredited Standards Committee (ASC) Z136. A copy of the procedures for development of these standards can be obtained from ASC Z136 Secretariat, Laser Institute of America, 13501 Ingenuity Drive, Suite 128, Orlando, FL 32826 or viewed at [www.z136.org](http://www.z136.org).

ASC Z136 is responsible for the development and maintenance of this Standard. In addition to the consensus body, ASC Z136 is composed of standards subcommittees (SSC) and technical subcommittees (TSC) involved in Z136 standards development. At the time of this printing, the following standards and technical subcommittees were active:

- SSC-1 Safe Use of Lasers (parent document)
- SSC-2 Safe Use of Lasers and LEDs in Telecommunications Applications
- SSC-3 Safe Use of Lasers in Health Care Facilities
- SSC-4 Measurements and Instrumentation
- SSC-5 Safe Use of Lasers in Educational Institutions
- SSC-6 Safe Use of Lasers Outdoors
- SSC-7 Eyewear and Protective Barriers
- SSC-8 Safe Use of Lasers in Research, Development and Testing
- SSC-9 Safe Use of Lasers in Manufacturing Environments
- SSC-10 Safe Use of Lasers in Entertainment, Displays and Exhibitions
  
- TSC-1 Biological Effects and Medical Surveillance
- TSC-2 Hazard Evaluation and Classification
- TSC-4 Control Measures and Training
- TSC-5 Non-Beam Hazards
- TSC-7 Analysis and Applications
  
- EWG Editorial Working Group

The five standards currently issued are:

ANSI Z136.1-2007, American National Standard for Safe Use of Lasers (replaces ANSI Z136.1-2000)

ANSI Z136.3-2005, American National Standard for Safe Use of Lasers in Health Care Facilities (replaces ANSI Z136.3-1996)

ANSI Z136.4-2005, American National Standard Recommended Practice for Laser Safety Measurements for Hazard Evaluation (first printing)

ANSI Z136.5-2000, American National Standard for Safe Use of Lasers in Educational Institutions (first printing)

ANSI Z136.6-2005, American National Standard for Safe Use of Lasers Outdoors (replaces ANSI Z136.6-2000)

This American National Standard provides guidance for the testing and labeling of laser protective equipment such as laser eye protection, filters, windows, and barriers for use with lasers and laser systems. Emphasis is given to ensuring adequate testing of laser protective eyewear (e.g., absorptive, interference/reflective, and hybrid filter technologies).

This standard has been published as part of the American National Standard Z136 series. This document is the American National Standard Z136.7. This document may be used independently of ANSI Z136.1 in the determination of required retinal angular protection/coverage. Where applicable, tables from ANSI Z136.1 are included. Instances where additional guidance contained in ANSI Z136.1 is required are noted and referenced in the appropriate sections of this document.

This standard is expected to be periodically revised as new information and experience in the use of lasers are gained. Future revisions may have modified content and use of the most current document is highly recommended. While there is considerable compatibility among other existing laser safety standards, some requirements differ among state, federal, and international standards, particularly with respect to signs, symbols, and control measures.

Suggestions for improvements of the standard are welcome. They should be sent to ASC Z136 Secretariat, Laser Institute of America, 13501 Ingenuity Drive, Suite 128, Orlando, FL 32826.

This standard was processed and approved for submittal to ANSI by the Accredited Standards Committee Z136 for Safe Use of Lasers, whose scope covers protection against hazards associated with the use of lasers and optically radiating diodes. Committee approval of the standard does not necessarily imply that all members voted for its approval.

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**Notice** (This notice is not a normative part of ANSI Z136.7-2008, American National Standard for Testing and Labeling of Laser Protective Equipment.)

Z136 standards and recommended practices are developed through a consensus standards development process approved by the American National Standards Institute. The process brings together volunteers representing varied viewpoints and interests to achieve consensus on laser safety related issues. As Secretariat to ASC Z136, the Laser Institute of America (LIA) administers the process and provides financial and clerical support to the committee.

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