INTERNATIONAL STANDARD

ISO 14490-6

First edition
2005-10-15

Optics and optical instruments — Test methods for telescopic systems —

Part 6: Test methods for veiling glare index

Optique et instruments d'optique — Méthodes d'essai pour systèmes télescopiques —

Partie 6: Méthodes d'essai de l'indice de lumière parasite

Reference number
ISO 14490-6:2005(E)

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

Published in Switzerland

Contents

Page

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 14490-6 was prepared by Technical Committee ISO/TC 172, *Optics and photonics*, Subcommittee SC 4, *Telescopic systems*.

ISO 14490 consists of the following parts, under the general title *Optics and optical instruments — Test methods for telescopic systems*:

— *Part 1: Test methods for basic characteristics*

— *Part 2: Test methods for binocular systems*

— *Part 3: Test methods for telescopic sights*

— *Part 4: Test methods for astronomical telescopes*

— *Part 5: Test methods for transmittance*

— *Part 6: Test methods for veiling glare index*

— *Part 7: Test methods for limit of resolution*

The following part is under preparation:

— *Part 8: Test methods for night-vision devices*

Optics and optical instruments — Test methods for telescopic systems —

Part 6:
Test methods for veiling glare index

1 Scope

This part of ISO 14490 specifies the test methods for the determination of the veiling glare index of telescopic systems and observational telescopic instruments.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 9358:1994, *Optics and optical instruments — Veiling glare of image forming systems — Definitions and methods of measurement*

ISO 14132-1:2002, *Optics and optical instruments — Vocabulary for telescopic systems — Part 1: General terms and alphabetical indexes of terms in ISO 14132*

ISO 14490-1:2005, *Optics and optical instruments — Test methods for telescopic systems — Part 1: Test methods for basic characteristics*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 14132-1 apply.

4 General considerations

The veiling glare test methods are generally described in ISO 9358:1994. ISO 9358:1994 deals with arbitrary optical instruments and contains two basic approaches to measuring the veiling glare, namely integral (or black patch) method and analytical (or glare spread function) method.

For terrestrial telescopes with which this part of ISO 14490 deals, the black patch method is more adequate while the glare spread function may prove to be better for astronomical telescopes. For the moment, consideration in this part of ISO 14490 is given only to the black patch method. If need of measuring the glare spread function arises, the reference shall be made directly to appropriate clauses of ISO 9358:1994.

From the classification given in Clause 3 of ISO 9358:1994, the case where both the object and the image are at infinity will usually apply to telescopic systems. Clauses 6 and 7 give detailed and more specific description of the general test method given in 4.1 of ISO 9358:1994 and of test conditions given in 5.1 of ISO 9358:1994.