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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 10810.3-2025

**Uncut finished spectacle lenses - Part 3: Transmittance test
methods**

眼镜镜片第3部分：透射比试验方法
(English Translation)

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Foreword

This document was drafted in accordance with the rules given in GB/T 1.1-2020

"Directives for standardization - Part 1.Rules for the structure and drafting of standardizing documents".

This document is Part 3 of GB/T 10810 "Uncut finished spectacle lenses". GB/T 10810 has already released the following parts.

- Part 1.Single-vision and multifocal;
- Part 2.Power-variation;
- Part 3.Transmittance test methods;
- Part 4.Anti-reflective coatings test methods;
- Part 5.Abrasion-resistant of surfaces test methods.

This document replaces GB 10810.3-2006 "Spectacle lenses and related eye wear -- Part 3.Transmittance specifications and test methods". Compared with GB 10810.3-2006, in addition to structural adjustments and editorial changes, the main technical changes are as follows.

- a) Added the definitions for solar blue-luminous transmittance and solar IR transmittance (see 3.9, 3.10 of this Edition);
- b) Deleted the definitions for colorless lenses, photochromic lenses, and assembled lenses (see 3.9~3.17 of Edition 2006);
- c) Deleted the required contents (see Chapter 5 of Edition 2006);
- d) Added measuring devices and methods for light irradiation resistance performance (see 6.4, 8.4 of this Edition);
- e) Added measurement methods for solar blue-luminous transmittance and solar IR transmittance (see 8.1 of this Edition);
- f) Deleted the inspection rules (see Chapter 7 of Edition 2006);
- g) Added spectral characteristics of ultraviolet filters for testing their resistance to light irradiation (see Annex B of this Edition);
- h) Added weight data for calculating the solar blue-luminous transmittance and solar

IR transmittance (see Annex D and Annex E of this Edition).

The modification of this document adopts ISO 8980-3:2022 "Ophthalmic optics -- Uncut finished spectacle lenses -- Part 3. Transmittance specifications and test methods".

Compared with ISO 8980-3:2022, this document has more structural adjustments. See Annex A for a list of comparisons of structural numbers between two documents.

The technical differences between this document and ISO 8980-3:2022 and their reasons are as follows.

- a) Deleted the normative references ISO 14889, ISO 11664-1, and ISO 11664-2 (see Chapter 1, 6.1, 7.3.1, 7.6.2.3, Table A.1, Table A.2 of ISO 8980-3:2022) to adapt to the Chinese standard system;
- b) Replaced ISO 13666 with the normative reference GB/T 26397. Changed the terms and definitions (see Chapter 3) to adapt to China's technical conditions and increased operability;
- c) Replaced ISO 11664-1 with the normative reference GB/T 3978 (see 3.2, 3.6, 6.3.2) to adapt to China's technical conditions and increased operability;
- d) Replaced ISO 11664-2 with the normative reference GB/T 20147 (see 6.3.2) to adapt to China's technical conditions and increase operability;
- e) Deleted the content of the technical requirements (see Chapter 6 of ISO 8980-3:2022) to adapt to the Chinese standard system. Its content is stipulated in relevant product standards;
- f) Changed the general requirements for measuring devices. Added the normative reference JJF 1106 (see 6.1; 7.1, 7.2 of ISO 8980-3:2022) to adapt to China's technical conditions and increase operability;
- g) Added the measurement method of solar blue-luminous transmittance and solar IR transmittance (see 9.6, 9.7) to adapt to China's technical conditions and increased operability;
- h) Deleted the content of the logo (see Chapter 8 of ISO 8980-3:2022) to adapt to

the Chinese standard system. Its content is stipulated in relevant product standards;

i) Added test reports (see Chapter 10) to adapt to China's technical conditions and increased operability;

j) Added solar radiation spectral power distribution function for calculating solar IR transmittance (see Annex E) to adapt to the technical conditions in China and increased operability.

This document has made the following editing changes.

- To coordinate with Chinese existing standards, the standard name was changed to "Uncut finished spectacle lenses -- Part 3.Transmittance test methods";

Uncut finished spectacle lenses -- Part 3.Transmittance test methods

1 Scope

This document describes the test method for the transmission ratio performance of glasses lenses.

This document applies to testing the transmission ratio performance of glasses lenses.

Other relevant glasses product transmission ratio test methods are performed in accordance with this document.

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.

GB/T 3978, Standard illuminants and geometric conditions

GB/T 20147, CIE standard colorimetric observers (GB/T 20147-2006, CIE 10527.1991, IDT)

GB/T 26397, Ophthalmic optics -- Terminology (GB/T 26397-2011, ISO 13666.1998, MOD)

JJF 1106, Calibration specification of transmittance measuring equipment for ophthalmic products