



Institut luxembourgeois de la normalisation
de l'accréditation, de la sécurité et qualité
des produits et services

ILNAS-EN 13721:2023

Furniture - Assessment of the surface reflectance

Möbel - Bewertung des
Oberflächenreflexionsgrades

Ameublement - Évaluation de la
luminance lumineuse des surfaces

04/2023



National Foreword

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English Version

Furniture - Assessment of the surface reflectance

Ameublement - Évaluation de la luminance lumineuse
des surfaces

Möbel - Bewertung des Oberflächenreflexionsgrades

This European Standard was approved by CEN on 17 March 2023.

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European foreword

This document (EN 13721:2023) has been prepared by Technical Committee CEN/TC 207 “Furniture”, the secretariat of which is held by UNI.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by October 2023, and conflicting national standards shall be withdrawn at the latest by October 2023.

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

This document supersedes EN 13721:2004.

The main changes compared to the previous edition are listed below:

- revised scope: test method is not applicable to some metallic paints and pearly coatings;
- normative references updated;
- additional terms and definitions “final inspection”, “colorants control” added;
- revised Table 1 Recommended measurement geometries;
- additional 7.2 Conditioning chamber and 7.3 Cleaning cloth added;
- document editorially revised in its entirety.

Any feedback and questions on this document should be directed to the users’ national standards body. A complete listing of these bodies can be found on the CEN website.

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.

1 Scope

This document specifies a method for the assessment of the surface reflectance of furniture surfaces and relates to rigid surfaces of all finished products regardless of materials, except for finishes on leather and fabrics, which are excluded from this document.

This document is applicable to the test, intended to be carried out on finished furniture, but can be carried out on test panels of the same material, finished in an identical manner to the finished product, and of a size sufficient to meet the requirements of the test.

The test method is not applicable to some metallic paints and pearly coatings.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

EN ISO/CIE 11664-1:2019, *Colorimetry - Part 1: CIE standard colorimetric observers (ISO/CIE 11664-1:2019)*

EN ISO/CIE 11664-2, *Colorimetry - Part 2: CIE standard illuminants (ISO/CIE 11664-2)*

EN ISO/CIE 11664-3, *Colorimetry - Part 3: CIE tristimulus values (ISO/CIE 11664-3)*

EN ISO 18314-1:2018, *Analytical colorimetry - Part 1: Practical colour measurement (ISO 18314-1:2015)*

CIE 1931, *Standard colorimetric colour coordinates*

CIE 1964, *Colorimetry, CIE Standard Recommendations*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- IEC Electropedia: available at <https://www.electropedia.org/>
- ISO Online browsing platform: available at <https://www.iso.org/obp>

3.1 reflectance

ratio of the radiant flux reflected in the directions within a given cone to that reflected in the same directions by a perfect reflecting diffuser identically irradiated in the observed wavelength interval (spectral reflectance factor $R(\lambda)$ in EN ISO/CIE 11664-3)

3.2 trichromatic compound lightness factor

Y

value given by the equation in Clause 10 of this document

3.3 test unit

finished item of furniture