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Imaging materials — Methods for measuring indoor light stability of photographic prints —

Part 2: Xenon-arc lamp exposure

Matériaux pour l'image — Méthodes de mesure de la stabilité de la lumière en intérieur des épreuves photographiques —

Partie 2: Exposition à une lampe à arc au xénon

Reference number
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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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 42, *Photography*. This first edition of ISO 18937-2 cancels and replaces the second edition of ISO 18937:2020, which has been technically revised.

The main changes are as follows:

— This revision of the existing ISO 18937 separates the International Standard into three separate parts in a similar way to two other artificial exposure testing series, ISO 4892 (Plastics, in TC 61), and ISO 16474 (Paints and varnishes, in TC 35).

A list of all parts in the ISO 18937 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user’s national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

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Imaging materials — Methods for measuring indoor light stability of photographic prints —

Part 2: Xenon-arc lamp exposure

1 Scope

This document describes test equipment and procedures for measuring the light stability of photographic prints when subjected to a filtered xenon-arc light source at specified levels of illuminance (irradiance), temperature and relative humidity. It is applicable to both colour and monochrome reflection prints, transparent films, or translucent films. It is also applicable to photographic prints in general, photobooks, or prints for backlit displays.

General indoor display conditions described herein are intended to simulate common use conditions found in houses, apartments and other dwelling places where indirect lighting due to filtering (through window glass) and shading is often the principal illumination causing displayed photographs to fade.

Simulated in-window display conditions are intended to simulate terrestrial daylight transmitted through standard architectural window glass (double glazing). A typical example of such display can be found when images are displayed in store windows, facing toward the outdoors, so that they can be viewed by people outside of the store[5][6].

NOTE It is recognized that in some instances, physical degradation such as support embrittlement, image layer cracking, or delamination of an image layer from its support, rather than the stability of the image itself, will determine the useful life of a print material.

General guidance is given in ISO 18937-1.

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.

ISO 9370, *Plastics — Instrumental determination of radiant exposure in weathering tests — General guidance and basic test method*

ISO 18913, *Imaging materials — Permanence — Vocabulary*

ISO 18937-1, *Imaging materials — Photographic reflection prints — Methods for measuring indoor light stability — Part 1: General guidance and requirements*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 18913 apply.

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

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

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