

INTERNATIONAL STANDARD

ISO
10157

First edition
1991-06-15

Corrected and reprinted
1991-09-15

Photography — Flash exposure meter — Requirements

Photographie — Exposimètre pour flash — Prescriptions

Sample Document

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Reference number
ISO 10157:1991(E)

Foreword

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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.

International Standard ISO 10157 was prepared by Technical Committee ISO/TC 42, *Photography*.

Annex A of this International Standard is for information only.

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Printed in Switzerland

Photography — Flash exposure meter — Requirements

1 Scope

This International Standard applies to photoelectric flash exposure meters which measure the time integral of the luminance or of the illuminance of a photographic object (to be called thereafter "object") illuminated by a source of light for a brief illumination period¹⁾ and indicate the time integral or a number corresponding to the time integral or the f -number required for the correct exposure of a photographic film with a given speed.

Continuous light, which is available in addition to the light emitted by the flash light source, is also evaluated.

NOTE 1 If the object is illuminated by electronic flash equipment with automatic exposure control, the measuring results of the flash exposure meter can deviate from the calibration values of the flash equipment.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 2720:1974, *Photography — General purpose photographic exposure meters (photoelectric type) — Guide to product specification*.

IEC 68-2-6:1960, *Basic environmental testing procedures for electrical components and electronic equipment — Part 2: Tests — Test F: Vibration*.

IEC 348:1971, *Safety requirements for electronic measuring apparatus*.

3 Definitions

For the purposes of this International Standard, the following definitions apply.

3.1 luminance coefficient, q : The luminance coefficient, q , is the ratio of the luminance, L , of the sample for a given observation direction to the illuminance, E , on the sample ($q = L/E$).

3.2 gate time: The gate time of the measuring circuit is the time in which the flash light meter is measuring.

3.3 storage time: The storage time is that time after the end of the gate time in which the indicated value changes by $\pm 7\%$ [corresponding to $\pm 1/10 E_v$ ²⁾].

3.4 acceptance angle: See definition in ISO 2720.

4 Scales

Relative aperture scale, exposure time scale and film speed scale are to be selected in accordance with ISO 2720.

5 General characteristic quantities of the flash exposure meter

5.1 Measuring range

It is recommended that the measuring range be indicated in candela seconds per square metre when measuring the time integral of luminance of the object and in lux seconds when measuring the time integral of illuminance of the object.

In addition, the aperture range and the luminous time (flash duration) range are to be indicated, in

1) Within the range of gate time specified by the manufacturer for the specific meter.

2) E_v = Exposure value.