
**Photography — Film-based cameras —
Automatic controls of exposure**

*Photographie — Appareils de prise de vues à film — Commandes
automatiques de l'exposition*

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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.

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 2721 was prepared by Technical Committee ISO/TC 42, *Photography*.

This second edition cancels and replaces the first edition (ISO 2721:1982), of which it constitutes a minor revision with the following changes:

- a) The title has been updated from “Cameras” to “Film-based cameras”.
- b) The scope has been updated to include the clarification, “This standard is not applicable to digital cameras.”

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Introduction

This International Standard gives the nominal exposure at the focal plane and its tolerance, which are to be taken as reference values in designing and testing automatic film-based cameras.

“Correct” exposure may vary from one photographer to another due to personal preferences and/or type of photograph. For this reason, no “standard” value for the exposure at the focal plane can be given. However, a “normal” focal plane exposure for a film of a particular speed and an average scene can be determined by allocating representative values to the relevant exposure parameters.

The nominal exposure at the focal plane $H = \frac{H_0}{S}$ or $H = \frac{H_0}{10^{(S^0 - 1)/10}}$ given in this International Standard is determined on the above assumption. Long experience has proved that the above value is adequate for most automatic cameras in most situations.

Since with some cameras the use of a different focal plane exposure gives better results when taking pictures outdoors, the nominal focal plane exposure is only to be considered as a reference value. The tolerance ± 1 step (± 1 Ev) is also a reference value. Experience has proved that this tolerance is satisfactory in most cases. However, a much tighter tolerance, such as $\pm 1/3$ step, is often required by advanced photographers for film such as colour reversal film having limited exposure latitude.

On the other hand, if colour reversal films are not likely to be used in certain kinds of cameras, as in the case of cameras using 110 size colour negative films, even an exposure deviation of + 3 steps or – 1 step is acceptable for such cameras.

Therefore, when testing and/or evaluating an automatic camera according to the methods specified in this International Standard, the above-mentioned points must be taken into consideration. A photographic check of the correct exposure is recommended.

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