BS ISO 2721:2013

BSI Standards Publication

Photography — Film-based cameras — Automatic controls of exposure

bsi.

...making excellence a habit.™

Document Sharing Hub

Full document details: BS ISO 2721:2013

National foreword

This British Standard is the UK implementation of ISO 2721:2013.

The UK participation in its preparation was entrusted to Technical Committee CPW/42, Photography.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

© The British Standards Institution 2013.
Published by BSI Standards Limited 2013.

ISBN 978 0 580 80718 3

ICS 37.040.10

Compliance with a British Standard cannot confer immunity from legal obligations.

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 31 March 2013.

Amendments issued since publication

Date	Text affected

Documents
Document Sharing Hub

Full document details: BS ISO 2721:2013

INTERNATIONAL STANDARD

ISO 2721

Second edition
2013-03-01

Photography — Film-based cameras — Automatic controls of exposure

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

Reference number
ISO 2721:2013(E)

Documents
Document Sharing Hub

© ISO 2013

Full document details: BS ISO 2721:2013

COPYRIGHT PROTECTED DOCUMENT

© ISO 2013

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

Published in Switzerland

© ISO 2013 – All rights reserved

Documents
Document Sharing Hub

Full document details: BS ISO 2721:2013

Contents

Page

Foreword ..... **iv**

Introduction ..... **v**

1 Scope **1**

2 Normative references **1**

3 Terms and definitions **1**

4 Specific requirements **2**
- 4.1 Scales 2
- 4.2 Out-of-range indication 2
- 4.3 The sensors of exposure controls 2

5 Calibration of the exposure controls **3**
- 5.1 Method of calibration 3
- 5.2 Light source for calibration 3
- 5.3 General test conditions 3
- 5.4 Exposure in the focal plane 4

6 Acceptance angles of the photoelectric system **4**
- 6.1 Specific acceptance angle 4
- 6.2 Oblique acceptance angles 4

Annex A (normative) **Measurement of light exposure in the focal plane and calibration of measuring instrument** **5**

Annex B (normative) **Size of measuring area** **8**

Annex C (normative) **Performance test** **9**

Bibliography **11**

© ISO 2013 – All rights reserved

Documents
Document Sharing Hub
Full document details: BS ISO 2721:2013

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.”

© ISO 2013 – All rights reserved
Documents
Document Sharing Hub
Full document details: BS ISO 2721:2013

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 *E*v) is also a reference value. Experience has proved that this tolerance is satisfactory in most cases. However, a much tighter tolerance, such as ± 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.

© ISO 2013 – All rights reserved

Documents
Document Sharing Hub
Full document details: BS ISO 2721:2013