# INTERNATIONAL **STANDARD**

ISO 12231

> Third edition 2012-02-01

# Ph. imax. Photograps. Photography — Electronic still picture





© ISO 2012

duced or utilized in any for a from either ISO at the e All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either ISO at the address below or ISO's member body in the country of the requester.

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

### **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 12231 was prepared by Technical Committee ISO/TC 42, Photography.

The se. This third edition cancels and replaces the second edition (ISO 12231:2005), which has been technically revised.

## Introduction

Electronic still picture imaging concepts are drawn from traditional photography, electronics, video, and information technology. In some cases the concepts are redefined to apply to electronic still picture imaging. For example, unlike traditional photography, measurements cannot be defined in terms of "film" or "sensitized material", since images acquired by digital image capture devices are stored electronically and are not immediately exposed on film. The meaning of shutter and exposure time is also different for digital image capture devices, because an electronic imaging sensor typically has image acquisition characteristics that are different from those of film.

This International Standard provides a vocabulary which standardizes the use and meaning of terms associated with electronic still picture imaging. It is organized alphabetically and follows natural (English) word order wherever possible. The source documents for most of the definitions provided in this International Standard are International Standards on electronic still picture imaging developed by ISO/TC 42 and ISO/TC 130.

Where possible, users are advised to verify if a more recent edition of the source document has been published, a nal. stent with the which contains an updated version of the term and definition. Future revisions of this International Standard will include updated terms and definitions consistent with the source documents at the time the revision is prepared.

# Photography — Electronic still picture imaging — Vocabulary

### 1 Scope

This International Standard defines terms used in electronic still picture imaging.

Only terms related to electronic still picture imaging are defined. These terms are relevant to current tasks or are of general interest in electronic still picture imaging.

### 2 Normative references

The following referenced documents are indispensable for the application 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/IEC 10918-1, Information technology — Digital compression and coding of continuous-tone still images: Requirements and guidelines

ISO 12232, Photography — Digital still cameras — Determination of exposure index, ISO speed ratings, standard output sensitivity, and recommended exposure index

ISO 12234-2, Electronic still-picture imaging — Removable memory — Part 2: TIFF/EP image data format

ISO 15739, Photography — Electronic still-picture imaging — Noise measurements

ISO 21550, Photography — Electronic scanners for photographic images — Dynamic range measurements

IEC 61966-2-1, Multimedia systems and equipment — Colour measurement and management — Part 2-1: Colour management — Default RGB colour space — sRGB

### 3 Terms and definitions

### 3.1

### absolute colorimetric coordinates

tristimulus values, or other colorimetric coordinates derived from tristimulus values, where the numerical values correspond to the magnitude of the physical stimulus

EXAMPLE When CIE 1931 standard colour-matching functions are used, the Y-coordinate value corresponds to the luminance, not the luminance factor (or some scaled value thereof).

[ISO 22028-1:2004, definition 3.1]

### 3.2

### adapted white

colour stimulus that an observer who is adapted to the viewing environment would judge to be perfectly achromatic and to have a luminance factor of unity; i.e. absolute colorimetric coordinates that an observer would consider to be a perfect white diffuser

NOTE 1 The adapted white can vary within a scene.

NOTE 2 See also adopted white (3.5).

NOTE 3 This term is also defined in ISO 22028-1 and ISO/TS 22028-3.

[ISO/TS 22028-2:2006, definition 3.1]