



**International
Standard**

ISO/IEC 29170-3

**Information technology — JPEG AIC
Assessment of image coding —**

Part 3:

**Subjective quality assessment of
high-fidelity images**

**First edition
2026-02**

Standards
(<https://standards.iteh.ai>)
Document Preview

[ISO/IEC 29170-3:2026](https://standards.iteh.ai/catalog/standards/iso/702094ad-76ce-4feb-896e-f19e3898881e/iso-iec-29170-3-2026)

<https://standards.iteh.ai/catalog/standards/iso/702094ad-76ce-4feb-896e-f19e3898881e/iso-iec-29170-3-2026>

iTeh Standards
(<https://standards.iteh.ai>)
Document Preview

[ISO/IEC 29170-3:2026](https://standards.iteh.ai/catalog/standards/iso/702094ad-76ce-4feb-896e-f19e3898881e/iso-iec-29170-3-2026)

<https://standards.iteh.ai/catalog/standards/iso/702094ad-76ce-4feb-896e-f19e3898881e/iso-iec-29170-3-2026>



COPYRIGHT PROTECTED DOCUMENT

© ISO/IEC 2026

All rights reserved. Unless otherwise specified, or required in the context of its implementation, 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
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

Contents

	Page
Foreword	iv
1 Scope	1
2 Normative references	1
3 Terms, definitions, symbols and abbreviated terms	1
3.1 Terms and definitions	1
3.2 Symbols.....	3
3.3 Abbreviated terms.....	4
4 Methodological overview	4
Annex A (normative) Generation of stimuli	7
Annex B (normative) Triplet selection and batch generation	9
Annex C (normative) Observers and viewing conditions	11
Annex D (normative) Boosted and plain triplet comparison (BTC / PTC)	13
Annex E (normative) Data cleansing procedures	15
Annex F (normative) JND scale reconstruction	17
Annex G (informative) Interchange format	21
Annex H (informative) Application range and design rationale	24
Bibliography	29

iTech Standards
 (https://standards.iteh.ai)
 Document Preview

[ISO/IEC 29170-3:2026](https://standards.iteh.ai/catalog/standards/iso/702094ad-76ce-4feb-896e-f19e3898881e/iso-iec-29170-3-2026)

<https://standards.iteh.ai/catalog/standards/iso/702094ad-76ce-4feb-896e-f19e3898881e/iso-iec-29170-3-2026>

Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work.

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 document 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 or www.iec.ch/members_experts/refdocs).

ISO and IEC draw attention to the possibility that the implementation of this document may involve the use of (a) patent(s). ISO and IEC take no position concerning the evidence, validity or applicability of any claimed patent rights in respect thereof. As of the date of publication of this document, ISO and IEC had not received notice of (a) patent(s) which may be required to implement this document. However, implementers are cautioned that this may not represent the latest information, which may be obtained from the patent database available at www.iso.org/patents and <https://patents.iec.ch>. ISO and IEC shall not be held responsible for identifying any or all such patent rights.

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. In the IEC, see www.iec.ch/understanding-standards.

This document was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 29, *Coding of audio, picture, multimedia and hypermedia information*.

A list of all parts in the ISO/IEC 29170 series can be found on the ISO and IEC websites.

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 and www.iec.ch/national-committees.

Information technology — JPEG AIC Assessment of image coding —

Part 3: Subjective quality assessment of high-fidelity images

1 Scope

This document specifies a subjective image quality assessment methodology that covers a range from good quality up to mathematically lossless.

This document is applicable to the assessment of distortions due to image coding (i.e. lossy compression) and not necessarily other kinds of distortions (e.g. capture, sensor or rendering artefacts).

2 Normative references

There are no normative references in this document.

3 Terms, definitions, symbols and abbreviated terms

3.1 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminology 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>

3.1.1

image quality

degree to which an image is free of undesirable aesthetic flaws or noticeable artefacts, as judged by observers

Note 1 to entry: This is an umbrella term that can refer to fidelity, appeal, or a combination of both.

3.1.2

appeal

aesthetic pleasingness of a stimulus under consideration, regardless of its difference with the source image

Note 1 to entry: It is possible to obtain distorted images with a better appeal than the source image (e.g. by applying denoising, sharpening, contrast or saturation stretching, or other image enhancement methods). Appeal of a stimulus can be assessed without reference to the source image.

3.1.3

fidelity

truthfulness to the source image, i.e. the degree to which there is no noticeable difference between the source image and the stimulus under consideration

Note 1 to entry: By definition, the source image itself has the highest possible fidelity; no distorted image can have a higher fidelity. Fidelity of a stimulus can only be assessed in relation to the source image. In this document, image quality refers specifically to fidelity.