

Date: 2025-~~03-18~~xx

<https://standards.iteh.ai/catalog/standards/iso/729e0092-e64d-4f69-9f73-2>

Formatted: Font: Bold

Formatted: HeaderCentered

© ISO 2025

Commented [eXtyle1]: The reference "ISO 2025" is to a withdrawn standard

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.

Formatted: Default Paragraph Font

Formatted: Default Paragraph Font

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

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

ISO/FDIS 3664

<https://standards.iteh.ai/catalog/standards/iso/729e0092-e64d-4f69-9f73-2b2c7b2920c1/iso-fdis-3664>

Formatted: Font: 10 pt

Formatted: Font: 10 pt

Formatted: Font: 11 pt

Formatted: FooterPageRomanNumber, Space After: 0 pt, Line spacing: single

Formatted: Font: 11 pt

Formatted: HeaderCentered, Left, Space After: 0 pt,
Line spacing: single, Tab stops: Not at 0.71 cm

Formatted: Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Contents

Foreword.....vi

Introduction.....vii

1 Scope.....1

2 Normative references.....1

3 Terms and definitions.....2

4 Viewing condition requirements5

4.1 General requirements.....5

4.2 Conditions for critical comparison (ISO viewing conditions P1, P3, T1).....8

4.3 Conditions for practical appraisal of prints (including routine inspection) (ISO viewing condition P2 and P4)11

4.4 Conditions for viewing small transparencies by projection (ISO viewing conditions T2).12

5 Test methods13

5.1 Spectral measurements.....13

5.2 Illuminance and luminance.....13

5.3 Resolution assessment for projection viewing apparatus.....14

Annex A (informative) Summary of viewing conditions specified in this document.....15

Annex B (informative) Validity of requirements for reference viewing conditions for a print....18

Annex C (informative) Guidelines for judging and exhibiting photographs22

Annex D (normative) Conformance test to UV content contained in illumination for P3 and P4 condition.....24

Annex E (informative) Considerations for simultaneous comparison of samples between multiple reference viewing environments.....29

Bibliography33

Foreword.....v

Introduction.....vi

1 Scope.....1

2 Normative references.....1

3 Terms and definitions.....1

4 Viewing condition requirements5

4.1 General requirements.....5

4.1.1 Applicability.....5

4.1.2 Ambient conditions.....5

4.1.3 Viewing apparatus.....6

4.1.4 Spectral conditions for the reference illuminant.....6

4.1.5 Maintenance.....7

4.2 Conditions for critical comparison (ISO viewing conditions P1, P3, T1).....7

4.2.1 Applicability.....7

Formatted: Font: 10 pt

Formatted: FooterCentered, Left, Space Before: 0 pt,
Line spacing: single, Tab stops: Not at 17.2 cm

Formatted: Font: 11 pt

4.2.2	Illumination	8
4.2.3	Illuminance (P1 and P3)	8
4.2.4	Surround and backing for reflection viewing (P1 and P3)	9
4.2.5	Luminance at the surface of the transparency illuminator (T1)	9
4.2.6	Transparency illuminator diffusion characteristics (T1)	9
4.2.7	Transparency surround (T1)	9
4.2.8	Relationship between transparency luminance and print illuminance (P1 or P3 and T1)	10
4.3	Conditions for practical appraisal of prints (including routine inspection) (ISO viewing condition P2 and P4)	10
4.3.1	Applicability	10
4.3.2	Illumination	10
4.3.3	Illuminance	11
4.3.4	Surround and backing	11
4.4	Conditions for viewing small transparencies by projection (ISO viewing conditions T2)	11
4.4.1	Applicability	11
4.4.2	Illumination	11
4.4.3	Luminance	11
4.4.4	Uniformity of the projection screen luminance	11
4.4.5	Surround	11
4.4.6	Ambient light and veiling flare	11
4.4.7	Resolution	11
4.4.8	Distortion	12
5	Test methods	12
5.1	Spectral measurements	12
5.2	Illuminance and luminance	12
5.3	Resolution assessment for projection viewing apparatus	12
Annex A (informative)	Summary of viewing conditions specified in this document	13
Annex B (informative)	Validity of requirements for reference viewing conditions for a print	15
Annex C (informative)	Guidelines for judging and exhibiting photographs	18
C.1	General	18
C.2	Recommendations	19
Annex D (normative)	Conformance test to UV content contained in illumination for P3 and P4 condition	20
D.1	Background	20
D.1.1	General	20
D.1.2	Test method for M2 measurement condition	20
D.1.3	Test method for P3 and P4 viewing condition	21
D.1.3.1	General	21
D.1.3.2	Test substrates	21
D.1.3.3	Test filter	21
D.1.3.4	Test procedure	22
D.2	UV exclusion conformance test	22
D.2.1	Test procedures	22
D.2.1.1	General	22
D.2.1.2	Measurement conditions	22

D.2.1.3 Calculation procedure.....	22
D.2.2 Tolerance.....	23
Annex E (informative) Using a fixed D50 reference illuminant and uniform colour space (UCS) white point in the calculation of the CIE 224 R _t	24
Bibliography.....	26

Formatted: Font: 11 pt

Formatted: HeaderCentered, Left, Space After: 0 pt,
Line spacing: single, Tab stops: Not at 0.71 cm

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

ISO/FDIS 3664

<https://standards.iteh.ai/catalog/standards/iso/729e0092-e64d-4f69-9f73-2b2c7b2920c1/iso-fdis-3664>

Formatted: Font: 10 pt

Formatted: FooterCentered, Left, Space Before: 0 pt,
Line spacing: single, Tab stops: Not at 17.2 cm

Formatted: Font: 11 pt

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.

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 ISO 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).

ISO draws attention to the possibility that the implementation of this document may involve the use of (a) patent(s). ISO takes 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 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. ISO 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. This document was prepared by Technical Committee ISO/TC 42, Photography, in collaboration with Technical Committee ISO/TC 130, Graphic technology. www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 42, Photography, in collaboration with Technical Committee ISO/TC 130, Graphic technology.

This fourth edition cancels and replaces the third edition (ISO 3664:2009), which has been technically revised.

The main changes are as follows:

- adding new viewing conditions P3/P4 for prints using CIE standard illuminant D50 with UV excluded;
- changing some tolerances according to the advance in lighting technology;
- introduced a colour fidelity index in response to the spread of LED lighting;
- removing the conditions for appraisal of image displayed on colour monitor.

This revision of ISO 3664:2009 meets the current needs of the Graphic Technology and Photographic industries and minimizes differences between viewing equipment. It is noted that this revision contains multiple specifications, each of which is appropriate to specific requirements. Users need to ensure that they employ the specification which is appropriate to their application.

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.

Formatted: Font: Bold

Formatted: HeaderCentered

Formatted: Adjust space between Latin and Asian text, Adjust space between Asian text and numbers

Formatted: English (United Kingdom)

Formatted: Default Paragraph Font

Formatted: Default Paragraph Font

Formatted: Default Paragraph Font

Formatted: Adjust space between Latin and Asian text, Adjust space between Asian text and numbers

Formatted: Adjust space between Latin and Asian text, Adjust space between Asian text and numbers, Tab stops: Not at 0.7 cm + 1.4 cm + 2.1 cm + 2.8 cm + 3.5 cm + 4.2 cm + 4.9 cm + 5.6 cm + 6.3 cm + 7 cm

Formatted: Default Paragraph Font

Formatted: Default Paragraph Font

Formatted: Default Paragraph Font

Formatted: Adjust space between Latin and Asian text, Adjust space between Asian text and numbers

Commented [eXtyle2]: The URL <https://www.iso.org/members.html> has been redirected to <http://www.iso.org/about/members>. Please verify the URL.

Formatted: Font: 10 pt

Formatted: Font: 10 pt

Formatted: Font: 11 pt

Formatted: FooterPageRomanNumber, Space After: 0 pt, Line spacing: single