

STN	Kolorimetria Časť 1: Normálny kolorimetrický pozorovateľ CIE (ISO/CIE 11664-1: 2019)	STN EN ISO/CIE 11664-1 67 2060
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Colorimetry - Part 1: CIE standard colorimetric observers (ISO/CIE 11664-1:2019)

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

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Colorimetry - Part 1: CIE standard colorimetric observers (ISO/CIE 11664-1:2019)

Colorimétrie - Partie 1: Observateurs CIE de référence
pour la colorimétrie (ISO/CIE 11664-1:2019)

Farbmetrik - Teil 1: CIE farbmétrische
Normalbeobachter (ISO/CIE 11664-1:2019)

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EN ISO/CIE 11664-1:2019 (E)

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European foreword

This document (EN ISO/CIE 11664-1:2019) has been prepared by Technical Committee CEI "International Commission on Illumination" in collaboration with Technical Committee CEN/TC 139 "Paints and varnishes" the secretariat of which is held by DIN.

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Colorimetry —

Part 1: CIE standard colorimetric observers

Colorimétrie —

Partie 1: Observateurs CIE de référence pour la colorimétrie

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Foreword

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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 documents 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).

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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 the International Commission on Illumination (CIE) in cooperation with Technical Committee ISO/TC 274, *Light and lighting*.

This first edition of ISO/CIE 11664-1 cancels and replaces ISO 11664-1:2007 | CIE S 014-1:2006, of which it constitutes a minor revision, incorporating minor editorial updates.

A list of all parts in the ISO 11664 and ISO/CIE 11664 series can be found on the ISO website.

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Introduction

Colours with different spectral compositions can look alike. An important function of colorimetry is to determine whether a pair of such metameric colour stimuli will look alike. The use of visual colorimeters for this purpose is handicapped by variations in the colour matches made among observers classified as having normal colour vision. Visual colorimetry also tends to be time-consuming. For these reasons, it has long been the practice in colorimetry to make use of sets of colour-matching functions to calculate tristimulus values for colours: equality of tristimulus values for a pair of colours indicates that the colour appearances of the two colours match, when they are viewed in the same conditions by an observer for whom the colour-matching functions apply. The use of standard sets of colour-matching functions makes the comparison of tristimulus values obtained at different times and locations possible.

Colorimetry —

Part 1: CIE standard colorimetric observers

1 Scope

This document specifies colour-matching functions for use in colorimetry. Two sets of colour-matching functions are specified.

- a) Colour-matching functions for the CIE 1931 standard colorimetric observer.

This set of colour-matching functions is representative of the colour-matching properties of observers with normal colour vision for visual field sizes of angular subtense from about 1° to about 4° , for vision at photopic levels of adaptation.

- b) Colour-matching functions for the CIE 1964 standard colorimetric observer.

This set of colour-matching functions is representative of the colour-matching properties of observers with normal colour vision for visual field sizes of angular subtense greater than about 4° , for vision at sufficiently high photopic levels and with spectral power distributions such that no participation of the rod receptors of the retina is to be expected.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

CIE S 017:—,¹⁾*ILV: International Lighting Vocabulary*

koniec náhľadu – text ďalej pokračuje v platenej verzii STN

1) Under preparation. Stage at the time of publication: CIE DIS 017:2016.