



CIE Standard S 014-2/E:2006 Colorimetry - Part 2: CIE Standard Illuminants

This CIE Standard replaces ISO 10526:1999/CIE S005:1998. It contains only minor changes from the previous standard, mainly concerning the wavelengths that are to be taken as being in standard air, to make the Standard conform to other CIE photometric and colorimetric data.

CIE standard illuminants are used in colorimetry to compute the tristimulus values of reflected or transmitted object colours under specified conditions of illumination. This International Standard specifies two illuminants for use in colorimetry:

CIE standard illuminant A

This is intended to represent typical, domestic, tungsten-filament lighting. CIE standard illuminant A should be used in all applications of colorimetry involving the use of incandescent lighting, unless there are specific reasons for using a different illuminant.

CIE standard illuminant D65

This is intended to represent average daylight. CIE standard illuminant D65 should be used in all colorimetric calculations requiring representative daylight, unless there are specific reasons for using a different illuminant. Variations in the relative spectral power distribution of daylight are known to occur, particularly in the ultraviolet spectral region, as a function of season, time of day, and geographic location. However, CIE standard illuminant D65 should be used pending the availability of additional information on these variations.

The numerical values of the relative spectral distributions of standard illuminants A and D65 defined by this Standard are the same, within an accuracy of six significant digits, as those defined in earlier versions of these illuminants.

This standard has been approved by CIE National Committees. It may be obtained from the national CIE organisations or via the website of the Central Bureau of the CIE (www.cie.co.at).

Price of this standard: EUR 38,- (Members of national CIE organisations get 50% discount).