

## **CIE Standard Illuminants for Colorimetry**

CIE S 014-2/E:2006

This CIE Standard is a renumbering of ISO 10526/CIE S014-2:2006, which contained only minor changes in comparison to 10526:1999, 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 and ISO. It may be obtained via the website of the Central Bureau of the CIE ([www.cie.co.at](http://www.cie.co.at)).

The price of this publication is EUR 44,- (Members of national CIE organisations get 50% discount).