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A Computerized Approach to Transmission and Absorption Characteristics of the Human Eye (incl. Erratum 1)

CIE 203:2012 incl. Erratum 1

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There has long been a need for a series of reference spectral transmission and absorption data for the human eye for applications in eye research and optical safety studies. TC 6-15 collected spectral data from the literature and determined from that literature the best form for the wavelength dependence of the transmission and absorption of the components of the human eye. After critical review, the data have been compiled in tabular form in comma-delimited computer-accessible data files. The tabulated data consist of the transmission and absorption data of the clear ocular media, including the cornea, the aqueous, the lens, and the vitreous of the young (< 10 years old) human eye and the rhesus eye for the wavelength range of 200 nm to 2500 nm. Transmittance data of the total clear ocular media in the human eye for the wavelength range 300 nm to 700 nm and for ages between 1 year and 100 years are also tabulated. These data can be downloaded by readers of this Technical Report from the CIE website.

This publication corrects and replaces CIE 203:2012 "A Computerized Approach to Transmission and Absorption Characteristics of the Human Eye".

An Erratum is included that shows corrected Equations 4 and 5 as well as 2 changes in wording in Section 4.6.

The publication is written in English, with a short summary in French and German. It consists of 66 pages with 23 figures and 9 tables and is readily available at the National Committees of the CIE or via the [CIE Webshop](#).

The Erratum is freely downloadable from the [CIE Website](#).

The following members of TC 6-15 "A Computerized Approach to Reflection, Transmission, and Absorption Characteristics of the Human Eye" took part in the preparation of this Technical Report. The committee comes under Division 6 "Photobiology and Photochemistry".

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