



Designation: E 313 – 9800

Standard Practice for Calculating Yellowness and Whiteness Indices from Instrumentally Measured Color Coordinates¹

This standard is issued under the fixed designation E 313; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ε) indicates an editorial change since the last revision or reapproval.

This standard has been approved for use by agencies of the Department of Defense.

1. Scope

1.1 This practice provides numbers that correlate with visual ratings of yellowness or whiteness of white and near-white or colorless object-color specimens, viewed in daylight by an observer with normal color vision. White textiles, paints, and plastics are a few of the materials that can be described by the indices of yellowness or whiteness calculated by this practice.

1.2 For a complete analysis of object colors, by a specified observer and under a specified illuminant, use of three parameters is required. For near-white specimens, however, it is often useful to calculate single-number scales of yellowness or whiteness. This

¹ This practice is under the jurisdiction of ASTM Committee E12 on Color and Appearance and is the direct responsibility of Subcommittee E12.04 on Color and Appearance Analysis.

Current edition approved ~~Oct. Dec.~~ 10, ~~1998.~~ 2000. Published ~~December 1998.~~ February 2001. Originally published as E 313 – 67. Last previous edition E 313 – 968.