



Standard Practice for Visual Evaluation of the Lightfastness of Art Materials by the User¹

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1. Scope

1.1 This practice covers a method for exposing specimens of colored art materials indoors to sunlight coming through a closed window. Any color change is compared to fading in a Blue Wool Reference² and exposed simultaneously.

1.2 This practice shall only be used by individuals to select materials with satisfactory lightfastness for their own use or to identify materials that require special protection from light. When test information is to be communicated to others, Test Methods D4303 or Practice D5383 must be used.

1.3 This practice may be used to indicate art materials that will change color within a few months or years in normal indoor exposure and those that will remain unchanged for a period of years. It is not rigorous enough to verify that materials will remain unchanged for more than fifty years in a home or office environment. A major consideration in developing this method was to keep it simple and short enough to be performed without instrumentation in a comparatively short length of time.

1.4 This practice is not suitable for evaluating the lightfastness of materials with a high oil content such as artists' oil, resin-oil or alkyd paints.

1.5 The values stated in SI units are to be regarded as the standard. The values given in parentheses are for information only.

1.6 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

¹ This practice is under the jurisdiction of ASTM Committee D01 on Paint and Related Coatings, Materials, and Applications and is the direct responsibility of Subcommittee D01.57 on Artist Paints and Related Materials.

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² ISO Blue Wool Reference 3 is available from the Society of Dyers and Colourists, P.O. Box 244, Grattan Road, Radford, West Yorkshire, BD12 1JB, England, or as the third band from the top of the Textile Fading Card from Talas, Division of Technical Library Service, Inc., 213 West 35th St., New York, NY 10001-1996.

2. Referenced Documents

2.1 ASTM Standards:³

D4303 Test Methods for Lightfastness of Colorants Used in Artists' Materials

D5383 Practice for Visual Determination of the Lightfastness of Art Materials by Art Technologists

E284 Terminology of Appearance

2.2 Other Standards:

ISO/R 105-B Textiles Tests for Colour Fastness Part B: Colour Fastness to Light and Weathering⁴

British Standards Institute (BSI) 1006 Group B Methods for Colour Fastness of Textiles and Leathers⁵

3. Terminology

3.1 The definitions included in Terminology E284 are applicable to this practice.

3.2 Definitions of Terms Specific to This Standard:

3.2.1 *bloom, n*—a cloudy coating, sometimes appearing on colored pencil drawings due to migration of wax to the surface, that can be made transparent by gentle polishing.

3.2.2 *fugitive color, n*—colorant that changes color in a few days or weeks, or that bleaches white in less than 18 months, when exposed behind glass to sunlight.

3.2.3 *glazing, n*—the transparent glass or plastic sheet placed in front of a picture when it is framed.

3.2.4 *substrate, n*—the white, pH neutral paper or board on which the art materials are applied.

4. Summary of Practice

4.1 This practice employs as a control Blue Wool Reference 3 from the series of eight Blue Wool References of known lightfastness that were developed for use with ISO/R 105-B⁴ and BSI 1006 Group B.⁵

³ For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

⁴ ISO/R 105-B is available from American National Standards Institute (ANSI), 25 W. 43rd St., 4th Floor, New York, NY 10036, <http://www.ansi.org>.

⁵ British Standard 1006 Group B is available from British Standards Institute (BSI), 389 Chiswick High Rd., London W4 4AL, U.K., <http://www.bsi-global.com>.