

National Bureau of Standards

Certificate

Standard Reference Material 1008

Photographic Step Tablet

I.D. No. _____

Date Packaged: _____

This Standard Reference Material (SRM) is intended for use in the calibration of optical densitometers and similar equipment used in the photographic and graphic art fields. SRM 1008 is certified for optical densities from 0 to 4. The certified values for the optical densities are recorded on the envelope that contains the SRM.

The densities of the steps of this tablet were compared with those of a National Bureau of Standards standard photographic step tablet that has been calibrated by methods that conform to conditions specified for American National Standard Diffuse Visual Transmission Density, D_t ($\leq 10^\circ$; $S_a:90^\circ$ Opal; V_t), in ANSI PH2.19-1986 and ANSI/ISO 5/2 -1985, "for Photography (Sensitometry)-Density Measurements - Geometric Conditions for Transmission Density," and in ANSI PH2.18-1985 and ANSI/ISO 5/3-1984, "for Photography (Sensitometry)-Density Measurements - Spectral Conditions." The measurements were made within a circle 3 mm in diameter at the center of each step and the certified values apply to this area only.

The densities listed on the envelope are the averages of three independent measurements by a method having a precision such that three times the standard deviation of the mean is 0.01 or 1 percent, whichever is greater. In using the step tablets, the emulsion side of the step tablet should be placed toward the diffuser.

The densities of this photographic step tablet may change with time. To minimize such changes, the tablet should be stored in a cool, dry place, where it will not be exposed to light, or other radiant energy, or to chemical fumes, or dust in the air. Scratches, abrasion marks, or foreign matter on the tablet can change the density. Fingerprints are a common source of contamination. Fingerprints on the tablet surface can be avoided by handling the step tablet by the edges only and by wearing clean cloth gloves sold by photographic dealers for this purpose. Any attempt to clean a film step tablet, other than to remove dust with a soft camel-hair brush, is also likely to change the densities.

Measurements leading to certification were made by L. Fink of the Radiometric Physics Division, NBS National Measurement Laboratory.

The preparation, certification, and issuance of this Standard Reference Material were coordinated through the Office of Standard Reference Materials by R.W. Seward.

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Stanley D. Rasberry, Chief
Office of Standard Reference Materials