.S. DEPARTMENT OF COMMERCE
'ational Bureau of Standards
/ashington, D.C. 20234

NBS Misc. Publ. 259*
Issued June 26, 1964
Price 5 cents

SELECTION OF CAMERA FILTERS FOR COLOR PHOTOGRAPHY

One of the problems facing the serious color photographer—whether he is a hobbyist or , scientist trying to record accurately some physical phenomenon—is matching his color film o the light he is using to take the picture.

Color films are usually balanced for a particular kind of light, classified as "daylight," 'flash," "3200 °K," or "photoflood." When a film is used in light with a different color ›alance, filters are used over the camera lens to bring the combination back into agreement.

This chart provides a quick and easy way to select the right filter for almost any combination ›f light source and color film. A straightedge laid across the three scales so that it connects .he light source and the color film will cross the center line at a point corresponding to the ›roper filter. Notations consisting of a series of filter designations (e.g., 80b+82c+82a) nean that *all* these filters should be used at once for proper correction. When color correcting ilters are used, the exposure must be increased by the "filter factor" assigned by the filter nanufacturer.

The chart was prepared by C. S. McCamy of the NBS Photographic Research Section.

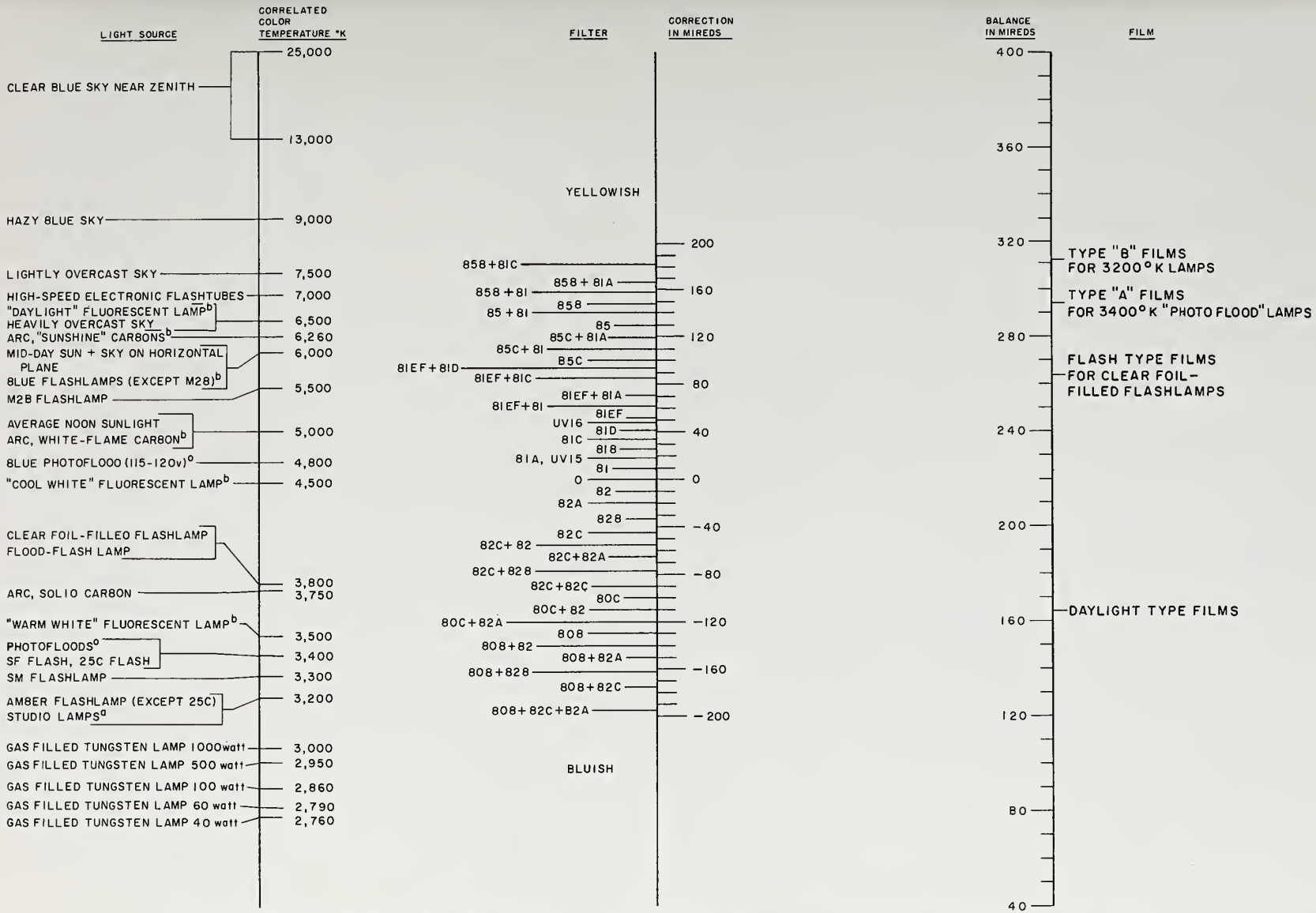
ANOTHER NBS PUBLICATION OF INTEREST TO PHOTOGRAPHERS

Method for Determining the Resolving Power of Lenses (NBS Circular 533) provides the photographer with two sets of charts by which the resolving power of a photographic lens may be numerically measured. The accompanying booklet gives a detailed description of the procedure and technique to be followed in order that comparable values may be obtained by different observers. Additional uses of these charts are also described, including the testing of goggle lenses for definition and prismatic power, and the testing of telescopes and binoculars for definition.

NBS Circular 533,* Method for Determining the Resolving Power of Photographic Lenses, by Washer and Gardner, $1.75 (add one-fourth for foreign mailing).

*For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C., 20402 5 cents

COLOR FILTER NOMOGRAPH



a- The correlated color temperature of these lamps increases about 11°K for each volt increase in applied potential, in the neighborhood of 115v. As lamps are used, the correlated color temperature (at a given voltage) decreases, often from 50°K above to 50°K below the rated value during the life of the lamp.

b- Color temperature is only an approximate specification of these sources.