RP 59-1999
Revision of RP 59-1995

SMPTE RECOMMENDED PRACTICE

Color and Luminance of Review Room Screens for Viewing Motion-Picture Materials Intended for Slides or Film Strips

1 Scope

This practice specifies the luminance (photometric brightness) and color quality of projection illumination in review rooms for prints on motion-picture film intended for ultimate use as slides or film strips.

2 Luminance level

The luminance (photometric brightness) at the center of the screen shall be 16 fL ± 2 fL (55 cd/m^2 ± 7 cd/m^2), measured within the standard observing area with the projector in complete operation but with no film in the aperture.

3 Spectral distribution

The color quality of the projected light reflected from the screen surface shall approximate the spectral distribution of a black body at a color temperature between 3200 K (x = 0.42, y = 0.40) and 3450 K (x = 0.41, y = 0.41), which is the approximate color quality produced by a 3200 K (incandescent) lamp burned at its rated voltage as modified by normal lamphouse optics and heat-absorbing filter in the projector.

4 Special applications

Prints balanced for higher color temperatures may be requested when use conditions are known to require them for optimum quality (such as for xenon or arc projection or for television). ANSI/SMPTE 196M encompasses the above specifications as part of a broader set of specifications and gives detailed descriptions of methods of measurement and surrounding conditions. EBU 3091 should be used when slides are specifically requested for television.

Annex A (informative)
Additional data

It is the purpose of this practice to specify the brightness and color quality of standard review room conditions for the subjective evaluation of motion-picture prints in the laboratory when the intended use of the prints will be as slides or film strips.

If the viewing conditions used to establish normal printing conditions of density and color balance for any laboratory are the same from laboratory to laboratory, there should be greater consistency in standard prints from various sources.

Because the conditions of ultimate use may vary greatly in terms of such factors as screen brightness and ambient light, it is quite possible that prints may be ordered at densities greater or less than normal.

Annex B (informative)
Bibliography

ANSI/SMPTE 196M-1995, Motion-Picture Film — Indoor Theater and Review Room Projection — Screen Luminance and Viewing Conditions

EBU 3091 (1970), Optical Viewing Conditions for Films Intended for Colour Television

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