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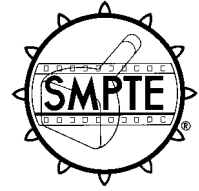
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SMPTE RECOMMENDED PRACTICE

Critical Viewing Conditions for Evaluation of Color Television Pictures



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1 Scope

1.1 This practice specifies the environmental and surround conditions that are required in television or video program review areas for the consistent and critical evaluation of 525-line, 59.94-field television signals and other video program material at different technical facilities on properly aligned color picture monitors.

1.2 This practice also is designed to provide for repeatable color grading or correction and the rendering of subjective assessments when used with RP 167.

2 Color monitor characteristics

Parameters for the monitor screen at reference white (100 IRE) are as follows:

- a chromaticity of illuminant D₆₅;
- a screen aim luminance of 120 cd/m² (35 fL).

3 Observer viewing characteristics

3.1 The observer should have normal color perception.

3.2 Adequate time must be allowed for visual adaptation to the viewing environment.

3.3 The observer's distance from the monitor screen should be 4–6 picture heights.

3.4 The observer should view the monitor screen at a preferred angle in both the horizontal and vertical planes of $0^\circ \pm 5^\circ$, but no greater than $\pm 15^\circ$, from the perpendicular to the midpoint of the screen.

4 General conditions — Viewing area decor

4.1 The viewing area decor should have a generally neutral matte impression, without dominant colors (see A.4). It is most critical that areas in the field of view be devoid of vivid colors.

4.2 Surface reflectances should be nonspecular and should not exceed 10% of the peak luminance value of the monitor white. Surfaces which may be visible in the monitor screens, due to the mirror effect, should have a nonspecular surface reflectance of less than 15%.

4.3 Production desk and control console surfaces should have a generally neutral matte finish without dominant colors or specular features.

5 Surround characteristics

5.1 The surround wall should be either illuminated or reflective (see A.2 and A.3).

5.2 The reflective surround should be a visually neutral surface (preferably white or gray).

5.3 The reflective surround should be illuminated with a light quality closely matching illuminant D₆₅. Generally, the reflective surround receives its illumination from the controlled ambient lighting in the room (see clause 7).

5.4 The reflected light from the surround or background in the field of view should have a peak luminance of 12 cd/m² (3.5 fL) which is nominally 10% of the monitor screen(s) reference white (see A.2). Practice has shown that a