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Note:

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SMPTE STANDARD

SMPTE 417M-2005

for Motion-Picture Film (65-mm) — Camera Aperture Image and Usage, 15/70 Format



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1 Scope

1.1 This standard specifies the dimensions of the camera aperture image and the relative positions of the vertical and horizontal centerlines of the intended image area with respect to the reference edge and the perforations of the camera negative film for 65-mm 15/70 motion-picture cameras.

1.2 This standard also specifies the position of the emulsion and the normal frame rate.

2 Normative reference

The following standard contains provisions which, through reference in this text, constitute provisions of this standard. At the time of publication, the edition indicated was valid. All standards are subject to revision, and parties to agreement based on this standard are encouraged to investigate the possibility of applying the most recent edition of the standard indicated below.

SMPTE 145-2004, Motion-Picture Film (65-mm) — Perforated KS

3 Dimensions

3.1 The dimensions shall be as specified in figure 1 and table 1. They shall apply to measurements of the images formed on freshly exposed and processed film.

3.2 The angle between the vertical edges of the aperture and the edge of normally positioned film shall be $90^\circ \pm 1/2^\circ$.

3.3 The angle between the horizontal and vertical edges of the aperture shall be $90^\circ \pm 1/2^\circ$.

4 Perforations

4.1 Film intended for use according to this standard shall be perforated in accordance with SMPTE 145.

4.2 Perforation style shall be "short pitch"; i.e., 0.1866 inches or 4.74-mm pitch.

5 Camera usage

5.1 Emulsion position

The emulsion side of the film shall be toward the camera lens.

5.2 Frame rate

The standard frame rate for this film format is 24 frames per second, although higher or lower rates may be used for effects or in other special situations.

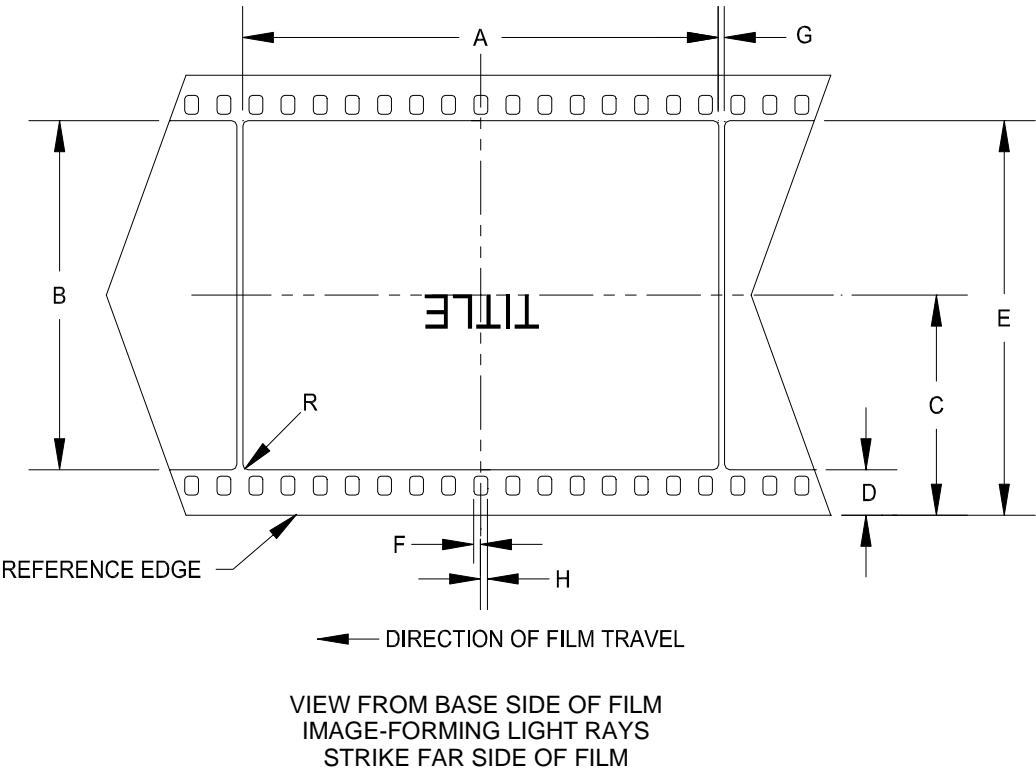


Figure 1 – Camera aperture area of film

Table 1 – Dimensions

| Dimensions | Description | Inches | Millimeters |
|------------|--------------------------------|-----------------|-----------------|
| A | Camera aperture width | 2.772 nom | 70.41 nom |
| B | Camera aperture height | 2.032 nom | 51.61 nom |
| C | Reference edge to centerline | 1.279 nom | 32.49 nom |
| D | Reference edge to image top | .263 ref | 6.68 ref |
| E | Reference edge to image bottom | 2.295 ref | 58.29 ref |
| G | Frame line | .027 ref | 0.69 ref |
| F=H | Image center to perforation | nominally equal | nominally equal |
| R | Corner radius | .030 max | 0.76 max |