

Cinematography — Projector usage of 8 mm Type R silent motion-picture film for direct front projection — Specifications

1 Scope and field of application

This International Standard specifies the emulsion orientation, the rate of projection and the position of the projected image area in the projector, intended for direct front projection of 8 mm, Type R silent motion-picture film.

2 References

ISO 28, *Cinematography — Camera usage of 8 mm Type R motion-picture film — Specifications.*

ISO 74, *Cinematography — Image area produced by camera aperture and maximum projectable image area on 8 mm Type R motion-picture film — Positions and dimensions.*

3 Emulsion orientation

When the projected film is the original, after reversal processing, the emulsion orientation of the film shall be towards the projection lens as shown in the figure.

NOTE — Under certain conditions films may be produced by contact printing from original photographs.

Such films may be threaded into the projector with the emulsion side towards the light source. The appropriate orientation should be indicated on the leader or on the container. There should be no scenes with different emulsion orientation on the same film or on the same reel.

4 Rate of projection

The rate of projection shall be 18 ± 1 frames per second (preferred) or 16 ± 2 frames per second.

NOTES

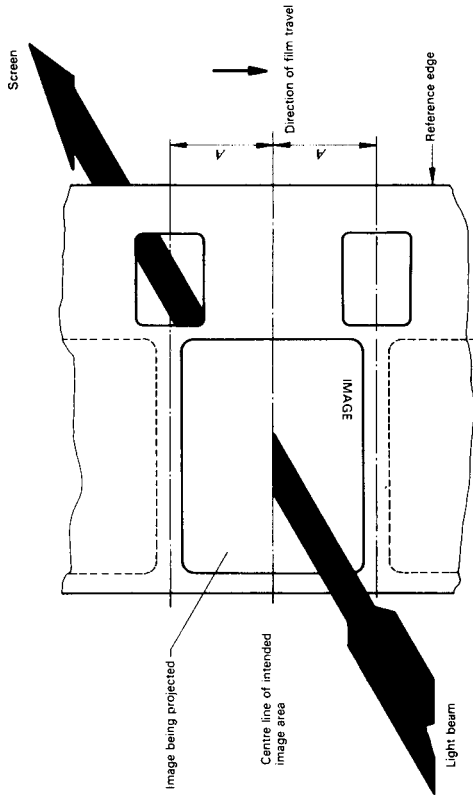
1 In silent projectors not having a variable rate of projection, the nominal rate should be either 18 (preferred) or 16 frames per second. Silent projectors having manually adjustable speed should be capable of reaching projection rates of 16 and 18 frames per second.

2 Under certain conditions, the rate of projection of silent motion-picture films may be 24 frames per second.

5 Position of the projected image area

The projected image area should be located in the vertical direction so that the horizontal axis of the projected area passes through the middle of the distance between the film perforations, as shown in the figure (dimension A).

It is recommended that projectors be provided with a framing movement of 0.4 mm (0.015 in) minimum above and below the nominal position.



The film is shown as seen from the light source in the projector looking towards the projector lens.

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of Plumbicon® TV camera tubes:
with them begins the age of Electronic Cinematography.*



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The new generation of Amperex Plumbicon TV pickup tubes, in combination with recent advances in new camera design and videotaping systems, is destined one day to reduce to near-zero the use of film in broadcast cinematography and in motion picture production. Now, indeed, begins a new era...and a new art form: Electronic Cinematography. All-electronic production will offer a technically superior product, and will permit shorter lead times between production and broadcast...and it allows motion picture directors to combine the creative aspects of single-camera film production with the immediacy of live-on-tape TV techniques.

All this has been no accident, of course. We, for instance, have been working toward this moment ever since the introduction of the original Plumbicon tube...right through the advent of ENG, first brought to reality by our 2/3-inch version of the Plumbicon tube.

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