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ISO

revised

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION

ISO RECOMMENDATION
R 74

CINEMATOGRAPHY

IMAGE PRODUCED BY CAMERA APERTURE AND PROJECTED IMAGE AREA FOR 8 mm FILMS

1st EDITION

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BRIEF HISTORY

The ISO Recommendation R 74, *Image Produced by Camera Aperture and Projected Image Area for 8 mm Films*, was drawn up by Technical Committee ISO/TC 36, *Cinematography*, the Secretariat of which is held by the American Standards Association, Inc. (ASA).

In April 1952, the Technical Committee Secretariat proposed the study of the question, and that the American standards Z22.19–1950 (image produced by camera aperture) and Z22.20–1950 (projected image area) be taken as a basis for discussion.

ISO/TC 36 considered the proposal at its first meeting, which was held in New York in June 1952. It entrusted the Secretariat with the drawing up of a draft proposal based on each of the two American standards, taking into account certain improvements decided upon at the meeting.

The two draft proposals were submitted in September 1954 to the members of the Technical Committee and adopted as Draft ISO Recommendations, no objection having been raised.

In May 1955, the two Draft ISO Recommendations were submitted to all the ISO Member Bodies, but Technical Committee ISO/TC 36 decided at its second meeting, held in Stockholm in June 1955, to introduce some improvements.

In March 1957, the Drafts thus amended were submitted to all the ISO Member Bodies as second Draft ISO Recommendations and were approved by the following 19 (out of a total of 38) Member Bodies:

*Australia	Italy	Spain
Belgium	Japan	Sweden
*Bulgaria	*Mexico	Switzerland
Canada	*New Zealand	United Kingdom
*Denmark	*Portugal	U.S.A.
*Hungary	Romania	U.S.S.R.
*Ireland		

No Member Body opposed approval of the Drafts.

The two Draft ISO Recommendations were then submitted by correspondence to the ISO Council, which decided, in December 1958, to accept them as ISO RECOMMENDATIONS. On the proposal of the General Secretariat, it was decided to group the two ISO Recommendations into one.

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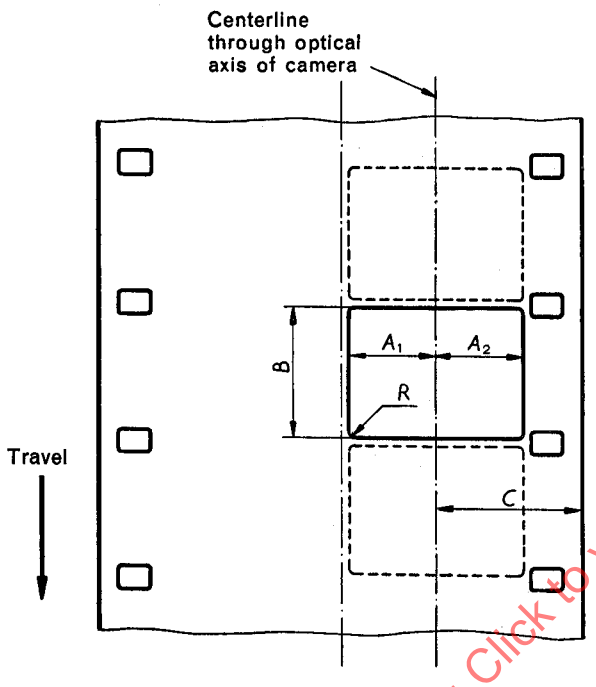
* These Member Bodies stated that they had no objection to the Drafts being approved.

ISO Recommendation R 74 December 1958

CINEMATOGRAPHY

IMAGE PRODUCED BY CAMERA APERTURE AND PROJECTED IMAGE AREA FOR 8 mm FILMS

1. Image produced by camera aperture



Film as seen from inside camera, looking toward the lens.

The camera aperture plate and the camera film registration device should be so related dimensionally that the framelines between the images are coincident with the centerlines of the sprocket holes.

The angle between the vertical edges of the aperture and the edges of normally positioned film should be $0° \pm {}^1/_2°$.

The angle between the horizontal edges of the aperture and the edges of normally positioned film should be $90° \pm {}^1/_2°$.

Dimension	Millimeters	Inches	Observations
A_1	2.39 min. 2.64 max.	0.094 min. 0.104 max.	See Note 1
A_2	2.39 min.	0.094 min.	See Note 1
B	$3.51 \begin{matrix} + 0.200 \\ - 0.025 \end{matrix}$	$0.138 \begin{matrix} + 0.008 \\ - 0.001 \end{matrix}$	See Note 1
C	5.21 ± 0.05	0.205 ± 0.002	See Note 2
R	0.25 max.	0.010 max.	See Note 1

Note 1: Dimensions A, B and R apply to the size of the image at the plane of the emulsion; the actual picture aperture has to be slightly smaller. The exact amount of this difference depends on the lens used and on the separation of the emulsion and the physical aperture. This separation should be no larger than is necessary to preclude scratching of the film. The greatest difference between the image size and the aperture size occurs with short focal-length, large diameter lenses.

It is desirable to hold the vertical height of the actual aperture to a value that will insure a real (unexposed) frameline. This results in less distraction when the frameline is projected on the screen than is the case when adjacent frames overlap.

Note 2: The value of dimension C has been chosen on the assumption that the film will have a slight shrinkage, when it is run through the camera. This is the normal condition.