

ISO

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION

36

Rev.

**ISO RECOMMENDATION
R 70**

CINEMATOGRAPHY
PHOTOGRAPHIC SOUND RECORD ON 35 mm PRINTS

1st EDITION —
December 1958

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Printed in Switzerland

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BRIEF HISTORY

The ISO Recommendation R 70, *Photographic Sound Record on 35 mm Prints*, 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 1948, the Technical Committee Secretariat proposed the study of the question, and that the American standard Z22.40-1946 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 the American standard, taking into account certain improvements decided upon at the meeting.

The draft proposal was submitted in September 1954 to the members of the Technical Committee and adopted as a Draft ISO Recommendation, no objection having been raised.

In May 1955, the Draft ISO Recommendation was 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 Draft thus amended was submitted to all the ISO Member Bodies as a second Draft ISO Recommendation and was approved by the following 20 (out of a total of 38) Member Bodies:

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

No Member Body opposed approval of the Draft.

The Draft ISO Recommendation was then submitted by correspondence to the ISO Council, which decided, in December 1958, to accept it as an ISO RECOMMENDATION.

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

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PHOTOGRAPHIC SOUND RECORD ON 35 mm PRINTS

1. SCOPE

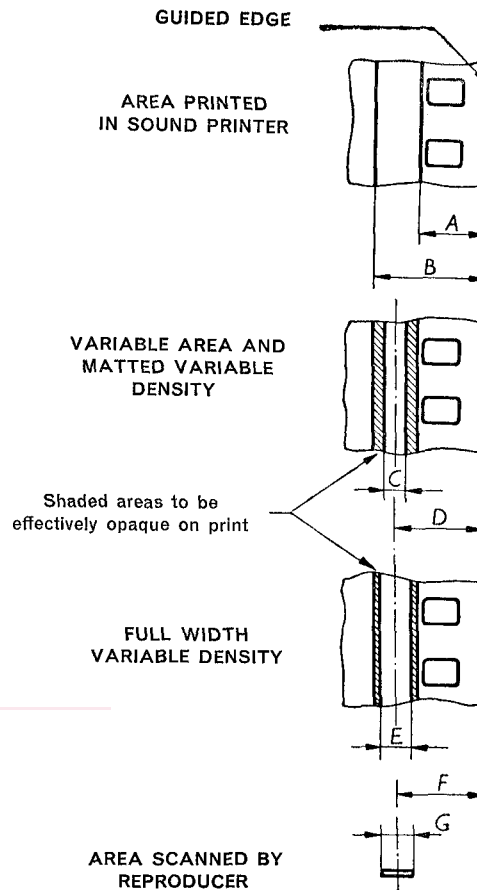
1.1 This ISO Recommendation specifies the location and dimensions of variable area and variable density sound records for the photographic printing of sound on 35 mm sound motion-picture prints. Also specified is the area scanned in the sound reproducer.

2. DIMENSIONS

2.2 The dimensions are as specified in the figures and table.

2.3 The sound record as printed on the film is displaced from the center of the corresponding picture by a distance of 21 frames $\pm \frac{1}{2}$ frame in the direction of film travel during normal projection.

2.4 When the distance from the center of the projector gate to the sound scanning point is 20 frames, the picture and sound are in synchronism for an observer at a distance of 15 m (50 ft) from the speaker.



Dimension	Millimeters	Inches
A	4.88 ± 0.02	0.192 ± 0.001
B	7.83 ± 0.05	0.308 ± 0.002
C	1.93 ± 0.02	0.076 ± 0.001
D	6.17 ± 0.05	0.243 ± 0.002
E	$2.54 \begin{matrix} + 0.00 \\ - 0.20 \end{matrix}$	$0.100 \begin{matrix} + 0.000 \\ - 0.008 \end{matrix}$
F	6.19 ± 0.05	0.244 ± 0.002
G	2.13 ± 0.02	0.084 ± 0.001