banda en la relación de 2 a 1. Fué encontrada una diferencia estadísticamente significante entre un canal sin ruidos parásitos y otro en el cual se habían introducido ruidos con una relación de señal a ruido de 40 dB, cuando las oscilaciones primarias, transitorias tenían una magnitud del 6% de la amplitud de la señal. Aunque se encontró que hay considerable tolerancia a las oscilaciones transitorias, secundarias, asociadas a oscilaciones primarias de mayor magnitud, su presencia disminuyó la calidad de la imagen en todos los casos.

Algunas consideraciones con respecto a la transmisión de películas en colores por TV

C. B. B. WOOD [256]

Es conveniente que las películas a ser transmitidas por TV tengan características especialmente adaptadas a las condiciones de observación y a la capacidad de manejo del contraste, propia de la cadena de reproducción de TV. Con las modernas técnicas de transmisión de películas puede acomodarse eficientemente una amplia variación en el contraste de películas. En la actualidad se emplean funcionalmente procedimientos electrónicos para el realce de la saturación de color de la imagen reproducida. A pesar de estos adelantos sigue siendo deseable que las películas a transmitir por TV tengan características especialmente a propósito para las condiciones en que se observa la imagen de TV y adecuadas a la capacidad de ajuste de contraste de las instalaciones de TV. (Tr. Pablo Weinschenk-Tabernero)

Un amplificador combinado para tratamiento de la señal de video, con control automático de ganancia

RICHARD S. WISE [261]

Recientes refinamientos en los semiconductores han permitido reproducir el funcionamiento del tubo de ganancia variable al vacio mediante un dispositivo constituido por semiconductores de rendimiento mejorado. Al combinar este refinamiento con la tecnología actual de circuitos de los amplificadores para tratamiento de la señal de video, se hace enteramente factible diseñar y construir un amplificador de tratamiento de video con control de ganancia automático, de alto rendimiento y sin las limitaciones que imponían los equipos anteriores. Se describe el funcionamiento y manejo y la constitución de ciertos circuitos de esta clase de amplificador.

Empleo de película cinematográfica y de TV para la presentación eficiente de propuestas técnicas

JOHN L. GLENN y FRANK B. POLLARD [266]

Se da una descripción de una propuesta reciente, referente a un contrato sobre carga útil aerobalística, hecha mediante el uso de películas. Se discuten sistemas de medición de tiempos mediante impulsos, descargas de tubo de relámpago de alta velocidad para fotografía y posibilidades de empleo de televisión. (Tr. Pablo Weinschenk-Tabernero)

Estudio de los métodos de reducción del tiempo de lavado final en el proceso Eastman Color Print, empleando película positiva de color en 35mm o 16mm

J. R. ZEMAN y J. D. CLIFFORD [269]

Se pasa revista a tres métodos para reducir la duración necesaria del lavado final en el proceso Eastman Color Print, a saber: (1) temperaturas del lavado final más altas; (2) baños eliminadores de hiposulfito; (3) oxidación del tiosulfato a sulfato. Una efective y práctica técnica de eliminar el hiposulfito es mediante un baño de clarificación de sulfito de pH 5,8, seguido de un lavado final de corta duración. Se puede esperar una estabilidad normal de los colorantes, siempre que se mantengan constantes los correctos niveles del pH de la emulsión de la película (de 5,0 a 6,0) y del hiposulfito residual (menos de 4 microgramos por centímetro cuadrado). (M. Rubiano).

Fernsehtechnik: der subjektive Klirrfaktor-effekt gefilterter Ein- und Ausschwingungsverzerrungen

EARL F. BROWN [249]

Die von einem Tiefpassfilter mit steiler Schwundausgleichskurve und Phasenausgleich durchgelassenen Frequenzimpulse (Stufensignale) weisen symmetrische Klirrverzerrungen auf. Die subjektive Wirkung zweier symmetrischer Primärverzerrungen auf Fernsehbildobjekte wurde untersucht. Es wurde entdeckt, dass Primärverzerrungen mit einer Grössenordnung von 2 bis 22 Prozent der Bildsignalamplitude die Bildqualität verbessern. Eine 12-prozentige Primärverzerrung wurde als der subjektive Optimalfaktor für ein geräuschloses Fernsehsystem bestimmt und verbesserte den subjektiven Bandweitenfaktor auf ungefähr 2:1. 6-prozentige Bildamplituden-Primärverzerrungen produzierten ein statistisch bedeutungsvolles Differential zwischen einem geräuschlosen und einem Kanal mit Zusatzrauschen bei einem Signal-Rauschverhältnis von ungefähr 40 Dezibeln. Trotz der erheblichen Toleranz von Sekundärverzerrungen (wenn sie in Verbindung mit Primärverzerrungen höherer Grössenordnung auftraten) verschlechterten sie ausnahmslos die Bildqualität.

Einige Betrachtungen über die Fernsehsendung von Farbfilmen

C. B. B. WOOD [256]

Es ist wünschenswert, dass die zur Fernsehübertragung bestimmten Filme gewisse, speziell für die Beobachtung des Fernsehbildes und für den Bereich der Kontrastregler der Fernsehkette geeignete, Eigenschaften aufweisen. Mittels der modernen Fernkino-Techniken kann ein ausgedehnter Bereich von Filmkontrast erfolgreich behandelt werden. Zur Zeit wird Elektronik zur Verbesserung der Farbsättigung des reproduzierten Bildes betrieblich angewendet. Trotz dieser Fortschritte bleibt es dennoch wünschenswert, dass die zur Übertragung kommenden Filme speziell auf die Beobachtungsbedingungen des Fernsehbildes abgestimmte Charakteristiken aufweisen, die auch für die Kontrastbehandlung durch die Fernsehanlage besonders geeignet sind. (Üb. Pablo Weinschenk-Tabernero)

Ein kombinierter Verstärker zur Verarbeitung des Videosignals bei automatischer Verstärkungsregelung

RICHARD S. WISE [261]

Kürzliche Verbesserungen der Halbleiter haben es ermöglicht die veränderliche Verstärkungsregelungsfunktion der Vakuumröhre durch eine Halbleitervorrichtung mit erhöhter Leistung wiederzugeben. Wenn diese Verbesserungen mit der gegenwärtigen Schaltkreistechnologie für Videoverstärker kombiniert werden, ist es durchaus möglich einen Hochleistungsvideoverstärker mit automatischer Verstärkungsregelung, ohne die Beschränkungen früherer Geräte, zu entwerfen und herzustellen. Es werden die Betriebsfunktionen und bestimmte Schaltkreisspezifizierungen für solche Verstärker beschrieben.

Anwendung von Film und Fernsehen zur anschaulichen Darstellung technischer Vorschläge

JOHN L. GLENN und FRANK B. POLLARD [266]

Es wird eine Beschreibung eines kürzlich gemachten Vertragsvorschlages mit Bezug auf aëroballistische Nutzlast gegeben, bei welchem Filme angewendet wurden. Es werden Impuls-Zeitmessgeräte, Hochgeschwindigkeits-Röhrenblitz und Anwendungsmöglichkeiten des Fernsehens erläutert. (Üb. Pablo Weinschenk-Tabernero)

Untersuchung von Verfahren zur Verkürzung der Schlusswässerung bei der Verarbeitung von Eastman Color Print Film in 35mm oder 16mm

J. R. ZEMAN und J. D. CLIFFORD [269]

Drei Methoden zur Verkürzung der benötigten Schlusswässerung im Eastman Color Print Verfahren werden besprochen: (1) höhere Tenperaturen der Schlusswässerung; (2) Hypo-Klärbäder; (3) Oxydation von Thiosulfat zu Sulfat. Ein Sulfit-Klärbad von pH 5,8, mit darauffolgender kurzer Schlusswässerung, stellt eine praktische und effektive Methode zur Hypo-Entfernung dar. Es ist eine normale Farbstoff-Stabilität zu erwarten, solange die Film-Emulsion auf dem geeigneten pH (5,0 bis 6,0) gehalten und der restliche Hypo-Gehalt (weniger als $4\mu g/cm^2$) den angegebenen Wert nicht überschreitet.

standards and recommended practices

Withdrawal of USA Standards

On December 2, 1968 the United States of America Standards Institute approved the withdrawal of the following three USA Standards:

PH22.69-1960 Sound Records and Scanning Area of 35mm Double-Width Push-Pull Sound Prints, Normal Center-Line Type

PH22.70-1960 Sound Records and Scanning Area of 35mm Double-Width Push-Pull Sound Prints, Offset Center-Line Type

PH22.91-1955 16mm Motion-Picture Projector for Use with Monochrome Television Film Chain Operating on Full Storage Basis

This action was taken upon the recommendation of both the SMPTE Standards Committee and the USA Standards Committee, PH22, on the basis that the specifications are no longer being followed by the industry.—*Alex E. Alden*

Draft USA Standards

Two Draft USA Standards are published here for a trial period and public review. Comments should be addressed to Alex E. Alden, Staff Engineer, at Society Headquarters before May 15, 1969. The proposals have also been submitted to USASI Standards Committee PH22. Consequently, all comments received through *Journal* publication will be reviewed prior to the conclusion of action by the PH22 Committee.

PH22.41, Dimensions of Photographic Sound Record on 16mm Motion-Picture Prints, is essentially an editorial redraft of the earlier issue, differing only in format and style to facilitate its use. Ph22.124, Specifications for Screen Luminance for Indoor Motion-Picture Theaters, has been substantially modified. Although the mean luminance has not been changed from 16 footlamberts, the tolerances have been tightened and the permissible fall-off has been raised. The standard has also been expanded to include multiple projector installations.

Proposed SMPTE Recommended Practices

Two Proposed Recommended Practices are published here for a trial period and public review. Proposed Recommended Practice RP 32, Specifications for a Super 8 Test Film for Projectors and Printers, was developed by the 16 and 8mm Committee specifically for the super 8 system. When approved, a test film in accordance with this Recommended Practice will be made available through SMPTE Headquarters.

Proposed Recommended Practice RP 37, Color Temperature for Color Television Studio Monitors, was developed by the Television Committee as part of an extensive program intended to facilitate a more uniform color presentation of television programming.

Comments should be addressed to Alex E. Alden, Staff Engineer, at Society Headquarters prior to May 15, 1969. If no adverse criticism is received by this date, the Proposed Recommended Practices will be submitted to the SMPTE Board of Governors for final approval.

International Standardization

The International Organization for Standardization (ISO), whose activities in the field of cinematography were described in the November 1967 *Journal* (pp. 1113–1115), approved, in July 1966 Recommendation R 490, Single Magnetic Sound Stripe on 16mm Motion-Picture Film Perforated Along One Edge. This ISO Recommendation is in agreement with PH22.87-1966, 100-Mil Magnetic Striping on 16mm Motion-Picture Film Perforated One Eege.

The member's attention is directed to the fact that only the technical content is published here. Copies of the complete Recommendations are available from the USA Standards Institute, 10 East 40th St., New York, NY 10016. —*A.E.A.*

Draft USA STANDARD Dimensions of

Photographic Sound Record on 16mm Motion-Picture Prints

PH22.41

Revision of PH22.41-1957

Page 1 of 2 pages

1. Scope

1.1 This standard specifies the location and dimensions of variable-area and variable-density sound records on 16mm motion-picture prints.

1.2 This standard also specifies the area scanned in the sound reproducer.

2. Dimensions

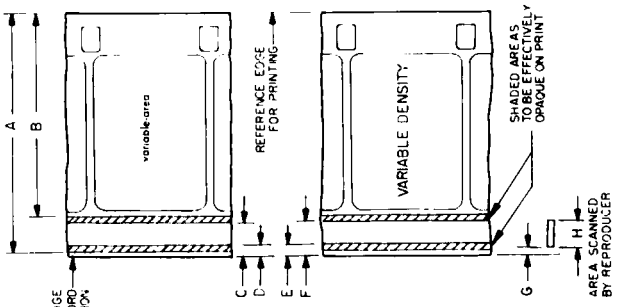
The dimensions and location of the sound records shall be as specified in the figure and table.

3. Picture-Sound Separation

The sound record on the film shall be displaced from the center of the corresponding picture by a distance of 26 frames ± ½ frame in the direction of film travel during normal projection.

NOTE 1: Motion-picture prints conforming to this standard are usually projected in accordance with USA Standard Specifications for Projector Usage of 16mm Motion-Picture Film Perforated One Edge, PH22.16-1965.

NOTE 2: Motion-picture prints described in this standard are printed in accordance with USA Standard Location of Printed Areas in 16mm Picture and Sound Contact Printing, PH22.48-1965.



Dimensions	Inches		Millimeters	
A	0.610	nom	15.49	nom
B	0.513	nom	13.03	nom
C	0.088	± 0.002	2.24	± 0.05
D	0.028	± 0.002	0.71	± 0.05
E	0.018	± 0.002	0.46	± 0.05
F	0.098	± 0.002	2.49	± 0.05
G	0.023	± 0.001	0.58	± 0.03
H	0.071	nom	1.80	nom

NOT APPROVED

NOTE 3: Where the original sound record has been reduction printed in some stage of the process, it may be impossible to obtain the black septum on either side of the recorded area. The presence of a clear septum between the sound and picture areas which does not encroach on the minimum tolerances of the printed area shall not be a basis for rejection of prints. Shaded septum areas are intended to include all unused areas on both sides of the sound record, up to the picture on one side and to the film edge on the other.

Appendix

(This Appendix is not a part of this Draft USA Standard, but is included to facilitate its use.)

A1. As a working procedure, the accuracy of picture-sound separation in a projection print is judged by screening in a review room. When the sound record is reproduced, the distance from the center of the projector aperture to the sound scanning point should be adjusted to bring picture and sound into synchronism for the average observer. This distance should be shortened by one frame for each approximate 50 ft of distance from loudspeaker to audience.

A2. Dimensions C and D which determine the record width are based on present-day equipment design. It is recommended that all future equipment be designed for a record width of 0.060 ±0.001 in. and that existing equipment be modified to produce prints having Dimension C minus D as close as practicable to 0.060 ± 0.001 in.

Draft USA Standard Specifications for

Screen Luminance for Indoor Motion-Picture Theaters

PH22.124

Revision of PH22.124-1961

1. Scope

This standard specifies the luminance level on the projection screen for indoor theaters.

2. Purpose

The purpose of this standard is to specify luminance levels at which tone scale, contrast, and pictorial quality of the projected image from release prints will be of the quality anticipated during their production.

3. Measurement

3.1 Measurement of screen luminance and color of projection light is made with the projector in complete operation with its lens set at focus position, but with no film in the aperture.

3.2 Screen luminance shall be measured with a photometer having the spectral sensitivity of a standard observer as specified by the International Commission on Illumination in 1924. The acceptance angle of the photometer shall be under 3 degrees. (See Appendix A5.)

4. Luminance Level

4.1 The distribution of projection illumination shall be symmetrical about the geometric center of the screen, and the luminance shall be 16 ± 2 footlamberts (55 ± 7 nits), as measured from a position on the seating area centerline, and at a distance from the screen equivalent to a location in the middle row of the auditorium.

4.2 The luminance for any point on the horizontal axis within the distance of 5 percent of the screen width from the side edges shall not be less than 10 fL, as measured from either of two points in the middle row of the auditorium opposite the edges of the screen and one half the screen width from the center of the auditorium.

5. Multiple Projector Adjustment

5.1 Adjustment of the resultant luminance from all projectors intended for use in the continuous viewing of material of a similar format shall not vary by more than 2 fL (7 nits) as measured in 4.1 above.

5.2 Adjustment of the resultant luminance from projectors intended for use in a sequential system of viewing material of different formats shall not vary by more than 4 fL (14 nits), as measured in 4.1 above.

5.3 Adjustment of the apparent color of the projection light from projectors intended for continuous operation shall not differ from each other at any one time by more than 400K.

Appendix

(This Appendix is not a part of this Draft USA Standard, but is included to facilitate its use.)

A1. Standard Luminance

Possible luminance levels are limited by a minimum value below which the visual process becomes less efficient, and by a maximum value above which flicker becomes objectionable. Permissible luminance range is limited by the criterion that a good release print must provide acceptable quality when projected at any luminance within the range.

A2. Other Variables

In addition to the luminance distribution, the pictorial quality of projected pictures is influenced by the color of the projection light, the color and characteristics of the screen surface, the presence of stray light, the nature of the surround, and other factors not presently described by standards. It should be noted that stray light, the use of light-colored framing, and the adaptation of unmasked screens may contribute to reflections on the screen which will affect contrast.

Stray light includes non-image-forming light, such as lens flare, re-reflected projection light, ambient light, etc. Since the factors responsible for such stray light do not change unexpectedly, it will usually be sufficient to make stray light measurements at intervals. Stray light can be measured by comparing the screen luminance with the luminance of the image of an opaque test object placed in the center of the projector aperture. The test object preferably should have a diameter of 0.020 in. (5 percent of frame width) and should not exceed 0.050 in. The balance of the projected beam is attenuated by any suitable neutral density film that produces through the normal projection system an average screen luminance equal to 10 percent of the luminance of the screen as defined in 4.1. All sources of illumination in the auditorium, such as exit and aisle light, shall be used in their normal manner while stray light is being measured. Adjustment of stray light conditions should cause the measurement of luminance to be no more than 0.5 percent of the screen luminance at the center of the screen.

A3. Directional Screens

Matte white screens will show substantially constant luminance at any one specific area on the screen for measurements from any location in the theater. Directional screens have been designed to produce specific patterns which reflect the projection light in a controlled manner to the useful areas of the auditorium. It is intended that the standard apply to either matte white or directional screens regardless of whether they are curved or flat.

A maximum permissible variation is given in 4.2. In a particular theater, this condition can be met by several procedures, including one or more of the following: choice of a screen with a suitable reflection pattern; limitation of the seating area so that no patron views the picture from an angle at which the luminance is outside the tolerance of the standard, and screen curvature. No stray light or illuminated area with a luminance in excess of 1 fL (3.4 nits) shall be visible from the standard observing area.

A4. Release Prints

Release prints intended for viewing in theaters adjusted in accordance with this standard should be examined or checked under the conditions specified in USA Standard Screen Luminance and Viewing Conditions for 35mm Review Rooms, PH22.133-1963.

A5. Meter Acceptance Angle

The maximum permissible acceptance angle of the luminance photometer depends upon the design of the instrument and its method of use, the size of the screen, and other factors. Suitable baffling against external sources and for control of internal reflections is essential. The acceptance angle of a suitable instrument must be such that a reduction in this angle (followed by necessary recalibration) does not change the magnitude of any reading specified in Section 3 by more than $\pm$ 5 percent. The acceptance angle of the photometer shall accept light from a screen area no larger than a circle whose diameter is more than 5 percent but less than 20 percent of screen height. The limiting conditions for the reliable use of such meters should be included in the manufacturer's specifications.

A6. Conversion of Units

Screen luminance in the U.S. is customarily measured in footlamberts, although in international usage, the nit is the preferred unit. One nit equals 0.2919 footlamberts; 1 footlambert equals 3.426 nits.

PROPOSED

SMPTE RECOMMENDED PRACTICE — RP 32

Specifications for a Super 8 Test Film for Projectors and Printers

1. *Scope*

This recommended practice specifies the content and dimensions of a super 8 test film useful in checking the performance of motion-picture projectors and printers. Its use is described in the Appendix.

2. *Dimensions*

2.1 The dimensions and location of the target areas shall be as specified in Figs. 1 and 2. These values apply when the film is conditioned and measured at 70°F, 50 percent relative humidity.

2.2 The general tolerance for all dimensions shall be $\pm$ 0.0005 in., unless otherwise specified.

2.3 The minus 2 perforation position used for dimensional reference is two perforations above the perforation adjacent to the image when the film is viewed with the travel downward, the normal position for projection.

3. *Description*

3.1 The test film shall be produced as a camera original on high-contrast, high-definition motion-picture film, cut and perforated in accordance with Draft USA Standard Dimensions for 16mm Motion-Picture Film, Perforated Super 8, 2R-1667 (1-4), PH22.167. It shall be processed to yield a dye image.

3.2 The camera and projector image areas shown on the test film shall meet the requirements for the minimum camera aperture image and the nominal projected image in accordance with USA Standard Dimensions of Camera Aperture Image on Super 8 Motion-Picture Film, PH22.157-1967, and Draft USA Standard Dimensions of Projectable Image Area on Super 8 Motion-Picture Film, PH22.154.

3.3 The target shall be photographed at a magnification which results in Dimension M at Ⓐ of 0.050 in. on the film. When this is done the solid lines have a width of 0.001 inch $\pm$ 5 percent.

3.4 The vertical and horizontal frame-to-frame placement of the target on the film should be consistent to ensure its usefulness for steadiness measurements. When its placement is measured according to 2.1 above, the frame-to-frame variability of the placement of the image shall be within $\pm$ 0.0002 in. vertically and horizontally.

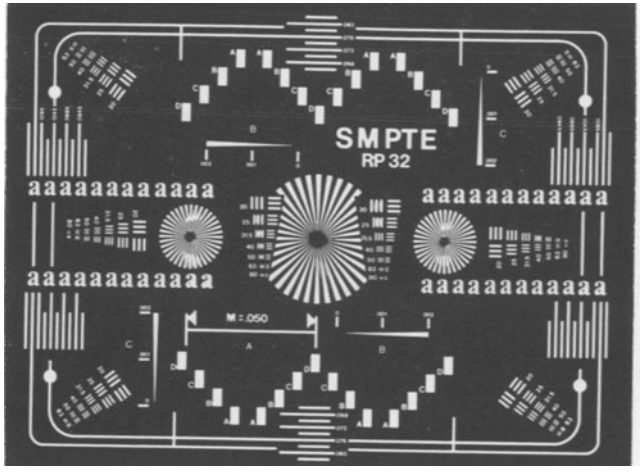


Fig. 1

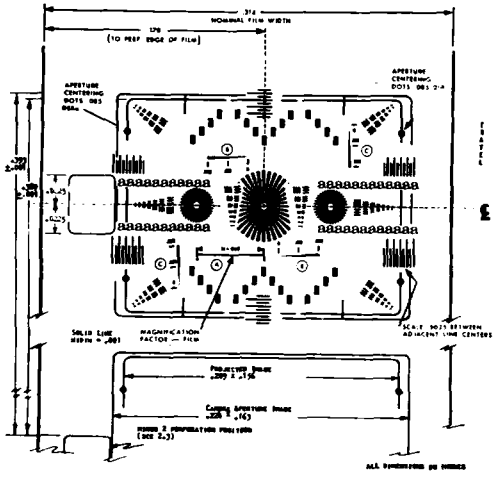


Fig. 2

Appendix

(This Appendix is not a part of this Proposed SMPTE Recommended Practice, but is included to facilitate its use.)

A1. Visual Tests. The following quantitative visual tests can be performed:

Tests	*Projector*	*Printer*		
		Contact		Optical
	Continuous	Step		Step
Steadiness (jump and weave)	X	X*	X	X
Aperture alignment	X	X	X	X
Double-exposure alignment		X	X	X
Shutter adjustment (travel ghost)	X			X
Framing accommodation	X			X
Focus	X			X
Resolution	X	X	X	X
Field flatness	X	X	X	X

* The perforation pitch of the test film is not optimum for continuous contact printers and its value for this purpose may be limited.

A2. Magnification. If the image of the test film target is projected to 30 x 40 in., it will be enlarged 192 times.

A3. Steadiness. Wedges for measurement of vertical steadiness Ⓑ and horizontal steadiness Ⓒ taper from 0 to 0.002 in. wide, with an intermediate position of 0.001 in. The outer sides of the Ⓑ wedges and the inner sides of the Ⓒ wedges are parallel to the horizontal and vertical sides of the frame respectively.

A4. Aperture Centering and Size. The inner rectangle represents the nominal projectable area and the center of the large pie is located at midpoints horizontally and vertically. The groups of short lines along the border indicate distances from the center of the aperture and are spaced at intervals of 0.0025 in. Circular dots near the corners are 0.005 in. in diameter and can be used for rapid aperture-centering checks. If some portion of all dots is visible, centering would be within 0.0025 in.

A5. Travel Ghost. The A, B, C and D blocks are used to determine travel ghost. Travel ghost is a blurring effect seen on the screen and evidenced by vertical tails or light streaks added to the projected images of the more transparent areas on the test film. It is caused by the projector shutter being out of synchronism with the intermittent mechanism. If the ghost is above the blocks, the shutter closes late; if the ghost is below the blocks, the shutter opens early.

A6. Framing Accommodation. The longer lines of the group of lines at the top and bottom of the vertical aperture centerline are 0.005 in. apart. By centering the aperture and framing above and below, the range of framing is determined. The height of each "travel ghost" block is 0.007 in. This permits the extent of framing to be measured beyond the limits of the dimensioned lines.

A7. Resolution. Resolving power in lines per millimeter can be read directly from the test target to the limit permitted by the film stock used. The ratio of line spacings of adjacent resolution patterns is equal to $10\sqrt{10}$ (i.e., the log 10 of the ratio of adjacent line spacings is 0.10.)

A8. Field Flatness. Side-to-side out-of-focus is determined from the difference in softness of the a's at the sides. Quantitative differences can be determined from resolution charts. Pie charts at the middle of the field permit quick focus adjustment and detection of in- and out-of-focus effects.

A9. Striping. The user may apply magnetic record and balance stripes to this film by post-process means. If this is done, the dimensions of the film image should be checked to determine if change has been produced by the striping process. It is anticipated that striping will not significantly affect the performance of the test film. However, the user is cautioned that the proximity of the film image to the limiting aperture may be altered due to striping thickness. Also, the frictional characteristics of the test film may be changed, which could affect film transport in the user's apparatus.

ISO Recommendation R 490 July 1966

SINGLE MAGNETIC SOUND STRIPE ON 16 mm MOTION-PICTURE FILM PERFORATED ALONG ONE EDGE

1. SCOPE

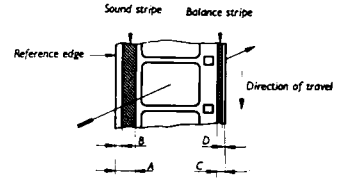
This ISO Recommendation specifies the location and dimensions of the magnetic striping on 16 mm motion-picture film perforated along one edge, to be used for both picture and sound.

2. DIMENSIONS

2.1 The dimensions are as specified in the Figure and the Table below.

2.2 The magnetic coating is on the side of the film towards the lamp of a projector arranged for direct projection on a reflection-type screen.

2.3 The magnetic sound record on the film precedes the centre of the corresponding picture by a distance of 28 frames ± one half frame.



Dimension	Millimetres	Inches
A	$2.5 \begin{smallmatrix}+0.1\\0\end{smallmatrix}$	$0.100 \begin{smallmatrix}+0.002\\-0.002\end{smallmatrix}$
B	0.13 max.	0.005 max.
C	$0.8 \begin{smallmatrix}0\\-0.1\end{smallmatrix}$	$0.031 \begin{smallmatrix}0\\-0.003\end{smallmatrix}$
D	0.05 max.	0.002 max.

NOTE. — If the magnetic sound stripe increases the thickness of the film, a balance stripe may be applied to equalize the thickness at the two edges of the film. The balance stripe has the location and dimensions shown in the Figure and the Table.

PROPOSED

SMPTE RECOMMENDED PRACTICE

RP 37

Color Temperature for Color Television Studio Monitors

1. *Scope*

This recommended practice specifies the chromaticity for color television studio monitors.

2. *Specifications*

The white reference for color television studio monitors shall be Illuminant D_{6500}, as specified by the International Commission on Illumination (CIE).

Appendix

(This Appendix is not a part of this Proposed SMPTE Recommended Practice, but is included to facilitate its use.)

Illuminant D_{6500} is the new International Daylight Standard prescribed by the International Commission on Illumination. The standard illuminant is definable on the CIE chromaticity diagram and is reproducible. However, in adjusting the white balance of shadowmask CRT color monitors, there are situations wherein a suitable comparator is required.