

facilities, the VIR provides reference for luminance amplitude, black level and chrominance amplitude and phase, which, if kept with the program or commercial, can be used to maintain or reestablish these parameters for final display.

The EIA Recommended Practice has been distributed to

other organizations such as NAB and IEEE. Speaking on behalf of the VTR Committee, Charles Anderson, who chairs the committee, felt that the writing of an SMPTE document should be the responsibility of the Television Committee.

JOSEPH A. FLAHERTY  
Chairman

## standards and recommended practices

### Approved American National Standards

On 9 March 1973, the American National Standards Institute approved three standards that specify printed areas on motion-picture stock used in the production of super 8 prints: *PH22.179-1973*, Location of Super 8 Printed Area in Optical Reduction Printing on 35mm Motion-Picture Film, Perforated 2R-1664 (1-0); *PH22.180-1973*, Location of Super 8 Printed Area in Optical Reduction or Contact Printing on 35mm Motion-Picture Film, Perforated 5R-1667 (1-3-5-7-0); and *PH22.181-1973*, Location of Super 8 Printed Area on 16mm Motion-Picture Film, Perforated Super 8 (1-3).

Inasmuch as compliance with American National Standards is purely voluntary, these standards will become truly effective when broad publicity is given to their existence. ANSI and SMPTE would appreciate any personal influence to promote the use of this standard where such action is appropriate. Copies of these standards may be obtained for a nominal fee from the American National Standards Institute, 1430 Broadway, New York, NY 10018.

### Reaffirmed American National Standards

On 9 March 1973, the American National Standards Institute, taking the recommendations of the SMPTE Engineering Committees and American National Standards Committee PH22, reaffirmed without change the following nine American National Standards:

PH22.3-1961, 35mm Photographic Sound Motion-Picture Film, Usage in Projector (published in the July 1961 *Journal*)

PH22.31-1967, Specifications for Motion-Picture Safety Film (published in the February 1968 *Journal*)

PH22.117-1968, Spectral Diffuse Density of Photographic Sound Record on Three-Component Subtractive Color Films (published in the March 1969 *Journal*)

PH22.155-1967, Specifications for Projector Usage of Super 8 Motion-Picture Film Perforated One Edge (published in the December 1967 *Journal*)

PH22.156-1968, Specifications for Camera Usage of Super 8 Motion-Picture Film Perforated One Edge (published in the September 1968 *Journal*)

PH22.159.1-1968, Specifications for Super 8 Motion-Picture Film Camera Cartridge and Cartridge-Camera Fit (published in the May 1968 *Journal*)

PH22.159.2-1968, Specifications for Cartridge Aperture and Pressure Pad and Position of Film in the Super 8 Motion-Picture Film Camera Cartridge (published in the May 1968 *Journal*)

PH22.159.4-1968, Dimensions and Characteristics of the Take-Up Core Drive for Super 8 Motion-Picture Film Camera Cartridges (published in the May 1968 *Journal*)

PH22.161-1968, Dimensions of Magnetic Striping of Super 8 Motion-Picture Film Perforated 1R-1667 (published in the September 1968 *Journal*)

Copies of these standards may be obtained for a nominal fee from the American National Standards Institute, 1430 Broadway, New York, NY 10018.—Alex E. Alden, *Staff Engineer*

# American National Standard location of super 8 printed area in optical reduction printing on 35mm motion- picture film, perforated 2R-1664 (1-0)

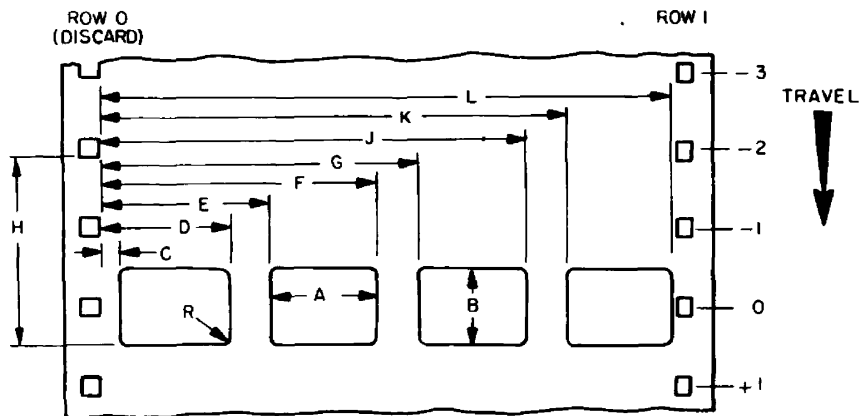
Approved March 9, 1973

Secretariat: Society of Motion Picture and Television Engineers, Inc.

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## 1. Scope

This standard specifies the location and size of the super 8 printed picture area for negative and intermediate optical reduction printing on 35mm motion-picture film perforated 2R-1664 in positions 1 and 0.



Dimensions	Inches	Millimeters
A	0.228 ref	5.79 ref
B	0.162 min	4.11 min
C	0.047 max	1.19 max
D	0.271 min	6.88 min
E	0.361 max	9.17 max
F	0.585 min	14.86 min
G	0.675 max	17.14 max
H*	0.393 ± 0.002	9.98 ± 0.05
J	0.899 min	22.83 min
K	0.989 max	25.12 max
L	1.213 min	30.81 min
R	0.005 max	0.13 max

\* See Note 3 and Appendix A1.

## 2. Dimensions

2.1 The dimensions shall be as given in the figure and table.

2.2 Dimensions A, B, and H apply to all images. The differences in values from the reference perforation, Dimensions C through L, establish the minimum area to be printed. For convenience, and to avoid unnecessary addition and subtraction in applying this standard, a reference dimension has been supplied for a typical width of the image area.

NOTE 1: The reduction ratio of prints made from 16mm negatives or reversal originals shall be approximately 1.8:1.

NOTE 2: To provide understanding in the design and use of printers, the dimensions specified in the figure and table provide an ideally centered intended image with a reference dimension of 0.311 inch (7.90 mm) from the positioning perforation.

NOTE 3: The "travel" shown in the figure is to aid in illustrating the —2 perforation used to position the 8mm print, and the direction of motion in the projector for the resulting 8mm print if the figure is as seen from the light source in a projector used for direct front projection (See A1).

NOTE 4: If photographic sound will be applied to the print, it is necessary to restrict the value for Dimensions C, E, G, and K to avoid intrusion into the sound track area. A suggested value of 0.0015 in. (0.038mm) less than the maximum value may be used until the values are established.

## Appendix

(The Appendix is not a part of this American National Standard, but is included for information purposes only.)

A1. If prints are made with a step printer, the registration device should be in the —2 perforation, or that perforation which corresponds to the —2 perforation when the final print stage is reached, to obtain maximum benefit of cancellation as films are projected in accordance with American National Standard Specifications for Projector Usage of Super 8 Motion-Picture Film, PH22.155-1967, which specifies the —2 position for projected films.

A2. The parenthetical numerals have been added to the title of this standard to specify how the rows of perforations are placed on the film.

This designation is necessary only when the film stock is wider than its end use and more than one combination of perforation rows is possible. The perforation rows are numbered starting at the reference edge, which is the edge nearest to that row of perforations which is retained in the slitting operation. The row of perforations which is discarded is given the number 0. Negative or intermediate films which are not slit may contain a 0-numbered row of perforations if that perforated row corresponds to the discard row of perforations on the subsequent print stock.

CAUTION NOTICE: This American National Standard may be revised or withdrawn at any time. The procedures of the American National Standards Institute require that action be taken to reaffirm, revise, or withdraw this standard no later than five years from the date of publication. Purchasers of American National Standards may receive current information on all standards by calling or writing the American National Standards Institute. Printed in USA

# American National Standard location of super 8 printed area in optical reduction or contact printing on 35mm motion-picture film, perforated 5R-1667 (1-3-5-7-0)

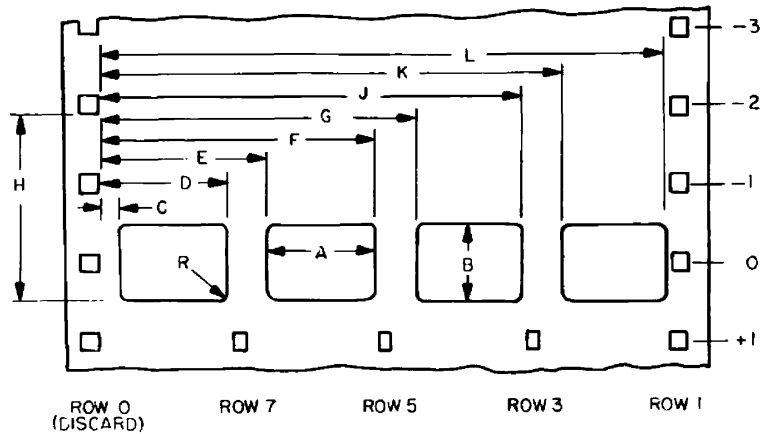
Approved March 9, 1973

Secretariat: Society of Motion Picture and Television Engineers, Inc.

## 1. Scope

Page 1 of 2 pages

This standard specifies the location and size of the super 8 printed picture areas for print films derived by optical or contact printing on 35mm film perforated 5R-1667 in positions 1, 3, 5, 7 and 0.



Dimensions	Inches	Millimeters
A	0.228 ref	5.79 ref
B	0.162 min	4.11 min
C	0.047 max	1.19 max
D	0.271 min	6.88 min
E	0.361 max	9.17 max
F	0.585 min	14.86 min
G	0.675 max	17.14 max
H*	0.393 ± 0.002	9.98 ± 0.05
J	0.899 min	22.83 min
K	0.989 max	25.12 max
L	1.213 min	30.81 min
R	0.005 max	0.13 max

\* See Note 3 and Appendix A1.

## 2. Dimensions

2.1 The dimensions shall be as given in the figure and table.

2.2 Dimensions A, B, and H apply to all images. The differences in values from the reference perforation, Dimensions C through L, establish the minimum area to be printed. For convenience, and to avoid unnecessary addition and subtraction in applying this standard, a reference dimension has been supplied for a typical width of the image area.

NOTE 1: The reduction ratio of prints made from 16mm negatives or reversal originals shall be approximately 1.8:1.

NOTE 2: To provide understanding in the design and use of printers, the dimensions specified in the figure and table provide an ideally centered intended image with a reference dimension of 0.311 inch (7.90 mm) from the positioning perforation.

NOTE 3: The "travel" shown in the figure is to aid in illustrating the -2 perforation used to position the 8mm print, and the direction of motion in the projector for the resulting 8mm print if the figure is as seen from the light source in a projector used for direct front projection (See A1).

NOTE 4: If photographic sound will be applied to the print, it is necessary to restrict the value for Dimensions C, E, G, and K to avoid intrusion into the sound track area. A suggested value of 0.0015 in. (0.038mm) less than the maximum value may be used until the values are established.

## Appendix

(The Appendix is not a part of this American National Standard, but is included for information purposes only.)

A1. If prints are made with a step printer, the registration device should be in the -2 perforation, or that perforation which corresponds to the -2 perforation when the final print stage is reached, to obtain maximum benefit of cancellation as films are projected in accordance with American National Standard Specifications for Projector Usage of Super 8 Motion-Picture Film, PH22.155-1967, which specifies the -2 position for projected films.

A2. The parenthetical numerals have been added to the title of this standard to specify how the rows of perforations are placed on the film.

This designation is necessary only when the film stock is wider than its end use and more than one combination of perforation rows is possible. The perforation rows are numbered starting at the reference edge, which is the edge nearest to that row of perforations which is retained in the slitting operation. The row of perforations which is discarded is given the number 0. Negative or intermediate films which are not slit may contain a 0-numbered row of perforations if that perforated row corresponds to the discard row of perforations on the subsequent print stock.

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# American National Standard location of super 8 printed area on 16mm motion-picture film, perforated super 8 (1-3)

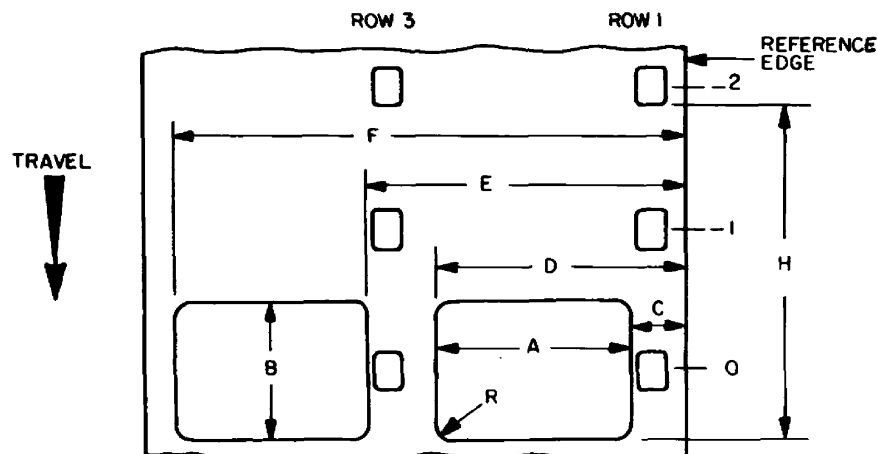
Approved March 9, 1973

Secretariat: Society of Motion Picture and Television Engineers, Inc.

Page 1 of 2 pages

## 1. Scope

This standard specifies the location and size of the super 8 printed picture areas for negative/positive and reversal printing on 16mm motion-picture film perforated super 8, 2R-1667 and 2R-1664 in positions 1 and 3.



Dimensions	Inches	Millimeters
A	0.228 ref	5.79 ref
B	0.162 min	4.11 min
C	0.058 max	1.47 max
D	0.282 min	7.16 min
E	0.372 max	9.45 max
F	0.596 min	15.14 min
H*	0.393 ± 0.002	9.98 ± 0.05
R	0.005 max	0.13 max

\* See Note 3 and Appendix A1.

## 2. Dimensions

2.1 The dimensions shall be as given in the figure and table.

2.2 Dimensions A, B, and H apply to all images. The differences in values from the reference perforation, Dimensions C through F, establish the minimum area to be printed. For convenience, and to avoid unnecessary addition and subtraction in applying this standard, a reference dimension has been supplied for a typical width of the image area.

NOTE 1: The reduction ratio of prints made from 16mm negatives or reversal originals shall be approximately 1.8:1.

NOTE 2: To provide understanding in the design and use of printers, the dimensions specified in the figure and table provide an ideally centered intended image with a reference dimension of 0.311 inch (7.90 mm) from the positioning perforation.

NOTE 3: The "travel" shown in the figure is to aid in illustrating the —2 perforation used to position the 8mm print, and the direction of motion in the projector for the resulting 8mm print if the figure is as seen from the light source in a projector used for direct front projection (See A1).

NOTE 4: If photographic sound will be applied to the print, it is necessary to restrict the value for Dimensions D and F to avoid intrusion into the sound track area. A suggested value of 0.0015 in. (0.038mm) more than the minimum value may be used until the values are established.

## Appendix

(The Appendix is not a part of this American National Standard, but is included for information purposes only.)

A1. If prints are made with a step printer, the registration device should be in the —2 perforation, or that perforation which corresponds to the —2 perforation when the final print stage is reached, to obtain maximum benefit of cancellation as films are projected in accordance with American National Standard Specifications for Projector Usage of Super 8 Motion-Picture Film, PH22.155-1967, which specifies the —2 position for projected films.

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