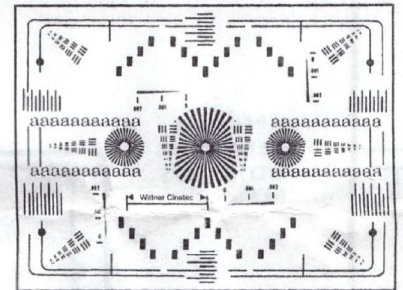


## Instructions

### *Super 8 Test Film for Projectors and Printers*



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

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

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

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

**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.

**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.

**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.

**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.)

**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.

**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.

