

REPORT BY THE COMMITTEE ON OPTICS TO THE SOCIETY OF MOTION PICTURE ENGINEERS

GENTLEMEN :

Your Committee on Optics begs to offer the following suggestions :

First: That the following focal lengths may be accepted as standard :

4 inches	6 inches
4- $\frac{1}{4}$ "	6- $\frac{1}{4}$ "
4- $\frac{1}{2}$ "	6- $\frac{1}{2}$ "
4- $\frac{3}{4}$ "	6- $\frac{3}{4}$ "
5 inches	7 inches
5- $\frac{1}{4}$ "	7- $\frac{1}{4}$ "
5- $\frac{1}{2}$ "	7- $\frac{1}{2}$ "
5- $\frac{3}{4}$ "	7- $\frac{3}{4}$ "
6 inches	8 inches
	8- $\frac{1}{2}$ inches
	9 inches

The small differences in magnification on the screen, caused by increasing the interval between the different focal lengths from $\frac{1}{8}$ " to $\frac{1}{4}$ ", are to be taken up by fitting the size of the screen mat to the size of the picture.

Second: That the opening in the lens support of the projection apparatus be made sufficiently large as not to diaphragm down the opening of the rear component of the projection lens.

Third: That the size of the opening of the aperture plate be 0.906"x 0.68".

Fourth: That the designers of motion picture theatres be enlightened on the causes of the so-called keystone effect, and that a deviation of 12° of the optical axis of the projection apparatus from the normal on the screen should be fixed as the maximum permissible limit.

Respectfully,

HERMANN KELLNER.

Chicago, July 17, 1917.