Set source at 0, and adjust for approximately parallel light. Set hole (1") at approximately 19, lens (f = +17 cm) at approximately 36, and two-polaroid mount at approximately 60. Place optical bench table at (lecturer's) left, front corner of lecture table, orient to project on screen, and adjust lens to focus image of hole on screen.

Place one polaroid in holder nearer the source. Turn polaroid, noting that, although its presence reduces the intensity, the intensity does not depend upon the orientation of the polaroid. Remove this polaroid, replace it with the second polaroid, and show that the effect of the second polaroid alone is the same as that of the first. Now place both polaroids in the beam and, by rotating the second one, show that the intensity depends upon the relative orientation of the two polaroids. Thus the first polaroid does something to the light besides reducing the intensity. It plane polarizes the light.

Note: The indices on the polaroids correspond to transmission of the electric vector.