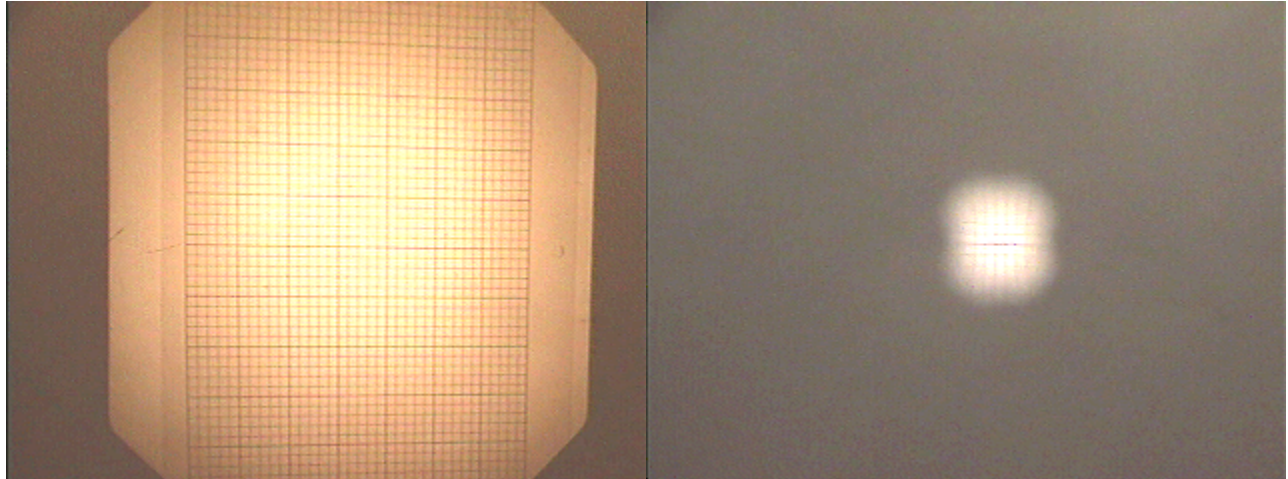


## Answer #169

The answer is (d): dimmer all over except near the center, as can be seen in the photographs below. The photograph at the right was taken with the field lens removed.



A field lens focuses all of the light passing through the platform through the lens/mirror combination at the top of the projector arm. Therefore light from all over the projector stays in the optical system and is focused onto the screen. With the field lens removed, the diverging light rays from the light source in the projector base spread out so much that most of them miss the lens/mirror. Only rays that are very close to the optic axis of the system reach the screen; therefore only the center is lit.

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