

Plane-polarized light is incident normally on a polarizer which is able to rotate in the plane perpendicular to the light as shown below.

Diagram 1

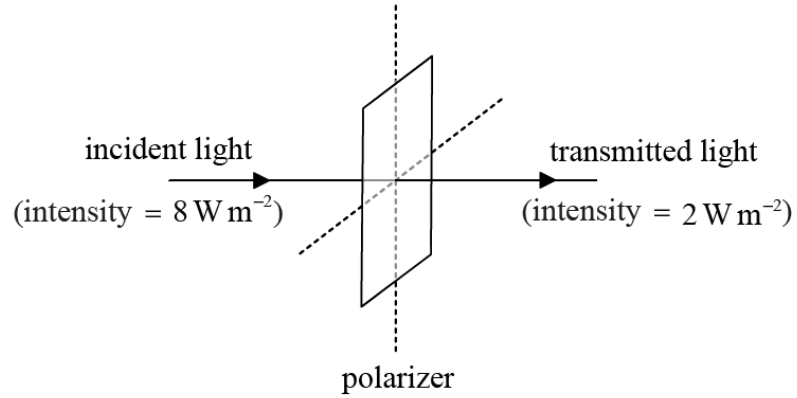
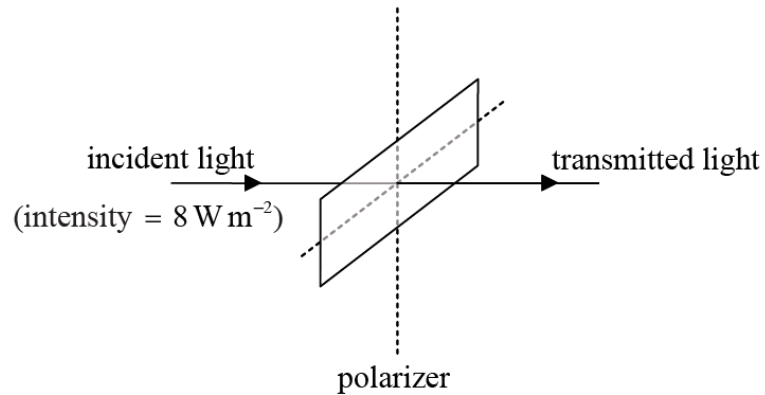


Diagram 2



In diagram 1, the intensity of the incident light is 8 W m^{-2} and the transmitted intensity of light is 2 W m^{-2} .

Diagram 2 shows the polarizer rotated 90° from the orientation in diagram 1.

What is the new transmitted intensity?

A

0 W m^{-2}

B

$$2 \text{ W m}^{-2}$$

C

$$6 \text{ W m}^{-2}$$

D

$$8 \text{ W m}^{-2}$$

[Turn over