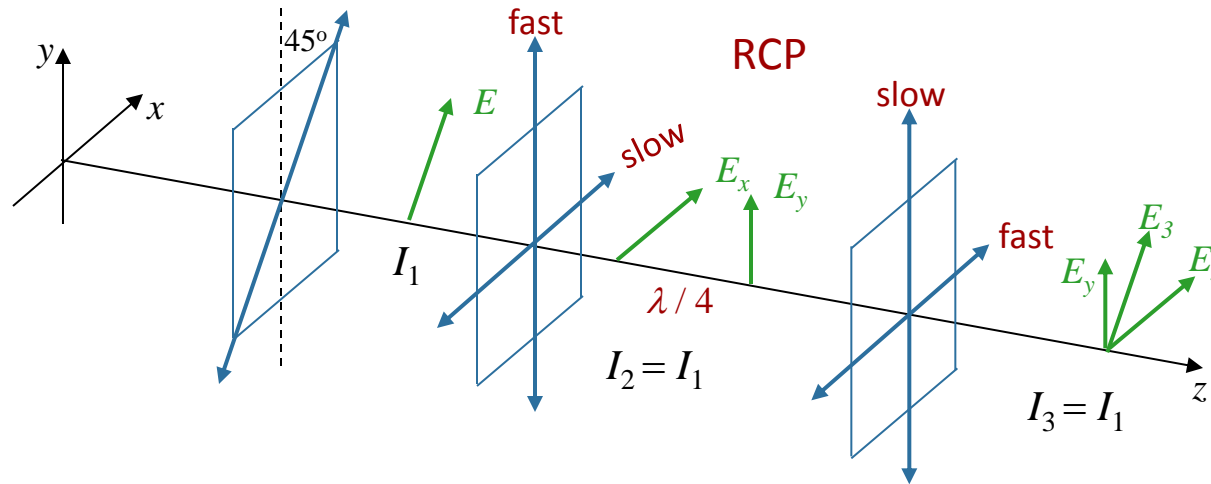


Follow-Up 2



Replace the 60° polarizer with another QWP as shown.



What is the intensity I_3 of the light after the last QWP?

A) I_1

B) $\frac{1}{2} I_1$

C) $\frac{1}{4} I_1$

Before:

$$E_x = \frac{E_1}{\sqrt{2}} \cos(kz - \omega t)$$

$$E_y = \frac{E_1}{\sqrt{2}} \sin(kz - \omega t)$$

No absorption: Just a phase change!

Intensity = $\langle E^2 \rangle$

$$I_{\text{before}} = \frac{E_1^2}{2}$$



$$I_{\text{after}} = \frac{E_1^2}{2}$$

After:

$$E_x = \frac{E_1}{\sqrt{2}} \cos(kz - \omega t)$$

$$E_y = \frac{E_1}{\sqrt{2}} \cos(kz - \omega t)$$