

81. We apply Eq. 34-40 (once) and Eq. 34-42 (twice) to obtain

$$I = \frac{1}{2} I_0 \cos^2 \theta_1 \cos^2 \theta_2 .$$

With  $\theta_1 = 60^\circ - 20^\circ = 40^\circ$  and  $\theta_2 = 40^\circ + 30^\circ = 70^\circ$ , this yields  $I/I_0 = 0.034$ .