69. In this case the path traveled by ray no. 2 is longer than that of ray no. 1 by $2L/\cos\theta_r$, instead of $2L$. Here $\sin\theta_i/\sin\theta_r = n_2$, or $\theta_r = \sin^{-1}(\sin\theta_i/n_2)$. So if we replace $2L$ by $2L/\cos\theta_r$ in Eqs. 36-34 and 36-35, we obtain

$$\frac{2n_2L}{\cos\theta_r} = \left(m + \frac{1}{2}\right)\lambda \qquad m = 0,\ 1,\ 2, \cdots$$

for the maxima, and

$$\frac{2n_2L}{cos\theta_r} = m\lambda \qquad m = 0,\ 1,\ 2, \cdots$$

for the minima.