$$\frac{I(\alpha)}{I_\circ} = \begin{cases} \sqrt{1 - \frac{\alpha}{\pi} + \frac{1}{2\pi}\sin 2\alpha} & \varphi = 0 \\[2ex] \sqrt{2\left(1 - \frac{\alpha}{\pi}\right)\left(2 + \cos 2\alpha\right) + \frac{3}{\pi}\sin 2\alpha} & \varphi = \frac{\pi}{2} \end{cases} \tag{1}$$