

I11NEWTONS

Newton's rings

Path difference $d = (R - \sqrt{R^2 - r^2})$
 R is radius of curvature of the lens in mm
 r is the distance from the center in mm

$$r := 0, 0.01 \dots 4 \quad R := 2000 \quad \lambda := .0005$$

$$d(r) := R - \sqrt{R^2 - r^2}$$

$$INT(r) := \cos\left(2 \cdot \pi \cdot \frac{d(r)}{\lambda}\right)^2 \quad INR(r) := \cos\left(2 \cdot \pi \cdot \frac{d(r)}{\lambda} + \frac{\pi}{2}\right)^2$$

