

W5IMONEROS

Imaging: Object is one round aperture and round lens is used

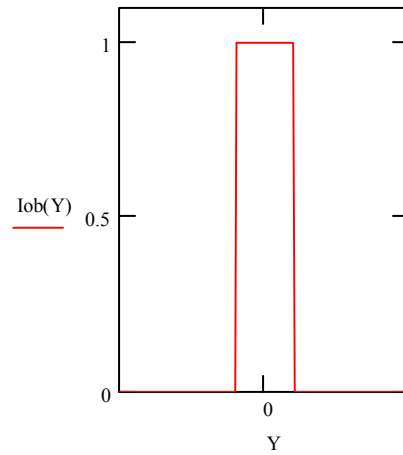
Object:

Since we are using circular symmetry, the round aperture is a "bar" in the coordinate X,

f#10 is f/2a equal 10

$Y := -.01, -.0099 .. .01$ $b1 := -.002$ $\lambda := .0005$
 $tol := .01$ $b2 := .002$ $k := \frac{2 \cdot \pi}{\lambda}$
 $f := 500$ $a := 25$
 $Iob(Y) := \Phi(b2 - Y) - \Phi(b1 - Y)$

Object



Image

$$Iim(Y) := \int_{b1}^{b2} Iob(YY) \cdot 4 \cdot a^2 \cdot \left[\frac{J1\left[\frac{k \cdot a \cdot (Y - YY)}{f}\right]}{k \cdot a \cdot \frac{(Y - YY)}{f}} \right]^2 dYY$$

Unnormalized

