Question:

The angular width of central maxima in the Fraunhofer diffraction pattern is measured. The slit is illuminated by the light of wavelength If the slit is illuminated by a light of another wavelength, angular width decreases by 30%. The wavelength of light used is :

Options:

1)

2)

3)

4)

Correct Answer:

2)

Solution:

n = 1, we have  
  
If angle is small, then   
  
Half angular width   
Full angular width