

27 The minimum intensity of light that the human eye can detect is $2.0 \times 10^{-11} \text{ W m}^{-2}$.

Given that the pupil of the eye has a diameter of 4.0 mm, how many photons per second of wavelength 550 nm must enter the eye for a distant star to be visible?

A 700

B 2800

C 1.3×10^9

D 5.1×10^9