

- 28** 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 mm, how many photons per second of wavelength 550 nm must enter the eye for a distant star to be visible?

**A** 695

**B** 2780

**C**  $1.26 \times 10^9$

**D**  $5.10 \times 10^9$