**3** A light bulb with an efficiency of 12% is positioned 2.0 m above a light sensor. The intensity of light at the light sensor is 0.14 $W m^{-2}$.

Which of the following could be used to calculate the power of the light bulb?

☒ **A** $(0.14) \times (0.12) \times (4\pi) \times (2.0)^2$

☒ **B** $\dfrac{(0.14) \times (4\pi) \times (2.0)^2}{0.12}$

☒ **C** $(0.14) \times (0.12) \times (\pi) \times (2.0)^2$

☒ **D** $\dfrac{(0.14) \times (\pi) \times (2.0)^2}{0.12}$

**(Total for Question 3 = 1 mark)**