Intensity of $1.0 \text{ W/m}^2$
Threshold of pain
How close can you go?

Eqa. (15.24), p. 567

\[
\frac{I_1}{I_2} = \frac{r_1^2}{r_2^2}
\]

\[
r_2^2 = \left( \frac{I_1}{I_2} \right) r_1^2 = \left( \frac{0.11 \text{ W/m}^2}{1.0 \text{ W/m}^2} \right) (7.5 \text{ m})^2
\]

\[
r_2 = 2.5 \text{ m}
\]

So you can move $(r_1 - r_2) = (7.5 \text{ m} - 2.5 \text{ m}) = 5.0 \text{ m}$

Closer to the UFO.

2 pts.