$$L = 10 \log_{10} \frac{I}{I_0} \qquad I_0 = 10^{-12} \frac{W}{m^2}$$

$$130 = 10 \log_{10} \frac{I}{I_0}$$

$$10^{13} = \frac{I}{I_0}$$

$$I = 10^{13} \cdot I_0 = 10 \frac{W}{m^2}$$

$$I_1 R_1^2 = I_2 R_2^2$$

$$R_1^2 = \frac{I_2 R_2^2}{I_1} \implies R_1 = \sqrt{\frac{1,0 \times 10^{-2} \cdot 900}{10}} \; m =$$

$$= 0,95 \, m$$