

Intensity Conversion Chart

1 Joule = 1 Watt x Time of Exposure (in seconds)

The formula for converting Joules/cm² to milliwatts/cm²

$$\frac{\text{J/cm}^2}{\text{Time (Seconds)}} \times \frac{1000 \text{ mW/cm}^2}{\text{J/cm}^2} = \text{mW/cm}^2$$

Example: 6 J/cm² with a 3-second exposure equals an intensity of 2000 mW/cm².

The formula for converting milliwatts/cm² to Joules/cm²

$$\frac{\text{mW / cm}^2}{1,000} \times \text{TIME} = \text{J / cm}^2$$

Example: 100 mW/cm² intensity for 1 minute equals an exposure of $\frac{100 \times 60}{1000} = 6 \text{ J/cm}^2$

$$\frac{(\mu\text{W / cm}^2)}{1,000,000} = \frac{(m\text{W / cm}^2)}{1,000} = \frac{(W / cm^2)}{1}$$

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