# Intensity Conversion Chart

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

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### The formula for converting Joules/cm$^2$ to milliwatts/cm$^2$

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

Example: 6 J/cm$^2$ with a 3-second exposure equals an intensity of 2000 mW/cm$^2$.

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### The formula for converting milliwatts/cm$^2$ to Joules/cm$^2$

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

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

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