



## Intensity Conversion Chart

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

**The formula for converting Joules/cm<sup>2</sup> to milliwatts/cm<sup>2</sup>**

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

Example: 12 J/cm<sup>2</sup> with a 4 second exposure equals an intensity of 3,000 mW/cm<sup>2</sup>

**The formula for converting milliwatts/cm<sup>2</sup> to Joules/cm<sup>2</sup>**

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

Example: 50 mW/cm<sup>2</sup> intensity for 3-minutes (180 seconds) equals an exposure of  $\frac{50 \times 180}{1000} = 9 \text{ J/cm}^2$

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

**Note:** for reference purposes only. Please confirm all your calculations prior to use.