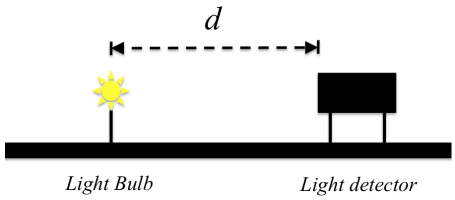
Name: _____

POST-LAB QUIZ #3 (10pts)

$$\frac{I_2}{I_1} = \left(\frac{d_1}{d_2}\right)^2$$

(a) In Lab #3, *The Moon*, you measured the Intensity of a light source as a function of distance from the source, as shown in the figure. Imagine that for a certain light source, we found an Intensity of $I = 10,000$ W at a distance of $d = 10$m, as listed in the Table. Fill in the rest of the table for the Intensities that we would measure from this same source at the listed distances.



Distance d (m)	Intensity (Watts)
10	10,000
20	
50	
100	
1000	

(b) In Lab #3, *The Moon*, your goal was to measure the actual sizes of craters on the moon. To do this, you started out by finding a **Map Scale Factor**. Explain how you found this and what it was used for. List also what **units** your scale factor had.

PRE-LAB QUIZ #4 (10pts)

1. Kepler's Third Law is the central law that applies to todays' lab. Describe in words and equations what Kepler's third law is useful for. In particular, for this lab what can I determine about Jupiter by using this law, and what do I need to measure to do that?