Lab 26, Photometry

Name_____ Period _____

**** Please Bring two different candles for this Lab ****

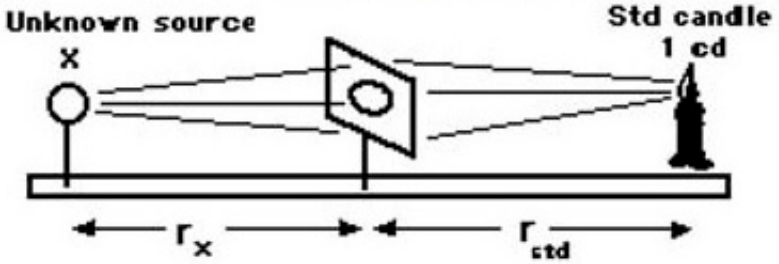
Set up the Photometry Apparatus as shown:

$$E = \frac{I}{r^2}$$

E = Illumination in Lumens
I = Intensity in cd (candela)
r = distance in meters

PHOTOMETRY:

The Bunson Grease Spot Photometer



Adjust to Equal Illumination

So $E_x = E_{std}$ $\quad \frac{I_x}{r_x^2} = \frac{I_{std}}{r_{std}^2}$

Solve for I_x

Adjust he apparatus such that both sides of the screen are equally illuminated.

The illumination of the sample will equal the illumination of the standard candle which is 1 cd.

Please make your measurements and fill in the data table.

Show your method of calculations on page 2.

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DATA TABLE

Sample Number	Unknown Light Source	r_x to screen	r_{std} to screen	$(r_x)^2$	$(r_{std})^2$	I_x
1	Normal Candle	.	.	.	.	.
2	Two Candles	.	.	.	.	.
3	Three Candles	.	.	.	.	.
4	Wimpy Candle	.	.	.	.	.
5	Gas Light	.	.	.	.	.

Calculations:

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Critique: