Information on the String Meter for the UDEMY Portrait Lighting Course

Distance of Light From the Subject

Light is brighter at the source and then drops off as the light moves away from the source. The light drops off slower as it moves away from the source. We can control the look of an image by controlling the light fall off, and create distance between the subject and the background.

Light will fall off very fast close to the light source. We can use that rapid fall off to create more contrast in subjects.

For instance: a model very close to a softbox to camera right will have more contrast with the box close to her than if the box is moved back farther from her.

It is because of the inverse square law, but instead of talking about it again, lets look at an example.

Placing a medium light source very close to our subject - at 2 feet - means that at 4 feet, the light may have dropped off two full stops. (The ISL is not exact with light modifiers, but works in a similar pattern.) So at 3 feet from the light, and that could be the other shoulder at these distances, the light will have fallen off about a stop.

If we move the light back to 6 feet, it would be 12 feet before the light dropped 2 stop and 6 feet from the subject to get a stop fall off. On a headshot, a distance of 6 feet is not even important anymore. The subject is pretty well even since it is taking more distance to drop off due to the distance of the light from the subject.

MASTER 'WIZWOW'S WONDEROUS STRING METER'

You will need a length of clothesline - NOT the stretchy kind - about 12 feet long. Also either a light meter or a gray card.

1. Create a loop at the end of the string and hook it to a stand in a place where you will be able to repeat that placement.

2. Place a speedlight on the stand and put the power setting at 1/8 power. Set the Zoom to standard or 50MM. Use a wireless remote to fire the strobe.

3. Set ISO on meter (or camera if you are using the gray card method) at ISO 100.

4. Pull the string out about 10ft and fire

the flash with the ambient meter facing it.

You are looking for f-4. Move the meter along the string until you get a reading of f-4.

Once you have a reading of f-4 add an additional inch to the string and cut it. Tie a knot at that end. This is now f-4 at ISO 100 and 1/8 power.

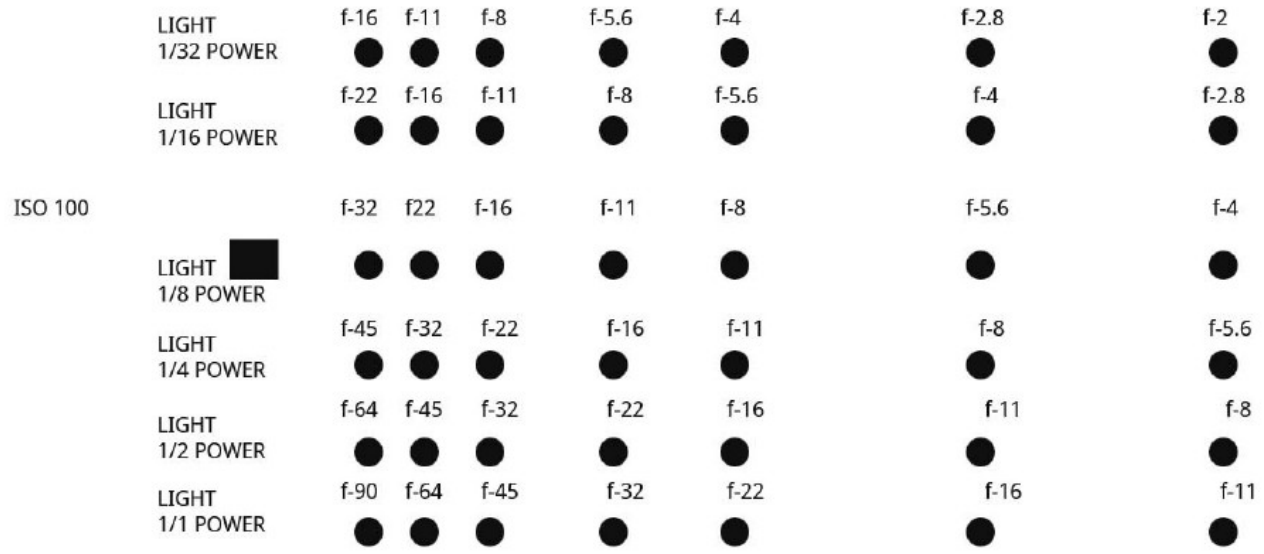
5. Hold both ends of the string and let it drop to find the middle. Tie a knot at that middle point. F-8.

6. Half way between f-8 and f-4 knots place a knot - f5.6.

7. Half way between f-8 and the loop place a knot - f-16.

8. Half way between f-8 and f-16 place another knot - this is f-11.

Your String meter is now ready to use.



The Gray Card Method.

To use the Gray Card method, place a gray card on a stand and fill the camera frame with it. A longer zoom lens may be the best bet. With the camera on f-4 and set to ISO 100, photograph the gray card and move it forward or back on the string until you get a single center

spike in the middle of the histogram. Dead center of the histogram.

Inverse Square Law

Basically, as you double the distance, you square the amount of Light fall off.
If you have f-16 at four feet, you will have 4 times less light at 8 feet:

2 ft	3 ft	4 ft	6 ft	8 ft	12ft	16ft
f-16	f-11	f-8	f5.6	f4	f-2.8	f-2

The inverse square law, combined with the sunny f-16 rule and your carefully notated exposure records for your strobe will allow you to create fairly complex lighting schemes with speed and confidence. Then it is a matter of finesse to create the exact image you want.

So if you know the precise exposure of your light at a specific distance you can figure the exposure with the ISL, the Inverse Square Law.