Name _____ **Date** _____
Teacher _____ **Period** _____

Physics - "Measuring Light" Notes

Speed of Light
What is the speed of light? c = _____

Radiant Energy
Radiant energy is emitted by _____ in the environment.
The amount of radiant energy depends on the _____ of the wave.

Equation: E_R =

where h =

Example: How much radiant energy is produced from green light (λ = 510 nm)?

Key Terms:

candela	
luminous	
illuminated	
luminous flux	
lumen	
luminous intensity	
illuminance	
transparent	
transluscent	
opaque	

Light Brightness

As we move away from a light source, the light looks _____

This is because the light has to illuminate a larger _____

There is a _____ relationship between the brightness of a light and the distance from it.

For example, if you move two times farther away from the light it will appear _____ as bright. If you move four times farther away from the light it will appear _____ as bright.

Equation: E =

Sample Problem 1:
A 500 lm light source is projected on a wall 0.5 meters away. What is the illumination on the wall?

Sample Problem 2:
A light is shown on desk. The illumination on the desk is 230 lm/m^2. The light is 35 cm away from the desk. What is the luminous flux of the light?

What is its luminous intensity?