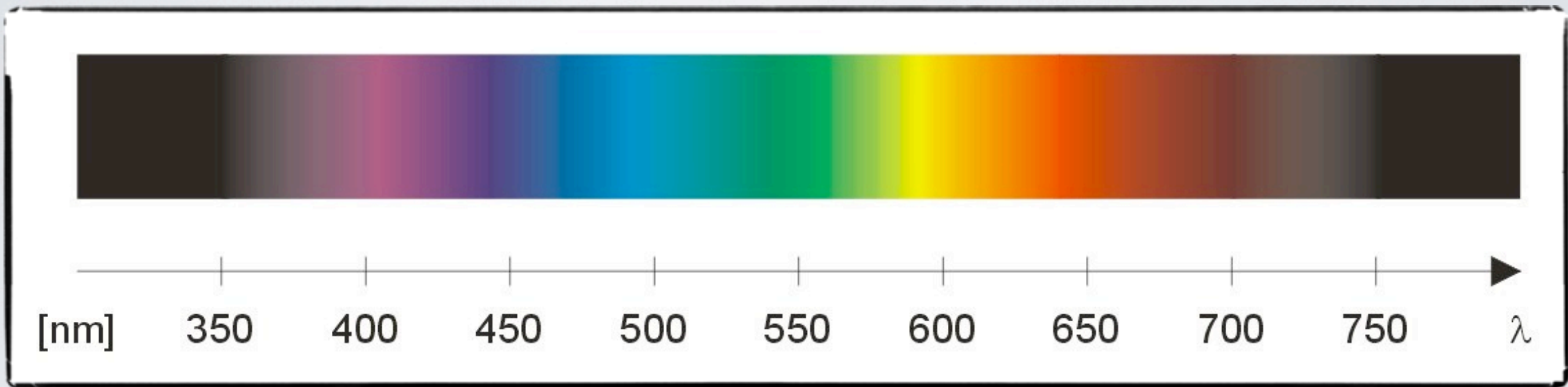
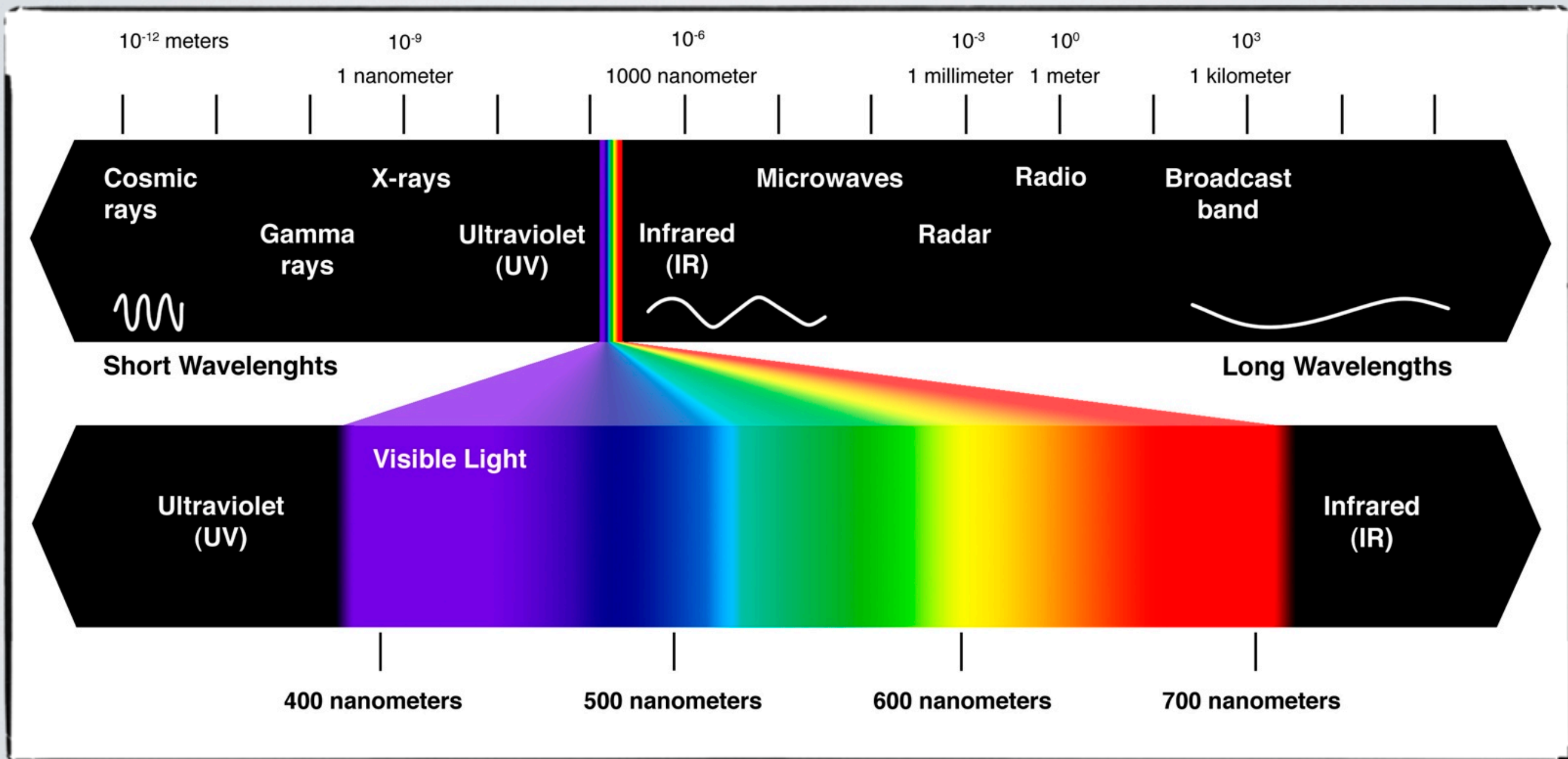


COLOR AND LIGHT

VISIBLE SPECTRUM



EM SPECTRUM



COLOR WHEEL

- Primary Colors
- Secondary Colors
- White
- Complimentary Colors
- Black



HOW CAN YOU SEE
BLACK?



A RED APPLE



A YELLOW BANANA



LUMINOUS OR ILLUMINATED?



Moon



Sun

What is the Source of the Light?

TRANSMIT LIGHT?

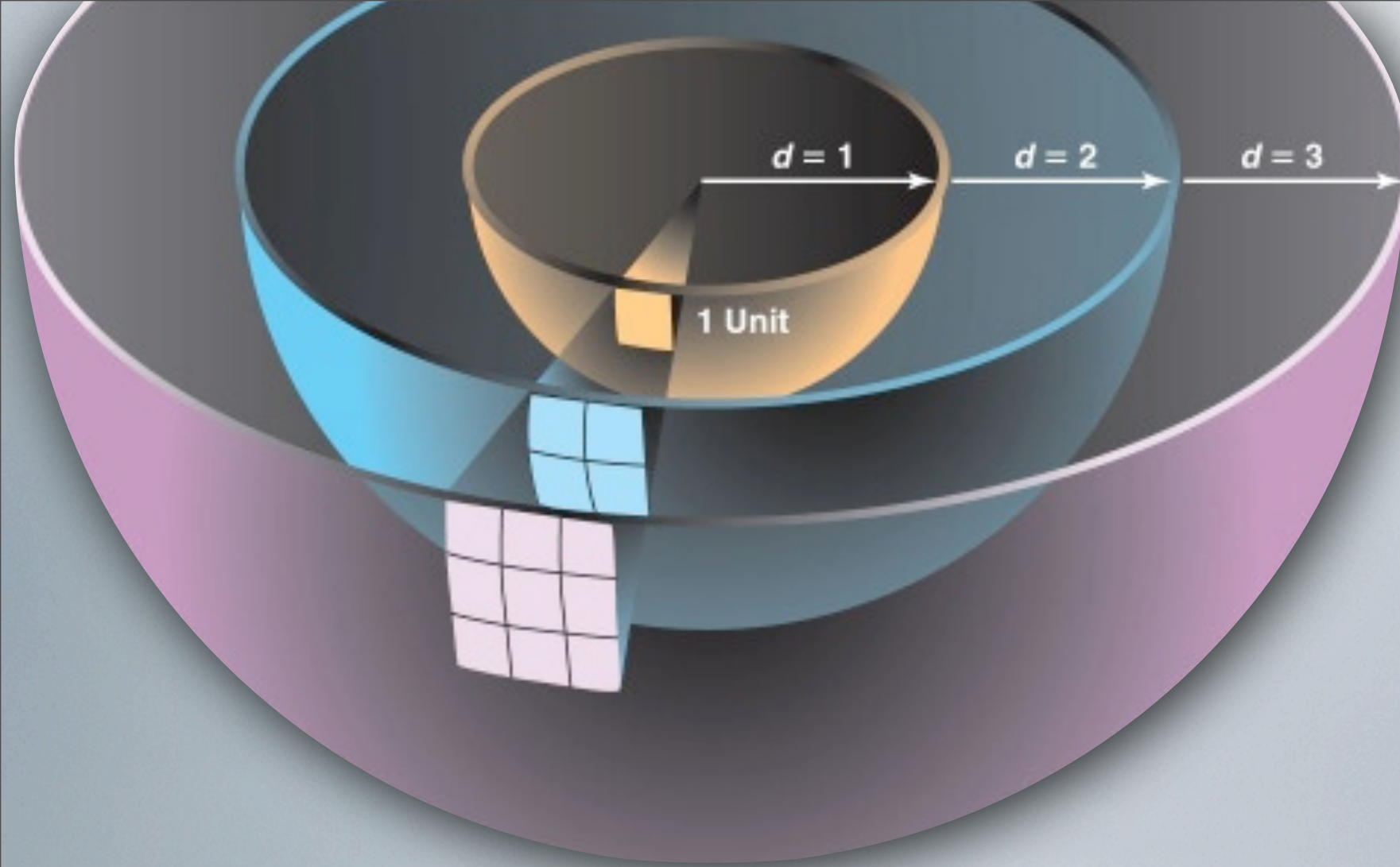


- Transparent



- Translucent

- Opaque



HOW STRONG IS THE LIGHT?

Luminous Flux: Power (Lumen - Think Watts)

Illuminance: Think Brightness (Lux - lm / m^2)

Luminous Intensity: the SI unit (candela - lm/sr)

TRICK QUESTION

- A student measures the luminous flux of a light that is 2m above their desk and finds it to be 1750 lm. What is the flux if the light is moved closer to the desk at 1m apart?
- IN ENGLISH... a student has a 100W light bulb 2m above the desk, what kind of bulb is it if they move the desk 2 times closer?

PRACTICE

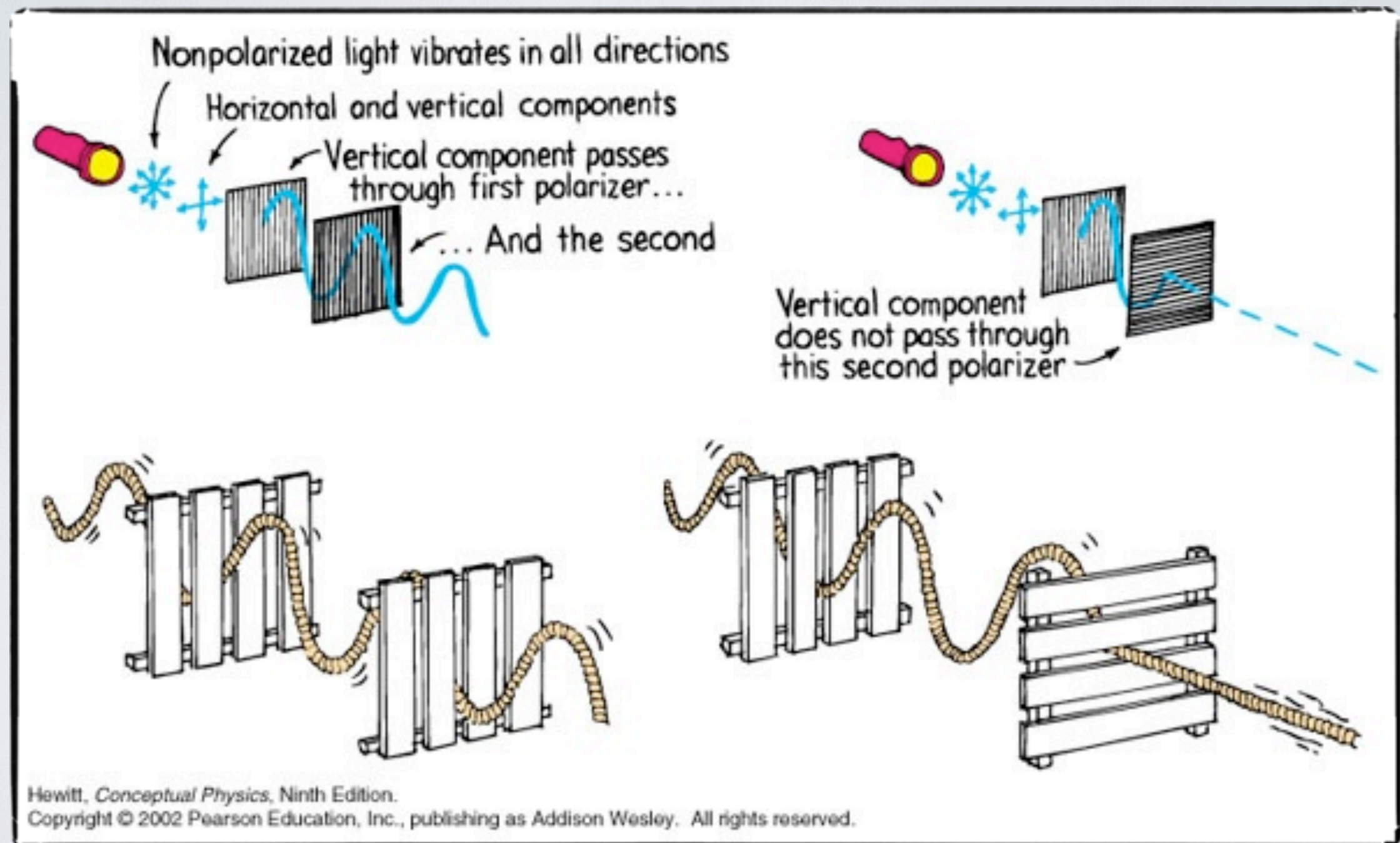
$$E = \frac{P}{4\pi d^2}$$

- A student's desktop is 2.5 m below a 1750 - lm incandescent lamp. What is the illumination on the desktop?
- $P = 1750 \text{ lm}$
- $d = 2.5 \text{ m}$
- 22.3 lx

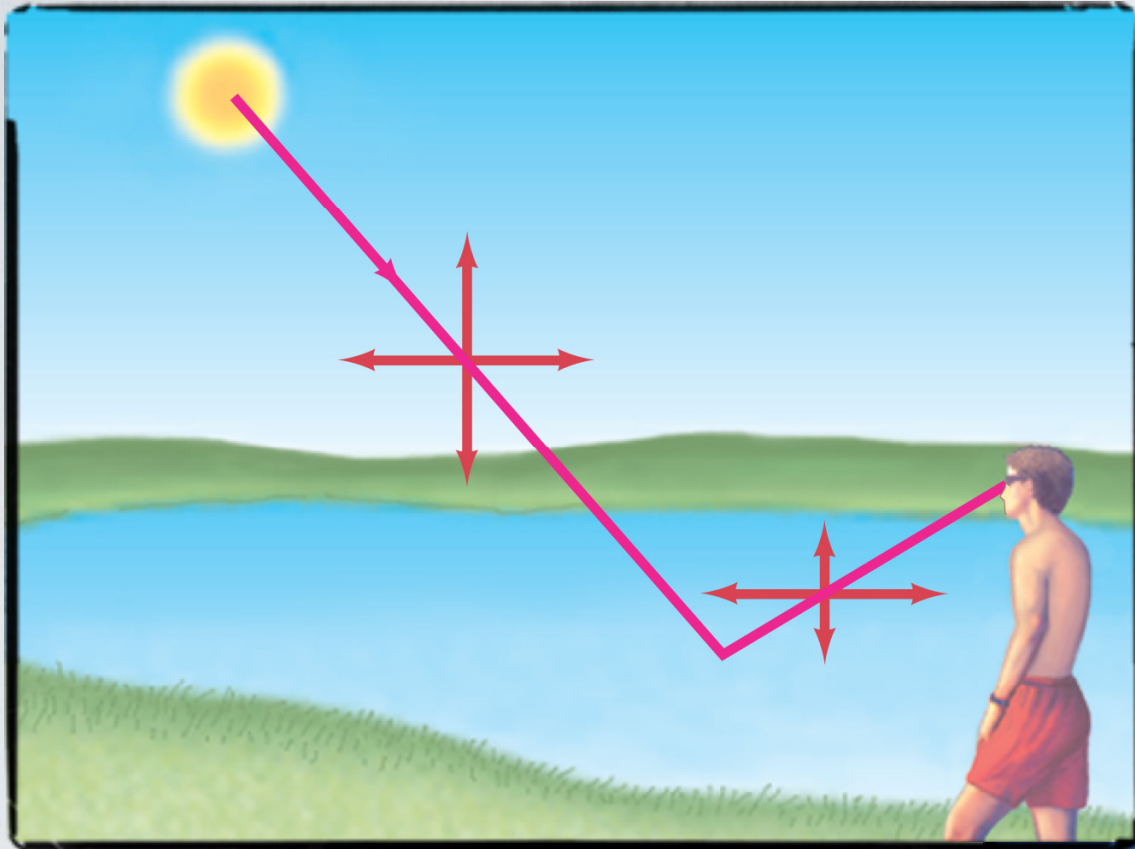
WHY WEAR POLARIZED GLASSES?



POLARIZED LIGHT



WHERE IT HELPS



HOW DID HE KNOW?

