

# LIGHTING CALCULATIONS: PHOTOMETRIC

❑ **FLUX ( $\Phi$ ):** HOW MUCH LIGHT IS EMITTED OR HOW MUCH LIGHT IS RADIATED FROM A LIGHT SOURCE IN ALL DIRECTIONS.

❑ FLUX IS MEASURED IN LUMENS : (LM)

❑ **LUMINOUS INTENSITY (I):** FLUX OF LIGHT EMITTED IN A GIVEN DIRECTION.

❑ LUMINOUS INTENSITY IS MEASURED CANDELAS (CD)

❑ **ILLUMINANCE (E) :** HOW MUCH LIGHT IS RECEIVED PER SURFACE AREA.

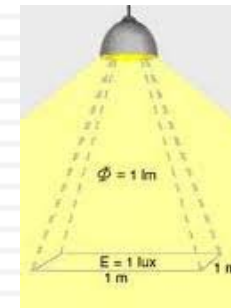
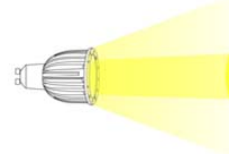
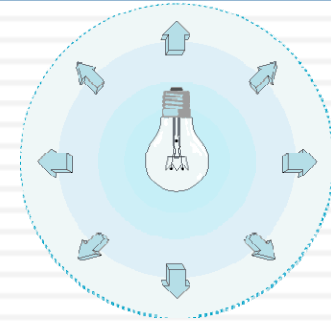
❑ ILLUMINANCE IS MEASURED IN **LUX** LUX = (LM/M<sup>2</sup>)

❑ **LUMINOUS EFFICACY :** HOW MANY LUMENS ARE EMITTED USING 1 WATT OF ELECTRICITY.

❑ LUMINOUS EFFICACY IS MEASURED IN (LM/W)

❑ **POWER :** HOW MUCH ELECTRICITY IS USED BY 1 LIGHT.

❑ POWER IS MEASURED IN WATTS : (W)



LUMENS	INCANDESCENT	LED
2600 lm	150 W	25-28 W
1600 lm	100 W	16-20 W
1100 lm	75 W	9-13 W
800 lm	60 W	8-12 W
450 lm	40 W	6-9 W