

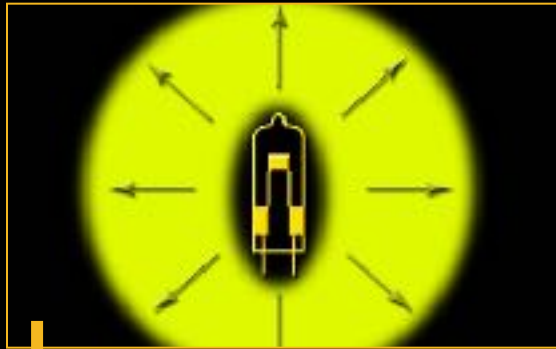
# Photometric Definitions



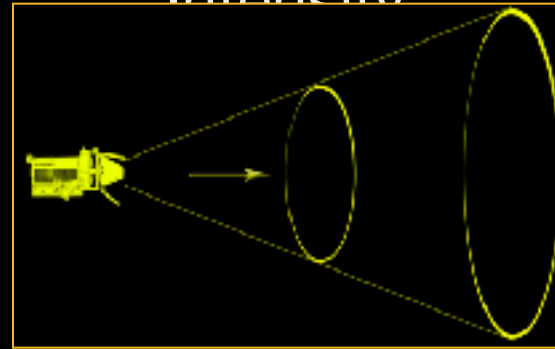
- luminous flux
- luminous intensity
- Illuminance
- luminance

# Technical Lighting Terms

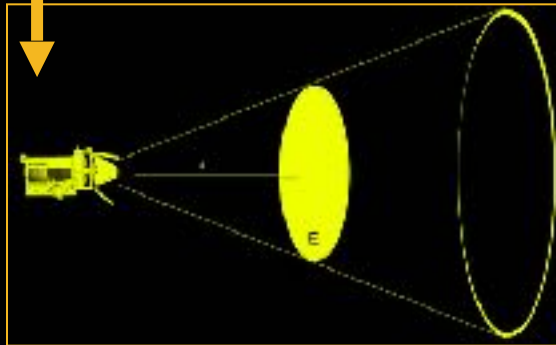
Luminous Flux



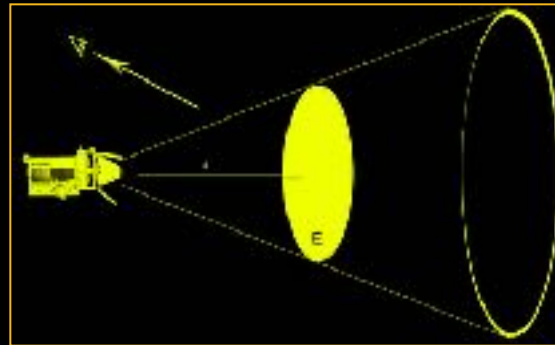
Luminous Intensity



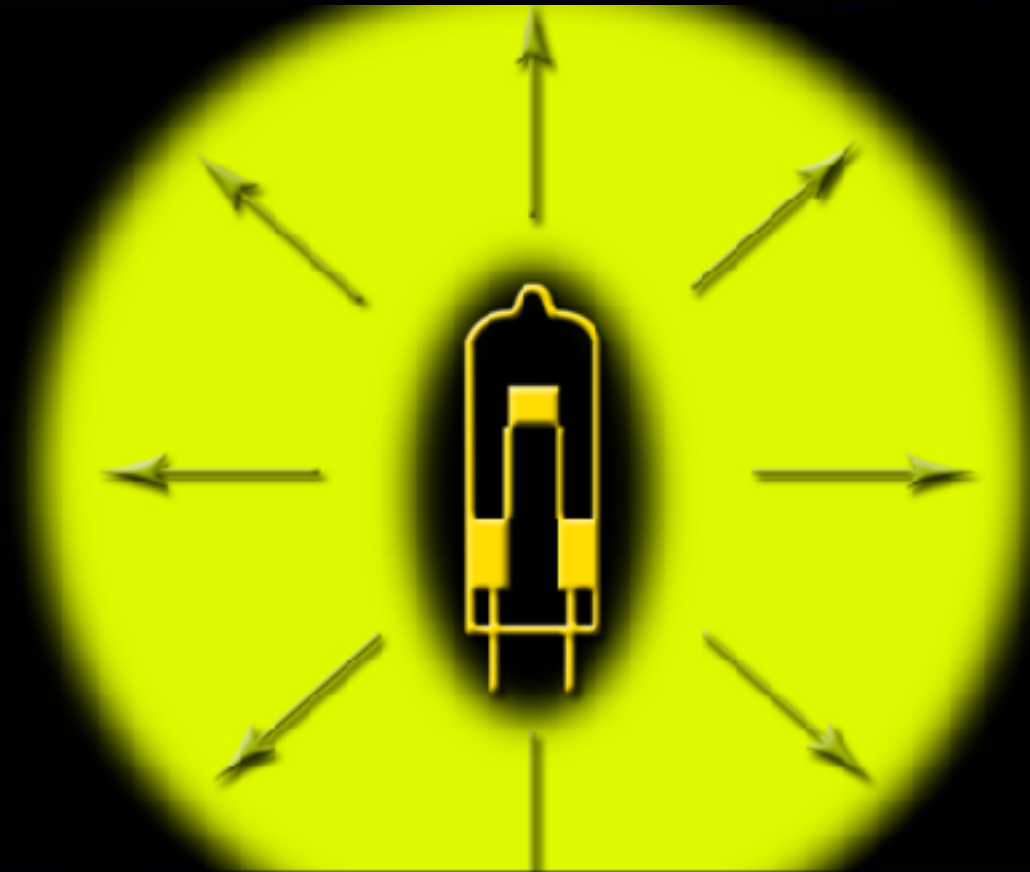
illuminance



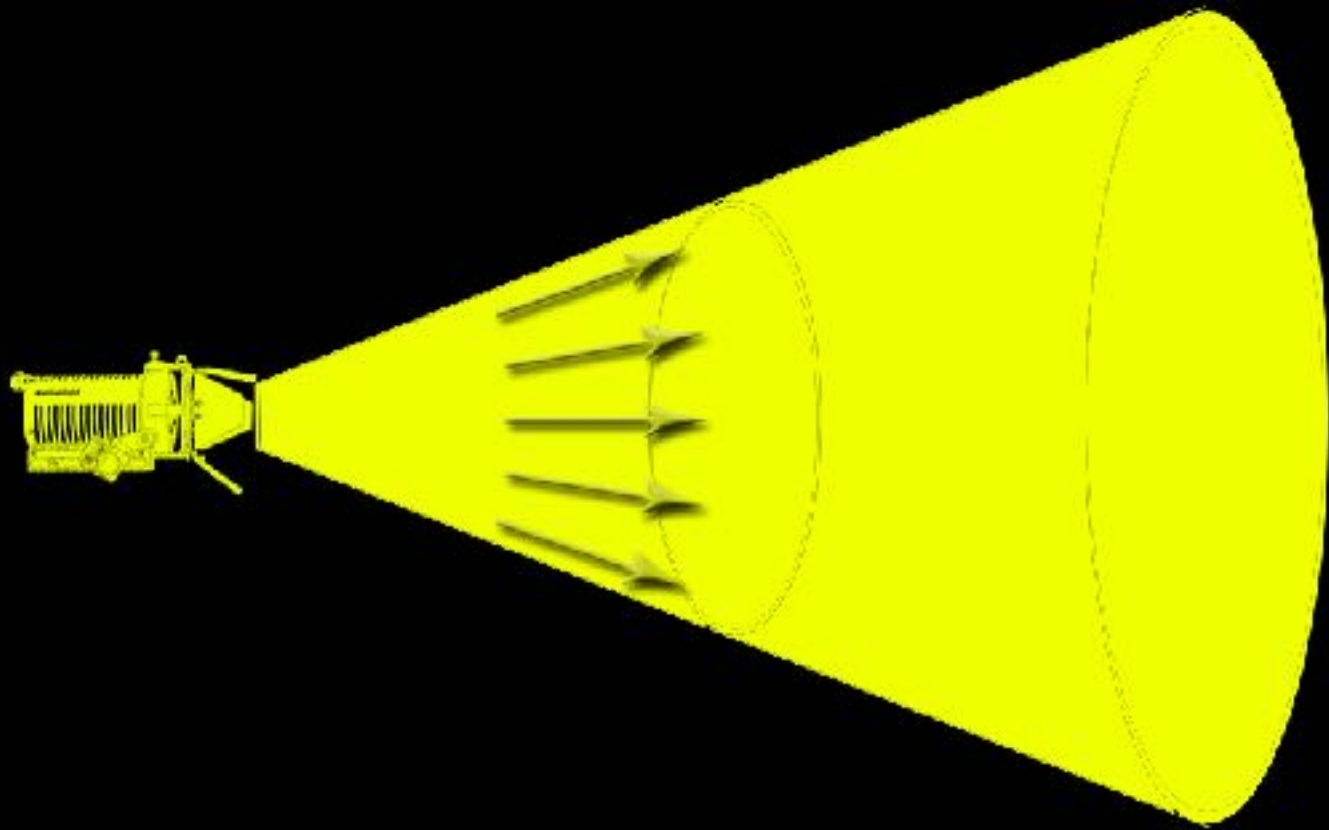
Luminance



# Luminous Flux

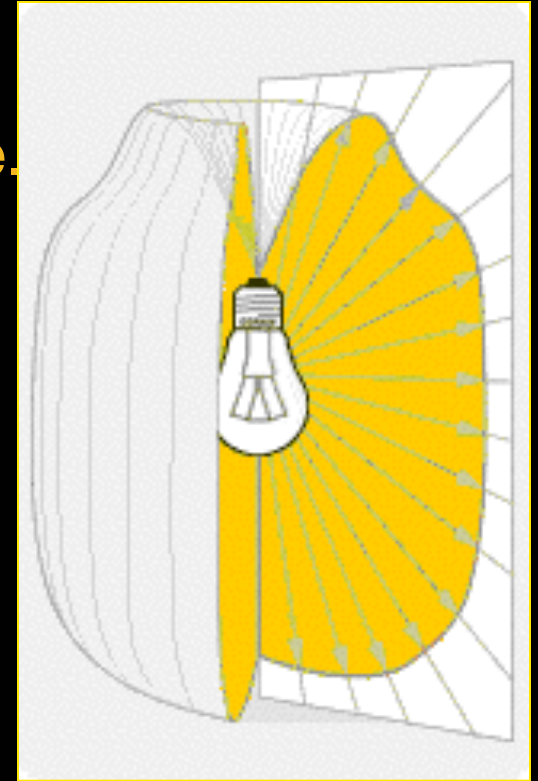


# Luminous Flux

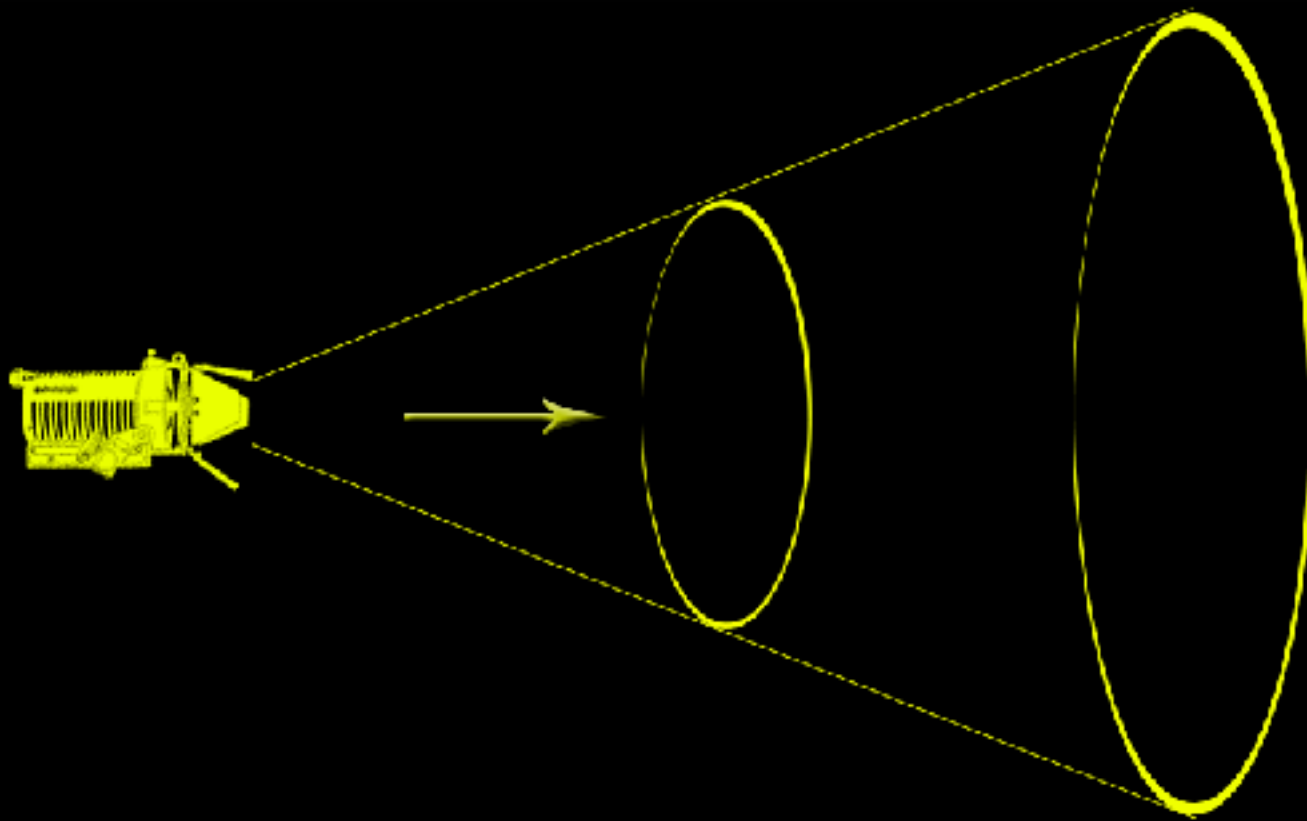


# Luminous Flux

- symbol:  $\Phi$
- unit: lumen [lm]
- definition: total light emitted by a source.

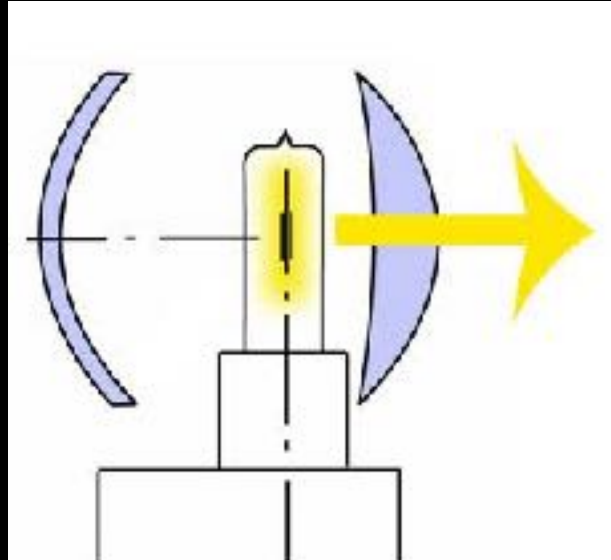


# Luminous Intensity



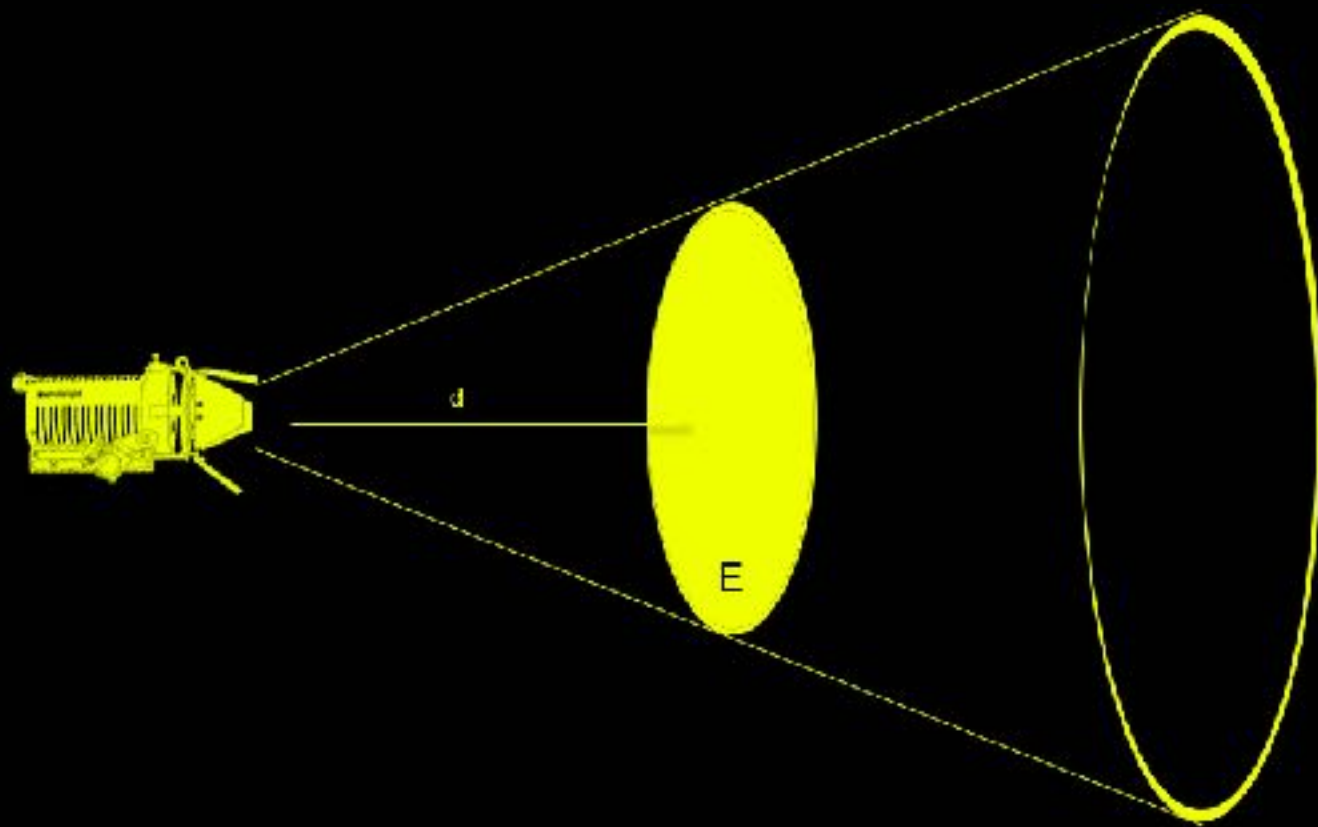
# Luminous Intensity

- symbol:  $I$
- unit: candela [cd]
- definition: the energy from a light source in a particular direction





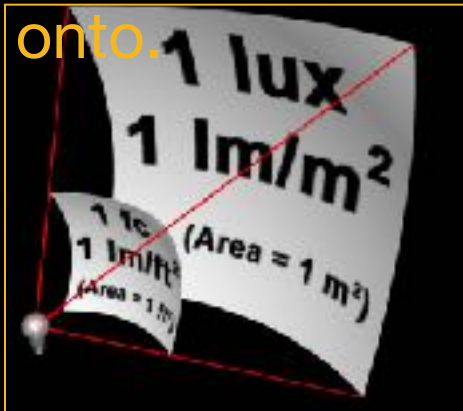
# illuminance



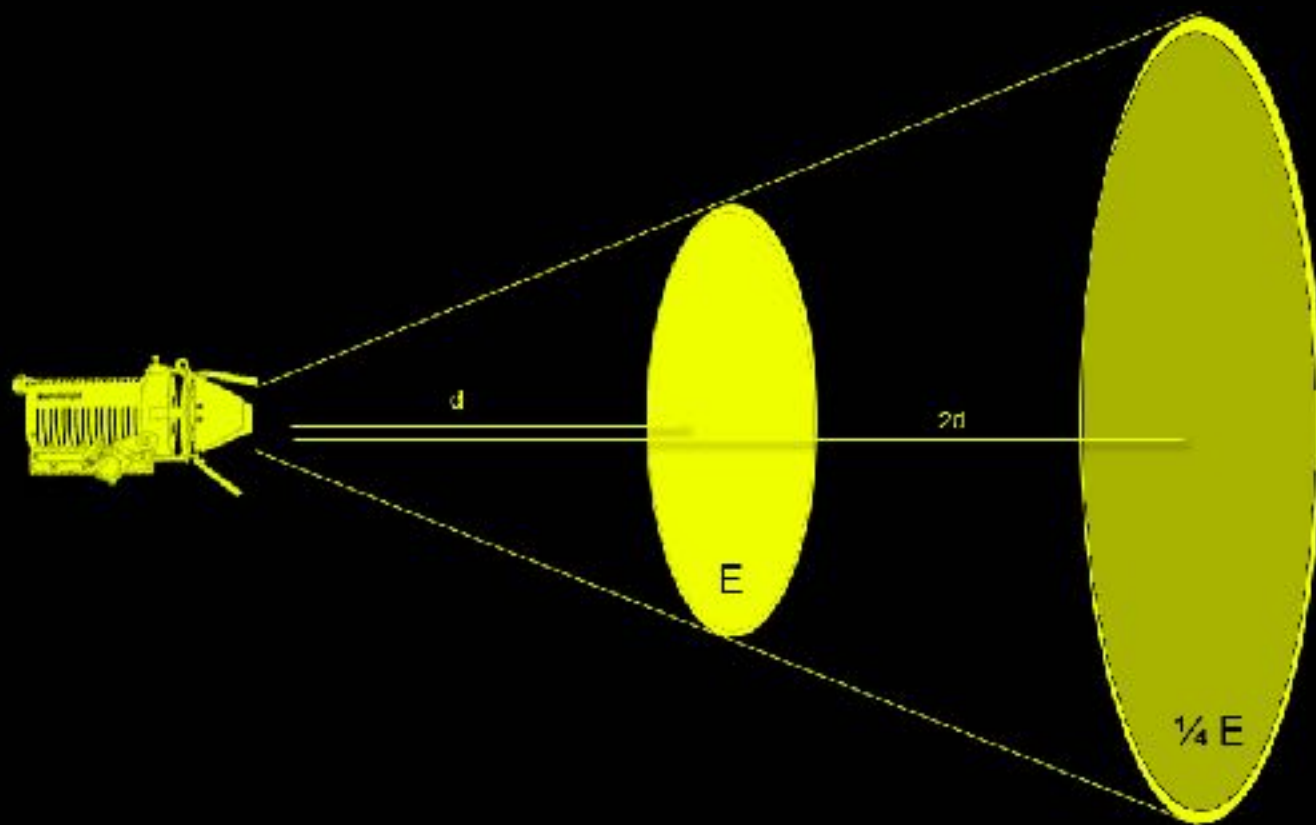
# illuminance

- symbol: E
- unit: lux [lx];  $1\text{lx} = 0,09\text{fc}$
- definition: luminous flux falling on unit area of a surface.  
 $1\text{lx} =$  the flux falling evenly on a surface of  $1\text{ m}^2$ .  
Quantity of incident light.

Relation of luminous flux to the area it falls



# illuminance

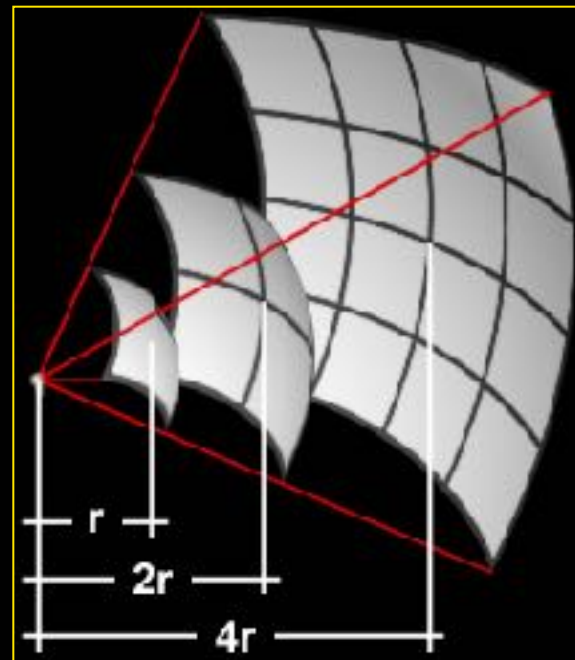


# Luminous Flux

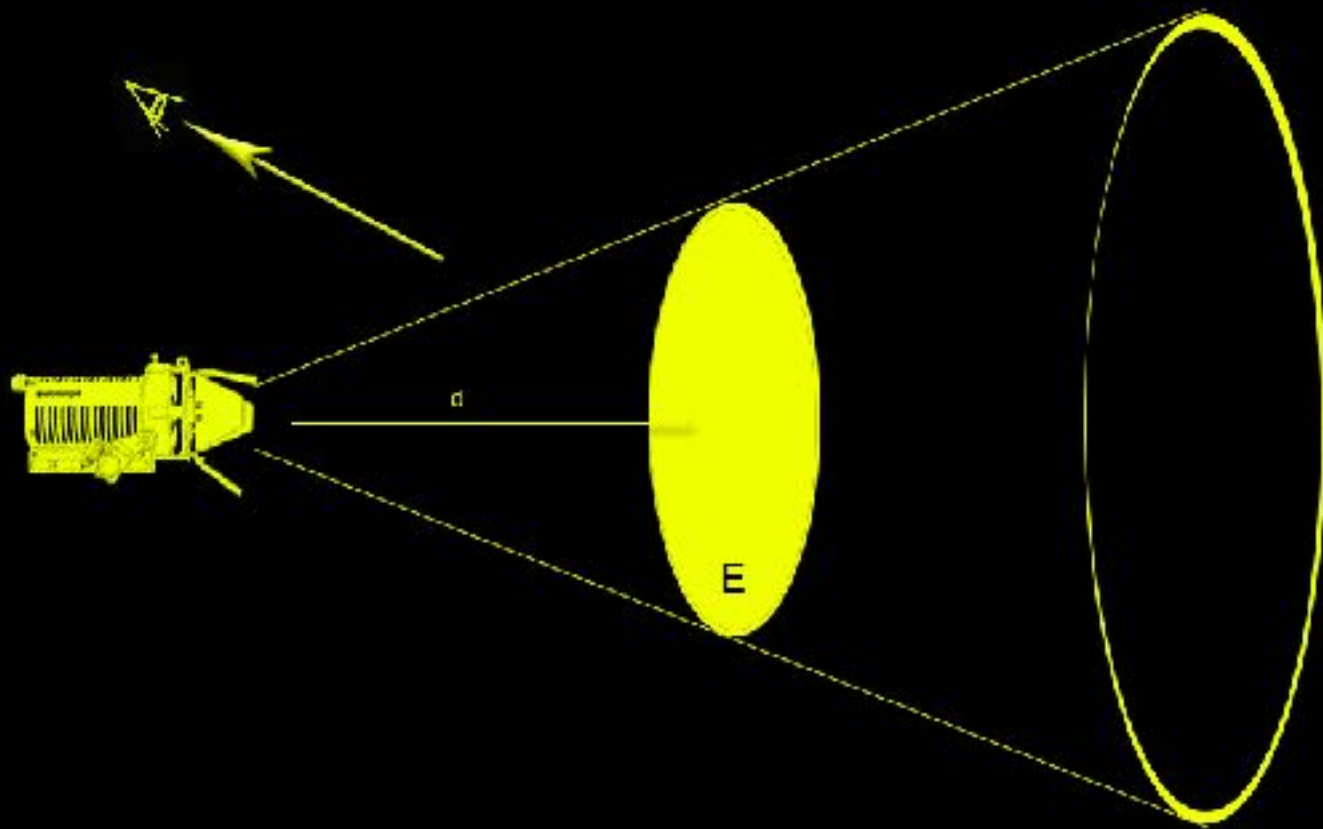
illuminance follows the square law:

$2r$  means the same luminous flux on 4X the area

->  $\frac{1}{4}$  of illuminance on the same area

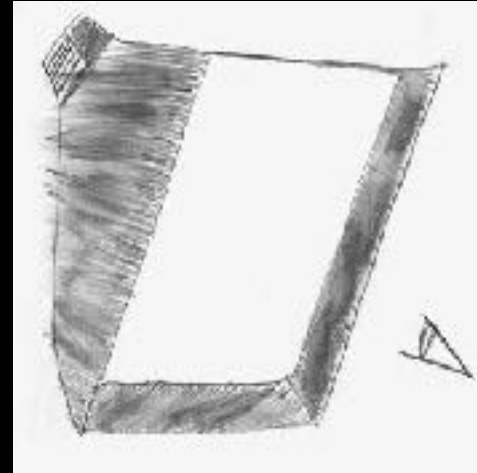
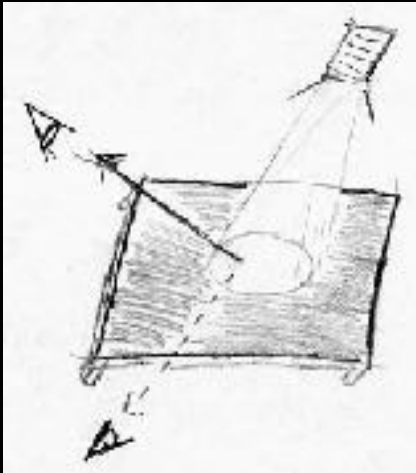


# Luminance



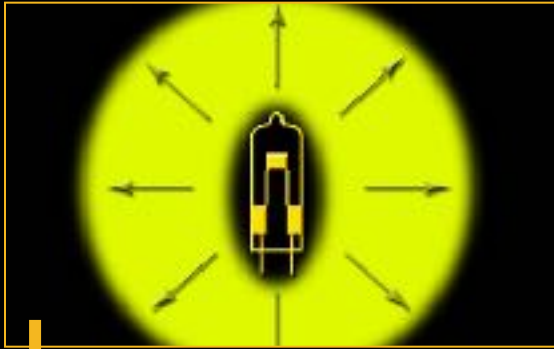
# Luminance

- symbol: L
- unit: candela per square meter [ $\text{cd}/\text{m}^2$ ]
- definition: light emitted from a unit area in a specific direction. Indicates how bright an object actually appears.
- Illuminated area or area of diffuser on softlight

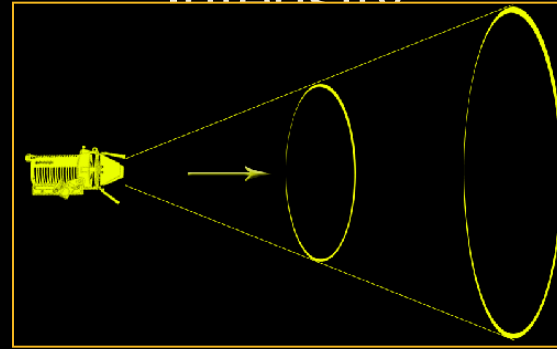


# Technical Lighting Terms

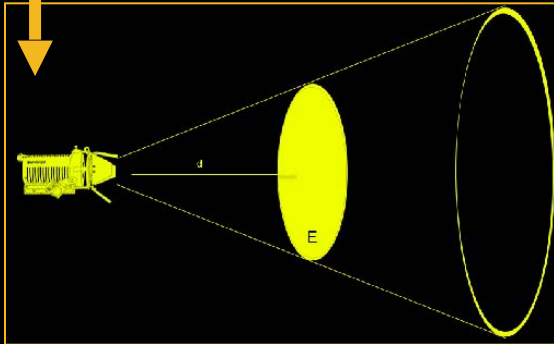
Luminous Flux



Luminous Intensity



illuminance



Luminance

