



RADIANT SYSTEM

RADIOMETRY (PHYSICAL MEASUREMENTS)

RADIATION INTENSITY I_e
 watt per steradian (W/sr) = 10^7 erg / second steradian

RADIATION FLUX (RADIANT POWER) Φ_e
 watt (W) = 1 joule per second (J/s)

1 light watt	=	673 lumens at 554 nm
0.00149 light watt	=	1 lumen at 546 nm

RADIANT ENERGY (WORK) Q
 joule (J) = 1 watt second (w s)
 = 2.78×10^{-7} kilowatt hour
 = 9.48×10^{-4} BTU

RADIANCE L_e
 watt per steradian meter² (W/sr m²)
 = 1 kilogram / second³ sr
 = 10^3 erg/second sr cm²

RADIANCE FLUX DENSITY (IRRADIANCE) E_e
 watt per meter² (W/m²) = 1 kilogram / second³ (kg/s³)
 = 1 joule/meter² second
 = 0.317 BTU/feet² hour

Designed and produced for Ancal, Inc.



LUMINOUS SYSTEM

PHOTOMETRY (PHYSIOLOGICAL MEASUREMENTS)

LUMINOUS INTENSITY I_v
 candela (cd) : the fundamental luminous intensity unit of the International System (SI). Note: The international "candle" (obsolete) is equal to 1.02 candela

LUMINOUS FLUX (LUMINOUS POWER) Φ_v
 lumen (lm) = 1 candela steradian (cd sr)
 = 0.0795 spherical candela

LUMINOUS ENERGY (QUANTITY OF LIGHT) Q_v
 lumen second (lm s) = 1 candela steradian second
 = 2.78×10^{-4} lumen hour
 = 1 Talbot

LUMINANCE (BRIGHTNESS) L_v
 stilb = 1 candela per centimeter²
 = 10^4 nit (nt)
 = 3.14 lambert (La)

ILLUMINANCE (ILLUMINATION) E_v
 lux (lx) = 1 candela steradian per meter²
 = 1 lumen per meter² (lm / m²)
 = 0.0929 foot candle
 = 0.1 milliphot (mph)