

TECH PAPER LIGHTING CONCEPTS A SHORT GUIDE

Subject to change without prior notice TTP3308 REV. A 10.07.2017

LUMEN (LUMINOUS FLUX)

Lumen (lm) is a measuring unit for total amount of visible light emitted from a light source.

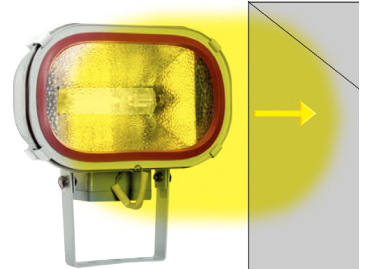
If, for example, a reflector is placed next to the lights source, the amount of useable light where you need it will increase, but the lumen value will remain the same. The lumen value is often stated by the light source manufacturer.



LUX (ILLUMINANCE)

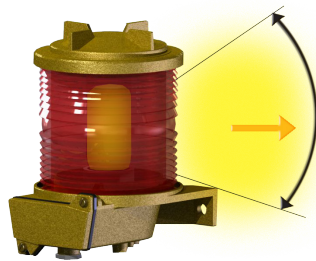
Lux (lx) is a measuring unit for light on a surface or virtual surface. The lux value will decrease with the distance from the light source.

Commonly used value to measure light on an area which is illuminated, for instance an office desk, work space, helicopter deck surface.



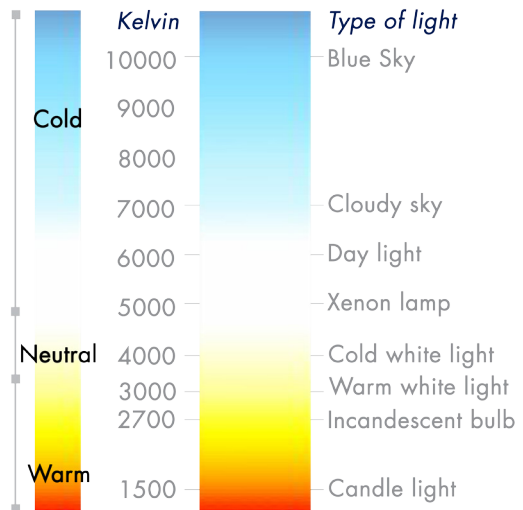
CANDELA (LUMINOUS INTENSITY)

Candela (cd) is a measuring unit for the luminous power in a particular direction. The candela value can vary for different directions. Use of reflectors and lenses will increase the candela value in given directions. It is a common value to use for describing signaling lights, for example warning lights. From the candela value visible range can be calculated.



KELVIN (COLOR TEMPERATURE)

Kelvin (K) in a lighting context is describing the "warmness" of white light. "Cold / bluish" light has a high kelvin value and "warm / yellowish" light has a low kelvin value.



WATT (ELECTRICAL POWER)

Watt (W) is a measuring unit for electrical power. Common for light source manufacturers to state watt value, but this does not describe the light output. For example, a 40W incandescent light bulb produce approx. 400lm, while a 13W PLC tube produce approx. 900lm of light. The efficiency of converting electrical power (W) to luminous flux (lm) varies for different types of light sources.

