

Designing With Light
Chapter 13

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Ballast Factor

Candela

Candlepower

Candlepower Distribution Curve

Coefficient of Utilization

Footcandle

Footlambert

The ballast factor (BF) for a specific lamp-ballast combination is the percentage of the rated lamp lumens that will be produced by the combination.

A measure of luminous intensity of a light source in a specific direction, measured in candelas

The ratio of lumens from a luminaire received on the work plane to the lumens produced by the lamps alone

The English unit of luminance. One footlambert is equal to $1/\pi$ candelas per square foot

Unit of luminous intensity, describing the intensity of a light source in a specific direction

A curve, plotted on polar coordinates, illustrating the distribution of luminous intensity of a lamp or luminaire in a plane through the light center.

The English unit of measurement of the illuminance on a surface. One footcandle is equal to one lumen per square foot.

Illuminance

Lamp Lumen Depreciation Factor

Light Loss Factors

Lumen

Luminance

Lux

Maintained Illuminance

Room Cavity Ratio

<p>A factor that represents the reduction of lumen output over time. The factor is commonly used as a multiplier to the initial lumen rating in illuminance calculations, which compensates for the lumen depreciation.</p>	<p>A photometric term that quantifies light incident on a surface or plane. Illuminance is commonly referred to as light level. It is expressed as lumens per square foot (footcandles), or lumens per square meter (lux).</p>
<p>A unit of light flow, or luminous flux. The lumen rating of a lamp is a measure of the total light output of the lamp.</p>	<p>Factors that allow for a lighting system's operation at less than initial conditions. These factors are used to calculate maintained light levels. LLFs are divided into two categories, recoverable and non-recoverable. Examples are lamp lumen depreciation and luminaire surface depreciation.</p>
<p>The metric unit of measure for illuminance of a surface. One lux is equal to one lumen per square meter. One lux equals 0.093 footcandles.</p>	<p>A photometric term that quantifies brightness of a light source or of an illuminated surface that reflects light. It is expressed as footlamberts (English units) or candelas per square meter (Metric units).</p>
<p>A ratio of room dimensions used to quantify how light will interact with room surfaces. A factor used in illuminance calculations.</p>	<p>Refers to the calculated light levels of a space after factoring in light loss factors such as lamp lumen depreciation, luminaire dirt depreciation, and room surface dirt depreciation.</p>

Thermal Factor

Work Plane

Nadir

The level at which work is done and at which illuminance is specified and measured. For office applications, this is typically a horizontal plane 30 inches above the floor (desk height).

A factor used in lighting calculations that compensates for the change in light output of a fluorescent lamp due to a change in bulb wall temperature. It is applied when the lamp-ballast combination under consideration is different from that used in the photometric tests.

A reference direction directly below a luminaire, or "straight down" (0 degree angle).