

Note: the term 'lighting fitting' is deprecated.

Luminaire maintenance factor: ratio of the light output ratio of a luminaire at a given time to the initial light output ratio.

Luminance (L): luminous flux per unit solid angle transmitted by an elementary beam passing through the given point and propagating in the given direction, divided by the area of a section of that beam normal to the direction of the beam and containing the given point. It can also be defined as:

- the luminous intensity of the light emitted or reflected in a given direction from an element of the surface, divided by the area of the element projected in the same direction
- the illuminance produced by the beam of light on a surface normal to its direction, divided by the solid angle of the source as seen from the illuminated surface.

It is the physical measurement of the stimulus that produces the sensation of brightness. Unit: candela per square metre.

Technically defined, luminance is the quantity defined by the formula $L = d\Phi / (dA \cos \theta d\Omega)$, where $d\Phi$ is the luminous flux transmitted by an elementary beam passing through the given point and propagating in the solid angle $d\Omega$ containing the given direction; dA is the area of a section of that beam containing the given point; and θ is the angle between the normal to that section and the direction of the beam.

For specification, luminance should be specified as maintained luminance and should take one of the following values: $1.0 \times 10^N \text{ cd/m}^{-2}$, $1.5 \times 10^N \text{ cd/m}^{-2}$, $2.0 \times 10^N \text{ cd/m}^{-2}$, $3.0 \times 10^N \text{ cd/m}^{-2}$, $5.0 \times 10^N \text{ cd/m}^{-2}$, $7.5 \times 10^N \text{ cd/m}^{-2}$ (where N is an integer). The area over which the luminance is to be calculated or measured shall be specified.

Luminance contrast: physical quantity intended to correlate with brightness contrast, usually defined by one of a number of formulae that involve the luminances of the stimuli considered (see also **Contrast**).

Note: luminance contrast may be defined as the luminance ratio, $C_1 = L_2/L_1$ (usually for successive contrasts), or by $C_2 = (L_2 - L_1)/L_1$ (usually for surfaces viewed simultaneously). When the areas of different luminance are comparable in size and it is desired to take an average, $C_3 = (L_2 - L_1)/0.5(L_2 + L_1)$ may be used instead, where L_1 is the luminance of the background (or largest part of the visual field) and L_2 is the luminance of the object.

Luminance meter: instrument for measuring luminance.

Luminance uniformity: ratio of minimum luminance to average luminance.

Note: use is also made of the ratio of minimum luminance to maximum luminance, in which case this should be specified explicitly.

Luminous efficacy of a source (η): quotient of the luminous flux emitted by the power consumed by the source. Unit: lumens per watt.

Notes: (1) it must be specified whether or not the power dis-