

Reflectance (ρ): ratio of luminous flux reflected from a surface to the luminous flux incident on it.

Note: the reflectance generally depends on the spectral distribution and polarization of the incident light, the surface finish, and the geometry of the incident and reflected light relative to the surface.

Reflectometer: instrument for measuring quantities pertaining to reflection.

Room surface maintenance factor: ratio of room surface reflectance at a given time to the initial reflectance value.

Semi-cylindrical illuminance (at a point) (E_{SZ}): total luminous flux falling on the curved surface of a very small semi-cylinder located at the specified point, divided by the curved surface area of the semi-cylinder. The axis of the semi-cylinder is taken to be vertical unless stated otherwise. The direction of the curved surface should be specified. Unit: lux.

Semi-direct lighting: lighting by means of luminaires having a distribution of luminous intensity such that the fraction of the emitted luminous flux directly reaching the working plane, assumed to be unbounded, is 60–90 per cent.

Semi-indirect lighting: lighting by means of luminaires having a distribution of luminous intensity such that the fraction of the emitted luminous flux directly reaching the working plane, assumed to be unbounded, is 10–40 per cent.

Solar radiation: electromagnetic radiation from the sun.

Spacing (in an installation): distance between the light centres of adjacent luminaires of the installation.

Spacing-to-height ratio: ratio of spacing to the height of the geometric centres of the luminaires above the reference plane.

Note: for indoor lighting the reference plane is usually the horizontal working plane; for exterior lighting the reference plane is usually the ground.

(Spatial) distribution of luminous intensity (of a lamp or luminaire): display, by means of curves or tables, of the value of the luminous intensity of the source as a function of direction in space.

Spherical illuminance (at a point) (E_o): total luminous flux falling onto the whole surface of very small sphere located at the specified point divided by the total surface area of the sphere. Unit: lux.

Technically defined by the formula:

$$E_o = \int_{4\pi \text{sr}} L d\Omega$$

where $d\Omega$ is the solid angle of each elementary beam passing through the given point and L is its luminance at that point.

Spotlighting: lighting designed to increase considerably the illuminance of a limited area or of an object relative to the surroundings, with minimum diffused lighting.