

APPENDIX 16.1 – GLOSSARY OF LIGHTING TERMINOLOGY

- **BALLAST** – A device used to operate discharge lamps by regulating the lamp current during operation.
- **BUILDING LUMINANCE** – This should be limited to avoid over lighting, and related to the general district brightness. In this reference building luminance is applicable to buildings directly illuminated as a night-time feature as against the illumination of a building caused by spill light from adjacent luminaires or luminaires fixed to the building but used to light an adjacent area.
- **CANDELA** – The intensity of a light source in a specific direction. Unit of luminous intensity.
- **COLOUR RENDERING INDEX (CRI)** – A scale of the colour appearance of an object under a particular light source compared to its colour appearance under a reference light source. Expressed on a scale of 1 to 100 where 100 represents the colour rendering of daylight.
- **COLOUR TEMPERATURE** – A specification of the colour appearance of a light source, relating the colour to a reference source heated to a particular temperature, measured in Kelvin.
- **CONTRAST** – The relationship between the luminance of an object and its background. The higher the contrast, the more likely it is an object can be seen.
- **CONVENTIONAL CONTROL GEAR** – Control gear used to run a lamp, typically consisting of a ballast, ignitor and capacitor.
- **DIFFUSE** – Term describing dispersed light distribution referring to the scattering of light.
- **DISABILITY GLARE** – Glare which impairs the vision of objects but may not cause discomfort.
- **DISCOMFORT GLARE** – Glare causing discomfort which may not impair the ability to see objects.
- **EFFICACY** – A measure of light output against energy consumption measured in lumens per watt.
- **ELECTRONIC CONTROL GEAR** – A device that uses semi-conductor components to operate a discharge lamp.
- **FLUORESCENT LAMP** – A lamp consisting of a tube filled with argon, along with krypton or other inert gas.

- **HIGH INTENSITY DISCHARGE (HID)** – Describes mercury vapour, metal halide and high pressure sodium lamps.
- **HIGH PRESSURE SODIUM LAMP** – A HID lamp whose light is produced by radiation from high pressure sodium vapour (and usually a small amount of mercury).
- **ILLUMINANCE** – Illuminance is the quantity of light, or luminous flux, falling on a unit area of a surface. It is designated by the symbol E. The unit is the lux (lx). One lux equals one lumen per square metre (lm/m²).
- **LED** – Light emitting diode.
- **LIGHT POLLUTION** – The spillage of light into areas where it is not required.
- **LIGHT SPILL** – This is the unwanted spillage of light onto adjacent areas and may affect sensitive receptors particularly residential properties and ecological sites.
- **LIGHT TRESPASS** – Light that impacts on a surface outside of the area designed to be lit by a lighting installation.
- **LONGITUDINAL UNIFORMITY** – Ratio of the lowest to highest road surface luminance on a set of grid points in a line along the centre of a driving lane.
- **LOUVRE** – Assembly used to control light distribution from a luminaire.
- **LOW-PRESSURE SODIUM** – A discharge lamp in which light is produced by radiation from low-pressure sodium vapour.
- **LUMEN** – Calculations have shown that one watt of radiant power with a wavelength of 555 nm equals 683 lumens. (This is an arbitrary value which has been selected for definition purposes.) This figure is known as the "maximum spectral luminous efficacy"
- **LUMINAIRE** – A lighting unit designed to distribute the light from a lamp or lamps.
- **LUMINANCE** – Luminance is the concept for the luminous intensity emitted per unit of area of a surface in a specific direction. The unit is the candela per square metre (cd/m²).
- **LUX (LX)** – Illuminance is the quantity of light, or luminous flux, falling on a unit area of a surface. It is designated by the symbol E. The unit is the lux (lx). One lux equals one lumen per square metre (lm/m²).
- **METAL HALIDE** – A type of HID lamp in which most of the light is produced by radiation of metal halide and mercury vapours in the arc tube. Metal halide lamps generally produce high colour rendering.

- **MERCURY VAPOUR LAMP** – ultraviolet lamp that emits a strong bluish light (rich in ultraviolet radiation) as electric current passes through mercury vapour
- **OPTIC** – The components of a luminaire such as reflectors, refractors, protectors which make up the light emitting section.
- **OVERALL UNIFORMITY** – Ratio of the lowest to highest road surface luminance on a set of grid points.
- **PHOTOCELL** – A unit which senses light to control luminaires.
- **PHOTOPERIOD** – Response of plants and animals to the period of daylight
- **REFLECTANCE** – The ratio of light reflected from a surface to the light incident on the surface.
- **REFLECTOR** – A device used to reflect light onto a surface.
- **REFRACTOR** – A device used to redirect the light output from a lamp when the light passes through it.
- **SKY GLOW** – The brightening of the night sky caused by artificial lighting.
- **SOURCE INTENSITY** – This applies to each source in the potentially obtrusive direction, outside of the area being lit.
- **ULTRA VIOLET (UV)** – Radiation that is shorter in wavelength and higher in frequency than visible violet light.
- **UPWARD LIGHT RATIO** – Some lighting schemes will require the deliberate and careful use of upward light – e.g. ground recessed luminaires, ground mounted floodlights, festive lighting – to which these limits cannot apply. However, care should always be taken to minimise any upward waste light by the proper application of suitably directional luminaires and light controlling attachments.
- **VOLTAGE** – The difference in electrical potential between two points of an electrical circuit.
- **WATT (W)** – The unit for measuring electrical power.