



- ACCENT LIGHT**...is directional lighting to emphasize a particular object or to draw attention to a part of the field of view. (See directional lighting).
- ACCOMMODATION**...is the process by which the eye changes focus from one distance to another.
- ADAPTATION**...is the visual process of the eye becoming accustomed to more or less light than it had in the moment immediately before the present. We say the eye adapts to changing levels of light. This is a change in the retina or the sensitivity of the eye to light.
- ALZAK**...is the trade name for licensing Alcoa finish—an anodic coating used on aluminum lighting sheets.
- AMBIENT LIGHTING**...is lighting throughout an area that produces general illumination.
- AMBIENT TEMPERATURE**...is the temperature surrounding a lamp, luminaire, test mock-up, etc. Measured when there is no longer a temperature gradient. A critical criterion for fixture selection in very warm environments.
- ANODIZING**...is any electrolytic or chemical process by which a protective or decorative film is realized on an aluminum surface. (“Duranodic” and “CalColor” are trade names for “hard coat” anodizing).
- ASYMMETRIC**...unequal distribution about one or more axes.
- AVERAGE MAXIMUM CANDLEPOWER**...is the average of the 10 highest readings in a floodlight beam.
- BAFFLE**...is a single opaque or translucent element to shield a source from direct view at certain angles, or to absorb unwanted light.
- BALLAST**...is a device which modifies incoming voltage and current to provide the circuit conditions necessary to start and operate electric discharge lamps (fluorescent and HID).
- BARE (exposed) LAMP**...is a light source that has no shielding and is visible to the eye.
- BEAM ANGLE**...is the number of degrees in the horizontal and vertical planes when 50% of the maximum candlepower occurs.
- BEAM FLUX (FORMERLY BEAM LUMENS)**...is the lumens contained within the beam spread of a floodlight.
- FIELD ANGLE (FORMERLY BEAM SPREAD)**...is the vertical and horizontal displacement of the beam in degrees, bounded by the angle at which 10% of the maximum candlepower occurs. (Maximum candlepower is the highest intensity in the beam).
- BRACKET**...is an accessory attached to the top of a pole for mounting one or more lighting fixtures. There are crossarm brackets, pipe/wall brackets and steel bullhorn brackets available for 1 to 5 fixtures.
- CANDLEPOWER DISTRIBUTION CURVE**...shows the variation of luminous intensity of a lamp or luminaire in a horizontal or vertical plane through the light center.
- CLERESTORY**...is that part of a building rising clear of adjacent roofs or other parts whose walls contain windows for lighting the interior.
- COLOR**...refers to the spectrum of light. We talk about the color of an object the human eye sees. Actually that color depends upon the amount and nature of the light received by that object and then reflected by it. If all the light were absorbed by an object, it would be black. If all the light were reflected by the object, it would be white. There are no known surfaces that absorb **all**, or reflect **all**, of the light received. A partial reflection would yield different colors depending on the wave-length of the spectrum which is reflected. Thus, color is a characteristic of light by which a person may distinguish between two patches of color of the same size and shape.
- COLOR RENDERING**...is a general expression for the effect of a light source on the color appearance of objects in conscious or subconscious comparison with their color appearance under a reference light source.
- COLOR TEMPERATURE**...is a scientific measurement of the balance of wavelengths making up any “white” light. The unit of measurement is the Kelvin, abbreviated K. Although it may not seem sensible, a higher color temperature means a **cooler**, bluer light source. Typical color temperatures are 2800K (incandescent), 3000K (halogen and advanced fluorescent), 4100K (cool white fluorescent), and 5000K (daylight-simulating fluorescent).
- CORNICE LIGHTING**...is a term that applies to light sources that are shielded by a panel that is mounted parallel to a wall and attached to the ceiling. It distributes light all over the wall below.
- COVE LIGHTING**...is an expression which relates to light sources that are mounted above a ledge or some form of recess that hides the light sources from view and distributes the light over the ceiling and upper wall.
- DIFFUSED LIGHTING**...is light that falls on a surface that does not appear to come primarily from a single given direction.
- DIFFUSER**...is a device that spreads, redirects or scatters light in a rather even manner, usually by means of a rough surface or translucent material.
- EFFECTIVE PROJECTED AREA (EPA)**...is the exposed surface of an outdoor fixture, multiplied by a shape factor which varies depending on the shape of the fixture. For example, a cylindrical or round fixture will have less resistance to the wind than a rectangular fixture.
- FLOODLIGHT**...is a projector designed for lighting a scene or object to a luminance considerably greater than its surroundings. It usually is capable of being pointed in any direction and is of weatherproof construction.
- GENERAL PURPOSE FLOODLIGHT (GP)**...is a weatherproof unit so constructed that the housing forms the reflecting surface. The assembly is enclosed by a glass cover.
- GLOBE**...is a transparent or diffusing enclosure intended to protect a lamp, to diffuse and redirect its light, or to change the color of the light.
- HAZARDOUS LOCATION**...is an area where ignitable vapors or dust may cause a fire or explosion created by energy emitted from lighting or other electrical equipment.
- HEAT-TEMPERED BORISILICATE GLASS**...is heat-tempered (not chemically tempered), acts as an ultraviolet (UV) screen. It dices when broken (safety glass), and is not susceptible to thermal shock (shockproof).
- HEAVY DUTY FLOODLIGHT (HD)**...is a weatherproof unit having a substantially constructed metal housing, into which is placed a separate and removable reflector, and a weatherproof hinged door with cover glass that encloses the assembly but provides an unobstructed light opening at least equal to the effective diameter of the reflector.
- HIGH MAST LIGHTING**...is illumination of a large area by means of a group of luminaires which are designed to be mounted on the top of a high mast, generally 65 feet or higher.
- ILLUMINANCE (FOOTCANDLE OR LUX) METER**...is an instrument for measuring illuminance on a plane. Instruments which accurately respond to more than one spectral distribution are color corrected. Instruments which accurately respond to more than one spatial distribution or incident flux are cosine corrected, i.e., the response to a source of unit luminous intensity, illuminating the detector from a fixed distance and from different directions decreases as the cosine of the angle between the incident direction and the normal to the detector surface. The instrument is comprised of some form of photodetector, with or without a filter, driving a digital or analog readout through appropriate circuitry.

# GENERAL GLOSSARY OF TERMS

**ISOCANDELA LINE**...is a line plotted on any appropriate set of coordinates to show directions in space, about a source of light, in which the candlepower is the same. A series of curves, usually for equal increments of candlepower (intensity) is called an isocandela diagram.

**ISOLUX (ISOFOOTCANDLE) LINE**...is a line plotted on any appropriate set of coordinates to show all of the points on a surface where the illuminance is the same.

**LAMP**...is a generic term for a man-made source of light. A lighting unit consisting of a lamp with shade, reflector, enclosing globe, housing, or other accessories, is also called a lamp. In such cases, in order to distinguish between the assembled unit and the light source within it, the latter is often called a bulb or tube, if it is electrically powered.

**LENS**...is a prismatic shielding portion of a fixture, made of plastic or glass, through which the light passes. Lenses change the direction and control the distribution of light rays.

**LIGHT**...is the visible radiant energy or a source that affects the eye's retina to produce vision. Technically, it is a portion of the spectrum that ranges from about 380 to 770 nanometers. Light is usually measured in lumens or candlepower. When light strikes a surface, it is either absorbed, reflected or transmitted. Light is said to travel in straight lines.

**LIGHTING DISTRIBUTION**...is how luminaires are classified according to the manner in which they control or distribute the luminous flux.

**LUMINANCE**...is the luminous intensity of any surface in a given direction per unit of area of the surface as viewed from that direction. It is measured in candelas per square meter. All visible objects have some luminance.

**MEAN LUMENS**...is the average lumen output of a lamp throughout its economic life.

**MOUNTING HEIGHT (MH)**...is the vertical distance between the luminaire and the surface to be lighted. It includes both the pole length and the base (above grade) to which the pole is affixed.

**OPAQUE**...does not let light pass through, not being transparent, nor translucent.

**OPTICAL SYSTEM**...is the lamp cavity or environment (including diffusing media) designed as part of the fixture for the purpose of controlling the light output.

**OVERHANG**...in roadway lighting is the distance between a vertical line passing through the luminaire and the curb or edge of the roadway.

**PRIMARY PLAYING AREA (PPA)**...is the total area within the playing boundary in which the illuminance level must be maintained.

**REFLECTANCE**...is a measure of the ratio of light that is reflected by a surface as compared with the light which falls on it.

**REFLECTION**...describes a process by which light bounces from a surface without a change in frequency.

**REFLECTOR**...redirects light from the source by a process of reflection.

**REFRACTOR**...redirects light from a source by the process of refraction. That is, a ray of light changes paths, as it passes obliquely from one medium to another.

**SECONDARY PLAYING AREA (SPA)**...is the area extending beyond the primary playing area and a physical barrier such as a fence.

**SETBACK**...is the distance that the center of the luminaire is behind the area to be lighted by that luminaire.

**SPACING**...is the distance between the centers of adjacent lighting fixtures, or poles.

**SPECTRUM**...refers to the regions of the electromagnetic spectrum. It has been arbitrarily divided into wavelengths as follows:

vacuum ultraviolet	< 10 nanometers
extreme ultraviolet	10 - 100 nanometers
far ultraviolet	100 - 200 nanometers
middle ultraviolet	200 - 300 nanometers
near ultraviolet	300 - 380 nanometers
<b>visible light</b>	<b>380 - 770 nanometers</b>
near infrared	770 - 1,400 nanometers
intermediate infrared	1,450 - 5,000 nanometers
far infrared	5,000 - 1,000,000 nanometers

Spectrum also is used in reference to color quantities of visible light within the 380-770 nanometers range, which we usually refer to as "the color spectrum."

**SPOTLIGHT**...is any of several different types of luminaires with relatively narrow beam angle designed to illuminate a specifically defined area.

**SUBJECTIVE BRIGHTNESS**...is the subjective attribute of any light sensation giving rise to the perception of luminous intensity, including the whole scale of qualities of being bright, light, brilliant, dim or dark. Brightness refers to the subjective sensation of people.

**THRESHOLD**...is used for a variety of conditions generally to indicate the point at which they become visually perceived. The threshold may be one which simply enables the detection of the presence of an object: it could refer to determination of certain details of that object.

**TRANSMISSION**...refers to the process by which the light leaves a medium after passing through a surface from the source of the light without a change in its frequency. Transmission through a medium may combine regular and diffuse transmission.

**TRANSLUCENT**...is letting light pass but diffusing it so that objects on the other side cannot be distinguished; partially transparent, or frosted glass.

**TRANSPARENT**...is transmitting light rays so that objects on the other side may be distinctly seen: as window glass is transparent: opposed to opaque and distinguished from translucent.

**VISIBILITY**...describes the state of being perceived by the eye. Outdoors, we often use visibility in terms of the distance at which an object can be seen by the eye.

**VISUAL ACUITY**...is the measure of the ability to distinguish fine details.

**VISUAL FIELD**...represents the locations of objects or points which can be seen when the head and the eyes are in a fixed position.

**VISUAL SURROUND**...represents all portions that lie within the visual field except a given task itself.

**VISUAL TASK**...represents objects or details which must be seen in the performance of a given activity. It would include the immediate background of these things, but not the "surround."

**WET LOCATION**...installations subject to saturation with water.

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