

DAYLIGHT CONTROLS GLOSSARY

Accompanies *Commissioning for optimal savings from daylight controls*
(report number 264-1, published February 2013)

Automatic Daylighting Control: see *Daylighting Control*; any daylighting control that is accomplished automatically without occupant input.

Building Automation System: a computerized network of electronic devices designed to monitor mechanical, electronic, and lighting in a building.

Closed Loop: a daylight control system in which the photosensor views the interior illuminance levels.

Coefficient of Performance: the efficiency of a piece of equipment expressed as the ratio of the useful energy provided to the amount of energy consumed.

Commissioning: as it pertains to lighting controls, this is a plan and process enacted to ensure that lighting control systems perform interactively according to the intent of the lighting design and control sequences.

Conservation Improvement Program: a category of energy efficiency programs in Minnesota, generally operated by utility companies, which provide incentives for improvements in energy usage.

Controls Effectiveness: the performance of a daylight control system expressed as the ratio of actual lighting energy savings to the energy savings achievable with perfectly operating controls.

Critical Workplane: the working surface within a daylight control system that is most likely to receive the least amount of light.

Curtainwall: a nonstructural outer covering, often transparent, of a building.

Daylighting Control: the practice of utilizing photosensors to reduce the electric light in a space when sufficient daylight is present.

Deadband: the area of a signal range where no action occurs.

DOE-2: a building energy analysis program capable of predicting a building's energy use and cost.

Dimming Ballast: a device that provides the proper operating electrical conditions to power lamps, allowing their lighting output to be lowered.

Extraterrestrial Radiation: the intensity of solar energy incident on a surface immediately outside the earth's atmosphere.

Functional Testing: a quality assurance process designed to verify a system's operation against design documents and specifications.

Glare: visual discomfort due to bright light or high contrast in light levels.

Glazing: the part of a building's envelope made of glass.

Global Horizontal Radiation: the intensity of solar energy incident on a surface after the light passes through the earth's atmosphere.

Illuminance: a measure of the amount of incident light on a surface per unit area.

Life Cycle Cost Analysis: a technique for determining the total cost of owning and operating a building over a specific time interval.

Luminaire: a device used to create artificial light from electricity (often called a light fixture).

Obstruction Factor: the fraction of light that reaches the workplane out of the total daylight available from building fenestration.

Open Loop: a daylight control system in which the photosensor views the exterior illuminance levels.

Photocontrol: the use of a photosensor to detect and adjust the amount of electric light provided to a space.

Photosensor: a device used for detecting the amount of light in a space.

Power Factor: the ratio of the real power flow to an electrical load to the apparent power in the electrical circuit.

Recommissioning: performing commissioning on a system that was previously commissioned but has undergone some modification(s); generally assumes a complementary process acting to improve upon any deficiencies found.

Reflectance: a surface property that expresses the fraction of incident light that the given surface bounces back into the space.

Startup: as it pertains to lighting controls, this is the phase of construction when the control settings are input, the lights powered for the first time, and any initial operating requirements of the manufacturer are completed.

Target Illuminance: the amount of incident light on a surface per unit area specified as necessary for performing a given task on that surface.

Typical Meteorological Year: a collection of weather data for a given location that reflects the location's annual averages while maintaining hourly variability within the location's expected ranges.

Visible Transmittance: a property of glazing that expresses the percentage of visible light that passes through it.

Workplane Illuminance: the amount of incident light per unit area on a working surface.

Zone: as it pertains to lighting controls, a zone encompasses the floor area lit by all the luminaires on a common controller.

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