

Glossary

Ballast: See **High-Efficiency Ballast**.

Btu: British thermal unit. A unit quantity of energy consumed by or delivered to a building. A Btu is defined as the amount of energy required to increase the temperature of 1 pound of water by 1 degree Fahrenheit, at normal atmospheric pressure. The term is used in this report to help with the comparison of consumption among fuels that are measured in different units. The conversion factor for electricity for the CBECS is 3,412 Btu/kWh.

Building (b): For the CBECS, a structure totally enclosed by walls extending from the foundation to the roof, containing over 1,000 square feet of floorspace, and intended for human occupancy. Structures that were included in the survey as a specific exception were parking garages not totally enclosed by walls and a roof, as well as structures erected on pillars to elevate the first fully enclosed level, but leaving the sides at ground level open.

Census Region: A geographic area consisting of several States defined by the U.S. Department of Commerce, Bureau of the Census. The states are grouped into four regions:

<u>Region</u>	<u>States</u>
Northeast	Connecticut, Maine, Massachusetts, New Hampshire, Vermont, Rhode Island, New Jersey, New York, and Pennsylvania
Midwest	Illinois, Indiana, Michigan, Ohio, Wisconsin, Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, and South Dakota
South	Delaware, the District of Columbia, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, West Virginia, Alabama, Kentucky, Mississippi, Tennessee, Arkansas, Louisiana, Oklahoma, and Texas
West	Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming, Alaska, California, Hawaii, Oregon, and Washington

Commercial: Neither residential, manufacturing, nor agricultural.

Commercial Building: A building with more than 50 percent of its floorspace used for commercial activities. Commercial buildings include, but are not limited to, stores, offices, schools, churches, gymnasiums, libraries, museums, hospitals, clinics, warehouses, and jails. Government buildings were included except for buildings on site with restricted access, such as some military bases or reservations. Farms and buildings located on farms (such as silos, grain elevators and barns) were excluded from the CBECS.

Conservation Case: An equipment replacement scheme together with assumed deflation factors for conservation feature effects and extent of delamping. (See **Deflation Factor** and **Delamping**.)

Conservation Feature (f): A feature in the building designed to reduce the usage of electricity for lighting.

Controls (CTL): A lighting conservation feature, consisting of any lighting control equipment, including occupancy sensors, timers, and daylight controls. (See **Conservation Feature**.)

Deflation Factor (d): A factor less than one representing the assumed ratio of energy used by equipment with a particular conservation feature present to the energy that would be used without that feature. (See **Conservation Feature**.)

Delamping (DEL): In this report, reduction in illuminance while maintaining equipment efficacy, typically by disconnecting some fixtures. More generally, delamping refers to the removal of lamps and the associated ballasts.

Effective Lighting Hours (H^e): The average number of hours per week of lighting use for the floorspace that is lighted during usual operating hours. (See **Usual Operating Hours** and Appendix D).

Efficacy (Q): The amount of light produced by a lamp per unit of energy used.

End-Use Intensity (EUI): Energy consumption for a particular end use per unit of floorspace. In this report, lighting is the only end use for which end-use intensities are considered.

Energy-Efficient Lamp or Bulb: A fluorescent lamp or incandescent bulb that uses less energy for the same or nearly the same light output as a standard lamp or bulb of the same dimensions.

Floorspace-Weighted Average: A weighted average, using lighted floorspace as the weighting factor. (See **Lighted Floorspace** and Appendix A.)

Fluorescent Lamp: A lamp made of a glass tube coated on the inside with fluorescent material. The lamp produces light by passing electricity through mercury vapor, which causes the fluorescent coating to glow or fluoresce.

High-Efficiency Ballast (HEB): A lighting conservation feature consisting of an energy-efficient version of a conventional electromagnetic ballast. The ballast is the transformer for fluorescent and HID lamps, which provides the necessary current, voltage, and wave-form conditions to operate the lamp. A high-efficiency ballast requires lower power input than a conventional ballast to operate HID and fluorescent lamps. (See **Fluorescent Lamp**, **High-Intensity Discharge (HID) Lamp**, and **Conservation Feature**.)

High-Intensity Discharge (HID) Lamp: A lamp that produces light by passing electricity through gas, which causes the gas to glow. Examples of HID lamps are mercury vapor lamps, metal halide lamps, and high-pressure sodium lamps.

Illuminance: A measure of the amount of light in a space. In this report, expressed in units of lumens per square foot. (See **In-Use Illuminance** and **Time-Averaged Illuminance**.)

Incandescent bulb: A lamp that produces light by electrically heating a filament so that it glows. Included in this category are the familiar household light bulbs which screw into sockets, as well as energy-efficient incandescent bulbs such as Tungsten Halogen (spotlights), Reflector or R-Lamps (accent and task lighting), Parabolic Aluminized Reflector (PAR) lamps (flood and spot lighting), and Ellipsoidal Reflector (ER) lamps (recessed lighting).

In-Use Illuminance (I): The illuminance during periods when the lights are on. In this report, illuminances were assigned based on the principal building activity, using engineering guidelines. (See **Illuminance**, **Principal Building Activity**, and Appendix B.)

Lamp (L): A term generally used to describe a manmade source of light. The term is often used when referring to a "bulb" or "tube". The CBECS collects data only about lamps using electricity.

Lighting Equipment Configuration (c): A combination of a type of lamp with various lighting energy conservation features. (See **Lamp**, and **Conservation Features**.)

Lighting Power Density (P): The lighting energy per unit of lighted floorspace during periods when the lights are on. In this report, the lighting power density was computed from the assigned in-use illuminance and the assumed equipment efficacy. (See **Lighted Floorspace**, **In-Use Illuminance**, and **Efficacy**).

Lighted Floorspace (S): The total amount of floorspace within commercial buildings that was lighted electrically. In this report, the lighted floorspace was computed by multiplying each building's total floorspace by the reported percent lighted, divided by 100. The floorspace lighted by each type of lamp in the building was computed by multiplying the lighted floorspace by the report percent of lighted floorspace lighted by that type of lamp, divided by 100.

Lighted Floorspace-Hours (SH): For an individual building, the product of lighted floorspace and effective lighting hours. For a group of buildings, the sum of lighted floorspace hours for the individual buildings. (See **Lighted Floorspace**, and **Effective Lighting Hours**.)

Lighting Hours: (See **Effective Lighting Hours**.)

Modest: Achieving less conservation. Two possible values are assumed in this report for the quantitative effects of a given conservation feature. The modest level corresponds to less conservation, implying that either the feature is less effective or its penetration is less. (See **Optimistic** and Appendix C.)

Off hours (Hⁿ): Hours other than the weekly operating hours. For this report, the off hours are computed as 168 minus the usual weekly operating hours. (See **Operating Hours**.)

Operating Hours (H^o): The typical number of hours per week the building is in use.

Optimistic: Achieving more conservation. Two possible values are assumed in this report for the quantitative effect of a given conservation feature. The optimistic level corresponds to more conservation, implying that either the feature is more effective or its penetration is greater. (See **Modest** and Appendix C.)

Power: Energy consumption per unit time.

Principal Building Activity: The activity or function occupying the most floorspace in the building. The categories were designed to group buildings that have similar patterns of energy consumption. Examples of various types of principal activity include office, health care, lodging, and mercantile and service.

Reflector (RFL): In this report, a lighting conservation feature consisting of a reflective surface or panel attached to a fluorescent lamp to direct a greater fraction of the lamp's light into the room. (See **conservation Feature**.)

Savings (SV): The lighting energy savings estimated to result from a conservation case. (See **Conservation Case**.)

Time-Averaged Illuminance (T): The illuminance averaged over all hours in the week. In this report, the time-averaged illuminance is computed as the in-use illuminance multiplied by the effective lighting hours, divided by 168 (the number of hours in a week). (See **In-Use Illuminance**, and **Effective lighting Hours**.)

Usage Factor (U): The fraction of time lighting equipment is in use, computed as the ratio of effective lighting hours to 168 hours per week.

Year Constructed: The year in which the major part or the largest portion of a building was constructed.