

3. DEFINITIONS, ABBREVIATIONS, AND ACRONYMS

3.1 General. Certain terms, abbreviations, and acronyms are defined in this section for the purposes of this standard. These definitions are applicable to all sections of this standard. Terms that are not defined shall have their ordinarily accepted meanings within the context in which they are used. Ordinarily accepted meanings shall be based upon American standard English language usage as documented in an unabridged dictionary accepted by the *adopting authority*.

3.2 Definitions

above-grade wall: see *wall*.

access hatch: see *door*.

addition: an extension or increase in floor area or height of a building outside of the *existing building envelope*.

adopting authority: the agency or agent that adopts this standard.

alteration: a replacement or *addition* to a building or its *systems* and *equipment*; routine maintenance, *repair*, and *service* or a change in the building's use classification or category shall not constitute an *alteration*.

annual fuel utilization efficiency (AFUE): an efficiency descriptor of the ratio of annual output *energy* to annual input *energy* as developed in accordance with the requirements of U.S. Department of Energy (DOE) 10 CFR Part 430.

astronomical time switch: a device that turns the lighting on at a time relative to sunset and off at a time relative to sunrise, accounting for geographic location and day of year.

attic and other roofs: see *roof*.

authority having jurisdiction: the agency or agent responsible for enforcing this standard.

automatic: self-acting, operating by its own mechanism when actuated by some nonmanual influence, such as a change in current strength, pressure, temperature, or mechanical configuration. (See *manual*.)

automatic control device: a device capable of automatically turning loads off and on without *manual* intervention.

balancing, air system: adjusting airflow rates through air *distribution system* devices, such as fans and diffusers, by manually adjusting the position of dampers, splitter vanes, extractors, etc., or by using *automatic control devices*, such as constant air volume or variable-air-volume (VAV) boxes.

balancing, hydronic system: adjusting water flow rates through hydronic *distribution system* devices, such as pumps and coils, by manually adjusting the position valves or by using *automatic control devices*, such as *automatic flow control valves*.

ballast: a device used in conjunction with an electric-discharge *lamp* to cause the *lamp* to start and operate under the proper circuit conditions of voltage, current, wave form, electrode heat, etc.

ballast, electronic: a *ballast* constructed using electronic circuitry.

ballast, hybrid: a *ballast* constructed using a combination of magnetic core and insulated wire winding and electronic circuitry.

ballast, magnetic: a *ballast* constructed with magnetic core and a winding of insulated wire.

baseline building design: a computer representation of a hypothetical design based on the proposed building project. This representation is used as the basis for calculating the *baseline building performance* for rating above-standard design.

baseline building performance: the annual *energy* cost for a building design intended for use as a baseline for rating above-standard design.

below-grade wall: see *wall*.

boiler: a self-contained low-pressure appliance for supplying steam or hot water.

boiler, packaged: a *boiler* that is shipped complete with heating *equipment*, mechanical draft *equipment*, and *automatic controls*; usually shipped in one or more sections. A *packaged boiler* includes factory-built *boilers* manufactured as a unit or *system*, disassembled for shipment, and reassembled at the site.

branch circuit: the circuit conductors between the final *over-current* device protecting the circuit and the outlet(s); the final wiring run to the load.

budget building design: a computer representation of a hypothetical design based on the actual proposed building design. This representation is used as the basis for calculating the *energy cost budget*.

building: a structure wholly or partially enclosed within exterior *walls*, or within exterior and *party walls*, and a *roof*, affording shelter to persons, animals, or property.

building entrance: any doorway, set of *doors*, turnstile, vestibule, or other form of portal that is ordinarily used to gain access to the building by its users and occupants.

building envelope: the exterior plus the semi-exterior portions of a building. For the purposes of determining *building envelope* requirements, the classifications are defined as follows:

building envelope, exterior: the elements of a building that separate *conditioned spaces* from the exterior.

building envelope, semi-exterior: the elements of a building that separate *conditioned space* from *unconditioned space* or that enclose *semiheated spaces* through which thermal *energy* may be transferred to or from the exterior, or to or from *unconditioned spaces*, or to or from *conditioned spaces*.

building exit: any doorway, set of *doors*, or other form of portal that is ordinarily used only for emergency egress or convenience exit.

building grounds lighting: lighting provided through a building's electrical *service* for parking lot, site, roadway, pedestrian pathway, loading dock, or security applications.

building material: any element of the *building envelope* through which heat flows and that is included in the component *U-factor* calculations other than air films and insulation.

building official: the officer or other designated representative authorized to act on behalf of the *authority having jurisdiction*.

C-factor (thermal conductance): time rate of steady-state heat flow through unit area of a material or *construction*, induced by a unit temperature difference between the body surfaces. Units of *C* are Btu/h-ft²·°F. Note that the *C-factor* does not include soil or air films.

circuit breaker: a device designed to open and close a circuit by *nonautomatic* means and to open the circuit automatically at a predetermined *overcurrent* without damage to itself when properly applied within its rating.

class of construction: for the *building envelope*, a subcategory of *roof*, *above-grade wall*, *below-grade wall*, *floor*, *slab-on-grade floor*, *opaque door*, *vertical fenestration*, or *skylight*. (See *roof*, *wall*, *floor*, *slab-on-grade floor*, *door*, and *fenestration*.)

clerestory: that part of a building that rises clear of the *roofs* or other parts and whose *walls* contain windows for lighting the interior.

code official: see *building official*.

coefficient of performance (COP)—cooling: the ratio of the rate of heat removal to the rate of *energy* input, in consistent units, for a complete refrigerating *system* or some specific portion of that *system* under designated operating conditions.

coefficient of performance (COP), heat pump—heating: the ratio of the rate of heat delivered to the rate of *energy* input, in consistent units, for a complete heat pump *system*, including the compressor and, if applicable, auxiliary heat, under designated operating conditions.

computer room: a room whose primary function is to house *equipment* for the processing and storage of electronic data and that has a design electronic data *equipment* power density exceeding 20 watts/ft² of *conditioned floor area*.

conditioned floor area: see *floor area*.

conditioned space: see *space*.

conductance: see *thermal conductance*.

continuous air barrier: The combination of interconnected materials, assemblies and sealed joints and components of the *building envelope* that minimize air leakage into or out of the *building envelope*.

continuous daylight dimming: method of *automatic* lighting control using daylight *photosensors* where the lights are dimmed continuously or use at least four preset levels with at least a five-second fade between levels and where the *control* turns the lights off when sufficient daylight is available.

continuous insulation (c.i.): insulation that is continuous across all structural members without thermal bridges other than fasteners and *service* openings. It is installed on the interior or exterior or is integral to any *opaque* surface of the *building envelope*.

control: to regulate the operation of *equipment*.

control device: a specialized device used to regulate the operation of *equipment*.

construction: the fabrication and erection of a new building or any *addition* to or *alteration* of an existing building.

construction documents: drawings and specifications used to construct a building, *building systems*, or portions thereof.

cool down: reduction of *space* temperature down to occupied *setpoint* after a period of shutdown or setup.

cooled space: see *space*.

cooling degree-day: see *degree-day*.

cooling design temperature: the outdoor dry-bulb temperature equal to the temperature that is exceeded by 1% of the number of hours during a typical weather year.

cooling design wet-bulb temperature: the outdoor wet-bulb temperature for sizing cooling *systems* and evaporative heat rejection *systems* such as cooling towers.

critical circuit: the hydronic circuit that determines the minimum differential pressure that the pump must produce to satisfy the zone loads (e.g., the circuit with the most open valve). The *critical circuit* is the one with the highest pressure drop required to satisfy its load. At part load conditions, the *critical circuit* can change based on zone loads.

daylight area:

- a. **under skylights:** the *daylight area under skylights* is the combined *daylight area* under each *skylight* without double counting overlapping areas. The *daylight area* under each *skylight* is bounded by the opening beneath the *skylight*, plus horizontally in each direction, the smallest of (See Figure 3.1):
 1. 70% of the ceiling height ($0.7 \times CH$), or
 2. the distance to any *primary sidelighted area*, or the *daylight area under rooftop monitors*, or
 3. the distance to the front face of any vertical obstruction where any part of the obstruction is farther away than 70% of the distance between the top of the obstruction and the ceiling ($0.7 \times [CH - OH]$), where *CH* = the height of the ceiling at the lowest edge of the *skylight*, and *OH* = the height to the top of the obstruction.
- b. **under rooftop monitors:** the *daylight area under rooftop monitors* is the combined *daylight area* under each *rooftop monitor* without double counting overlapping areas. The *daylight area* under each *rooftop monitor* is the product of the width of the vertical glazing above the ceiling level and the smallest of the

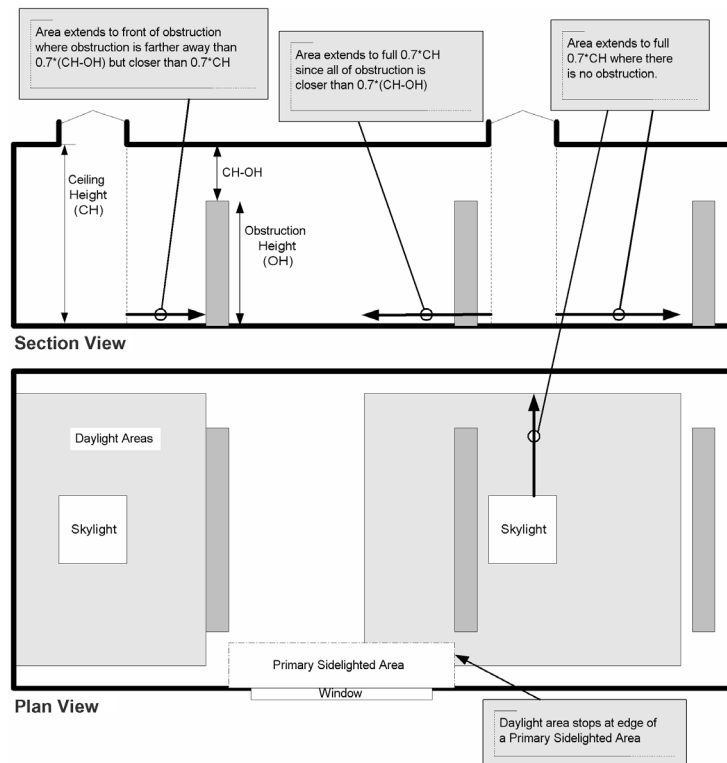


Figure 3.1 Computing the daylight area under skylights.

following horizontal distances inward from the bottom edge of the glazing, (See Figure 3.2):

1. the monitor sill height, MSH, (the vertical distance from the floor to the bottom edge of the monitor glazing), or
2. the distance to the edge of any *primary sidelighted area* or
3. the distance to the front face of any vertical obstruction where any part of the obstruction is farther away than the difference between the height of the obstruction and the monitor sill height (MSH-OH).

daylighted area: the floor area substantially illuminated by daylight.

dead band: the range of values within which a sensed variable can vary without initiating a change in the controlled process.

decorative lighting: see *lighting, decorative*.

degree-day: the difference in temperature between the outdoor *mean temperature* over a 24-hour period and a given base temperature. For the purposes of determining *building envelope* requirements, the classifications are defined as follows:

cooling degree-day base 50°F (CDD50): for any one day, when the *mean temperature* is more than 50°F, there are as many *degree-days* as degrees Fahrenheit temperature

difference between the *mean temperature* for the day and 50°F. Annual *cooling degree-days* (CDDs) are the sum of the *degree-days* over a calendar year.

heating degree-day base 65°F (HDD65): for any one day, when the *mean temperature* is less than 65°F, there are as many *degree-days* as degrees Fahrenheit temperature difference between the *mean temperature* for the day and 65°F. Annual heating *degree-days* (HDDs) are the sum of the *degree-days* over a calendar year.

demand: the highest amount of power (average Btu/h over an interval) recorded for a building or facility in a selected time frame.

demand control ventilation (DCV): a *ventilation system* capability that provides for the *automatic* reduction of *outdoor air* intake below design rates when the actual occupancy of *spaces* served by the *system* is less than design occupancy.

design capacity: output capacity of a *system* or piece of *equipment* at *design conditions*.

design conditions: specified environmental conditions, such as temperature and light intensity, required to be produced and maintained by a *system* and under which the *system* must operate.

design energy cost: the annual energy cost calculated for a *proposed design*.

design professional: an architect or engineer licensed to practice in accordance with applicable state licensing laws.

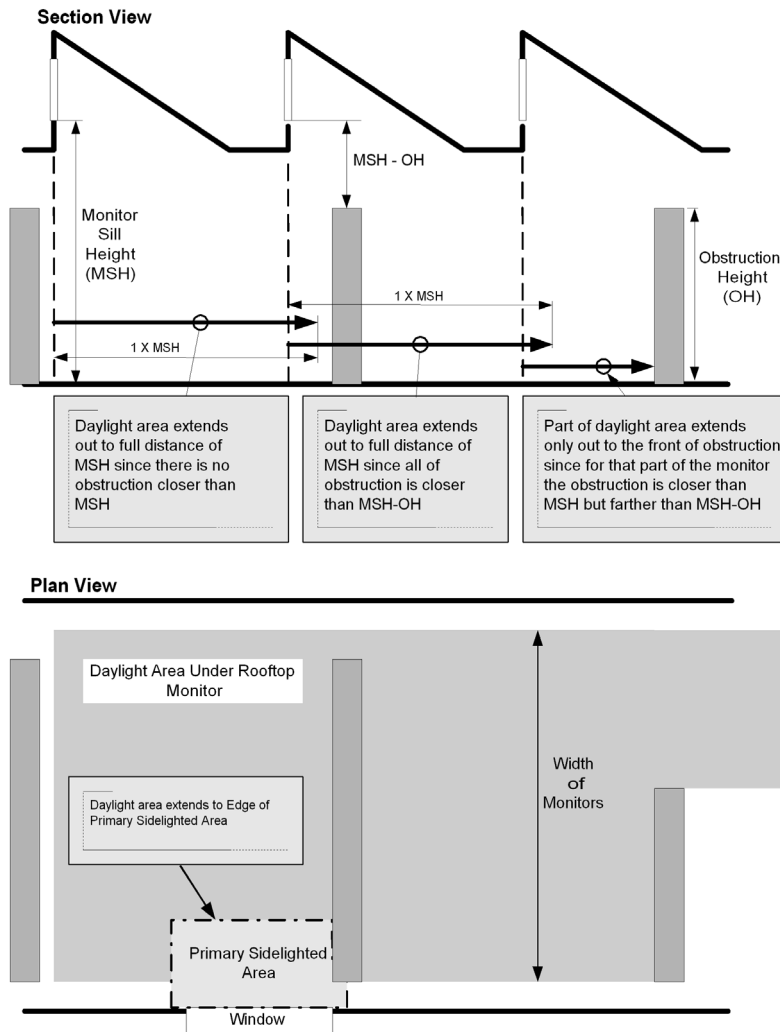


Figure 3.2 Computing the daylight area under rooftop monitors.

direct digital control (DDC): a type of control where controlled and monitored analog or binary data (e.g., temperature, contact closures) are converted to digital format for manipulation and calculations by a digital computer or microprocessor, then converted back to analog or binary form to control physical devices.

disconnect: a device or group of devices or other means by which the conductors of a circuit can be disconnected from their source of supply.

distribution system: conveying means, such as ducts, pipes, and wires, to bring substances or energy from a source to the point of use. The distribution system includes such auxiliary equipment as fans, pumps, and transformers.

door: all operable opening areas (which are not fenestration) in the building envelope, including swinging and roll-up doors, fire doors, and access hatches. Doors that are more than one-half glass are considered fenestration. (See fenestration.) For the purposes of determining building envelope requirements, the classifications are defined as follows:

nonswinging: roll-up, metal coiling, sliding, and all other doors that are not swinging doors.

metal coiling door: an upward acting nonswinging door assembly consisting of interlocking horizontal slats or sheets that, upon opening the door, roll up around a horizontal barrel above the door opening.

swinging: all operable opaque panels with hinges on one side and opaque revolving doors.

door area: total area of the door measured using the rough opening and including the door slab and the frame. (See fenestration area.)

ductwork: a system of ducts for distribution and extraction of air.

dwelling unit: a single unit providing complete independent living facilities for one or more persons, including permanent provisions for living, sleeping, eating, cooking, and sanitation.

dynamic glazing: any fenestration product that has the fully reversible ability to change its performance properties, including U-factor, SHGC, or VT.