2000 IECC as amended by 2001 Supplements:

§E805

LIGHTING SYSTEMS

§E805.1 General. This section covers lighting system controls, the connection of ballasts, the maximum lighting power for interior applications, and minimum acceptable lighting equipment for exterior applications.

§E805.2 Lighting controls. Lighting systems shall be provided with controls as required in §E805.2.1, §E805.2.2 and §E805.2.3.

§E805.2.1 Interior lighting controls. Each area enclosed by walls or floor-to-ceiling partitions shall have at least one manual control for the lighting serving that area. The required controls shall be located within the area served by the controls or be a remote switch that identifies the lights served and indicates their status. *Large spaces shall have a separate switch or control for each 2500 ft.² of floor area. (NCTCOG amendment)*

EXCEPTIONS:

1. Areas designated as security or emergency areas that must be continuously lighted.
2. Lighting in stairways or corridors that are elements of the means of egress.

§E805.2.2 Additional Controls. Each area that is required to have a manual control shall have additional controls that meet the requirements of §E805.2.2.1, §E805.2.2.2 or §E805.2.2.3.

§E805.2.2.1 Bi-level switching. Each area less than 250 ft² (23m²) that is required to have a manual control shall also allow the occupant to reduce the connected lighting load in a reasonably uniform illumination pattern by at least 50 percent.

EXCEPTIONS:

1. Areas that have only 1 luminaire.
2. Areas that are controlled by an occupant-sensing device.
3. Corridors, storerooms, rest rooms, or public lobbies.
4. Guest rooms.

§E805.2.2.2 Automatic lighting shutoff. Spaces greater than 250 ft² (23m²) in buildings larger than 5,000 ft² (465m²) shall be equipped with an automatic control device to shut off the lighting in those spaces. The automatic device shall function on either:

1. A scheduled basis, using time of day, with an independent program schedule that controls the interior lighting in those areas that do not exceed 25,000 ft² (2323m²) and are not more than one floor, or
2. An unscheduled basis by occupant intervention.

§E805.2.2.3 Guest rooms. Guest rooms in hotels, motels, boarding houses or similar buildings shall have at least one master switch at the main entry door that controls all permanently wired lighting fixtures and switched receptacles, except those in the bathroom(s). Suites shall have a control meeting these requirements at the entry to each room or at the primary entry to the suite.

§E805.2.3 Exterior lighting controls. Automatic switching or photocell controls shall be provided for all exterior lighting not intended for 24-hour operation. Automatic time switches shall have a combination seven-day and seasonal daylight program schedule adjustment, and a minimum 4-hour power backup.

§E805.3 Tandem wiring. One-or three-lamp fluorescent fixtures that are pendant-or surface-mounted in continuous rows or recess mounted in an accessible ceiling and within 10 feet (3048 mm) of each other shall be tandem wired.

EXCEPTIONS:

1. Where electronic high-frequency ballasts are used.
2. Luminaires not on the same switch control or in the same area.

§E805.4 Interior lighting power requirements. A building complies with this section if its total connected lighting power calculated under §E805.4.1 is no greater than the interior lighting power calculated under §E805.4.2.

§E805.4.1 Total connected interior lighting power. The total connected interior lighting power (Watts) shall be the sum of the watts of all interior lighting equipment as determined according to §E805.4.1.1 through §E805.4.1.4.

EXCEPTIONS: The connected power associated with the following lighting equipment is not included in calculating total connected lighting power.

1. Specialized medical, dental, and research lighting.
2. Professional sports arena playing field lighting.
3. Display lighting for exhibits in galleries, museums, and monuments.
4. Guest room lighting in hotels, motels, boarding houses, or similar buildings.
5. Emergency lighting automatically off during normal building operation.

§E805.4.1.1 Screw lamp holders. The wattage shall be the maximum labeled wattage of the luminaire.

§E805.4.1.2 Low-voltage lighting. The wattage shall be the specified wattage of the transformer supplying the system.

§E805.4.1.3 Other luminaires. The wattage of all other lighting equipment shall be the wattage of the lighting equipment verified through data furnished by the manufacturer or other approved sources.

§E805.4.1.4 Line-voltage lighting track and plug-in busway. The wattage shall be the greater of the wattage of the luminaires determined according to §E805.4.1.1 through §E805.4.1.3 or 30 W/linear feet (98W/lin m).

§E805.4.2 Interior lighting power. The interior lighting power shall be calculated using §E805.4.2.1 or §E805.4.2.2 as applicable.

§E805.4.2.1 Entire building method. Under this approach, the interior lighting power (Watts) is the value from Table E805.4.2 for the building type times the conditioned floor area of the entire building.

§E805.4.2.2 Tenant area or portion of building method. The total interior lighting power (Watts) is the sum of all interior lighting powers for all areas in the building covered in this permit. The interior lighting power is the conditioned floor area for each area type listed in Table E805.4.2 times the value from Table E805.4.2 for that area. For the purposes of this method, an "area" shall be defined as all contiguous spaces which accommodate or are associated with a single area type as listed in Table E805.4.2. When this method is used to calculate the total interior lighting power for an entire building, each area type shall be treated as a separate area.

§E805.5 Exterior lighting. When the power for exterior lighting is supplied through the energy service to the building, all exterior lighting, other than low-voltage landscape lighting, shall have a source efficacy of at least 45 lumens per watt.

EXCEPTION: Where approved because of historical, safety, signage, or emergency considerations.