



## General Lighting Plan Submittal Checklist

(Required for new bldgs, bldg additions & first time tenant alterations)

- 2009 IECC 505, SPS 363.0505, IECC 501.2, and SPS 363.0501

- Indicate the method of code compliance used (IECC assumed unless indicated otherwise):

- a) IECC 505 as amended by SPS 363.0505, or
- b) ASHRAE 90.1-2007 as addressed under IECC 501.2 and amended by SPS 363.0501

### A. Floor Plan

1. Corresponds to submitted or previously approved building plans; including interior layout, room names & uses
2. Provide indoor & outdoor locations of lighting fixtures and controls
3. Provide fixture schedule defining the type, number, location and wattage (inclusive of ballast wattage) based on the rules of the compliance method chosen
4. Provide type of lighting control to be used, (toggle switch, occupancy sensor, photo sensor, etc.), and the fixtures to be controlled by each control

### B. Lighting Controls & Requirements

1. Lighting reduction controls (IECC 505.2.2.1/ASHRAE 9.4.1.2 & SPS 363.0501)
2. Daylighting zone (IMC 505.2.2.3/SPS 363.0505(1)/ASHRAE SPS 363.0501(3)/363.0505(1))
3. Automatic lighting shutoff (IECC 505.2.2.2/ASHRAE 9.4.1.1)
4. Sleeping unit (IECC 505.2.3/ASHRAE 9.4.1.4)
5. Exterior lighting controls (IECC 505.2.4/ASHRAE 9.4.1.3)
6. Provide tandem wiring (IECC 505.3/ASHRAE 9.4.2)
7. Provide internally illuminated exit signs with no more 5 watts per side (IECC 505.4/ASHRAE 9.4.3)
8. Provide display/accent lighting, case lighting, task lighting, nonvisual lighting, demonstrating lighting with separate controls (ASHRAE 9.4.1.4)

**C. Calculations** (COMcheck may be used in conjunction with the current edition of the code as allowed by SPS 363.0506 at: [www.energycodes.gov](http://www.energycodes.gov) )

1. Provide calculations indicating interior & exterior installed lighting power (IECC 505.5.1 & 505.6.2/ASHRAE Table 9.5.1 & 9.6.1)
2. Provide calculations indicating the interior and exterior lighting power allowance (IECC 505.5.2 & 505.6.2/ASHRAE 9.5, 9.6 & 9.4.5)
3. Demonstrate that the installed interior & exterior lighting power is less than the lighting power allowance. (IECC 505.5/ASHRAE 9.5, 9.6 & 9.4.5)

As of May, 2012, general lighting plans addressing compliance with the adopted IECC with WI amendments are no longer required to be submitted to the state. The designer is responsible to have properly prepared set of plans on-site with appropriate calculations properly prepared (ie. stamped by a WI professional if required) and made available to a Department representative upon request.

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### Emergency Lighting Plan Submittal Checklist

(Required to be addressed for new buildings, building additions & first time tenant alterations and as directed per IECC 911.1 for change in use or occupancy)

- 2009 IBC 1006 and NFPA 70, the National Electrical Code article 700

**A. Floor Plan**

1. Corresponds to submitted or previously approved building plans, including interior layout, room names & uses
2. Provide architectural life safety egress plan with all egress routes identified
3. Provide indoor & outdoor locations of lighting fixtures
4. Provide fixture schedule defining the manufacturer, type, etc.
5. Provide type of lighting control to be used, (toggle switch, occupancy sensor, photo sensor, etc.), and the fixtures to be controlled by each control

**B. Lighting Controls Sequence & Diagrams**

1. A one-line diagram showing the emergency source, all transfer switches, and distribution points down to the branch circuit level. The one-line diagram is not required if unit equipment is the sole source of emergency illumination.
2. Wiring diagrams for emergency lights which are controlled by UL924 emergency power transfer controls and occupancy sensors or daylight sensors

**D. Calculations**

1. Calculated load of emergency lighting
2. A photometric study of the emergency lighting along all egress routes. Include maintained footcandle illumination levels for typical portions of the egress route such as corridors, exit enclosures, and exit passageways. Also include exterior egress components, landings, and interior exit discharge elements in the photometric study. In open rooms and spaces that require two or more means of egress, include the illumination levels for aisles and unenclosed egress stairways if delineated in the architectural life safety egress plan. Illumination levels shall be noted on the study using the point-by-point method with a maximum spacing of two feet on center.
3. **Option for unit equipment:** In lieu of a photometric study, provide lighting floor plans. The unit equipment type, with the location of all heads shall be shown on the plans. Include:
  - Lighting floor plans. The unit equipment type, with locations of all the heads shown on the plans.
  - Fixture specifications. Product data sheet. Lamp performance data sheet. Typical details of each source with ampere-hour rating of battery, number, type, and wattage of all heads supplied, and calculation of battery sizes
  - Fixture manufacturers' application guide with illumination levels and aiming points, and maximum spacing and mounting heights for the type of fixtures specified.

As of May, 2012, emergency lighting plans addressing full compliance with the adopted IBC with WI amendments are no longer required to be submitted for approval. The designer is responsible to have properly prepared set of plans on-site with appropriate calculations properly prepared (ie. stamped by a WI professional if required) and made available to a Dept. representative upon request. Building plans for alterations, additions and new buildings are still expected to show exit lights and emergency light locations.

1/7/2015