

CANADIAN ELECTRICAL CODE

SUBJECT: Section 30 - Installation of Lighting Equipment

Rule 30-302 Supports

Luminaires on Suspended Ceilings

To confirm that adequate load-bearing characteristics are inherent in the suspended ceiling design to support the additional weight of the lighting fixtures, you should consult the designer or building architect.

Where lighting fixtures form part of an existing ornamental or suspended ceiling, they should be independently supported unless it can be established that the ceiling will suitably support the fixtures and any associated wiring material.

Rule 30-308 Circuit Connections

Fluorescent Luminaire Disconnect

To provide safe conditions for maintenance of fluorescent luminaires when the ballast is connected to circuits exceeding 150 volts-to-ground, 30-308(4) requires that each luminaire shall be:

- (a) provided with a disconnect means integral with the luminaire and simultaneously opens all circuit conductors between the branch circuit conductor and the conductors supplying the ballast(s); and
- (b) marked in a conspicuous, legible, and permanent manner adjacent to the disconnecting means, identifying the specific purpose.

Care should be exercised when utilizing integral disconnects to de-energize luminaires rated greater than 150 Volts to ground. It is recommended to utilize the branch circuit disconnecting means to de-energize the circuit and to reserve the integral disconnect as an isolation means.

Due to the fact that Code requirements are not considered as being retroactive, all installations prior to the 2006 CEC code adoption will not have integral disconnects and will require luminaires to be de-energized by the branch circuit disconnect. Rule 2-304 mandates that work on energized equipment is not an option except where complete disconnection of the equipment is not practicable.

Fluorescent luminaires rated above 150 volts to ground and installed in hazardous locations are not considered as being included in rule 30-308(4). Repairs or alterations to these luminaires shall not be made on any energized equipment as per Rule 2-302.

Fluorescent Luminaire Disconnect and Retrofit/Renovation Installations

Retrofit and Renovation installations have consistently required clarification regarding the need for disconnects in existing fluorescent luminaires.

Any existing fluorescent luminaires, rated over 150 V to ground, which are disconnected then reconnected (at the same location or not) are considered as being installed as a new luminaire and therefore require disconnects.

Retrofit jobs whereby fluorescent luminaires, rated over 150 V to ground, having modifications made for energy conservation purposes will also require disconnects (Re-certification as per STANDATA CEC-2 is also required).

Simple ballast replacement for maintenance purposes would not be considered as requiring a disconnect by the literal interpretation of the code rule. However, owners and contractors are encouraged to provide luminaire disconnects in these situations.

Rule 30-314 Minimum Height of Low Luminaires

Following are guidelines for applying Rule 30-314:

- (a) A rigidly mounted ceiling luminaire in a readily accessible location should be no less than 2.1m above the floor if the lamp is not guarded.
- (b) A rigidly mounted ceiling luminaire should be located so that the bottom of the luminaire is no less than 2m above the floor.
- (c) Rigidly mounted wall luminaires with outer globes or other enclosures may be located at a lesser height, since the wall provides some protection against people walking directly under or adjacent to them. In no case should the bottom of the luminaire be less than 1.8m above the floor. Where a wall mounted luminaire is installed over a cabinet or vanity it is considered to be protected by location. A luminaire over the vanity in a bathroom should be kept at least 1m from the tub or shower enclosure.

Rule 30-320 Lighting Equipment in Damp Locations or Near Grounded Metal

Switches in Bathrooms

Rule 30-320(3) stipulates that switches shall not be located within reach of a person in a shower or bathtub.

To meet the intent of the Rule, switches located a horizontal distance of at least 1m from the inside edge of a bathtub or shower is recommended. Although the rule references only switches controlling lampholders and luminaires, it is also considered to apply to switches controlling heat lamps, exhaust fans and other equipment.

Note: A steam room is considered the equivalent of a shower or bathtub for the purposes of Rule 30-320(3).