



SPECIFICATION

Guidelines for Displays of Luminaires for Sale

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The Electrical Safety Authority
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Guidelines for Displays of Luminaires for Sale

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1 Background

The electrical connection of luminaires on display requires an electrical permit or notification of electrical work from the Electrical Safety Authority (ESA). There are two methods available for retailers/storeowners under Section 2 of the Ontario Electrical Safety Code (OESC) to comply with this requirement.

OESC Rule 2-004 allows the retailer/storeowner or a licensed electrical contractor to file a notification each time when performing the electrical installations as described in this guideline.

The second option for notification is under OESC Rule 2-006, in which ESA performs periodic inspections through The Continuous Safety Service (CSS) Program. More Information can be found at <https://esasafe.com/business-and-property-owners/continuous-safety-services/>

In addition, Rule 2-003 requires the retailer/storeowner to maintain a record of all electrical installations acceptable to the Electrical Safety Authority.

2 Potential safety issues with display of luminaires for sale

1. Open wiring and joints, which may create a point of contact for workers or the public, could result in serious injury, fire, or shock.
2. Inadequate mechanical support for luminaires may result in luminaires falling, and/or exposing live connections due to movement or swing.
3. Undersized conductors for ambient temperature and overloading of circuits with too many luminaires, or inadequate overcurrent protection may present a fire hazard due to the conductors overheating.

3 Direction

In order to maintain safety and meet ESA requirements, the following criteria shall be observed for any luminaire that is displayed for sale and can be energized:

1. The luminaire or fan is to be mounted on an approved junction box or other acceptable means.
2. Except for Class 2 wiring or as permitted by direction 4, all wiring connections must be made either inside the luminaire that is approved for the application or inside an outlet box using an approved cable connector and wire terminations. Examples of where wiring connections may be made within the luminaire are

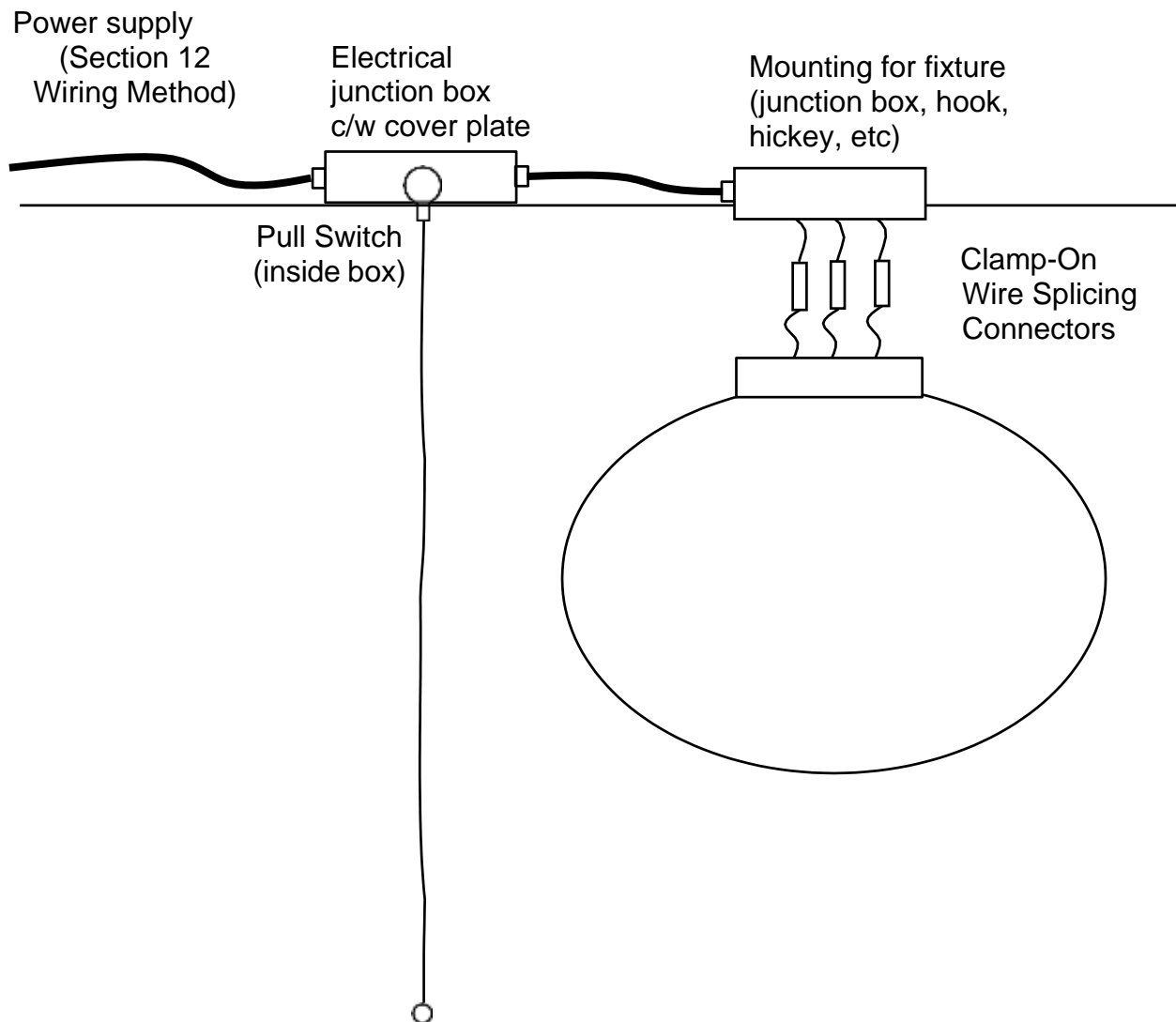
fluorescent luminaires, light bar or strip luminaires approved with integral connection boxes.

3. If a switch such as a pull chain switch is installed to permit switching on and off an individual luminaire or a group of luminaires by either staff or customers, then the switch shall be mounted in a suitable outlet box complete with a cover plate. All connections to the switch must be made within the outlet box. Multiple switches are permitted to be installed in a single box of adequate size to accommodate the switches and wiring connections (see Diagrams 1 & 2).
4. Notwithstanding Rule 12-3000 1) Connections made using Clamp-On Wire Splicing Connectors approved for stranded and solid wire as shown in Diagram 3. can be used without a junction box at the luminaire when there are no exposed live parts (wire nuts not permitted). The intent is to permit the safe connection or disconnection of a display luminaire by competent staff of the retailer (see Diagrams 1 & 2).
5. Bonding conductors shall be provided in the supply to the luminaire, and the conductor shall be connected to both, the box (if applicable) and the luminaire.
6. The luminaire and/or outlet box can be fitted with a pre-manufactured whip or 3 wire flexible cord not more than 3 meters long and a grounding type cord cap.
7. The flexible cord must be of a type such as SVT or similar rated no less than 90°C and be terminated in the box with a suitable connector that provides strain relief for the cord.
8. The wire ampacity of the whip, or flexible cord, shall meet or exceed the rating of the luminaire and in no case be less than #18AWG copper wire.
9. The outlet box (where applicable), and luminaire, must be supported in a suitable manner for display purposes. The outlet box shall be approved to carry the weight of the fixture.
10. Caution should be taken that the load current of the connected luminaire does not exceed the continuous operation marking on the overcurrent device protecting the circuit. Ex. 15 amp overcurrent device that is not marked at 100% can only be loaded to a maximum of 12 amps

4 Diagrams

The following diagrams are examples of permissible installation methods for display luminaires only, not to be used for permanent luminaires.

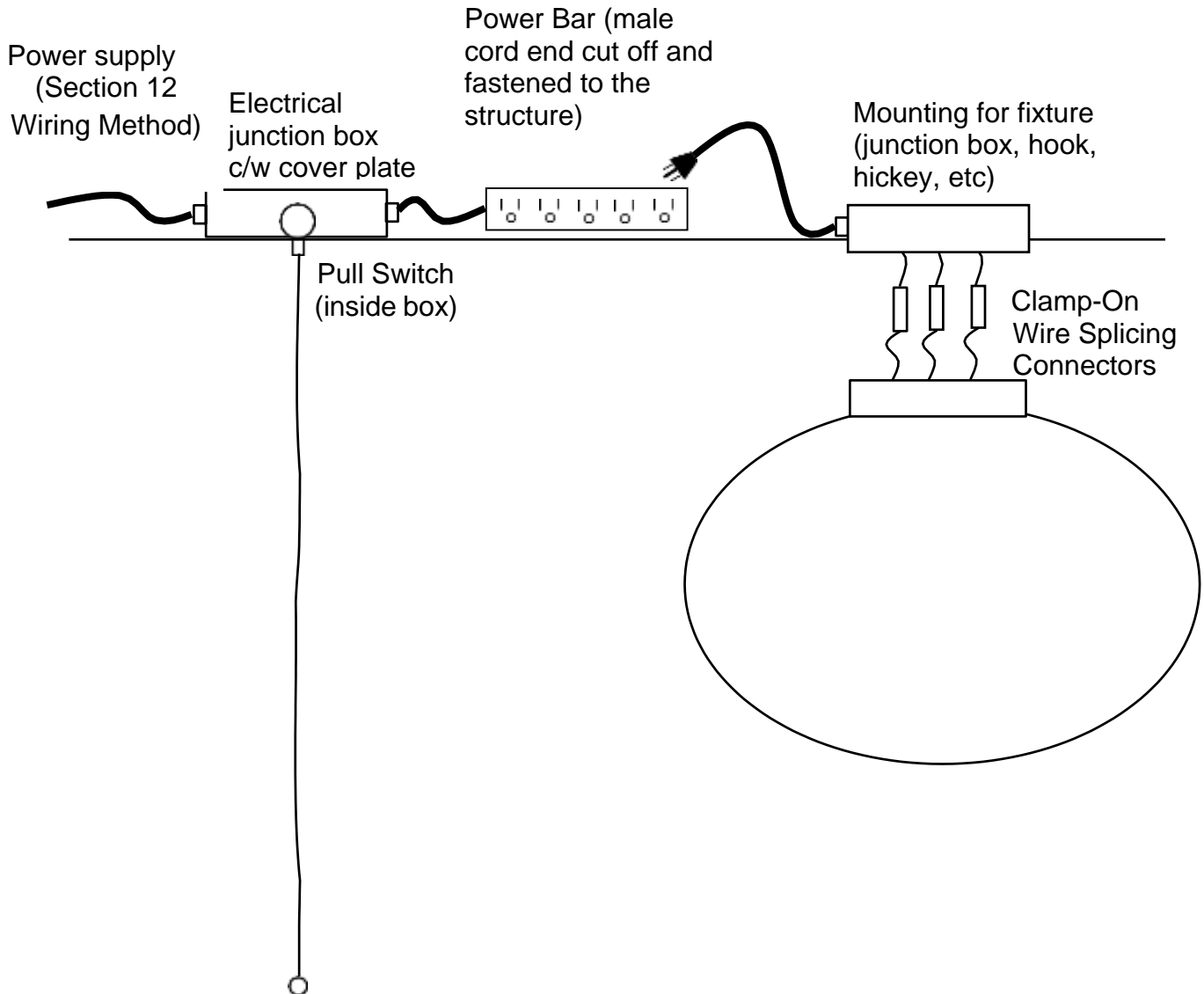
Diagram 1 - Example of a fixture controlled by a pull chain type switch



Notes:

1. More than one fixture can be hardwired to a junction box provided that the junction box has adequate space for the wiring connections.
2. More than one pull chain switch can be mounted in the junction box provided that the box has adequate space for the switches and wiring connections.
3. The above example is suitable for ceiling, wall, or door-mounted displays.
4. The wire connectors are not to be used as fixture support.

Diagram 2 - Example of a power bar and multiple fixtures controlled by a pull chain type switch



Notes:

1. More than one pull chain switch and/or receptacles are permitted to be terminated in a junction box, provided that the junction box has adequate space for the switches and wiring connections.
2. The total fixture load controlled by each switch must not exceed the rating of the switch. It is recommended the load not exceed 80% of the switch rating.
3. The above example is suitable for ceiling, wall, or door-mounted displays.

Diagram 3 – Example of Clamp-On Wire Splicing Connectors suitable for both solid and stranded wires.

