

or attached to the pole opposite the handhole for the supply connection.

- (3) A metal pole shall be provided with an equipment grounding terminal as follows:
 - a. A pole with a handhole shall have the equipment grounding terminal accessible from the handhole.
 - b. A pole with a hinged base shall have the equipment grounding terminal accessible within the base.

Exception to (3): No grounding terminal shall be required in a pole 2.5 m (8 ft) or less in height abovegrade where the supply wiring method continues without splice or pull, and where the interior of the pole and any splices are accessible by removing the luminaire.

- (4) A metal pole with a hinged base shall have the hinged base and pole bonded together.
- (5) Metal raceways or other equipment grounding conductors shall be bonded to the metal pole with an equipment grounding conductor recognized by 250.118 and sized in accordance with 250.122.
- (6) Conductors in vertical poles used as raceway shall be supported as provided in 300.19.

Metal poles are permitted to be used as raceways, and individual single conductors can be installed to supply the luminaire supported by the pole. Where individual single conductors are installed in a luminaire pole, separation is required between the power wiring and any communications, signaling, and power-limited circuits that are also installed within the pole.

Where a light pole supports a luminaire and a security camera, the security camera signaling and power-limited wiring may be installed within the pole cavity if kept separated. Because the pole contains open circuit conductors (e.g., THW or XHHW conductors) that supply the luminaire, the separation requirement can be fulfilled by enclosing the camera conductors within a flexible raceway and installing that raceway within the pole. The use of a cable or cord assembly for the lighting circuit conductors is also an option. Section 410.30(B)(6) requires that conductors installed within poles be supported the same as in a vertical raceway in accordance with 300.19.

Section 410.30(B) is not intended to require the placement of a raceway for communications cables on the exterior of a lighting pole in every instance.

See also

725.139 and **800.133(A)(1)** as appropriate for requirements for separation from Class 2 and communications circuit conductors

410.36 Means of Support.

(A) Luminaires Supported By Outlet Boxes. Luminaires shall be permitted to be supported by outlet boxes or fittings installed as required by 314.23. The installation shall comply with the following requirements:

- (1) The outlet boxes or fittings shall comply with 314.27(A)(1) and 314.27(A)(2).

- (2) Luminaires shall be permitted to be supported in accordance with 314.27(E).
- (3) Outlet boxes complying with 314.27(E) shall be considered lighting outlets as required by 210.70(A), (B), and (C).

(B) Suspended Ceilings. Framing members of suspended ceiling systems used to support luminaires shall be securely fastened to each other and shall be securely attached to the building structure at appropriate intervals. Luminaires shall be securely fastened to the ceiling framing member by mechanical means such as bolts, screws, or rivets. Listed clips identified for use with the type of ceiling framing member(s) and luminaire(s) shall also be permitted.

Clips that are used to support a luminaire to the framing members of a suspended ceiling must be of a type listed for the application. In addition, the ceiling framing members must be securely attached to each other and to the building structure. These requirements apply to all luminaires supported by a suspended ceiling assembly, including lay-in and surface-mounted types.

See also

300.11(B)(1) or (2) for the support of wiring located in the cavity of floor-ceiling assemblies

(C) Luminaire Studs. Luminaire studs that are not a part of outlet boxes, hickies, tripods, and crowfeet shall be made of steel, malleable iron, or other material suitable for the application.

(D) Insulating Joints. Insulating joints that are not designed to be mounted with screws or bolts shall have an exterior metal casing, insulated from both screw connections.

(E) Raceway Fittings. Raceway fittings used to support a luminaire(s) shall be capable of supporting the weight of the complete fixture assembly and lamp(s).

(F) Busways. Luminaires shall be permitted to be connected to busways in accordance with 368.17(C).

(G) Trees. Outdoor luminaires and associated equipment shall be permitted to be supported by trees.

Informational Note No. 1: See 225.26 for restrictions for support of overhead conductors.

Informational Note No. 2: See 300.5(D) for protection of conductors.

Part V. Grounding

Δ 410.40 Equipment Grounding Conductor. Luminaires and lighting equipment shall be connected to an equipment grounding conductor as required by Part V of this article.

Δ 410.42 Luminaire(s) with Exposed Conductive Surfaces. Exposed conductive surfaces shall be connected to an equipment grounding conductor.