

314.25 Covers and Canopies. In completed installations, each box shall have a cover, faceplate, lampholder, or luminaire canopy, except where the installation complies with 410.24(B). Conduit body enclosures shall be installed with a cover, lampholder, or device. Screws used for the purpose of attaching covers, or other equipment, to the box shall be either machine screws matching the thread gauge and size that is integral to the box or shall be in accordance with the manufacturer's instructions.

- Δ (A) **Nonmetallic or Metal Covers and Plates.** Nonmetallic or metal covers and plates shall be permitted. Where metal covers or plates are used, they shall be connected to the equipment grounding conductor in accordance with 250.110.

Informational Note: See 410.42 for metal luminaire canopies and 404.12 and 406.6(B) for metal faceplates for additional grounding requirements.

(B) **Exposed Combustible Wall or Ceiling Finish.** Where a luminaire canopy or pan is used, any combustible wall or ceiling finish exposed between the edge of the canopy or pan and the outlet box shall be covered with noncombustible material if required by 410.23.

Because heat from a short circuit or a ground fault or heat due to overlamping could create a fire hazard within a luminaire canopy or pan, any exposed combustible wall or ceiling space exceeding 180 square inches between the edge of the outlet box and the perimeter of the luminaire is required to be covered with noncombustible material. The noncombustible material need not be metal. Glass fiber pads, commonly provided as thermal barriers within the ceiling pan of luminaires, are an essential thermal barrier, but they do not serve in place of noncombustible wall coverings. Where the wall or ceiling finish is concrete, tile, gypsum, plaster, or other noncombustible material, the requirements of this section do not apply.

(C) **Flexible Cord Pendants.** Covers of outlet boxes and conduit bodies having holes through which flexible cord pendants pass shall be provided with identified bushings or shall have smooth, well-rounded surfaces on which the cords can bear. So-called hard rubber or composition bushings shall not be used.

314.27 Outlet Boxes.

(A) **Boxes at Luminaire or Lampholder Outlets.** Outlet boxes or fittings designed for the support of luminaires and lampholders, and installed as required by 314.23, shall be permitted to support a luminaire or lampholder.

(1) **Vertical Surface Outlets.** Boxes used at luminaire or lampholder outlets in or on a vertical surface shall be identified and marked on the interior of the box to indicate the maximum weight of the luminaire that is permitted to be supported by the box if other than 23 kg (50 lb).

Exception: A vertically mounted luminaire or lampholder weighing not more than 3 kg (6 lb) shall be permitted to be supported on other boxes or plaster rings that are secured to

other boxes, provided that the luminaire or its supporting yoke, or the lampholder, is secured to the box with no fewer than two No. 6 or larger screws.

Device boxes designed for the mounting of snap switches, receptacles, and other devices are usually provided with 6-32 screws. They usually are not suitable for supporting other than light-weight wall-mounted luminaires. Altering the screw holes to increase their size does not increase the weight capacity of the box and may violate the listing.

(2) **Ceiling Outlets.** At every outlet used exclusively for lighting, the box shall be designed or installed so that a luminaire or lampholder can be attached. Boxes shall be required to support a luminaire weighing a minimum of 23 kg (50 lb). A luminaire that weighs more than 23 kg (50 lb) shall be supported independently of the outlet box, unless the outlet box is listed for not less than the weight to be supported. The interior of the box shall be marked by the manufacturer to indicate the maximum weight the box shall be permitted to support.

Whether a luminaire is attached to an outlet box or is supported independently of the outlet box, the supporting means of the luminaire should be securely fastened. Boxes designed as the sole support of luminaires weighing more than 50 pounds must be listed and marked with the maximum weight.

(B) **Floor Boxes.** Boxes listed specifically for this application shall be used for receptacles located in the floor.

Exception: Where the authority having jurisdiction judges them free from likely exposure to physical damage, moisture, and dirt, boxes located in elevated floors of show windows and similar locations shall be permitted to be other than those listed for floor applications. Receptacles and covers shall be listed as an assembly for this type of location.

- Δ (C) **Boxes at Ceiling-Suspended (Paddle) Fan Outlets.** Outlet boxes or outlet box systems used as the sole support of a ceiling-suspended (paddle) fan shall be listed, shall be marked by their manufacturer on the interior of the box as suitable for this purpose, and shall not support ceiling-suspended (paddle) fans that weigh more than 32 kg (70 lb). For outlet boxes or outlet box systems designed to support ceiling-suspended (paddle) fans that weigh more than 16 kg (35 lb), the required marking shall include the maximum weight to be supported.

Outlet boxes mounted in the ceilings of habitable rooms of dwelling occupancies in a location acceptable for the installation of a ceiling-suspended (paddle) fan shall comply with one of the following:

- (1) Listed for the sole support of ceiling-suspended (paddle) fans
- (2) Installed so as to allow direct access through the box to structural framing capable of supporting a ceiling-suspended (paddle) fan without removing the box

Outlet boxes mounted in ceilings of habitable rooms in dwelling units must be a box listed for ceiling (paddle) fan support