

marked "Suitable for Damp Locations" or "Suitable for Wet Locations." The following are examples of damp locations:

1. The underside of store or gasoline station canopies
2. Some cold-storage warehouses
3. Some agricultural buildings
4. Some basements
5. Roofed open porches and carports

Definitions of the terms *location, damp; location, dry; and location, wet* can be found in Article 100.

(B) Corrosive Locations. Luminaires installed in corrosive locations shall be of a type suitable for such locations.

(C) In Ducts or Hoods. Luminaires shall be permitted to be installed in commercial cooking hoods where all of the following conditions are met:

- (1) The luminaire shall be identified for use within commercial cooking hoods and installed such that the temperature limits of the materials used are not exceeded.
- (2) The luminaire shall be constructed so that all exhaust vapors, grease, oil, or cooking vapors are excluded from the lamp and wiring compartment. Diffusers shall be resistant to thermal shock.
- (3) Parts of the luminaire exposed within the hood shall be corrosion resistant or protected against corrosion, and the surface shall be smooth so as not to collect deposits and to facilitate cleaning.
- (4) Wiring methods and materials supplying the luminaire(s) shall not be exposed within the cooking hood.

Informational Note: See 110.11 for conductors and equipment exposed to deteriorating agents.

NFPA 96, *Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations*, provides the minimum fire safety requirements related to the design, installation, operation, inspection, and maintenance of all public and private cooking operations, except in single-family residential dwellings. NFPA 96 covers residential cooking equipment where used for purposes other than residential family use — such as employee kitchens or break areas and church and meeting hall kitchens — regardless of frequency of use.

Grease can cause the deterioration of conductor insulation, resulting in short circuits or ground faults in wiring, hence the requirement prohibiting exposed wiring methods and materials (raceways, cables, lampholders) within ducts or hoods. Conventional enclosed and gasketed-type luminaires located in the path of travel of exhaust products are not permitted because a fire could result from the high temperatures on grease-coated glass bowls or globes enclosing the lamps. Recessed or surface gasketed-type luminaires intended for location within hoods must be identified as suitable for the specific purpose and should be installed with the required clearances maintained. Note that wiring systems, including rigid metal conduit, are not permitted to be run exposed within the cooking hood.

For further information, refer to UL 710, *Standard for Safety for Exhaust Hoods for Commercial Cooking Equipment*.

(D) Bathtub and Shower Areas. A luminaire installed in a bathtub or shower area shall meet all of the following requirements:

- (1) No parts of cord-connected luminaires, chain-, cable-, or cord-suspended luminaires, lighting track, pendants, or ceiling-suspended (paddle) fans with luminaire (light kit) shall be located within a zone measured 900 mm (3 ft) horizontally and 2.5 m (8 ft) vertically from the top of the bathtub rim or shower stall threshold. This zone is all-encompassing and includes the space directly over the tub or shower stall.
- (2) Luminaires located within the actual outside dimension of the bathtub or shower to a height of 2.5 m (8 ft) vertically from the top of the bathtub rim or shower threshold shall be marked suitable for damp locations or marked suitable for wet locations. Luminaires located where subject to shower spray shall be marked suitable for wet locations.

Where luminaires are subject to shower spray, they must be listed for a wet location. Luminaires installed in the tub or shower zone and not subject to shower spray are required to be listed for use in a damp location. GFCI protection is required only where specified in the installation instructions for the luminaire.

The intent is to keep cord-connected, chain-hanging, or pendant luminaires and suspended fans out of the reach of an individual standing on a bathtub rim. The list of prohibited items recognizes that a risk of electric shock is present for each one.

Exhibit 410.1 illustrates the restricted zone in which the specified items are prohibited. This requirement applies to

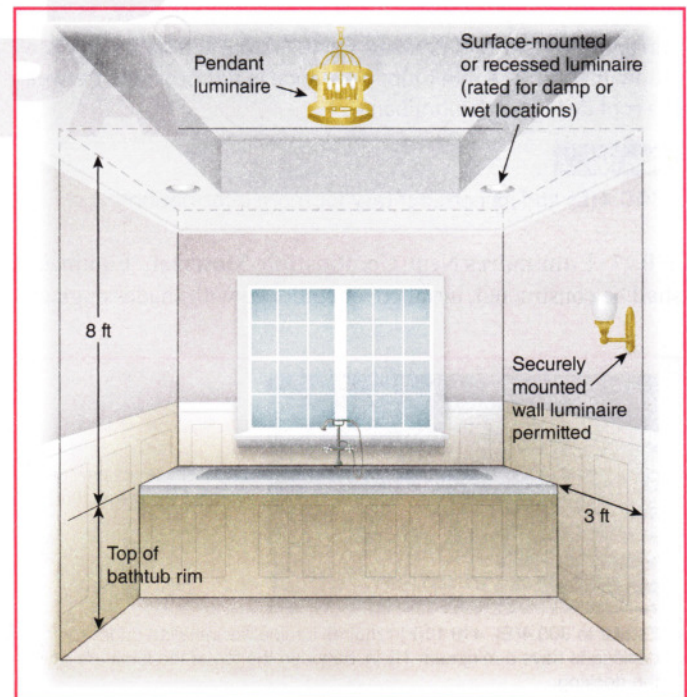


EXHIBIT 410.1 Luminaires located near a bathtub.