

The Difference Between Dry, Wet, and Damp Locations

(NEC) National Electric Code Definitions:

Dry Locations: A location not normally subject to dampness or wetness. A location classified as dry may be temporarily subject to dampness or wetness, as in the case of a building under construction.

Damp Location: Locations protected from weather and not subject to saturation with water or other liquids but subject to moderate degrees of moisture. Examples of such locations include partially protected locations under canopies, marquees, roofed open porches, and like locations, and interior locations subject to moderated degrees of moisture, such as some basements, some barns, and some cold storage buildings.

Wet Locations: Installations underground or in concrete slabs or masonry in direct contact with the earth; in locations subject to saturation with water or other liquids, such as vehicle washing areas; and in unprotected locations exposed to weather.

UL Standard 1598 Definitions:

Dry Locations: A location not normally subject to dampness, but may include a location subject to temporary dampness, as in the case of a building under construction, provided ventilation is adequate to prevent an accumulation of moisture.

Damp Location: An exterior or interior location that is normally or periodically subject to condensation of moisture in, on, or adjacent to, electrical equipment, and includes partially protected locations.

Wet Locations: A location in which water or other liquid can drip, splash, or flow on or against electrical equipment. A wet location luminaire shall be constructed to prevent the accumulation of water on live parts, electrical components, or conductors not identified for use in contact with water. A luminaire that permits water to enter the luminaire (during the rain test of Clause 16.5.2 or the sprinkler test of Clause 16.5.3) shall be provided with a drain hole (Clause 13.4.3).

National Electric Code Article 410 - Luminaires in Specific Locations

(A) Wet and Damp Locations.

Luminaires installed in wet or damp locations shall be installed such that water cannot enter or accumulate in wiring compartments, lampholders, or other electrical parts. All luminaires installed in wet locations shall be marked, "Suitable for Wet Locations." All luminaires installed in damp locations shall be marked "Suitable for Wet Locations" or "Suitable for Damp Locations."

(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.

(D) Bathtub and Shower Areas.

No parts of cord-connected luminaires, chain-, cable-, or cord-suspended luminaires, lighting track, pendants, or ceiling-suspended (paddle) fans 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. 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 for damp locations, or marked for wet locations where subject to shower spray.