

LIGHTOLIER®

631 Airport Road, Fall River, MA 02720

## LIGHTOLIER TECHNICAL BULLETIN WET LOCATION RATING OF RECESSED LUMINAIRES

The 2002 National Electric Code ® (NEC) <sup>1</sup>contains requirements addressing environmental ratings applicable to luminaires. The following sections define requirements for luminaires installed in wet locations:

**410.4 (A) Wet and Damp Locations.** Luminaires (fixtures) installed in wet or damp locations shall be installed so that water cannot enter or accumulate in wiring compartments, lampholders, or other electrical parts. All luminaires (fixtures) installed in wet locations shall be marked, "Suitable for Wet Locations". All luminaires (fixtures) installed in damp locations shall be marked, "Suitable for Wet Locations".

## **Article 100, Definitions**

**Location, Damp.** 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 moderate degrees of moisture, such as some basements, some barns, and some cold storage warehouses.

**Location, Wet**. Installations under ground or in concrete slabs or masonry in direct contact with earth; in locations subject to saturation with water or other liquids, such as vehicle washing areas; and in unprotected locations exposed to weather.<sup>2</sup>

Because of the multiple variables involved, location type must be determined on a case-by-case basis. Mounting height, protective cover, the likelihood of water spray and other factors must be considered. Article 100 (Definitions) gives parameters and examples that can assist in these determinations. The local Authority Having Jurisdiction should be consulted.

**UL LISTING:** To correlate with the NEC requirements regarding location, Underwriters Laboratories, Inc. (UL) assigns location ratings to luminaires based on their compliance with standards and testing. Luminaires (fixtures) suitable for installation in wet locations as defined in the NEC must comply with the appropriate construction and test requirements of UL 1598 in order to be marked "Suitable for Wet Locations".

**RECESSED:** Select Lightolier recessed luminaire (fixture) finishing sections (trims) are rated "Suitable for Wet Locations - Covered Ceiling Mount Only". Lightolier rough-in sections are rated "Suitable for Damp Locations". This combination allows installation where the area below the ceiling is a wet location and the area above the ceiling is not exposed to saturation with liquids, but may be subject to moderate degrees of moisture. It should be noted that a luminaire (fixture) that complies with the UL requirements for wet locations, and is labeled as such, may or may not have a lens or gasket.

## LIGHTOLIER OPEN WET LOCATION FINISHING SECTIONS (TRIMS) 1081, 1181, 1084, 1184 AND 2084:

Each of these finishing sections bear a UL Marking signifying that they are "Suitable for Wet Locations – For Covered Ceiling Mount Only" when installed per the supplied instructions and with the specified frame-in kits and lamps.



The use of lamps identified as outdoor wet location rated, specific to the finishing section model number, is required to provide necessary shielding of the electrical

components from liquid saturation and a lamp envelope suitable for contact with water. Each of these finishing sections is also provided with a high temperature silicone gasket which, when properly installed, seals the lamp base, lamp holder and electrical parts and complies with UL 1598.

All Lightolier recessed fixtures are Listed by UL, as evidenced by the UL Listing Mark on the products. All Lightolier fixtures are intended for installation in accordance with The National Electric Code and instructions provided with the product. In order to comply with applicable codes & regulations, Lightolier recommends that the local Authority Having Jurisdiction (building/electrical inspector) be consulted prior to installation and all necessary permits and inspections be obtained.

<sup>1 -</sup> Because National Electric Code requirements change from time to time, the current version accepted by the Authority Having Jurisdiction should be consulted prior to installation. 2 - [NFPA 70-2002] Copyright 2001 National Fire Protection Association.

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