File E336402 Vol. 1 Sec. 21 Page 1 Issued: 2016-11-16 and Report

DESCRIPTION

PRODUCT COVERED:

USR, CNR - Component, LED Module, see below for model nomenclature and electrical ratings.

ELECTRICAL RATINGS:

Table 1

| Model No. | Voltage (Vac) | Hz | Current (A) | Power (W) |
|--|------------------|-----------|----------------|--------------|
| Fortimo LLS ES 4ft 4400lm zcc 1R LV1 36W INT | 120-277 | 50/6 0 | 0.3 | 36 W |

Where:

z= CRI of LED divided by 10 (one digit, may be '8' or '9')

cc= Color temperature of LED divided by 100 (two digits, may be between 27 and 65)

| Model No. | Voltage | Curren | Power | Type |
|--------------------------------------|---------|--------|-------|--------|
| | Vdc | t (mA) | (W) | source |
| Fortimo LLS ES 4ft 4400lm zcc 1R LV1 | 40 | 840 | 34 | CC |

Where:

z= CRI of LED divided by 10 (one digit, may be '8' or '9')

cc= Color temperature of LED divided by 100 (two digits, may be between 27 and 65)

These products been evaluated for the following characteristics:

Table 2

| | | , | |
|--------------------------------------|----------------|------------|--|
| Model No. | Input type | Product is | |
| | | rated | |
| | Branch Circuit | Damp | |
| Fortimo LLS ES 4ft 4400lm zcc 1R LV1 | (Mains) | | |
| 36W INT | | | |
| | CC | Damp | |
| Fortimo LLS ES 4ft 4400lm zcc 1R LV1 | | | |
| | Class 2 (a) | | |

CC: Constant Current

a- As defined in UL 8750, Clause 7.12.1, and CAN/CSA-C22.2 No. 250.13, Annex A

TECHNICAL CONSIDERATIONS (NOT FOR FIELD REPRESENTATIVE USE):

USR indicates compliance with UL 8750, the Standard for Light Emitting Diode (LED) Equipment for Use in Lighting Products.

CNR indicates compliance with CAN/CSA C22.2 No. 250.13, Light Emitting Diode (LED) Equipment for Lighting Applications.

File E336402 Vol. 1 Sec. 21 Page 3 Issued: 2016-11-16 and Report

CONDITIONS OF ACCEPTABILITY:

These modules are intended for installation in complete equipment where the acceptability of the combination is determined by UL LLC. When installed in the end use application, consideration shall be given to the following:

- 1. These products are intended for building-in. Acceptability with respect to mounting, spacing, casualty, temperature and segregation is to be determined as part of the end device evaluation.
- 2. These products have been evaluated for use with a source of supply noted in Table 2 (input type) and electrical ratings noted Table 1. Suitability of these products with other sources of supply or electrical ratings is to be determined in the end product.
- 3. The suitability of using this module in other than dry or damp locations shall be determined in the end use application.
- 4. These units have been tested in ambient temperature adjusted to achieve 85°C on marked Tc point. In the end product the Tc point temperature shall be determined in the end-use product and shall not exceed 85°C. The Tc point is located on the front side of the PWB of LED Array.
- 5. A five-inch flame test was conducted per UL 1598. The PWB of the LED Array has been found comply with 5VA flammability when temperature does not exceed 85°C in the end use on this part.
- 6. When secured by screws on its Shipping Fixture (metal channel, overall $115~\rm cm$ long, 40 by 50 mm cross section), the PWB of the LED Array has been found comply with Resistance to Impact (after conditioning at 0°C) per UL 1598. The suitability of these tests to represent the endproduct installation shall be considered in the end product evaluation.
- 7. The model "Fortimo LLS ES 4ft 4400lm zcc 1R LV1 36W INT" is integrally provided with LED driver (Item 2) that is mechanically fixated to the backside of the LED array (Item 1), and is not to be removable in the end product. The output of LED Driver has been evaluated as Class 2.
- 8. The model "Fortimo LLS ES 4ft 4400lm zcc 1R LV1 36W INT" is provided with push-in terminals for supply load connection which are located on LED Driver. These terminals are intended for use with 16-24 AWG.