

Subject 1838

February 24, 2017

SUMMARY OF TOPICS

The following changes in requirements to the Standard for Low Voltage Landscape Lighting Systems, UL 1838, are being proposed:

- 1. Editorial Revision.***
- 2. Cord Size for Power Units with Receptacles.***
- 3. Pond and Fountain Luminaires Located Near Pools.***

STP BALLOTS AND ALL COMMENTS DUE: MARCH 27, 2017

UL's goal is to have no interest category comprise more than one-third of the STP membership balance. To improve the current balance for STP 1838, UL is looking for participants in the AHJ, Commercial/Industrial User, General, Government, Supply Chain, and Testing and Standards interest categories. Definitions for these interest categories are available on the Standards STP Internet site:

<http://ulstandards.ul.com/develop-standards/participation/interest-categories/>

If you are interested in applying for STP 1838 membership or are aware of potential candidates for this STP, please contact the STP Project Manager, Ritu.Madan@ul.com.

For your convenience in review, proposed additions to existing requirements are shown underlined and proposed deletions are shown ~~lined-out~~.

1. Editorial Revision.

RATIONALE

Proposal submitted by: Mike Shulman, UL LLC

Per the Standard for Flexible Cords, UL 62, and NEC Table 400.4, there are no parenthesis around the "W" in the cord designation.

PROPOSAL

53.4.1 Unit low voltage cable used to connect the luminaire or fitting to the main low voltage cable shall be one of the following:

- a) Any wire suitable for the main voltage cable, per 53.3.1,
- b) SPT-1(W),
- c) XTW or CXTW, or

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d) AWM with equivalent properties.

2. Cord Size for Power Units with Receptacles.

RATIONALE

Proposal submitted by: Mike Shulman, UL LLC

24.3.7 of UL 1838 requires a power unit with a receptacle to have a minimum 12 AWG power supply cord. This appears based on the concern for an externally connected load which could demand up to 15 A, which would be an additional load beyond that of the connected luminaires.

This concern would not exist for a receptacle that is internal to the power unit and supplies only a load integral to the unit. With such a design, the power supply cord can anticipate the full connected load (that of the connected luminaires plus the integral load connected to the receptacle).

PROPOSAL

24.3.7 If a power unit is provided with a receptacle for connection of an external load, the supply cord shall be a minimum 12 AWG (3.3 mm²). If the receptacle is accessible only to equipment within the enclosure, and is marked to identify a maximum current, the minimum size of the power unit's supply cord size shall be based on the lighting load plus the receptacle rating, as shown in Table 24.3:

Table 24.3
Ampacities of power supply cord

<u>Receptacle + Lighting Load, Amperes</u>	<u>Minimum size of cord</u>
<u>10</u>	<u>18 AWG (0.82 mm²)</u>
<u>13</u>	<u>16 AWG (1.3 mm²)</u>
<u>18</u>	<u>14 AWG (2.1 mm²)</u>
<u>25</u>	<u>12 AWG (3.3 mm²)</u>

3. Pond and Fountain Luminaires Located Near Pools.

RATIONALE

Proposal submitted by: Mike Shulman, UL LLC

All UL 1838 luminaires operate below 15 Vac or 30 Vdc and are to be supplied by a power unit with an ungrounded, isolated secondary. These voltage limits and power source parameters align with the “low voltage contact limit” and power supply requirements of NEC 680.2 and 680.23(A)(2), respectively. Therefore, the installation restriction of 57.3 is not needed based on revisions previously made to the NEC 680.22(B)(6), which states:

(6) Low-Voltage Luminaires. Listed low-voltage luminaires not requiring grounding, not exceeding the low voltage contact limit, and supplied by listed transformers or power supplies that comply with 680.23(A)(2) shall be permitted to be located less than 1.5 m (5 ft) from the inside walls of the pool.

Note that if the STP does not want to eliminate this instruction statement altogether, the minimum noted distance should at least be changed to 5 ft (1.5 m) to align with the above noted NEC requirement.