



PROCESS
INDUSTRY
PRACTICES

August 2017

Electrical

PIP ELILS000
Lighting and Receptacle Installation Details for
Class I, Division 2, Class II, Division 2,
and Unclassified Areas

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Details

- ELILS001 – Stanchion Mount on Handrail
- ELILS002 – Column Mount Fixture
- ELILS003 – Column Mount Floodlight
- ELILS004 – Platform Mount Floodlight
- ELILS005 – Column Mount Receptacle
- ELILS006 – Handrail Mount Receptacle
- ELILS007 – Pendant Mount Fixture
- ELILS008 – Ceiling Mount Fixture
- ELILS009 – Column Mount Receptacle
- ELILS010 – Handrail Mount Receptacle
- ELILS011 – Column Mount Emergency Lighting Battery Unit
- ELILS012 – Roadway Lighting Detail
- ELILS013 – Chain Hung Fluorescent Fixture
- ELILS014 – High Bay Lighting Fixture with Hook Assembly Hanger – Beam Mounted
- ELILS015 – Typical AC Lighting Contactor Without CPT
- ELILS016 – Pole Mounted Floodlight – 1 Fixture
- ELILS017 – Pole Mounted Floodlight – 4 Fixtures
- ELILS018 – Wall Mounted Fixture
- ELILS019 – Hand Rail Mounted Aircraft Obstruction Lighting

1. Scope

This Practice provides installation details for luminaires and receptacles located in Class I, Division 2 areas, Class II, Division 2 areas, and unclassified areas. This Practice describes the basic assumptions used in developing these details and provides guidelines for their use.

Installation details for Class I, Division 1 and Class II Division 1 areas are excluded from the scope of this Practice.

2. References

Applicable parts of the following Practices and industry codes and standards shall be considered an integral part of this Practice. The edition in effect on the date of contract award shall be used, except as otherwise noted. Short titles are used herein where appropriate.

2.1 Process Industry Practices (PIP)

- PIP ELCGL01 – *Electrical Design Criteria*
- PIP ELISGL01 – *Electrical Construction Specifications*

3. Installation Practices

3.1 Lighting Layout

- 3.1.1 Minimum illumination levels for all process and working areas shall be in accordance with *PIP ELCGL01*.
- 3.1.2 The luminaire layout shall be made with a view towards minimizing the impact and visibility in the community outside of the process site.
- 3.1.3 Luminaires shall be located to avoid conflict with ductwork, piping, steel structures, cable tray, equipment, or other items which could cause shadow areas.

3.2 Lighting Installation

- 3.2.1 Installation shall be in accordance with *PIP ELISGL01*.
- 3.2.2 All luminaires shall be accessible for maintenance.
- 3.2.3 Floodlight poles shall be accessible to bucket trucks or have a lowering mechanism for servicing the luminaire.
- 3.2.4 Luminaires mounted above grade, such as on process towers
 - 3.2.4.1 Shall be accessible from permanent platforms.
 - 3.2.4.2 Shall not be mounted to ladders or ladder ways.
 - 3.2.4.3 The use of a lowering type pole (such as “Swivel Pole”, “V-Spring”, or similar) shall be considered so maintenance on these luminaires can be done without the use of portable ladders.
 - 3.2.4.4 When installed inside buildings, the luminaires shall be located to allow for routine maintenance without extraordinary measures. An example of

extraordinary measures may include such measures as draining a pool to maintain luminaires.

- 3.2.5 An appropriately-sized grounding conductor shall be routed to each luminaire. The conduit system shall not be used as the grounding conductor for luminaires in process areas.
- 3.2.6 Each luminaire circuit shall have an individual neutral conductor. Common neutrals shall not be used.

3.3 Receptacle Layout and Installation

- 3.3.1 Layout shall be in accordance with *PIP ELCGL01*.
- 3.3.2 Installation shall be in accordance with *PIP ELSGL01*.
- 3.3.3 An appropriately-sized grounding conductor shall be routed to each receptacle. The conduit system shall not be used as the grounding conductor for receptacles in process areas.
- 3.3.4 Each receptacle circuit shall have an individual neutral conductor. Common neutrals shall not be used.

4. Use of Details

- 4.1 Details apply to multiple luminaires or receptacles and are intended to convey general concepts of desired installation.
- 4.2 If specific fields are lined out on a detail bill of material, the item is not applicable to the detail.
- 4.3 Specific sizes are included in the detail bill of material only if the size of the part is common to all applicable luminaires or receptacles.
- 4.4 Details shall be customized as appropriate for a specific installation by copying as required and entering size and corresponding part number as appropriate.