

## SECTION 26 50 00

### LIGHTING

#### PART 1 - GENERAL

##### 1.1 SCOPE

- A. Provide a lighting fixture for each lighting fixture symbol shown on the Drawings, of the type and quality described herein and on the drawings. Fixtures shall be installed complete with housing, driver, shades, diffusers and supports, and wired for operation.

##### 1.2 SUBMITTALS

- A. Submit product data for each lighting fixture type. Cut sheets shall indicate all options/accessories being provided.

#### PART 2 - PRODUCTS

##### 2.1 LIGHTING FIXTURES

- A. Provide fixtures according to the designation indicated on the plans. Fixture designations are explained and specified in the Lighting Fixture Schedule.
- B. Where a letter designating fixture type is adjacent to a row of fixtures, it shall be understood that fixtures in the row shall be of the same type and shall consist of the total lengths indicated. Although the descriptions of the fixtures described may refer to 4 foot units, 2 foot, 3 foot, and 8 foot units may be used where applicable to obtain the fixture length necessary.
- C. Construction Features
  - 1. General Requirements
    - a. Provide galvanized support hangers, channels and bolts.
    - b. Provide rustproof exterior hardware such as screws, nuts, washers and anchor bolts.
    - c. Provide stem suspended fixtures with self-aligning type semi-rigid ball joints so that fixtures hang level with vertical stems.
    - d. Fixtures shall be wired for polarized system with one wire in each fixture to be distinctly marked for its entire length. Wire shall bear the UL label.
    - e. Fixtures installed in clothes closets shall be listed for use in the closet storage space per NEC.
  - 2. Exterior Fixtures:
    - a. Cast aluminum housing, unless noted.
    - b. UL Listed for damp or wet location, as required.
    - c. Weatherproof gasketing.
    - d. Corrosion resistant stainless-steel hardware.

##### 2.2 LED FIXTURES

- A. General
  - 1. Refer to lighting fixture schedule on drawings for manufacturer and fixture information.

2. Individual LEDs shall be connected such that a catastrophic loss or the failure of one LED will not result in the loss of the entire luminaire.
  3. Lumen output shall not decrease by more than 20% over the minimum operational life of 50,000 hours.
  4. Provide thermal management to ensure proper operation of luminaire over its expected useful life. Thermal management shall be passive type only.
- B. Driver
1. 120-277V, UL-listed, CSA-certified. Driver shall be at least 80% efficient at full load.
  2. Driver shall be suitable for continuous 0-10V dimming without perceivable flicker over a range of 100% to 5% of rated lumen output with a smooth shutoff function.
  3. Provide driver disconnect per NEC requirement.
  4. Ambient Temperature Range:
    - a. Indoor air conditioned/heated spaces: -20 °C to 40 °C
    - b. Indoor heated/ventilated only spaces: -20 °C to 50 °C
    - c. Outdoor: -40 °C to 40 °C

## 2.3 EXIT SIGNS

- A. General Requirements:
1. Operating input voltage: 120/277V
  2. Red or Green lettering as required by the AHJ.
  3. UV stabilized white thermoplastic housing
  4. UL 924-listed.
  5. Ceiling or wall mounted.
  6. Removable chevrons.
  7. Single and dual sided as required.

## PART 3 - EXECUTION

### 3.1 LOCATION

- A. Coordinate the location of lighting fixtures with the Architect before final installation. Allow for a reasonable amount of shifting of fixture locations.
- B. Consult the Architect's reflected ceiling plans and the installer of the ceilings to ensure that fixtures are properly aligned, ventilated and located.
- C. Coordinate actual fixture depths with piping, duct work, bulkheads, etc. prior to rough-in.
- D. Install exit signs above a doorway with two active leafs that swing in opposite directions centered above egress leaf, not centered above the doorway.

### 3.2 INSTALLATION

- A. Provide "Earthquake" hold down clips on recessed fixtures where required by AHJ.
- B. Provide necessary accessories, as required, to support the fixtures independently of the ceiling suspension system. Securely fasten box and fixture

supports to structural system main supports. Where fixtures are surface mounted, cut neat holes in the hung ceilings as required for the fixture supports.

- C. Provide at least two (2) grid drop wires, 12 gauge minimum, supported from building structural system on recessed fixtures. Provide additional support wires where required by AHJ.
- D. Test all fixtures for proper operation and correct any deficiencies.

END OF SECTION 265000