



# Division 265000

## Lighting

### DESIGN GUIDE

## 1 General

### 1.1 Introduction

- A. This section applies to the following:
  - 1. Interior luminaires
  - 2. Exterior luminaires
  - 3. Exit signs
- B. Avoid locating luminaires over stair risers to allow appropriate maintenance access.
- C. Avoid the use of fixtures with an open lens that will collect dirt, bugs or other debris.
- D. Exterior pathway and parking lot lighting shall match the CWU campus standard fixture and pole. Request the campus standard product information from the ELSM.
- E. Extra Parts
  - 1. Furnish spare lenses equal to 1% of the total fixture quantity for each lens type. Minimum of 1 spare per each lens type.
  - 2. Furnish spare fixture battery packs equal to 1% of each emergency battery pack type, where used on the project. Minimum of 1 spare per each type.
- F. Designed footcandle levels shall be in conformance with IES guidelines.



- G. Lighting power densities shall follow the state energy code and other local ordinances. Where required to meet state energy efficiency credits, the designed lighting power densities shall be below the energy code minimum values.
- H. Site lighting design shall be in conformance with applicable LEED and municipal requirements for dark sky and light trespass beyond the project boundary.

## 2 Materials

### 2.1 Luminaires

- A. All interior and exterior lighting shall be LED type with the following performance:
  - 1. Minimum 70% lumen maintenance at 50,000 hours.
  - 2. Color Rendering Index: Interior 80, Exterior 70.
  - 3. Color Temperature: Interior 3500K-4000K, Exterior 4000K.
- B. Where approved by the ELSM, provide luminaires with embedded controls.
- C. Provide luminaires complete with lamps, drivers, brackets, hardware, poles, bases, battery packs, etc. as required for a complete and operable lighting system.
- D. Luminaires shall have manufacturer's standard finish where possible. Luminaires installed on exterior of building shall be weather-resistant design and display a "Damp" or "Wet" location label as required per applicable codes
- E. Embedded controls that are factory provided with the fixtures are preferred but not required. Refer to lighting controls standard section for additional information.



## 2.2 Exit Signs

- A. Exit lights shall be LED type, self-contained, fully automatic AC/DC units with sealed pure lead battery and solid state charger. Exit lights shall have green letters. Where connected to an emergency generator, battery is not required.

# 3 Execution

## 3.1 Installation

- A. Install light fixtures securely, level, plumb, aligned, and in straight rows. Light fixtures must be installed so they do not shift during maintenance or adjustment.

# 4 Appendix

## 4.1 Reserved for future.

