

## **26 5600 - Exterior Lighting**

### **1.1. General**

- A. This section shall include all building entrance sconces, arcade luminaires, service area wall packs, lighted bollards, post-top luminaires, roadway luminaires, parking lot luminaires, parking garage luminaires, etc. Some exceptions will be given to façade lighting and public art lighting.
- B. Color Corrected Temperature (CCT) shall be 5000° Kelvin ( $\pm 500^\circ$ ).
- C. Color Rendering Index (CRI) shall be 70 or higher.
- D. Lighting designs shall meet or exceed the current editions of the Illuminating Engineering Society (IES) Recommend Practices, Design Guides, and the Lighting Handbook.
- E. Any construction exterior to any building shall consider the proper lighting of pedestrian and vehicular ways for safe travel. Open land areas between sidewalks and other paved areas are not considered pedestrian ways and lighting the spaces should be avoided.
- F. Utilize house shields as necessary to reduce light trespass affecting student housing facilities and any other circumstances requiring trespass mitigation.
- G. Any or all exceptions to this section shall be submitted for review.
- H. For guidance on Lighting Controls see section 26 0923.
- I. For guidance on Lighting Poles and Standards see section 26 5613
- J. Measurements of the spaces shall be performed for confirmation of design, average footcandle levels were achieved, and CCT/CRI of provided luminaires is accurate to the specification.
- K. Warranty: One-year materials and labor from Date of Substantial Completion from contractor, and five years from Date of Substantial Completion for the luminaires plus associated components.

### **1.2. Style/Type Luminaires**

- A. Dome-top Luminaire
  - 1. This luminaire is preferred to be placed only on aluminum pedestal-based poles (typically 14' tall)
  - 2. As Basis of Design the following are suggested products:
    - a. Lumec #Z14-002-65W42LED5K-R-AC-RLE5-277-TN3-VPA-BRTX
    - b. King #K428-T1AR-V-75(SSL)-4006-120/277K31-TTS-5K-BZ

**26 5600 - Exterior Lighting****B. Acorn-top Luminaire**

1. This luminaire is preferred to be placed only on TTU custom-cast concrete poles (typically 12' tall)
2. As Basis of Design the following are suggested products:
  - a. Lumec #Z14-001-65W42LED5K-G2-AC-RLE5-277-TN3-VPA-BRTX
  - b. King #K424-T1AR-V-75(SSL)-4006-120/277-K31-TTRS-5K-BZ

C. Around TTU athletic facilities the red Double-T may be utilized on each luminaire.

**D. Tall Pole Luminaire**

1. This luminaire is typically placed on 35' round, tapered, steel poles in single and multi-head configurations to meet the lighting design of parking areas.
2. As Basis of Design the following are suggested products:
  - a. Cooper #GLAN-SAx-x-750-u-xxx-BZ-PR7—QA/RA1013
  - b. Lithonia #RSXxLED-Px-50K-Rx-MVOLT-RPA-PER7-DDBXD-DSHORTSBKU

**E. Lighted Bollards**

1. This luminaire is typically for lighting pathways near facilities that cannot not tolerate excessive light trespass. Some other applications will be reviewed/allowed on a per-case basis.
2. Typical specifications are 42" in height, 8" in diameter, ground mounted on a concrete base that is either flush-with-grade or same height as adjacent sidewalk and switched with exterior lighting controls.
3. As Basis of Design the following are suggested products:
  - a. US Architectural Lighting #BRA8-IL-36LED-CW-VOLT-RAL-8019-T
  - b. Lithonia #KBC8 LED-16C-700-50K-SYM-MVOLT-DDBXD

**1.3. Related Section - 26 5617 - Fluorescent Exterior Lighting**

- A. Any exterior luminaires utilizing fluorescent lamps shall be replaced or retrofitted with LED. The replacement luminaire/light engine shall be evaluated to determine the CCT, CRI, lumen output, and light distribution to accommodate the use of the luminaire to perform the work.

**1.4. Related Section - 26 5619 - LED Exterior Lighting**

- A. See Section 26 5600 above.

**26 5600 - Exterior Lighting****1.5. Related Section - 26 5621 - HID Exterior Lighting**

- A. Any exterior luminaires utilizing HID (high intensity discharge) lamps shall be replaced or retrofitted with LED. The replacement luminaire/light engine shall be evaluated to determine the CCT, CRI, lumen output, and light distribution to accommodate the use of the luminaire to perform the work.
- B. All American Electric and Revere brand post-top luminaires shall be replaced with LED luminaires with products as defined in Section 26 5600, B.
- C. This especially applies to existing Lumec brand and King Luminaire brand post-top luminaires (acorn style or dome-top style). These manufacturers may make and provide retrofit kits for their products. Utilize these kits where available. Rewiring the luminaire to accept a screw-in LED product is only acceptable where a kit is not available, then this product shall meet equivalent CCT, CRI and lumen output of a new LED luminaire.

End of 26 5600 - Exterior Lighting