26 50 00 Lighting
Revision 01/04/2019

**Purpose:**
The Architect and/or Engineer shall incorporate the Rice specific requirements indicated in this standard’s section into their design. The Architect and/or Engineer shall further produce project specifications in line with industry standards that are updated to reflect these Rice specific requirements.

1. **General Requirements**
   a. Rice University promotes a *Dark Skies Initiative*; new construction and renovations are to minimize up shine.
   b. LED light fixtures are the general basis of design.
   c. LED fixtures to have a minimum L70 rating of 50,000 hours.
   d. Ballasts/Drivers shall be electronic type with maximum THD of <10% and a sound class A or better.

2. **Exterior Lighting:**
   a. Photometrics shall be calculated using software to ensure lighting levels meet the design parameters for intensity, uniformity, and light trespass. These calculations shall be submitted with the 100% Design Development review documents.
   b. In ground mounted building façade lighting and tree mounted lighting is not permitted.
   c. Control of exterior lighting to be based on a photocell sending a signal to a controller with “ON/OFF/AUTO” control at the controller (Maintenance, Override off, Automatic photocell operation). Photocell control at individual lighting fixtures will not be allowed.
   d. Where exterior lighting is being designed (parking lot lighting, street lighting, walkway lighting) provide a stub-out from the appropriate pole bases for future extension and provide spare capacity in circuitry for similar additional future lighting fixtures. Discuss appropriate pole bases for stub-outs with Rice Project Manager.
   e. When existing street lights are removed, turn fixtures and poles over to the University at a location directed by the Rice Project Manager.
   f. **Walkway and Street Lights:**
      i. Pole spacing shall be similar to adjoining areas and shall be coordinated with the landscape to minimize tree interference.
      ii. Standard fixture is Lithonia DSX0
      iii. The desire is to minimize the variety of configurations, however alternate light output, light distribution, and control features may be considered on a per project basis as approved by the Rice Project Manager. The standard configuration is as follows:
       1. 20C: 20 LED light engine
       2. 530: 530mA drive current,
       3. 30K: 3000K color temp,
4. T5M: Type 5 medium light distribution
5. MVOLT: Multi-volt driver (120-277)
6. BL50: 50% step dimming using two switch legs
7. RPA: Round pole mount
8. DDBXD: Smooth Dark Bronze finish

   iv. Poles shall be 14ft straight 4 ½” round aluminum pole Lithonia RSA 14 4-5C DM19AS FBC. Finish is to match fixture.
   v. Standard lighting control is Tork LC-200. Or Rice approved equal.

3. **Interior Lighting:**
   a. Interior lighting fixtures are to be by major lighting fixture manufacturer
   b. Where acrylic lenses are specified, minimum lens thickness to be 0.125.
   c. Lighting color temperature shall be 3500K to 4100K. A single color temperature shall be used for all interior fixtures throughout the project. Coordinate exact color temperature with Architect and Rice Project Manager prior to selection.
   d. If an exception (see deviations in section 01 00 00) to LED is issued for the use of florescent fixtures then:
      i. Fluorescent fixtures shall be designed for T8, T5, or T5HO lamps.
      ii. Electronic ballasts – no magnetic ballasts. Ballast to come with 5 year warranty.
   e. Exit signs to be Light Emitting Diode (LED) type. Color of LEDs may be red or green. Exit signs shall be on a separate circuit from other loads and shall be powered from the emergency system.
   f. Fixtures used for emergency egress shall be controlled with normal lighting. Egress corridors are permitted to be un-switched if desired for night lighting.