26 51 00 Lighting

1. General:

A. This guideline covers the selection and installation of interior and exterior lighting of campus and campus buildings. The following should be used in conjunction with the Alabama Building Energy Conservation Code for the selection and installation of lighting equipment.

B. Lighting design for all areas, interior and exterior, should meet recommended standards of the Illuminating Engineering Society of North America. Submission of schematic design documents need to include illumination levels for interior and exterior areas. Typical areas to be included are: offices, classrooms, corridors, walkways, and parking lots.

2. Interior Lighting:

A. Fixtures

1) Fixtures should be specification grade minimum.

2) Lenses on troffers should have a 1/8” cross section minimum.

3) Pendant fixtures should not be used in classrooms or audio visual rooms as they will restrict the location of video projectors. It is preferred that lighting fixtures be recessed or flush with the ceiling.

B. Lamps

1) Fluorescent lamps should be T8.

2) Fluorescent lamps should be low mercury type.

3) Fluorescent lamp color should be 4100 degree Kelvin.

4) Fluorescent lamp ballasts should be electronic with less that 10% THD.

5) Incandescent lamps should not be used without approval of The University. If their use is required, they should be rated for 130 volts.

6) Miniature fluorescents are preferred for downlights.

C. Emergency and Exit Lighting

1) Include battery back-up in fixtures for emergency lighting.
2) Include battery back-up in all exit lights.

D. Preferred Manufacturers

1) Lithonia
2) Metalux
3) Columbia
4) Prescolite

3. Exterior Lighting:

A. Fixtures

1) Minimize the use of wall mounted fixtures. Pole mounted fixtures are preferred over “Wallpacks”.
2) Refractors and lenses should be glass.
3) Minimize light pollution by the use of cut-off fixtures and faceted reflectors.

B. Lamps

1) Lamps should be Metal Halide.

C. Preferred Manufacturers

1) General Electric
2) Gardco
3) Kim
4) Lithonia
5) Hubbell

D. Location of Pole Mounted Fixtures

Coordinate the installation of pole mounted fixtures with the landscape plantings to ensure future growth of the plantings do not block the projection of light.
4. **Campus Standard Lighting Fixtures and Poles:**

   A. **Area and Walkway Lighting**
   
   1) Acorn luminaire on 13ft pole is used for exterior walkway and area lighting.
   
   2) Approved luminaire and pole - Antique Street Lamps, Series AT23 Acrylic Globe, A Base, Glass Refractor mounted on Capital Series PI C24 13 pole.
   
   3) Approved luminaire and pole - King Luminaire, Series K199 Acrylic Globe, K16 Base, Glass Refractor mounted on KF16-13 pole

   B. **Street and Sidewalk Lighting**
   
   1) Teardrop luminaire on 30 ft. pole is used for street illumination.
   
   2) Teardrop luminaire on backside of pole is used for sidewalk illumination.
   
   3) Approved luminaire and Pole (Street Only) - Holophane Esplanade, Series ESU on Union Metal #B5922-190-B2-Y1 pole.
   
   4) Approve luminaire and Pole (Street and Sidewalk) - Holophane Esplanade, Series ESU & ESP on Union Metal #B5922-190-B2-Y2 Pole.

   C. **Traffic Control**
   
   1) Teardrop luminaire on 30 ft. pole is used for intersection illumination. Luminaire matches the luminaire on the street lighting poles indicated above. Traffic control lighting and lighting controls must meet Alabama Department of Transportation specifications.
   
   2) Approved luminaire and Pole - Holophane Esplanade, Series ESU on Union Metal #50603-B142-Y# Series pole. Y# is dependent on arm length and attachments.

   D. **Lighting Pole Base**
   
   1) The diameter of pole foundation is to be 4” greater than the pole base to provide a 2” reveal around the base. The top of the foundation is to be 6” above grade and have a 1” chamfer along the edge.

5. **Lighting Control:**

   A. **Lighting Levels**
   
   1) Lighting levels for classrooms and offices are typically “on – off” with one switch at each doorway.
2) Dimming of incandescent lamps is preferred in conference rooms and A/V rooms.

3) Separate switches for inboard tubes and outboard tubes are preferred over the use of dimming ballasts for rooms in which two lighting levels are required.

B. Occupancy and Dimming Sensors

1) Wattstopper is the preferred manufacturer.