**TYPICAL PARKING GARAGE**

**SEQUENCE OF OPERATIONS:**

1. Daylighting:
   - a. Photocell control to override motion control if there is inadequate illumination. Zones being turned off because of daylight harvesting during the day are at no time to drop below illumination required by authorities having jurisdiction.
   - b. Control exterior lighting via astronomic timeclock to turn off during daylight hours.
   - c. Interior lighting within designated daylight zones to be controlled as follows:
     1) Control such that combined illuminance from luminaires and available daylight is not less than the illuminance from luminaires when no daylight is available.
     2) When illuminance measured at the farthest edge of the secondary sidelite zone away from the glazing or opening is greater than 150 percent of the illuminance provided by the controlled lighting, power consumption of light source to be zero.
     3) Exception: Luminaires located in daylight adaptation zone within 66 feet (20.1 m) of a vehicular entrance to remain on even when there is available daylight.

2. Occupancy Sensing:
   - a. Control interior luminaires via occupancy sensor control, except for luminaires designated as security which are to remain on full on.
   - b. Upon sensing an occupant at any general garage luminaires, bring all luminaires on that drive aisle or ramp to full on.
   - c. Upon sensing an occupant adjacent to any stairwell entrance, bring all luminaires at all levels for that stair to full on.
   - d. Upon sensing an occupant at any elevator lobby or stair, adjacent general garage lighting to full on.
   - e. When a pedestrian steps out of any stair tower or pedestrian entry/exit, bring luminaires within 30 feet (9.1 m) of door to full on.
   - f. If a vehicle turns into a drive aisle, bring luminaires in that drive aisle to full on.
   - g. Bring luminaires in an intersection or turning bay to full on when an approaching vehicle reaches a point no less than 80 feet (24.4 m) from the area.
   - h. When a vehicle reaches an intersection with multiple turning options, bring luminaires to full on within at least 80 feet (24.4 m) in each direction of possible travel.
   - i. Lights return to their programmed unoccupied state after 15 minutes without motion detected.

3. Wireless Network:
   - a. RF Frequency: 2.4 ghz. Wireless devices must be capable of communicating in a high density mesh for reliable and high performance communication in parking environments.
   - b. High density mesh network must be self-healing to ensure reliability of system performance if one network stops functioning or is vandalized.
   - c. If the system gateway is unable to communicate to the cloud, system operation due to occupancy and daylight and any scheduled events is unaffected.
   - d. The wireless nodes in the system will send their loads to maximum light level within 15 minutes and stay there until communication with the gateway is restored to ensure a safe and well-lit environment.

4. Relay:
   - a. Load switched in manner that prevents arcing at mechanical contacts when power is applied to and removed from load circuits.
   - b. Rated for switching of electronic ballast or load up to 1000W
   - c. Works with ballasts and drivers whose inrush current does not exceed NEMA410 standards for electronic ballasts/drivers

**SPEC:**

**Wireless Network:**
1. RF Frequency: 2.4 ghz. Wireless devices must be capable of communicating in a high density mesh for reliable and high performance communication in parking environments.
   - a. A single wireless gateway must be capable of communicating with up to 800 wireless nodes.
   - b. High density mesh network must be self-healing to ensure reliability of system performance if one network stops functioning or is vandalized.
   - c. If the system gateway is unable to communicate to the cloud, system operation due to occupancy and daylight and any scheduled events is unaffected.
   - d. The wireless nodes in the system will send their loads to maximum light level within 15 minutes and stay there until communication with the gateway is restored to ensure a safe and well-lit environment.

**Relay:**
1. Load switched in manner that prevents arcing at mechanical contacts when power is applied to and removed from load circuits.
2. Rated for switching of electronic ballast or load up to 1000W
3. Works with ballasts and drivers whose inrush current does not exceed NEMA410 standards for electronic ballasts/drivers

**LIMELIGHT BY LUTRON PARKING GARAGE**

**LOCATION TBD**

**CONCEPT DRAWING**

**NOT FOR CONSTRUCTION**

**Project Number:** N/A

**Drawn By:** CMT

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**Sheet:** 1 OF 1