

PART 1 - GENERAL

1.1 EQUIPMENT QUALIFICATION

- A. Products supplied shall be from a single manufacturer that has been continuously involved in the manufacturing of occupancy sensors for a minimum of five (5) years. Mixing of manufacturers shall not be allowed.

1.2 SUBMITTALS

- A. Submit a lighting plan clearly marked by manufacturer showing proper product, location and orientation of each sensor.
- B. Submit interconnection diagrams per major subsystem showing proper wiring.
- C. Submit standard catalog literature, which includes performance specifications indicating compliance to the specification.
- D. Catalog sheets must clearly state any load restrictions when used with electronic ballasts.

1.3 SYSTEM OPERATION

- A. It shall be the contractor's responsibility to make all proper adjustments to assure University's satisfaction with the occupancy system, or;
- B. Factory Startup: It shall be the manufacturer's responsibility to verify all proper adjustments and train University's personnel to ensure University's satisfaction with the occupancy system.

PART 2 - PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS

- A. All products shall be Watt Stopper product numbers:
 - 1. Ceiling sensors: WT-605, WT-600, WT-1105, WR-2205, WT-2200, WT-2250, WT-2255, W-500A, W-1000A, W-1050A, W-2000A, W-2050A, W-2000H, W-2050H, WPIR, DT-200, DT-205, CX-100, CX-105, CI-200, CI-205
 - 2. Wall sensors: WI-200, WS-120/277, WA-100, WD-170, WD-180, WD-270, WD-280
 - 3. Power and slave packs: B120E-P, B277E-P, A120C-P, A277C-P, C120E-P, C277E-P, S120/277-P, AT-120, AT-277
 - 4. Low temperature: CB-100
 - 5. Inteliswitch: TS-200, TS-300

2.2 CIRCUIT CONTROL HARDWARE -CU

- A. Control Units - For ease of mounting, installation and future service, control unit(s) shall be able to externally mount through a 1/2" knock-out on a standard electrical enclosure and be an integrated, self-contained unit consisting internally of an isolated load switching control relay and a transformer to provide low-voltage power. Control unit shall provide power to a minimum of two (2) sensors.

- B. Relay Contracts shall have ratings of:
 - 1. 13A - 120 VAC Tungsten
 - 2. 20A - 120 VAC Ballast
 - 3. 20A - 277 VAC Ballast
- C. Control wiring between sensors and controls units shall be Class II, 18-24 AWG, stranded U.L. Classified, PVC insulated or TEFLON jacketed cable suitable for use in plenums, were applicable.
- D. Minimum acceptable wire gauge from the circuit control hardware relays shall be #14 AWG.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. It shall be the Design/Builder's responsibility to locate and aim sensor in the correct location required for complete and proper volumetric coverage within the range of coverage(s) of controlled areas per the manufacturer's recommendations. Rooms shall have ninety (90) to one hundred (100) percent coverage to completely cover the controlled area to accommodate all occupancy habits of single or multiple occupants at any location within the room(s).
- B. The Design/Builder shall provide, at the University's facility, the training necessary to familiarize the University's personnel with the operation, use, adjustment, and problem solving diagnosis of the occupancy sensing devices and systems.

3.2 FACTORY COMMISSIONING

- A. Upon completion of the installation, the system shall be completely commissioned by the manufacturer's factory authorized technician who will verify all adjustments and sensor placement to ensure a trouble-free occupancy-based lighting control system.

END OF SECTION