



Design Standard Daylighting Controls

Purpose:

This design standard has the purpose of creating a consistent application of daylighting controls for the South San Francisco Unified School District therefore achieving a standard of operation, reliability and quality throughout all renovation and new building projects.

Design Standard:

Daylighting control systems are to be used if required by code and approved by District at new school construction and major modernization projects. Systems include but are not limited to the following:

- Continuous Dimming Daylighting Controller: Provide dimming control systems capable of controlling 10VDC control input fluorescent dimming ballasts in three output zones via one photocell, with system adjustments capable of being made at control module instead of remote photocell.
- Switched Daylighting Controller: Provide switched control systems capable of controlling three output zones via one photocell with system adjustments capable of being made at control module instead of remote photocell.
- Local Continuous Dimming Photocell: Provide local daylighting photocell capable of directly controlling up to fifty 10VDC control input fluorescent dimming ballasts.
- Local Switched Photocell: interfaces with room occupancy sensor power pack, where available.
- HID High/Low Ballast Switching: Provide HID bi-level HID controller for each HID luminaire in switched daylighting control area. Controller to contain both capacitor and control module, allowing HID ballast to be switched to 50 percent of full power output based on 24VDC control signal.
- Daylighting controls to be UL listed and carry factory warranty for minimum 5-year duration.

Design and specify all daylighting controls to meet the following requirements based on Code requirements and industry standard of care:

- Continuous Dimming Daylight Controller:
 - i) Provide dimming control of interior lights in response to light level data, compatible with 0 to 10VDC dimming ballasts. Control system to be open loop, and will provide three output control zones consisting of a 0 to 10VDC signal compatible with fluorescent dimmable ballasts. Control system includes



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Version 1, 2011.9.30

three relay outputs capable of switching each of the three output zones off after an adjustable time delay when a given channel is fully dimmed.

- Installation
 - i) Install photocells as directed by manufacturer's instructions. Complete connections to control circuits, photocells, control modules, power supply pack and low voltage wiring.
 - ii) Verify with manufacturer's representative that the sensors and photocells are laid out in compliance to manufacturer's published sensing distribution. Provide additional sensors for complete coverage of the space being served.

Approved Manufacturers:

- Cooper Greengate (Formerly Novitas)

Substitutes Allowed:

- No substitutions.

Associated Design Standards:

- 26 50 00 – Design Standard Lighting

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