MH CONTROLS
A Division of MH Lighting
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DAYLIGHT HARVESTING

There are 2 basic types of daylight harvesting, open loop and closed loop. Closed loop systems reference both the artificial and natural sunlight contribution in the space and balance the artificial contribution to maintain a target Foot-candle level. Open loop systems reference only the sunlight to adjust the artificial levels.

CLOSED LOOP SYSTEMS

Daylight Response photocells by Philips – This is a closed loop on board dimming photocell. Adjustments are made by opening or closing the photocell aperture to make the dimming more or less responsive to lighting levels. The viewing area below this sensor is intended to reference a desktop surface and is a narrow beam pattern. The photocell works well in small office applications with recessed down-light fixtures.
Application notes - Because adjustments are made at the fixture, applications where the fixture is mounted above 12' is not recommended. The photocell does not provide low end cut off. This may mean fixtures will start and stay dimmed for extended periods. Fluorescent lamps may experience premature failure in this condition. Since there are no "settings" or readings available from this sensor, documentation for LEED projects may be an issue.

LS-301, FD-301 by Wattstopper - This is a closed loop fixture integral or externally mounted dimming photocell. Adjustments are made with a handheld remote. A night time and daytime setting must be programmed and entered into the device. An IR user remote is also available. The viewing area below this sensor is intended to reference a desktop surface and is a wide beam pattern. The photocell works well in small office and small meeting room applications with recessed down-light fixtures.
Application notes - Adjustments are made with an IR remote. Installation where the fixture is mounted above 12' is not recommended. The photocell does not provide low end cut off. This may mean fixtures will start and stay dimmed for extended periods. Fluorescent lamps may experience premature failure in this condition.

LS-102 by Wattstopper - This is a closed loop externally mounted switching photocell. Adjustments are made with a handheld remote. This photocell provides on / off switching based on a combination of artificial and natural light contribution. A dead-band range setting is used to prevent cycling of lights when the photocell is near the set point. The LS-102 is used in conjunction with a relay pack.
Application notes - Adjustments are made at the LS-102 unit, installation above 12' is not recommended. Careful placement must be observed when installing the photocell near direct / indirect or up-light fixtures. This is a single zone switching photocell system.

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LMLS-400 Digital Lighting Management single zone photocell by Wattstopper - This is a closed loop externally mounted photocell. Adjustments are made with a programming tool. The photocell must be mounted in the area to be controlled with an unobstructed view of the work area without any artificial light directly contributing to the photocell. Careful placement must be observed when installing the photocell near direct / indirect or up-light fixtures. This is a single zone dimming or switching photocell system. A dimming or switching room controller, override switch, occupancy sensor or time control are required. High ceiling applications are not recommended.
Application notes - Sensor placement is critical to the proper functioning system.

OPEN LOOP SYSTEM

LMLS-500 Digital Lighting Management, multi zone photocell by Wattstopper - This is an open loop externally mounted photocell. Adjustments are made with a programming tool. The photocell must be mounted so as to receive daylight relative to the amount of daylight entering the space. Careful placement must be observed when installing the photocell near direct / indirect or up-light fixtures. This is a multi-zone dimming or switching photocell system. A dimming or switching room controller, override switch, occupancy sensor or time control are required. This system works well for classrooms, conference rooms, and larger spaces. High ceiling applications are not recommended.
Application notes – Sensor placement is critical to a proper functioning system.

LCD 203 System multi zone dimming photocell by Wattstopper - This is an open loop externally mounted photocell system. Adjustments are made at the controller. The photocell must be mounted so as to receive daylight relative to the amount of daylight entering the space. Careful placement must be observed when installing the photocell near direct / indirect or up-light fixtures. This is a multi-zone dimming photocell system. A dimming room controller, override switch, occupancy sensor or time control are required. This system works well for classrooms, conference rooms, high ceiling applications and larger spaces. This system from Wattstopper works with standard analog devices and in conjunction with relay panels.
Application notes – Sensor placement is critical to a proper functioning system.

LCO 203 System multi zone switching photocell by Wattstopper - This is an open loop externally mounted photocell system. Adjustments are made at the controller. The photocell must be mounted so as to receive daylight relative to the amount of daylight entering the space. Careful placement must be observed when installing the photocell near direct / indirect or up-light fixtures. This is a multi-zone dimming or switching photocell system. A switching room controller, override switch, occupancy sensor or time control are required. This system works well for high ceiling applications and larger spaces. This is the older system from Wattstopper which works with standard analog devices.
Application notes – Sensor placement is critical to a proper functioning system.