Daylight Harvesting Basics

What is daylight harvesting?

Daylight harvesting dims the electric lights in an area in response to available daylight. The focus of daylight harvesting in Lutron systems is to maintain a consistent minimum light level on the work surface while saving energy.

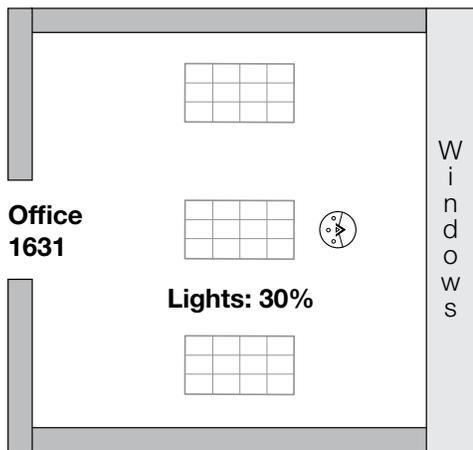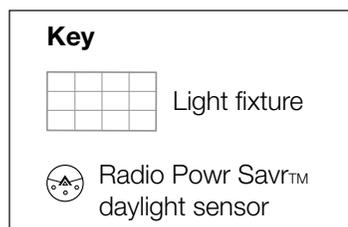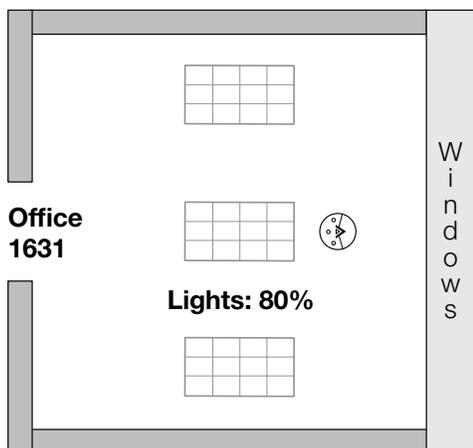A daylight sensor will detect changing light conditions and adjust the lights automatically throughout the day.

Day 1

Figure 1: A private office example showing how the light level will change based on natural conditions.

Office
1631

Lights: 30%

Windows

Day 2

Office
1631

Lights: 80%

Windows

Key

Light fixture

Radio Powr Savr™ daylight sensor

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What are daylighting rows?

Daylighting rows allow the system to take the distance from the window into account as it makes lighting adjustments. In a typical multiple-row setup, each row of light fixtures farther from the window will provide more light than the light fixtures in the rows that are closer to the window.

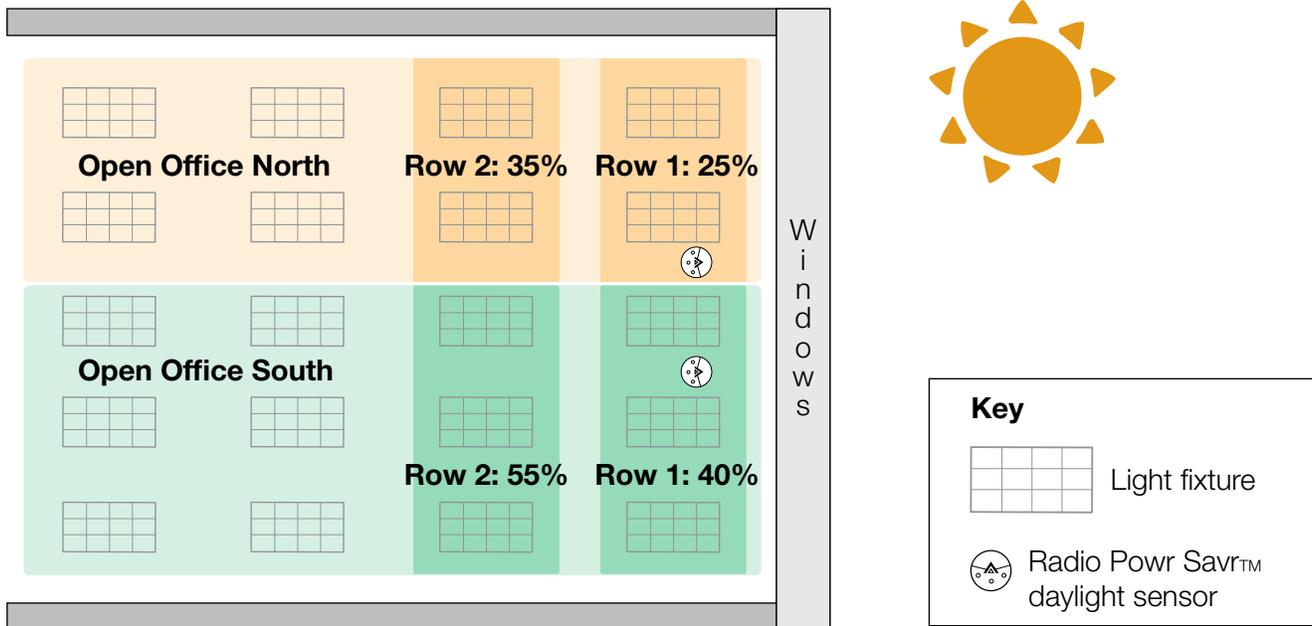Not all Lutron systems support multiple daylighting rows.

Figure 2: As illustrated above, daylighting rows typically result in fixtures outputting varied amounts of light to compensate for the amount of daylight penetrating into the space. In this example there are two areas, Open Office North and Open Office South, with two daylighting rows each. The other two rows of fixtures (farther from the window) are purposely not set up to use daylight harvesting.

Daylight calibration

Each area has unique attributes that may affect how natural light penetrates the space, including distance from windows, height of ceilings, height and type of windows, number of light fixtures, furniture placement, and so on.

Some Lutron systems will enable daylight harvesting out of the box, while others need to be carefully calibrated or adjusted to ensure proper behavior.

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FAQs

Why can't I make the lights brighter using a wall control?

To ensure energy savings, the daylight harvesting strategy establishes a maximum value for the outputs of the light fixtures. If the daylight sensors determine the fixtures need to be at 50%, the wall control or occupancy sensor can only raise the lights to a maximum of 50%. The wall control cannot override the sensor settings.

Why did my daylight settings appear to change?

Lutron daylight calibration is sensitive to major changes in the environment. Calibration can be affected by any change to the physical space, such as new wallpaper, furniture, window treatments, and so on. Daylight calibration levels may need to be adjusted to account for any changes to the space.

How can I adjust the daylighting settings?

Each system has slightly different methods for adjusting the daylight settings; please refer to the system instruction manual for further assistance.

Why are my lights at different levels?

This is normal and is to be expected. It is common to see lights next to each other at different light levels in larger spaces, as seen in **Figure 2**. This difference is due to the system layout and the specific light that is affecting each area.

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