0–10V Single room solutions

Standalone

Diva® 0–10V dimmer

Nova T☆® 0–10V dimmer

Maestro® 0–10V dimmer sensor

Wireless

PowPak® dimming module with 0–10V control

Radio Powr Savr™ occupancy and daylight sensors, and Pico® wireless remotes

LUTRON®

save energy with Lutron™ ®

0–10V Single room solutions

0–10V is quickly becoming one of the more popular dimming technologies in commercial spaces.

Lutron offers a variety of control options to give you both high-quality dimming capabilities and additional opportunities to save energy.
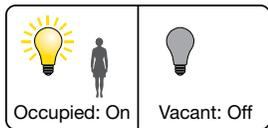
These control options allow you to take advantage of multiple energy-saving strategies.
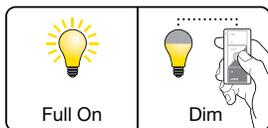
Lutron energy-saving strategies
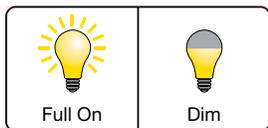
Dimming
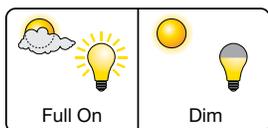Gives occupants the ability to set the light levels.

Occupancy/vacancy sensing
Turns lights on when occupants are in a space and dims lights to a low level or turns lights off when they vacate the space.
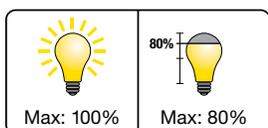
Personal dimming control
Gives occupants the ability to set the light levels.

Daylight harvesting
Dims electric light when daylight is available to light the space.

High-end trim
Sets the maximum light level based on customer requirements in each space.

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Dimming, sensing, personal control, and daylight harvesting

Energi TriPak® (left to right): PowPak® dimming module with 0–10V control, Radio Powr Savr™ occupancy and daylight sensors, and Pico® wireless remote
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Diva® 0–10 V

- 0–10 V dimmer for fluorescent and LED fixtures

  Two models available:
- DVSTV
  - Controls 120–277 V without a power pack
  - Provides 3-way preset switching functionality
- DVTV
  - Requires a power pack
  - Use with a power pack for Class 2 installations, with wired occupancy sensors, for 347 V operation, and for loads greater than 8 A

Models
DVSTV
DVTV

Voltage
- DVSTV
  - 8 A, 120-277 V
- DVTV
  - 16 A with PP-DV, 120-277 V
  - 16 A with PP-347, 347 V

Ideal for applications requiring 0–10 V fixtures, such as private offices and conference rooms

The Lutron Advantage
- Patented technology extends relay life to 10 years
- Low-end and high-end trim in one product
- No derating for 277 V installations
- No neutral
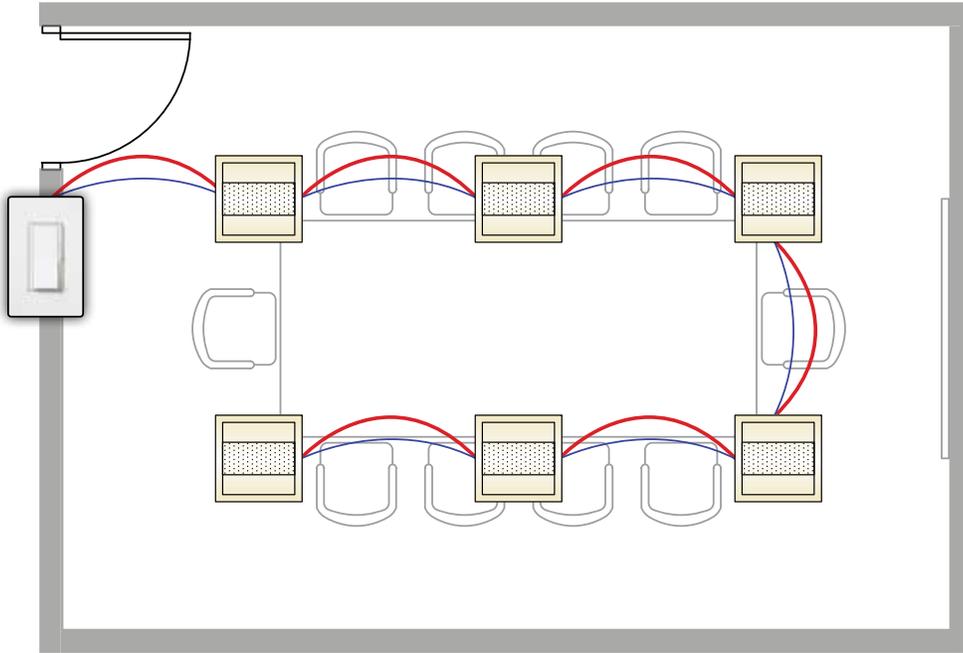
Energy-saving strategies
- Dimming
- High-end trim

Codes met
- Automatic shut-off with wired occupancy sensors through a power pack
- Area control
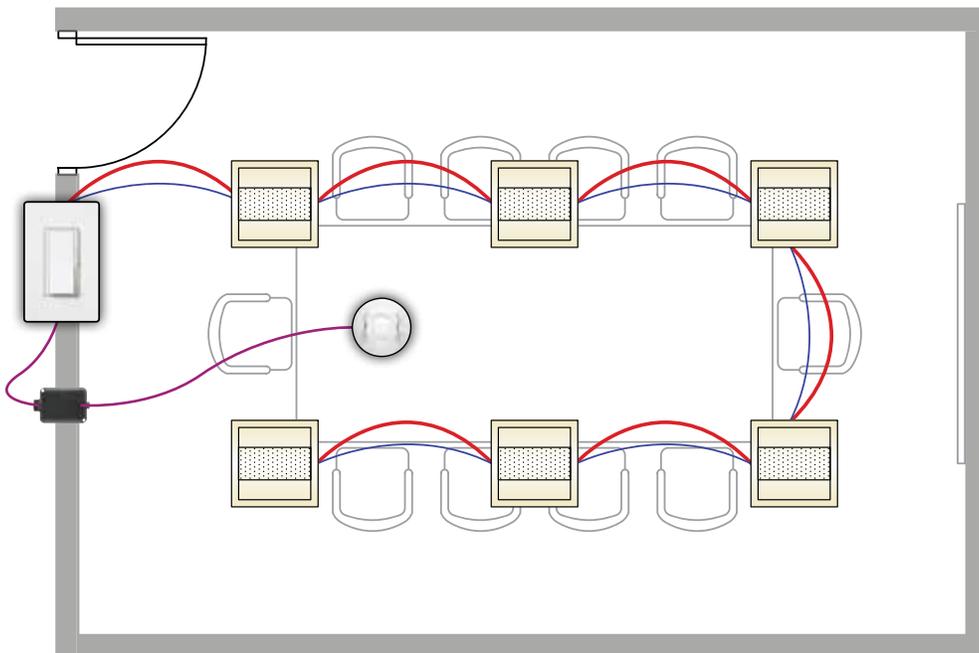- Multi-level lighting control

Application examples: Conference room

Without power pack

— **Line-voltage wiring**
— **Low-voltage wiring**

With power pack

— **Line-voltage wiring**
— **Low-voltage wiring**
— **Occupancy signal**

Dimming

Nova T☆® 0–10V

- 0–10V spec grade dimmer that can switch line voltage for fluorescent ballasts and LED drivers

- Controls 120–277V without a power pack

- Power pack required for Class 2 installations, for 347V operation (Canada), and for loads greater than 8A

- Works with wired occupancy/vacancy sensors with the addition of the respective power pack

   Models   NTSTV

   Voltage
- 8A, 120–277V; up to 16A with the addition of a power pack (PP-DV)

- 16A, 347V (with power pack PP-347H)

   Ideal for applications requiring 0–10V fixtures, such as private offices, conference rooms, and hospitals

The Lutron Advantage
- Spec grade with heavy-duty components for surge protection and long life

- Low-end and high-end trim in one product

- No derating for 277V installations

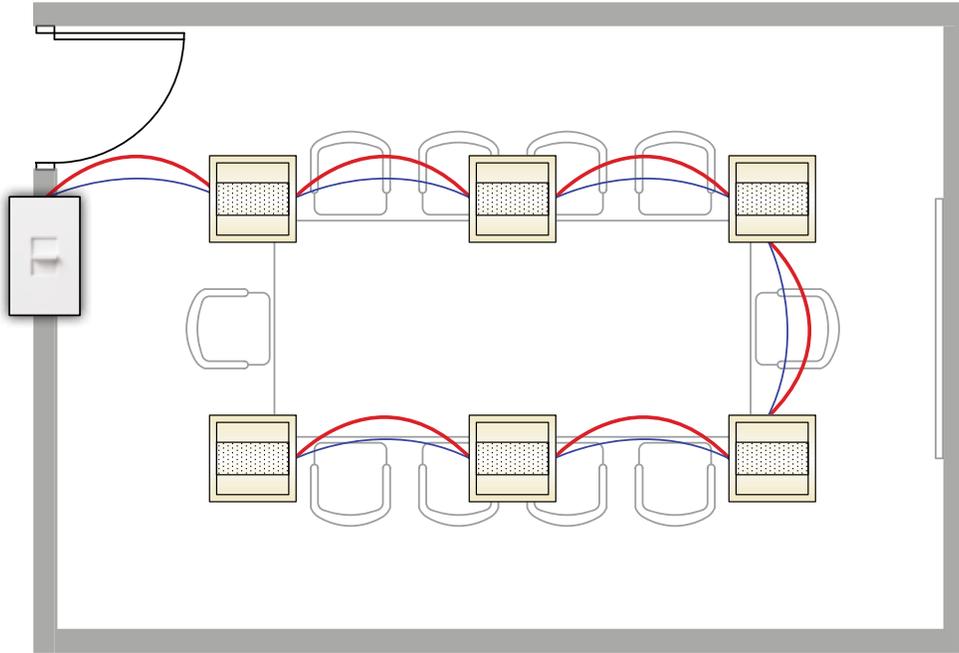- No neutral

Energy-saving strategies
- Dimming

- High-end trim

- Occupancy sensing

Codes met
Automatic shut-off with wired occupancy sensors through a power pack
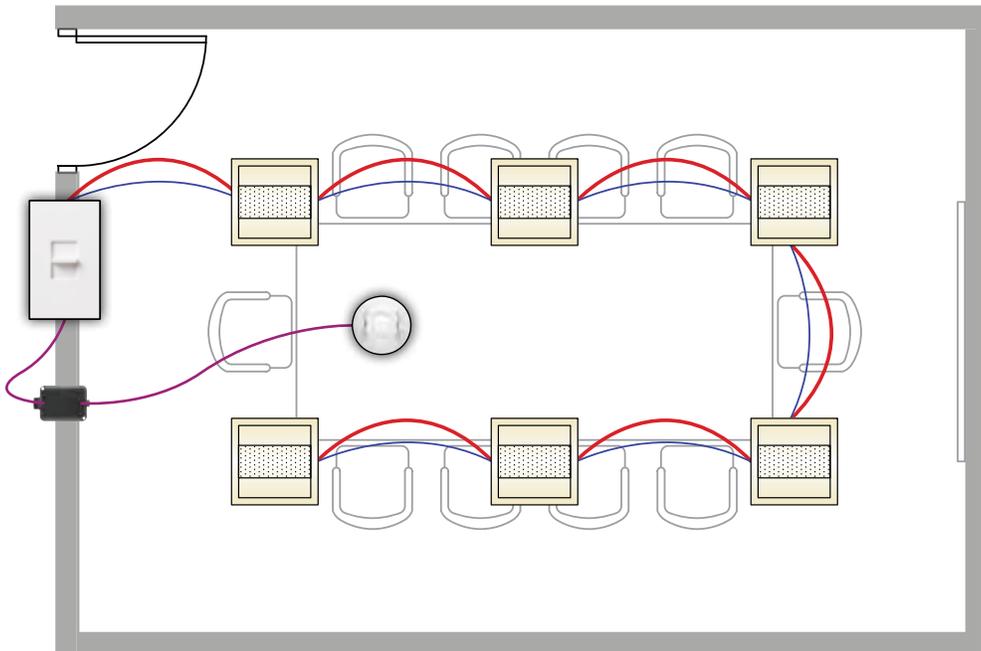
- Area control

- Multi-level lighting control

Application examples: Conference room

Without power pack

— Line-voltage wiring
— Low-voltage wiring

With power pack

— Line-voltage wiring
— Low-voltage wiring
— Occupancy signal

Maestro® 0–10 V dimmer sensor

- Dims 0–10V LED drivers or electronic fluorescent ballasts
- XCT™ PIR sensing
- Single pole or 3-way with Maestro companion or mechanical switch
- Neutral connection optional
- Sinking control for sourcing fixtures
- High- and low-end trim

Models
MS-Z101

MS-Z101-V

Voltage
8 A, 120–277 V

Ideal for small spaces such as private offices, small classrooms, and equipment rooms

The Lutron Advantage
- Miswire and load incompatibility alert — lens will flash red if control is miswired or connected to an incompatible fixture
- Optimized dimming performance with selectable dimming curve and smooth fade to on and fade to off
- Lutron's XCT™ sensing technology
- Smart ambient light detection learns users preferred light level and keeps lights off when sufficient daylight is available
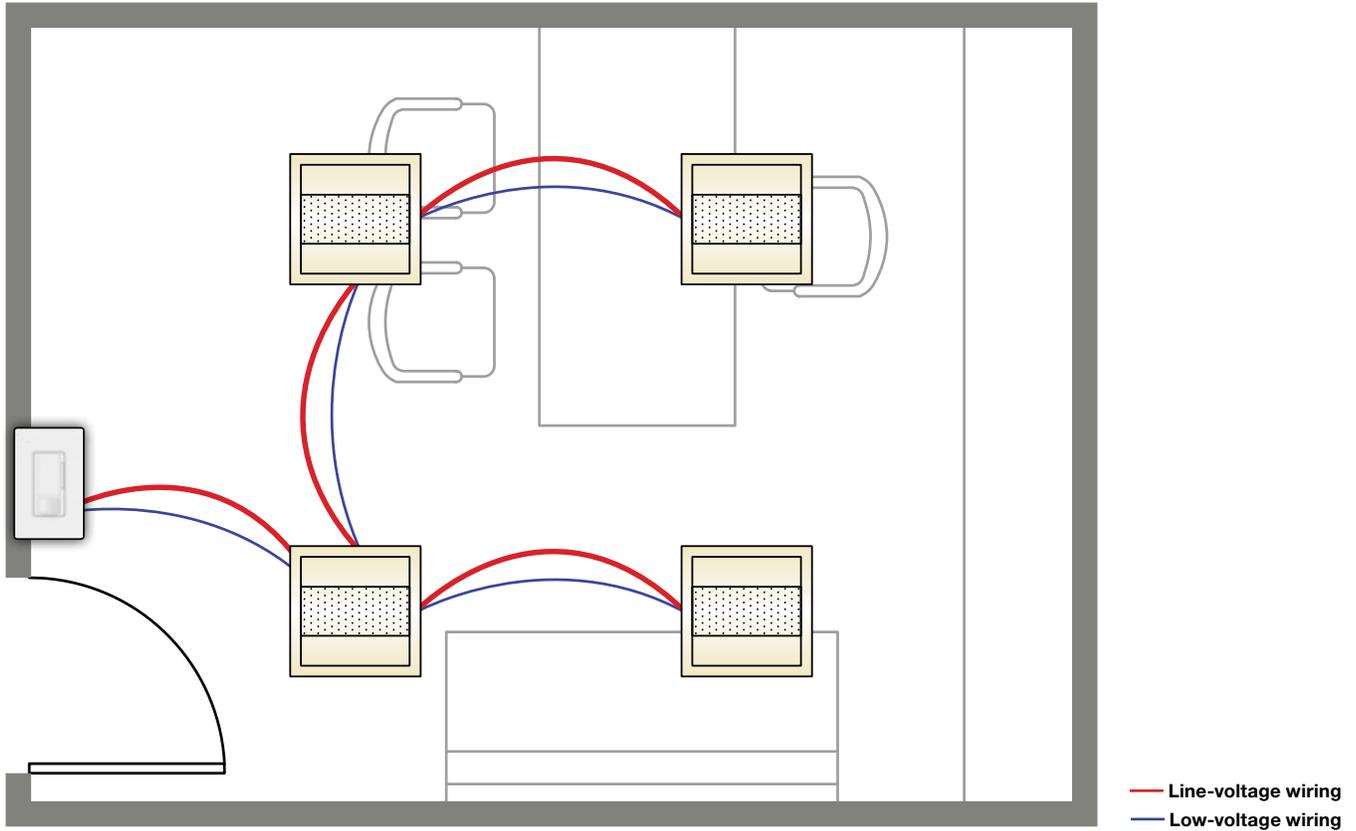- Lutron's Adaptive Zero-Cross Switching extends relay lifetime

Energy-saving strategies
- Occupancy/vacancy sensing
- Dimming
- Area control
- Multi-level lighting control

Codes met
- Automatic shut-off
- Area control
- Multi-level lighting control

Application example: Private office

Line-voltage wiring
Low-voltage wiring

Coverage patterns

Horizontal Beam Diagram

| 30ft | 25ft | 20ft | 15ft | 10ft | 5ft | 0 | 5ft | 10ft | 15ft | 20ft | 25ft | 30ft |
| (9m) | (7.5m) | (6m) | (4.5m) | (3m) | (1.5m) | | (1.5m) | (3m) | (4.5m) | (6m) | (7.5m) | (9m) |

Vertical Beam Diagram

4 ft
(1.2 m)
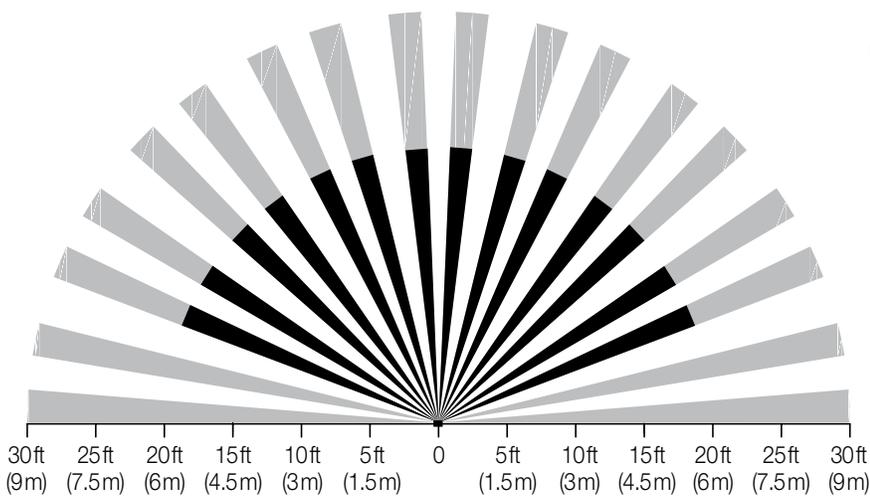
| 0 | 10 ft | 20 ft | 30 ft |
| | (3 m) | (6 m) | (9 m) |
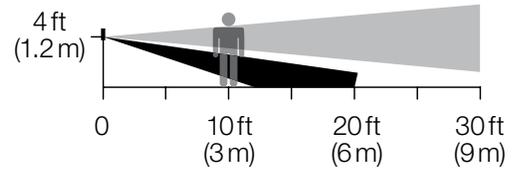
Major motion coverage (900 sq ft)

Minor motion coverage (400 sq ft)

PowPak® 0–10V

- Junction-box mounted dimming module that controls 0–10V fixtures
- Auto adapts to sink/source fixtures

Models
RMJ-5T-DV-B

Voltage
120–277V

Ideal for larger conference rooms, larger classrooms, and training rooms

The PowPak 0–10V dimming module is a part of the Energi TriPak® solution, which includes the following:

- Radio Powr Savr™ wireless occupancy/vacancy sensors
- Radio Powr Savr daylight sensors
- Pico® remote
- Maestro Wireless® dimmers and switches
- Plug-in dimming and appliance modules
- PowPak dimming and switching modules
- PowPak receptacle control modules

The Lutron Advantage
- XCT™ sensing technology
- Clear Connect® RF technology
- Easy button-press setup
- Wireless sensors can be easily moved

Energy-saving strategies
- Occupancy sensing
- Personal control
- Daylight harvesting
- High-end trim

Codes met
- Automatic shut-off
- Multi-level daylight control
- Multi-level lighting control
- Area control

Application example: Classroom
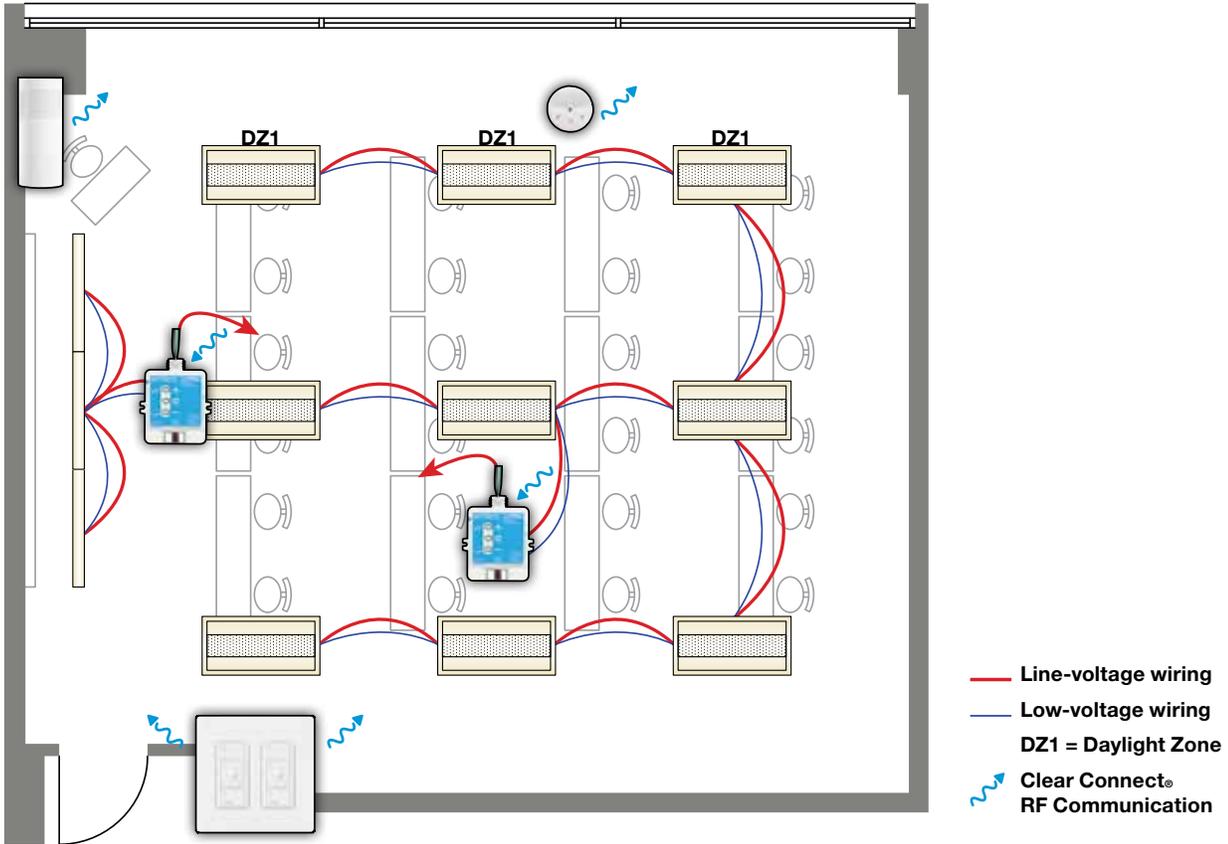

DZ1 **DZ1** **DZ1**

—— **Line-voltage wiring**

—— **Low-voltage wiring**

DZ1 = Daylight Zone

Clear Connect®
RF Communication

Energi TriPak® wireless components (works with PowPak® 0–10 V)

Radio Powr Savr™ occupancy/vacancy sensors

Radio Powr Savr daylight sensor

Pico® wireless remote

Leader in LED dimming technology

In addition to 0-10 V solutions, look to Lutron as your leader in LED dimming technology. We offer superior technology for standalone as well as system-based dimming, for both analog and digital control.

We also provide the highest quality products across these LED control types, for LED solutions you can count on.

C·L® technology for screw-in bulbs

Lutron C·L products solve the challenge of light bulb compatibility.

- C·L technology provides superior dimming
- Works with dimmable screw-in LEDs and CFLs, and incandescent/halogen bulbs—even mixed on the same circuit
- Helps future proof dimmer installations as the bulb landscape changes from incandescent bulbs to LEDs
- High-performance dimming minimizes problems seen with other dimmers including flicker, shimmer, and pop-on
- C·L dimmers are tested and UL Listed to work with nearly 500 LEDs and CFLs

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Light bulb compatibility

- UL Listed to control nearly 500 different LED and CFL bulbs. The bulb list is available at **www.lutron.com/bulblist.**

■ = unique LED or CFL bulb model type

**Lutron
nearly 500 bulbs**

**Other companies
100 bulbs (on average)**
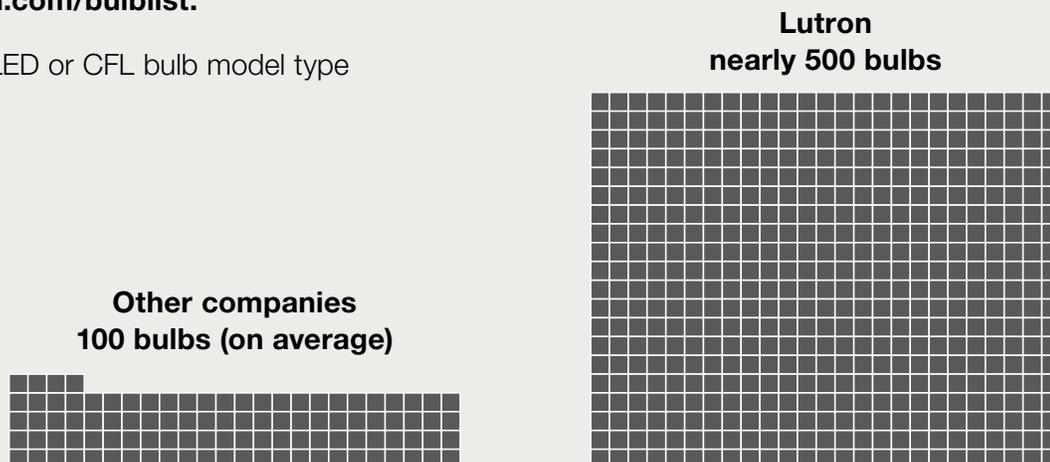
C·L product line

Dimmers

Ariadni®

Skylark®

Skylark Contour®

Diva®

Maestro®

GRAFIK T™

Dimmer/Sensor

Maestro occupancy
sensor C·L® dimmer

Wireless controls

Maestro Wireless® with Radio
Powr Savr™ wireless occupancy
sensor and Pico® remote

Caséta™ Wireless with
Pico remote

Caséta™ Wireless lamp
dimmer with Pico remote

Leader in LED dimming technology

EcoSystem® technology for individual fixture control

- **Simplify your lighting control projects with Lutron EcoSystem**
  Guaranteed compatibility between Lutron controls, drivers, and sensors—backed by Lutron quality and 24/7 service.

- **Meet stringent energy codes and green building standards**[†]
  EcoSystem digital addressability allows you to easily implement automatic shut-off, daylighting, and dimming for multi-level control.

- **Design for change**
  Digital fixture control means you can easily adapt to change during design and commissioning, as well as during times of churn—without rewiring.

LED driver options

5-Series

- Energy-saving, smooth 5% dimming, without compromising on dimming quality
- Ideal for downlights, troffers, and linear lighting
- Available in K and M case models

A-Series

- Smooth, 1% dimming for architectural applications
- Ideal for downlight, cove, and linear lighting
- Available in K and M case models
- UL Listed option also available—KL case model

H-Series

- Provides smooth, continuous 1% dimming
- High-performance solution for any space, in any application
- Available in K and M case models

[†] California Title 24, ASHRAE 90.1,ASHRAE189.1, IECC, IgCC

Scaling from a single room to a whole building

GRAFIK Eye® QS

Perfect for conference rooms, GRAFIK Eye QS is a customizable preset lighting control system that allows you to adjust lights and shades for any task.
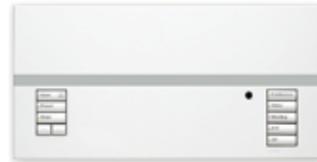
☑ Phase control
☑ 0-10V*
☑ EcoSystem®

Energi Savr Node™ Solutions

For open office spaces, Energi Savr Node provides a flexible lighting control system comprised of digital fluorescent dimming ballasts, LED drivers, controls, and sensors.

☑ Phase control*
☑ 0-10V
☑ EcoSystem

Panel Solutions

Traditional panel-based systems offer a simple, easy to maintain solution for areas with higher wattage lighting zones.

☑ Phase control
☑ 0-10V
☐ EcoSystem

Quantum®

Quantum is a lighting control and energy management system for an entire floor, building, or campus.

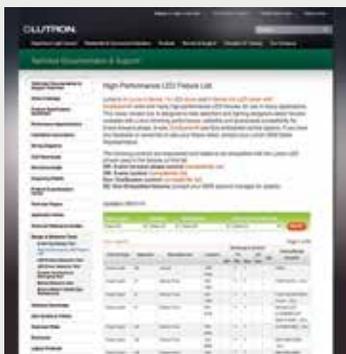☑ Phase control
☑ 0-10V
☑ EcoSystem

*Requires interface

LED Control Center of Excellence

The LED Control Center of Excellence is designed to help you correctly specify, install, and use LEDs. Through the LED Control Center of Excellence we test LEDs on a continuing basis for compatibility with our controls and drivers, providing a level of customer guidance you won't find anywhere else.

Lutron.com/LEDTool

Visit the LED Control Center of Excellence to find tested LED solutions that will ensure compatibility between Lutron controls and drivers and other LED products.

Lutron.com/FindAFixture

Select fixtures available with Lutron dimming performance, reliability, and guaranteed compatibility for 2-wire forward phase, 3-wire, EcoSystem®, and Eco-embedded control options.

www.lutron.com

World Headquarters 1.610.282.3800
Technical Support 1.800.523.9466 (Available 24/7)
Customer Service 1.888.LUTRON1 (1.888.588.7661)

LUTRON®

save
energy
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Lutron™   ®