

robust design

solid state triac dimming

Lutron® selects reliable, solid-state triacs that exceed the control's rated capacity. Control will dim full rated wattage capacity.

surge protection

Tested to withstand surges of 6000 V, 200 A meeting ANSI/IEEE Std. C62.41-1980.

electrostatic discharge protection

Protecting against static discharge up to 16kV.

filtering network

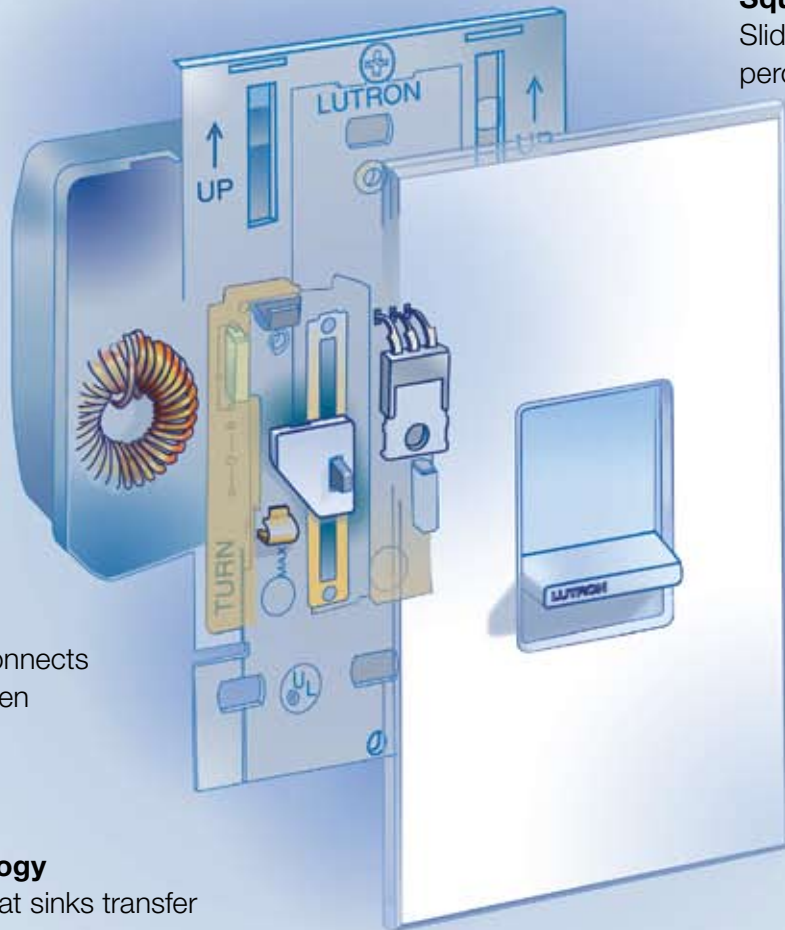
Large toroidal choke minimizes or eliminates radio frequency interference.

air-gap switch

Safety feature that disconnects power from the load when lights are off.

heat transfer technology

Engineered full-sized heat sinks transfer heat away from integral components, so they operate cooler than the rated temperature – resulting in long product life.



elegant aesthetics

no exposed metal

Wallplates conceal heat sink and mounting hardware for a sleek appearance on all thin-profile controls – no open bottom/open top needed for convection cooling.

Square law dimming

Slider position indicates the perceived light level.

precise color consistency

To assure color consistency all Lutron products meet Lutron's stringent color tolerances of $\Delta E < 1.0$, CIE L*a*b* color space units.

Lutron®

The name means quality, reliability, and beautiful aesthetics.

UV stable color

Tested for color stability when exposed to sunlight as defined in ASTM D4674-89.

power-failure memory

Light is restored to the same level set prior to the power-failure.

voltage compensation

Reduces light fluctuations that can accompany line-voltage variation.

All Lutron® products are end-of-line tested. All Lutron® products are UL listed and/or CSA, CE, or NOM approved.

solid state dimming

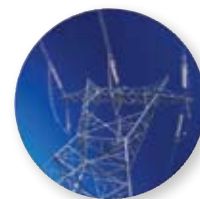
Semiconductor device (triac or FET) turns the lights on and off 120 times per second – saving electricity and extending bulb life while providing a steady, flicker-free illumination.

the benefits:

- save energy as you dim, reduce your utility costs
- extend lamp life by running the lamps cooler (tungsten filament evaporates more slowly); reduce the number of lamps you buy, install and discard
- dimmer handles full rated wattage capacity

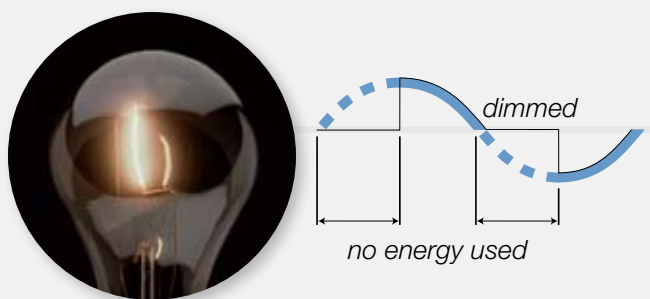
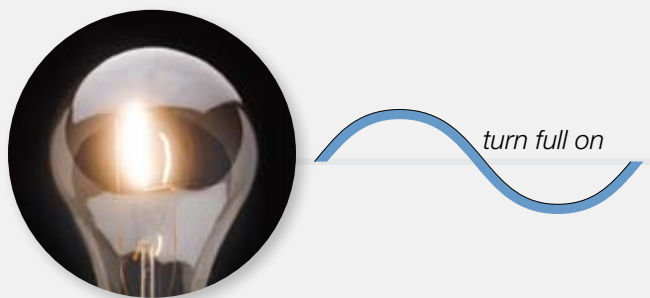
voltage compensation

Special circuitry that maintains the power delivered to the lamp in the event of line-voltage variations.

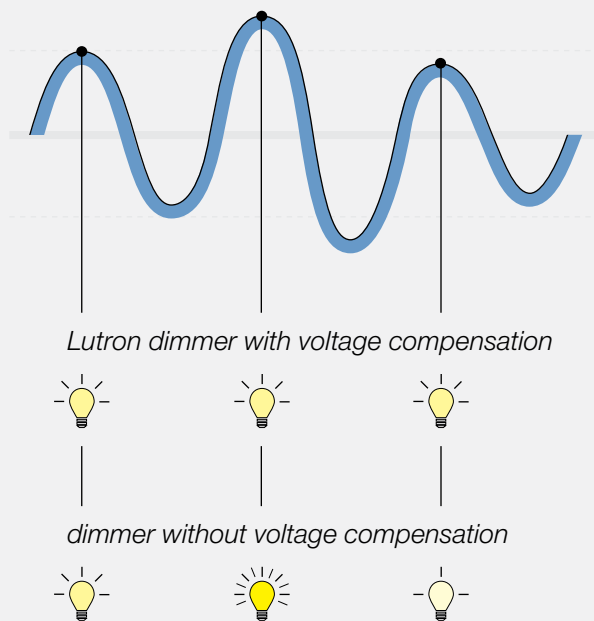


the benefits:

- flicker free dimming through voltage variations caused by elevators, chiller pumps, building load changes or power grid fluctuations



*Notches and Low Frequency Noise:
100 – 5kHz caused by elevators and large industrial loads*



recommended specifications:

Controls shall be solid state, UL listed specifically for each required load, and capable of dimming full rated wattage capacity.

recommended specifications:

Dimmer shall include voltage compensation to stabilize light output from variations in the AC line-voltage. Dimmers in which the light output is not held constant with varying AC line-voltage shall not be acceptable.

lightning strike surge protection

Special circuitry protects the electronics from surges up to 6000 volts and 200 amps.

the benefits:

- protect your dimmer from power surges during a storm or from power surges generated within the building



recommended specifications:

Controls shall meet ANSI/IEEE Std. C62.41-1980, tested to withstand voltage surges of up to 6000 V and current surges of up to 200 A without damage.

electrostatic discharge protection

Designed to withstand the static discharges (static shocks) common in a dry climate.

For example, when you walk across the room in the winter and touch a door knob, another person, or the dimmer.

the benefits:

- protect the electronics within your dimmer from static discharge



recommended specifications:

Controls shall not be susceptible to damage or loss of memory due to 16kVolt static discharges.

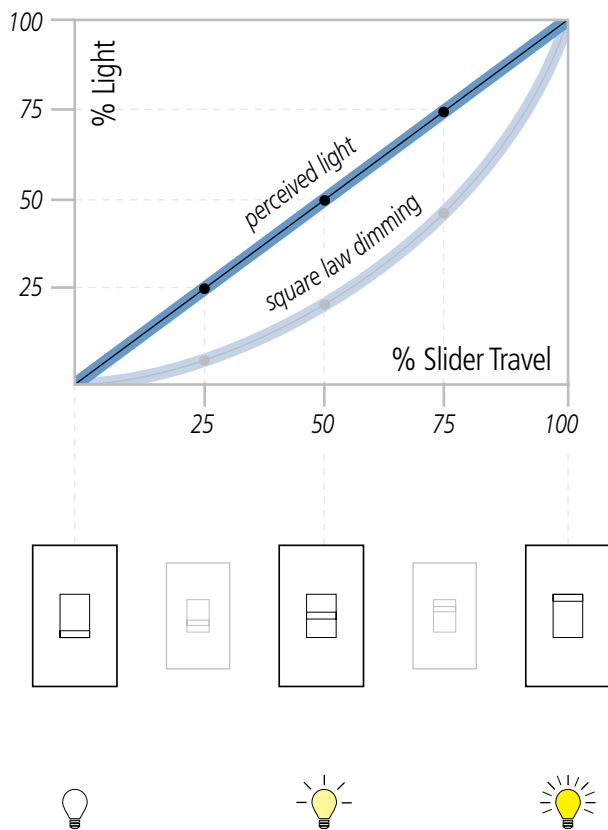
Electrostatic Discharge Protection image courtesy of Harold Ross Photography.

square law dimming

Dimmer output (lighting level) follows the square law power curve.

the benefits:

- slider position matches the user’s perceived light level
- no “dead spots” at top or bottom of the slider travel



recommended specifications:

Dimmer slider position shall indicate perceived light level, using the square law power curve in the IESNA Lighting Handbook, 9th edition.

smooth and continuous dimming

Smooth and continuous lighting control across the dimming range.

the benefits:

- flicker-free continuous lighting control



recommended specifications:

Dimmers shall provide smooth and continuously variable control of light intensity.

air-gap switch

Visible and front accessible mechanism activates a positive air-gap switch to completely disconnect power from the load for service. Style varies for each dimmer family.

the benefits:

- creates a safe condition for changing lamps with no leakage current to the fixture



Maestro® dimmer
with air-gap pulled out

recommended specifications:

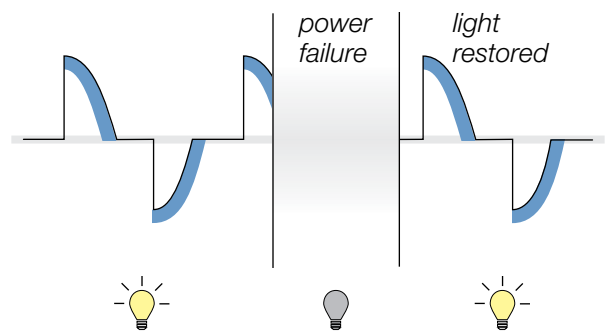
All wall-mounted controls shall have a visible and accessible mechanical air-gap switch to totally disconnect power from the load so that no leakage current shall be present at the fixture(s), from all locations.

power-failure memory

Lights always return to the previous state when power is restored.

the benefits:

- minimizes the inconvenience of power service interruptions
- keeps building lights as you left them when you go away
- safety feature – will not default to “off”



recommended specifications:

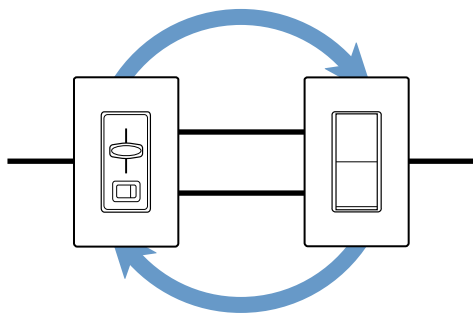
Controls shall incorporate power-failure memory. Should power be interrupted (for up to 10 years) and subsequently returned, the lights will come back on to the same levels set prior to the power interruption. Restoration to “off” or to some other default level is not acceptable.

load-side or line-side

Wire the dimmer into either 3-way switch location.

the benefits:

- select dimmer location independent of the wiring
- swap dimmer/switch location at any time
- simple to retrofit a switch with a dimmer



recommended specifications:

Dimmer shall be capable of operating in either 3-way switch location.

total fluorescent system solutions

Dimmers and dimmable fluorescent ballasts from one manufacturer ensure system compatibility, performance, and support. Dimming ballasts are available for 1%, 5%, and 10% dimming levels.

the benefits:

- ensures fluorescent dimming performance since dimmer and ballasts are designed to work together
- provide single source performance responsibility and technical support



recommended specifications:

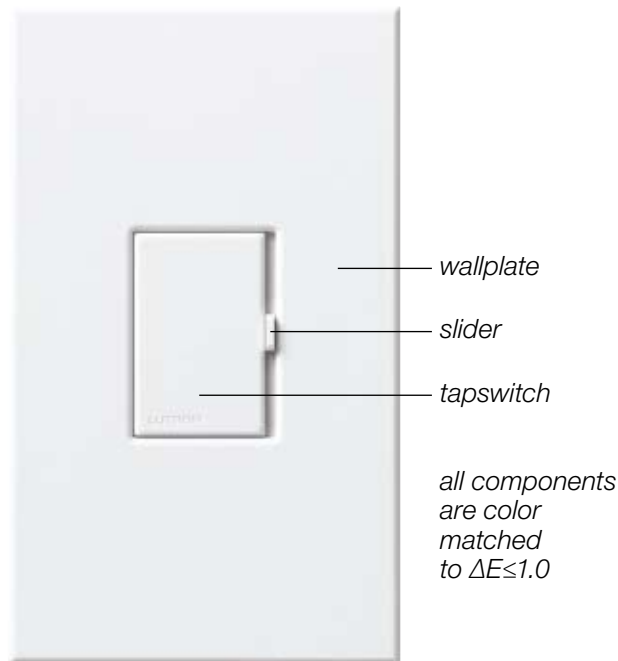
Dimmers and ballasts shall be produced by the same manufacturer to ensure proper ballast/control compatibility.

precise color consistency

Color variations are monitored to ensure that all visible plastic parts have a consistent color.

the benefits:

- all Lutron dimmers, switches, receptacles, and wallplates match across the whole product family
- new dimmers can be added to an existing location with precise color matching



recommended specifications:

To ensure a precise color match between all plastic parts, color variation of any control shall not exceed a ΔE of 1.0, as defined in ASTM E 308-99.

UV stable color

Visible plastic parts do not fade or yellow with prolonged exposure to sunlight.

the benefits:

- durable plastic maintains quality color throughout the product life
- new dimmers can be added to an existing location with precise color matching



recommended specifications:

To ensure colors do not fade or yellow, visible parts of controls or wallplates shall exhibit ultraviolet stability as defined in ASTM D4674-89.

no exposed metal heat fins

Completely enclosed heat sink for an aesthetically pleasing appearance.

the benefits:

- clean and stylish appearance
- no open top/open bottom that allows heated air to collect dust on wall surface



recommended specifications:

Controls shall be thin profile with no exposed heat sink/yoke.

screwless seamless wallplate

Snap on wallplate for a sleek appearance without visible screws, seams, or any mounting hardware.

the benefits:

- clean and stylish appearance
- no visible screws
- no visible mounting hardware
- adapter plate reduces installation time
- available for multiple devices including line voltage and low-voltage (cable TV/telephone jacks)
- see Application Note #213 at www.lutron.com/applicationnotes



recommended specifications:

Wallplates shall provide a continuous, seamless cover with no exposed hardware or screws. Multi-gang wallplates shall include an auto-align adapter plate for proper device alignment.