

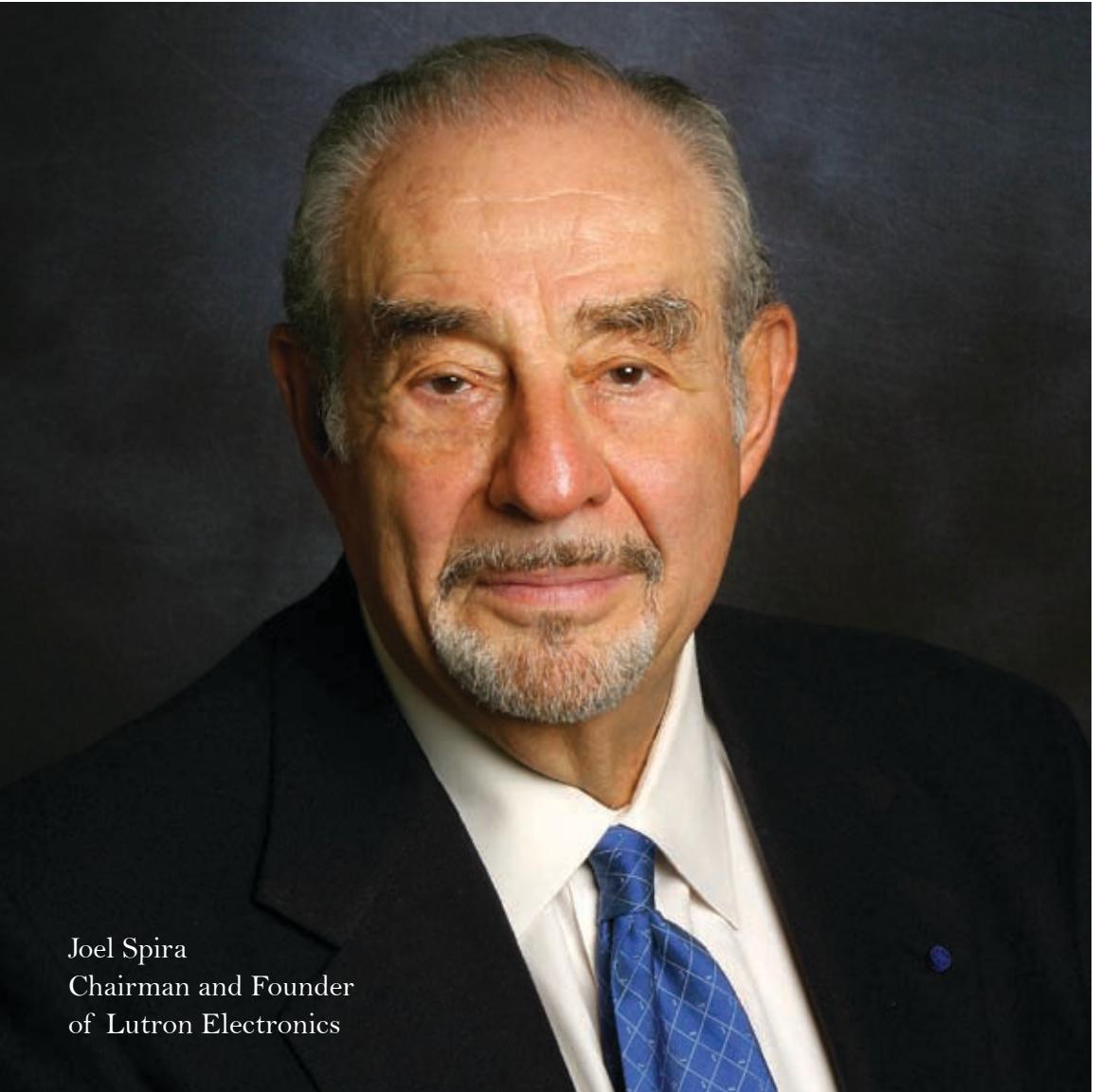


50 years of history and innovation

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Joel Spira
Chairman and Founder
of Lutron Electronics

How the dimmer was invented

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Joel Spira has always been interested in light. He is fascinated by the physics of light, its psychological and emotional effects and the informational characteristics. A number of years ago, someone showed him a solid-state device called a silicon controlled rectifier (SCR), which is the size of a large pea. During World War II in the Navy, he had a device that did the same thing as the SCR for secret radars but was the size of a carton of milk. He was immediately struck by the capability that this new device offered for the control of electrical power. The SCR worked by chopping out a varying portion of the 60-cycle sine wave. It then became apparent to him that you could put this new device in a wallbox for an ordinary switch and thereby dim the ordinary light bulb. Dimming the light bulb could save electrical energy costs. There were dimmers that could dim light bulbs, however they were the size of a breadbox and would not make an item that could be used by many people. It was a combination of technology, the physics of light, the idea of comfort, control and enhancing the home environment that started the whole thing. So he tested out the idea. It worked, he patented this idea and was off to the races.



Capri® dimmer and marketing materials

The original style of dimmer commercialized by Joel Spira in the early 1960s—the Capri.

The original 18" tall, lighted Capri display (below left) features a fully functional dimmer and suggested rooms of use.

The original Capri sales sheet (below right) conveys the benefits of dimming the lights in any room of the home.





Notebook A

Joel Spira's "Notebook A" contains more than 100 pages of drawings, documentation, testing results and photographs, plus interview questions and answers from meetings with trusted advisers.

The earliest entry is dated June of 1958. Of particular interest are pages 5, 12, 15, 19 and 20, for these show the actual physics used to create the Capri® dimmer.





1971 | Nova®

The first linear slide dimmer

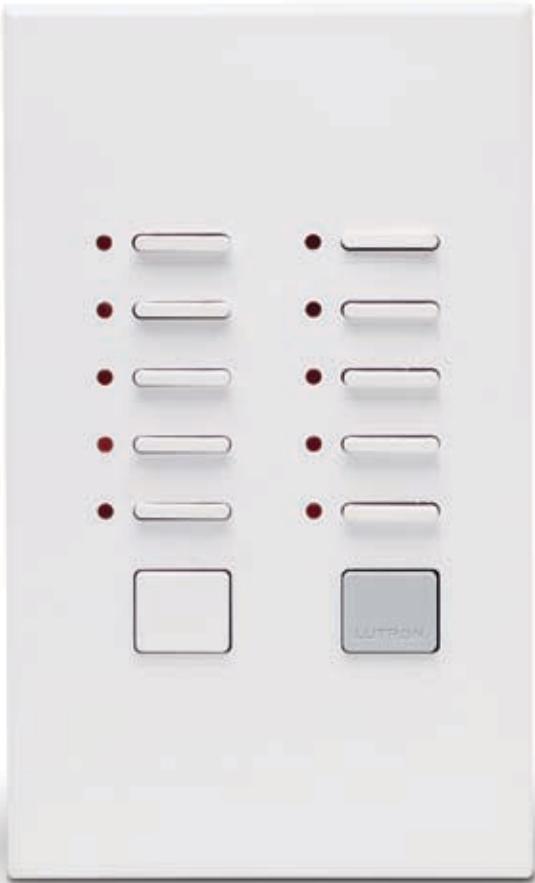
In 1971, Joel Spira introduced America to a new style of architectural dimmer—the Nova linear slide. The rugged Nova dimmer, with its distinct linear slide control, was designed for demanding applications of up to 2000 Watts. The product was so widely accepted that Joel Spira expanded the family of products to include dimmers for all light sources, plus switches and fan controls. Today, the Nova is one of the most recognized and utilized products in the lighting control market.



1989 | RanaX®

The first infrared, remote control dimmer

In 1989, Joel Spira made it simple to control lights from a bed or a favorite chair. The RanaX dimmer gave users the ability to wirelessly (via an infrared remote) turn their lights on, off, or to the perfect light level without leaving their chair or bed. Simply aim the remote at the dimmer's infrared window and the dimmer will instantly respond to your command. The dimmer became popular in both homes and offices. Advanced versions of this product still exist today.



1990 | NeTwork®

The first whole-home lighting control system

The next logical step for Joel Spira was to expand the concept of dimming beyond single light control. The NeTwork system did just that—it “networked” all of a home’s dimmers and switches and let them be controlled both individually and from remote panels. This whole-home lighting control system provided the utmost in convenience for larger homes and estates.

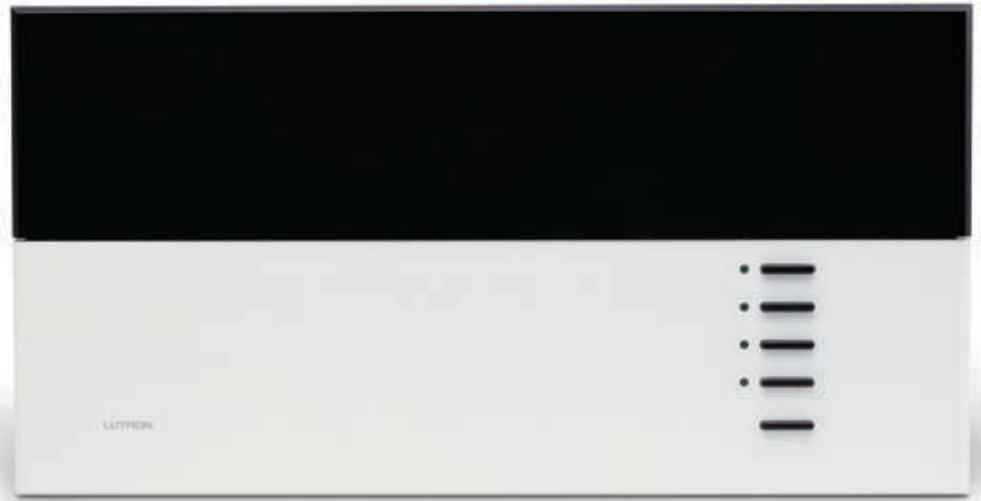
Today, the NeTwork system concept is represented by two whole-home lighting control systems (RadioRA® and HomeWorks®) and the category contributes to a large portion of Lutron’s residential business.

1993 | Serena™

A totally new concept in window shading systems

Serena is a unique motorized window shading system that contains a rolling set of up to four custom fabric shades plus a clear view for each window. Touch a button, and Serena's "smart" microprocessor-controlled system scrolls from shade to shade. Program the control to stop the shades wherever you want to create many dramatic effects.





1993 | GRAFIK Eye®

**The first customizable dimming system
for different light sources**

The GRAFIK Eye single-room lighting control was designed to control every light in a room, including conference rooms, home theaters, auditoriums and restaurants. Press any “scene” button on the GRAFIK Eye unit and the room transforms right before your eyes (a scene is described as a mood or setting). In a home theater, a typical scene button is “Movie.” The Movie button will lower selected lights in the room to enhance the movie-viewing experience.

The GRAFIK Eye was quickly adopted as the lighting control of choice by the architectural and lighting design community. And since its introduction coincided with that of the home theater, the GRAFIK Eye became the standard in home theater design. Today, almost 20 years later, the GRAFIK Eye line of products has grown to include control of automated shading systems and draperies and is synonymous with quality and innovation.

1997 | RadioRA®

The first two-way, radio frequency, whole-home lighting control system

Building on the popularity of the aforementioned NeTwork® system, and its successor, HomeWorks®, the RadioRA whole-home lighting control system opened new doors for homeowners looking to retrofit a lighting control system into an existing home.

RadioRA was hailed as the world's first wireless, radio frequency (RF)-based lighting control system offering 2-way feedback. Using Lutron's reliable, proprietary, RF technology, RadioRA is easily installed in any new or existing home without running new wires or having to rewire altogether. The system was Lutron's first step into the world of RF technology and today, is installed in thousands of homes throughout the world.





2007 | Vieri®

A single-touch lighting control

Representing the very latest in innovation and cutting-edge design, the Vieri single-touch dimmer lets users set the perfect light level with a single touch or slide of the finger. The Vieri dimmer is designed to complement both residential and commercial spaces and is offered with multiple LED and wallplate colors.



2008 | Skylark® eco-dim®

A dimmer that guarantees a minimum of
15% energy savings

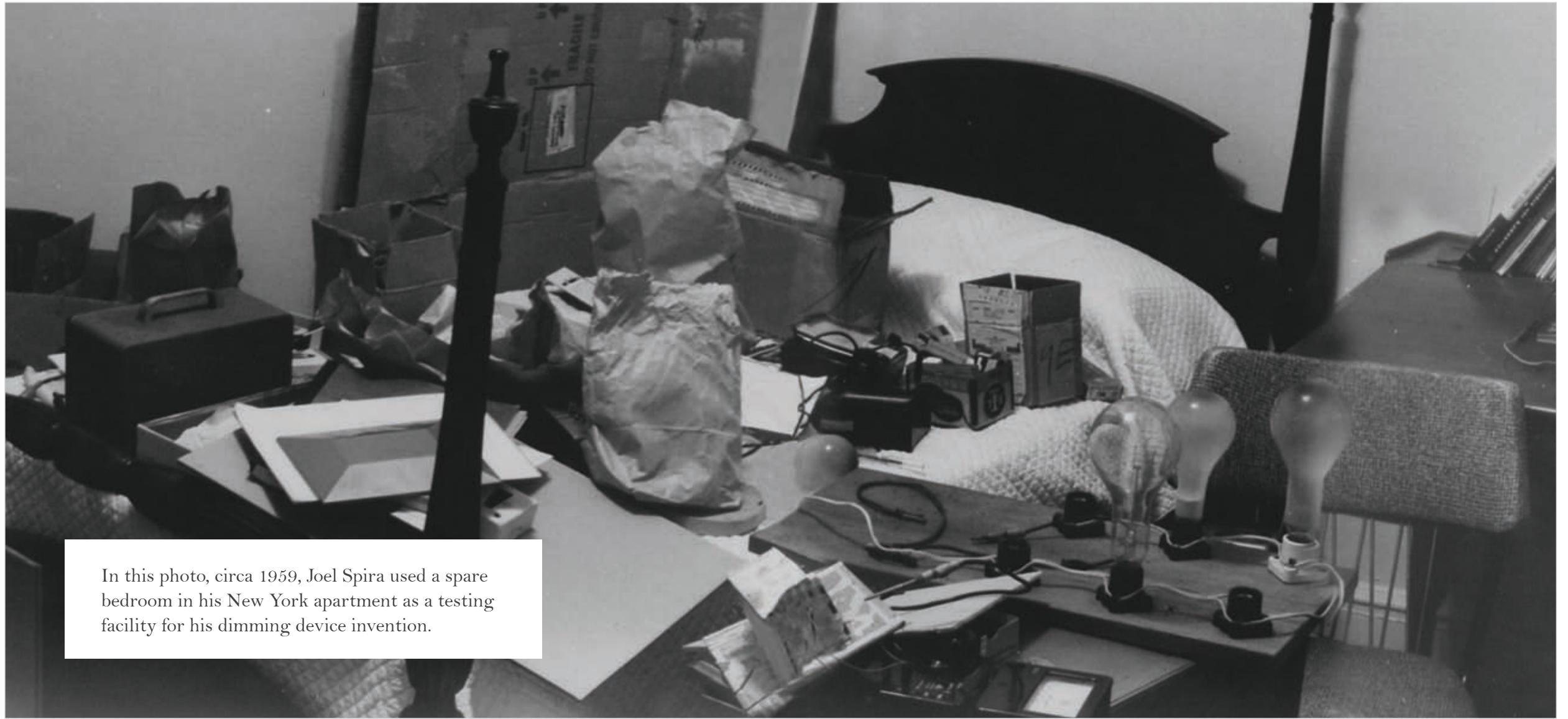
Skylark eco-dim has a maximum light output of 85% brightness instead of 100%, thus saving 15% energy and making the bulb last twice as long. What's even better is that the human eye can barely detect the difference between 100% and 85% brightness, so users need not worry that their lighting will be compromised to save energy.



Historical Photos

These photos represent various stages of construction of the Coopersburg, Pennsylvania campus in 1968.

To this day, every Lutron dimmer is hand-tested to ensure a high level of quality. In these undated photos, circa 1969, line workers build and hand-test a variety of Lutron products.



In this photo, circa 1959, Joel Spira used a spare bedroom in his New York apartment as a testing facility for his dimming device invention.

save
energy
with
Lutron™



®

Save energy with Lutron

- Lutron estimates that each year, its installed products save nearly 10 billion kWh of electricity, or approximately \$1 billion in utility costs. This is roughly the equivalent output of one large coal or nuclear-fired power plant.

By installing two dimmers in place of two standard light switches in every home in the US, the additional potential annual savings could be \$1.2 billion in electricity and close to 25 billion pounds of CO₂—the equivalent to taking more than 2 million cars off the road.

- It is 4 to 22 times more expensive to build generating capacity than it is to conserve energy through the use of dimmers. Lutron estimates that it costs \$0.35 to save a watt of electricity with a dimmer. Published industry estimates suggest that it costs between \$1.40 and \$7.75 to build a watt of electrical generating capacity from coal, wind, nuclear, or solar power.
- Commercially, lighting consumes more energy than any other building system. Lutron's light control systems can conserve 60% or more of the electrical energy normally used for lighting. If all commercial users of electricity were to utilize the energy-saving technology available, the annual savings could be \$30 billion.

