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# Minimize Risk and Maximize Building Performance

Wireless lighting controls enable electrical contractors to grow their business in both new and existing commercial buildings.

In this guide learn about the advantages of wireless light control and why contractors and specifiers are utilizing this innovative solution to stay competitive, maintain profitability, and exceed client's expectations.

# Minimize Risk and Maximize Building Performance



## In a changing contractor market, wireless lighting control solutions minimize risk and maximize building performance.

Today's building owners and facility managers are focused on adding value in every aspect of building performance – increased energy savings, improved operations, and an enhanced working environment for employees. Electrical contractors are increasingly challenged to provide the solutions that make buildings smarter and improve productivity.

Now, more than ever, choosing the right lighting control solution plays a key role in delivering optimum building performance. Electrical contractors have a chance to capitalize on these opportunities by installing wireless solutions for their customers. Wireless saves time, reduces installation and setup cost, and adds flexibility where it's needed most.

Before determining which solution is right for your commercial project consider the following factors that may influence your decision.

### **Skilled labor shortage**

Wireless lighting control can help you deliver a flexible, smart, code-compliant solution – in retrofits or new construction, small offices or entire buildings – faster, within budget, and using the team you already have in place.

### **Changing needs of today's smart buildings**

Scalable solutions ensure that lighting control projects meet the needs of today's buildings, and can be updated and expanded quickly when building use or layout changes. Become an expert, add value and provide flexible solutions that help grow your business and create customers for life.

### **Uncertainty and vague project specifications**

Specifications today have less detail and projects are moving faster than ever before. This environment creates an opportunity for contractors that have the right knowledge and use the right tools to add significant value to their customers and grow their business.

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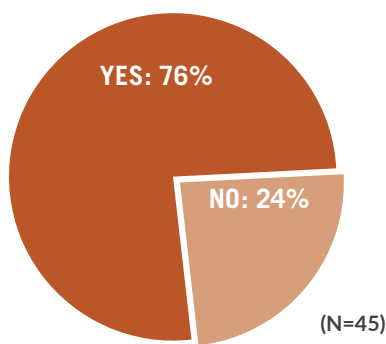
## New Challenges in a Changing Market

Electrical contractors are increasingly asked to do more with less. A shrinking labor market combined with a demand for highly skilled labor means it's harder to hire qualified workers. When it comes to lighting control installations and retrofits, customers are looking for greater functionality and more robust integration, but job details are often vague or

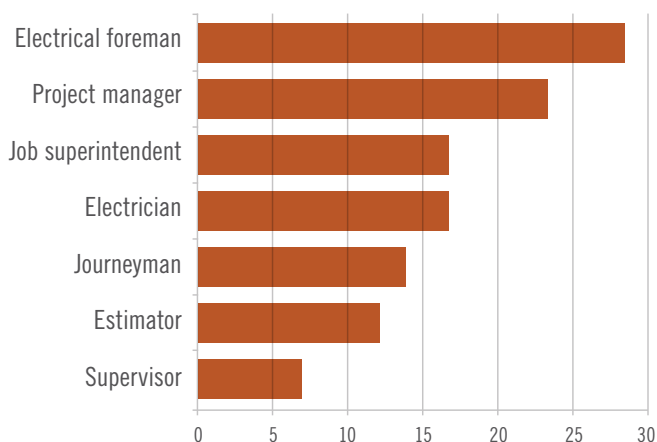
incomplete, and they change frequently throughout the project process. Contractors need solutions that allow them to be flexible and respond quickly to customer changes without added cost. And, finally, electrical codes vary widely from state-to-state, adding to the challenge of selecting and installing code-compliant lighting control solutions.

As a result of all these challenges, contractors are finding it more difficult to estimate, install and setup projects, while still hitting their project estimates and minimizing callbacks that increase labor costs and reduce profits. This can be even especially difficult in lighting retrofits, where the customer is looking to take advantage of smart building systems and the Internet of Things (IoT), but older buildings are not designed to accommodate advanced technologies.

### IS YOUR COMPANY HAVING ISSUES WITH WORKER SHORTAGES?



### POSITIONS TOP 50 CONTRACTORS ARE HAVING THE MOST DIFFICULTY FILLING



## Why Choosing the Right Lighting Control is Important?

In addition to a changing labor market, the lighting industry is very different than it was a decade ago. Energy-efficient LEDs are becoming the predominant light source in commercial buildings, and energy savings is just one aspect of building performance. Lighting control contributes to lower energy use, but a well-chosen solution also delivers superior lighting performance, ensures compliance with updated energy codes, enables better space utilization, and provides the right lighting environment for the people in the space.

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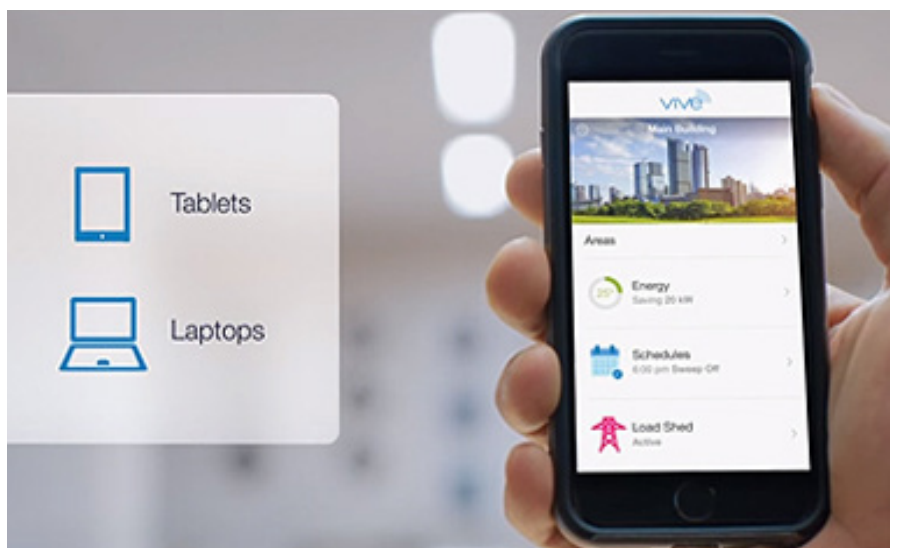
## Lighting the way to an efficient, productive school environment.

Public school districts deal with budget and performance challenges all across the country, but when one district in Edinburg, Texas faced an electrical problem with significant safety implications, it had just weeks to identify and implement a new lighting control solution. To further complicate the situation, controls had to be installed in multiple schools simultaneously, using several different contractors, ultimately providing teachers, staff, and school administrators greater control over classroom lighting.

Because the Vive system was so easy to design and configure, contractors were able to quickly install and program the wireless hubs, and when project requirements changed, components could be easily adjusted and relocated without additional wiring. It was also simple to assign different layers of control based on different space needs, and individual wireless remotes gave teachers in the classroom quick access to lights at the touch of a button.

Wireless control is enhancing the learning environment, saving energy helps redirect funds toward valuable educational programs, and the Vive lighting solution provides tremendous flexibility to adapt over time. [View case study](#)

Lighting control manufacturers can help, and forward-thinking providers are working to develop products and tools that facilitate better system design for both retrofit and new construction, offer solutions that are easier and faster to install, and provide intuitive software to improve space utilization.



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## Why Wireless

### Expand your opportunities

Wireless solutions offer simple, flexible, and scalable options that expand your installation opportunities. Especially in retrofits situations, wireless allows you to deliver projects with virtually no disruption to the existing space.

Colleges and universities are almost always renovating some space on campus, and with classroom space at a premium, contractors need to execute lighting retrofits with minimal disruption to staff and students. Historic buildings, and older construction can add even more complexity, but wireless solutions offer the right mix of products for every space, simplify project bids, and speed installation and programming.



For lighting upgrades, choose a scalable solution that can start small – a single classroom or office space – and expand over time, seamlessly converting from a stand-alone control to a centralized lighting system with the addition of wireless hubs and convenient software compatible with any smart device. In one Pennsylvania college, the facilities team used a centralized, wireless control solution that included daylight sensors, occupancy sensors, and personal control in the renovation of its administrative offices. The entire job, including lighting installation and setup, was complete in less than four days with no impact on productivity. [View case study](#)

### Get more jobs done with your existing team

With simple, wireless components, projects install up to 70% faster than a typical wired job, allowing contractors to reduce labor costs, and win more jobs. That means you can do more jobs, in less time, with your current work force – submit competitive bids, and still maximize profits.

### Faster installation and setup

Whether your project is an open office area, a series of classrooms or a retail space, wireless solutions can make it easy to essentially mix and match components to deliver the right solution in the right space.

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Start with these basic components to provide all the essential system control:

**Load controls** – to control line voltage and enable dimming control. A flexible system lets you choose from wall controls, or ceiling mounted power-paks that communicate wirelessly to control points, so you don't have to run wires from the load controls to each dimmer, switch or sensor.

**Wireless remotes** – provide control wherever your customers need it. With battery powered wireless remotes, you can mount controls on any surface – glass, wallboard, or plaster – with no backbox, and you can provide free standing control on tables, podiums, or workstations. [View video](#)

**Wireless sensors** – able to be positioned and repositioned easily for best results. Battery powered wireless sensors ensure you can save energy without

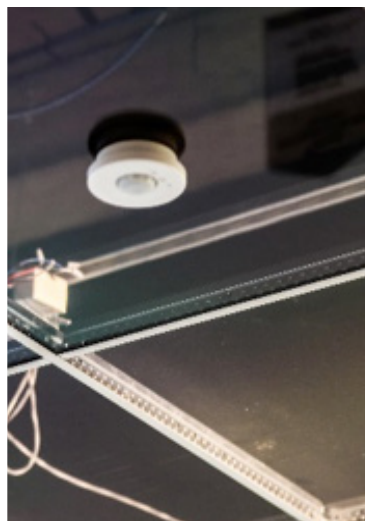
leaving anyone in the dark. With the right wireless sensor it's also easy to change sensor location and setup to accommodate changes in the space. [View video](#)

Adding a wireless hub can take these simple components and scale up to deliver smart, centralized lighting control solutions for spaces up to 10,000 square feet. For spaces larger than 10,000 square feet, the system can easily scale with the installation of multiple hubs.

Wireless hubs and simple software enable advanced functionality such as time clock integration and energy reporting accessible on any smart device. With built-in, step-by-step instructions systems such as the Lutron Vive solution are designed with contractors in mind. With virtually no training or previous experience with the software, contractors and engineers can easily design and implement a fully integrated lighting control solution.



Wired installation



Wireless installation



Wireless remote



Remote profile

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## Smart Buildings Demand Smart Lighting Control Solutions.

In today's competitive real estate environment, buildings need to be more responsive, flexible and smart. Using building system data to monitor and optimize building performance is the expectation. And buildings must operate efficiently 24/7, providing the right light, at the right time for any building occupant.

With smart, integrated control, the system can be accessed from anywhere at any time, improving building efficiency and allowing the facilities team to quickly respond to occupant concerns and requests. Digital control can enhance comfort, sustainability, and energy savings, and can even help achieve requirements for green certifications such as LEED and the WELL building standard.



Most contractors and engineers are familiar with meeting energy codes but as these codes change and individual states adopt their own standards, the specifier's and contractor's responsibility may overlap. To meet energy code, the solution may require increased system functionality. Manufacturers can help by offering products, solutions, and even [online resources](#) that make it easier to meet evolving building codes in any state.

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The Lutron Vive Wireless solution, for example, handles all these situations. Contractors and facilities teams can mix and match system components to deliver exactly the right amount of control for each space, tailor the system to a variety of light sources, and appreciate the convenience of one simple software package for the entire solution – no extra wiring, no complex setup, minimal impact on productivity, and all programming can be accomplished from a convenient smart device app.

By using a simple, scalable system like Vive by Lutron, contractors and facility managers can be confident their installed systems will meet these needs while ensuring the flexibility and scalability that allows systems to be easily updated or modified in line with changing occupant requirements.

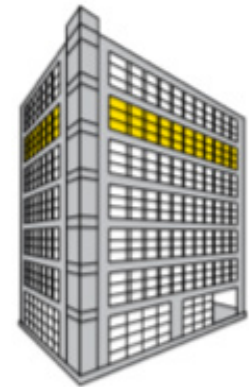
## More efficient space utilization and energy savings

Building owners expect smart solutions that deliver results – from managing a variety of building systems, to providing energy and operational cost reductions, to delivering a more comfortable and flexible learning/working environment. Whether a project is a single room, or an entire floor or building, having the right lighting control framework is critical.

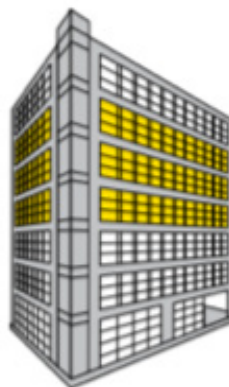
Choose a flexible, scalable solution to provide your customers with systems that deliver occupancy data, improve space utilization, support next-level integration, and meet code requirements such as load shed and receptacle control.



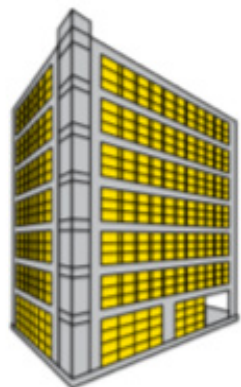
Single office space



Single floor



Multiple floors



Entire building



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## Lighting Retrofits – 5 Tips to Get You Started.

Building construction data estimates that building retrofits are significantly outpacing new construction, with greater than 60% of commercial projects falling into the retrofit category. That percentage is even higher in high population areas. And 50% of all buildings in the U.S were built before 1980 suggesting the retrofit opportunity will continue to expand – renovation is the only way to put these buildings on a path to energy efficiency, and lighting retrofits are always among the most important upgrades. So, where do you start?

**1.** The EC is often tasked with making sure the retrofit complies with energy code – codes vary widely state-to-state, and within municipalities. Your first step is to determine the appropriate building code. Lutron can help with their updated [Code Application Guides](#), available online 24/7. These guides help define the current code in your area, and send you down the right path to control for each type of space in a building.

**2.** Once you know the code, simple design resources can help you deliver the right type of control in each space, and take the guesswork out of lighting control design. Spec typicals target your control solution to established standards, allowing you to deliver a project bid quickly, and with confidence you can meet your budget estimates.

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**3.** Start with a small installation. Lighting control mock-ups, or small jobs, are the perfect opportunity to familiarize yourself with the different capabilities and control options with wireless systems. Start in a small office, classroom, or conference room and work with the customer to understand the type of dimming performance, and level of control they're looking for. This gives you a chance to scale up with very little risk, and establish a good relationship with the facility manager or building owner.

**4.** Expand to meet the needs of the entire project. With wireless control you can start with a stand-alone solution, repeat the same solution over a large area, or install wireless hubs for an integrated control system that enables data capture, offers centralized monitoring and control, and allows the system to easily change and adapt over time.

**5.** Wireless control creates tremendous opportunity for your business, your clients, and your future. Solutions can be fine-tuned easily with no complicated wiring or programming, allow you to be highly responsive to customer needs. Create customers for life, install more jobs in less time, and embrace a wireless lighting control future.

## Hit Original Estimates and Accommodate Customer Changes

Many contractors are seeing project specifications with fewer details up front, but the customer still requires quick, accurate project estimates. This is another clear advantage of wireless control solutions.

With a wired solution, if a customer adds points of control or changes control locations, labor costs go up – sometimes significantly.

Look for a manufacturer that goes beyond the product solution to making the entire process simpler, faster, and easier. Lutron offers a [full suite of resources and tools](#) to help you meet any building performance requirement, simplify code compliance, and ensure

Have you ever seen a specification that says:

“Contractor to determine controls layout based on manufacturer recommendation” or  
“Contractor to ensure design meets all required energy codes including IECC 2015”?

you can offer a solution to meets any budget, making your job easier and more profitable. Application code guides, [specification typicals](#) for most common building spaces, and 24/7 access to online training helps differentiate the wireless solution advantage.

### The wireless advantage

With wireless control, installation time is much lower without additional wiring, cutting drywall, patching, and painting. If the contractor forgets a control location there is no need to drag out the ladder, cut a new hole, and rush to clean up. Wireless control typically takes less than 15 minutes to mount on the wall, and setup with push-button association, or using the simple software on a smart device – no need to cut new wall boxes or pull additional wires.

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## Creating customers for life

This same process helps create customers for life. As building or tenant needs change or expand, smart, wireless control solutions makes it easy to scale up quickly, providing the same functionality the customer has come to expect. And software-based solutions make system updates seamless, future proofing the lighting control system for years to come.

## Selecting the Right Manufacturer

### Design tools and manufacturer support

If all this seems like uncharted territory, look to the manufacturer to simplify the process. Online design tools, installation videos, code compliance guides, and typical room layouts reduce design time and improve accuracy.

A wireless system is generally much simpler to set up than a wired solution, but here, too, the manufacturer can make the difference. A responsible provider understands that projects aren't always completed between 9am and 5pm. Many organizations want electrical and renovation work to be complete when offices are closed to ensure minimum impact on productivity. When you are selecting a control solution, consider manufacturer support, ask about factory technicians ready to help 24/7, and choose a provider committed to helping contractors get the job done with the least impact on the customer.

## Conclusion

Wireless lighting control solutions can go a long way towards maximizing the performance of a building and the building owner's investment. By providing customers with simple, scalable wireless solutions, contractors can speed installation time, accommodate customer changes, and maintain profitability on every job.

**Use online design tools to quickly and accurately design the right solution for every job.** Differentiate yourself with service and speed, and secure more projects at a lower cost.

**Wireless offers flexibility and scalability.** Your customers want solutions that can grow and change with their business, adapt over time, and keep up with changing technology.

**Look for a manufacturer that supports you 24/7.** Jobs don't always end once they're installed. Lutron offers solutions that reduce callback and maximize profits, but they also offer [service and support](#) when and where you need it.

## Want more information?

Learn more about Vive Wireless from Lutron. View a [30-minute webinar](#) on how to design, select, and install wireless solutions for any project.

[Need help with your project?](#)