

Wireless Lighting Control – Simple to Design, Cost effective, and Flexible.

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Building design and construction is in the midst of tremendous change, impacted by pandemic-altered workplace protocols, a skilled labor shortage, and a need for greater flexibility. Wireless lighting control systems are quickly adapting to better accommodate all these needs.

Traditionally, lighting control solutions have been wired, which can be challenging to design and manage. All that wire can be hard to work around, difficult to hide, and expensive. Changes to a system typically involve tearing out walls, pulling new wire, and disrupting workflow.

Today, wireless technology opens up new possibilities in design, and simplifies installation and programming. Wireless lighting control solutions, like Lutron Vive, are catching the attention of building owners, facility managers, and clients alike for their ability to reduce design risk, save time and money, and offer flexible solutions to help you unlock better performance at a lower cost.

Is Wireless Lighting Control Right for Your Projects?

We'll start with an introduction to wireless control, look at key considerations, and walk through a comparison of wired vs. wireless system benefits to help you make the choice.

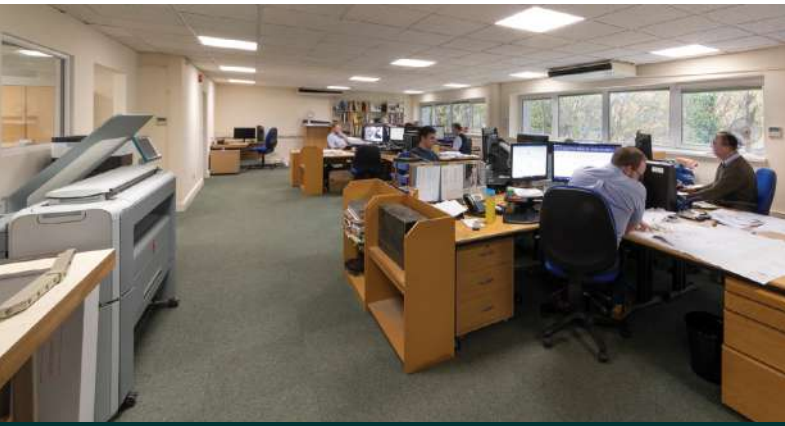
What is Wireless Lighting Control? A typical wired control solution is made up of fixtures, load controllers, sensors, keypads, receptacles and maybe a centralized control hub.

Each device is powered separately with power wires and then controlled with additional control wires.

Wireless solutions include the same devices but with no communication wires, fewer power wires, and less conduit making them easier to design, coordinate, and manage. These keypads, load controllers, receptacles and sensors communicate wirelessly to assure seamless performance at lower cost than a wired equivalent, especially with respect to labor.

And in a wireless system, keypads, sensors, and remotes are often battery powered, further eliminating cost and complexity while expanding the opportunity for installing flexible control wherever it is needed in the space.





Ben Arnold, Project Manager, Benbow Group talks about ease of installation with wireless control, "The installation turned out to be as easy as promised. Until we got the system up and running, I never thought it would be that easy to set up."



Vive wireless simplified installation and setup at Suncrest Bank's flagship branch.

Key Considerations – What to Look for in a Wireless System

Wireless technology is not one size fits all, and neither are wireless systems. Be on the lookout for the following design considerations when you are specifying a lighting control solution.

Reliable, proven communication protocols optimized appropriately for interior applications.

Lutron Vive wireless solutions use a 434MHz quiet frequency band and Lutron Clear Connect RF Technology to ensure seamless communication between system components, smooth operation, and simultaneous system response.

Control flexibility. One of the greatest advantages of a wireless system is the ability to put control where you need it without having to install backboxes or pull new wiring. If an architect makes a last-minute adjustment, or a client has a request, you need to be able to easily make that change. Because Vive uniquely uses wireless remotes as standard controls, you can replace existing wired switches and dimmers, and also add additional points of control anywhere you need them in just minutes. If your wireless system requires backboxes, you're sacrificing flexibility and design freedom.

Look for a manufacturer who offers a wide variety of keypad options – colors, buttons, mounting and engraving options – to suit every client, aesthetic, and performance need.

Simple programming. A system with app-based programming capability can provide on-screen, simple, step-by-step instructions to make the system experience better for everyone. With app-based control, you can make changes in real time, right in the space, and easily reassign keypads and zones to adjust to new space layouts and improve client satisfaction.



Offices, restaurants, classrooms, public spaces, and conference rooms may look very different than they did a few months ago. With the Vive app, reassign fixture and zone setting to accommodate new social distancing layouts, with the flexibility to make additional changes at any time without rewiring or disrupting workflow.

Consistent, reliable product availability. Your system design is only as good as your ability to get product when the customer needs it. Look for a manufacturer who is consistently able to keep products in stock at your local distributor and available when your customer is ready to scale, expand, and take advantage of new technologies, sources and capabilities.

Global support, local expertise. No one likes to take unnecessary risks on their projects. Wireless technology is not new, but with the growing popularity of wireless solutions, you will want to be vigilant in your selection of the system and the manufacturer. You can specify and install Vive Wireless with confidence, knowing that it is both simple to design and easy to install, and is backed by 20 years of wireless expertise.

That said, sometimes you or client need support, and it's likely to happen outside typical work hours. When the customer has a question, needs product or programming support, or has a system emergency, they won't want to wait. Business operates round-the-clock, and your lighting control manufacturer should be too – online, on the phone, or with local technical support teams who can be on site within 24 hours.

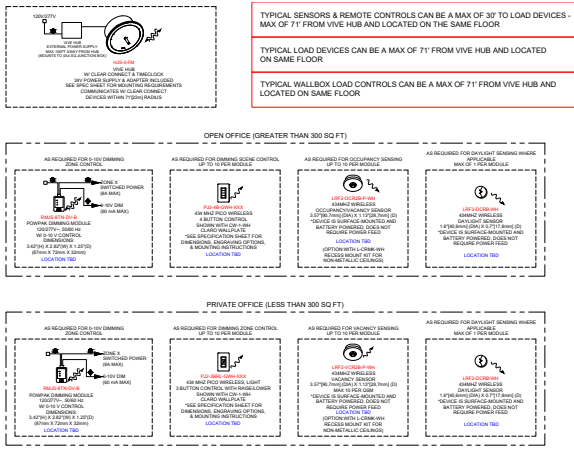
The Benefits of Wired v Wireless

Reduce design risk – The nature of business is more dynamic and unpredictable than at any time in recent history. Wireless lighting systems like Vive are simpler to design than wired control; they offer powerful capability and out-of-the-box code compliance with fewer components, fewer wires, and less complexity.

In a recent retrofit for North Central Bronx Hospital, in-stock product was key to a project that went from start to finish in 18 days. Lutron answered the call with Vive Wireless, a solution that was flexible, easy to install, and, above all, available immediately.

“As a wireless solution, it was easy to design, install, and program, and there was plenty of stock on hand. We got it approved and installed—that’s installation and commissioning—within six days.” ~Keith Ready, New York Lighting Manager for electrical distributor Turtle & Hughes.





Lutron offers up-to-date, online application guides to help you understand how Lutron solutions can help meet or exceed major energy codes. Comprehensive application guides and quick reference guides give you the help you need, whenever you need it. [Learn more](#)

Spec Typical (view larger)

ASHRAE 90.1-2016: Application Summary

Suggested energy code solutions for commercial buildings

This document outlines the suggested energy code solutions for commercial buildings. The solutions are based on the ASHRAE 90.1-2016 energy code. The solutions are based on the ASHRAE 90.1-2016 energy code. The solutions are based on the ASHRAE 90.1-2016 energy code.

Building Type	Medium	Classroom	Commercial	Office	Library	Classroom	Office	Classroom	Office	Classroom	Office	Classroom	Office	Classroom	Office	Classroom	Office	Classroom	Office
Medium Office	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Classroom	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Office	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Classroom	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Office	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

ASHRAE 90.1-2016 (view larger)

You want a robust system that requires fewer upfront design decisions and coordination, but that allows clients greater ability to accommodate changes down the road. Quickly design a solution that works for today but can easily adapt as time moves forward. New controls can be added, zones can be changed, and sensors can be moved with no drama, no wiring, and no back boxes.

Save time and money – When it comes to your next project, there never seems to be enough time for design, installation, programming, or tweaking the system to personal preferences. Compared to wired systems, wireless can help you get more done in less time and add value for your clients.

Because wireless solutions have fewer system components, they are simple to design and deploy. There is less wire to pull, fewer connections to make, and with app-based set up, guided step-by-step, instructions make the process frictionless.



Flexible and scalable to help build customers for life. With a wireless solution, your system can start small, expand easily, and adapt over time adding capability as required. Adapt spaces quickly as needs change. With one button press control lighting remotely with the app, enable BACnet and API integrations (e.g. occupancy sensing for HVAC), or incorporate open ADR for demand response requirements.

System flexibility goes beyond the control to freedom of design. The right control system won't lock you into a fixture manufacturer, or limit fixture choice. Wireless can give you the freedom to meet the changing needs of your client and your space.

Like wired, wireless is a proven technology. A common misconception is that wireless is a new technology. In fact, wireless is a time-tested, field-proven technology, and companies like Lutron Electronics have millions of wireless systems installed and working in the field for more than 20 years. By choosing the right wireless solution you can simplify design, reduce material costs, expand lighting control capabilities on your projects, and provide better service and support for your customers.



[View Wireless Controls Video](#)

Wireless Control for the Entire Property



Control outdoor fixtures and interior lighting from the same manufacturer. The Lutron Limelight wireless system controls outdoor lighting and extends the benefits of wireless control to outdoor fixtures. One simple example is the new [Limelight Twist-Lock Radio Daylight Module](#), which makes it simple to add intelligent, wireless control to outdoor lighting applications.

The module allows control of pole-style luminaires across a wide variety of manufacturers, in new or retrofit applications. The Twist-Lock Module works with any 0-10V electronic LED driver to enhance outdoor fixtures with smart control, enabling daylighting, scheduling, remote monitoring and more.



It mounts to any standard ANSI C136.41 compliant dimming receptacle on outdoor fixtures in parking lots, pathways, and flood lighting applications. Simply plug-in and twist into the socket on the fixture – the light is now ready to be added to a Limelight system for added security, enhanced energy savings, and improved system management. Enable simple management of all the lights inside and outside your facility. Limelight allows you to connect your outdoor lighting to your indoor systems using Lutron control solutions.

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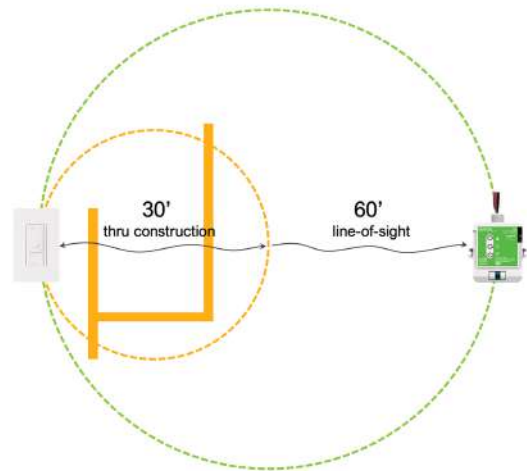
Photo © Halkin Mason Photography

Installation and programming is faster and less costly. Even your designs are impacted by skilled labor shortages and the recent pandemic. Economic constraints, local and regional work rules, unanticipated supply chain disruptions, and unusual schedule constraints can have significant impact on any project.

There has never been a better time to design and deploy wireless lighting control. Wireless installs up to 70% faster than wired systems, manufacturer start up is not required, and with less time necessary to run wire, program and deal with callbacks, it's easier to contain client costs.

STILL NOT SURE?

Wireless is simple, but it's very smart. Your wireless solution can offer all the capability you count on from wired solutions, and it's easier to deploy - dimming, timeclock integration, occupancy and daylight sensing, remote programming, energy monitoring, demand response and load shed, as well as BACnet integration are all options that should be considered in your choice of wireless solutions.



Reliable wireless communications have a long range – up to 60 feet between devices.

Centralized control and app-based programming from your smart device ensure that it offers even greater capability than most wired solutions.

Batteries are long lasting. Some customers express concern about battery powered controls, but with Vive, for example, batteries have a 10-year, 3rd party-verified life. System alerts give you ample warning if a battery is close to end-of-life, and Lutron controls use standard, easily accessible batteries.

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Wireless control is reliable, secure, and it works as you expect it to. Choose your wireless system for its proven performance in the field, and commitment to security. Vive wireless designed to be secure from the ground up, and it can live on its own network without needing to be connected to the internet. The system works on an uncrowded communications frequency (434MHz) to ensure clear communication, offers warranties compatible to or better than wired solutions, and enables alerts that let you know if a problem is brewing before it causes concerns for your client.



Thousands of customers rely on wireless solutions, and they have for years.
– We're happy to let them speak for themselves.

At North Central Bronx Hospital, the recent coronavirus pandemic bore down on New York City, and time was of the essence. The hospital needed to completely reorganize several floors quickly to prepare for taking care of many new patients. With Vive Wireless in stock and ready to go, the team was able to design, order, install and setup five floors in just 18 days.

[Read Article](#)

Your customers count on you for innovative solutions that save them time, money, and aggravation while ensuring they are providing a comfortable environment for employees, visitors, and their own clients. If you haven't been using wireless controls, now is the time to consider proven, forward-thinking, time-saving solutions that will add value to your specifications and help create customers for life.



Want more information?

Learn more about simple, scalable, code compliant [Vive wireless solutions](#) from Lutron.

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