Smart landscaping

By McKenna Corson

**2022 SMART LED LAMP
COMPARISON CHARTS**

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Landscape lighting pros break down features and infrastructure for low-voltage smart LED lamps.

As holidays and special occasions begin and end, landscape lighting contractors spend significant time boxing and unboxing that event's outdoor lighting. But instead of having to repeat the putting up and taking down of themed or seasonal lighting, what if the same lights could be used for flashy Christmas displays and cozy outdoor dinners?

Relatively new to the lighting market as we know them today, low-voltage smart LED lamps carry brand-new options for landscape lighting professionals and customers simply through a mobile device.

"Before smart lamps, all we really had were lightbulbs that were made to just turn on and off," says Rick Baird, national sales manager, landscape division, of Vista Professional Outdoor Lighting, Simi Valley, California. "Now, with the advent of smart, connected technology, you're only limited by your own imagination."

Features

Before a contractor or landscape lighting professional starts an outdoor smart LED lamp installation, it's vital they know what these lamps can do.

"Smart lamps are just as their name states: smart," Baird says. "By their design, smart lamps can be programmed individually or as a group to perform certain and specific functions."

Smart lamps generally have an accompanying app that facilitates a connection between the lamps and a mobile phone or tablet. Depending on a smart lamp's type and brand, the app allows the user to create activation schedules, select colors out of 16 million different RGB variations, tune white light through color temperature, modify dimness or brightness, create lighting zones, and schedule programming sequences. If a property's power shuts off, certain smart LED lamps have solid state memory, meaning the lamps will remember their last program.

Shane Mikkelsen, vice president of sales for Brilliance LED, Phoenix, adds that smart LED lamps offer greater efficiency over halogen lamp options. Additionally, dependent on the lamp's make and model, many smart LED lamps can be integrated with most existing fixtures.

"This minimizes the cost to the property owner while allowing the system to be converted to a smart landscape lighting system," Mikkelsen says.

Wi-Fi-connected smart LED lamps need a reliable internet network with a strong enough signal. They respond to input from the manufacturer's app downloaded to a mobile device. Photos: Brilliance LED

Wi-Fi vs. Bluetooth connectivity

For smart lamps to work, they require specific planning, infrastructure and installation.

Smart LED lamps fall into two wireless communication and connectivity methods: Bluetooth or Wi-Fi. Selecting the proper lamp or lamps for an installation is heavily dependent on the customer's lighting desires, property type and size, and connection strength, says James Cervantes, product manager, lighting controls, for FX Luminaire, San Marcos, California.

"Selecting the wrong wireless communication method will cause the product to perform poorly or not perform at all," Cervantes says. "Site planning is key to a successful smart product installation."

Wi-Fi-connected lamps require a modem, router, internet network, strong enough Wi-Fi signal to reach the lamps and the lamp manufacturer's app downloaded onto a mobile device.

Bluetooth- or otherwise-connected lamps require a smart device and the lamp manufacturer's app downloaded onto that device.

While Wi-Fi-connected lamps require more components to work, users can adjust their smart LED lamps via their mobile device from anywhere in the world. Bluetooth-connected lamps are limited to the user's proximity to their smart LED lamps.

For large sites, Cervantes says Wi-Fi connectivity is probably the best option. However, it's vital that landscape lighting pros focus on each lamp's distance from the Wi-Fi signal and the number of additional devices using the internet network.

Baird advises that because most residential Wi-Fi networks are geared for interior use, lighting designers/installers should conduct an audit both inside and outside of the home. The designer/installer will also need to know the modem and router that will be utilized on the project.

"The ideal network today consists of the modem, a mesh network with the router and then multiple internet access points strategically placed throughout the residence," Baird says. "In larger homes and more extensive exterior landscapes, outdoor/exterior access points may be required to make the system work."

Don't forget details

There are many factors that go into landscape installations of smart LED lamps, so it can be simple for a contractor to accidentally forget an important detail.
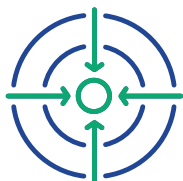
Brian Qualls, business development manager for Unique Lighting Systems, Riverside, California, reminds contractors that not every bulb in a lighting system needs to be a smart bulb.

"(Smart LED lamps) can be combined with regular LED bulbs for areas of the yard that don't need that much adjustability," Qualls says.

Additionally, Qualls advises contractors to consider the time required to properly program each lamp and tune them to the correct color and brightness.

Rick Baird, national sales manager, landscape division, of Vista Professional Outdoor Lighting, Simi Valley, California, emphasizes how easy it is to assume a property has adequate Wi-Fi signal everywhere it's planned to place a smart LED lamp. However, once the design has been crafted to best illuminate an outdoor space, fixture/smart lamp locations are fixed.

"You cannot move a smart lamp closer to the home for better Wi-Fi connections; instead, you have to bring the Wi-Fi connections out in the landscape to each smart lamp location," Baird says. "This is often easier said than done, but it can be made to work in almost every situation."

Focus on feature areas with GREAT VIEWPOINTS to make the BIGGEST IMPACTS with CHANGING COLORS.

For smaller properties, Bluetooth might be the way to go, says Brian Qualls, business development manager for Unique Lighting Systems, Riverside, California.

Qualls adds that, by design, Bluetooth signals are not very strong. Depending on the situation, those with smart LED lamps may need to be close to the fixture to make changes.

> **Knowing how smart products work will help give you a strong awareness of how and where this product will perform best and provide owners with the best recommendation for their landscape."** – Shane Mikkelsen, Brilliance LED

"Think about a Bluetooth speaker; when I walk into another room with my phone, the signal is garbled or lost," Qualls says. "The same communication technology is in our lamps. The further away, the weaker the signal."

Selecting the right lamp

After deciding what method of connectivity and communication works best for a project, it's time to figure out what smart LED lamp type should be used and where.

In order to start the design and installation process, it's tantamount that a landscape lighting professional or contractor is well-versed in smart products, says Mikkelsen. This means reviewing product information provided by manufacturers, as well as understanding the practical interaction with all smart products. Certain smart LED lamp manufacturers offer webinars or in-person training that break down their smart products and installation processes.

"Knowing how smart products work will help give you a strong awareness of how and where this product will perform best and provide owners with the best recommendation for their landscape," Mikkelsen says. "… This also minimizes installation time and return calls, and it allows you time to cover how to use the product and smart app with the property owner in advance."

Pat Bradshaw, director of Nite Time Décor, Irving, Texas, says that because some smart LED lamps operate with the same Kelvin ranges and colors, outdoor lighting professionals just need to focus on lumens and wattages.

"You need 3 to 8 watts, 200 to 650 lumens and beam spread from 40 to 120 to 360 degrees," Bradshaw says. "A bipin lamp for path or area lights, MR16 for your spots and wash lights, or PAR36 for wells and flood lights."

Qualls emphasizes that lamp types depend on the project type.

"Focus more on feature areas or areas with great viewpoints to select the lamps that will produce the biggest impact by changing colors," Qualls says.

Once the proper lamps are selected, smart LED lamps are installed physically in the same manner as other drop-in replacement lamps. Each lamp must be programmed and adjusted individually at the initial installation.

A promising future

Smart LED lamps carry myriad benefits for customers, allowing them to customize just about every aspect of their lighting system.

It's due to smart LED lamps' versatility that Bradshaw sees a growing need for these cutting-edge lighting systems.

"Today's customers want to play and entertain, have the ability to create a color scheme for any occasion, highlight an object while enjoying the power of controlling lights whenever they want, any way they want," Bradshaw says.

But smart lamps also come with notable positives for landscape lighting professionals and contractors.

"Offering a smart lamp or smart control system allows contractors to diversify their product offerings," says Cervantes. "In some cases, it can set them apart from competitors since they are able to offer a wide range of products." ✸

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Depending on the smart lamp's type and brand, an app can provide control over activation schedules and a wide variety of RGB variations to fit any event or holiday. Photos: The Decor Group

2022 SMART LED LAMP COMPARISON CHARTS

Editor's note: Information presented in these charts was provided by manufacturers. Please contact the manufacturer directly for more details.

To download a copy of these comparison charts, go to irrigationandlighting.org/smartLEDcharts2022.

Manufacturer	Model name	Watt-age	Lumens	Beam spread (in degrees)	Kelvin	Color	Input Voltage	Color rendering index	Ingress protection	Lamp life (hours)	Wi-Fi range	Connected apps
Brilliance LED	Chameleon G4 bipin	2.5	190-250	360	2,200-5,700	RGBW	8-18 VAC/DC	80	65	50,000	2.4 GHz	Brilliance Smart App, Google Assistant, Amazon Alexa
Brilliance LED	Chameleon MR16	6	328-441	38	2,200-5,700	RGBW	11-18 VAC/DC	80	61	50,000	2.4 GHz	Brilliance Smart App, Google Assistant, Amazon Alexa
Brilliance LED	Chameleon PAR36	9	442-686	15, 30, 60	2,200-5,700	RGBW	8-25 VAC/DC	80	67	50,000	2.4 GHz	Brilliance Smart App, Google Assistant, Amazon Alexa
Décor Smart	DS-RGBMR16L-A	6	200-650	120	2,000-7,500	RGBW	10.8-15 VAC/DC	90	64	50,000	N/A	Décor Smart App
Décor Smart	DS-RGBMR16SMSW-A	5.5	200-600	45	2,000-7,500	RGBW	10.8-18 VAC/DC	90	64	50,000	N/A	Décor Smart App
Décor Smart	DS-RGBPAR36-A	7.5	200-650	120	2,000-7,500	RGBW	10.8-15 VAC/DC	90	64	50,000	N/A	Décor Smart App
Décor Smart	DS-RGBBIPIN	3	200-450	360	2,000-7,500	RGBW	10.8-15 VAC/DC	90	64	50,000	N/A	Décor Smart App
FX Luminaire	NP	11	172	35	N/A	RGBW	11-15 VAC	80+	65	55,000	2.4 GHz	Luxor App, Lutron, Crestron, Control4, Savant, URC, Amazon Alexa
FX Luminaire	PM	11	74	N/A (Path Light)	N/A	RGBW	11-15 VAC	80+	65	55,000	2.4 GHz	Luxor App, Lutron, Crestron, Control4, Savant, URC, Amazon Alexa
FX Luminaire	LC	11	192	35	N/A	RGBW	11-15 VAC	80+	65	55,000	2.4 GHz	Luxor App, Lutron, Crestron, Control4, Savant, URC, Amazon Alexa
FX Luminaire	NL	11	174	35	N/A	RGBW	11-15 VAC	80+	66/67	55,000	2.4 GHz	Luxor App, Lutron, Crestron, Control4, Savant, URC, Amazon Alexa
FX Luminaire	LF	11	34	N/A (Wall Light)	N/A	RGBW	11-15 VAC	80+	65	55,000	2.4 GHz	Luxor App, Lutron, Crestron, Control4, Savant, URC, Amazon Alexa
Unique Lighting Systems	LED10W-AP6F-RGB30	10	800	40	3000	RGBW	10-18 VAC	80	67	40,000	Bluetooth	Vivid Unique Lighting System
Unique Lighting Systems	LED10W-AP6F-RGB27	10	800	40	2700	RGBW	10-18 VAC	80	67	40,000	Bluetooth	Vivid Unique Lighting System
Unique Lighting Systems	LED-5W-BM6F-RGB27	5	410	40	2700	RGBW	10-15 VAC	80	20	25,000	Bluetooth	Vivid Unique Lighting System
Unique Lighting Systems	LED-5W-BM6F-RGB30	5	410	40	3000	RGBW	10-15 VAC	80	20	25,000	Bluetooth	Vivid Unique Lighting System
Vista Professional Outdoor Lighting	Wifi RGB MR16	6	300-400	38	2,200-5,700	RGBCW	11-18 VAC/DC	>80	61	50,000	2.4 GHz	Vistapro Smart App, Google Assistant, Amazon Alexa

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