

iBeacon in Lunera Smart Lamps

iBeacon is Apple's implementation of Bluetooth Low-Energy (BLE) wireless technology for location transmitters. These are small, unobtrusive devices, typically battery-powered, and capable of transmitting a "location code" (referred to as Major/Minor Number) using BLE protocol (2.4GHz).

While an iBeacon solution is lightweight and flexible, if these devices are deployed on their own, they do have some overhead issues:

- **Deploying iBeacons is Difficult.** Not only is finding many inconspicuous locations tricky, there's also the time-consuming job of having to install and program each iBeacon separately.
- **Maintenance and Upgrades Are Harder.** The task of periodically replacing batteries requires a technician to go from iBeacon to iBeacon replacing any malfunctioning units. This process needs to be repeated when changing parameters or deploying security updates. And this solution also requires establishing a new process for re-charging, storing and ultimately disposing of all the batteries.
- **Securing iBeacons is a Problem.** iBeacons require constant location management: Is every iBeacon in their place? Has an iBeacon accidentally (or maliciously) been moved to a different location? Or are there any rogue iBeacons lurking somewhere in the building?
- **The Solution Can Be Expensive.** Managing all these iBeacons (and the mesh network behind them) comes with significant labor and network management software costs.
- **iBeacons are Easily Blocked.** Beacon signals are often obstructed by physical objects.
- **Scalability is an Issue.** Whether the use is wayfinding, proximity services, personalized experience or asset tracking—maximizing the value of a solution requires a pervasive deployment (i.e. many, many iBeacons).

iBeacons Built-in are Better

But with Lunera Smart Lamps, deploying iBeacons doesn't have any of these headaches—each lamp comes with an iBeacon device built right into it.

Because Lunera Smart Lamps are always powered-on, there's no need to worry about batteries. They are also fixed-in, so securing the iBeacons is never an issue. Every iBeacon is managed with the same software that manages the lamps, so no additional expensive management software is needed.

And, because they can be unobtrusively installed at a very high density anywhere in a building, Lunera Smart Lamps are also the easiest way to maximize any iBeacon deployment.

About Lunera

Lunera is an IoT infrastructure company that delivers simple, affordable and valuable networked command and control solutions for commercial and industrial buildings through lighting.

Our Smart Lighting Platform of connected LED lamps and cloud-based software applications, is a universal IoT gateway infrastructure, enabling indoor GPS and real-time location-based services while, delivering coordinated energy management of lighting, HVAC and plug loads throughout a facility. Built on open standard, the platform is highly scalable. A robust set of applications are available in the expanding, cloud-based Lunera Applications Marketplace.

Lunera is redefining traditional LED lighting to catalyze change and realize a vision for location/context aware ambient computing at the edge.

<https://www.lunera.com/smart-lighting-platform>