



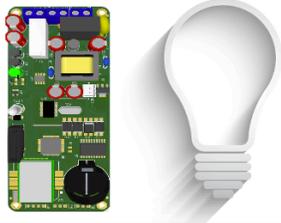
IoT Applications for Smart Business

Smart Lighting by IoT83: Global lighting accounts for over 20% of all electricity consumption. The benefits of LED Smart Lighting have been clearly demonstrated for both business operations cost management and for environmental conservation. Smart Lighting is also playing a big role in Smart City deployment due to the significant savings that can be realized. To help meet the demand for efficient Smart Lighting solutions **IoT83** has developed the **LUX83** application to streamline the path for businesses, operators, and city to build, deploy and manage Smart Lighting Solutions.

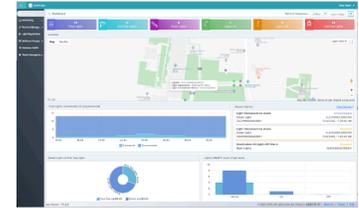
For All Smart Lighting Applications:
Residential, Business, or City Lights.



The **SmartLUX83** Controller
Provides LoRa Connectivity
and Smart Lighting Control



The **SmartLUX83** Software
Provides Full Lighting
Visibility and Management



The **LUX83** solution is elegant in its simplicity:

- The solution uses a smart light controller that wirelessly connects using the low-power and long-range LoRa protocol to a LoRa gateway, and then connects to the **LUX83** Application.
- The Application Software provides all the functionality needed to monitor the health and status of communications and the lighting system itself and enables multiple sets of rules and conditions to set how the lighting system should operate via application dashboards.
- Sensors local to the lighting system components, including those provided on the **LUX83** controller are used to trigger the desired Smart Lighting behavior. Personnel presence, ambient natural light, time of day or week, or other sensors or rules can be employed.
- The energy consumption of the lighting system is also monitored using the **LUX83** energy monitor and operators can optimize this by modifying the Smart Lighting Policies.
- The **LUX83** system automatically alerts operators in the event of any type of fault.

SmartLUX83 is highly versatile and works for all Smart Lighting.



With **LUX83** and "Smart Switching" up to **35% savings** can be realized with traditional lamps and up to **65%** with LED systems and the benefits to carbon emissions follow. Maintenance, manpower and repair costs also fall due to proactive monitoring and management. And, personnel benefit from a more natural light like experience and will be **more productive**.



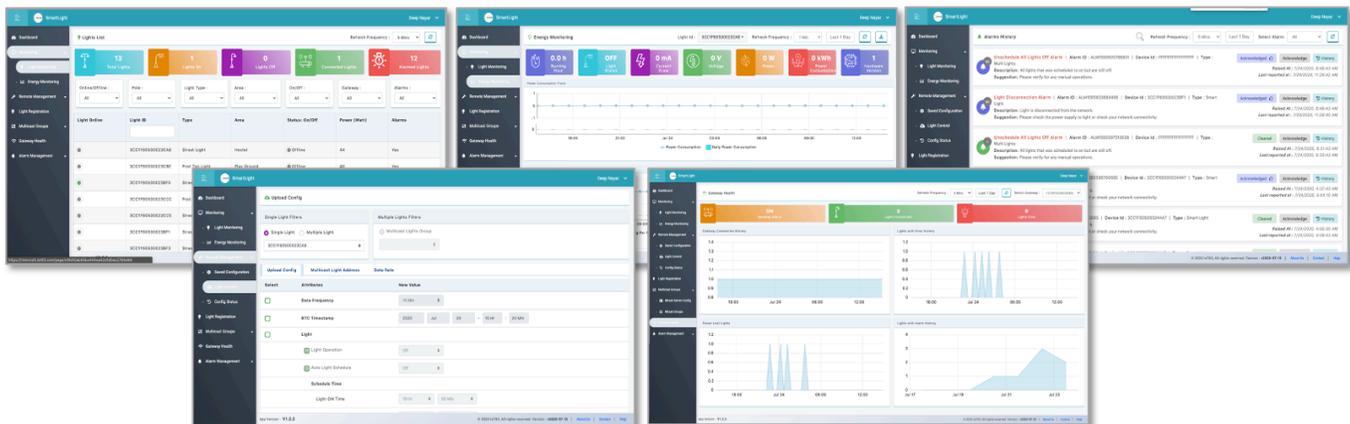
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LUX83 Lighting Controller Specifications and Details:

Controller Elements	Specification Details
Device Communication	LoRaWAN
Input Voltage	85-265 VAC 50/60Hz (Normal Power Grid Single Phase)
Power Consumption	<2W
Control	0-5 V (Digital ON/OFF), Relay Output
Electrical Protection	Overload, Short Circuit, Over Current/Voltage protection and monitoring
Electrical Safety	Isolation between high voltage & low voltage terminals
Product Mounting	Inside luminaire
IP Protection	Since it is mounted in luminaire depends on luminaire's IP rating
Antenna	Internal Helical Antenna
Certification	Self-certified CE
Safety Mode	Auto cut-off in case of short circuit/over current/under current condition. Lamps goes to full brightness in case of network failure
Real Time Clock	Real Time Clock (RTC) and calendar with an integrated Temperature Compensated Crystal (Xtal) Oscillator (TCXO) and a 32.768 kHz quartz crystal optimized for very high accuracy

For most Smart Lighting applications, the **LUX83** Application Software is run as a SaaS (Software as a Service) solution managed by **IoT83** with license cost governed by the number of Lights, Light Clusters, or Smart Lighting tenants being managed. However, the solution has been designed such that it can be operated separately for larger deployments in private or public cloud environments and can even be hosted as an on-premise appliance.

The highly versatile **LUX83** controller Application Software all of the features, tools, and capabilities needed to efficiently deploy and manage Smart Lighting applications.



Let the **LUX83** solution streamline your path to build, deploy and manage Smart Lighting Solutions, lower your operational costs, and improve your energy consumption profile.