NX DISTRIBUTED™ INTELLIGENCE

The Next Generation of Lighting Control

NX

NX DISTRIBUTED™ INTELLIGENCE

One Lighting Control Platform for a Connected World

Hubbell Control Solutions' NX Distributed Intelligence™ platform delivers a seamless interior and exterior lighting control solution. NX manages projects from a single room, to entire buildings and multi-location properties. NX offers complete flexibility in project design by offering both wired and wireless options, with a common user interface.

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Multiple Solutions, One Platform

NX Distributed Intelligence™ lighting control platform utilizes a Distributed Network Architecture (DNA) that connects intelligent devices including luminaires, controllers, panels, occupancy sensors, photocells, wall switches and dimmers, creating a system with an unmatched level of intelligence, simplicity, scalability and versatility.

Truly Distributed
The Hubbell Control Solutions NX Distributed Intelligence lighting control platform is the first of its kind to utilize a distributed network architecture (DNA) which provides users with unmatched system reliability, scalability and simplicity.

Simple
NX provides nearly unlimited lighting control design possibilities and easily self-configures, automatically meeting energy code requirements as devices are connected.
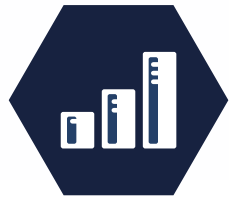
Scalable
The NX platform is designed to scale from a single standalone room to a complete networked building with a comprehensive portfolio of panel, room-based and in-fixture controllers, sensors and user interfaces as well as support for Building Automation Systems.
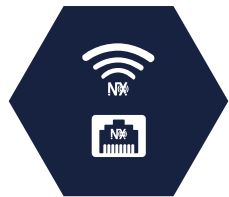
Versatile
NX supports indoor and outdoor applications, wired, wireless and hybrid networked lighting control deployments, and enables emerging applications such as Hubbell Lighting's SpectraSync™ color tuning technology.

Scalable Solutions for Today and Tomorrow

NX portfolio of compatible products provides the flexibility to easily scale from a single fixture to a complete building using a broad selection of multi-tiered control strategies.

In-Fixture Control

- Luminaire-integrated design
- Out-of-the-box operation
- User-friendly controlHUBB Bluetooth® mobile application

Room Control

- Easy plug-in installation
- SmartPORT™ auto-configuration
- Adaptive energy efficient operation

Networked Building Control

- Networked solution
- Control and monitor software
- Integration with BAS

NX Delivers Solutions for Any Space or Budget

NX Distributed Intelligence™ platform offers lighting control solutions for virtually any application. Whether indoor or outdoor, wired or wireless, the distributed nature of the NX architecture provides cost-effective and flexible solutions that meet energy codes, maximize energy savings and simplify building operations.

▷ **Indoor**

    ▶ **Commercial**

    ▶ **Education**

    ▶ **Healthcare**

    ▶ **Hospitality**

    ▶ **Industrial**

    ▶ **Retail**

▷ **Outdoor**

    ▶ **Parking & Site**

    ▶ **Building Exterior**

    ▶ **Walkways**

Commercial

- Standalone or networked device and room level controls
- Plug and play vacancy control meets energy codes
- Open and closed loop daylight harvesting options

Education

- Accommodate special classroom lighting control requirements
- Programmed continuous color tuning when combined with SpectraSync™ enabled luminaires
- Single or multi-zone daylight harvesting

Healthcare

- Meet complex switching requirements for patient rooms
- Integration with low voltage bed controls
- Continuous dimming and color tuning options

Hospitality

- Continuous dimming and color tuning of LED luminaires
- Manual, scheduled, and preset scene activated dimming options
- Dim to Warm LED luminaire control is ideal for dining applications

Industrial

- Integrated fixture controls simplify deployment
- Accommodates high mounting heights found in warehouse and manufacturing applications
- Wireless mesh capability enables networking and building wide integration

Parking and Site

- Easily meet outdoor lighting code requirements
- Integrated fixture controls for dual-level motion based control
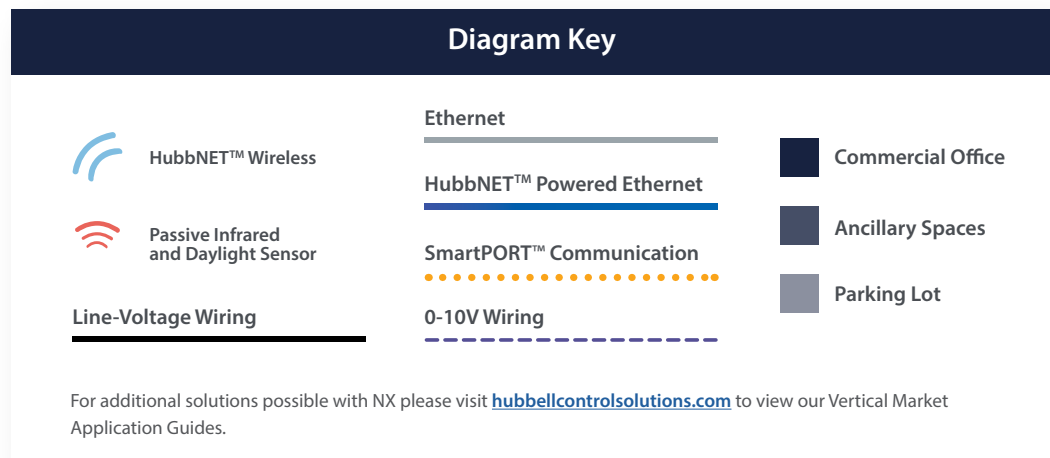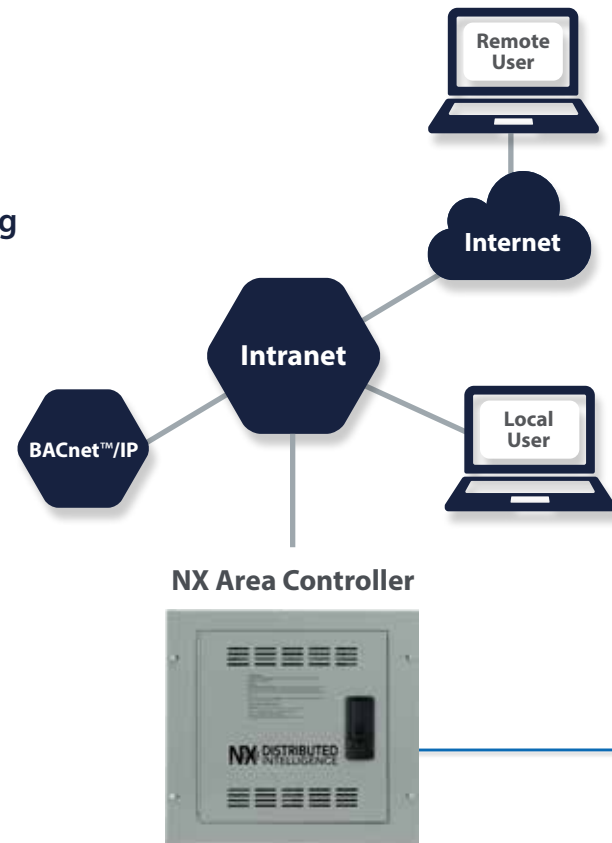- Integrated scheduling options with wireless programming

Retail

- Lighting control panel solutions offer centralized maintenance
- Flexible schedule based control aligns well with retail requirements
- Scheduling offset from "open/close" time for easy changes

Intelligence is in our DNA

NX utilizes a Distributed Network Architecture (DNA), which enables programming to be stored at the device level. Unlike other platforms, NX's fully distributed design means that each intelligent control can function independently all the way down to the room, fixture and device level. This revolutionary approach to lighting control provides a truly intelligent system that eliminates operational dependencies on software, gateways and servers. Today, many other lighting control systems are dependent on and responsive to higher level controllers in the system architecture.

▷ **Intelligent Solutions**
System architecture built on DNA delivers reliable operation with adaptive code compliant solutions

▷ **Intuitive Setup and Commissioning**
Ease of implementation with automatic self-configuration feature and mobile App tool

▷ **Versatile Platform**
Multiple deployment options support wired, wireless and hybrid networked applications

▷ **Scalable Architecture**
Scales to accommodate a single fixture to large scale enterprise networked facilities

Remote User

Internet

Intranet

BACnet™/IP

Local User

NX Area Controller

NX DISTRIBUTED INTELLIGENCE

Diagram Key

HubbNET™ Wireless	Ethernet	■ Commercial Office
Passive Infrared and Daylight Sensor	HubbNET™ Powered Ethernet	■ Ancillary Spaces
Line-Voltage Wiring	SmartPORT™ Communication	■ Parking Lot
	0-10V Wiring	

For additional solutions possible with NX please visit hubbellcontrolsolutions.com to view our Vertical Market Application Guides.

NX Network Bridge

NX Network Bridge

controlHUBB App (Bluetooth)

NX Radio Module

LCAT Troffer   LCAT Troffer

NX Specialty Switch

Wireless In-Fixture Control - Open Office

NX Network Bridge

controlHUBB App (Bluetooth)

LTGR Troffer   LTGR Troffer   LTR-6RD   LTR-6RD

NX Specialty Switch   NX Specialty Switch

Hybrid In-Fixture Control - Cafeteria

NX Network Bridge

NX Network Bridge

controlHUBB App (Bluetooth)

NX Daylight Sensor   NX Room Controller

NX OMNI Occupancy Sensor   NX SimpleTouch™ Touchscreen   MODx 3L

Wired Room Control - Conference Room

NX Network Bridge

controlHUBB App (Bluetooth)

LTR-6SQD   LTR-6SQD

NXSMP OMNI

NX SimpleTouch™ Touchscreen

Wired In-Fixture Control - Private Office

NX Network Bridge

NX Network Bridge

controlHUBB App (Bluetooth)

NX Radio Module

Large Viper   Large Viper

Wireless On-Fixture Control - Parking Lot

NX Network Bridge

controlHUBB App (Bluetooth)

NX Radio Module

Drive Edge-Lit   Drive Edge-Lit

Wireless In-Fixture Control - Parking Garage

Loading Dock
Atrium
Stock Room
Landscape

NX Lighting Control Panel

Panel Solutions

Complete Suite of Products

NX Distributed Intelligence™ offers a broad portfolio of controllers, network devices, panels, sensors, and interfaces under one platform to address new construction and retrofit applications.

In-Fixture Controls

In-Fixture Control Modules
- On / Off control and two channel dimming
- Suitable for indoor and outdoor applications
- Wireless programming

In-Fixture Sensor Modules
- Luminaire-integrated design reduces complexity and design time
- Out-of-the-box operation to meet code and simplify installation
- Bluetooth® enabled sensors available in five versions to address occupancy and daylight dimming

NX Radio Modules
- Provide HubbNET™ wireless network communication
- Robust and reliable IEEE 802.15.4 2.4GHz radio
- Remote, in-fixture and on-fixture mounting options

Accessories
- Provide dual RJ45 ports for Cat5 daisy-chain connections
- Offer dual, mini SmartPORT™ connections for In-Fixture modules
- Simple attachment to luminaires

Room Controls

Room Controllers
- Intelligent auto-configuration with devices
- Automatic code compliance
- Cat5 plug and play connectivity
- UL924 emergency solutions

Occupancy Sensors
- Embedded IntelliDAPT™ self-adaptive technology
- Passive Infrared, Ultrasonic and Dual Technology versions
- Occupancy or vacancy mode with up to 2000 sq. ft. coverage area

Daylight Sensors
- Open-loop daylighting controls
- Supports up to 6 lighting zones per room
- Simple setup using the NX mobile App

Interfaces
- Allow third party interfaces
- Support A/V, Dry Contacts and HVAC options
- Enables Bluetooth commissioning with Real Time Clock option

Networked Building Controls

Area Controllers
- Central component for enterprise solutions
- Real-time programming and monitoring
- Native BACnet™ support

Network Bridge
- Connect Room Controllers to HubbNET network
- Provide communication link for Area Controllers
- Cat5 plug and play connectivity

Network Accessories
- Enable connection of additional NX devices
- Provide network connections and power to NX accessories
- Mount to standard DIN rail

Lighting Control Panels
- Meets applicable ASHRAE, IECC and Title 24 energy codes and requirements
- Operates as a standalone panel or NX network device
- Available in 8, 16, 24, 32 and 48 relay versions

These are the key components. For a full list of NX products please visit **hubbellcontrolsolutions.com**.

Simple Setup and Control

NX offers several user interface options, each optimized for a variety of use cases.

controlHUBB
The controlHUBB app provides Bluetooth® wireless setup and configuration of NX Room Control devices and luminaires equipped with an NX In-Fixture module with smart sensor. The mobile app is available in Android™ and iOS® versions for free download from Google Play™ or Apple® stores.

◄ IntelliSCOPE™
IntelliSCOPE provides a unique and powerful tool for calibrating and testing NX In-Fixture smart sensors. Motion captured by the sensor is displayed in real time relative to the current sensitivity setting making precise calibration possible without the need for repetitive "test mode" trial and error calibration.

Wall Switch Stations
Single and multi-button wall switch stations are available in specialty pre-configured and programmable smart versions. Both offer a self-configuration feature that automatically configures the wall switch stations to perform the logical control and code compliant sequence of operation. All NX wall switch stations can be used with Room Controllers, Panels, or In-Fixture Modules in either standalone or networked applications.

◄ NX SimpleTouch™ Graphic Wall Station
The NX SimpleTouch Graphic Wall Station provides the ultimate in multi-function operation in a compact single gang package. The NX SimpleTouch graphic wall station provides an intuitive and configurable user control for switching, dimming, color tuning using SpectraSync™ technology and activation of groups and presets.

Area Controller
The NX Area Controller is the central component in an enterprise or building networked system. The interface is web browser based and does not require the installation of any software. A native BACnet™ interface facilitates a standard TCP/IP connection providing monitoring and control of lighting by the Building Automation System.

NX Enabled Lighting Portfolio

NX Distributed Intelligence™ enables Hubbell's portfolio of commercial, industrial and architectural luminaires to further reduce energy consumption and total cost of ownership for simple to complex control environments.

This provides you the breadth and flexibility to address all your project requirements today and in the future.

Architectural Indoor

MODx 3L

Commercial Indoor

Liteistry™

Versify™

Peloton™

Architectural & Commercial Outdoor

Ouro™

For a complete list of luminaires with integrated NX options please visit **hubbellcontrolsolutions.com**

SpectraClean™ 254 Control System for Upper Air Disinfection

SpectraClean 254 luminaire systems may include a digital control system to provide assurance that the UVC germicidal operates as intended in various applications without interfering with occupants in the space. With NX Distributed Intelligence™, the existing lighting control system has the ability to operate both upper air disinfection and visual lighting from a single system. Using embedded SpectraClean 254 functionality within NX, the system can be programmed from the controlHUBB mobile app to operate the germicidal lighting in a variety of modes for upper air disinfection.

Scheduled SpectraClean 254

With Scheduled UVC, set times can be defined for the SpectraClean 254 system to operate if the space is unoccupied. Any occupancy can force the UVC lighting to turn off while allowing visual lighting to remain on.

Prescribed SpectraClean 254

Specified daily dosage can be set for a scheduled period using Prescribed UVC. Once the prescribed dosage is achieved the UVC lighting will turn off. Any occupancy can force the UVC lighting to turn off while allowing visual lighting to remain on.

Post Occupancy SpectraClean 254

The system can be programmed through the Post Occupancy UVC to run the UVC lighting for a short period every time a space becomes unoccupied. Any occupancy can force the UVC lighting to turn off while allowing visual lighting to remain on.

controlHUBB

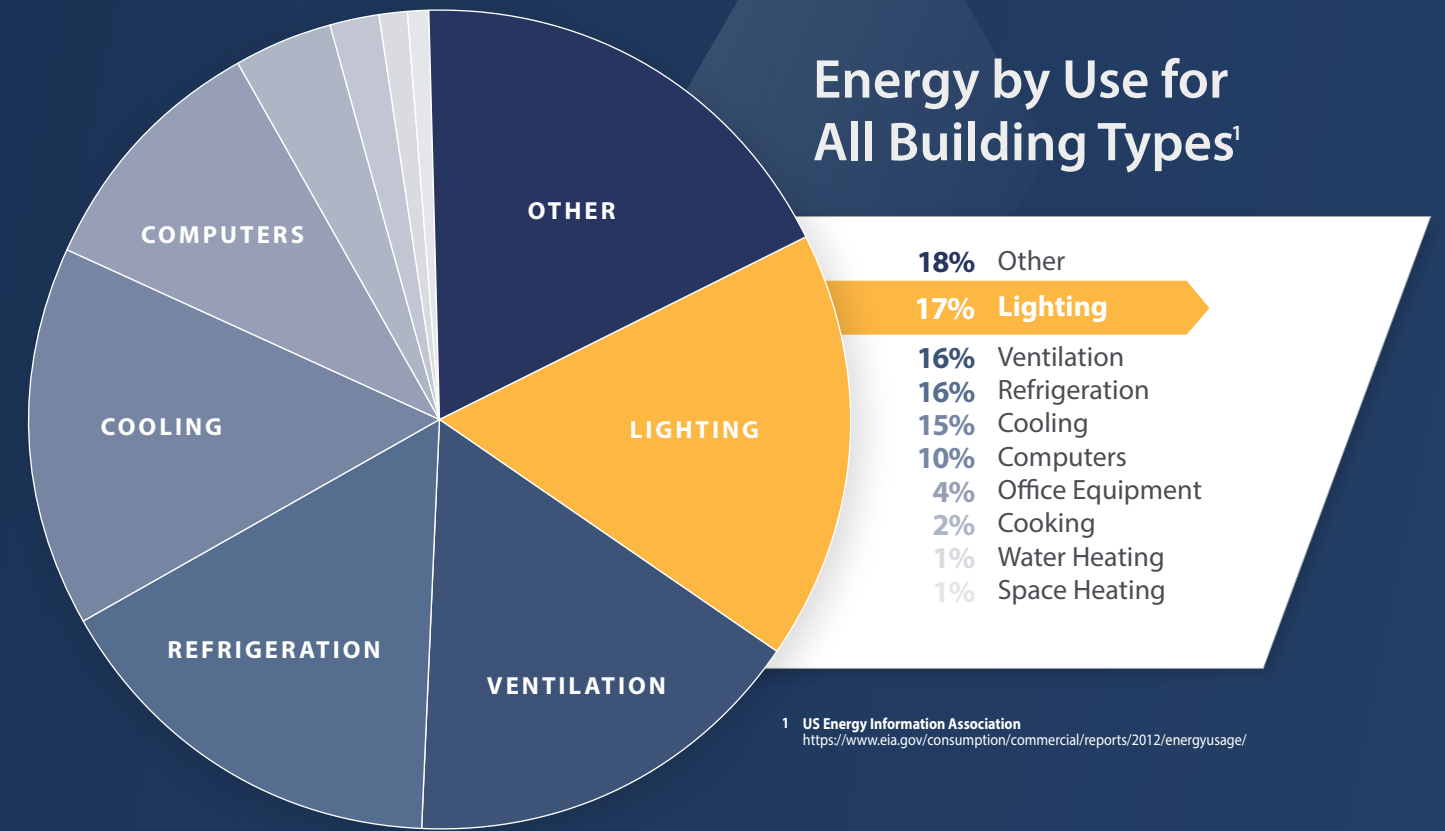Download on the App Store

GET IT ON Google Play

Energy Savings and the Building Environment

Lighting comprises 17% of the total energy consumption in a building. While commercial lighting energy use continues to decline as a result of increased LED lighting efficacy and more stringent energy codes, there are still opportunities for energy savings. For example, additional savings can be seen through controlling plug loads and the deployment of dimmable LED luminaires controlled with occupancy or daylight sensors.

Additional HVAC Savings

Native BACnet™ Integration with Building Management Systems (BMS) allows an exchange of occupancy and daylight information to help manage energy strategies and promote additional energy efficiency improvements through other building systems, such as HVAC. Integrating lighting control equipment through BACnet has the added benefit of reducing the initial equipment cost, reducing wall and ceiling clutter by eliminating the need for duplicate sensors and leveraging Hubbell Controls Solutions advanced sensor technology. Enabling BMS control of dimmable LED luminaires may represent an additional point of control which reduces the overall thermal load within a conditioned space.

Energy by Use for All Building Types[1]

18%	Other
17%	**Lighting**
16%	Ventilation
16%	Refrigeration
15%	Cooling
10%	Computers
4%	Office Equipment
2%	Cooking
1%	Water Heating
1%	Space Heating

1   **US Energy Information Association**
https://www.eia.gov/consumption/commercial/reports/2012/energyusage/

Standards & Code

ENERGY CODES   NX SCALABLE SOLUTIONS
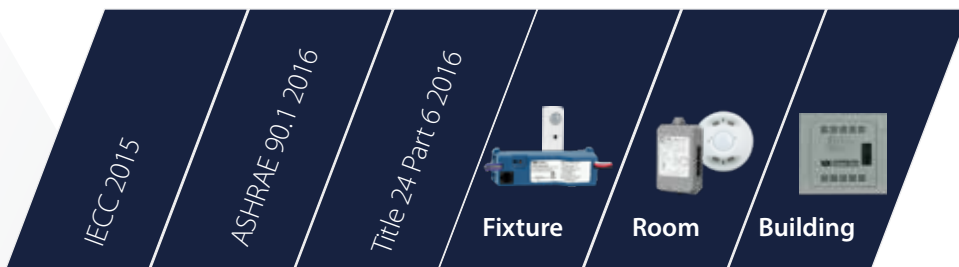
	IECC 2015	ASHRAE 90.1 2016	Title 24 Part 6 2016	Fixture	Room	Building
INDOOR						
High End Trim				✓	✓	✓
Local Control	C405.2.2.3	9.4.1.1 (a)	130.1 (a)	✓	✓	✓
Multi Level Control	C405.2.2.2	9.4.1.1 (b)	130.1 (b)	✓	✓	✓
Scheduling	C405.2.2.1	9.4.1.1 (i)	130.1 (c) 4	✓	✓	✓
Occupancy Sensor Full OFF	C405.2.1.1	9.4.1.1 (h)	130.1 (c) 6	✓	✓	✓
Occupancy Senor Partial ON	C405.2.1.1	9.4.1.1 (c)	130.1 (c) 5	✓	✓	✓
Occupancy Sensor Partial OFF	C405.2.1.2	9.4.1.1 (g)	130.1 (c) 6	✓	✓	✓
Continuous Daylighting	C405.2.3	9.4.1.1 (e)	130.1 (d)	✓	✓	✓
Plug Load Control		8.4.2	130.5 (d)	✗	✓	✓
Demand Response			130.1 (e)	Contact Closure	Contact Closure	BACnet™
BMS Integration				Contact Closure	Contact Closure	BACnet
OUTDOOR						
Astronomical Timeclock	C405.2.5(2)	9.4.1.4 (b)	C405.2.2.3	✓		✓
Setback	C405.2.5(3)	9.4.1.4 (d)	C405.2.2.3	✓		✓
Daylight OFF	C405.2.5(1)	9.4.1.4 (a)	C405.2.2.3	✓		✓
Demand Response				Contact Closure		BACnet
BMS Integration				Contact Closure		BACnet

Code Compliance at Every Level of Scalability

From a single standalone fixture solution to a complete networked building approach, NX can maximize energy savings and meet or exceed today's energy code requirements.

HIGH END TRIM

High End Trim - An artificial maximum light output set below actual maximum light output for each space

CONTROLS

Local Control - Manual lighting controls that control all the lights in that space and requires human intervention

Multi-level control - Providing additional light levels in a space beyond Full ON and Full OFF

Plug Load Control - Automatically turns off designated receptacles in response to all occupants leaving the space or time of day

SCHEDULING/ TIMECLOCK

Scheduling - Controls light levels based on facility schedule

Astronomical Timeclock - Controls light levels based on sunrise/sunset and project location

SETBACK

Setback - Automatically turns lights down to a reduced level after all occupants leave the area

CONTINUOUS DAYLIGHTING

Continuous Daylighting - Automatically turns lights down to a reduced level or off based on the amount of daylight present in a space

Daylight OFF - Automatically turns the lights off based on the amount of daylight

DEMAND RESPONSE

Demand Response - A defined temporary reduction of lighting load or load shedding in response to a request from an energy authority such as a utility or regional transmission operator

BMS INTEGRATION

BMS Integration - The data exchange for control and monitoring from a facilities Building Management System or Energy Management System using a common protocol such as BACnet™

OCCUPANCY SENSING

Full OFF - Automatically turns the lights off within a set period of time after all occupants leave the space

Partial ON - Automatically turns lights on to a reduced level between full on and full off when occupants enter the space

Partial OFF - Automatically turns lights down to a reduced level between full on and full off after all occupants leave the space

16 HUBBELL CONTROL SOLUTIONS   HUBBELLCONTROLSOLUTIONS.COM 17

Comprehensive Support Options to Meet Project Needs

Phone and Online Support

While it is our goal to provide you with intelligent, simple and scalable control solutions, customer experience level and project complexity may necessitate additional support during the design development, construction and post-occupancy stages of a project.

The Hubbell Control Solutions support team is available for consultation to evaluate multiple control scenarios to identify the ideal lighting control device or system to meet energy code requirement and customer criteria. Additionally, our team of friendly and experienced professionals is enabled to assist on-site personnel, such as installation contractors, third party integrators, certified field technicians and facilities personnel, to quickly resolve issues and provide additional support.

Design Services

Our team of lighting control system design professionals are available to provide sensor layouts, networked system design services and third party integration support for new and retrofit projects. Our goal is to provide you with on-time and accurate delivery of design deliverables optimized for your specific application, compliant with local building codes and project specifications.

For additional resources and tools please visit hubbellcontrolsolutions.com

On-site Support

Hubbell Control Solutions offers on-site support service to ensure your project goes smoothly. While Hubbell Control Solutions products are designed with simplicity in mind, some projects may benefit from a Certified Field Technician to perform an on-site pre-installation walk-through, after-hours and remote startup assistance, occupant training, sensor tuning, preset programming and other pre/post-occupancy services.

Warranty

Hubbell Lighting provides a 5-year limited warranty for LED luminaires and Hubbell Control Solutions devices.

HUBBELL

FIELD SERVICE ENGINEER

HUBBELL®
Control Solutions

HUBBELL
5 YEAR
WARRANTY

Technical Service Center:
(800) 888-8006

NX.
DISTRIBUTED™
INTELLIGENCE

HUBBELL Lighting

ARCHITECTURAL AREA LIGHTING

BEACON PRODUCTS

COLUMBIA LIGHTING

COMPASS

DUAL-LITE

HUBBELL CONTROL SOLUTIONS

HUBBELL INDUSTRIAL LIGHTING

HUBBELL OUTDOOR LIGHTING

KIM LIGHTING

KURT VERSEN

LITECONTROL

PRESCOLITE

WHITEWAY

HUBBELL Control Solutions

701 Millennium Blvd. Greenville, SC 29607
Tel 864.678.1000
www.hubbelllighting.com

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