

createchange®

MARKET APPLICATION GUIDE

HUBBELL®
Lighting



Createchange® Lighting & Control Solutions

Whether you are completing a retrofit, upgrading an inefficient lighting system or starting from the beginning, Hubbell Lighting's LED product solutions help you maximize your energy savings by enhancing the quality of light, reducing maintenance and providing safety and security with solutions for industrial, commercial and institutional market spaces. With a full controls portfolio, Hubbell Control Solutions provides scalable solutions that work seamlessly into any size application for additional energy savings and improved operating efficiency.

Createchange Market Application Guide identifies some of Hubbell's lighting and control solutions that target specific applications within individual market spaces and shows their attractive energy savings. Featured products are coupled with successful Hubbell Lighting case studies that show actual results of lighting systems in applicable market applications. The online Market Payback Analysis Calculator and additional online tools as well as our Cash Flow Positive financing program, provide you with additional resources and tools to help maximize energy savings in your space.

TABLE OF CONTENTS

Controls.....	4-9
Complete Solutions.....	4
Code Compliance.....	5
NX Distributed Intelligence™.....	6-7
wiSCAPE®.....	8
Sensors.....	9
Industrial.....	10-17
Food & Beverage.....	11
Manufacturing.....	12-13
Warehouse.....	14-15
Harsh & Hazardous.....	16-17
Commercial.....	18-25
Office Building.....	19
Retail.....	20-21
Hospitality.....	22-23
Automotive.....	24-25
Institutional.....	26-29
Healthcare.....	27
Education.....	28-29
Life Safety.....	30-31
Life Safety.....	31
Resources.....	32-33
LSC.....	32
Compare in the Air.....	32
DLX.....	33
CashFlow+.....	33
Notes.....	34-35



CONTROLS



INDUSTRIAL



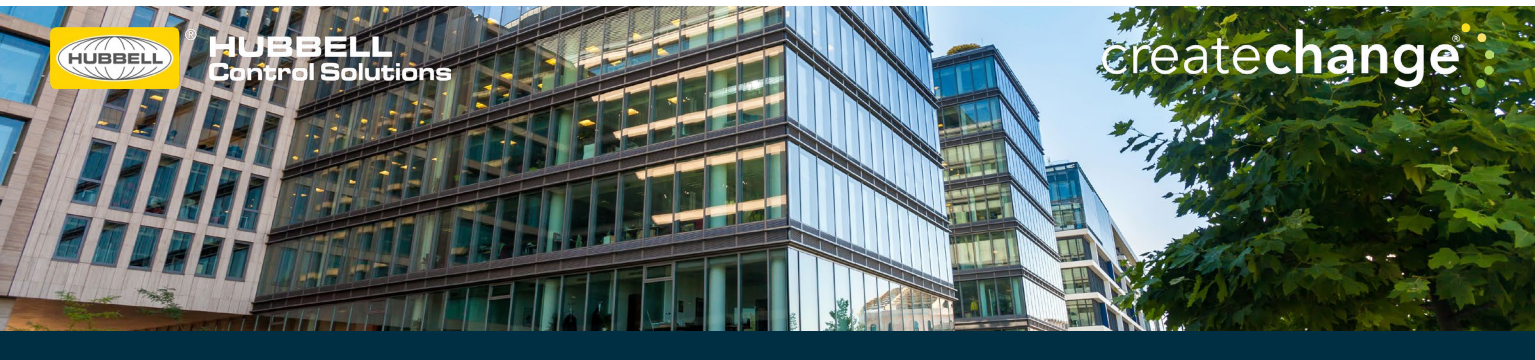
COMMERCIAL



INSTITUTIONAL

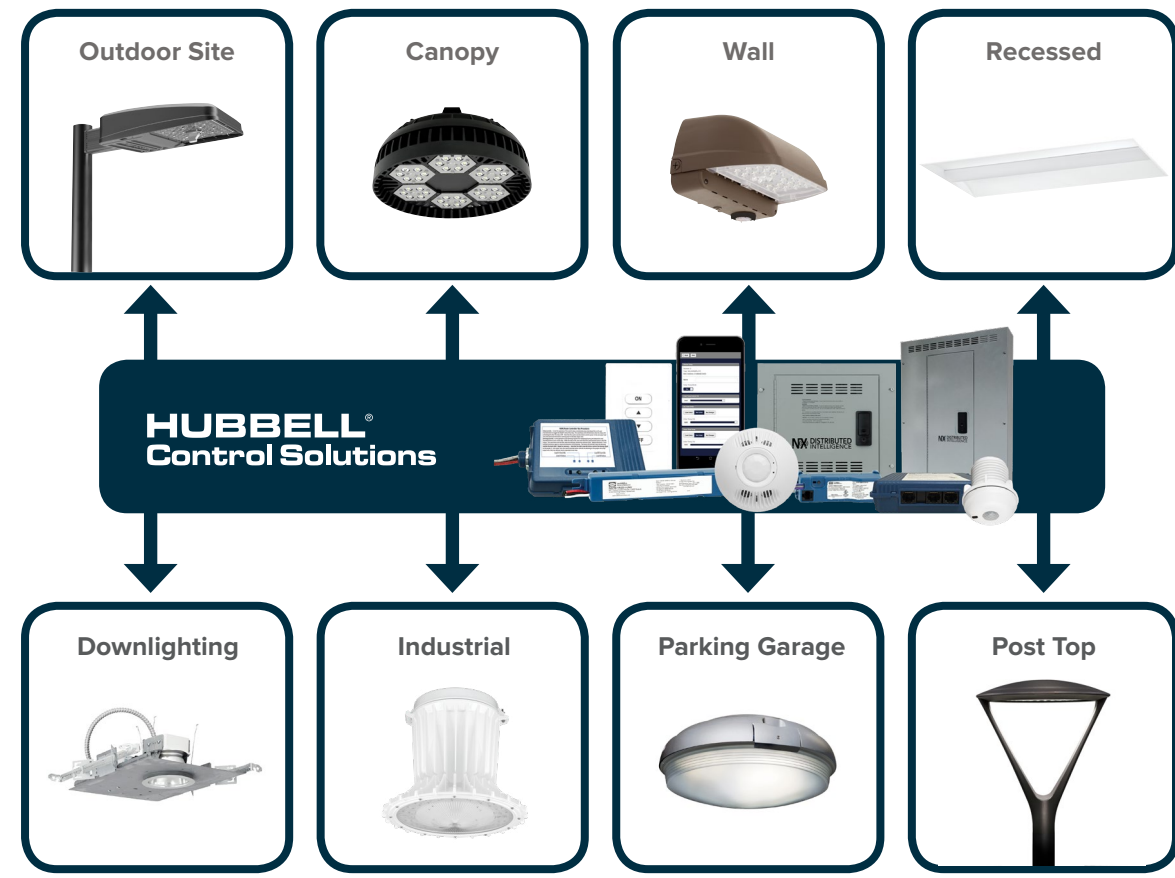


LIFE SAFETY



Complete Solutions

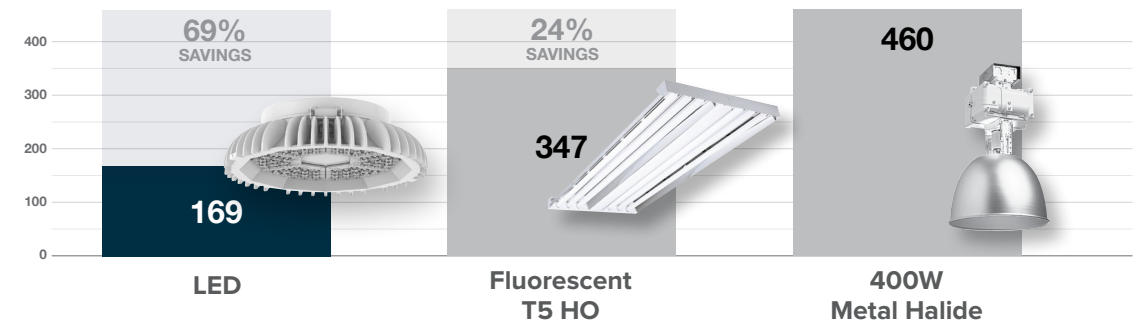
From beautiful commercial environments to complex industrial applications, Hubbell Lighting provides high performance solutions across virtually every industry application.



Effective lighting controls not only save energy and meet the latest codes, they also provide a more safe and comfortable working environment. Combined with modern LED lighting fixtures, Hubbell Control Solutions products save the maximum amount of energy in any application.

Energy Savings

Hubbell Lighting has broken the technology barriers to create cost effective, high performance LED luminaires that can save up to 70% in applications, replacing less efficient technologies such as HID or fluorescent. Beyond the savings from lighting alone, controls can save an additional 50% or more.



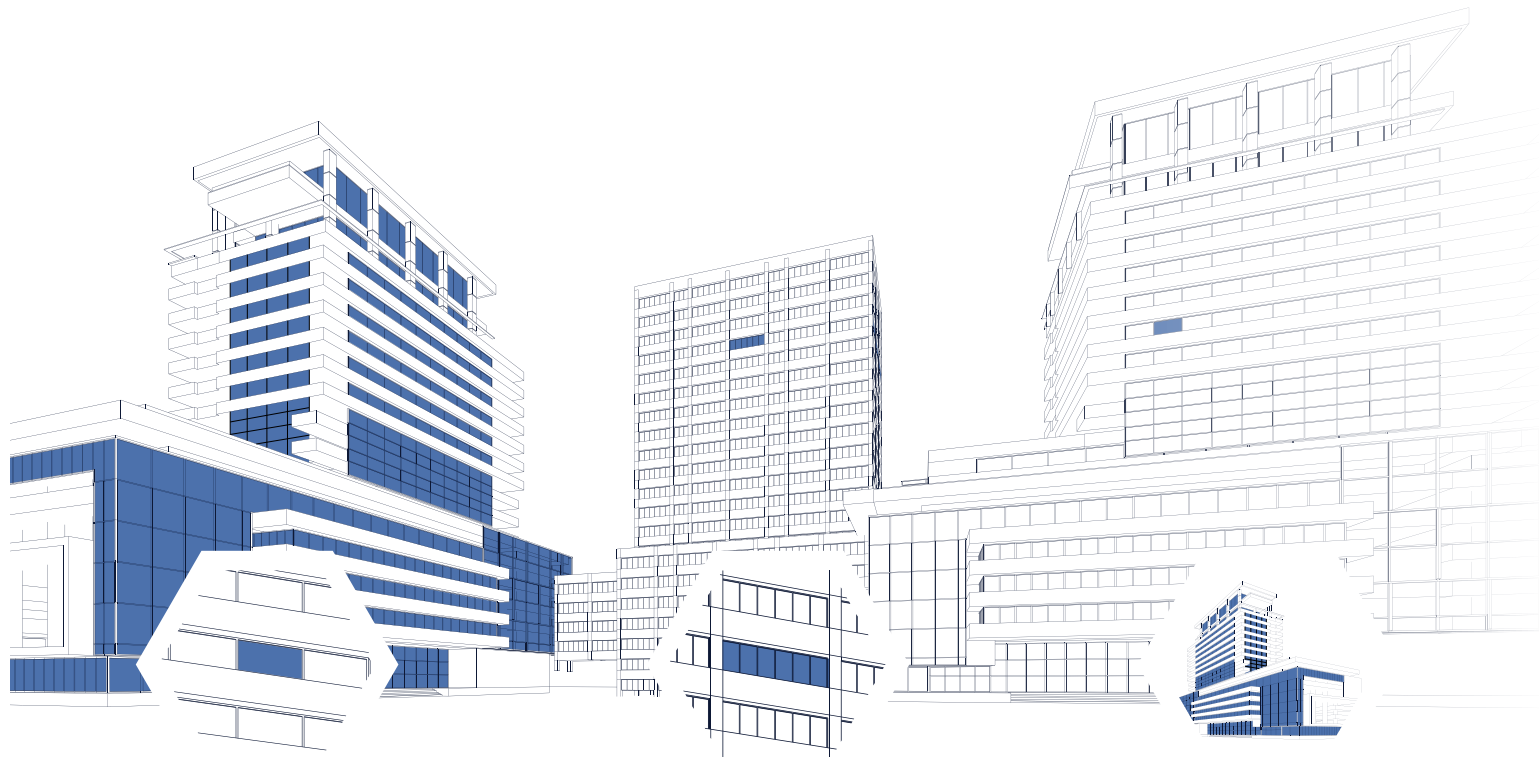
Code Compliance at Every Level of Scalability

Hubbell Control Solutions provide the flexibility to meet the application needs, code compliance and budget requirements for any project.

How it Works	Potential Savings	How to Get Maximum Savings
<p>Using one or more sensing techniques, lights turn on and off automatically. When combined with a Manual On strategy, these sensors turn the lights off automatically (vacancy mode).</p>	20%-60%	Adjust the sensor to turn off more quickly when no movement is detected.
<p>By sensing how much total light is under the sensor, the system balances the amount of electric light needed against the amount of natural light available.</p>	20%-40%	Adjust the level of electric light to the lowest comfortable setting.
<p>If the overall electrical use of a building is unusually high, signals from a Building Management System (BMS) or the utility company reduce the lighting load.</p>	10%-40%	Allocate more lighting loads at lower dimmed settings to the demand response signal.
<p>Using industry-standard communication protocols, building management systems can share information with the lighting system, streamlining schedules and more.</p>	10%-30%	Use the BMS for more complex scheduling, and use lighting trends to reduce HVAC loads when unoccupied.
<p>The fixtures are adjusted to optimize the amount of light needed for the application.</p>	10%-30%	Adjust the level of electric light to the lowest comfortable setting.
<p>When an outdoor area is unoccupied, the lighting system can reduce the output of the fixtures while maintaining a safe and inviting area.</p>	10%-40%	Adjust the lighting to the lowest acceptable level and reduce the time settings.
<p>Occupants turn lighting on only when needed and turn unnecessary lights off.</p>	10%-20%	Educate occupants to use the lighting controls.
<p>Using time-based settings, either with daily clock events or astronomical times to shut off unneeded lighting. Schedules can also be used to alter occupancy time-out settings during closed times.</p>	10%-40%	Set separate schedules for weekdays and weekends and use time of day to reduce other system settings.

NX DISTRIBUTED INTELLIGENCE

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.



In-Fixture Control



- Luminaire-integrated design
- Out-of-the-box operation
- User-friendly Bluetooth® App

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 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
Education
Healthcare
Commercial

Retail
Industrial
Hospitality

OUTDOOR
Parking Lots
Parking Decks
Auto Dealerships

Walkways
Perimeter Area
Municipal Parks

NX DISTRIBUTED INTELLIGENCE

Hubbell Control Solutions NX Distributed Intelligence™ lighting control platform has options for both indoor and outdoor lighting applications. NX scales from a single fixture to entire office building and parking lot. NX has wired and wireless connectivity. Making the system easy to install in retrofit or new construction projects. The NX Distributed Intelligence platform combines all of the lighting control strategies for up to 80% additional energy savings.



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 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.

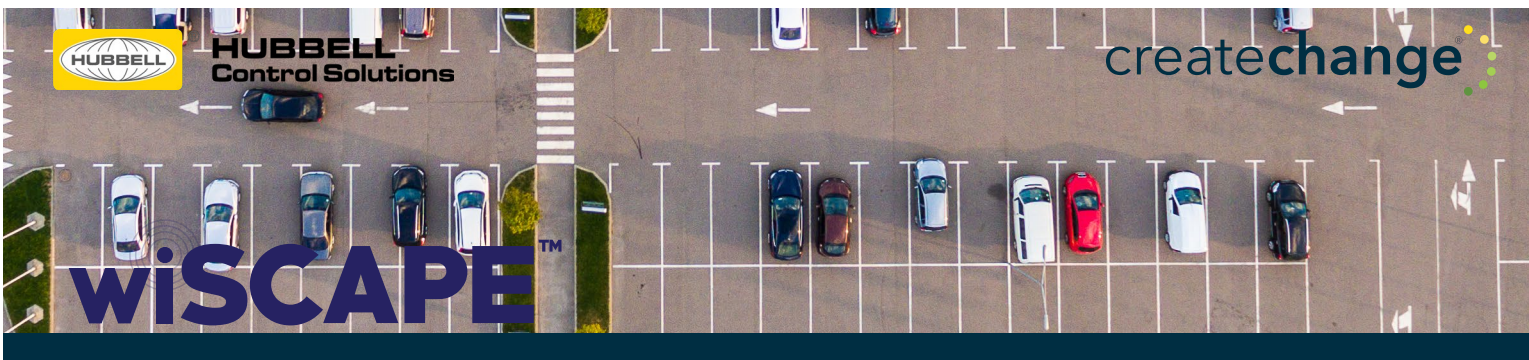
Standards & Codes

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 Sensor 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		Contact Closure
BMS Integration				Contact Closure		Contact Closure




Hubbell Control Solutions' wiSCAPE® outdoor lighting management system uses advanced wireless controls for energy savings, plus extensive management tools that increase the effectiveness of the lighting system. Using web-based tools, wiSCAPE can be used to monitor the performance of the system and provide notifications when maintenance is needed, increasing the safety of any outdoor installation. The wireless controls are available factory installed or as field-installed nodes, making wiSCAPE easy to install in existing or new projects.




Versatile Operation with Peace of Mind
wiSCAPE's enterprise software suite offers real-time asset management using customizable maps and dashboard-driven pages, to get immediate visual confirmation of safe operation status, energy savings and peak efficiency.



Unparalleled Scalability and Flexibility
wiSCAPE provides the ability to monitor, manage and meter a vast number of lighting assets creating an optimized, resilient lighting infrastructure.



Open Connectivity
wiSCAPE uses a highly secure wireless network to ensure critical data is locked down. The software can be reliably integrated with 3rd party systems to combine technologies when needed.



Invaluable Insights
Data generated by wiSCAPE's advanced energy management tools, utility-grade metering and 24/7 diagnostic reporting with configurable alert notifications, can be used to improve the bottom line by managing key lighting control strategies.

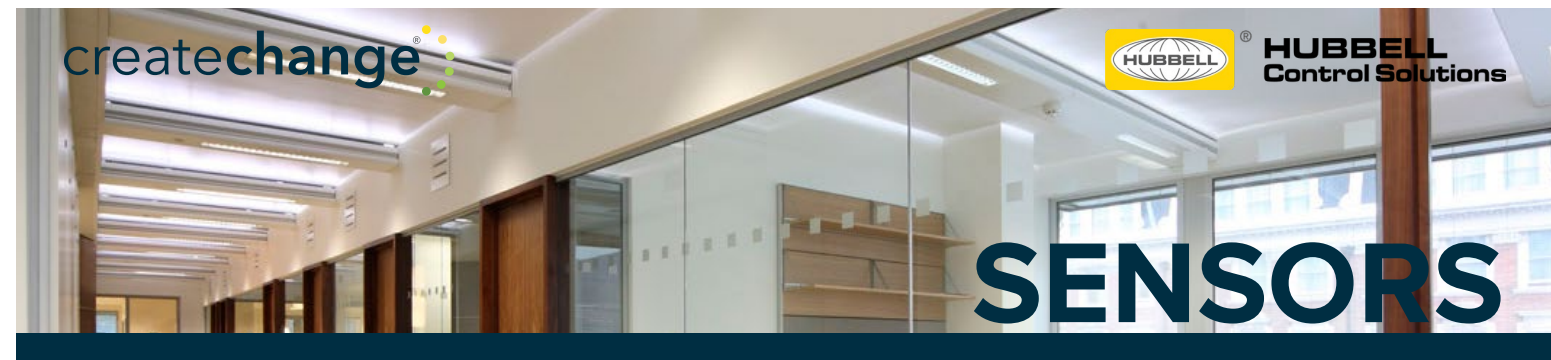
Standards & Codes

ENERGY CODES

wiSCAPE SOLUTIONS

	IECC 2015	ASHRAE 90.1 2016	Title 24 Part 6 2016	Modules	Site
OUTDOOR					
Astronomical Timeclock	C405.2.5(2)	9.4.1.4 (b)	130.2 (c) 2	✓	✓
Setback	C405.2.5(3)	9.4.1.4 (d)	130.2 (c) 3 B	✓	✓
Daylight OFF	C405.2.5(1)	9.4.1.4 (a)	130.2 (c) 1	✓	✓
Demand Response				Contact Closure	BACnet®
BMS Integration				Contact Closure	BACnet®

wiSCAPE efficiently meets **stringent energy codes** and **improves safety** and **performance** over time. Using visual tools, including site maps, icons, and navigation tools, wiSCAPE can **remotely** and **securely** manage multiple sites from anywhere. The hardware at each light is minimal, and uses industry-standard plug modules and rugged gateways.



Hubbell Control Solutions offers a wide variety of sensors designed to keep lighting on only when people are using the area, without the worry of fine tuning. IntelliDAPT® self-adaptive technology in most sensors adjusts the detection sensitivity for each unique application. Sensors can save as much as an additional 50% energy.

WASP2™ and Dimming WASP™

Indoor and outdoor occupancy and photocell sensors for on/off or preset dimmed



WASP2 Occupancy and Photocell Sensor

- Digital Passive Infrared (PIR) sensor
- Multiple (single and dual) output versions
- Unique Smart Cycling™ for improved fluorescent lamp life
- Interchangeable high/low mount detection lens options
- Low voltage and line voltage models available
- Factory installed & field installed options available
- Occupancy/motion sensors for indoor or outdoor applications
- Models available with on/off or optional dimming control

Dimming WASP Outdoor Motion and Photocell Sensor

- Mounting heights: high mount lens: 30ft outdoors; 45ft indoors; low mount lens: 16ft indoors/outdoors
- Controls 0-10V, 2-wire dimmable ballasts
- Low temperature/water-tight/indoor-outdoor
- User controlled dimming with high/low area detection options
- Factory installed & field installed options available

Low Voltage Sensors

Wall and ceiling mounted indoor sensors for vacancy or occupancy detection



LightHAWK®2 Wall Switch Sensor

- IntelliDAPT self-adaptive technology - no manual adjustment required
- Available in Passive Infrared, Ultrasonic and Dual Technology versions
- Nightlight and Dimming versions available
- 1 or 2 relay models for single-level, bi-level or dual-circuit control
- Up to 1,000 square-foot area, 180° coverage
- Built-in photocell
- Available in 24 VDC, Dual 120/277 VAC and 347 VAC versions
- Switch, wall or ceiling sensors for indoor applications.



LightOWL®

- IntelliDAPT self-adaptive technology – no manual adjustments required
- Available in Passive Infrared and Dual Technology versions
- 1,600 square-foot coverage area
- Optional relay and photocell control

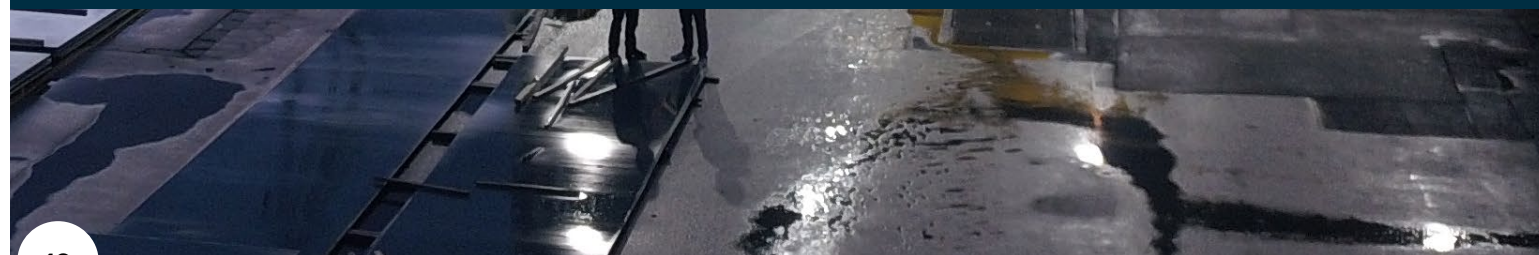


OMNI®

- IntelliDAPT self-adaptive technology – no manual adjustments required
- Available in Passive Infrared, Ultrasonic and Dual Technology versions
- 500 – 2,000 square-foot coverage area per sensor (depending on model)
- Optional relay and photocell control



INDUSTRIAL



createchange

HUBBELL
Lighting

Food & Beverage

The requirements in the food process industry are as varied as the food we consume. Food processing tends to be highly automated. Some common attributes are no exposed glass, well sealed and UL Sanitation listed luminaires.

Columbia
LIGHTING

LXEM



84% Energy Savings* | **\$89** Annual Savings Per Fixture
compared to 4L T8

HUBBELL
Industrial Lighting

FPH



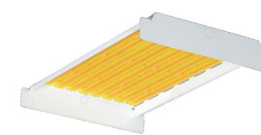
52% Energy Savings* | **\$171** Annual Savings Per Fixture
compared to 400W MH (455W)

SNL



78% Energy Savings* | **\$131** Annual Savings Per Fixture
compared to 4L T5HO

**SpectraLoc™ - Blue Spectrum
Suppression LED High Bay**



61% Energy Savings* | **\$202** Annual Savings Per Fixture
compared to 400W MH (455W)

BEACON
design - performance - technology

Viper



63% Energy Savings* | **\$223** Annual Savings Per Fixture
compared to 750W MH (764)

Matrix® Family



49% Energy Savings* | **\$252** Annual Savings Per Fixture
compared to 1000W MH (1080W)

HUBBELL
Outdoor Lighting

LitePak Family



72% Energy Savings* | **\$102** Annual Savings Per Fixture
compared to 250W MH (295W)

Airo



52% Energy Savings* | **\$115** Annual Savings Per Fixture
compared to 400W MH (464W)

*These are estimated proposed savings based on \$0.11 per kWh and 6,552 (indoor) and 4,368 (outdoor) annual burn hours. Savings are based on several variables that may change over time. Actual savings may be higher or lower. This is not a guarantee of any results and/or performance. Additional savings from controls, maintenance, rebates and incentives are not included in these calculations. Call your local Hubbell Lighting sales representative for additional energy savings information.

Manufacturing

General manufacturing encompasses facilities such as auto and appliance assemblers, circuit board and electronic manufacturers, textile, furniture and shoemakers. It is common for manufacturing facilities to generate little process heat and to have better environmental temperature controls, reducing the need for light fixtures that can withstand high ambient temperatures. LED solutions in these spaces should enable productivity, contribute to a safe work environment and ideally be energy efficient with low maintenance.



Megaplane™ Industrial High Bay/Low Bay



58% Energy Savings* | **\$190** Annual Savings Per Fixture
compared to 400W MH (455W)

Peloton™ High Performance High Bay



67% Energy Savings* | **\$221** Annual Savings Per Fixture
compared to 400W MH (455W)



CLH



52% Energy Savings* | **\$89** Annual Savings Per Fixture
compared to 250W MH (295W)

Utilibay™ High Bay



60% Energy Savings* | **\$127** Annual Savings Per Fixture
compared to 250W MH (295W)



Matrix® Family



49% Energy Savings* | **\$252** Annual Savings Per Fixture
compared to 1000W MH (1080W)



Intercept™



47% Energy Savings* | **\$375** Annual Savings Per Fixture
compared to 150W MH (1660W)

AIRO



52% Energy Savings* | **\$115** Annual Savings Per Fixture
compared to 400W MH (464W)

LitePak Family



72% Energy Savings* | **\$102** Annual Savings Per Fixture
compared to 250W MH (295W)

CASE STUDY

Gunderson Company

Case Study:	Lighting Retrofit
Project Name:	Gunderson, Greenbrier Company
Type of Facility:	Manufacturing
Location:	Portland, Oregon
Luminaires:	LLHV, MPL

Challenge:

- 13 to 36 footcandles
- Significant number of out-of-commission fixtures
- Required even 50 footcandles to remove shadows
- Increase safety & security of employees
- Improve productivity

Benefits:

- Improve worker safety, vision & morale
- Improve operations, balance sheet & sustaining goals
- Even 50 footcandles throughout
- Substantial energy savings
- Cut energy use by 1.64 kWh/Year
- Fixture life of 60,000 hours at L80



MPL Megaplane™ LED
96 LPW



LLHV VersaBay™ High Bay
138 LPW

\$130K Savings Per Year

50% Rebate Coverage

1.7 Year Payback Period



“It’s been great to see the renewed energy on the manufacturing floor. Employees are **positive, excited** and **emotionally enthusiastic** because of the brighter environment. Management is thrilled with the impact the lighting has had on **worker safety**, the balance sheet and our broader sustainability goals.”

- Geof Knutsen
Maintenance & Facility Supervising Electrician

*These are estimated proposed savings based on \$0.11 per kWh and 6,552 (indoor) and 4,368 (outdoor) annual burn hours. Savings are based on several variables that may change over time. Actual savings may be higher or lower. This is not a guarantee of any results and/or performance. Additional savings from controls, maintenance, rebates and incentives are not included in these calculations. Call your local Hubbell Lighting sales representative for additional energy savings information.



Warehouse

Warehouses and distribution centers (DCs) have expanded with the increase in the amount and selection of goods available across the country. Requirements for factories and wider distribution of perishable goods have driven regional distribution centers (RDCs) to service factories and consumers. Common attributes of these facilities are energy efficient, possibly suitable for higher ambient temperatures and Damp Location listed.



Peloton™ High Performance High Bay



67% Energy Savings* | **\$221** Annual Savings Per Fixture
compared to 400W MH (455W)

LCAT



70% Energy Savings* | **\$73** Annual Savings Per Fixture
compared to 4L T8

MPS



54% Energy Savings* | **\$56** Annual Savings Per Fixture
compared to 4L T8



Utilibay™ High Bay



60% Energy Savings* | **\$127** Annual Savings Per Fixture
compared to 250W MH (295W)



Viper



63% Energy Savings* | **\$233** Annual Savings Per Fixture
compared to 750W MH (764W)

Matrix® Family



49% Energy Savings* | **\$252** Annual Savings Per Fixture
compared to 1000W MH (1080W)



Factor Floods



68% Energy Savings* | **\$151** Annual Savings Per Fixture
compared to 400W MH (464W)

LitePak Family



72% Energy Savings* | **\$102** Annual Savings Per Fixture
compared to 250W MH (295W)

CASE STUDY Southern Components

Case Study: Outdated Indoor Lighting
Project Name: Southern Components
Type of Facility: Office/Warehouse/Showroom
Location: Charleston, South Carolina
Luminaires: LCAT, TCAT, DLC

Challenge:

- Outdated indoor lighting
- Unintended consequences on brand identity
- Site was under-lit and not up to code
- Create a welcoming environment for customers
- Foster interaction at every point in the building
- DLC qualification was a must (local utility rebate program)

Solution:

- LCAT with standard 80+ CRI from Columbia Lighting
- DLC Premium listed LED troffer
- Offered design and value with an architectural appearance
- Reduced maintenance & multiple sizes



LCAT

Benefits:

- Reducing amount of energy used for lighting by 72%
- Savings of \$4,206 every year
- Payback period of just a little more than three years
- \$3,241 rebate from the local utility courtesy of the "EnergyWise" rebate program
- \$96,738 in energy savings after 23 years of use

72%
Energy Reduction

=

\$4,206
Savings Every Year



\$96,738
Savings After 23 Years



BEFORE



AFTER

“The new lighting has created an environment that will **inspire** the clients who visit our showroom, allowing our employees to be **more productive** and **improve** our bottom line. We operate in a competitive marketplace and I believe hosting an exceptional experience for customers in our showroom provides us with a competitive advantage.”

- David Epstein
 President, Southern Components, Inc.

*These are estimated proposed savings based on \$0.11 per kWh and 6,552 (indoor) and 4,368 (outdoor) annual burn hours. Savings are based on several variables that may change over time. Actual savings may be higher or lower. This is not a guarantee of any results and/or performance. Additional savings from controls, maintenance, rebates and incentives are not included in these calculations. Call your local Hubbell Lighting sales representative for additional energy savings information.



Harsh & Hazardous

Hazardous broadly describes many industries, such as paper mills, foundries, casting or welding facilities and many more. One common attribute is that these applications are tough environments for light fixtures. Typical light fixtures will need to be well sealed, corrosion resistant, suitable for temperature extremes and possible hazardous location.



HEM



84% Energy Savings* | **\$89** Annual Savings Per Fixture
compared to 4L T8



Matrix® Family



49% Energy Savings* | **\$252** Annual Savings Per Fixture
compared to 1000W MH (1080W)



CLH



52% Energy Savings* | **\$89** Annual Savings Per Fixture
compared to 250W MH (295W)

PHBH



53% Energy Savings* | **\$172** Annual Savings Per Fixture
compared to 400W MH (455W)

HBL



63% Energy Savings* | **\$206** Annual Savings Per Fixture
compared to 400W MH (455W)



Lumasquare®



75% Energy Savings* | **\$106** Annual Savings Per Fixture
compared to 250W MH (295W)

Factor Floods



68% Energy Savings* | **\$151** Annual Savings Per Fixture
compared to 400W MH (464W)

Intercept™



47% Energy Savings* | **\$375** Annual Savings Per Fixture
compared to 150W MH (1660W)

CASE STUDY

Colorado Water Treatment

Case Study: Water Treatment Facility
Project Name: Colorado Water Treatment
Type of Facility: Hazardous
Location: Denver, Colorado
Luminaires: Industrial LED High Bay (HBL)

Solution:

- 100,000 hour life
- Low copper aluminum housing withstands corrosive and water treatment environments
- Ease of installation
- Ideal for facilities because of varying ceiling heights and lumen outputs
- Reduces yearly material and labor maintenance costs by thousands of dollars
- White light of LED increases visibility; especially in tight spaces
- Instant on feature enables owner to turn off lights and achieve further savings

Benefits:

- Higher quality of light and in some areas, a higher quantity of light
- Reduced yearly maintenance costs by thousands of dollars in material and labor
- Increased visibility
- Eliminated shadows and dark areas improving employee safety and productivity

\$1000+
Yearly
Maintenance
Savings

10%
Increased
Lighting

55-62%
Energy
Savings
Per Fixture



HBL

Fixture Count: 100+

Fixture Type: Industrial LED High Bay (HBL)

ROI: Less than a few years. Was more for maintenance savings.

Rebate Dollars: None

Payback: Less than a few years

Estimated Maintenance Savings:
 Thousands of dollars a year

Maintenance Costs: Savings on HPS lamps and ballasts

Footcandles Before/After:
 Approximately a 10% increase, with better quality white light

ONE-TO-ONE REPLACEMENT

PSMH FIXTURE WATTAGE	LEDs	ENERGY SAVINGS
400W PSMH	HBL-72LU	72LU-55-62%
250W PSMH	HBL-48/60LU	48/60LU-UP TO 55%



BEFORE



AFTER

*These are estimated proposed savings based on \$0.11 per kWh and 6,552 (indoor) and 4,368 (outdoor) annual burn hours. Savings are based on several variables that may change over time. Actual savings may be higher or lower. This is not a guarantee of any results and/or performance. Additional savings from controls, maintenance, rebates and incentives are not included in these calculations. Call your local Hubbell Lighting sales representative for additional energy savings information.



COMMERCIAL



Office Buildings

Allow Hubbell Lighting to take your office space to the next level. Combining award-winning, cutting edge products with proven lighting control systems, we offer the entire package. Finding the right office lighting is critical in both employee happiness as well as energy efficiency.



LCAT



70% Energy Savings* | **\$73** Annual Savings Per Fixture
compared to 4L T8

Escalate™



73% Energy Savings* | **\$53** Annual Savings Per Fixture
compared to 2L T8

Revalume™ Linear Wrap



65% Energy Savings* | **\$97** Annual Savings Per Fixture
compared to T5HO



LiteFrame® 4" LED



47% Energy Savings* | **\$14** Annual Savings Per Fixture
compared to 42 CFL



Viper



63% Energy Savings* | **\$233** Annual Savings Per Fixture
compared to 750W MH (764W)

Matrix® Family



49% Energy Savings* | **\$252** Annual Savings Per Fixture
compared to 1000W MH (1080W)



GeoPak 2 Family



71% Energy Savings* | **\$100** Annual Savings Per Fixture
compared to 250W MH (295W)

Lumasquare®



75% Energy Savings* | **\$106** Annual Savings Per Fixture
compared to 250W MH (295W)

*These are estimated proposed savings based on \$0.11 per kWh and 6,552 (indoor) and 4,368 (outdoor) annual burn hours. Savings are based on several variables that may change over time. Actual savings may be higher or lower. This is not a guarantee of any results and/or performance. Additional savings from controls, maintenance, rebates and incentives are not included in these calculations. Call your local Hubbell Lighting sales representative for additional energy savings information.

Retail

Hubbell Lighting's full range of high performance, low glare LED retail lighting products highlight the brand and merchandise to provide a comfortable, exciting shopping experience from the parking garage to point-of-sale and between.



Megaplane™ Industrial High Bay/Low Bay



58% Energy Savings* | **\$190** Annual Savings Per Fixture
compared to 4L T8



D2LED



72% Energy Savings* | **\$39** Annual Savings Per Fixture
compared to 75W MR-16



Savvano™ Decorative High Bay



66% Energy Savings* | **\$102** Annual Savings Per Fixture
compared to 175W MH (215W)



GeoPak 2 Family



71% Energy Savings* | **\$100** Annual Savings Per Fixture
compared to 250W MH (295W)



SETI



70% Energy Savings* | **\$63** Annual Savings Per Fixture
compared to 2L T8

Viper



63% Energy Savings* | **\$233** Annual Savings Per Fixture
compared to 400W MH (464W)

Pavilion Family



89% Energy Savings* | **\$55** Annual Savings Per Fixture
compared to 129W MH

Factor Floods



68% Energy Savings* | **\$151** Annual Savings Per Fixture
compared to 400W MH (464W)

CASE STUDY

Ace Hardware

Case Study: Updating Retail Store
Project Name: Wood's Ace Hardware & Mercantile
Type of Facility: Retail
Location: Summerville, SC
Luminaires: MPL

Challenge:

- Outdated CFL lamps with poor lighting levels
- Decrease in sales and staff efficiency
- Current high cost & frequent maintenance
- Perceived cost of switching to LED

Solution:

- Columbia Lighting MPL Megaplane™ Industrial LED High Bay/ Low Bay maximized ROI at all ends of spectrum
- Slender attractive, functional with patented TIR directional linear optics for superior aisle lighting



MPL

Benefits:

- Increased lighting performance by five to ten times the volume of light
- Annual kWh cut in half to a little more than 22,000kWh per year, equaling \$4,100 annual savings
- Return on initial investment is expected to be less than 3 years
- \$60,000 in energy savings in 14 years of use

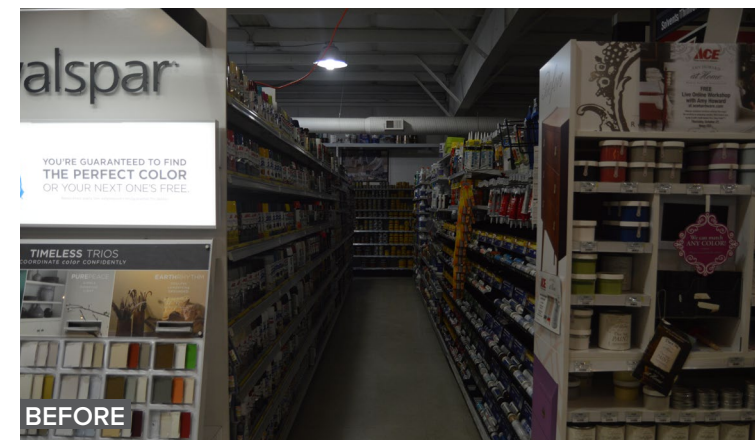
22,000kWh
Annual Reduction

=

\$4,100
Annual Saving



\$60,000
Savings in
14 Years



“In addition to the **ROI, energy savings** and **lighting performance**, we've seen a significant reduction in maintenance costs and aggravation. Employees are **energized** and customers are having an easier time finding what they need. And the look of the store is much cleaner, the aesthetics of the MPL are much more pleasing than the old Maglite fixtures. We're really happy with Columbia's MPL.”

- Kris McLawhorn
Operations Manager, Wood's Ace Hardware & Mercantile

*These are estimated proposed savings based on \$0.11 per kWh and 6,552 (indoor) and 4,368 (outdoor) annual burn hours. Savings are based on several variables that may change over time. Actual savings may be higher or lower. This is not a guarantee of any results and/or performance. Additional savings from controls, maintenance, rebates and incentives are not included in these calculations. Call your local Hubbell Lighting sales representative for additional energy savings information.

Hospitality

Hubbell Lighting creates spaces where your guests want to stay and play. Hubbell Lighting is your destination for energy saving, aesthetically attractive luminaires from the lobby to the guest room.

Columbia
LIGHTING

LCAT



70% Energy Savings* | **\$73** Annual Savings Per Fixture
compared to 4L T8

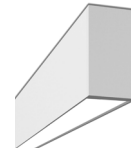
LITECONTROL
making light work

NOTE 67L



53% Energy Savings* | **\$46** Annual Savings Per Fixture
compared to 2L T5HO

MOD 2L



52% Energy Savings* | **\$42** Annual Savings Per Fixture
compared to 2L T5HO

prescolite

D2LED



72% Energy Savings* | **\$39** Annual Savings Per Fixture
compared to 75W MR-16

BEACON
design. performance. technology.

Viper



63% Energy Savings* | **\$233** Annual Savings Per Fixture
compared to 400W MH (464W)

Matrix Family



49% Energy Savings* | **\$252** Annual Savings Per Fixture
compared to 1000W MH (1080W)

HUBBELL
Outdoor Lighting

GeoPak 2 Family



71% Energy Savings* | **\$100** Annual Savings Per Fixture
compared to 250W MH (295W)

Sling



73% Energy Savings* | **\$103** Annual Savings Per Fixture
compared to 295W MH

CASE STUDY

Marriott Hotel

Case Study: North Charleston Marriott
Project Name: Renovation
Type of Facility: Hotel
Location: Charleston, SC
Luminaires: D2LED, LCAT, LCS, LJT, EV, CE (and more)

Challenge:

- Outdated, inefficient technology
- ROI of LED technology was inconclusive
- Tangible value to its properties
- Utilizing long lasting LED luminaires that would free up maintenance staff, contribute to a better customer experience and enhance the look and feel of the entire hotel

Solution:

- Facility's guest rooms, bathrooms, lobby, public, meeting and office areas, meeting space, the fitness room and various hallways and corridors
- Cost effective manner by providing national pricing through its network of select distributors

\$20,000
Annual Rebate
From SCE&G

300+
Units
Installed

Guest Area



D2LED

- Combines superior brightness with energy savings and low maintenance costs
- Nearly 300 units are used throughout the lobby and public areas

Meeting Space



LCAT

- High efficiency acrylic center lens features linear prisms for high performance without pixilation



Benefits:

- \$20,000 annual rebate from SCE&G
- Enhance overall experience
- Improved the image of the property
- Impact on employee satisfaction
- Decrease in time spent on lighting-related activities



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Automotive

Evaluating a new dealership site at the early design stage ensures the lighting layout will highlight the beauty of the automobile in every area from the reception and service area to the front row inventory. Our lighting professionals can assist by providing a complete lighting analysis and luminaire layout to ensure a dealership is warm, inviting and secure.



Megaplane™ Industrial High Bay/Low Bay



58% Energy Savings* | **\$190** Annual Savings Per Fixture
compared to 4L T8

Peloton™ High Performance High Bay



67% Energy Savings* | **\$221** Annual Savings Per Fixture
compared to 400W MH (455W)



Utilibay™ High Bay



60% Energy Savings* | **\$127** Annual Savings Per Fixture
compared to 250W MH (295W)



LiteFrame® 6" LED



53% Energy Savings* | **\$26** Annual Savings Per Fixture
compared to 70W CFL



Matrix®



49% Energy Savings* | **\$252** Annual Savings Per Fixture
compared to 1000W MH (1080W)

Viper



63% Energy Savings* | **\$233** Annual Savings Per Fixture
compared to 750W MH (764W)



GeoPak 2 Family



71% Energy Savings* | **\$100** Annual Savings Per Fixture
compared to 250W MH (295W)

Factor Floods



68% Energy Savings* | **\$151** Annual Savings Per Fixture
compared to 400W MH (464W)

CASE STUDY

Ferman Chevy

Case Study:	Ferman Chevrolet
Project Name:	Existing Structure Demolished & Rebuilt
Type of Facility:	Auto Dealership
Location:	Tampa, Florida
Luminaires:	Viper

Challenge:

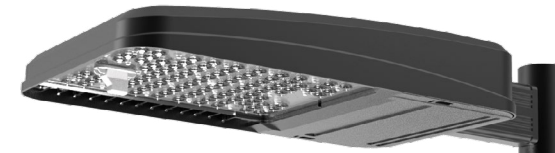
- Use LED fixtures for energy reduction with fast R.O.I. payback
- Increase lighting levels on front row cars, sales and storage areas
- Increase visibility and uniformity
- Reduce maintenance
- Replace 1000W H.I.D with 190W and 280W LED

Solution:

- Hubbell Lighting's unique Type One Auto Optic to ensure compliance
- New SiteSync™ lighting control technology to achieve even more savings in a cost-effective manner

Benefits:

- Uniform light over the entire site
- 65% energy savings after 10:00P.M.
- Occupancy sensors increase light levels on the entire site back to 100% if intruders or customers entered the property
- Wireless control system operates autonomously to increase control and cost savings, eliminating complicated gateways, Wi-Fi, GPS and 3rd party providers with commissioning and recurring fees



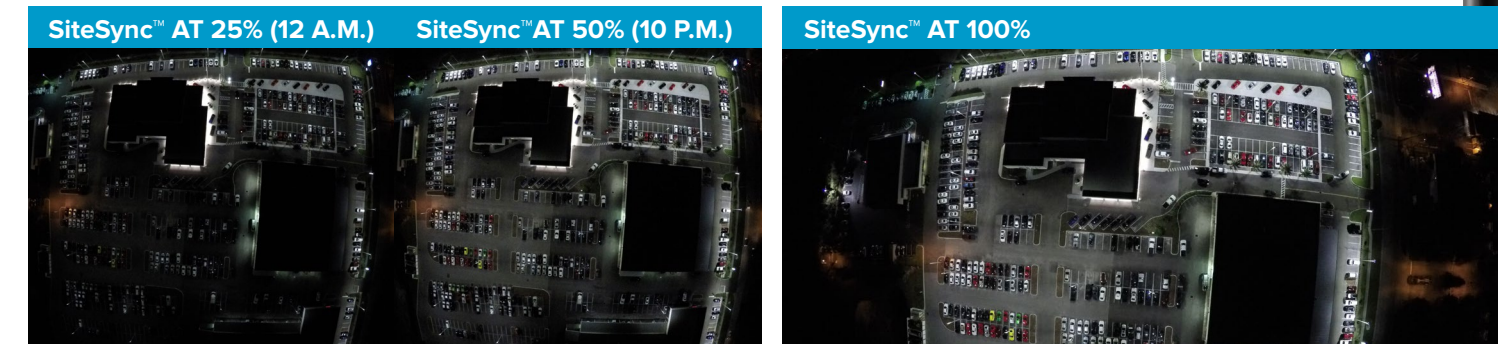
Viper with SiteSync™

70
Viper
Fixtures
Installed

65%
Energy
Savings After
10:00 P.M.

“When you look at the photometrics, it’s easy to see why this is one of the best lighting projects we’ve been associated with thus far.”

- Tim Greene
WFLI



“The front row of any dealership is one of the most important selling tools - it’s fact. We agreed that the **safety** of those on U.S. 19 was the utmost priority - it included our staff and customers. We just didn’t know how we were going to do what we wanted to do. The lighting package that we have at Ferman Chevy goes **above** and **beyond** what it was designed to do. It’s saving us money. It’s helping us sell product. And it’s keeping the community safe.”

- John Reece
Manager, Ferman Chevy

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INSTITUTIONAL



Healthcare

Hubbell Lighting meets the challenges of these complex environments with innovative solutions that provide leading performance, architectural appearance and rugged durability. By utilizing experienced engineering, robust testing and the latest manufacturing techniques, the portfolio of products to the needs of the varied stakeholders – patients, healthcare staff, facility management and contractors.



Viper



63% Energy Savings* | **\$233** Annual Savings Per Fixture
compared to 400W MH (464W)

Matrix® Family



49% Energy Savings* | **\$252** Annual Savings Per Fixture
compared to 1000W MH (1080W)

HUBBELL®
Outdoor Lighting

GeoPak 2 Family



71% Energy Savings* | **\$100** Annual Savings Per Fixture
compared to 250W MH (295W)


Sling



73% Energy Savings* | **\$103** Annual Savings Per Fixture
compared to 295W MH




MediMode™ Exam Recessed




- Provides ambient, reading and examination illumination for the patient bed environment
- All compartments are lensed for visual comfort and ease of cleaning
- An IP65 rated, full lensed door option further seals the luminaire for enhanced protection
- The optical frame provides tool-less access to the electrical components for easy servicing

NiteWay™




- Simple, low-profile form is architecturally pleasing and can easily be cleaned
- Available in either a vertical or horizontal orientation and with either white or amber LEDs
- Rated for wet location environments and standard antimicrobial finish in three colors
- Available with optional photocell control

Obsidian™ Message Signage



- Provided ready for surface, ceiling, end or wall-mounting with included canopy accessory. Recessed mounting is also available
- Wide variety of standard messages in red or green lettering. Custom messages available upon request
- Bright and uniform illumination across the entire face
- LED life-cycle exceeding 10 years

Remedi™ Exam Wall-mount



- Four distinct optical compartments deliver the recommended illumination levels for ambient, reading, examination and night lighting
- Optional full, length indirect night/chart light that is has 3-way dimming controls integrated on the luminaire
- No mechanical manipulation (“flipping”) to operate the ambient, reading or examination functions
- The optical frame provides tool-less access to the electrical components for easy servicing

*These are estimated proposed savings based on \$0.11 per kWh and 6,552 (indoor) and 4,368 (outdoor) annual burn hours. Savings are based on several variables that may change over time. Actual savings may be higher or lower. This is not a guarantee of any results and/or performance. Additional savings from controls, maintenance, rebates and incentives are not included in these calculations. Call your local Hubbell Lighting sales representative for additional energy savings information.

Education

From K-12 to higher education facilities, schools have multiple functions requiring different lighting solutions. Hubbell Lighting's many specialized brands have the products and expertise to meet every need. This page highlights a few of our many solutions for indoor, outdoor, sports, control, life safety, and retrofit/upgrade applications for the education market.

Columbia LIGHTING

LZPT Zero Plenum® Troffer



87% Energy Savings* | **\$77** Annual Savings Per Fixture
compared to 150W MH (186W)

LCAT



70% Energy Savings* | **\$73** Annual Savings Per Fixture
compared to 4L T8

MPS



54% Energy Savings* | **\$56** Annual Savings Per Fixture
compared to 4L T8

HUBBELL Industrial Lighting

Utilibay™ High Bay



60% Energy Savings* | **\$127** Annual Savings Per Fixture
compared to 250W MH (295W)

BEACON

Viper



63% Energy Savings* | **\$233** Annual Savings Per Fixture
compared to 750W MH (764W)

HUBBELL Outdoor Lighting

Lumasquare®



75% Energy Savings* | **\$106** Annual Savings Per Fixture
compared to 250W MH (295W)

Intercept™



47% Energy Savings* | **\$375** Annual Savings Per Fixture
compared to 150W MH (1660W)

GeoPak 2 Family



71% Energy Savings* | **\$100** Annual Savings Per Fixture
compared to 750W MH (764W)

CASE STUDY

Fisher Middle School

Case Study: Illuminating Greenville School
Project Name: Dr. Phinnize J. Fisher Middle School
Type of Facility: New Construction Educational Facility
Location: Greenville, SC
Luminaires: Over 3,000

Challenge:

- Save money through energy management
- Embrace "Green building techniques and sustainable design"
- Create an example of what tomorrow's learning environment can deliver

Solution:

- 180,000 square foot building, built for 1,000 students from 6th to 8th grade, the new construction plans were developed with cost-effectiveness, function and sustainability in mind
- Over 3,000 Hubbell Lighting products were installed to illuminate almost every corner of the building and site
- Seamlessly integrated into the security program for campus safety

Benefits:

- Minimum of 40-50% in energy savings
- Maintenance savings will be in the range of 50-60%
- Allowed additional funds to be allocated towards staff, after-school programs and other student activities

Hubbell Lighting Products:

- **163** Alera Lighting – Curv Louvered luminaires
- **38** Architectural Area Lighting – Venere Contemporary wall sconces
- **125** Columbia Lighting – CS striplights
- **94** Columbia Lighting LEPC – e-poc® LED full distribution luminaires
- **229** Columbia Lighting – LLT LED lensed troffers
- **247** Columbia Lighting – Serrano® LED architecturally styled luminaires
- **240** Dual-Lite – LX LED exit signs
- **210** Hubbell Control Solutions – switches
- **217** Hubbell Control Solutions – OMNI™ ceiling sensors
- **606** Hubbell Industrial Lighting – HBL Series LED highbays
- **And hundreds more!**

50-60% Maintenance Savings

40-50% Energy Savings

3000+ Hubbell Products



“Next to salaries, utility costs are the school district’s second highest expense, and I can contently say that one of our biggest opportunities to **save money** is converting to **LED lighting**. We are thrilled with the LED lighting and controls products from Hubbell Lighting system at Fisher Middle School and are now in the process of converting the district facilities to LED lighting when lighting retros are **needed.**”

- Terry Mills
 Executive Director of Construction, Greenville County Schools, Burdette Engineering Inc.

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LIFE SAFETY



From exit and emergency lighting to battery packs and inverters, Dual-Lite LED life safety products set the standard for industrial, commercial and institutional markets that not only reduce the number of fixtures required in most spaces, but also offer reduced maintenance cost, while delivering longevity of service and peace of mind.

Indoor/Outdoor

- LED Lifetime Warranty
- 3 Year Full/5 Year Warranty with Spectron equipped models
- Premium Technology batteries with 30% longer life, less maintenance
- Superior spacing/coverage reduces overall units required



EV4R



EVHC EasyID



EV4D-02WAL



PG

Industrial

- Highly versatile emergency lighting for wet or hazardous locations, cold temperatures and food processing
- Lithium Iron Phosphate batteries offer 5 to 7 year life-cycle
- Ease of installation at high or low mounting heights with up to 8ft multiple unit spacing
- Full lumen output over the UL required 90 minute discharge



DYNAMO



DYNAMO Combo

Inverters

- Maintains the architectural integrity of the building
- Great for backing up LED based lighting with low energy requirements, equals more fixtures for less cost
- Powers normally-on fixtures to full lumen output
- Highly reliable, centrally based for ease of maintenance



Litegear



Synchron

Hubbell Lighting offers an unprecedented opportunity to gain cutting-edge lighting education in an environment that brings today's most relevant lighting solutions to life. Our 25,000-square-foot Lighting Solutions Center, located at our Greenville, SC headquarters, is engineered to present a total solutions approach to current lighting challenges and to evolve to meet future lighting challenges head on. Unique features of this forward-thinking, engaging educational facility include:

- A staff with extensive experience and professional accreditations
- Concierge service to facilitate course, accommodation and entertainment arrangements
- State-of-the-art training rooms and amphitheater with versatility to showcase products specific to the subjects discussed
- Continuing Education Units (CEUs) available for many courses



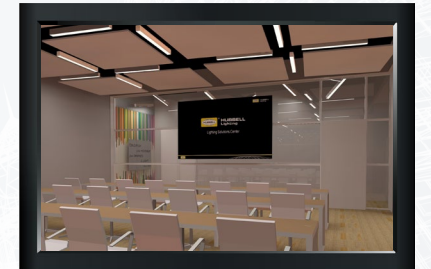
Introducing Hubbell Lighting's New Application Design Software

Create virtual worlds simply and intuitively with the new LitePro DLX from Hubbell Lighting. LitePro DLX allows you to create design proposals in a flexible, comprehensive and visually stunning fashion. And best of all...it's all free.

Architecture becomes visible and is experienced through light - and automation provides comfort and sustainability. LitePro DLX not only makes professional lighting design simpler and accessible for everyone, but as a platform and tool it is a network for designers and manufacturers all over the world.



Digital photograph of finished space



Rendering from LitePro DLX 3D of finished space



Createchange®

Hubbell Lighting's Compare in the Air program can allow you to see results of a lighting retrofit or renovation real-time in your facility with no risk!

Grounded in serving our customers' needs, Hubbell Lighting understands there is no one size fits all solution, especially for unique applications, offering lighting and control solutions that span the full spectrum for new construction and retrofit projects.

4 EASY STEPS

- STEP 1 - SELECT QUALIFIED PRODUCT(S) FOR TRIAL
- STEP 2 - ORDER UP TO 4 FIXTURES AND MARK ORDER "COMPARE IN THE AIR"¹
- STEP 3 - RECEIVE A 90-DAY DATING TERMS ON YOUR ORDER
- STEP 4 - INSTALL THE PRODUCTS AND SEE THE RESULTS^{2,3}

Contact your local Hubbell Lighting sales representative today to get started!

¹ Maximum order quantity of 4 units total. Order can consist of more than one product type.
² Installation charges are the responsibility of the customer.
³ Freight charges for product(s) are the responsibility of the customer.



Cash Flow +

Taking advantage of the money-saving opportunities of a lighting retrofit have never been easier with the Cash Flow Positive program from Hubbell Lighting. With a simple one-page approval process, Hubbell Lighting can fund your entire lighting upgrade including labor, while in many cases still providing a positive cash flow from day one!

- Positive Cash Flow
- Comprehensive Financial Leverage
- Total Project Financing
- Cash Conservation
- Smart Money Features
- Flexible terms (Commercial 12-72 months) (Municipal 12-120 months)
 - Competitive rates
 - Large and small projects \$5,000 to \$10,000,000
 - 100% financing
 - No down payment
 - No hidden costs
 - Flexible prepayment provisions
 - Flexible debt structure around customer requirements by using lines of credit, escrow accounts or progress payments
- Convenient Approval Process



HUBBELL
Lighting

- ALERA LIGHTING
- ARCHITECTURAL AREA LIGHTING
- BEACON PRODUCTS
- COLUMBIA LIGHTING
- COMPASS
- DUAL-LITE
- HEALTHCARE SOLUTIONS
- HUBBELL CONTROL SOLUTIONS
- HUBBELL INDUSTRIAL LIGHTING
- HUBBELL OUTDOOR LIGHTING
- KIM LIGHTING
- KURT VERSEN
- LITECONTROL
- PRESCOLITE

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