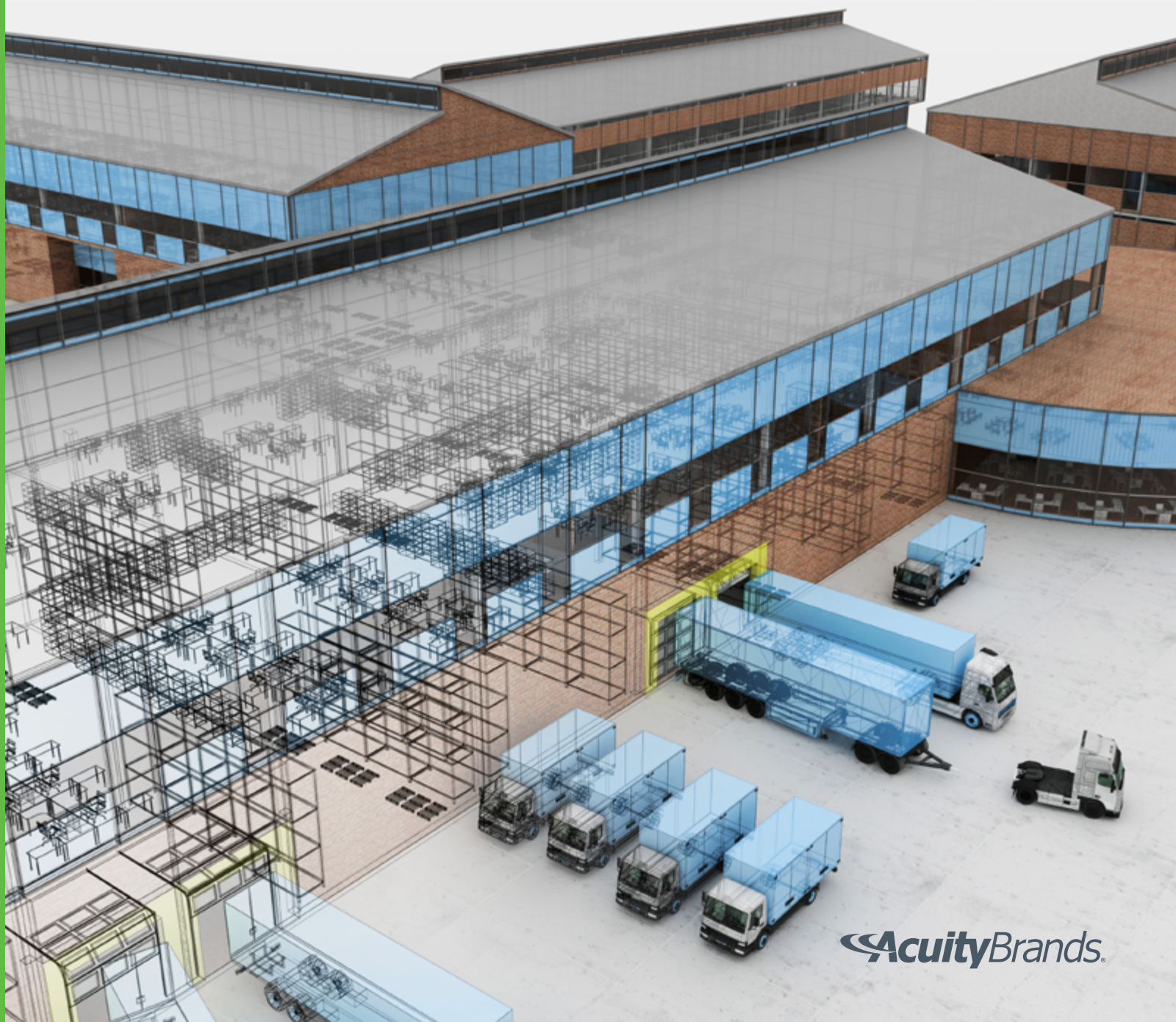




Industrial

Solutions Application Guide



AcuityBrands.



Your industrial lighting needs are varied. Our solutions are proven.

In industrial settings, lighting is more than illumination. Lighting must comply with building energy codes, use energy efficiently, promote safety and productivity, and be easy to maintain. Often, your lighting equipment must do all of that and thrive in extreme environments. And without straining your budget or maintenance resources.

Acuity Brands® understands these pressures because we are industrial. We have manufacturing and distribution warehouses all over the world where we face the same challenges you do. And

for nearly a century, industrial facility managers, owners, specifiers and engineers have partnered with us to integrate lighting and controls into warehouses, manufacturing plants, food processing facilities and more.

We are your single-source provider of today's most innovative lighting technologies for use in any kind of condition, no matter how extreme. We offer products and services that deliver real results by helping you maintain a facility that is cost-effective, safe and productive.





Expect your lighting to do more for your bottom line.

Traditional lighting is a drain on your resources.

- It wastes energy
- It's costly to maintain – in both time and money
- It struggles to comply with ever-changing energy codes
- It leaves employees in darker spaces, which can affect productivity and safety

Our solutions can turn things around.

Acuity Brands understands the everyday challenges of maintaining a good lighting system. We know that getting the most from your lighting means more money you can invest in your business.

Optimize your industrial space by starting with LED luminaires that save energy and minimize maintenance. As you invest more in sensors, automated networked controls and BMS integration, you gain additional benefits that reduce your total cost of operation.

Benefits of an optimized industrial facility:

S

Savings

Realized through reduced energy use, labor and maintenance.

OE

Operational Efficiency

Achieved through increased productivity, improved safety and reallocated resources.

VC

Visual Comfort

Supports reduced worker fatigue and higher, more consistent production.

F

Flexibility

Components provide control over your lighting environment with tools that evolve as your operation does.



Slash energy costs and reinvest in your business

Warehouse

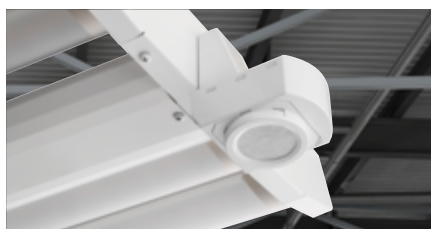
Traditional lighting is the single largest energy expense for a warehouse. So investing in an energy-efficient lighting and controls solution from Acuity Brands can make a positive impact on your bottom line.



LED High Bay

Lithonia Lighting® I-BEAM® IBG High Bay

- Single base platform design with the ability to select performance, optics, and housing options, taking it from basic applications to complex environments, including unconditioned spaces
- Saves up to 65% over fluorescent and even more against HID with high-efficiency options reaching greater than 180+ LPW



Occupancy Sensor

Acuity Controls LSXR

- Turns lights off or dims them when the space is unoccupied, increasing energy savings and life of your luminaires
- Light only the space you need with operational dimming and photocell settings



Networked Control and Software

XPoint™ Wireless and SensorView Software from Acuity Controls

- Configure individual fixtures or entire zones to boost savings, increase luminaire life and comply with local codes
- Software optimizes and automates system via task-tuning, configuring, rezoning, scheduling and more, all through one interface or app*

Optimize your warehouse. Maximize your return.

In the renovation example below, we replace 6-lamp T5 fluorescent fixtures in a typical warehouse application (bottom of chart) with I-BEAM IBG LED high bay luminaires — and then build the solutions from there to optimize your warehouse capabilities and savings.

Fluorescent vs IBG 24L (premium) - 250 Luminaires					
System		Average yearly Operating Cost/Savings		Investment Drivers**	Benefits
OPTIMIZED	Replace with: LED High Bay with Networked Controls & Sensors	\$9,742	\$54,720	2.1 Yearly Payback / 37% IRR	S, OE, F
	Replace with: LED High Bay with Occupancy Sensor	\$17,030	\$47,432	2.1 Yearly Payback / 37% IRR	S, OE
	Replace with: LED High Bay	\$22,672	\$41,790	2.2 Yearly Payback / 36% IRR	S
	Existing Lighting: 6-Lamp T5HO Fluorescent High Bay Luminaire	\$64,462 (energy & maintenance)			

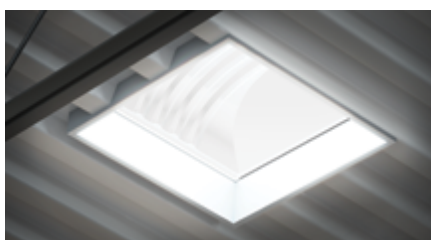
Operating Cost Savings

**Figures are based on conversion from existing 365W 6-lamp T5HO fluorescent luminaires to new 132W IBG LED high bay luminaires. Savings and returns estimates assume \$0.10/kWh utility rate, 6,570 yearly operating hours, projected typical control system performance, and typical HID lamp/ballast replacement and labor costs. Actual savings, payback period, and IRR may differ as a result of product cost, end-user environment, and application.



Task Lighting

Lithonia Lighting Z Series LED striplights provide superior performance and longer life than fluorescent striplights; no lamp outages mean uniform light and reduced maintenance costs.



Daylighting

Sunoptics® Signature Series prismatic skylights use a patented optical design to capture more light at low sun angles, which can eliminate the need for electric lighting during the daylight hours.



Modular Wiring

RELOC® modular wiring for open- and recessed-ceiling applications simplifies installation of lighting applications requiring up to three circuits.

Reduce maintenance and keep your production line running

Manufacturing

Imagine a lighting system that doesn't take breaks, waste expensive resources, or require ongoing supervision. An LED lighting solution from Acuity Brands is practically maintenance-free and designed to withstand even the harshest environments so you can keep your production lines going, your employees safe, and your costs low.



LED High Bay

Lithonia Lighting JCBL Round LED High Bay Luminaire

- Saves up to 50% energy over traditional sources and provides one-for-one replacement of up to 400W HID
- Maintains light levels at high ambient temperatures, as high as 122°F (50°C) if necessary, while withstanding moisture, dust and airborne contaminants



Occupancy Sensor

Acuity Controls LSXR

- Turns lights off or dims them when the space is unoccupied, increasing energy savings and life of your luminaires
- Light only the space you need with operational dimming and photocell settings



Networked Control and Software

XPoint Wireless and SensorView Software from Acuity Controls

- Configure individual fixtures or entire zones to boost savings, increase luminaire life and comply with local codes
- Software optimizes and automates system via task-tuning, configuring, rezoning, scheduling and more, all through one interface or app*

Get years of flexible, efficient lighting that will pay for itself quickly.

In the renovation example below, we replace pulse-start metal halide luminaires in a typical manufacturing application (bottom of chart) with Lithonia Lighting JCBL high bay luminaires — and then build the solutions from there to optimize your manufacturing capabilities and savings.

HID vs JCBL 18L - 250 Luminaires					
	System	Average yearly Operating Cost/Savings		Investment Drivers**	Benefits
OPTIMIZED	Replace with: LED High Bay with Networked Controls & Sensors	\$11,165	\$71,290	1.5 Yearly Payback / 66% IRR	<div><div>S</div><div>OE</div><div>VC</div><div>F</div></div>
	Replace with: LED High Bay with Occupancy Sensor	\$19,659	\$62,796	1.5 Yearly Payback / 68% IRR	<div><div>S</div><div>OE</div><div>VC</div></div>
	Replace with: LED High Bay	\$26,178	\$56,277	1.4 Yearly Payback / 72% IRR	<div><div>S</div><div>VC</div></div>
	Existing Lighting: 400W Pulse Start Metal Halide High Bay Luminaire	\$82,455 (energy & maintenance)			

Operating Cost Savings

**Figures are based on conversion from existing 458W pulse start metal halide luminaires to new 155W JCBL LED high bay luminaires. Savings and returns estimates assume \$0.10/kWh utility rate, 6,570 yearly operating hours, projected typical control system performance, and typical HID lamp/ballast replacement and labor costs. Actual savings, payback period, and IRR may differ as a result of product cost, end-user environment, and application.



Heavy Industrial LED High Bay

Lithonia Lighting JHBL LED high bay luminaire combines energy-efficient LEDs and strong thermal management with a rugged, die-cast housing that thrives in unforgiving climates.



Office Lighting

Lithonia Lighting BLT Series provides a clean design, shallow fixture depth for easy installation, plug-n-play control options and reliability – all at an attractive price. It is your best-in-value ambient lighting solution.



Outdoor Lighting

Employee parking. Truck yards. Loading docks and building perimeters. Maximize lighting quality and support safety and security for all of these spaces while minimizing energy and maintenance costs.

Manage costs, manage risks

Food Processing

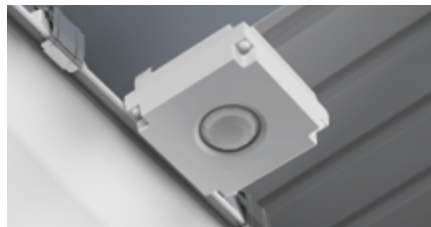
Lighting must be able to multi-task to meet your plant's needs. LED lighting solutions from Acuity Brands are designed for the specific needs of food processing to help you reduce your maintenance costs and downtime and keep you in compliance with the latest government regulations regarding food quality, safety and defense.



LED High Bay

Lithonia Lighting FHE LED Luminaires

- Lower-wattage LEDs save up to 60% energy over traditional lighting sources
- Wet-location listed and NSF certified; 1500 PSI hose-down and IP65, IP66, IP67 rated; meets FDA/USDA guidelines



Occupancy Sensor

Acuity Controls SBOR Series Sensors

- IP66 rated and can operate at temperatures as low as -40°F (-40°C)
- Dims or turns off lights when space is unoccupied, increasing energy savings and life of your luminaires



Networked Control and Software

XPoint Wireless and SensorView Software from Acuity Controls

- Configure individual fixtures or entire zones to boost savings, increase luminaire life and comply with local codes
- Software optimizes and automates system via task-tuning, configuring, rezoning, scheduling and more, all through one interface or app*

Expect more from your lighting in every aspect of the plant.

In the renovation example below, we replace 6-lamp, T5 fluorescent fixtures in a typical food processing application (bottom of chart) with Lithonia Lighting FHE LED food processing (enclosed and gasketed) high bay luminaires — and then build the solutions from there to optimize your capabilities and savings.

Fluorescent vs. FHE LED Enclosed and Gasketed – 250 Luminaires

	System	Average yearly Operating Cost/Savings		Investment Drivers**		Benefits
OPTIMIZED	Replace with: LED High Bay with Networked Controls & Sensors	\$15,130	\$72,616	2.0 Yearly Payback	48% IRR	S OE VC F
	Replace with: LED High Bay with Occupancy Sensor	\$26,020	\$61,726	2.1 Yearly Payback	45% IRR	S OE VC
	Replace with: LED High Bay	\$34,577	\$53,169	2.2 Yearly Payback	44% IRR	S VC
	Existing Lighting: 6-Lamp T5HO Fluorescent High Bay Luminaire	\$87,746 (energy & maintenance)				

Operating Cost Savings

**Figures are based on conversion from existing 365W 6-Lamp T5HO fluorescent luminaires to new 146W FHE LED high bay luminaires. Savings and returns estimates assume \$0.10/kWh utility rate, 8,760 yearly operating hours, projected typical control system performance, and typical fluorescent lamp/ballast replacement and labor costs. Actual savings, payback period, and IRR may differ as a result of product cost, end-user environment, and application.



LED Low Bay

Lithonia Lighting DMW2 LED provides versatility, higher on-task light levels and energy-saving controls options with a lightweight, NSF-listed, low-profile design.



LED Mid Bay

Lithonia Lighting FEM LED vapor-tight luminaires provide a low-profile, versatile lighting solution for most demanding applications. Ratings include IP65, IP66, IP67 and ambient temperatures from -40°F (-40°C) to 113°F (45°C).



Life Safety

Lithonia Lighting Indura® NEMA 4X emergency LED fixture (INDX) provides protection in environments where moisture, dirt or dust would limit the life of ordinary emergency lighting.

A single lighting software for your entire facility.

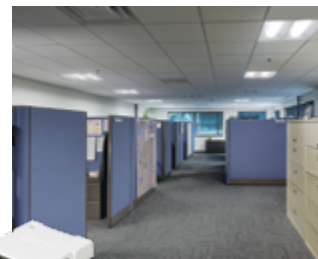
You're looking for an edge. You want greater levels of operational functionality and flexibility. You want to achieve greater savings. Consider investing in your operation by choosing the incredibly simple and adaptable XPoint Wireless lighting control system.



Configure and manage wired and wireless networked controls from a single interface.

- Group aisle lights to respond uniformly to activity
- Trim excess light levels to optimize 24x7 energy use
- Program schedules to reflect working hours in the offices
- Control lighting zones from your smart phone or tablet with the mobile app
- Verify historical system operations and monitor energy usage trends

SensorView



Office



Industrial

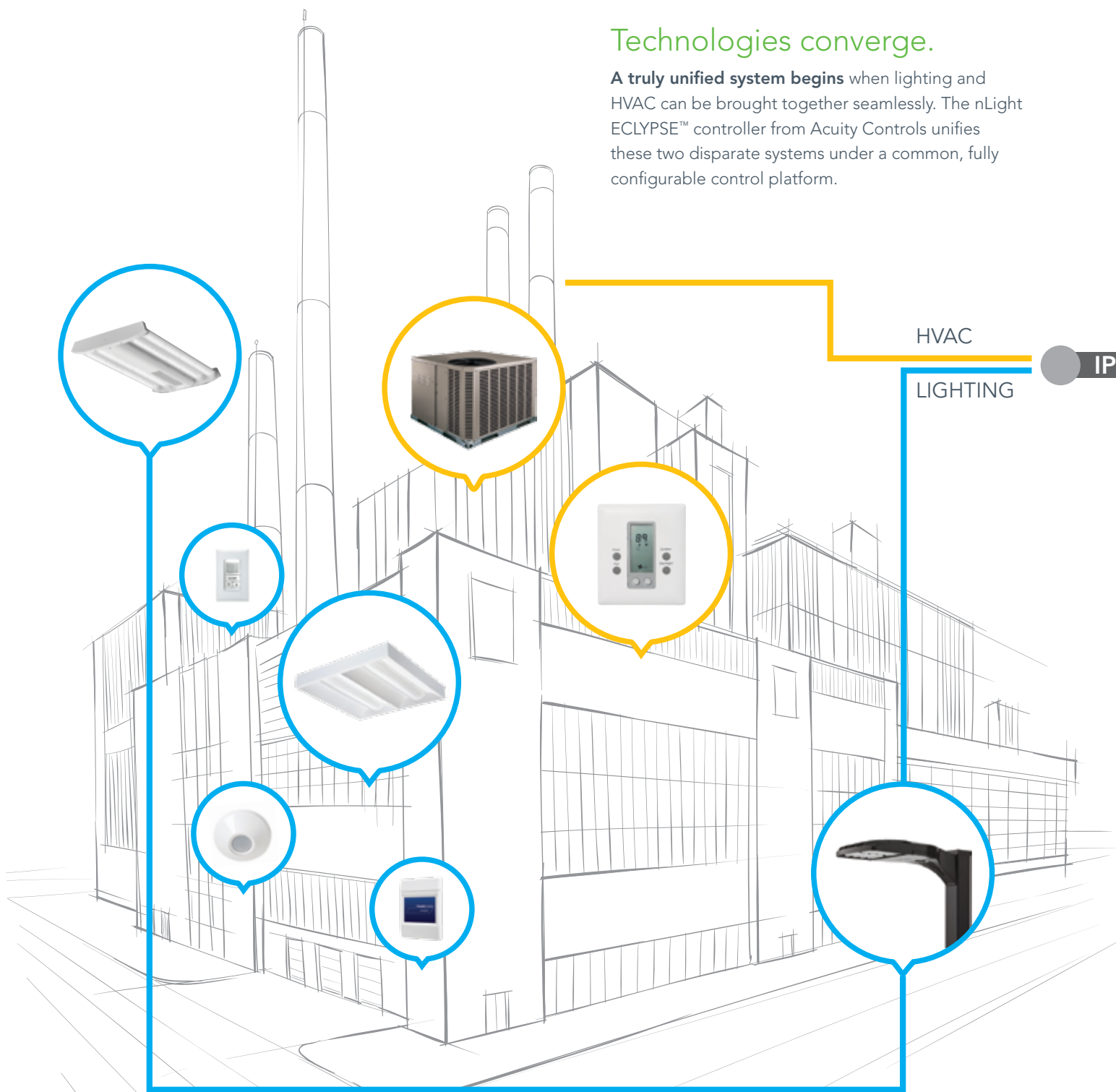
SensorView, the easy-to-use software platform for nLight®, integrates XPoint Wireless to deliver seamless set up and monitoring of wired and wireless networked lighting controls.

- **Ultimate flexibility:** Experience the freedom to rezone or move fixtures as your operation evolves; manage your lighting at any level, from the entire site, to specific zones or single fixtures.
- **Reliability = peace of mind:** XPoint Wireless is based on a proven wireless mesh network that has no single point of failure.
- **Stress-free code compliance:** Regulations change rapidly. Receive and manage demand response signals, or implement peak shaving strategies, to drive more savings. XPoint Wireless enables greater levels of multi-level dimming and daylight harvesting.

Bringing it all together: a unified solution for smart Industrial Facilities

Technologies converge.

A truly unified system begins when lighting and HVAC can be brought together seamlessly. The nLight ECLYPSE™ controller from Acuity Controls unifies these two disparate systems under a common, fully configurable control platform.



Complete your Acuity Brands experience with confidence and more.

A+ Certification for Compatible and Consistent Performance

A+ Certified solutions from Acuity Brands help you quickly and confidently select and implement lighting systems that are both capable and compatible. For lighting professionals, it means ease, freedom and confidence that all parts of a certified lighting system will operate together.



Acuity Brands Services

Acuity Brands offers customer financing and rebate services, so customers can experience the energy and expanded capabilities of LED lighting and remain cash-flow positive in year one. Contact services@acuitybrands.com for more information and a custom financing program for your next renovation project. www.acuitybrands.com/solutions/services

Visit AcuityBrands.com/Industrial



Expanding the boundaries of lighting™

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