

*Intelligent Lighting
Network Solutions*

The Smartest Lighting Supporting the Brightest Companies

- Unparalleled energy efficiency
- Powered over low-voltage cable for flexibility and lower installation cost
- High-density sensor network supports space and environmental optimization
- Open API integrates with building systems and networked operations



WESCO Lighting and Network Solutions Expertise

When it comes to meeting customer requirements and providing customized solutions, WESCO's highly experienced Lighting and Data Communications Teams are the only resources you need. Our combined expertise makes WESCO ideally suited to recommend the best and brightest solution every time.

- Dedicated Lighting and Network Solutions Experts
- Network of Trusted Electrical and Data Communications Contractors
- Lighting and Energy Audits
- Lighting Upgrades and Retrofits
- Lamp and Ballast Recycling
- Legislation Compliance and Utility Rebates

Lighting a Path to Savings

According to the US Department of Energy (DoE), lighting accounts for 30% to 50% of a commercial building's energy use. Standard fluorescent fixtures are limited in controls and intelligence. For building managers looking to reduce energy costs and improve building intelligence, a network lighting solution is a great place to start.

An Intelligent Lighting Network Solution delivers the energy efficiency of LED lighting, with a sensor network that reports motion and illumination levels. The LED fixtures are powered over a standards-based PoE network using UTP cabling. Sensor data can be used to support smarter facility policies and, through an open API (application programming interface), can put those policies to work for you.

Benefits of an Intelligent Lighting Network Solution

- Reduces lighting energy costs by up to 75%
- Enables informed real estate decisions based on granular occupancy reporting
- Supports smart building and business operations through a dense sensor network
- Uses industry-standard cabling and PoE
- Simplifies moves, adds and changes



Open API, Open for Innovation

Each fixture in an Intelligent Lighting Network Solution is controlled through a local sensor, managed by web-based applications accessible on- or off-site. These applications allow you to set lighting policies based on light levels, time-outs, daylight harvesting and motion. However, that is just the beginning of this solution's capabilities.

The ubiquitous sensor coverage, combined with an open API, enables innovative applications that can improve space utilization, productivity, temperature and color mapping and even security.

Empower Your Facility with a High-Density Sensor Network

The key to this solution is a high-density sensor network that provides a comprehensive set of environmental data. Through integration, your sensor network can support smart building policies with a meaningful return on investment.

- Occupancy reports that support smart real estate decisions
- HVAC reduction in unoccupied zones
- Programmable email alerts for lights out, fixture failure or unexpected motion
- Room occupancy indicators and room scheduling
- Customized environmental reports and energy consumption mapping
- Real-time reporting on building occupancy and location of occupants
- Emergency evacuation pathway lighting



Turn Down the AC, Power with PoE

Take LED lighting to the next level with a Power over Ethernet (PoE) low-voltage system that reduces energy consumption and increases building intelligence, leveraging the same cabling infrastructure that supports your data network today. Every peripheral component of your Intelligent Lighting Network Solution, including fixtures, sensors and wall dimmers, is powered over low-voltage UTP cabling. Experience all the benefits of LED lighting combined with the unique features of a PoE/low-voltage system.

- Low-voltage PoE infrastructure can eliminate the need for pipe or conduit, resulting in a solution that's easier to install and maintain
- PoE LEDs cut energy and maintenance costs by running cooler and longer than fluorescent
- Intelligent Lighting Network Solutions extend the energy savings of LED fixtures through highly configurable controls from daylight harvesting to time-outs and motion activation
- Standards-based, PoE-enabled infrastructure simplifies full building automation, driving cost savings through a converged network
- The sensor grid network enables collection of granular data, viewable on a sophisticated software platform for valuable analytics

Office Space—Intelligent Lighting Network Solutions



■ Fixtures

- Panel Fixtures
- Down Lights
- Pendants
- Wall Sconces
- Recessed Linear LED Fixtures

■ Controls

- PoE Switches
- Sensors
- Wall Dimmers
- Scene-Control Switches
- UTP Cabling
- Patch Cords
- Patch Panels
- Racks
- Wall-Mount Kits

■ Power

- UPS for Emergency Backup
- PDUs
- Power Cables



2x4 Troffer

UTP Cabling

LED Pendants

Rack with
Patch Panel
and PoE
Switch

Scene-Control
Wall Switch

Wall
Dimmer

Emergency
Backup UPS

Fixtures — Office lighting is deployed evenly throughout the office interior, making it the ideal host for a pervasive sensor technology.

Sensors — Each sensor detects motion, illumination and temperature.

Dimmers — To override automated controls, occupants can adjust light for detail work.

Connectivity — Sensors, fixtures and dimmers are powered over UTP cabling for easy installation and greater energy efficiency than traditional sensor and lighting solutions.

PoE Switch — Converts AC power to low-voltage DC power.



WESCO®



Data Center — Intelligent Lighting Network Solutions

Data centers are pressured to improve power usage effectiveness (PUE) and deliver higher uptimes. Improving lighting efficiency is an easy way to make an immediate impact. With an Intelligent Lighting Network Solution, you can reduce lighting energy consumption by up to 75%, and distribute a high-density sensory system across your mission-critical facility.

- Save up to 75% on lighting energy costs
- Improve PUE and gain LEED® points
- Monitor environmental threats to uptime
- Reduce maintenance and enhance security
- Use low-voltage cable to power lights for a flexible, lower-cost installation
- Recommended in ANSI/TIA 942A



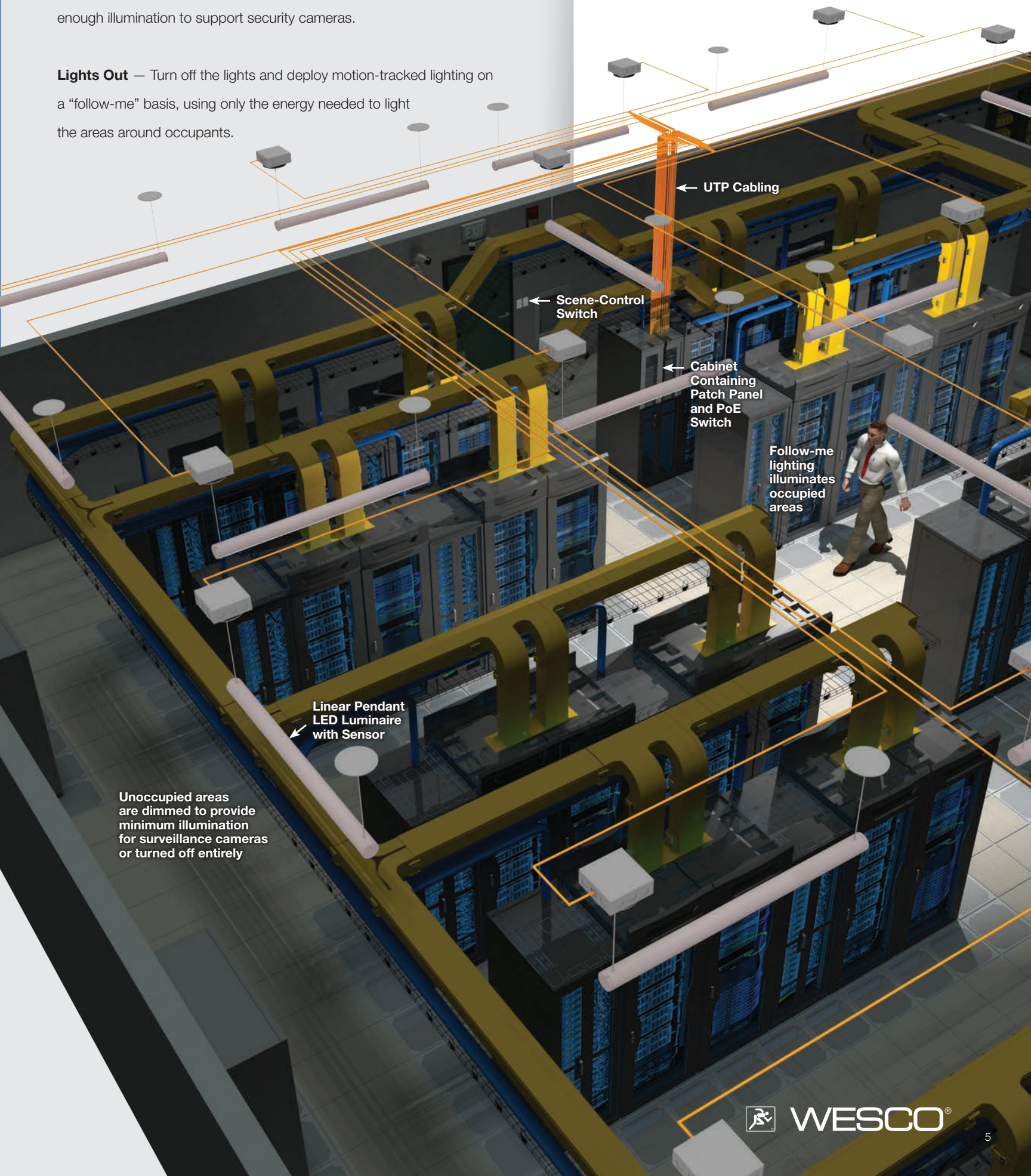
Data Center Benefits

Energy Savings	<ul style="list-style-type: none">• Up to 75% lighting energy savings• LEDs run cooler, reducing facility heat load• Earn LEED points
Monitor Uptime Threats	<ul style="list-style-type: none">• Ubiquitous motion and occupancy sensing• Programmable alerts by email or flashing lights
Reduce Maintenance and Enhance Security	<ul style="list-style-type: none">• LEDs can outperform their more than 100,000-hour rated lifetime in an Intelligent Lighting Solution• Lights can dim while supporting security camera lighting requirements• Verify security walk-throughs or receive alerts of unexpected presence
Remote Monitoring and Control	<ul style="list-style-type: none">• Monitor anywhere through web-based controls• Reports on actual energy usage• Flashes lights remotely for technicians

For Lights-On and Lights-Out Data Centers

Lights On — The system can apply significant dimming while providing enough illumination to support security cameras.

Lights Out — Turn off the lights and deploy motion-tracked lighting on a “follow-me” basis, using only the energy needed to light the areas around occupants.



Unoccupied areas are dimmed to provide minimum illumination for surveillance cameras or turned off entirely



Intelligent Lighting Network Solutions

FAQs

Q: *What is the difference between Intelligent Lighting Network Solutions (ILNS) and other lighting control systems?*

A: Three key differences separate ILNS from competing solutions. (1) The system is powered via PoE and UTP cabling. (2) ILNS provides occupancy, motion and illumination reporting. (3) Through an open API, you can integrate other building automation systems and network solutions to support powerful facility policies, increase workplace efficiencies and supplement security.

Q: *How does an ILNS compare to the savings in other LED lighting control systems?*

A: The granularity of control offered by an ILNS will help you achieve the lowest total energy footprint. When you combine this level of lighting control with facility policies empowered by a pervasive sensory system, and real estate decisions based on actual occupancy data, you have a powerful menu of savings opportunities. With a sensor for each fixture, the ILNS system provides 50x greater detection accuracy.

Q: *Can a low-voltage LED fixture be unplugged without turning off the power to the system?*

A: Yes. You can unplug an LED low-voltage fixture without turning out the lights to the rest of the service area. From a technical standpoint, when the flow of electricity is interrupted via disconnect, the associated momentum results in “inductive kick,” which will cause a few sparks in rapid succession. A common example of severe inductive kick and the associated sparks can be observed when unplugging a vacuum cleaner from an AC outlet while running. Standards-compliant Category 5e (or better) cabling and all end points are designed to withstand the negative effects of “inductive kick” when disconnected from a low-voltage system carrying current (check with your manufacturer for specific operating instructions).

Q: *How do I code with the open API to interface the solution with Security Systems, Building Automation Systems and Information Systems?*

A: Any system with an open API can be coded to interact with an Intelligent Lighting Network Solution. Consult WESCO for trusted integration partners and coding sources.

Q: *How does the lighting quality compare to other LED lighting control solutions?*

A: Leading manufacturers support low-voltage LED fixtures with the same level of lighting quality you would expect in any LED lighting solution. They run cool, have a 100,000-hour+ life expectancy, use far less electricity than fluorescent fixtures and deliver brilliant, quality lighting.

Q: *Are the installation requirements the same as AC lighting fixtures?*

A: There are material differences in the system components and installation hardware. WESCO and our manufacturing partners can assist you with recommending a certified installer who will make sure your system is warrantied and compliant with local building ordinances.

Q: *Can an ILNS support outdoor lighting?*

A: Currently, an ILNS is not suited for the outdoors. The fixtures are not weatherproof, the sensors do not support the necessary distances, and the UTP cabling is limited to 300 ft. runs.

Q: *What do the sensors detect?*

A: Each sensor detects motion and light level. When motion is detected, occupancy is assumed and the programmed rules for lighting are applied. Illumination levels determine how bright the lights need to be to reach the desired brightness, harvesting any available ambient lighting. By having a sensor with each lighting fixture, you gain highly granular control and reporting of your environment.



More Questions on Intelligent Lighting Network Solutions?

To discuss your questions and your specific application, contact WESCO's Technical Solutions Engineers today.

Call: 877.462.7279

Upgrade Your Business with Value Creation

Quality electrical and lighting products, unmatched technical expertise, extra-effort service — that's Leadership in Lighting at WESCO. We're here to help you improve operating efficiency in an eco-friendly manner while achieving bottom-line savings.

Complete Sales Support

Together, the WESCO Lighting Team, Technical Solutions Engineers and our network of certified integrators and industry-leading manufacturers offer specification and design support for your Intelligent Lighting Network Solution.

Around the World or Across the Street, We Keep Your Business Running

WESCO is much more than a data communications, security and electrical distributor. We are a full-service, global supply chain company providing you with leading products, services and solutions to meet your MRO, OEM and capital project requirements.

A majority of Fortune 500 companies use WESCO as their "one-stop shop." The breadth and depth of our capabilities, geographic footprint and supply base enable us to meet your needs and provide continuity to your operations.

WESCO is the world's fastest-growing global distributor of data communications and security solutions. We have expertise in the latest technologies from all industry-leading manufacturers and can provide you with unmatched extra effort and value-added solutions.

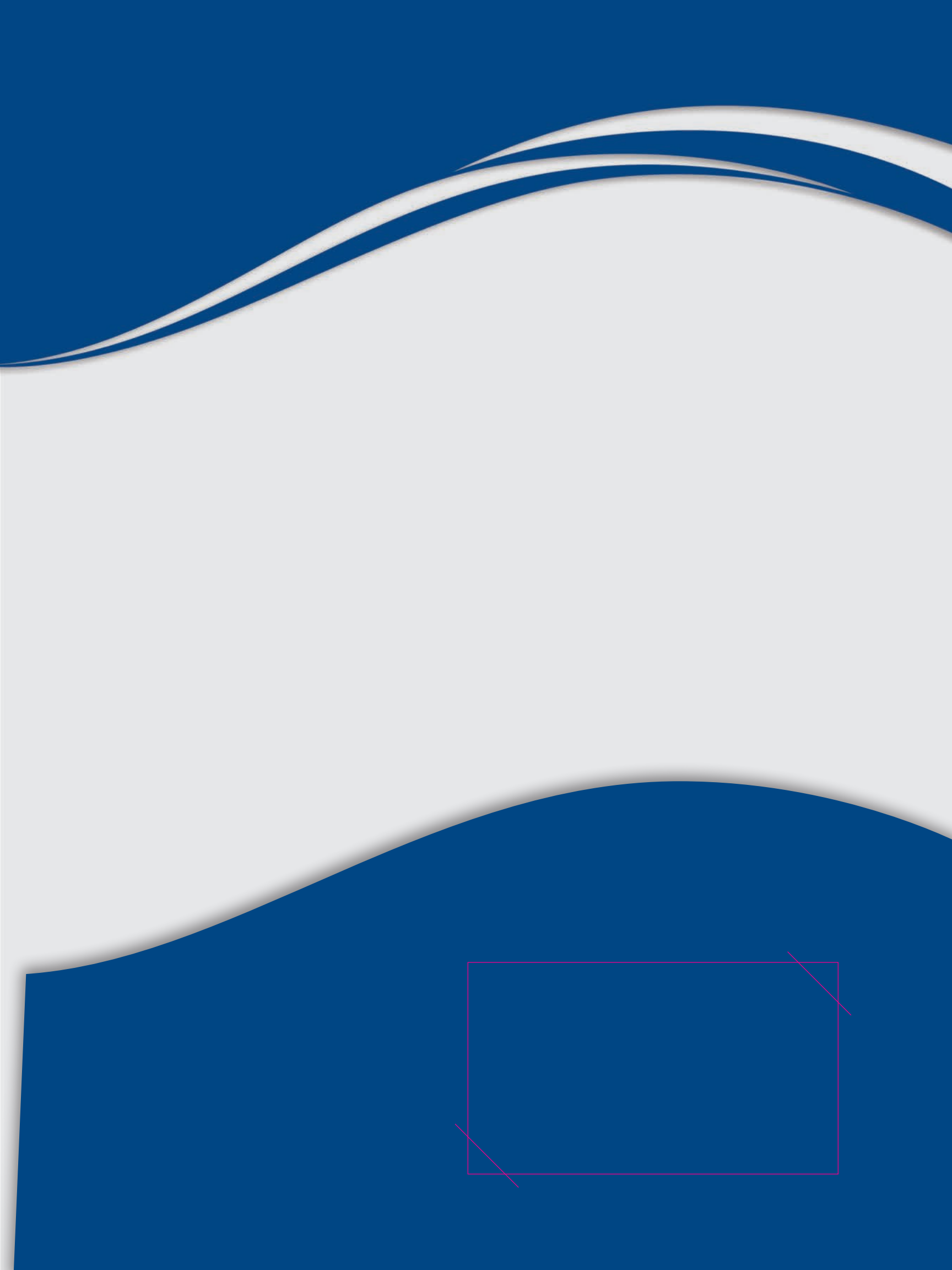


WESCO Value Creation

WESCO can help your business maximize productivity while saving money. Our extensive line of WESCO Value Creation Solutions can streamline operations in a variety of areas by providing energy, project management, working capital and procurement solutions.

Providing Value Creation Solutions for:

- Lighting Audits
- Communications
- eBusiness
- Energy & Sustainability
- Engineering Services
- Production Support
- Safety
- Security
- Supply Chain Optimization
- Training
- Working Capital





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WESCO International, Inc. (NYSE: WCO), a publicly traded Fortune 500 holding company headquartered in Pittsburgh, Pennsylvania, is a leading provider of data communications, security, electrical, industrial, maintenance, repair and operating (MRO) and original equipment manufacturers (OEM) product, construction materials, and advanced supply chain management and logistic services. 2013 annual sales were approximately \$7.5 billion. The company employs approximately 9,200 people, maintains relationships with over 18,000 suppliers, and serves over 65,000 active customers worldwide. Customers include commercial and industrial businesses, contractors, government agencies, institutions, telecommunications providers, and utilities. WESCO operates nine fully automated Distribution Centers and approximately 475 full-service Branches in North America and international markets, providing a local presence for customers and a global network to serve multi-location businesses and multi-national corporations.