

CONNECTED COMMUNITIES
LED Product Selection Guide
Q1 2021



- Lumark
- McGraw-Edison
- Invue
- Lumiere
- Streetworks

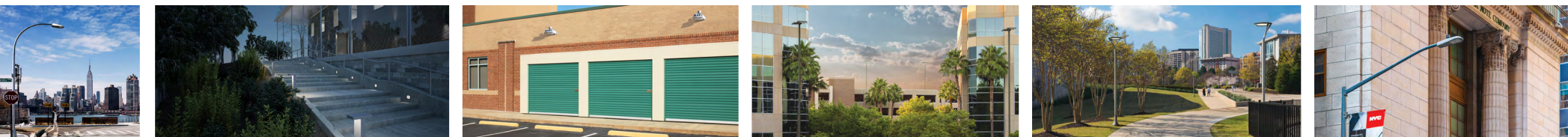
Delivering unparalleled performance

No matter the complexity of your project, we offer a range of LED products that lower operating costs, reduce energy consumption, and enhance outdoor spaces. Whether you're looking for simple dusk-to-dawn security lighting or cutting-edge functionality, you'll find unmatched quality and attention to detail.

In other words, these products don't just meet standards. They set the standards.

The product selection guides are simple yet powerful tools to help assist with product comparison and selection based on features, performance and value.

- 3 Floodlighting
- 4 Area and Site
- 6 Decorative
- 8 Wall Mount
- 10 Parking Garage and Canopy
- 11 Roadway
- 12 Pathway / Bollards
- 13 Landscape / Accent
- 14 Lighting Controls
- 19 Pole Configurator



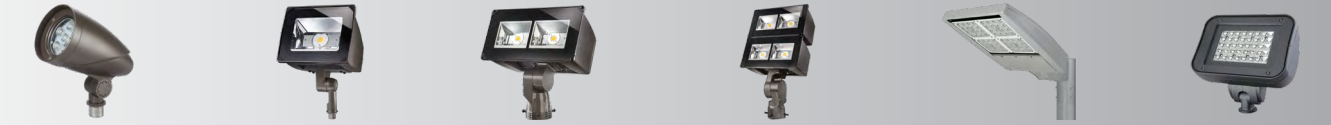
Floodlighting

Cooper Lighting Solutions offers the widest variety of outdoor floodlighting products in the industry, ideal for applications from commercial buildings to rail yards and everything between. Available in multiple optical distributions, control options, voltages and finishes, Cooper Lighting Solutions carries a floodlighting solution appropriate for any application or budget.



[Click product image for additional information](#)

Lumark | McGraw-Edison | Invue



		Tracer	Night Falcon Small	Night Falcon	Night Falcon Large	Galleon Flood	Vision Flood
PRODUCT	Brand	Lumark	Lumark	Lumark	Lumark	McGraw-Edison	Invue
	Series	TCR	NFFLD-S	NFFLD	NFFLD-L	GLEON	VFS
	Application	Landscape	C&I	C&I	C&I	C&I	Architectural
PERFORMANCE / CERTIFICATIONS	LED Type	Discrete	COB	COB	COB	Discrete	Discrete
	Lumens	530 - 2,900	2,700 - 5,800	10,500 - 23,800	25,900 - 48,000	4,200 - 80,800	1,200 - 6,600
	Lumens Per Watt	138	134	138	145	156	94
	Optical Distributions	3	2	2	2	16	7
	Mounting Options	Knuckle	Slipfitter / Trunnion / Knuckle	Slipfitter / Trunnion / Yoke	Slipfitter / Trunnion / Yoke	Pole / Wall / Slipfitter	Wall / Knuckle / Slipfitter
	Life (L70) @ 25°C	> 153,000 Hrs	> 399,000 Hrs	> 388,000 Hrs	> 393,000 Hrs	>851,000 Hrs	> 250,000 Hrs
	DLC	Standard	Premium	Premium	Premium	Premium	--
INTEGRATED CONTROLS	Dimming	✓	✓	✓	✓	✓	✓
	Photocontrol	--	✓	✓	✓	✓	✓
	Occupancy	--	--	✓	--	✓	--
CONNECTED	WaveLinx	--	✓	✓	✓	✓	--

Area and Site

Our outdoor LED lighting solutions for area and site applications combine world-class optics, high efficiency light engines and a range of aesthetics to meet the demands of any project. From architect to engineer to installer, our breadth and quality of lighting and controls options provide ideal solutions for a variety of applications, including parking, transit, pedestrian and security in commercial, industrial and residential spaces.



Click product image for additional information

Lumark | McGraw-Edison



		Caretaker	LAS	Prevail	Prevail Discrete	Navion	Galleon	Galleonaire
PRODUCT	Brand	Lumark	Lumark	Lumark	Lumark	Lumark	McGraw-Edison	McGraw-Edison
	Series	CTKR	LAS	PRV & PRV-XL	PRV & PRV-XL	NAV	GLEON	GLNA
	Application	C&I	C&I	C&I	C&I	C&I	C&I	C&I
PERFORMANCE / CERTIFICATIONS	LED Type	COB	Discrete	COB	Discrete	Discrete	Discrete	Discrete
	Lumens	4,500 - 9,700	4,900 - 34,000	7,100 - 48,600	7,500 - 41,000	4,700 - 50,000	4,200 - 80,800	3,200 - 68,800
	Lumens Per Watt	156	135	148	148	158	156	133
	Optical Distributions	1	3	4	5	16	16	16
	Mounting Heights	10 - 30'	15 - 40'	15 - 50'	15 - 40'	15 - 40'	10-60'	15 - 55'
	Life (L70) @ 25°C	> 220,000 Hrs	> 126,000 Hrs	> 194,000 Hrs	> 416,000 Hrs	> 416,000 Hrs	>851,000 Hrs	> 416,000 Hrs
	Replaces	100 - 250W HID	450 - 1,000W HID	150 - 1,000W HID	150 - 1,000W HID	100 - 1,000W HID	100-1,500W HID	--
	DLC	Premium	Premium	Premium	Premium	Premium	Premium	Premium
INTEGRATED CONTROLS	Dimming	✓	✓	✓	✓	✓	✓	✓
	Photocontrol	✓	✓	✓	✓	✓	✓	✓
	Occupancy	--	✓	✓	✓	✓	✓	✓
CONNECTED	WaveLinx	--	--	✓	✓	✓	✓	✓
	Enlighted	--	--	✓	✓	✓	✓	✓
	LumenSafe	--	--	✓	✓	✓	✓	✓

Area and Site

Our outdoor LED lighting solutions for area and site applications combine world-class optics, high efficiency light engines and a range of aesthetics to meet the demands of any project. From architect to engineer to installer, our breadth and quality of lighting and controls options provide ideal solutions for a variety of applications, including parking, transit, pedestrian and security in commercial, industrial and residential spaces.



Click product image for additional information

McGraw-Edison | Invue



		Ventus	Celesteon	TopTier	Vision Site	Icon	LuxeScope	Metroline
PRODUCT	Brand	McGraw-Edison	McGraw-Edison	McGraw-Edison	Invue	Invue	Invue	Invue
	Series	VTS	CTN	TT	VXS / VXM	ICS / ICM	LXS	MLA
	Application	C&I	C&I	C&I	C&I	C&I	C&I	C&I
PERFORMANCE / CERTIFICATIONS	LED Type	Discrete	COB	Edge-lit	Discrete	Discrete	Edge-lit	Discrete
	Lumens	4,400 - 38,000	30,000 - 103,000	3,000 - 13,300	2,200 - 16,000	2,100 - 18,000	1,900 - 11,400	5,100 - 12,000
	Lumens Per Watt	132	167	146	132	123	115	132
	Optical Distributions	12	6	5	12	12	4	3
	Mounting Heights	15 - 30'	50 - 110'	8 - 20'	10 - 30'	10 - 30'	8 - 25'	8 - 25'
	Life (L70) @ 25°C	> 425,000 Hrs	> 242,000 Hrs	> 270,000 Hrs	> 425,000 Hrs	> 425,000 Hrs	> 172,000 Hrs	>172,000 Hrs
	DLC	Standard	Premium	Premium	Standard	Standard	Premium	--
INTEGRATED CONTROLS	Dimming	✓	✓	✓	✓	✓	✓	✓
	Photocontrol	✓	✓	✓	✓	✓	✓	✓
	Occupancy	✓	--	✓	✓	✓	✓	--
CONNECTED	WaveLinx	✓	--	✓	--	--	✓	✓
	Enlighted	--	--	✓	✓	✓	✓	--
	LumenSafe	--	--	--	--	--	--	--

Decorative

Streetworks | McGraw-Edison







Decorative

Invue

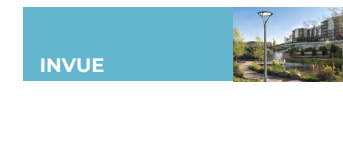
Offered in traditional shapes reminiscent of early gas-lit lamps, to ultra-modern styling that transforms urban cityscapes, Cooper Lighting Solutions decorative outdoor products integrate cutting-edge LED and controls technologies that span across generations and design languages to truly enhance pedestrian experiences.







Click product image for additional information

							
		Utility LED Acorn	Woodbridge	Breckenridge	Lexington	Traditionaire	Generation Series
PRODUCT	Brand	Streetworks	Streetworks	Streetworks	Streetworks	McGraw-Edison	McGraw-Edison
	Series	ULA	MPW	MPB	LXF / LXT	TRR	GAR / GAT / GLC
	Application	Utility / Infrastructure	Utility / Infrastructure	Utility / Infrastructure	Utility / Infrastructure	C&I	C&I
PERFORMANCE / CERTIFICATIONS	LED Type	Lensed	Lensed	Lensed	Discrete / Lensed	Lensed	Lensed
	Lumens	2,900 - 9,549	1,900 - 6,896	1,900 - 6,504	2,000 - 11,000	5,000	5,778 - 11,060
	Lumens Per Watt	157	114	107	140	90	112
	Optical Distributions	2	2	2	5	2	2
	Life (L70) @ 25°C	> 139,000 Hrs	> 69,000 Hrs	> 69,000 Hrs	> 800,000 Hrs	> 50,000 Hrs	> 210,000 Hrs
	DLC	--	--	--	Standard	--	--
INTEGRATED CONTROLS	Dimming	✓	✓	✓	✓	✓	--
	Photocontrol	✓	✓	✓	✓	✓	✓
	Occupancy	--	--	--	--	--	--
CONNECTED	WaveLinx	--	--	--	--	--	--
	Enlighted	--	--	--	--	--	--

Offered in traditional shapes reminiscent of early gas-lit lamps, to ultra-modern styling that transforms urban cityscapes, Cooper Lighting Solutions' decorative outdoor products integrate cutting-edge LED and controls technologies that span across generations and design languages to truly enhance pedestrian experiences.



Click product image for additional information

					
		Mesa	Epic Medium	Arbor Post Top	LuxeScope
PRODUCT	Brand	Invue	Invue	Invue	Invue
	Series	MSA	ECM / EMM	ARB	LXS
	Application	C&I	C&I	C&I	C&I
PERFORMANCE / CERTIFICATIONS	LED Type	Discrete	Discrete	Edge-Lit	Edge-Lit
	Lumens	3,000 - 29,000	2,300 - 12,200	2,000 - 9,500	1,923 - 10,765
	Lumens Per Watt	108	126	100	108
	Optical Distributions	12	12	4	4
	Life (L70) @ 25°C	> 400,000 Hrs	> 450,000 Hrs	> 230,000 Hrs	> 230,000 Hrs
	DLC	--	Standard	--	--
INTEGRATED CONTROLS	Dimming	✓	✓	✓	✓
	Photocontrol	✓	--	✓	✓
	Occupancy	✓	✓	✓	✓
CONNECTED	WaveLinx	--	--	--	--
	Enlighted	✓	--	✓	✓

Wall Mount

Boasting specification grade performance and architectural styling, these wall-mounted LED fixtures were designed to enhance exteriors, providing much more than award-winning illumination. Visually striking dayforms to low-profile accents, this collection provides pedestrian convenience and security as well as code-compliant egress for a multitude of lighting projects.



[Click product image for additional information](#)

Lumark

						
		Glass Wall Pack	Crosstour	Axcent	Wal-Pak	Square Wall Pack
PRODUCT	Brand	Lumark	Lumark	Lumark	Lumark	Lumark
	Series	WPM/WPS/WPL	XTOR	AXC	WP	WPSQLED
	Application	C&I	C&I	C&I	C&I	C&I
PERFORMANCE / CERTIFICATIONS	LED Type	Discrete	COB	Discrete	COB	COB
	Lumens	4,700 - 15,500	1,400 - 13,458	1,800 - 17,300	3,300 - 5,900	7,100 - 11,000
	Lumens Per Watt	128	132	144	131	111
	Optical Distributions	1	2	2	Glass	Glass
	Mounting Heights	15' - 30'	10 - 40'	10 - 40'	> 340,000 Hrs	> 240,000 Hrs
	Life (L70) @ 25°C	> 121,000 Hrs	> 255,000 Hrs	> 556,000 Hrs	✓	--
	Emergency Battery	--	✓	✓	Premium	Standard
INTEGRATED CONTROLS	DLC	Premium	Premium	Premium	✓	--
	Dimming	✓	--	✓	✓	✓
	Photocontrol	✓	✓	✓	--	--
CONNECTED	Occupancy	--	✓	✓	--	--
	WaveLinx	--	--	✓	--	--
CONNECTED	Enlighted	--	--	✓	--	--

Wall Mount

Boasting specification grade performance and architectural styling, these wall-mounted LED fixtures were designed to enhance exteriors, providing much more than award-winning illumination. Visually striking dayforms to low-profile accents, this collection provides pedestrian convenience and security as well as code-compliant egress for a multitude of lighting projects.



[Click product image for additional information](#)

McGraw-Edison | Invue

							
		Galleon Wall Companion	Impact Elite	TopTier	Entri Series	Vision Wall	Arbor Wall Sconce
PRODUCT	Brand	McGraw-Edison	McGraw-Edison	McGraw-Edison	Invue	Invue	Invue
	Series	GWC	ISC / ISS / IST / ISW	TT	ENT / ENC / ENV	VWM	ABW
	Application	C&I	C&I	C&I	C&I	C&I	C&I
PERFORMANCE / CERTIFICATIONS	LED Type	Discrete	Discrete	Edge-lit	Discrete	Discrete	Edge-lit
	Lumens	3,200 - 17,000	2,400 - 8,100	3,000 - 13,300	400 - 9,800	2,200 - 15,700	500 - 880
	Lumens Per Watt	154	143	146	136	129	45
	Optical Distributions	13	10	5	5	5	2
	Mounting Heights	10 - 30'	8 - 20'	8 - 20'	8 - 20'	10 - 40'	8 - 10'
	Life (L70) @ 25°C	> 851,000 Hrs	> 851,000 Hrs	> 270,000 Hrs	> 2.4M Hrs	> 425,000 Hrs	> 250,000 Hrs
	Emergency Battery	✓	✓	✓	✓	--	--
INTEGRATED CONTROLS	DLC	Premium	Premium	Premium	Standard	--	--
	Dimming	✓	✓	✓	--	✓	✓
	Photocontrol	✓	✓	✓	✓	✓	✓
CONNECTED	Occupancy	✓	✓	✓	✓	✓	✓
	WaveLinx	✓	✓	✓	--	--	--
CONNECTED	Enlighted	✓	--	✓	✓	✓	--

Parking Garage and Canopy

Parking garages, banks, gas stations, educational and healthcare facilities require reliable, efficient lighting solutions for covered spaces with a wide range of performance and configurability. Cooper Lighting Solutions' parking garage and canopy solutions provide superior coverage and flexibility, available with controls and visual comfort optic distributions for even the most discerning lighting professional.



[Click product image for additional information](#)

Lumark | McGraw-Edison

		RPGC	Canopy	TopTier	Concise	Recessed Canopy
PRODUCT	Brand	Lumark	Lumark	McGraw-Edison	McGraw-Edison	McGraw-Edison
	Series	RPGC	CLCSLED	TT	CNC	LRC
	Application	C&I	C&I	C&I	C&I	C&I
PERFORMANCE / CERTIFICATIONS	LED Type	Lensed	Lensed	Edge-lit	Discrete	Discrete
	Lumens	3,700 - 7,800	4,700 - 13,900	3,000 - 13,300	2,224 - 12,431	2,987 - 8,212
	Lumens Per Watt	125	132	146	128	99
	Distributions	--	--	5	9	3
	Voltages	120-277, 347	120-277, 347	120-277, 347, 480	120-277, 347, 480	120-277, 347, 480
	Mounting Heights	--	--	8 - 20'	8 - 30'	8 - 20'
	Life (L70) @ 25°C	> 159,000 Hrs	> 346,000 Hrs	> 270,000 Hrs	> 450,000 Hrs	> 350,000 Hrs
	Emergency Battery	--	--	✓	✓	--
	DLC	✓	✓	✓	--	--
	INTEGRATED CONTROLS	Dimming	✓	--	✓	✓
Photocontrol		--	✓	✓	✓	--
Occupancy		✓	--	✓	✓	--
CONNECTED	WaveLinx	--	--	✓	--	--
	Enlighted	--	--	✓	--	--

Roadway

Meeting increasing demands of energy efficiency, project expenditures and maintenance costs, Cooper Lighting roadway solutions provide best-in-class optical performance, generating superior pole spacing, uniformity, coverage and spill light control. Combined with controls and enhanced security options, Cooper Lighting Solutions' Streetworks portfolio represents the best value for street and roadway applications.



[Click product image for additional information](#)

Streetworks

		Caretaker	Verdeon	Navion	Archeon	Celesteon	Metroline
PRODUCT	Brand	Streetworks	Streetworks	Streetworks	Streetworks	Streetworks	Streetworks
	Series	CRTK2	VERD	NVN	ARCH	CST	MLN
	Application	Roadway	Roadway	Roadway	Roadway	Roadway	Roadway
PERFORMANCE / CERTIFICATIONS	LED Type	COB	COB	Discrete	Discrete	COB	Discrete
	Lumens	2,900 - 10,200	2,600 - 20,400	4,700 - 50,000	2,000 - 37,000	30,000 - 100,000	5,300 - 11,500
	Lumens Per Watt	156	134	158	178	145	124
	Optical Distributions	5	5	16	6	7	3
	Mounting Heights	10 - 20'	15 - 40'	15 - 40'	15 - 40'	40 - 100'	15 - 40'
	Life (L70) @ 25°C	> 306,000	87,000 - 250,000 Hrs	> 416,000 Hrs	416,000 - 800,000 Hrs	242,000 Hrs	142,000 - 230,000
	Surge Protection	✓	✓	✓	✓	✓	✓
	3G Certification	✓	✓	✓	✓	✓	✓
	DLC	✓	✓	✓	✓	--	--
	UL	✓	✓	✓	✓	✓	✓
INTEGRATED CONTROLS	Dimming	✓	✓	✓	✓	✓	✓
	DALI	✓	✓	✓	✓	✓	✓
	Photocontrol	✓	✓	✓	✓	✓	✓
	Occupancy	✓	--	✓	✓	--	--
CONNECTED	Enlighted	✓	✓	✓	✓	✓	✓
	LumenSafe	--	--	✓	✓	--	--

Our outdoor LED lighting solutions for pathway applications provide architectural style while delivering exceptional optical performance. Visual comfort is particularly important for pathway applications and our bollards enhance the surroundings through beautiful management of glare for improved visibility.



 Click product image for additional information

					
		BRT6	Eon	ClearPath Bollard	Arbor Bollard
PRODUCT	Brand	McGraw-Edison	Lumière	Invue	Invue
	Series	BRT6	Eon 303	CPB	ABB
	Application	C&I	C&I	C&I	C&I
PERFORMANCE / CERTIFICATIONS	LED Type	Discrete	Discrete	Edge-lit	Edge-lit
	Lumens	560 - 4,400	560 - 2,700	450 - 700	500 - 1,300
	Lumens Per Watt	up to 122	up to 92	30	45
	Optical Distributions	4	3	3	2
	Heights	30", 36", 42"	12", 24", 36", 42"	42"	32", 36", 42"
	Life (L70) @ 25°C	270,000 Hrs	365,000 Hrs	245,000 Hrs	350,000 Hrs
	DLC	--	--	--	--
INTEGRATED CONTROLS	Dimming	✓	✓	✓	✓
	Photocontrol	✓	✓	--	--
	Occupancy	--	--	--	--
CONNECTED	WaveLinx	--	--	--	--

Distinctive Environmental Lighting

Lumière brings cutting-edge, feature packed accent lighting that will dramatically showcase any architectural feature, inside or out.



Landscape

Fine-tune your lights to create dramatic lighting effects.



Architectural

Add beauty, character and focus to modern or traditional structures.



Pathway & Signs

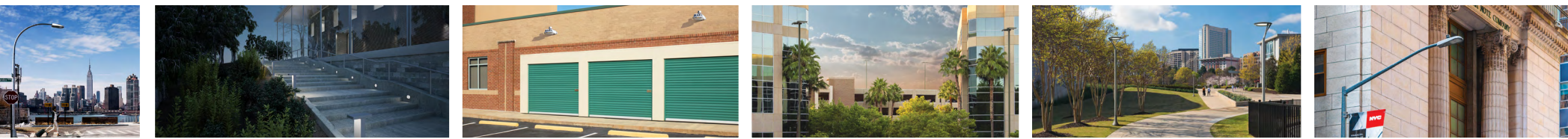
Redefining the nature of architectural outdoor lighting.

Lighting controls

Lighting the way for connected communities. Smart, connected technologies mean safer, more efficient communities – and it starts with connected lighting. Our solutions put full system control and optimization at your fingertips, helping you rise to the challenges of today and tomorrow.

The product selection guides are simple yet powerful tools to help assist with product comparison and selection based on features, performance and value.

- 15 Lighting Controls
- 16 WaveLinx
- 18 LumenSafe (Lighting and Surveillance Solution)



System	Stand-alone		Connected			Controlled		
	Stand-alone Photocontrols	Stand-alone Sensors	WaveLinx Outdoor Lighting Control Module		WaveLinx Lite	WaveLinx		
	BPC, PR, or PR7	MS or SPB	WOLC	WOLC + WAC	ZW-WO or ZD-WO	Sensor only	Sensor + WAC	Sensor + WAC
						ZW-SWPD or ZD-SWPD	ZW-SWPD + WAC	ZD-SWPD + WAC
Stand-alone or Networked	Stand-alone	Stand-alone	Stand-alone	Networked	Stand-alone	Stand-alone	Networked	Networked
Addressable Protocol	--	Remote control or Mobile application	--	Wireless network	Mobile application	--	Wireless network	Wireless network
Features								
<i>Motion sensing</i>	--	✓	--	--	✓	✓	✓	✓
<i>Dusk-to-dawn / Photosensing</i>	✓	✓	✓	✓	✓	✓	✓	✓
<i>Adjust output levels (max and standby)</i>	--	✓	--	✓	✓	--	✓	✓
<i>Zone control</i>	--	--	--	✓	✓	--	✓	✓
<i>Group programming</i>	--	--	--	✓	✓	--	✓	✓
<i>Scheduling</i>	--	--	--	✓	--	--	✓	✓
<i>Energy Measurement (through Trellix)</i>	--	--	-	--	--	--	--	✓
Integrations and Value-Add Services								
<i>BMS integration</i>	--	--	--	✓	--	--	✓	✓
<i>API integration</i>	--	--	--	✓	--	--	✓	✓
<i>Facility management & tools</i>	--	--	--	✓	--	--	✓	✓

*WAC=Wireless Area Controller gateway

WaveLinx Outdoor Lighting Control Module

The WaveLinx Outdoor Lighting Control (WOLC) Module extends the WaveLinx System's controls capability to a building's surroundings or site such as parking lots and short pathways. The WOLC Module is individually addressable and installs on top of a light pole via an ANSI 136.41-compliant, 7-pin twist-lock connector.



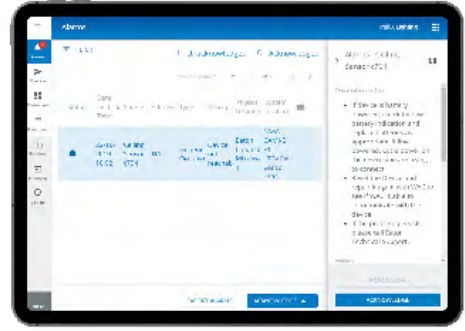
WaveLinx Lite

The outdoor sensors offer passive infrared (PIR) occupancy and a photocell for daylight sensing for installation heights up to 40 feet. The sensor operates on Bluetooth® 4.2 mesh network and offer simple tool-less integration into WaveLinx outdoor light fixtures equipped with the 4-pin Zhaga Book 18 compliant socket. The mobile application allows you to map the sensor to any area or control zone, select occupancy or vacancy, occupied and unoccupied light levels and set the hold time.

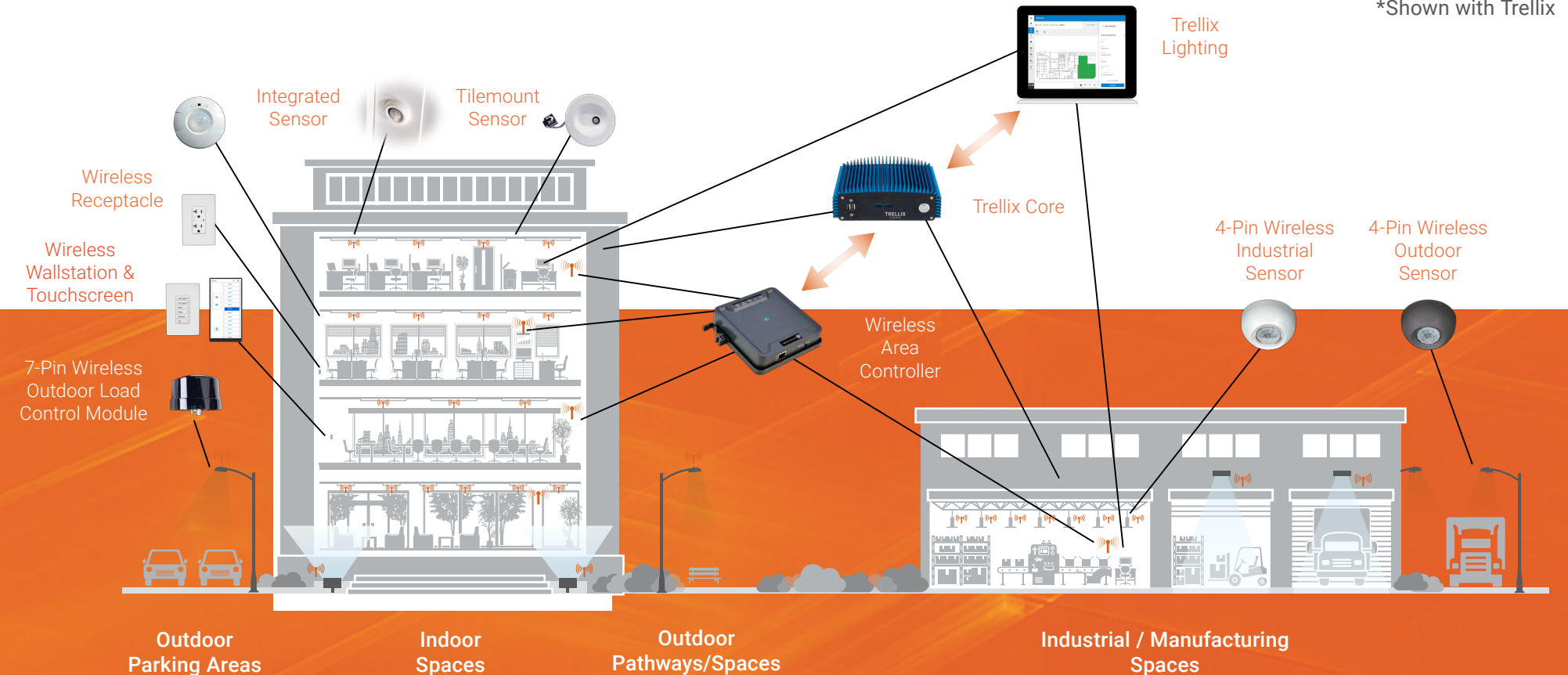


WaveLinx

Create a smart building ecosystem with convenient, out-of-the-box functionality. The Wireless Area Controller is the main component of the WaveLinx Wireless Connected Lighting System, coordinating between the WaveLinx mobile app and your WaveLinx-enabled fixtures and devices. It's remarkably simple to set up and program (without the need for an IT network). Patent-pending code commissioning features also reduce commissioning times by 40%.



*Shown with Trellix



All-in-one lighting & surveillance solution This changes everything

Lighting can provide the backbone for safer communities and cities through smarter surveillance and enhanced data. Cooper Lighting Solutions's camera-integrated luminaires are an easy win for you and your customers.

\$ 30% Lower install cost

Reduce install cost by up to 30%.



Flexible integration

LumenSafe is compatible with virtually any video management system or security platform.



Remote monitoring

Protect valuable goods and inventory from theft or vandalism remotely. Axis Communications cameras provide users with crystal clear high-quality images.



All-in-one solution

Easy installation with our all-in-one LumenSafe solution. Integrated camera and networking equipment means no additional wiring is needed beyond providing line power to the luminaire.



Take the guesswork out of the equation, for faster order processing and an all-around smooth process

We're among the select few American lighting companies who manufacture poles in-house. This allows for superior quality control and expertly-tailored end products that meet market needs. Our online pole configurator tool can help you select the poles that are right for your project.

Safe communities & cities start here



LED light fixtures



Integrated video camera



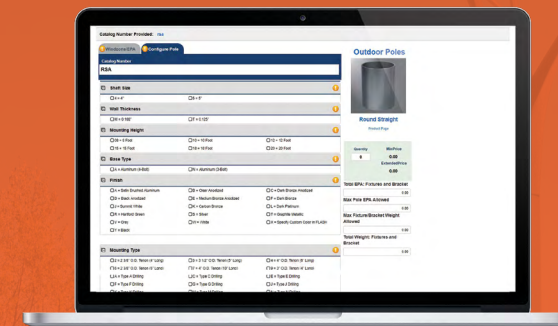
Flexible backhaul options
(Cellular, Wi-Fi, Ethernet)



Software services



LumenSafe simplified integration



Click here for Online Pole Configurator



Lighting Product Lines

Ametrix
AtLite
Corelite
Ephesus
Fail-Safe
Halo
Halo Commercial
Invue
io
Iris
Lumark
Lumière
McGraw-Edison
Metalux
MWS
Neo-Ray
Portfolio
RSA
Shaper
Streetworks
Sure-Lites

Controls Product Lines

Greengate

Connected Lighting Systems

Fifth Light (Canada Only)
HALO Home
WaveLinx

IoT Platform

Trellix



Connected Communities LED Product Selection Guide



Cooper Lighting Solutions
1121 Highway 74 South
Peachtree City, GA 30269
P: 770-486-4800
www.cooperlighting.com

© 2021 Cooper Lighting Solutions
All Rights Reserved
Publication No. BR525100EN
January 2021

Cooper Lighting Solutions is a registered trademark.

All other trademarks are property of their respective owners.

Product availability, specifications, and compliances are subject to change without notice.