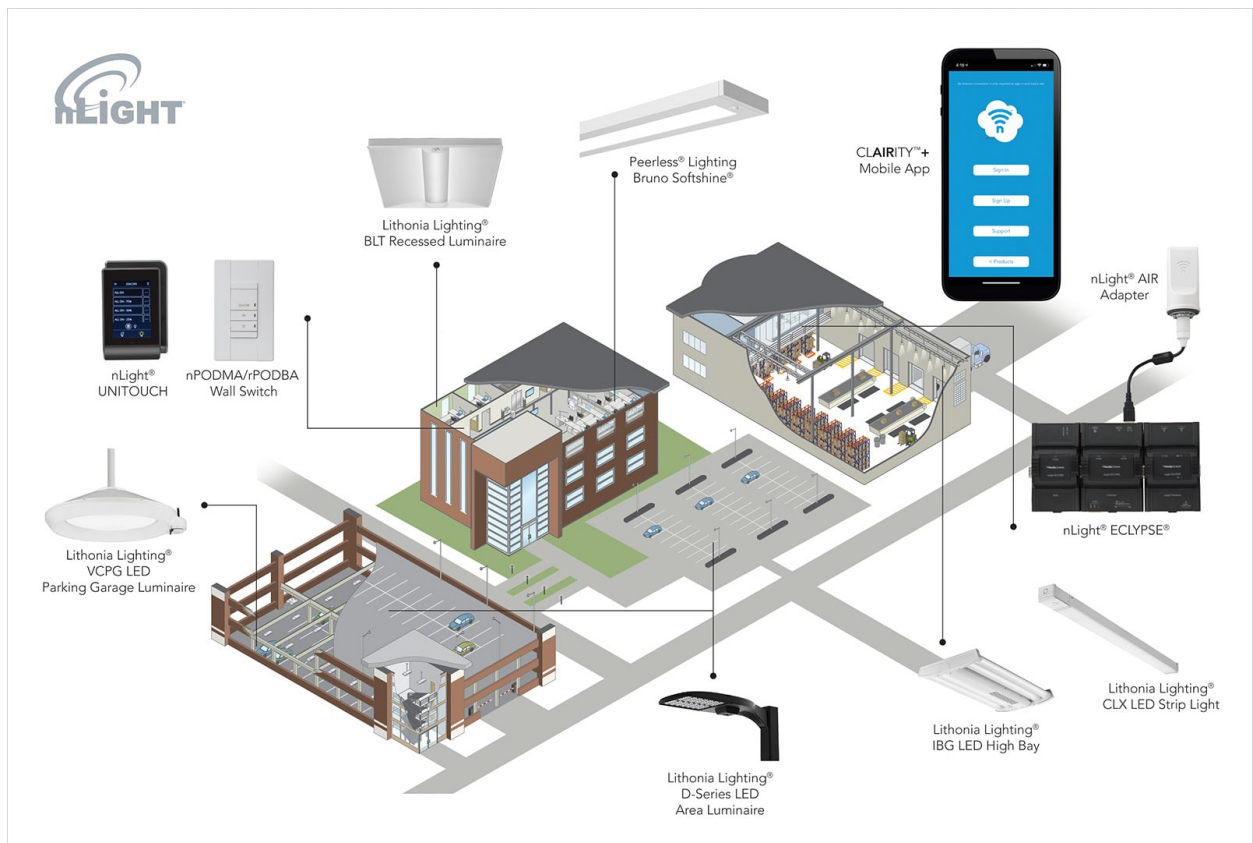


nLight Air Wireless Controls



Bookmark Summary

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[rMSOD - Fixture Embedded Sensor with Remote Antenna](#)

[rSBG - Fixture Embedded Smart Sensor](#)

[rIO - Fixture Embedded Controller](#)

Headend Controls

- nECY - Eclipse
- nECYA - Apex Eclipse
- nECYD - Air Adaptor



OVERVIEW

The nLight ECLYPSE™ system controller connects an nLight® lighting network to support connectivity and management over an IP network, control and device setting adjustment, integration with building management, integration with demand response, and more.

FEATURES

- Communicates over IP, allowing the system controller and connected lighting controls devices to be accessed and configured across a local area network
- Each system controller supports up to 750 nLight and nLight AIR devices. Additional controllers can connect and scale a system of lighting controls to a maximum of 20,000 devices
- BACnet Testing Laboratories (BTL) listed as a BACnet Building Controller (B-BC)
- Can be discovered and managed through free SensorView software and through an onboard web GUI
- Provides time-of-day and astronomical time clock capabilities for scheduled lighting control events
- Manages forwarding of global control channels and system profiles to affect devices on multiple controllers at the same time
- Enhanced security through toggleable HTTP or HTTPS connections, a FIPS 140-2, Level 1 compliant security interface, SSO or Radius Server capabilities, and more
- Optional demand response client allows activation of configurable load shed dimming levels by utility DRAS through OpenADR 2.0a

Warranty

Five-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application. Specifications subject to change without notice.



BACnet is a registered trademark of ASHRAE. ASHRAE does not endorse, approve or test products for compliance with ASHRAE standards. Compliance of listed products to the requirements of ASHRAE Standard 135 is the responsibility of BACnet International (BI). BTL is a registered trademark of BI.

Patents:
 - US9819544B2 - US10073423B2
 - EP3250970B1 - US9608538B2
 - EP3139697B1 - CA2971061A1
 - US9924243B2



nLight ECLYPSE™ System Controller



ORDERING INFORMATION

NECY					Example: NECY MVOLT BAC ENC				
Series		Voltage		BACnet		AutoDR		Visualization Software	
nECY	nLight ECLYPSE	MVOLT	120-277VAC	[blank]	Not Enabled	[blank]	Not Enabled	[blank]	Not Enabled
		347	120-277VAC, 347VAC	BAC	BACnet/IP & MS/TP Enabled	ADR	Open ADR VEN	SVS ¹	Envysion

Cellular Modem		Enclosure		Wi-Fi Adapter		Options	
[blank]	No Cellular Modem	ENC	NEMA Type 1 metal enclosure	[blank]	Includes Wi-Fi Adapter	[blank]	None
REM ⁵	Prewired CLAIRITY™ Link router with cellular SIM			NW	No Wi-Fi Adapter Included	SEP	Single Ethernet Port
REMR ^{2,5}	Prewired CLAIRITY™ Link router with cellular SIM and cloud-toggleable relay					GFXK ³	Touchscreen interface (model nGWY2 GFX, mounted separately), PS 150 power supply, CAT5 cable
						AIR ⁴	Includes NECYD NLTAIR G2

ACCESSORIES	
nECY ENC	NEMA 1 Enclosure and pre-mounted 120-277VAC input, 24VDC output (Max 50W) power supply
nECYD NLTAIR G2	nLight AIR wireless adapter
nECYREPL INTF	nLight Interface module (introduces 750 device limit if added to an ECLYPSE with AIR option)

Notes

- Requires BACnet option.
- Cloud-toggleable relay is prewired and intended to powercycle the nLight ECLYPSE remotely.
- If 347 voltage option is selected, includes PS150 347.
- AIR option supports 150 devices. RJ45 ports for connecting nLight wired devices are not available with the AIR option. GFXK option is not available with AIR option.
- 347 option is required for cellular connectivity in Canada. MVOLT versions will support connectivity in the United States and Mexico only. Active connectivity plan required for cellular connectivity. All routers ship with 12-months Ethernet connectivity enabled. See CLAIRITY Link router specification sheet for more information.
- Cellular connectivity performance may be affected by carrier coverage and antenna placement. Coverage by supported carriers should be verified prior to purchase.
- See the Specifications section for a list of all supported carriers per country.
- Use of default SIM included with hardware is required for REMCONN CELL connectivity plan. REMCONN ETH does not require use of a cellular SIM but is required for connectivity with the portal using a non-standard, third-party SIM, provided by, paid for, and maintained by others. Compatibility with non-default, third party SIMs is not guaranteed or warranted.



Items marked by a shaded background qualify for the Design Select program and ship in 15 days or less. To learn more about Design Select, visit www.acuitybrands.com/designselect.
*See ordering tree for details

CONNECTIVITY PLANS

Remote support via the CLAIRITY Link solution is enabled through a connectivity plan (REMCONN). Purchase of a CLAIRITY Link router includes an initial 12-month Ethernet connectivity plan that begins upon shipment of hardware from the factory. For extended periods of connectivity, or for cellular connectivity, supplementary plans can be purchased. Flexible plans are offered in 3-month to 24-month durations and can be purchased at any time.

FEATURES

- Flexible connectivity periods offer affordable, connected assistance from nLight technical experts
- With no hidden fees and no continuous costs, CLAIRITY Link connectivity is an on-demand service that can be purchased at any time
- On-premise systems continue to operate when a connectivity plan is inactive
- Optional service plans affordably supplement the ability to remotely connect, adding comprehensive programming, sustainment, and preventative maintenance options

Example: REMCONN ETH 24MO CAR1							
Series		Connection Type		Service Length		Supported Countries	
REMCONN	Connectivity plan to enable remote access by factory representatives	ETH	Uses Ethernet connection to a customer-provided network with Internet access for communication with the CLAIRITY Link portal	3MO	3-month length	CAR1	US, Mexico, and Canada
				6MO	6-month length		
				9MO	9-month length		
		CELL ^{6,7,8}	Includes a cellular plan to supplement or replace Ethernet connectivity for communication with the CLAIRITY Link portal	12MO	12-month length		
				18MO	18-month length		
				24MO	24-month length		

SPECIFICATIONS

Control Module

Microprocessor:	Single core 1.0 GHz Sitara ARM processor
Size:	4.74" H x 3.57" W x 2.31" D (12.03 cm x 9.07 cm x 5.86 cm)
Mounting:	DIN rail mounted
nLight ECLYPSE Assembly Size:	4.74" H x 14.76" W x 2.43" D (12.03 cm x 37.5 cm x 6.16 cm)
Ports:	Ethernet: (2) switched RJ-45 Ethernet ports USB Connections: 2 x USB 2.0 ports RS-485 Serial Communications: Screw terminals (Used for either BACnet MS/TP Subnet: RJ-45
Real Time Clock (RTC):	Real Time Clock with rechargeable battery. Supports SNTP network time synchronization
RTC Battery:	20 hours charge time, 20 days discharge time. Up to 500 charge / discharge cycles
Enclosure:	FR/ABS UL94-V0 flammability rating
Environmental:	Operating Temperature: 32°F to 122°F (0 to 50°C) Storage Temperature: -22°F to 158°F (-30 to 70°C) Relative Humidity: 0 to 90% non-condensing Ingress Protection Rating: IP20
Security:	FIPS Publication 140-2, Level 1 Compliant Complies with California Civil Code Title 1.81.26, Security of Connected Devices, approved under Senate Bill No. 327 (2018)

nLight Network Interface Module

Size:	4.74" H x 3.20" W x 2.31" D (12.03 cm x 8.12 cm x 5.86 cm)
Mounting:	DIN rail mounted
Ports:	3 nLight bus ports (RJ-45)
nLight Bus Power Output:	0mA per port

Power Supply Module (24V)

Size:	24V: 4.74" H x 2.85" W x 2.31" D (12.03 cm x 7.24 cm x 5.86 cm)
Operating Voltage:	24V: 24VAC/DC; ±15%; Class 2
Output Voltage,	
Rated Current & Power:	24V: 18VDC regulated, 0-1.6A, 30W max

Enclosure

Type:	NEMA 1 rated surface mount screw cover
Size:	14.25"H x 14.25"W x 4.00"D (36.20cm x 36.20cm x 10.16cm)
Rating:	UL 2043 (Plenum) Rated

CLAIRITY Link Router

Size:	2.92"H x 3.27"W x 0.99"D (74mm x 83mm x 25mm)
Power Consumption:	< 6.5W
Input Voltage Range:	9-30VDC
Mobile:	4G LTE - up to 150Mbps 3G - up to 42Mbps 2G - up to 236.8kbps United States - ATT, T-Mobile/Sprint, US Cellular, Alaska Wireless Mexico - Telefonica Canada - Tellus, Bell, SaskTel ⁶
Ethernet:	WAN - 10/100Mbps; connects to an owner-provided, Internet-connected network. May be used for nLight ECLYPSE controller discovery on the same network. LAN-10/100Mbps; used for discovery of nLight ECLYPSE controllers that are connected to a network without Internet connectivity Wireless Mode - IEEE 802.11b/g/n Security - WPA2-Enterprise Wi-Fi Hotspot - used for modem and SIM diagnostics Wi-Fi Client - not supported
Environmental:	Operating temperature - -40C to 75C Operating humidity - 10% to 90% non-condensing Storage temperature - -45C to 75C
Security:	Firewall - pre-configured firewall Attack Prevention - DDOS prevention, port scan prevention WEB filter - whitelist for specifying allowed sites only Access control - control of TCP, UDP, ICMP packets, MAC address filter Complies with California Civil Code Title 1.81.26, Security of Connected Devices, approved under Senate Bill No. 327 (2018)
Ingress Protection Regulatory	IP30 FCC, IC/ISED, EAC, RCM, PTCRB, RoHS, CE/RED, WEEE, Wi-Fi Certified, CCC, Anatel, GCF, REACH, Thailand NBTC, Ukraine UCRF, SDPPI (POSTEL)
Antennas:	Mobile - 698-960/1710-2690 MHz, SMA male connector Wi-Fi - 2400-2483.5 MHz, SMA male connector
Input/Output	Input - 1x digital, non-isolated input (on 4 pin power connector) Output - 1 x digital, open collector output (30 V, 300 mA, on 4 pin power connector)
SIM	1 x SIM slot (Mini SIM – 2FF), 1.8V/3V, external SIM holder
Dimensions	83 x 25 x 74 mm

COMMUNICATION

Ethernet Connection Speed:	10/100 Mbps
Internet Protocol:	IPv4
BACnet Profile:	BACnet Building Controller (B-BC)
BACnet Listing:	BTL, B-BC
BACnet Interconnectivity:	BBMD forwarding capabilities BACnet/IP to BACnet MS/TP routing
BACnet Transport Layer:	MS/TP & IP (optional)
Web Server Protocol:	HTML5
Web Server Application Interface:	REST API

Supported BACnet MS/TP Connectivity:

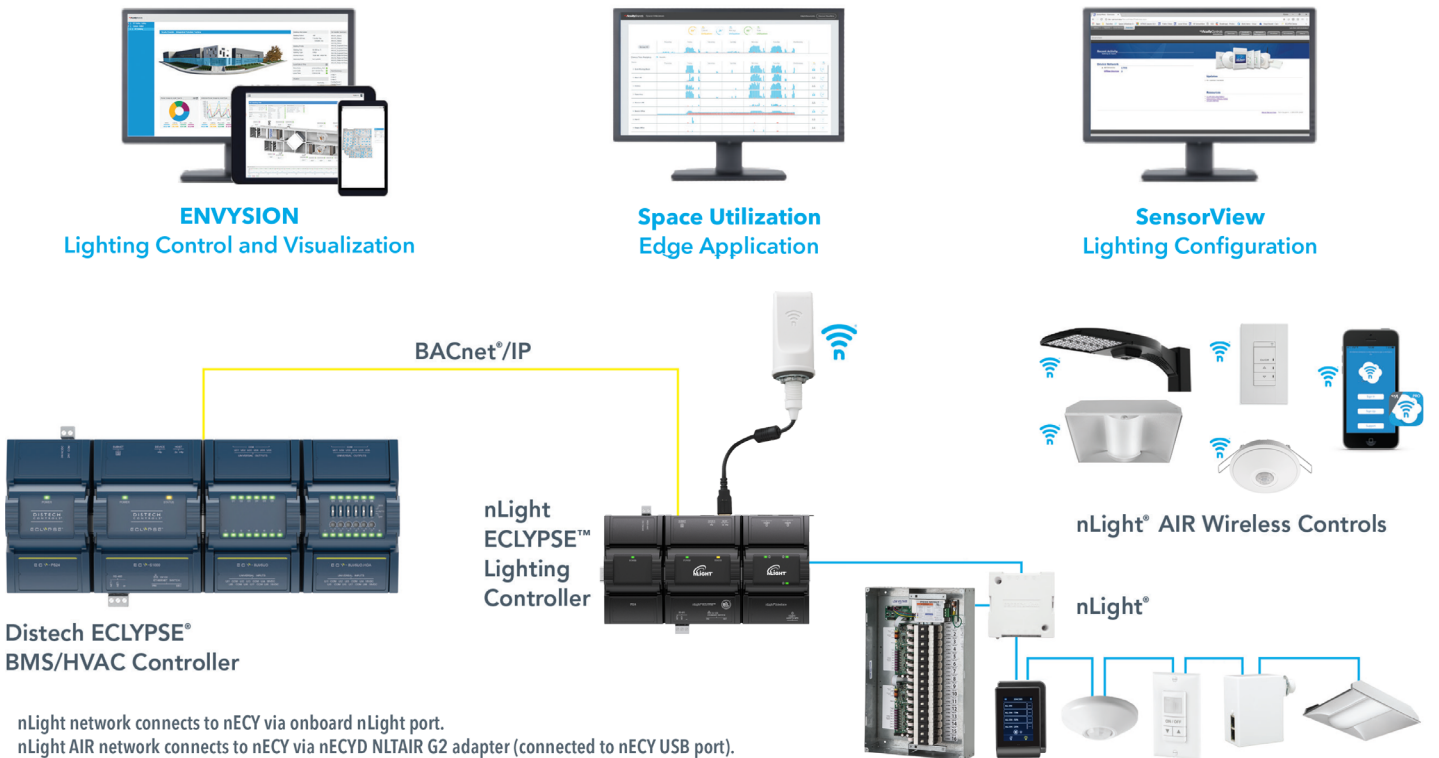
- 1 x RS-485 serial communications port for BACnet MS/TP
- RS-485 EOL Resistor – Built-in
- RS-485 Baud Rates – 9600, 19200, 38400, or 76800 bps

Supported Wireless Connectivity:

- Wireless Adapter – USB Port Connection
- Wi-Fi Communication Protocol – IEEE 802.11b/g/n
- Wi-Fi Network Types – Client, Access Point, Hotspot

SYSTEM ARCHITECTURE

The nLight ECLYPSE serves as the backbone for nLight and nLight AIR digital lighting networks. The nLight ECLYPSE provides networked devices with schedule management and remote software programming via SensorView web-based software. The backbone also provides support for system-wide controls such as master override switches, automated demand response, and BACnet integration. One nLight ECLYPSE is capable of handling up to 750 total devices and up to 128 global channels for the entire network. The nLight ECLYPSE is also compatible with other Distech ECLYPSE products, offering a full suite of BAS capabilities.



HVAC Integration with ECLYPSE and Third Party Controllers

Lighting Management and Control Through Web Applications

Connection with nLight Wired and nLight AIR Devices

EXAMPLE NLIGHT ECLYPSE NOMENCLATURE AND OPTIONS

Example Nomenclature	Connection to Wired Devices	Maximum of 150 Wireless Devices	Maximum of 750 Wireless Devices	All License Options Available (BAC, SVS, SVEA)
NECY MVOLT ENC	✓	No AIR Adapter	No AIR Adapter	✓
NECY MVOLT ENC + NECYD NLTAIR G2	✓	Not Limited at 150	✓	✓
NECY MVOLT ENC AIR	No Wired Interface Module	✓	Reduced Capability	✓
NECY MVOLT ENC AIR + NECYREPLY INTF	✓	Not Limited at 150	✓	✓

OVERVIEW

Through its powerful quad core processor, an nLight® ECLYPSE™ APEX performs as a lighting controller, an integration point for building management systems, and an interface for mobile application control via ENVYISION™ graphics. Gigabit Ethernet ports deliver fast communication over TCP/IP, providing superior information exchange for projects that need next-level performance.

FEATURES

- Provides time clock control, configuration over a local area network, open standard integration
- Each system controller supports up to 750 nLight and nLight AIR devices. Additional controllers can connect and scale a system of lighting controls to a maximum of 20,000 devices
- Standard support for BACnet IP, BACnet MS/TP, RESTful API, and Open Automated Demand Response (ADR via Open ADR 2.0a)
- On-board gigabit Ethernet ports allow for fast data exchange with IP systems, workstations, and the cloud
- Custom mobile app control and analytics via ENVYISION, an on-board web GUI that enables control and visualization of network lighting controls and related information
- Manages forwarding of global control channels and system profiles to affect devices on multiple controllers at the same time
- Adjustable security parameters such as toggleable HTTP and HTTPS connections, variable transport layer security protocol, toggleable FIPS 140-2 hardening, toggleable GSA hardening, RADIUS server capabilities, and adjustable enforcement of password complexity

Warranty

Five-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application. Specifications subject to change without notice.



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Compliance of listed products to the requirements of ASHRAE Standard 135 is the responsibility of BACnet International (BI). BTL is a registered trademark of BI.



nLight ECLYPSE APEX System Controller and Edge Device



ORDERING INFORMATION

Example: nECYA MVOLT ENC GFXK				
Series	Voltage	Cellular Modem	Enclosure	Options
nECYA nLight ECLYPSE APEX	MVOLT 120-277 VAC 347 120-277VAC, 347VAC	[blank] None REM ¹ Prewired CLAIRITY™ Link router with cellular SIM REMR ^{1,2} Prewired CLAIRITY™ Link router with cellular SIM and cloud-toggleable relay	ENC NEMA Type 1 metal enclosure	[blank] None GFXK ³ Touchscreen interface (model nGWY2 GFX, mounted separately), PS 150 power supply, CAT5 cable

ACCESSORIES	
nECYD NLTAIR G2	nLight AIR wireless adapter
NECYA 24 COMPONENT	nLight ECLYPSE APEX server module replacement part
nECYREPL INTF	nLight interface module replacement part

Notes

1. 347 option is required for cellular connectivity in Canada. MVOLT versions will support connectivity in the United States and Mexico only. Active connectivity plan required for cellular connectivity. All routers ship with 12-months Ethernet connectivity enabled. See CLAIRITY™ Link router specification sheet for more information.
2. Cloud-toggleable relay is prewired and intended to powercycle the nLight ECLYPSE remotely.
3. If 347 voltage option is selected, includes PS150 347.

CONNECTIVITY PLANS

Remote support via the CLAIRITY Link solution is enabled through a connectivity plan (REMCONN). Purchase of a CLAIRITY Link router includes an initial 12-month Ethernet connectivity plan that begins upon shipment of hardware from the factory. For extended periods of connectivity, or for cellular connectivity, supplementary plans can be purchased. Flexible plans are offered in 3-month to 24-month durations and can be purchased at any time.

FEATURES

- Flexible connectivity periods offer affordable, connected assistance from nLight technical experts
- With no hidden fees and no continuous costs, CLAIRITY Link connectivity is an on-demand service that can be purchased at any time
- On-premise systems continue to operate when a connectivity plan is inactive
- Optional service plans affordably supplement the ability to remotely connect, adding comprehensive programming, sustainment, and preventative maintenance options

Example: REMCONN ETH 24MO CAR1					
Series	Connection Type	Service Length	Supported Countries		
REMCONN Connectivity plan to enable remote access by factory representatives	ETH Uses Ethernet connection to a customer-provided network with Internet access for communication with the CLAIRITY Link portal	3MO 3-month length	CAR1	US, Mexico, and Canada	
		6MO 6-month length			
		9MO 9-month length			
	CELL ^{7,8,9} Includes a cellular plan to supplement or replace Ethernet connectivity for communication with the CLAIRITY Link portal	12MO 12-month length			
	18MO 18-month length				
		24MO 24-month length			

SPECIFICATIONS

Control Module

Microprocessor	Quad core 1.6 GHz ARM Cortex A53 64 bit
Memory	2GB RAM 20GB Flash
Real Time Clock (RTC)	Real time clock with rechargeable battery Supports SNTP network with synchronization
RTC Battery	20 hours charge time, 20 days discharge time Up to 500 charge / discharge cycles
Cryptographic Module	FIPS 120-2 Level 1 Compliant
Ethernet	2x gigabit, switched Ethernet ports
Integration Protocols	BACnet/IP, BACnet MS/TP, and REST
USB Connections	2x USB 3.0 Type-A Ports; 900mA per port 1x USB 2.0 Type-C; Dual role, 500mA per port
RS-485 Serial Communications	Screw terminals BACnet MS/TP
Subnet	RJ-45
Green LED	Power status, subnet TX, RS-485 TX, and Ethernet traffic
Orange LED	Controller status, Subnet RX, RS-485 RX, and Ethernet
Input Voltage Rating	24VAC/DC; +/-15%; Class 2
Power Consumption	50W maximum; internal and external loads
Input Power Consumption	100VA
Input Frequency Range	50 to 60Hz
Overcurrent Protection	Internal
Power factor	>90%
Dimensions (H x W x D)	5.54 x 8.52 x 2.30 (216.42 x 140.29 x 58.54mm)
Shipping Weight	0.85lbs (0.39kg)
Mounting	DIN rail or screw mounting
Enclosure Material	FR/ABS
Enclosure Rating	Plastic housing, UL94-V0 flammability rating

Environmental

Operating Temperature	32 to 122 °F (0 to 50 °C)
Storage Temperature	-22 to 158 °F (-30 to 70 °C)
Relative Humidity	0 to 90% non-condensing
Ingress Protection Rating	IP20
NEMA Rating	1

nLight Network Interface Module

Size	4.74" H x 3.20" W x 2.31" D (12.03 cm x 8.12 cm x 5.86 cm)
Mounting	DIN rail mounted
Ports	3 nLight bus ports (RJ-45)
nLight Bus Power Output	0mA per port

Enclosure

Size	22.25" H x 14.25" x 4"
Rating	NEMA 1
Cover Type	Screw Cover
Knockouts	3 x 3/4"
Mounting	Surface mount
Output Voltage	24VDC
Max Load	96VA

CLAIRITY Link Router

Size:	2.92"H x 3.27"W x 0.99"D (74mm x 83mm x 25mm)
Power Consumption:	< 6.5W
Input Voltage Range:	9-30VDC
Mobile:	4G LTE - up to 150Mbps 3G - up to 42Mbps 2G - up to 236.8kbps United States - ATT, T-Mobile/Sprint, US Cellular, Alaska Wireless Mexico - Telefonica Canada - Tellus, Bell, SaskTel ⁶
Ethernet:	WAN - 10/100Mbps; connects to an owner-provided, Internet-connected network. May be used for nLight ECLYPSE controller discovery on the same network. LAN-10/100Mbps; used for discovery of nLight ECLYPSE controllers that are connected to a network without Internet connectivity Wireless Mode - IEEE 802.11b/g/n Security - WPA2-Enterprise Wi-Fi Hotspot - used for modem and SIM diagnostics Wi-Fi Client - not supported
Environmental:	Operating temperature - -40C to 75C Operating humidity - 10% to 90% non-condensing Storage temperature - -45C to 75C
Security:	Firewall - pre-configured firewall Attack Prevention - DDOS prevention, port scan prevention WEB filter - whitelist for specifying allowed sites only Access control - control of TCP, UDP, ICMP packets, MAC address filter Complies with California Civil Code Title 1.81.26, Security of Connected Devices, approved under Senate Bill No. 327 (2018)
Ingress Protection	IP30
Regulatory	FCC, IC/ISED, EAC, RCM, PTCRB, RoHS, CE/RED, WEEE, Wi-Fi Certified, CCC, Anatel, GCF, REACH, Thailand NBTC, Ukraine UCRF, SDPPI (POSTEL)
Antennas:	Mobile - 698-960/1710-2690 MHz, SMA male connector Wi-Fi - 2400-2483.5 MHz, SMA male connector
Input/Output	Input - 1x digital, non-isolated input (on 4 pin power connector) Output - 1 x digital, open collector output (30 V, 300 mA, on 4 pin power connector)
SIM	1 x SIM slot (Mini SIM - 2FF), 1.8V/3V, external SIM holder
Dimensions	83 x 25 x 74 mm

COMMUNICATION

Internet Communication Protocol:

Ethernet Connection Speed: 10/100 Mbps
Addressing: IPv4 or Hostname
BACnet Profile: BACnet Building Controller (B-BC)
BACnet Listing: BTL, B-BC
BACnet Interconnectivity: BBMD forwarding capabilities
BACnet/IP to BACnet MS/TP routing
BACnet Transport Layer: MS/TP & IP (optional)
Web Server Protocol: HTML5
Web Server Application Interface: RESTAPI

Wi-Fi Adapter:

- Size: 3.94" W × Ø 1.61" (10 cm × 4 cm)
- Mounting:
 - Through a ¾-inch NPT electrical panel knockout
 - Nominal Ø1.115" (2.69 to 3.25cm) hole size
 - Mounting bracket installation option (supplied)
 - Floating ceiling panel/tile installation option (supplied)
- Wireless Adapter – USB Port Connection

Supported BACnet MS/TP Connectivity:

- RS-485 Wiring - 1-pair + Common/shield
- RS-485 EOL Resistor - Built-in
- RS-485 Baud Rates - 9600, 19 200, 38 400, or 76 800 bps
- RS-485 Addressing - Controller's Web Configuration Interface

Supported Wi-Fi Communication:

- Wi-Fi Communication Protocol - IEEE 802.11b/g/n
- Wi-Fi Network Types - Client, Access Point, Hotspot

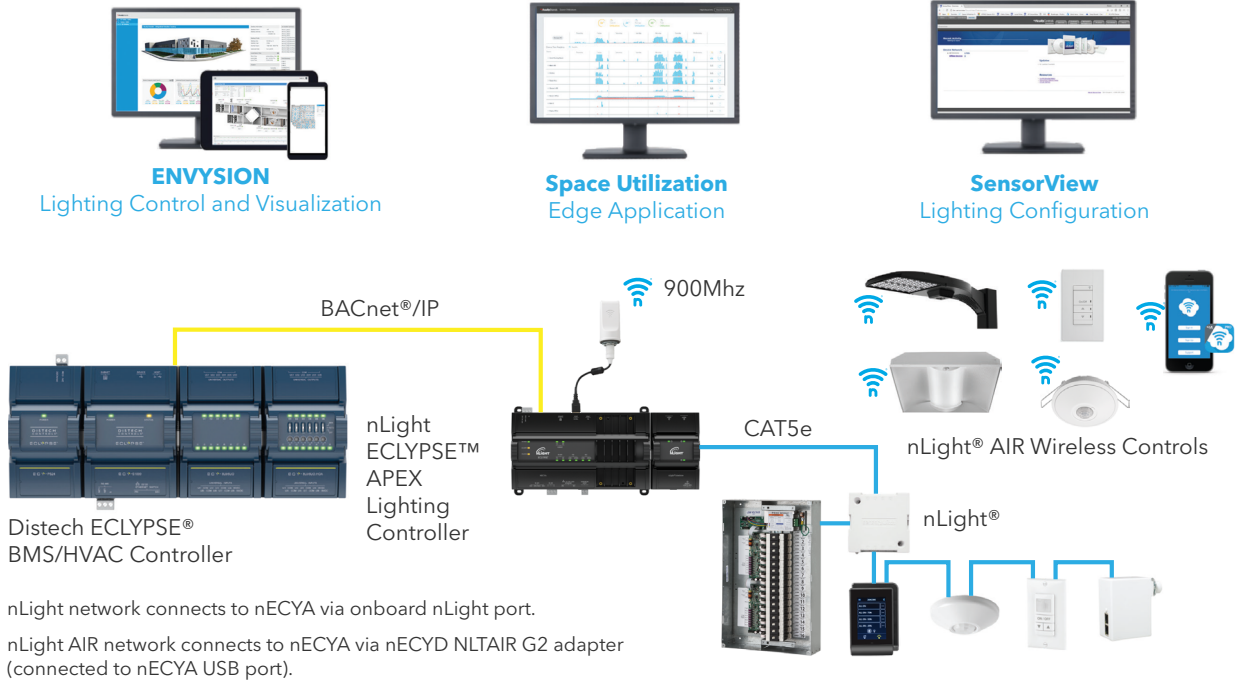
Standards and Regulations

CE Emission	EN61000-6-3: 2007+A1:2011
CE Immunity	EN61000-6-1: 2007
FCC	Compliance with FCC rules part 15 subpart B, class B
UL Listed (CDN & US)	UL916 energy management equipment

SYSTEM ARCHITECTURE

The nLight ECLYPSE APEX (nECYA) is the most powerful controller for nLight and nLight AIR devices. It can be used as a replacement device for an nLight ECLYPSE (nECY) to provide additional processing power and faster TCP/IP response time, or the nECYA can be used in conjunction with nECY controllers to grow a system.

NLIGHT



OVERVIEW

The nLight® AIR Adapter is used to connect an nLight AIR control system to the nLight ECLYPSE®, enabling time-based configuration, remote programming, and control via BACnet, Automated Demand Response, and RESTful API. Using browser based software, users can control their wired and wireless nLight devices through a graphic floor plan, configure settings through the floor plan view or a tree view, and perform firmware updates.

The nLight AIR Adapter gives secure network capability to devices within a single space or across multiple spaces. A network of nLight AIR devices can be zoned, programmed, and controlled through an nLight ECLYPSE and Adapter with protection from nLight AIR's robust five-tier security framework.

FEATURES

- Enables wireless network control of up to 750 nLight AIR devices (per nLight AIR Adapter) in a single space or across multiple spaces
- Allows control of devices through SensorView software, BACnet commands, Automated Demand Response, and RESTful API
- Easy wiring through a USB connection to the nLight ECLYPSE.
- 5-tier security prevents unauthorized control of the wireless network.
- IP66 rating for indoor and outdoor use.
- Includes a 16-foot cable and a mounting bracket.
- Supports web-based update of devices using SensorView software

Government Procurement

BAA – Buy America(n) Act: Product qualifies as a domestic end product under the Buy American Act as implemented in the FAR and DFARS. Product also qualifies as manufactured in the United States under DOT Buy America regulations.

BABA - Build America Buy America: Product qualifies as produced in the United States under the definitions of the Build America, Buy America Act.

Please refer to www.acuitybrands.com/resources/buy-american for additional information.

Warranty

Five-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

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nLight® AIR Adapter

Wirelessly enables nLight AIR devices to communicate with nLight ECLYPSE Controller



ORDERING INFORMATION

NECY		Examples: NECYD NLTAIR G2	
Series	Generation		
NECYD NLTAIR Networked nLight AIR wireless adapter	G2 Generation 2 compatibility		

Accessories: Order as separate catalog number.
RPP20 EFP EXT G2 Extender power/relay pack ²

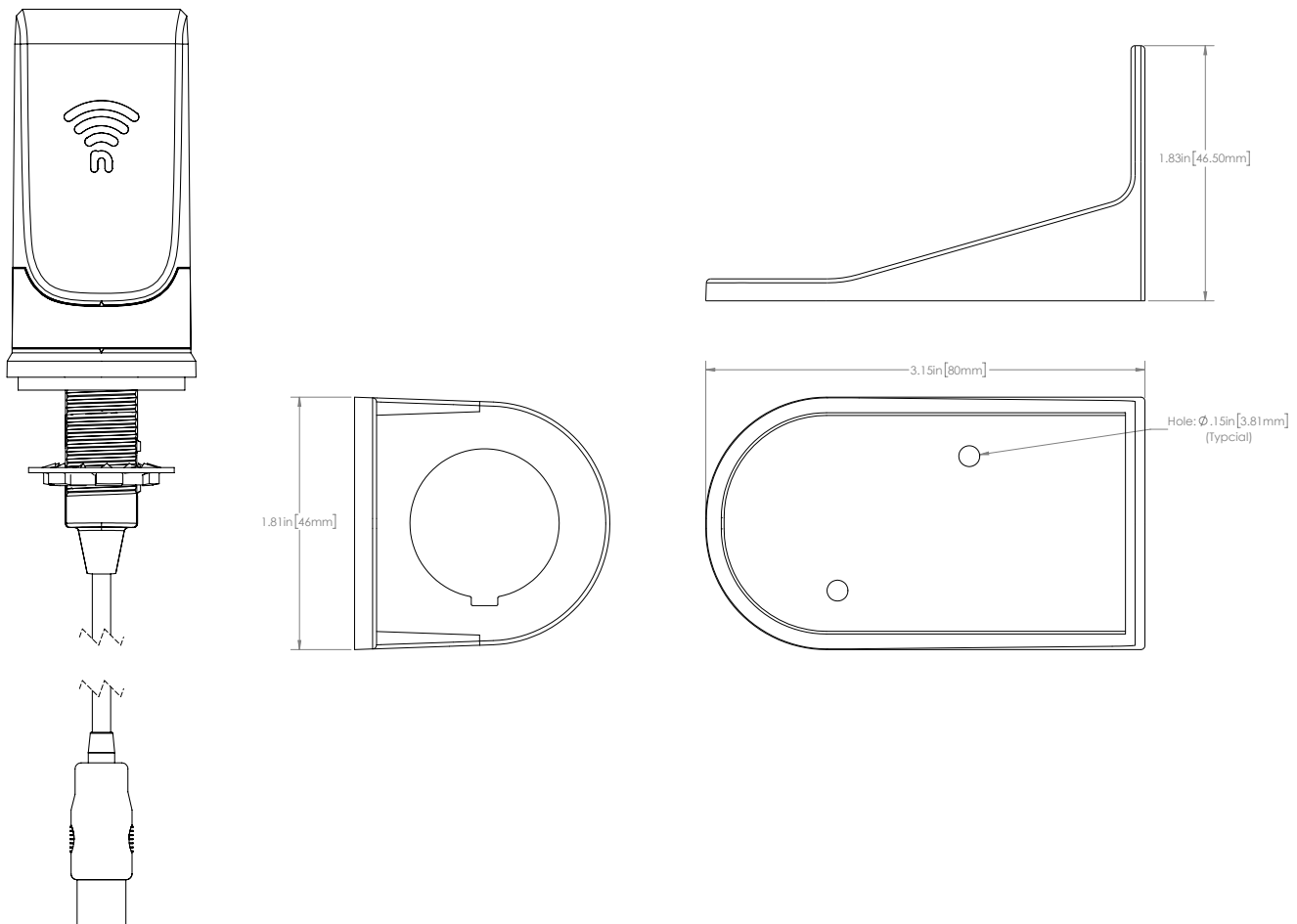
Notes:

1. Wireless Range is subject to site-specific conditions. See nLight AIR Design Guide for more information.
2. Dedicated signal extender/repeater device. Product is equivalent to [RPP20 EFP G2](#). See spec sheet for product details.

SPECIFICATIONS

Dimensions:	5" h x 1.62" l x 1.62" d
Product Weight:	5.8 oz
Trim Color:	White
Enclosure Material:	Technomelt™ (high performance thermoplastic polyamide)
Max Humidity:	0-95% non-condensing
Operating Temperature:	-40°C to 65°C
Mounting:	Ceiling mount, wall mount, panel mount (with included bracket)
Radio Frequency:	Dual Radio: 900MHz & 2.4GHz
RF Transmit Power:	900MHz: up to 27 dBm 2.4GHz: up to 10.4 dBm
Wireless Standard:	900MHz: IEEE 802.15.4-based 2.4GHz: Version 4.0+ of the Bluetooth specification
Wireless Range:	1,000 ft line of sight, 150 ft range in standard indoor construction ¹ Connected nLight AIR devices support repeating broadcasts to increase initial broadcast range ¹
Security:	Application Data Encryption: AES-128 bit Mutual Entity Authentication Message Confidentiality Message Authentication and Replay Prevention Limited Anonymity Complies with California Civil Code Title 1.81.26, Security of Connected Devices, approved under Senate Bill No. 327 (2018)
Regulatory Compliance:	FCC: 2ADCB-RMODITHP, IC: 6715C-RMODITHP Safety: Canada & US UL Listed; RoHS Compliant
Cable:	16 ft; not plenum rated

MECHANICAL AND MOUNTING DETAILS



Switches

- rPODU - Battery Micro Wallpod
- rPODBA - Battery Architectural Wallpod
- rPODB - Battery Standard Wallpod
- rPODLA - Line Voltage Architectural Wallpod
- rPODL - Line Voltage Standard Wallpod



OVERVIEW

The nLight AIR rPOD Micro is a battery-powered wall switch that maximizes control via an ultra-thin, modern design and industry-leading range. It mounts directly to wall surfaces with options that offer conventional wall box mounting or flexible remote control in the space. The rPOD Micro installs in seconds to provide convenient control from a variety of indoor locations.

FEATURES

- Thin profile allows for various mounting options and convenient control
- Remote version includes a removable backplate that allows it to be quickly removed from a wall or from its pedestal and carried around
- WallPod version mounts to traditional gang boxes or to wall surfaces and includes an anti-tamper feature to prevent use if removed from the wall
- 10-year battery life via a single, off-the-shelf coin cell battery
- Edge-to-edge buttons maximize control contact area and offer soft-click response to button presses
- An indicator light is discretely hidden behind the nLight AIR logo and illuminates when buttons are pressed
- Broadcasts travel 1,000 ft line-of-sight with reduced range through commercial construction and can be repeated via nLight AIR Autonomous Bridging Technology, potentially traveling thousands of feet to devices in any direction

CUSTOM BUTTON ENGRAVING

- Custom lettering for units can be specified and ordered at: [nGrave Form](#).
- To ensure color uniformity, ordering templates facilitate specifying all buttons on a unit. Replacing single buttons is not recommended.
- Custom buttons may ship separately and require field installation.

Warranty

Five-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application. Specifications subject to change without notice.



This item is an A+ capable component, which has been designed and tested to provide out-of-the-box luminaire compatibility with simple commissioning, when included as part of an A+ Certified™ Solution.

To learn more about A+, visit www.acuitybrands.com/aplus.



Items marked by a shaded background qualify for the Design Select program and ship in 15 days or less. To learn more about Design Select, visit www.acuitybrands.com/designselect.

*See ordering tree for details

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nLight® AIR rPOD Micro: Battery-Powered Wall Switch



Note: nLight® AIR devices are only compatible with other nLight AIR enabled devices and are not cross compatible with other nLight product lines at this time.

ORDERING INFORMATION

rPODU							Example: RPODU DX WH G2 J5	
Series	Poles	Dimming Control	Mounting Option	Color	Generation	Packaging		
RPODU	[blank] 2P 2S 4S	[blank] On/off Control DX On/off + Raise/Lower Control	[blank] ¹ WallPod, for surface or wall box mounting, not for remote use NMO ² Remote, installs without wall plate to surface or to pedestal, can be used as a remote	WH White IV Ivory AL Light Almond GY Gray RD Red BK Black	G2 Generation 2 Compatibility	[blank] Single unit J5 ³ 5-pack, can only be ordered in multiples of 5		

- Notes:
1. WallPod version includes anti-theft feature that prevents functionality when handheld or removed from mounting location.
 2. NMO unit will not fit into a standard decorator wall plate opening.
 3. J5 units must be ordered in quantities of 5 because 5 units ship with each J5 box.

RPED			
Series	Gang	Color	Packaging
RPED Pedestal for rPODU Remote	1GNG Single gang	WH White IV Ivory AL Light Almond GY Gray RD Red BK Black	[blank] Single unit J10 10-pack, can only be ordered in multiples of 10

ORDERING INFORMATION

Wall Plate - Additional or Replacement						
Series	# of Gangs	Color			Packaging	
WS XPODA Wall Plates (Standard) SSW Sealed Covers	1 GNG Single Gang	WH White IV Ivory GY ² Gray	AL ² Light Almond BK ² Black RD Red	VP ² Variety Pack	[blank] Single Unit ³ M5 ² 5 Pack M6 ^{1,2} 6 Pack	

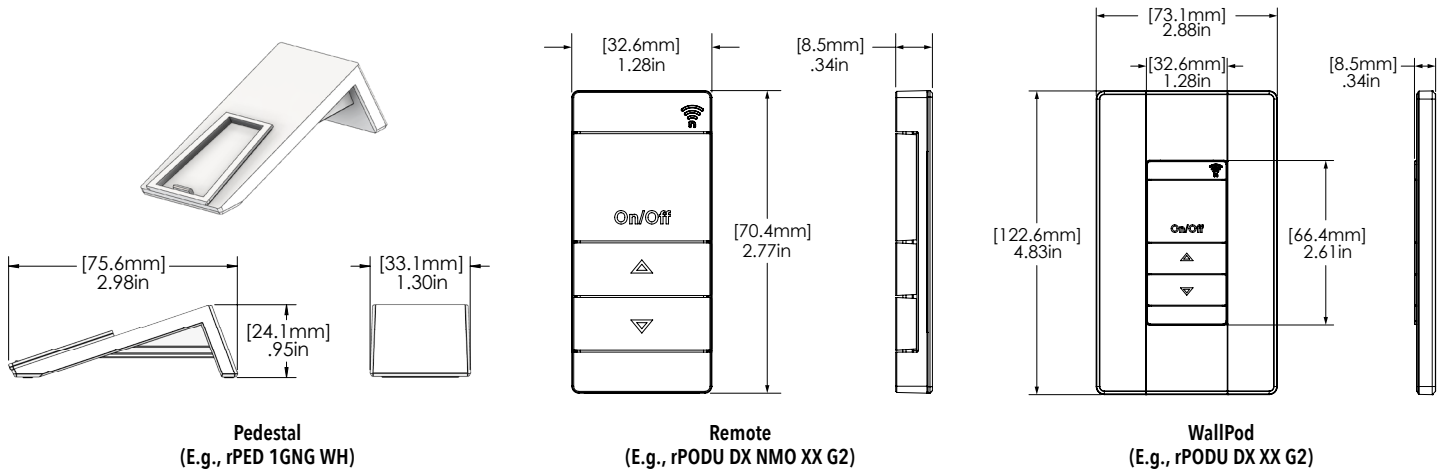
1. Available only for variety pack.
2. Not available for SSW series.
3. Single units only available for SSW series.

Accessories	
RPODUACC GLS MNT LBL J5	White label that conceals the back of an RPODU when mounted on glass, 5-pack
RPODUACC MNT TAPE J8	Mounting adhesive strips, 8 pack

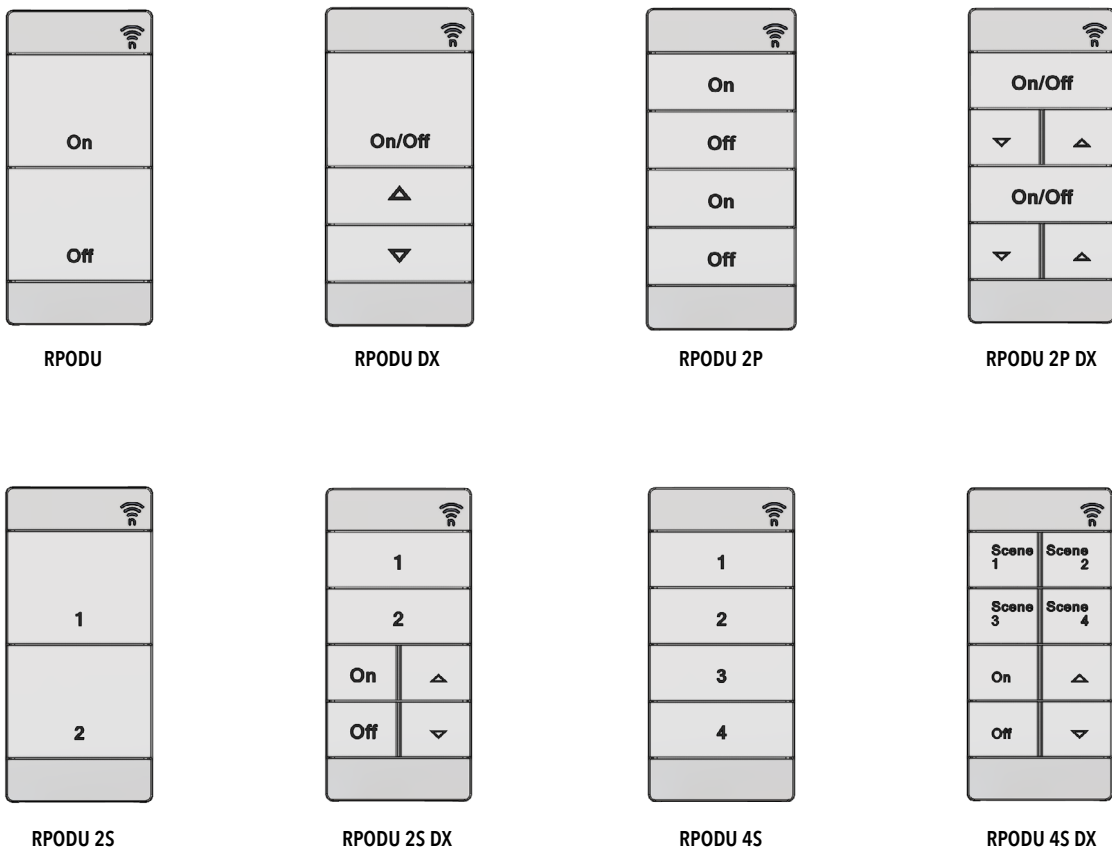
SPECIFICATIONS

Dimensions	Remote: 2.77" H x 1.28" W x 0.34" D (70.4mm x 32.6mm x 8.5mm) WallPod (including wall plate): 4.83" H x 2.88" W x 0.34" D (122.6mm x 73.1mm x 8.5mm) WallPod (without wall plate): 2.61" H x 1.28" W x 0.34" D (66.4mm x 32.6mm x 8.5mm)
Weight	Remote: 0.72oz WallPod: 2.5oz
Mounting	Remote: Direct surface mounting using adhesive or screws, pedestal, or carried freely without mounting WallPod: Gang box mounting and direct surface mounting using adhesive or screws
Color	White, Ivory, Lt. Almond, Gray, Red, Black
Operating Temperature	32°F to 140°F (0°C to 60°C), indoor use only
Relative Humidity	Standard: 0 to 90% non-condensing
Radio Frequency	Dual Radio: 900Mhz & 2.4GHz
RF Transmit Power	900Mhz: +15dBm; 2.4GHz: Variable
Wireless Standard	900MHz: IEEE 802.15.4-based 2.4GHz: Version 4.0+ of the Bluetooth specification
Wireless Range	900MHz: Up to 1,000 ft. (~304m) in free space/ line of sight, used for general operation Minimum of 150 ft through typical construction 2.4GHz: Up to 60 ft. (~18m) in free space/ line of sight, used for programming
Security	Application Data Encryption: AES-128 bit Mutual Entity Authentication Message Confidentiality Message Authentication and Replay Prevention Limited Anonymity Complies with California Civil Code Title 1.81.26, Security of Connected Devices, approved under Senate Bill No. 327 (2018)
Regulatory Compliance	FCC ID: 2ADCB-RPODU IC: 6715C-RPODU IFETEL: HONLRP24-06591 cULus (E110912) RoHS
Battery Type	Single CR2032 coin cell, included
Battery Life	10 years (CR2032 LiMnO2 battery)
Programming Tool	CLAIRITY™+ mobile app

DIMENSIONS



DEFAULT LABELING



OVERVIEW

The nLight® AIR rPODBA is a wireless, battery-powered wall switch including toggle and/or raise lower features with optional multi-pole control. It provides a user with local control of a lighting zone. A true wire-free switch, these single gang decorator style devices have soft-click buttons and a green LED indicator for each button. The wall switches communicate with other nLight AIR devices via radio frequency (RF). A battery-powered wall switch can work with any nLight AIR enabled fixture or power pack to provide toggle switch operation. Wall switches with the DX option have the added ability to adjust the level of any nLight AIR controlled dimmable light fixture.

FEATURES

- Powered with three off-the-shelf lithium AAA batteries and rated for 10 years of normal use, minimizing battery replacement. (Battery replacement with alkaline batteries does not guarantee a 10-year run time.)
- Communicates with nLight AIR devices via radio frequency (RF) in the 900MHz spectrum
- Soft-click push-button control
- Single pole or two pole on/off control with optional raise/lower option ("DX" option)
- 2 or 4 preset scene control fully configurable via CLAIRITY™+ mobile app
- Maximum of 4 total preset scenes per nLight AIR group
- Batteries are included and preinstalled, allowing for a simple unbox and mount installation
- Wireless multi location dimming

CUSTOM BUTTON ENGRAVING

- Custom lettering for units can be specified and ordered at: [nGrave Form](#)
- To ensure color uniformity, ordering templates facilitate specifying all buttons on a unit as custom lettered. Replacing single buttons is not recommended
- Custom buttons will ship separately and require field installation

Warranty

Five-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application. Specifications subject to change without notice.



This item is an A+ capable component, which has been designed and tested to provide out-of-the-box luminaire compatibility with simple commissioning, when included as part of an A+ Certified™ Solution.

To learn more about A+, visit www.acuitybrands.com/aplus.



Items marked by a shaded background qualify for the Design Select program and ship in 15 days or less. To learn more about Design Select, visit www.acuitybrands.com/designselect.

*See ordering tree for details

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nLight® AIR rPODBA: Battery-Powered Wall Switch



Note: nLight® AIR devices are only compatible with other nLight AIR enabled devices and are not cross compatible with other nLight product lines at this time.

ORDERING INFORMATION

rPODBA					Example: RPODBA 2P DX WH G2
Series	Poles & Scenes	Dimming Control	Color	Generation	
RPODBA	[blank] Single Pole 2P Two Pole 2S 2 Scene control (2 buttons) 4S 4 Scene control (4 buttons)	[blank] On/Off Control DX On/Off + Raise/Lower Control	WH White IV Ivory AL Light Almond BK Black GY Gray RD Red	G2 Generation 2 Compatibility	

ORDERING INFORMATION

All rPODBA switches are shipped with wall plates, however, the following order information is available to acquire replacement wall plates.

Wall Plate - Additional or Replacement						
Series	# of Gangs	Color			Packaging	
WSS XPODA Wall Plates (Standard) SSW Sealed Covers	1 GNG Single Gang	WH White	AL ² Light Almond	VP ² Variety Pack	[blank] Single Unit ³	
		IV Ivory	BK ² Black		M5 ² 5 Pack	
		GY ² Gray	RD Red		M6 ^{1,2} 6 Pack	

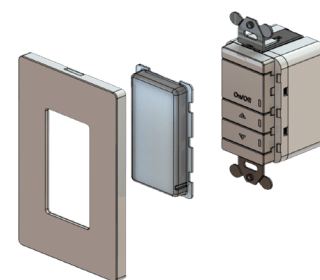
Accessories	
RPODBA MOUNTRING	Replacement mounting ring for rPODBA and rPODB switches
SSW 1GNG WH	Sealed screwless wall plate to prevent liquid intrusion, white
SSW 1GNG IV	Sealed screwless wall plate to prevent liquid intrusion, ivory
SSW 1GNG RD	Sealed screwless wall plate to prevent liquid intrusion, red

1. Available only for variety pack.
2. Not available for SSW series.
3. Single units only available for SSW series.

WALL SWITCH CLEANING

It will occasionally be necessary to clean the wall switches. All rPODBA switches may be wiped down with a soft cloth or paper towel dampened with glass cleaner, vinegar and water, hydrogen peroxide, or a mild abrasive. Spray a limited amount on the cloth or paper towel prior to applying. Do not spray cleaner on the switches directly, and do not wipe the switches down with a towel saturated (drips when wrung out) with cleaner.

If the ability to clean the switches using chemical spray disinfectants is desired, we recommend the use of the Sealed Screwless Wall Plate (SSW). The Sealed Screwless Wall Plate is a cover for the standard wall plate, designed with an IP54 rating. It consists of a transparent silicone rubber layer that covers the wall switch to prevent liquids from entering the wall switch while maintaining a tactile button feel. The Sealed Screwless Wall Plate is the ideal solution to prevent liquids from entering the wall switch while maintaining a tactile button feel. The Sealed Screwless Wall Plate is the ideal solution to help protect a wall switch from fluid entering the device while enabling the use of disinfectants recommended by the EPA for use against SARS-CoV-2, the coronavirus that causes COVID-19, which often require spraying or saturating the surface.

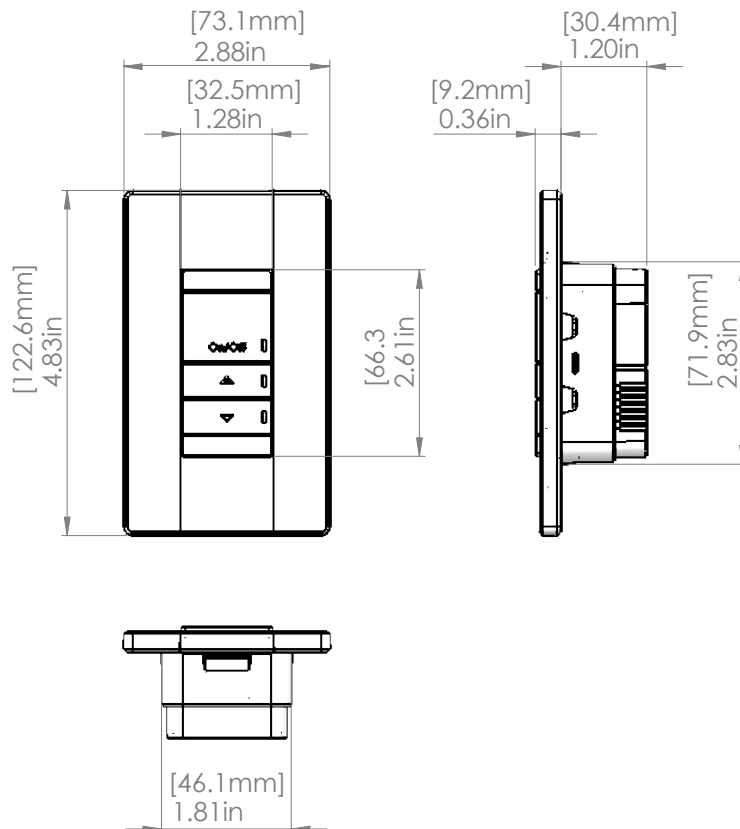


For more information on the [Sealed Screwless Wall Plates](#)

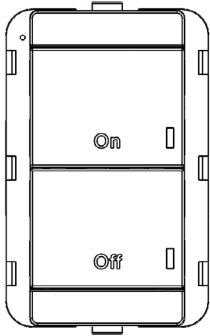
SPECIFICATIONS

Dimensions	WallPod (including wall plate): 4.83" H x 2.88" W x 1.56" D (122.6mm x 73.1mm x 39.6mm) WallPod (without wall plate): 2.61" H x 1.28" W x 1.56" D (66.3mm x 32.5mm x 39.6mm)
Weight	4.25 oz
Mounting	Single Gang Switch Box or Low Voltage Ring
Color	White, Ivory, Lt. Almond, Gray, Red, Black
Operating Temperature	-40°C to 60°C (indoor use only)
Relative Humidity	Standard: 20 to 75% non-condensing
Radio Frequency	Dual Radio: 900Mhz & 2.4GHz
RF Transmit Power	900MHz: +20dBm; 2.4GHz: Variable
Wireless Standard	900MHz: IEEE 802.15.4-based 2.4GHz: Version 4.0+ of the Bluetooth specification
Wireless Range	900MHz: Up to 1,000 ft. (~304m) in free space/ line of sight Minimum of 150 ft through typical construction 2.4GHz: Up to 60 ft. (~18m) in free space/ line of sight
Security	Application Data Encryption: AES-128 bit Mutual Entity Authentication Message Confidentiality Message Authentication and Replay Prevention Limited Anonymity Complies with California Civil Code Title 1.81.26, Security of Connected Devices, approved under Senate Bill No. 327 (2018)
Regulatory Compliance	FCC ID: 2ADCB-RMODIT3 RoHS IC: 6715C-RMODIT3 IFETEL: RCPNLL20-2057 UL 916 (E110912)
Battery Type	3 AAA lithium (included)
Battery Life	10 years (with lithium batteries)
Programming Tool	CLAIRITY™+ mobile app

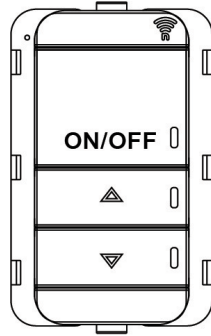
DIMENSIONS



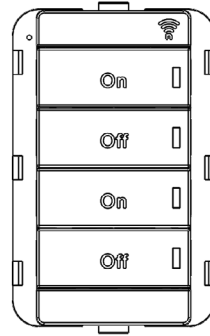
DEFAULT LABELING



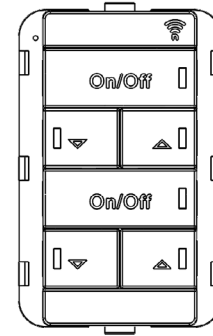
rPODBA



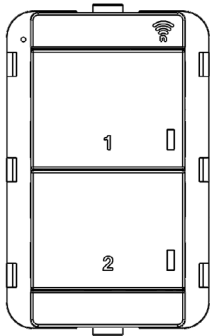
rPODBA DX



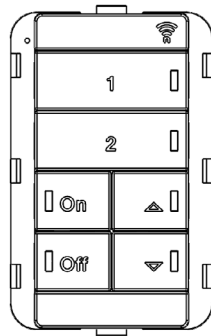
rPODBA 2P



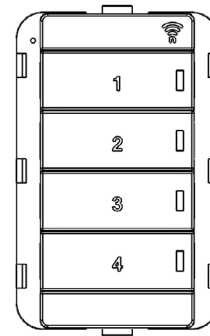
rPODBA 2P DX



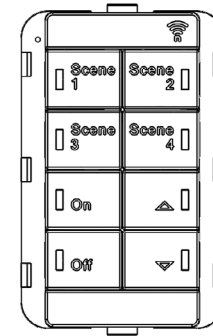
rPODBA 2S



rPODBA 2S DX



rPODBA 4S



rPODBA 4S DX

INSTALLATION OVERVIEW

Installation of the rPODBA is simple, wire free, and does not require special tools. Follow the instructions below to install the rPODBA wall switch.

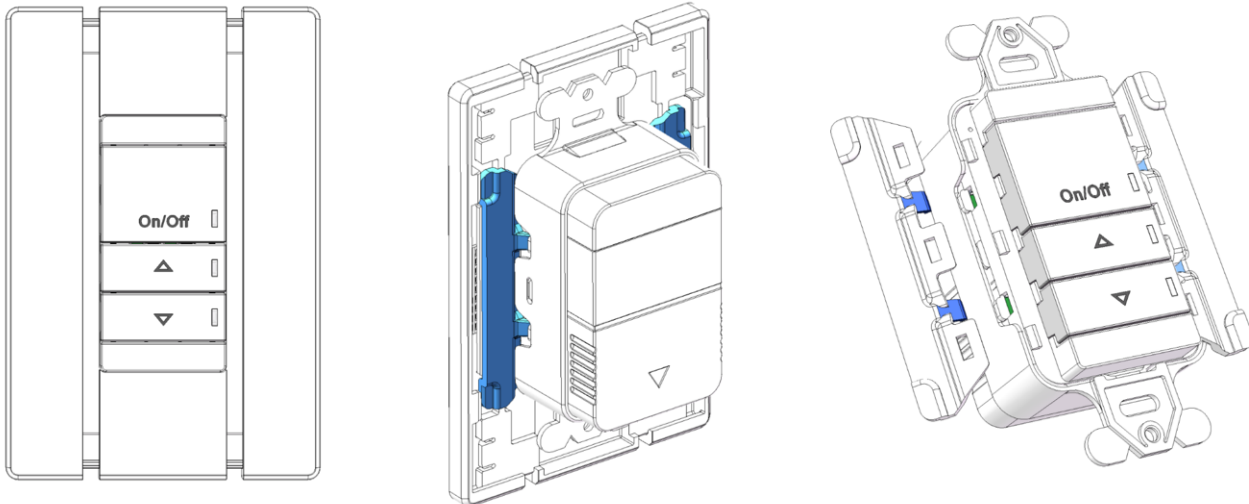
OUT-OF-THE-BOX DECORA WALL PLATE

- Remove the wall plate from the device by pulling the sides out to expand the wall plate and release it from the mounting flanges.
- Connect the unit to the gang box
 - The unit will connect to the gang box by screws, one at the top and one at the bottom
 - To ensure correct wall plate installation, drive the screws until the mounting flanges contact the wall surface. If the screws are overdriven, the mounting flanges will disengage, preventing wall plate installation. If this happens, reattach the mounting flange(s) and install to correct position. (The flanges may be reattached by inserting the two tabs in the side of the unit and pushing the part inward to engage the three snaps.)
- Reattach the wall plate
 - Expand the wall plate horizontally
 - Place the wall plate onto the unit
 - Contract the horizontally expanded wall plate onto the unit such that the side flange features seat inside the wall plate
- No wiring needed

OFF-THE-SHELF DECORA WALL PLATE

When installing the unit with standard off-the-shelf decora wall plates, the following steps should be followed.

- Remove the Acuity wall plate from the device by pulling the sides out to expand the wall plate and releasing it from the mounting flanges.



- Unhook and remove the side flanges from the device
- Connect the unit to the gang box
 - The unit will connect to the gang box by screws, one at the top and one at the bottom
- Attach the wall plate

OVERVIEW

The nLight® AIR rPODB is a wireless, battery-powered wall switch including toggle and/or raise lower features with optional multi-pole control. It provides a user with local control of a lighting zone. A true wire-free switch, these single gang decorator style devices have soft-click buttons and a green LED indicator for each button. The rPODB wall switches communicate with other nLight AIR devices via radio frequency (RF). A battery-powered wall switch can work with any nLight AIR enabled fixture or power pack to provide toggle switch operation. Wall switches with the DX option have the added ability to adjust the level of any nLight AIR controlled dimmable light fixture.

FEATURES

- Powered with three off-the-shelf lithium AAA batteries and rated for 10 years of normal use, minimizing battery replacement. (Battery replacement with alkaline batteries does not guarantee a 10-year run time.)
- Communicates with nLight® AIR devices via radio frequency (RF) in the 900MHz spectrum
- Soft-click push-button control
- Custom button engraving at no charge (WH, IV, AL GY units only)
- 1 or 2 on/off
- 1 or 2 raise/lower
- Batteries are included and preinstalled, allowing for a simple unbox and mount installation
- Wireless multi location dimming

Warranty

Five-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application. Specifications subject to change without notice.



This item is an A+ capable component, which has been designed and tested to provide out-of-the-box luminaire compatibility with simple commissioning, when included as part of an A+ Certified™ Solution.

To learn more about A+, visit www.acuitybrands.com/aplus.

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nLight® AIR rPODB:

Battery powered,
Wall Switch



nLight® AIR Platform



Note: nLight® AIR devices are only compatible with other nLight AIR enabled devices; and is not cross compatible with other nLight product lines at this time.

ORDERING INFORMATION

rPODB				Examples: RPODB 2P DX WH G2	
Series	Poles & Scenes	Dimming Control	Color		Generation
RPODB	[blank] Single Pole 2P Two Pole	[blank] On/off Control DX On/off + Raise/Lower Control	WH White IV Ivory AL Light Almond GY Gray RD Red		G2 Generation 2 Compatibility

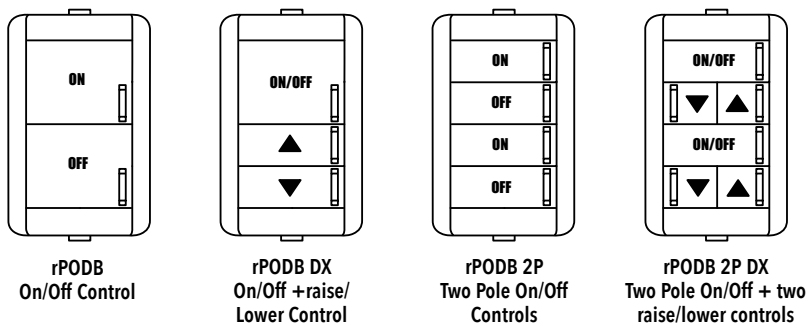
SPECIFICATIONS

Dimensions	2.74" H x 1.63" W x 1.68" D (6.96 cm x 4.27 cm x 4.14 cm)
Weight	4.25 oz
Mounting	Single Gang Switch Box or Low Voltage Ring
Color	White, Ivory, Lt. Almond, Gray
Operating Temperature	-40C to 60C (Indoor Use Only)
Relative Humidity	Standard: 20 to 75% non-condensing
Radio Frequency	Dual Radio: 900Mhz & 2.4GHz
RF Transmit Power	900Mhz: +20dBm; 2.4GHz: Variable
Wireless Standard	900MHz: IEEE 802.15.4-based 2.4GHz: Version 4.0+ of the Bluetooth specification
Wireless Range	900MHz: Up to 1000 ft. (~304m) in free space/ line of sight 600 ft to 800 ft through obstruction depending on building construction 2.4GHz: Up to 60 ft. (~18m) in free space/ line of sight
Security	Application Data Encryption: AES-128 bit Mutual Entity Authentication Message Confidentiality Message Authentication and Replay Prevention Limited Anonymity Complies with California Civil Code Title 1.81.26, Security of Connected Devices, approved under Senate Bill No. 327 (2018)
Regulatory Compliance	FCC ID: 2ADCB-RMODIT3, RoHS IC: 6715C-RMODIT3 IFETEL: RCPNLL20-2057 cULus
Battery Type	3 AAA lithium (included)
Battery Life	10 years (with lithium batteries)
Programming Tool	CLAIRITY™ + mobile app

CUSTOM ENGRAVING

- Default button labeling is shown on below.
- Custom lettering for WH, IV, AL, and GY units can be specified and ordered at no charge at: https://img.acuitybrands.com/public-assets/catalog/147253/ngrave-form.pdf?abl_version=08%2f13%2f2022+09%3a37%3a16&DOC_Type=Technical_Bulletins
- To ensure color uniformity, ordering templates facilitate specifying all buttons on a unit as custom lettered. Replacing single buttons not recommended.
- Buttons may ship separately and require field installation

DEFAULT LABELING

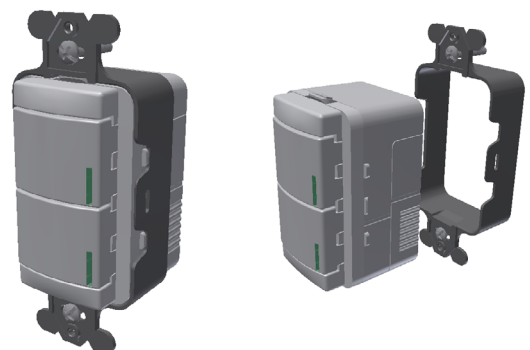


INSTALLATION OVERVIEW

Installation of the rPODB is simple, wire free, and does not require special tools. Follow the instructions below to install the rPODB wall switch.

Installation

1. Install the rPODB into a single gang box just like your typical wall switch
2. No wiring needed, and can be installed retainer first, or switch and retainer together
3. Check to make sure the rPODB is secure in retainer clip once installed
4. Screw down wall plate - DONE!



OVERVIEW

The nLight® AIR rPODLA is a wireless, line-powered wall switch that provides a user with local control of a lighting zone. These single gang decorator style devices have soft-click buttons and a green LED indicator for each button. The rPODLA wall switches communicate with other nLight AIR devices via radio frequency (RF). A line-powered wall switch can work with any nLight AIR enabled fixture or power pack to provide toggle switch operation with multi-pole and preset scene control. Wall switches with the DX option have the added ability to adjust the level of any nLight AIR controlled dimmable light fixture or on/off/dimming control of a single zone for preset scene switches.

FEATURES

- Communicates with nLight® AIR devices via radio frequency (RF) in the 900MHz spectrum
- Soft-click push-button control with LED feedback upon press
- Remotely configurable/upgradeable
- Single pole or two pole on/off control with optional raise/lower option ("DX" option)
- 2 or 4 preset scene control fully configurable via CLAIRITY™+ mobile app
- Maximum of 16 total preset scenes per nLight AIR group
- Wireless multi location preset scene recall and on/off/dimming control

CUSTOM BUTTON ENGRAVING

- Custom lettering for units can be specified and ordered at: [nGrave Form](#)
- To ensure color uniformity, ordering templates facilitate specifying all buttons on a unit as custom lettered. Replacing single buttons is not recommended
- Custom buttons will ship separately and require field installation

Warranty

Five-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application. Specifications subject to change without notice.

A+ Capable Luminaire

This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and out-of-the-box control compatibility with simple commissioning when used with Acuity Brands controls products.

All configurations of this luminaire are calibrated and tested to meet the Acuity Brands' specifications for chromatic consistency – including color rendering, color fidelity, and color temperature tolerance around standard CIE chromaticity coordinates.

To learn more about Acuity A+ standards, specifications, and testing visit www.acuitybrands.com/aplus.



Items marked by a shaded background qualify for the Design Select program and ship in 15 days or less. To learn more about Design Select, visit www.acuitybrands.com/designselect.

*See ordering tree for details

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nLight® AIR rPODLA: Wireless Line Powered Wall Switches



Note: nLight® AIR devices are only compatible with other nLight AIR enabled devices and are not cross compatible with other nLight product lines at this time.

ORDERING INFORMATION

rPODLA						Example: RPODLA 2P DX MVOLT WH G2					
Series	Poles & Scenes		Dimming Control		Voltage ¹		Color		Generation		
RPODLA	[blank]	Single Pole	[blank]	On/off Control	MVOLT	120-277 VAC	WH	White	G2 Generation 2 Compatibility		
	2P	Two Pole	DX	On/off + Raise/Lower Control	347	347 VAC	IV	Ivory			
	2S	Two Preset Scene Control					AL	Light Almond			
	4S	Four Preset Scene Control					GY	Gray			
							RD	Red			
							BK	Black			

ORDERING INFORMATION

MVOLT versions of the rPODLA switches are shipped with wall plates. The following order information is available to acquire replacement MVOLT wall plates.

Wall Plate - Additional or Replacement										
Series	# of Gangs		Color			Packaging				
WS XPODA Wall Plates (Standard)	1 GNG	Single Gang	WH	White	AL ²	Light Almond	VP ²	Variety Pack	[blank]	Single Unit ³
SSW Sealed Covers			IV	Ivory	BK ²	Black			M5 ²	5 Pack
			GY ²	Gray	RD	Red			M6 ^{1,2}	6 Pack

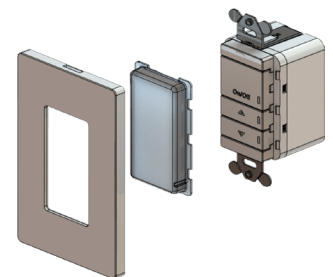
Accessories	
SSW 1GNG WH	Sealed screwless wall plate to prevent liquid intrusion, white
SSW 1GNG IV	Sealed screwless wall plate to prevent liquid intrusion, ivory
SSW 1GNG RD	Sealed screwless wall plate to prevent liquid intrusion, red

1. Available only for variety pack.
2. Not available for SSW series.
3. Single units only available for SSW series.
4. Matching wall plate provided for MVOLT 120-277 VAC units ONLY.

WALL SWITCH CLEANING

It will occasionally be necessary to clean the wall switches. All rPODLA switches may be wiped down with a soft cloth or paper towel dampened with glass cleaner, vinegar and water, hydrogen peroxide, or a mild abrasive. Spray a limited amount on the cloth or paper towel prior to applying. Do not spray cleaner on the switches directly, and do not wipe the switches down with a towel saturated (drips when wrung out) with cleaner.

If the ability to clean the switches using chemical spray disinfectants is desired, we recommend the use of the Sealed Screwless Wall Plate (SSW). The Sealed Screwless Wall Plate is a cover for the standard wall plate, designed with an IP54 rating. It consists of a transparent silicone rubber layer that covers the wall switch to prevent liquids from entering the wall switch while maintaining a tactile button feel. The Sealed Screwless Wall Plate is the ideal solution to prevent liquids from entering the wall switch while maintaining a tactile button feel. The Sealed Screwless Wall Plate is the ideal solution to help protect a wall switch from fluid entering the device while enabling the use of disinfectants recommended by the EPA for use against SARS-CoV-2, the coronavirus that causes COVID-19, which often require spraying or saturating the surface.

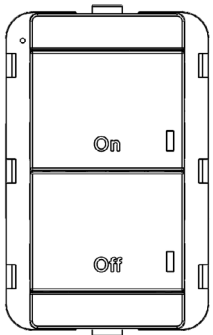


For more information on the [Sealed Screwless Wall Plates](#)

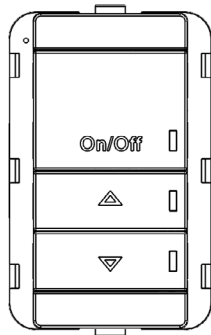
SPECIFICATIONS

Dimensions	2.74" H x 1.68" W x 1.78" D (6.96 cm x 4.27 cm x 4.52 cm)
Weight	4.25 oz
Mounting	Single Gang Switch Box or Low Voltage Ring
Color	White, Ivory, Lt. Almond, Gray, Red, Black
Operating Temperature	0°C to 60°C (indoor use only)
Relative Humidity	Standard: 20 to 75% non-condensing
Input Power	< 1 watt
Radio Frequency	Dual Radio: 900Mhz & 2.4GHz
RF Transmit Power	900Mhz: +20dBm; 2.4GHz: Variable
Wireless Standard	900MHz: IEEE 802.15.4-based 2.4GHz: Version 4.0+ of the Bluetooth specification
Wireless Range	900MHz: Up to 1,000 ft. (~304m) in free space/ line of sight Minimum of 150 ft through typical construction 2.4GHz: Up to 60 ft. (~18m) in free space/ line of sight
Security	Application Data Encryption: AES-128 bit Mutual Entity Authentication Message Confidentiality Message Authentication and Replay Prevention Limited Anonymity
Regulatory Compliance	FCC ID: 2ADCB-RMODIT3 IFETEL, RoHS IC: 6715C-RMODIT3 IFETEL: RCPNLNL20-2057 cULus
Programming Tool	CLAIRITY+ mobile app

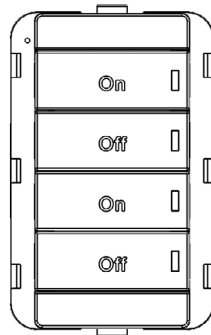
DEFAULT LABELING



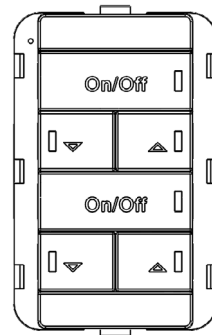
rPODLA
On/Off Control



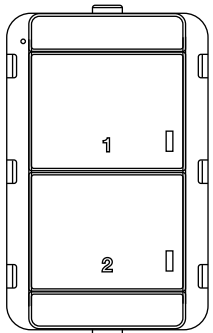
rPODLA DX
On/Off + Raise/Lower
Control



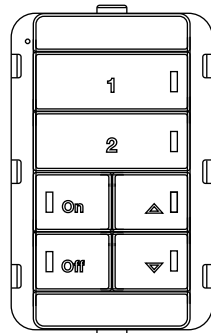
rPODLA 2P
Two Pole On/Off Controls



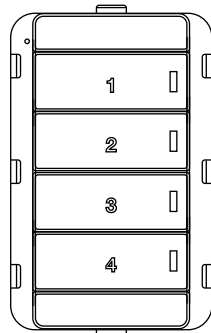
rPODLA 2P DX
Two Pole On/Off + Two
Raise/Lower Controls



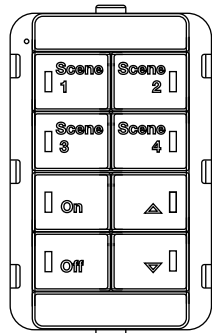
rPODLA 2S
2 Preset Scene Control



rPODLA 2S DX
2 Preset Scene Control
with On/Off/Raise/Lower

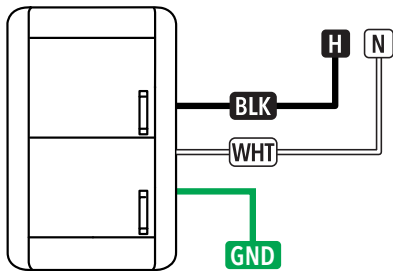


rPODLA 4S
4 Preset Scene Control



rPODLA 4S DX
4 Preset Scene Control
with On/Off/Raise/Lower

WIRING



OVERVIEW

The nLight® AIR rPODL is a wireless, line-powered wall switch that provides a user with local control of a lighting zone. These single gang decorator style devices have soft-click buttons and a green LED indicator for each button. The rPODL wall switches communicate with other nLight AIR devices via radio frequency (RF). A line-powered wall switch can work with any nLight AIR enabled fixture or power pack to provide toggle switch operation with optional multi-pole control. Wall switches with the DX option have the added ability to adjust the level of any nLight AIR controlled dimmable light fixture.

FEATURES

- Communicates with nLight® AIR devices via radio frequency (RF) in the 900MHz spectrum
- Soft-click push-button control
- Remotely configurable/upgradeable
- Custom button engraving at no charge (WH, IV, AL GY units only)
- Single pole or two pole on/off control
- Single or two pole raise/lower control
- Wireless multi location dimming

Warranty

Five-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application. Specifications subject to change without notice.



This item is an A+ capable component, which has been designed and tested to provide out-of-the-box luminaire compatibility with simple commissioning, when included as part of an A+ Certified™ Solution.

To learn more about A+, visit www.acuitybrands.com/aplus.

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ORDERING INFORMATION

rPODL						Example: RPODL 2P DX MVOLT WH G2	
Series	Poles & Scenes	Dimming Control	Voltage	Color	Generation		
RPODL	[blank] Single Pole 2P Two Pole	[blank] On/off Control DX On/off + Raise/Lower Control	MVOLT 120-277 VAC 347 347 VAC	WH White IV Ivory AL Light Almond GY Gray RD Red BK Black	G2 Generation 2 Compatibility		



nLight®

nLight® AIR
rPODL:
Line powered
Wall Switch



nLight® AIR Platform



Note: nLight® AIR devices are only compatible with other nLight AIR enabled devices; and is not cross compatible with other nLight product lines at this time.

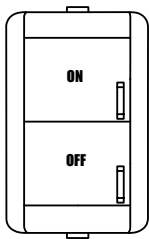
SPECIFICATIONS

Dimensions	2.74" H x 1.63" W x 1.78" D (6.96 cm x 4.27 cm x 4.52 cm)
Weight	4.25 oz
Mounting	Single Gang Switch Box or Low Voltage Ring
Color	White, Ivory, Lt. Almond, Gray, Red, Black
Operating Temperature	0C to 60C (Indoor Use Only)
Relative Humidity	Standard: 20 to 75% non-condensing
Input Power	< 1 watt
Radio Frequency	Dual Radio: 900Mhz & 2.4GHz
RF Transmit Power	900Mhz: +20dBm; 2.4GHz: Variable
Wireless Standard	900MHz: IEEE 802.15.4-based 2.4GHz: Version 4.0+ of the Bluetooth specification
Security	Application Data Encryption: AES-128 bit Mutual Entity Authentication Message Confidentiality Message Authentication and Replay Prevention Limited Anonymity Complies with California Civil Code Title 1.81.26, Security of Connected Devices, approved under Senate Bill No. 327 (2018)
Regulatory Compliance	FCC ID: 2ADCB-RMODIT3, cULus RoHS IC: 6715C-RMODIT3 IFETEL: RCPNLL20-2057
Programming Tool	CLAIRITY™+ mobile app

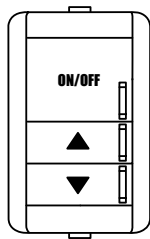
CUSTOM ENGRAVING

- Default button labeling is shown on below.
- Custom lettering for WH, IV, AL, and GY units can be specified and ordered at no charge at: https://img.acuitybrands.com/public-assets/catalog/147253/ngrave-form.pdf?abl_version=08%2f13%2f2022+09%3a37%3a16&DOC_Type=Technical_Bulletins
- To ensure color uniformity, ordering templates facilitate specifying all buttons on a unit as custom lettered. Replacing single buttons not recommended.
- Buttons may ship separately and require field installation

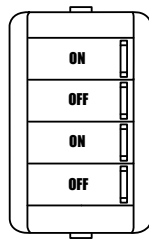
DEFAULT LABELING



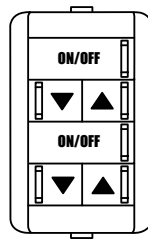
rPODL
On/Off Control



rPODL DX
On/Off +raise/
Lower Control

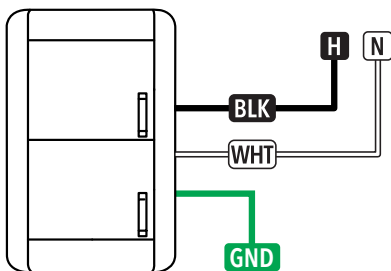


rPODL 2P
Two Pole On/Off
Controls



rPODL 2P DX
Two Pole On/Off
+ two raise/lower
controls

WIRING



OVERVIEW

The nTS Touchscreen by nLight® is a 7" LCD capacitive touchscreen wall station that leverages an intuitive user interface to configure and control nLight Wired or nLight AIR controlled spaces. Developed with end users in mind, the nLight Touchscreen is an easy-to-install wall station that enables seamless control of luminaires and other nLight devices through virtual switches, sliders, and scene buttons behind a multi-level user access architecture.

FEATURES

- 7" full-color responsive capacitive touchscreen
- Sleek, customizable dashboard that supports creation and customizable grouping of up to 128 switches and scenes
- User-selectable Light or Dark mode for preferred viewing
- Proximity sensor for automatic screen "wake-up"
- Offers direct local control of either nLight Wired or nLight AIR devices. Connects with an nLight® ECLYPSE™ to control both
- Multi-level pin protection for user and Bluetooth® access
- Configurable via CLAIRITY™+ mobile app, and SensorView software
- Remotely configurable and upgradeable
- Simple installation and maintenance with tool-less locking and unlocking mounting ring
- Optional locking-tabs for tamper-proof installation

Government Procurement

BAA – Buy America(n) Act: Product with the BAA option qualifies as a domestic end product under the Buy American Act as implemented in the FAR and DFARS. Product with the BAA option also qualifies as manufactured in the United States under DOT Buy America regulations.

BABA – Build America Buy America: Product with the BAA option also qualifies as produced in the United States under the definitions of the Build America, Buy America Act.

Please refer to www.acuitybrands.com/buy-american for additional information.

Warranty

Five-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application. Specifications subject to change without notice.

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nTS Touchscreen 7" Touchscreen Wall Switch



ORDERING INFORMATION

Example: nTS 7IN WH

Switch	Power Supply Type	Color	Buy America(n) ¹
nTS 7IN	[blank] Includes FCS PS10 NPWS No Power Supply	WH White BK Black	[blank] Standard BAA ¹ Buy America(n) Act and/or Build America Buy America Qualified

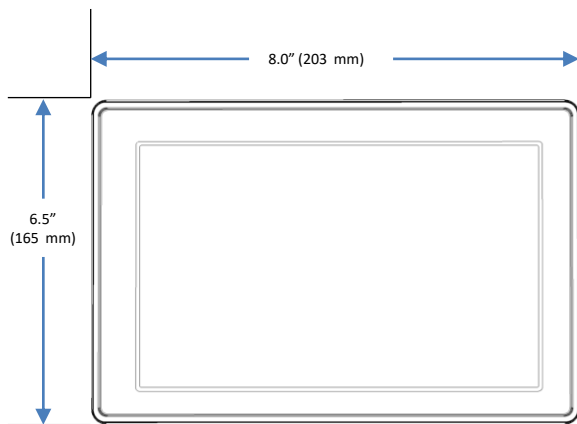
Notes:

1. BAA variants do not include Bluetooth or 900MHz capabilities and cannot directly communicate with nLight AIR devices.

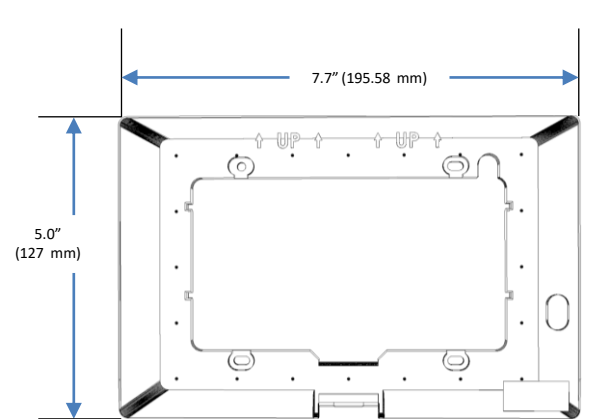
SPECIFICATIONS

Electrical	Input Ratings	18VDC-28VDC; 7W max @ 24 VDC Output, Class 2 Circuit (via included FCS PS10 power supply)
	Standards/Ratings	Energy Management Equipment, FCC Rules Part 15 Subpart B Class B
	Radio Frequencies	900 MHz up to +20dBm, 2.4 GHz up to +10 dBm NOTE: Not applicable to BAA variants
	Wireless Standard	900 MHz: IEEE 802.15.4 based 2.4 GHz: Version 4.0+ of the Bluetooth specification NOTE: Not applicable to BAA variants
Mechanical	Dimensions	5.3"H x 8"W x 1.3"D (134.62mm x 203.2mm x 33.02mm)
	Mounting	3-Gang Box (metal junction box required) or Low Voltage Ring
	Connection Type	RJ-45 nLight Network Ports (2) Low-Voltage Terminals
	Color:	White, Black
Environmental	Warrantied Operating Temperature	32°F to 104°F (0°C to 40°C)
	Relative Humidity	Up to 90%, Non-Condensing
	Standards/ Rating	RoHS, UL916
General	Standards/ Rating	System Component to aid in compliance with Title 24, ASHRAE 90.1, IECC
	Security	Application Data Encryption AES 128 bit, Mutual Entity Authentication, Message Confidentiality, Message Authentication and Replay Prevention, Limited Anonymity Complies with California Civil Code Title 1.81.26, Security of Connected Devices, approved under Senate Bill No. 327 (2018)
	Regulatory	FCC ID: 2ADCB-RMODIT3 IC: 6715C-RMODIT3 IFETEL: RCPNLNL20-2057 cULus Listed (E228719)
	Applications	CLAIRITY+ for device association and configuration

DIMENSIONS



nTS 7IN



Mounting Bracket

Sensors

- rCMS - 24V Ceiling Sensor
- rCMSB - Battery Ceiling Sensor
- rSBOR - Exterior Line Voltage Sensor
- rLSXR - Fixture Mount Sensor
- rTLN - Twist-to-Lock Node



OVERVIEW

The rCMS family of nLight AIR-enabled wireless ceiling/surface mount occupancy sensors provide a range of sensor solutions for applications with finished ceilings (e.g. ceiling tiles, sheetrock, plaster). The rCMS family sensors utilize digital Passive Infrared (PIR) detection and are available with several lens options, providing flexibility for multiple mounting height and coverage pattern requirements. Dual technology occupancy detection can also be added as an option for applications where occupants are stationary for long periods of time. All sensors have integrated on/off photocells, with automatic daylight harvesting/dimming control standard. Additionally, the rCMS family sensors are also available with an optional auxiliary low voltage relay for simple integration with a BMS system or other building system.

The rCMS family sensors are powered by an nLight AIR Power Pack (rPP20) or by a 24V DC supply (PS150). rCMS family sensors typically communicate with one or more nLight AIR-enabled fixtures or Power Packs to enable control of fixtures individually or in groups.

FEATURES

- Digital PIR detection
- Integrated, dimming photocell standard – Photocell views down through sensor lens
 - Provides automatic dimming control between min and max trim levels
 - Works during occupied periods when applied with an occupancy behavior
- Optional auxiliary low voltage solid-state relay (AR option) for dry contact output
- LED status indicator
- Adjustable settings (e.g. occupancy time delays, photocell set-points) via **CLAIRITY™**+ mobile app or SensorView software application
- Powered by 24V DC from rPP20 or nLight PS 150 power supply
- Standards-based nLight AIR 900 MHz

Warranty

Five-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application. Specifications subject to change without notice.



Items marked by a shaded background qualify for the Design Select program and ship in 15 days or less. To learn more about Design Select, visit www.acuitybrands.com/designselect. *See ordering tree for details

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nLight® AIR rCMS Ceiling Mounted Smart Sensor



RCMS 9



RCMS 10



RCMS 6



Design Select options indicated by this color background.

ORDERING INFORMATION

rCMS		Example: RCMS PDT 10 AR G2					
Series / Detection	Power Supply ¹	Occupancy Detection	Lens (Required)	Operating Mode	Generation		
RCMS nLight AIR occupancy and daylight sensor	[blank] Power Supply ordered separately PS 150 Standard 150 mA Power Supply	[blank] PIR Detection PDT ² Dual Tech PIR/Microphonics	10 Large Motion/ Extended Range 360° 9 Small Motion/ Extended Range 360° 6 High Bay 360° Lens	[blank] None AR Auxiliary Relay	G2 Generation 2 compatibility		

1. PS 150 or RPP20 24V required to power RCMS. Can also be ordered separately.
2. Must be ordered with 10 or 9.

SPECIFICATIONS

Dimensions	4.55" Dia. (11.56 cm) 1.55" Deep (3.94 cm)
Product Weight	6 oz
Color	Matte White
Enclosure Material	Poly-Carbonate/ABS
Max Humidity	5-95% non-condensing
Mounting	Ceiling Tile / Sheetrock Surface, 3.5" Octagon Box, Single Gang Handy box
Wires	9"; (2) 20 AWG used for DC input; 9"; (2) 20AWG used for AR option only
Relay Rating (AR option only)	100mA @ 24VAC/VDC (resistive only)
Input Voltage Range	6V to 60V
Peak Consumption	650mW
Operating Temperature	-40°C to 85°C
Storage Temperature	-40°C to 85°C
Radio Frequency	Dual Radio: 900MHz & 2.4GHz
RF Transmit Power	900MHz: up to 20 dBm 2.4GHz: up to 10.4 dBm
Wireless Standard	900MHz: IEEE 802.15.4-based 2.4GHz: Version 4.0+ of the Bluetooth specification
Wireless Range	900MHz: Up to 1000 ft. (~304m) in free space/ line of sight Minimum of 150 ft through typical construction 2.4GHz: Up to 60 ft. (~18m) in free space/ line of sight
Security Application Data Encryption:	AES-128 bit
	Mutual Entity Authentication
	Message Confidentiality
	Message Authentication and Replay Prevention
	Limited Anonymity
	Complies with California Civil Code Title 1.81.26, Security of Connected Devices, approved under Senate Bill No. 327 (2018)
Regulatory Compliance Wireless:	FCC ID: 2ADCB-RMODIT3, cULus, ROHS Compliant
	IC: 6715C-RMODIT3
	IFETEL: RCPNLNL20-2057

COVERAGE PATTERNS

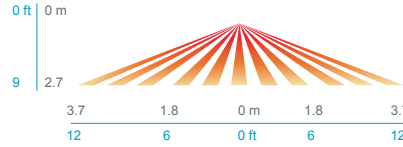
Recommended mounting 4' or more away from HVAC vents.

SMALL MOTION 360°

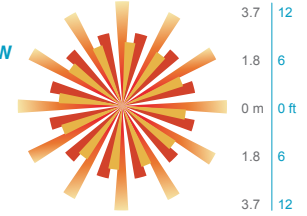


- Best choice for small motion (e.g. hand movements) detection
- 360° conical shaped pattern
- Provides 12 ft (3.66 m) radial coverage (~500 ft²) when mounted to standard 9 ft (2.74 m) ceiling
- 8 to 15 ft (2.44 to 4.57 m) mounting heights provide 10 to 20 ft (3.05 to 6.10 m) radial coverage

SIDE VIEW



TOP VIEW



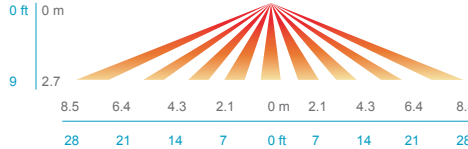
¹ Sensors with Microphonics™ provides overlapping detection of human activity over the complete PIR coverage area. Advanced filtering is also utilized to prevent non-occupant noises from keeping the lights on.

LARGE MOTION 360°

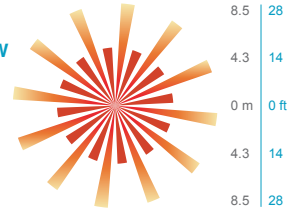


- Best choice for large motion detection (e.g. walking)
- 360° conical shaped pattern
- Provides ~24 ft (7.32 m) radial coverage (~2000 ft²) when mounted at 9 ft (2.74 m)
- 7 to 15 ft (2.13 to 4.57 m) mounting heights provide 16 to 36 ft (4.88 to 10.97 m) radial coverage
- Detection range improves when walking across beams compared to into beams

SIDE VIEW



TOP VIEW



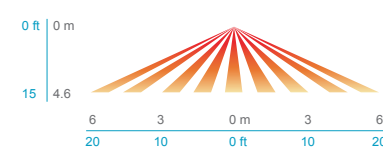
¹ Sensors with Microphonics™ provides overlapping detection of human activity over the complete PIR coverage area. Advanced filtering is also utilized to prevent non-occupant noises from keeping the lights on.

HIGH MOUNT 360°

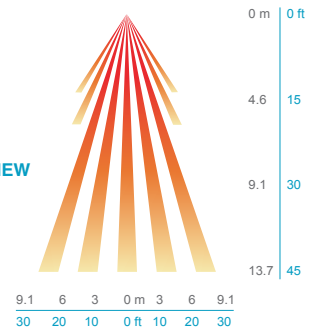


- Best choice for 15 to 45 ft (4.57 to 13.72 m) mounting heights
- 15 to 20 ft (4.57 to 6.10 m) radial coverage overlaps area lit by a typical high bay fixture
- Excellent detection of large motion (e.g. walking) up to 35 ft (10.76 m)
- Excellent detection of extra large motion (e.g. forklifts) up to a 45 ft (13.72 m)

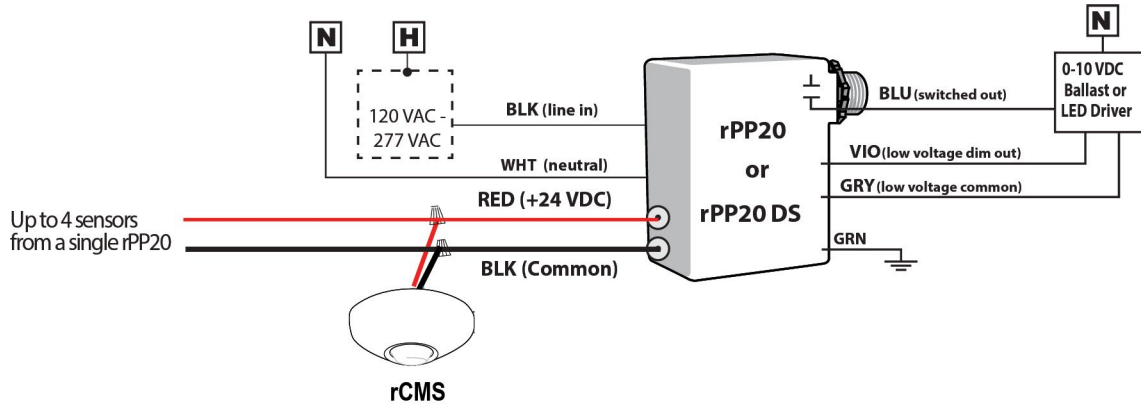
LOW VIEW



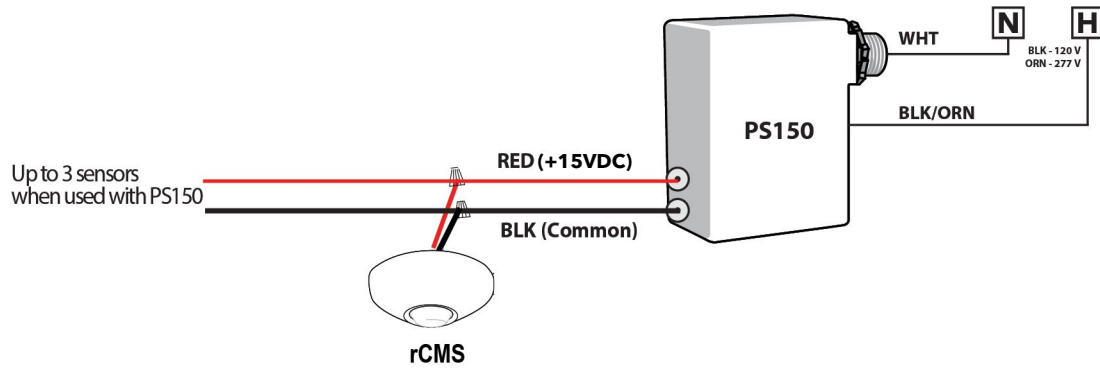
HIGH VIEW



Wiring an rCMS to an nLight AIR relay Power Pack (rPP20)



Wiring to an nLight PS 150 Power Supply



OVERVIEW

The rCMSB family of nLight AIR-enabled wireless ceiling/surface mount occupancy and daylight sensors provide a range of sensor solutions for a wide variety of ceiling applications. The rCMSB sensor utilizes analog Passive Infrared (PIR) detection and are available with several lens options, providing flexibility for multiple mounting height and coverage pattern requirements. It also has an integrated photosensor, with automatic daylight harvesting/dimming control available during programming.

The rCMSB is battery powered for ease of installation where line power is not easily accessible and communicates with one or more nLight AIR-enabled fixtures or Power Packs to enable control of fixtures individually or in groups.

FEATURES

- Powered with three off-the-shelf lithium AA batteries and rated for 10 years of use, minimizing battery replacement.
- Analog PIR Detection and optional Passive Dual Technology (PDT) occupancy that adds Microphonics to look and listen for occupants in the space.
- A recessed mount option that takes the tools out of your hands, installing in a standard 3" hole and delivering the lowest profile of any independent occupancy sensor
- Integrated, dimming photosensor included – Photocell views down through sensor lens
- LED status indicator to indicate motion during operation and provide feedback during startup
- Adjustable settings (e.g. occupancy time delays, photocell set-points) via **CLAIRITY™+** mobile app
- Batteries are included and preinstalled, allowing for a simple unbox and mount installation
- Communicates with nLight AIR devices via radio frequency (RF) in the 900MHz spectrum

Warranty

Five-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

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Items marked by a shaded background qualify for the Design Select program and ship in 15 days or less. To learn more about Design Select, visit www.acuitybrands.com/designselect.
*See ordering tree for details

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ORDERING INFORMATION

rCMSB		Example: RCMSB 7 G2				
Series / Detection	Detection	Lens		Mounting Type		Generation
RCMSB nLight AIR occupancy and daylight sensor	[blank] PIR Detection PDT Dual Tech PIR/Microphonics ¹	7 Low Mount 360 ¹	45 High Mount 360°	45A High Mount Aisleway	[blank] Surface Mount RECM Recessed Mount JBM J-Box Mount	G2 Generation 2 compatibility

Accessories	
MASKKIT RCMSBACC J5	Masking Labels*

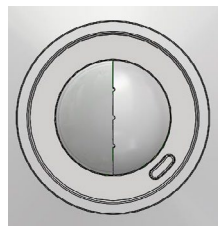
Notes:

1. PDT is only available with the 7 lens.

*Must order in quantities of 5

SPECIFICATIONS

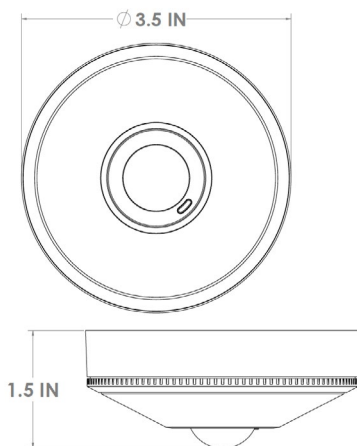
Product Weight	4.3 oz	Out of Box Settings	
Color	Matte White	Daylighting setpoint:	5 fc
Enclosure Material	Polycarbonate/ABS	LED behavior:	Enabled, responds to occupancy transitions
Max Humidity	95% non-condensing	Occupancy Time Delay:	10 min* default
Mounting	Surface mountable to concrete, drywall, ceiling tile or metal. Recessed mountable in drywall or ceiling tile applications.	*Note:	shorter delay may affect battery life
Operating Temperature	-40°C to 60°C (Indoor Use Only)		
Radio Frequency	Dual Radio: 900MHz & 2.4GHz		
RF Transmit Power	900Mhz: up to 20 dBm 2.4GHz: up to 10.4 dBm		
Wireless Standard	900MHz: IEEE 802.15.4-based 2.4GHz: Version 4.0+ of the Bluetooth specification		
Security Application Data Encryption:	AES-128 bit Mutual Entity Authentication Message Confidentiality Message Authentication and Replay Prevention Limited Anonymity		
Regulatory Compliance:	FCC ID: 2ADCB-RMODIT3, RoHS Compliant, cULus IC: 6715C-RMODIT3 IFETEL: RCPNLNL20-2057		
Masking Labels	Masking Labels are available as a 5 pack to mask off a portion of the lens coverage pattern for end-of-aisle applications.		



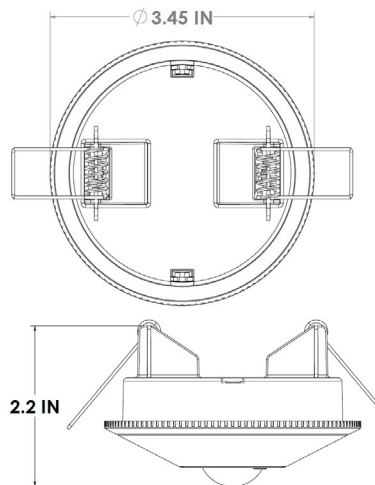
Masking Label

DIMENSIONS

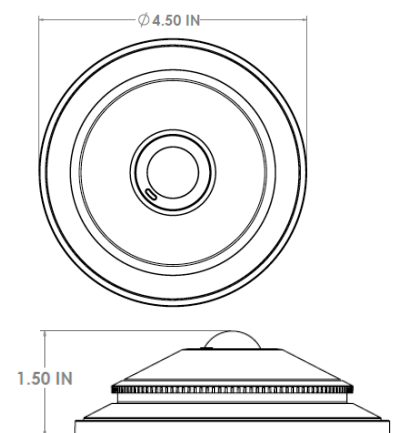
Surface Mount



Recessed Mount



J-Box Mount



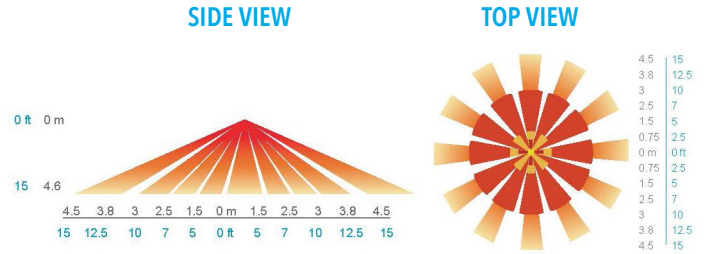
COVERAGE PATTERNS*

Recommended mounting 4' or more away from HVAC vents.

7 – LOW MOUNT 360°



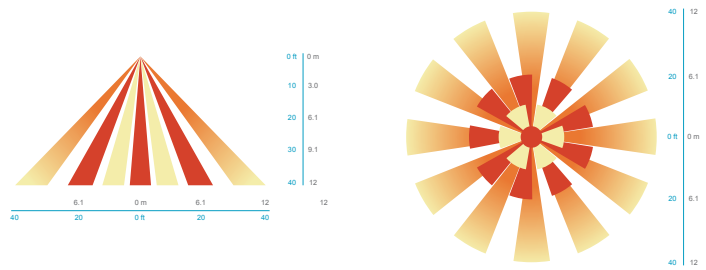
- Recommended for walking motion detection from mounting heights between 8 ft (2.44 m) and 20 ft (6.10 m)
- Initial detection radius of walking motion equivalent to the mounting height (up to 15'). For mounting heights between 15' and 20', multiply the mounting height by .875 to determine the initial detection radius for walking motion (ex. 20' x .875 = 17.5' radius).
- Provides 12 ft (3.66 m) radial detection of small motion when mounted at 9 ft (2.74 m)



45 – HIGH MOUNT 360°



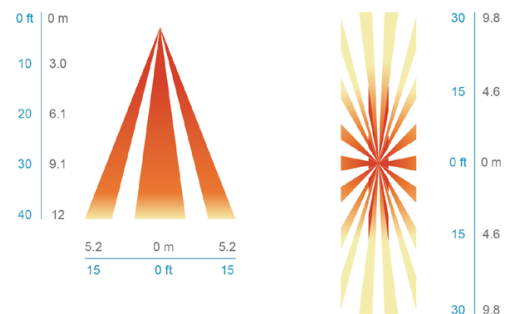
- Optimized full coverage pattern for 10 – 40 ft. (3.1 – 12 m)
- Reliable detection of large motion (e.g. pedestrian walking traffic) up to 30 ft. (9.1 m) mounting height
- Reliable detection of extra-large motion (e.g. forklift traffic) up to 40 ft. (12 m) mounting height



45A – HIGH MOUNT AISLEWAY



- Optimized bi directional coverage pattern for aiseways with 10 – 40 ft. (3.1 – 12 m) mounting heights
- 1.5x's mounting height equals approximate detection range
- Reliable detection of large motion (e.g. pedestrian walking traffic) up to 30 ft. (9.1 m) mounting height
- Reliable detection of extra-large motion (e.g. forklift traffic) up to 40 ft. (12 m) mounting height



* Coverage pattern shown is derived from NEMA WD7 testing

OVERVIEW

The nLight AIR rSBOR outdoor pole and fixture mount motion and photo sensor provides reliable networked control in a variety of outdoor and indoor lighting control applications. Designed to mount directly through a 1/2" knockout (7/8" hole) in a light fixture or pole, the rSBOR utilizes 100% Digital Passive Infrared (PIR) technology that is tuned for walking size motion while preventing false tripping from the environment. The rSBOR has a dual radio that allows it to communicate wirelessly to other nLight AIR devices to enable control strategies like group response to motion, on/off control in response to daylight, and on/off by switch.

SENSOR FEATURES

- 100% digital PIR detection
- Combined daylight and occupancy sensor
- Fully dimmable with 0-10V dimming, providing the right amount of light for the application and to optimize energy savings
- Power Monitoring with Current Measurement +/- 3% accuracy
- Programmable return to last state capability

INSTALLATION FEATURES

- IP66 rated for outdoor or other demanding environments
- Wireless communication enables simple retrofits - no communication wires to pull between devices
- Designed to mount directly to 1/2" knockout (7/8" hole) in a luminaire, on a pole, or to a junction box for a sensor only configuration
- Simple app-based configuration of space behaviors

ADVANCED WIRELESS FEATURES

- Devices intercommunicate to provide grouped-response to motion and on/off and dimming response to daylight conditions
- Flexible sensor time delays and light levels in responding to motion and daylight conditions
- Fully compatible with other nLight AIR devices on the site
- Easy to integrate with the nLight ECLYPSE™, which provides site-wide lighting control through nLight's SensorView software and provides optional BMS integration
- Comprehensive wireless security

Warranty

Five-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application. Specifications subject to change without notice.

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*nLight AIR
rSBOR
Outdoor Pole/ Fixture
Mount Sensor*



Note: Sensor may appear different from above photo depending on selected body and bracket type.



ORDERING INFORMATION

rSBOR				Example: rSBOR 6 IM WH G2							
Series		Mounting Height		Voltage		Emergency					
rSBOR	nLight AIR Outdoor Pole/ Fixture Mount Sensor	6	High Mount (15-30 ft)	[blank]	120-277 VAC (MVOLT) ¹	[blank] ²	None				
		10	Low Mount (8-15 ft)	HVOLT	347-480 VAC ¹	EM ³	UL 924 Emergency Operation, via separate normal power sensing device				
		40	High Mount Site/ Area (40 ft)								
Body/ Bracket		Power Monitoring		Color		Generation		Pack Qty			
[blank]	Short extension, low back	EB3	Long extension, high back	IM	Current Monitoring	WH	White	G2	Generation 2 compatibility	[blank]	Single
EB1	Short extension, high back	EB4	Medium extension, low back			BK	Black			J40	40 Pack
EB2	Long extension, low back	EB5	Medium extension, high back			BZ	Dark Bronze				
						NA	Natural Aluminum				

Note:

1. Safety Note: only one line phase is being switched on all phase to phase applications, including 208VAC and 480VAC.
2. Can provide normal power sensing information to nLight AIR devices with EM option. See the UL 924 Response section for more information.
3. EM option requires an nLight AIR device connected to normal power for wireless normal power detection. See the UL 924 Response section for more information.

SPECIFICATIONS

Size:	Bracket Dependent
Weight:	9.6 oz
Mounting:	1/2" knockout (7/8" hole)
Mounting Height:	rSBOR 10: 8 -15 ft (2.44-4.57 m) rSBOR 6: 15-30 ft (4.57-9.14 m) rSBOR 40: 40 ft (12.19m)
Maximum Load:	450W for 120-277VAC, 800VA for 347-480VAC
Motor Load:	1/4 HP
Dimming Load:	Sinks <10 mA (0-10 VDC LED Drivers / Ballasts)
Ingress Protection:	IP66
Operating Voltages:	120-277VAC or 347VAC/480VAC
Frequency:	50/60Hz
Temperature Rating:	-40°C to 65°C ambient
RF:	Transmit Power 900MHz: +20dBm; 2.4GHz: +10.4 dBm
Wireless:	Standard 900MHz: IEEE 802.15.4-based 2.4GHz: Version 4.0+ of the Bluetooth specification
Wireless Range:	900MHz: Up to 1,000 ft. (~304m) in free space/ line of sight Minimum of 150 ft through typical construction 2.4GHz: Up to 60 ft. (~18m) in free space/ line of sight
Security:	Complies with California Civil Code Title 1.81.26, Security of Connected Devices, approved under Senate Bill No. 327 (2018)
Regulatory Compliance:	FCC ID: 2ADCB-RMODIT3 IC: 6715C-RMODIT3 IFETEL: RCPNLL20-2057 cULus RoHS
Current Monitoring:	MVOLT versions include automatic voltage detection for power calculation. HVOLT versions require user input of voltage via SensorView to calculate power Minimum Current of 225mA required to ensure +/- 3% Accuracy
Programming Tool:	CLAIRITY™+ Mobile App

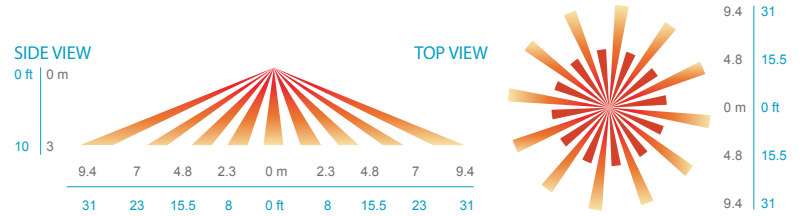
Out-Of-Box Functionality

Occupancy Control	Enabled
Idle Tim Until Dim	7.5 Minutes
Occupied Dim Level	100%
Unoccupied Dim Level	30%
Dimming Fade Rate Time	5 Minutes
Photocontrol	Enabled
Photocontrol Set Point	5 fc
Photocontrol Transition On Time	45 Seconds
Photocontrol Transition Off Time	5 Minutes

COVERAGE PATTERN

Parking Garage / Low Mount Applications

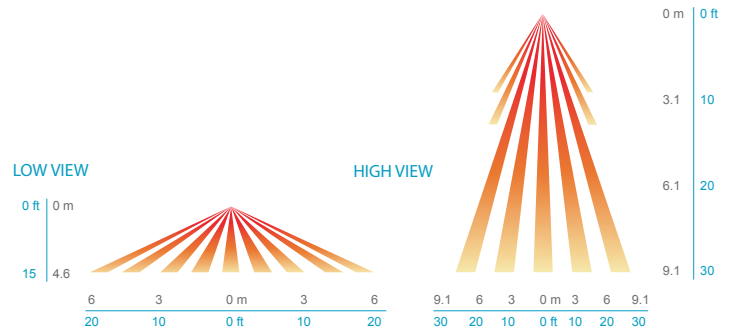
In general, the rSBOR 10 is recommended for 8-15 ft (2.44-4.57 m) mounting and provides a coverage area radius for walking motion of greater than 2x the mounting height. When mounted 10 ft high, for example, on a luminaire in a parking garage, the sensor's coverage for walking motion extends out 30 ft in a 360° pattern. This closely matches the lighting distribution of a typical parking garage luminaire. When mounted to a light pole, for example, in a parking lot or along a path, the sensor provides 270° of coverage (90° is blocked by the pole). Note, walking askew to sensor typically results in earlier detection than walking directly at sensor.



Coverage Pattern of Low Mount Lens Option (rSBOR 10)

Site & Area Lighting / High Mount Applications

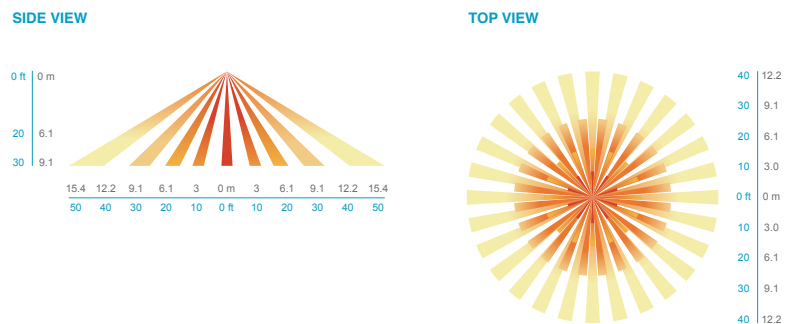
The rSBOR 6 is intended for higher pole mount applications, between 15-30 ft (4.57-9.14 m), and provides a coverage area radius for walking motion of 15-20 ft (4.57-6.10 m). When mounted to a pole the sensor provides 270° of coverage (90° is blocked by the pole). Higher mounting (e.g. 40 ft or 12.20 m) may result in shorter detection range.



Coverage Pattern of High Mount Lens Option (rSBOR 6)

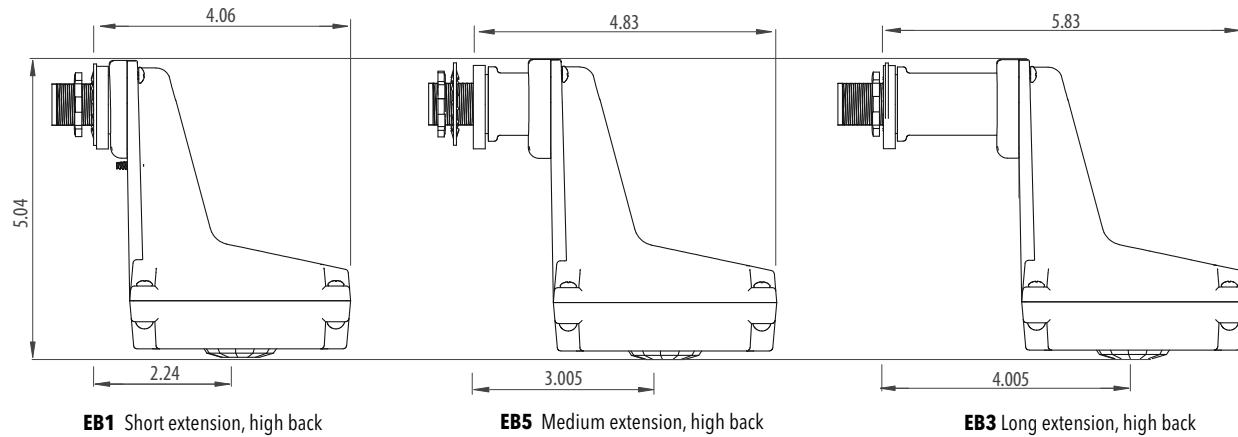
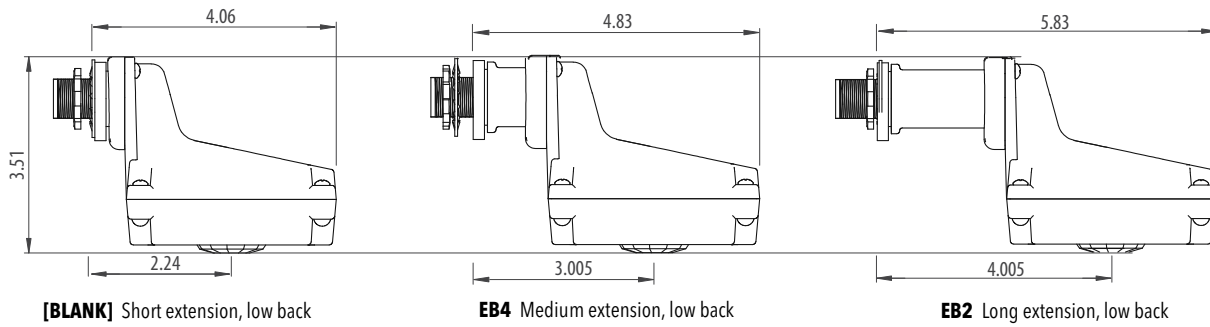
Site & Area Lighting / High Mount Applications

The rSBOR 40 is intended for the highest of mounting heights - up to 40ft. It provides a coverage area radius for walking motion of 50ft. When mounted to a pole, the sensor provides 270 degrees of coverage.



Coverage Pattern of High Mount Site/ Area Lens Option (rSBOR 40)

BODY/BACKET OPTIONS

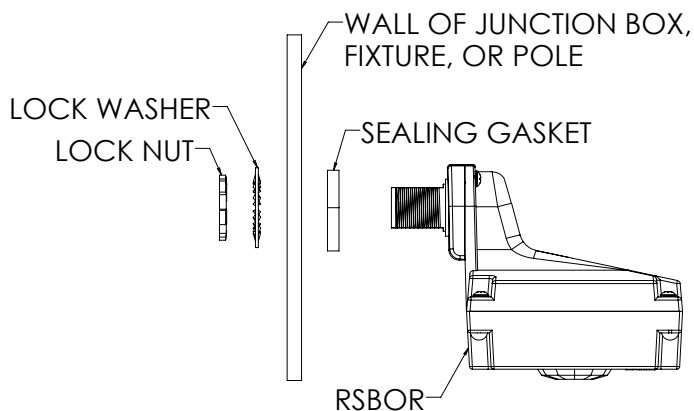


INSTALLATION INSTRUCTIONS

- Sensor has a 1/2" chase nipple that enables mounting through a knockout/hole in a junction box, fixture, or pole.

MOUNTING SPECIFICATIONS

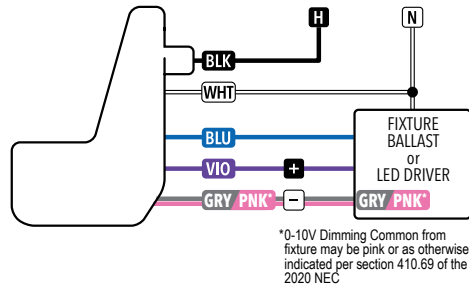
- Mounts through 7/8" diameter hole
- Requires access on opposite or adjacent side to secure mounting nut
- Required mounting distance from light source may vary by sensor functionality and luminaire design
- See specification drawing for details



WIRING** (DO NOT WIRE HOT)

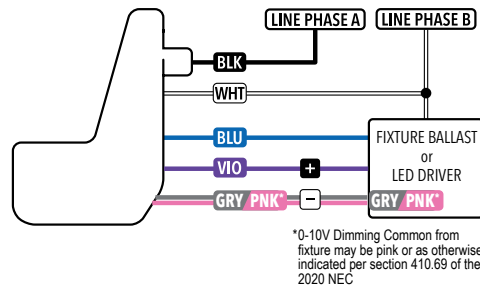
WIRING TO SINGLE PHASE POWER (120/277/347 VAC)

- BLACK*** - 120/240/347 VAC Input
- BLUE*** - Switched Line Voltage Output to Luminaire
- WHITE** - Neutral
- VIOLET** - Low Voltage Dim Output (0-10 VDC)
- PINK** - Low Voltage Common



WIRING TO 2-PHASE POWER* (208/240/480 VAC)

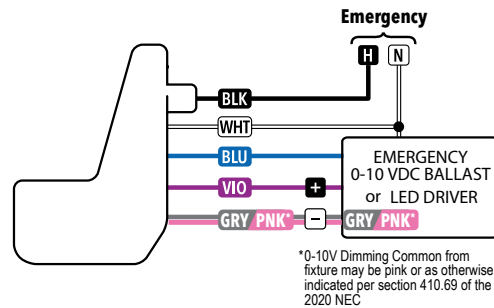
- BLACK*** - 208/240/480 VAC Phase A Input
- BLUE*** - Switched Line Voltage Output to Luminaire
- WHITE** - Phase B of 208/240/480 VAC Input
- VIOLET (w/ D option)** - Low Voltage Dim Output (0-10 VDC)
- PINK (w/ D option)** - Low Voltage Common



***Safety Note: only one line phase is being switched**

WIRING TO EMERGENCY (-EM) UNITS

- BLACK** - Input Emergency Hot
- BLUE** - Switched Line Voltage Output to Luminaire
- WHITE** - Emergency Neutral
- VIOLET** - Low Voltage Dim Output (0-10 VDC)
- PINK** - Low Voltage Common



UL 924 Response - nLight AIR Devices with EM Option

The below information applies to all nLight AIR devices with an EM option.

- EM devices will remain at their high-end trim and ignore wireless lighting control commands, unless a normal-power-sensed (NPS) broadcast is received at least every 8 seconds.
- Using the **CLAIRITY+** mobile app, EM devices must be associated with a group that includes a normal power sensing device to receive NPS broadcasts.
- Only non-emergency rPP20, rLSXR, rSBOR, rSDGR, and nLight AIR luminaires with version 3.4 or later firmware can provide normal power sensing for EM devices. See specification sheets for control devices and luminaires for more information on options that support normal power sensing.

*Safety Note: only one line phase is being switched

**Device must be permanently energized

OVERVIEW

The nLight AIR rLSXR fixture mount motion and photo sensor provides reliable versatile networked control for commercial and industrial lighting control applications. Designed to mount directly to a luminaire, the rLSXR utilizes 100% digital Passive Infrared (PIR) technology and features interchangeable lenses, providing flexibility for multiple mounting height and coverage pattern requirements. The rLSXR has a dual radio that allows it to communicate wirelessly to other nLight AIR devices to enable control strategies like grouped response to motion, on/off control in response to daylight, and on/off by switch.

SENSOR FEATURES

- Interchangeable lenses – high mount 360°, low mount 360°, high mount aisleway, and small motion 360°
- 100% digital PIR detection
- Combined daylight and occupancy sensor
- Fully dimmable with 0-10V dimming, providing the right amount of light for the application and to optimize energy savings
- Power Monitoring with Current Measurement +/- 3% accuracy
- Programmable return to last state capability

INSTALLATION FEATURES

- Wireless communication enables simple retrofits - no communication wires to pull between devices
- Designed to mount directly to 1/2" knockout (7/8" hole) in a luminaire
- Field or factory installable for indoor applications
- Simple app-based configuration of space behaviors

ADVANCED WIRELESS FEATURES

- Devices intercommunicate to provide grouped-response to motion and on/off and dimming response to daylight conditions
- Flexible sensor time delays and light levels in responding to motion and daylight conditions
- Fully compatible with other nLight AIR devices on the site
- Easy to integrate with the nLight ECLYPSE™, which provides site-wide lighting control through nLight's SensorView software and provides optional BMS integration
- Comprehensive wireless security

Warranty

Five-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application. Specifications subject to change without notice.

Bluetooth is a trademark of Bluetooth SIG, Inc. used by Acuity Brands under license.



*nLight AIR
rLSXR
Fixture Mount Sensor*



ORDERING INFORMATION

rLSXR		Example: rLSXR 6 IM WH G2				
Series	Lens Options				Voltage	Emergency
rLSXR nLight AIR Fixture Mount Sensor	0	No Lens	610	High & Low Mount 360	[blank] 120-277 VAC ¹ (MVOLT)	[blank] ² None
	6	High Mount 360°	650	High Mount 360 & Aisleway	HVOLT 347-480 VAC ¹	EM ³ UL 924 Emergency Operation, via separate normal power sensing device
	10	Low Mount 360°	3PK	High & Low Mount 360, & Aisleway		
	50	High Mount Aisleway	4PK	All Lenses		
	9	Small Motion 360°				

Power Monitoring	Color	Body/ Bracket	Lead Length	Generation	Pack Qty
IM Current Monitoring	WH White	[blank] Short extension, low back	[blank] 8" 42L 42"	G2 Generation 2 Compatibility	[blank] Single 40 Pack

Accessory Lenses				Example: LENS 6	
Lens Type				Job Pack Qty	
LENS 6	High Mount 360°	LENS 50	High Mount Aisleway	[Blank]	Single
LENS 10	Low Mount 360°	LENS 9	Small Motion 360°	J10	10-Pack
				J100	100-Pack

Note:

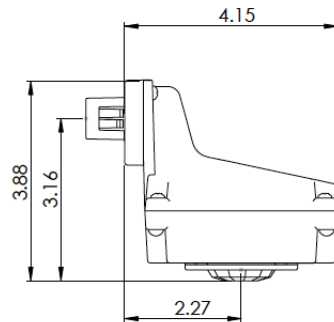
1. Safety Note: only one line phase is being switched on all phase to phase applications, including 208VAC and 480VAC.
2. Can provide normal power sensing information to nLight AIR devices with EM option. See the UL 924 Response section for more information.
3. EM option requires an nLight AIR device connected to normal power for wireless normal power detection. See the UL 924 Response section for more information.

SPECIFICATIONS

Size (w/ Mounting Flange):	3.88" H x 3.75" W x 4.15" D (9.86 cm x 9.53 cm x 10.54 cm)
Weight:	10.5 oz
Mounting:	1/2" knockout (7/8" hole) on fixture
Maximum Load:	450W for 120-277VAC, 800 VA for 347-480VAC
Dimming Load:	Sinks < 20 mA; (~ 40 LED drivers/ballasts @ 0.5 per) 0-10VDC dimmable ballasts or LED drivers only
Temperature Rating:	-40° to 65° C ambient
Operating Voltages:	120-277VAC or 347/480VAC
Frequency:	50/60 Hz
RF:	Transmit Power 900Mhz: +20dBm; 2.4GHz: +10.4 dBm
Wireless:	Standard 900MHz: IEEE 802.15.4-based 2.4GHz: Version 4.0+ of the Bluetooth specification
Wireless Range:	900MHz: Up to 1,000 ft. (~304m) in free space/ line of sight Minimum of 150 ft through typical construction 2.4GHz: Up to 60 ft. (~18m) in free space/ line of sight
Security:	Complies with California Civil Code Title 1.81.26, Security of Connected Devices, approved under Senate Bill No. 327 (2018)
Regulatory Compliance:	FCC ID: 2ADCB-RMODIT3 IC: 6715C-RMODIT3 IFETEL: RCPNLL20-2057 cULus RoHS
Current Monitoring:	MVOLT versions include automatic voltage detection for power calculation. HVOLT versions require user input of voltage via SensorView to calculate power Minimum Current of 225ma required to ensure +/-3% Accuracy

OUT OF BOX OPERATION

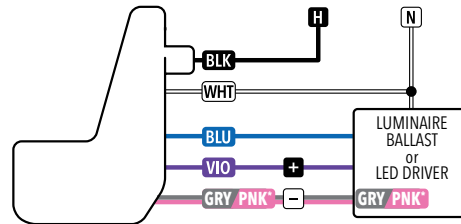
- Occupancy Control: Enabled
- Occupied Dim Level: 100%
- Unoccupied Time Until Dim: 7.5 Minutes
- Unoccupied Dim Level: 10%
- Dim to Off Time Delay: 2.5 Minutes
- Daylighting Control: Enabled
- Daylighting Set Point: 50 fc
- Daylighting Transition On Time: 45 Seconds
- Daylighting Transition Off Time: 5 Minutes



WIRING (DO NOT WIRE WHEN ENERGIZED)

WIRING TO SINGLE PHASE POWER (120/277/347 VAC)

- BLACK** - 120/277/347 VAC Input
- BLUE** - Switched Line Voltage Output to Luminaire
- WHITE** - Neutral
- VIOLET** - Low Voltage Dim Output (0-10 VDC)
- PINK** - Low Voltage Common (0-10 VDC)

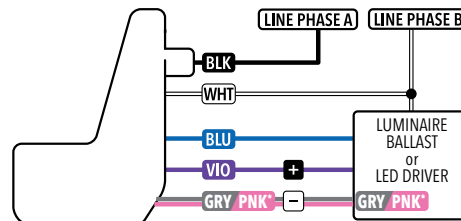


*0-10V Dimming Common may be pink or as otherwise indicated per section 410.69 of the 2020 NEC

WIRING TO 2-PHASE POWER* (208/240/480 VAC)

- BLACK** - 208/240/480 VAC Phase A Input
- BLUE** - Switched Line Voltage Output to Luminaire
- WHITE** - Phase B of 208/240/480 VAC Input
- VIOLET** - Low Voltage Dim Output (0-10 VDC)
- PINK** - Low Voltage Common (0-10 VDC)

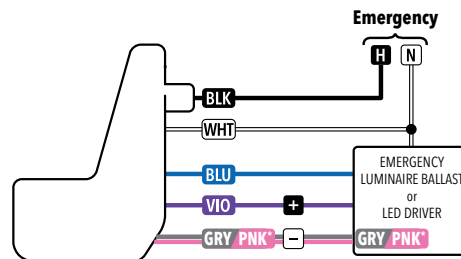
***Safety Note: only one line phase is being switched**



*0-10V Dimming Common may be pink or as otherwise indicated per section 410.69 of the 2020 NEC

WIRING TO EMERGENCY (-EM) UNITS

- BLACK** - Input Emergency Hot
- BLUE** - Switched Line Voltage Output to Luminaire
- WHITE** - Emergency Neutral
- VIOLET** - Low Voltage Dim Output (0-10 VDC)
- PINK** - Low Voltage Common (0-10 VDC)



*0-10V Dimming Common may be pink or as otherwise indicated per section 410.69 of the 2020 NEC

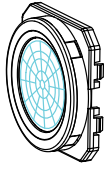
UL 924 Response - nLight AIR Devices with EM Option

The below information applies to all nLight AIR devices with an EM option.

- EM devices will remain at their high-end trim and ignore wireless lighting control commands, unless a normal-power-sensed (NPS) broadcast is received at least every 8 seconds.
- Using the **CLAIRITY+** mobile app, EM devices must be associated with a group that includes a normal power sensing device to receive NPS broadcasts.
- Only non-emergency rPP20, rLSXR, rSBOR, rSDGR, and nLight AIR luminaires with version 3.4 or later firmware can provide normal power sensing for EM devices. See specification sheets for control devices and luminaires for more information on options that support normal power sensing.

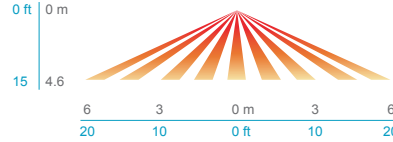
COVERAGE PATTERNS

HIGH MOUNT 360° LENS (#6)

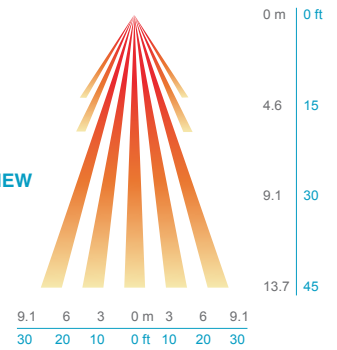


- Best choice for 15 to 45 ft (4.57 to 13.72 m) mounting heights
- 15 to 20 ft (4.57 to 6.10 m) radial coverage overlaps area lit by a typical high bay fixture
- Excellent detection of large motion (e.g. walking) up to a 35 ft (10.76 m) mounting height
- Excellent detection of extra large motion (e.g. forklifts) up to a 45 ft (13.72 m) mounting height
- Tested to NEMA WD 7-2011

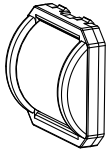
LOW VIEW



HIGH VIEW

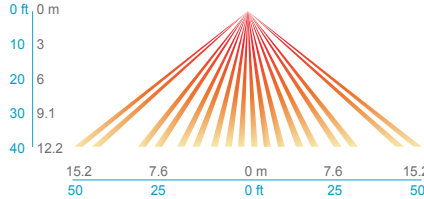


HIGH MOUNT AISLEWAY LENS (#50)

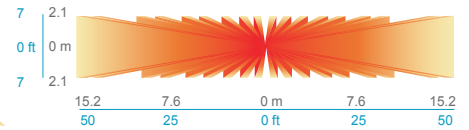


- Provides a bi-directional coverage pattern ideal for warehouse racking
- 1.2x mounting height equals approximate detection range in either direction
- Typical 40 ft (12.19 m) mounting detects 50 ft (15.24 m) in either direction
- Superior aisleway coverage compared to a masked 360° lens

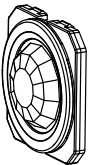
SIDE VIEW



TOP VIEW

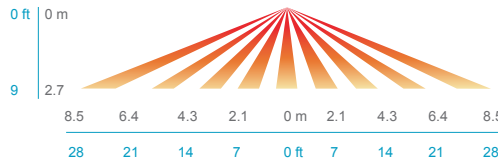


LOW MOUNT 360° LENS (#10)

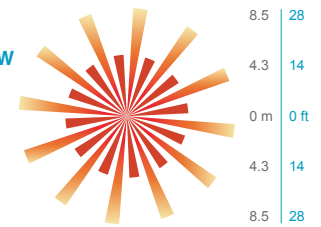


- Best choice for large motion detection (e.g. walking)
- 360° conical shaped pattern
- Provides ~24 ft (7.32 m) radial coverage (~2000 ft²) when mounted at 9 ft (2.74 m)
- 7 to 15 ft (2.13 to 4.57 m) mounting heights provide 16 to 36 ft (4.88 to 10.97 m) radial coverage
- Detection range improves when walking across beams compared to into beams

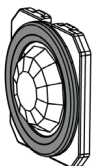
SIDE VIEW



TOP VIEW

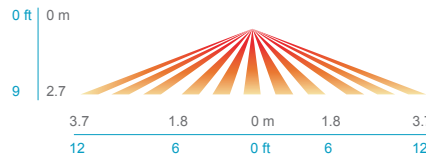


SMALL MOTION 360° LENS (#9)

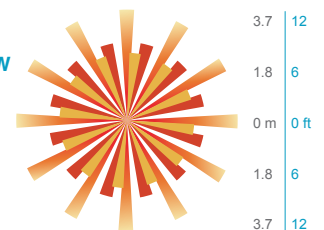


- Best choice for small motion (e.g. hand movements) detection
- 360° conical shaped pattern
- Provides 12 ft (3.66 m) radial coverage (~500 ft²) when mounted to standard 9 ft (2.74 m) ceiling
- 8 to 15 ft (2.44 to 4.57 m) mounting heights provide 10 to 20 ft (3.05 to 6.10 m) radial coverage
- Lens assembly is marked with a gray ring around lens to differentiate versus the #10 lens

SIDE VIEW



TOP VIEW



OVERVIEW

The nLight® AIR rTLN Twist-to-lock node provides reliable versatile networked control for outdoor applications that utilize a NEMA/ANSI C136.41 receptacle. Designed to mount directly to a luminaire, the rTLN provides on/off and dimming control, has an on-board photocell for sunrise to sunset control, and supports third party motion sensor control. The rTLN has a dual radio that allows it to be configured from the ground and communicate wirelessly to other nLight AIR devices to enable control strategies like grouped response to motion, on/off control in response to daylight, and on/off by switch.

NODE FEATURES

- On/off luminaire control with 0-10V and DALI-based dimming options
- On-board photocell that operates dusk-to-dawn out of the box
- 7-pin design to support a third party motion sensor input
- Power Monitoring with current measurement +/- 2% accuracy

INSTALLATION FEATURES

- Wireless communication enables simple retrofits - no communication wires to pull between devices
- Plug and play use on any luminaire with an external ANSI/NEMA C136.41 receptacle
- Simple app-based configuration of space behaviors from the ground

ADVANCED WIRELESS FEATURES

- Devices intercommunicate to provide grouped-response to motion and on/off response to daylight conditions
- Fully compatible with other nLight AIR devices on the site
- Easy to integrate with the nLight ECLYPSE™, which provides site-wide lighting control through nLight's SensorView software and provides optional BMS integration
- Comprehensive wireless security

Warranty

Five-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application. Specifications subject to change without notice.

Bluetooth is a trademark of Bluetooth SIG, Inc. used by Acuity Brands under license.



nLight AIR rTLN Twist-to-Lock Node



ORDERING INFORMATION

rTLN					Example: rTLN MVOLT DSNV G2		
Series	Dimming	Voltage	Variant	Generation			
rTLN nLight AIR Twist-to-Lock Node	(blank) 0-10V DALI DALI control	MVOLT 120-277 VAC HVOLT 347-480 VAC	DSNV DSN Variant	G2 Generation 2 Compatibility			

Accessories

DUR103 U	3 Pin Retrofit Receptacle Kit
DUR105 M50	5 Pin Retrofit Receptacle Kit
DUR107 M50	7 Pin Retrofit Receptacle Kit

NOTE: For additional Retrofit Receptacle Kit information, see spec sheets: [DUR103](#) Spec Sheet, [DUR105-107](#) Spec Sheet

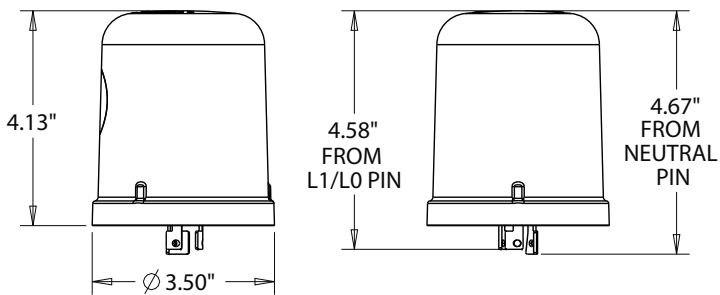
SPECIFICATIONS

OUT OF BOX OPERATION

Color:	Black
Mounting:	NEMA receptacle compliant with ANSI C136.10/C136.41
Maximum Load:	1000W, 1800VA, 15A max switching
Dimming Load:	0-10V or DALI dimming, supports up to 5 drivers (2mA per driver) sink or source operation
Occupancy Control:	Supports active high occupancy sensors, Pin 5 = Ground or reference, Pin 6 = Sense, Pin 7 supplies 24VDC. DALI sensors are not supported
Surge/In-rush:	LED protection with TRIAC assisted relay, 1080J/36kA
IP Rating:	IP66
Temperature Rating:	-40° to 70° C ambient
Operating Voltages:	120-277VAC or 347/480VAC
Frequency:	50/60 Hz
RF:	Transmit Power 900MHz: +20dBm, Max 1000ft Clear LOS; 2.4GHz: +10.4 dBm, Max 100ft Clear LOS
Wireless:	Standard 900MHz: IEEE 802.15.4-based 2.4GHz: Version 4.0+ of the Bluetooth specification
Security:	Complies with California Civil Code Title 1.81.26, Security of Connected Devices, approved under Senate Bill No. 327 (2018)
Regulatory Compliance:	Wireless: FCC ID: 2ADCB-RMODIT3 IC: 6715C-RMODIT3 IFETEL: RCPNLLN20-2057 Safety: cULus 773, RoHS Compliant, NOM Certified
Programming Tool:	CLAIRITY™+ mobile app

Photocell Control	Enabled
Photocell Set Point	1.5fc turn on, 2.25fc turn off
Photocell Transition On Time	45 Seconds
Photocell Transition Off Time	5 Minutes

DIMENSIONS



Width conforms to ANSI C136.10 spec to ensure the right fit on most types of fixtures.



sixteen⁵hundred

Load Controllers

rPP20 - Load Controller

rPP PCD - Phase Dimming Lighting Load Controller



OVERVIEW

nLight AIR rPP power packs are designed to offer flexible control for commercial and industrial lighting applications. The rPP consists of a relay, 0-10V dimming control, and a low voltage power supply output to power and wireless sensors. The rPP is capable of switching loads up to 20 A via a latching relay designed with robust inrush protection. Select power packs provide +24VDC low voltage output to power up to 4 nLight AIR mounted occupancy sensors and photocells. The nLight AIR rPP is designed for use as part of an nLight AIR group of devices or with the nLight ECLYPSE™.

POWER PACK FEATURES

- On/Off and dimming control of a luminaire or group of luminaires
- 24VDC output to power up to 4 nLight AIR rCMS low voltage sensors or other low voltage devices
- Suitable for plug load control
- UL 924 listed options for simplified lighting control on emergency lighting circuits
- Power Monitoring with Current Measurement +/- 3% accuracy
- Programmable return to last state capability

INSTALLATION FEATURES

- Wireless communication enables simple retrofits - no communication wires to pull between devices
- Chase nipple or side output dimming options
- UL 2043 listed for plenum applications
- An optional external antenna (CP option) for meeting code specific requirements or IP-rated applications
- Simple app-based configuration of space behaviors

ADVANCED WIRELESS FEATURES

- Devices intercommunicate to provide grouped-response to motion and on/off and dimming response to daylight conditions when wirelessly connected to a motion or daylight sensor, or on/off/dimming when connected to a wireless switch
- Fully compatible with other nLight AIR devices on the site
- Easy to integrate with the nLight ECLYPSE, which provides site-wide lighting control through nLight's SensorView software and provides optional BMS integration
- Comprehensive wireless security

Warranty

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Note: Actual performance may differ as a result of end-user environment and application. Specifications subject to change without notice.



Items marked by a shaded background qualify for the Design Select program and ship in 15 days or less. To learn more about Design Select, visit www.acuitybrands.com/designselect.

*See ordering tree for details

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nLight® AIR rPP20 Power/Relay Pack



ORDERING INFORMATION

rPP20 Example: rPP20 D 24V EFP G2

Series		Dimming and Low Voltage Output		Emergency		Fault Protection	
RPP20	nLight AIR Power/Relay Pack	[blank] None	DS 0-10VDC dimming output (via side leads), no 24V output terminals	[blank] ¹ None	ER UL924 Emergency Operation, via power sense leads	EFP	External Fault Protection
		24V No dimming, 24V Output Terminals	DS 24V 0-10VDC Dimming output (via side leads), 24V Output Terminals		EM ² UL924 Emergency Operation, via separate normal power sensing device		
		D 0-10VDC Dimming output (via chase nipple), no 24V Output Terminals					
		D 24V 0-10VDC dimming output (via chase nipple), 24V output terminals					

Territory Compliance		Voltage		Power Monitoring		Generation	
[blank]	None	[blank] ⁴	120-277V	[blank]	None	G2	Generation 2 compatibility
CP ³	Chicago Plenum	UVOLT ⁴	120-480V	IM	Current Monitoring		

ACCESSORIES
NPP FUSE J10 Replacement Fuse

Notes

1. Can provide normal power sensing information to nLight AIR devices with EM option. See the UL 924 Response section for more information.
2. EM option requires an nLight AIR device connected to normal power for wireless normal power detection. See the UL 924 Response section for more information.
3. Not available with UVOLT model.
4. All phase-to-phase applications, including 208VAC and 480VAC, require factory installation.

SPECIFICATIONS

Size: 3.50" x 3.52" x 1.82" (120-277V model)
 4.725" x 4.80" x 1.865" (UVOLT model)

Weight: 6 oz

Mounting: 1/2" Knockout

Color: White (standard), Red (ER & EM)

Humidity: 5 to 95% non-condensing

Location: Damp Location Rating

Wires: Line and load 12 AWG stranded
 Neutral, ground, and power sense (ER version) 18 AWG stranded
 0-10V, 20 AWG stranded

Operating Voltage: 120-277VAC, 120-480VAC (UVOLT)

Relay type: Latching

Frequency: 50/60Hz

Current Monitoring: MVOLT versions include automatic voltage detection for power calculation. HVOLT versions require user input of voltage via SensorView to calculate power
 Minimum Current required to ensure +/- 3% Accuracy
 MVOLT - 425mA
 UVOLT - 625mA

DC Output Terminals: Push-in Terminals, solid or tinned 16-20AWG

DC Output Voltage/Current: 24 VDC, 100 mA max output

0-10V Dimming: Sinks 150mA; 0-10VDC dimmable ballasts or LED drivers;

Radio Frequencies: 900 MHz up to +20dBm, 2.4 GHz up to +10 dBm

Wireless Standard: 900 MHz: IEEE 802.15.4-based; 2.4 GHz: Version 4.0+ of the Bluetooth specification

Security: Application Data Encryption AES-128 bit, Mutual Entity Authentication, Message Confidentiality, Message Authentication and Replay Prevention, Limited Anonymity
 Complies with California Civil Code Title 1.81.26, Security of Connected Devices, approved under Senate Bill No. 327 (2018)

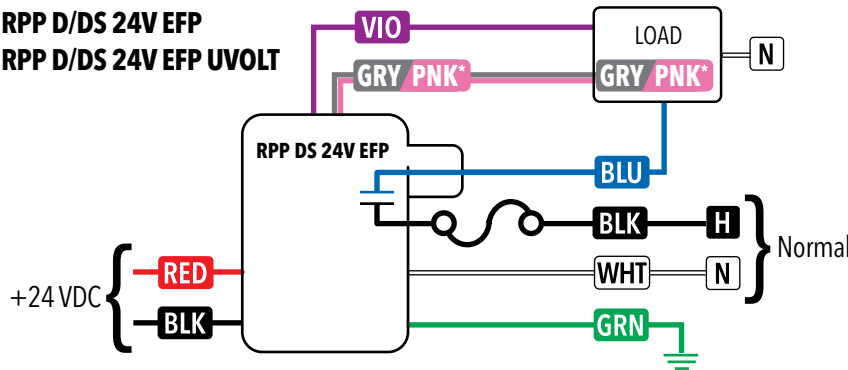
Regulatory Compliance: FCC ID: 2ADCB-RMODIT3
 IC: 6715C-RMODIT3
 IFETEL: RCPNLL20-2057
 cULus
 RoHS

Temperature and Load Ratings

Model	rPP20 (-10 to 50 C)		rPP20 (-10 to 60 C)		rPP20 UVOLT (-10 to 70C)			
Voltage	120 VAC	277 VAC	120 VAC	277 VAC	120 VAC	277 VAC	347 VAC	480 VAC
General Purpose	20 A	20 A	5 A	5 A	20 A	20 A	20 A	5 A
Tungsten	20 A	20 A	5 A	5 A	20 A	20 A	20 A	5 A
Standard Ballast	20 A	20 A	5 A	5 A	20 A	20 A	20 A	5 A
Electronic Ballast	16 A	16 A	5 A	5 A	16 A	16 A	16 A	5 A
Motor	1.5 HP	1.5 HP	1.5 HP	1.5 HP	1.5 HP	1.5 HP	3/4 HP	1/2 HP

WIRING (Do not wire hot)

RPP D/DS 24V EFP RPP D/DS 24V EFP UVOLT



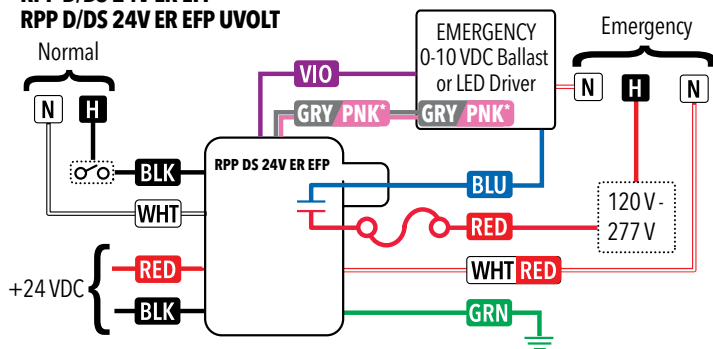
Legend

BLK - Unswitched Hot 120-277, 347VAC**
 WHT - Neutral
 BLU - Switched Output
 VIO - 0-10V Dim
 PNK* - 0-10V Common
 RED (Terminal) - +24VDC
 BLK (Terminal) - DC Common
 GRN - Ground

*0-10V Dimming Common from luminaire may be pink or as otherwise indicated per section 410.69 of the 2020 NEC.
 **347 only supported by UVOLT option.

WIRING FOR EMERGENCY (-ER) UNITS

RPP D/DS 24V ER EFP RPP D/DS 24V ER EFP UVOLT



Legend

RED - 120-277, 347VAC** Emergency Hot
 WHT/RED - Emergency Neutral
 BLK - Unswitched Norm. Hot
 WHT - Norm. Neutral
 BLU - Switched Output
 VIO - 0-10V Dim (+)
 PNK* - 0-10V Com (-)
 RED (Terminal) - +24VDC
 BLK (Terminal) - DC Com
 GRN - Ground
 [Symbol] - Optional Test Switch (by others)

*0-10V Dimming Common from luminaire may be pink or as otherwise indicated per section 410.69 of the 2020 NEC.
 **347 only supported by UVOLT option.

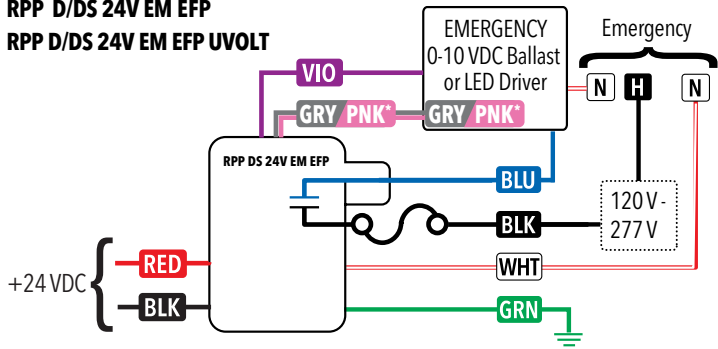
UL924 Sequence of Operation: When normal power sense leads have absence of voltage

- Relay is closed and 0-10V dimming is at high end trim level
- Device ignores wireless lighting control commands

WIRING FOR EMERGENCY (-EM) UNITS

RPP D/DS 24V EM EFP

RPP D/DS 24V EM EFP UVOLT



Legend

BLK - 120-277, 347VAC** Emergency Hot
 WHT - Emergency Neutral
 BLU - Switched Output
 VIO - 0-10V Dim (+)
 PNK* - 0-10V Com (-)
 RED (Terminal) - +24VDC
 BLK (Terminal) - DC Com
 GRN - Ground

*0-10V Dimming Common from luminaire may be pink or as otherwise indicated per section 410.69 of the 2020 NEC

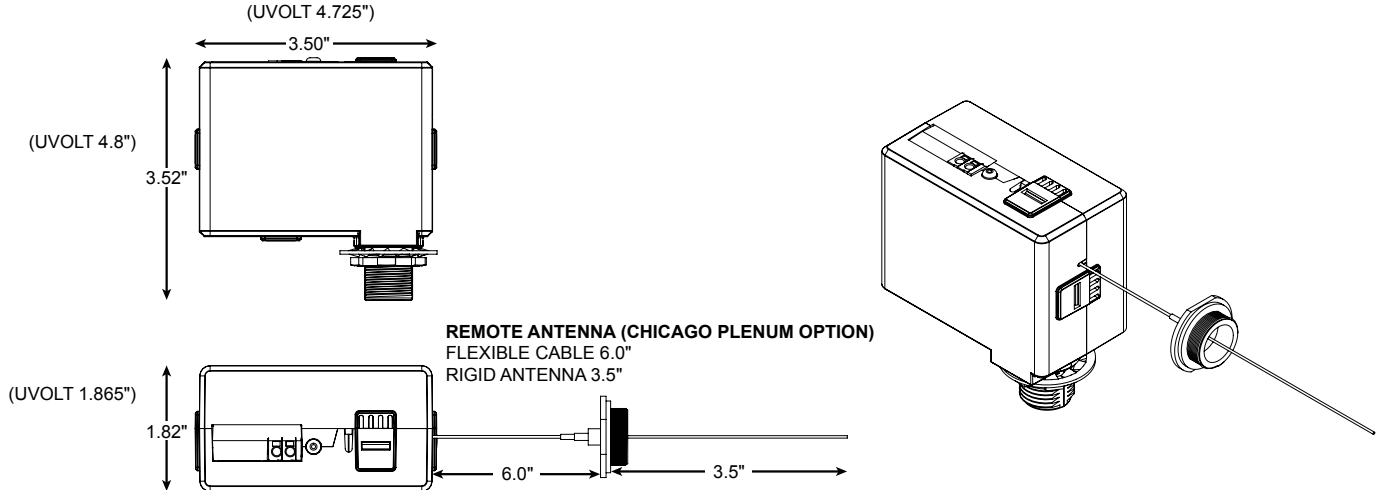
**347 only supported by UVOLT option.

UL 924 Response - nLight AIR Devices with EM Option

The below information applies to all nLight AIR devices with an EM option.

- EM devices will remain at their high-end trim and ignore wireless lighting control commands, unless a normal-power-sensed (NPS) broadcast is received at least every 8 seconds.
- Using the **CLAIRITY™** mobile app, EM devices must be associated with a group that includes a normal power sensing device to receive NPS broadcasts.
- Only non-emergency rPP20, rLSXR, rSBOR, rSDGR, and nLight AIR luminaires with version 3.4 or later firmware can provide normal power sensing for EM devices. See specification sheets for control devices and luminaires for more information on options that support normal power sensing.

DIMENSIONS



OVERVIEW

The rPP PCD power pack is an adaptive phase control dimmer that delivers significant performance and design versatility. It is designed to control large phase dimmed loads, controlling forward-phase-dimming and reverse-phase-dimming loads as large as 16A at 120VAC and 277VAC. Long range wireless communication and the rPP PCD's ability to control full circuits make this device ideal for controlling phase-dimmed loads in both new construction and renovation projects.

FEATURES

- Provides phase dimming control for 2-wire dimming fluorescent, electronic low voltage, incandescent, and magnetic low voltage loads¹
- Controls loads as small as 0A and as high as 16A at 120VAC and 277VAC
- Power monitoring is standard via current measurement with +/- 2% accuracy
- Intelligently selects appropriate dimming method
- Optional built-in, UL 924 compliant emergency options for simpler installation
- Meets NEMA SSL 7A for flicker-free dimming performance²
- Includes a replaceable fuse, which protects the device from overload and short circuit faults
- Programmable return to last state capability

Warranty

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Note: Actual performance may differ as a result of end-user environment and application. Specifications subject to change without notice.



*rPP PCD
Phase Adaptive
Dimming Power
Pack*



ORDERING INFORMATION

rPP PCD EFP G2									
Series		Emergency		Fault Protection		Territory Compliance		Generation	
rPP PCD	Phase Adaptive Dimming Power Pack	[blank]	None	EFP	External Fault Protection	[blank]	None	G2	Generation 2 compatibility
		ER	UL 924 Emergency Operation, via power sense leads			CP	Chicago Plenum		
		EM ³	UL 924 emergency operation, via separate normal power sensing device						

ACCESSORIES	
NPP FUSE J10	Replacement Fuse

Notes:

1. See Output Ratings section for supported loads, load sizes, and dimming types.
2. Meets NEMA SSL 7A when operating in forward-phase mode with Low Trim Level set to 24V. 120VAC applications only.
3. EM devices require an nLight AIR device in the same group to be connected to normal power for wireless normal power detection. See the UL 924 Response section for more information.

SPECIFICATIONS

Electrical	Input Ratings	120-277VAC, 50/60 Hz
	Relay Type	Zero-cross, Latching
	Class Rating	Class 1
	Current Monitoring	Minimum Current required to ensure +/- 2% Accuracy
Mechanical	Dimensions	4.82"H x 4.72"W x 3.53"D (122mm x 120mm x 90mm) - includes heat sink and 3/8" chase nipple
	Weight	24oz
	Mounting	1/2" Knockout (7/8" hole)
	Wires	12 AWG stranded
	Enclosure Color	White (standard), Red (ER & EM)
Environmental	Warrantied Operating Temperature	Standard: -20°C to 50°C (-4°F to 122°F) Standard: -20°C to 40°C (-4°F to 104°F) if installed within an enclosure
	Relative Humidity	Up to 90%, Non-Condensing
General	Standards/ Ratings	System Component to aid in compliance with Title 24, ASHRAE 90.1, IECC
	NEMA	NEMA SSL 7A NEMA 410
	cULus	UL 916 (E167435) UL 924 (EM & ER) UL 2043
	CSA	CSA-22.2 No. 141-15
	RoHS	Compliant
	Security	Application Data Encryption: AES-128 bit Mutual Entity Authentication Message Confidentiality Message Authentication and Replay Prevention Limited Anonymity Complies with California Civil Code Title 1.81.26, Security of Connected Devices, approved under Senate Bill No. 327 (2018)
	Radio Frequency	Dual Radio: 900MHz & 2.4GHz
	RF Transmit Power	900MHz: up to 20dBm 2.4GHz: up to 10.4 dBm
	Wireless Standard	900MHz: IEEE 802.15.4-based 2.4GHz: Version 4.0+ of the Bluetooth specification
	Wireless Range	900MHz: Up to 1,000 ft. (~304m) in free space/ line of sight Minimum of 150 ft through typical construction 2.4GHz: Up to 60 ft. (~18m) in free space/ line of sight
	Regulatory Compliance	FCC ID: 2ADCB-RMODIT3 IC: 6715C-RMODIT3 IFETEL: RCPNLNL20-2057
	Programming Tool	CLAIRITY™ + Mobile App

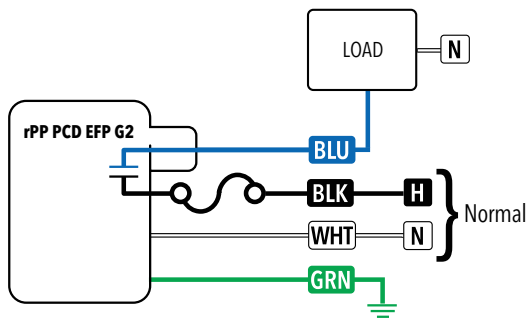
Output Ratings

Device Type	RPP PCD, NO ENCLOSURE	RPP PCD, NO ENCLOSURE	RPP PCD IN ENCLOSURE	RPP PCD IN ENCLOSURE
Ambient Temperature	-20°C to 40°C	-20°C to 50°C	-20°C to 40°C	-20°C to 50°C
Operating Voltage	120VAC - 277VAC	120VAC - 277VAC	120VAC - 277VAC	120VAC - 277VAC
General Purpose	16A	14A	12A	10A
Incandescent (Tungsten)	16A	14A	12A	10A
Magentic Low Voltage (Inductive)	16A	14A	12A	10A
Electronic Low Voltage (Non-Inductive)	16A	14A	12A	10A

Note: Where enclosures are required, such as for Chicago Plenum, enclosure dimensions should not be smaller than 12"x12"x6", and only contain one rPP PCD per enclosure.

WIRING (Do Not Wire Hot)

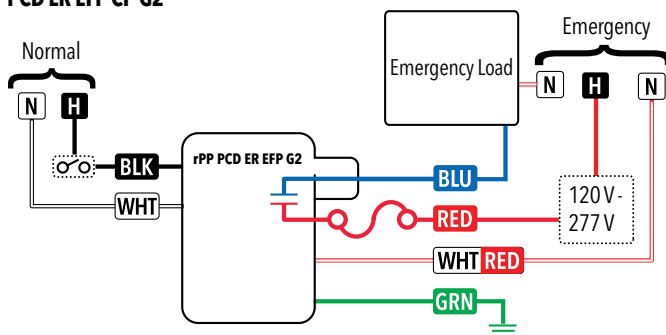
rPP PCD EFP G2 rPP PCD EFP CP G2



Legend

BLK - Unswitched Hot 120-277
WHT - Neutral
BLU - Switched Output
GRN - Ground

rPP PCD ER EFP G2 rPP PCD ER EFP CP G2



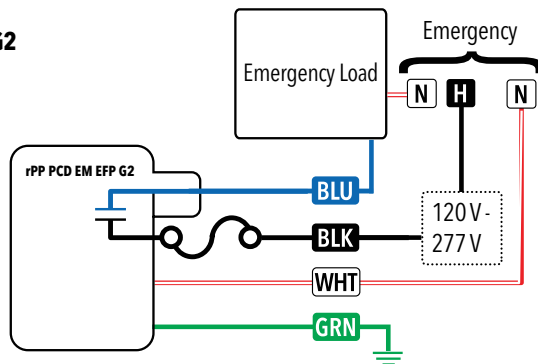
Legend

RED - Unswitched Emergency Hot 120-277
WHT/RED - Emergency Neutral
BLK - Unswitched Normal Hot 120-277
WHT - Norm. Neutral
BLU - Switched Output
GRN - Ground
Optional Test Switch (by others)

UL924 Sequence of Operation: nLight AIR Devices with ER Option

- ER devices use an unswitched normal hot to detect the presence of normal power.
- ER devices will remain at their high-end trim and ignore wireless lighting control commands when normal power is not present on the unswitched normal hot.

rPP PCD EM EFP G2 rPP PCD EM EFP CP G2



Legend

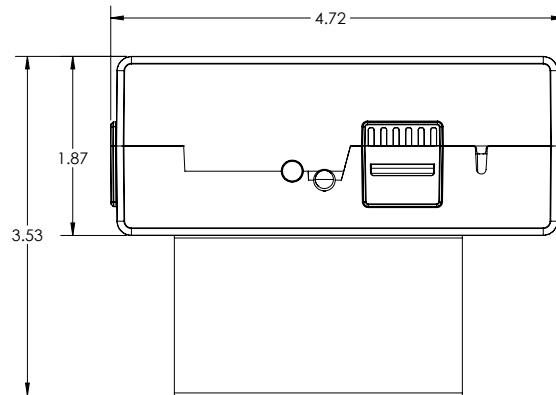
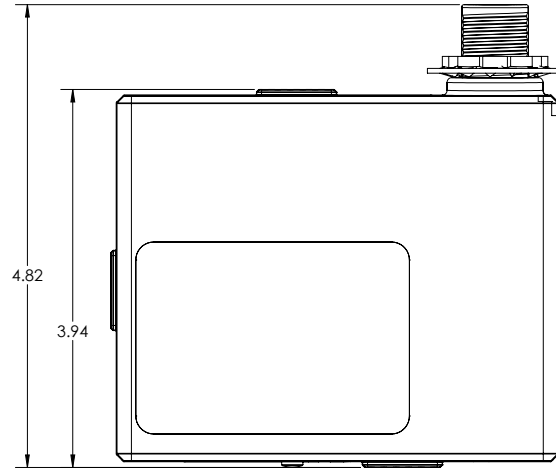
BLK - Unswitched Emergency Hot 120-277
WHT - Emergency Neutral
BLU - Switched Output
GRN - Ground

UL 924 Response - nLight AIR Devices with EM Option

The below information applies to all nLight AIR devices with an EM option.

- EM devices will remain at their high-end trim and ignore wireless lighting control commands, unless a normal-power-sensed (NPS) broadcast is received at least every 8 seconds.
- Using the CLAIRITY™+ mobile app, EM devices must be associated with a group that includes a normal power sensing device to receive NPS broadcasts.
- Only non-emergency rPP20, rLSXR, rSBOR, rSDGR, rPP PCD, and nLight AIR luminaires with version 3.4 or later firmware can provide normal power sensing for EM devices. See specification sheets for control devices and luminaires for more information on options that support normal power sensing.

DIMENSIONS



IO Devices

rSI 2S - System Input Device



OVERVIEW

The nLight AIR rSI is a system input device used to convert dry contact and analog (0-10V) outputs into wireless nLight AIR broadcasts. The rSI is the ideal device for eliminating wiring when interfacing with third-party systems and devices, such as fire alarms, pillow switches, momentary and maintained style switches and push buttons, analog dimming switches, and more.

KEY FEATURES

- Each device has two isolated inputs that connect with 0-10V or dry contact outputs
- Inputs can be programmed to interface with separate outputs or in collaboration to work with a single multi-output device
- Programming options allow the rSI to connect to proportional and disproportional analog outputs and momentary and maintained dry contact outputs
- Binary or analog BACnet points represent the status for any connected output when connected to an nLight ECLYPSE™

INSTALLATION FEATURES

- Chase nipple or side slot access to dry contact inputs
- Wireless communication enables simple integration and eliminates long wire runs
- External antenna option provides flexible mounting options and addresses Chicago Plenum needs
- UL 2043 listed for plenum applications
- LED indicators clearly identify when an output is sensed

ADVANCED WIRELESS FEATURES

- Device supports Autonomous Bridging Technology, repeating group and network messages for nLight AIR devices
- Fully compatible with other nLight AIR devices
- Supports network-wide broadcasts when connected to an nLight ECLYPSE™
- Includes comprehensive wireless security measures that are standard to nLight AIR devices

Warranty

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Note: Actual performance may differ as a result of end-user environment and application. Specifications subject to change without notice.



*nLight® AIR
rSI
System Input Device*



ORDERING INFORMATION

rSI		Example: rSI 2S ST UVOLT G2			
Series	System Inputs	Input Location	Antenna	Power	Generation
rSI	2S 2 Inputs	[blank] Inputs via chase nipple ST Inputs via side terminal	[blank] Internally housed antenna CP Chicago Plenum	UVOLT 120-480V	G2 Generation 2 compatibility

SPECIFICATIONS

- Size: 4.725" x 4.80" x 1.865"
- Weight: 11.1oz
- Mounting: 1/2" knockout
- Color: White
- Temperature: -20°C to 60°C
- Humidity: 5 to 90% non-condensing
- Location: Damp location rating
- Wires: 18AWG line and low voltage wires
- Operating Voltage: 120-480VAC
- Output Ratings: 24VDC, 1mA source current per scene input
- Frequency: 50/60Hz
- Supported Connections: Dry contact output or analog output (sinking only)
- Radio Frequencies: 900MHz up to +20dBm, 2.4 GHz up to +10dBm
- Wireless Standard: 900MHz: IEEE 802.15.4-based; 2.4GHz: Version 4.0+ of the Bluetooth specification
- Security: Application Data Encryption AES 128 bit, Mutual Entity Authentication, Message Confidentiality, Message Authentication and Replay Prevention, Limited Anonymity. Complies with California Civil Code Title 1.81.26, Security of Connected Devices, approved under Senate Bill No. 327 (2018)
- Regulatory Compliance: FCC ID: 2ADCB-RMODIT3
 - IC: 6715C-RMODIT3
 - IFETEL: RCPNLNL20-2057
 - cULus
 - RoHS

WIRING

When paired to an nLight ECLYPSE, the rSI can respond to security and fire alarm interfaces by sending partial or entire networks to full output, ignoring other commands until the emergency condition ends.

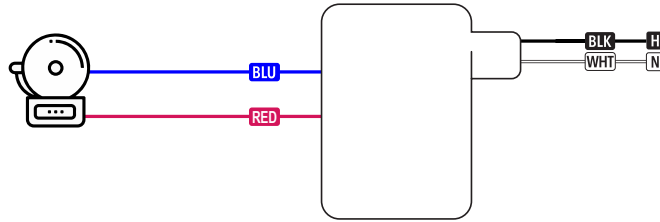


Fig 1. - rSI 2S ST Wiring to Fire Alarm

The rSI supports wiring to both single and double-pole outputs, including pillow switches. When connected to a single-pole pillow switch, “loop mode” allows the rSI to send on/off and raise/lower broadcasts to nLight AIR output devices and luminaires. When connected to a double-pole pillow switch, each individual input of the rSI can be used to send on/raise or off/lower broadcasts. Additional programming options are available for other switch types. See the PROGRAMMING OPTIONS section for more information.

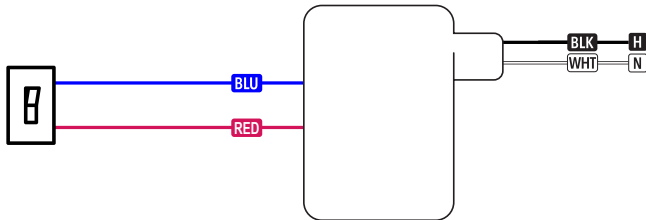


Fig 2. - rSI 2S ST Wiring to Single Pole Pillow Switch

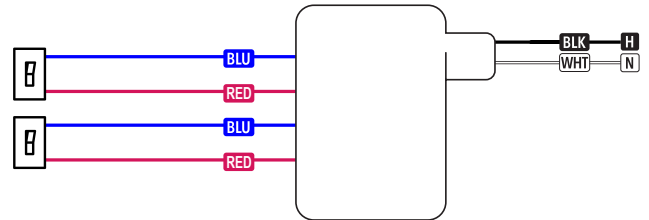
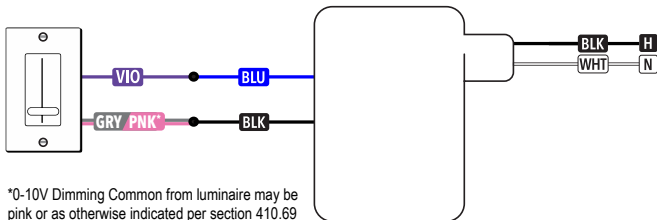


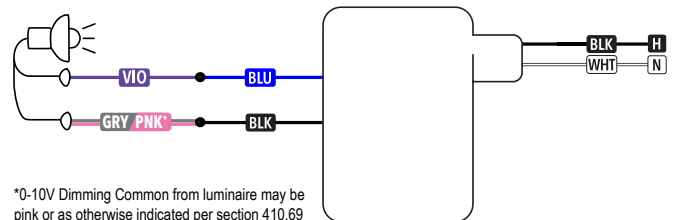
Fig 3. - rSI 2S ST Wiring to Double Pole Pillow Switch

Slider switches, photocells, and other analog devices can send raise/lower and on/off broadcasts based on their 0-10V outputs.



*0-10V Dimming Common from luminaire may be pink or as otherwise indicated per section 410.69 of the 2020 NEC

Fig 4. - rSI 2S ST Wiring to Analog Slider



*0-10V Dimming Common from luminaire may be pink or as otherwise indicated per section 410.69 of the 2020 NEC

Fig 5. - rSI 2S ST Wiring to Analog Photocell

PROGRAMMING OPTIONS

The below are descriptions of how each input can be programmed.

- Wallpod Mode
 - Momentary contact type: A TOGGLE command is sent when the contact is closed. No command is sent when the contact is opened.
 - Maintain contact type: An ON command is sent when the contact is closed, and an OFF command is sent when the contact is opened.
- On Mode
 - Momentary contact type: An ON command is sent when the contact is closed. No command is sent when the contact is opened.
 - Maintain contact type: An ON command is sent when the contact is closed. No command is sent when the contact is opened.
- Off Mode
 - Momentary contact type: An OFF command is sent when the contact is closed. No message is sent when the contact is opened.
 - Maintain contact type: An OFF command is sent when the contact is closed. No message is sent when the contact is opened.
- On + Raise Mode
 - Momentary contact type: An ON command is sent when the contact is closed for less than 0.5 seconds.
 - Maintain contact type: A RAISE command is sent when the contact is held for greater than 0.5 seconds, raising light levels for the duration of the hold.
- Off + Lower Mode
 - Momentary contact type: An OFF command is sent when the contact is closed for less than 0.5 seconds.
 - Maintain contact type: A LOWER command is sent when the contact is held for greater than 0.5 seconds, lowering light levels for the duration of the hold.
- Loop Mode
 - Momentary contact type: A TOGGLE command is sent when the contact is closed for less than 0.5 seconds.
 - Maintain contact type: A LOOP command is sent when lights are held for greater than 0.5 seconds, raising the light level to 100% or lowering the light level to 1% in a cycle for the duration of the hold.
- Trigger Local Preset Scene
 - Momentary contact type: Local Scene is triggered when the contact is closed. No command is sent when the contact is opened.
 - Maintain contact type: Local Scene is triggered when the contact is closed. No command is sent when the contact is opened.
- Trigger Global Preset Scene
 - Momentary contact type: Global Scene is triggered when the contact is closed. No command is sent when the contact is opened.
 - Maintain contact type: Global Scene is triggered when the contact is closed. No command is sent when the contact is opened.
- Trigger Global Profile Scene
 - Momentary contact type: A TOGGLE command is sent when the contact is closed. No command is sent when the contact is opened.
 - Maintain contact type: An ON command is sent when the contact is closed, and an OFF command is sent when the contact is opened.
- Start Global Profile Scene
 - Momentary contact type: An ON command is sent when the contact is closed. No command is sent when the contact is opened.
 - Maintain contact type: An ON command is sent when the contact is closed. No command is sent when the contact is opened.
- Stop Global Profile Scene
 - Momentary contact type: An OFF command is sent when the contact is closed. No message is sent when the contact is opened.
 - Maintain contact type: An OFF command is sent when the contact is closed. No message is sent when the contact is opened.
- Analog Mode – Photocell: Light levels will configurably increase proportionally or non-proportionally based on a 0-10V signal from an analog photocell. User can configure dimming curve, transition on/off times, and off threshold.
- Analog Mode – Switch: Light levels will configurably increase proportionally based on a 0-10V signal from an analog switch. Lights transition off when the sensed voltage drops below 0.85V.

Embedded Sensors and Controls

rES7 - Interior Fixture Embedded Sensor

rSDGR - Outdoor Fixture Embedded Sensor

rMSOD - Fixture Embedded Sensor w/Remote Antenna

rSBG - Fixture Embedded Smart Sensor

rIO - Fixture Embedded Controller



OVERVIEW

The nLight® AIR rES7 sensor is an in-fixture, low voltage, digital sensor providing embedded wireless lighting control, analog or digital dimming, occupancy detection and daylight harvesting capabilities. The rES7 is designed for mounting heights up to 20 ft in indoor luminaires. The rES7 sensor provides Passive Infrared (PIR) occupancy detection over a 15-20 ft (4.57 - 6.10 m) radial coverage pattern and photocell light level detection in one compact low profile design with optional Dual Technology, which adds Microphonics™ to PIR detection. The rES7 sensor is ideal for occupancy and daylighting control in suspended or recessed luminaires.

SMART SENSOR FEATURES

- 100% digital PIR detection with optional Dual Technology featuring Microphonics
- Combined daylight and occupancy sensor
- Fully dimmable via digital or analog dimming protocols, providing the right amount of light for the application and to optimize energy savings
- Optional UL 924 emergency functionality via EM option, which eliminates wiring for sensing normal power¹
- Programmable return to last state capability

INSTALLATION FEATURES

- Wireless communication enables simple retrofits - no communication wires to pull between devices
- Integrated at the factory, no onsite wiring required
- Optional external 900Mhz antenna for unique applications
- Simple app-based configuration of space behaviors

ADVANCED WIRELESS FEATURES

- Devices intercommunicate to provide grouped-response to motion and on/off and dimming response to daylight conditions
- Flexible sensor time delays and light levels in responding to motion and daylight conditions
- Fully compatible with other nLight AIR devices on the site
- Easy to integrate with the nLight ECLYPSE™, which provides site-wide lighting control through nLight's SensorView software and provides optional BMS integration
- Comprehensive wireless security

Warranty

Five-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application. Specifications subject to change without notice.

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DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.



*nLight® AIR
rES7:
Fixture embedded
smart sensor*



ORDERING INFORMATION

rES7		Examples: RES7 90D G2					
Series	Occupancy Detection	Coverage Type		Dimmer Type		Emergency	Antenna
RES7 nLight AIR occupancy and daylight sensor	[blank] PIR Detection PDT Dual Tech PIR/ Microphonics	[blank] Micro 360 45 High Mount 45A High Mount Aisleway	[blank] ³ LEDcode ZT 0-10 VDC ZTS ³ 0-10VDC With Normal Power Sensing	[blank] None EM ⁴ UL924 Emergency Operation	[blank] NiTi Antenna EXT900 900MHz External Antenna		

Antenna Color ²	Angle	Options	Generation
ACWH White	90D 90° Antenna orientation	NOC Occupancy & Photocell Disabled (out-of-box)	G2 Generation 2 compatibility
ACBK Black	180D 180° Antenna orientation		

Accessories	
RES7 LENS ASSM WH REPL	Replacement lens assembly, white
EXT ANT REPL WH	Replacement EXT900 antenna, white, does not include the 6" whip

Note:

1. Normal power sensing is provided by nLight AIR devices connected to normal power in the same group. See the UL 924 Response section for more information.
2. Only Required with EXT900 option.
3. Non-EM devices with this option can be used to sense normal power for EM devices.
4. EM option not available with ZTS option.

SPECIFICATIONS

Input Power	6-60VDC, 700mW min
Dimensions	1.180" h x 2.617" w x 1.335" d
Weight	1.25 oz
Trim Color	White
Enclosure Material	Poly-Carbonate/ABS
Max Humidity	0-95% non-condensing
Operating Temperature	-40°C to 85°C
IP Rating	IP50 - Dust protected
Mounting	Fixture-Mounted
Radio Frequency	Dual Radio: 900MHz & 2.4GHz
RF Transmit Power	900MHz: +20dBm; 2.4GHz: Variable
Wireless Standard	900MHz: IEEE 802.15.4-based 2.4GHz: Version 4.0+ of the Bluetooth specification
Wireless Range	900MHz: Up to 1000 ft. (~304m) in free space/ line of sight Minimum of 150 ft through typical construction 2.4GHz: Up to 60 ft. (~18m) in free space/ line of sight
Security	Application Data Encryption: AES-128 bit Mutual Entity Authentication Message Confidentiality Message Authentication and Replay Prevention Limited Anonymity Complies with California Civil Code Title 1.81.26, Security of Connected Devices, approved under Senate Bill No. 327 (2018)
Regulatory Compliance	Wireless: FCC ID: 2ADCB-RMODIT3 IC: 6715C-RMODIT3 IFETEL: RCPNLL20-2057 Safety: cULus Listed; RoHS Compliant, Non-EM: UL916; EM: UL924 and CSA-C22.2 No. 141-15; NOM Certified
Programming Tool	CLAIRITY™+ mobile app

Out-Of-Box Functionality

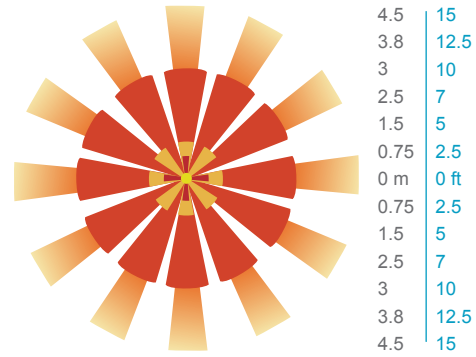
Occupancy Control	Enabled
Microphonics (with -PDT)	Enabled
Dim to Off Time Delay	7.5 Minutes
Occupied Dim Level	100%
Unoccupied Dim Level	1%
Unoccupied Time Until Dim	2.5 Minutes
Daylighting Control	Enabled
Daylighting Set Point	50 fc
Daylighting Transition On Time	45 Seconds
Daylighting Transition Off Time	10 Minutes

COVERAGE PATTERN

Micro 360° Lens

- At the 7.5 ft (2.29 m) hanging height of a typical pendant mount fixture the sensor provides 10 ft (3.05 m) radial detection of small motion. At a 9 ft (2.74 m) hanging height the radius is 12 ft (3.66 m) for small motion.
- Adequate for walking motion detection from mounting heights between 7.5 ft (2.29 m) and 20 ft (6.10 m).
- Initial detection will occur earlier when walking across sensor's field of view than when walking directly at sensor
- Initial detection of walking motion into long coverage segment will occur at distances of 2x the mounting height up to 15 ft (4.57 m) and 1.75x up to 20 ft (6.10 m). Lens assembly rotates 15° to enable adjustment in order to line up long segments.

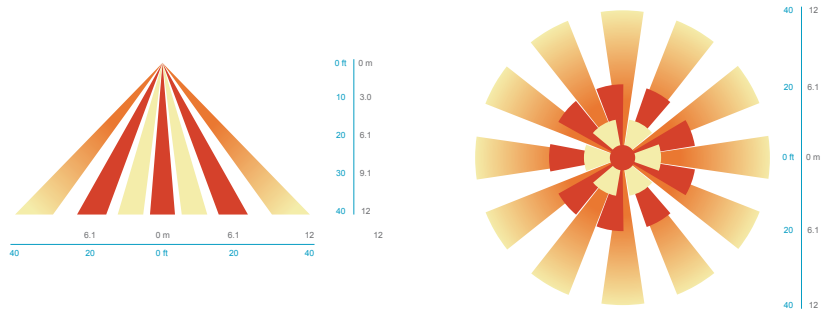
7.5 FT Mounting Height



lens rotates 15 deg to enable adjustment.

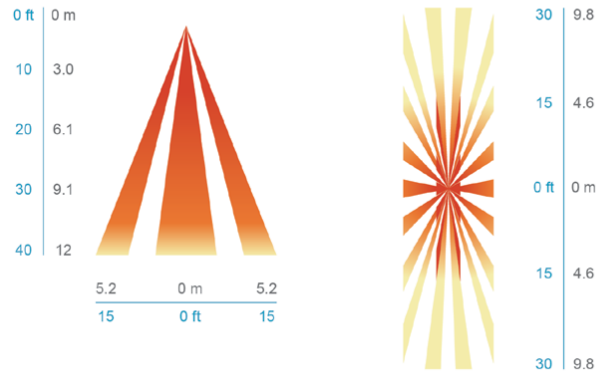
45 - HIGH MOUNT 360°

- Optimized full coverage pattern for 10 - 40 ft. (3.1 - 12 m)
- Reliable detection of large motion (e.g. pedestrian walking traffic) up to 30 ft. (9.1 m) mounting height
- Reliable detection of extra-large motion (e.g. forklift traffic) up to 40 ft. (12 m) mounting height

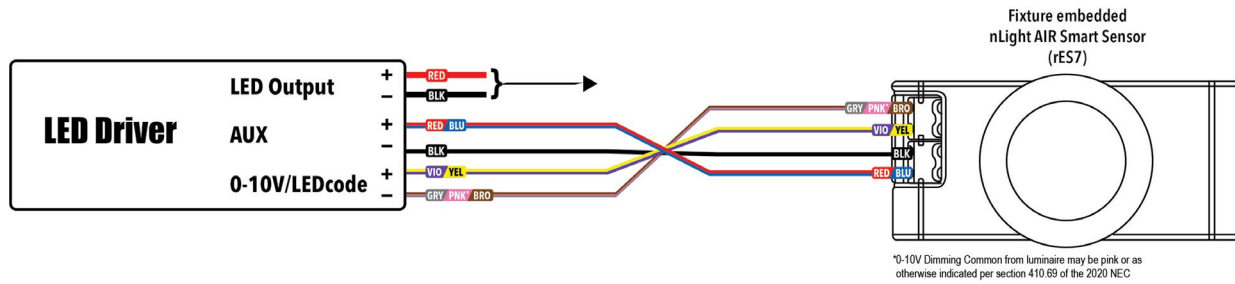


45A - HIGH MOUNT AISLEWAY

- Optimized bi directional coverage pattern for aiseways with 10 - 40 ft. (3.1 - 12 m) mounting heights
- 1.5x's mounting height equals approximate detection range
- Reliable detection of large motion (e.g. pedestrian walking traffic) up to 30 ft. (9.1 m) mounting height
- Reliable detection of extra-large motion (e.g. forklift traffic) up to 40 ft. (12 m) mounting height



WIRING DIAGRAM



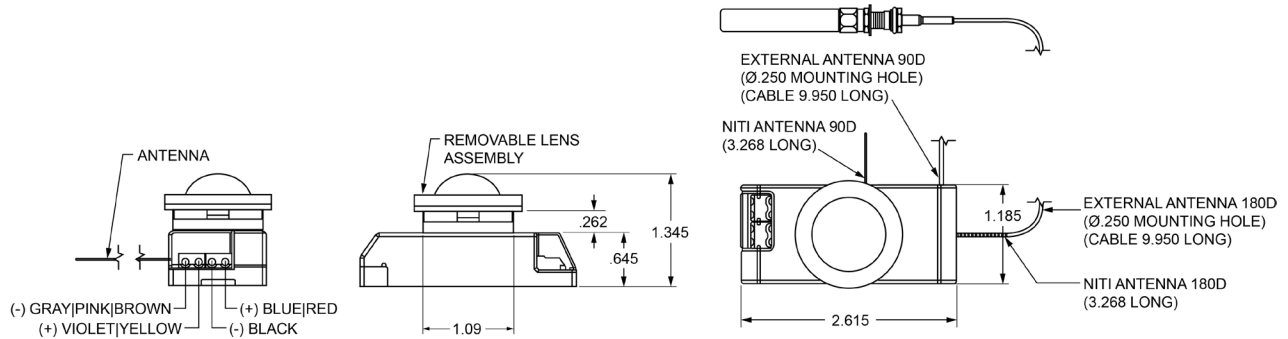
For more detailed wiring information and compatible driver, refer to Installation Instruction Sheet

UL 924 Response - nLight AIR Devices with EM Option

The below applies to all nLight AIR devices with an EM option.

- EM devices will remain at their high-end trim and ignore wireless lighting control commands, unless a normal-power-sensed (NPS) broadcast is received at least every 8 seconds.
- Using the **CLAIRITY+** mobile app, EM devices must be associated with a group that includes a normal power sensing device to receive NPS broadcasts.
- Only the non-emergency devices with version 3.4 or later firmware listed below can be used for normal power sensing.
 - Line voltage devices, including the rPP20, rLSXR, rSBOR, rSDGR
 - Fixture embedded devices, including the rIO EZDL, rIO ZTS, rES7 LEDcode, rES7 ZTS, rMSOD LEDcode, rMSOD ZTS, rSBG LEDcode, rSBG ZTS
- LEDcode communicating EM devices require a V2.1 eldoLED driver. This requirement does not apply to ZT devices.

DIMENSIONS



OVERVIEW

The nLight AIR rSDGR sensor provides embedded wireless lighting control for both motion and daylight-based control of 0-10 VDC dimmable outdoor area. The rSDGR can both switch and dim its connected lighting. For motion detection, the sensor utilizes 100% Digital Passive Infrared (PIR) technology that is tuned for rolling motion and large motion. The rSDGR's integrated photocell enables additional energy savings during daytime periods when there is sufficient daylight.

FEATURES

- 100% digital PIR detection
- Occupancy sensor and photocell in a standard, all-in-one device, integrated from the factory... No onsite wiring required.
- Supports up to 128 nLight AIR devices in a single group
- No external antenna required
- IP65 rated for outdoor applications
- Self-contained relay for switching
- Yellow LED Indicator
- Power Monitoring with Current Measurement +/- 3% accuracy
- Communicates with nLight AIR-enabled luminaires using standards-based 900MHz and Bluetooth® radios with advanced security
- 900MHz used for lighting control functions and Bluetooth for configuration of groups, behaviors and calibration via CLAIRITY™+ mobile app available on iOS or Android
- Supports group response to occupancy detection as programmed by CLAIRITY+ mobile app during start-up
- Supports IoT applications, such as outdoor positioning or asset tracking, and integration with building management systems via BACnet/IP (available only when using an nLight ECLYPSE™ with BACnet option)
- Two operating modes:
 1. Local operations without any higher-level networking functionality in a standalone zone of other nLight AIR devices. Locally operated devices are fully capable of supporting higher-level functionality with optional additional of an nLight ECLYPSE. Check with your local representative for details.
 2. Fully networked with nLight ECLYPSE to support features such as scheduling, demand response, and centralized monitoring and configuration via SensorView software, a web-based software application.
- Programmable return to last state capability

Warranty

Five-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application. Specifications subject to change without notice.



*nLight® AIR
rSDGR:
Outdoor rated, fixture-
embedded smart sensor*



nLight® AIR Outdoor Platform

Note: nLight® AIR devices are only compatible with other nLight AIR enabled devices; and is not cross compatible with other nLight product lines at this time.

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ORDERING INFORMATION

rSDGR		Examples: rSDGR 127 IM BZ G2							
Series	Voltage	Emergency		Power Monitoring		Color		Generation	
rSDGR	127 120-277VAC ¹ 348 347VAC or 480VAC ¹	[blank] None ³ EM UL 924 Emergency Operation, via separate normal power sensing device ²		IM	Current Monitoring	BZ Dark Bronze NA Natural Aluminum WH White BK Black		G2	Generation 2 compatibility

Notes:

1. All phase-to-phase applications, including 208VAC and 480VAC, require factory installation.
2. EM option requires an nLight AIR device connected to normal power for wireless normal power detection. See the UL 924 Response section for more information.
3. Can provide normal power sensing information to nLight AIR devices with EM option. See the UL 924 Response section for more information.

SPECIFICATIONS

Dimensions – Sensor only	5.0" H x 5.0" W x 2.0" D (12.7 cm x 12.7 cm x 5.0 cm)
Product Weight – Sensor only	6 oz
Colors	Dark Bronze
Enclosure Material	Poly-Carbonate/ABS
Ingress Protection	IP65
Maximum Load	450W for 120-277VAC, 800 VA for 347-480VAC
Frequency	50/60Hz
Dimming Load	Sinks 6 mA (0-10 VDC LED Drivers)
Operating Temperature	-40°C to 65°C ambient
Radio Frequency	Dual Radio: 900MHz & 2.4GHz
RF Transmit Power	900MHz: +20dBm 2.4GHz: +10.4 dBm
Wireless Standard	900MHz: IEEE 802.15.4-based 2.4GHz: Version 4.0+ of the Bluetooth specification
Wireless Range	900MHz: Up to 1,000 ft. (~304m) in free space/ line of sight Minimum of 150 ft through typical construction 2.4GHz: Up to 60 ft. (~18m) in free space/ line of sight
Security	Application Data Encryption: AES-128 bit Mutual Entity Authentication Message Confidentiality Message Authentication and Replay Prevention Limited Anonymity Authentic Firmware Update Complies with California Civil Code Title 1.81.26, Security of Connected Devices, approved under Senate Bill No. 327 (2018)
Regulatory Compliance	Wireless: FCC ID: 2ADCB-RMODIT3 IC: 6715C-RMODIT3 IFETEL: RCPNLL20-2057 Safety: UL Listed; RoHS Compliant Title 24 Component
Current Monitoring:	127 (120-277VAC) versions include automatic voltage detection for power calculation. 348 (347-480VAC) versions require user input of voltage via SensorView to calculate power Minimum Current of 225mA required to ensure +/- 3% Accuracy

Out-Of-Box Functionality

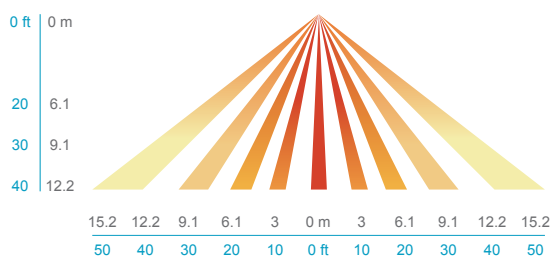
Occupancy Control	Enabled
Occupied Dim Level	100%
Unoccupied Time Until Dim Start	7.5 Minutes
Dimming Fade Rate Time	5 Minutes
Unoccupied Dim Level	30%
Photocontrol	Enabled
Photocontrol Setpoint	1.5fc ON , 2.25fc OFF
Photocontrol transition on time	45 Seconds
Photocontrol transition off time	5 Minutes

COVERAGE PATTERN

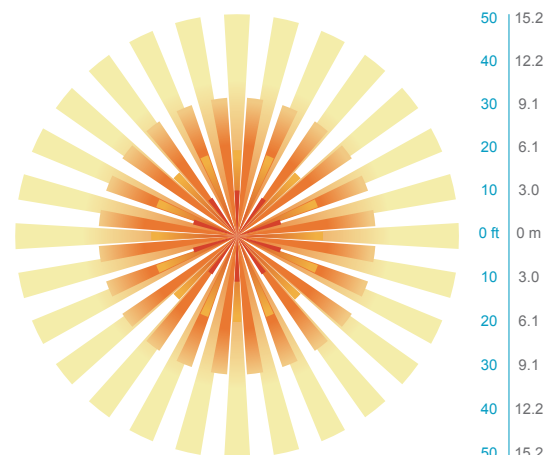
SITE & AREA LIGHTING / HIGH MOUNT APPLICATIONS

The nLight AIR rSDGR is intended for parking lot and area lighting applications with mounting heights of up to 40ft, and provides a coverage area radius of up to 40ft for rolling motion. When embedded in a fixture mounted to a pole the sensor provides 270° of coverage (90° is blocked by the pole).

SIDE VIEW



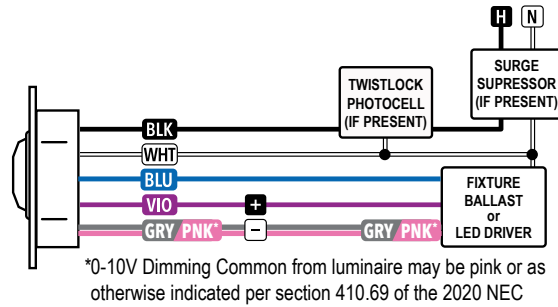
TOP VIEW



WIRING DIAGRAM (do not wire hot)

WIRING TO SINGLE PHASE POWER (120/277/347 VAC)

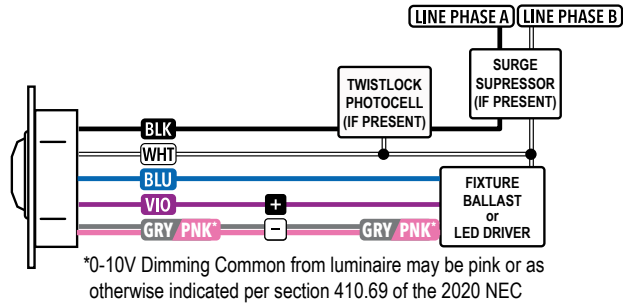
- BLACK** - 120/277 VAC Input
- BLUE** - Switched Line Voltage Output to Luminaire
- WHITE** - Neutral
- VIOLET** - Low Voltage Dimming Output (0-10 VDC)
- PINK** - Low Voltage Common



WIRING TO 2-PHASE POWER* (208/240/480 VAC)

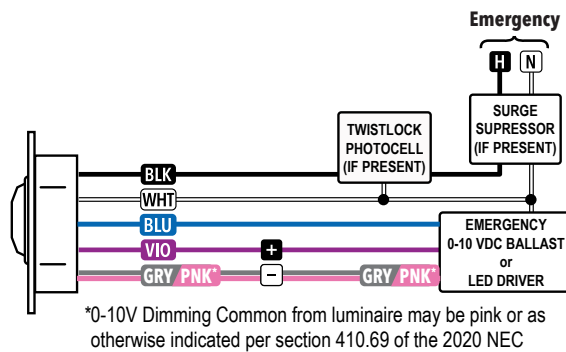
- BLACK** - 208/240/ VAC Phase A Input
- BLUE** - Switched Line Voltage Output to Luminaire
- WHITE** - Phase B of 208/240/480 VAC Input
- VIOLET** - Low Voltage Dim Output (0-10 VDC)
- PINK** - Low Voltage Common

***Safety Note: only one line phase is being switched**
Factory install required



WIRING TO EMERGENCY (-EM) UNITS

- BLACK** - Input Emergency Hot
- BLUE** - Switched Line Voltage Output to Luminaire
- WHITE** - Emergency Neutral
- VIOLET** - Low Voltage Dimming Output (0-10 VDC)
- PINK** - Low Voltage Common



UL 924 Response - nLight AIR Devices with EM Option

The below information applies to all nLight AIR devices with an EM option.

- EM devices will remain at their high-end trim and ignore wireless lighting control commands, unless a normal-power-sensed (NPS) broadcast is received at least every 8 seconds.
- Using the **CLAIRITY+** mobile app, EM devices must be associated with a group that includes a normal power sensing device to receive NPS broadcasts.
- Only non-emergency rPP20, rLSXR, rSBOR, rSDGR, and nLight AIR luminaires with version 3.4 or later firmware can provide normal power sensing for EM devices. See specification sheets for control devices and luminaires for more information on options that support normal power sensing.

OVERVIEW

The nLight AIR rMSOD sensor is an in-fixture, low voltage, digital sensor providing embedded wireless lighting control, analog or digital dimming, occupancy detection and daylight harvesting capabilities. The rMSOD has a remote antenna and gasketed sensor that enables it to be installed in a variety of fixtures, even those in challenging environmental conditions. It can sense motion from mounting heights of up to 40 ft. The rMSOD sensor provides Passive Infrared (PIR) occupancy detection and photocell light level detection in one compact low profile design.

SMART SENSOR FEATURES

- 100% digital PIR detection
- Combined daylight and occupancy sensor
- Fully dimmable via digital or analog dimming protocols, providing the right amount of light for the application and to optimize energy savings
- Optional UL 924 emergency functionality via EM option, which eliminates wiring for sensing normal power⁵
- Programmable return to last state capability

INSTALLATION FEATURES

- Wireless communication enables simple retrofits - no communication wires to pull between devices
- Integrated at the factory, no onsite wiring required
- IP rated for demanding environments, indoor or outdoor
- Simple app-based configuration of space behaviors

ADVANCED WIRELESS FEATURES

- Devices intercommunicate to provide grouped-response to motion and on/off and dimming response to daylight conditions
- Flexible sensor time delays and light levels in responding to motion and daylight conditions
- Fully compatible with other nLight AIR devices on the site
- Easy to integrate with the nLight ECLYPSE™, which provides site-wide lighting control through nLight's SensorView software and provides optional BMS integration
- Comprehensive wireless security

Warranty

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Note: Actual performance may differ as a result of end-user environment and application. Specifications subject to change without notice.

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nLight® AIR
rMSOD:
Fixture embedded
smart sensor



ORDERING INFORMATION

rMSOD		Examples: RMSOD 30 180D G2				
Series	Coverage Type	Color ¹	Dimmer Type	Emergency	Antenna	
RMSOD nLight AIR occupancy and daylight sensor	7 Mini Low-Bay	[blank] White	[blank] ⁴ LEDcode	[blank] None	[blank] ⁶ 900Mhz External Antenna	
	30 Universal	BW Black	ZT 0-10 VDC	EM ² UL924 Emergency Operation	EXTDB Dual Band External Antenna	
	45 High Mount		ZTS ⁴ 0-10VDC With Normal Power Sensing			
	45A High Mount Aisleway					

Antenna Whip	Angle	Options ³	Generation
[blank] 10 inch whip	90D 90° Antenna Orientation	[blank] None	G2 Generation 2 compatibility
20IN 20 inch whip	180D 180° Antenna Orientation	50FC 50 fc Photocontrol Set Point	

Accessories	
EXT ANT REPL WH	Replacement antenna, white, does not include the 6 inch whip

Notes:

1. BW option has a white body with black lens holder and antenna.
2. EM not available with ZTS option.
3. More than one option can be selected.
4. Non-EM devices with this option can be used to sense normal power for EM devices.
5. Normal power sensing is provided by nLight AIR devices connected to normal power in the same group. See the UL 924 Response section for more information.
6. 20 inch antenna whip not available.

SPECIFICATIONS

Input Power	6-50VDC, 700mW min
Dimensions	1.180" h x 2.617" w x 1.335" d
Weight	1.25 oz
Trim Color	White
Enclosure Material	Poly-Carbonate/ABS
Max Humidity	0-95% non-condensing
Operating Temperature	-40°C to 85°C
IP Rating	IP66 - Suitable for damp locations
Mounting	Fixture-Mounted
Radio Frequency	Dual Radio: 900MHz & 2.4GHz
RF Transmit Power	900MHz: +20dBm; 2.4GHz: Variable
Wireless Standard	900MHz: IEEE 802.15.4-based 2.4GHz: Version 4.0+ of the Bluetooth specification
Wireless Range	900MHz: Up to 1000 ft. (~304m) in free space/ line of sight Minimum of 150 ft through typical construction 2.4GHz: Up to 60 ft. (~18m) in free space/ line of sight
Security	Application Data Encryption: AES-128 bit Mutual Entity Authentication Message Confidentiality Message Authentication and Replay Prevention Limited Anonymity Complies with California Civil Code Title 1.81.26, Security of Connected Devices, approved under Senate Bill No. 327 (2018)
Regulatory Compliance	Wireless: FCC ID: 2ADCB-RMODIT3 IC: 6715C-RMODIT3 IFETEL: RCPNLL20-2057 Safety: cUL _{US} Listed; RoHS Compliant, Non-EM: UL916; EM: UL924 and CSA-C22.2 No. 141-15; NOM Certified
Programming Tool	CLAIRITY™+ mobile app

Out-Of-Box Functionality

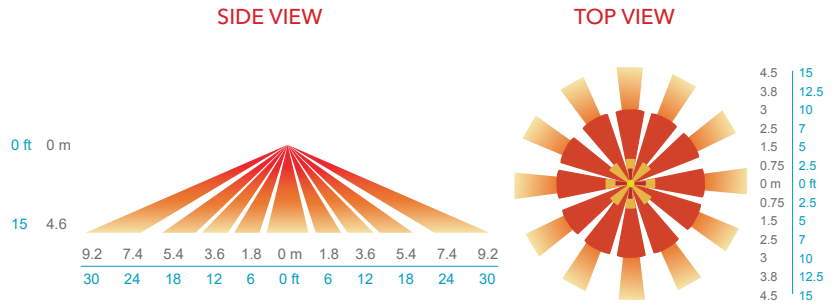
Occupancy Control	Enabled
Idle Time Until Dim	7.5 Minutes
Occupied Dim Level	100%
Unoccupied Dim Level	30%
Dimming Fade Rate Time	5 Minutes
Photocontrol	Enabled
Photocontrol Set Point	5 fc
Photocontrol Transition On Time	45 Seconds
Photocontrol Transition Off Time	5 Minutes
Default max trim level (ZT devices)	8V

COVERAGE PATTERN

Lens rotates 15 deg to enable adjustment. Initial detection will occur earlier when walking across sensor's field of view than when walking directly at sensor.

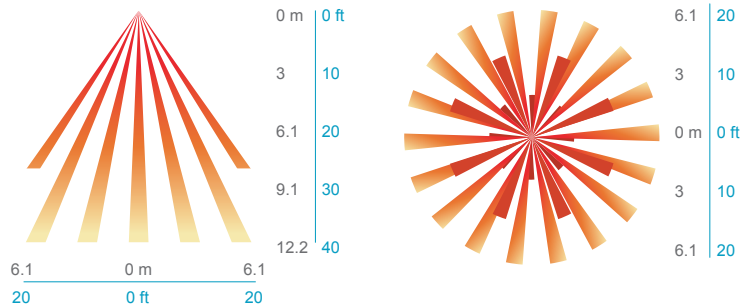
7 - MINI LOW-BAY 360°

- Recommended for walking motion detection from mounting heights between 8 ft (2.44 m) and 20 ft (6.10 m)
- Initial detection of walking motion along sensor axis at distances of 2x the mounting height up to 15 ft (4.57 m) and 1.75x up to 20ft (6.10 m).
- Provides 12 ft (3.66 m) radial detection of small motion when mounted at 9 ft (2.74 m)



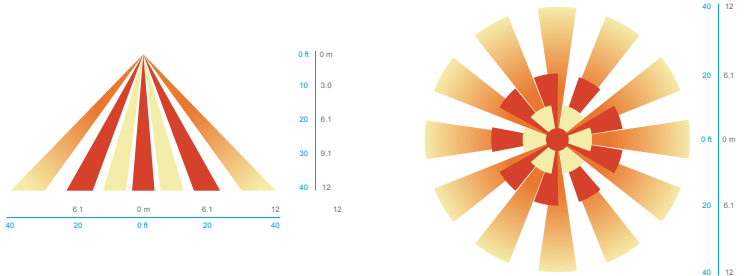
30 - UNIVERSAL 360°

- Provides excellent detection of large motion (e.g. walking) when mounted between 15 to 40 ft (4.57 to 12.19 m)
- 15 to 20 ft (4.57 to 6.10 m) radial coverage overlaps area lit by a typical high bay fixture
- Recommended for fixtures that have a 1:1 spacing to mounting height ratio or less (e.g. fixtures 30° on center or less @ a 30° mounting height.)



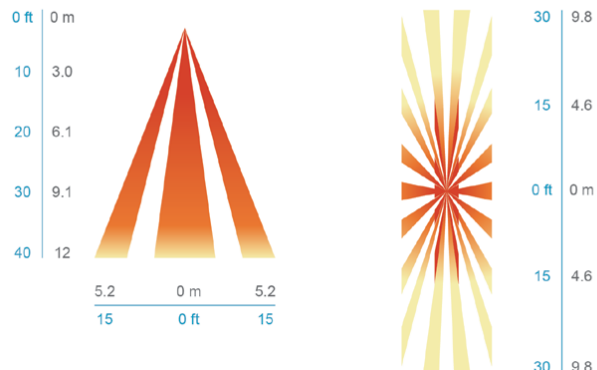
45 - HIGH MOUNT 360°

- Optimized full coverage pattern for 10 – 40 ft. (3.1 – 12 m)
- Reliable detection of large motion (e.g. pedestrian walking traffic) up to 30 ft. (9.1 m) mounting height
- Reliable detection of extra-large motion (e.g. forklift traffic) up to 40 ft. (12 m) mounting height

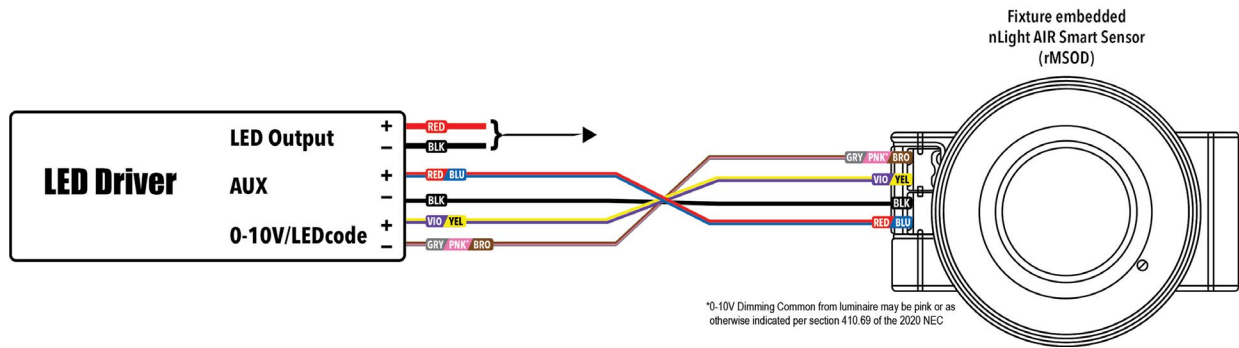


45A - HIGH MOUNT AISLEWAY

- Optimized bi directional coverage pattern for aiseways with 10 – 40 ft. (3.1 – 12 m) mounting heights
- 1.5x's mounting height equals approximate detection range
- Reliable detection of large motion (e.g. pedestrian walking traffic) up to 30 ft. (9.1 m) mounting height
- Reliable detection of extra-large motion (e.g. forklift traffic) up to 40 ft. (12 m) mounting height



WIRING DIAGRAM



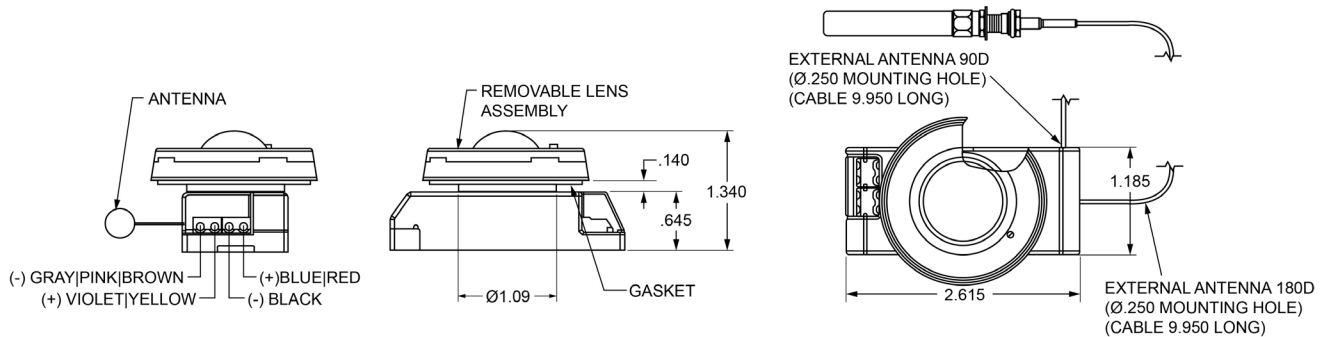
For more detailed wiring information and compatible driver, refer to Installation Instruction Sheet

UL 924 Response - nLight AIR Devices with EM Option

The below applies to all nLight AIR devices with an EM option.

- EM devices will remain at their high-end trim and ignore wireless lighting control commands, unless a normal-power-sensed (NPS) broadcast is received at least every 8 seconds.
- Using the CLAIRITY+ mobile app, EM devices must be associated with a group that includes a normal power sensing device to receive NPS broadcasts.
- Only the non-emergency devices with version 3.4 or later firmware listed below can be used for normal power sensing.
 - Line voltage devices, including the rPP20, rLSXR, rSBOR, rSDGR
 - Fixture embedded devices, including the r10 EZDL, r10 ZTS, rES7 LEDcode, rES7 ZTS, rMSOD LEDcode, rMSOD ZTS, rSBG LEDcode, rSBG ZTS
- LEDcode communicating EM devices require a V2.1 eldoLED driver. This requirement does not apply to ZT devices.

DIMENSIONS *Drawing not to scale*



OVERVIEW

The nLight AIR rSBG sensor is an in-fixture, low voltage, digital sensor providing embedded wireless lighting control, analog or digital dimming, occupancy detection and daylight harvesting capabilities. The rSBG has a remote antenna and gasketed sensor that enables it to be installed in a variety of fixtures, even those in challenging environmental conditions. It can sense motion from mounting heights of up to 40 ft. The rSBG sensor provides Passive Infrared (PIR) occupancy detection and photocell light level detection in one compact low profile design.

SMART SENSOR FEATURES

- 100% digital PIR detection
- Combined daylight and occupancy sensor
- Fully dimmable via digital or analog dimming protocols, providing the right amount of light for the application and to optimize energy savings
- Optional UL 924 emergency functionality via EM option, which eliminates wiring for sensing normal power¹
- Programmable return to last state capability

INSTALLATION FEATURES

- Wireless communication enables simple retrofits - no communication wires to pull between devices
- Integrated at the factory, no onsite wiring required
- IP rated for demanding environments, indoor or outdoor
- Simple app-based configuration of space behaviors

ADVANCED WIRELESS FEATURES

- Devices intercommunicate to provide grouped-response to motion and on/off and dimming response to daylight conditions
- Flexible sensor time delays and light levels in responding to motion and daylight conditions
- Fully compatible with other nLight AIR devices on the site
- Easy to integrate into the nLight Eclipse which provides site-wide lighting control through nLight's SensorView software and further BMS integration
- Comprehensive wireless security

Warranty

Five-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

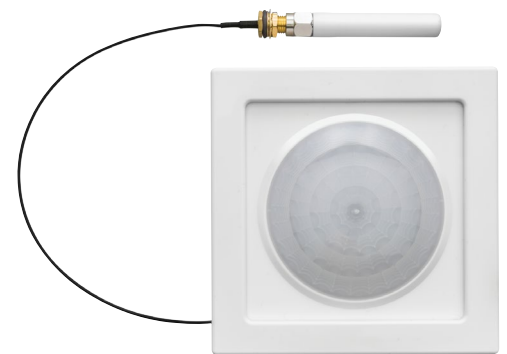
Note: Actual performance may differ as a result of end-user environment and application. Specifications subject to change without notice.

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DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.



nLight® AIR
rSBG:
Fixture embedded
smart sensor



ORDERING INFORMATION

rSBG										Examples: RSBG 40 ZT WH G2			
Series	Enclosure	Coverage Type	Dimmer Type	Emergency	Antenna Whip	Color	Options	Generation					
RSBG nLight AIR occupancy and daylight sensor	[blank] Screws insert directionally from lens to top of housing TDO ⁴ Screws insert directionally from top of housing down toward lens	10 Low Mount (8-15ft)	[blank] LEDcode	[blank] None	[blank] 10 inch	WH White	[blank] None	G2	Generation 2 compatibility				
		6 High Mount (15-30ft)	ZT 0-10 VDC	EM ³ UL924 Emergency Operation	20IN 20 inch whip	BK Black	LMH Less Mounting Hardware						
		40 High-Bay (40ft)	ZTS ² 0-10VDC With Normal Power Sensing										

ACCESSORIES

EXT ANT REPL WH	Replacement antenna, white, does not include whip
EXT ANT REPL BK	Replacement antenna, black, does not include whip

Notes:

1. Normal power sensing is provided by nLight AIR devices connected to normal power in the same group. See the UL 924 Response section for more information.
2. Non-EM devices with this option can be used to sense normal power for EM devices.
3. EM option not available with ZTS option.
4. TDO option only available with 40 lens and LMH option.

SPECIFICATIONS

Dimensions	3.40"H x 3.40"W x 1.40"D (86mm x 86mm x 36mm)
Weight	1.25 oz
Enclosure Material	Poly-Carbonate/ABS
Max Humidity	0-95% non-condensing
Operating Temperature	-40°C to 85°C
IP Rating	IP66
Mounting	Fixture-Mounted
Radio Frequency	Dual Radio: 900MHz & 2.4GHz
RF Transmit Power	900MHz: +20dBm; 2.4GHz: Variable
Wireless Standard	900MHz: IEEE 802.15.4-based 2.4GHz: Version 4.0+ of the Bluetooth specification
Wireless Range	900MHz: Up to 1000 ft. (~304m) in free space/ line of sight Minimum of 150 ft through typical construction 2.4GHz: Up to 60 ft. (~18m) in free space/ line of sight
Security	Application Data Encryption: AES-128 bit Mutual Entity Authentication Message Confidentiality Message Authentication and Replay Prevention Limited Anonymity Complies with California Civil Code Title 1.81.26, Security of Connected Devices, approved under Senate Bill No. 327 (2018)
Regulatory Compliance	Wireless: FCC ID: 2ADCB-RMODIT3 IC: 6715C-RMODIT3 IFETEL: RCPNLNL20-2057 Safety: UL Listed; RoHS Compliant, UL 924
Programming Tool	CLAIRITY™ + mobile app

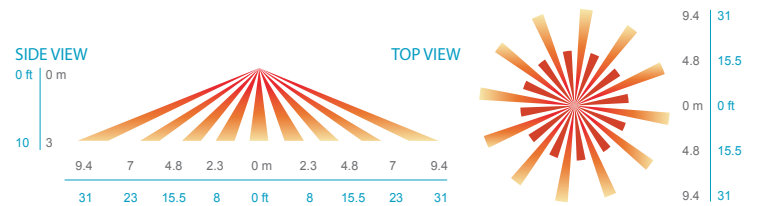
Out-Of-Box Functionality

Occupancy Control	Enabled
Idle Time Until Dim	7.5 Minutes
Occupied Dim Level	100%
Unoccupied Dim Level	10%
Dim to Off Time Delay	2.5 Minutes
Photocontrol	Enabled
Photocontrol Set Point	50 fc
Photocontrol Transition On Time	45 Seconds
Photocontrol Transition Off Time	5 Minutes

COVERAGE PATTERN

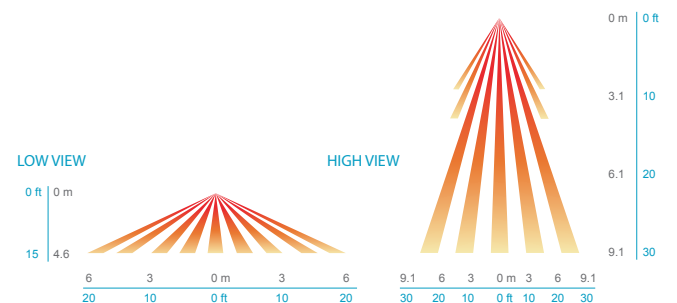
Low Mount 360 Lens - rSBG 10

The rSBG 10 is recommended for 8-15 ft (2.44-4.57 m) mounting and provides a coverage area radius for walking motion of greater than 2x the mounting height.



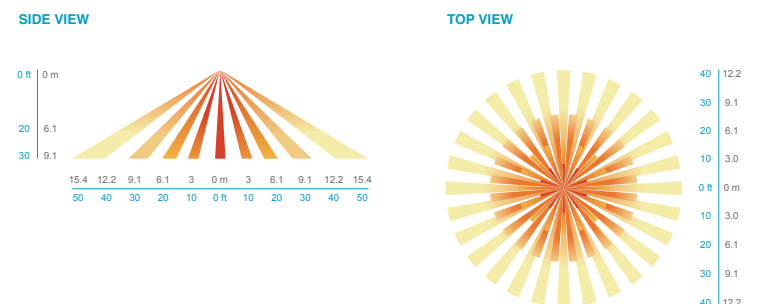
High Mount 360 Lens - rSBG 6

The rSBG 6 is intended for higher mount applications, between 15-30 ft (4.57-9.14 m), and provides a coverage area radius for walking motion of 15-20 ft (4.57-6.10 m). The rSBG 6 is intended for higher mount applications, between 15-30 ft (4.57-9.14 m), and provides a coverage area radius for walking motion of 15-20 ft (4.57-6.10 m).

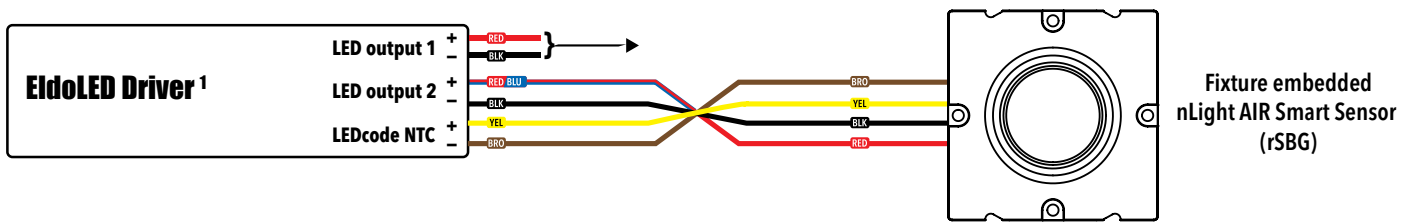


High-Bay 360 Lens - rSBG 40

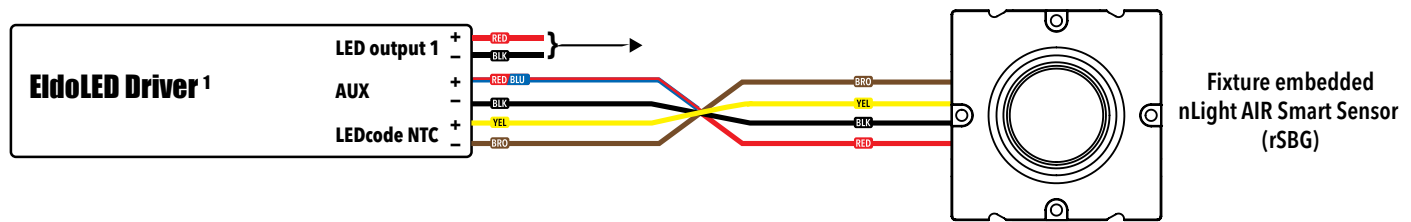
The rSBG 40 is intended for the highest of mounting heights - up to 40ft. It provides a coverage area radius for walking motion of 50ft.



WIRING DIAGRAM



Connect the yellow (+) and brown (-) rSBG wires to the LEDcode NTC connectors marked Y (+) and Br (-), respectively
 Connect the red (+) and black (-) rSBG wires to the LED output 2 connectors marked R/Bl (+) and B (-), respectively

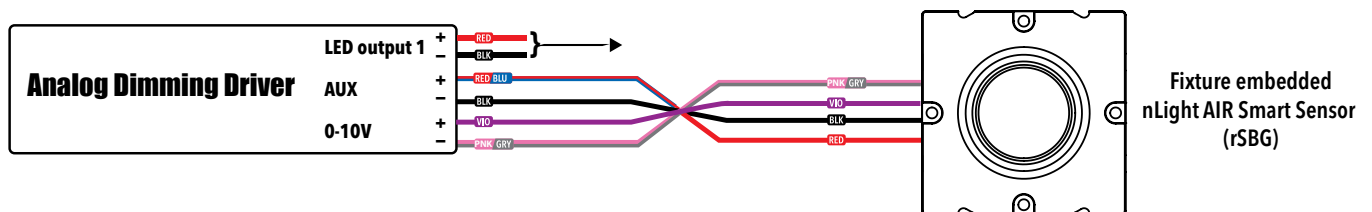


Connect the yellow (+) and brown (-) rSBG wires to the LEDcode NTC connectors marked Y (+) and Br (-), respectively
 Connect the red (+) and black (-) rSBG wires to the AUX connectors marked R/Bl (+) and B (-), respectively

UL 924 Response - nLight AIR Devices with EM Option

The below applies to all nLight AIR devices with an EM option.

- EM devices will remain at their high-end trim and ignore wireless lighting control commands, unless a normal-power-sensed (NPS) broadcast is received at least every 8 seconds.
- Using the **CLAIRITY+** mobile app, EM devices must be associated with a group that includes a normal power sensing device to receive NPS broadcasts.
- Only the non-emergency devices with version 3.4 or later firmware listed below can be used for normal power sensing.
 - Line voltage devices, including the rPP20, rLSXR, rSBOR, rSDGR
 - Fixture embedded devices, including the r10 EZDL, r10 ZTS, rES7 LEDcode, rES7 ZTS, rMSOD LEDcode, rMSOD ZTS, rSBG LEDcode, rSBG ZTS
- LEDcode communicating EM devices require a V2.1 eldoLED driver. This requirement does not apply to ZT devices.



Connect the violet (+) and pink (-) rSBG wires to the 0-10V connectors marked V (+) and Pk (-), respectively
 Connect the red (+) and black (-) rSBG wires to the AUX connectors marked R/Bl (+) and B (-), respectively

*0-10V Dimming Common from luminaire may be pink or as otherwise indicated per section 410.69 of the 2020 NEC

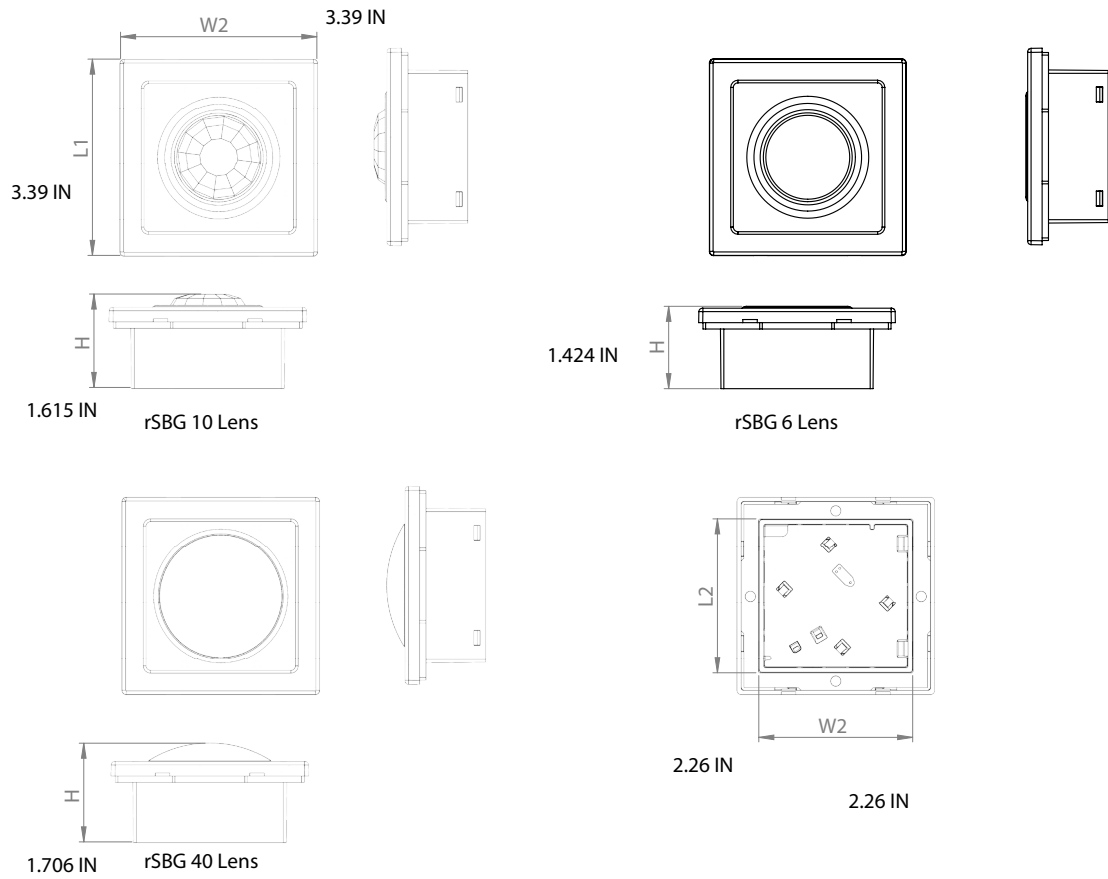


Fig 1. Above - rSBG with [blank] Enclosure Option

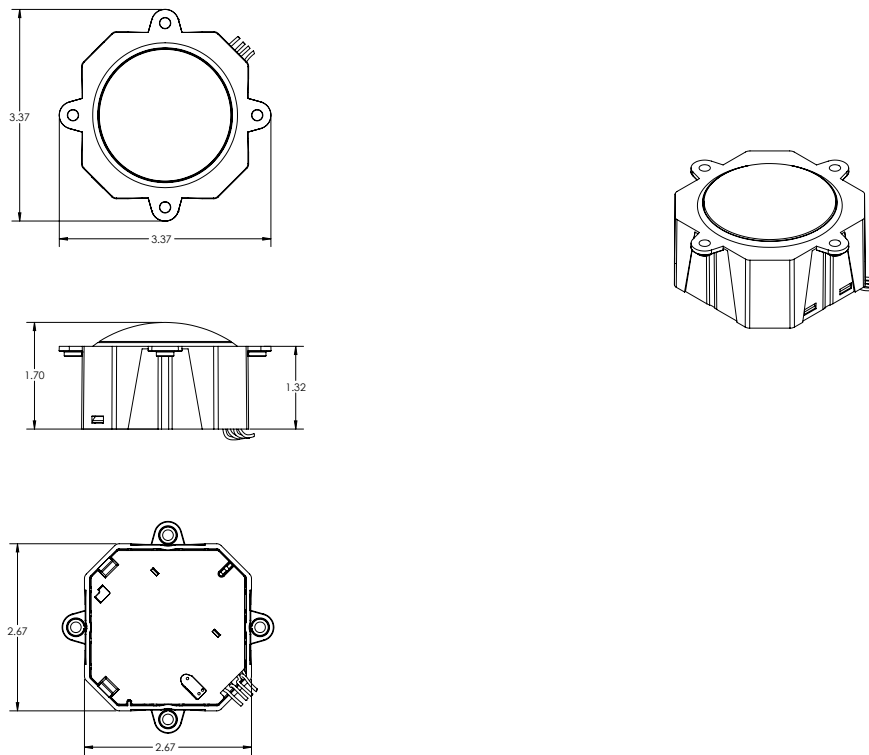


Fig 2. Above - rSBG with TDO Enclosure Option

OVERVIEW

The rIO is a fixture embedded low voltage wireless nLight AIR device capable of individual fixture control and analog or digital dimming. This smart device results in the luminaire being "nLight AIR-enabled" – making it an addressable nLight AIR device. It uses a 900MHz radio to communicate with other nLight AIR devices, such as occupancy sensors, photocells, wall switches, powerpacks and other nLight AIR-enabled luminaires. This allows for advanced operation and design flexibility ranging from stand-alone rooms to building and campus-wide networks.

NETWORK INTERFACE FEATURES

- Individual fixture control embedded at the luminaire level
- Provides full dimming control via digital or analog dimming protocols, providing the right amount of light for the application and to optimize energy savings
- Optional UL 924 emergency functionality via EM option, which eliminates wiring for sensing normal power⁴
- Programmable return to last state capability

INSTALLATION FEATURES

- Wireless communication enables simple retrofits - no communication wires to pull between devices
- Integrated at the factory, no onsite wiring required
- Optional external antennas for demanding or unique applications
 - A 900Mhz external antenna for demanding applications and optimal BLE luminaire coverage
 - A dual-band (900 Mhz and BLE) external antenna for unique applications where the device needs to be hidden inside the fixture
- Simple app-based configuration of space behaviors

ADVANCED WIRELESS FEATURES

- Devices intercommunicate to provide grouped-response to motion and on/off and dimming response to daylight conditions when wirelessly connected to a motion or daylight sensor
- Fully compatible with other nLight AIR devices on the site
- Easy to integrate into the nLight Eclipse which provides site-wide lighting control through nLight's SensorView software and further BMS integration
- Advanced wireless security measures providing peace-of-mind

Warranty

Five-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application. Specifications subject to change without notice.

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*nLight[®] AIR
rIO
Fixture embedded
network interface*



ORDERING INFORMATION

rIO					Example: RIO EZDL 90D G2
Series	Dimmer Type	Emergency	Territory Compliance	Antenna	
RIO Fixture embedded nLight AIR interface	EZDL ³ LEDcode ZT 0-10 VDC ZTS ³ 0-10VDC With Normal Power Sensing	[blank] None EM ^{1,4} UL924 Emergency Operation	[blank] None CP Chicago Plenum	[blank] ⁵ NiTi Antenna EXT900 ^{5,6} 900MHz External Antenna EXTDB ⁶ Dual Band External Antenna	

Antenna Whip	Antenna Color ²	Angle	Enclosure	Generation
[blank] 10 inch whip 20IN 20 inch whip	ACBK Black ACWH White	90D 90° antenna orientation 180D 180° antenna orientation	[blank] Includes enclosure, no mounting snaps or tabs NENC1 Uncovered enclosure with mounting tabs NENC2 Uncovered enclosure with mounting snaps	G2 Generation 2 compatibility

Accessories
EXT ANT REPL WH Replacement EXT900 or EXTDB antenna, white, does not include the 6 inch whip

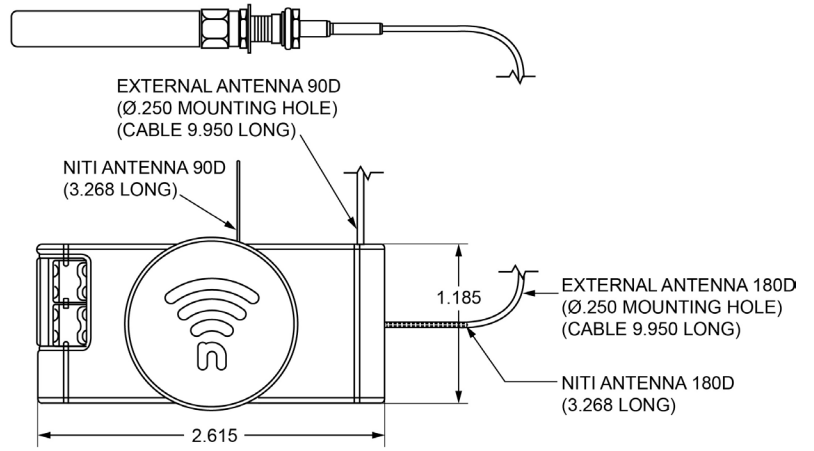
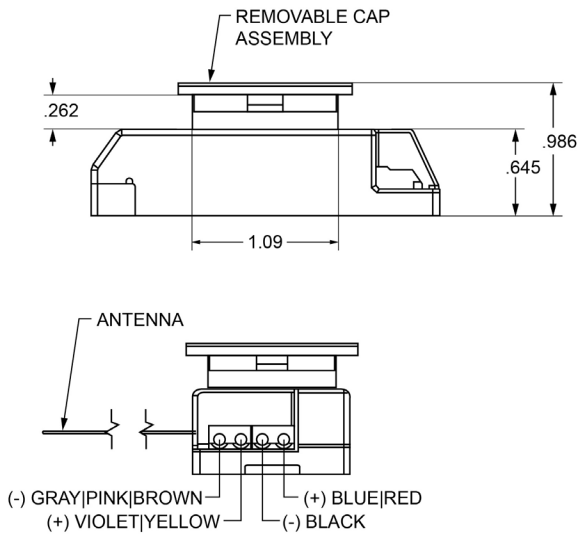
- Notes:
1. EM option not available with ZTS option.
 2. Only required with EXT900 or EXTDB options.
 3. Non-EM devices with this option can be used to sense normal power for EM devices.
 4. Normal power sensing is provided by nLight AIR devices connected to normal power in the same group. See the UL 924 Response section for more information.
 5. 20 inch antenna whip not available.
 6. Not available with CP option.

SPECIFICATIONS

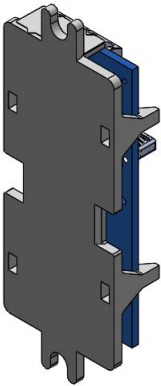
Out-Of-Box Functionality

Input Power	6-60VDC, 700mW min	Default max trim level (ZT devices) 8V
Dimensions	1.180" h x 2.617" w x 1.335" d	
Product Weight	1.25 oz	
Trim Color	White	
Enclosure Material	Poly-Carbonate/ABS	
Max Humidity	0-95% non-condensing	
Operating Temperature	-40°C to 85°C	
Mounting	Fixture-mounted	
Radio Frequency	Dual Radio: 900MHz & 2.4GHz	
RF Transmit Power	900MHz: up to 20dBm 2.4GHz: up to 10.4 dBm	
Wireless Standard	900MHz: IEEE 802.15.4-based 2.4GHz: Version 4.0+ of the Bluetooth specification	
Wireless Range	900MHz: Up to 1000 ft. (~304m) in free space/ line of sight Minimum of 150 ft through typical construction 2.4GHz: Up to 60 ft. (~18m) in free space/ line of sight	
Security	Application Data Encryption: AES-128 bit Mutual Entity Authentication Message Confidentiality Message Authentication and Replay Prevention Limited Anonymity Complies with California Civil Code Title 1.81.26, Security of Connected Devices, approved under Senate Bill No. 327 (2018)	
Regulatory Compliance	FCC ID: 2ADCB-RMODIT3 IC: 6715C-RMODIT3 IFETEL: RCPNLL20-2057 Safety: RoHS Compliant, Non-EM: UL916 Registered; EM: UL924 Listed and CSA-C22.2 No. 141-15; NOM Certified	
Programming Tool	CLAIRITY™+ Mobile App	

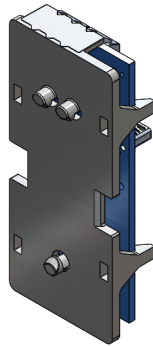
DIMENSIONS AND MOUNTING (drawing not to scale)



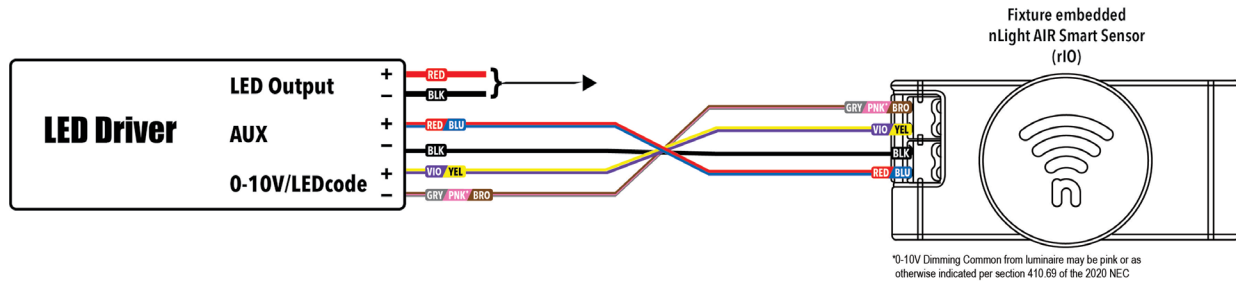
NENC1 Option



NENC2 Option



WIRING (Do not wire hot)



For more detailed wiring information and compatible driver, refer to Installation Instruction Sheet

UL 924 Response - nLight AIR Devices with EM Option

The below information applies to all nLight AIR devices with an EM option.

- EM devices will remain at their high-end trim and ignore wireless lighting control commands, unless a normal-power-sensed (NPS) broadcast is received at least every 8 seconds.
- Using the CLAIRITY+ mobile app, EM devices must be associated with a group that includes a normal power sensing device to receive NPS broadcasts.
- Only the non-emergency devices with version 3.4 or later firmware listed below can be used for normal power sensing.
 - Line voltage devices, including the rPP20, rLSXR, rSBOR, rSDGR
 - Fixture embedded devices, including the r10 EZDL, r10 ZTS, rES7 EZDL, rES7 ZTS, rMSOD EZDL, rMSOD ZTS, rSBG EZDL, rSBG ZTS
- LEDcode communicating EM devices require a V2.1 eldoLED driver. This requirement does not apply to ZT devices.