Catalog Number: | Date: | Project:

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 ½" 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 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.

nLight AIR rSBOR

Outdoor Pole/ Fixture Mount Sensor

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

CERTIFIED

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. 208VAC, 240VAC, and 480VAC not intended for field installation when being used for multiple luminaire control due to only one line phase being switched.
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:	960W at 120VAC, 830W at 208VAC, 720W at 240VAC, 830W at 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°F to 149°F (-40°C to 65°C)
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: RCPNLNL20-2057 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:	CL**AIR**ITY™+ Mobile App

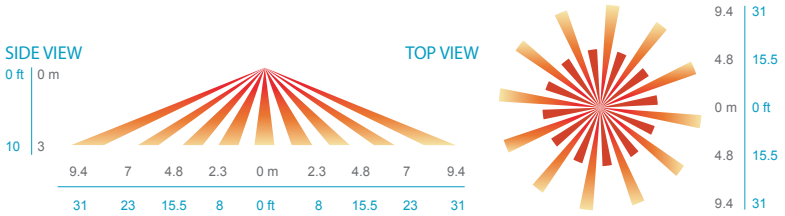
Out-Of-Box Functionality

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

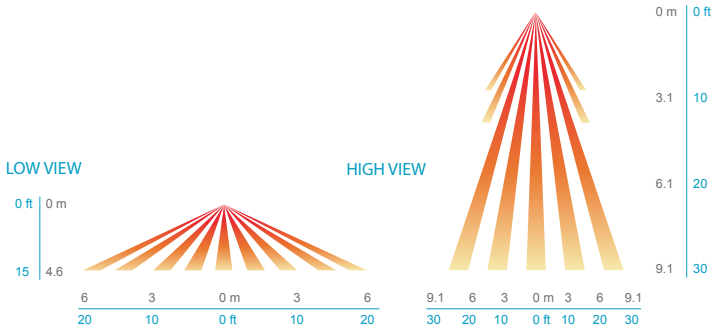
In general, the rSBOR 10 is recommended for 8-15 ft (2.44-4.57 m) mounting and provides a coverage area radius for walking motion of greater than 2x the mounting height. When mounted 10 ft high, for example, on a luminaire in a parking garage, the sensor's coverage for walking motion extends out 30 ft 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. Tested to NEMA WD 7-2011.



Coverage Pattern of Low Mount Lens Option (rSBOR 10)

Site & Area Lighting / High Mount Applications

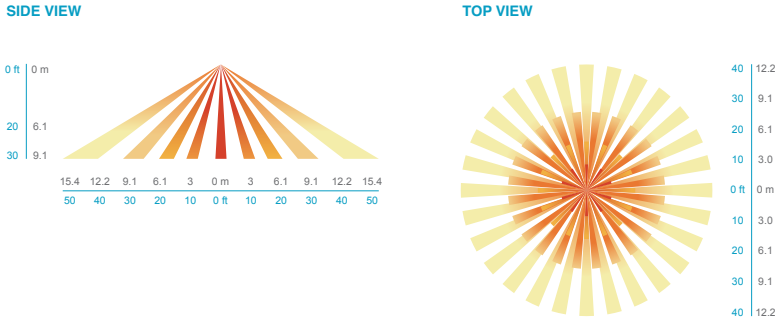
The rSBOR 6 is intended for higher pole mount applications, between 15-30 ft (4.57-9.14 m), and provides a coverage area radius for walking motion of 15-20 ft (4.57-6.10 m). When mounted to a pole the sensor provides 270° of coverage (90° is blocked by the pole). Higher mounting (e.g. 40 ft or 12.20 m) may result in shorter detection range. Tested to NEMA WD 7-2011.



Coverage Pattern of High Mount Lens Option (rSBOR 6)

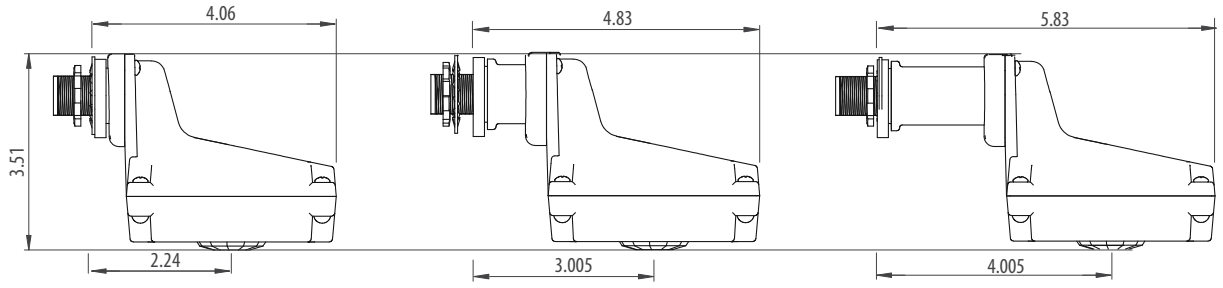
Site & Area Lighting / High Mount Applications

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. Tested to NEMA WD 7-2011.



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

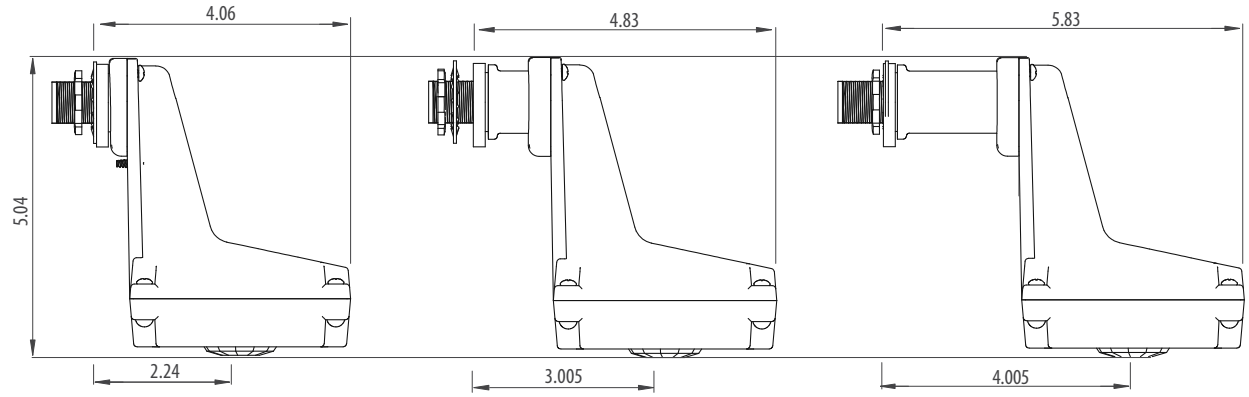
BODY/BRACKET OPTIONS



[BLANK] Short extension, low back

EB4 Medium extension, low back

EB2 Long extension, low back



EB1 Short extension, high back

EB5 Medium extension, high back

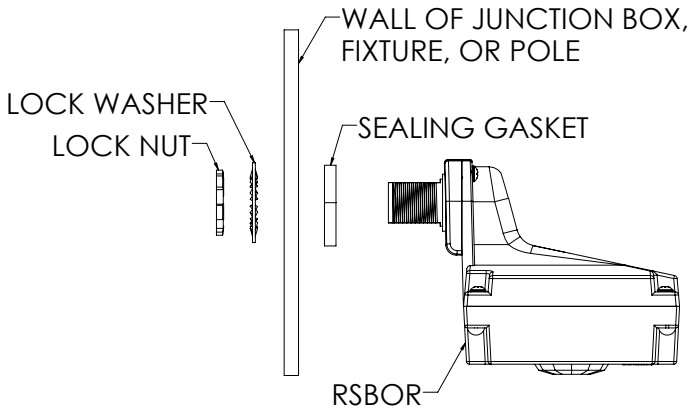
EB3 Long extension, high back

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

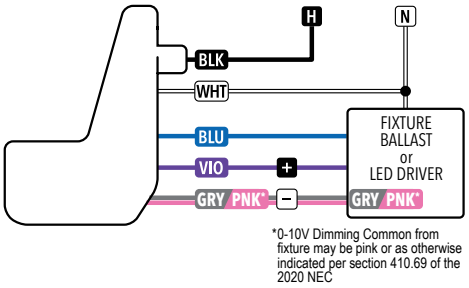
- Mounts through 7/8" diameter hole
- Requires access on opposite or adjacent side to secure mounting nut
- Required mounting distance from light source may vary by sensor functionality and luminaire design
- See specification drawing for details



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

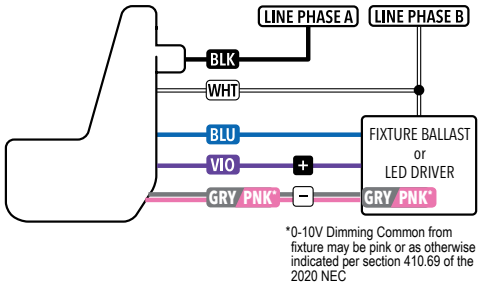


*0-10V Dimming Common from fixture may be pink or as otherwise indicated per section 410.69 of the 2020 NEC

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 (w/ D option) - Low Voltage Dim Output (0-10 VDC)
PINK (w/ D option) - Low Voltage Common

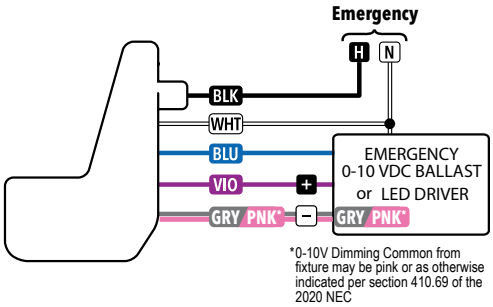
***Not intended for field installation when being used for multiple luminaire control due to only one line phase being switched**



*0-10V Dimming Common from fixture 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



*0-10V Dimming Common from fixture 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 CL**AIR**ITY+ 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*