Catalog Number: | Date: | Project:

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 ½" 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 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 rLSXR
Fixture Mount Sensor



CERTIFIED

ORDERING INFORMATION

rLSXR — **Example: rLSXR 6 IM WH G2**

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

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 J40 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.

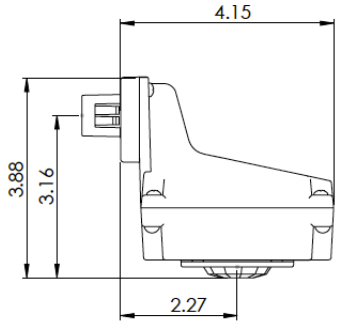
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SPECIFICATIONS

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:	960W at 120VAC, 830W at 208VAC, 720W at 240VAC, 830W at 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°F to 149°F (-40°C to 65°C)
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: 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

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

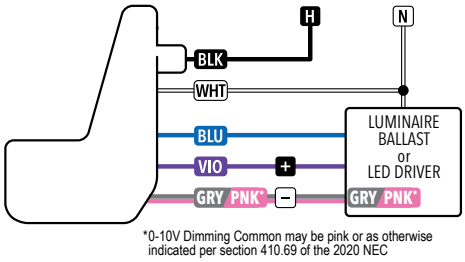


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WIRING (DO NOT WIRE WHEN ENERGIZED)

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)

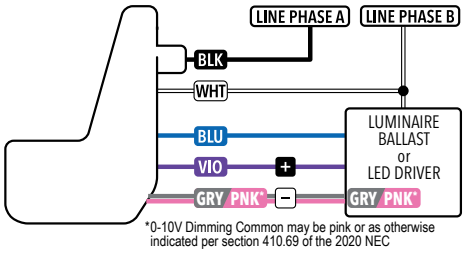


*0-10V Dimming Common may be pink or as otherwise indicated per section 410.69 of the 2020 NEC

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)

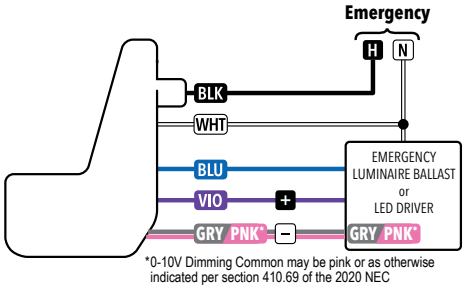
***Safety Note: only one line phase is being switched**



*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

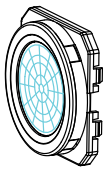
The below information applies to all nLight AIR devices with an EM option.

- 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 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.

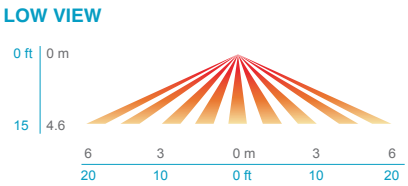
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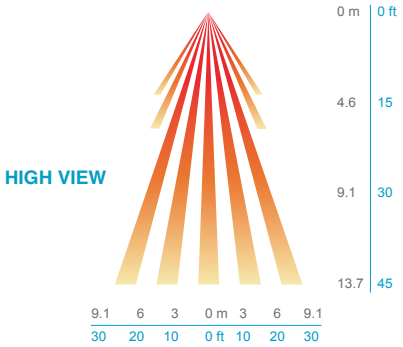
COVERAGE PATTERNS

HIGH MOUNT 360° LENS (#6)

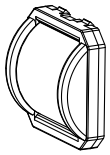


- Best choice for 15 to 45 ft (4.57 to 13.72 m) mounting heights
- 15 to 20 ft (4.57 to 6.10 m) radial coverage overlaps area lit by a typical high bay fixture
- Excellent detection of large motion (e.g. walking) up to a 35 ft (10.76 m) mounting height
- Excellent detection of extra large motion (e.g.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

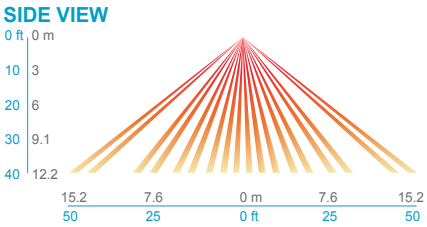


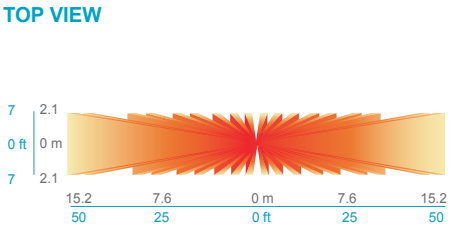


HIGH MOUNT AISLEWAY LENS (#50)

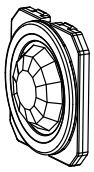


- Provides a bi-directional coverage pattern ideal for warehouse racking
- 1.2x mounting height equals approximate detection range in either direction
- Typical 40 ft (12.19 m) mounting detects 50 ft (15.24 m) in either direction
- Superior aisleway coverage compared to a masked 360° lens

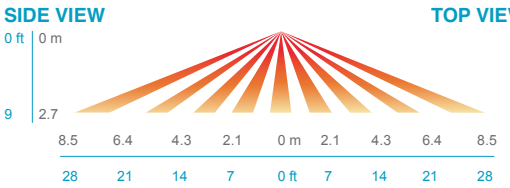


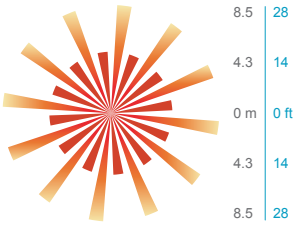


LOW MOUNT 360° LENS (#10)

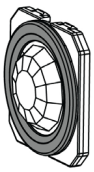


- Best choice for large motion detection (e.g. walking)
- 360° conical shaped pattern
- Provides ~24 ft (7.32 m) radial coverage (~2000 ft²) when mounted at 9 ft (2.74 m)
- 7 to 15 ft (2.13 to 4.57 m) mounting heights provide 16 to 36 ft (4.88 to 10.97 m) radial coverage
- Detection range improves when walking across beams compared to into beams
- Tested to NEMA WD 7-2011

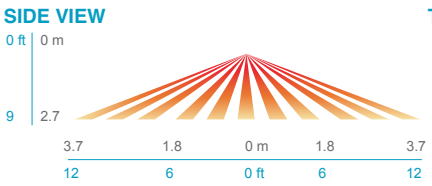


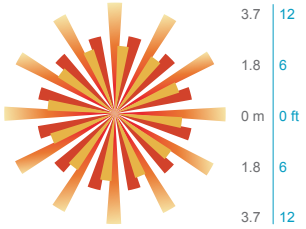


SMALL MOTION 360° LENS (#9)



- 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
- Tested to NEMA WD 7-2011





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