

OVERVIEW

The nRM family of nLight recessed mount occupancy sensors provide a range of networked sensor solutions for applications with finished ceilings (e.g. ceiling tiles, sheetrock, plaster). nRM family sensors utilize 100% 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 as a standard feature, with automatic daylight harvesting/dimming control as an available option.

nRM family sensors are powered via the nLight network bus and typically communicate with one or more nLight enabled luminaires (e.g. Lithonia VTLED Series) or nLight relay/dimming packs to enable control of fixtures individually or in groups. These configurations work standalone and do not require a connection to a larger nLight network.

SENSOR OPERATION – The sensor detects changes in the infrared energy given off by occupants as they move within the field-of-view. When occupancy is detected the sensor signals other nLight enabled devices to switch connected lighting loads on. Sensors with Passive Dual Technology (PDT) first see motion using Passive Infrared (PIR) and then engage Microphonics to hear sounds that indicate continued occupancy. This patented technology dynamically adapts a sensor to its environment by filtering out constant background noise and detecting only noises typical of human activity. A factory-set internal time delay of 10 minutes keeps the sensor in the occupied state during brief periods of inactivity. The time delay is reset every time occupancy is re-detected. These sensors require no field calibration or sensitivity adjustments.

nLIGHT NETWORKED OPERATION – nRM family devices are native nLight devices meaning they are individually addressable and digitally communicate to other nLight devices such as Wallpod switches, relay packs, nLight-enabled digital luminaires, and other sensors. All devices are wired using CAT-5e cabling; creating a local nLight control zone. Once linked to an nLight Gateway, either directly or via an nLight network backbone, the zone becomes capable of remote status monitoring, configuration, and control with nLight SensorView software.

FEATURES

- 100% digital PIR detection
- Push-button programmable, adjustable time delays, multiple operating modes
- Integrated photocell standard (disabled by default) – Photocell views down through sensor lens and when enabled provides two selectable modes of operation
- On/Off mode: Photocell has full on/off control during periods of occupancy
- Inhibit mode: Photocell can prevent lights from turning on if adequate daylight is available, but cannot turn lights off
- LED status indicator
- Adjustable settings (e.g. occupancy time delays, photocell set-points) via push-button or SensorView software application
- Broadcasts occupancy and photocell information over a local nLight channel
- Remotely upgradeable firmware

Warranty

Five-year limited warranty. Complete warranty terms located at:

www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx

Note: Actual performance may differ as a result of end-user environment and application.

Specifications subject to change without notice



nRM
nRM PDT

RECESSED MOUNT • LOW VOLTAGE
PASSIVE INFRARED (PIR) or DUAL TECH (PDT)



ORDERING INFORMATION

nRM Family					Example: nRM PDT 10 ADCX LT	
Series	Detection Technology	Coverage Type	Additional Features (choose 1)		Temp / Humidity	
nRM Recessed Mount Sensor	Blank PIR	6 ¹ High Bay 360°	Blank	On/Off Photocell (disabled by default)	Blank	Standard
	PDT Dual Technology (PIR/ Microphonics)	50 ¹ High Bay Aisleway	2P	Dual Occupancy Time Delays	LT	Low Temp/ High humidity
		10 Extended Range 360°	ADCX	Automatic Dimming		
		9 Standard Range 360°				

1. Not available with PDT option

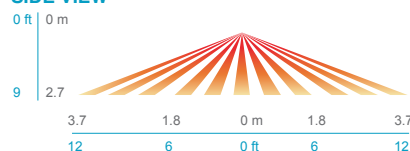
COVERAGE PATTERNS

STANDARD range 360° (Model # nRM 9/nRM PDT 91)

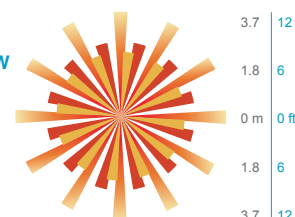


- Best choice for small motion (e.g. hand movements) detection
- 360° conical shaped pattern
- Provides 12 ft (3.66 m) radial coverage (~500 ft²) when mounted to standard 9 ft (2.74 m) ceiling
- 8 to 15 ft (2.44 to 4.57 m) mounting heights provide 10 to 20 ft (3.05 to 6.10 m) radial coverage
- Lens assembly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

SIDE VIEW



TOP VIEW



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.

Extended range 360° (Model # nRM 10/nRM PDT 101)

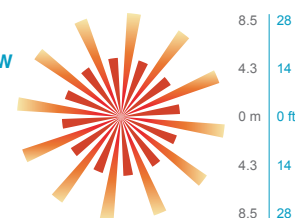


- Best choice for large motion detection (e.g. walking)
- 360° conical shaped pattern
- Provides ~24 ft (7.32 m) radial coverage (~2000 ft²) when mounted at 9 ft (2.74 m)
- 7 to 15 ft (2.13 to 4.57 m) mounting heights provide 16 to 36 ft (4.88 to 10.97 m) radial coverage
- Detection range improves when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

SIDE VIEW



TOP VIEW



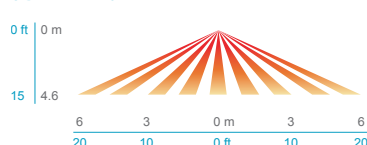
1. Sensors with Microphonics™ provides overlapping detection of human activity over the complete PIR coverage area. Advanced filtering is also utilized to prevent non-occupant noises from keeping the lights on.

High MOUNT 360° (Model # nRM 6)

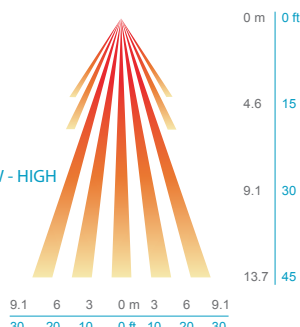


- Best choice for 15 to 45 ft (4.57 to 13.72 m) mounting heights
- 15 to 20 ft (4.57 to 6.10 m) radial coverage overlaps area lit by a typical high bay fixture
- Excellent detection of large motion (e.g. walking) up to 35 ft (10.76 m)
- Excellent detection of extra large motion (e.g. forklifts) up to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

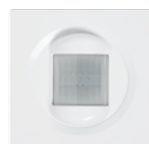
SIDE VIEW - LOW



SIDE VIEW - HIGH

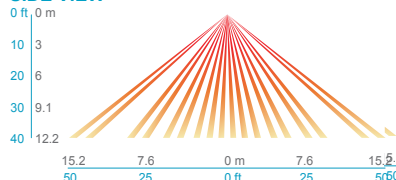


High MOUNT aisleway (Model # nRM 50)

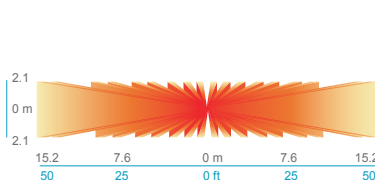


- Provides a bi-directional coverage pattern ideal for 15-45 ft mounting above warehouse racking aisles
- Multiplying the mounting height by 1.2 equals approx. detection range in either direction
- Typical 40 ft (12.19 m) mounting detects 50 ft (15.24 m) in either direction
- Superior aisleway coverage compared to a masked 360° lens

SIDE VIEW



TOP VIEW



SPECIFICATIONS (NRM_FAMILY)

Electrical	Input Ratings	15-24VDC, 3mA, Class 2 (nLight network power)
Mechanical	Dimensions	4.40"H x 4.40"W (112mm x 112mm)
	Mounting	Recessed (fits within 4" x 4" square j-box)
	Color	White
	Connection Type	RJ-45 nLight Network Ports (2)
Environmental	Warrantied Operating Temperature	Standard: 14°F to 185°F (-10°C to 85°C)
		PDT option: 14°F to 140°F (-10°C to 60°C)
		LT option: -4°F to 185°F (-20°C to 85°C)
		PDT LT options: -4°F to 140°F (-20°C to 60°C)
	Relative Humidity	Up to 90%, Non-Condensing
	Standards/ Ratings	RoHS
General	Standards/ Ratings	System Component to aid in compliance with Title 24, ASHRAE 90.1, IECC