

**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](http://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.



nLight®

nRM  
nRM PDT

RECESSED MOUNT • LOW VOLTAGE  
PASSIVE INFRARED (PIR) or DUALTECH (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 PDT Dual Technology (PIR/ Microphonics)	6 <sup>1</sup> High Bay 360° 50 <sup>1</sup> High Bay Aisleway 10 Extended Range 360° 9 Standard Range 360° <sup>1</sup> Not available with <b>PDT</b> option	Blank On/Off Photocell (disabled by default) 2P Dual Occupancy Time Delays ADCX Automatic Dimming	Blank Standard LT Low Temp/ High humidity

## SPECIFICATIONS

Size:	4.40" square (11.18 cm)
Weight:	5 oz
Mounting:	Recesses into a 4" x 4" square j-box
Color:	White
nLight Network Ports:	2 RJ-45
Bus Power Consumption:	~3 mA
Wires:	None

Operating Temp:	Standard: 14° to 160° F (-10° to 71° C) <b>LT</b> Option (PIR): -40° to 160° F (-40° to 71° C) <b>LT</b> Option ( <b>PDT</b> ): -4° to 160° F (-20° to 71° C)
Relative Humidity:	Standard: 20 to 75% non-condensing <b>LT</b> Option: 20 to 90% non-condensing
ROHS Compliant, UL and cUL Listed, Title 24 system component	

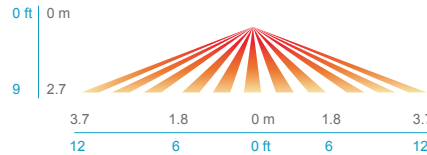
## COVERAGE PATTERNS

### STANDARD RANGE 360° (Model # nRM 9/nRM PDT 9<sup>1</sup>)

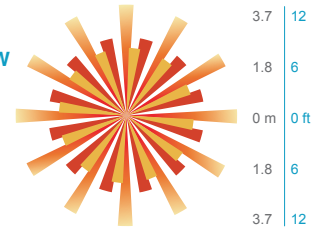


- Best choice for small motion (e.g. hand movements) detection
- 360° conical shaped pattern
- Provides 12 ft (3.66 m) radial coverage (~500 ft<sup>2</sup>) when mounted to standard 9 ft (2.74 m) ceiling
- 8 to 15 ft (2.44 to 4.57 m) mounting heights provide 10 to 20 ft (3.05 to 6.10 m) radial coverage
- Lens assembly is marked with a gray ring around lens to differentiate versus the

SIDE VIEW



TOP VIEW



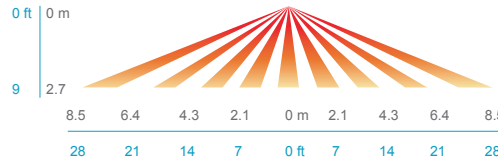
<sup>1</sup> Sensors with Microphonics™ provides overlapping detection of human activity over the complete PIR coverage area. Advanced filtering is also utilized to prevent non-occupant noises from keeping the lights on.

### EXTENDED RANGE 360° (Model # nRM 10/nRM PDT 10<sup>1</sup>)

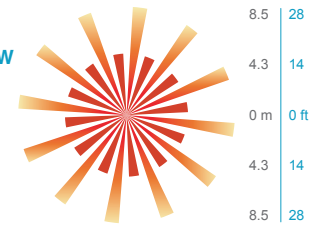


- Best choice for large motion detection (e.g. walking)
- 360° conical shaped pattern
- Provides ~24 ft (7.32 m) radial coverage (~2000 ft<sup>2</sup>) when mounted at 9 ft (2.74 m)
- 7 to 15 ft (2.13 to 4.57 m) mounting heights provide 16 to 36 ft (4.88 to 10.97 m) radial coverage
- Detection range improves when walking

SIDE VIEW



TOP VIEW



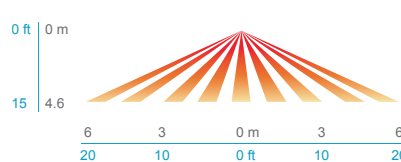
<sup>1</sup> Sensors with Microphonics™ provides overlapping detection of human activity over the complete PIR coverage area. Advanced filtering is also utilized to prevent non-occupant noises from

### HIGH MOUNT 360° (Model # nRM 6)

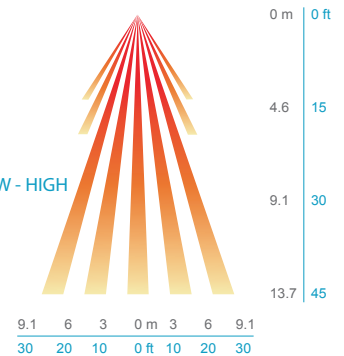


- Best choice for 15 to 45 ft (4.57 to 13.72 m) mounting heights
- 15 to 20 ft (4.57 to 6.10 m) radial coverage overlaps area lit by a typical high bay fixture
- Excellent detection of large motion (e.g. walking) up to 35 ft (10.76 m)
- Excellent detection of extra large motion (e.g. forklifts) up to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

SIDE VIEW - LOW



SIDE VIEW - HIGH

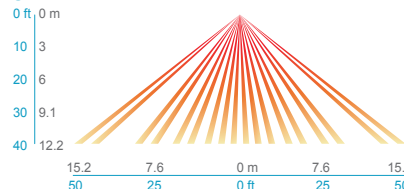


### HIGH MOUNT AISLEWAY (Model # nRM 50)



- 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

