

SPECIFICATIONS

PHYSICAL

SIZE: 4.55" Dia. (11.56 cm)
1.55" Deep (3.94 cm)
WEIGHT: 6 oz
MOUNTING:
Ceiling Tile / Sheetrock Surface
3.5" Octagon Box
Single Gang Handy Box
COLOR: Matte White
nLIGHT NETWORK CONNECTION:
2 RJ-45 Ports (via an included RJ-45 splitter)
WIRES / CABLES:
(1) CAT5e patch cable, 1ft (factory installed)
(2) 20 AWG wires (-AR option only)

ELECTRICAL

nLIGHT BUS POWER CONSUMPTION: ~3 mA
RELAY RATING (-AR option only):
1A @ 24 VAC/VDC (resistive only)

ENVIRONMENTAL & OTHER

OPERATING TEMP
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 Option: -4°F to 140°F (-20°C to 60°C)

RELATIVE HUMIDITY

Up to 90%, Non-Condensing
SILICONE FREE, ROHS COMPLIANT
TITLE 24 SYSTEM COMPONENT

CEILING / SURFACE MOUNT • REAR RJ-45 PORT PASSIVE INFRARED (PIR) or DUAL TECH (PDT)



MODEL # OPTION SUFFIXES

PDT = Dual Technology (Microphonics) Detection
6, 9, 10 = Lens/Coverage Pattern
ADCX = Automatic Dimming Control
AR = Low Voltage Aux. Relay
2P = Dual Time Delay
LT = Low Temp / High Humidity

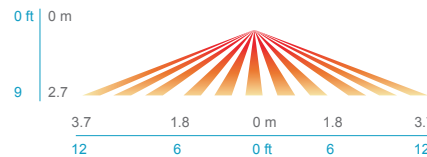
COVERAGE PATTERNS

SMALL MOTION 360° (Model # nCM 9/nCM PDT 9¹)

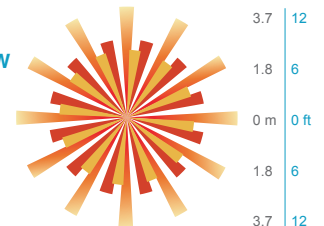


- Best choice for small motion (e.g. hand movements) detection
- 360° conical shaped pattern
- Provides 12 ft (3.66 m) radial coverage (~500 ft²) when mounted to standard 9 ft (2.74 m) ceiling
- 8 to 15 ft (2.44 to 4.57 m) mounting heights provide 10 to 20 ft (3.05 to 6.10 m) radial coverage

SIDE VIEW



TOP VIEW



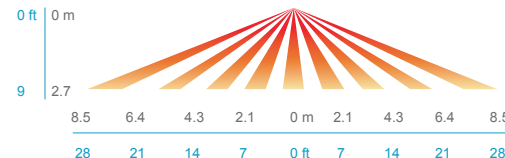
¹ Sensors with Microphonics™ provides overlapping detection of human activity over the complete PIR coverage area. Advanced filtering is also utilized to prevent non-occupant noises from keeping the lights on.

LARGE MOTION 360° (Model # nCM 10/nCM PDT 10¹)

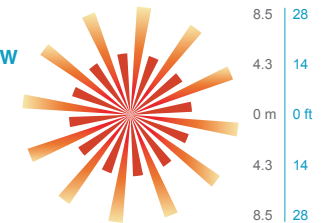


- Best choice for large motion detection (e.g. walking)
- 360° conical shaped pattern
- Provides ~24 ft (7.32 m) radial coverage (~2000 ft²) when mounted at 9 ft (2.74 m)
- 7 to 15 ft (2.13 to 4.57 m) mounting heights provide 16 to 36 ft (4.88 to 10.97 m) radial coverage
- Detection range improves when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

SIDE VIEW



TOP VIEW



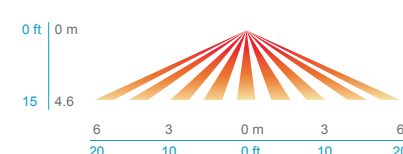
¹ Sensors with Microphonics™ provides overlapping detection of human activity over the complete PIR coverage area. Advanced filtering is also utilized to prevent non-occupant noises from keeping the lights on.

HIGH MOUNT 360° (Model # nCM 6)

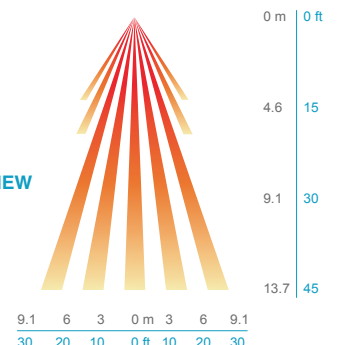


- Best choice for 15 to 45 ft (4.57 to 13.72 m) mounting heights
- 15 to 20 ft (4.57 to 6.10 m) radial coverage overlaps area lit by a typical high bay fixture
- Excellent detection of large motion (e.g. walking) up to 35 ft (10.76 m)
- Excellent detection of extra large motion (e.g. forklifts) up to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

LOW VIEW



HIGH VIEW

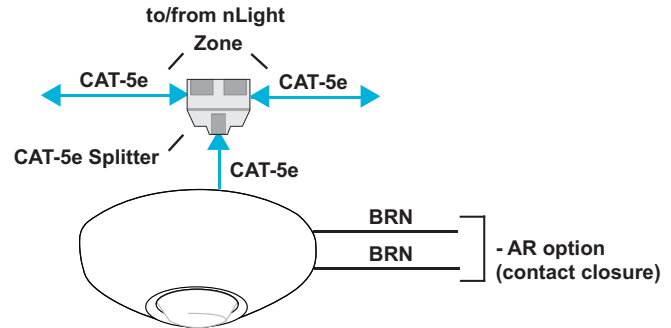


9.1 6 3 0 m 3 6 9.1
30 20 10 0 ft 10 20 30

INSTALLATION / WIRING

The following instructions are for mounting sensor directly to a ceiling tile or sheetrock surface¹. Sensor's mounting holes also align with standard round fixture or single gang handy box (screws not provided).

- Using template included with unit, mark spots on ceiling tile/sheetrock for cable hole and mounting anchors/screws
- Drill 1/2" hole through ceiling surface at location indicated on template
- Insert provided anchors into ceiling surface at locations indicated on template
- Remove provided RJ-45 splitter from sensor's attached CAT5e cable and thread cable (and low voltage wires if -AR option included) through hole from underside
- Mount sensor to anchors using two screws provided
- Reattach RJ45 splitter device (model **CAT5 Y**) above ceiling to cable from sensor (see diagram on right)
- Interconnect CAT-5e cables to/from rest of nLight zone to RJ45 splitter²
- Once power is received via CAT-5e connection, all devices in zone will automatically begin functioning together according to each device's defaults
- Install decorative sensor lid by rotating clockwise
- Refer to included instruction card for default settings and directions on push-button programming.



Note:

- Recommended mounting 4' or more away from HVAC vents.
- T568B pin/pair assignment is recommended for all CAT-5e cables.
Sensor power is provided via a CAT-5e connection to an nLight power pack/supply, nLight enabled digital luminaire, or nLight Bridge.

WARRANTY

5-year limited warranty. Full warranty terms located at:
www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx

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

Sheet#: TNG-139-001

**READ AND FOLLOW ALL SAFETY INSTRUCTIONS!
SAVE THESE INSTRUCTIONS AND DELIVER TO OWNER AFTER INSTALLATION**

- To reduce the risk of death, personal injury or property damage from fire, electric shock, falling parts, cuts/abrasions, and other hazards please read all warnings and instructions included with and on the fixture box and all fixture labels.
- Before installing, servicing, or performing routine maintenance upon this equipment, follow these general precautions.
- Installation and service should be performed by a qualified licensed electrician.
- Maintenance should be performed by qualified person(s) familiar with the products' construction and operation and any hazards involved. Regular maintenance programs are recommended.
- DO NOT INSTALL DAMAGED PRODUCT!** This product has been properly packed so that no parts should have been damaged during transit. Inspect to confirm. Any part damaged or broken during or after assembly should be replaced.

<p>⚠ CAUTION: RISK OF PRODUCT DAMAGE</p> <ul style="list-style-type: none"> ✓ Electrostatic Discharge (ESD): ESD can damage product(s). Personal grounding equipment should be worn during all installation or servicing of the unit. ✓ Do not touch individual electrical components, as this can cause ESD and affect product performance. ✓ Do not stretch or use cable sets that are too short or are of insufficient length. ✓ Do not tamper with contacts. ✓ Do not modify the product. ✓ Do not change or alter internal wiring or installation circuitry. ✓ Do not use product for anything other than its intended use. 	<p>⚠ WARNING - RISK OF ELECTRIC SHOCK</p> <ul style="list-style-type: none"> ✓ Disconnect or turn off power before installation or servicing. ✓ Verify that supply voltage is correct by comparing it with the product information. ✓ Make all electrical and grounded connections in accordance with the National Electrical Code (NEC) and any applicable local code requirements. ✓ All wiring connections should be capped with UL approved recognized wire connectors. ✓ All unused connector openings must be capped.
<p>⚠ CAUTION - RISK OF INJURY</p> <ul style="list-style-type: none"> ✓ Wear gloves and safety glasses at all times when installing, servicing or performing maintenance. 	<p>⚠ WARNING - RISK OF BURN or FIRE</p> <ul style="list-style-type: none"> ✓ Do not exceed maximum wattage, ratings, or published operation conditions of product. ✓ Do not overload. ✓ Follow all manufacturer's warnings, recommendations and restrictions to ensure proper operation of product.



A LEVEL PUSH-BUTTONFUNCTIONS

1 POLE SELECTION / BUTTON MODE2

For 2-Pole devices: functions 2, 5, 6, and 8 can be programmed differently for each pole. The selections for the Pole Selection function determine which pole's settings are to be modified by subsequent programming. Button Mode overrides a device and enables its push-button to toggle the device's internal relay(s) or dim level.

- 1 1st Pole 3 Copy Pole 1's settings to Pole 2 5 Enable Button Mode
2 2nd Pole 4 Disable Button Mode

2 TIME DELAY

The length of time an occupancy sensor will keep the lights on after it last detects occupancy

- STANDARD
1 30 sec 3 5.0 min 5 10.0 min 7 15.0 min 9 20.0 min
2 2.5 min 4 7.5 min 6 12.5 min 8 17.5 min

- EXTENDED
1 30 sec 3 30 min 5 60 min 7 90 min 9 120min
2 15 min 4 45 min 6 75 min 8 105 min

3 IDLE TIME UNTIL DIM

The length of time after last detected occupancy that a sensor will reduce lighting to unoccupied dim level.

- STANDARD
1 30 sec 3 5.0 min 5 10.0 min 7 15.0 min 9 20.0 min
2 2.5 min 4 7.5 min 6 12.5 min 8 17.5 min 10 Disable

- EXTENDED
1 30 sec 3 30 min 5 60 min 7 90 min 9 120 min
2 15 min 4 45 min 6 75 min 8 105 min 10 Disable

3 START TO HIGH

Lights go to full bright for 20 minutes upon initial power up

- 5 Disabled 1 2 Enabled

4 AUTO SET-POINT / 100 HOUR BURN-IN

100 HOUR BURN-IN: Overrides relays on (typically for lamp seasoning)
AUTO SET-POINT: Photocell calibration procedure for detecting optimum lighting control level

- 1 Disabled 1 3 Enabled then run Auto-Setpoint 5 Blink back Set-Point 3
2 Enabled 4 Run Auto Set-Point

1 DEFAULT SETTING 2 REQUIRES PRESS & HOLD METHOD

5 TEN'S DIGIT OF SET-POINT

The ten's digit of the target light level that is to be maintained by the device (in foot-candles)

- 1 10 fc 3 30 fc 5 50 fc 7 200 fc 10 0 fc 1
2 20 fc 4 40 fc 6 100 fc 8 Disable

6 ONE'S DIGIT OF SET-POINT

The one's digit of the target light level that is to be maintained by the device (in foot-candles)

- 1 1 fc 3 3 fc 5 5 fc 1 7 7 fc 9 9 fc
2 2 fc 4 4 fc 6 6 fc 8 8 fc 10 0 fc

7 SUNLIGHT DISCOUNT FACTOR

Value used to improve the tracking accuracy of a photocell during periods of high daylight. Decreasing the value will lower the controlled level of the lights

- 1 x/1 3 x/3 5 x/5 7 x/7 9 x/9
2 x/2 4 x/4 6 x/6 8 x/8 10 x/10

8 INCREMENTAL SET-POINT ADJUSTMENT

Alters the target light level that is to be maintained by the device (in foot-candles)

- 1 Decrease 1 fc 2 Increase 1 fc

9 RESTORE FACTORY DEFAULTS2

- 1 Maintain Current 2 Restore Defaults

10 TIME DELAY SCHEME2

Selects the range of time delay values available for use by function 2, Time Delay.

- POLE 1 POLE 2 POLE 1 POLE 2
1 Standard Standard 3 Extended Standard
2 Standard Extended 4 Extended Extended

11 PHOTOCELL MODE2

Indicates a photocell sensor's method of operation. One mode enables the sensor to turn the lights both on and off while the other mode can only inhibit (prevent) the lights from turning on

- 1 Full On/Off Control 1 2 Inhibit Only Control

11 DUAL ZONE PHOTOCELL MODE2 (DZ Models Only)

Indicates a Dual Zone photocell sensor's method of operation

STEPPED DIMMING (DUO) MODE:
Mode where the appropriate on/off combination of the two associated relays is maintained in order to always meet the photocell set-point requirements

STEPPED DIMMING (DUO) MODE - NEVER OFF:
Mode where the appropriate on/off combination of the two associated relays (except both off) is maintained in order to always meet the photocell set-point requirements.

DUAL ZONE OFFSET MODE: Mode where Zone 2's set-point is a selected percentage higher than Zones 1's set-point

DUAL ZONE FAN MODE: Mode where Zone 2's photocell control is disabled

- 1 Duo 1 2 Duo-Never Off 3 Offset 4 Fan Mode 5 Inhibit

12 DUAL TECHNOLOGY (MICROPHONICS™) SENSITIVITY LEVEL

A second method of occupancy detection that allows the sensor to hear occupants

- 1 Normal 1 2 Off 3 Medium 4 Low

13 MICROPHONE GRACE PERIOD TIME2

The time period after lights are automatically turned off that they can be voice reactivated

- 1 0 3 20 5 40 7 60
2 10 4 30 6 50

15 PHOTOCELL DIMMING RANGE (HIGH)

The maximum output level (0-10 VDC) up to which an automatic dimming photocell will control

- 1 Off 3 2 Volts 5 4 Volts 7 6 Volts 9 8 Volts 11 10 Volts 1
2 1 Volt 4 3 Volts 6 5 Volts 8 7 Volts 10 9 Volts

16 PHOTOCELL DIMMING RANGE (LOW)

The minimum output level (0-10 VDC) down to which an automatic dimming photocell will control

- 1 Off 3 2 Volts 5 4 Volts 7 6 Volts 9 8 Volts 11 10 Volts
2 1 Volt 4 3 Volts 6 5 Volts 8 7 Volts 10 9 Volts

17 DUAL ZONE OFFSET

Fixed voltage increase of Zone 2's dimming output from Zone 1's dimming output (Dual Zone photocell applications only)

- 1 -10 Volts 5 -6 Volts 9 -2 Volts 13 2 Volts 1 17 6 Volts 21 10 Volts
2 -9 Volts 6 -5 Volts 10 -1 Volt 14 3 Volts 18 7 Volts
3 -8 Volts 7 -4 Volts 11 0 Volts 15 4 Volts 19 8 Volts
4 -7 Volts 8 -3 Volts 12 1 Volt 16 4 Volts 20 9 Volts

18 DUAL ZONE OFF POINT2

Zone 2's set-point as a percentage of Zones 1's set-point (Dual Zone photocell applications only)

- 1 110% 3 130% 5 150% 1 7 170% 9 190%
2 120% 4 140% 6 160% 8 180% 10 200%

19 DIMMING RATE

The speed at which automatic changes to the light level occur

- 1 700 sec 2 350 sec 3 70 sec 1 4 35 sec 5 7 sec

20 LED2

Indicates the behavior of a device's LED

- 7 Normal 1 2 Inhibited

21 PHOTOCELL TRANSITION OFF TIME

The time period for which a photocell must measure a light level above the set-point before it will turn the lights off

- 1 45 sec 3 5 min 1 5 15 min 7 25 min
2 2 min 4 10 min 3 6 20 min

22 PHOTOCELL TRANSITION ON TIME2

The time period for which a photocell must measure a light level below the set-point before it will initiate the lights on

- 1 45 sec 1 3 5 min 5 15 min 7 25 min
2 2 min 4 10 min 6 20 min

23 OCCUPIED BRIGHT LEVEL

The output level (0-10 VDC) that a dimming sensor sets the light to when occupancy is detected (not applicable if photocell is enabled)

- 1 1 Volt 3 3 Volts 5 5 Volts 7 7 Volts 9 9 Volts
2 2 Volts 4 4 Volts 6 6 Volts 8 8 Volts 10 10 Volts 1

24 UNOCCUPIED DIM LEVEL

The output level (0-10 VDC) a dimming sensor sets the lights after the idle time until dim timer expires

- 1 1 Volt 1 3 3 Volts 5 5 Volts 7 7 Volts 9 9 Volts
2 2 Volts 4 4 Volts 6 6 Volts 8 8 Volts 10 10 Volts

26 FOLLOW PHOTOCELL MODE

Instructs how a device's dimming output reacts relative to a dimming photocell

- 1 Disabled 1 3 Enabled Both Positive and Negative
2 Enabled Negative Only

27 SWEEP EXIT TIME

The time period before a sweep is executed

- 1 0 sec 3 30 sec 5 1 min 7 3 min 9 5 min
2 15 sec 1 4 45 sec 6 2 min 8 4 min

28 SWEEP GRACE PERIOD

The remaining time delay after a sweep is executed

- 1 0 sec 3 10 sec 5 30 sec
2 5 sec 1 4 15 sec 6 1 min

1 DEFAULT SETTING 2 REQUIRES PRESS & HOLD METHOD

3 The LED will blink back the ten's digit, then pause, then blink back the one's digit. For a "0" the LED will blink very rapidly. The sequence is repeated 3 times.