nLIGHT®

nCM PDT 10

EXTENDED RANGE 360º SENSOR
CEILING MOUNT • LOW VOLTAGE • DUAL TECHNOLOGY (PDT)

SPECIFICATIONS

FEATURES
Patented Dual Technology with PIR / Microphonics Detection
360º Coverage
Communicates w/ nLight Network
Remotely Configurable/Upgradeable
Push-Button Programmable
Adjustable Time Delay
100 Hr Lamp Burn-in Timer
Green LED Indicator

PHYSICAL SPECS
SIZE 4.55" Dia. (11.56 cm)
1.55" Deep (3.94 cm)
WEIGHT 6 oz
MOUNTING
Ceiling Tile Surface
3.5" Octagon Box
Single Gang Handy Box
COLOR White
NETWORK CONNECTION
2 RJ-45 Ports

ELECTRICAL SPECS
POWER CONSUMPTION < 3 mA
DIMMING LOAD
Sinks <20 mA;
~40 Ballasts @ .5 mA each
WIRES None

ENVIRONMENTAL SPECS
OPERATING TEMP
14º to 160º F (-10º to 71º C)
RELATIVE HUMIDITY
20 to 90% non-condensing

OTHER
UL and CUL Listed
Title 24 Compliant
5 Year Warranty
Assembled in the U.S.A.

Classrooms are ideal applications for the nLight **nCM PDT 10** Series Extended Range 360º occupancy sensor. When mounted at 9 ft (2.74 m), this sensor provides line of sight Passive Infrared (PIR) detection of walking type motions up to 28 ft (8.53 m) in all directions. Additionally, the **nCM PDT 10** provides overlapping Microphonics™ technology to detect smaller motions and occupant movements that occur behind obstructions. This is important for classrooms filled with obstructions like shelving, hanging projects, or lab benches.

Besides classrooms, the **nCM PDT 10** is perfect for T-shaped intersections in corridors or other areas where wall mounting a sensor is not practical. Spaces with low ceiling heights are also best covered by the **nCM PDT 10**. For example, when mounted at the 7 ft (2.13 m) ceiling height of many distribution center pick aisles, the **nCM PDT 10** provides a 32 ft (9.75 m) diameter pattern of coverage. Additionally, the **nCM PDT 10** may be used in combination with other nLight sensors to customize coverage for very large or irregularly shaped spaces.

SENSOR OPERATION
Sensors with Passive Dual Technology (PDT) first see motion using Passive Infrared (PIR) detection and then engage Microphonics™ to hear sounds that indicate continued occupancy. This patented technology uses Automatic Gain Control (AGC) to dynamically self adapt a sensor to its environment by filtering out constant background noise and registering only noises typical of human activity. Once occupancy is detected, a relay located elsewhere within the sensor's zone is signaled to switch the line voltage lighting load on. An internal time delay, factory set at 10 minutes, keeps the sensor in the occupancy state during brief periods of no activity. The timer is adjustable, and is reset every time occupancy is re-detected. This state-of-the-art sensor requires no field calibration or adjustment.

nLIGHT OPERATION
This sensor is nLight-enabled, meaning it has the ability to communicate over an nLight network. When daisy-chain wired, using CAT-5 cabling, with other nLight-enabled sensors, power packs, or WallPods, an nLight control zone is created. Once linked to a Gateway, directly or via a Bridge, the zone becomes capable of remote status monitoring and control via SensorView software.

OPTIONS

DIMMING CONTROL (D)
• Provides dimming outputs to control 0-10 VDC dimmable ballasts.
• Follows dimming commands from nLight Wallpod dimmer or SensorView software.
• Adds 20 AWG violet & gray wires

ON/OFF PHOTOCELL (P)
• On/OffOperation: Full control during periods of occupancy with adequate daylight
• Inhibit Operation: Prevents lights from turning on if adequate daylight is available

AUTOMATIC DIMMING CONTROL PHOTOCELL (ADC)
• Photocell within sensor maintains total room light level by controlling levels of 0-10 VDC dimmable ballasts
• Provides a second time-out period that enable the lights to go to a dim setting before turning off
• Follows dimming commands from nLight WallPod dimmer or SensorView software
• Adds 20 AWG violet & gray wires

LOW TEMP/HIGH HUMIDITY (LT)
• Sensor electronics are coated for corrosion resistance
• Operates down to -4º F (-20º C)
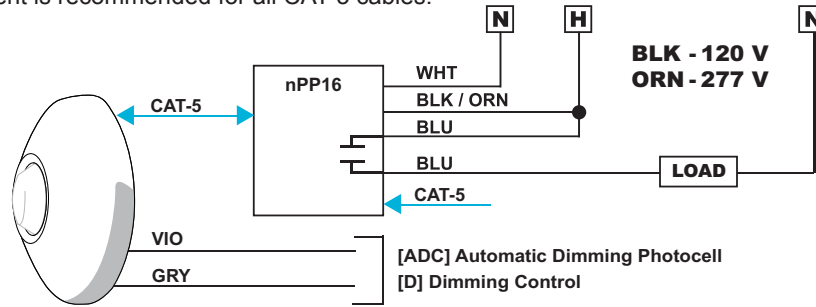• Required for cooler/freezer applications

ORDERING INFO

nCM PDT 10 [DIMMING] [DAYLIGHTING] [TEMP/HUMIDITY]

OPTIONS	DIMMING*	DAYLIGHTING	TEMP/HUMIDITY
	Blank = None	Blank = None	Blank = Standard
	D = Dimming	P = On/Off Photocell	LT = Low Temp
		ADC = Auto Dimming Control Photocell	

*D functionality also in ADC option

WIRING (DO NOT WIRE HOT)

T568B pin/pair assignment is recommended for all CAT-5 cables.

N   H   N

nPP16

WHT
BLK / ORN
BLU

BLU

CAT-5

CAT-5

BLK - 120 V
ORN - 277 V

LOAD

VIO
GRY

[ADC] Automatic Dimming Photocell
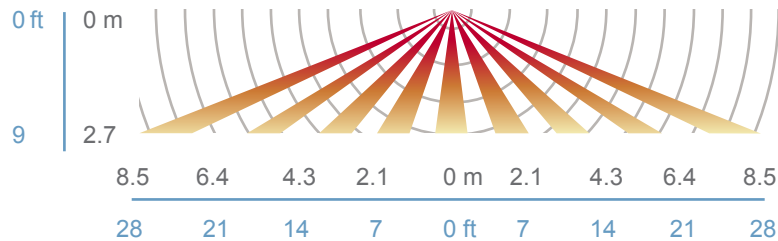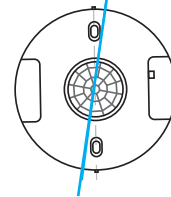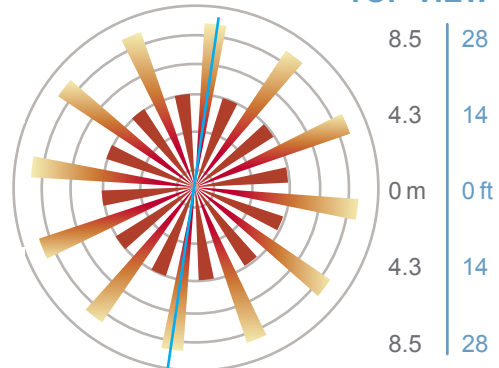[D] Dimming Control

COVERAGE PATTERN

TOP VIEW

EXTENDED RANGE 360° LENS WITH MICROPHONICS™

• Best choice for large motion (e.g. walking) detection
• Viewing angle of 67° in a 360° conical shaped pattern
• Provides 28 ft (8.53 m) radial coverage when mounted to standard 9 ft (2.74 m) ceiling
• 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
• 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.
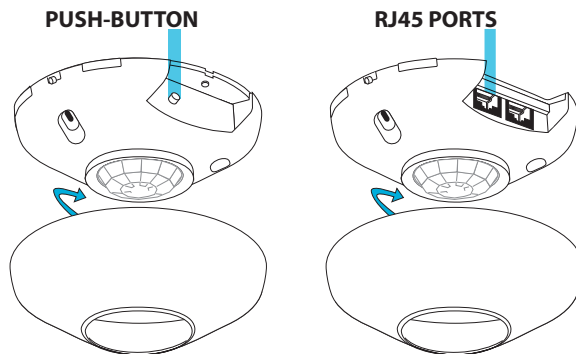
8.5	28
4.3	14
0 m	0 ft
4.3	14
8.5	28

SIDE VIEW

| 0 ft | 0 m |
| 9 | 2.7 |

8.5	6.4	4.3	2.1	0 m	2.1	4.3	6.4	8.5
28	21	14	7	0 ft	7	14	21	28

Note: Sensor's screw axis is offset 7.5° from a long detection segment

INSTALLATION

• Mount sensor directly to a ceiling tile or a metallic grid (two self-tapping screws provided)
• Sensor's mounting holes also align with standard round fixture or single gang handy box (screws not provided)
• Interconnect unit (via RJ-45 ports) with other nLight devices in lighting zone using CAT-5 cables
• Once power is received via CAT-5 connection, all devices in zone will automatically begin functioning together according to each device's defaults
• Sensor will detect motions crossing segments more effectively than motions parallel to beams
• For optimal detection, position sensor such that segments are crossed upon entrance and unable to view outside the space

PUSH-BUTTON

RJ45 PORTS

PROGRAMMING

Refer to included instruction card for default settings and directions on programming the sensor via the push-button.

sensorswitch

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