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Lithonia Lighting NCM-ADCX-RJB

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USER MANUAL

1. Introduction

This manual provides comprehensive instructions for the installation, setup, operation, and maintenance of the Lithonia Lighting NCM-ADCX-RJB nLight Dimming Control Daylighting Sensor. This device is designed to integrate into an nLight network for automatic dimming control based on ambient daylight levels, optimizing energy efficiency in commercial and industrial lighting applications.

2. Safety Information

Please read and understand all instructions before installing or operating this product. Failure to follow these instructions may result in electrical shock, fire, or other hazards. Keep this manual for future reference.

- **WARNING:** Risk of electric shock. Disconnect power at the circuit breaker or fuse box before installation or servicing.
- Installation must be performed by a qualified electrician in accordance with all national and local electrical codes.
- Do not install in wet locations or areas with excessive moisture.
- Ensure all connections are secure and properly insulated.
- This device is for low voltage applications only.

3. Product Overview

The NCM-ADCX-RJB is a ceiling-mount, low-voltage nLight series occupancy sensor with integrated daylighting control and automatic dimming capabilities. It features RJ45 connectivity for easy integration into an nLight network.



Figure 1: Front view of the NCM-ADCX-RJB sensor. This image shows the white, circular face of the sensor, designed for discreet ceiling mounting.



Figure 2: Back view of the NCM-ADCX-RJB sensor. The label indicates the model number NCM ADCX RJB, its function as a Daylighting Control Photocell - Ceiling Mount, Low Voltage, Automatic Dimming Control, and power requirements (~3 mA from nLight network bus). It also shows a 'Tested By' number 08824 and a manufacturing code 0118CE63. An attached RJ45 cable extends from the unit.

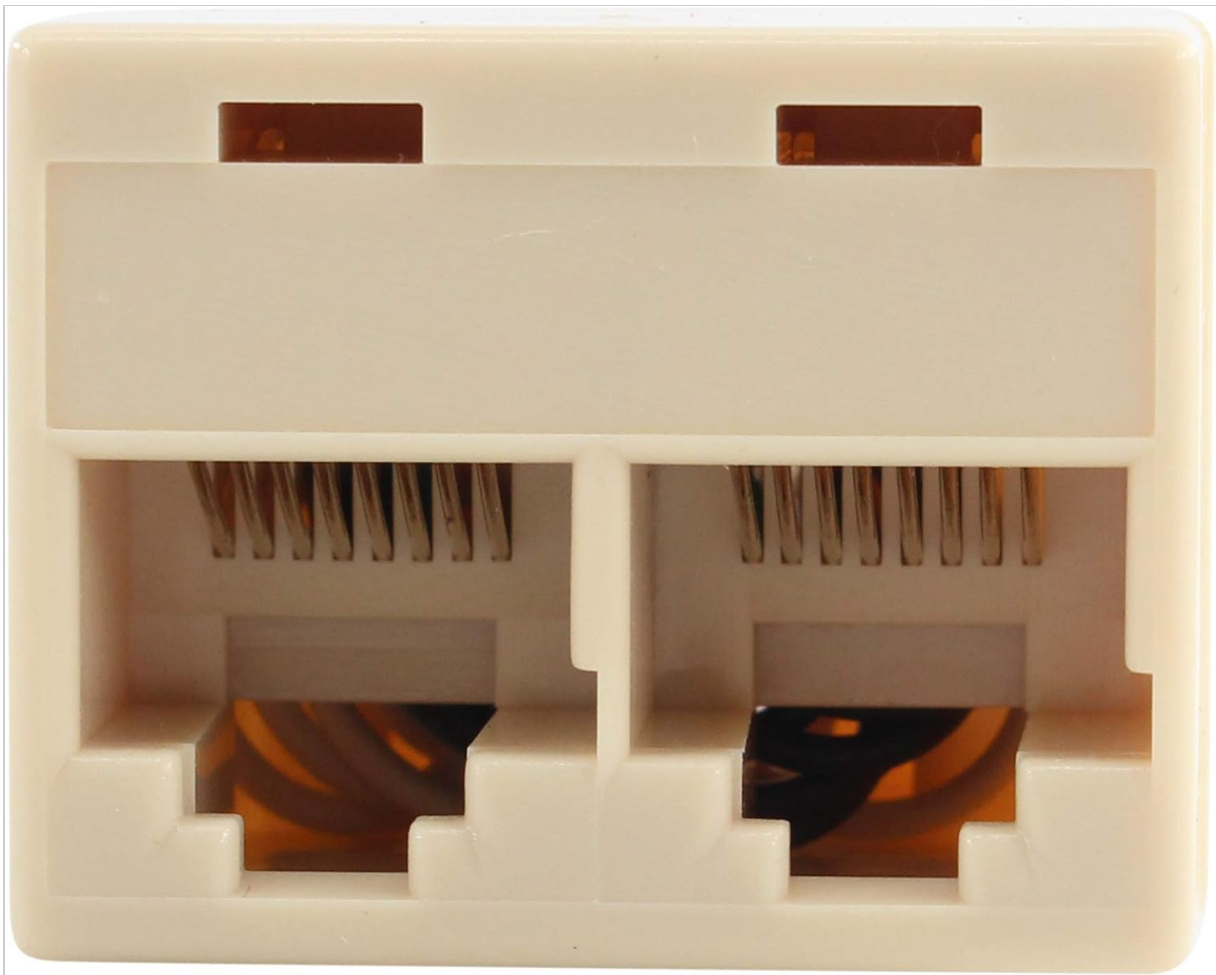


Figure 3: Close-up of the RJ45 connector. This connector is used for connecting the sensor to the nLight network bus, facilitating both power and data communication.

4. Installation

The NCM-ADCX-RJB sensor is designed for ceiling mount installation. Proper placement is crucial for effective daylight harvesting and occupancy detection.

4.1 Mounting Location

- Mount the sensor on a ceiling tile or junction box in a location that provides an unobstructed view of the area to be controlled and receives adequate ambient daylight.
- Avoid mounting near HVAC vents, direct sunlight (unless specifically for daylighting), or moving objects that could cause false occupancy detection.
- Ensure the sensor is within reach of the nLight network cabling.

4.2 Wiring

- The NCM-ADCX-RJB connects to the nLight network via an RJ45 cable.
- Connect the RJ45 cable from the sensor to an available RJ45 port on an nLight control device (e.g., nLight power pack, nLight bridge).
- Ensure the RJ45 connection is secure. The sensor receives power and communicates data through this single connection.

5. Setup

Once physically installed, the NCM-ADCX-RJB sensor requires configuration within the nLight system. This

typically involves using nLight SensorView software or an nLight wall switch for initial setup.

5.1 Initial Power-Up

- After connecting the sensor to the nLight network and restoring power, the sensor will power on.
- The sensor will automatically begin communicating with other nLight devices on the network.

5.2 Configuration (via SensorView or nLight Wall Switch)

- **Daylighting Control:** Calibrate the daylighting setpoint to achieve desired light levels. This involves setting the target light level (in foot-candles or lux) that the sensor will maintain by dimming or brightening connected luminaires.
- **Occupancy Detection:** Adjust sensitivity and time delay settings for occupancy detection. The time delay determines how long lights remain on after the last detected occupancy.
- Refer to the nLight system documentation for detailed instructions on using SensorView software or nLight wall switches for advanced configuration.

6. Operating Instructions

Once configured, the NCM-ADCX-RJB operates automatically to control lighting based on occupancy and ambient daylight.

- **Automatic Dimming:** The integrated photocell continuously monitors ambient light levels. When sufficient daylight is present, the sensor will automatically dim or turn off connected lights to maintain the configured light level, saving energy.
- **Occupancy Sensing:** The sensor detects human presence in its coverage area. When occupancy is detected, lights will turn on (if off) or brighten (if dimmed by daylighting) to the programmed level.
- **Vacancy Sensing:** If no occupancy is detected for the set time delay, the sensor will turn off or dim the lights to a lower level, depending on system configuration.

7. Maintenance

The NCM-ADCX-RJB sensor requires minimal maintenance to ensure optimal performance.

- **Cleaning:** Periodically clean the sensor lens with a soft, dry cloth to remove dust or debris that may obstruct the photocell or occupancy sensor. Do not use abrasive cleaners or solvents.
- **Inspection:** Annually inspect the sensor and its connections for any signs of damage or wear.
- **Recalibration:** If environmental conditions change significantly (e.g., new window treatments, major furniture rearrangement), recalibration of the daylighting setpoint may be necessary.

8. Troubleshooting

If you experience issues with your NCM-ADCX-RJB sensor, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
Lights do not turn on with occupancy.	No power to sensor; sensor not detecting occupancy; system override.	Check RJ45 connection and nLight network power. Verify sensor placement and sensitivity settings. Check for manual overrides from wall switches or system controls.
Lights remain on or dim incorrectly.	Daylighting setpoint incorrect; constant occupancy detection; time delay too long.	Recalibrate daylighting setpoint. Check for sources of false occupancy detection. Adjust occupancy time delay.
Sensor not communicating with nLight network.	Faulty RJ45 cable or connection; nLight network issue.	Ensure RJ45 cable is securely connected at both ends. Test cable continuity. Consult nLight system documentation for network troubleshooting.

If problems persist, contact Lithonia Lighting technical support.

9. Specifications

- **Model:** NCM-ADCX-RJB
- **Brand:** Lithonia Lighting (Sensor Switch)
- **Type:** nLight Dimming Control Daylighting Sensor, Relay, Low Voltage
- **Mounting:** Ceiling Mount
- **Connectivity:** RJ45 (nLight network bus)
- **Power Source:** Low Voltage (powered by nLight network, ~3 mA)
- **Color:** White
- **Item Weight:** Approximately 0.42 Pounds
- **Compatible Devices:** Lighting Controls, Smart Home Hubs (via nLight system)
- **UPC:** 888791720822

10. Warranty and Support

This product is covered by Lithonia Lighting's standard warranty. For specific warranty terms and conditions, please refer to the official Lithonia Lighting website or contact customer service. For technical support, product inquiries, or to report issues, please contact Lithonia Lighting customer support through their official channels.

Manufacturer: Sensor Switch (Acuity Brands)

Contact Information: Refer to Acuity Brands Support for the latest contact details and support resources.