

# OPTOLUM

## OptoLum Nook Luminaire

### Getting Started

OptoLum Nook Luminaires offer indoor cove lighting and wall washing in a compact linear form. This guide contains important information on planning, installing, and operating your new Nook Luminaire. For your protection, read it fully and carefully prior to installation, and save it for future reference. The goal of this user guide is to explain in an easily understandable language the necessary steps to install Nook Luminaires and assure peak performance. Its intended use is for reference only, by persons who are fully qualified. This document should never be considered a substitute for any provision of a regulation or state and/or local code.

#### Included In This Box

- 1 - Nook Luminaire
- 1 - Nook Mounting Base
- 1 - Installation Guide

#### Additional Items Needed

- 2 - #6 Flat Head Mounting Screws
- Nook Lead Cable (one per string)
- Drill / Screwdriver
- Nook Jumper Cable (Optional)



ITEM	SPECIFICATION	
OUTPUT	Lumens/foot	855
	Efficacy Lm/W	93.9
	CCT	2700K, 3000K, 3500K, 4000K, (Special Order: 2200K, 2500K, 4500K, 5000K)
	CRI	80, (Special Order: 90)
	Lumen Maintenance	50,000 hours with maintenance of 70% lumen output @25 °C
ELECTRICAL	Input Voltage	120VAC
	Power Consumption	9.11 W/ft maximum at steady state
CONTROL	Max Fixtures (Series Run)	100 @ 120V
	Dimming	Forward, Reverse, and Adaptive Phase Dimming, (DO NOT USE MLV DIMMING)
PHYSICAL	Dimensions	1.22"H x 1.25"W x 12"L (Fixture comes in one size and is ordered as individual units only)
	Housing	Anodized Aluminum
	Fixture Connectors	End to End
	Ambient Operating Temperature	0-40 °C
	Max Run Length	100' @ 120V
CERTIFICATION AND SAFETY	Certification	UL Listed, FCC Verified
	Environment	Dry and Damp Locations Only

### Planning

#### Step 1: Verify electrical plan

- See specifications above to determine the maximum run length.
- A surge protector is recommended where the Lead Cable connects to power source. Damage due to power surges will not be covered under warranty.
- Lead and Jumper Cables may not be run through floors, walls or ceilings.
- Refer to local and state codes for installation compliance.
- Consult an Electrical Inspector to approve all wiring plans.

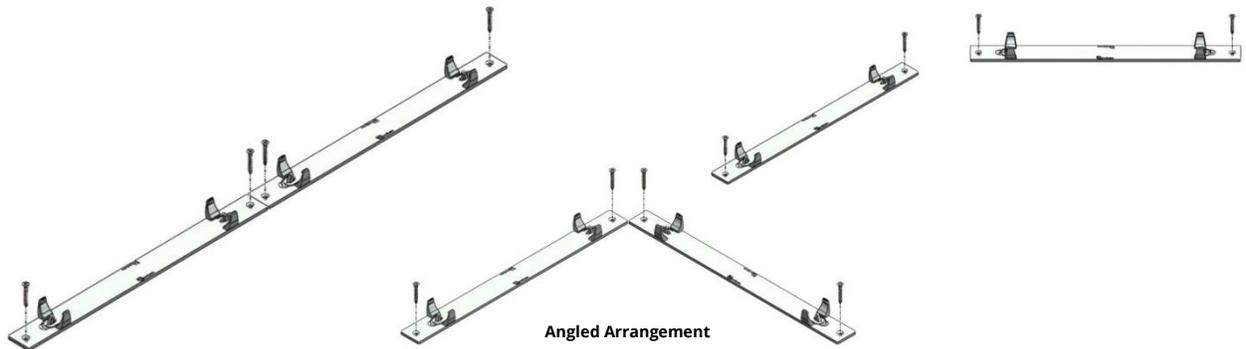
#### Step 2: Verify mechanical plan

- Ensure sufficient fixture spacing for cooling. (0.5" per side)
- Purchase correct mounting hardware for installation surface.
- Refer to local and state codes for installation compliance.

## Installation

### Step 1: Install mounting base

- Base is attached to mounting surface using 2 #6 flat head screws. The screws must be properly selected for the material of mounting surface.



### Step 2: Connect subsequent fixtures using interconnect (DO NOT CONNECT TO POWER)

- The cable labeled 'OUT' can be extended up to 1" [25.4 mm] to aid in interconnection around bends. DO NOT EXTEND THE CABLE BEYOND 1".



### Step 3: Install Lead Cable (DO NOT CONNECT TO POWER)

- Wire and secure Lead Cable to junction box according to local and state codes. Do not run Lead Cable through floors, walls, or ceilings.
- Ensure that branch circuit is turned off before making connections to supply conductors.
- It is recommended that a surge protector be installed at the junction box and connected across the power supply leads. Damage due to power surges will not be covered under warranty.



### Step 4: Install fixture to base

- Center the fixture over the base and press down until the small hooks on the mounting base hook onto bottom of the fixture.



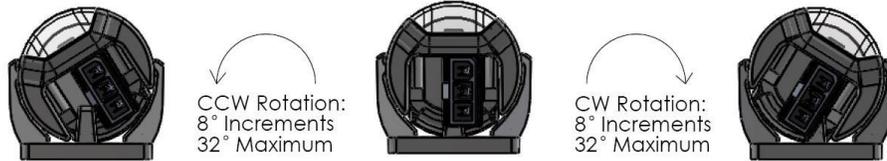
## Usage

### Powering-up fixtures

- Consult electrical and mechanical plans to ensure that installation is in agreement with both plans.
- Ensure that all four of the installation steps were properly completed.
- Apply power to branch circuit and turn on switches/dimmers.
- Do not look directly into the LED sources.

### Aiming fixtures

- The Nook Luminaire can be installed in a vertical orientation or aimed by rotating the fixture in 8° increments, up to 32° in either direction.



### Dimming

- The Nook Luminaire is dimmable with the following dimmer types: Forward and Reverse Phase (MLV, ELV, TRIAC DIMMING).

## Troubleshooting / FAQ

My Nook Luminaire or Nook Luminaire chain is not lighting up.

- Check Steps 2 and 3 of the **Installation** section to ensure that all cable connections are secure.
- Ensure that power is applied to the branch circuit and that all switches and dimmers are turned on.
- Verify voltage presence by measuring it on the connectors between the two outer sockets. (The center is equipment grounding conductor)

One of the Nook Luminaires in my chain is not lighting up.

- Swap out another fixture, replace fixture if it doesn't light.

My Nook Luminaire is not dimming or is exhibiting strange dimming behavior.

- Some dimmers may not function with LED lights. If your lights are not dimming properly, the dimmer may be incompatible. MLV type dimmers are known not to function with Nook Luminaires. Check the dimmer to verify that it is rated for LED use. Some inexpensive dimmers may not work or not provide a very deep dim. The range of dimming varies with dimmers used.
- Do not mix different types of LED luminaires on the same dimmer circuit. Flashing, flickering, and different dim levels may occur.

My Nook Luminaire appears to be flickering while others function properly.

- Replace the faulty fixture.

There is a faint hum when dimming in a very quiet setting. (Such as a library, bedroom, or study)

- Replacing the dimmer with a reverse or adaptive phase type will reduce the sound level significantly.

## OPERATING TEMPERATURE

The Nook Luminaire is designed with the latest LED technology to provide the maximum possible light output in a slim linear fixture. Although Nook Luminaires operates at much cooler temperatures than traditional high illumination light fixtures, the housing can reach temperatures of 167 °F (75 °C). For this reason, handle with care to prevent injuries and provide adequate ventilation to the fixture. During normal operation, the Nook housing becomes hot and remains hot for an extended time after operation is suspended. Exercise caution when handling the fixture after extended operation to prevent burns. It is necessary to provide adequate ventilation around the fixture. Adequate ventilation refers to the airflow over the surface of the fixture and air flow within the room, not the room temperature. A Nook Luminaire in a hot (40 °C) room with a fan or ventilation system that keeps air moving can actually run cooler on its surface than in a cool (20 °C) room with stagnant air.

## IDENTIFICATION AND WARNINGS OF SAFETY HAZARDS

In accordance with ANSI Z535.4-2002 the following system of identifying the severity of the hazards associated with the products is used:

**"DANGER":** Imminently hazardous situation which, if not avoided, will result in death or serious injury.

**"WARNING":** Potentially hazardous situation that, if not avoided, could result in death or serious injury.

**"CAUTION":** Potentially hazardous situation that, if not avoided, may result in minor or moderate injury or property damage.

**WARNING:** Nook Luminaires must be installed by a qualified electrician in accordance with NEC and relevant local codes. Failure to comply could result in death or serious injury.

**WARNING:** Turning off switches or dimmers does not always remove hazardous voltage from the wiring. Ensure that branch circuit power supply is off before installing or wiring Nook Luminaires. Failure to do so could result in death or serious injury.

**WARNING:** Do not install or use Nook Luminaires until you read and understand the installation instructions and safety labels. Failure to do so could result in death or serious injury.

**WARNING:** Do not use Nook Luminaires if the power cables are damaged. Doing so could result in death or serious injury.

**WARNING:** Nook Luminaires have no user serviceable parts. Do not attempt to service the fixture nor open it. Doing so could result in death or serious injury, and will void the warranty.

**CAUTION:** Use appropriate materials and mounting methods to support the fixture adequately. Failure to do so may result in property damage and void the warranty

**CAUTION:** Do not exceed maximum rated (50 for 120V, 100 for 277V) quantity of Nook Luminaires in a single series. Doing so will exceed cable current rating and may result in property damage.

**CAUTION:** Do not use sharp tools near or on the fixtures electrical components. Doing so may result in property damage and void the warranty.

**CAUTION:** Do not hot swap (plugging or unplugging while power is applied). Ensure that power to the fixture is off before connecting or disconnecting fixtures. Hot swapping can void the warranty.

**CAUTION:** Nook Luminaires emit LED radiation when illuminated. Do not stare into the beam or view directly with optical instruments while the luminaire is powered on.

**CAUTION:** To prevent the risk of fire, do not install a 12" (305 mm) section closer than 0.5" (13 mm) to a cabinet wall or in a closed compartment smaller than 13" (330 mm) Length by 2.5" (63.5 mm) Width by 2" (51 mm) Height.

**NOTE:** The instructions and precautions set forth in this user guide are not necessarily all-inclusive, all conceivable, or relevant to all applications as OptoLum cannot anticipate all conceivable or unique situations.

## FCC NOTICE

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Any changes or modifications to Nook Luminaires not approved by OptoLum, Inc. could void the user's authority to operate the equipment per FCC Section 15.21.

## FIVE YEAR LIMITED HARDWARE WARRANTY

OptoLum, Inc. warrants its products, if properly used and installed, will be free from defects in materials and workmanship and will substantially conform to OptoLum's publicly available specifications for a period of five (5) years after the date the product was purchased by the end user. If the product fails during the warranty period, purchaser's remedy under this limited warranty shall be at OptoLum's sole election:

- Repair the product by means of hardware and/or software or
- Replace the product with another product

This limited warranty does not cover damages due to external causes, including, but not limited to, accident, problems with electrical power, usage not in accordance with product instructions, misuse, neglect, modification, repair, improper installation, or improper testing. OptoLum is not responsible for indirect, incidental, or consequential damages resulting from any breach of warranty or under any other legal theory including, but not limited to, lost profits, downtime, goodwill, damage to or replacement of equipment and property. All Damage claims must be reported within 30 days of purchase. To obtain warranty service, you may contact your distributor in accordance with its instructions, or you may contact OptoLum. To request warranty service you should call OptoLum during the warranty period. Proof of purchase is required. When calling within warranty, please provide:

- 1) Your name, shipping address, and telephone number
- 2) A description of the model
- 3) An explanation of the problem

A Return Authorization (RA) number & ship-to address will be provided to send the product back. The warranty and remedies set forth above are exclusive and in lieu of all others, whether oral or written, express or implied. OptoLum specifically disclaims any and all implied warranties, including, without limitation, warranties of merchantability and fitness for a particular purpose. No OptoLum distributor, dealer, agent or employee is authorized to make any modification, extension, or addition to this warranty. This warranty gives you specific legal rights, and you may also have other rights that vary from jurisdiction to jurisdiction.

Unless modified in writing signed by both OptoLum and Purchaser/User, this Limited Warranty is understood to be the complete and exclusive agreement between OptoLum and Purchaser, including without limitation any statements made by salespersons or other representatives of OptoLum. No employee or other representative of OptoLum or any other party is authorized to make any warranty in addition to the warranty contained in this document.

Items Explicitly NOT covered by this Warranty. OptoLum does not warrant: Defects caused by failure to provide a suitable installation environment (i.e., temperature above 104°F, humidity above 95%), Acts of God including but not limited to lightning surges, flooding, or earthquakes. Damage caused during shipment. Damage caused by any primary side (line voltage) power source problem including but not limited to unregulated power, short circuits, or lightning induced power surges. Damage caused by use of product for purposes other than those for which it was designed. Products incorporating white LEDs (Light Emitting Diodes) are not covered for color temperature variations or changes, brightness reduction or diminished light output. Products installed by other than electricians, will not be covered. OPTOLUM DOES NOT COVER LABOR COST ASSOCIATED WITH REPLACEMENT OF PRODUCTS IN END APPLICATIONS. OPTOLUM CANNOT WARRANTY OR EXTEND ITS WARRANTY TO WORK PROVIDED BY OUTSIDE CONTRACTORS. OPTOLUM WILL HOWEVER WARRANTY LABOR IF THE INSTALLATION IS DONE BY OPTOLUM QUALIFIED PERSONNEL.

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