

NEOPAR™

DESIGNED BY SCIENTISTS. BROUGHT TO LIFE BY ENGINEERS.



USER GUIDE & INSTALLATION INSTRUCTIONS

NEOPAR™ 5

NEOPAR™ 7

Designed & Manufactured
in Austin, TX



illumitex.com
512.279.5020

ILLUMITEX
DIGITAL HORTICULTURE + LED LIGHTING

GENERAL PRODUCT INFORMATION

The NeoPAR™ series, designed specifically for vertical operations, delivers optimal output for every stage of growing, most notably vegetation and flowering, by addressing growers need for a solution to maximize and optimize every square foot of their facilities.

- Product dimensions: 45" x 42" x 3"
- Product weight: 25 lbs for NeoPAR 5 and 32.5 lbs for NeoPAR 7
- Product arrives fully assembled for more convenient installation
- For optimal PPF uniformity, please no closure than 8" from the light.

Before your get started, please read this guide in its entirety.

IMPORTANT SAFETY INFORMATION

- After you have successfully installation of the system, be sure to keep this guide for future reference. You can also download additional guides at illumitex.com/products/neopar
- Follow all marked labels on the fixture to avoid damage to the LEDs or bars.
- We always recommend you seek the services of a qualified installation professional to ensure optimal performance and safety.
- Do not touch while in operation.
- Connect the system only to power sources of the correct voltage.
- Protect all cables from being pinched, walked on, or otherwise damaged. Take extra precaution where the power cable enters the power outlet and the unit. Only connect the system to an electrical outlet or extension cord with the correct type and rating.
- DO NOT alter or tamper with grounding or polarized plug by removing ground pins or using unsafe adapters. If the provided plug does not fit your outlet, consult an electrician to replace your obsolete outlet. If you replace the power cord, only use one of similar type and equal or greater current rating.
- The system should only be cleaned as directed in the manual. You should seek service for your system by qualified service personnel if any of the following occurs:
 1. The power-supply cord or the plug has been damaged.
 2. The unit has been exposed to rain.
 3. The unit exhibits a marked change in performance.
 4. The unit has been dropped, or its enclosure or bars are damaged.

WARNING! BEFORE YOU BEGIN

This fixture is intended for installation in accordance with the National Electric Code and local code specifications. Failure to adhere to these codes and instructions may result in serious injury and/or damage to fixture, voiding the warranty. These instructions do not purport to cover all details or variations in equipment, nor to provide for every possible contingency related to installation, operation, maintenance, or mounting. Should specific problems occur that are not addressed by these instructions, please contact your local sales representative or distributor for assistance. Retain these instructions for future reference.



WARNING

Risk of electrical shock. To reduce the possibility of serious injury, always take the proper precautions and unplug the fixture before moving or cleaning.

WARNING

Light bars and power supply are splash-proof but not waterproof. In the event that the light bar becomes submersed, first disengage the circuit breaker, then unplug the fixture before proceeding to remove from water.



CAUTION

To reduce the risk of overheating or fire, never place operating fixtures face down on a flush surface. Always allow for adequate ventilation of fixtures and power supplies.

CAUTION

LED and heat sink surfaces may be hot. Allow sufficient cooling time before handling.

CAUTION

To prevent eye damage, avoid looking directly at the unshielded LEDs.

CAUTION – RISK OF PERSONAL INJURY

Disconnect power before servicing or installing luminaire. Lighted fixture may be hot. To reduce risk of injury, turn off or disconnect power and allow to cool before handling. Fixture must be grounded in accordance with appropriate codes. Failure to do so may result in serious injury or death. Be sure all power is off prior to installing fixture.

THIS PRODUCT MUST BE INSTALLED IN ACCORDANCE WITH THE APPLICABLE INSTALLATION CODES BY A PERSON FAMILIAR WITH THE CONSTRUCTION AND OPERATION OF THE PRODUCT AND THE HAZARDS INVOLVED.

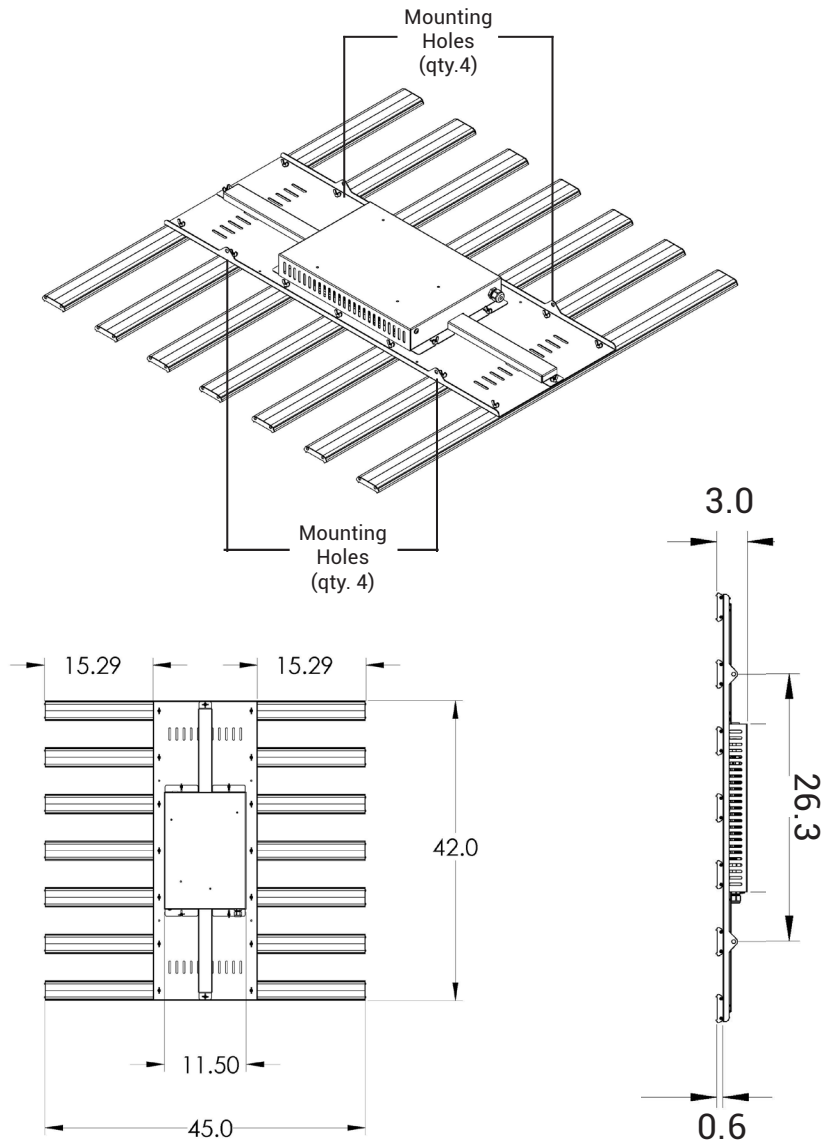
Unbox fixture and place on flat, stable surface.

Take caution when handling light bars and only lift at marked areas.

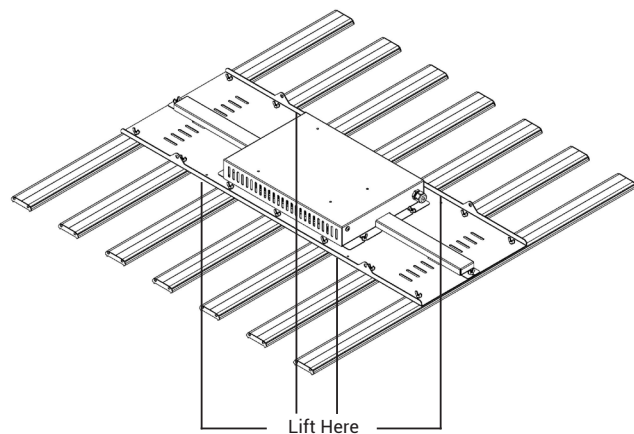
Ensure the LED boards do not come in contact with sharp objects that may damage the diodes.

MOUNTING INSTRUCTIONS

The NeoPar can be mounted to the supporting structure or frame by suspending with carabiner type hanging cables (not provided) or other suspension means using the four mounting holes located on the fixture. See Figure 1. Maximum fixture weight is ~ 30 lbs.



Note: DO NOT HANDLE THE FIXTURE USING THE LED BARS AS THIS CAN RESULT IN DAMAGE TO THE UNIT. ONLY LIFT PRODUCT WHERE LABEL "LIFT HERE."




INSTALLATION INSTRUCTIONS


Wiring Instructions

The NeoPar is provided with a power input cord as well as a dimming input cord. The following instructions are for direct wiring the NeoPar fixture to a 120-277VAC (50/60Hz) or 347-480 VAC (50/60Hz) power input and should only be done by a qualified electrician. These instructions do not apply to fixtures supplied with a cord and plug.

1. Do not use the cords to hang the fixture while making connections.
2. Take care to avoid pinching wires and assure that the field wiring is properly strain relieved according to NEC best practices.
3. Wire strain relief required per the electrical code to be installed at the building junction box (not provided).
4. Wiring connections:

Power Input

 Black = 120-277VAC or 347-480VAC Line

 White = Neutral/Common

 Green = Ground

It is possible to place multiple NeoPar fixtures one circuit. To determine the maximum number of fixtures that can be placed on a circuit, refer to the NeoPar electrical specifications for the current and voltage. Each model will have different parameters so it is important to make sure it does not exceed the circuit rating.

IMPORTANT! NOT ALL INSTALLATIONS ARE THE SAME AND ILLUMITEX IS NOT RESPONSIBLE FOR INSTALLATIONS EXCEEDING THE MAXIMUM RATING OF A CIRCUIT. CONSULT ILLUMITEX WITH ANY QUESTIONS ABOUT FIXTURE INSTALLATION.

Dimming Instructions

The NeoPar fixture has 0-10V dimming capability. There are a number of dimming commercial control solution and all may show varying dimming results due to dimmer construction. Refer to the dimmer manufacturer's documentation for the dimmer electrical ratings to determine the number of fixtures that can be dimmed.

IMPORTANT! THE TOTAL NUMBER OF FIXTURES CONTROLLED BY A DIMMER MAY BE LIMITED BY THE NUMBER OF FIXTURES THE CIRCUIT CAN HANDLE. CONSULT ILLUMITEX WITH ANY QUESTIONS ABOUT DIMMING THE NEOPAR FIXTURE.

0-10V Dimming

 Purple (Positive)

 Gray (Negative)

FEATURES & SPECIFICATIONS

General Description

The NeoPAR is ideal for vertical rack and low mounting height applications. The NeoPAR 7 is designed to deliver high levels of photosynthetic photon flux (PPF) to produce quality flowering. The NeoPAR 5 allows for appropriate light levels during vegetation. The NeoPAR series provides the thinnest profile available with an onboard power pack. This slim design delivers unsurpassed light uniformity for damp locations. The NeoPAR series arrives fully assembled to limit labor cost with simple installation.

Mechanical Construction

The fully assembled product is a slim design compatible for different types of vertical farming. The overall size of the product is 45"x42"x3". The 7 LED bars mount to a structurally safe back plate. The LED bars are 3/8" thick x 2.65" wide x 45" long. The back plate spans across the equally spaced LED bars which houses the LED drivers, wiring and any controls systems that may be used as add on accessories. The entire assembly is very simple and can be upgraded as each of the LED bars can be independently removed for upgrades such as higher output LED's or color LED's. The product is easy to install using standard mechanical fastening systems.

PART NUMBER ORDERING GUIDE

Series	# of bars	Output	Beam Angle	Lens/IP	Spectrum	Voltage	Dimming	Cord	Plug
DH NeoPAR	7 Flower 5 Veg	S Standard	12 120° beam	NL No Lense	X6 Full	U 120-277 H 277-480	D 0-10	5 (ft)	Blank None
								10 (ft)	P120
									P240
									P277

NEOPAR™ 5 SPECIFICATION

	Standard
Input Voltage	120 - 277 VAC
PPF	735
Efficiency	2.36 - 2.46 µmol/J
Power Consumption	299- 312 W
Dimensions	45" x 42" x 3"
Estimated Weight	25 lbs
Ambient Temp	-4°F to 104°F (-20°C to 40°C)

NEOPAR™ 7 SPECIFICATION

	Standard
Input Voltage	120 - 480 VAC
PPF	1400
Efficiency	2.19 - 2.28 µmol/J
Power Consumption	613 - 640 W
Dimensions	45" x 42" x 3"
Estimated Weight	32.5 lbs
Ambient Temp	-4°F to 104°F (-20°C to 40°C)



ETL Rating: Illumitex fixtures are rated suitable for damp locations . A "damp location" is defined as an interior or exterior location in which water or other liquids may drip, splash or flow on or against the electrical components of a lighting fixture or ceiling fan . The NeoPAR series is certified to meet UL standards (ETL) from the Intertek safety consulting and certification company . Systems are cETL listed and are rated IP55 by IEC standard 60529.

5-YEAR LIMITED WARRANTY

Every Illumitex fixture is developed, engineered and built in Austin, TX with attention to quality. All fixtures are guaranteed against manufacturing defects for five years from date of purchase. Contact us at customerservice@illumitex.com for warranty inquiries. www.illumitex.com/warranty/

GENERAL CARE

The NeoPAR series is passively cooled with zero moving components. They are designed for harsh environments and years of maintenance-free performance. Some basic care will keep your system operating at optimal performance.

- Natural convection removes heat away from the heatsink. In order for the system to properly cool itself, at least one inch of space is required between the console and mounting surface. Failure to do so may shorten the fixture's lifespan.
- To achieve the optimal lifespan and performance of your fixtures, routinely check for and remove excess dust, debris, and mineral build up from heatsink and LED array. Cleaning should always be done with the fixture unplugged from its power source using low-pressure compressed air or water to rinse away dirt from light bars.
- Never use a cloth to clean the diode array. Doing so can scratch or compromise the integrity any seals, or dislodge diodes entirely.
- To limit degradation, avoid touching the diodes with your hands, even in a powered off state.

MEET THE CONTINUOUS LIGHT REQUIREMENTS THAT TRADITIONAL LIGHTING SOURCES CAN'T.

- LEDs are affordable to purchase and boast lifespans of 7 to 10 years without needing bulb replacements
- LEDs can be placed closer to the plant canopy which means more room in your operation
- LEDs work to reduce carbon footprints by lowering energy and water consumption rates and keeping the lights safe to dispose of.

ADDITIONAL BEST PRACTICES

Illumitex believes in the science of growing quality product while increasing yields. Every crop is different and everyone has different goals. However, there are several strategies to consider as you transition from traditional lighting to more efficient LED lighting:

- Regularly check your plants' growth and health. LED lighting systems deliver high levels of PAR, typically more than experienced in nature. Adjustments to H₂O, CO₂, RH, nutrients, and temperature are typically required.
- Mount the light bars 8" from the top of your canopy to ensure optimal light use efficiency and uniformity. The NeoPAR Series was designed to provide uniform light dispersion and requires precise deployment.
- Many plants prefer increased temperatures when exposed to high PPFD. Experiment with higher temperatures to achieve higher yields. Canopy temperature and room ambient temperature often vary. For accurate results, test at the canopy level to gauge leaf surface temperature.

FOR MORE INFORMATION ON ILLUMITEX PRODUCTS,
EDUCATIONAL TOOLS, & RESOURCES

VISIT ILLUMITEX.COM

OR FOLLOW US ON:



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