



## NOVA LED

Floor Stand, Wall, Table and Ceiling

Instructions for Use & Maintenance

5000781 Rev A01 Instructions for Use

burton



# NOVA LED

## Task & Examination Light

BASE MODEL	MOUNT	AREA
<b>NX</b>	<b>T</b> (table) <b>FL</b> (floor) <b>W</b> (wall) <b>C</b> (ceiling)	<i>BLANK</i> (United States, 120V)

Example;  
NXFL is a floor model for the US

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## Technical Description

The NOVA LED light is a durable, attractive light designed to deliver high-quality illumination in the modern hospital or clinic for examination application. Its design offers excellent dual brightness, color rendition, large field size, and convenient positioning with easy-grip handles. Use fixture only as intended, any other use will void the warranty.

The fixture projects a beam of visible light practically devoid of infrared and ultraviolet energy, but with high intensity. It provides a 7-7.5-inch spot size at a distance of 18 inches. The light head is mounted on a spring arm system which will not sag. The light head swivels about the arm  $\pm 90^\circ$ . The mounting system allows the light head to swing through a radius arc of approximately 45 inches, and project a beam on any location of a human subject. Easy-grip handles at the sides of the light head assist positioning. The light head features a cool-temperature housing.

Wall mount models can be installed on a vertical surface (wall). Floor Stand models incorporate a 5-caster, space-saving base. Table mount clamps to most tabletops.

Power is supplied through a European-harmonized grounded 8-foot SJT cord, having a NEMA 5-15 hospital-grade North American plug. An On-Off-On switch operates the light at the base of the light head. The light is UL listed and made in the USA.

## Specifications

### General

The light is intended for use in the modern hospital or clinic for examination applications. It is available as a floor stand, wall, table, and ceiling models.

This unit has been tested and classified to UL 60601-1.

Power to the fixture is controlled from a power supply at the base of the arm. Effective working distance between patient and light head is from 0.2 to 0.6 meters. Two easy-grip handles at the sides of the light head assist positioning. A 3-way switch safely controls the power to the two led modules. Users have the option to have either one or two LED sources, power on, middle position is off.

There are no known contraindications to use this equipment.

There are no hazardous materials in this product, and it is safe to dispose of after end service life.

During transport of the floor stand the spring arm must be in a folded position and the operator must maintain contact with the upright.

**Burton Medical will make available to the purchaser or their representative technical material, including circuit diagrams, parts lists, and component descriptions, which will assist the user's qualified personnel in replacing those parts of this equipment designated by Burton Medical as repairable.**

**Classification**

Type of protection against electric shock..... Class 1  
Allowable leakage current..... does not exceed 200µa  
Reliability of earth protection..... does not exceed 0.1 ohm  
Mode of operation.....continuous  
Protection against explosion hazards.....  
.....not to be used in presence of flammable anesthetics  
Protection against hazardous parts and ingress of liquids ..... P20  
Degree of mobility..... portable (floor stand models move on 5 locking casters)  
Safety tests.....UL 60601-1, 4th Edition; IEC 60601-1-2, CSA/CAN C22.2 No. 601.1;  
IEC60601-2-41

**Electrical**

Input..... VAC, 60HZ 14W max  
LED..... 2 x COB LEDs  
Power cord..... 8-ft. (2.4m), NEMA 5-15, hospital grade plug

**Environmental Conditions**

Transport and Storage  
Ambient temperature..... 0°C to 70°C  
Relative humidity .....10% to 75% (keep dry)  
Atmospheric pressure.....500hPa to 1060hPa  
Shipping Container Markings ..... Fragile, Keep Dry

Operation

Ambient temperature.....10°C to 40°C  
Relative humidity ..... 30% to 75%  
Atmospheric pressure..... 700hPa to 1060hPa

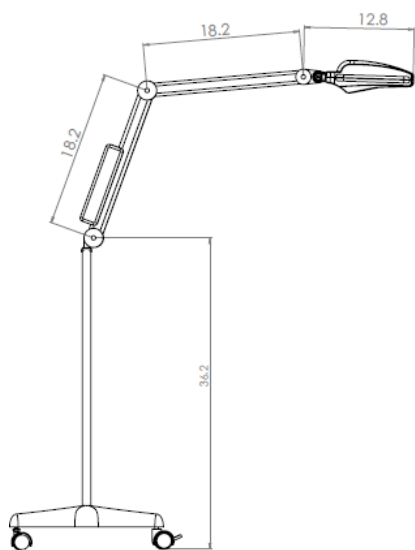
**Weights and Dimension**

Net weight (Light head, flexible arm, transformer housing, cord) ..... 7 lbs. (3kg)  
Net weight, wall mount model ..... 9 lbs. (4.1kg)  
Light head width, including handles.....9 in. (23cm)  
Light head length, including neck..... 10 in. (28cm)  
Arm length .....41 in. (104cm)  
Effective swing radius from Pivot to front of Light head ..... 51 in. (130cm)  
Upright..... 35 in. (89cm)  
Base outside dimensions ..... 24 in. dia. (66cm)  
Colors ..... White

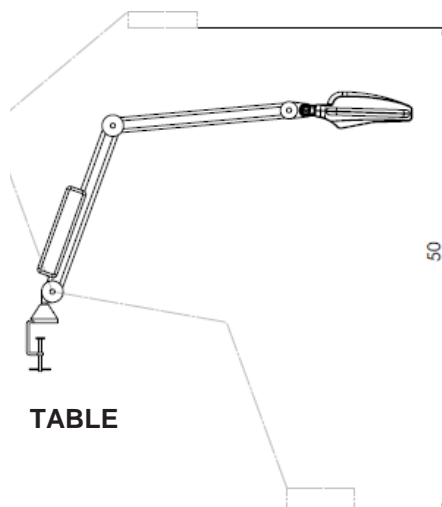
**Optical Performance**

Central Illuminance, One LED Module, E<sub>c</sub> at 18 in. (46 cm) .....45,000 Lux  
Central Illuminance, Two LED Module, E<sub>c</sub> at 18 in. (46 cm) .....90,000 Lux  
Light Field Dimeter.....1.7" (298mm)  
Total Irradiance ..... 8.8 W/m<sup>2</sup>  
Ultraviolet radiation ..... 0.2W/cm<sup>2</sup>  
Color temperature..... 100° K  
CRI (Color Rendering Index) .....96  
LED operating life .....50,000 hrs.

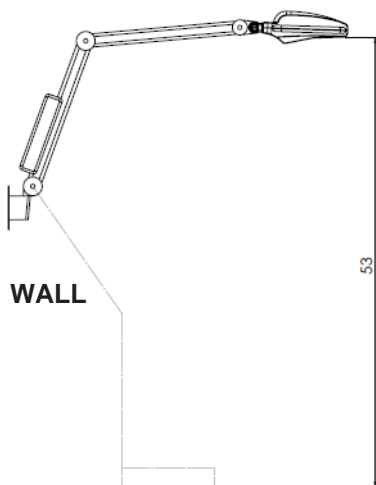
## Dimensions



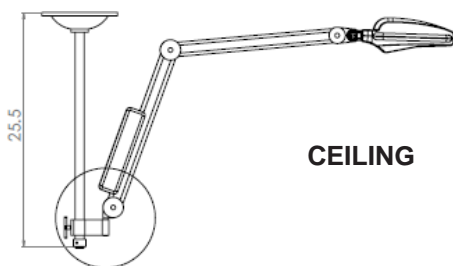
**FLOOR STAND**



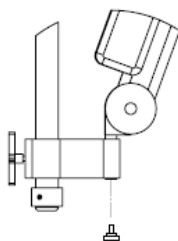
**TABLE**



**WALL**

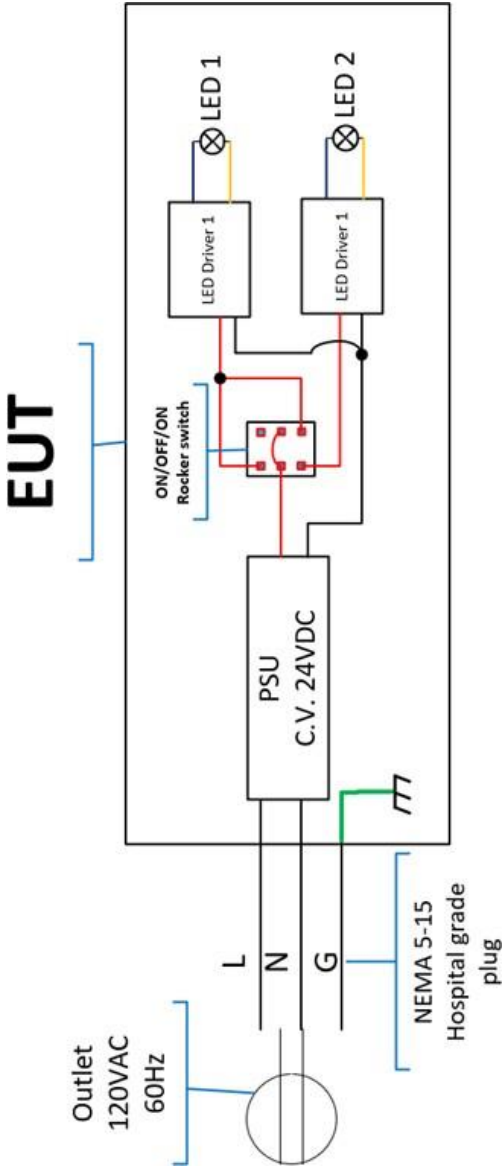


**CEILING**



**SECURE CEILING ARM WITH LOCK KNOB**

Wiring Diagram



Floor, Wall, Table & Ceiling  
Mount 120V 60Hz Input

# 1. Set-Up and Operation

## 1.1. Pre-Assembly (All Models)

- 1.1.1. Remove the product and accessories from the shipping container(s). Save the packaging in case hidden damage is revealed. If there is product damage caused during transit, contact the shipping company, not Burton Medical.
- 1.1.2. Inspect the Head/Arm for possible damage:
  - The head should be able to rotate within its stops and tighten to desired angle with the friction adjustment knob between the head and flexible arm.
  - The cord should feel secure at the connection to the transformer housing.
- 1.1.3. Before reporting shortages:
  1. Be sure you have received the correct number of boxes, cartons, etc., as shown on the bill of lading.
  2. Check the entire shipment against the packing slip, which is enclosed in one of the boxes.
  3. Items indicated in the column headed "Back Order" are not included in the shipment and will follow later.
  4. Be sure that nothing has been removed from the cartons before they are checked by the individual in charge.
- 1.1.4. If a Shortage or Damage Occurs:
  1. You, the receiver, not Burton Medical, is responsible for filing any claim(s) with the delivering carrier within five days after receipt of the shipment.
  2. If damage or shortage occurs in transit, the delivering carrier is required by law to make notation of a shortage or damage. This notation is to be made on the bill of lading.
  3. If, in your opinion, there may be concealed damage, an agent from the delivering carrier is obligated to make an inspection after the goods are unpacked.
  4. Do not destroy packing material until after the agent has made out his report.
  5. All claims must be made to the carrier, not Burton Medical.
  6. Written authorization must be obtained from Burton Medical before merchandise can be returned.

## 1.2. Wall Mount Assembly

- 1.2.1. Burton Medical recommends a wall mounting height of 55-60 inches (140-152.4 cm) from floor plane.
- 1.2.2. Attach the provided Wall Mount to a suitable vertical surface, anchors should go into wood support that may need to be constructed. It should not be anchored to drywall alone.
- 1.2.3. Use four (4) #10 round-head wood screws, which are 1-1/2" long for wood surfaces, 2" long through wall board into wood studs. When attaching the mount to metal, use #10 round or pan-head self-tapping or machine screws, 1" long, or as indicated by the application.
- 1.2.4. Make certain the applicable hole for the fixture shaft is oriented up to accept the light then insert the fixture into the clamp mount.

### 1.3. Table Mount Assembly

**NOTE: Turn the light “On” by pressing the power switch located at the base of the head to either left or right depending on the intensity required and adjust the arm as required.**

- 1.3.1. Attach the provided C-Clamp table mount to the edge of a suitable tabletop.
- 1.3.2. Tighten the clamp adequately to withstand the forces from the spring arms.
- 1.3.3. Insert the arm shaft into the table clamp.

### 1.4. Floor Stand Assembly - See instructions included with Floor Stand.

### 1.5. Floor stand Operation

- 1.5.1. Plug the power cord into a grounded convenience socket.

**Note: Turn the light “On” by pressing the power switch located at the base of the head to either left or right depending on the intensity required and adjust the arm as required.**

- 1.5.2. The upright is meant to remain fixed in the base; **it will not rotate within the base.** However, the head/arm can be rotated continuously and is only con- strained by the cord.
- 1.5.3. The light head can be positioned anywhere within its travel radius.



## 2 Cleaning and Maintenance

### 2.1. LED Replacement

Note: The LED module will outlast the life expectancy of the device (10 years) under normal conditions and therefore will not need to be replaced before the end of this period.

LED module replacement must be replaced by a Burton Medical appointed technician.

### 2.2. Preventive Maintenance Checklists

Check	Corrective Action
<b>Weekly</b> Check overall operation of the fixture: Do the switch and LEDs operate properly? Does the light head stay in position (no drift) when the arm is moved up and down or to the sides? Do all components appear secure (light head, arm attachment points)?	If the answer to any of these questions is NO, do not use the product. Consult with your maintenance personnel before operating the light.
<b>Monthly</b> Check the arm to mount for “wobble”. If loose...	Table: tighten clamp. Floor: tighten the screw under the base casting. Wall: tighten screws to wall. Ceiling: tighten plate to ceiling structure & tube to plate.
<b>Annually</b> Check same items as for weekly and monthly maintenance, plus inspect the power cord for external abrasion. Lightly pull and twist the cord at the inlet strain relief to test for internal conductor breakage when the light is energized. Check electrical connectors for evidence of overheating (charring, discoloration) and chafed insulation.	Any flickering is indicative of an intermittent break, and the cord should be replaced.  Replace as necessary.

### 2.3. Cleaning

2.3.1. Disconnect the fixture from the mains supply.

2.3.2. Suggested cleaning technique is to use a soft cloth and mild detergent solution in water or isopropanol 70% solution. Do not let any solution run into the transformer housing. After cleansing, dry all surfaces promptly with a soft cloth or towel.

2.3.3. For especially stubborn stains, rubbing or denatured alcohol can be used.

2.3.4. External surfaces are polycarbonate, or powder painted.






Do not use cleaning agents, chemicals or solvents that can attack and damage polycarbonate material or stress corrosion cracking (SCC) will occur voiding the warranty. Under no circumstances should cleaning agents containing ester or a ketone solvent such as paint thinners, Methyl Ethyl Ketone-(MEK) MEK, acetonitrile, acetone, ethyl acetate be used. Always check the MSDS sheets. Use polycarbonate friendly cleaners.

## 2.4. Replacement Parts

2.4.1 Handle .....	5000451
2.4.2 Switch.....	4000182
2.4.3 Locking Caster.....	4000485

## 3. Symbols and Warnings

### 3.1 Symbols

- 3.1.1  This symbol on the power switch is "OFF". The rocker switch, when positioned to the "O" side, turns off power to the light.
- 3.1.2  This symbol on the power switch is "ON". The rocker switch, when positioned to the "I" or "II" side, turns on power to the light.
- 3.1.3  This symbol references protective "ground" or "earth" connection.
- 3.1.4  This is the international symbol for "alternating current", i.e., "AC".
- 3.1.5  This symbol refers to "Reference the manual for information"

### 3.2 Cautions

- 3.2.1 Always disconnect the equipment from the mains before starting any repair.
- 3.2.2 Move the light head up or down by grasping the handle.
- 3.2.3 Do not force the light head past its stops.

### 3.3 Warnings

- 3.3.1 To avoid the risk of electrical shock this equipment must only be connected to a supply main with protective earth.
- 3.3.2 Separable plug must always be accessible.
- 3.3.3 Ceiling mounted equipment must have a customer provided accessible main switch on the wall.
- 3.3.4 Failure to properly follow installation and preventive maintenance in instructions may result in mechanical failure.
- 3.3.5 No modifications of this equipment allowed.
- 3.3.6 Do not use this fixture in the presence of flammable anesthetics or in an oxygen rich environment.
- 3.3.7 If EMC or RF interference is shown with this equipment to affect some sensitive equipment, move the light further away or turn the light off before proceeding.

## Troubleshooting Guide

Symptoms	Probable Cause	Remedy
No Light Output	<p>Not plugged in.</p> <p>Switch not "on" ( I or II ). LED failed.</p> <p>Break in wiring.</p> <p>Short or open circuit in power supply.</p> <p>Switch failure.</p>	<p>Plug into a suitable hospital-grade grounded socket.</p> <p>Turn switch on ( I ), left or right Replace with new LED module.</p> <p>Check condition of transformer and wiring.</p> <p>Locate and replace wires.</p> <p>Determine failure mode and replace transformer.</p> <p>Replace switch.</p>
Poor (low) Light Output	<p>Loose or corroded connectors.</p> <p>Faulty LED driver.</p>	<p>Check all connections; clean/replace as necessary.</p> <p>Replace power supply. Replace LED driver.</p>
Light head Does Not Hold Position	<p>Weak arm.</p> <p>Lever not tightened enough.</p> <p>Worn or missing components.</p>	<p>Replace arm.</p> <p>Tighten lever as required. Replace as necessary.</p>

## Warranty Information

For complete, detailed information on your specific product's warranty coverage, please visit: <http://www.burtonmedical.com/wp-content/themes/burtonmedical/literature/warranty.pdf>



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