natus newborn care

neoBLUE®
LED Phototherapy

The **neoBLUE** LED Phototherapy System incorporates optimal blue LED technology for the treatment of newborn jaundice

Meets AAP Guidelines for intensive phototherapy[1]

Intensity: Features 2 intensity settings to switch between standard (15 µW/cm²/nm) and intensive (35 µW/cm²/nm) phototherapy

Spectrum: Utilizes blue light emitting diodes (LEDs)

- To emit blue light in the 450-475 nm spectrum matching the peak absorption wavelength (458 nm) at which bilirubin is broken down[2]

Surface area coverage: Exposes length of baby from head to toe

neoBLUE system positioned over an incubator

Safe

- neoBLUE LEDs do not emit significant ultraviolet (UV) light
  - reducing the potential risk of skin damage
- neoBLUE LEDs do not emit significant infrared (IR) light
  - reducing the potential risk of fluid loss

Designed for efficacy and precision

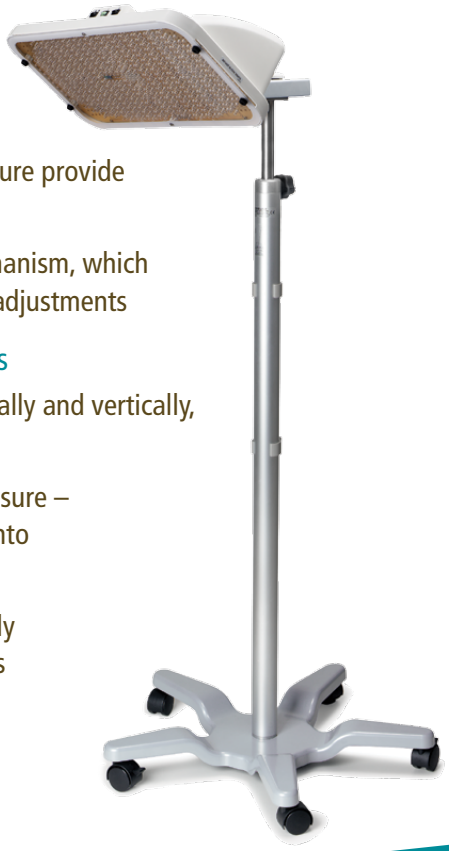
- With a simple flip of a switch, change from standard (15 µW/cm²/nm) to intensive (35 µW/cm²/nm) phototherapy
- Unique red target light enables precise centering of light over baby

Designed for convenience

- Smooth, curved edges of light enclosure provide added safety and ease in handling
- Roll stand includes a gas shock mechanism, which maintains a safe height during pole adjustments

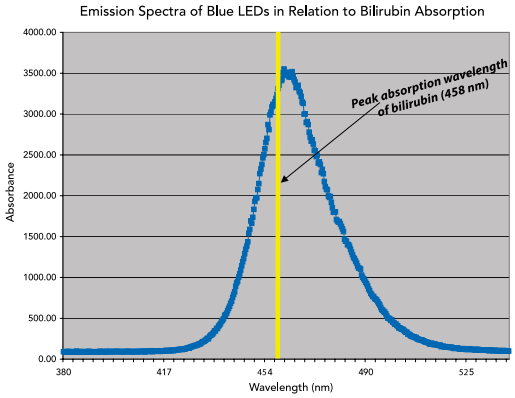
Designed for multiple configurations

- Can be easily adjusted both horizontally and vertically, and tilted over a wide angle range
- Rubber feet supplied with light enclosure – allowing stable placement directly onto incubators
- Base of roll stand is designed to easily slide under most incubators and cribs



Optimal efficiency

- neoBLUE LEDs reduce costly and time-consuming bulb replacements by providing thousands of hours of use
- Life testing has shown neoBLUE LEDs can emit high intensity phototherapy for over 50,000 hours[3]
- Biomedical engineers can adjust the output of the neoBLUE LEDs using a potentiometer
- Device timer assists in tracking overall usage of neoBLUE LED panel
- neoBLUE LED panel is field serviceable – no downtime associated with patient care



neoBLUE LEDs emit blue light in the 450-475 nm spectrum. This range corresponds to the peak absorption wavelength (458 nm) at which bilirubin is broken down.

neoBLUE system shown with drape accessory

Ordering information

Item	Part Number
neoBLUE LED Phototherapy System (includes light and roll stand)	010066
Light (available separately)	001376
Roll Stand (available separately)	010814
Drape for neoBLUE Light	001241
Biliband® Eye Protectors	
Regular Size	900642
Premature Size	900643
Micro Size	900644

Technical specifications

Light source	Blue and Yellow LEDs
Wavelength	- Blue: Peak between 450 and 475 nm - Yellow: Peak between 585 and 595 nm
Intensity	Peak central intensity at 12 in (30.5 cm)
- Low setting	15 ±2 μW/cm²/nm
- High setting	35 ±3.5 μW/cm²/nm
Variation in intensity over 6 hrs	< 10% (within illumination area)
Effective surface area	20 x 10 in (50 x 25 cm)
Intensity ratio	> 0.4 (minimum to maximum)
Heat output (at 12 inches (30.5 cm) over 6 hrs)	< 18° F (10° C) warmer than ambient
Electrical mains	3A, 100-240V~, 50/60 Hz
Fuses	4A @ 100-120V~, 50/60 Hz 2A @ 200-240V~, 50/60 Hz
Safety	
Leakage current	< 100 μA
Audible Noise	< 60 dB
Dimensions	
Maximum Height	< 6 ft (1.83 m)
Weight	< 10.0 lbs (4.5 kg) (light enclosure only) < 40 lbs (18 kg) (with roll stand)
Environmental	
Operating Temperature/Humidity	59° F to 95° F (15 to 35° C) / 10% to 90% non condensing
Storage Temperature/Humidity	32° F to 122° F (0° to 50° C) / 10% to 90% non condensing
Roll Stand	
Height of lens from ground	adjustable from 42 to 59 ± 3 inches (1.07 m to 1.50 m ± 7.6 cm)
Center of lens from post	adjustable from less than 9 to 13 ± 1 inches (23 cm to 33 cm ± 2.5 cm)
Tilt adjustment of enclosure	0º (horizontal) to approx. 40º
Clearance of base from floor	< 4 inches (10.2 cm)
Base	5 legs with locking casters
Regulatory standards	IEC 60601-1 ES 60601-1 CAN/CSA-22.2 No. 60601-1 IEC 60601-2-50 IEC 60601-1-2

Note: Specifications are subject to change without notice.

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1 Subcommittee on Hyperbilirubinemia. American Academy of Pediatrics clinical practice guideline: Management of hyperbilirubinemia in the newborn infant 35 or more weeks of gestation. *Pediatrics.* 2004; 114(1):297-316
2 Vreman HJ, et al. Light-emitting diodes: a novel light source for phototherapy. *Pediatric Research.* 1998; 44(5):804-809
3 Actual results may vary based on environmental factors and adjustments to the potentiometer.

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