

neoBLUE™

LED Phototherapy



Shedding New *Light* on Phototherapy

Natus neoBLUE™ LED Phototherapy is an innovative phototherapy light, incorporating a state-of-the-art blue LED light source for the treatment of newborn jaundice.



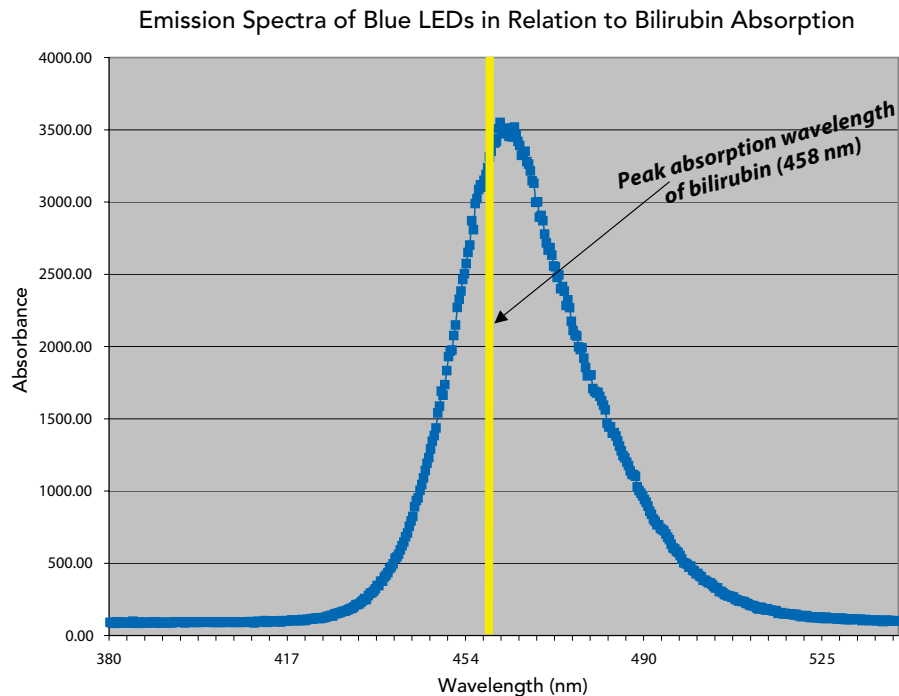
The neoBLUE system utilizes state-of-the-art blue LED technology

MOST EFFECTIVE DEGRADATION OF BILIRUBIN²

The neoBLUE system meets AAP Guidelines for intensive phototherapy¹

- Delivers intensive phototherapy: 30-35 $\mu\text{W}/\text{cm}^2/\text{nm}$
- Utilizes special blue light emitting diodes (LEDs):

Blue LEDs emit most of their light in the 450-470 nm spectrum. This range corresponds to the peak absorption wavelength (458 nm) at which bilirubin is broken down.



COVERS MAXIMUM SURFACE AREA

- Arrangement of LEDs in diffuser panel allows optimal coverage of light over baby

SAFE

- neoBLUE LEDs emit no significant ultraviolet (UV) light — reducing the potential risk of skin damage
- neoBLUE LEDs emit no significant infrared radiation — reducing the potential risk of fluid loss

PROVIDES THE POWER OF MULTIPLE LIGHTS IN ONE DEVICE

- Delivers single (conventional) or double (intensive) phototherapy
 - Low intensity setting (conventional): 12-15 $\mu\text{W}/\text{cm}^2/\text{nm}$
 - High intensity setting (intensive): 30-35 $\mu\text{W}/\text{cm}^2/\text{nm}$

OPTIMAL EFFICIENCY

- LEDs reduce costly and time-consuming bulb replacements by providing thousands of hours of use.
- LED panel is field serviceable — no downtime associated with patient care

(Please see references on opposite page)

The neoBLUE system includes a versatile light enclosure and roll stand for use in a variety of settings

DESIGNED FOR EFFICACY AND PRECISION

- With a simple flip of a switch, change from single to double phototherapy



- Unique red target light enables precise centering of light over baby

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 incubator
- Base of roll stand is designed to easily slide under most incubators and cribs

DESIGNED FOR CONVENIENCE

- Light enclosure is compact in size and lightweight
- 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



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.

The neoBLUE LED Phototherapy System includes:

- Light Enclosure (available separately)
- Rollstand (available separately)
- Accessory Pack
- Instructional Materials (on CD)

Technical Specifications

LIGHT SOURCE

Wavelength	Blue and Yellow LEDs
Intensity	Blue: Peak between 450 and 470 nm
Low setting	Yellow: Peak between 585 and 595 nm
High setting	Peak central intensity at 12 inches (30.5 cm)
Variation in intensity over 6 hrs	12-15 $\mu\text{W}/\text{cm}^2/\text{nm}$
Effective surface area	30-35 $\mu\text{W}/\text{cm}^2/\text{nm}$
Intensity ratio	< 10% (within illumination area)
Heat output	20 x 10 in (50 x 25 cm)
(at 12 inches (30.5 cm) over 6 hrs)	> 0.4 (minimum to maximum)
	< 18° F (10° C) warmer than ambient

ELECTRICAL MAINS

85-264 VAC, 47 to 63 Hz

MAXIMUM RATING

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	< 8.0 lbs (3.6 kg) (light enclosure only)
	< 40 lbs (18 kg) (with roll stand)

ENVIRONMENTAL

Operating Temperature/Humidity	59° F to 95° F (15 to 35° C) / 0% to 90% non condensing
Storage Temperature/Humidity	-22° F to 122° F (-30 to 50° C) / 0% to 90% non condensing

ROLL STAND

Height of diffuser from ground	adjustable from 42 to 59 \pm 3 inches (1.07 m to 1.50 m \pm 7.6 cm)
Center of diffuser from post	adjustable from less than 9 to 13 \pm 1 inches (22.9 cm to 33 cm \pm 2.5 cm)
Tilt adjustment of enclosure	0° (horizontal) to approx. 40°
Clearance of base from floor	<4 inches (10.2 cm)
Base	5 legs with casters (2 locking casters)

REGULATORY STANDARDS

Type BF
EN 60601-1-1, EN60601-1-2
EN60601-2-50
UL2601-1
CSA C22.2 601.1

Note: Specifications are subject to change without notice.