

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



### Meets AAP Guidelines for intensive phototherapy<sup>1</sup>

**Intensity:** Delivers intensive phototherapy:  $> 30 \mu\text{W}/\text{cm}^2/\text{nm}$ .

**Spectrum:** Utilizes blue light emitting diodes (LEDs)

- neoBLUE LEDs emit blue light in the 450-470 nm spectrum matching the peak absorption wavelength (458 nm) at which bilirubin is broken down<sup>2</sup>

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



neoBLUE system positioned on an incubator

### Safe

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

### Designed for efficacy and precision

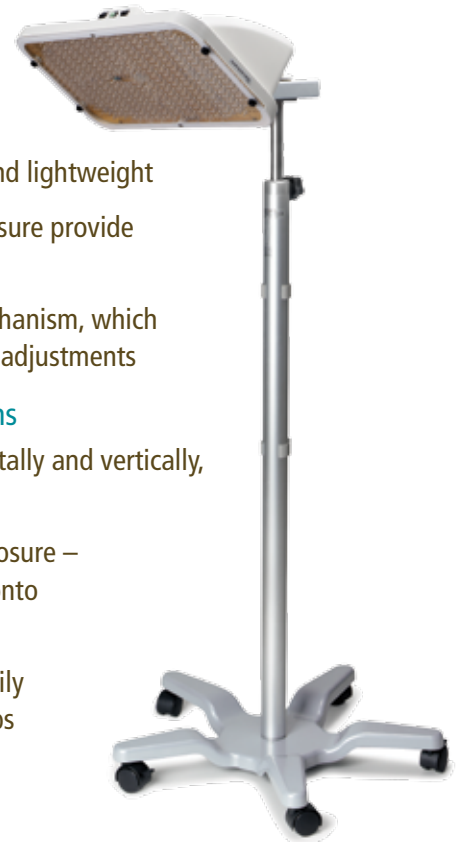
- With a simple flip of a switch, change from single ( $> 12 \mu\text{W}/\text{cm}^2/\text{nm}$ ) to double ( $> 30 \mu\text{W}/\text{cm}^2/\text{nm}$ ) phototherapy
- Unique red target light enables precise centering of light over baby

### 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

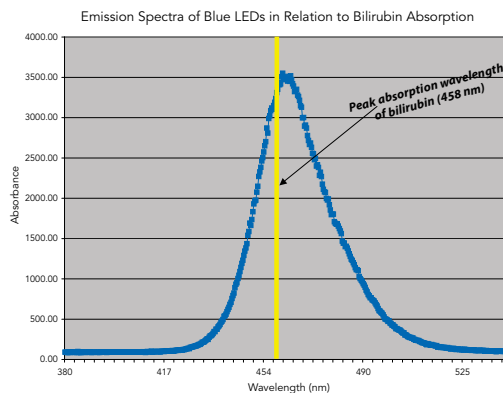
### Designed for multiple configurations

- 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 20,000 hours\*
- 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 450-470 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
<b>neoBLUE LED Phototherapy System</b> (includes light enclosure and roll stand)	010066
Light Enclosure (available separately)	001376
Roll Stand (available separately)	030704
Drape for neoBLUE 3 Light	001241
<b>Biliband Eye Protectors</b>	
Regular Size	900642
Premature Size	900643
Micro Size	900644



### Technical specifications

<b>Light source</b>	Blue and Yellow LEDs
<b>Wavelength</b>	- Blue: Peak between 450 and 470 nm - Yellow: Peak between 585 and 595 nm Peak central intensity at 12 in (30.5 cm) > 12 μW/cm <sup>2</sup> /nm > 30 μW/cm <sup>2</sup> /nm
<b>Intensity</b>	- Low setting - High setting
<b>Variation in intensity over 6 hrs</b>	< 10% (within illumination area)
<b>Effective surface area</b>	20 x 10 in (50 x 25 cm)
<b>Intensity ratio</b>	> 0.4 (minimum to maximum)
<b>Heat output (at 12 inches (30.5 cm) over 6 hrs)</b>	< 18° F (10° C) warmer than ambient
<b>Electrical mains</b>	85–264V~, 47 to 63 Hz 3A, 100-240V~, 50/60 Hz
<b>Fuses</b>	4A @ 100-120V~, 50/60 Hz 2A @ 200-240V~, 50/60 Hz
<b>Safety</b>	
Leakage current	< 100 μA
Audible Noise	< 60 dB
<b>Dimensions</b>	
Maximum Height	< 6 ft (1.83 m)
Weight	< 8.0 lbs (3.6 kg) (light enclosure only) < 40 lbs (18 kg) (with roll stand)
<b>Environmental</b>	
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
<b>Roll stand</b>	
Height of diffuser from ground	adjustable from 42 to 59 ± 3 inches (1.07 m to 1.50 m ± 7.6 cm)
Center of diffuser from post	adjustable from less than 9 to 13 ± 1 inches (22.9 cm to 33 cm ± 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)
<b>Regulatory standards</b>	Type BF IEC 60601-1 IEC 60601-1-2 IEC 60601-1-2-50 CSA C22.2 601.1

**Note:** Specifications are subject to change without notice.

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<sup>1</sup> 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

<sup>2</sup> Vreman HJ, et al. Light-emitting diodes: a novel light source for phototherapy. *Pediatric Research*. 1998; 44(5):804-809

\*Actual results may vary based on environmental factors and adjustments to the potentiometer.