

BRILLIANCE

WORLD-CLASS PHOTOTHERAPY



World-Class Treatment

- Peak wavelength 450–465nm
- Uniform intensity $>45\mu\text{W}/\text{cm}^2/\text{nm}$
- Effective treatment area $>1300\text{cm}^2$

Energy Efficient

Brilliance consumes less than half the electricity of CFLs.

Minimal Maintenance

Brilliance LEDs last 60x longer than compact fluorescent lamps (CFL) commonly used in phototherapy devices. With Brilliance, hospitals can save over \$240 USD per year on costly bulb replacements. Also, Brilliance can withstand a wide range of power fluctuations without changes in device performance.

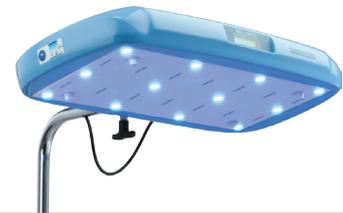
Integrated Design

Brilliance is designed for versatility of use. Brilliance can be integrated with other critical medical equipment such as infant warmers, incubators, and nearly any variety of bassinet.

SmartTilt Technology

Patent-pending technology to ensure that light intensity from blue LEDs is consistent across the treatment footprint at any angle of head-tilt. SmartTilt ensures that Brilliance Pro works effectively at any position with other newborn care equipment.

Made in India, designed in USA



	BRILLIANCEPRO	BRILLIANCECLASSIC
Integrated Light Meter (available)	✓	
SmartTilt Technology	✓	
LED Lifetime	120,000 hours	120,000 hours
LED Intensity ($\pm 25\%$)	$>45\mu\text{W}/\text{cm}^2/\text{nm}$	$>45\mu\text{W}/\text{cm}^2/\text{nm}$
Recommended Treatment Distance	45cm	35cm
Effective Treatment Range	35-65cm	25-45cm
High & Low Settings	✓	
Peak Wavelength of Light	450–465nm	450–465nm
Tilting Head	0–90°	0–90°
Adjustable Height	✓	✓
Therapy Timer	✓	✓
Backlit LCD	✓	
Observation Lights	✓	
No Maintenance Cooling (no fan)	✓	✓
CE Mark	CE 0843	CE 0843
Product Launch Date	January 2015	November 2012
Base Retail Price <i>with one (1) year warranty</i>	\$400 USD	\$400 USD

What is neonatal jaundice?

Neonatal jaundice is seen as a yellowing of the skin due to **heightened levels of bilirubin**, a compound in the blood. **Severe jaundice, if not treated, can lead to brain damage, hearing loss, and even death.**

What is effective phototherapy?

Required criteria for effective phototherapy (based on American Academy of Pediatrics (AAP) standards):

1. **Wavelength:** Light in the range of 400-520 nm is most effective.
2. **Intensity:** Intensity is a function of the power of the lights and the distance of the lights from the baby. The AAP recommends $30\mu\text{W}/\text{cm}^2/\text{nm}$. Light intensity should be measured by a calibrated light meter.
3. **Surface Area Coverage:** As much of the surface area of the baby as possible should be covered.

Why is LED better than compact florescent lamp (CFL) devices?

	LED Device (Brilliance Pro)	CFL Device
Purchase Price	\$400 USD	\$350 USD
Bulb Cost	\$0 USD	\$10 USD/bulb
Bulb Replacement	Never	4 times/year
Energy Cost	60% less than CFL	
Unit Lifetime	120,000 hours	3,000 hours/bulb
Total Cost Over 10 Years	\$400 USD	\$2,750 USD

Are LEDs as effective as CFL or fluorescent devices?

Yes. Because the wavelength and intensity of the lights determine effective treatment, **LEDs are as effective as, or more effective,** than CFL devices. Always use a calibrated light meter to determine the light intensity of a phototherapy unit.

Does the number of LEDs in a unit have an impact on the effectiveness of the unit?

No. Not all LEDs are the same. For instance, Brilliance LEDs are high-powered and efficient meaning they deliver more intensity than some devices with more LEDs. Brilliance LEDs create a uniform intensity footprint ($>45\mu\text{W}/\text{cm}^2/\text{cm}$) to cover the entire baby using specialized lenses to optimize the LED's light.

Does Brilliance phototherapy use ultraviolet light?

No. Brilliance emits visible blue light in a narrow wavelength range from 430-490nm. **Brilliance does not emit harmful UV or infrared rays.**

Why is the light blue, and not white?

High-intensity blue light is most effective in breaking down bilirubin in the blood. While white light can be used, the intensity of the light in the blue spectrum is often lower than blue LEDs making it much less effective.

The blue light of the LEDs hurts my eyes.

White ambient lights can be used to minimize this effect, as well as amber-tinted glasses for the minority of those experiencing adverse effects. Brilliance Pro is designed to minimize light spill.