

BlueWave® LED Flood System

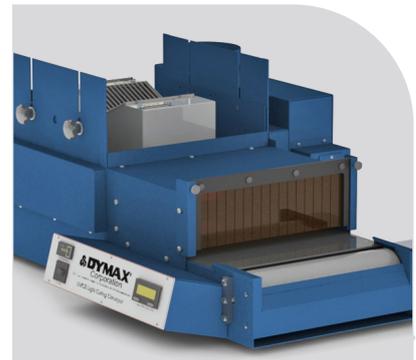
Higher Intensity and Uniformity for Better Process Efficiency

- Large 5" x 5" (12.7 cm x 12.7 cm) active curing area
- High-intensity LED for faster cure times
- Consistent frequency and intensity output for better process control
- Longer life and lower energy consumption than conventional arc lamps
- Cooler cure environment for thermally sensitive substrates
- Adjustable Intensity
- Shutter-free design for reliable operation with lower maintenance costs (no moving parts)
- Three wavelength emitters available for compatibility with a greater number of UV and visible light-curable materials
- Instant on/off - no warm-up period and more energy efficient
- Self-contained, lightweight design with cable interface and PLC port allows use as a benchtop system or in an automated process/conveyor integration
- Greener technology - Uses a mercury-free, environmentally friendly LED that generates no ozone and does not require hazardous waste disposal

The BlueWave® LED Flood System offers high-intensity curing energy over a 5" x 5" (12.7 cm x 12.7 cm) area. Cure times in the 5-30 second range are typical when using Dymax light-curable materials. This unit is simple to operate and can be used as a stand-alone system or easily integrated into automated assembly systems. Dymax offers the system with three different wavelength arrays (365, 385, and 405 nm) so users can fully optimize the curing process between their light-curable material and the curing system. The BlueWave LED Flood System offers all the benefits of LED light-curing technology including more consistent intensity, less energy consumption, a shutter-free design, instant on/off, and cooler curing temperatures.



Bench-Top Configuration
(Stand Shown without Acrylic Shield)



Two LED Floods Mounted in a
UVCS Conveyor

Ordering Information

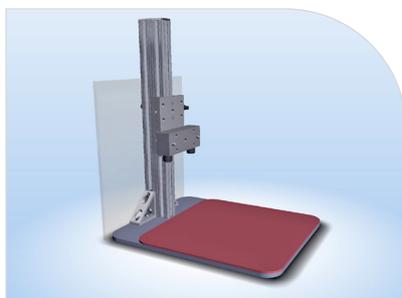
Dymax offers the BlueWave LED Flood System with three different wavelength arrays (365, 385, and 405 nm) so users can fully optimize the cure between their light-curable material and the curing system. Standard systems include one array, a power supply, and appropriate power and interface cords. Optional accessories such as shields and stands are available and sold separately.

	Asian Power Cord (Type G)	No Power Cord*
Systems		
BlueWave LED Flood RediCure® (365 nm)	41289	41262
BlueWave LED Flood PrimeCure® (385 nm)	41290	41261
BlueWave LED Flood VisiCure® (405 nm)	41291	41260
Accessories		
Light Shield 360° shielding. Swing-up door and slide-out shelf. Not compatible with Dymax shutters. <i>Note: This light shield requires version 3.0 or greater BlueWave LED flood software. Dymax can determine software version based on the BlueWave LED flood serial number.</i>		41321
3-Sided Acrylic Shield A simple and cost effective 3-sided shield that is removed manually.		41395
Standard Mounting Stand Kit A simple and cost effective mounting stand that features a rear acrylic shield.		41268
Retro-Fit Kit (for use with UVCS Conveyors) This kit is used to mount BlueWave® LED floods in the Dymax UVCS Conveyor. For use with one or two arrays.		41340
ACCU-CAL® 50-LED Radiometer ACCU-CAL™ radiometers are simple to operate and offer repeatable measurement of curing energy.		40519

*For European customers, the appropriate power cord will be added.



Light Shield



Standard Mounting Stand Kit



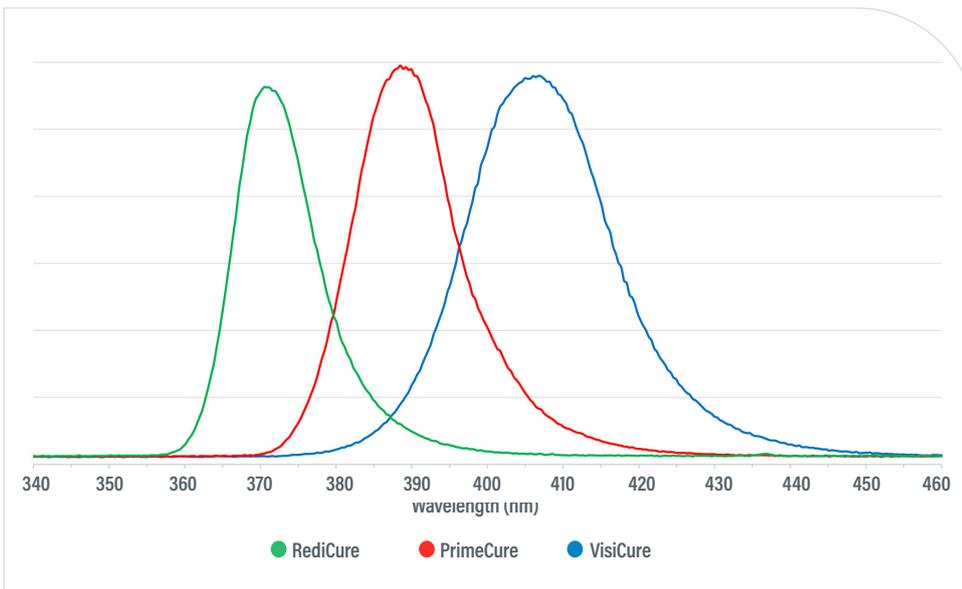
ACCU-CAL 50-LED Radiometer Kit

System Specifications

Property	Specification
Output Frequency	RediCure - 365 nm PrimeCure - 385 nm VisiCure - 405 nm
Intensity Output*	RediCure - 450 mW/cm ² PrimeCure - 850 mW/cm ² VisiCure - 950 mW/cm ²
Curing Area	5" x 5" (127 mm x 127 mm)
Irradiator Head Dimensions, W x H x D	6.38" x 4.48" x 5.79" (162 mm x 190 mm x 147 mm)
Weight	8 lbs. (3.63 kg) Irradiator, 15 lbs. (6.80 kg) Controller
Power Supply Dimensions, W x H x D	13" x 4.5" x 18.25" (330 mm x 114 mm x 464 mm)
Static Uniformity (See page 5)	RediCure - 0.4 PrimeCure - 0.35 VisiCure - 0.4
Cooling/Temperature Management	Air Cooled
Power Requirements	100 - 240 VAC 50/60Hz (Auto-Ranging)

* When measured at 25-mm distance with an ACCU-CAL™ 50 LED radiometer in flood mode.

Figure 1. BlueWave® LED Flood Array Spectral Chart



The BlueWave LED Flood Compared to Other Units

When compared to competitor models, the Dymax BlueWave LED Flood offers greater intensity, a larger active area, better uniformity, and improved short-term degradation, all helping to bring you shorter cure times and more efficient cures. See how the BlueWave LED Flood compares to other LED flood lamps on the market in the table below.

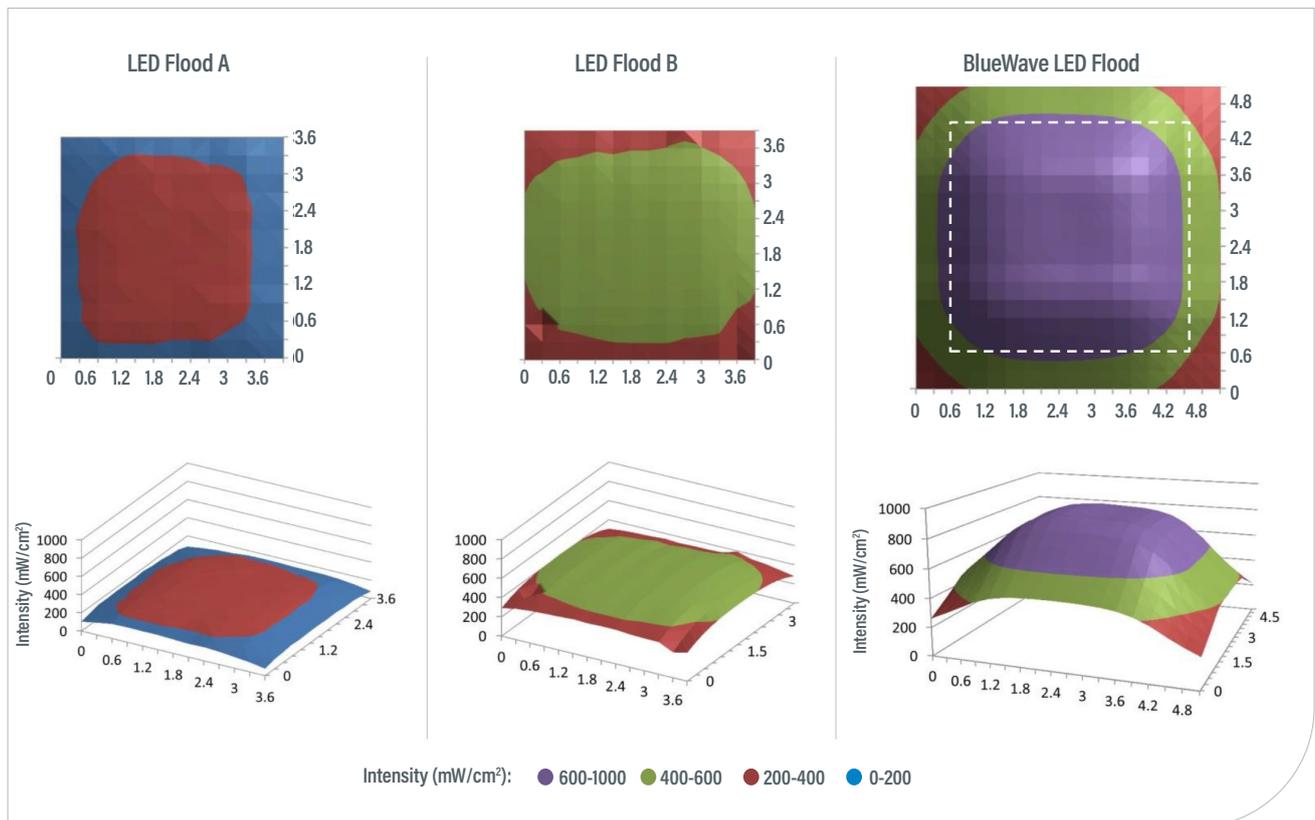
	Competitor Models		Dymax BlueWave LED Flood
	LED Flood A	LED Flood B	
Technical Data			
Curing Area	101 mm x 101 mm	101 mm x 101 mm	125 mm x 125 mm
Intensity*	266 mW/cm ² at 400 nm	248 mW/cm ² at 380 nm	850 mW/cm ² at 385 nm 950 mW/cm ² at 405 nm
Intensity Value Ratio Intensity Value Ratio = Active Area in Square Inches x Intensity / Unit Price	0.85	0.53	1.75 at 385 nm 1.95 at 405 nm

* Measured with a Dymax ACCU-CAL™ 50-LED Radiometer (320-395 nm) at a lamp height of 1" (25 mm).

Higher Intensity & Uniformity

When compared to other units, the BlueWave LED Flood provides much higher intensity and more overall uniformity across the active area. These benefits allow shorter cure times, and in turn, faster manufacturing throughput. See how the BlueWave LED Flood compares to other units in the charts below.

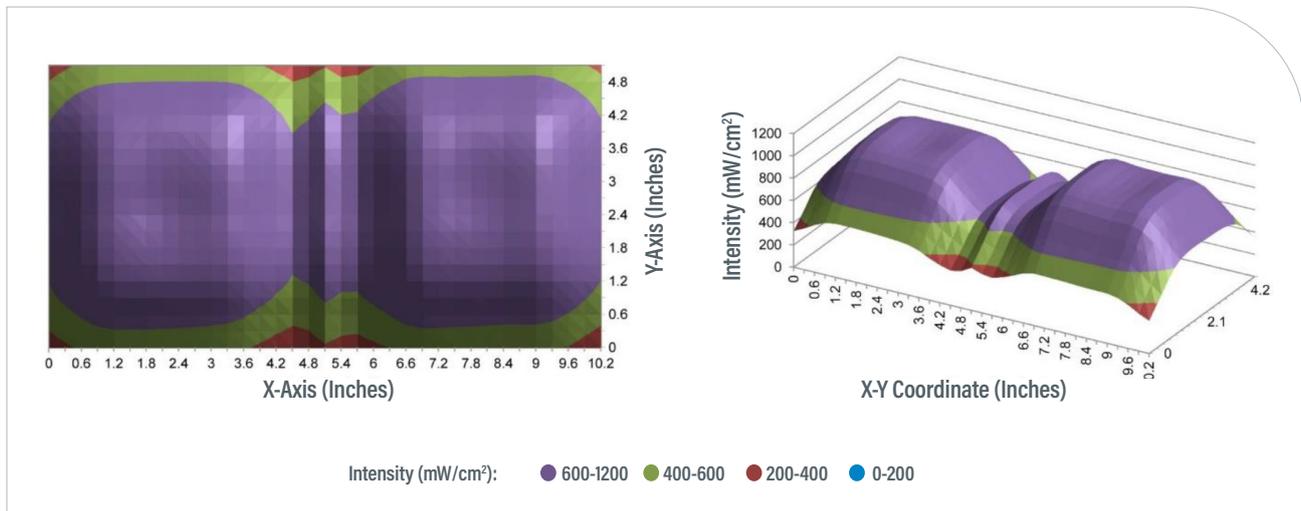
Figure 2. Curing Uniformity



Multi-Array Uniformity

The following graphs illustrate the Dymax BlueWave® LED Flood's high uniformity when multiple arrays are positioned next to each other. This is especially important in conveyor applications to ensure a consistent cure across the entire substrate.

Figure 3. Dymax BlueWave® LED Flood with Two VisiCure® Arrays (Mounted Face-to-Face)



System Monitoring

The BlueWave LED Flood has advanced monitoring features to insure the integrity and reliability of the curing process for your application. Features include:

- A PLC (Programmable Logic Controller) interface that allows programming and control of the unit's curing settings. The PLC interface is also supplies the system's status, unit health, and monitoring/alarm information.
- On-board diagnostics that deliver detailed identification of system failures which can be used to troubleshoot and resolve system errors.
- Intelligent monitoring and notification of unit's status and critical operating parameters, with visual and audible alarm information when attention is required.

System Monitoring

The BlueWave LED Flood has advanced monitoring features to insure the integrity and reliability of the curing process for your application. Features include:

- A PLC (Programmable Logic Controller) interface that allows programming and control of the unit's curing settings. The PLC interface is also supplies the system's status, unit health, and monitoring/alarm information.
- On-board diagnostics that deliver detailed identification of system failures which can be used to troubleshoot and resolve system errors.
- Intelligent monitoring and notification of unit's status and critical operating parameters, with visual and audible alarm information when attention is required.

LED vs. Broad-Spectrum Systems

Dymax BlueWave LED flood systems offer many advantages over conventional broad-spectrum systems, including:

- Cooler curing for temperature-sensitive substrates. Conventional broad-spectrum lamps operate and emit energy at high temperatures, which can damage sensitive substrates or force you to make multiple passes to deliver the curing energy needed for an application.
- Large 5" x 5" curing area. Most broad-spectrum systems offer a much smaller cure area. Parts get a higher dosage with our larger cure area but with cooler cures you don't risk damage to your parts.
- Better uniformity across the cure area assure a more consistent cure results.

If you're currently curing one of our LED-optimized adhesives with a broad-spectrum lamp, our BlueWave LED flood may also properly cure your adhesive. Visit dymax.com for a complete listing of Dymax LED-optimized adhesives. In addition to our LED-optimized adhesives, many of our other adhesives also cure properly with the BlueWave LED flood. Our Application Engineering group is available to help evaluate your adhesive application to see how LED-curing technology may be successfully incorporated into your current or future application needs.



www.dymax.com

Americas

USA | +1.860.482.1010 | info@dymax.com

Europe

Germany | +49 611.962.7900 | info_de@dymax.com
Ireland | +353 21.237.3016 | info_ie@dymax.com

Asia

Singapore | +65.67522887 | info_ap@dymax.com
Shanghai | +86.21.37285759 | dymaxasia@dymax.com
Shenzhen | +86.755.83485759 | dymaxasia@dymax.com
Hong Kong | +852.2460.7038 | dymaxasia@dymax.com
Korea | +82.31.608.3434 | info_kr@dymax.com