



BLUEWAVE® LED FLOOD PRODUCT BULLETIN



BlueWave® LED Flood with PrimeCure™ LED Array and Standard Mounting Stand in Bench-Top Configuration



BlueWave® LED Flood System

Higher Intensity and Uniformity for Better Process Efficiency

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 in three different irradiator wavelength configurations (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.

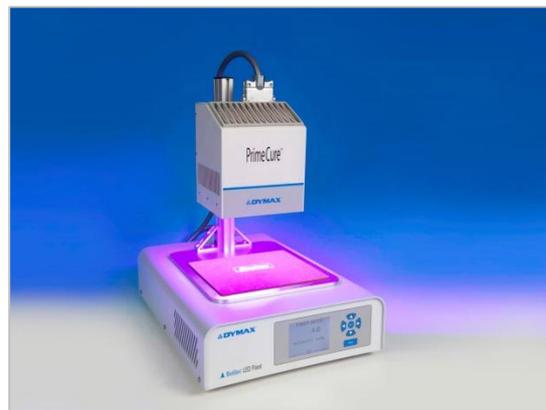
BlueWave® LED Flood System Features & Benefits

FEATURES	BENEFITS
5" x 5" (12.7 cm x 12.7 cm) active area	<ul style="list-style-type: none"> • Larger curing area
High-intensity LED (850 mW/cm ² typical at 385 nm)* (950 mW/cm ² typical at 405 nm)*	<ul style="list-style-type: none"> • Faster cure times • Consistent frequency and intensity output for better process control • Longer life than conventional arc lamps • Cooler cure environment for thermally sensitive substrates • Intensity is adjustable for specific applications
Greener technology	<ul style="list-style-type: none"> • Mercury-free, environmentally friendly LED • No hazardous waste disposal requirements • No ozone generation • Lower energy consumption than conventional curing lamps
Instant on/off	<ul style="list-style-type: none"> • No warm up period • More energy efficient
Shutter-free design	<ul style="list-style-type: none"> • Reliable operation with lower maintenance costs (no moving parts)
LED flood array available in 365, 385, and 405 nm wavelength options	<ul style="list-style-type: none"> • Compatible with a variety of UV and visible light-curable materials • Wavelength flexibility allows co-optimization of adhesive and curing system for optimal cure
Self-contained, lightweight LED flood array with cable interface and PLC port	<ul style="list-style-type: none"> • Flexibility to use as a bench-top cure system or mount the LED flood array remotely from the power supply for automated process equipment or conveyor integration
Full line of accessories available	<ul style="list-style-type: none"> • System flexibility

* When measured at 1 in [25 mm]



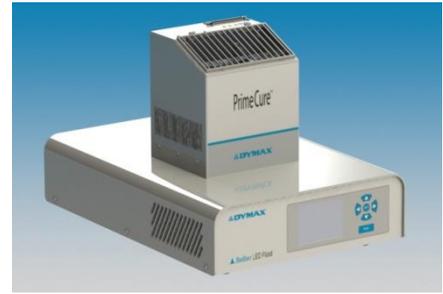
Bench-Top Configuration
(Stand Shown without Acrylic Shield)



Bench-Top Configuration (Stacked)

BlueWave® LED Flood Systems

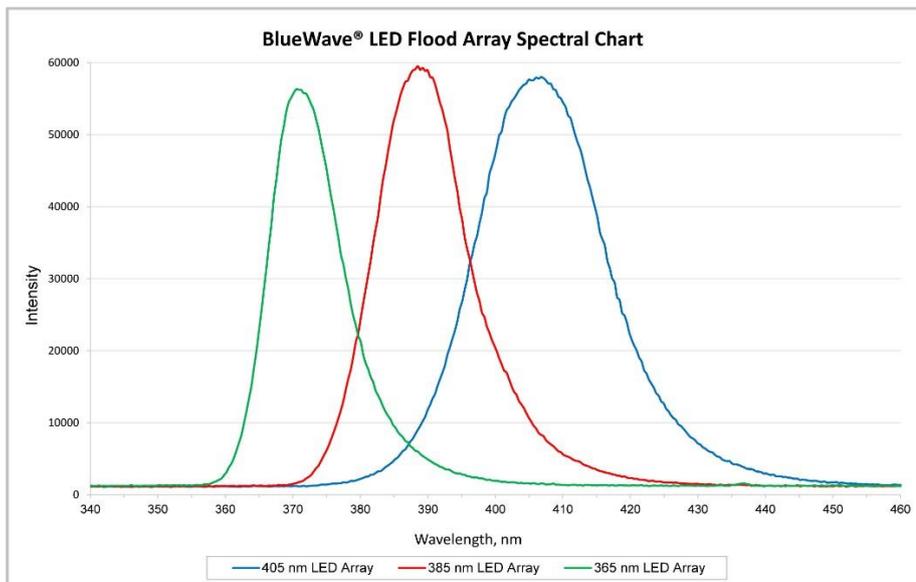
Dymax offers the BlueWave® LED Flood System with three different wavelength arrays (365, 385, and 405 nm) so users can fully optimize the cure between their light-curable material and the curing system. Standard systems include one array, a power supply, and appropriate power and interface cords. Optional accessories such as shields and stands are available and sold separately. See Pg. 5 for more information on available accessories.



SPECIFICATIONS	PrimeCure™ 385 nm	VisiCure® 405 nm	RediCure™ 365 nm
Part Numbers			
European Version	41261	41260	41262
Technical Specifications			
Typical Initial Output Intensities **	850 mW/cm ²	950 mW/cm ²	450 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 4)	0.35	0.4	0.4
Cooling/Temperature Management	Air Cooled		
Power Requirements	100 – 240 VAC 50/60Hz (Auto-Ranging)		

* The appropriate power cord will be added for European customers.

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



Visit www.led.dymax.com to See Dymax's Full Line of Compatible LED-Curable Materials

The BlueWave® LED Flood Compared to Other Units

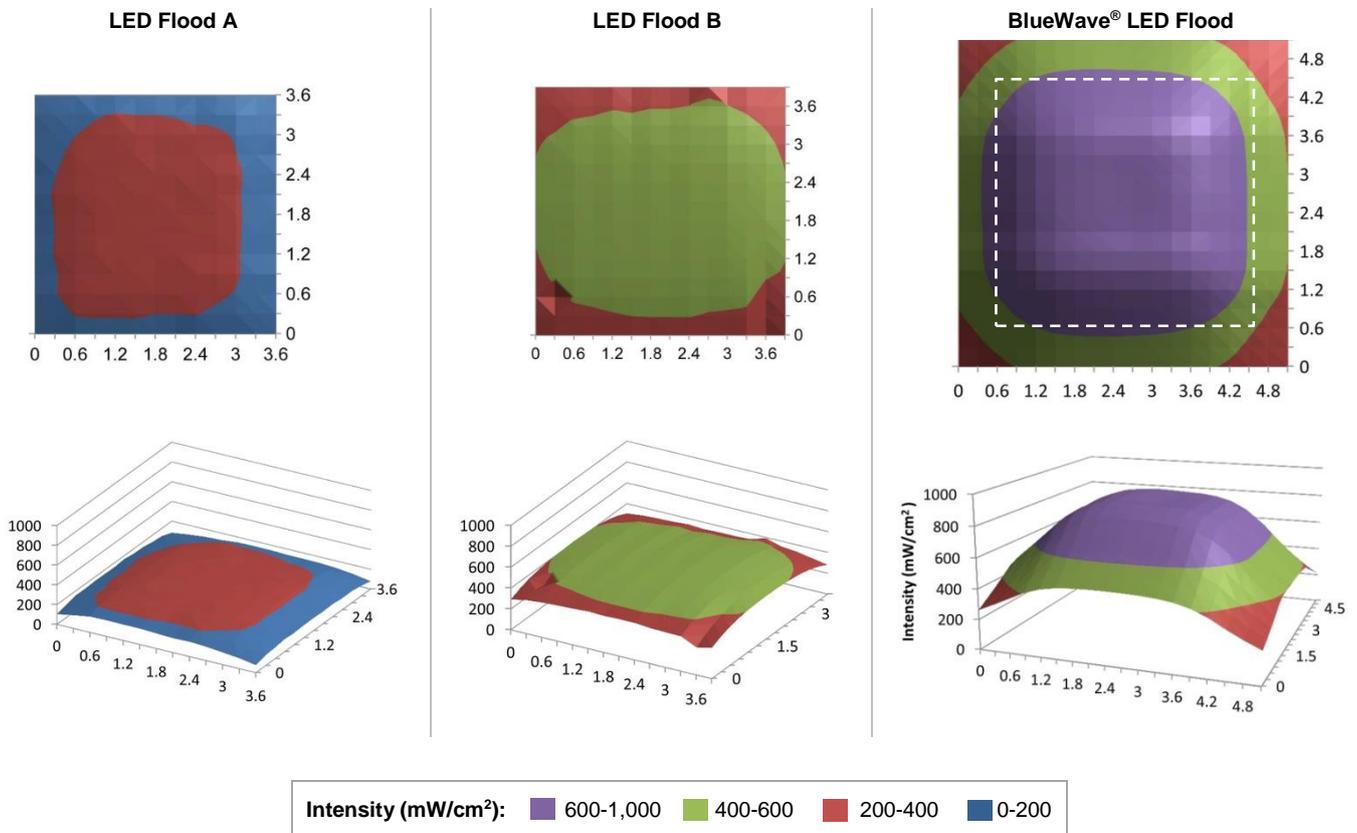
When compared to competitor models, the Dymax BlueWave® LED Flood offers greater intensity, a larger active area, better uniformity, and improved short-term degradation, all helping to bring you shorter cure times and more efficient cures. See how the BlueWave® LED Flood compares to other LED flood lamps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

	Competitor Models		Dymax
	LED Flood A	LED Flood B	BlueWave® LED Flood
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

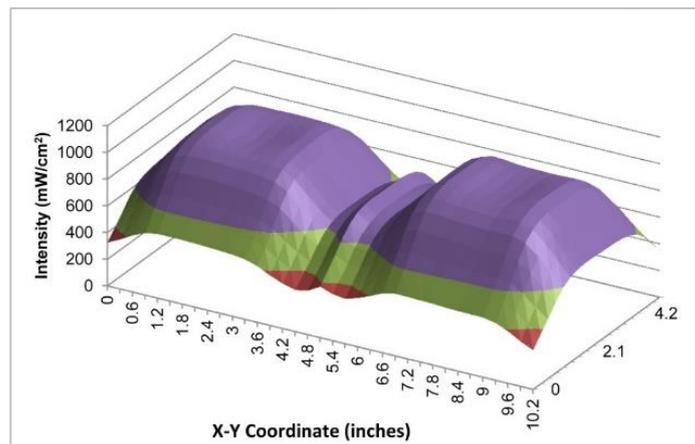
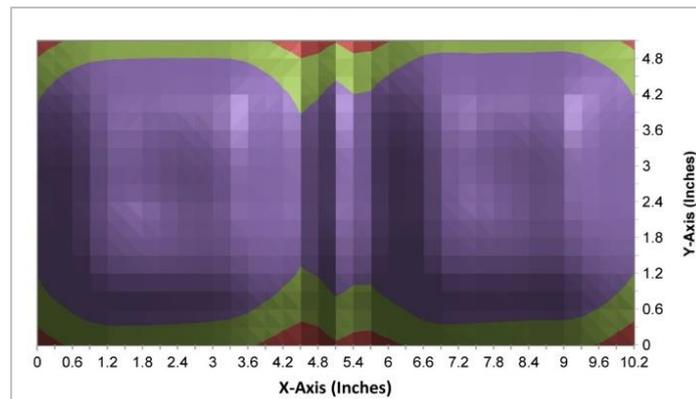
When compared to other units, the BlueWave® LED Flood provides much higher intensity and more overall uniformity across the active area. These benefits allow shorter cure times, and in turn, faster manufacturing throughput. See how the BlueWave® LED Flood compares to other units in the charts below.



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.

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.

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 www.dymax.com/adhesives/led-light-curable-adhesives 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.

Dymax Equipment Try-and-Buy Program

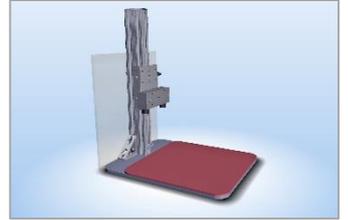
Take advantage of the opportunity to evaluate the benefits of light-curing technology for your application through our Equipment Try-and-Buy Program. An assortment of light-curing equipment has been allocated for this program for your in-house evaluation. Contact your local Dymax representative for more information.

Accessories

Standard Mounting Stand Kit

A simple and cost effective mounting stand that features a rear acrylic shield.

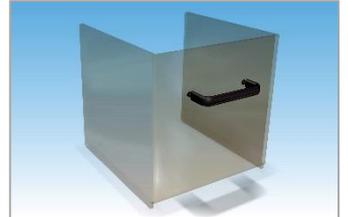
PN 41268



Shield

A simple and cost effective 3-sided shield that is removed manually.

PN 41395



Light Shield

360° shielding. Swing-up door and slide-out shelf. Not compatible with Dymax shutters. *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.*

PN 41321



Radiometers

ACCU-CAL™ radiometers are simple to operate and offer repeatable measurement of curing energy.

PN 40519 ACCU-CAL™ 50-LED Radiometer





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