



# BlueWave<sup>®</sup> LED DX-1000

## Flexible LED UV Light-Curing System

The Dymax BlueWave<sup>®</sup> LED DX-1000 is a flexible LED light-curing system that utilizes liquid-filled or fiber-optic quartz lightguides to deliver up to 15 W/cm<sup>2</sup> of curing energy in a spot-cure configuration. The flexibility of the DX-1000 also allows it to be configured to deliver up to 1 W/cm<sup>2</sup> of energy over a 2.5 cm x 2.5 cm (1" x 1") area for applications that require larger exposure area.

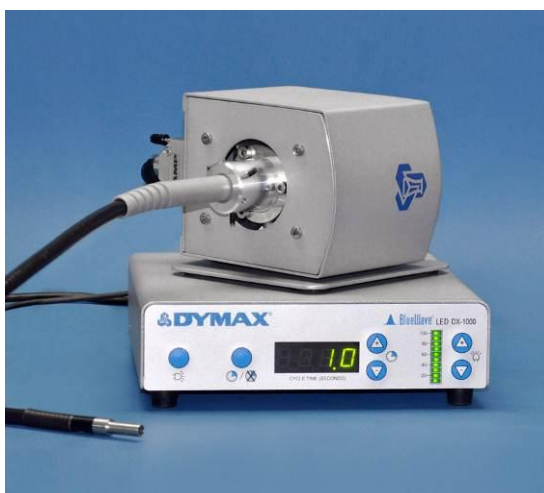
The *BlueWave LED DX-1000* provides all the benefits of Dymax's advanced LED light-curing technology in a flexible system design that can adapt to meet changing business and application needs.



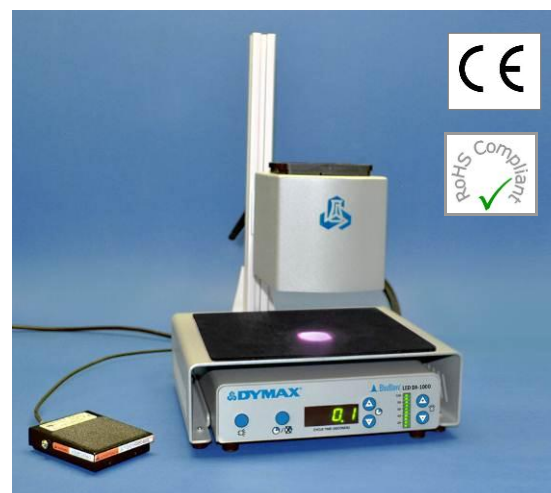
Spot-Lamp Configuration with Optional Adjustable Stand and Work Platform, Lightguide Adaptor, and Lightguide  
**PN 40560, 40725, 40743, 5720**



Spot-Lamp Configuration with Optional Adjustable Stand and Work Platform, Lightguide Adaptor, Lightguide, and Lightguide Mounting Stand  
**PN 40560, 40725, 5720, 40743, 39700**



Spot-Lamp Configuration with Optional Base, Lightguide Adaptor, and Lightguide  
**PN 40560, 40755, 40743, 5720**

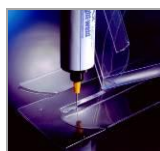
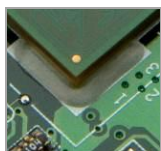


Flood Configuration with Optional Adjustable Stand and Work Platform  
**PN 40560, 40725**

FEATURES	BENEFITS
Single or multi-pole lightguide and dual-lens optical accessory	<ul style="list-style-type: none"> <li>Flexible, configurable light delivery options</li> <li>High-intensity spot cure</li> <li>Small-area [2.5 cm x 2.5 cm (1" x 1")] cure capability to ~7.6 cm (3") distance</li> </ul>
High-intensity LED with efficient cooling	<ul style="list-style-type: none"> <li>Consistent LED frequency and intensity output for better process control</li> <li>Longer life than mercury-arc lamps and other LED curing systems</li> <li>Lower consumables and on-hand "spare" inventory costs (light source &amp; lightguides)</li> </ul>
LED with 385 nm narrow-spectrum output	<ul style="list-style-type: none"> <li>Cooler cure environment for thermally sensitive substrates</li> <li>Replaces hazardous mercury-arc lamp with environmentally friendly LED</li> </ul>
Lower energy consumption than conventional UV lamps (<100 watts)	<ul style="list-style-type: none"> <li>Reduce electrical consumption by up to 80%</li> </ul>
Instant On/Off with 100% duty-cycle capability	<ul style="list-style-type: none"> <li>Highest throughput (exposure cycles "at the speed of light")</li> <li>Significantly reduced maintenance downtime as compared to conventional lamp replacement</li> </ul>
Shutter-free design	<ul style="list-style-type: none"> <li>Reliable operation with lower maintenance costs (no moving parts)</li> </ul>
Adjustable intensity (0 - 100% in 1% steps)	<ul style="list-style-type: none"> <li>Superior accuracy (versus "closed loop feedback") for optimum process control</li> </ul>
Co-optimized to cure a variety of Dymax LED adhesive formulations	<ul style="list-style-type: none"> <li>Compatible with a variety of Dymax light-curable formulations (see table below)</li> </ul>
Self-contained, lightweight irradiator head with cable interface	<ul style="list-style-type: none"> <li>Flexibility to mount the irradiator head remotely from controller for automated process equipment integration, or to free up valuable workstation surface space (up to 3 M [10 ft] from controller to irradiator)</li> </ul>

## Adhesives Compatible with the BlueWave® LED DX-1000

With the combination of expertise in LED light-curing equipment technology design and adhesive formulation development, there is an ever-growing list of formulations optimized to cure with the *BlueWave LED DX-1000* at lightning speeds for a multitude of applications in any industry segment.

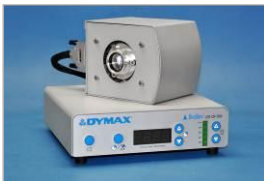


Dymax Product	Interfacial Cure Time, Glass to Glass*	Dymax Product	Interfacial Cure Time, Glass to Glass*
<b>Electronics Adhesives and Coatings</b>		<b>SPEEDMASK® Masking Resins</b>	
9001-E-V3.0	1.0 sec	726-SC	0.2 sec
9001-E-V3.5	≤2.0 sec	<b>Structural Bonding Adhesives</b>	
9-20557	3.0 sec	6-621	≤1.0 sec
9-20557-LV	≤4.0 sec	6-625-SV01-REV-A	≤3.0 sec
9422-SC	0.2 sec	<b>MD® Medical Device Adhesives</b>	
9422-T-SC	0.2 sec	210-CTH	0.2 sec
9481-E	4.0 sec	211-CTH	0.2 sec
984-LVUF	0.2 sec	1120-M-UR	0.2 sec
9-911-REV-A	1.0 sec	1128-A-M	≤3.0 sec
<b>Glass Bonding Adhesives</b>		1161-M	0.2 sec
429	≤5.0 sec	1163-M	0.2 sec
<b>Plastic Bonding Adhesives</b>		1165-M	0.2 sec
3030	0.2 sec	1168-M	0.2 sec
3031	0.2 sec	1180-M	0.2 sec
3069-GEL	0.2 sec	1187-M	0.2 sec
3094	0.2 sec	1201-M-SC	0.2 sec
3130-UR	0.2 sec		
3227-UR	0.2 sec		

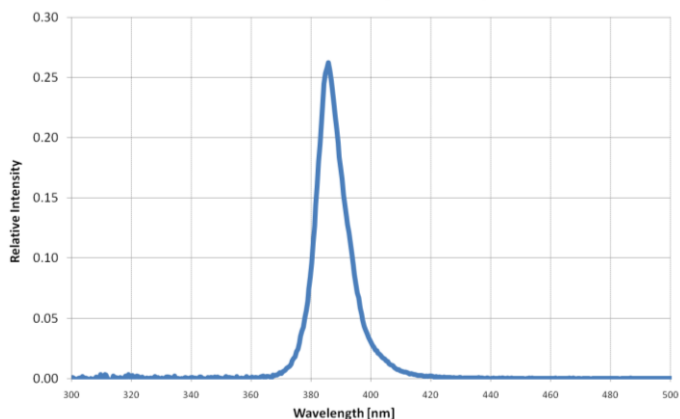
\* Interfacial cure time is based on glass-to-glass bonding with the *BlueWave LED DX-1000* (flood or spot mode) or the *BlueWave LED Prime UVA*; minimum intensity of 675 mW/cm<sup>2</sup>.

# System Specifications

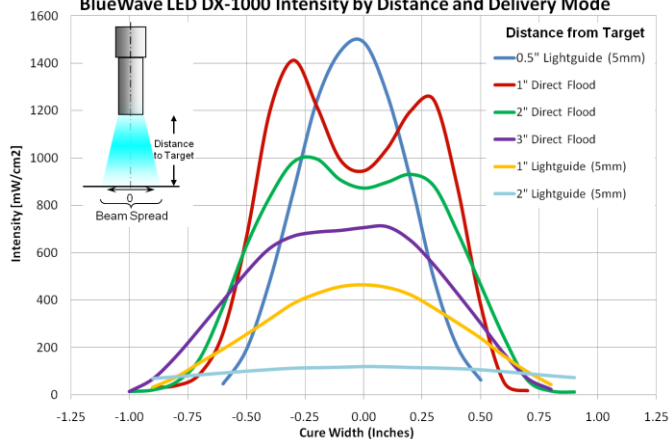
## SPECIFICATIONS

<b>Part Number</b>	 <b>PN 40560</b> Base System for Custom Mounting and System Integration (Mount Supplied by Customer)
<b>Output</b> (measured by ACCU-CAL™ 50-LED)	1.0 [W/cm <sup>2</sup> ] at 2.5 cm [1.0"] in direct emission (flood mode) 15.0 [W/cm <sup>2</sup> ] at 1.3 cm [0.5"] with 5 mm x 1 M liquid lightguide (spot mode)
<b>Power Requirements</b>	100-240V, 47-63 Hz (auto ranging); 100 watts maximum
<b>LED Timer</b>	0.1 to 999.9 seconds
<b>LED Activation</b>	Foot switch, front panel, or PLC
<b>Cooling</b>	Forced air / fan (controller and irradiator head)
<b>Hour Meter</b>	Digital LCD; total unit life time (non-resettable) and total LED exposure time
<b>Controller Dimensions / Weight</b>	16.5 cm x 22.9 cm x 5.7 cm [6.5" x 9.0" x 2.25"] (W x D x H) / 1.1 kg [2.4 lbs]
<b>Irradiator Head Dimensions / Weight</b>	10.2 cm x 12.7 cm x 11.4 cm [4.0" x 5.0" x 4.5"] (W x D x H) / 1.3 kg [2.9 lbs]
<b>Interface Cable Length</b>	Choice of 45 cm [18"], 0.91 M [3 ft], 1.82 M [6 ft], or 3.04 M [10 ft ] lengths
<b>Unit Warranty</b>	Operation warranted for 3 years from purchase
<b>Recommended Accessories</b>	<b>PN 40519</b> ACCU-CAL™ 50-LED Radiometer

BlueWave LED DX-1000 Spectral Output



BlueWave LED DX-1000 Intensity by Distance and Delivery Mode



## Accessories



Adjustable Stand with Work Platform **PN 40725**



Benchtop Base and Lightguide Adapter Kit **PN 40755**



2 Lens Collimating Optic #1 **PN 40581**



Lightguide Adapter **PN 40743**

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LIT284EU 1/30/2012

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