

OmniCure®

High Power Fiber Light Guide

A High Performance Solution to Deliver High Output UV Curing Energy...
Exactly Where You Need It; Exactly How You Need It.

The OmniCure® High Power Fiber Light Guides (HPFLG) are ideal for use when multiple outputs with equal intensities to each output are required. Lumen Dynamics' proprietary fused fiber bundle and higher Numerical Aperture (NA) allow OmniCure® HPFLGs to capture maximum light power from the UV curing light source. Fiber light guides are virtually free of optical degradation compared to liquid light guides. OmniCure® multi-leg HPFLG greatly improves UV bonding manufacturing processes by offering key advantages over competitive solutions:

Improves UV high power transmission from the light source to multiple curing sites

Reduces UV bonding manufacturing costs with faster curing time, higher product manufacturing yields and improved power efficiency

Delivers equal distribution (+/-5%) of light energy to curing sites from a single light source for repeatable high quality results

Provides 25%-50% higher throughput than liquid light guide to transmit greater energy from the lamp

Offers a wide range of standard light guides (3mm, 5mm, multi-leg) and output adaptors (cure ring, light line, collimator, 90° angle) to meet customers' specific needs



FEATURES	BENEFITS
No degradation thus longer life time than liquid light guides	Eliminates liquid light guide replacement costs
Higher output power	Improves lamp usable lifetime and reduces operating costs
Balanced output through multiple legs (+/-5%)	Provides higher yields for your curing processes and faster manufacturing equipment setup time
Transmitted light wavelengths from 160nm to 1200nm	Enables tack-free UV light curing for most adhesives

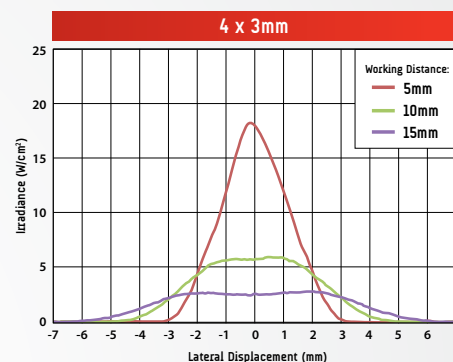
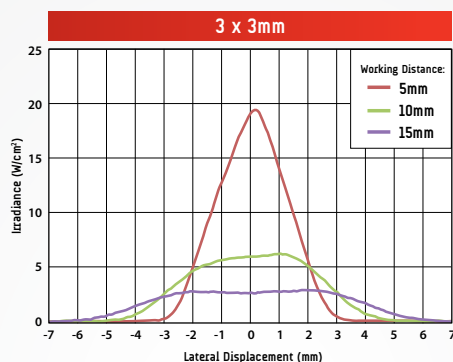
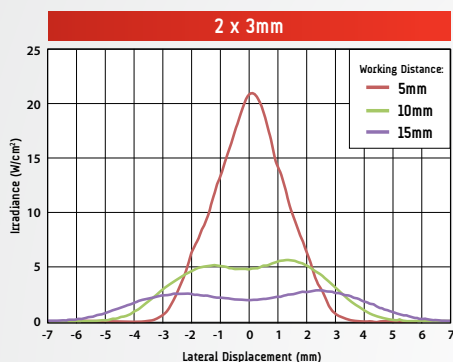
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GENERAL SPECIFICATIONS

Spectrum Range	160nm to 1200nm
Multi-legged Output Balancing Tolerance	+/-5%
Numerical Aperture (NA):	0.37

Beam Profiles with the OmniCure® S2000

Additional beam profiles available, please contact our sales department.



Typical irradiance measurements with a tolerance of +/- 10% (System lamp lifetime: < 100 hours).

Typical Output

HPFLG	Average Irradiance (W/cm²)**			Power (W)*		
	S2000	S1500	S1000	S2000	S1500	S1000
2 x 3mm	22.6	22.8	18.7	1.6	1.6	1.3
3 x 3mm	20.0	23.2	14.3	1.4	1.5	1.0
4 x 3mm	17.9	18.1	11.5	1.3	1.3	0.8

* Total power measured by an OmniCure® R2000 Radiometer (Working distance: 0 mm).

** Average irradiance: Power at the individual leg output of the light guide divided by the output area.

Light Guide Cross Section



High Power Fiber Light Guide

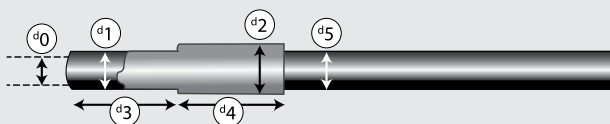


Standard Randomized Fiber Light Guide

The uniform distribution of the fibers within the High Power Fiber Light Guide allow an equal distribution of light energy among each leg in a multi-legged Light Guide.

Light Guide Output Dimensions

Core	End Fittings				Tube	Min. Bend Radius
	d0	d1	d2	d3		
3mm	5mm	9mm	20mm	25.2mm	7mm	40mm
5mm	7mm	10mm	20mm	25.2mm	9.5mm	60mm



Ordering Guideline

Light Guide	Length	Part Number
2 x 3mm	1000mm	806-00005R
3 x 3mm	1000mm	806-00007R
4 x 3mm	1000mm	806-00006R

Additional configurations available; please contact our sales department



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For a detailed look at our application solutions visit: www.LDGI-OmniCure.com/applications.php

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