

Laser Diode Arrays

808nm, Conduction-cooled, Water-cooled, OEM Industry Solutions



Devices that use high-power semiconductor laser bars as light-emitting components are collectively referred to as bar lasers, which are also known as array products, including components such as the laser bar, heat sink, and electrodes. The main difference from single-emitter devices is that the bar contains multiple emitters, which are electrically parallel to each other.

This series refers to Lumispot's 808nm bar arrays, primarily operating in QCW (Quasi-Continuous Wave) mode, mainly used in solid-state laser pumping sources, lighting, detection, and research fields.

Applications:

Pump source for solid-state laser
Illumination
Research
Detection



Compact structure



Long lifespan



Customization



AuSn Solder Packaging

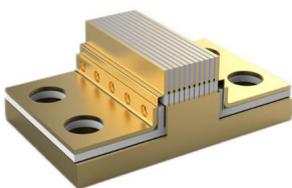


High electro-optical efficiency

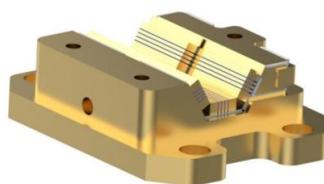


Macrochannel water cooling

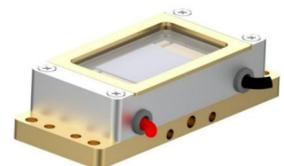
Laser Diode Arrays Categories



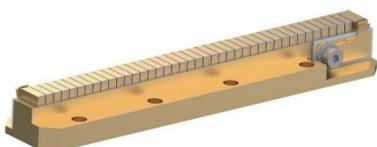
Conduction-cooled LD Horizontal Array



Arc-Shape Laser Diode Array



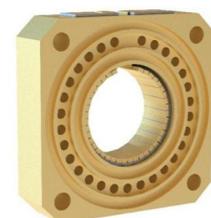
Fast Axis Collimation Bar Stacked Array



Horizontal Laser Diode Mini Array



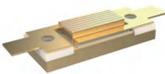
Polygon Laser Diode Array



Annular Laser Diode Array

Laser Diode Horizontal Array

Technical Datasheet

LM-808-Q1200-F-G6-P0.73-0 	Unit	Min.	Typical	Max.
Peak Power (@25 C)	W	200	1200	1800
Central Wavelength (@25 C)	nm	/	808	/
Central Wavelength Range	nm		±2	
Spectral Width (FWHM)	nm	/	3	/
Fast Axis Divergence Angle (FWHM)	°	/	36	/
Slow Axis Divergence Angle (FWHM)	°	/	8	/
Wavelength Temperature Coefficient	nm/C	/	0.26	0.28
Pulse Width	µs	/	200	500
Duty Cycle	%	/	0.4	1
Operating Current	A	/	200	300
Electro-Optical Conversion Efficiency	%	50	55	/
Operating Voltage	V	/	11.4	12
Number of Bars	-	/	6	/
Bar Spacing	mm	/	0.73	/
Operating Temperature	C	-45	25	70
Storage Temperature	C	-60	25	85

Note: Wavelength, power, bar dimensions, and external structure, among other technical specifications, can be customized upon request.

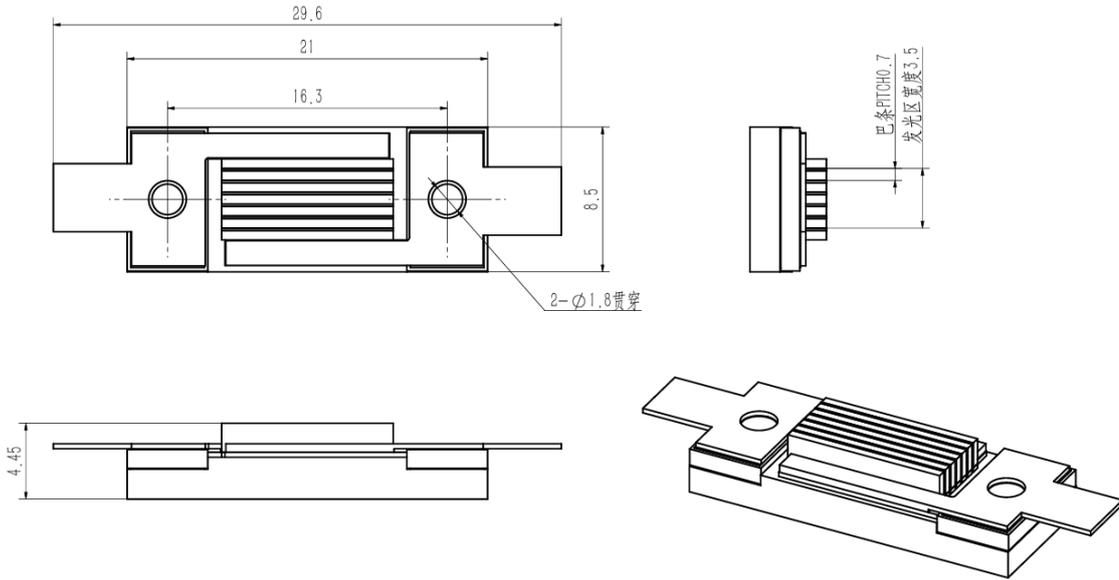
LM-808-Q3600-F-G6H3-P0.55-0 	Unit	Min.	Typical	Max.
Peak Power (@25 C)	W	/	3600	5400
Central Wavelength (@25 C)	nm	/	808	/
Central Wavelength Range	nm		±2	
Spectral Width (FWHM)	nm	/	3	/
Fast Axis Divergence Angle (FWHM)	°	/	36	/
Slow Axis Divergence Angle (FWHM)	°	/	8	/
Wavelength Temperature Coefficient	nm/C	/	0.26	0.28
Pulse Width	µs	/	200	500
Duty Cycle	%	/	0.4	1
Operating Current	A	/	200	300
Electro-Optical Conversion Efficiency	%	50	55	/
Operating Voltage	V	/	34.2	36
Number of Bars	-	/	18	/
Bar Spacing	mm	/	0.55	/
Operating Temperature	C	-45	25	70
Storage Temperature	C	-60	25	85

Note: Wavelength, power, bar dimensions, and external structure, among other technical specifications, can be customized upon request.

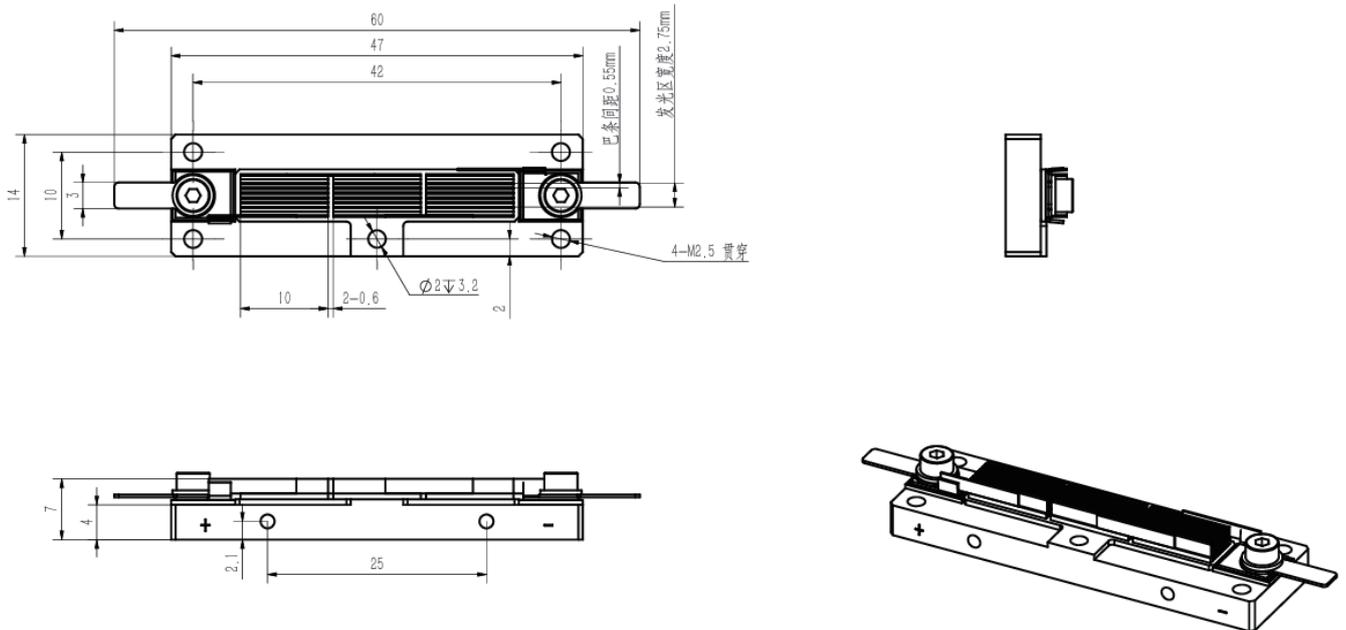
Laser Diode Horizontal Array

Dimensional Graph

LM-808-Q1200-F-G6-P0.73-0



LM-808-Q3600-F-G6H3-P0.55-0



Laser Diode Mini Bar Array

Technical Datasheet

LM-808-Q6000-H-G40-P1.9-0	Unit	Min.	Typical	Max.
Peak Power (@25°C)	W	/	6000	/
Central Wavelength (@25°C)	nm	/	808	/
Central Wavelength Range	nm		±2	
Spectral Width (FWHM)	nm	/	4	/
Fast Axis Divergence Angle (FWHM)	°	/	36	/
Slow Axis Divergence Angle (FWHM)	°	/	8	/
Wavelength Temperature Coefficient	nm/°C	/	0.26	0.28
Pulse Width	µs	/	150	300
Duty Cycle	%	/	0.4	1
Operating Current	A	/	150	/
Electro-Optical Conversion Efficiency	%	50	55	/
Operating Voltage	V	/	76	80
Number of Bars	-	/	40	/
Bar Spacing	mm	/	1.9	/
Operating Temperature	°C	-45	25	60
Storage Temperature	°C	-60	25	85

Note: Wavelength, power, bar dimensions, and external structure, among other technical specifications, can be customized upon request.

Fast Axis Collimation Bar Stacked Array

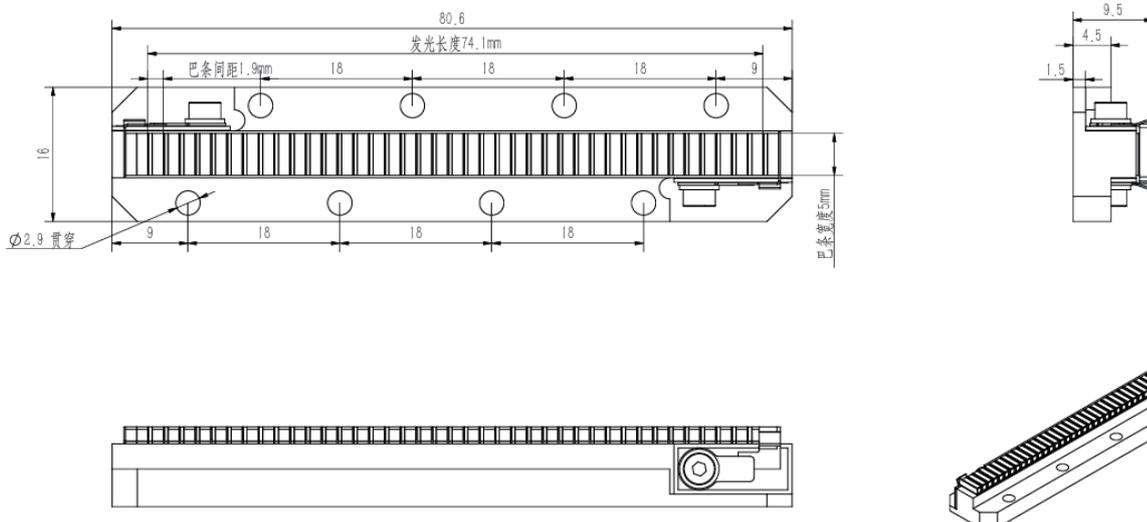
LM-808-Q7200-F-G36-P0.73-1	Unit	Min.	Typical	Max.
Peak Power (@25°C)	W	/	7200	10800
Central Wavelength (@25°C)	nm	/	808	/
Central Wavelength Range	nm		±2	
Spectral Width (FWHM)	nm	/	4	/
Fast Axis Divergence Angle (FWHM)	°	/	2	/
Slow Axis Divergence Angle (FWHM)	°	/	8	/
Wavelength Temperature Coefficient	nm/°C	/	0.26	0.28
Pulse Width	µs	/	150	300
Duty Cycle	%	/	0.4	1
Operating Current	A	/	200	300
Electro-Optical Conversion Efficiency	%	50	55	/
Operating Voltage	V	/	68.4	72
Number of Bars	-	/	36	/
Bar Spacing	mm	/	0.73	/
Operating Temperature	°C	-45	25	70
Storage Temperature	°C	-60	25	85

Note: Wavelength, power, bar dimensions, and external structure, among other technical specifications, can be customized upon request.

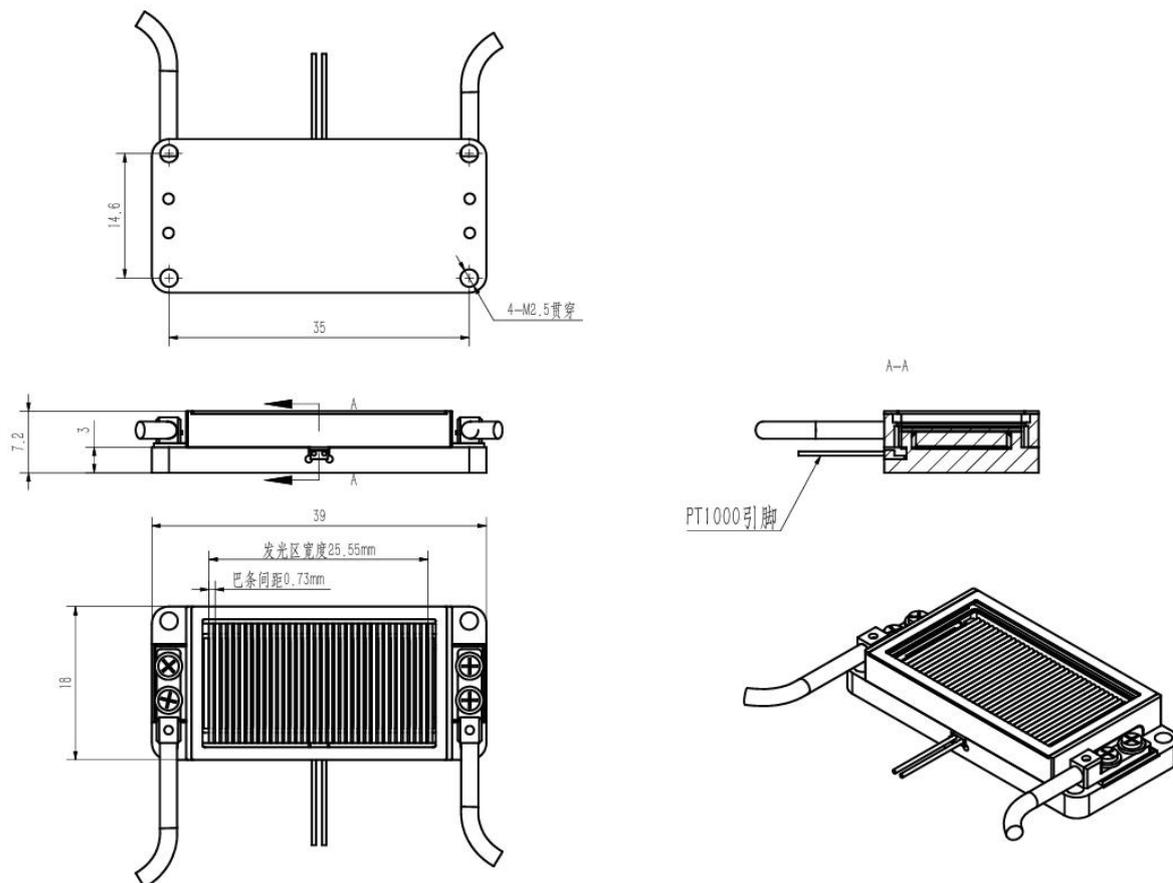
Laser Diode Mini Bar Arrays & FAC LD Arrays

Dimensional Graph

LM-808-Q6000-H-G40-P19-0



LM-808-Q7200-F-G36-P0.73-1



Polygon and Annular Laser Diode Array

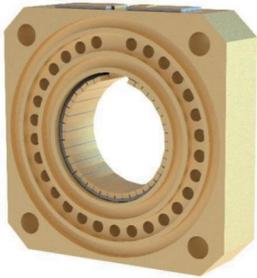
Technical Datasheet

LM-808-Q7200-F-G2P3H6-P0.55-0



	Unit	Min.	Typical	Max.
Peak Power (@25°C)	W	/	7200	10800
Central Wavelength (@25°C)	nm	/	808	/
Central Wavelength Range	nm		±2	
Spectral Width (FWHM)	nm	/	4	/
Fast Axis Divergence Angle (FWHM)	°	/	36	/
Slow Axis Divergence Angle (FWHM)	°	/	8	/
Wavelength Temperature Coefficient	nm/C	/	0.26	0.28
Pulse Width	μs	/	150	300
Duty Cycle	%	/	0.4	1
Operating Current	A	/	200	300
Electro-Optical Conversion Efficiency	%	50	55	/
Operating Voltage	V	/	68.4	72
Number of Bars	-	/	36	/
Bar Spacing	mm	/	0.55	/
Operating Temperature	°C	-45	25	70
Storage Temperature	°C	-60	25	85

Note: Wavelength, power, bar dimensions, and external structure, among other technical specifications, can be customized upon request.



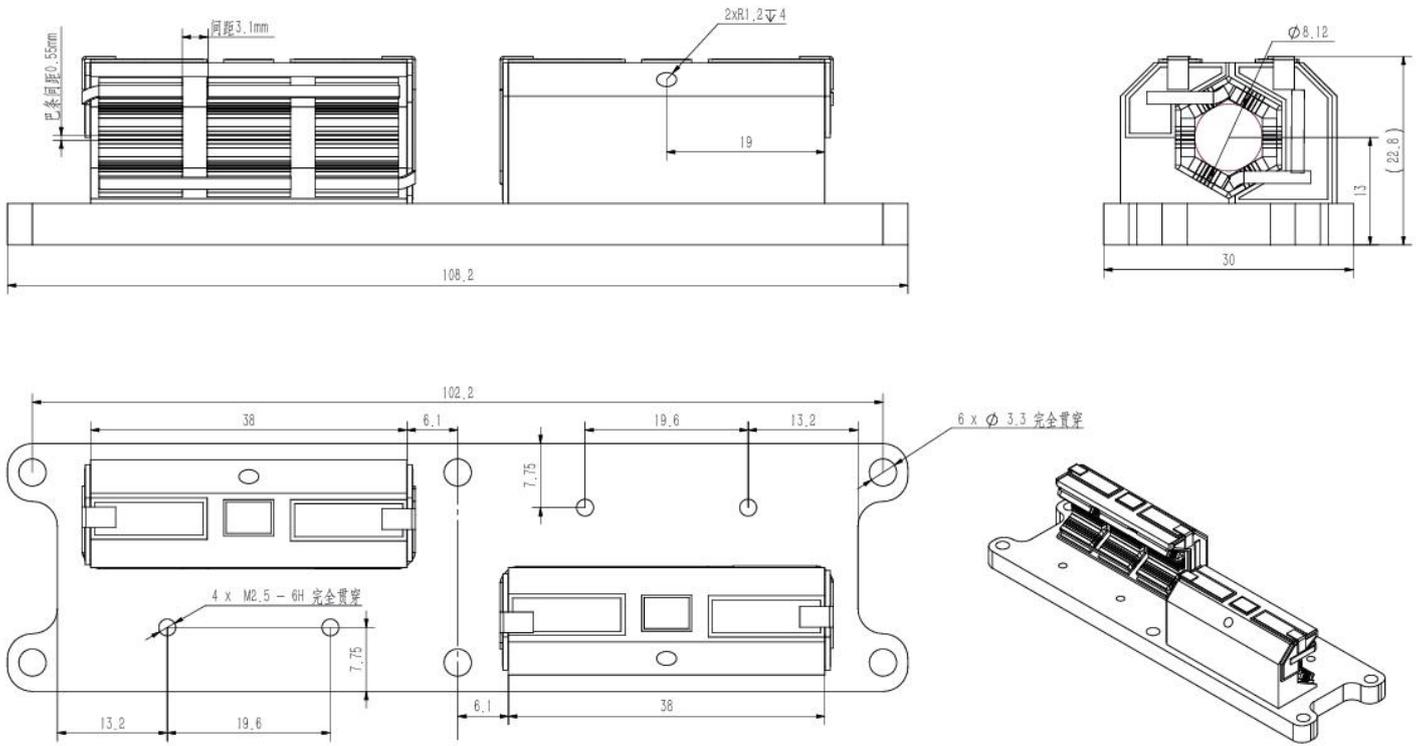
	Unit	LM-808-Q800-C16-HA	LM-808-Q1000-C20-HA	LM-808-Q1600-C16-HA	LM-808-Q2000-C20-HA
Central Wavelength	nm	808±2nm	808±2nm	808±2nm	808±2nm
Pump Peak Power	W	800	1000	1600	2000
Pulse Width	μs	250μs	250μs	250μs	250μs
Duty Cycle	%	25%	25%	3%	3%
Number of Bars	-	16	20	16	20
Operating Current	A	≤50	≤50	≤100	≤100
Operating Voltage	V	≤2/Bar			
Cooling Method	-	Macrochannel water cooling			
Water Cooling Temperature	°C	25±3			
Water Flow Rate	L/min	>8			
Storage Temperature	°C	-10-50			

Note: Wavelength, power, bar dimensions, and external structure, among other technical specifications, can be customized upon request.

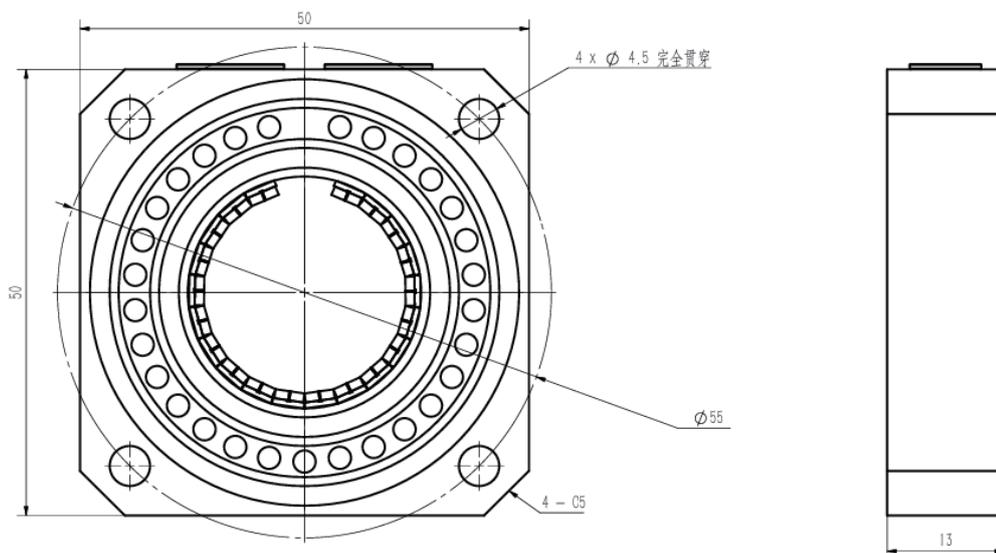
Laser Diode Mini Bar Arrays & FAC LD Arrays

Dimensional Graph

LM-808-Q7200-F-G2P3H6-P0.55-0



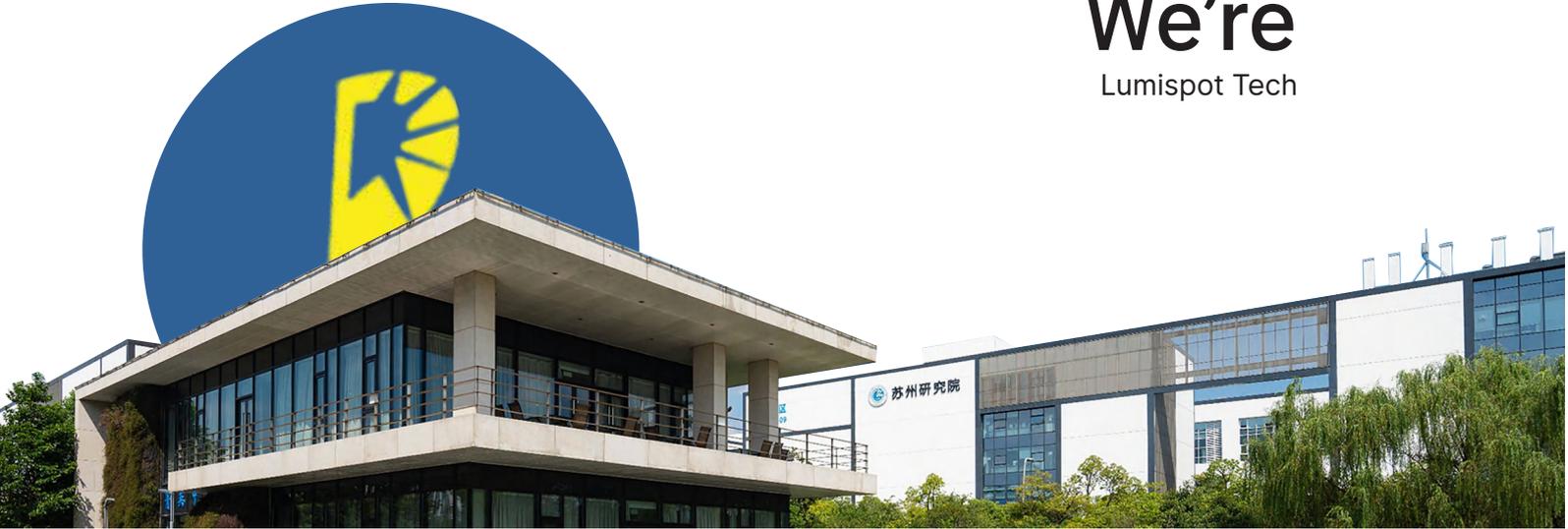
LM-808-Q2000-C20-HA



Company Profile

About Lumispot

We're Lumispot Tech



¥ 78million
Register Capital

6+
Ph.D

80%
Proportion of Talent

150+
Patents



Lumispot Technology Group was established in 2010, located in Wuxi with registered capital of CNY 78.55 million, and production area of about 25,000 square meters and more than 500 employees. Through more than 14 years of efforts and development, Lumispot has become a leader in special laser information technology domain with a strong technical foundation.

Our expertise focusses on laser technology research & development, offering a wide range of products including laser diode, erbium laser, fiber lasers, solid-state lasers, and its system, such as laser rangefinder modules, LiDAR lasers, structured lasers, illumination systems, FOG components, dazzlers, etc. which are widely applied for defense & security, LiDAR system, remote sensing, inertial navigation, technical research, etc.

Our company is rewarded as National High-tech Enterprise and National Innovation enterprise, and more than 150 patent have been obtained.

Contact

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**Illuminate Future
From Laser**

We aim to become the global leader in laser special information domain.

