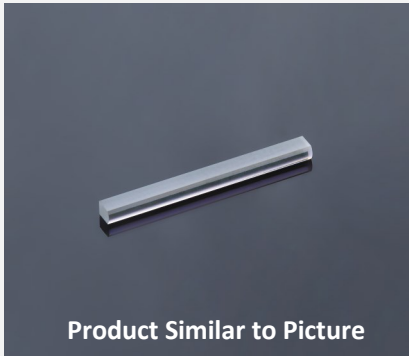


Fast Axis Collimator

Blue FAC300 (BFL = 70μm)



Product Similar to Picture

Features and Advantages

Acylindrical lens for the collimation of the fast axis of diode lasers.

Power Enclosure >92% within ± 1.2 mrad and >94% of the energy within Gaussian distribution.

Product Specifications

Specification Data	Unit	Value
Material		FL-Blue
Width (W)	mm	0.5 ± 0.05
Thickness (T)	mm	0.41 ± 0.01
Clear aperture	mm ²	$(L-0.5) \times 0.4$
Refractive index n @ 450nm		>1.75
Effective focal length (EFL) @ 450nm	mm	0.30
Back focal length (BFL) @ 450nm	mm	0.07
Numerical aperture (NA)		0.7
Transmission	%	> 99
Power within an angle of ± 1.2 mrad ⁽¹⁾	%	> 92
Power within Gaussian distribution	%	> 94
Surface imperfections (DIN ISO 10110-7)		5/2x0.025; C2x0.1; L2x0.025; E ⁽²⁾

Product Code **ZLE002382**

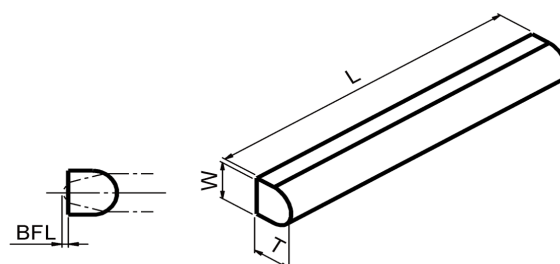
Specification Data	Unit	Value
Length (L)	mm	4.0 ± 0.05
AR-Coating	nm	430 - 470

⁽¹⁾ Valid for an emitter-height of 0.7 μm and no smile of the laser diode.

⁽²⁾ Chipping on short edge 0.2, chipping on long edge 0.08.

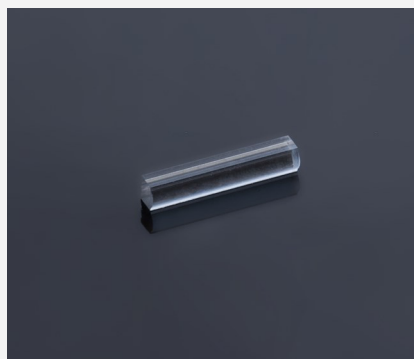
⁽³⁾ Example for customization — design, dimensions & coatings on request.

Product Dimensions (mm)



Fast Axis Collimator

FAC570 FS



Features and Advantages

Acylindrical biconvex lens for the collimation of the fast axis of diode lasers. The lens is made of fused silica and optimized for high power transmission so that it withstands powers of 300 W or even higher.

Product Specifications

Specification Data	Unit	Value
Material		Fused Silica
Width (W)	mm	1.0 ± 0.05
Thickness (T)	mm	0.96 ± 0.05
Refractive index n @ 450 nm		1.466
Effective focal length (EFL) @ 450 nm	mm	0.57
Back focal length (BFL) @ 450 nm	mm	0.17
Numerical aperture (NA)		0.58
Transmission / AOI	% / °	> 99 / 0-30
Power within an angle of ± 1.1 mrad ⁽¹⁾	%	> 90

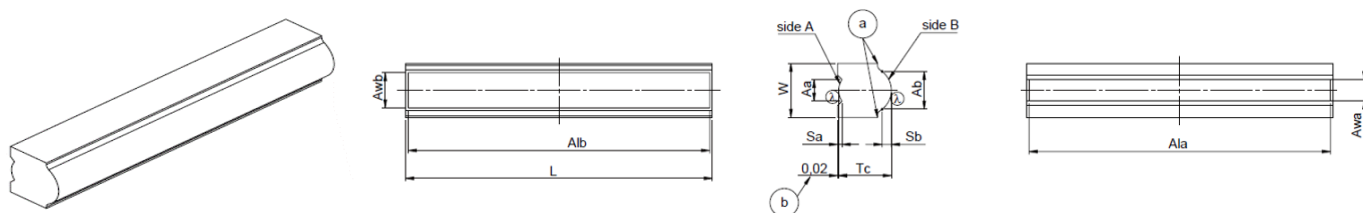
Product Code		ZLE002217 ⁽³⁾	ZLE002150	ZLE002284 ⁽³⁾	ZLE002270 ⁽³⁾
Specification Data	Unit	Value			
Length (L)	mm	14.0 ± 0.1	5.6 ± 0.1	4.0 ± 0.1	14.0 ± 0.1
Clear aperture (Side A)	mm ²	13.0 x 0.4	5.0 x 0.4	3.8 x 0.4	13.0 x 0.4
Clear aperture (Side B)	mm ²	13.0 x 0.65	5.0 x 0.65	3.8 x 0.65	13.0 x 0.6
AR-Coating	nm	400 - 480	400 - 480	400 - 480	790 - 990
Surface imperfections (DIN ISO 10110-7)		5/5x0.025; C2x0.04; L2x0.025; E ⁽²⁾	5/5x0.025; C2x0.04; L2x0.025; E ⁽²⁾	5/2x0.1; C2x0.1; L2x0.025; E ⁽²⁾	5/5x0.025; C2x0.04; L2x0.025; E ⁽²⁾

⁽¹⁾ Valid for an emitter-height of 1µm and no smile of the laser diode.

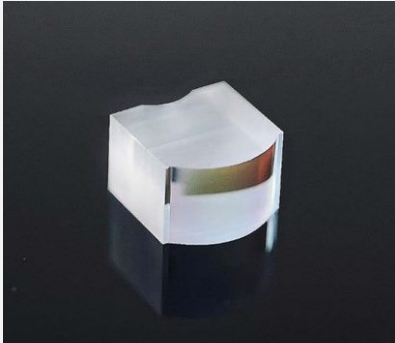
⁽²⁾ Chipping on short edge 0.2, chipping on long edge 0.08.

⁽³⁾ Example for customization – design, dimensions & coatings on request.

Product Drawing (mm)



Meniscus SAC for Compact Designs in Blue



Features and Advantages

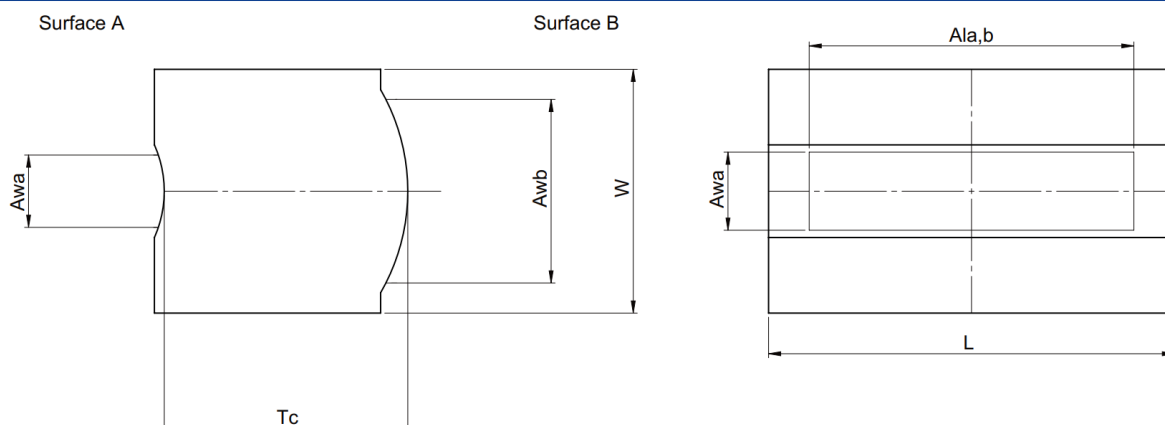
Concave-convex acylindrical lens for the collimation of the slow axis of diode lasers. Superior meniscus design for both small divergence and compact builds in high-power blue lasers.

(*)Product similar to image, see product drawing below.

Product Specifications

Product Code	ZLE002360	
Part No.	SAC 9.7	
Specification Data	Unit	Value
Material		FL-VIS-LI
Length (L)	mm	2.0 ± 0.05
Width (W)	mm	3.0 ± 0.05
Center thickness (Tc)	mm	3.03 ± 0.1
Clear Aperture Surface A (Ala x Awa)	mm ²	1.5×1.14
Clear Aperture Surface B (Alb x Awb)	mm ²	1.5×2.5
Effective Focal Length (EFL) @ 445 nm	mm	9.7 ± 0.8
Back focal length (BFL) @ 445nm	mm	4.0 ± 0.5
Transmission	%	> 99
AR Coating	nm	430 - 470
Power within an angle of ± 2.0 mrad	%	> 90
Surface imperfections (DIN ISO 10110-7)	5/3x0.025; C2x0.1; L2x0.025; E0.1	

Product Dimensions (mm)



Rev 03 | Updated June 8, 2022

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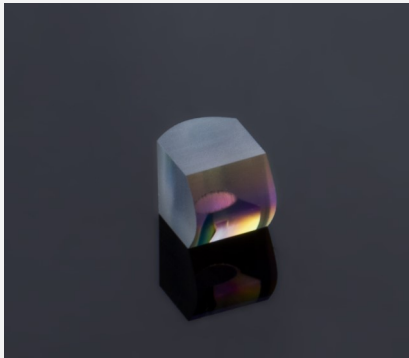
Focuslight (DG) Microoptics Co. Ltd.

Address: Bookenburgweg 4-8, 44319 Dortmund, Germany

Address: No. 49, Jingyi Road, Dongcheng Street, Dongguan City, Guangdong Province, China

Tel: +49 231 22 24 1 - 0 (DE) +86 29 8956 0050 (CN) | Email: sales@focuslight.com | Website: <https://www.focuslight.com>

Monolithic Collimator



Features and Advantages

Monolithic Collimator for blue multi-mode single emitters packaged in TO-cans, collimating both fast axis and slow axis at once.

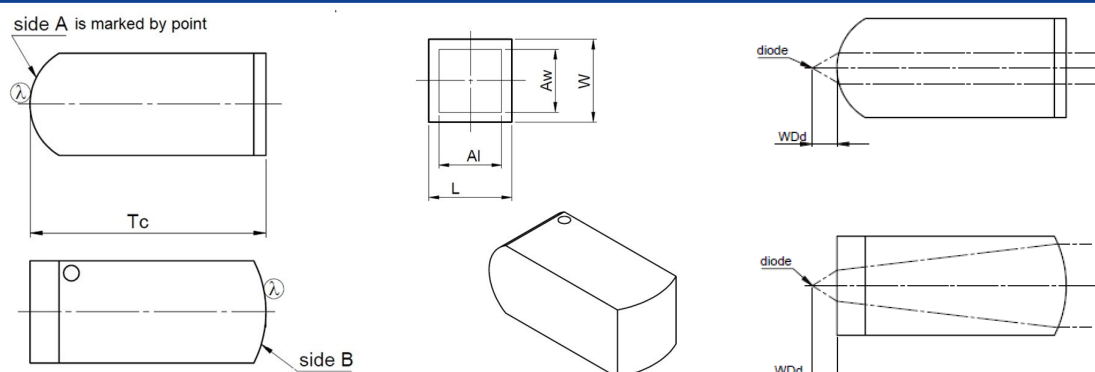
(*) Product similar to image, see product drawing below.

Product Specifications

Product Code	ZLE002061 ⁽¹⁾		
Specification Data	Unit	Value	
Material		S-BSL7	
Length (L)	mm	2.5 ± 0.05	
Width (W)	mm	2.5 ± 0.05	
Thickness (T)	mm	5.78 ± 0.05	
Clear Aperture (Al x Aw)	mm ²	1.9 x 1.9	
Design Wavelength (DW)	nm	445	
Refractive Index @ DW		1.526	
Effective Focal Length (EFL) @ DW	mm	5.02	
Working Distance (WD _d) and Back Focal Length (BFL) @ DW	mm	1.19	
Numerical Aperture (NA)		FA:0.5; SA:0.2	
Fast Axis Remaining Divergence (FW 1/e ²) - typically ⁽¹⁾	mrad	1.6	
Slow Axis Remaining Divergence (FW 1/e ²) - typically ⁽¹⁾	mrad	7.0	
AR Coating	nm	400-700	
Transmission	%	> 99	

⁽¹⁾ Divergence valid for an emitter-height of 1 µm and an emitter-width of 30 µm

Product Drawing



Rev 05 | Updated July 25, 2022 | RoHS compliant 2011/65/EU and 2015/863/EU

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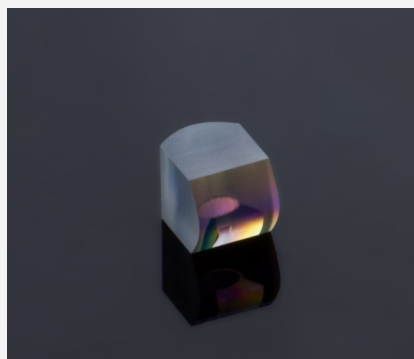
Address: Bookenburgweg 4-8, 44319 Dortmund, Germany

Address: No. 49, Jingyi Road, Dongcheng Street, Dongguan City, Guangdong Province, China

Tel: +49 231 22 24 1 - 0 (DE) +86 29 8956 0050 (CN) | Email: sales@focuslight.com | Website: <https://www.focuslight.com>

Coupler for Pumping Application

Monolithic solution for blue emitting TO-Cans



Features and Advantages

Monolithic beam shaping and focusing optic for efficient light coupling of a single emitter (TO-can) for pumping applications.

The coupler is designed to be mounted in front of a single emitter, which is mounted in a TO-can housing.

(*) Product similar to image, see product drawing below.

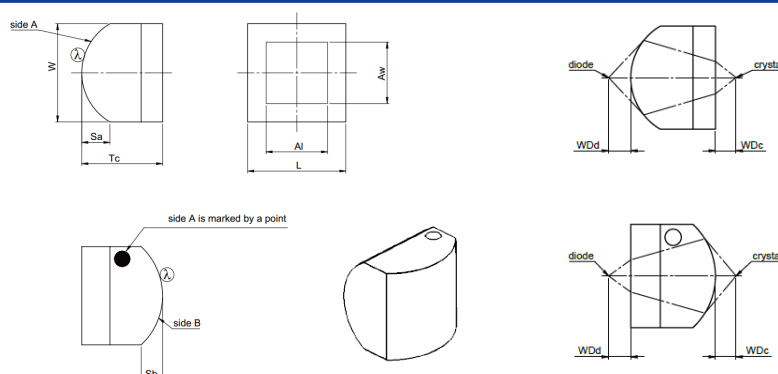
Product Specifications

Product Code	ZLE000420	
Specification Data	Unit	Value
Material		S-LAM52 (Ohara)
Length (L)	mm	2.4 ± 0.1
Width (W)	mm	2.4 ± 0.1
Thickness (T)	mm	$2.0 + 0 / - 0.1$
Clear Aperture ($A_l \times A_w$)	mm ²	1.5×1.5
Refractive Index @ 445 nm		1.739
Effective Focal Length (EFL) @ 445 nm	mm	FA: 1.047; SA: 1.752
Working Distance WD_d ⁽¹⁾	mm	1.19
Distance Coupler to Crystal WD_c	mm	7.0
Numerical Aperture (NA)		FA: 0.5; SA: 0.12
AR Coating	nm	420 - 470
Transmission	%	> 99
Pump Spot Size (FW 1/e ²) ⁽²⁾	μm	15 ± 5
Surface Imperfections (DIN ISO 10110-7)		5/ 10x0.01; C10x0.063; L4x0.016; E0.4

⁽¹⁾ Distance Emitter Facet to Coupler

⁽²⁾ Valid for an emitter height of 2 μm (NA 0.33) and an emitter width of 14 μm (NA 0.12)

Product Drawing



Rev 05 | Updated July 25, 2022 | RoHS compliant 2011/65/EU and 2015/863/EU

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BLUE DIODE LASER OPTICS



HIGH ABSORPTION MATERIAL PROCESSING

- 3D printing
- Welding: copper & aluminum

CONSUMER APPLICATION

- Blue laser engraving & cutting

LIGHTING

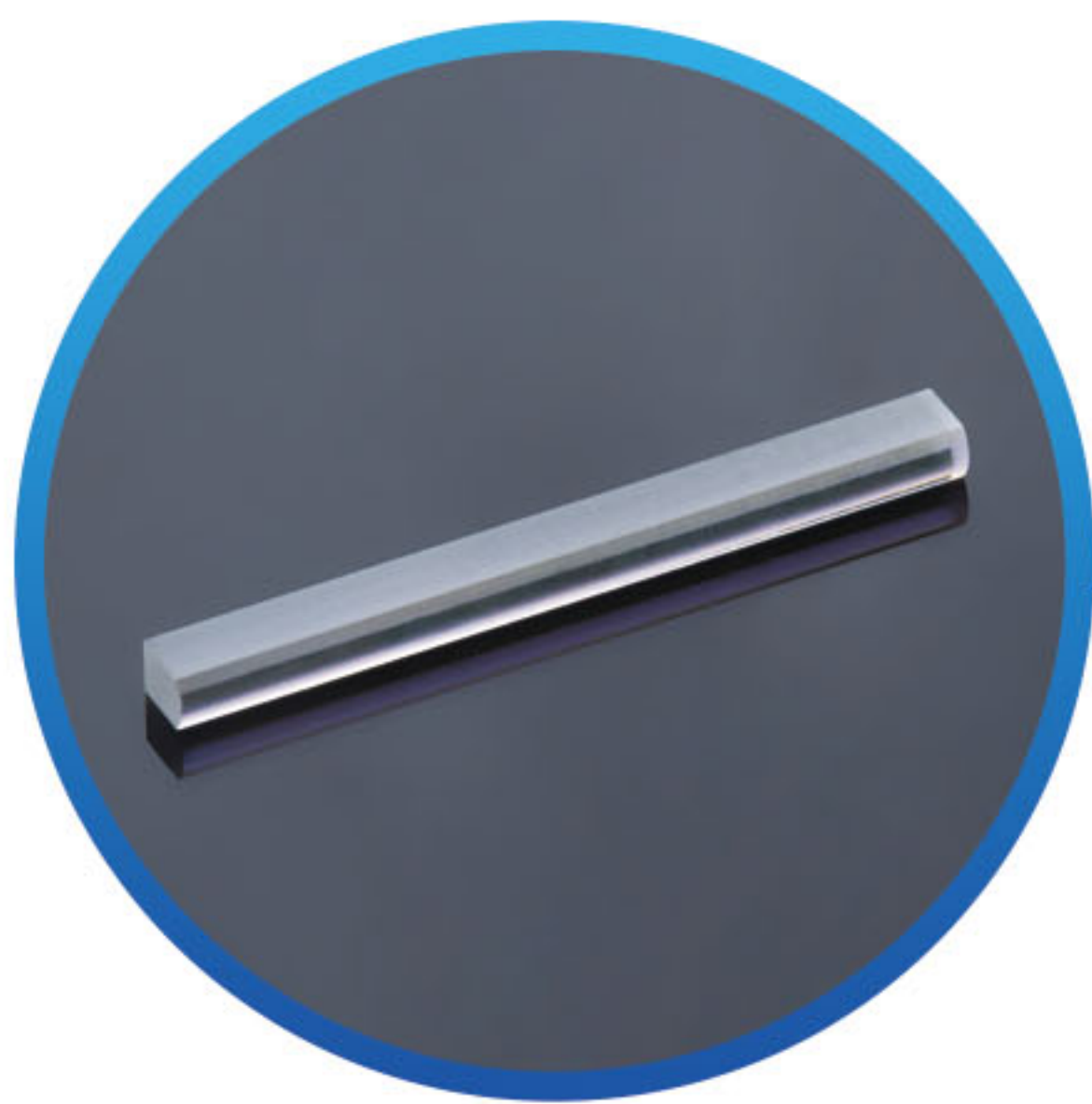
- Lighting via phosphors
- Laser projector

PUMPING SOURCE

- Pr:YLF and Ti:Sa

MEDICAL

- Bacterial treatment
- Surgery



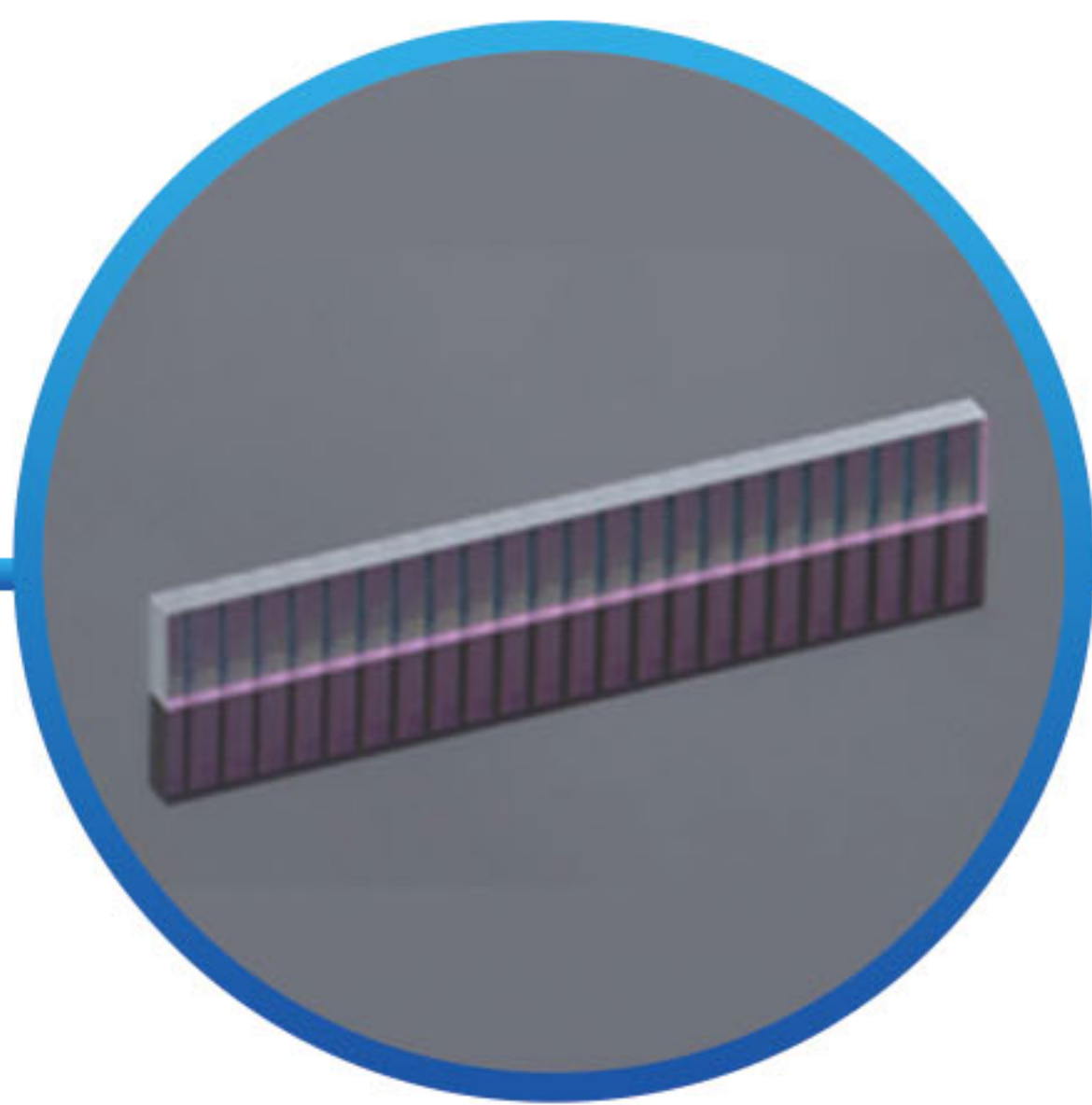
Blue FAC

Acylindrical plano-convex/biconvex fast axis collimator for the collimation of the fast axis of blue high-power diode lasers, with effective focal length of 160μm, 300μm, 570μm or customized EFL.



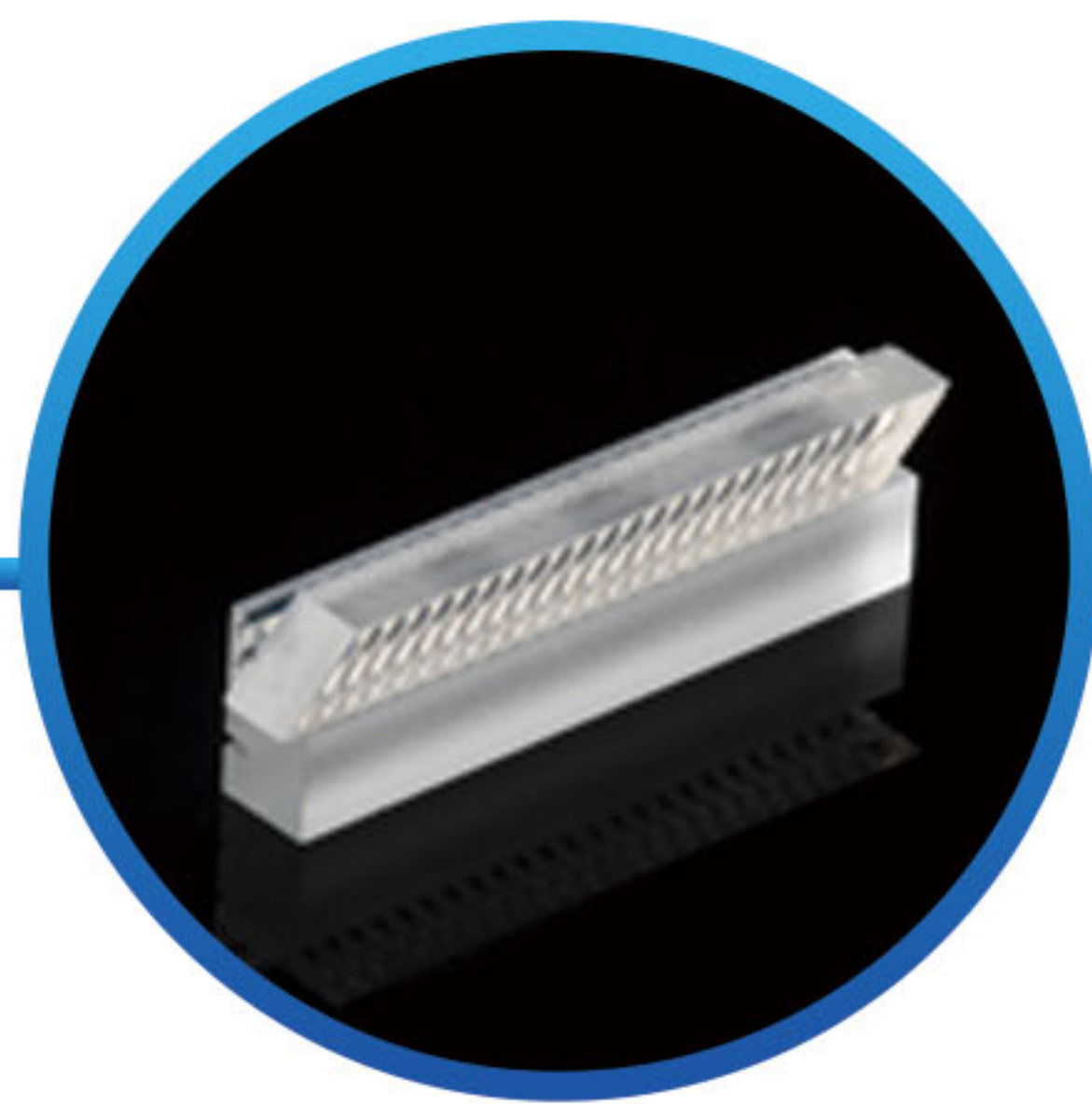
Blue meniscus SAC

Concave-convex, acylindrical lens design for the collimation of the slow axis of blue high-power diode lasers, bringing benefits for compact modules with limited space



Fused silica lens arrays

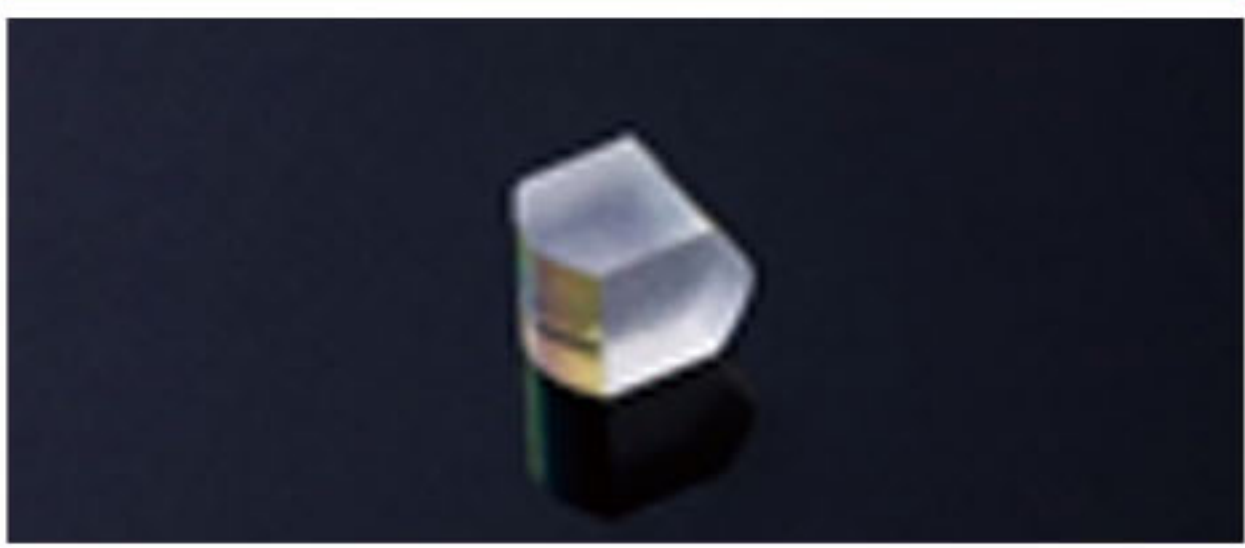

Fused silica lens arrays for the collimation of the slow axis of high-power blue diode laser bars with a standard or customized pitch available



Fused silica BTS

Beam transform system (BTS) converts the asymmetrical beam parameter product (BPP) in slow and fast axis into a more symmetrical BPP by stacking the emitters spatially

Monolithic Collimator/ Fiber Coupler for Blue TO-CAN Laser

	Product	PN	EFL (mm)
	Collimator	ZLE002061	1.19 (FA), 5.02 (SA)
	Fiber Coupler	ZLE000420	1.047 (FA), 1.752 (SA)

COMPANY INTRODUCTION

Founded in 2007 and headquartered in Xi'an, China, Focuslight Technologies Inc. is a fast-growing company that develops and manufactures high-power diode laser components and materials (photon generation), laser optics (photon control) as well as photonic application modules, assemblies, and sub-systems (photonics application solutions) with a focus on automotive, pan-semiconductor, and medical & health application solutions. Focuslight has over 400 patents worldwide and is ISO 14001, ISO 45001, ISO 9001:2015, and IATF 16949 certified. In December 2021, Focuslight announced the IPO on the Shanghai Stock Exchange (Ticker Symbol: 688167).