

OPTICAL LENS

FAC LENS (Fast-Axis Collimating Lens)

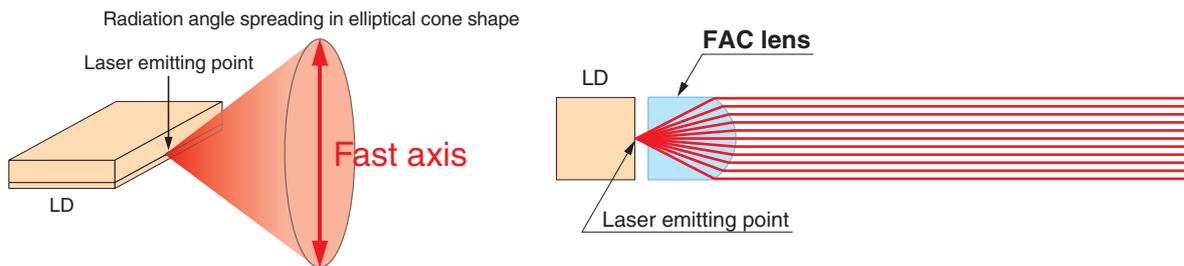
J10919 SERIES

OVERVIEW

The J10919 series FAC lens is an optical lens that collimates light spreading from a semiconductor laser (LD) in the fast-axis direction. LD have a large divergence angle in the fast-axis direction, so the output light cannot be efficiently used unless collimated. The FAC lens collimates light spreading from a LD into a narrow beam with a radiation angle of several milliradians (mrad) or less so that the diverging light can be efficiently utilized.



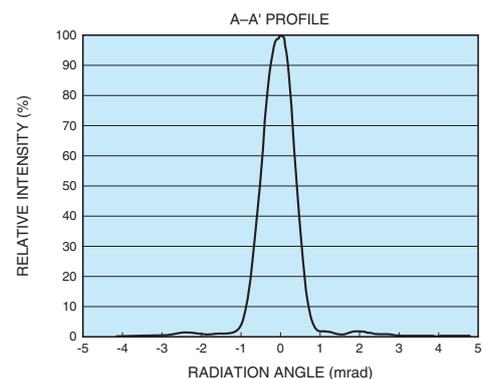
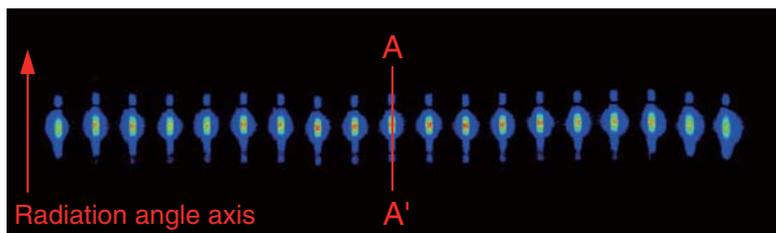
COLLIMATING LIGHT



FEATURES

- Aspheric micro-cylindrical lens
- Highly efficient utilization of light from LD
- Small variations in characteristics allow mass production
- Minimized smile and side lobes due to high-precision fabricating technology

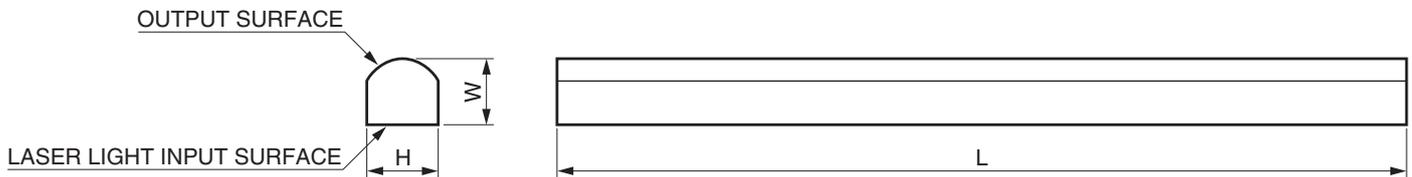
OUTPUT DISTRIBUTION IMAGE WHEN INSTALLED TO LD



SPECIFICATIONS

Parameter	FAC300	FAC610	FAC920	Unit
Type No.	J10919-03	J10919-01	J10919-02	—
Wavelength area	790 to 990			nm
Numeric aperture (NA)	Min. 0.8			—
Material	High refractive index glass			—
Refractive Index at 915 nm	1.809			—
Effective focal length (EFL)	300	610	920	μm
Back focal length (BFL)	80	100	150	μm
Height (H)	0.50	1.00	1.50	mm
Width (W)	0.40	094	1.41	mm
Length (L)	4.0	12.0		mm
Efficiency	Min. 85 (±2.5 mrad)	85 (±1.5 mrad)	85 (±1.0 mrad)	%
Transmittance	Min. 98			%

DIMENSIONAL OUTLINES (Unit: mm)



* See the above specification table for L, H and W.

CUSTOMIZATION

- Changing wavelength area
- Changing focal length
- Changing length

Please feel free to contact us for modification.

Subject to local technical requirements and regulations, availability of products included in this promotional material may vary. Please consult with our sales office. Information furnished by HAMAMATSU is believed to be reliable. However, no responsibility is assumed for possible inaccuracies or omissions. Specifications are subject to change without notice. No patent rights are granted to any of the circuits described herein. ©2019 Hamamatsu Photonics K.K.

HAMAMATSU PHOTONICS K.K. www.hamamatsu.com

HAMAMATSU PHOTONICS K.K., Electron Tube Division

314-5, Shimokanzo, Iwata City, Shizuoka Pref., 438-0193, Japan, Telephone: (81)539/62-5248, Fax: (81)539/62-2205

U.S.A.: Hamamatsu Corporation: 360 Foothill Road, Bridgewater, NJ 08807, U.S.A., Telephone: (1)908-231-0960, Fax: (1)908-231-1218 E-mail: usa@hamamatsu.com

Germany: Hamamatsu Photonics Deutschland GmbH.: Arzbergerstr. 10, D-82211 Herrsching am Ammersee, Germany, Telephone: (49)8152-375-0, Fax: (49)8152-265-8 E-mail: info@hamamatsu.de

France: Hamamatsu Photonics France S.A.R.L.: 19, Rue du Saule Trapu, Parc du Moulin de Massy, 91882 Massy Cedex, France, Telephone: (33)1 69 53 71 00, Fax: (33)1 69 53 71 10 E-mail: infos@hamamatsu.fr

United Kingdom: Hamamatsu Photonics UK Limited: 2 Howard Court, 10 Tewin Road, Welwyn Garden City, Hertfordshire AL7 1BW, UK, Telephone: (44)1707-294888, Fax: (44)1707-325777 E-mail: info@hamamatsu.co.uk

North Europe: Hamamatsu Photonics Norden AB: Torshamnsgatan 35 16440 Kista, Sweden, Telephone: (46)8-509 031 00, Fax: (46)8-509 031 01 E-mail: info@hamamatsu.se

Italy: Hamamatsu Photonics Italia S.r.l.: Strada della Moia, 1 int. 6, 20020 Arese (Milano), Italy, Telephone: (39)02-93 58 17 33, Fax: (39)02-93 58 17 41 E-mail: info@hamamatsu.it

China: Hamamatsu Photonics (China) Co., Ltd.: 1201 Tower B, Jiaming Center, 27 Dongsanhuan Beilu, Chaoyang District, 100020 Beijing, P.R.China, Telephone: (86)10-6586-6006, Fax: (86)10-6586-2866 E-mail: hpc@hamamatsu.com.cn

Taiwan: Hamamatsu Photonics Taiwan Co., Ltd.: 8F-3, No.158, Section2, Gongdao 5th Road, East District, Hsinchu, 300, Taiwan R.O.C. Telephone: (886)3-659-0080, Fax: (886)3-659-0081 E-mail: info@hamamatsu.com.tw

TOTH1005E02
MAY 2019 IP