

IR 抛光氟化钙 CaF_2 平凸半圆柱面正透镜 (25mm×25mm 焦距 25mm)



描述

氟化钙在紫外到中红外 (250nm~7um) 之间都有很高的透射率, 所以广泛被用于制造棱镜, 透镜, 窗片, 氟化钙透镜具有低折射率, 高激光损伤阈值, 低同轴与径向应力双折射特性, 适合于准分子激光器使用, 或者集成于红外系统上。且氟化钙也备有低可溶性, 也可抵抗恶劣环境。氟化钙的抛光面可以工作数年之久, 氟化钙的硬度是氟化钡的两倍, 而且抗热冲击能力更强。

产品特点

透射波长范围广, 低折射率, 高透射率, 高损伤阈值, 低可溶性

产品型号

CAF50LENS80

应用领域

中红外QCL激光器

中红外激光光路搭建



核心参数

规格尺寸	焦距F.L.	曲率	透镜等级
25mm×25mm	25mm @ 3μm	—	IR 平凸

详细参数

名称	参数
透射范围	0.13~10μm
折射率	1.39908 at 5μm
反射损耗	5.4% at 5μm
吸收系数	$7.8 \times 10^{-4} \text{cm}^{-1}$ @ 2.7μm
吸收峰	35μm
dn/dT	$-10.6 \times 10^{-6} / ^\circ\text{C}$
dn/du=0	dn/du=0
密度	3.18g/cc
熔点	1360°C
导热率	$9.71 \text{Wm}^{-1} \text{K}^{-1}$



热膨胀	$18.85 \times 10^{-6} / ^\circ\text{C}$
硬度	Knoop 158.3
比热容	$854 \text{ J Kg}^{-1} \text{ K}^{-1}$
介电常数	6.76 at 1MHz
杨氏模量	75.8GPa
剪切模量	33.77GPa
体积模量	82.71GPa
弹性系数	$C_{11}=164, C_{12}=53, C_{44}=33.7$
表现弹性极限	36.54MPa
泊松比	0.26
溶解度	0.0017g/100g with, 20 °C
分子量	78.08
类型/结构	立方裂解
反射损耗	5.4% at 5um



折射率:(No=Ordinary Ray 普通射线)

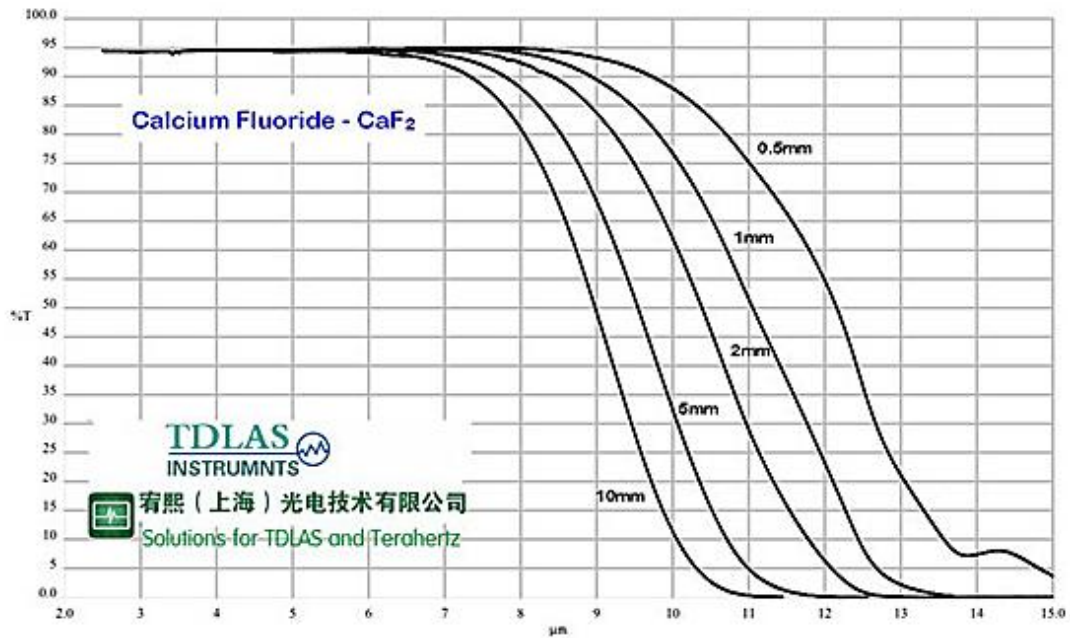
um	No	um	No	um	No
0.54	2.6754	0.58	2.6312	0.62	2.5994
0.66	2.5755	0.7	2.5568	0.74	2.5418
0.78	2.5295	0.82	2.5193	0.86	2.5107
0.90	2.5034	0.94	2.4971	0.98	2.4916
1.0	2.4892	1.4	2.4609	1.8	2.4496
2.2	2.4437	2.6	2.4401	3.0	2.4376
3.4	2.4356	3.8	2.4339	4.2	2.4324
4.6	2.4309	5.0	2.4295	5.4	2.4281
5.8	2.4266	6.2	2.4251	6.6	2.4235
7.0	2.4218	7.4	2.4201	7.8	2.4183
8.2	2.4163	8.6	2.4143	9.0	2.4122
9.4	2.4100	9.8	2.4077	10.2	2.4053
10.6	2.4028	11.0	2.4001	11.4	2.3974

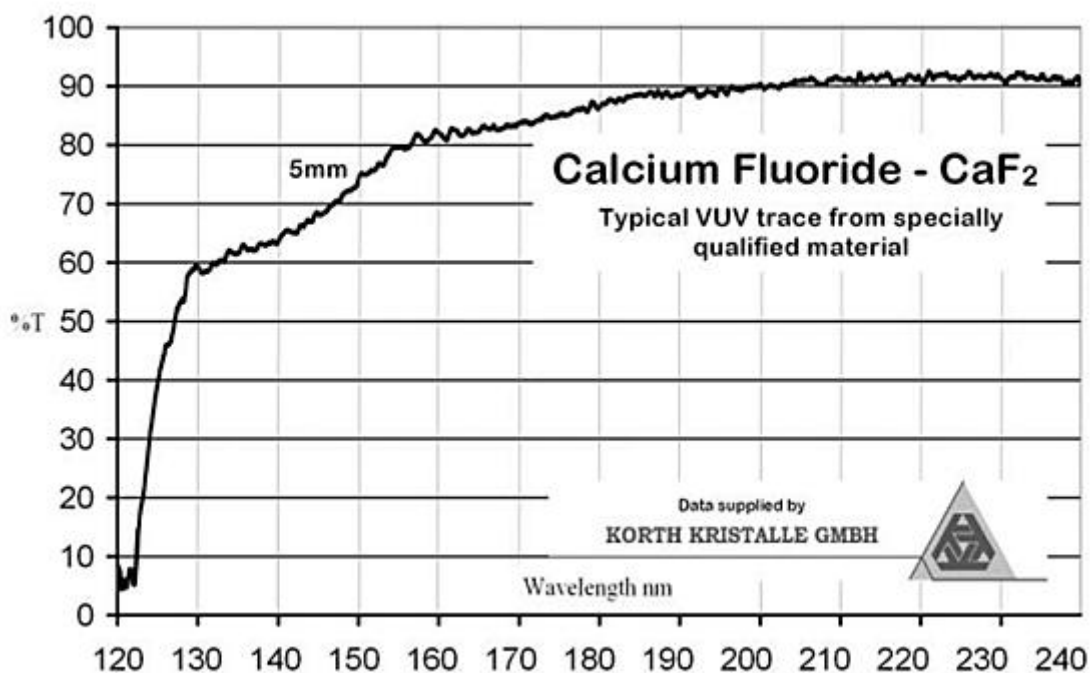


11.8	2.3945	12.2	2.3915	12.6	2.3883
13.0	2.3850	13.4	2.3816	13.8	2.3781
14.2	2.3744	14.6	2.3705	15.0	2.3665
15.4	2.3623	15.8	2.3579	16.2	2.3534
16.6	2.3487	17.0	2.3438	17.4	2.3387
17.8	2.3333	18.2	2.3278		

特性曲线

光谱透射图





订购信息

订购型号	规格	曲率	焦距	CaF2 等级	参数
CAF12.7L ENS10U	12.7mm Ø	10.16 (±2%)	10mm @ 300nm	UV 双 凸	CALCIUM FLUORIDE PLANO-CONVEX LENS 25mm Ø X 300mm F.L. @ 5µm MATERIAL: IR Grade CaF₂ Diameter: 25.0mm (±0.1mm) Centre Thickness: 2.6mm (±0.1mm) Radius of Curvature 1: 120 (±2%) Radius of Curvature 2: Plano S/D: 60/40 Edge thickness: 2.0mm (derived) Effective F.L. 277mm 280mm 287mm 300mm Back F.L. 276mm 278mm 286mm 299mm Wavelength 0.633µm 1.064µm 3.0µm 5.0µm Paraxial F.L. Tolerances: ±2% to nearest mm EFL from thin lens formula. BFL is referenced from the lens surface.

CAF12.7L ENS12	12.7mm Ø	12.0 (±2%)	12.7mm @ 5µm	IR 双凸	CALCIUM FLUORIDE BI-CONVEX LENS 12.7mm Ø X 12.7mm F.L. @ 0.633µm MATERIAL: IR Grade CaF₂ Diameter:12.7mm (+0.0/-0.127mm) Centre Thickness:6.0mm (±0.127mm) Radius of Curvature 1:12.0 (±2%) Radius of Curvature 2:12.0 (±2%) S/D:60/40 Edge thickness:1.5mm (derived) Effective F.L.15.0mm Back F.L.12.7mm Wavelength0.633µm 15.5mm 13.2mm 3.0µm 16.2mm 13.9mm 5.0µm Parallel F.L. Tolerances ±2% to nearest mm EFL from thin lens formula. BFL is referenced from the lens surface.
CAF12.7L ENS12U	12.7mm Ø	12.0 (±2%)	12mm @ 300nm	UV 双凸	
CAF12.7L ENS100	12.7mm Ø	40.32 (±2%)	100mm @ 5µm	IR 平凸	CALCIUM FLUORIDE BI-CONVEX LENS 25mm Ø X 100mm F.L. @ 5µm MATERIAL: IR Grade CaF₂ Diameter:25.0mm (±0.1mm) Centre Thickness:4.0mm (±0.1mm) Radius of Curvature 1:78.94 (±2%) Radius of Curvature 2:78.94 (±2%) S/D:60/40 Edge thickness:2.0mm (derived) Effective F.L.92mm Back F.L.90mm Wavelength0.633µm 93mm 91mm 1.064µm 95mm 94mm 3.0µm 100mm 98mm 5.0µm Parallel F.L. Tolerances ±2% to nearest mm EFL from thin lens formula. BFL is referenced from the lens surface.
CAF16LE NS90	16.0mm Ø	73.90 (±2%)	90mm @ 3µm	IR 双凸	CALCIUM FLUORIDE BI-CONVEX LENS 16mm Ø X 90mm F.L. @ 3µm MATERIAL: IR Grade CaF₂ Diameter:16.0mm (±0.1mm) Centre Thickness:3.0mm (±0.1mm) Radius of Curvature 1:73.90 (±2%) Radius of Curvature 2:73.90 (±2%) S/D:60/40 Edge thickness:2.0mm (derived) Effective F.L.86mm Back F.L.85mm Wavelength0.633µm 86mm 85mm 1.064µm 89mm 88mm 3.0µm 93mm 92mm 5.0µm Parallel F.L. Tolerances ±2% to nearest mm EFL from thin lens formula. BFL is referenced from the lens surface.

CAF18.5L ENS26	18.5mm Ø	12.6 (±2%)	26mm @ 3µm	IR 平凸	CALCIUM FLUORIDE PLANO-CONVEX LENS 18.5mm Ø X 26mm F.L. @ 3µm MATERIAL: IR Grade CaF₂ Diameter: 18.7mm (±0.25mm) Centre Thickness: 5.0mm (±0.2mm) Centration 3 Arc Minutes Radius of Curvature 1: 12.6 (±2%) Radius of Curvature 2: Plano S/D: 60/40 Edge thickness: 1.0mm (derived) Effective F.L. 29.1mm 30.2mm 31.6mm Back F.L. 25.6mm 26.6mm 28.0mm Wavelength 0.633µm 3.0µm 5.0µm Paraxial F.L. Tolerances ±2% to nearest mm EFL from thin lens formula. BFL is referenced from the lens surface.
CAF20LE NS50	20mm Ø	19.95 (±2%)	50mm @ 5µm	IR 平凸	CALCIUM FLUORIDE PLANO-CONVEX LENS 20mm Ø x 50mm F.L. @ 5µm MATERIAL: IR Grade CaF₂ Diameter: 20.0mm (±0.1mm) Centre Thickness: 4.0mm (±0.1mm) Radius of Curvature 1: 19.95 (±2%) Radius of Curvature 2: Plano S/D: 60/40 Edge thickness: 1.3mm (derived) Effective F.L. 46mm 47mm 48mm 50mm Back F.L. 43mm 44mm 45mm 47mm Wavelength 0.633µm 1.064µm 3.0µm 5.0µm Paraxial F.L. Tolerances ±2% to nearest mm EFL from thin lens formula. BFL is referenced from the back lens surface.
CAF25LE NS25U	25mm Ø	21.53 (±2%)	25mm @ 350nm	UV 双凸	CALCIUM FLUORIDE BI-CONVEX LENS 25mm Ø X 25mm F.L. @ 0.35µm MATERIAL: UV Grade CaF₂ Diameter: 25.0mm (+0.0/-0.1mm) Centre Thickness: 10mm (±0.1mm) Radius of Curvature 1: 21.53 (±2%) Radius of Curvature 2: 21.53 (±2%) S/D: 60/40 Edge thickness: 2.0mm (derived) Effective F.L. 26.0mm 26.8mm Pr.Plane F.L. 25.0mm Back F.L. 22.2mm 23.0mm Wavelength 0.35µm 0.633µm Paraxial F.L. Tolerances ±2% EFL from thin lens formula. BFL is referenced from the lens surface.
CAF25LE NS25	25mm Ø	20.80 (±2%)	25.4mm @ 3µm	IR 双凸	CALCIUM FLUORIDE BI-CONVEX LENS 25mm Ø X 25.4mm F.L. @ 3µm MATERIAL: IR Grade CaF₂ Diameter: 25.0mm (+0.0/-0.1mm) Centre Thickness: 10mm (±0.1mm) Radius of Curvature 1: 20.80 (±2%) Radius of Curvature 2: 20.80 (±2%) S/D: 60/40 Edge thickness: 1.6mm (derived) Effective F.L. 25.9mm 26.2mm 26.8mm 28.0mm Pr.Plane F.L. 25.4mm Back F.L. 22.2mm 22.4mm 23.0mm 24.1mm Wavelength 0.633µm 1.064µm 3.0µm 5.0µm Paraxial F.L. Tolerances ±2% EFL from thin lens formula. BFL is referenced from the lens surface.
CAF25LE NS50B	25mm Ø	39.1 (±2%)	50mm @ 5µm	IR 双凸	

CAF25LE NS50	25mm Ø	20.9 (±2%)	50mm @ 5µm	IR 平凸	CALCIUM FLUORIDE PLANO-CONVEX LENS 25mm Ø x 50mm F.L. @ 3µm MATERIAL: IR Grade CaF₂ Diameter: 25.0mm (±0.1mm) Centre Thickness: 6.1mm (±0.1mm) Radius of Curvature 1: 20.9 (±2%) Radius of Curvature 2: Plano S/D: 60/40 Edge thickness: 2.0mm (derived) Effective F.L.48mm49mm50mm52mm Back F.L.44mm45mm45mm48mm Wavelength0.633µm1.064µm3.0µm5.0µm Paraxial F.L. Tolerances ±5% to nearest mm EFL from this lens formula. BFL is referenced from the back lens surface.
CAF25LE NS50U	25mm Ø	22.96 (±2%)	50mm @ 350nm	UV 平凸	CALCIUM FLUORIDE PLANO-CONVEX LENS 25mm Ø x 50mm F.L. @ 0.35µm MATERIAL: UV Grade CaF₂ Diameter: 25.0mm (±0.1mm) Centre Thickness: 5.7mm (±0.1mm) Radius of Curvature 1: 22.96mm (±2%) Radius of Curvature 2: Plano S/D: 60/40 Edge thickness: 2.0mm (derived) Effective F.L.51mm53mm54mm55mm57mm Back F.L.47mm49mm49mm51mm53mm Wavelength0.35 µm0.633µm1.064µm3.0µm5.0µm Paraxial F.L. Tolerances ±5% to nearest mm EFL from this lens formula. BFL is referenced from the back lens surface.
CAF25LE NS75	25mm Ø	31.35 (±2%)	75mm @ 5µm	IR 平凸	CALCIUM FLUORIDE PLANO-CONVEX LENS 25mm Ø x 75mm F.L. @ 5µm MATERIAL: IR Grade CaF₂ Diameter: 25.0mm (±0.1mm) Centre Thickness: 4.6mm (±0.1mm) Radius of Curvature 1: 31.35 (±2%) Radius of Curvature 2: Plano S/D: 60/40 Edge thickness: 2.0mm (derived) Effective F.L.72mm73mm75mm78mm Back F.L.69mm70mm72mm75mm Wavelength0.633µm1.064µm3.0µm5.0µm Paraxial F.L. Tolerances ±5% to nearest mm EFL from this lens formula. BFL is referenced from the back lens surface.
CAF25LE NS100B	25mm Ø	78.94 (±2%)	100mm @ 3µm	IR 双凸	CALCIUM FLUORIDE BI-CONVEX LENS 25mm Ø X 100mm F.L. @ 5µm MATERIAL: IR Grade CaF₂ Diameter: 25.0mm (±0.1mm) Centre Thickness: 4.0mm (±0.1mm) Radius of Curvature 1: 78.94 (±2%) Radius of Curvature 2: 78.94 (±2%) S/D: 60/40 Edge thickness: 2.0mm (derived) Effective F.L.92mm93mm95mm100mm Back F.L.90mm91mm94mm98mm Wavelength0.633µm1.064µm3.0µm5.0µm Paraxial F.L. Tolerances ±2% to nearest mm EFL from this lens formula. BFL is referenced from the lens surface.

CAF25LE NS100	25mm Ø	43.73 (±2%)	100mm @ 3µm	IR 平凸	CALCIUM FLUORIDE PLANO-CONVEX LENS 50mm Ø X 100mm F.L. @ 1µm MATERIAL: IR Grade CaF₂ Diameter:50.0mm (±0.1mm) Centre Thickness:10.0mm (±0.1mm) Radius of Curvature 1:43.0 (±2%) Radius of Curvature 2:Plano S/D:60/40 Edge thickness:2.0mm (derived) Effective F.L.99mm Back F.L.92mm Wavelength0.633µm 100mm 93mm 1.064µm 103mm 96mm 3.0µm 108mm 101mm 5.0µm Paraxial F.L. Tolerances ±2% to nearest mm EFL from thin lens formula. BFL is referenced from the lens surface.
CAF25LE NS100U	25mm Ø	43.73 (±2%)	100mm @ 350nm	UV 平凸	
CAF25LE NS130	25mm Ø	55.35 (±2%)	130mm @ 3µm	IR 平凸	CALCIUM FLUORIDE PLANO-CONVEX LENS 25mm Ø X 130mm F.L. @ 3µm MATERIAL: IR Grade CaF₂ Diameter:25.0mm (±0.1mm) Centre Thickness:3.0mm (±0.1mm) Radius of Curvature 1:55.35 (±2%) Radius of Curvature 2:Plano S/D:60/40 Edge thickness:1.5mm (derived) Effective F.L.128mm Back F.L.126mm Wavelength0.633µm 129mm 126mm 1.064µm 133mm 130mm 3.0µm 139mm 136mm 5.0µm Paraxial F.L. Tolerances ±2% to nearest mm EFL from thin lens formula. BFL is referenced from the lens surface.
CAF25LE NS150	25mm Ø	61.0 (±2%)	150mm @ 5µm	IR 平凸	CALCIUM FLUORIDE PLANO-CONVEX LENS 25mm Ø X 150mm F.L. @ 5µm MATERIAL: IR Grade CaF₂ Diameter:25.0mm (±0.1mm) Centre Thickness:3.3mm (±0.1mm) Radius of Curvature 1:61.0 (±2%) Radius of Curvature 2:Plano S/D:60/40 Edge thickness:2.0mm (derived) Effective F.L.141mm Back F.L.139mm Wavelength0.633µm 142mm 140mm 1.064µm 146mm 144mm 3.0µm 152mm 150mm 5.0µm Paraxial F.L. Tolerances ±2% to nearest mm EFL from thin lens formula. BFL is referenced from the lens surface.
CAF25LE NS150U	25mm Ø	69.75 (±2%)	150mm @ 350nm	UV 平凸	CALCIUM FLUORIDE PLANO-CONVEX LENS 25mm Ø X 150mm F.L. @ 350nm MATERIAL: UV Grade CaF₂ Diameter:25.0mm (±0.1mm) Centre Thickness:3.1mm (±0.1mm) Radius of Curvature 1:69.75 (±2%) Radius of Curvature 2:Plano S/D:60/40 Edge thickness:2.0mm (derived) Effective F.L.156mm Back F.L.154mm Wavelength0.350µm 161mm 159mm 0.633µm 163mm 161mm 1.064µm 167mm 165mm 3.0µm 175mm 173mm 5.0µm Paraxial F.L. Tolerances ±2% to nearest mm EFL from thin lens formula. BFL is referenced from the lens surface.

CAF25LE NS200U	25mm Ø	90.39 (±2%)	200mm @ 350nm	UV 平 凸	CALCIUM FLUORIDE PLANO-CONVEX LENS 25mm Ø X 200mm F.L. @ 350nm MATERIAL: UV Grade CaF₂ Diameter:25.0mm (±0.1mm) Centre Thickness:2.9mm (±0.1mm) Radius of Curvature 1:90.39 (±2%) Radius of Curvature 2:Plano S/D:60/40 Edge thickness:2.0mm (derived) Effective F.L.202mm Back F.L.200mm Wavelength0.350µm 209mm 207mm 0.633µm 210mm 209mm 1.064µm 217mm 214mm 3.0µm 226mm 224mm 5.0µm Paraxial F.L. Tolerances ±2% to nearest mm EFL from thin lens formula. BFL is referenced from the lens surface.
CAF25LE NS300	25mm Ø	120.0 (±2%)	300mm @ 5µm	IR 平凸	CALCIUM FLUORIDE PLANO-CONVEX LENS 25mm Ø X 300mm F.L. @ 5µm MATERIAL: IR Grade CaF₂ Diameter:25.0mm (±0.1mm) Centre Thickness:2.6mm (±0.1mm) Radius of Curvature 1:120 (±2%) Radius of Curvature 2:Plano S/D:60/40 Edge thickness:2.0mm (derived) Effective F.L.277mm Back F.L.276mm Wavelength0.633µm 280mm 278mm 1.064µm 287mm 286mm 3.0µm 300mm 299mm 5.0µm Paraxial F.L. Tolerances ±2% to nearest mm EFL from thin lens formula. BFL is referenced from the lens surface.
CAF25LE NS500	25mm Ø	202.02 (±2%)	500mm @ 5µm	IR 平凸	CALCIUM FLUORIDE PLANO-CONVEX LENS 25mm Ø X 500mm F.L. @ 5µm MATERIAL: IR Grade CaF₂ Diameter:25.0mm (±0.1mm) Centre Thickness:2.4mm (±0.1mm) Radius of Curvature 1:202 (±2%) Radius of Curvature 2:Plano S/D:60/40 Edge thickness:2.0mm (derived) Effective F.L.467mm Back F.L.465mm Wavelength0.633µm 471mm 469mm 1.064µm 483mm 482mm 3.0µm 506mm 504mm 5.0µm Paraxial F.L. Tolerances ±2% to nearest mm EFL from thin lens formula. BFL is referenced from the lens surface.
CAF25.4L ENS200	25.4mm Ø	80.7 (±2%)	200mm @ 5µm	IR 平凸	CALCIUM FLUORIDE PLANO-CONVEX LENS 25.4mm Ø X 200mm F.L. @ 5µm MATERIAL: IR Grade CaF₂ Diameter:25.4mm (+0.0 / -0.127mm) Centre Thickness:2.64mm (±0.127mm) Radius of Curvature 1:80.7 (±2%) Radius of Curvature 2:Plano S/D:60/40 Edge thickness:1.65mm (derived) Effective F.L.187mm Back F.L.185mm Wavelength0.633µm 188mm 186mm 1.064µm 193mm 191mm 3.0µm 202mm 200mm 5.0µm Paraxial F.L. Tolerances ±2% to nearest mm EFL from thin lens formula. BFL is referenced from the lens surface.

CAF27LE NS50	27mm Ø	43.10 (±2%)	50mm @ 3µm	IR 双凸	CALCIUM FLUORIDE BI-CONVEX LENS 27mm Ø X 50mm F.L. @ 3µm MATERIAL: IR Grade CaF₂ Diameter: 27.0mm (±0.1mm) Centre Thickness: 6.4mm (±0.1mm) Radius of Curvature 1: 43.10 (±2%) Radius of Curvature 2: 43.10 (±2%) S/D: 60/40 Edge thickness: 2.1mm (derived) Effective F.L.51mm51mm53mm55mm Back F.L.48.7mm49.2mm50.5mm52.8mm Wavelength0.633µm1.064µm3.0µm5.0µm Paraxial F.L. Tolerances ±2% to nearest mm EFL from thin lens formula. BFL is referenced from the lens surface.
CAF30LE NS70	30mm Ø	57.00 (±2%)	70mm @ 4µm	IR 双凸	CALCIUM FLUORIDE BI-CONVEX LENS 30mm Ø X 70mm F.L. @ 5µm MATERIAL: IR Grade CaF₂ Diameter: 30.0mm (±0.1mm) Centre Thickness: 6.0mm (±0.1mm) Radius of Curvature 1: 57.0 (±2%) Radius of Curvature 2: 57.0 (±2%) S/D: 60/40 Edge thickness: 2.0mm (derived) Effective F.L.67mm67mm69mm72mm Back F.L.65mm65mm67mm70mm Wavelength0.633µm1.064µm3.0µm5.0µm Paraxial F.L. Tolerances ±2% to nearest mm EFL from thin lens formula. BFL is referenced from the lens surface.
CAF31.5L ENS60	31.5mm Ø	27.50 (±2%)	60mm @ 3µm	IR 平凸	CALCIUM FLUORIDE PLANO-CONVEX LENS 31.5mm Ø X 60mm F.L. @ 3µm MATERIAL: IR Grade CaF₂ Diameter: 31.5mm (±0.1mm) Centre Thickness: 6.8mm (±0.1mm) Radius of Curvature 1: 27.5 (±2%) Radius of Curvature 2: Plano S/D: 60/40 Edge thickness: 1.8mm (derived) Effective F.L.64mm64mm65mm69mm Back F.L.59mm59mm61mm64mm Wavelength0.633µm1.064µm3.0µm5.0µm Paraxial F.L. Tolerances ±2% to nearest mm EFL from thin lens formula. BFL is referenced from the lens surface.
CAF38.1L ENS75	38.1mm Ø	33.84 (±2%)	75mm @ 4.5µm	IR 平凸	CALCIUM FLUORIDE PLANO-CONVEX LENS 38.1mm Ø X 75mm F.L. @ 3µm MATERIAL: IR Grade CaF₂ Diameter: 38.1mm (±0.1mm) Centre Thickness: 9.0mm (±0.1mm) Radius of Curvature 1: 33.84 (±2%) Radius of Curvature 2: Plano S/D: 60/40 Edge thickness: 3.1mm (derived) Effective F.L.78mm79mm81mm85mm Back F.L.72mm73mm75mm78mm Wavelength0.633µm1.064µm3.0µm5.0µm Paraxial F.L. Tolerances ±2% to nearest mm EFL from thin lens formula. BFL is referenced from the lens surface.

CAF38.1L ENS75U	38.1mm Ø	33.84 (±2%)	66mm @ 248nm	UV 平 凸	CALCIUM FLUORIDE PLANO-CONVEX LENS 38.1mm Ø X 75mm F.L. @ 3µm* MATERIAL: UV Grade CaF₂ Diameter: 38.1mm (±0.1mm) Centre Thickness: 9.0mm (±0.1mm) Radius of Curvature 1: 33.84 (±2%) Radius of Curvature 2: Plano S/D: 60/40 Edge thickness: 3.1mm (derived) <table><tr><td>Effective F.L.</td><td>Back F.L.</td><td>Wavelength</td></tr><tr><td>72mm</td><td>66mm</td><td>0.248µm</td></tr><tr><td>78mm</td><td>72mm</td><td>0.633µm</td></tr><tr><td>79mm</td><td>73mm</td><td>1.064µm</td></tr><tr><td>81mm</td><td>75mm</td><td>3.0µm</td></tr><tr><td>85mm</td><td>78mm</td><td>5.0µm</td></tr></table> Parallel F.L. Tolerance ±2% to nearest mm EFL from thin lens formula. BFL is referenced from the lens surface.	Effective F.L.	Back F.L.	Wavelength	72mm	66mm	0.248µm	78mm	72mm	0.633µm	79mm	73mm	1.064µm	81mm	75mm	3.0µm	85mm	78mm	5.0µm
Effective F.L.	Back F.L.	Wavelength																					
72mm	66mm	0.248µm																					
78mm	72mm	0.633µm																					
79mm	73mm	1.064µm																					
81mm	75mm	3.0µm																					
85mm	78mm	5.0µm																					
CAF38.1L ENS160	38.1mm Ø	68.16 (±2%)	160mm @ 3µm	IR 平凸	CALCIUM FLUORIDE PLANO-CONVEX LENS 38.1mm Ø X 160mm F.L. @ 3µm MATERIAL: IR Grade CaF₂ Diameter: 38.1mm (+0.1 / -0.2mm) Centre Thickness: 4.5mm (±0.1mm) Radius of Curvature 1: 68.16 (±2%) Radius of Curvature 2: Plano S/D: 60/40 Edge thickness: 1.8mm (derived) <table><tr><td>Effective F.L.</td><td>Back F.L.</td><td>Wavelength</td></tr><tr><td>157mm</td><td>154mm</td><td>0.633µm</td></tr><tr><td>159mm</td><td>156mm</td><td>1.064µm</td></tr><tr><td>163mm</td><td>160mm</td><td>3.0µm</td></tr><tr><td>171mm</td><td>167mm</td><td>5.0µm</td></tr></table> Parallel F.L. Tolerance ±2% to nearest mm EFL from thin lens formula. BFL is referenced from the lens surface.	Effective F.L.	Back F.L.	Wavelength	157mm	154mm	0.633µm	159mm	156mm	1.064µm	163mm	160mm	3.0µm	171mm	167mm	5.0µm			
Effective F.L.	Back F.L.	Wavelength																					
157mm	154mm	0.633µm																					
159mm	156mm	1.064µm																					
163mm	160mm	3.0µm																					
171mm	167mm	5.0µm																					
CAF38.1L ENS250U	38.1mm Ø	100 (±2%)	215mm @ 248nm	UV 平 凸	CALCIUM FLUORIDE PLANO-CONVEX LENS 38.1mm Ø X 250mm F.L. @ 5µm MATERIAL: UV Grade CaF₂ Diameter: 38.1mm (±0.1mm) Centre Thickness: 3.8mm (±0.1mm) Radius of Curvature 1: 100.0 (±2%) Radius of Curvature 2: Plano S/D: 60/40 Edge thickness: 2.0mm (derived) <table><tr><td>Effective F.L.</td><td>Back F.L.</td><td>Wavelength</td></tr><tr><td>213mm</td><td>211mm</td><td>0.248µm</td></tr><tr><td>231mm</td><td>229mm</td><td>0.633µm</td></tr><tr><td>233mm</td><td>231mm</td><td>1.064µm</td></tr><tr><td>240mm</td><td>237mm</td><td>3.0µm</td></tr><tr><td>250mm</td><td>247mm</td><td>5.0µm</td></tr></table> Parallel F.L. Tolerance ±2% to nearest mm EFL from thin lens formula. BFL is referenced from the lens surface.	Effective F.L.	Back F.L.	Wavelength	213mm	211mm	0.248µm	231mm	229mm	0.633µm	233mm	231mm	1.064µm	240mm	237mm	3.0µm	250mm	247mm	5.0µm
Effective F.L.	Back F.L.	Wavelength																					
213mm	211mm	0.248µm																					
231mm	229mm	0.633µm																					
233mm	231mm	1.064µm																					
240mm	237mm	3.0µm																					
250mm	247mm	5.0µm																					
CAF38.1L ENS475	38.1mm Ø	190.35 (±2%)	475mm @ 5µm	IR 平凸	CALCIUM FLUORIDE PLANO-CONVEX LENS 38.1mm Ø X 475mm F.L. @ 5µm MATERIAL: IR Grade CaF₂ Diameter: 38.1mm (+0.05 / -0.0mm) Centre Thickness: 4.0mm (±0.1mm) Radius of Curvature 1: 190.35 (±2%) Radius of Curvature 2: Plano S/D: 60/40 Edge thickness: 3.0mm (derived) <table><tr><td>Effective F.L.</td><td>Back F.L.</td><td>Wavelength</td></tr><tr><td>440mm</td><td>437mm</td><td>0.633µm</td></tr><tr><td>444mm</td><td>442mm</td><td>1.064µm</td></tr><tr><td>456mm</td><td>453mm</td><td>3.0µm</td></tr><tr><td>477mm</td><td>474mm</td><td>5.0µm</td></tr></table> Parallel F.L. Tolerance ±2% to nearest mm EFL from thin lens formula. BFL is referenced from the lens surface.	Effective F.L.	Back F.L.	Wavelength	440mm	437mm	0.633µm	444mm	442mm	1.064µm	456mm	453mm	3.0µm	477mm	474mm	5.0µm			
Effective F.L.	Back F.L.	Wavelength																					
440mm	437mm	0.633µm																					
444mm	442mm	1.064µm																					
456mm	453mm	3.0µm																					
477mm	474mm	5.0µm																					

CAF40LE NS120	40mm Ø	50.25 (±2%)	120mm @ 3µm	UV 平 凸																
CAF40LE NS150	40mm Ø	64 (±2%)	150mm @ 3µm	IR 平凸	CALCIUM FLUORIDE PLANO-CONVEX LENS 40mm Ø X 150mm F.L. @ 3µm MATERIAL: IR Grade CaF₂ Diameter: 40.0mm (±0.1mm) Centre Thickness: 4.1mm (±0.1mm) Radius of Curvature 1: 64.0 (±2%) Radius of Curvature 2: Plano S/D: 60/40 Edge thickness: 1.0mm (derived) <table><tr><td>Effective F.L.</td><td>Back F.L.</td><td>Wavelength</td></tr><tr><td>148mm</td><td>145mm</td><td>0.633µm</td></tr><tr><td>149mm</td><td>146mm</td><td>1.064µm</td></tr><tr><td>153mm</td><td>150mm</td><td>3.0µm</td></tr><tr><td>160mm</td><td>157mm</td><td>5.0µm</td></tr></table> Paraxial F.L. Tolerances ±2% to nearest mm EFL from thin lens formula. BFL is referenced from the lens surface.	Effective F.L.	Back F.L.	Wavelength	148mm	145mm	0.633µm	149mm	146mm	1.064µm	153mm	150mm	3.0µm	160mm	157mm	5.0µm
Effective F.L.	Back F.L.	Wavelength																		
148mm	145mm	0.633µm																		
149mm	146mm	1.064µm																		
153mm	150mm	3.0µm																		
160mm	157mm	5.0µm																		
CAF40LE NS200	40mm Ø	85 (±2%)	200mm @ 3µm	IR 平凸	CALCIUM FLUORIDE PLANO-CONVEX LENS 40mm Ø X 200mm F.L. @ 3µm MATERIAL: IR Grade CaF₂ Diameter: 40.0mm (±0.1mm) Centre Thickness: 3.3mm (±0.1mm) Radius of Curvature 1: 85.0 (±2%) Radius of Curvature 2: Plano S/D: 60/40 Edge thickness: 1.0mm (derived) <table><tr><td>Effective F.L.</td><td>Back F.L.</td><td>Wavelength</td></tr><tr><td>196mm</td><td>194mm</td><td>0.633µm</td></tr><tr><td>198mm</td><td>196mm</td><td>1.064µm</td></tr><tr><td>203mm</td><td>201mm</td><td>3.0µm</td></tr><tr><td>212mm</td><td>210mm</td><td>5.0µm</td></tr></table> Paraxial F.L. Tolerances ±2% to nearest mm EFL from thin lens formula. BFL is referenced from the lens surface.	Effective F.L.	Back F.L.	Wavelength	196mm	194mm	0.633µm	198mm	196mm	1.064µm	203mm	201mm	3.0µm	212mm	210mm	5.0µm
Effective F.L.	Back F.L.	Wavelength																		
196mm	194mm	0.633µm																		
198mm	196mm	1.064µm																		
203mm	201mm	3.0µm																		
212mm	210mm	5.0µm																		
CAF40LE NS330	40mm Ø	138 (±2%)	330mm @ 3µm	IR 平凸																
CAF40LE NS440	40mm Ø	187 (±2%)	440mm @ 3µm	IR 平凸	CALCIUM FLUORIDE PLANO-CONVEX LENS 40mm Ø X 440mm F.L. @ 3µm MATERIAL: IR Grade CaF₂ Diameter: 40.0mm (±0.1mm) Centre Thickness: 2.0mm (±0.1mm) Radius of Curvature 1: 187.0 (±2%) Radius of Curvature 2: Plano S/D: 60/40 Edge thickness: 1.0mm (derived) <table><tr><td>Effective F.L.</td><td>Back F.L.</td><td>Wavelength</td></tr><tr><td>432mm</td><td>431mm</td><td>0.633µm</td></tr><tr><td>436mm</td><td>435mm</td><td>1.064µm</td></tr><tr><td>448mm</td><td>446mm</td><td>3.0µm</td></tr><tr><td>468mm</td><td>467mm</td><td>5.0µm</td></tr></table> Paraxial F.L. Tolerances ±2% to nearest mm EFL from thin lens formula. BFL is referenced from the lens surface.	Effective F.L.	Back F.L.	Wavelength	432mm	431mm	0.633µm	436mm	435mm	1.064µm	448mm	446mm	3.0µm	468mm	467mm	5.0µm
Effective F.L.	Back F.L.	Wavelength																		
432mm	431mm	0.633µm																		
436mm	435mm	1.064µm																		
448mm	446mm	3.0µm																		
468mm	467mm	5.0µm																		

CAF50LE NS80	50mm Ø	65.6 (±2%)	80mm @ 5µm	IR 平凸	CALCIUM FLUORIDE BI-CONVEX LENS 50mm Ø X 80mm F.L. @ 5µm MATERIAL: IR Grade CaF₂ Diameter: 50.0mm (±0.1mm) Centre Thickness: 19.9mm (±0.1mm) Radius of Curvature 1: 65.6 (±2%) Radius of Curvature 2: 65.6 (±2%) S/D: 60/40 Edge thickness: 10mm (derived) <table><tr><td>Effective F.L.</td><td>Back F.L.</td><td>Wavelength</td></tr><tr><td>79mm</td><td>72mm</td><td>0.633µm</td></tr><tr><td>80mm</td><td>73mm</td><td>1.064µm</td></tr><tr><td>82mm</td><td>75mm</td><td>3.0µm</td></tr><tr><td>86mm</td><td>78mm</td><td>5.0µm</td></tr></table> Paraxial F.L. Tolerances ±2% to nearest mm EFL from thin lens formula. BFL is referenced from the lens surface.	Effective F.L.	Back F.L.	Wavelength	79mm	72mm	0.633µm	80mm	73mm	1.064µm	82mm	75mm	3.0µm	86mm	78mm	5.0µm
Effective F.L.	Back F.L.	Wavelength																		
79mm	72mm	0.633µm																		
80mm	73mm	1.064µm																		
82mm	75mm	3.0µm																		
86mm	78mm	5.0µm																		
CAF50LE NS100	50mm Ø	43.0 (±2%)	100mm @ 1µm	IR 双凸	CALCIUM FLUORIDE PLANO-CONVEX LENS 50mm Ø X 100mm F.L. @ 1µm MATERIAL: IR Grade CaF₂ Diameter: 50.0mm (±0.1mm) Centre Thickness: 10.0mm (±0.1mm) Radius of Curvature 1: 43.0 (±2%) Radius of Curvature 2: Plano S/D: 60/40 Edge thickness: 2.0mm (derived) <table><tr><td>Effective F.L.</td><td>Back F.L.</td><td>Wavelength</td></tr><tr><td>99mm</td><td>92mm</td><td>0.633µm</td></tr><tr><td>100mm</td><td>93mm</td><td>1.064µm</td></tr><tr><td>103mm</td><td>96mm</td><td>3.0µm</td></tr><tr><td>108mm</td><td>101mm</td><td>5.0µm</td></tr></table> Paraxial F.L. Tolerances ±2% to nearest mm EFL from thin lens formula. BFL is referenced from the lens surface.	Effective F.L.	Back F.L.	Wavelength	99mm	92mm	0.633µm	100mm	93mm	1.064µm	103mm	96mm	3.0µm	108mm	101mm	5.0µm
Effective F.L.	Back F.L.	Wavelength																		
99mm	92mm	0.633µm																		
100mm	93mm	1.064µm																		
103mm	96mm	3.0µm																		
108mm	101mm	5.0µm																		
CAF50LE NS135	50mm Ø	57.0 (±2%)	135mm @ 5µm	IR 平凸	CALCIUM FLUORIDE PLANO-CONVEX LENS 50mm Ø X 135mm F.L. @ 5µm MATERIAL: IR Grade CaF₂ Diameter: 50.0mm (±0.1mm) Centre Thickness: 7.8mm (±0.1mm) Radius of Curvature 1: 57 (±2%) Radius of Curvature 2: Plano S/D: 60/40 Edge thickness: 2mm (derived) <table><tr><td>Effective F.L.</td><td>Back F.L.</td><td>Wavelength</td></tr><tr><td>132mm</td><td>126mm</td><td>0.633µm</td></tr><tr><td>133mm</td><td>128mm</td><td>1.064µm</td></tr><tr><td>136mm</td><td>131mm</td><td>3.0µm</td></tr><tr><td>143mm</td><td>137mm</td><td>5.0µm</td></tr></table> Paraxial F.L. Tolerances ±2% to nearest mm EFL from thin lens formula. BFL is referenced from the lens surface.	Effective F.L.	Back F.L.	Wavelength	132mm	126mm	0.633µm	133mm	128mm	1.064µm	136mm	131mm	3.0µm	143mm	137mm	5.0µm
Effective F.L.	Back F.L.	Wavelength																		
132mm	126mm	0.633µm																		
133mm	128mm	1.064µm																		
136mm	131mm	3.0µm																		
143mm	137mm	5.0µm																		
CAF50LE NS250	50mm Ø	198.9 (±2%)	250mm @ 5µm	IR 双凸	CALCIUM FLUORIDE BI-CONVEX LENS 50mm Ø X 250mm F.L. @ 5µm MATERIAL: IR Grade CaF₂ Diameter: 50.0mm (±0.1mm) Centre Thickness: 6.2mm (±0.1mm) Radius of Curvature 1: 198.9 (±2%) Radius of Curvature 2: 198.9 (±2%) S/D: 60/40 Edge thickness: 3mm (derived) <table><tr><td>Effective F.L.</td><td>Back F.L.</td><td>Wavelength</td></tr><tr><td>231mm</td><td>229mm</td><td>0.633µm</td></tr><tr><td>233mm</td><td>231mm</td><td>1.064µm</td></tr><tr><td>239mm</td><td>237mm</td><td>3.0µm</td></tr><tr><td>250mm</td><td>248mm</td><td>5.0µm</td></tr></table> Paraxial F.L. Tolerances ±2% to nearest mm EFL from thin lens formula. BFL is referenced from the lens surface.	Effective F.L.	Back F.L.	Wavelength	231mm	229mm	0.633µm	233mm	231mm	1.064µm	239mm	237mm	3.0µm	250mm	248mm	5.0µm
Effective F.L.	Back F.L.	Wavelength																		
231mm	229mm	0.633µm																		
233mm	231mm	1.064µm																		
239mm	237mm	3.0µm																		
250mm	248mm	5.0µm																		

CaF₂ 负透镜

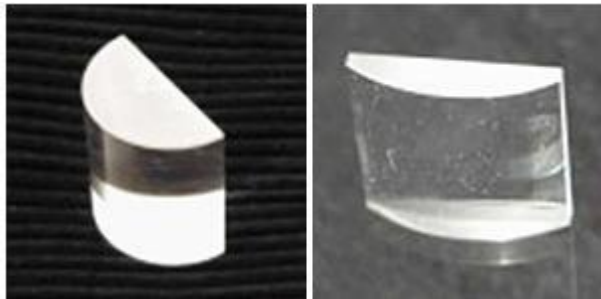


订购信息:

订购型号	规格	曲率	焦距	CaF2 等级	参数															
CAF25LE NS-50	25mm Ø	-20.40 (±2%)	-50mm @ 3μm	IR 平凹	CALCIUM FLUORIDE PLANO-CONCAVE LENS 25mm Ø X -50mm F.L. @ 3μm MATERIAL: IR Grade CaF₂ Diameter: 25.0mm (±0.1mm) Centre Thickness: 3.0mm (±0.1mm) Radius of Curvature 1: -20.40 (±2%) Radius of Curvature 2: Plano S/D: 60/40 Edge thickness: 7.3mm (derived) <table><tr><td>Effective F.L.</td><td>Back F.L.</td><td>Wavelength</td></tr><tr><td>-47mm</td><td>-49mm</td><td>0.633μm</td></tr><tr><td>-48mm</td><td>-50mm</td><td>1.064μm</td></tr><tr><td>-49mm</td><td>-51mm</td><td>3.0μm</td></tr><tr><td>-51mm</td><td>-53mm</td><td>5.0μm</td></tr></table> Parallel F.L. Tolerances ±2% to nearest mm. EFL from this lens formula. BFL is referenced from the lens surface.	Effective F.L.	Back F.L.	Wavelength	-47mm	-49mm	0.633μm	-48mm	-50mm	1.064μm	-49mm	-51mm	3.0μm	-51mm	-53mm	5.0μm
Effective F.L.	Back F.L.	Wavelength																		
-47mm	-49mm	0.633μm																		
-48mm	-50mm	1.064μm																		
-49mm	-51mm	3.0μm																		
-51mm	-53mm	5.0μm																		
CAF25LE NS-100	25mm Ø	-40.32 (±2%)	-100m m @ 3μm	IR 平凹	CALCIUM FLUORIDE PLANO-CONCAVE LENS 25mm Ø X -100mm F.L. @ 3μm MATERIAL: IR Grade CaF₂ Diameter: 25.0mm (±0.1mm) Centre Thickness: 2.0mm (±0.1mm) Radius of Curvature 1: -40.32 (±2%) Radius of Curvature 2: Plano S/D: 60/40 Edge thickness: 3.8mm (derived) <table><tr><td>Effective F.L.</td><td>Back F.L.</td><td>Wavelength</td></tr><tr><td>-93mm</td><td>-95mm</td><td>0.633μm</td></tr><tr><td>-94mm</td><td>-96mm</td><td>1.064μm</td></tr><tr><td>-97mm</td><td>-98mm</td><td>3.0μm</td></tr><tr><td>-101mm</td><td>-102mm</td><td>5.0μm</td></tr></table> Parallel F.L. Tolerances ±2% to nearest mm. EFL from this lens formula. BFL is referenced from the lens surface.	Effective F.L.	Back F.L.	Wavelength	-93mm	-95mm	0.633μm	-94mm	-96mm	1.064μm	-97mm	-98mm	3.0μm	-101mm	-102mm	5.0μm
Effective F.L.	Back F.L.	Wavelength																		
-93mm	-95mm	0.633μm																		
-94mm	-96mm	1.064μm																		
-97mm	-98mm	3.0μm																		
-101mm	-102mm	5.0μm																		

CAF25LE NS-150	25mm Ø	-59.85 (±2%)	-150m	m @	IR 平凹	CALCIUM FLUORIDE PLANO-CONCAVE LENS		
			5µm			25mm Ø X -150mm F.L. @ 5µm MATERIAL: IR Grade CaF ₂	Diameter: 25.0mm (±0.1mm) Centre Thickness: 2.1mm (±0.1mm) Radius of Curvature 1: -59.85 (±2%) Radius of Curvature 2: Plano S/D: 60/40 Edge thickness: 3.3mm (derived)	
						Effective F.L.	Back F.L.	Wavelength
						-138mm	-141mm	0.633µm
						-139mm	-142mm	1.064µm
						-143mm	-146mm	3.0µm
						-150mm	-152mm	5.0µm
						Parallel F.L. Tolerances ±2% to nearest mm EFL from the lens formula. BFL is referenced from the lens surface.		

CaF₂ 柱面透镜:



订购信息:

订购型号	规格	曲率	焦距	CaF ₂ 等级
CAF25-25LENS25C	25mm x 25mm 平凸半圆柱	12.5 (±2%)	25mm @ 3µm	IR 平凸
CAF25-25LENS350C	25mm x 25mm	150 (±2%)	350mm @ 3µm	IR 平凸