



IR 抛光氟化钙 CaF₂ 平凸正透镜 (直径 38.1mm 焦距 160mm)



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

CAF38.1LENS160





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
38.1mm	160mm @ 3 μ m	68.16 ($\pm 2\%$)	IR 平凸

详细参数

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



熔点	1360℃
导热率	9.71Wm ⁻¹ K ⁻¹
热膨胀	18.85×10 ⁻⁶ /℃
硬度	Knoop 158.3
比热容	854J Kg ⁻¹ 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

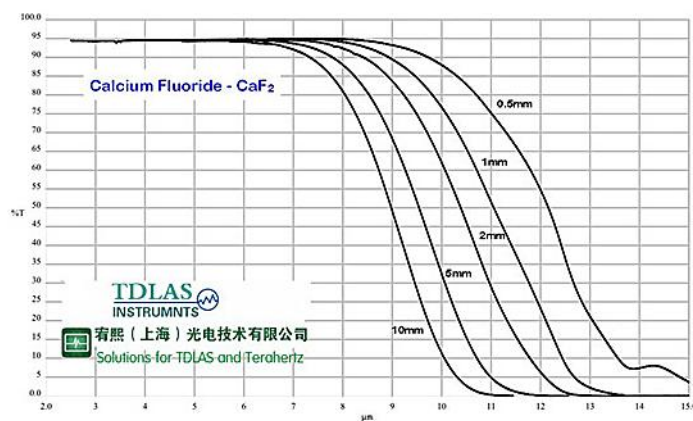
折射率:(No=Ordinary Ray 普通射线)

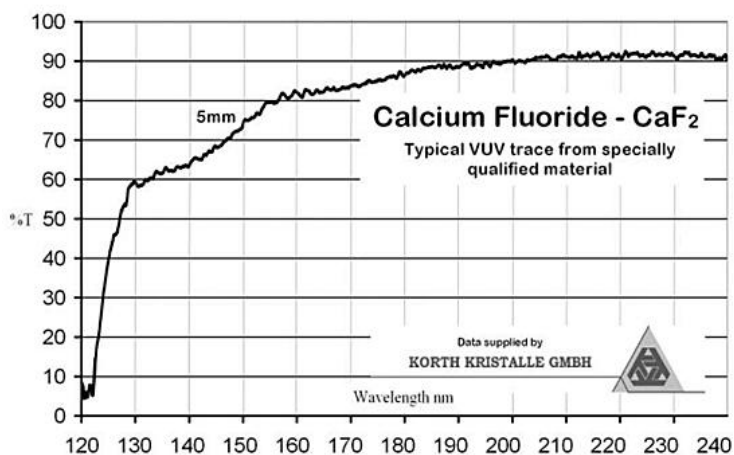
um	No	um	No	um	No
0.54	2.6754	0.58	2.6312	0.62	2.5994
0.66	2.5755	0.7	2.5568	0.74	2.5418
0.78	2.5295	0.82	2.5193	0.86	2.5107
0.90	2.5034	0.94	2.4971	0.98	2.4916
1.0	2.4892	1.4	2.4609	1.8	2.4496
2.2	2.4437	2.6	2.4401	3.0	2.4376
3.4	2.4356	3.8	2.4339	4.2	2.4324
4.6	2.4309	5.0	2.4295	5.4	2.4281
5.8	2.4266	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	CaF 2 等 级	参数															
CAF12.7LENS10U	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) <table><tr><td>Effective F.L.</td><td>Back F.L.</td><td>Wavelength</td></tr><tr><td>277mm</td><td>276mm</td><td>0.633µm</td></tr><tr><td>280mm</td><td>278mm</td><td>1.064µm</td></tr><tr><td>287mm</td><td>286mm</td><td>3.0µm</td></tr><tr><td>300mm</td><td>299mm</td><td>5.0µm</td></tr></table> Parallel 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	277mm	276mm	0.633µm	280mm	278mm	1.064µm	287mm	286mm	3.0µm	300mm	299mm	5.0µm
Effective F.L.	Back F.L.	Wavelength																		
277mm	276mm	0.633µm																		
280mm	278mm	1.064µm																		
287mm	286mm	3.0µm																		
300mm	299mm	5.0µm																		
CAF12.7LENS12	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) <table><tr><td>Effective F.L.</td><td>Back F.L.</td><td>Wavelength</td></tr><tr><td>15.0mm</td><td>12.7mm</td><td>0.633µm</td></tr><tr><td>15.5mm</td><td>13.2mm</td><td>3.0µm</td></tr><tr><td>16.2mm</td><td>13.9mm</td><td>5.0µm</td></tr></table> Parallel 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	15.0mm	12.7mm	0.633µm	15.5mm	13.2mm	3.0µm	16.2mm	13.9mm	5.0µm			
Effective F.L.	Back F.L.	Wavelength																		
15.0mm	12.7mm	0.633µm																		
15.5mm	13.2mm	3.0µm																		
16.2mm	13.9mm	5.0µm																		

CAF12.7LENS12U	12.7mm Ø	12.0 (±2%)	12mm @ 300nm	UV 双凸																
CAF12.7LENS100	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) <table><tr><td>Effective F.L.</td><td>Back F.L.</td><td>Wavelength</td></tr><tr><td>92mm</td><td>90mm</td><td>0.633µm</td></tr><tr><td>93mm</td><td>91mm</td><td>1.064µm</td></tr><tr><td>95mm</td><td>94mm</td><td>3.0µm</td></tr><tr><td>100mm</td><td>98mm</td><td>5.0µm</td></tr></table> Parallel F.L. Tolerance ±0% to nearest mm. EFL from this lens formula. BFL is referenced from the lens surface.	Effective F.L.	Back F.L.	Wavelength	92mm	90mm	0.633µm	93mm	91mm	1.064µm	95mm	94mm	3.0µm	100mm	98mm	5.0µm
Effective F.L.	Back F.L.	Wavelength																		
92mm	90mm	0.633µm																		
93mm	91mm	1.064µm																		
95mm	94mm	3.0µm																		
100mm	98mm	5.0µm																		
CAF16LENS90	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) <table><tr><td>Effective F.L.</td><td>Back F.L.</td><td>Wavelength</td></tr><tr><td>86mm</td><td>85mm</td><td>0.633µm</td></tr><tr><td>86mm</td><td>85mm</td><td>1.064µm</td></tr><tr><td>88mm</td><td>88mm</td><td>3.0µm</td></tr><tr><td>93mm</td><td>92mm</td><td>5.0µm</td></tr></table> Parallel F.L. Tolerance ±0% to nearest mm. EFL from this lens formula. BFL is referenced from the lens surface.	Effective F.L.	Back F.L.	Wavelength	86mm	85mm	0.633µm	86mm	85mm	1.064µm	88mm	88mm	3.0µm	93mm	92mm	5.0µm
Effective F.L.	Back F.L.	Wavelength																		
86mm	85mm	0.633µm																		
86mm	85mm	1.064µm																		
88mm	88mm	3.0µm																		
93mm	92mm	5.0µm																		
CAF18.5LENS26	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) <table><tr><td>Effective F.L.</td><td>Back F.L.</td><td>Wavelength</td></tr><tr><td>29.1mm</td><td>25.6mm</td><td>0.633µm</td></tr><tr><td>30.2mm</td><td>26.6mm</td><td>3.0µm</td></tr><tr><td>31.6mm</td><td>28.0mm</td><td>5.0µm</td></tr></table> Parallel F.L. Tolerance ±0% to nearest mm. EFL from this lens formula. BFL is referenced from the lens surface.	Effective F.L.	Back F.L.	Wavelength	29.1mm	25.6mm	0.633µm	30.2mm	26.6mm	3.0µm	31.6mm	28.0mm	5.0µm			
Effective F.L.	Back F.L.	Wavelength																		
29.1mm	25.6mm	0.633µm																		
30.2mm	26.6mm	3.0µm																		
31.6mm	28.0mm	5.0µm																		

CAF20LENS50	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 SID:60/40 Edge thickness:1.3mm (derived) Effective F.L.46mm Back F.L.43mm Wavelength0.633µm 47mm 44mm 1.064µm 48mm 45mm 3.0µm 50mm 47mm 5.0µm Parallel F.L. Tolerance: 0% to nearest mm EFL from the lens Vertex. BFL is referenced from the back lens surface.
CAF25LENS25U	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%) SID:60/40 Edge thickness:2.0mm (derived) Effective F.L.25.9mm Pr. Plane F.L.25.0mm Back F.L.22.2mm Wavelength0.35µm 26.8mm 23.0mm 0.633µm Parallel F.L. Tolerance: 0% EFL from the lens Vertex. BFL is referenced from the lens surface.
CAF25LENS25	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%) SID:60/40 Edge thickness:1.6mm (derived) Effective F.L.25.9mm Pr. Plane F.L.25.4mm Back F.L.22.2mm Wavelength0.633µm 26.2mm 22.4mm 1.064µm 26.8mm 25.4mm 23.0mm 3.0µm 28.0mm 24.1mm 5.0µm Parallel F.L. Tolerance: 0% EFL from the lens Vertex. BFL is referenced from the lens surface.
CAF25LENS50B	25mm Ø	39.1 (±2%)	50mm @ 5µm	IR 双凸	
CAF25LENS50	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 SID:60/40 Edge thickness:2.0mm (derived) Effective F.L.48mm Back F.L.44mm Wavelength0.633µm 49mm 45mm 1.064µm 50mm 45mm 3.0µm 52mm 48mm 5.0µm Parallel F.L. Tolerance: 0% to nearest mm EFL from the lens Vertex. BFL is referenced from the back lens surface.

CAF25LENS50U	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.51mm Back F.L.47mm Wavelength0.35 µm 53mm 49mm 0.633µm 54mm 49mm 1.064µm 55mm 51mm 3.0µm 57mm 53mm 5.0µm Paraxial F.L. Tolerances ±1% to nearest mm EFL from the lens formula. BFL is referenced from the back lens surface.
CAF25LENS75	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.72mm Back F.L.69mm Wavelength0.633µm 73mm 70mm 1.064µm 75mm 72mm 3.0µm 78mm 75mm 5.0µm Paraxial F.L. Tolerances ±1% to nearest mm EFL from the lens formula. BFL is referenced from the back lens surface.
CAF25LENS100B	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.92mm Back F.L.90mm Wavelength0.633µm 93mm 91mm 1.064µm 95mm 94mm 3.0µm 100mm 98mm 5.0µm Paraxial F.L. Tolerances ±1% to nearest mm EFL from the lens formula. BFL is referenced from the lens surface.
CAF25LENS100	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 the lens formula. BFL is referenced from the lens surface.
CAF25LENS100U	25mm Ø	43.73 (±2%)	100mm @ 350nm	UV 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 the lens formula. BFL is referenced from the lens surface.

CAF25LENS130	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 CaF ₂ 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, 129mm, 130mm, 131mm Back F.L.: 126mm, 126mm, 126mm, 126mm Wavelength: 0.633μm, 1.064μm, 3.0μm, 5.0μm Paraxial F.L. Transmittance 42% to nearest mm SFL from this lens formula. SFL is referenced from the lens surface.
CAF25LENS150	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 CaF ₂ 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, 142mm, 146mm, 152mm Back F.L.: 139mm, 140mm, 144mm, 150mm Wavelength: 0.633μm, 1.064μm, 3.0μm, 5.0μm Paraxial F.L. Transmittance 42% to nearest mm SFL from this lens formula. SFL is referenced from the lens surface.
CAF25LENS150U	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 CaF ₂ 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, 161mm, 163mm, 167mm, 175mm Back F.L.: 154mm, 159mm, 161mm, 165mm, 173mm Wavelength: 0.350μm, 0.633μm, 1.064μm, 3.0μm, 5.0μm Paraxial F.L. Transmittance 42% to nearest mm SFL from this lens formula. SFL is referenced from the lens surface.
CAF25LENS200U	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 CaF ₂ 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, 206mm, 210mm, 217mm, 226mm Back F.L.: 200mm, 207mm, 209mm, 214mm, 224mm Wavelength: 0.350μm, 0.633μm, 1.064μm, 3.0μm, 5.0μm Paraxial F.L. Transmittance 42% to nearest mm SFL from this lens formula. SFL is referenced from the lens surface.

CAF25LENS300	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 Parallel F.L. Tolerance: ±2% to nearest mm S/D, from the lens formula. SFL is referenced from the lens surface.
CAF25LENS500	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 Parallel F.L. Tolerance: ±2% to nearest mm S/D, from the lens formula. SFL is referenced from the lens surface.
CAF25.4LENS200	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 Parallel F.L. Tolerance: ±2% to nearest mm S/D, from the lens formula. SFL is referenced from the lens surface.
CAF27LENS50	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.51mm Back F.L.48.7mm Wavelength0.633µm 51mm 49.2mm 1.064µm 53mm 50.5mm 3.0µm 55mm 52.8mm 5.0µm Parallel F.L. Tolerance: ±2% to nearest mm S/D, from the lens formula. SFL is referenced from the lens surface.

CAF30LENS70	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) <table><tr><td>Effective F.L.</td><td>Back F.L.</td><td>Wavelength</td></tr><tr><td>67mm</td><td>65mm</td><td>0.633µm</td></tr><tr><td>67mm</td><td>65mm</td><td>1.064µm</td></tr><tr><td>69mm</td><td>67mm</td><td>3.0µm</td></tr><tr><td>72mm</td><td>70mm</td><td>5.0µm</td></tr></table> Paraxial F.L. Tolerances ±2% to nearest mm. D.F.L. from the lens formula. D.F.L. is referenced from the lens surface.	Effective F.L.	Back F.L.	Wavelength	67mm	65mm	0.633µm	67mm	65mm	1.064µm	69mm	67mm	3.0µm	72mm	70mm	5.0µm			
Effective F.L.	Back F.L.	Wavelength																					
67mm	65mm	0.633µm																					
67mm	65mm	1.064µm																					
69mm	67mm	3.0µm																					
72mm	70mm	5.0µm																					
CAF31.5LENS60	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) <table><tr><td>Effective F.L.</td><td>Back F.L.</td><td>Wavelength</td></tr><tr><td>64mm</td><td>59mm</td><td>0.633µm</td></tr><tr><td>64mm</td><td>59mm</td><td>1.064µm</td></tr><tr><td>65mm</td><td>61mm</td><td>3.0µm</td></tr><tr><td>69mm</td><td>64mm</td><td>5.0µm</td></tr></table> Paraxial F.L. Tolerances ±2% to nearest mm. D.F.L. from the lens formula. D.F.L. is referenced from the lens surface.	Effective F.L.	Back F.L.	Wavelength	64mm	59mm	0.633µm	64mm	59mm	1.064µm	65mm	61mm	3.0µm	69mm	64mm	5.0µm			
Effective F.L.	Back F.L.	Wavelength																					
64mm	59mm	0.633µm																					
64mm	59mm	1.064µm																					
65mm	61mm	3.0µm																					
69mm	64mm	5.0µm																					
CAF38.1LENS75	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) <table><tr><td>Effective F.L.</td><td>Back F.L.</td><td>Wavelength</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> Paraxial F.L. Tolerances ±2% to nearest mm. D.F.L. from the lens formula. D.F.L. is referenced from the lens surface.	Effective F.L.	Back F.L.	Wavelength	78mm	72mm	0.633µm	79mm	73mm	1.064µm	81mm	75mm	3.0µm	85mm	78mm	5.0µm			
Effective F.L.	Back F.L.	Wavelength																					
78mm	72mm	0.633µm																					
79mm	73mm	1.064µm																					
81mm	75mm	3.0µm																					
85mm	78mm	5.0µm																					
CAF38.1LENS75U	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> Paraxial F.L. Tolerances ±2% to nearest mm. D.F.L. from the lens formula. D.F.L. 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																					

CAF38.1LENS160	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 CaF ₂ 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) Effective F.L.: 157mm, 159mm, 163mm, 171mm Back F.L.: 154mm, 156mm, 160mm, 167mm Wavelength: 0.633µm, 1.064µm, 3.0µm, 5.0µm Effective F.L. Tolerance: ±2% to nearest mm. S/D: from the lens formula. SFL is referenced from the lens surface.
CAF38.1LENS250 U	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 CaF ₂ 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) Effective F.L.: 213mm, 233mm, 240mm, 250mm Back F.L.: 211mm, 228mm, 231mm, 247mm Wavelength: 0.248µm, 0.633µm, 1.064µm, 3.0µm, 5.0µm Effective F.L. Tolerance: ±2% to nearest mm. S/D: from the lens formula. SFL is referenced from the lens surface.
CAF38.1LENS475	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 CaF ₂ 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) Effective F.L.: 440mm, 444mm, 456mm, 477mm Back F.L.: 437mm, 442mm, 453mm, 474mm Wavelength: 0.633µm, 1.064µm, 3.0µm, 5.0µm Effective F.L. Tolerance: ±2% to nearest mm. S/D: from the lens formula. SFL is referenced from the lens surface.
CAF40LENS120	40mm Ø	50.25 (±2%)	120mm @ 3µm	UV 平凸	
CAF40LENS150	40mm Ø	64 (±2%)	150mm @ 3µm	IR 平凸	CALCIUM FLUORIDE PLANO-CONVEX LENS 40mm Ø X 150mm F.L. @ 3µm MATERIAL: IR Grade CaF ₂ 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) Effective F.L.: 146mm, 149mm, 153mm, 159mm Back F.L.: 145mm, 146mm, 150mm, 157mm Wavelength: 0.633µm, 1.064µm, 3.0µm, 5.0µm Effective F.L. Tolerance: ±2% to nearest mm. S/D: from the lens formula. SFL is referenced from the lens surface.

CAF40LENS200	40mm Ø	85 (±2%)	200mm @ 3μm	IR 平凸	CALCIUM FLUORIDE PLANO-CONVEX LENS 40mm Ø X 200mm F.L. @ 3μm MATERIAL: IR Grade CaF ₂ 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) Effective F.L.: 196mm Back F.L.: 194mm Wavelength: 0.633μm 198mm 196mm 1.064μm 203mm 201mm 3.0μm 212mm 210mm 5.0μm Paraxial F.L. Tolerances ±2% to nearest mm. EFL from the lens formula. BFL is referenced from the lens surface.
CAF40LENS330	40mm Ø	138 (±2%)	330mm @ 3μm	IR 平凸	
CAF40LENS440	40mm Ø	187 (±2%)	440mm @ 3μm	IR 平凸	CALCIUM FLUORIDE PLANO-CONVEX LENS 40mm Ø X 440mm F.L. @ 3μm MATERIAL: IR Grade CaF ₂ 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) Effective F.L.: 432mm Back F.L.: 431mm Wavelength: 0.633μm 436mm 435mm 1.064μm 448mm 446mm 3.0μm 468mm 467mm 5.0μm Paraxial F.L. Tolerances ±2% to nearest mm. EFL from the lens formula. BFL is referenced from the lens surface.
CAF50LENS80	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 CaF ₂ 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) Effective F.L.: 79mm Back F.L.: 72mm Wavelength: 0.633μm 80mm 73mm 1.064μm 82mm 75mm 3.0μm 86mm 78mm 5.0μm Paraxial F.L. Tolerances ±2% to nearest mm. EFL from the lens formula. BFL is referenced from the lens surface.
CAF50LENS100	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 CaF ₂ 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 Wavelength: 0.633μm 100mm 93mm 1.064μm 103mm 96mm 3.0μm 108mm 101mm 5.0μm Paraxial F.L. Tolerances ±2% to nearest mm. EFL from the lens formula. BFL is referenced from the lens surface.

CAF50LENS135	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 CaF ₂ 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) Effective F.L. Back F.L. Wavelength 132mm 126mm 0.633µm 133mm 128mm 1.064µm 136mm 131mm 3.0µm 143mm 137mm 5.0µm Parallel F.L. Tolerances ±0.5% to nearest mm. EFL from the lens formula. BFL is referenced from the lens surface.
CAF50LENS250	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 CaF ₂ 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) Effective F.L. Back F.L. Wavelength 231mm 229mm 0.633µm 233mm 231mm 1.064µm 236mm 237mm 3.0µm 250mm 248mm 5.0µm Parallel F.L. Tolerances ±0.5% to nearest mm. EFL from the lens formula. BFL is referenced from the lens surface.

CaF₂ 负透镜



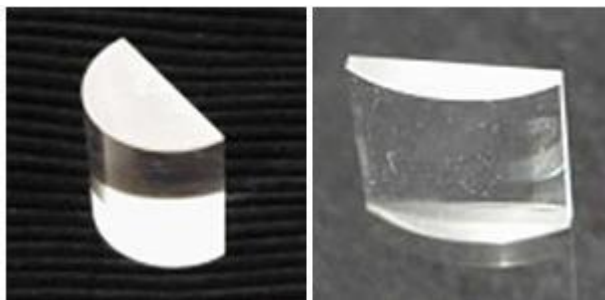


订购信息:

订购型号	规格	曲率	焦距	CaF ₂ 等级	参数
CAF25LENS-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 CaF ₂ 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) 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 (±2% is measured from the rear surface) RF: from the rear surface, RT: is referenced from the rear surface
CAF25LENS-100	25mm Ø	-40.32 (±2%)	-100mm @ 3μm	IR 平凹	CALCIUM FLUORIDE PLANO-CONCAVE LENS 25mm Ø X -100mm F.L. @ 3μm MATERIAL: IR Grade CaF ₂ 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) 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 (±2% is measured from the rear surface) RF: from the rear surface, RT: is referenced from the rear surface
CAF25LENS-150	25mm Ø	-59.85 (±2%)	-150mm @ 5μm	IR 平凹	CALCIUM FLUORIDE PLANO-CONCAVE LENS 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 -139mm -141mm 0.633μm -138mm -142mm 1.064μm -143mm -145mm 3.0μm -150mm -152mm 5.0μm Effective F.L. Back F.L. Wavelength (±2% is measured from the rear surface) RF: from the rear surface, RT: is referenced from the rear 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