



IR 抛光氟化钙 CaF_2 平凸正透镜 (直径 40mm 焦距 150mm)



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

CAF40LENS150





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
40mm	150mm @ 3μm	64 (±2%)	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℃
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

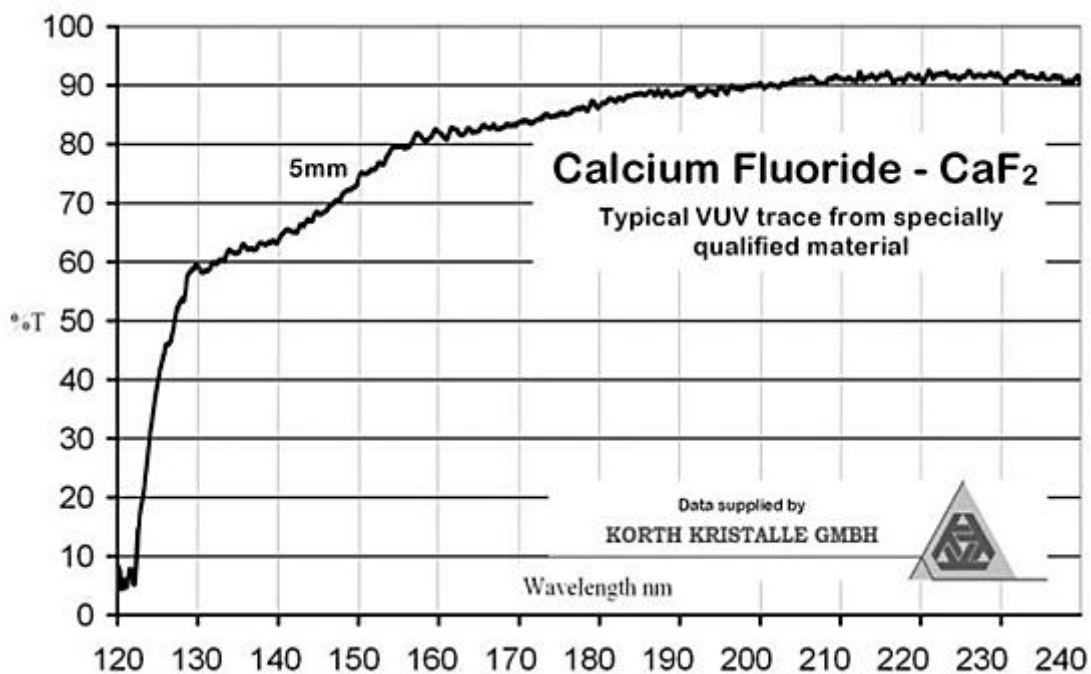
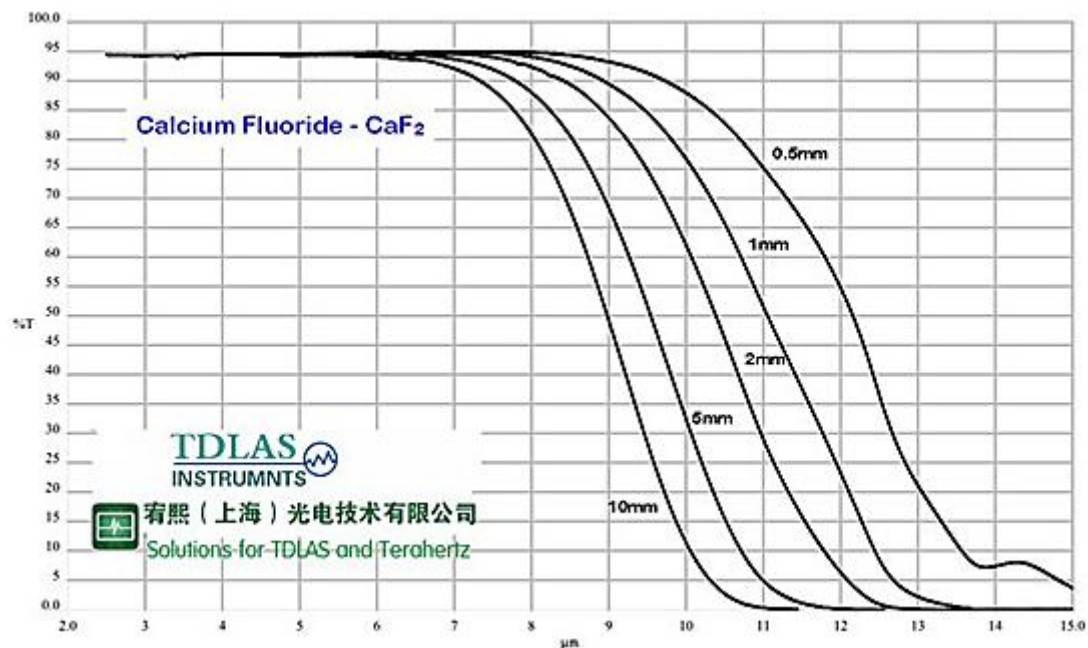
折射率:(No=Ordinary Ray 普通射线)

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	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 Back F.L. 276mm Wavelength 0.633µm 280mm 278mm 1.064µm 287mm 286mm 3.0µm 300mm 299mm 5.0µm Parallel 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 Wavelength 0.633µm 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 Wavelength 0.633µm 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 CaF ₂ 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 Wavelength: 0.633µm 85mm: 1.064µm 89mm: 3.0µm 93mm: 5.0µm Paraxial F.L. Tolerances ±5% to nearest mm. EFL from the 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 CaF ₂ 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 Back F.L.: 25.6mm Wavelength: 0.633µm 30.2mm: 3.0µm 31.6mm: 5.0µm Paraxial F.L. Tolerances ±5% to nearest mm. EFL from the 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 CaF ₂ 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 Back F.L.: 43mm Wavelength: 0.633µm 47mm: 1.064µm 48mm: 3.0µm 50mm: 5.0µm Paraxial F.L. Tolerances ±5% to nearest mm. EFL from the 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 CaF ₂ 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 Pz Plane F.L.: 25.0mm Back F.L.: 22.2mm Wavelength: 0.35µm 26.8mm: 0.633µm Paraxial F.L. Tolerances ±5%. EFL from the 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) <table><tr><td>Effective F.L.</td><td>Pr. Plane F.L.</td><td>Back F.L.</td><td>Wavelength</td></tr><tr><td>25.9mm</td><td></td><td>22.2mm</td><td>0.633µm</td></tr><tr><td>26.2mm</td><td></td><td>22.4mm</td><td>1.064µm</td></tr><tr><td>26.8mm</td><td>25.4mm</td><td>23.0mm</td><td>3.0µm</td></tr><tr><td>28.0mm</td><td></td><td>24.1mm</td><td>5.0µm</td></tr></table> Paraxial F.L. Tolerances ±0% to nearest mm EFL from the lens formula. BFL is referenced from the back lens surface.	Effective F.L.	Pr. Plane F.L.	Back F.L.	Wavelength	25.9mm		22.2mm	0.633µm	26.2mm		22.4mm	1.064µm	26.8mm	25.4mm	23.0mm	3.0µm	28.0mm		24.1mm	5.0µm
Effective F.L.	Pr. Plane F.L.	Back F.L.	Wavelength																						
25.9mm		22.2mm	0.633µm																						
26.2mm		22.4mm	1.064µm																						
26.8mm	25.4mm	23.0mm	3.0µm																						
28.0mm		24.1mm	5.0µm																						
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) <table><tr><td>Effective F.L.</td><td>Back F.L.</td><td>Wavelength</td></tr><tr><td>46mm</td><td>44mm</td><td>0.633µm</td></tr><tr><td>49mm</td><td>45mm</td><td>1.064µm</td></tr><tr><td>50mm</td><td>45mm</td><td>3.0µm</td></tr><tr><td>52mm</td><td>48mm</td><td>5.0µm</td></tr></table> Paraxial F.L. Tolerances ±0% to nearest mm EFL from the lens formula. BFL is referenced from the back lens surface.	Effective F.L.	Back F.L.	Wavelength	46mm	44mm	0.633µm	49mm	45mm	1.064µm	50mm	45mm	3.0µm	52mm	48mm	5.0µm					
Effective F.L.	Back F.L.	Wavelength																							
46mm	44mm	0.633µm																							
49mm	45mm	1.064µm																							
50mm	45mm	3.0µm																							
52mm	48mm	5.0µm																							
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) <table><tr><td>Effective F.L.</td><td>Back F.L.</td><td>Wavelength</td></tr><tr><td>51mm</td><td>47mm</td><td>0.35 µm</td></tr><tr><td>53mm</td><td>49mm</td><td>0.633µm</td></tr><tr><td>54mm</td><td>49mm</td><td>1.064µm</td></tr><tr><td>55mm</td><td>51mm</td><td>3.0µm</td></tr><tr><td>57mm</td><td>53mm</td><td>5.0µm</td></tr></table> Paraxial F.L. Tolerances ±0% to nearest mm EFL from the lens formula. BFL is referenced from the back lens surface.	Effective F.L.	Back F.L.	Wavelength	51mm	47mm	0.35 µm	53mm	49mm	0.633µm	54mm	49mm	1.064µm	55mm	51mm	3.0µm	57mm	53mm	5.0µm		
Effective F.L.	Back F.L.	Wavelength																							
51mm	47mm	0.35 µm																							
53mm	49mm	0.633µm																							
54mm	49mm	1.064µm																							
55mm	51mm	3.0µm																							
57mm	53mm	5.0µm																							
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) <table><tr><td>Effective F.L.</td><td>Back F.L.</td><td>Wavelength</td></tr><tr><td>72mm</td><td>69mm</td><td>0.633µm</td></tr><tr><td>73mm</td><td>70mm</td><td>1.064µm</td></tr><tr><td>75mm</td><td>72mm</td><td>3.0µm</td></tr><tr><td>78mm</td><td>75mm</td><td>5.0µm</td></tr></table> Paraxial F.L. Tolerances ±0% to nearest mm EFL from the lens formula. BFL is referenced from the back lens surface.	Effective F.L.	Back F.L.	Wavelength	72mm	69mm	0.633µm	73mm	70mm	1.064µm	75mm	72mm	3.0µm	78mm	75mm	5.0µm					
Effective F.L.	Back F.L.	Wavelength																							
72mm	69mm	0.633µm																							
73mm	70mm	1.064µm																							
75mm	72mm	3.0µm																							
78mm	75mm	5.0µm																							

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.92mm Back F.L.90mm Wavelength0.633µm 93mm 91mm 1.064µm 95mm 94mm 3.0µm 100mm 98mm 5.0µm 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 this 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 128mm 1.064µm 133mm 130mm 3.0µm 139mm 136mm 5.0µm Paraxial F.L. Tolerances ±2% to nearest mm EFL from this 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 this 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 SID: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 the 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 SID: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 225mm 224mm 5.0µm Paraxial F.L. tolerances ±2% to nearest mm EFL from the 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 SID: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 the 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 SID: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 the 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) <table><tr><td>Effective F.L.</td><td>Back F.L.</td><td>Wavelength</td></tr><tr><td>187mm</td><td>185mm</td><td>0.633µm</td></tr><tr><td>188mm</td><td>186mm</td><td>1.064µm</td></tr><tr><td>193mm</td><td>191mm</td><td>3.0µm</td></tr><tr><td>202mm</td><td>200mm</td><td>5.0µm</td></tr></table> Parallel F.L. Tolerances ±2% to nearest mm. S/D, from the lens formula. BFL is referenced from the lens surface.	Effective F.L.	Back F.L.	Wavelength	187mm	185mm	0.633µm	188mm	186mm	1.064µm	193mm	191mm	3.0µm	202mm	200mm	5.0µm
Effective F.L.	Back F.L.	Wavelength																		
187mm	185mm	0.633µm																		
188mm	186mm	1.064µm																		
193mm	191mm	3.0µm																		
202mm	200mm	5.0µm																		
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) <table><tr><td>Effective F.L.</td><td>Back F.L.</td><td>Wavelength</td></tr><tr><td>51mm</td><td>48.7mm</td><td>0.633µm</td></tr><tr><td>51mm</td><td>49.2mm</td><td>1.064µm</td></tr><tr><td>53mm</td><td>50.5mm</td><td>3.0µm</td></tr><tr><td>55mm</td><td>52.8mm</td><td>5.0µm</td></tr></table> Parallel F.L. Tolerances ±2% to nearest mm. S/D, from the lens formula. BFL is referenced from the lens surface.	Effective F.L.	Back F.L.	Wavelength	51mm	48.7mm	0.633µm	51mm	49.2mm	1.064µm	53mm	50.5mm	3.0µm	55mm	52.8mm	5.0µm
Effective F.L.	Back F.L.	Wavelength																		
51mm	48.7mm	0.633µm																		
51mm	49.2mm	1.064µm																		
53mm	50.5mm	3.0µm																		
55mm	52.8mm	5.0µm																		
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) <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> Parallel F.L. Tolerances ±2% to nearest mm. S/D, from the lens formula. BFL 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																		
CAF31.5L 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) <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>68mm</td><td>64mm</td><td>5.0µm</td></tr></table> Parallel F.L. Tolerances ±2% to nearest mm. S/D, from the lens formula. BFL 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	68mm	64mm	5.0µm
Effective F.L.	Back F.L.	Wavelength																		
64mm	59mm	0.633µm																		
64mm	59mm	1.064µm																		
65mm	61mm	3.0µm																		
68mm	64mm	5.0µm																		

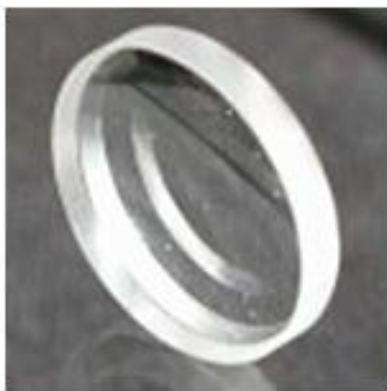
CAF38.1L ENS75	38.1mm Ø	33.84 (±2%)	75mm @ 4.5µm	IR 平凸	CALCIUM FLUORIDE PLANO-CONVEX LENS 38.1mm Ø X 75mm F.L. @ 3µm MATERIAL: IR Grade CaF₂ Diameter: 38.1mm (±0.1mm) Centre Thickness: 9.0mm (±0.1mm) Radius of Curvature 1: 33.84 (±2%) Radius of Curvature 2: Plano S/D: 60/40 Edge thickness: 3.1mm (derived) Effective F.L. 78mm Back F.L. 72mm Wavelength 0.633µm 79mm 73mm 1.064µm 81mm 75mm 3.0µm 85mm 78mm 5.0µm Paraxial F.L. Tolerances ±2% to nearest mm. D.F.L. from the lens formula. B.F.L. 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) Effective F.L. 72mm Back F.L. 66mm Wavelength 0.248µm 78mm 72mm 0.633µm 79mm 73mm 1.064µm 81mm 75mm 3.0µm 85mm 78mm 5.0µm Paraxial F.L. Tolerances ±2% to nearest mm. D.F.L. from the lens formula. B.F.L. is referenced from the lens surface.
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) Effective F.L. 157mm Back F.L. 154mm Wavelength 0.633µm 159mm 156mm 1.064µm 163mm 160mm 3.0µm 171mm 167mm 5.0µm Paraxial F.L. Tolerances ±2% to nearest mm. D.F.L. from the lens formula. B.F.L. is referenced from the lens surface.
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) Effective F.L. 213mm Back F.L. 211mm Wavelength 0.248µm 231mm 229mm 0.633µm 233mm 231mm 1.064µm 240mm 237mm 3.0µm 250mm 247mm 5.0µm Paraxial F.L. Tolerances ±2% to nearest mm. D.F.L. from the lens formula. B.F.L. is referenced from the lens surface.

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) Effective F.L. 440mm Back F.L. 437mm Wavelength 0.633µm 444mm 442mm 1.064µm 456mm 453mm 3.0µm 477mm 474mm 5.0µm Parallel F.L. Tolerances ±2% to nearest mm EPFL from the lens vertex. BPFL is referenced from the lens surface.
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) Effective F.L. 148mm Back F.L. 145mm Wavelength 0.633µm 149mm 146mm 1.064µm 153mm 150mm 3.0µm 160mm 157mm 5.0µm Parallel F.L. Tolerances ±2% to nearest mm EPFL from the lens vertex. BPFL is referenced from the lens surface.
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) Effective F.L. 196mm Back F.L. 194mm Wavelength 0.633µm 198mm 196mm 1.064µm 203mm 201mm 3.0µm 212mm 210mm 5.0µm Parallel F.L. Tolerances ±2% to nearest mm EPFL from the lens vertex. BPFL is referenced from the lens surface.
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 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. Back F.L. Wavelength 432mm 431mm 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.
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 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. Back F.L. Wavelength 79mm 72mm 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.
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 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. Back F.L. Wavelength 98mm 92mm 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.
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 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 129mm 0.633µm 133mm 128mm 1.064µm 136mm 131mm 3.0µm 143mm 137mm 5.0µm Paraxial F.L. Tolerances ±2% to nearest mm. EFL from the lens formula. BFL is referenced from the lens surface.

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> Parallel F.L. Transmitted with 10 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

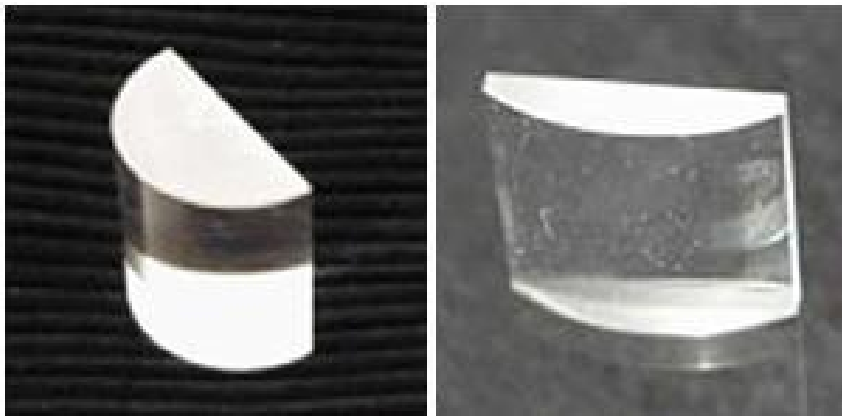


订购信息:

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>-48mm</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. Transmitted with 10 nearest mm EFL from thin lens formula. BFL is referenced from the lens surface.	Effective F.L.	Back F.L.	Wavelength	-47mm	-48mm	0.633µm	-48mm	-50mm	1.064µm	-49mm	-51mm	3.0µm	-51mm	-53mm	5.0µm
Effective F.L.	Back F.L.	Wavelength																		
-47mm	-48mm	0.633µm																		
-48mm	-50mm	1.064µm																		
-49mm	-51mm	3.0µm																		
-51mm	-53mm	5.0µm																		

CAF25LE NS-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 -96mm 0.633µm -94mm -96mm 1.064µm -97mm -98mm 3.0µm -101mm -102mm 5.0µm Paraxial F.L. Transmitted with 10 nearest mm. EP.L. from this lens formula. EP.L. is referenced from the lens surface.
CAF25LE NS-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 -138mm -141mm 0.633µm -139mm -142mm 1.064µm -143mm -146mm 3.0µm -150mm -152mm 5.0µm Paraxial F.L. Transmitted with 10 nearest mm. EP.L. from this lens formula. EP.L. 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

