



IR 抛光氟化钙 CaF₂ 平凸正透镜 (直径 38.1mm 焦距 475mm)



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

CAF38.1LENS475





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	475mm @ 5 μ m	190.35 ($\pm 2\%$)	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

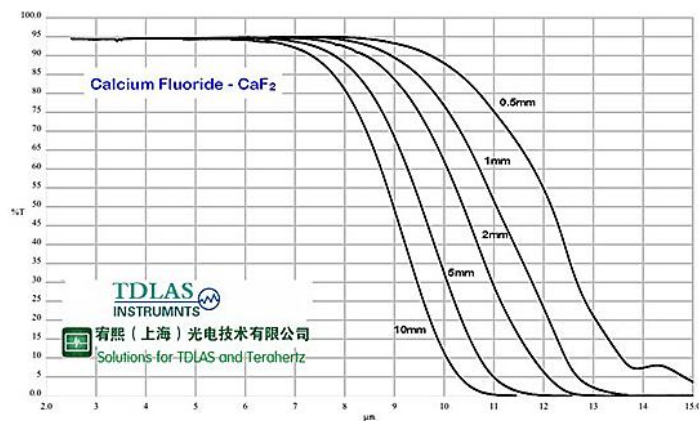
折射率:(No=Ordinary Ray 普通射线)

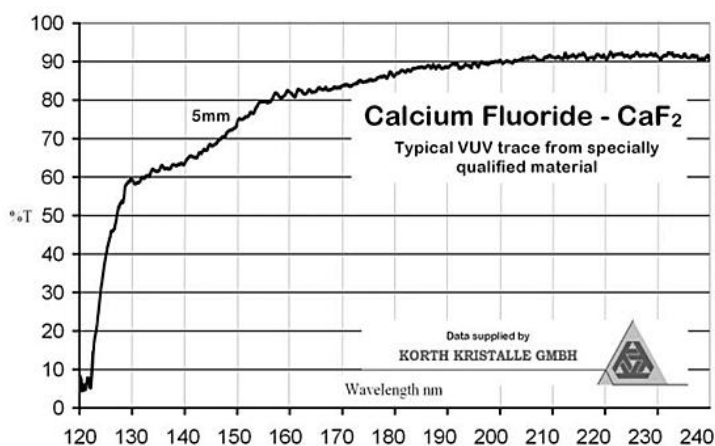
um	No	um	No	um	No
0.54	2.6754	0.58	2.6312	0.62	2.5994
0.66	2.5755	0.7	2.5568	0.74	2.5418
0.78	2.5295	0.82	2.5193	0.86	2.5107
0.90	2.5034	0.94	2.4971	0.98	2.4916
1.0	2.4892	1.4	2.4609	1.8	2.4496
2.2	2.4437	2.6	2.4401	3.0	2.4376
3.4	2.4356	3.8	2.4339	4.2	2.4324
4.6	2.4309	5.0	2.4295	5.4	2.4281
5.8	2.4266	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	CaF2 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) Effective F.L.27.7mm Back F.L.276mm Wavelength0.633µm 260mm 278mm 1.054µm 287mm 286mm 3.0µm 300mm 296mm 5.0µm Effective F.L. tolerance: ±2% to nearest mm. S/D, from the back surface. S/D, is referenced from the front surface.
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) Effective F.L.15.0mm Back F.L.12.7mm Wavelength0.633µm 15.5mm 13.2mm 3.0µm 16.2mm 13.9mm 5.0µm Effective F.L. tolerance: ±2% to nearest mm. S/D, from the back surface. S/D, is referenced from the front surface.
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) Effective F.L. Back F.L. Wavelength 92mm 90mm 0.633µm 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. S/D is referenced from the lens surface.
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) Effective F.L. Back F.L. Wavelength 86mm 85mm 0.633µm 86mm 85mm 1.064µm 89mm 88mm 3.0µm 93mm 92mm 5.0µm Paraxial F.L. Tolerances ±2% to nearest mm. EFL from this lens formula. S/D is referenced from the lens surface.
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) 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 Paraxial F.L. Tolerances ±2% to nearest mm. EFL from this lens formula. S/D is referenced from the lens surface.
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 S/D: 60/40 Edge thickness: 1.3mm (derived) Effective F.L. Back F.L. Wavelength 46mm 43mm 0.633µm 47mm 44mm 1.064µm 48mm 45mm 3.0µm 50mm 47mm 5.0µm Paraxial F.L. Tolerances ±2% to nearest mm. EFL from this lens formula. S/D is referenced from the 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%) S/D: 60/40 Edge thickness: 2.0mm (derived) Effective F.L. Pr Plane F.L. Back F.L. Wavelength 26.0mm 25.0mm 22.2mm 0.35µm 26.8mm 23.0mm 0.633µm Paraxial F.L. Tolerances ±2% EFL from this lens formula. S/D 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) <table><tr><td>Effective F.L.</td><td>Pv 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: ±0.1mm DTL from this lens formula. DFL is referenced from the back lens surface.	Effective F.L.	Pv 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.	Pv 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																						
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) <table><tr><td>Effective F.L.</td><td>Back F.L.</td><td>Wavelength</td></tr><tr><td>49mm</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: ±0.1mm DTL from this lens formula. DFL is referenced from the back lens surface.	Effective F.L.	Back F.L.	Wavelength	49mm	44mm	0.633µm	49mm	45mm	1.064µm	50mm	45mm	3.0µm	52mm	48mm	5.0µm					
Effective F.L.	Back F.L.	Wavelength																							
49mm	44mm	0.633µm																							
49mm	45mm	1.064µm																							
50mm	45mm	3.0µm																							
52mm	48mm	5.0µm																							
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 SID: 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>0.36 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: ±0.1mm DTL from this lens formula. DFL is referenced from the back lens surface.	Effective F.L.	Back F.L.	Wavelength	51mm	47mm	0.36 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	0.36 µm																							
53mm	49mm	0.633µm																							
54mm	49mm	1.064µm																							
55mm	51mm	3.0µm																							
57mm	53mm	5.0µm																							
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 SID: 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: ±0.1mm DTL from this lens formula. DFL 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																							

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 93mm91mm1.064µm 95mm94mm3.0µm 100mm98mm5.0µm Paraxial F.L. Tolerances ±2% to nearest mm. D.F.L. from the lens formula. S/D is understood 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 100mm93mm1.064µm 103mm96mm3.0µm 108mm101mm5.0µm Paraxial F.L. Tolerances ±2% to nearest mm. D.F.L. from the lens formula. S/D is understood from the lens surface.
CAF25LENS100U	25mm Ø	43.73 (±2%)	100mm @ 350nm	UV 平凸	
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 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.129mm Back F.L.126mm Wavelength0.633µm 129mm126mm1.064µm 133mm130mm3.0µm 139mm136mm5.0µm Paraxial F.L. Tolerances ±2% to nearest mm. D.F.L. from the lens formula. S/D is understood 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 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 142mm140mm1.064µm 146mm144mm3.0µm 152mm150mm5.0µm Paraxial F.L. Tolerances ±2% to nearest mm. D.F.L. from the lens formula. S/D is understood 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 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) <table><tr><td>Effective F.L.</td><td>Back F.L.</td><td>Wavelength</td></tr><tr><td>156mm</td><td>154mm</td><td>0.350µm</td></tr><tr><td>161mm</td><td>159mm</td><td>0.633µm</td></tr><tr><td>163mm</td><td>161mm</td><td>1.064µm</td></tr><tr><td>167mm</td><td>165mm</td><td>3.0µm</td></tr><tr><td>175mm</td><td>173mm</td><td>5.0µm</td></tr></table> Effective F.L. Tolerances: ±2% to nearest mm SID: from 60° back to 40° SID is referenced from the lens surface.	Effective F.L.	Back F.L.	Wavelength	156mm	154mm	0.350µm	161mm	159mm	0.633µm	163mm	161mm	1.064µm	167mm	165mm	3.0µm	175mm	173mm	5.0µm
Effective F.L.	Back F.L.	Wavelength																					
156mm	154mm	0.350µm																					
161mm	159mm	0.633µm																					
163mm	161mm	1.064µm																					
167mm	165mm	3.0µm																					
175mm	173mm	5.0µm																					
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 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) <table><tr><td>Effective F.L.</td><td>Back F.L.</td><td>Wavelength</td></tr><tr><td>202mm</td><td>200mm</td><td>0.350µm</td></tr><tr><td>209mm</td><td>207mm</td><td>0.633µm</td></tr><tr><td>213mm</td><td>210mm</td><td>1.064µm</td></tr><tr><td>217mm</td><td>214mm</td><td>3.0µm</td></tr><tr><td>226mm</td><td>224mm</td><td>5.0µm</td></tr></table> Effective F.L. Tolerances: ±2% to nearest mm SID: from 60° back to 40° SID is referenced from the lens surface.	Effective F.L.	Back F.L.	Wavelength	202mm	200mm	0.350µm	209mm	207mm	0.633µm	213mm	210mm	1.064µm	217mm	214mm	3.0µm	226mm	224mm	5.0µm
Effective F.L.	Back F.L.	Wavelength																					
202mm	200mm	0.350µm																					
209mm	207mm	0.633µm																					
213mm	210mm	1.064µm																					
217mm	214mm	3.0µm																					
226mm	224mm	5.0µm																					
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 SID: 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>298mm</td><td>5.0µm</td></tr></table> Effective F.L. Tolerances: ±2% to nearest mm SID: from 60° back to 40° SID 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	298mm	5.0µm			
Effective F.L.	Back F.L.	Wavelength																					
277mm	276mm	0.633µm																					
280mm	278mm	1.064µm																					
287mm	286mm	3.0µm																					
300mm	298mm	5.0µm																					
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 SID: 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>467mm</td><td>465mm</td><td>0.633µm</td></tr><tr><td>471mm</td><td>469mm</td><td>1.064µm</td></tr><tr><td>483mm</td><td>482mm</td><td>3.0µm</td></tr><tr><td>506mm</td><td>504mm</td><td>5.0µm</td></tr></table> Effective F.L. Tolerances: ±2% to nearest mm SID: from 60° back to 40° SID is referenced from the lens surface.	Effective F.L.	Back F.L.	Wavelength	467mm	465mm	0.633µm	471mm	469mm	1.064µm	483mm	482mm	3.0µm	506mm	504mm	5.0µm			
Effective F.L.	Back F.L.	Wavelength																					
467mm	465mm	0.633µm																					
471mm	469mm	1.064µm																					
483mm	482mm	3.0µm																					
506mm	504mm	5.0µm																					
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 SID: 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>167mm</td><td>166mm</td><td>0.633µm</td></tr><tr><td>168mm</td><td>166mm</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> Effective F.L. Tolerances: ±2% to nearest mm SID: from 60° back to 40° SID is referenced from the lens surface.	Effective F.L.	Back F.L.	Wavelength	167mm	166mm	0.633µm	168mm	166mm	1.064µm	193mm	191mm	3.0µm	202mm	200mm	5.0µm			
Effective F.L.	Back F.L.	Wavelength																					
167mm	166mm	0.633µm																					
168mm	166mm	1.064µm																					
193mm	191mm	3.0µm																					
202mm	200mm	5.0µm																					

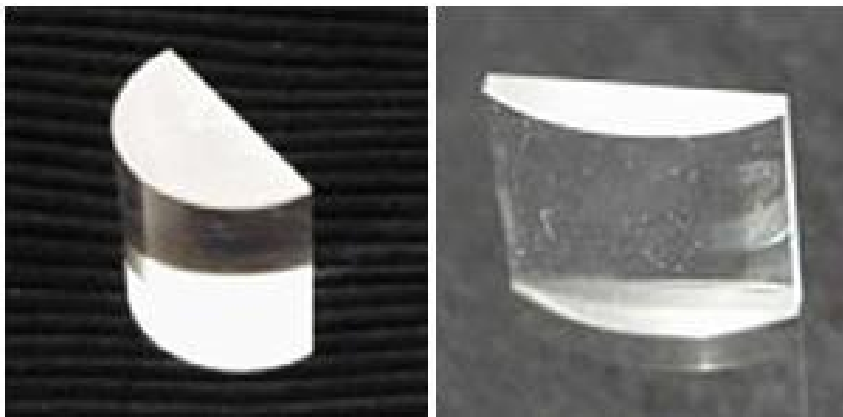
CAF27LENS50	27mm Ø	43.10 (±2%)	50mm @ 3µm	IR 双凸	CALCIUM FLUORIDE BI-CONVEX LENS 27mm Ø X 50mm F.L. @ 3µm MATERIAL: IR Grade CaF₂ Diameter: 27.0mm (±0.1mm) Centre Thickness: 6.4mm (±0.1mm) Radius of Curvature 1: 43.10 (±2%) Radius of Curvature 2: 43.10 (±2%) SID: 60/40 Edge thickness: 2.1mm (derived) 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 Paraxial F.L. Tolerances ±2% to nearest mm. SP1 from first lens formula. SP1 is referenced from the front 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%) SID: 60/40 Edge thickness: 2.0mm (derived) Effective F.L. Back F.L. Wavelength 67mm 65mm 0.633µm 67mm 65mm 1.064µm 69mm 67mm 3.0µm 72mm 70mm 5.0µm Paraxial F.L. Tolerances ±2% to nearest mm. SP1 from first lens formula. SP1 is referenced from the front surface.
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 SID: 60/40 Edge thickness: 1.8mm (derived) Effective F.L. Back F.L. Wavelength 64mm 59mm 0.633µm 64mm 59mm 1.064µm 65mm 61mm 3.0µm 69mm 64mm 5.0µm Paraxial F.L. Tolerances ±2% to nearest mm. SP1 from first lens formula. SP1 is referenced from the front surface.
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 SID: 60/40 Edge thickness: 3.1mm (derived) Effective F.L. Back F.L. Wavelength 79mm 72mm 0.633µm 79mm 73mm 1.064µm 81mm 75mm 3.0µm 85mm 78mm 5.0µm Paraxial F.L. Tolerances ±2% to nearest mm. SP1 from first lens formula. SP1 is referenced from the front surface.
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 SID: 60/40 Edge thickness: 3.1mm (derived) 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 Paraxial F.L. Tolerances ±2% to nearest mm. SP1 from first lens formula. SP1 is referenced from the front surface.

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 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 SD: 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. Transmittance >95% to specified rates EFL from the lens surface. 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																					
CAF38.1LENS250 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 CaF₂ Diameter: 38.1mm (±0.1mm) Centre Thickness: 3.8mm (±0.1mm) Radius of Curvature 1: 100.0 (±2%) Radius of Curvature 2: Plano SD: 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. Transmittance >95% to specified rates EFL from the lens surface. 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																					
CAF38.1LENS475	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 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 SD: 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. Transmittance >95% to specified rates EFL from the lens surface. 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																					
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 CaF₂ Diameter: 40.0mm (±0.1mm) Centre Thickness: 4.1mm (±0.1mm) Radius of Curvature 1: 64.0 (±2%) Radius of Curvature 2: Plano SD: 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> Parallel F.L. Transmittance >95% to specified rates EFL from the lens surface. 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																					
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 CaF₂ Diameter: 40.0mm (±0.1mm) Centre Thickness: 3.3mm (±0.1mm) Radius of Curvature 1: 85.0 (±2%) Radius of Curvature 2: Plano SD: 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> Parallel F.L. Transmittance >95% to specified rates EFL from the lens surface. 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																					

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. Back F.L. Wavelength 432mm 431mm 0.633μm 436mm 436mm 1.064μm 448mm 446mm 3.0μm 468mm 467mm 5.0μm Parallel F.L. Tolerances ±0% to nearest mm. S/D: from the lens formula. SFL 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. Back F.L. Wavelength 79mm 72mm 0.633μm 80mm 73mm 1.064μm 82mm 75mm 3.0μm 86mm 78mm 5.0μm Parallel F.L. Tolerances ±0% to nearest mm. S/D: from the lens formula. SFL 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. Back F.L. Wavelength 99mm 92mm 0.633μm 109mm 93mm 1.064μm 123mm 96mm 3.0μm 138mm 101mm 5.0μm Parallel F.L. Tolerances ±0% to nearest mm. S/D: from the lens formula. SFL 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 139mm 128mm 1.064μm 138mm 131mm 3.0μm 143mm 137mm 5.0μm Parallel F.L. Tolerances ±0% to nearest mm. S/D: from the lens formula. SFL is referenced from the lens surface.

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 -95mm 0.633µm -94mm -95mm 1.064µm -97mm -98mm 3.0µm -101mm -102mm 5.0µm Plano and F.L. Tolerances ±2% to nearest mm. S/D, from 60 to 90 degree. S/D, 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 Plano and F.L. Tolerances ±2% to nearest mm. S/D, from 60 to 90 degree. S/D, 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

