



IR 抛光氟化钙 CaF_2 平凸正透镜 (直径 25mm 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

CAF25LENS150





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	150mm @ 3μm	61.0 (±2%)	IR 平凸

详细参数

名称	参数
透射范围	0.13~10um
折射率	1.39908 at 5um
反射损耗	5.4% at 5um
吸收系数	$7.8 \times 10^{-4} \text{cm}^{-1}$ @ 2.7um
吸收峰	35um
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

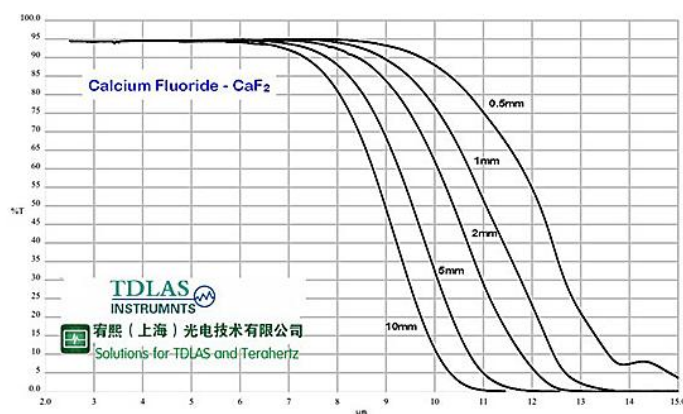
折射率:(No=Ordinary Ray 普通射线)

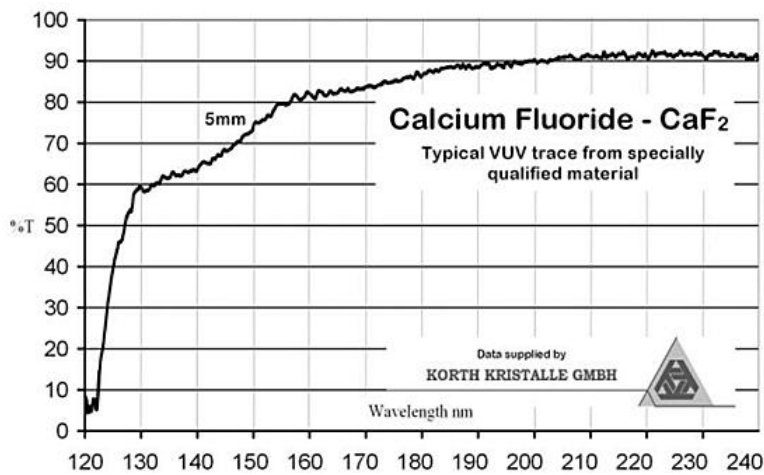
um	No	um	No	um	No
0.54	2.6754	0.58	2.6312	0.62	2.5994
0.66	2.5755	0.7	2.5568	0.74	2.5418
0.78	2.5295	0.82	2.5193	0.86	2.5107
0.90	2.5034	0.94	2.4971	0.98	2.4916
1.0	2.4892	1.4	2.4609	1.8	2.4496
2.2	2.4437	2.6	2.4401	3.0	2.4376
3.4	2.4356	3.8	2.4339	4.2	2.4324
4.6	2.4309	5.0	2.4295	5.4	2.4281
5.8	2.4266	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) <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>296mm</td><td>5.0µm</td></tr></table> Paraxial F.L. Transmittance (T%) is measured from the lens surface. EPF, from the lens formula. EPF 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	296mm	5.0µm
Effective F.L.	Back F.L.	Wavelength																		
277mm	276mm	0.633µm																		
280mm	278mm	1.064µm																		
287mm	286mm	3.0µm																		
300mm	296mm	5.0µm																		
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) <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> Paraxial F.L. Transmittance (T%) is measured from the lens surface. EPF, from the lens formula. EPF 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																		
CAF12.7L 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 Paraxial F.L. Tolerance: ±0% to nearest mm. EFL from this 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 Wavelength 0.633µm 88mm 85mm 1.064µm 89mm 88mm 3.0µm 93mm 92mm 5.0µm Paraxial F.L. Tolerance: ±0% to nearest mm. EFL from this 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 Back F.L. 25.6mm Wavelength 0.633µm 30.2mm 26.6mm 3.0µm 31.6mm 28.9mm 5.0µm Paraxial F.L. Tolerance: ±0% to nearest mm. EFL from this 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 Back F.L. 43mm Wavelength 0.633µm 47mm 44mm 1.064µm 48mm 45mm 3.0µm 50mm 47mm 5.0µm Paraxial F.L. Tolerance: ±0% to nearest mm. EFL from this lens formula. BFL is referenced from the 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. 25.0mm 26.0mm 26.8mm Pr. Plane F.L. 25.0mm Back F.L. 22.2mm 22.0mm 23.0mm Wavelength 0.35µm 0.633µm 0.633µm 0.35µm 0.633µm Paraxial F.L. Tolerances ±0.5% DFL from the lens formula. BFL is referenced from the back 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 ±0.5% DFL from the lens formula. BFL is referenced from the back 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. 48mm 49mm 50mm 52mm Back F.L. 44mm 45mm 45mm 48mm Wavelength 0.633µm 1.064µm 3.0µm 5.0µm Paraxial F.L. Tolerances ±0.5% to nearest mm DFL from the 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. 51mm 53mm 54mm 55mm 57mm Back F.L. 47mm 49mm 49mm 51mm 53mm Wavelength 0.35 µm 0.633µm 1.064µm 3.0µm 5.0µm Paraxial F.L. Tolerances ±0.5% to nearest mm DFL from the 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. 72mm 73mm 75mm 78mm Back F.L. 69mm 70mm 72mm 75mm Wavelength 0.633µm 1.064µm 3.0µm 5.0µm Paraxial F.L. Tolerance: ±5% to nearest mm. D.F. from this lens formula. D.F. 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. 92mm 93mm 95mm 100mm Back F.L. 90mm 91mm 94mm 98mm Wavelength 0.633µm 1.064µm 3.0µm 5.0µm Paraxial F.L. Tolerance: ±2% to nearest mm. D.F. from this lens formula. D.F. is referenced from the back 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 100mm 103mm 108mm Back F.L. 92mm 93mm 96mm 101mm Wavelength 0.633µm 1.064µm 3.0µm 5.0µm Paraxial F.L. Tolerance: ±2% to nearest mm. D.F. from this lens formula. D.F. is referenced from the back 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. 126mm 128mm 133mm 139mm Back F.L. 126mm 129mm 130mm 136mm Wavelength 0.633µm 1.064µm 3.0µm 5.0µm Paraxial F.L. Tolerance: ±2% to nearest mm. D.F. from this lens formula. D.F. is referenced from the back 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 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 Back F.L.: 139mm Wavelength: 0.633µm 142mm 140mm 1.064µm 146mm 144mm 3.0µm 152mm 150mm 5.0µm Paraxial F.L. Transverse 10% 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 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 Back F.L.: 154mm Wavelength: 0.350µm 161mm 159mm 0.633µm 163mm 161mm 1.064µm 167mm 165mm 3.0µm 175mm 173mm 5.0µm Paraxial F.L. Transverse 10% to nearest mm EFL from this 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 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 Back F.L.: 200mm Wavelength: 0.350µm 206mm 207mm 0.633µm 210mm 209mm 1.064µm 217mm 214mm 3.0µm 226mm 224mm 5.0µm Paraxial F.L. Transverse 10% to nearest mm EFL from this 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 CaF ₂ 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 Paraxial F.L. Transverse 10% to nearest mm EFL from this 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) <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> Paraxial F.L. Tolerances: ±2% to nearest mm. EPFL from the lens formula. EPFL 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																		
CAF25.4L 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: 2.54mm (±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> Paraxial F.L. Tolerances: ±2% to nearest mm. EPFL from the lens formula. EPFL 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> Paraxial F.L. Tolerances: ±2% to nearest mm. EPFL from the lens formula. EPFL 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> Paraxial F.L. Tolerances: ±2% to nearest mm. EPFL from the lens formula. EPFL 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 CaF ₂ 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.: 64mm Back F.L.: 59mm Wavelength: 0.633µm 64mm: 59mm 65mm: 61mm 69mm: 64mm 5.0µm Parallel F.L. Tolerance: ±2% to nearest mm EFL from this 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 CaF ₂ 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 78mm: 73mm 81mm: 75mm 85mm: 78mm 5.0µm Parallel F.L. Tolerance: ±2% to nearest mm EFL from this 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 CaF ₂ 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 72mm: 72mm 78mm: 73mm 81mm: 75mm 85mm: 78mm 5.0µm Parallel F.L. Tolerance: ±2% to nearest mm EFL from this lens formula. BFL 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 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 Back F.L.: 154mm Wavelength: 0.633µm 157mm: 156mm 163mm: 160mm 171mm: 167mm 5.0µm Parallel F.L. Tolerance: ±2% to nearest mm EFL from this lens formula. BFL 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) <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> Forward F.L. Tolerances ±2% to nearest mm DFL from this lens formula. DFL 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>443mm</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> Forward F.L. Tolerances ±2% to nearest mm DFL from this lens formula. DFL is referenced from the lens surface.	Effective F.L.	Back F.L.	Wavelength	443mm	437mm	0.633µm	444mm	442mm	1.064µm	456mm	453mm	3.0µm	477mm	474mm	5.0µm			
Effective F.L.	Back F.L.	Wavelength																					
443mm	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> Forward F.L. Tolerances ±2% to nearest mm DFL from this lens formula. DFL 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> Forward F.L. Tolerances ±2% to nearest mm DFL from this lens formula. DFL 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> Parallel F.L. Tolerances ±2% to nearest mm. (F.L. from the 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> Parallel F.L. Tolerances ±2% to nearest mm. (F.L. from the 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>82mm</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> Parallel F.L. Tolerances ±2% to nearest mm. (F.L. from the lens formula. BFL is referenced from the lens surface.)	Effective F.L.	Back F.L.	Wavelength	99mm	82mm	0.633µm	100mm	93mm	1.064µm	103mm	96mm	3.0µm	108mm	101mm	5.0µm
Effective F.L.	Back F.L.	Wavelength																		
99mm	82mm	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> Parallel F.L. Tolerances ±2% to nearest mm. (F.L. from the 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) Effective F.L. Back F.L. Wavelength 231mm 229mm 0.633µm 233mm 231mm 1.064µm 239mm 237mm 3.0µm 250mm 248mm 5.0µm Parallel F.L. Tolerances ±2% to nearest mm. EFL from thin lens formula. BFL is referenced from the lens surface.
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CaF₂ 负透镜

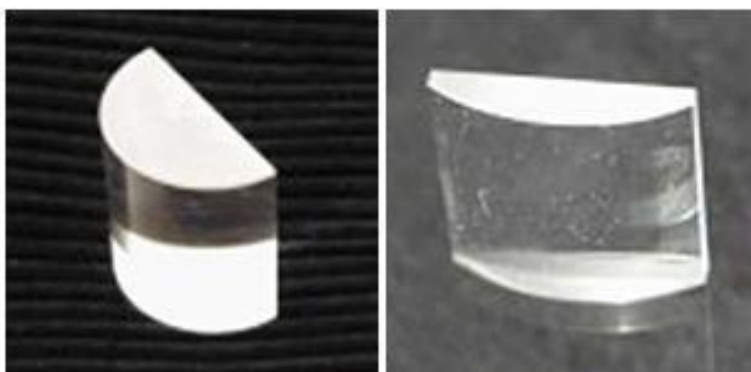


订购信息:

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 thin 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%)	-100mm @ 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) Effective F.L. -93mm -94mm -97mm -101mm Back F.L. -95mm -96mm -98mm -102mm 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.
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 CaF₂ 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. -138mm -139mm -143mm -150mm Back F.L. -141mm -142mm -146mm -152mm 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.

CaF₂ 柱面透镜:





订购信息:

订购型号	规格	曲率	焦距	CaF2 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

