



UV 抛光氟化钙 CaF_2 平凸正透镜 (直径 20mm 焦距 50mm)



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

CAF25LENS50U





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
20mm	50mm @ 5μm	19.95 (±2%)	UV 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

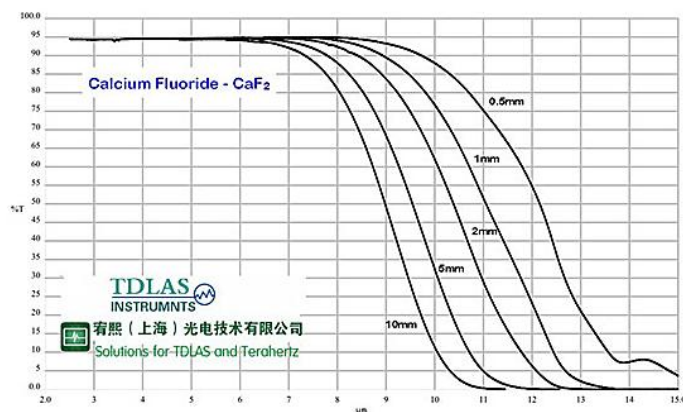
折射率:(No=Ordinary Ray 普通射线)

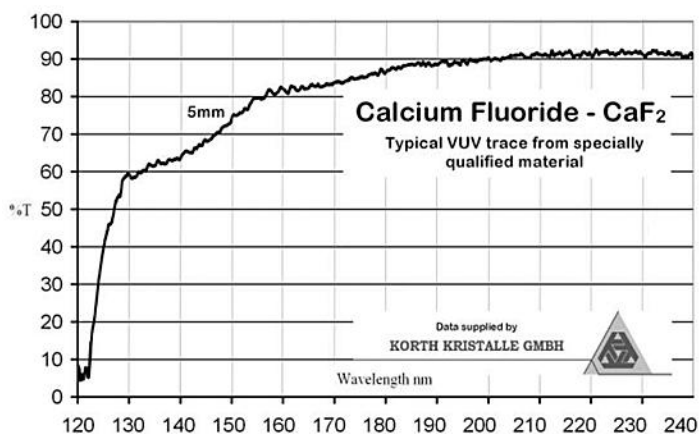
um	No	um	No	um	No
0.54	2.6754	0.58	2.6312	0.62	2.5994
0.66	2.5755	0.7	2.5568	0.74	2.5418
0.78	2.5295	0.82	2.5193	0.86	2.5107
0.90	2.5034	0.94	2.4971	0.98	2.4916
1.0	2.4892	1.4	2.4609	1.8	2.4496
2.2	2.4437	2.6	2.4401	3.0	2.4376
3.4	2.4356	3.8	2.4339	4.2	2.4324
4.6	2.4309	5.0	2.4295	5.4	2.4281
5.8	2.4266	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 280mm 287mm 300mm Back F.L. 276mm 278mm 286mm 299mm Wavelength 0.633µm 1.064µm 3.0µm 5.0µm Parallel F.L. Tolerances ±2% to nearest mm EFL from this 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 15.5mm 16.2mm Back F.L. 12.7mm 13.2mm 13.9mm Wavelength 0.633µm 3.0µm 5.0µm Parallel F.L. Tolerances ±2% to nearest mm EFL from this 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.92mm93mm95mm100mm Back F.L.90mm91mm94mm98mm Wavelength0.633µm1.064µm3.0µm5.0µm Parallel FL Tolerances ±2% to nearest mm EFL from thin lens formula. BFL is referenced from the lens surface.
CAF16LE NS90	16.0mm Ø	73.90 (±2%)	90mm @ 3µm	IR 双凸	CALCIUM FLUORIDE BI-CONVEX LENS 16mm Ø X 90mm F.L. @ 3µm MATERIAL: IR Grade CaF₂ Diameter: 16.0mm (±0.1mm) Centre Thickness: 3.0mm (±0.1mm) Radius of Curvature 1: 73.90 (±2%) Radius of Curvature 2: 73.90 (±2%) S/D: 60/40 Edge thickness: 2.0mm (derived) Effective F.L.86mm86mm89mm93mm Back F.L.85mm85mm88mm92mm Wavelength0.633µm1.064µm3.0µm5.0µm Parallel FL Tolerances ±1% to nearest mm EFL from thin lens formula. BFL is referenced from the lens surface.
CAF18.5L ENS26	18.5mm Ø	12.6 (±2%)	26mm @ 3µm	IR 平凸	CALCIUM FLUORIDE PLANO-CONVEX LENS 18.5mm Ø X 26mm F.L. @ 3µm MATERIAL: IR Grade CaF₂ Diameter: 18.7mm (±0.25mm) Centre Thickness: 5.0mm (±0.2mm) Centration3 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.29.1mm30.2mm31.6mm Back F.L.25.6mm26.6mm28.0mm Wavelength0.633µm3.0µm5.0µm Parallel FL Tolerances ±2% to nearest mm EFL from thin lens formula. BFL is referenced from the lens surface.

CAF20LE NS50	20mm Ø	19.95 (±2%)	50mm @ 5µm	IR 平凸	CALCIUM FLUORIDE PLANO-CONVEX LENS 20mm Ø x 50mm F.L. @ 5µm MATERIAL: IR Grade 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. Back F.L. Wavelength 46mm 43mm 0.633µm 47mm 44mm 1.064µm 48mm 45mm 3.0µm 50mm 47mm 5.0µm Parallel F.L. Tolerances ±0% to nearest mm EFL from this 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. Pr. Plane F.L. Back F.L. Wavelength 26.0mm 25.0mm 22.2mm 0.35µm 26.8mm 26.8mm 23.0mm 0.633µm Parallel F.L. Tolerances ±0% EFL from this 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 CaF ₂ 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. Pr. Plane F.L. Back F.L. Wavelength 25.9mm 25.9mm 22.2mm 0.633µm 26.2mm 26.2mm 22.4mm 1.064µm 26.8mm 25.4mm 23.0mm 3.0µm 28.0mm 28.0mm 24.1mm 5.0µm Parallel F.L. Tolerances ±0% EFL from this lens formula. BFL is referenced from the lens surface.
CAF25LE NS50B	25mm Ø	39.1 (±2%)	50mm @ 5µm	IR 双凸	
CAF25LE NS50	25mm Ø	20.9 (±2%)	50mm @ 5µm	IR 平凸	CALCIUM FLUORIDE PLANO-CONVEX LENS 25mm Ø x 50mm F.L. @ 3µm MATERIAL: IR Grade CaF ₂ 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. Back F.L. Wavelength 46mm 44mm 0.633µm 49mm 45mm 1.064µm 50mm 45mm 3.0µm 52mm 48mm 5.0µm Parallel F.L. Tolerances ±0% to nearest mm EFL from this lens formula. BFL is referenced from the back lens surface.

CAF25LE NS50U	25mm Ø	22.96 (±2%)	50mm @ 350nm	UV 平凸	CALCIUM FLUORIDE PLANO-CONVEX LENS 25mm Ø x 50mm F.L. @ 0.35µm MATERIAL: UV Grade CaF₂ Diameter: 25.0mm (±0.1mm) Centre Thickness: 5.7mm (±0.1mm) Radius of Curvature 1: 22.96mm (±2%) Radius of Curvature 2: Plano S/D: 60/40 Edge thickness: 2.0mm (derived) Effective F.L. 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 Parallel F.L. Tolerances ±0% to nearest mm. EFL from thin 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 Parallel F.L. Tolerances ±0% to nearest mm. EFL from thin lens formula. BFL is referenced from the back lens surface.
CAF25LE NS100B	25mm Ø	78.94 (±2%)	100mm @ 3µm	IR 双凸	CALCIUM FLUORIDE BI-CONVEX LENS 25mm Ø X 100mm F.L. @ 5µm MATERIAL: IR Grade CaF₂ Diameter: 25.0mm (±0.1mm) Centre Thickness: 4.0mm (±0.1mm) Radius of Curvature 1: 78.94 (±2%) Radius of Curvature 2: 78.94 (±2%) S/D: 60/40 Edge thickness: 2.0mm (derived) Effective F.L. 92mm 93mm 95mm 100mm Back F.L. 90mm 91mm 94mm 98mm Wavelength 0.633µm 1.064µm 3.0µm 5.0µm Parallel F.L. Tolerances ±2% to nearest mm. EFL from thin 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 100mm 103mm 108mm Back F.L. 92mm 93mm 96mm 101mm Wavelength 0.633µm 1.064µm 3.0µm 5.0µm Parallel F.L. Tolerances ±2% to nearest mm. EFL from thin lens formula. BFL is referenced from the lens surface.
CAF25LE NS100U	25mm Ø	43.73 (±2%)	100mm @ 350nm	UV 平凸	

CAF25LE NS130	25mm Ø	55.35 (±2%)	130mm @ 3µm	IR 平凸	CALCIUM FLUORIDE PLANO-CONVEX LENS 25mm Ø X 130mm F.L. @ 3µm MATERIAL: IR Grade CaF₂ Diameter: 25.0mm (±0.1mm) Centre Thickness: 3.0mm (±0.1mm) Radius of Curvature 1: 55.35 (±2%) Radius of Curvature 2: Plano S/D: 60/40 Edge thickness: 1.5mm (derived) <table><tr><td>Effective F.L.</td><td>Back F.L.</td><td>Wavelength</td></tr><tr><td>128mm</td><td>126mm</td><td>0.633µm</td></tr><tr><td>129mm</td><td>126mm</td><td>1.064µm</td></tr><tr><td>133mm</td><td>130mm</td><td>3.0µm</td></tr><tr><td>139mm</td><td>136mm</td><td>5.0µm</td></tr></table> Paraxial F.L. Tolerances ±2% to nearest mm EFL from this lens formula. BFL is referenced from the lens surface.	Effective F.L.	Back F.L.	Wavelength	128mm	126mm	0.633µm	129mm	126mm	1.064µm	133mm	130mm	3.0µm	139mm	136mm	5.0µm			
Effective F.L.	Back F.L.	Wavelength																					
128mm	126mm	0.633µm																					
129mm	126mm	1.064µm																					
133mm	130mm	3.0µm																					
139mm	136mm	5.0µm																					
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) <table><tr><td>Effective F.L.</td><td>Back F.L.</td><td>Wavelength</td></tr><tr><td>141mm</td><td>139mm</td><td>0.633µm</td></tr><tr><td>142mm</td><td>140mm</td><td>1.064µm</td></tr><tr><td>146mm</td><td>144mm</td><td>3.0µm</td></tr><tr><td>152mm</td><td>150mm</td><td>5.0µm</td></tr></table> Paraxial F.L. Tolerances ±2% to nearest mm EFL from this lens formula. BFL is referenced from the lens surface.	Effective F.L.	Back F.L.	Wavelength	141mm	139mm	0.633µm	142mm	140mm	1.064µm	146mm	144mm	3.0µm	152mm	150mm	5.0µm			
Effective F.L.	Back F.L.	Wavelength																					
141mm	139mm	0.633µm																					
142mm	140mm	1.064µm																					
146mm	144mm	3.0µm																					
152mm	150mm	5.0µm																					
CAF25LE NS150U	25mm Ø	69.75 (±2%)	150mm @ 350nm	UV 平凸	CALCIUM FLUORIDE PLANO-CONVEX LENS 25mm Ø X 150mm F.L. @ 350nm MATERIAL: UV Grade CaF₂ Diameter: 25.0mm (±0.1mm) Centre Thickness: 3.1mm (±0.1mm) Radius of Curvature 1: 69.75 (±2%) Radius of Curvature 2: Plano S/D: 60/40 Edge thickness: 2.0mm (derived) <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> Paraxial F.L. Tolerances ±2% to nearest mm EFL from this lens formula. BFL is referenced from the lens surface.	Effective F.L.	Back F.L.	Wavelength	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																					
CAF25LE NS200U	25mm Ø	90.39 (±2%)	200mm @ 350nm	UV 平凸	CALCIUM FLUORIDE PLANO-CONVEX LENS 25mm Ø X 200mm F.L. @ 350nm MATERIAL: UV Grade CaF₂ Diameter: 25.0mm (±0.1mm) Centre Thickness: 2.9mm (±0.1mm) Radius of Curvature 1: 90.39 (±2%) Radius of Curvature 2: Plano S/D: 60/40 Edge thickness: 2.0mm (derived) <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>210mm</td><td>209mm</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> Paraxial F.L. Tolerances ±2% to nearest mm EFL from this lens formula. BFL is referenced from the lens surface.	Effective F.L.	Back F.L.	Wavelength	202mm	200mm	0.350µm	209mm	207mm	0.633µm	210mm	209mm	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																					
210mm	209mm	1.064µm																					
217mm	214mm	3.0µm																					
226mm	224mm	5.0µm																					

CAF25LE NS300	25mm Ø	120.0 (±2%)	300mm @ 5µm	IR 平凸	CALCIUM FLUORIDE PLANO-CONVEX LENS 25mm Ø X 300mm F.L. @ 5µm MATERIAL: IR Grade CaF₂ Diameter:25.0mm (±0.1mm) Centre Thickness:2.6mm (±0.1mm) Radius of Curvature 1:120 (±2%) Radius of Curvature 2:Plano S/D:60/40 Edge thickness:2.0mm (derived) Effective F.L.277mm Back F.L.276mm Wavelength0.633µm 280mm 278mm 1.064µm 287mm 286mm 3.0µm 300mm 299mm 5.0µm Parallel F.L. Tolerances ±2% to nearest mm. EFL from thin lens formula. BFL is referenced from the lens surface.
CAF25LE NS500	25mm Ø	202.02 (±2%)	500mm @ 5µm	IR 平凸	CALCIUM FLUORIDE PLANO-CONVEX LENS 25mm Ø X 500mm F.L. @ 5µm MATERIAL: IR Grade CaF₂ Diameter:25.0mm (±0.1mm) Centre Thickness:2.4mm (±0.1mm) Radius of Curvature 1:202 (±2%) Radius of Curvature 2:Plano S/D:60/40 Edge thickness:2.0mm (derived) Effective F.L.467mm Back F.L.465mm Wavelength0.633µm 471mm 469mm 1.064µm 483mm 482mm 3.0µm 506mm 504mm 5.0µm Parallel F.L. Tolerances ±2% to nearest mm. EFL from thin lens formula. BFL is referenced from the lens surface.
CAF25.4L ENS200	25.4mm Ø	80.7 (±2%)	200mm @ 5µm	IR 平凸	CALCIUM FLUORIDE PLANO-CONVEX LENS 25.4mm Ø X 200mm F.L. @ 5µm MATERIAL: IR Grade CaF₂ Diameter:25.4mm (+0.0 / -0.127mm) Centre Thickness:2.64mm (±0.127mm) Radius of Curvature 1:80.7 (±2%) Radius of Curvature 2:Plano S/D:60/40 Edge thickness:1.65mm (derived) Effective F.L.187mm Back F.L.185mm Wavelength0.633µm 188mm 186mm 1.064µm 193mm 191mm 3.0µm 202mm 200mm 5.0µm Parallel F.L. Tolerances ±2% to nearest mm. EFL from thin lens formula. BFL is referenced from the lens surface.
CAF27LE NS50	27mm Ø	43.10 (±2%)	50mm @ 3µm	IR 双凸	CALCIUM FLUORIDE BI-CONVEX LENS 27mm Ø X 50mm F.L. @ 3µm MATERIAL: IR Grade CaF₂ Diameter:27.0mm (±0.1mm) Centre Thickness:6.4mm (±0.1mm) Radius of Curvature 1:43.10 (±2%) Radius of Curvature 2:43.10 (±2%) S/D:60/40 Edge thickness:2.1mm (derived) Effective F.L.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. Tolerances ±2% to nearest mm. EFL from thin lens formula. BFL is referenced from the lens surface.

CAF30LE NS70	30mm Ø	57.00 (±2%)	70mm @ 4µm	IR 双凸	CALCIUM FLUORIDE BI-CONVEX LENS 30mm Ø X 70mm F.L. @ 5µm MATERIAL: IR Grade CaF₂ Diameter: 30.0mm (±0.1mm) Centre Thickness: 6.0mm (±0.1mm) Radius of Curvature 1: 57.0 (±2%) Radius of Curvature 2: 57.0 (±2%) S/D: 60/40 Edge thickness: 2.0mm (derived) <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 EFL from thin 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>69mm</td><td>64mm</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	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																					
CAF38.1L 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) <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> 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	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																					
CAF38.1L ENS75U	38.1mm Ø	33.84 (±2%)	66mm @ 248nm	UV 平凸	CALCIUM FLUORIDE PLANO-CONVEX LENS 38.1mm Ø X 75mm F.L. @ 3µm* MATERIAL: UV Grade CaF₂ Diameter: 38.1mm (±0.1mm) Centre Thickness: 9.0mm (±0.1mm) Radius of Curvature 1: 33.84 (±2%) Radius of Curvature 2: Plano S/D: 60/40 Edge thickness: 3.1mm (derived) <table><tr><td>Effective F.L.</td><td>Back F.L.</td><td>Wavelength</td></tr><tr><td>72mm</td><td>66mm</td><td>0.248µm</td></tr><tr><td>78mm</td><td>72mm</td><td>0.633µm</td></tr><tr><td>79mm</td><td>73mm</td><td>1.064µm</td></tr><tr><td>81mm</td><td>75mm</td><td>3.0µm</td></tr><tr><td>85mm</td><td>78mm</td><td>5.0µm</td></tr></table> Parallel F.L. Tolerances ±2% to nearest mm EFL from thin lens formula. BFL is referenced from the lens surface.	Effective F.L.	Back F.L.	Wavelength	72mm	66mm	0.248µm	78mm	72mm	0.633µm	79mm	73mm	1.064µm	81mm	75mm	3.0µm	85mm	78mm	5.0µm
Effective F.L.	Back F.L.	Wavelength																					
72mm	66mm	0.248µm																					
78mm	72mm	0.633µm																					
79mm	73mm	1.064µm																					
81mm	75mm	3.0µm																					
85mm	78mm	5.0µm																					

CAF38.1L ENS160	38.1mm Ø	68.16 (±2%)	160mm @ 3µm	IR 平凸	CALCIUM FLUORIDE PLANO-CONVEX LENS 38.1mm Ø X 160mm F.L. @ 3µm MATERIAL: IR Grade CaF₂ Diameter:38.1mm (+0.1 / -0.2mm) Centre Thickness:4.5mm (±0.1mm) Radius of Curvature 1:68.16 (±2%) Radius of Curvature 2:Plano S/D:60/40 Edge thickness:1.8mm (derived) Effective F.L. 157mm 159mm 163mm 171mm Back F.L. 154mm 156mm 160mm 167mm Wavelength 0.633µm 1.064µm 3.0µm 5.0µm Parallel F.L. Tolerances ±2% to nearest mm. EFL from thin 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) Effective F.L. 213mm 231mm 233mm 240mm 250mm Back F.L. 211mm 229mm 231mm 237mm 247mm Wavelength 0.248µm 0.633µm 1.064µm 3.0µm 5.0µm Parallel F.L. Tolerances ±2% to nearest mm. EFL from thin lens formula. BFL 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 444mm 456mm 477mm Back F.L. 437mm 442mm 453mm 474mm Wavelength 0.633µm 1.064µm 3.0µm 5.0µm Parallel F.L. Tolerances ±2% to nearest mm. EFL from thin lens formula. BFL 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 Paraxial F.L. Tolerances ±2% to nearest mm EFL from thin lens formula. BFL 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 Paraxial F.L. Tolerances ±2% to nearest mm EFL from thin lens formula. BFL 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 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) 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 thin 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 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) Effective F.L.79mm Back F.L.72mm Wavelength0.633µm 80mm 73mm 1.064µm 82mm 75mm 3.0µm 86mm 78mm 5.0µm Paraxial F.L. Tolerances ±2% to nearest mm EFL from thin 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 CaF₂ Diameter:50.0mm (±0.1mm) Centre Thickness:10.0mm (±0.1mm) Radius of Curvature 1:43.0 (±2%) Radius of Curvature 2:Plano S/D:60/40 Edge thickness:2.0mm (derived) Effective F.L.99mm Back F.L.92mm Wavelength0.633µm 100mm 93mm 1.064µm 103mm 96mm 3.0µm 108mm 101mm 5.0µm Paraxial F.L. Tolerances ±2% to nearest mm EFL from thin lens formula. BFL is referenced from the lens surface.
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) Effective F.L.132mm Back F.L.126mm Wavelength0.633µm 133mm 128mm 1.064µm 136mm 131mm 3.0µm 143mm 137mm 5.0µm Paraxial F.L. Tolerances ±2% to nearest mm EFL from thin 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) Effective F.L.231mm Back F.L.229mm Wavelength0.633µm 233mm 231mm 1.064µm 239mm 237mm 3.0µm 250mm 248mm 5.0µm Paraxial F.L. Tolerances ±2% to nearest mm EFL from thin lens formula. BFL is referenced from the lens surface.

CaF₂ 负透镜

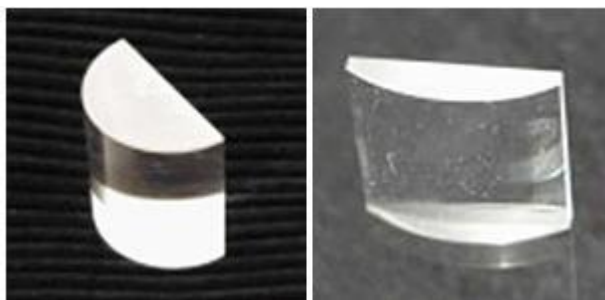


订购信息:

订购型号	规格	曲率	焦距	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> Paraxial F.L. Tolerances ±2% to nearest mm EFL from thin lens formula. BFL is referenced from the lens surface.	Effective F.L.	Back F.L.	Wavelength	-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) <table><tr><td>Effective F.L.</td><td>Back F.L.</td><td>Wavelength</td></tr><tr><td>-93mm</td><td>-95mm</td><td>0.633μm</td></tr><tr><td>-94mm</td><td>-96mm</td><td>1.064μm</td></tr><tr><td>-97mm</td><td>-98mm</td><td>3.0μm</td></tr><tr><td>-101mm</td><td>-102mm</td><td>5.0μm</td></tr></table> Paraxial F.L. Tolerances ±2% to nearest mm EFL from thin lens formula. BFL is referenced from the lens surface.	Effective F.L.	Back F.L.	Wavelength	-93mm	-95mm	0.633μm	-94mm	-96mm	1.064μm	-97mm	-98mm	3.0μm	-101mm	-102mm	5.0μm
Effective F.L.	Back F.L.	Wavelength																		
-93mm	-95mm	0.633μm																		
-94mm	-96mm	1.064μm																		
-97mm	-98mm	3.0μm																		
-101mm	-102mm	5.0μm																		

CAF25LE	25mm Ø	-59.85	-150mm	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. Back F.L. Wavelength -138mm -141mm 0.63µm -139mm -142mm 1.064µm -143mm -146mm 3.0µm -150mm -152mm 5.0µm Paraxial F.L. Transmitted 40% to nearest mm EFL from thin lens formula. SFL is referenced from the lens surface.
NS-150		(±2%)	@ 5µm		

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