



IR 抛光氟化钙 CaF_2 双凸正透镜 (直径 50mm 焦距 250mm)



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

CAF50LENS250





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
50mm	250mm @ 5 μ m	198.9 ($\pm 2\%$)	IR 双凸

详细参数

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



熔点	1360℃
导热率	9.71Wm ⁻¹ K ⁻¹
热膨胀	18.85×10 ⁻⁶ /℃
硬度	Knoop 158.3
比热容	854J Kg ⁻¹ K ⁻¹
介电常数	6.76 at 1MHz
杨氏模量	75.8GPa
剪切模量	33.77GPa
体积模量	82.71GPa
弹性系数	C ₁₁ =164 ,C ₁₂ =53 ,C ₄₄ =33.7
表现弹性极限	36.54MPa
泊松比	0.26
溶解度	0.0017g/100g with, 20 °C
分子量	78.08

类型/结构	立方裂解
反射损耗	5.4% at 5um

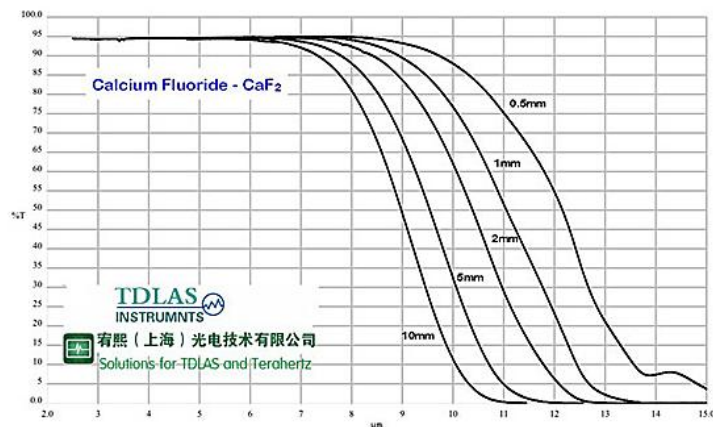
折射率:(No=Ordinary Ray 普通射线)

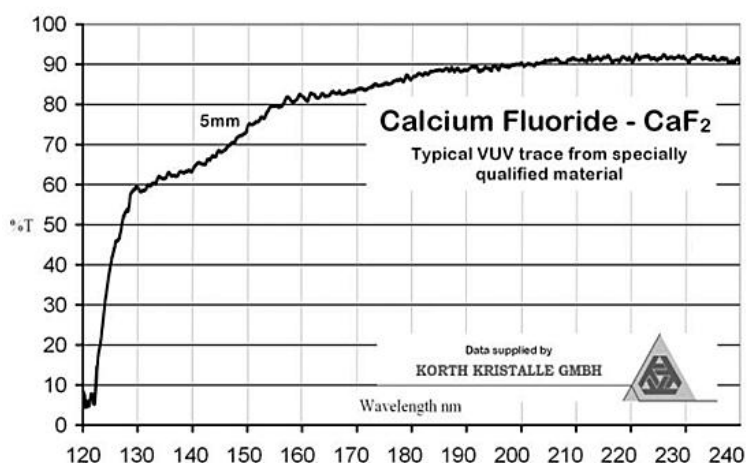
um	No	um	No	um	No
0.54	2.6754	0.58	2.6312	0.62	2.5994
0.66	2.5755	0.7	2.5568	0.74	2.5418
0.78	2.5295	0.82	2.5193	0.86	2.5107
0.90	2.5034	0.94	2.4971	0.98	2.4916
1.0	2.4892	1.4	2.4609	1.8	2.4496
2.2	2.4437	2.6	2.4401	3.0	2.4376
3.4	2.4356	3.8	2.4339	4.2	2.4324
4.6	2.4309	5.0	2.4295	5.4	2.4281
5.8	2.4266	6.2	2.4251	6.6	2.4235
7.0	2.4218	7.4	2.4201	7.8	2.4183

8.2	2.4163	8.6	2.4143	9.0	2.4122
9.4	2.4100	9.8	2.4077	10.2	2.4053
10.6	2.4028	11.0	2.4001	11.4	2.3974
11.8	2.3945	12.2	2.3915	12.6	2.3883
13.0	2.3850	13.4	2.3816	13.8	2.3781
14.2	2.3744	14.6	2.3705	15.0	2.3665
15.4	2.3623	15.8	2.3579	16.2	2.3534
16.6	2.3487	17.0	2.3438	17.4	2.3387
17.8	2.3333	18.2	2.3278		

特性曲线

光谱透射图





订购信息

订购型号	规格	曲率	焦距	CaF 2 等 级	参数															
CAF12.7L 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>299mm</td><td>5.0µm</td></tr></table> Parallel F.L. Tolerances ±2% to nearest mm EFL from thin lens formula. BFL is referenced from the lens surface.	Effective F.L.	Back F.L.	Wavelength	277mm	276mm	0.633µm	280mm	278mm	1.064µm	287mm	286mm	3.0µm	300mm	299mm	5.0µm
Effective F.L.	Back F.L.	Wavelength																		
277mm	276mm	0.633µm																		
280mm	278mm	1.064µm																		
287mm	286mm	3.0µm																		
300mm	299mm	5.0µm																		

CAF12.7L 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 Effective F.L. 15.5mm Back F.L. 13.2mm Wavelength 3.0µm Effective F.L. 16.2mm Back F.L. 13.9mm Wavelength 5.0µm Paraxial 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 Effective F.L. 93mm Back F.L. 91mm Wavelength 1.064µm Effective F.L. 95mm Back F.L. 94mm Wavelength 3.0µm Effective F.L. 100mm Back F.L. 98mm Wavelength 5.0µm Paraxial 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 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 Effective F.L. 86mm Back F.L. 85mm Wavelength 1.064µm Effective F.L. 89mm Back F.L. 88mm Wavelength 3.0µm Effective F.L. 93mm Back F.L. 92mm Wavelength 5.0µm Paraxial F.L. Tolerances ±2% 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) 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 28.0mm 5.0µm Parallel F.L. Tolerance: ±0% 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 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 Parallel F.L. Tolerance: ±0% to nearest mm EFL from thin 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 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. 26.0mm Pr.Plane F.L. 25.0mm Back F.L. 22.2mm Wavelength 0.35µm 26.8mm 23.0mm 0.633µm Parallel F.L. Tolerance: ±0% EFL from thin 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) Effective F.L. 25.9mm Pr.Plane F.L. Back F.L. 22.2mm Wavelength 0.633µm 26.2mm 22.4mm 1.064µm 26.8mm 25.4mm 23.0mm 3.0µm 28.0mm 24.1mm 5.0µm Parallel F.L. Tolerance: ±0% EFL from thin 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 48mm 44mm 0.633µm 49mm 45mm 1.064µm 50mm 45mm 3.0µm 52mm 48mm 5.0µm Paraxial F.L. Tolerances ±0% to nearest mm EFL from thin 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 CaF ₂ 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. 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 Paraxial 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 CaF ₂ 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. Back F.L. Wavelength 72mm 69mm 0.633µm 73mm 70mm 1.064µm 75mm 72mm 3.0µm 78mm 75mm 5.0µm Paraxial 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) <table><tr><td>Effective F.L.</td><td>Back F.L.</td><td>Wavelength</td></tr><tr><td>92mm</td><td>90mm</td><td>0.633µm</td></tr><tr><td>93mm</td><td>91mm</td><td>1.064µm</td></tr><tr><td>95mm</td><td>94mm</td><td>3.0µm</td></tr><tr><td>100mm</td><td>98mm</td><td>5.0µm</td></tr></table> Paraxial FL Tolerances ±2% to nearest mm EFL from thin lens formula. BFL is referenced from the lens surface.	Effective F.L.	Back F.L.	Wavelength	92mm	90mm	0.633µm	93mm	91mm	1.064µm	95mm	94mm	3.0µm	100mm	98mm	5.0µm
Effective F.L.	Back F.L.	Wavelength																		
92mm	90mm	0.633µm																		
93mm	91mm	1.064µm																		
95mm	94mm	3.0µm																		
100mm	98mm	5.0µm																		
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) <table><tr><td>Effective F.L.</td><td>Back F.L.</td><td>Wavelength</td></tr><tr><td>99mm</td><td>92mm</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> Paraxial FL Tolerances ±2% to nearest mm EFL from thin lens formula. BFL is referenced from the lens surface.	Effective F.L.	Back F.L.	Wavelength	99mm	92mm	0.633µm	100mm	93mm	1.064µm	103mm	96mm	3.0µm	108mm	101mm	5.0µm
Effective F.L.	Back F.L.	Wavelength																		
99mm	92mm	0.633µm																		
100mm	93mm	1.064µm																		
103mm	96mm	3.0µm																		
108mm	101mm	5.0µm																		
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 FL Tolerances ±2% to nearest mm EFL from thin 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 FL Tolerances ±2% to nearest mm EFL from thin 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) Effective F.L. 156mm 161mm 163mm 167mm 175mm Back F.L. 154mm 159mm 161mm 165mm 173mm Wavelength 0.350µm 0.633µm 1.064µm 3.0µm 5.0µm Parallel F.L. Tolerances ±2% to nearest mm EFL from thin 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 S/D: 60/40 Edge thickness: 2.0mm (derived) Effective F.L. 202mm 209mm 210mm 217mm 226mm Back F.L. 200mm 207mm 209mm 214mm 224mm Wavelength 0.350µm 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 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 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 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 471mm 483mm 506mm Back F.L. 465mm 469mm 482mm 504mm 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.

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 Paraxial 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 Paraxial 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) Effective F.L.67mm Back F.L.65mm Wavelength0.633µm 67mm 65mm 1.064µm 69mm 67mm 3.0µm 72mm 70mm 5.0µm Paraxial F.L. Tolerances ±2% to nearest mm EFL from thin lens formula. BFL is referenced from the lens surface.

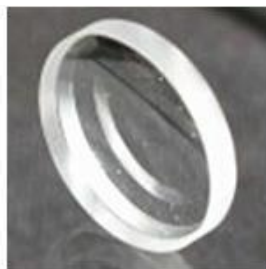
CAF31.5L ENS60	31.5mm Ø	27.50 (±2%)	60mm @ 3µm	IR 平 凸	CALCIUM FLUORIDE PLANO-CONVEX LENS 31.5mm Ø X 60mm F.L. @ 3µm MATERIAL: IR Grade CaF₂ Diameter: 31.5mm (±0.1mm) Centre Thickness: 6.8mm (±0.1mm) Radius of Curvature 1: 27.5 (±2%) Radius of Curvature 2: Plano S/D: 60/40 Edge thickness: 1.8mm (derived) Effective F.L. 64mm Back F.L. 59mm Wavelength 0.633µm 64mm 59mm 1.064µm 65mm 61mm 3.0µm 69mm 64mm 5.0µm Parallel F.L. Tolerances ±2% to nearest mm EFL from thin 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 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 Parallel F.L. Tolerances ±2% to nearest mm EFL from thin 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 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 Parallel F.L. Tolerances ±2% to nearest mm EFL from thin 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 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 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 Back F.L.211mm Wavelength0.248µm 231mm 229mm 0.633µm 233mm 231mm 1.064µm 240mm 237mm 3.0µm 250mm 247mm 5.0µm Paraxial F.L. Tolerances ±2% to nearest mm 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 Back F.L.437mm Wavelength0.633µm 444mm 442mm 1.064µm 456mm 453mm 3.0µm 477mm 474mm 5.0µm Paraxial 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 Wavelength0.633µm 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.196mm198mm203mm212mm Back F.L.194mm196mm201mm210mm Wavelength0.633µm1.064µm3.0µm5.0µm 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.432mm436mm448mm468mm Back F.L.431mm435mm446mm467mm Wavelength0.633µm1.064µm3.0µm5.0µm 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.79mm80mm82mm86mm Back F.L.72mm73mm75mm78mm Wavelength0.633µm1.064µm3.0µm5.0µm 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 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 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 CaF ₂ Diameter: 50.0mm (±0.1mm) Centre Thickness: 7.8mm (±0.1mm) Radius of Curvature 1: 57 (±2%) Radius of Curvature 2: Plano S/D: 60/40 Edge thickness: 2mm (derived) Effective F.L. Back F.L. Wavelength 132mm 126mm 0.633µm 133mm 128mm 1.064µm 136mm 131mm 3.0µm 143mm 137mm 5.0µm 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 CaF ₂ Diameter: 50.0mm (±0.1mm) Centre Thickness: 6.2mm (±0.1mm) Radius of Curvature 1: 198.9 (±2%) Radius of Curvature 2: 198.9 (±2%) S/D: 60/40 Edge thickness: 3mm (derived) Effective F.L. Back F.L. Wavelength 231mm 229mm 0.633µm 233mm 231mm 1.064µm 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



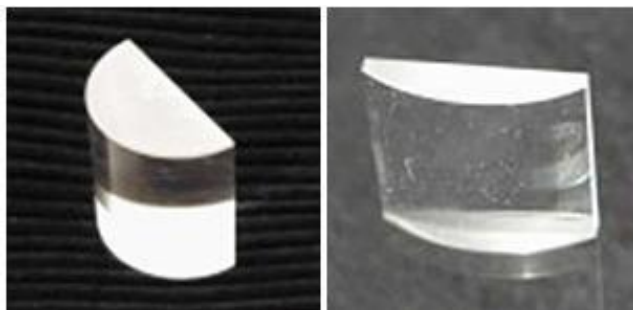


订购信息:

订购型号	规格	曲率	焦距	CaF ₂ 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 CaF ₂ Diameter: 25.0mm (±0.1mm) Centre Thickness: 3.0mm (±0.1mm) Radius of Curvature 1: -20.40 (±2%) Radius of Curvature 2: Plano S/D: 60/40 Edge thickness: 7.3mm (derived) Effective F.L. Back F.L. Wavelength -47mm -49mm 0.633µm -48mm -50mm 1.064µm -49mm -51mm 3.0µm -51mm -53mm 5.0µm Parallel F.L. Tolerances ±2% to nearest mm. EFL from thin lens formula. BFL is referenced from the lens surface.
CAF25LE NS-100	25mm Ø	-40.32 (±2%)	-100m m @ 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 -83mm -95mm 0.633µm -94mm -96mm 1.064µm -97mm -98mm 3.0µm -101mm -102mm 5.0µm Parallel 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%)	-150m m @ 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 Parallel 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	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