

CALCIUM FLUORIDE(CaF₂) WINDOWS

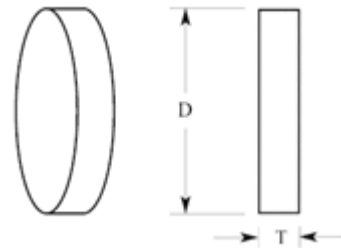
Calcium Fluoride is good choice for optical windows in the 0.15 μm - 9 μm range, which is relatively soft and somewhat hygroscopic so polishing, coating and handling are more critical than UV Fused Silica windows. In addition, The quality of a UV window can be extremely critical, it should be of high purity and polish in order not to affect the optical system.

Calcium Fluoride Windows are also applicable for a wide range of spectrum. It is particularly useful for wavelength at 2980nm laser application.

Due to its low refractive index, Calcium Fluoride can be used without anti-reflection coating.

Standard Specifications:

Optical Material:	Calcium Fluoride Single Crystal
Diameter Tolerance:	+0.0, -0.1mm
Thickness Tolerance:	± 0.2mm
Clear Aperture:	>85%
Parallelism:	<3 arc minutes
Surface Quality:	see the able
Wavefront Distortion:	see the table
Bevel:	<0.25mm X 45°
Coating:	available upon request



Standard CaF₂ Windows

Dia(mm)	Thickness(mm)	Wavefront Distortion	Surface Quality	Product Number
Parallelism 10 arc sec				
8.0	0.5	Lambda/4	40-20	UQT-WNCH0001
12.7	2.0	Lambda/4	40-20	UQT-WNCH0002
15.0	2.0	Lambda/2	40-20	UQT-WNCH0003
25.4	2.0	Lambda/2	40-20	UQT-WNCH0004
38.10	2.0	Lambda/2	60-40	UQT-WNCH0005
Parallelism 1 arc min				
10.0	1.0	Lambda per 25mm	80-50	UQT-WNCL0101
12.7	3.0	Lambda per 25mm	80-50	UQT-WNCL0102
15.0	2.0	Lambda per 25mm	80-50	UQT-WNCL0103
25.4	3.0	Lambda per 25mm	80-50	UQT-WNCL0104
38.10	3.0	Lambda per 25mm	80-50	UQT-WNCL0105
50.0	8.0	Lambda per 25mm	80-50	UQT-WNCL0106

Please Contact [ultiQuest](#) for other dimensions in prototype and production quantities.

NOTES!

- Since they are nonaxial, CaF₂ crystals do not require consideration of axial direction
- CaF₂ crystals are soft and susceptible to cracking, as well as cleavage if subjected to rapid changes in

temperature. They should be handled accordingly.

➔ Be sure to wear laser safety goggles when checking optical path and adjusting optical axis.