

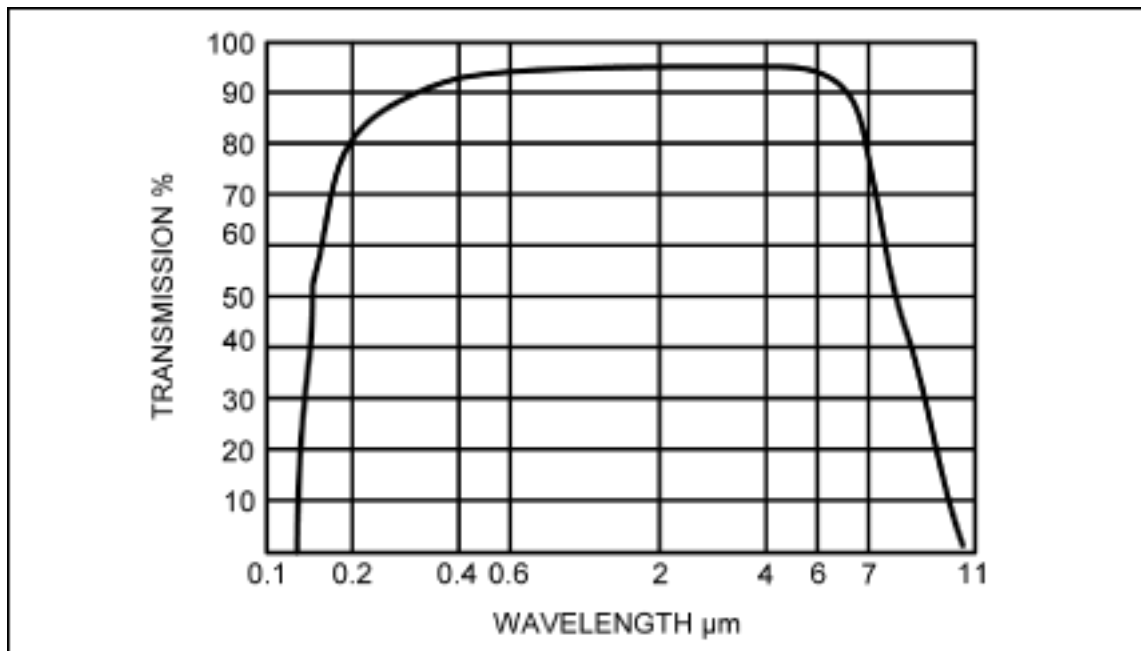
## Calcium Fluoride Zero Length Viewports

Specification	
Seal Type	Bond
Maximum Temperature	120°C
Minimum Temperature	minus 20°C
Maximum Rate of Temperature Change	3°C per minute
Leak Rate	$<1 \times 10^{-10}$ atm-cc/sec (He)
Pressure Range	1 bar to $1 \times 10^{-11}$ mbar
Surface Quality	60 /40 scratch/dig
Flatness	$\lambda/4$

Calcium fluoride viewports are offered in CF flange styles. The clean, UHV CF versions are offered using 304L or 316LN stainless steel flanges. Non-magnetic viewports are offered as standard using annealed stainless-steel weld rings and high grade 316LN and CF flanges. The rugged, bonded construction of the calcium fluoride viewports allows bake-out to a maximum of 120°C with ultra-high vacuum (UHV) performance whilst the window offers extended broadband optical transmission from deep UV to the infra-red.

Annealed copper gaskets are available.

### Transmission Curve - Calcium Fluoride



Please note that the optical transmission curves are approximations and should be used for reference only