Focal Plane Size Comparison
with
Various Positions of Aperture stop

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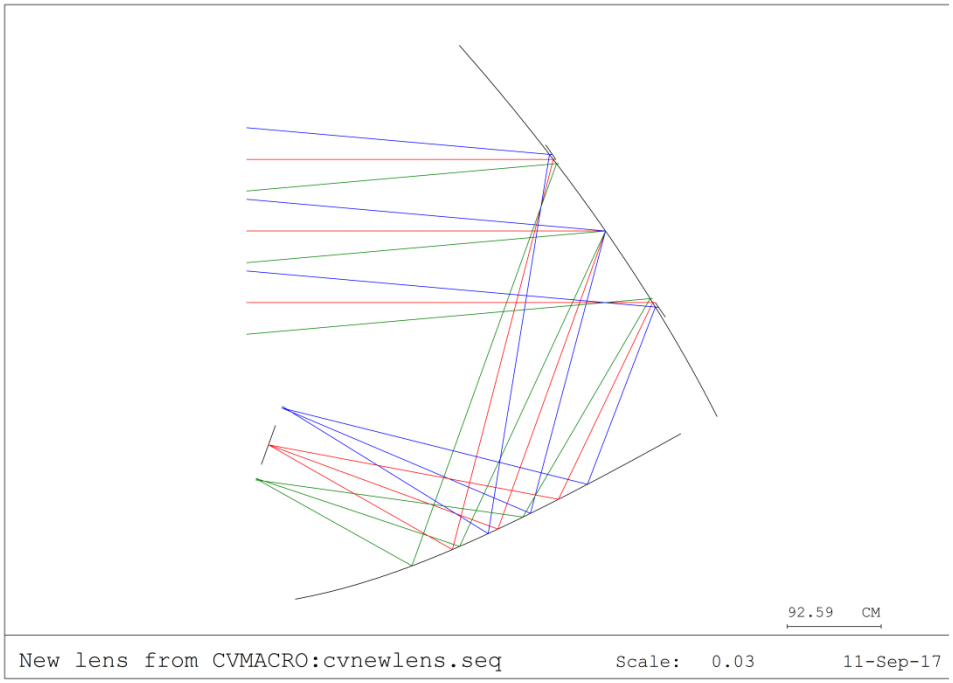
Highlights

- Previously, we compared DLFOV of Cross and Open Dragone, with same f# and stops at primary mirrors for both system. Open / Cross = ~ 0.75.

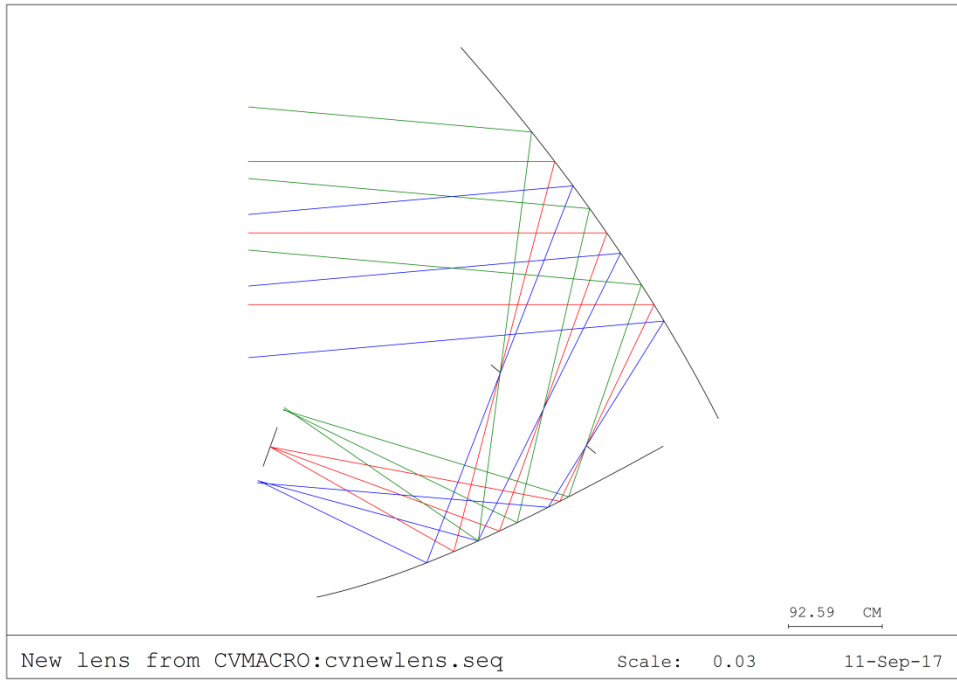
- In these slides:
  - Position of stop matters.
  - For Open Dragone, Mid_stop / PR_stop = ~ 0.8.
  - For Cross Dragone, InFront_stop / PR_stop = ~ 0.9(x) or ~ 1.1(y).

- Therefore, for the systems we are interested, i.e. Cross Dragone_inFront & Open Dragone_mid_stop, the ratio is 0.75*0.8 = ~ 0.6.

Open Dragone (f# = 3)



PR_stop

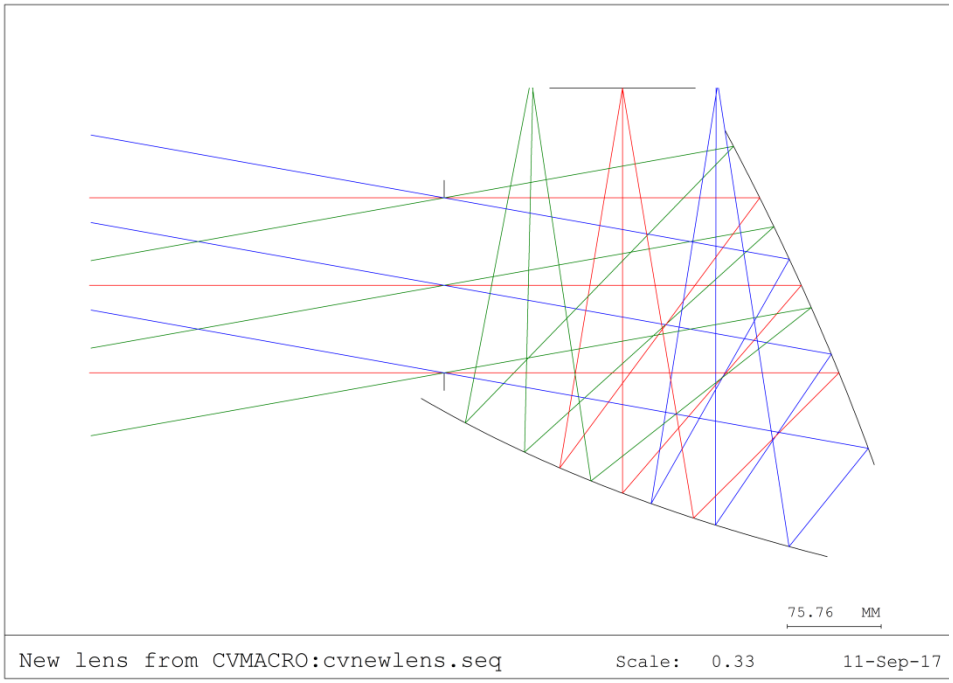


Mid_stop

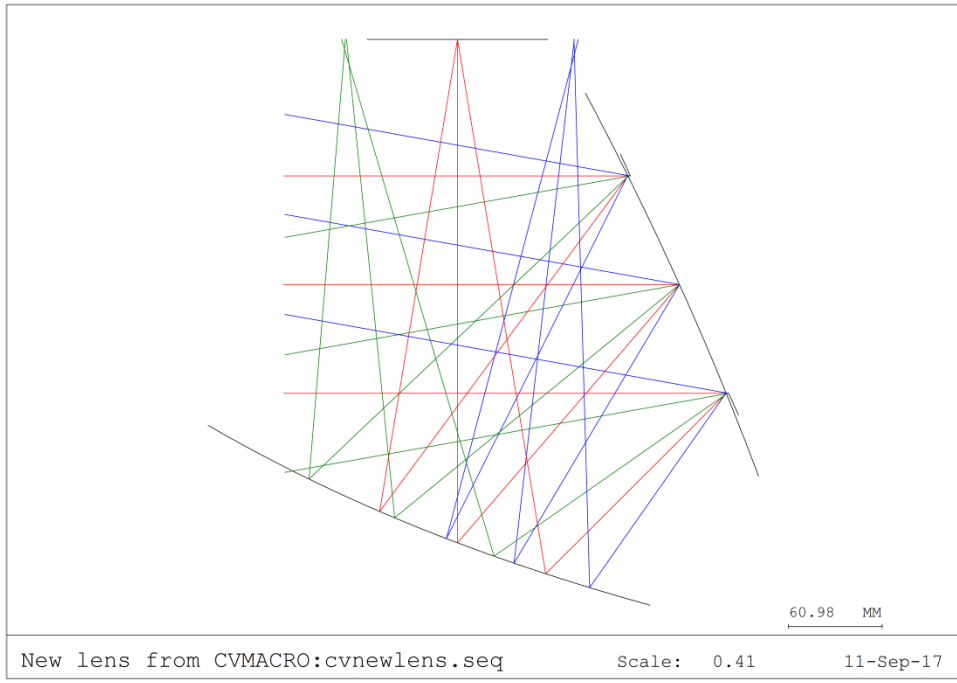
Focal plane size comparisons Open Dragone

Frequency / GHz	Stop Postion	Focal Plane Diameter (strehl > 0.8)	
		X / cm	Y / cm
70	Mid	107	83
	PR	136	106
Mid / PR		0.79	0.79
150	Mid	72	57
	PR	89	70
Mid / PR		0.80	0.81
350	Mid	44	36
	PR	55	44
Mid / PR		0.81	0.83

Open Dragone (f# = 3)



PR_stop



Mid_stop

Focal plane size comparisons Cross Dragone

Frequency / GHz	Stop Postion	Focal Plane Diameter (strehl > 0.8)	
		X / cm	Y / cm
70	In front	177	162
	PR	200	149
In front / PR		0.89	1.09
150	In front	108	107
	PR	128	97
In front / PR		0.84	1.09
350	In front	65	64
	PR	74	59
In front / PR		0.88	1.08