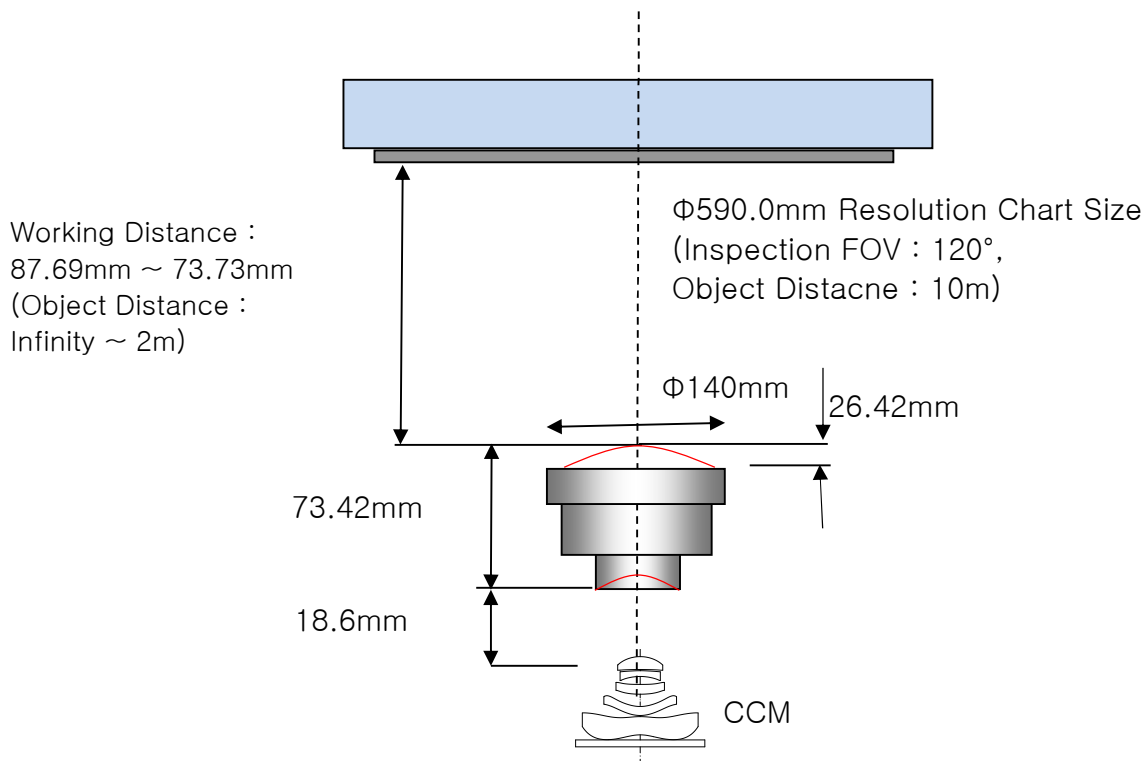


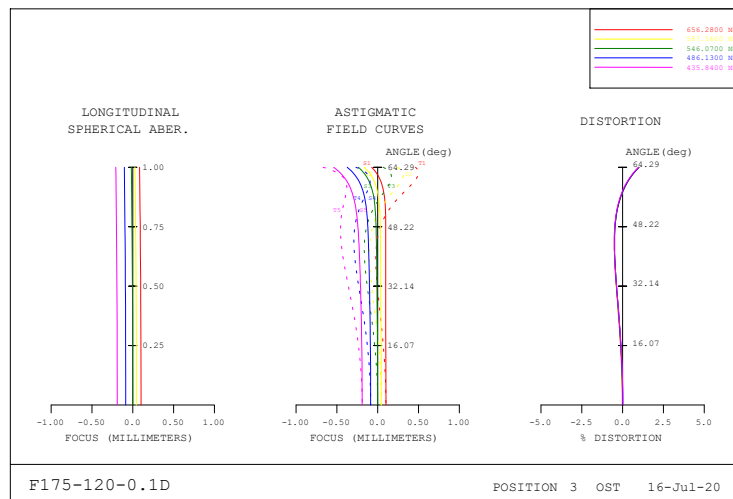
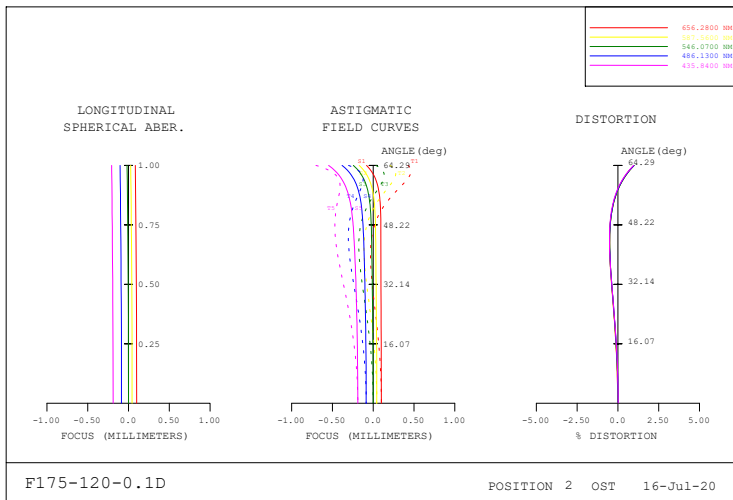
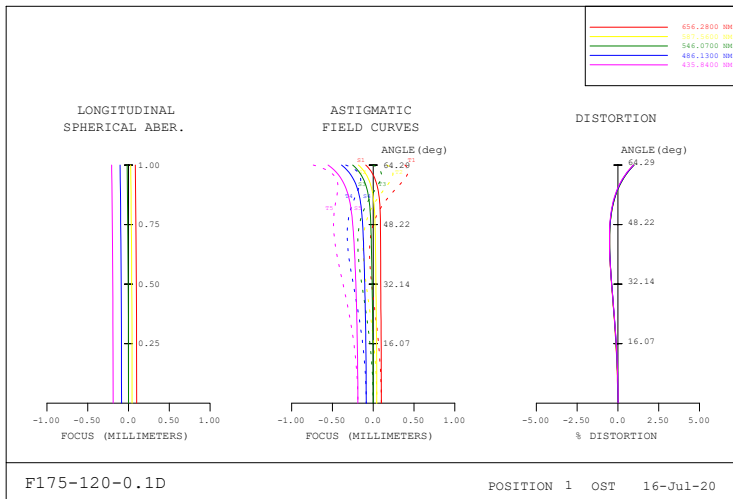
F175-120-0.1D Collimating Lens Spec.

2020-12-02
OneStone

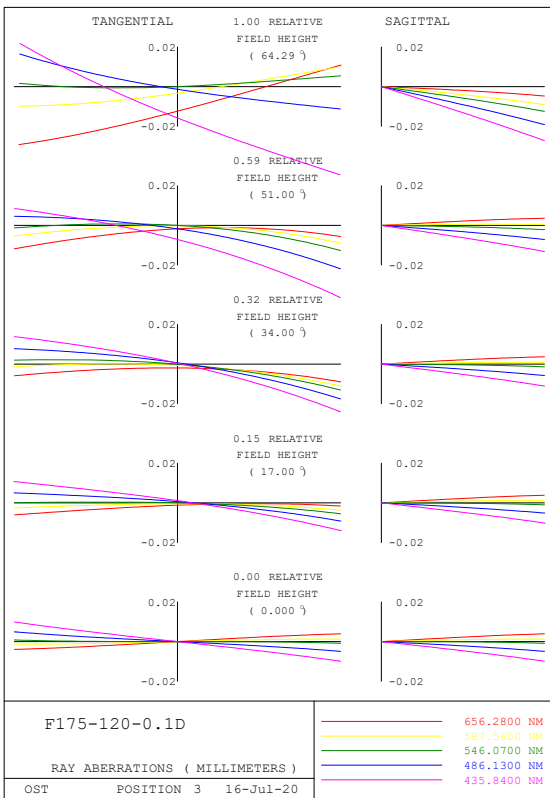
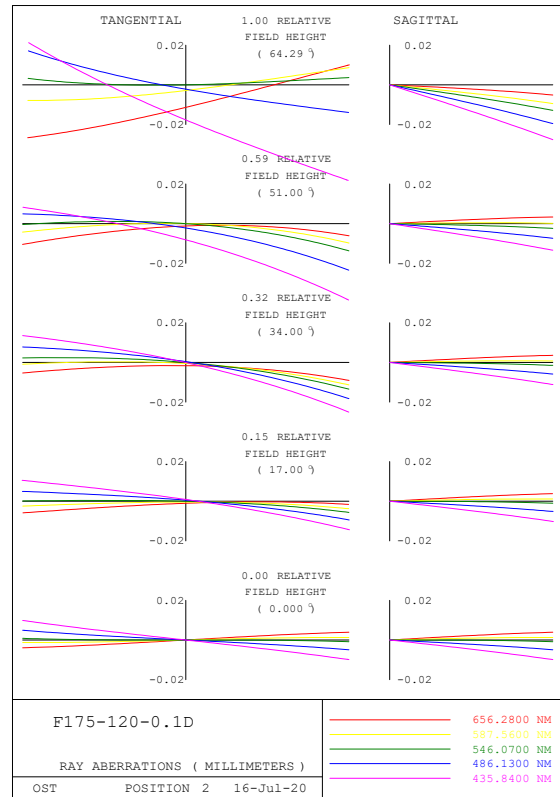
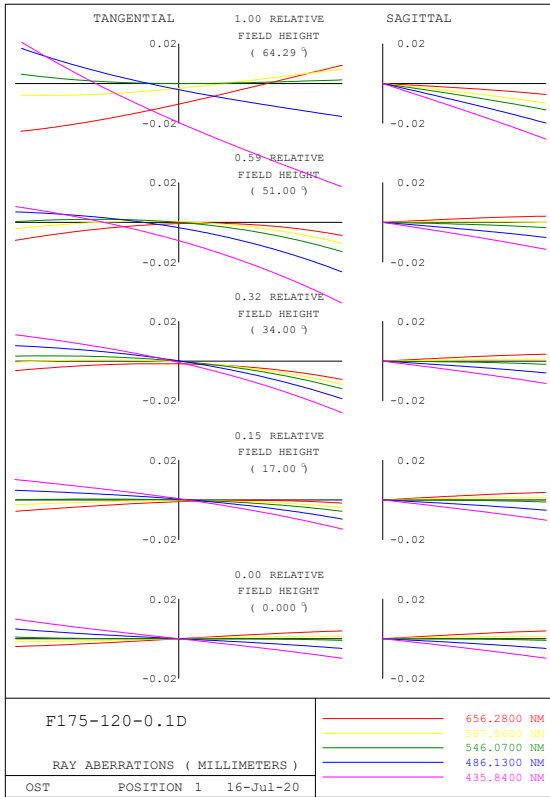
Model name	F175-120-0.1D (Designed by OneStone)	
Characteristic of F175-120-0.1D	Wide angle, short focus length, small size. Suitable for testing a lens with wide angle. Small testing system.	
EFL	175.7mm	
Inspectable FOV of CCM	120°	
Ass'y Size	Φ140mm X L73.42mm, ??kg	
Exit Pupil Size	Φ3.0mm	
Exit Pupil Position	18.6mm (from Vertex of CL's last lens to CCM)	
Working Distace		
(from CL 1st Lens R1 surface to Chart)	87.69mm	at Object Distance Infinity
	73.73mm	at Object Distance 2m



Optical Performance of F175-120-0.1D Lens (Infinity, 20m, 10m at 120°)



Optical Performance of F175-120-0.1D Lens (Infinity, 20m, 10m at 120°)

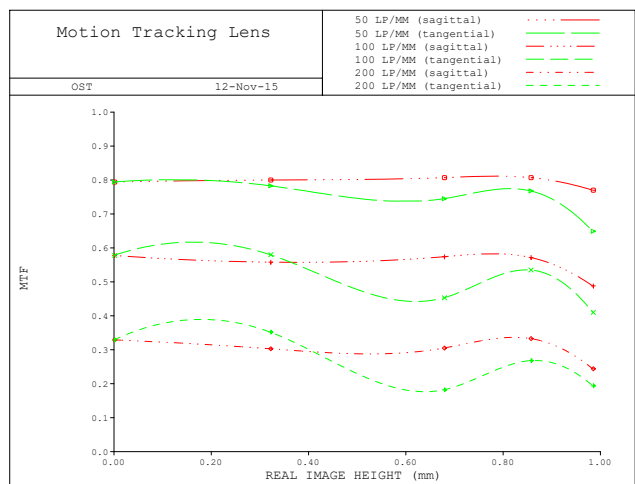
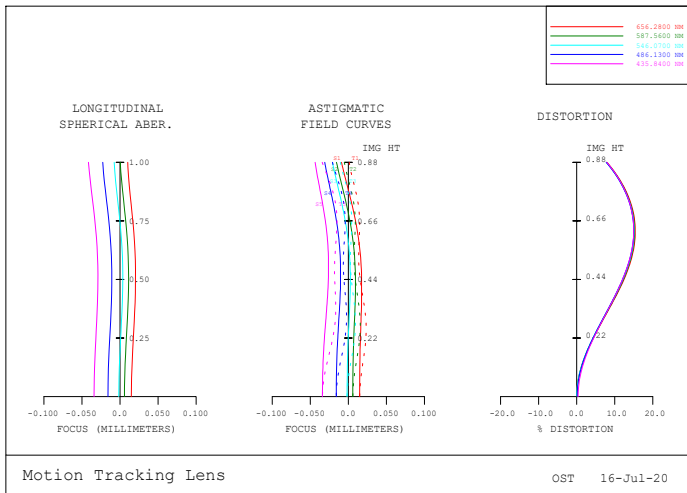
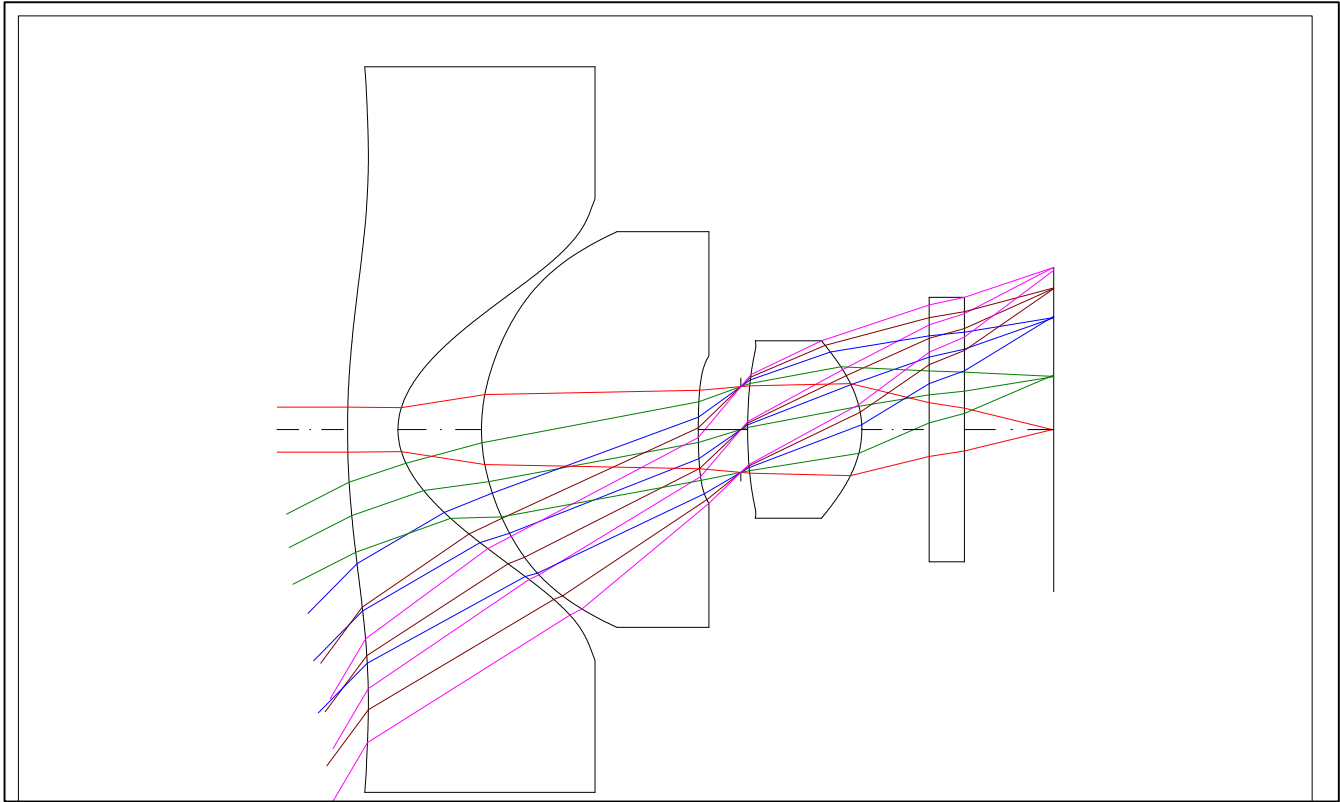


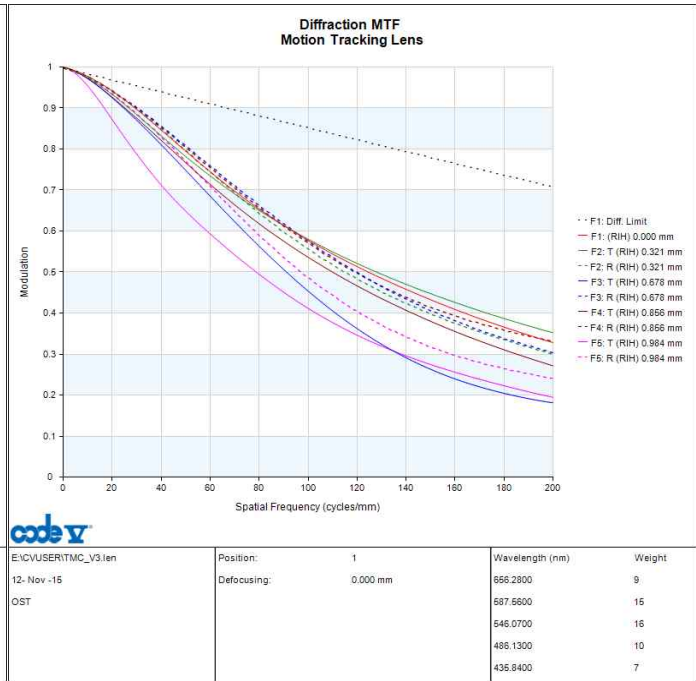
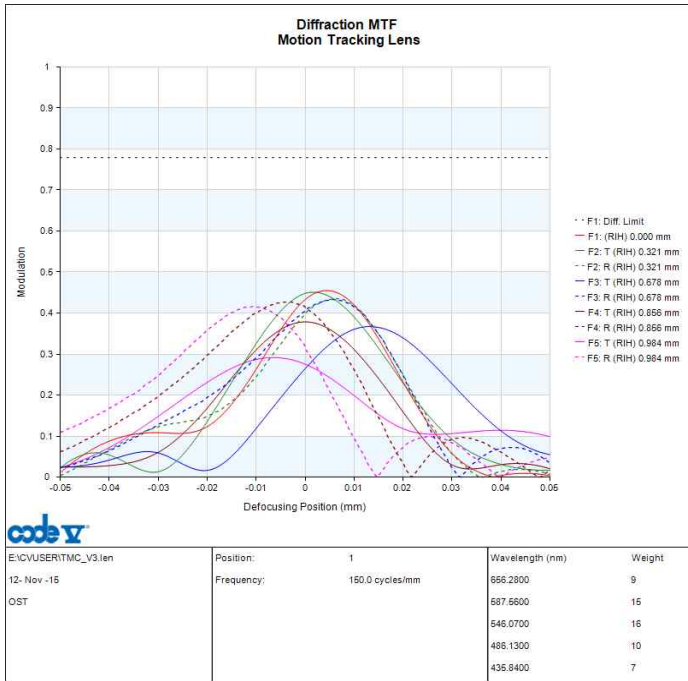
MTF Analysis for FOV 120° Lens of A company

e_{fl} = 0.5698mm F_{no} = 2.086

Object Distance 1m, Through Focus MTF(150lp/mm), MTF(200lp/mm)

Fields = 0.0F, 0.3F, 0.6F, 0.8F, 1.0F





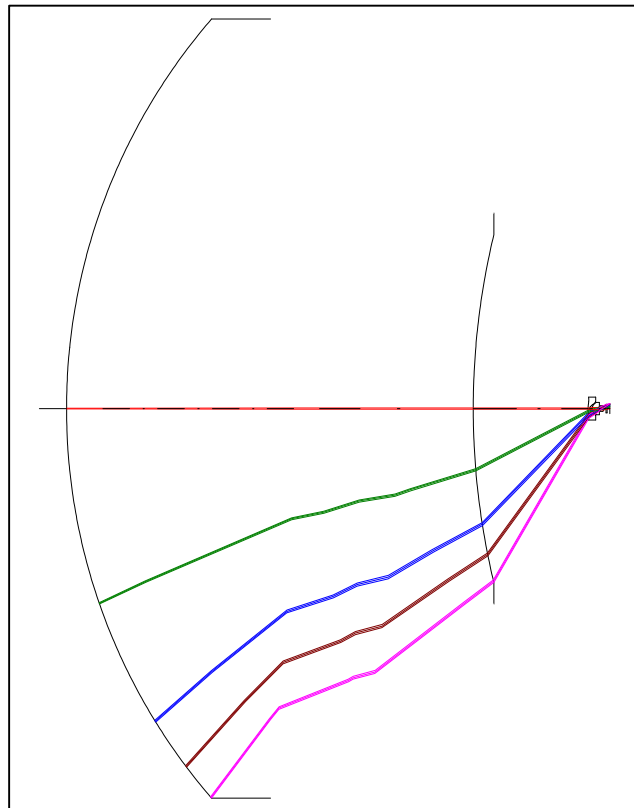
MTF Analysis for (F175-120-0.1D + FOV 120° Lens of A company)

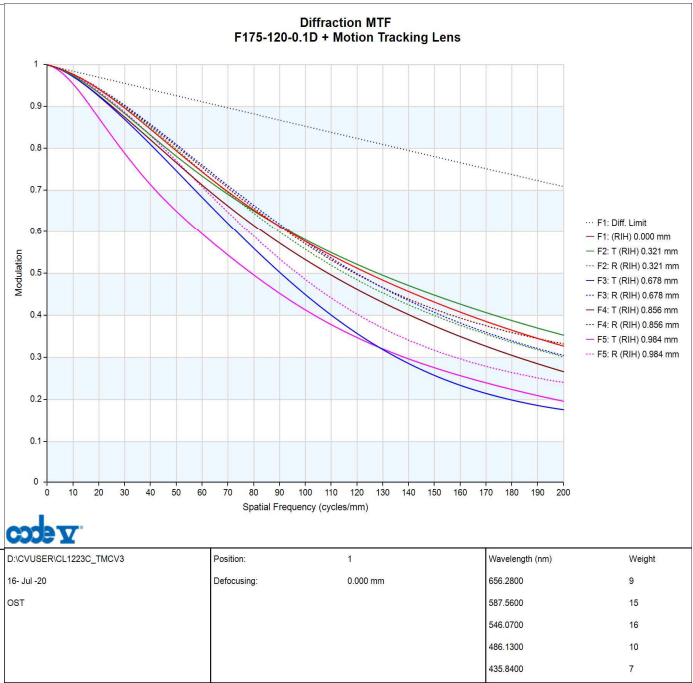
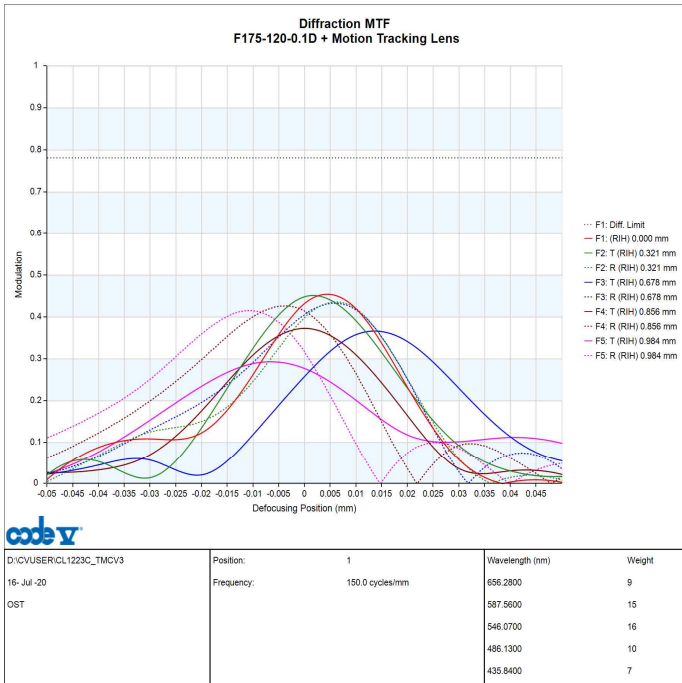
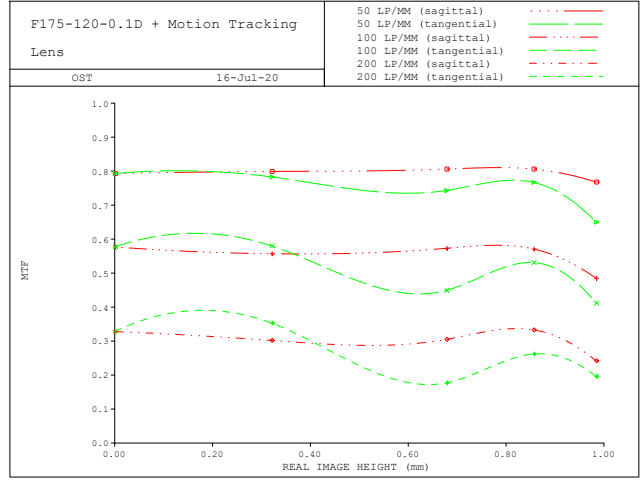
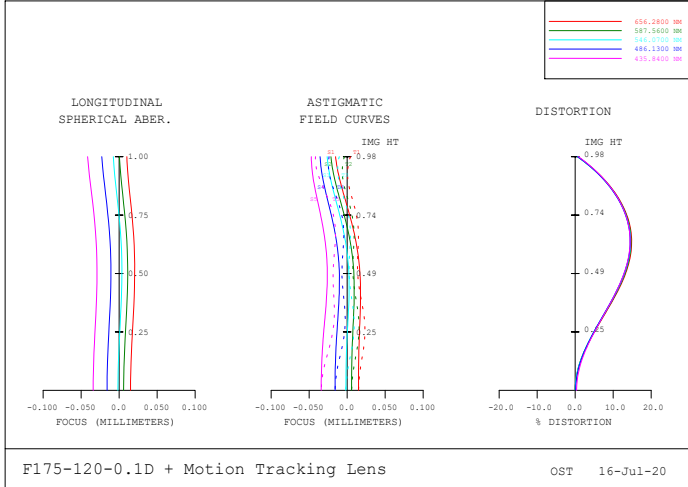
e_{fl} (of synthesized) = 0.5163mm

F_{no} = 2.085

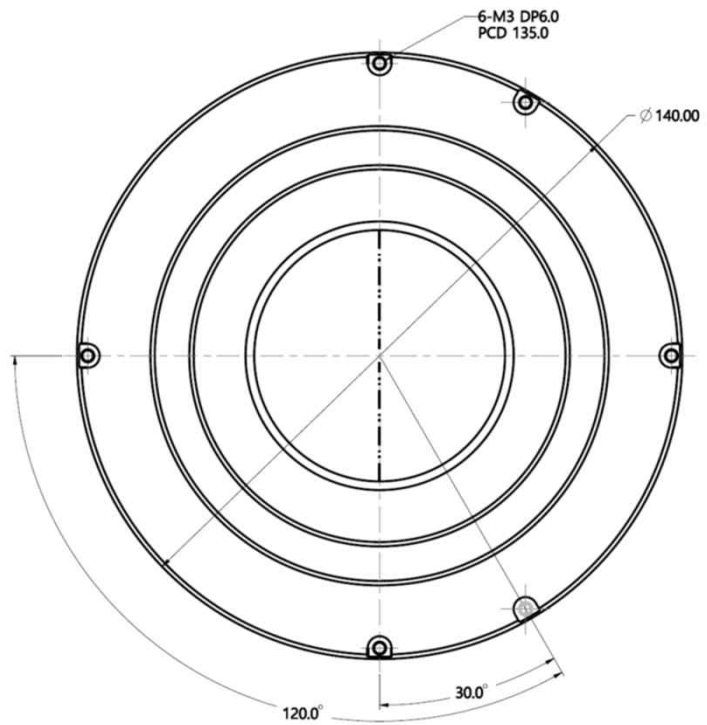
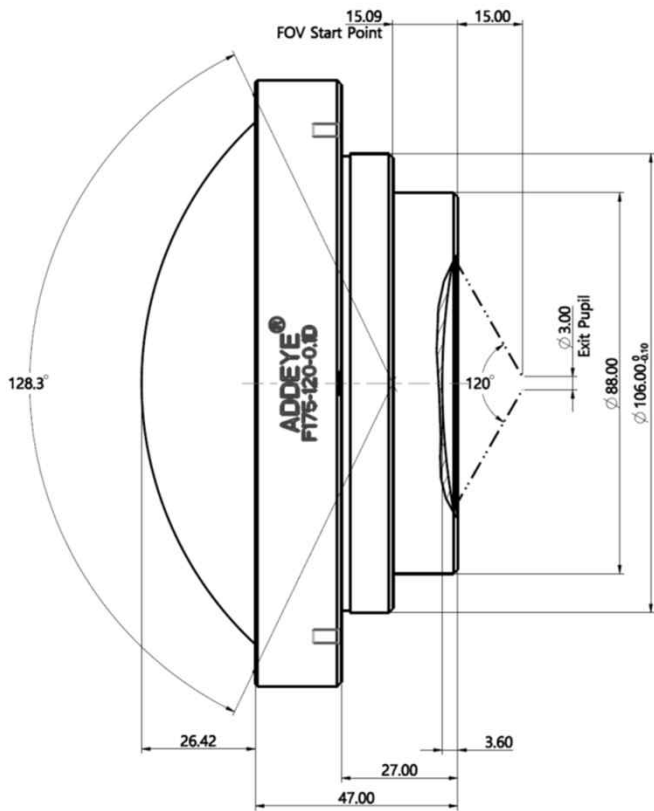
Object Distance 1m, Through Focus MTF(150lp/mm), MTF(200lp/mm)

Fields = 0.0F, 0.3F, 0.6F, 0.8F, 1.0F

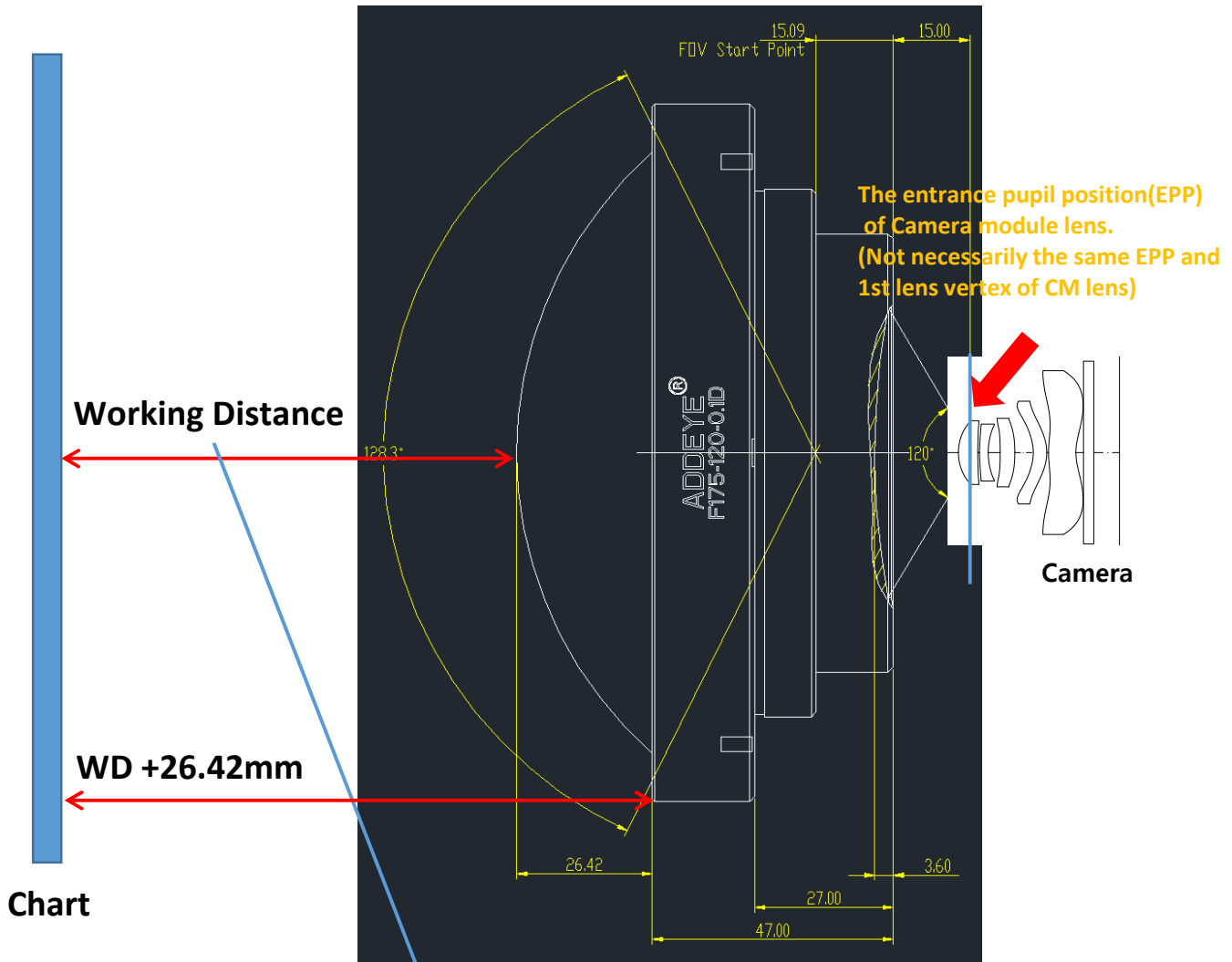




F175-120-0.1D Outer Mechanical Drawings



How to set Collimating Lens



The chart size of F175-120-0.1D : No Sub Lens

15-Jul-2020
OneStone

Object Distance (mm) : Real shooting distance with camera.

Working Distance (mm) : Distance from 1st lens R1 vertex of CL to chart.

** This table is based on the FOV of camera lens.

The FOV of camera lens : 120.00

Object Distance (Object~PCM)	Sub Lens (recomanded)	Working Distance (Chart~ CL vertex)	Chart Size (Dia)
1.00e+100	0.00D	87.69	602.60
1.00e+006	0.00D	87.66	602.47
9.00e+005	0.00D	87.65	602.45
8.00e+005	0.00D	87.65	602.44
7.00e+005	0.00D	87.64	602.41
6.00e+005	0.00D	87.64	602.38

The chart size of F175-120-0.1D : No Sub Lens

12-Aug-2020
OneStone

Object Distance(mm) : Real shooting distance with camera.
Working Distance(mm) : Distance from 1st lens R1 vertex of CL to chart.
** This table is based on the FOV of camera lens.

The FOV of camera lens : 120.00

Object Distance (Object~PCM)	Sub Lens (recomanded)	Working Distance (Chart~ CL vertex)	Chart Size(Dia)
1.00e+100	0.00D	87.69	602.60
7.30e+004	0.00D	87.27	600.85
5.00e+004	0.00D	87.07	600.04
3.70e+004	0.00D	86.86	599.15
3.00e+004	0.00D	86.67	598.35
2.05e+004	0.00D	86.20	596.41
2.00e+004	0.00D	86.16	596.25
1.60e+004	0.00D	85.78	594.69
1.20e+004	0.00D	85.16	592.10
1.00e+004	0.00D	84.67	590.04
9.50e+003	0.00D	84.51	589.40
9.00e+003	0.00D	84.34	588.68
8.00e+003	0.00D	83.93	586.99
7.00e+003	0.00D	83.41	584.82
6.00e+003	0.00D	82.72	581.96
5.00e+003	0.00D	81.77	578.00
4.50e+003	0.00D	81.14	575.39
4.00e+003	0.00D	80.36	572.16
3.50e+003	0.00D	79.37	568.06
3.00e+003	0.00D	78.08	562.68
2.90e+003	0.00D	77.77	561.40
2.80e+003	0.00D	77.44	560.03
2.70e+003	0.00D	77.09	558.57
2.60e+003	0.00D	76.71	557.00
2.50e+003	0.00D	76.31	555.32
2.40e+003	0.00D	75.87	553.51
2.30e+003	0.00D	75.40	551.55
2.20e+003	0.00D	74.89	549.44
2.10e+003	0.00D	74.34	547.14
2.00e+003	0.00D	73.73	544.63

Lens Pictures

