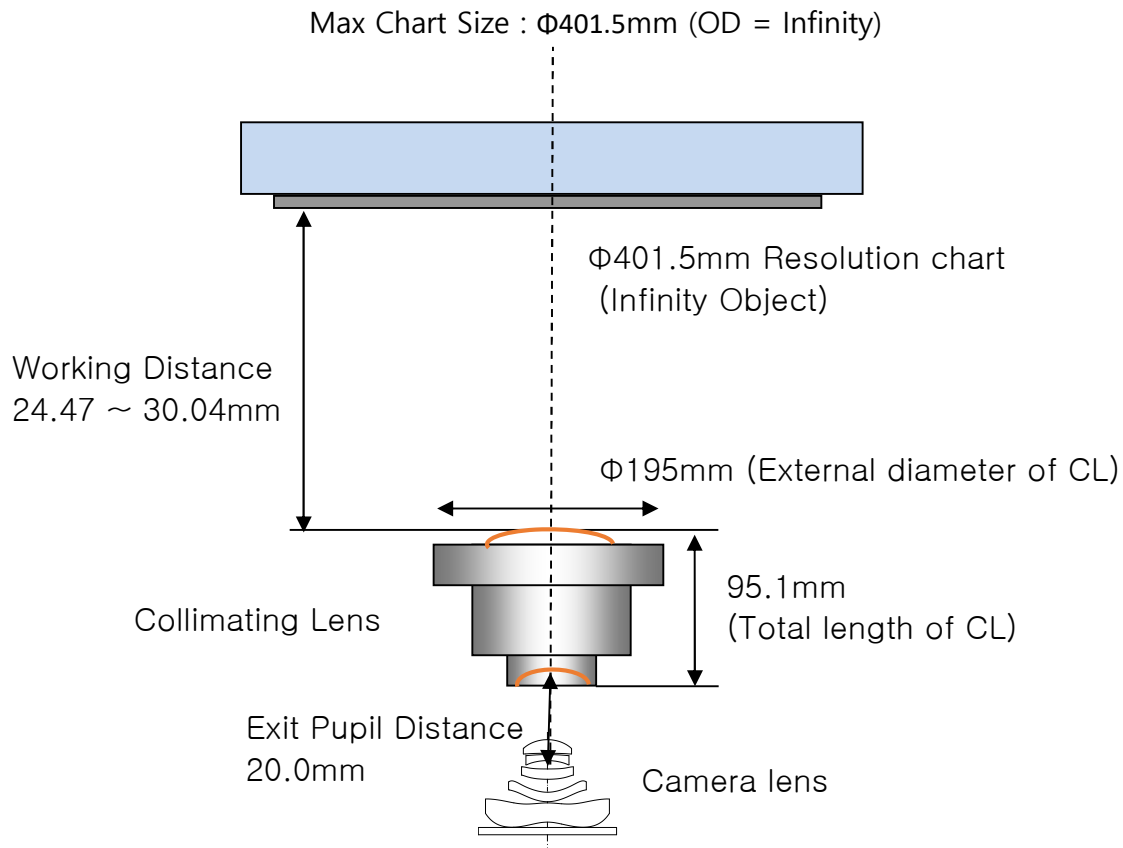


# CL-1220C(F120-120-t1D) Collimating Lens Spec.

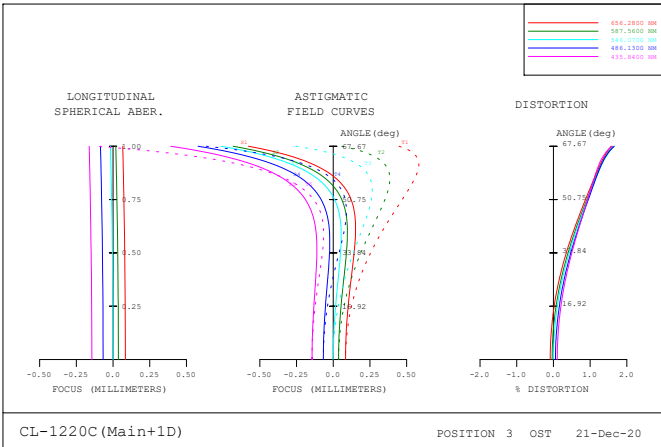
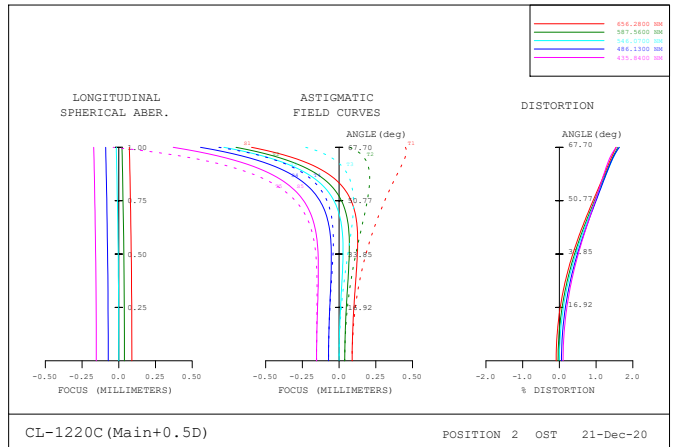
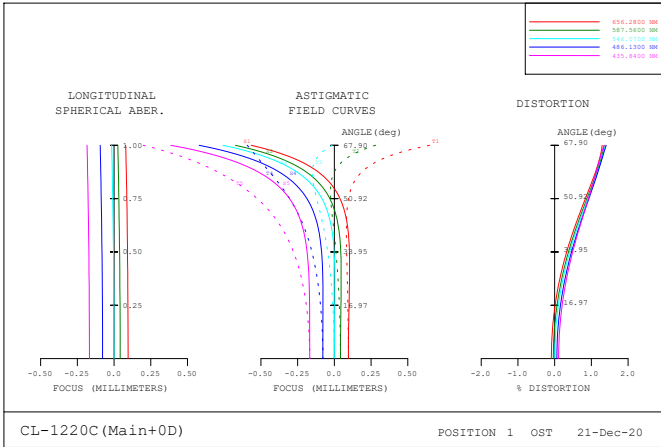
2021-01-25  
OneStone

<b>Model name</b>	CL-1220C (Designed by OneStone)
<b>Characteristic of CL-1220C</b>	Camera Lens of FOV 120 degree is adaptive.
<b>Main Lens</b>	CL-1220C (Main)
<b>Sub Lens Sets</b>	CL-1220C (Sub 0.0D), CL-1220C (Sub 0.5D) CL-1220C (Sub 1.0D)
<b>Main plus each Sub set</b>	ex) CL-1220C (Main+Sub 0.0D)
<b>EFL</b>	117.5 ~ 133.5mm
<b>Inspectable FOV of CCM</b>	120°
<b>Ass'y Size</b>	Φ195mm X L95.1mm, 3.55kg
<b>Exit Pupil Size</b>	Φ3.0mm
<b>Exit Pupil Position</b>	20.0mm
<b>Exit Pupil Position (Mecha)</b>	15.5mm (from the bottom of CL barrel to the exit pupil)
<b>Working Distance (from CL 1st Lens R1 surface to chart)</b>	29.90mm at Object Distance Infinity



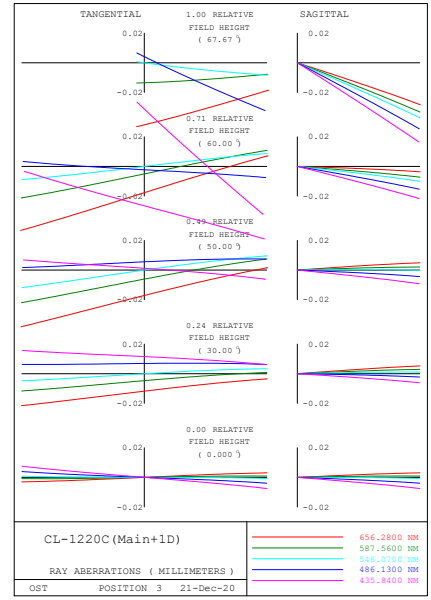
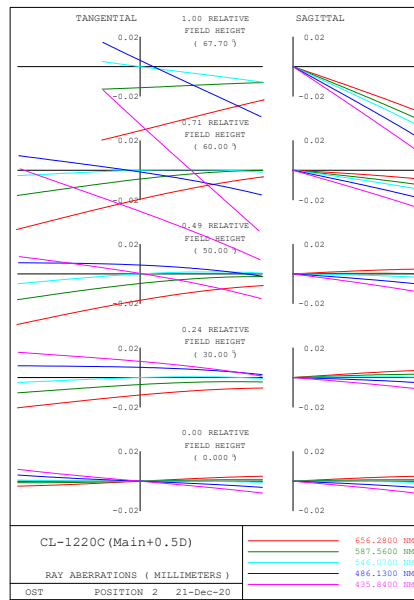
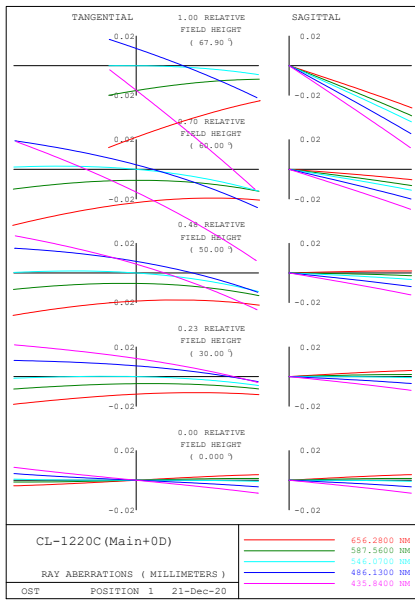
# Optical performance of CL-1220C Lens (Infinity, 2m, 1m at 120°)

Aberration Scale :  $\pm 0.5 \pm 0.5 \pm 2.0\%$



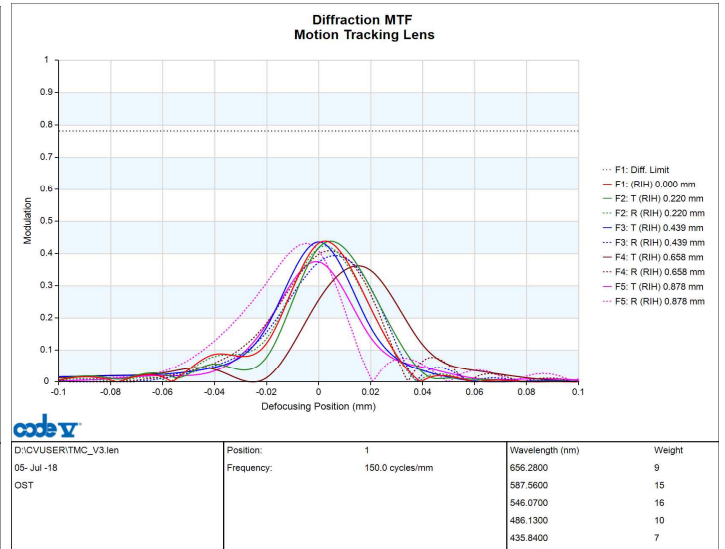
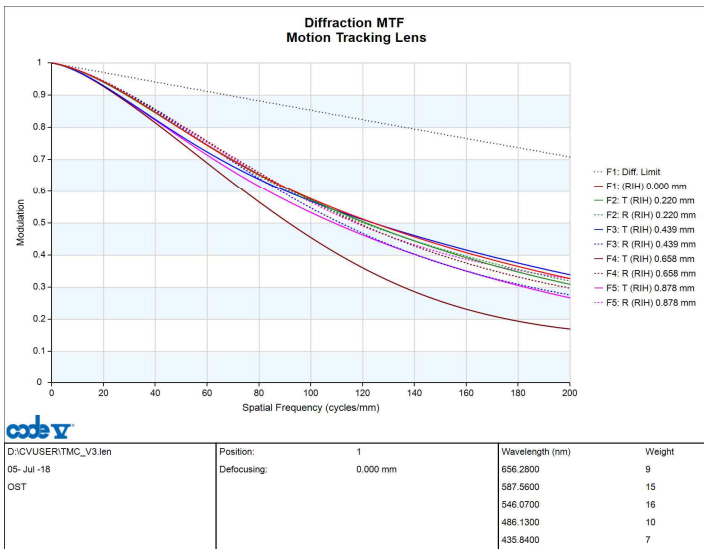
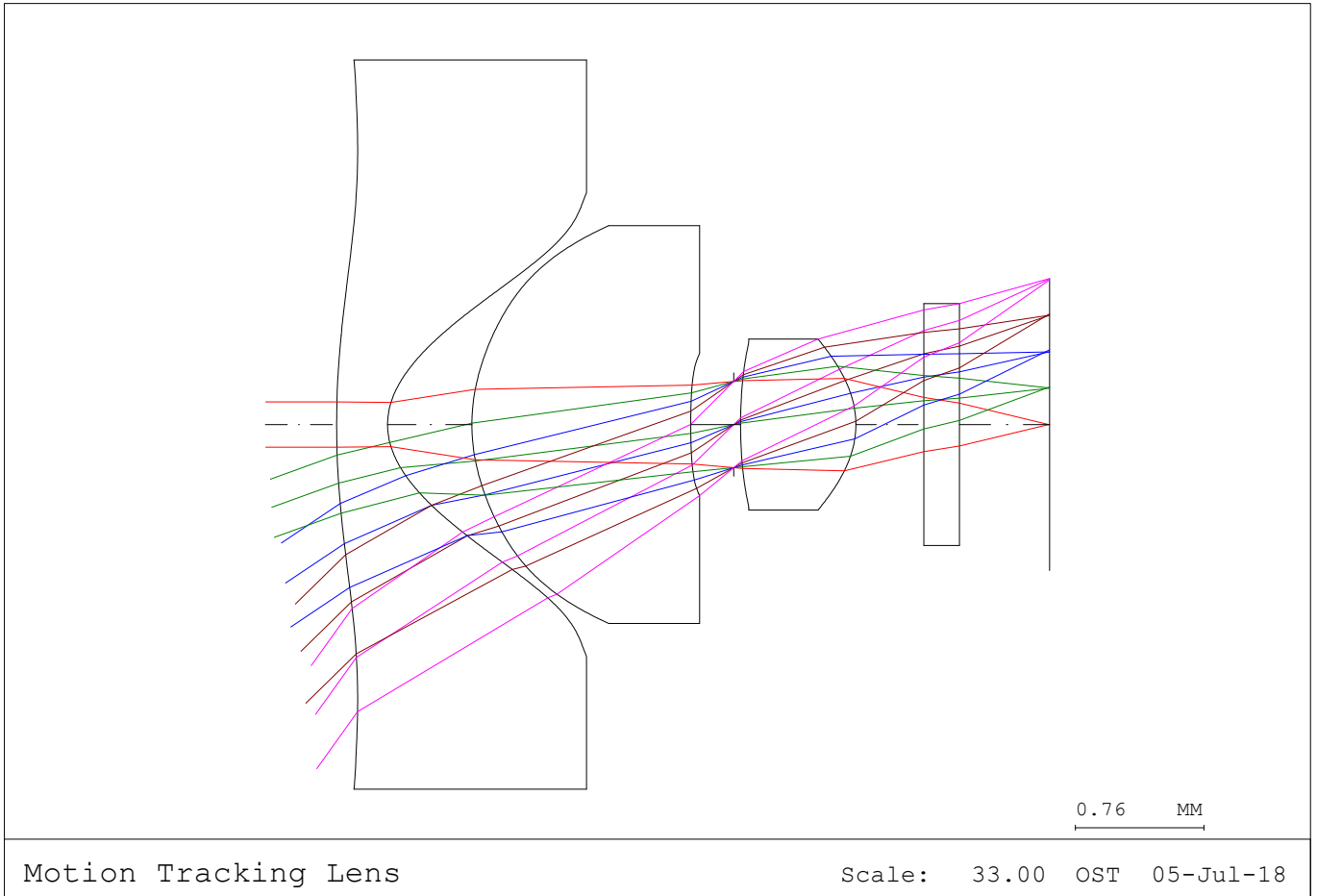
# Optical performance of CL-1220C Lens (Infinity, 2m, 1m at 120°)

Aberration Scale :  $\pm 0.02$



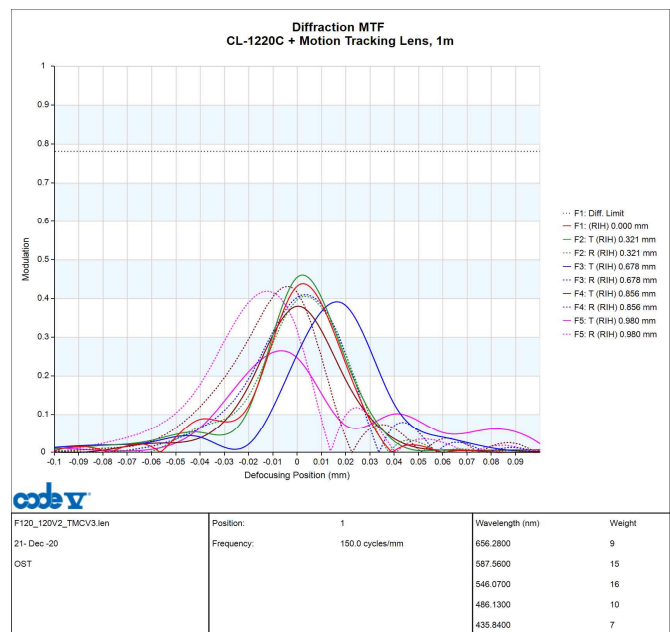
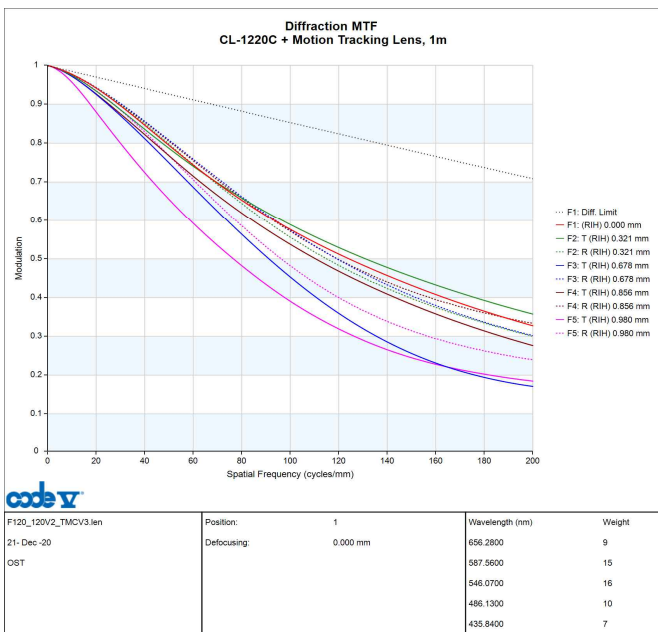
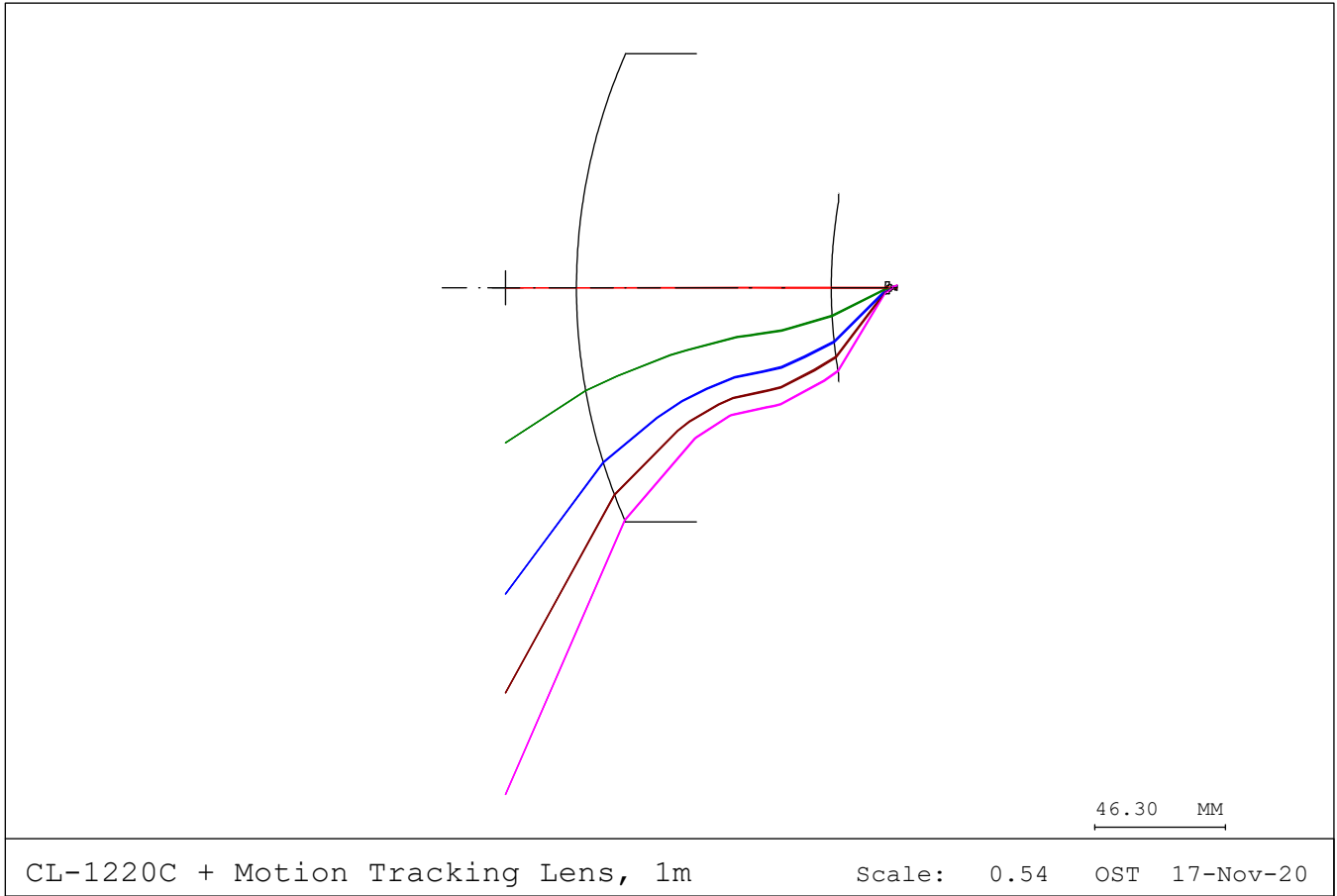
# Motion Tracking Lens (designed by OST)

EFL = 0.5698, Fno = 2.08, FOV = 120, Object Distance 1m, MTF 150lp/mm, 200lp/mm



# CL-1220C + Motion Tracking Lens

EFL = 0.5698, Fno = 2.08, FOV = 120, Object Distance 1m, MTF 150lp/mm, 200lp/mm



## Chart

The chart size of CL-1220C-t1D (Whole Sub Lens is available)

21-Dec-2020  
OneStone

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

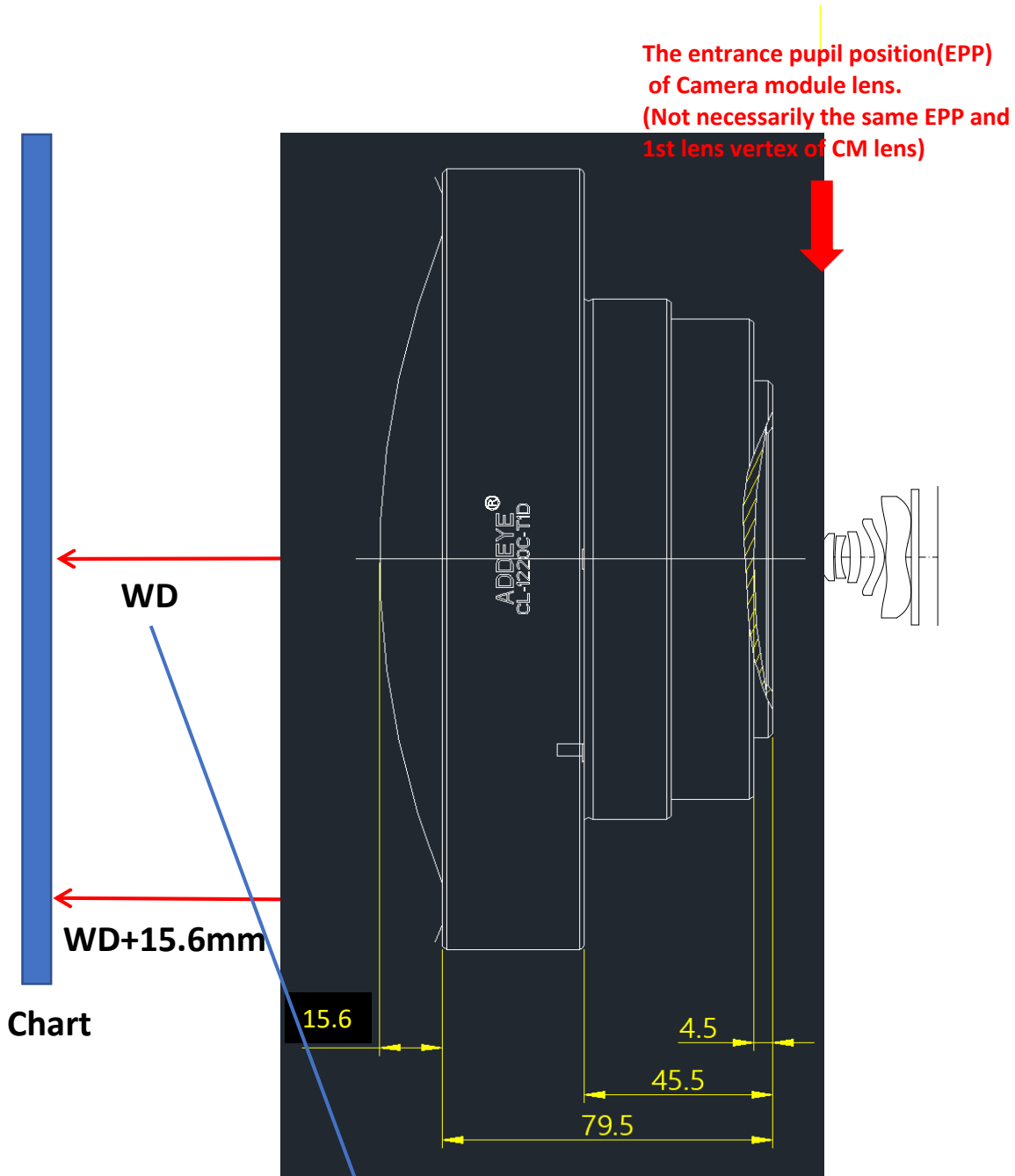
Working Distance(mm) : Distance from 1st lens R1 vertex of CL to chart.

\*\* 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	0.0D	29.90	401.5
6.30e+004	0.0D	29.68	400.4
5.00e+004	0.0D	29.63	400.1
3.00e+004	0.0D	29.44	399.2
2.00e+004	0.0D	29.22	398.1
1.50e+004	0.0D	28.99	397.0
1.00e+004	0.0D	28.54	394.8
9.00e+003	0.0D	28.39	394.1
8.00e+003	0.0D	28.21	393.2
7.00e+003	0.0D	27.97	392.0
6.00e+003	0.0D	27.66	390.4
5.00e+003	0.0D	27.22	388.3
4.50e+003	0.0D	26.93	386.9
4.00e+003	0.0D	26.58	385.1
3.50e+003	0.0D	26.12	382.9
3.00e+003	0.0D	25.52	379.9
2.50e+003	0.5D	30.04	399.7
2.00e+003	0.5D	28.69	393.2
1.90e+003	0.5D	28.34	391.5
1.80e+003	0.5D	27.96	389.6
1.70e+003	0.5D	27.53	387.5
1.60e+003	0.5D	27.06	385.2
1.50e+003	0.5D	26.53	382.6
1.40e+003	0.5D	25.93	379.7
1.30e+003	0.5D	25.25	376.4
1.20e+003	1.0D	29.93	399.5
1.10e+003	1.0D	28.90	394.6
1.00e+003	1.0D	27.70	388.7
9.00e+002	1.0D	26.28	381.8
8.00e+002	1.0D	24.57	373.4

## How to set Collimator Lens



The chart size of CL-1220C-t1D (Whole Sub Lens is available)

21-Dec-2020  
OneStone

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

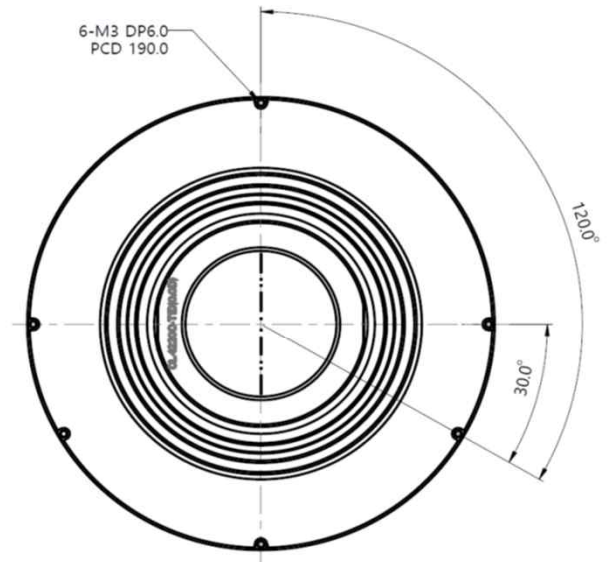
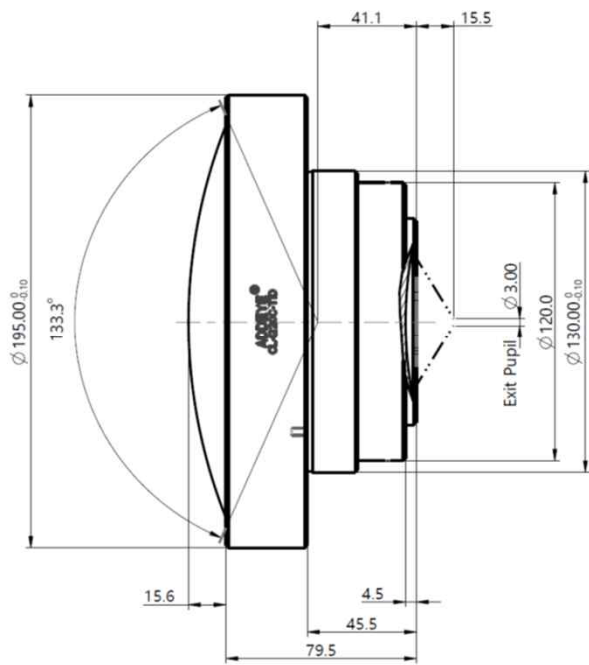
Working Distance(mm) : Distance from 1st lens R1 vertex of CL to chart.

\*\* 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	0.0D	29.90	401.5
6.30e+004	0.0D	29.68	400.4
5.00e+004	0.0D	29.63	400.1
3.00e+004	0.0D	29.44	399.2
2.00e+004	0.0D	29.22	398.1
1.50e+004	0.0D	28.99	397.0

## CL-1220C Drawings



## Lens Pictures

