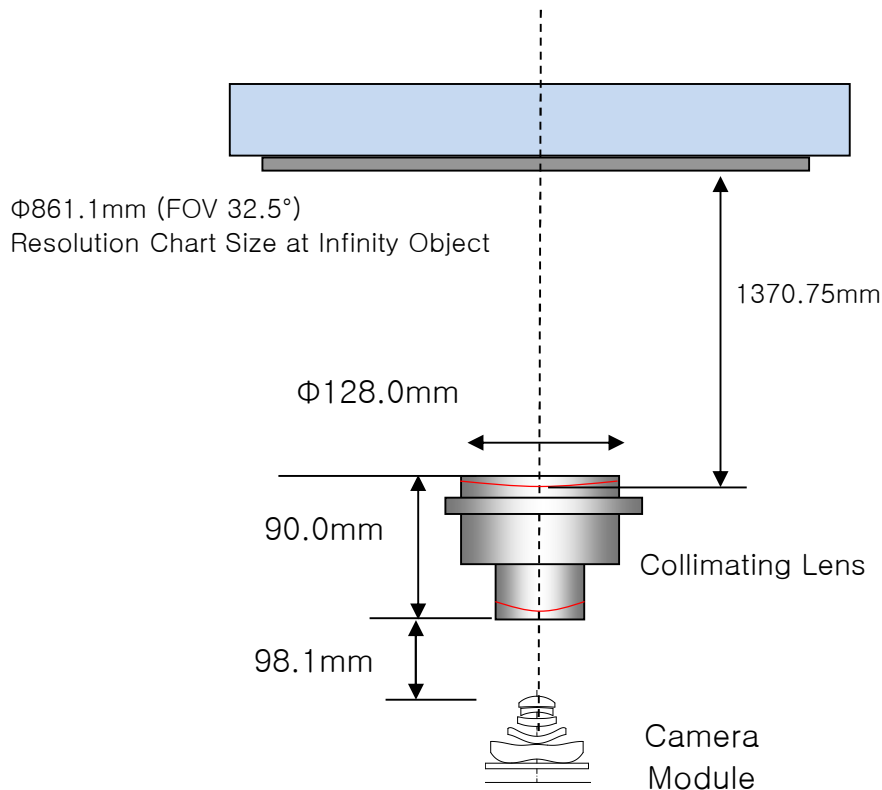


# F1500-30-VS Collimating Lens Specification

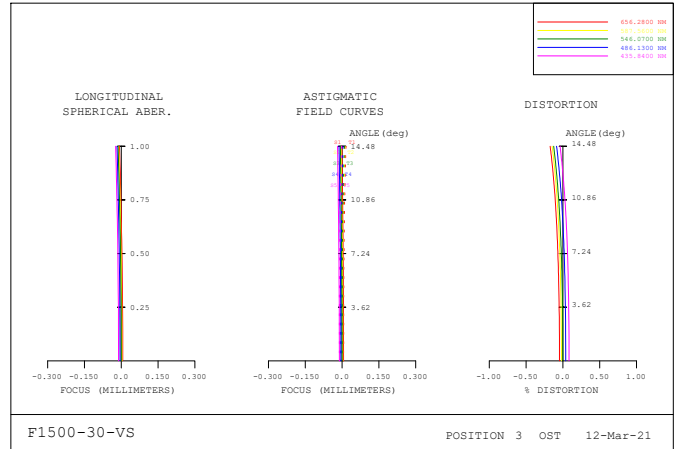
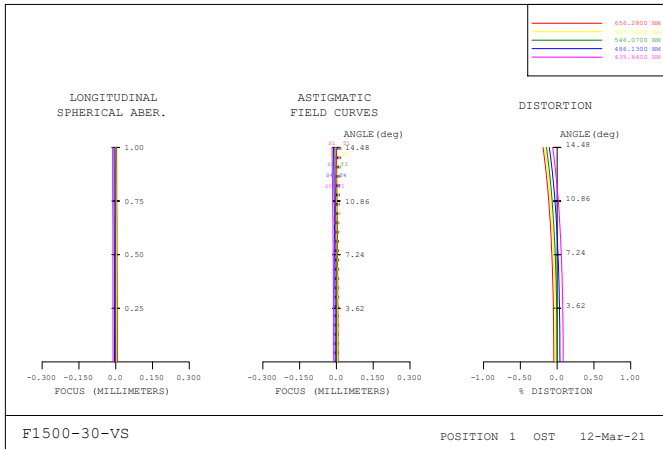
2021-03-12  
OneStone

<b>Model name</b>	F1500-30-VS (Designed by OneStone)
<b>Characteristic of CL</b>	Available with Visible System
<b>Construction of CL (Default)</b>	Main Lens Only
<b>EFL</b>	1474.4mm (at 546.07nm)
<b>Inspectable FOV of CCM</b>	32.5°
<b>Ass'y Size &amp; Weight</b>	Φ128.0mm X L90.0mm, 1.75kg
<b>Exit Pupil Size</b>	Φ28.0mm
<b>Exit Pupil Position</b>	100.0mm (from Vertex of CL CCM side to CCM)
<b>Working Distace</b> (from CL 1st Lens R1 surface to Chart)	1370.75mr at Object Distance Infinity (0.0D)



# Optical Performance of F1500-30-VS (OD = Inf & 10m, at 30.0°)

Aberration Scale :  $\pm 0.3 \pm 0.3 \pm 1.0\%$

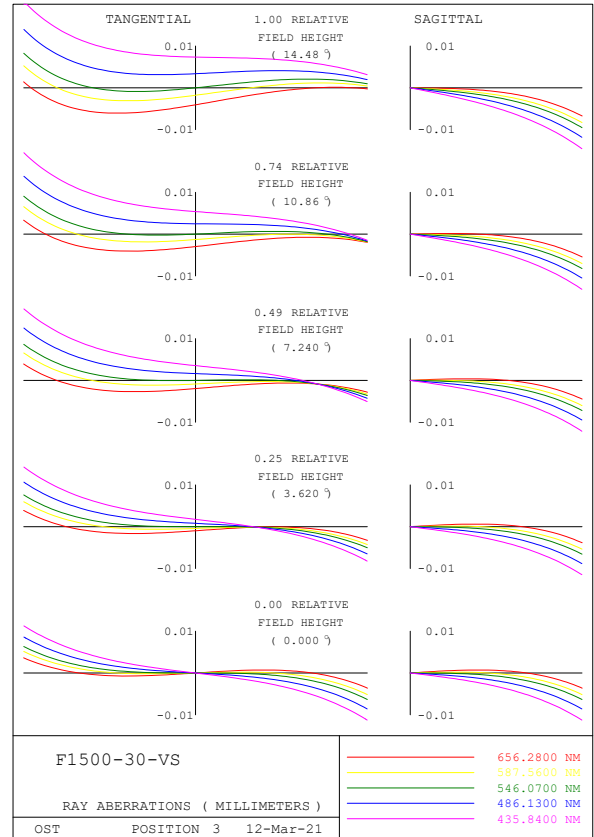
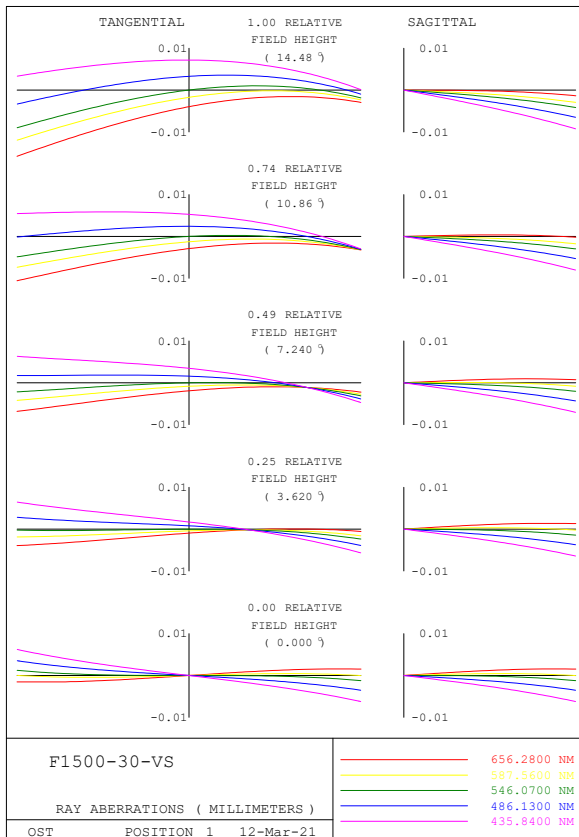


Astigmatism : less than 0.009D

Field Curvature : less than 0.002D

Distortion : less than 0.15%

Aberration Scale :  $\pm 0.01$



Longitudinal Chromatic Aberration : less than 0.015D

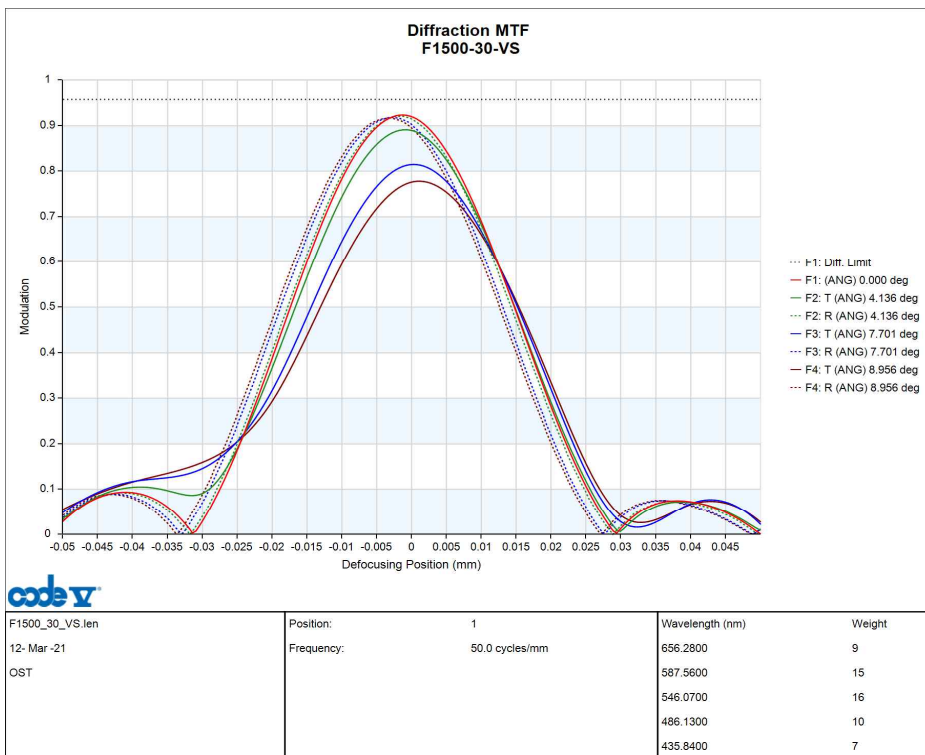
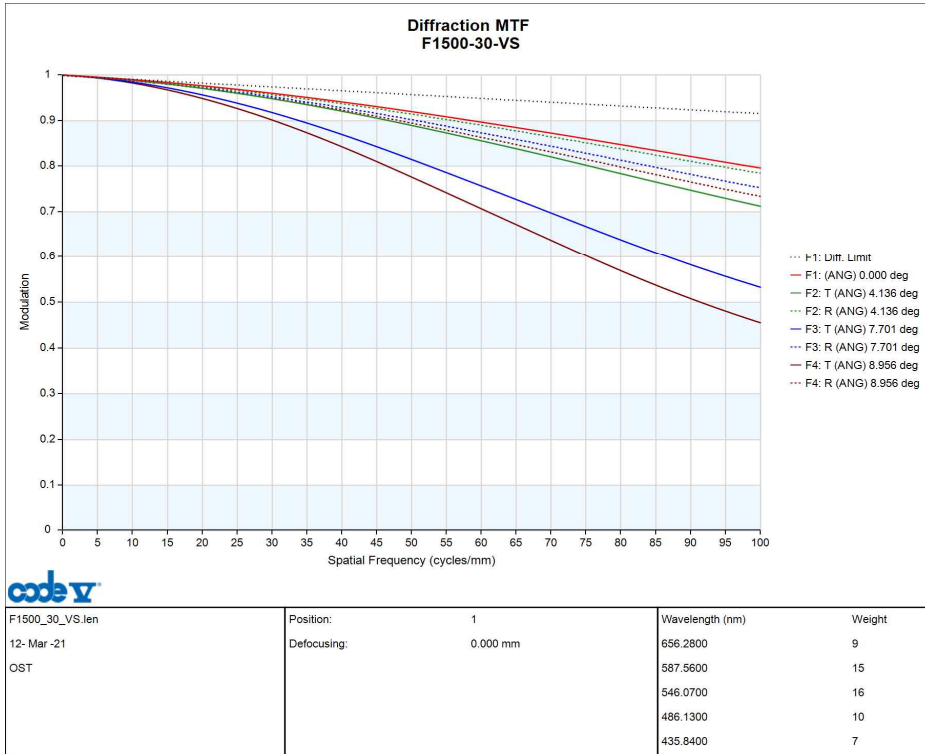
Lateral Chromatic Aberration : less than 0.008D

# MTF Analysis for FOV 18.6° Lens

e<sub>fl</sub> = 28.5mm      F<sub>no</sub> = 1.2

EPD = 23.75mm ( = e<sub>fl</sub>/F<sub>no</sub>)

Object Distance : Infinity (Object angle 0, 4.8, 8, 9.3 )

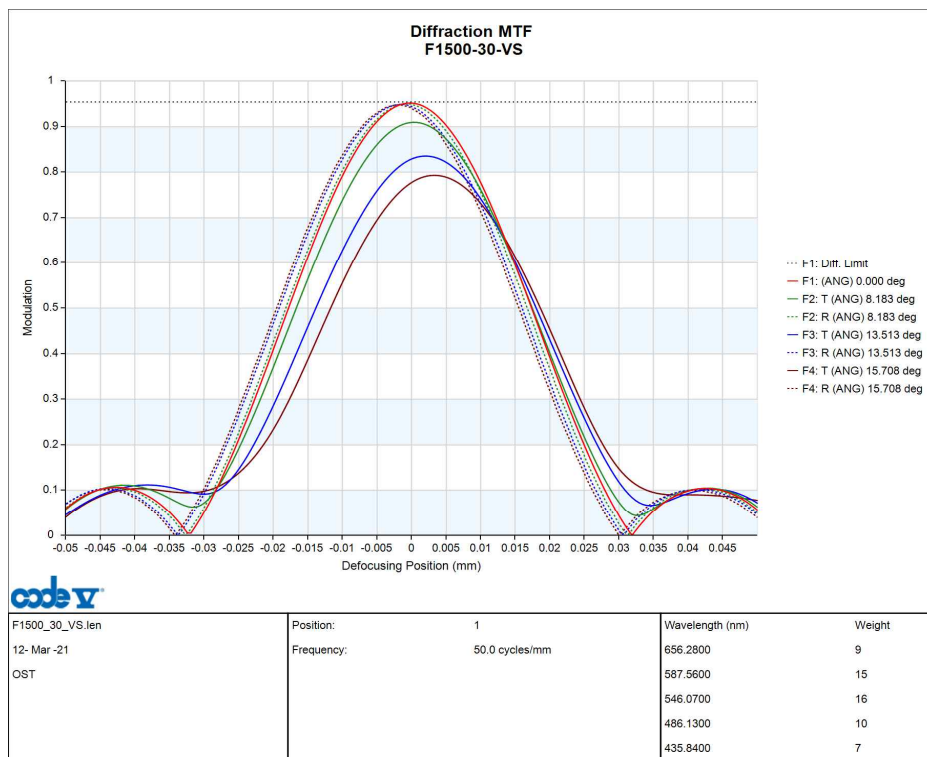
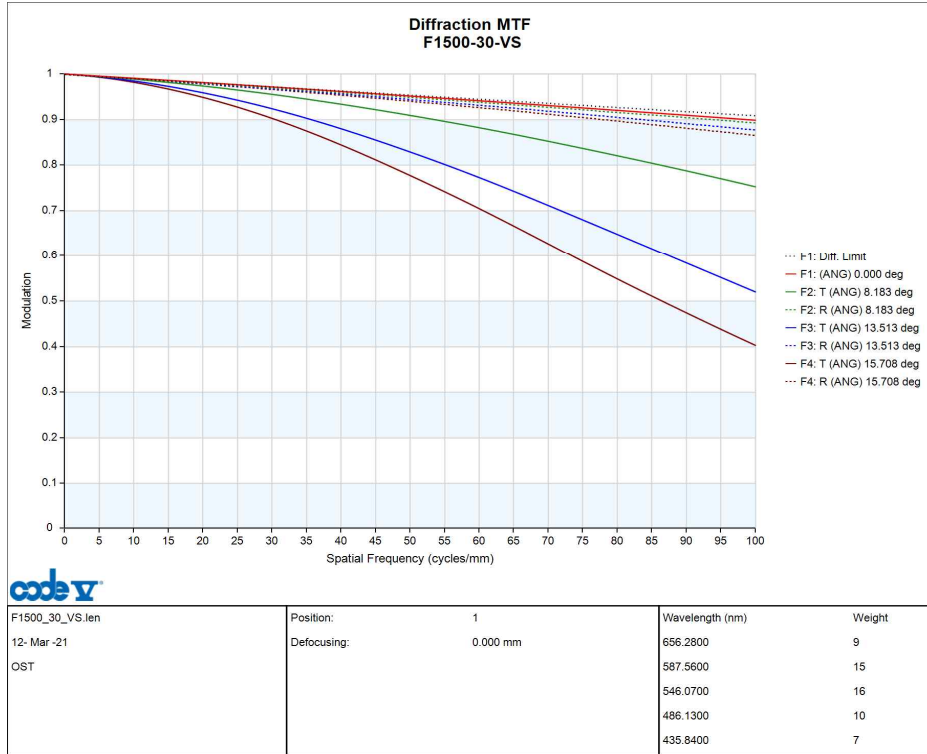


# MTF Analysis for FOV 32.5° Lens

efl = 16.0mm      Fno = 1.2

EPD = 12.33mm ( = efl/Fno)

Object Distance : Infinity (Object angle 0, 8.5, 14, 16.25 )



## Chart

The chart size of F1500\_30\_VS (Whole Sub Lens is available)

12-Mar-2021

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

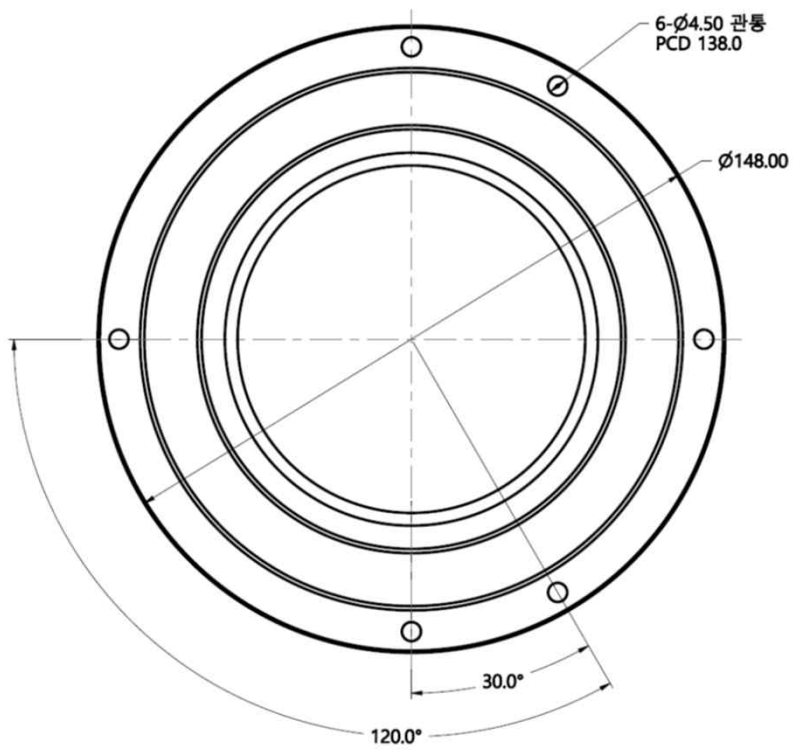
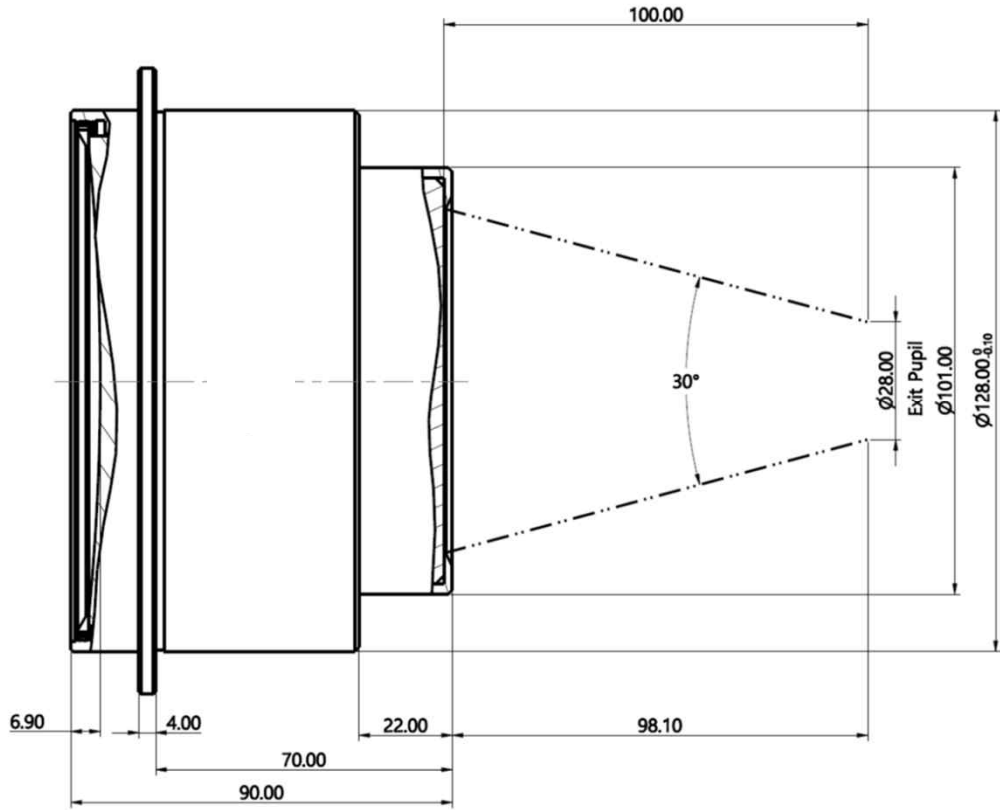
Working Distance(mm) : Distance from 1st lens R1 vertex of CL to chart.

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

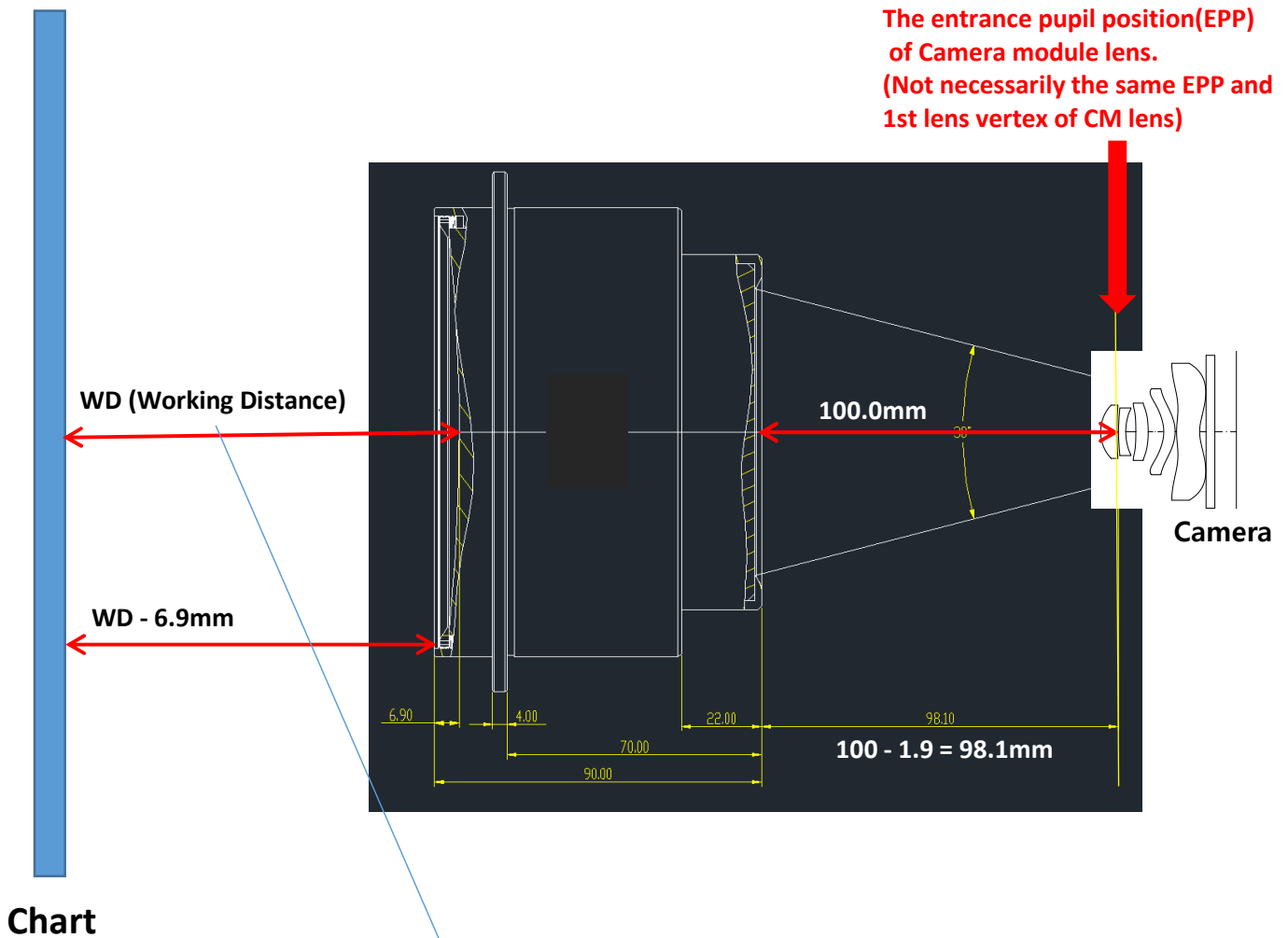
The FOV of camera lens : 32.50

Object Distance (Object~PCM)	Sub Lens (recomanded)	Working Distance (Chart~ CL vertex)	Chart Size(Dia)
1.00e+100	0.00D	1370.75	861.1
1.00e+005	0.00D	1349.31	849.0
9.00e+004	0.00D	1346.97	847.7
8.00e+004	0.00D	1344.05	846.1
7.00e+004	0.00D	1340.31	844.0
6.00e+004	0.00D	1335.35	841.2
5.00e+004	0.00D	1328.47	837.3
4.00e+004	0.00D	1318.26	831.6
3.00e+004	0.00D	1301.55	822.2
2.00e+004	0.00D	1269.24	804.0
1.00e+004	0.00D	1180.34	754.0

# Drawings



## How to set Collimating Lens



The chart size of F1500\_30\_VS (Whole Sub Lens is available)

12-Mar-2021  
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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 : 32.50

Object Distance (Object~PCM)	Sub Lens (recomanded)	Working Distance (Chart~ CL vertex)	Chart Size(Dia)
1.00e+100	0.00D	1370.75	861.1
1.00e+005	0.00D	1349.31	849.0
9.00e+004	0.00D	1346.97	847.7
8.00e+004	0.00D	1344.05	846.1
7.00e+004	0.00D	1340.31	844.0
6.00e+004	0.00D	1335.35	841.2
5.00e+004	0.00D	1328.47	837.3
4.00e+004	0.00D	1318.26	831.6
3.00e+004	0.00D	1301.55	822.2
2.00e+004	0.00D	1269.24	804.0
1.00e+004	0.00D	1180.34	754.0

Lens Picture

