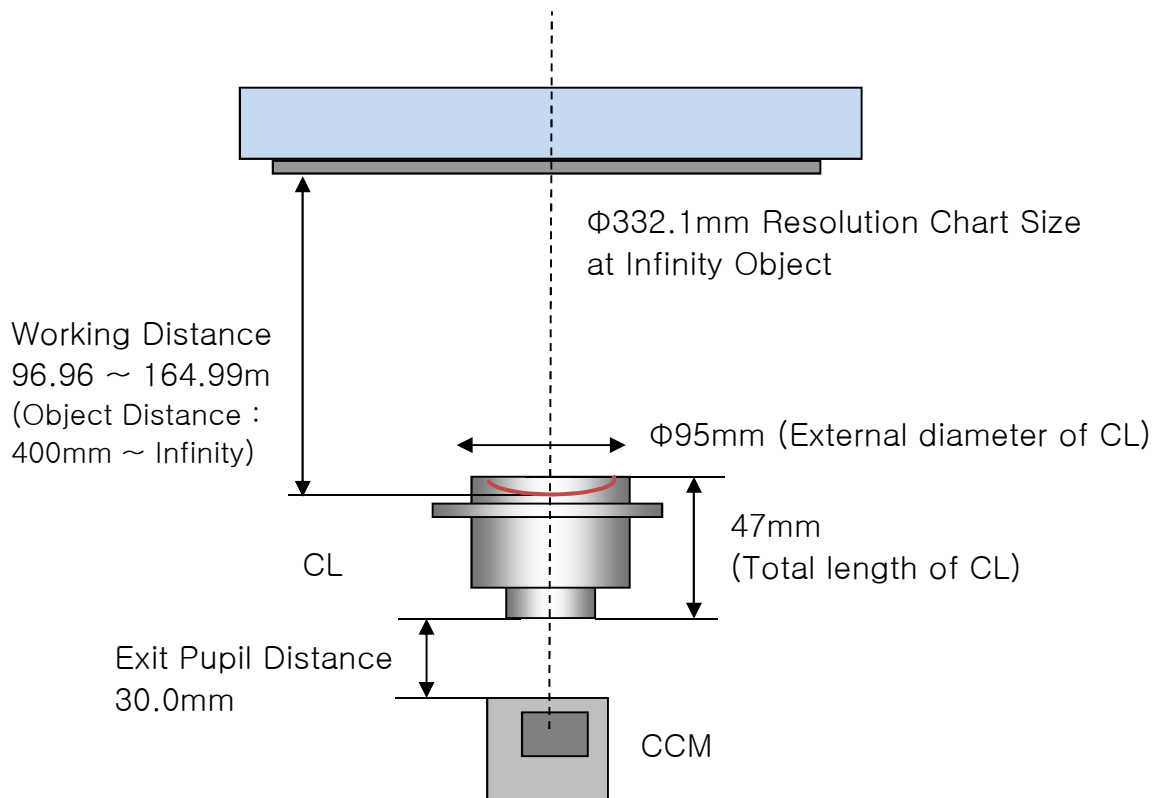


CL-830 (F200-80) Collimator Lens Specification

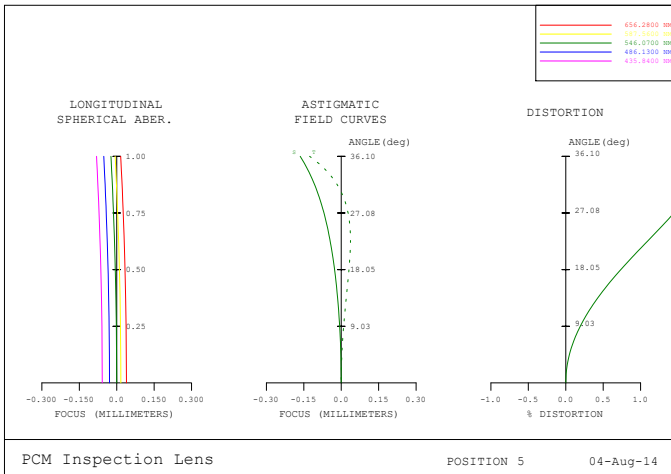
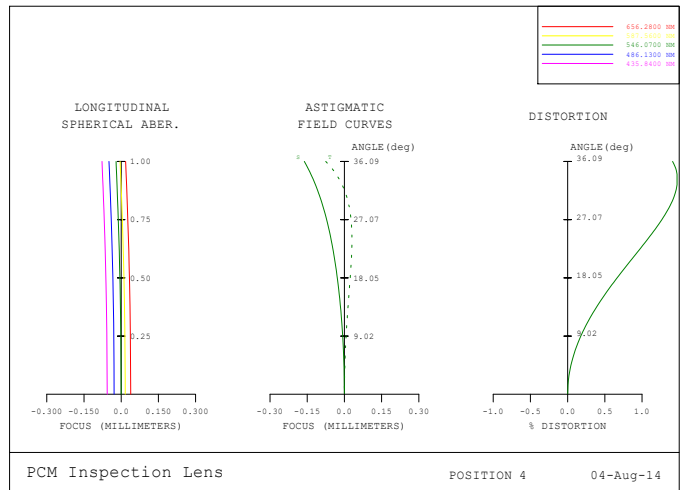
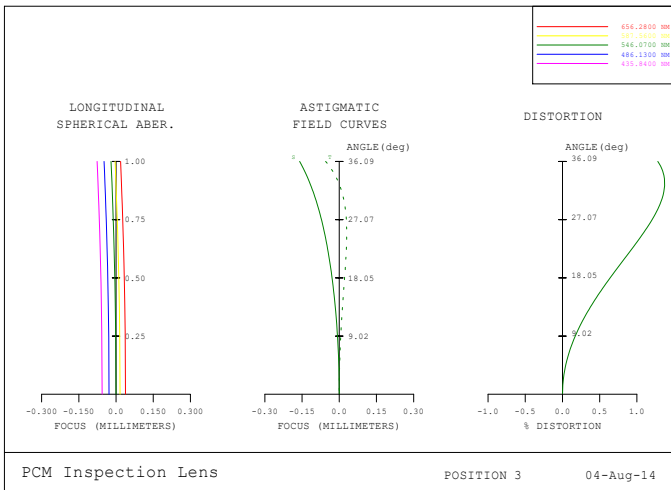
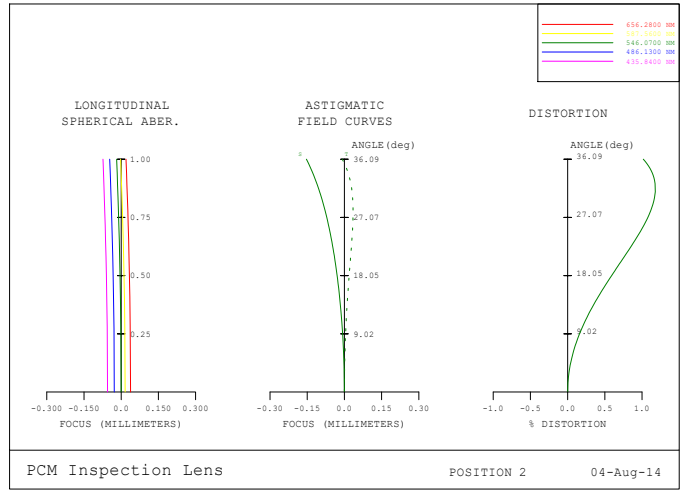
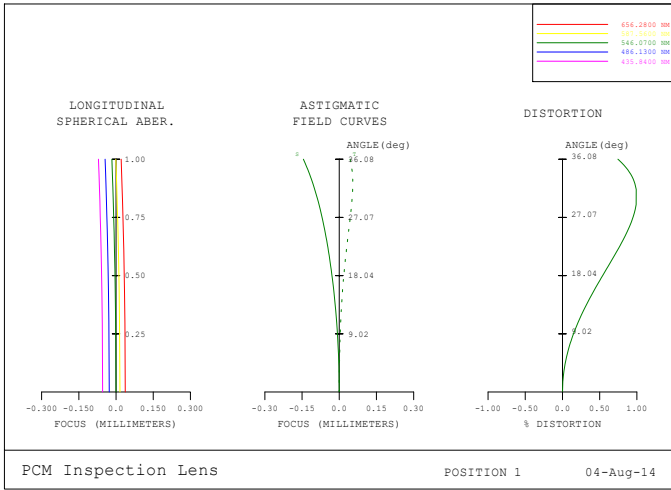
2017-03-22
OneStone

Model name	CL-830 (Designed by OneStone)
Characteristic of CL-830	Available with Small System
Construction of CL (Default) (Option)	Main Lens Only
EFL	198.8mm
Inspectable FOV of CCM	80°
Ass'y Size	Φ95mm X L47mm
Exit Pupil Size	Φ4.5mm
Exit Pupil Position	30.0mm (from Vertex of CL CCM side to CCM)
Working Distace (from CL 1st Lens R1 surface to Chart)	165.0mm at Object Distance Infinity Chart Size : Φ332.1mm



Optical Performance of CL-830 Lens (Infinity, 2m, 1m, 0.8m, 0.5m at 80°)

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



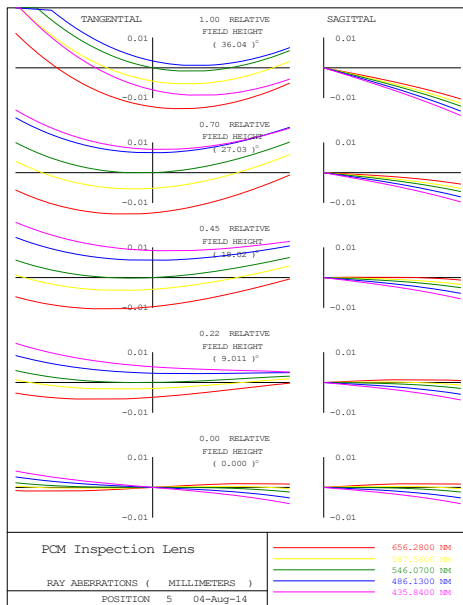
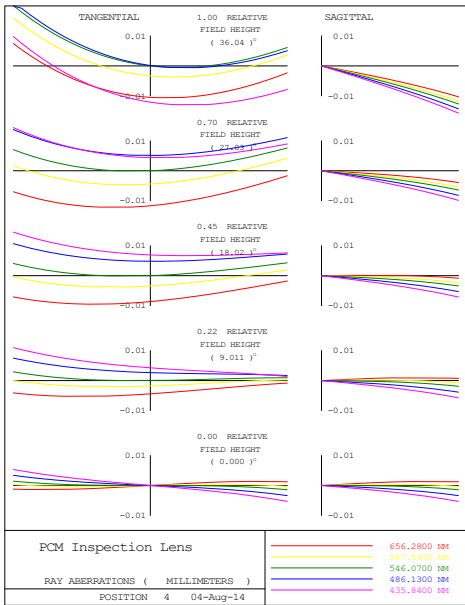
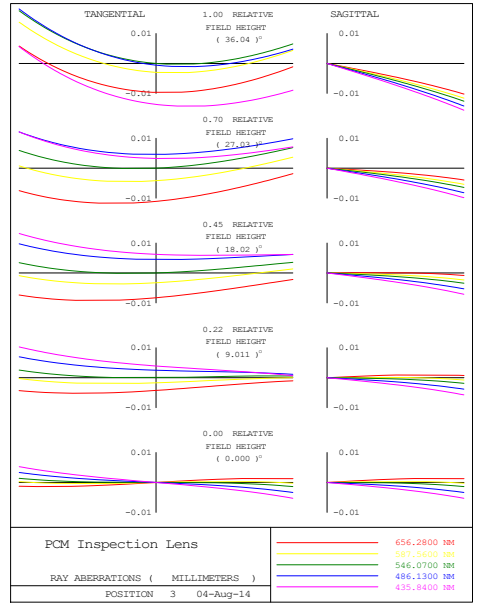
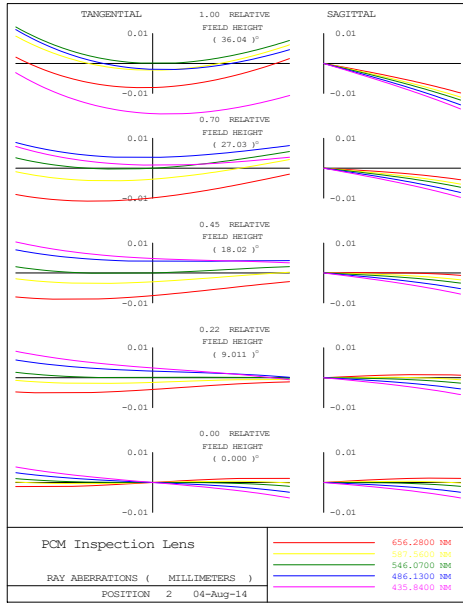
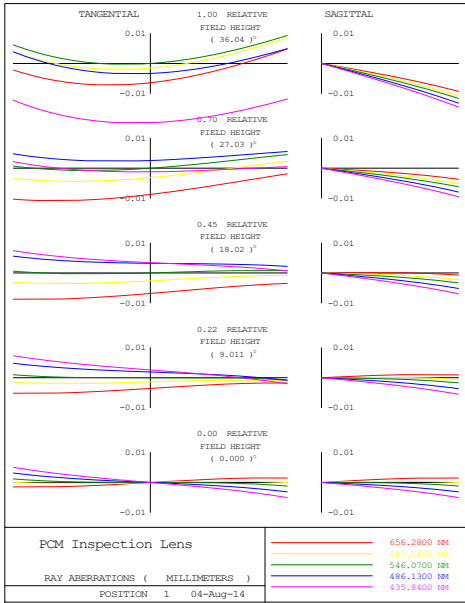
Astigmatism : less than 0.094D

Field Curvature : less than 0.146D

Distortion : less than 1.789%

Optical Performance of CL-830 Lens (Infinity, 2m, 1m, 0.8m, 0.5m at 80°)

Aberration Scale : ± 0.01



Longitudinal Chromatic Aberration : less than 0.091D

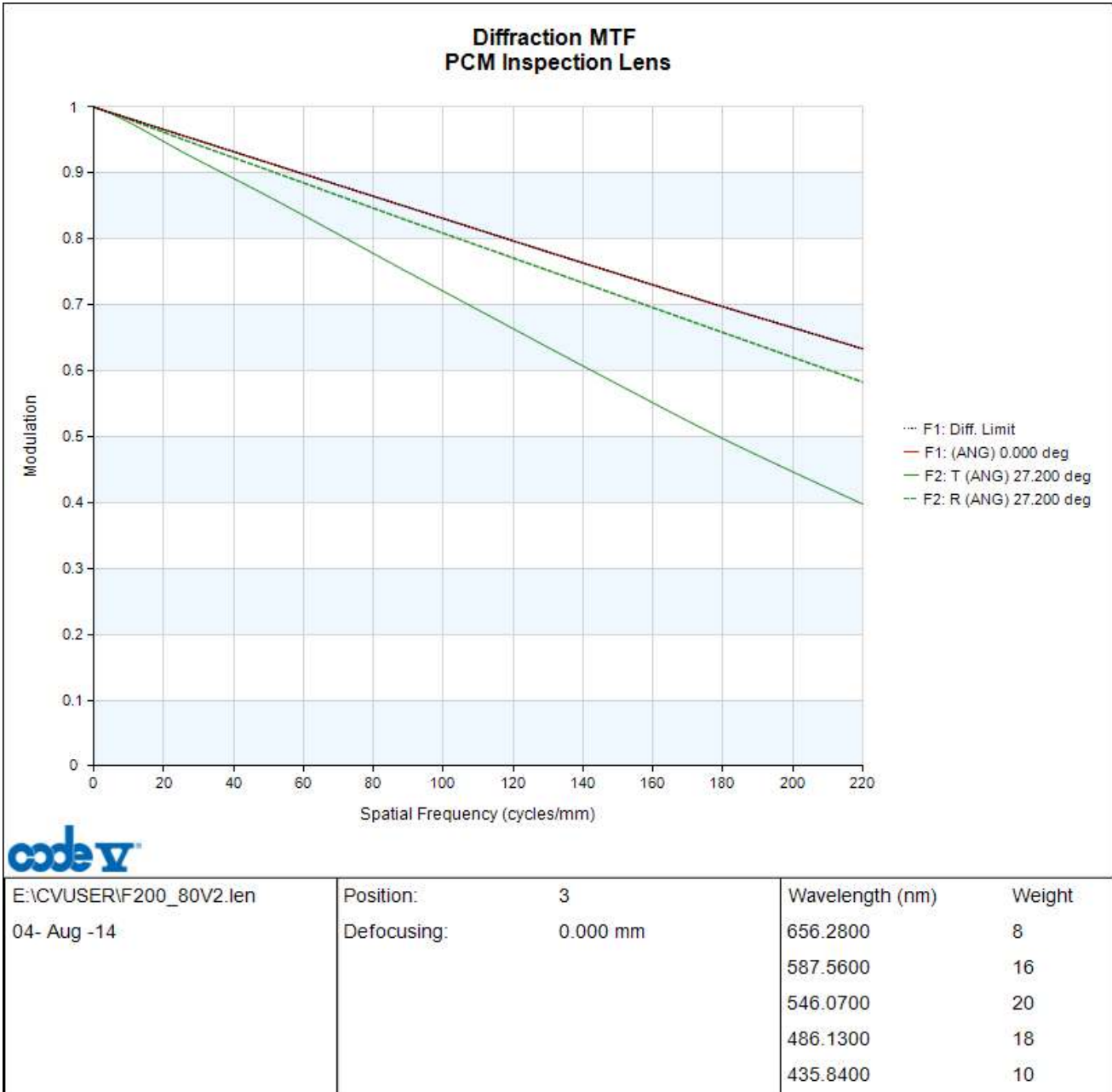
Lateral Chromatic Aberration : less than 0.018D

MTF Analysis for FOV 77.6° Lens of S-Company

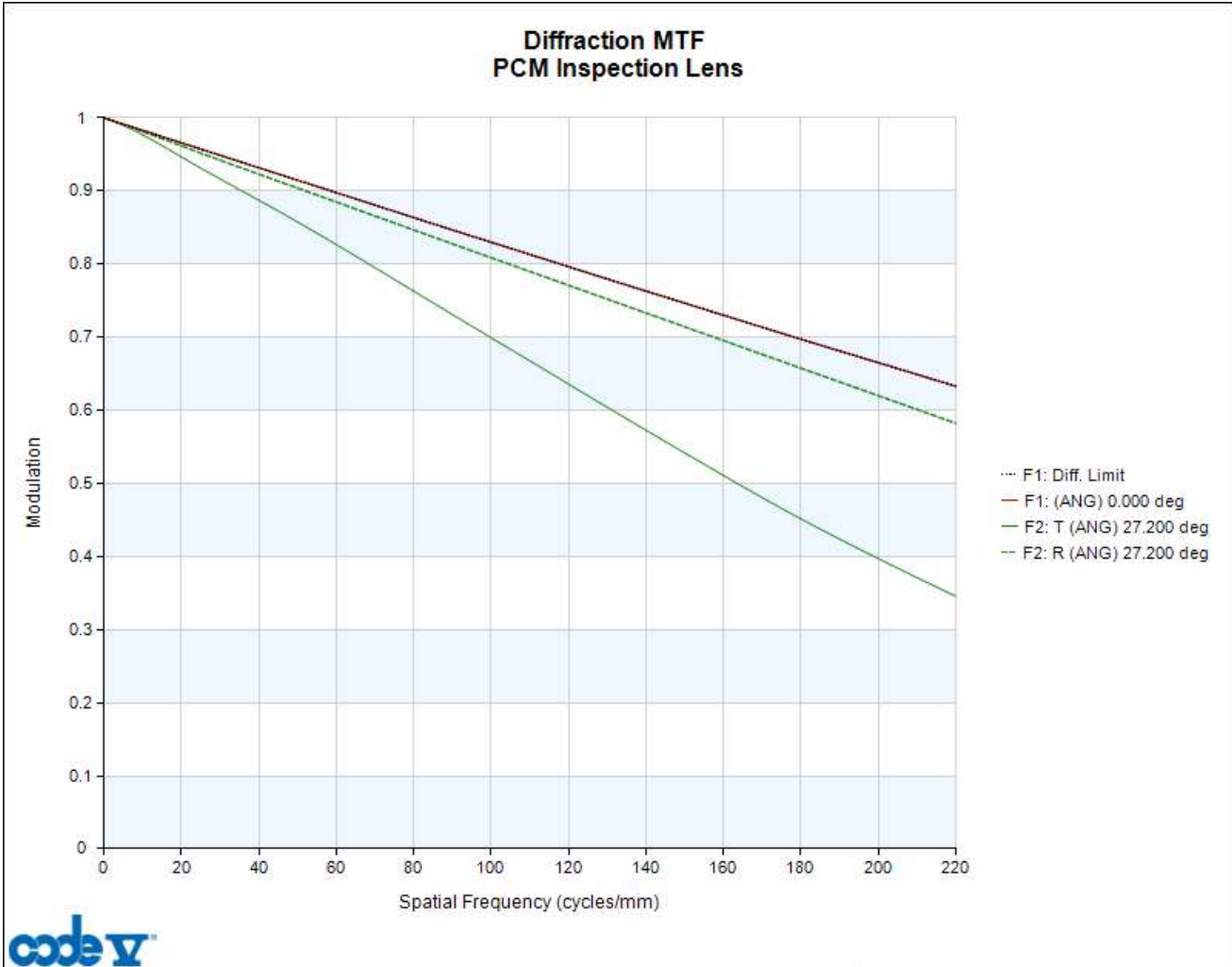
e_{fl} = 2.80mm F_{no} = 2.45

EPD = 1.14mm (= e_{fl}/F_{no})

Object Distance : 1m (Center, 0.7F)

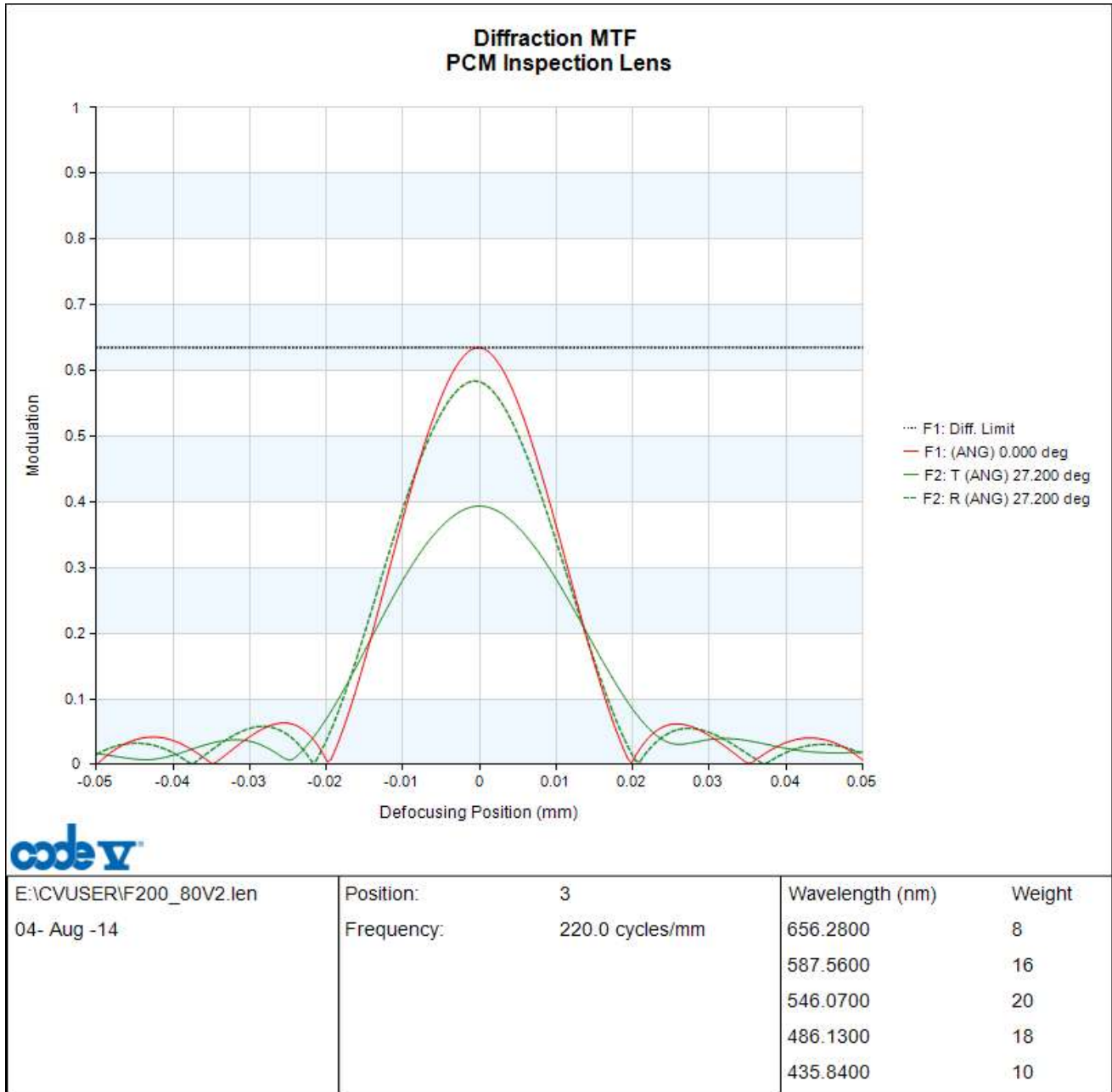


Object Distance : 0.5m (Center, 0.7F)

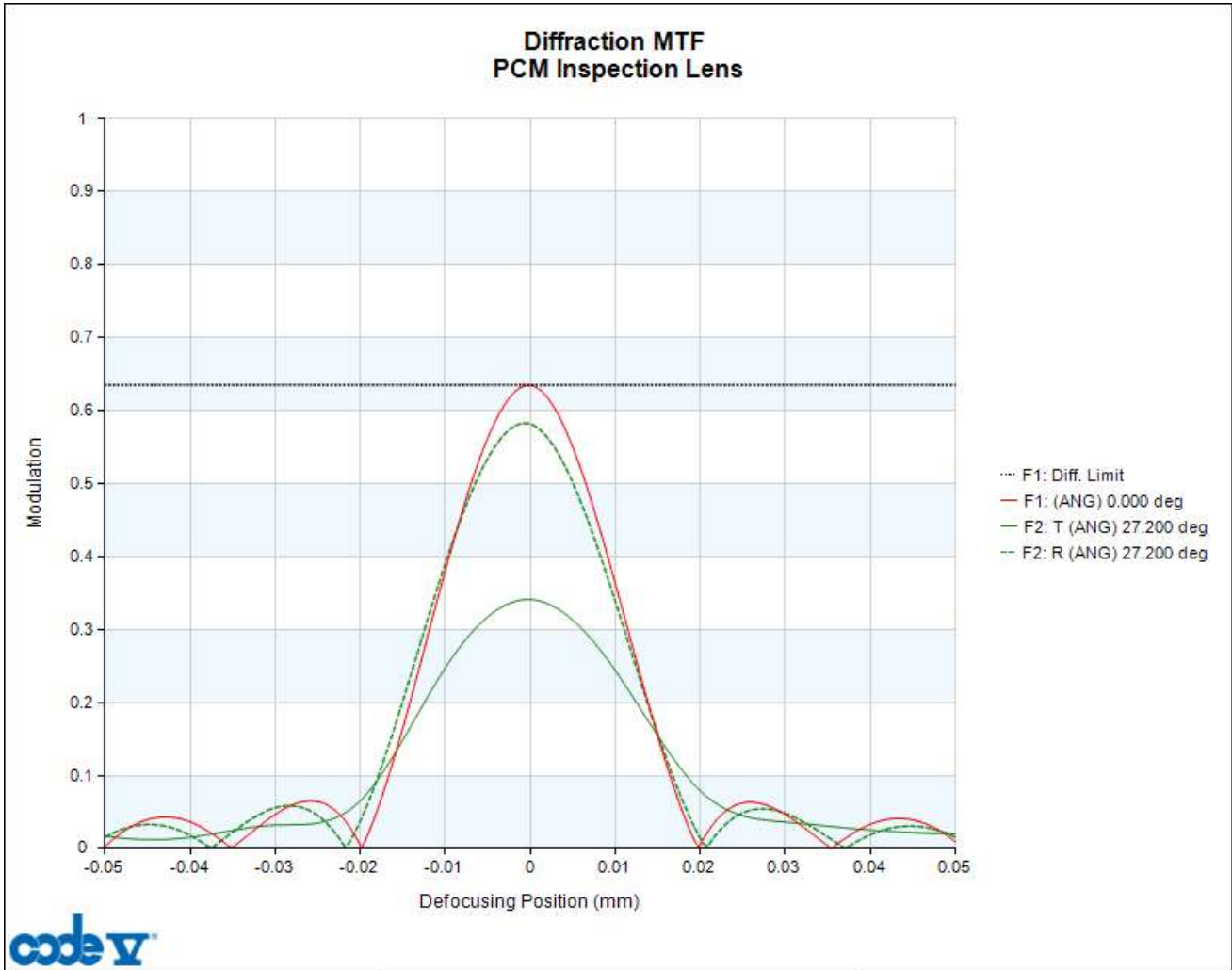


E:\CVUSER\F200_80V2.len	Position: 5	Wavelength (nm)	Weight
04- Aug -14	Defocusing: 0.000 mm	656.2800	8
		587.5600	16
		546.0700	20
		486.1300	18
		435.8400	10

Object Distance : 1m (Center, 0.7F)



Object Distance : 0.5m (Center, 0.7F)



E:\CVUSER\F200_80V2.len	Position: 5	Wavelength (nm)	Weight
04- Aug -14	Frequency: 220.0 cycles/mm	656.2800	8
		587.5600	16
		546.0700	20
		486.1300	18
		435.8400	10

Chart Size at Full Angle 80° of CL-830

Object Distance : Subject Distance of Phone Camera

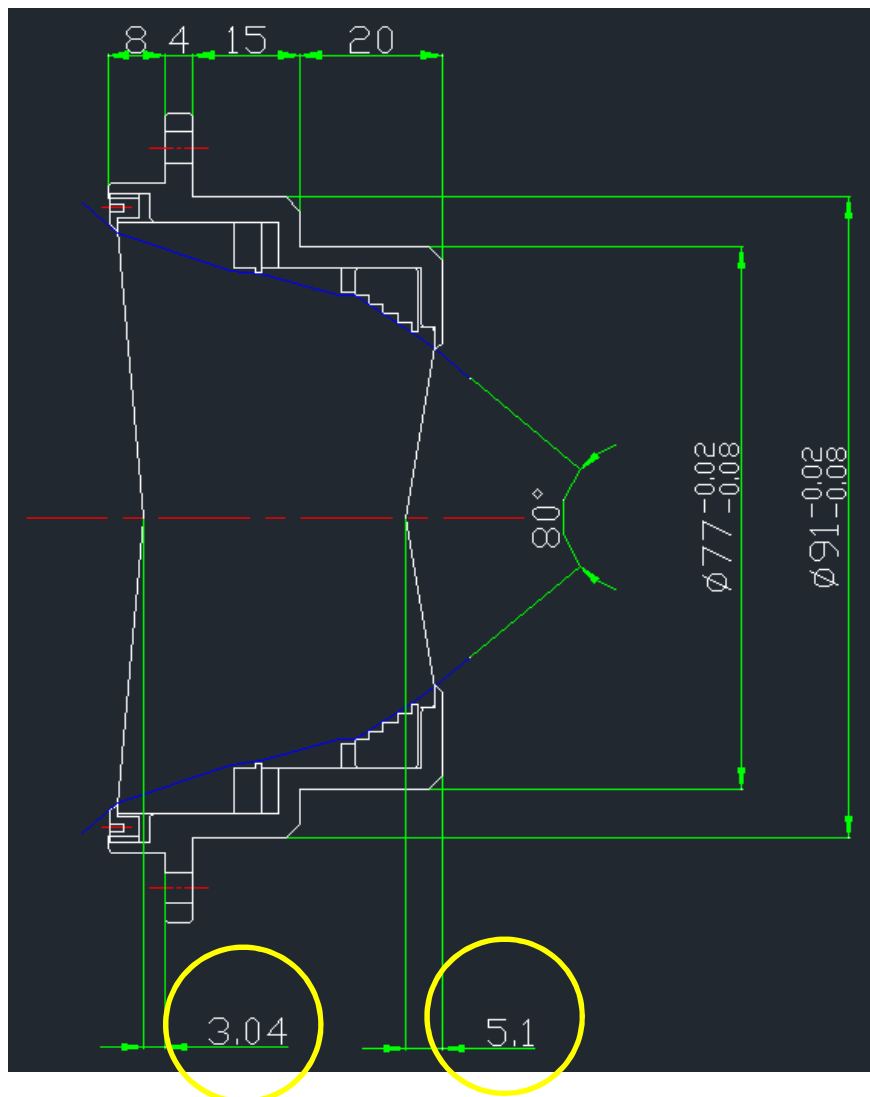
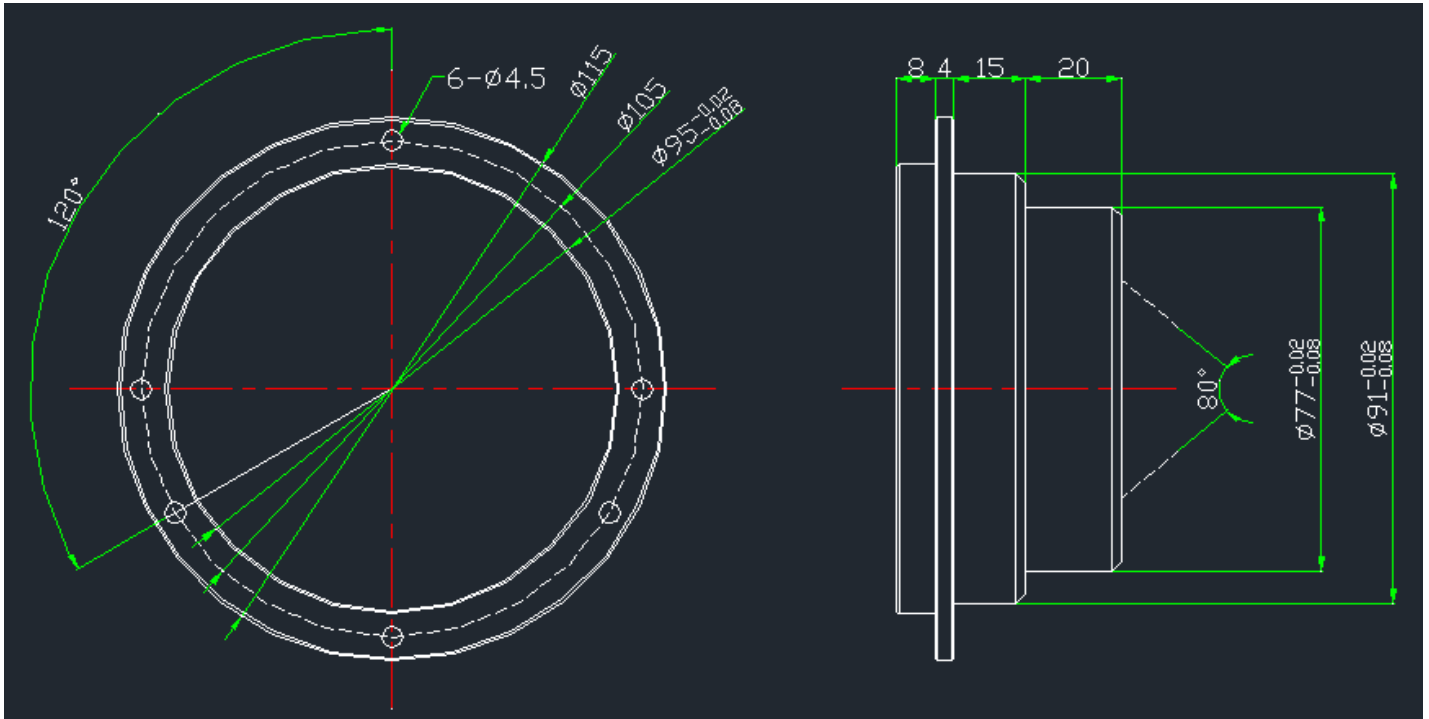
Working Distance : Distance from Vertex of CL Chart side to Chart

※ This Chart Size Table is based on and made by FOV of CCM Lens.

PCM Module	
FOV	80

Object Distance (Object ~ PCM)	Sub Lens (Recom)	Working Distance (Chart~C/L Vertex, Real)	Chart Size (Φ, mm)
1.00E+100		165.0	332.1
10000		161.1	326.0
5000		157.4	320.1
4500		156.5	318.8
4000		155.5	317.2
3500		154.3	315.2
3000		152.6	312.6
2500		150.2	308.9
2000		146.9	303.6
1900		146.0	302.2
1800		145.0	300.7
1700		144.0	299.0
1600		142.8	297.2
1500		141.5	295.1
1400		140.0	292.7
1300		138.3	290.1
1200		136.4	287.0
1100		134.1	283.5
1000		131.5	279.4
900		128.4	274.5
800		124.7	268.7
700		120.1	261.4
600		114.4	252.4
500		106.9	240.7
400		97.0	224.9

CL-830 Outer Mechanical Drawings



CL-830 Collimator Lens

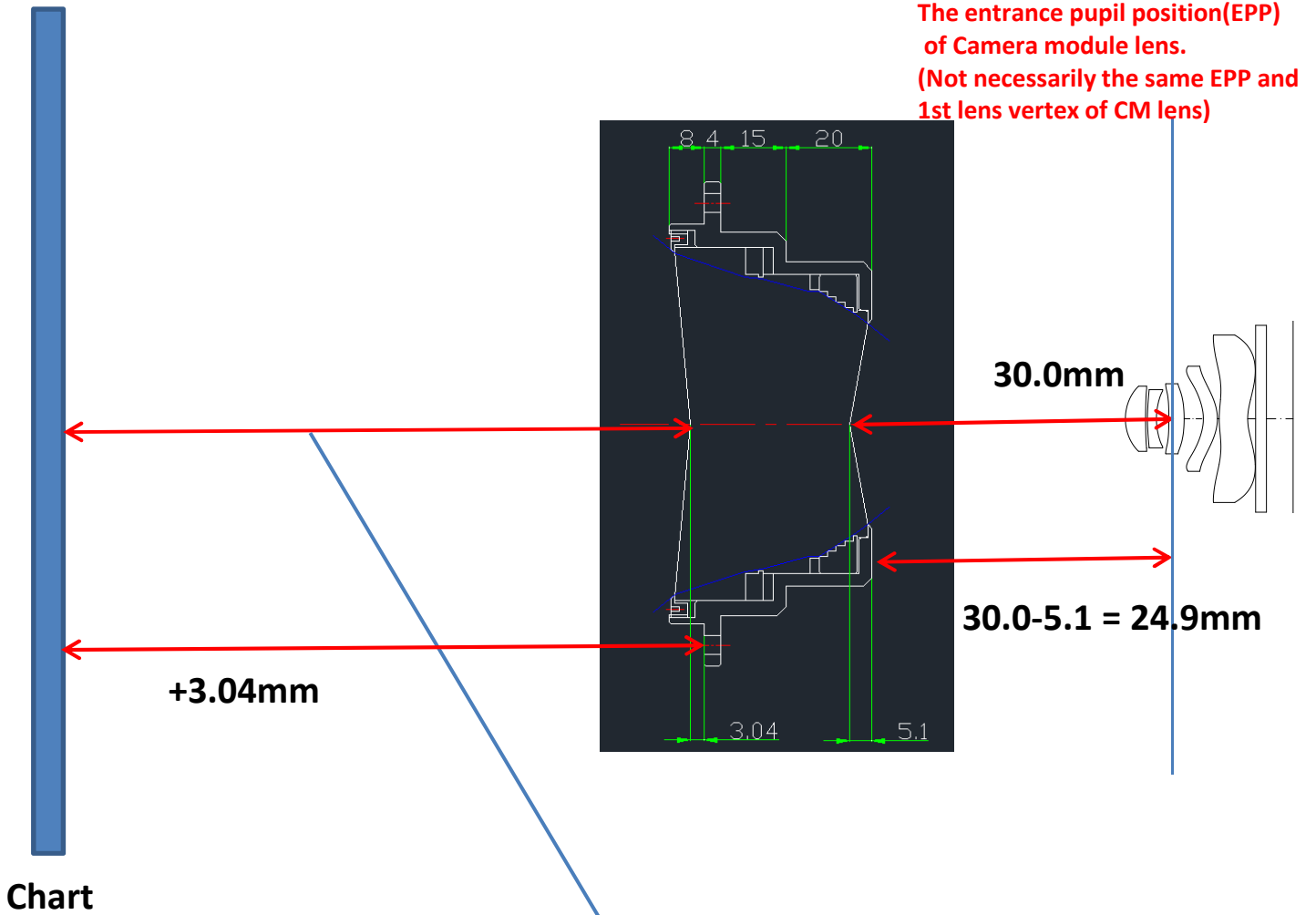


Chart Size at Full Angle 80° of CL-830

Object Distance : Subject Distance of Phone Camera

Working Distance : Distance from Vertex of CL Chart side to Chart

※ This Chart Size Table is based on and made by FOV of CCM Lens.

PCM Module	
FOV	80

Object Distance (Object ~ PCM)	Sub Lens (Recom)	Working Distance (Chart ~ C/L Vertex - Rear)	Chart Size (Φ, mm)
1.00E+100		165.0	332.1
10000		161.1	326.0
5000		157.4	320.1
4500		156.5	318.8
4000		155.5	317.2
3500		154.5	315.5

Lens Pictures

