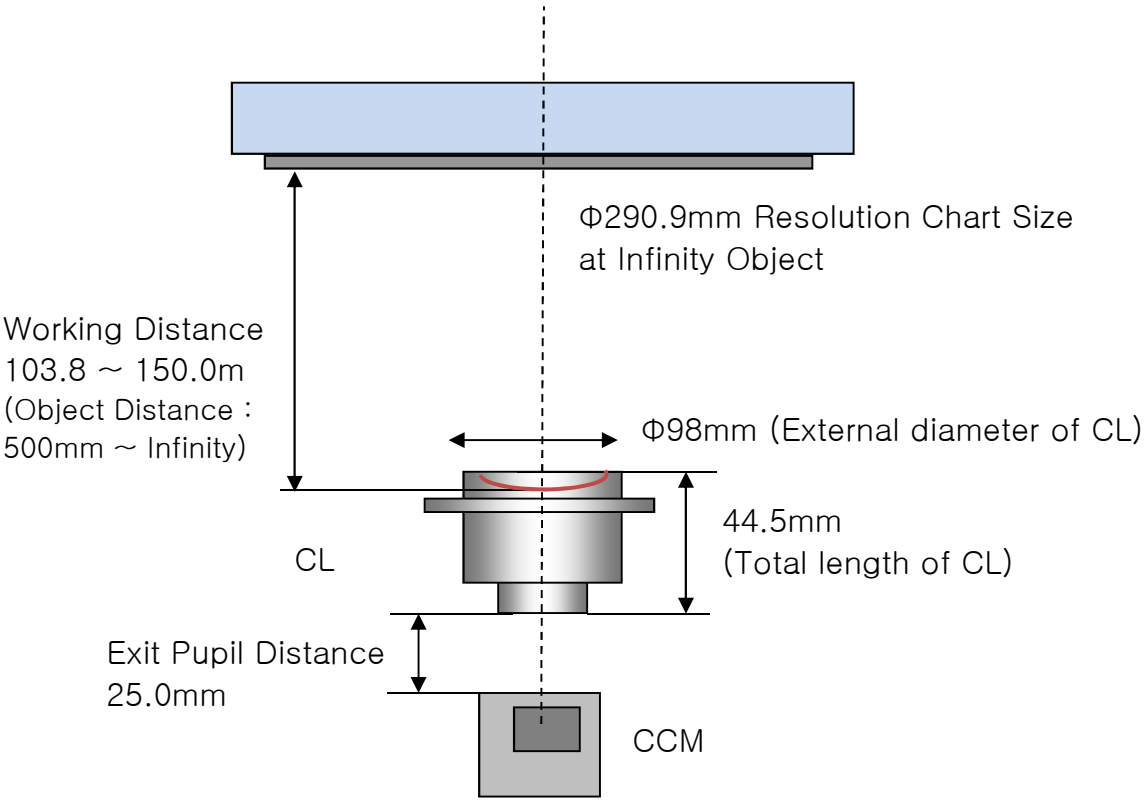
CL-825 (F175-80) Collimator Lens Specification

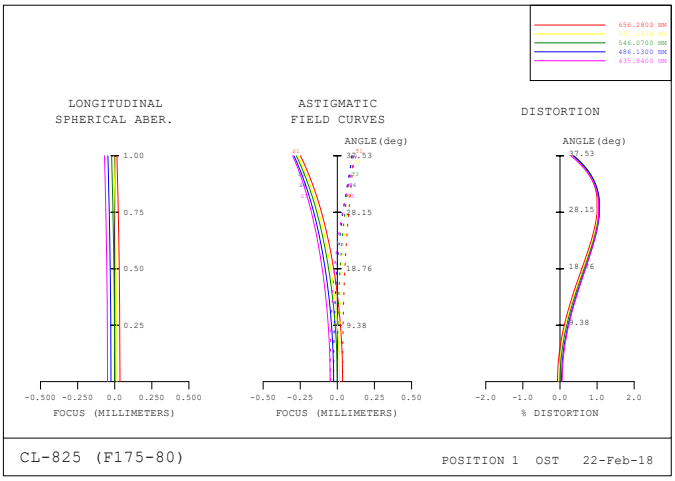
2018-02-22
OneStone

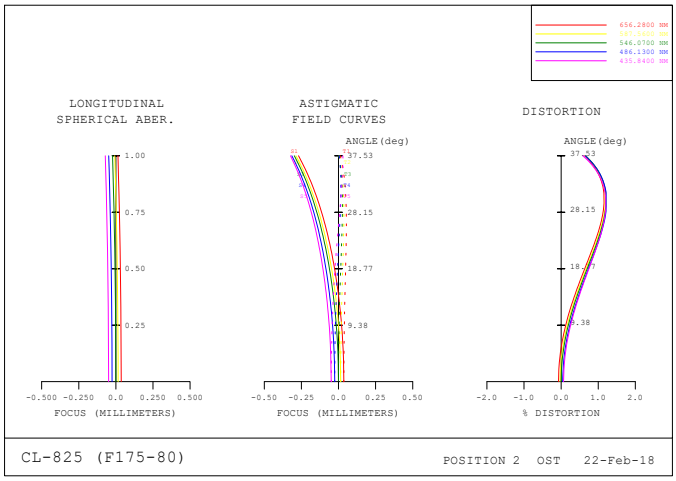
Model name	CL-825 (Designed by OneStone)
Characteristic of CL-830	Available with Small System
Construction of CL (Default)	Main Lens Only
(Option)	
EFL	174.0mm
Inspectable FOV of CCM	80°
Ass'y Size	Φ98.0 mm X L44.5 mm, 0.50kg
Exit Pupil Size	Φ4.0mm
Exit Pupil Position	25.0mm (from Vertex of CL CCM side to CCM)
Working Distace (from CL 1st Lens R1 surface to Chart)	150.0mm at Object Distance Infinity Chart Size : Φ290.9mm

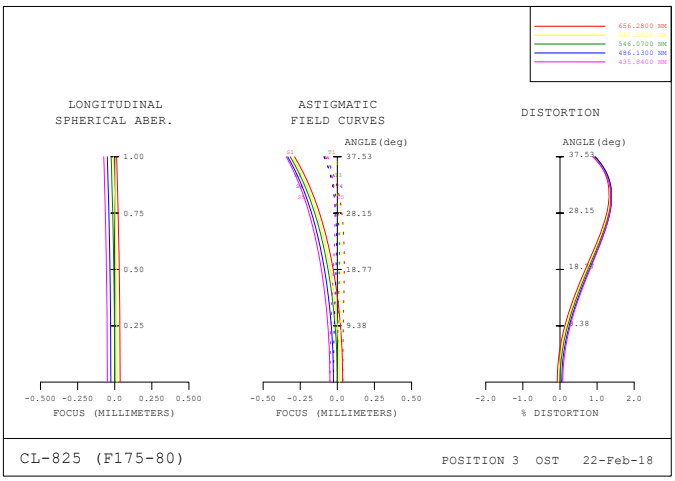


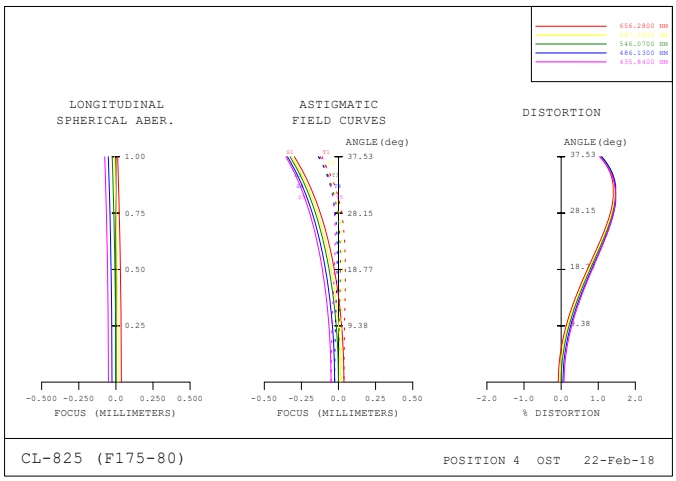
Optical Performance of CL-825 Lens (Infinity, 2m, 1m, 0.8m, 0.5m at 80°)

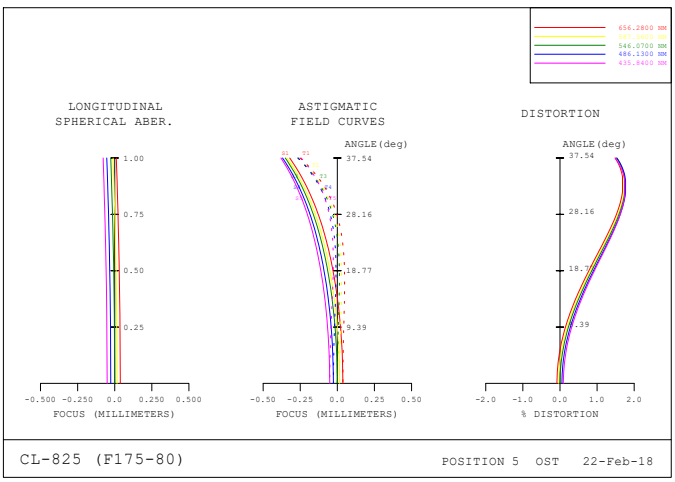
Aberration Scale : ±0.5 ±0.5 ±2.0%







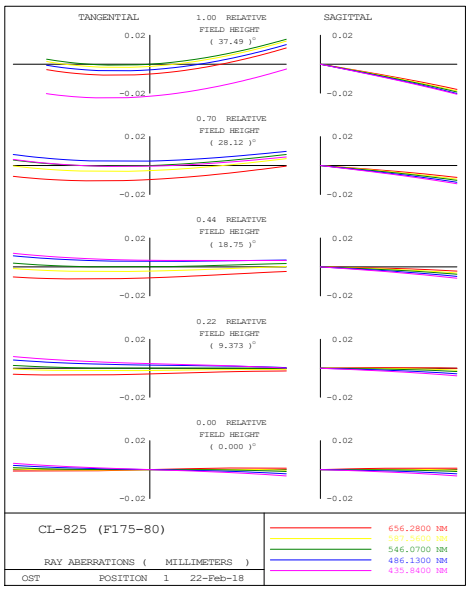


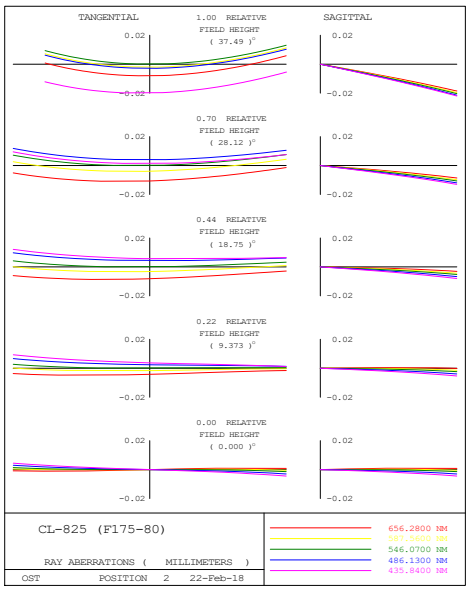


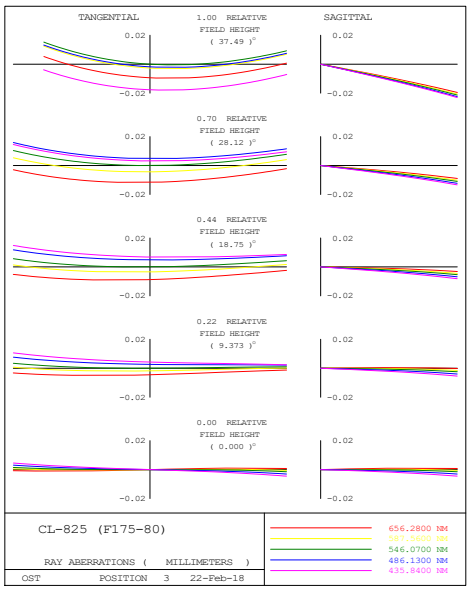
Astigmatism : less than 0.182D
Field Curvature : less than 0.309D
Distortion : less than 1.752%

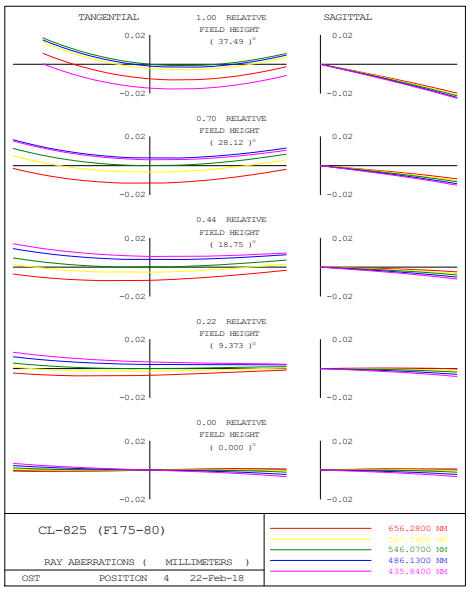
Optical Performance of CL-825 Lens (Infinity, 2m, 1m, 0.8m, 0.5m at 80°)

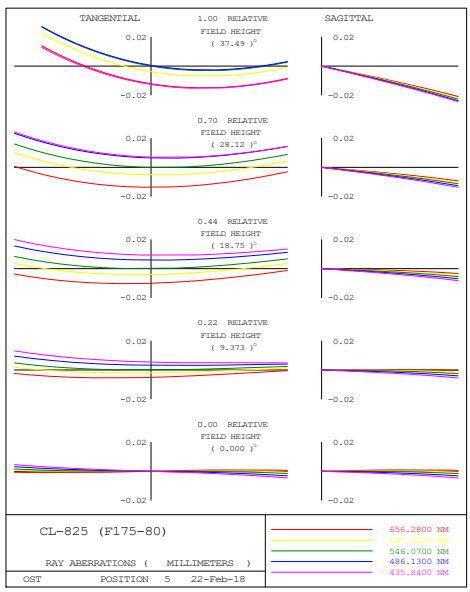
Aberration Scale : ±0.02











Longitudinal Chromatic Aberration : less than 0.089D

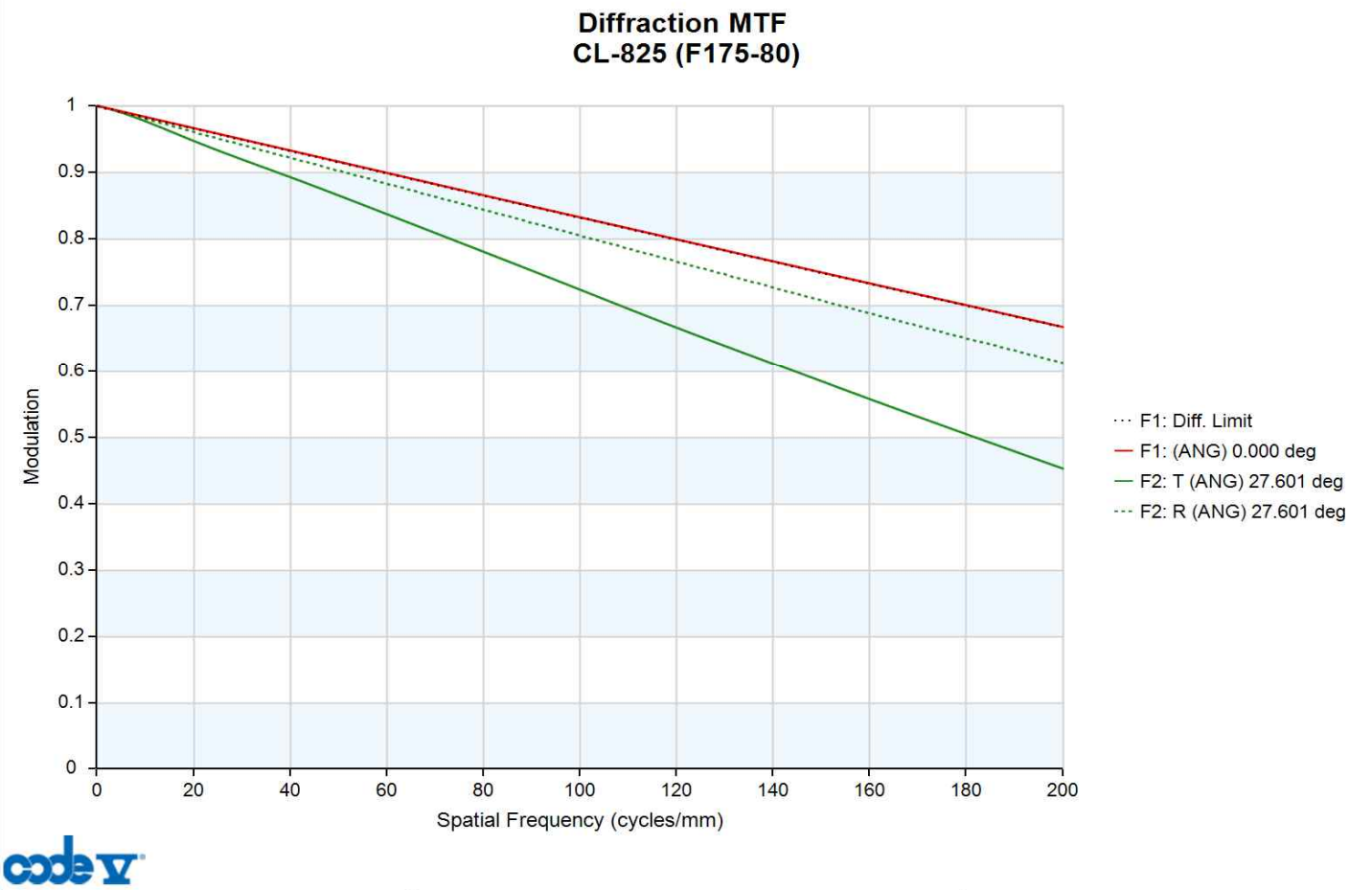
Lateral Chromatic Aberration : less than 0.022D

MTF Analysis for FOV 77.6° Lens of S-Company

efl = 2.80mm Fno = 2.45

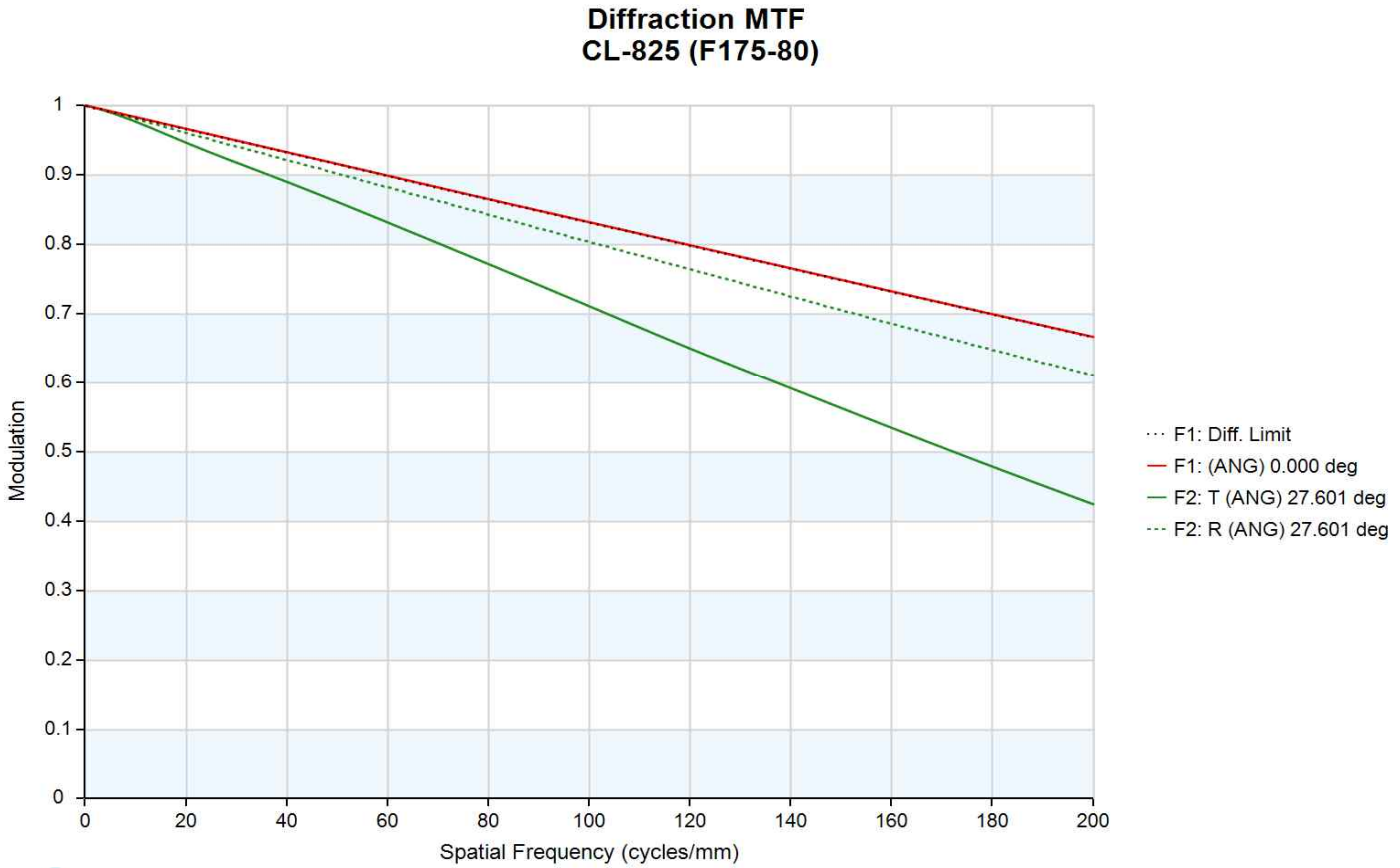
EPD = 1.14mm (= efl/Fno)

Object Distance : Infinty (Center, 0.7F)



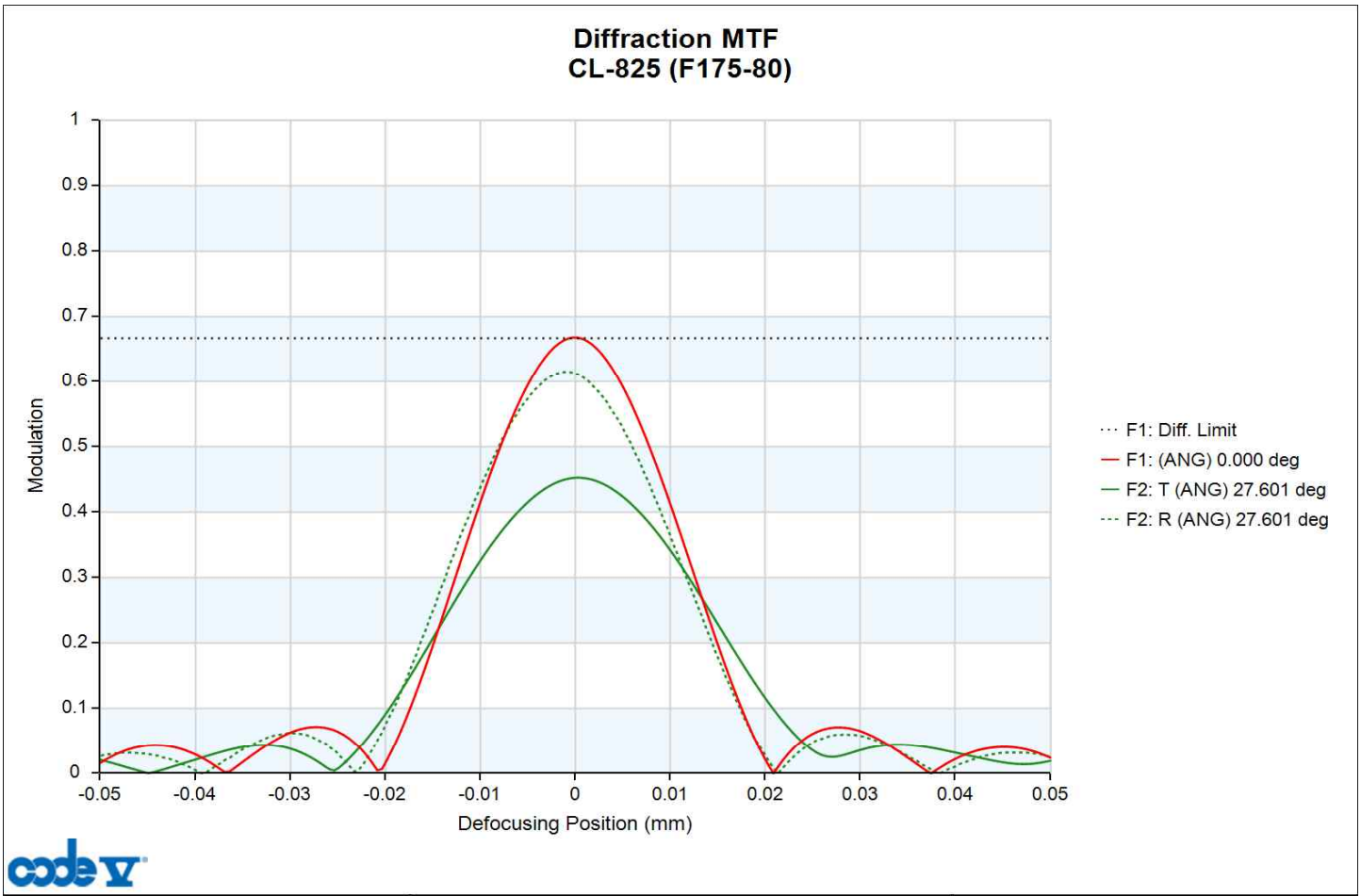
~CVUSER\CL825\F175_80V1	Position:	1	Wavelength (nm)	Weight
22- Feb -18	Defocusing:	0.000 mm	656.2800	8
OST			587.5600	16
			546.0700	20
			486.1300	18
			435.8400	10

Object Distance : 1.0m (Center, 0.7F)



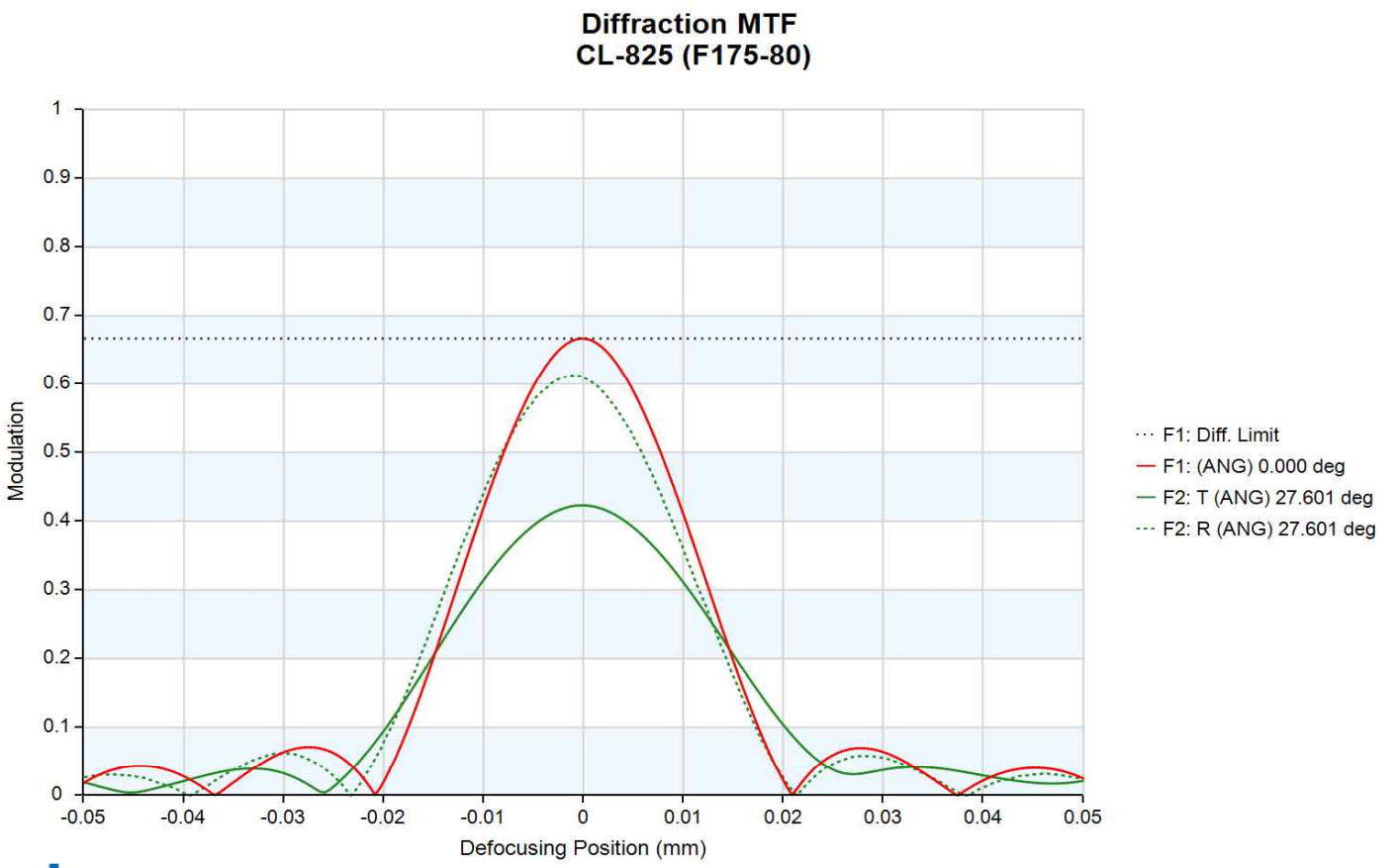
~CVUSER\CL825\F175_80V1	Position:	3	Wavelength (nm)	Weight
22- Feb -18	Defocusing:	0.000 mm	656.2800	8
OST			587.5600	16
			546.0700	20
			486.1300	18
			435.8400	10

Object Distance : Infinity (Center, 0.7F)



~CVUSER\CL825\F175_80V1	Position:	1	Wavelength (nm)	Weight
22- Feb -18	Frequency:	200.0 cycles/mm	656.2800	8
OST			587.5600	16
			546.0700	20
			486.1300	18
			435.8400	10

Object Distance : 1.0m (Center, 0.7F)



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OST			587.5600	16
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			486.1300	18
			435.8400	10

Chart Size at Full Angle 80° of CL-825

Object Distance : Subject Distance of Phone Camera

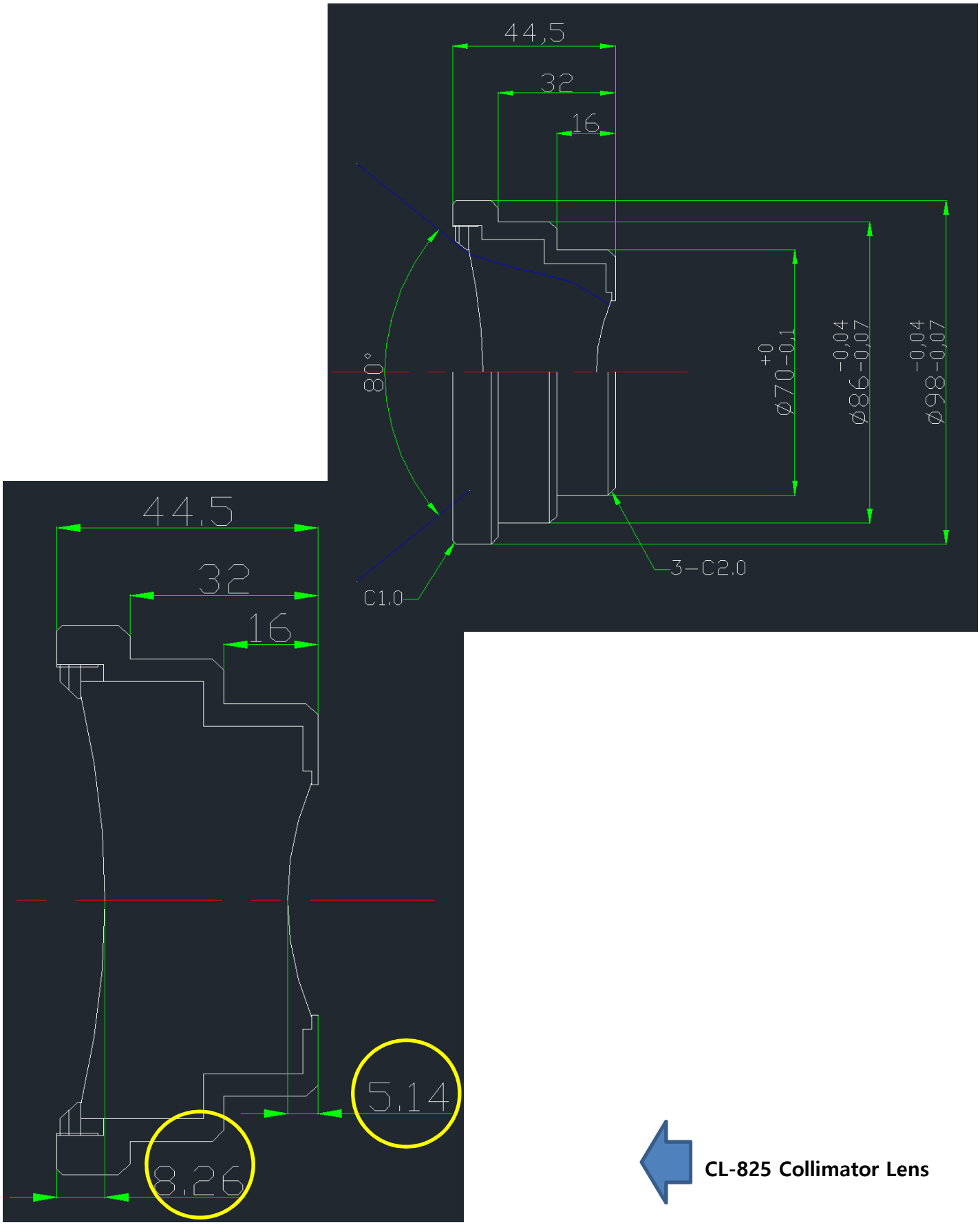
Working Distance : Distance from Vertex of CL Chart side to Chart

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

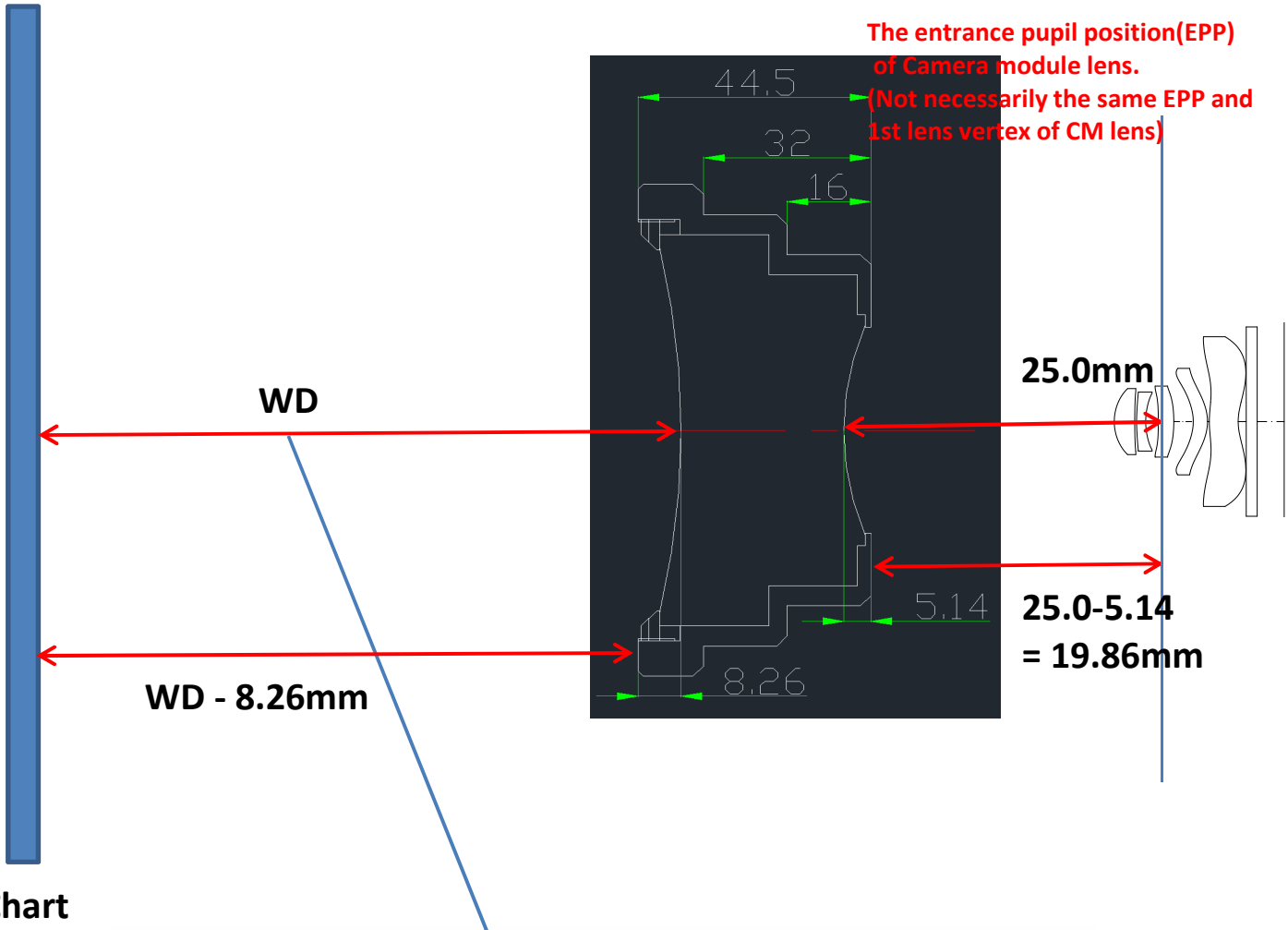
PCM Module	
FOV	80

Object Distance (Object ~ PCM)	Sub Lens (Recom)	Working Distance (Chart~C/L Vertex, Real)	Chart Size (Φ, mm)
1.00E+100		150.0	**290.9**
10000		147.1	**286.3**
5000		144.2	**281.8**
4500		143.5	**280.9**
4000		142.8	**279.7**
3500		141.8	**278.1**
3000		140.4	**276.1**
2500		138.6	**273.4**
2000		136.0	**269.3**
1900		135.3	**268.2**
1800		134.6	**267.1**
1700		133.7	**265.8**
1600		132.8	**264.4**
1500		131.7	**262.8**
1400		130.6	**261.0**
1300		129.2	**258.9**
1200		127.7	**256.6**
1100		125.9	**253.8**
1000		123.8	**250.6**
900		121.3	**246.8**
800		118.3	**242.2**
700		114.6	**236.5**
600		109.9	**229.3**
550		107.1	**224.9**
500		103.8	**219.9**

CL-825 Outer Mechanical Drawings



CL-825 Collimator Lens



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4000		142.8	**279.7**
3500		141.8	**278.1**

Lens Pictures