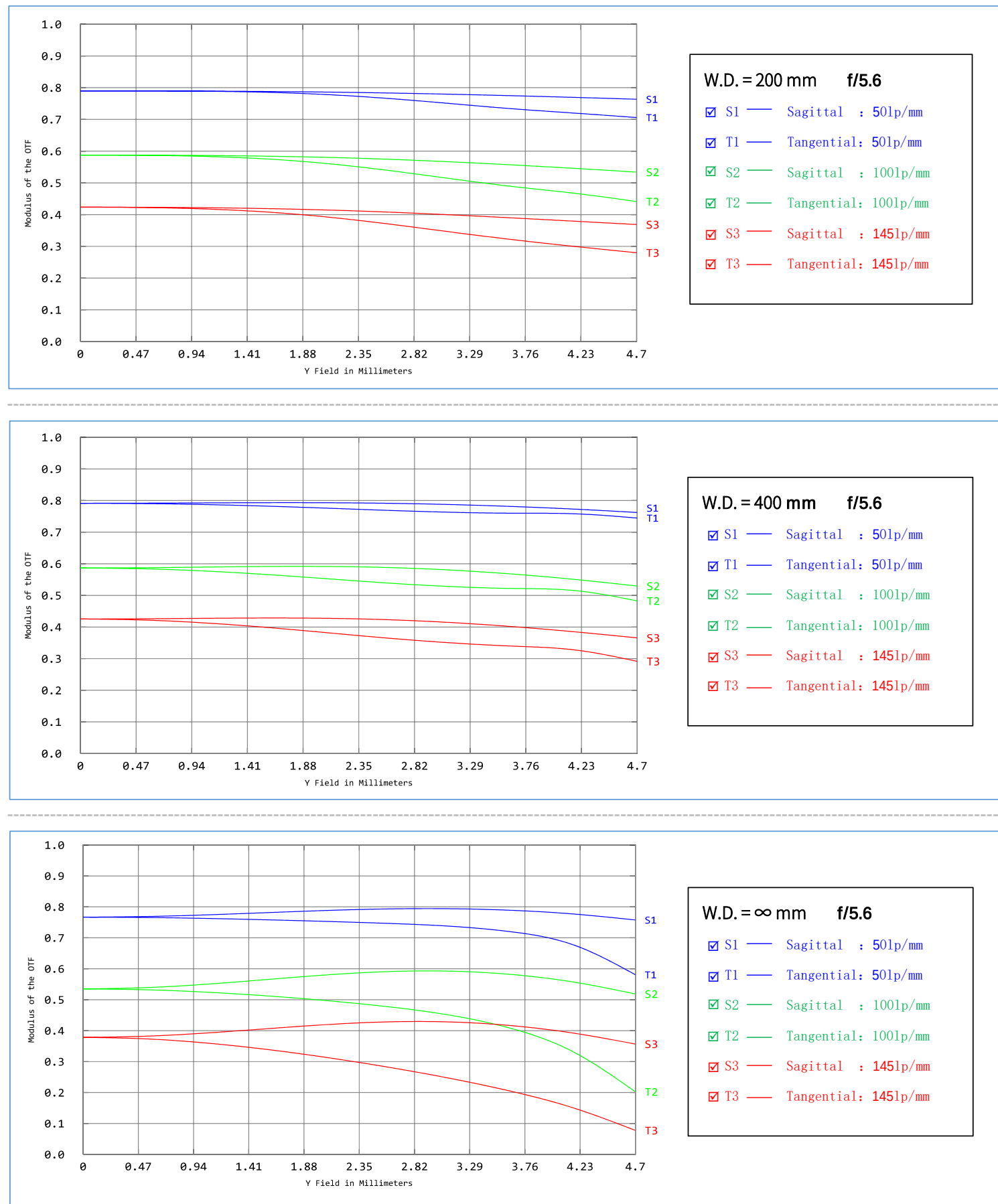


M12 Series Focal Length Lenses

#OPT-S1656 E.F.L.= 16 mm F5.6

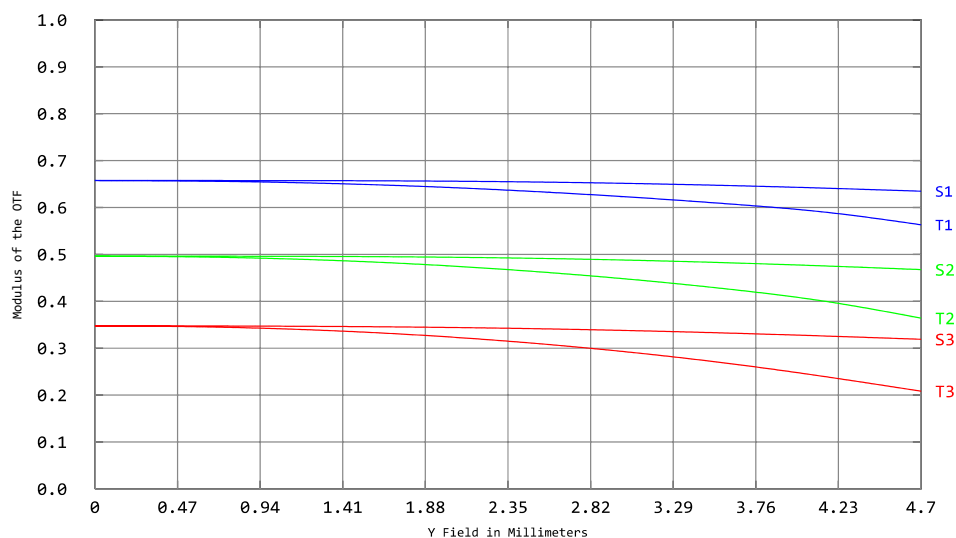
● Modulation Transfer Function(MTF)



M12 Series Focal Length Lenses

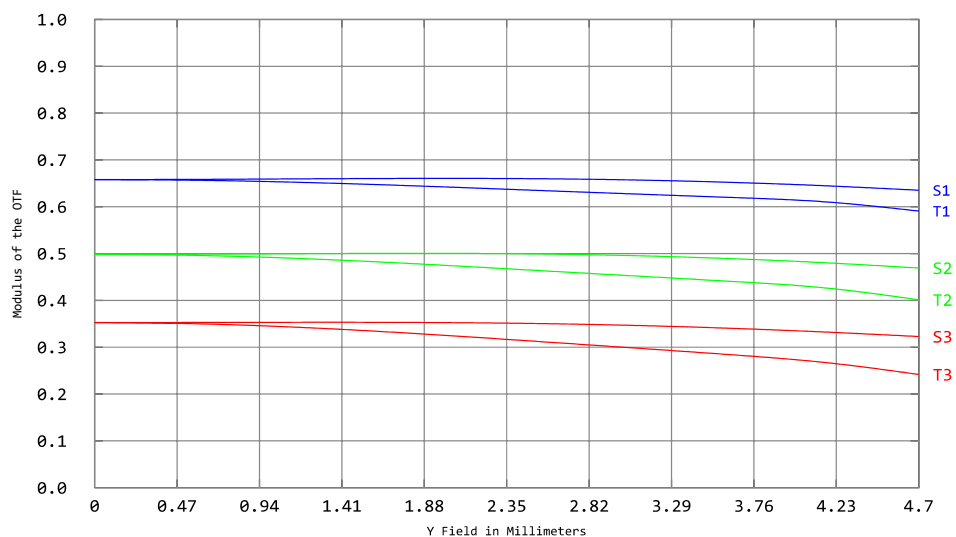
#OPT-S1656 E.F.L.= 16 mm F5.6

● Modulation Transfer Function(MTF)



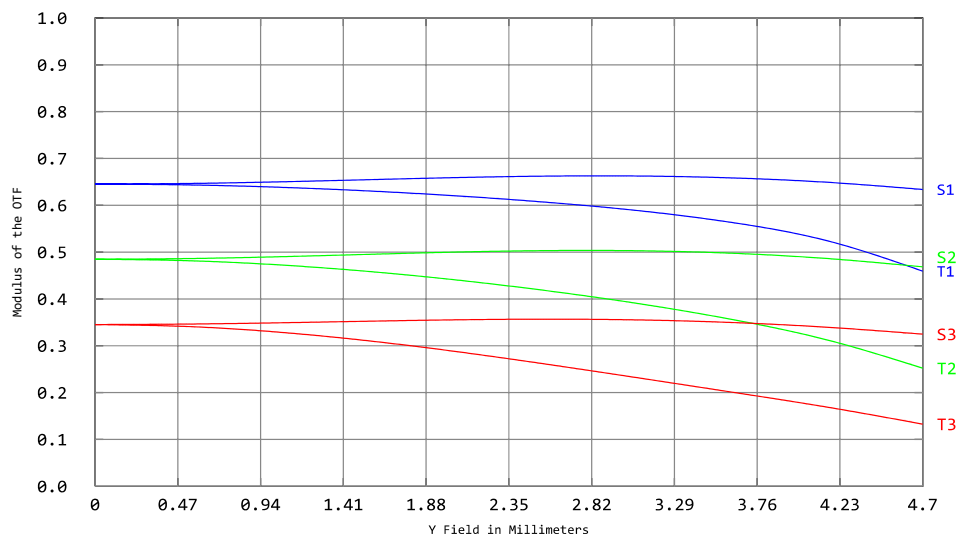
W.D. = 200 mm f/8.0

- ☒ S1 — Sagittal : 60lp/mm
- ☒ T1 — Tangential: 60lp/mm
- ☒ S2 — Sagittal : 90lp/mm
- ☒ T2 — Tangential: 90lp/mm
- ☒ S3 — Sagittal : 120lp/mm
- ☒ T3 — Tangential: 120lp/mm



W.D. = 400 mm f/8.0

- ☒ S1 — Sagittal : 60lp/mm
- ☒ T1 — Tangential: 60lp/mm
- ☒ S2 — Sagittal : 90lp/mm
- ☒ T2 — Tangential: 90lp/mm
- ☒ S3 — Sagittal : 120lp/mm
- ☒ T3 — Tangential: 120lp/mm



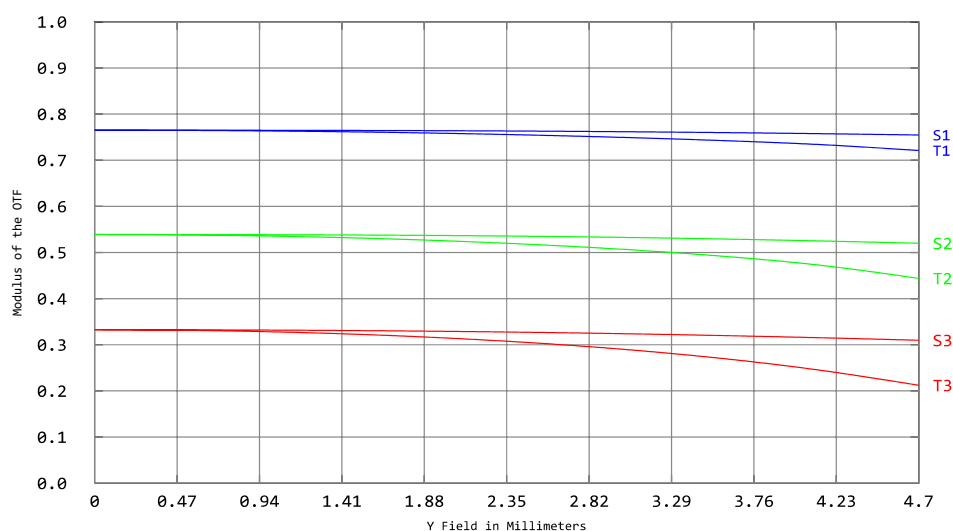
W.D. = ∞ mm f/8.0

- ☒ S1 — Sagittal : 60lp/mm
- ☒ T1 — Tangential: 60lp/mm
- ☒ S2 — Sagittal : 90lp/mm
- ☒ T2 — Tangential: 90lp/mm
- ☒ S3 — Sagittal : 120lp/mm
- ☒ T3 — Tangential: 120lp/mm

M12 Series Focal Length Lenses

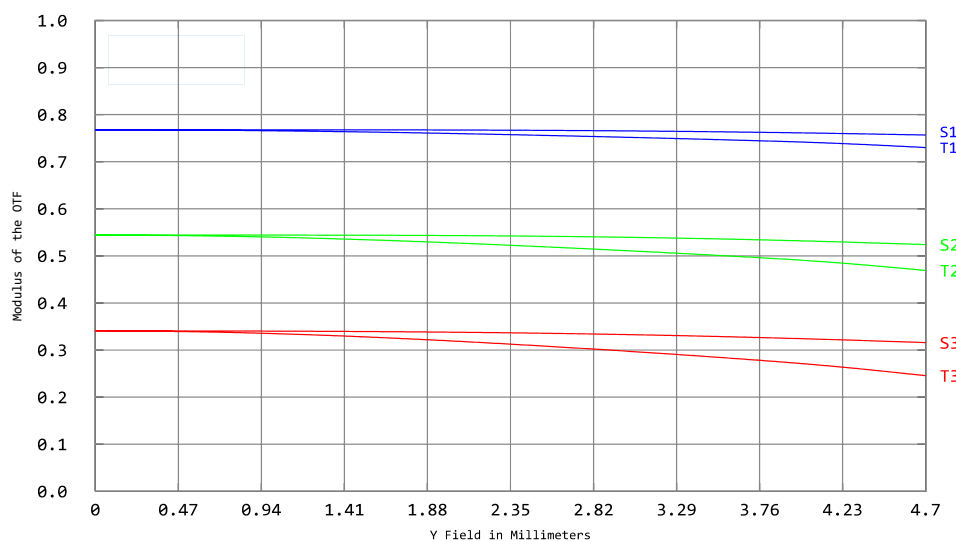
#OPT-S1656 E.F.L.= 16 mm F5.6

● Modulation Transfer Function(MTF)



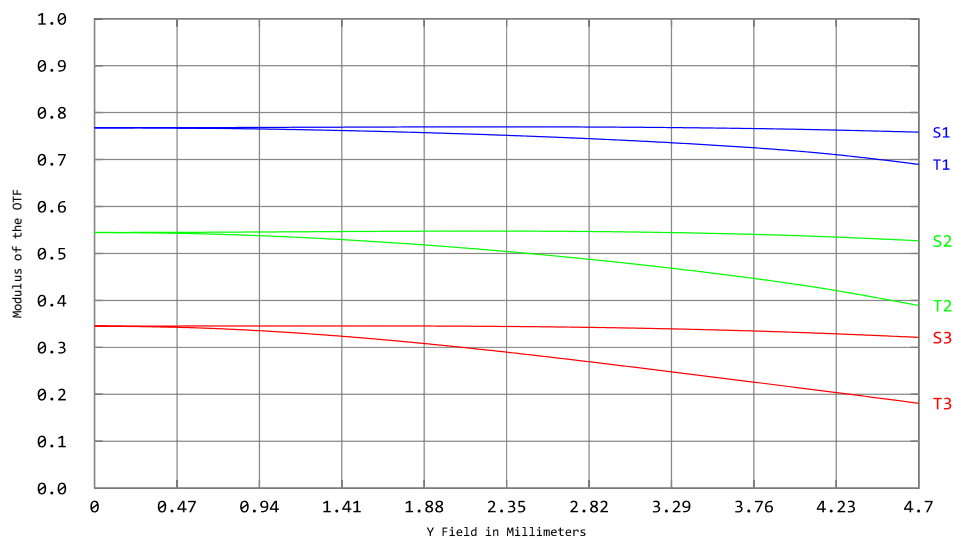
W.D. = 200 mm f/11

- ☒ S1 — Sagittal : 30lp/mm
- ☒ T1 — Tangential: 30lp/mm
- ☒ S2 — Sagittal : 60lp/mm
- ☒ T2 — Tangential: 60lp/mm
- ☒ S3 — Sagittal : 90lp/mm
- ☒ T3 — Tangential: 90lp/mm



W.D. = 400 mm f/11

- ☒ S1 — Sagittal : 30lp/mm
- ☒ T1 — Tangential: 30lp/mm
- ☒ S2 — Sagittal : 60lp/mm
- ☒ T2 — Tangential: 60lp/mm
- ☒ S3 — Sagittal : 90lp/mm
- ☒ T3 — Tangential: 90lp/mm



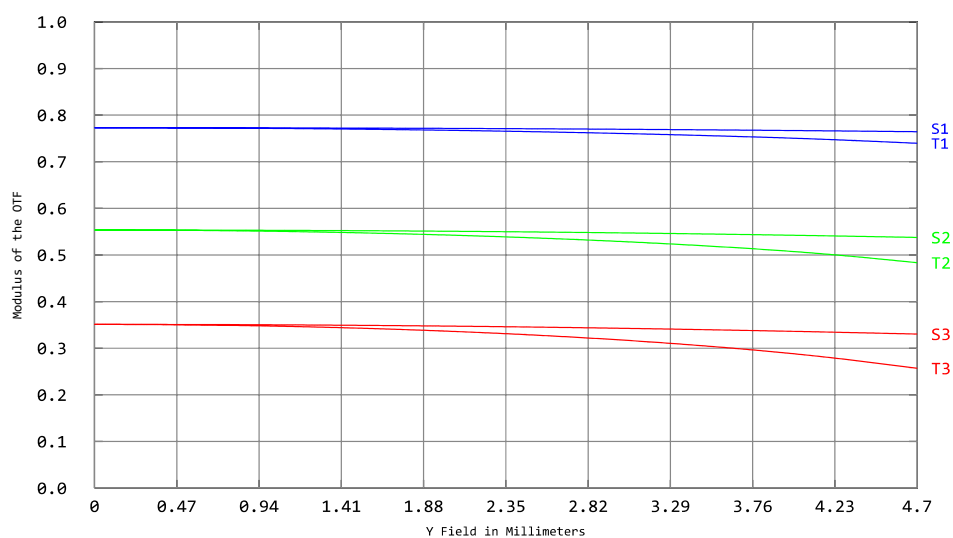
W.D. = ∞ mm f/11

- ☒ S1 — Sagittal : 30lp/mm
- ☒ T1 — Tangential: 30lp/mm
- ☒ S2 — Sagittal : 60lp/mm
- ☒ T2 — Tangential: 60lp/mm
- ☒ S3 — Sagittal : 90lp/mm
- ☒ T3 — Tangential: 90lp/mm

M12 Series Focal Length Lenses

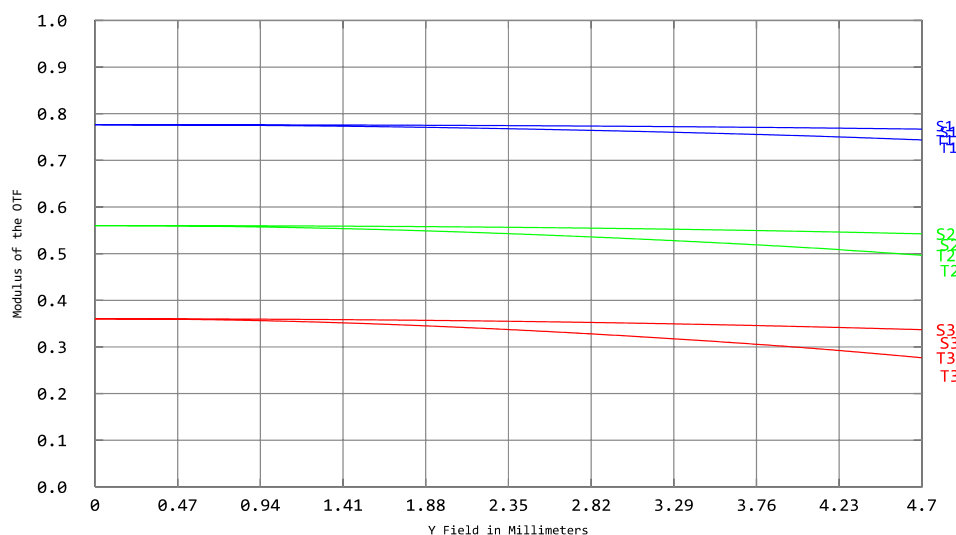
#OPT-S1656 E.F.L.= 16 mm F5.6

● Modulation Transfer Function(MTF)



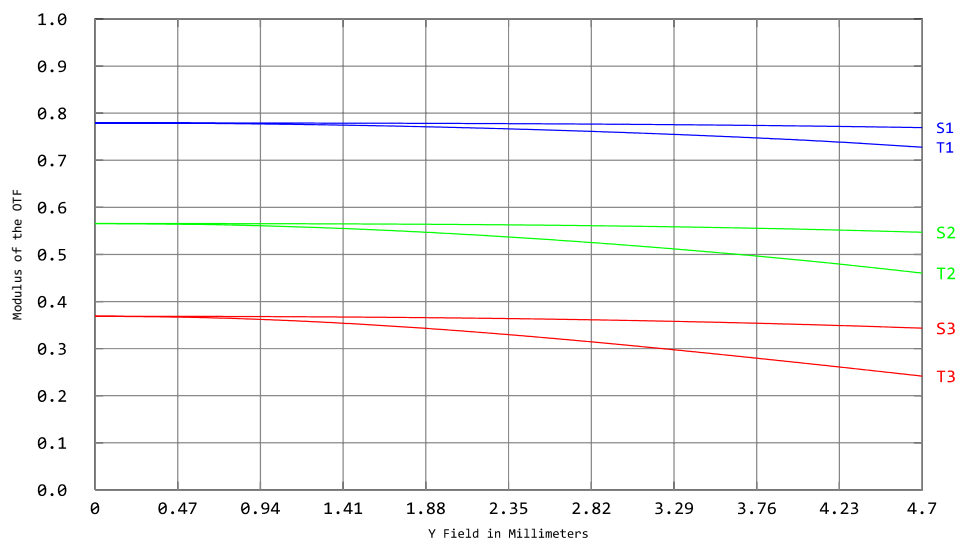
W.D. = 200 mm f/16

- ☒ S1 — Sagittal : 20lp/mm
- ☒ T1 — Tangential: 20lp/mm
- ☒ S2 — Sagittal : 40lp/mm
- ☒ T2 — Tangential: 40lp/mm
- ☒ S3 — Sagittal : 60lp/mm
- ☒ T3 — Tangential: 60lp/mm



W.D. = 400 mm f/16

- ☒ S1 — Sagittal : 20lp/mm
- ☒ T1 — Tangential: 20lp/mm
- ☒ S2 — Sagittal : 40lp/mm
- ☒ T2 — Tangential: 40lp/mm
- ☒ S3 — Sagittal : 60lp/mm
- ☒ T3 — Tangential: 60lp/mm



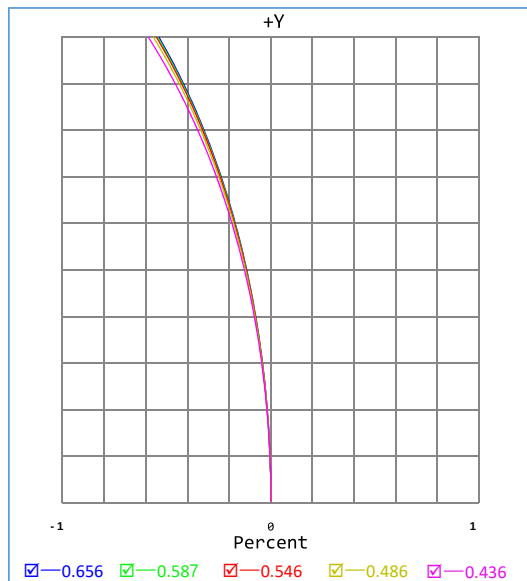
W.D. = ∞ mm f/16

- ☒ S1 — Sagittal : 20lp/mm
- ☒ T1 — Tangential: 20lp/mm
- ☒ S2 — Sagittal : 40lp/mm
- ☒ T2 — Tangential: 40lp/mm
- ☒ S3 — Sagittal : 60lp/mm
- ☒ T3 — Tangential: 60lp/mm

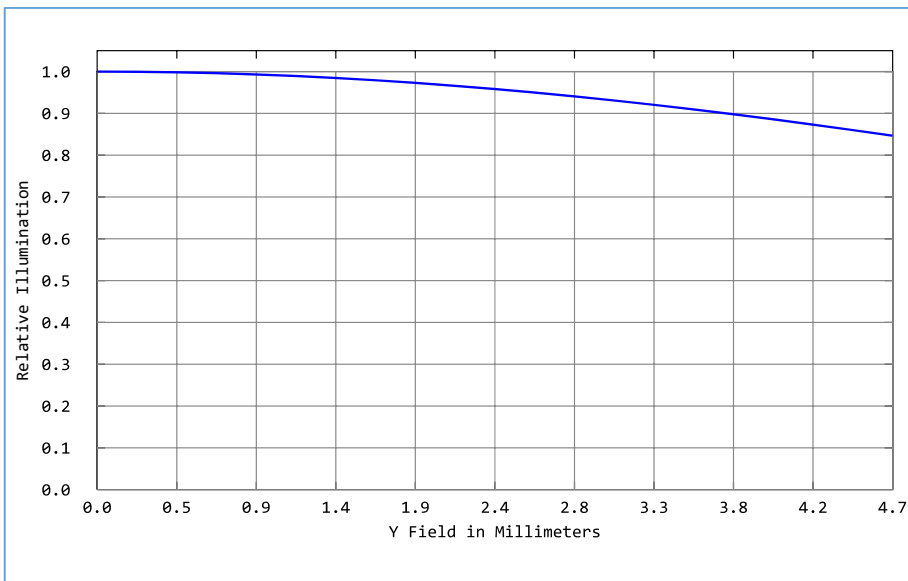
M12 Series Focal Length Lenses

#OPT-S1656 E.F.L.= 16 mm F5.6

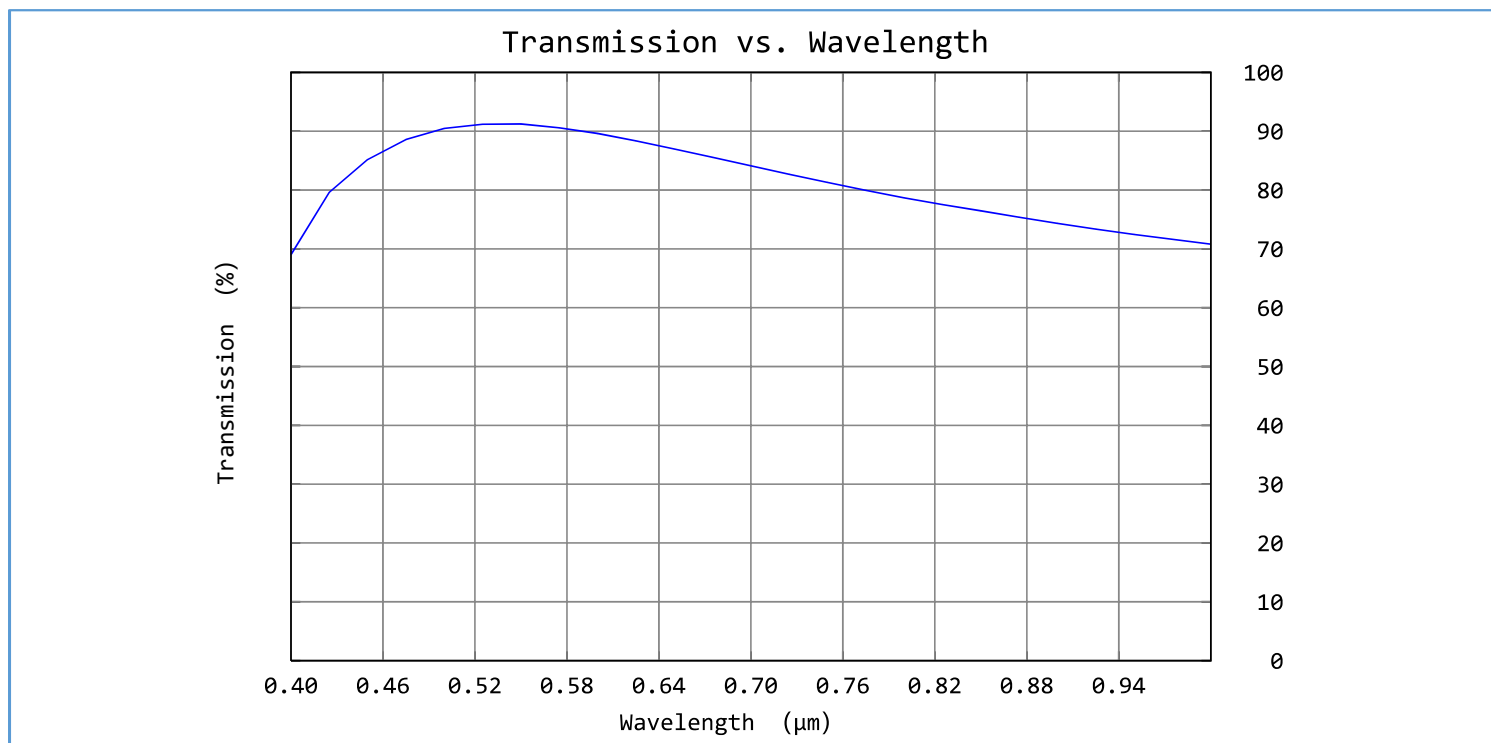
● Distortion(W.D.= 400 mm f/5.6)



● Vignetting(W.D.= 400 mm f/5.6)



● Spectral Transmittance



· Entrance Pupil Position (入瞳位置) : -14.23 mm

· Exit Pupil Position (出瞳位置) : -36.71 mm

· 1st Principal Point (第一主点) : -5.30 mm

· 2nd Principal Point (第二主点) : -15.93 mm

(*:Measured with respect to Image Plane, W.D.= ∞)