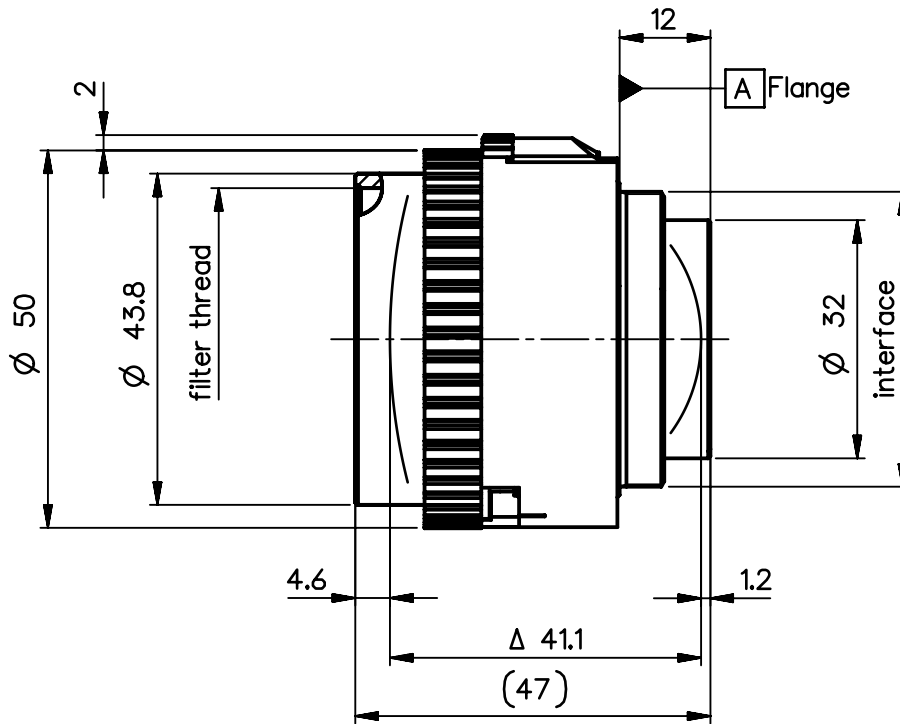
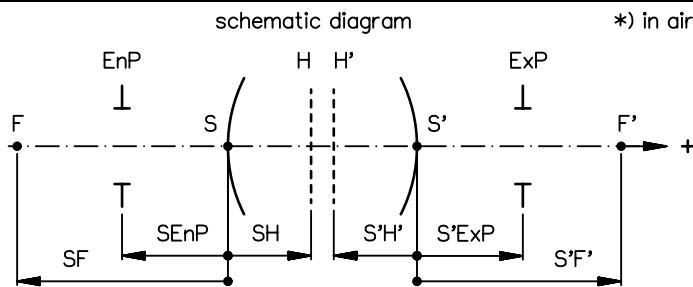


order number	lens name
0703-092-000-40	Apo-Rodagon-N 4/80



Specification		ON	7512-9202
image circle max. (mm)	86	working distance (mm)	218 - 1298
focal length f' (mm) *	83.5	interface	M39 x1/26" (Leica)
magnification β' [range]	-0.1 [-0.5 ... -0.067]	filter thread	M40.5 x0.5
spectral range λ (nm)	400 - 750	weight (g)	130

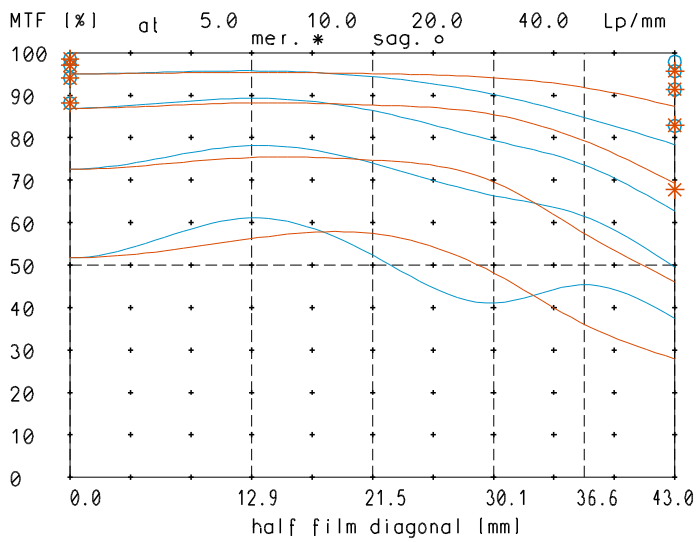


design includes CCD cover glass:		no	
SF (mm)	-56.2	f-stop	
S'F' (mm) *	67.2	\varnothing EnP	\varnothing Exp
HH' (mm) *	-2.5	5.6	14.9
SH (mm)	27.3	8	10.4
S'H' (mm) *	-16.3	11	7.6
S'EnP (mm)	26.6	16	5.5
S'Exp (mm) *	-17.0	22	3.8

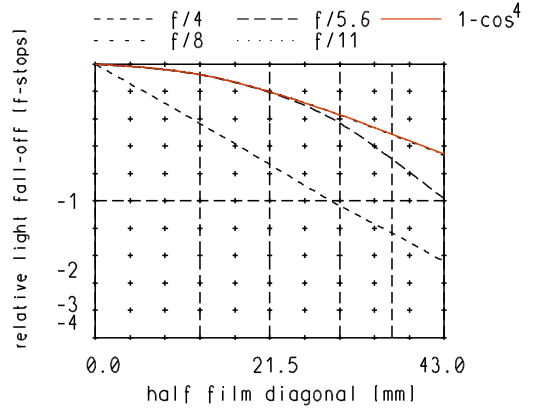
NX	EU-D		AL-T1A		US-D		US-ML		not export controlled	
							PDM Status Freigabe		-	
	REV	ECC	DATE	APPROVED	GENERAL TOLERANCE OF DIMENSION, FORM, POS.		SURF. TREATMT		SCALE 1:1	
	a	Neuausg							MATERIAL	
	b	11-358	13.07.11	Kuehne						
c	12-0185	27.03.12	Schuber							
d	12-0185	25.04.12	Schuber	BASIC TOLERANCING PRINCIPLE		TITLE		Apo-Rodagon-N 4/80		
e	14-0184	18.08.14	Schiffle			FIRST DATE NAME				
						ISSUE 21.10.08 Kuehne				
						CHKD 03.12.08 Schaeffler				
DIN A 4	ALL DIMENSIONS ARE IN MM AND INCLUDE SURFACE TREATMENT							DRAWING NO. 0703-092-100-00-0001e		SHEET 1 OF 1
									REPLACES 0703-009-100-00	

Apo-Rodagon-N_80mm_f/4

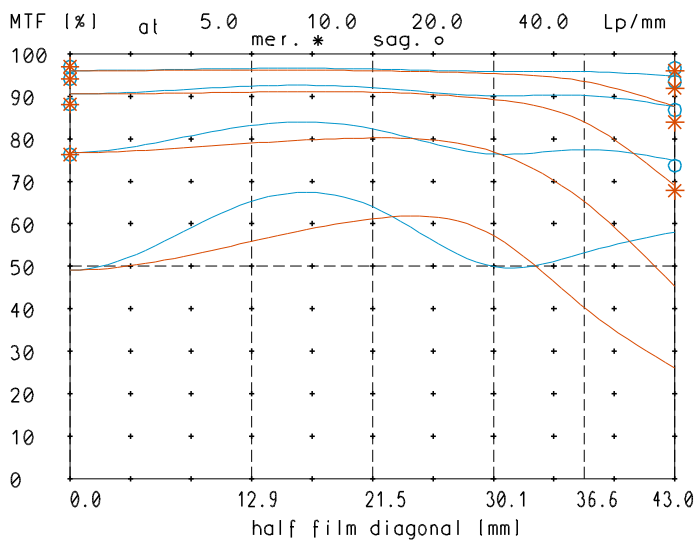
MTF at ratio 0.1x f/ 4.0



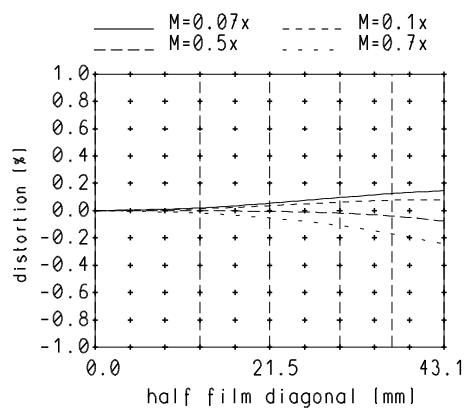
relative light fall-off at ratio 0.1x



MTF at ratio 0.1x f/ 8

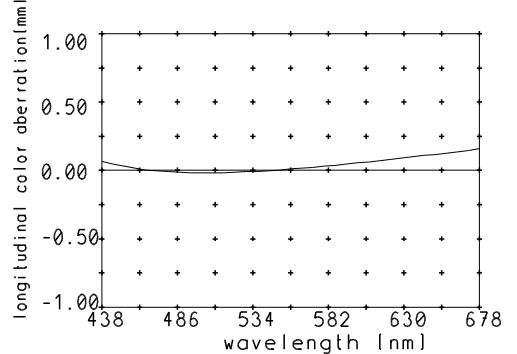


Distortion at ratio 0.07x to 0.7x



— sagittal, o Diffraction limited value
 — meridional* Diffraction limited value

Longitudinal color aberration at ratio 0.1x



Named frequencies (line pairs/mm) in modular transfer function (MTF) as well as diagrams of relative light fall-off, distortion and longitudinal color aberration refer to film plane.