

CAMERA CALIBRATION CERTIFICATE

CAMERA TYPE : RC20
LENS TYPE : 21 NAG IIA-F
LENS NO. : 717B

CALIBRATION DATE : 18.10.89

WILD LEITZ LTD

Wild Leitz Ltd
CH-9435 Heerbrugg
Calibration Department
Supervisor: 



CAMERA CALIBRATION

CAMERA: RC20 LENS: 21 NAG IIA-F NO.: 7176 CALIBRATION DATE: 19.10.89

APERTURE : F / 4.0
 FILTER ON GONIDMETER : 450 NM
 FILTER ON CAMERA : --
 PRINCIPAL DISTANCE FOR FOCUSSING DISTANCE 900 M : 214.74 MM

RADIAL DISTORTION (MICROMETERS)

 REFERRED TO PRINCIPAL POINT OF SYMMETRY (PPS)
 (POSITIVE VALUES DENOTE IMAGE DISPLACEMENT AWAY FROM CENTER)

RADIUS MM	SEMI - DIAGONALS				MEAN
	1	3	2	4	
10	1.4	0.2	1.0	0.6	0.8
20	1.9	1.1	1.9	1.9	1.7
30	2.6	2.6	2.9	3.0	2.7
40	3.4	4.2	3.0	4.4	3.7
50	3.5	4.4	3.1	4.9	3.9
60	2.4	4.1	2.8	4.4	3.4
70	0.8	2.5	0.4	2.8	1.6
80	-1.3	1.4	-1.3	1.5	0.0
90	-2.3	0.1	-2.8	0.1	-1.2
100	-3.8	-1.7	-3.4	-1.5	-2.6
110	-3.3	-2.9	-3.2	-2.3	-2.9
120	-2.4	-3.5	-2.9	-2.9	-2.9
130	-1.7	-2.8	-1.1	-2.3	-1.9
140	0.3	-0.6	0.7	-0.8	-0.1
148	3.0	1.1	3.9	0.9	2.2

PHOTOGRAPHIC RESOLUTION (LINE PAIRS PER MILLIMETER)

 INTERNATIONAL 3-LINE TEST-CHART, CONTRAST (LOG) : 2.0

APERTURE : 4.0
 FILTER : 450 NM
 FILM : AGFAPAN 25 PROFESSIONAL (ASA SPEED: 25)
 DEVELOPER : KODAK HC110 PREPARATION 2 SOLUTION C

ANGLE:	0	5	10	15	20	25	30	35
(DEGREES)								
RAD.	75	84	74	82	56	48	46	49
TANG.	75	75	65	63	53	55	50	45

AWAR (AREA WEIGHTED AVERAGE RESOLUTION) IN LP/MM : 57



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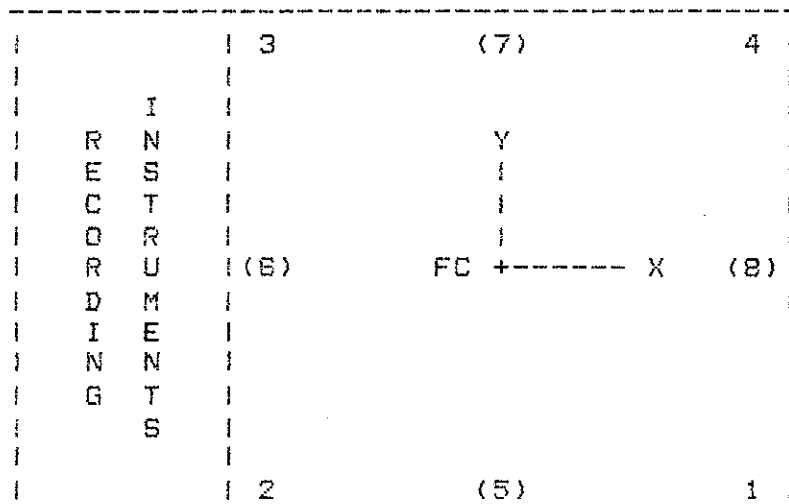
PRINCIPAL POINT OF AUTOCOLLIMATION (PPA) AND
PRINCIPAL POINT OF SYMMETRY (PPS)

REFERRED TO FC, SEE DIAGRAM

	X (MM)	Y (MM)
PPA	-0.010	-0.012
PS	-0.014	-0.025

FIDUCIAL MARKS, REFERRED TO FC

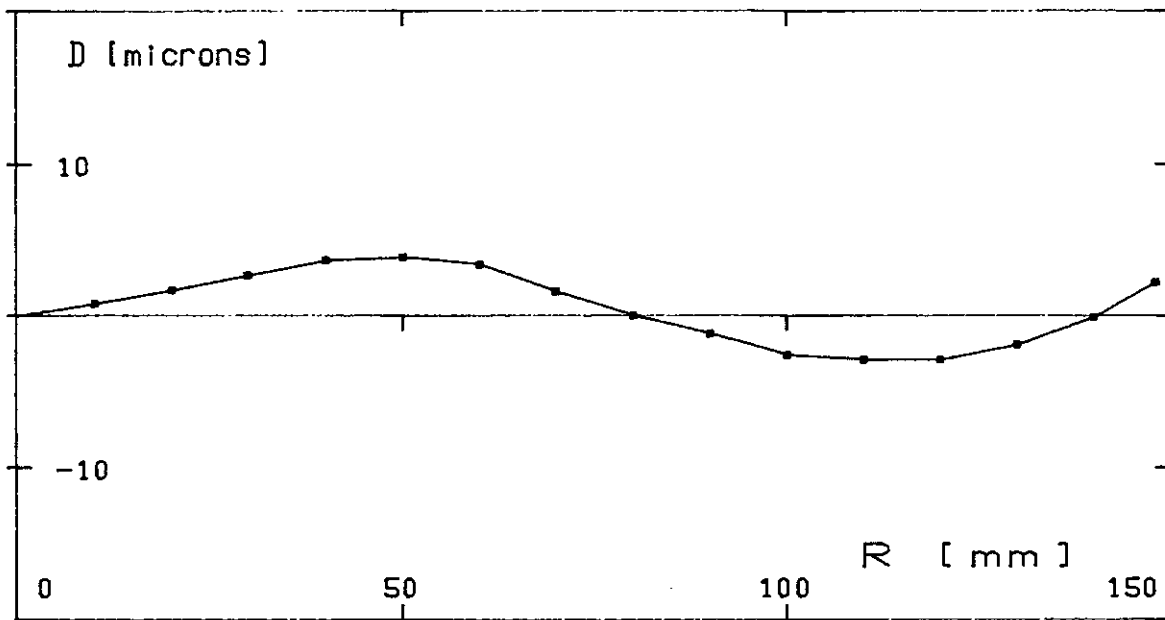
	X (MM)	Y (MM)		X (MM)	Y (MM)
1	105.999	-106.000	5	0.004	-109.978
2	-106.001	-106.001	6	-110.002	0.002
3	-106.001	106.001	7	0.001	110.008
4	106.002	106.002	8	110.004	0.000



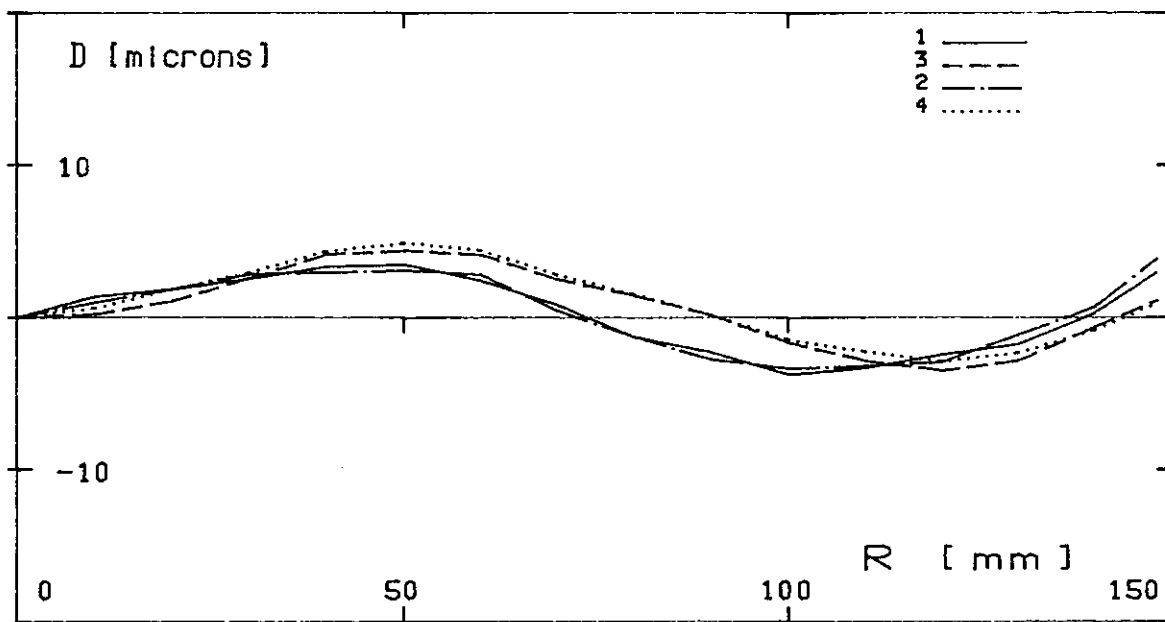
AS SEEN ON FOCAL PLANE FRAME



APERTURE : F / 4.0
 FILTER ON GONIOMETER : 450 NM
 FILTER ON CAMERA : --
 P.D. (900 m) : 214.74 MM



MEAN RADIAL DISTORTION CURVE



RADIAL DISTORTION FOR SEMI-DIAGONALS REFERRED TO PPS