

CAMERA CALIBRATION CERTIFICATE


CAMERA TYPE : RC20
LENS TYPE : 30/4 NATA-F
LENS NO. : 17024

CALIBRATION DATE : 21.07.89

WILD LEITZ LTD

Wild Leitz Ltd
CH-9435 Heerbrugg

Calibration Department
Supervisor:

 WILD LEITZ

WILD
310

CAMERA CALIBRATION

CAMERA: RC20 LENS: 30/4 NATA-F NO.: 17024 CALIBRATION DATE: 21.07.89

APERTURE : F / 4.0
 FILTER ON GONIOMETER : VIS (400 - 700 NM)
 FILTER ON CAMERA : --
 PRINCIPAL DISTANCE FOR FOCUSSING DISTANCE 850 M : 303.76 MM

RADIAL DISTORTION (MICROMETERS)

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

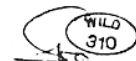
RADIUS MM	SEMI - DIAGONALS				MEAN
	1	3	2	4	
0	0.7	0.1	0.2	0.3	0.3
20	1.0	-0.8	0.8	0.8	0.4
30	0.3	0.1	0.7	0.3	0.3
40	0.7	-0.1	0.8	0.7	0.3
50	0.8	-0.4	1.2	0.2	0.4
60	0.5	-0.8	0.8	-1.8	-0.2
70	-0.3	-0.8	0.0	-1.0	-0.5
80	-1.1	-0.7	-1.5	-1.2	-1.1
90	-0.7	-1.3	-0.8	-0.5	-0.8
100	-0.8	0.0	-0.6	-0.3	-0.4
110	-0.4	0.7	-0.2	0.8	0.2
120	-0.2	0.5	1.3	1.3	0.7
130	0.8	0.4	0.6	1.2	0.7
140	-0.3	0.8	0.6	0.7	0.4
148	-0.3	-1.5	-0.2	-0.8	-0.7

PHOTOGRAPHIC RESOLUTION (LINE PAIRS PER MILLIMETER)

 INTERNATIONAL 3-LINE TEST-CHART, CONTRAST (LOG) : 2.0
 APERTURE : .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
(DEGREES)						
RAD.	67	75	59	46	56	48
TANG.	67	74	51	44	53	55

AWAR (AREA WEIGHTED AVERAGE RESOLUTION) IN LP/MM : 53



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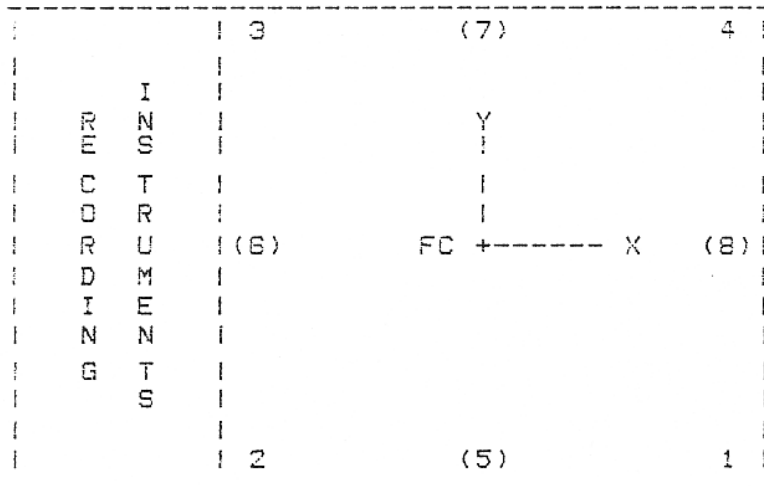
PRINCIPAL POINT OF AUTOCOLLIMATION (PPA) AND
PRINCIPAL POINT OF SYMMETRY (PPS)

REFERRED TO FC, SEE DIAGRAM

	X (MM)	Y (MM)
PPA	0.005	0.015
PS	-0.011	0.010

FIDUCIAL MARKS, REFERRED TO FC

	X (MM)	Y (MM)
1	106.001	-106.001
2	-106.004	-106.005
3	-106.000	106.001
4	106.002	106.002

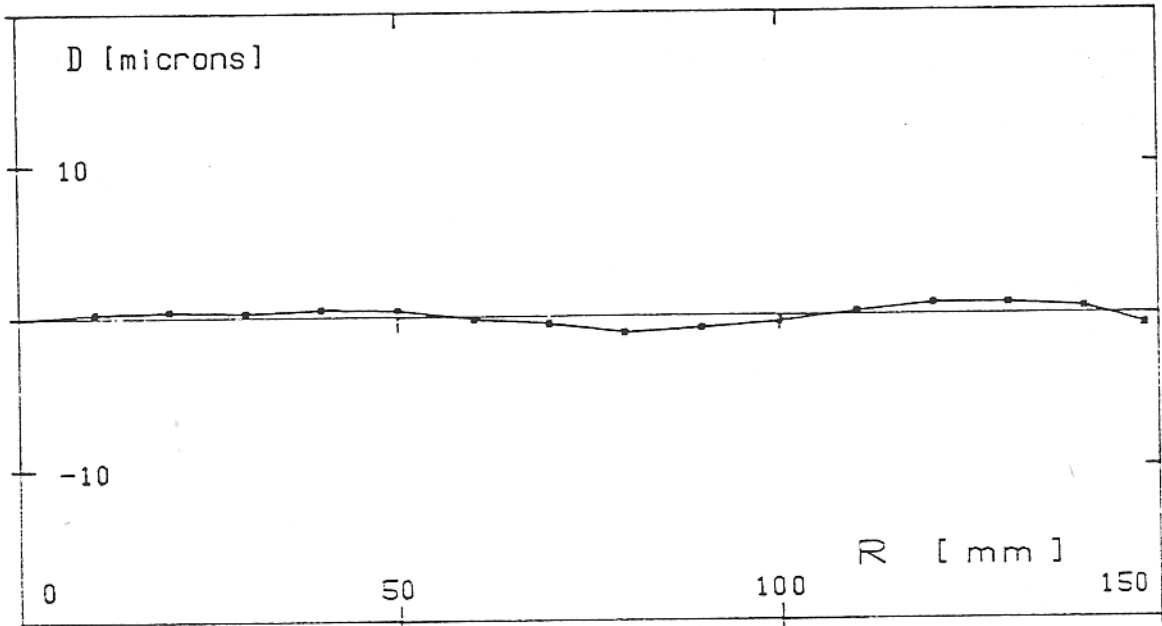


AS SEEN ON FOCAL PLANE FRAME

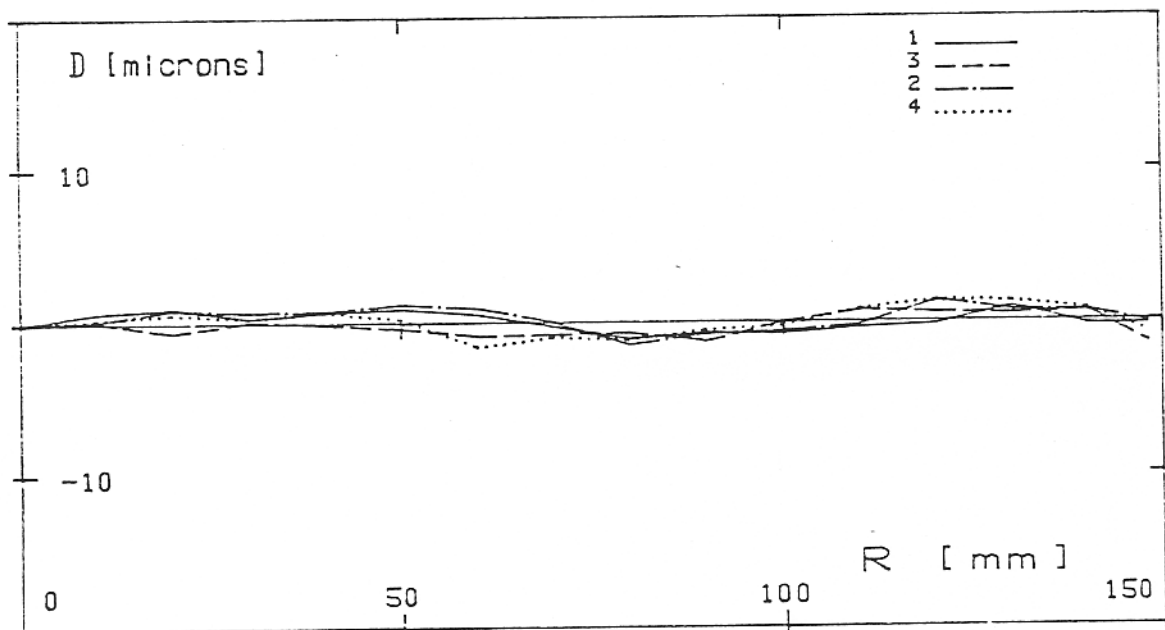
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APERTURE : F / 4.0
FILTER ON GONIOMETER : VIS (400 - 700 NM)
FILTER ON CAMERA : --
P.D. (850 m) : 303.76 MM



MEAN RADIAL DISTORTION CURVE



RADIAL DISTORTION FOR SEMI-DIAGONALS
REFERRED TO PPS