

CAMERA CALIBRATION CERTIFICATE

CAMERA TYPE : RC20
LENS TYPE : 30/4 NATA-F
LENS NO. : 17040

CALIBRATION DATE : 07.12.90

WILD LEITZ LTD

Leica

*Leica Heerbrugg Ltd
CH-9435 Heerbrugg*

*Calibration Department
Supervisor*

WILD
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CAMERA CALIBRATION

CAMERA: RC20 LENS: 30/4 NATA-F NO.: 17040 CALIBRATION DATE: 07.12.90

APERTURE : F / 4.0
 FILTER ON GONIOMETER : VIS (400 - 700 NM)
 FILTER ON CAMERA : --
 PRINCIPAL DISTANCE FOR FOCUSING DISTANCE 850 M : 303.88 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	0.2	-0.1	0.2	0.0	0.0
20	0.5	-0.3	0.6	0.1	0.2
30	0.3	-0.3	0.9	-0.3	0.1
40	0.2	-0.2	0.6	-0.4	0.0
50	-0.1	-0.9	0.3	-0.5	-0.3
60	-1.0	-0.9	0.3	-1.0	-0.6
70	-1.0	-1.4	-0.6	-1.2	-1.0
80	-1.9	-1.1	-0.9	-0.9	-1.2
90	-1.5	-0.6	-1.3	-0.7	-1.0
100	-1.7	-0.5	-0.8	-0.3	-0.8
110	-0.6	0.1	-0.1	0.8	0.0
120	0.5	0.7	0.2	1.0	0.6
130	1.3	1.1	1.0	1.6	1.2
140	1.2	1.2	0.8	0.8	1.0
148	1.0	-0.5	0.6	-0.8	0.0

PHOTOGRAPHIC RESOLUTION (LINE PAIRS PER MILLIMETER)

 INTERNATIONAL 3-LINE TEST-CHART, CONTRAST (LOG) : 2.0
 APERTURE : 4.0
 FILTER : 450 NM
 FILM : KODAK TECHNICAL PAN 2415
 DEVELOPER : KODAK MCI10 PREPARATION 2 SOLUTION C

ANGLE:	0	5	10	15	20	25
(DEGREES)						
RAD.	67	67	74	51	56	48
TANG.	67	66	58	44	42	55

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



CAMERA CALIBRATION

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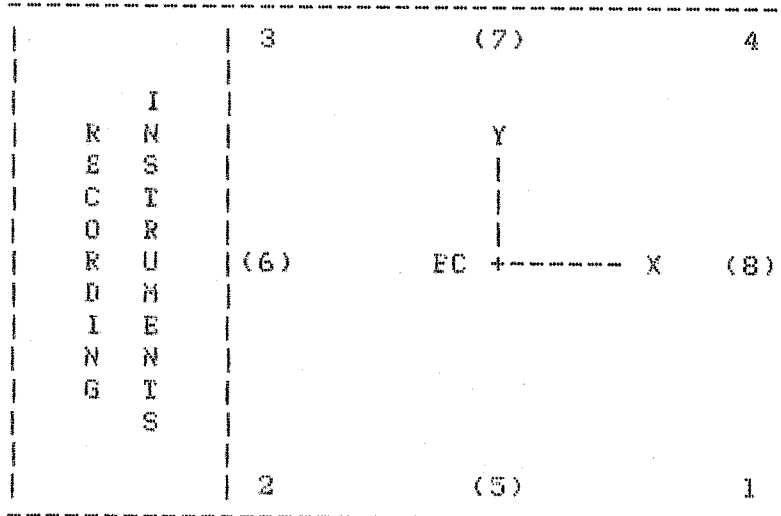
PRINCIPAL POINT OF AUTOCOLLIMATION (PPA) AND
PRINCIPAL POINT OF SYMMETRY (PPS)

REFERRED TO EC, SEE DIAGRAM

	X (MM)	Y (MM)
PPA	-0.002	0.014
S	-0.002	-0.001

FIDUCIAL MARKS, REFERRED TO EC

	X (MM)	Y (MM)		X (MM)	Y (MM)
1	105.998	-106.000	5	0.000	-109.998
2	-106.001	-106.002	6	-110.002	0.000
3	-106.002	106.004	7	0.001	110.001
4	106.002	106.004	8	109.996	0.001

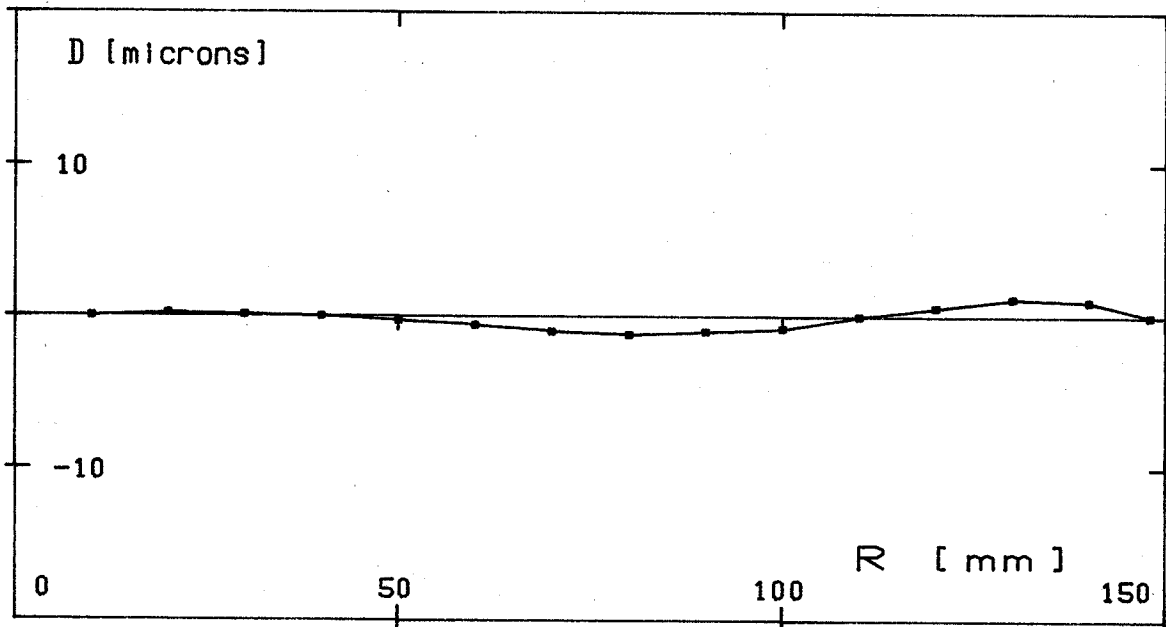


AS SEEN ON FOCAL PLANE FRAME

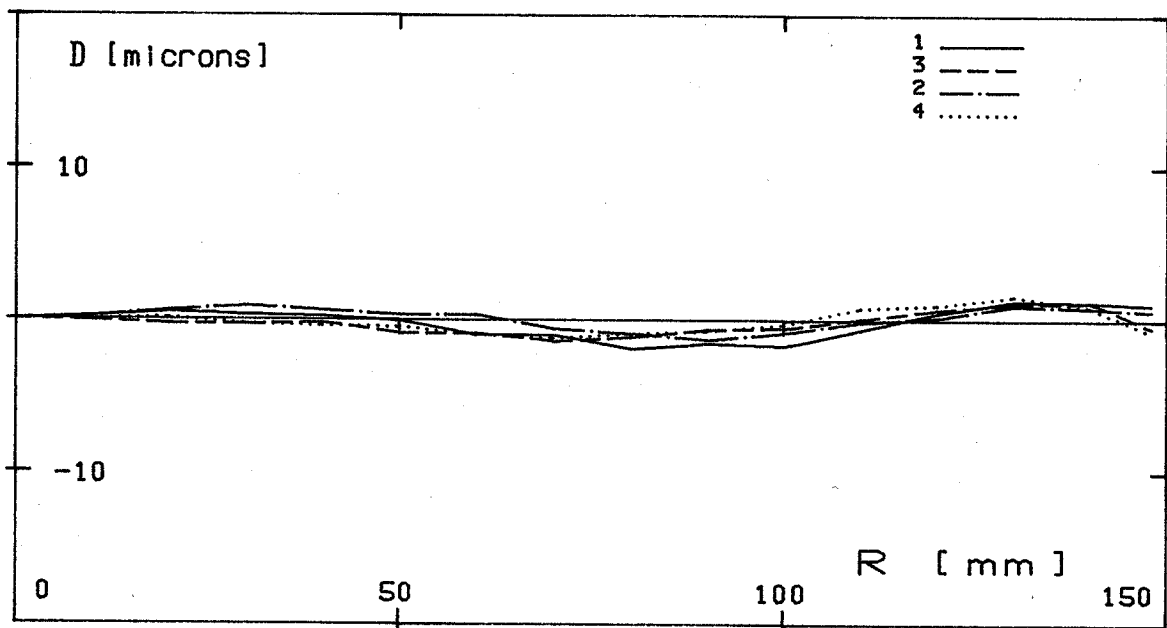
Handwritten signature
WLD
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RC20 30/4 NATA-F NO. 17040 07.12.90

APERTURE : F / 4.0
FILTER ON GONIOMETER : VIS (400 - 700 NM)
FILTER ON CAMERA : --
P.D. (850 m) : 303.88 MM



MEAN RADIAL DISTORTION CURVE



RADIAL DISTORTION FOR SEMI-DIAGONALS REFERRED TO PPS

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