

CAMERA CALIBRATION CERTIFICATE

CAMERA TYPE : RC20  
LENS TYPE : 30/4 NATA-F  
LENS NO. : 17027

CALIBRATION DATE : 13.12.91

LEICA HEERBRUGG LTD

*Leica*

*Leica Heerbrugg Ltd  
CH-9435 Heerbrugg*

*Calibration Department  
Supervisor*



CAMERA CALIBRATION

CAMERA: RC20 LENS: 30/4 NATA-F NO.: 17027 CALIBRATION DATE: 13.12.91

APERTURE : F / 4.0  
 FILTER ON GONIOMETER : VIS (400 - 700 NM)  
 FILTER ON CAMERA : --  
 PRINCIPAL DISTANCE FOR FOCUSING DISTANCE 850 M : 303.98 MM

RADIAL DISTORTION (MICROMETERS)

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 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	-0.1	0.1	0.0	0.0	0.0
20	0.0	-0.3	0.2	-0.1	0.0
30	0.1	-0.8	1.2	-0.7	0.0
40	-0.7	-0.2	0.7	-0.5	-0.1
50	-0.6	-0.7	0.6	-0.9	-0.4
60	-1.7	-0.9	0.4	-1.5	-0.9
70	-1.4	-1.6	-0.3	-2.1	-1.3
80	-2.0	-1.4	-0.2	-1.7	-1.3
90	-1.5	-1.4	-0.4	-1.8	-1.2
100	-1.9	-1.2	-0.1	-1.1	-1.0
110	-0.8	-0.6	0.6	0.3	-0.1
120	-0.1	0.3	0.7	1.2	0.5
130	1.0	0.8	1.8	2.5	1.5
140	0.7	1.0	1.3	2.6	1.4
148	0.7	-0.5	0.6	1.6	0.6

PHOTOGRAPHIC RESOLUTION (LINE PAIRS PER MILLIMETER)

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 INTERNATIONAL 3-LINE TEST-CHART, CONTRAST (LOG) : 2.0  
 APERTURE : 4.0  
 FILTER : 450 NM  
 FILM : KODAK TECHNICAL PAN 2415  
 DEVELOPER : KODAK HC110

ANGLE:	0	5	10	15	20	25
(DEGREES)						
RAD.	67	67	66	46	50	48
TANG.	67	67	58	49	53	55

AWAR (AREA WEIGHTED AVERAGE RESOLUTION) IN LP/MM : 54



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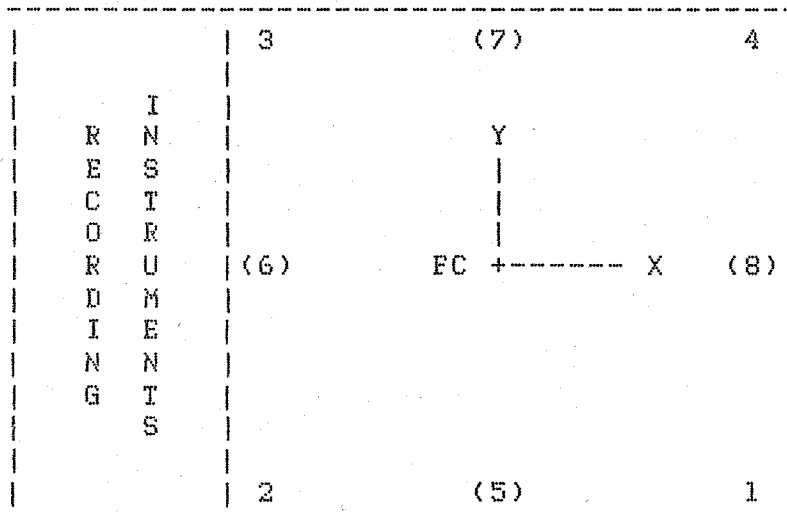
PRINCIPAL POINT OF AUTOCOLLIMATION (PPA) AND  
PRINCIPAL POINT OF SYMMETRY (PPS)

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REFERRED TO FC, SEE DIAGRAM

	X (MM)	Y (MM)
FPA	-0.004	0.021
S	-0.006	0.013

FIDUCIAL MARKS, REFERRED TO FC  
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	X (MM)	Y (MM)		X (MM)	Y (MM)
1	105.996	-106.001	5	0.001	-109.994
2	-106.000	-105.999	6	-109.991	-0.004
3	-105.998	106.003	7	-0.007	109.999
4	106.001	106.000	8	109.992	-0.001

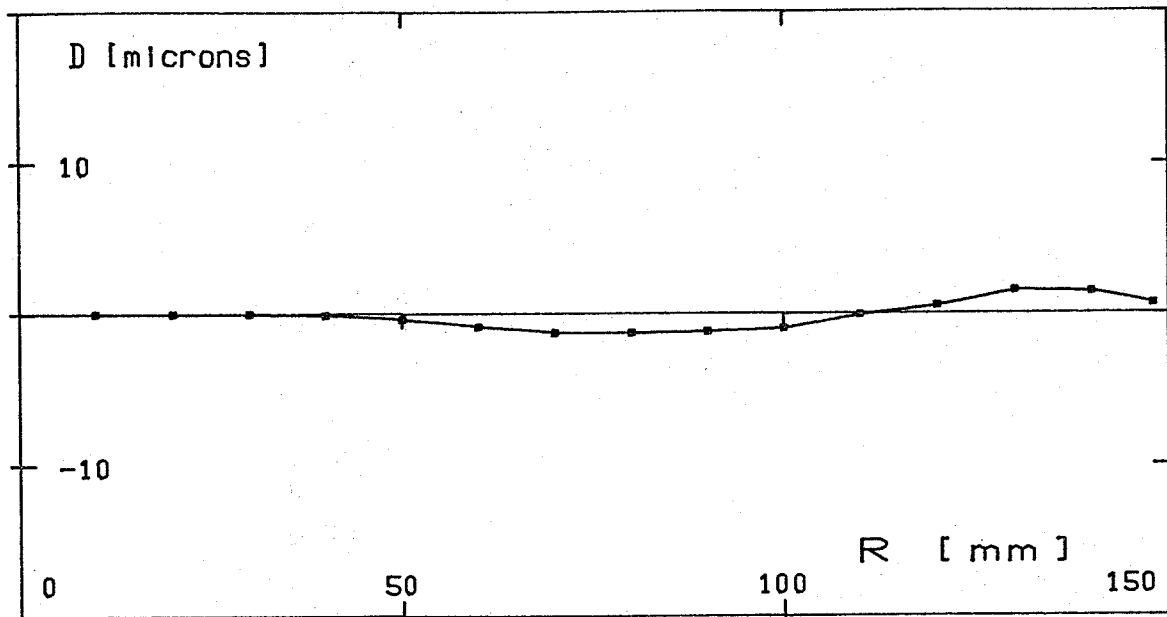


AS SEEN ON FOCAL PLANE FRAME

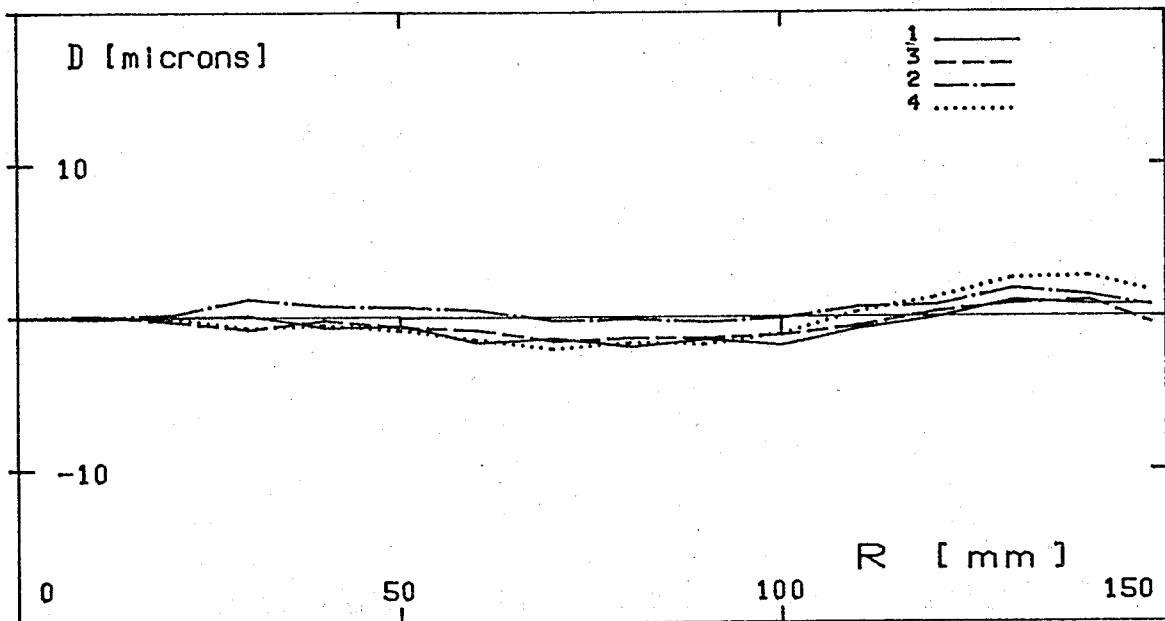
WILD  
310

RC20 30/4 NATA-F NO. 17027 13.12.91

APERTURE : F / 4.0  
FILTER ON GONIOMETER : VIS (400 - 700 NM)  
FILTER ON CAMERA : --  
P.D. ( 850 m) : 303.98 MM



MEAN RADIAL DISTORTION CURVE



RADIAL DISTORTION FOR SEMI-DIAGONALS REFERRED TO PPS