

CAMERA CALIBRATION CERTIFICATE

CAMERA TYPE : RC20

LENS TYPE : 30/4 NATA-F

LENS NO. : 17040

CALIBRATION DATE : 11.11.92

LEICA HEERBRUGG LTD

*Leica*

Leica Heerbrugg Ltd  
CH-9435 Heerbrugg

Calibration Department  
Supervisor

WILD  
310

CAMERA CALIBRATION

CAMERA: RC20 LENS: 30/4 NATA-F NO.: 17040 CALIBRATION DATE: 11.11.9

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)

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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	0.5	0.0	0.2	0.0	0.1
20	0.5	0.0	0.5	0.3	0.3
30	0.3	0.0	0.8	-0.3	0.2
40	-0.1	0.2	0.2	-0.3	0.0
50	-0.2	-0.2	0.1	-0.3	-0.1
60	-1.4	-0.4	-0.2	-0.9	-0.7
70	-1.3	-1.3	-1.2	-1.4	-1.3
80	-2.2	-0.8	-1.3	-1.0	-1.3
90	-1.4	-0.8	-1.4	-0.8	-1.1
100	-1.8	-0.7	-1.2	-0.6	-1.0
110	-0.4	0.2	0.1	0.7	0.1
120	0.9	0.8	0.2	1.4	0.8
130	1.3	0.9	1.2	1.6	1.2
140	1.3	1.1	1.5	1.0	1.2
148	0.6	-0.6	0.7	-0.8	0.0

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	74	51	56	48
TANG.	67	66	38	44	42	55

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



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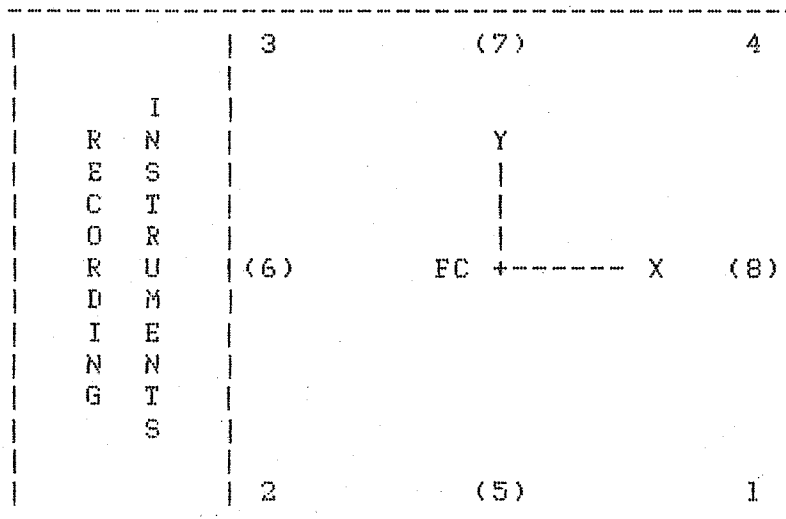
PRINCIPAL POINT OF AUTOCOLLIMATION (PPA) AND  
PRINCIPAL POINT OF SYMMETRY (PPS)

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REFERRED TO FC, SEE DIAGRAM

	X (MM)	Y (MM)
PPA	-0.004	0.003
S	-0.008	-0.006

TRIDUCIAL MARKS, REFERRED TO FC

	X (MM)	Y (MM)		X (MM)	Y (MM)
1	105.998	-105.998	5	-0.002	-110.003
2	-106.002	-106.003	6	-110.002	0.001
3	-106.002	106.002	7	0.001	109.995
4	106.004	106.005	8	110.001	0.001

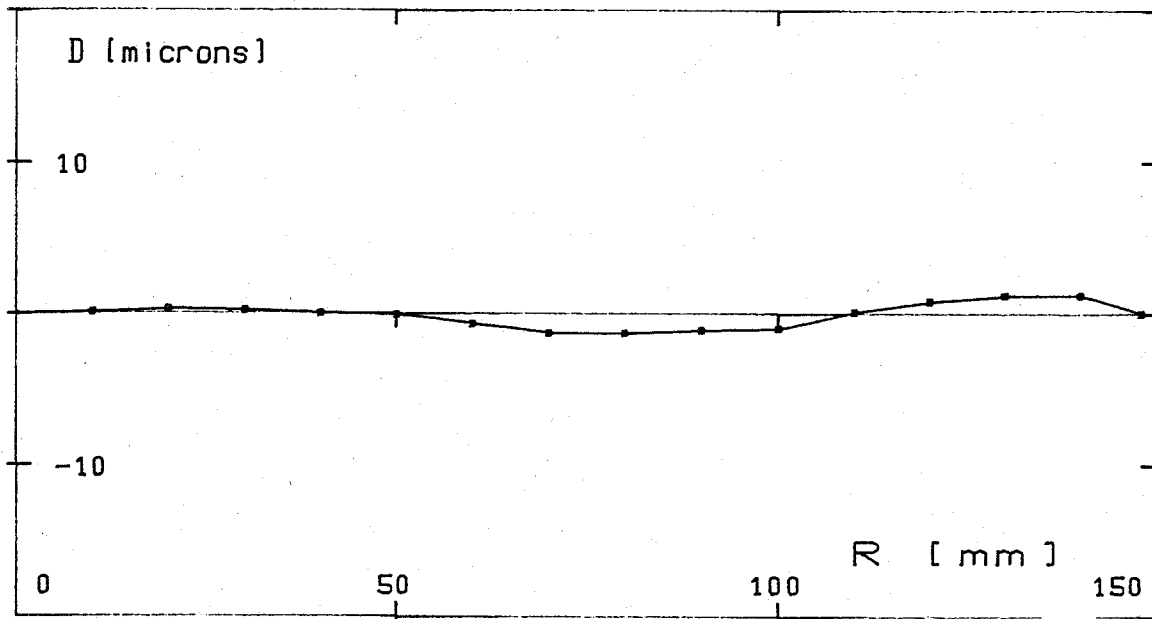


AS SEEN ON FOCAL PLANE FRAME

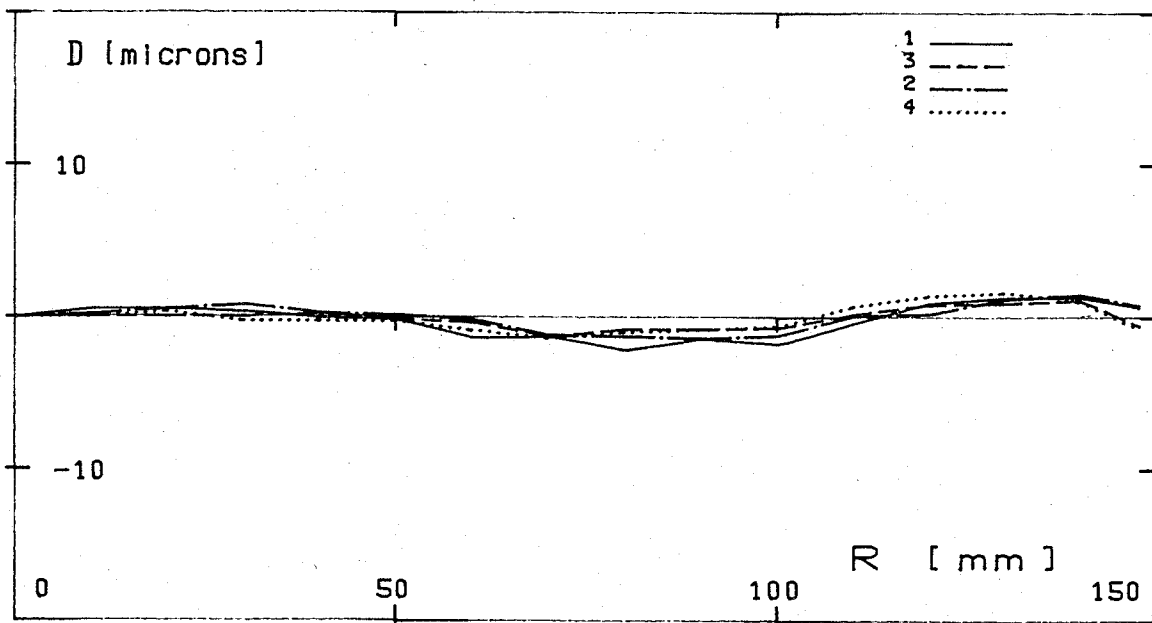


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FILTER ON GONIOMETER : VIS (400 - 700 NM)  
FILTER ON CAMERA : --  
P.D. ( 850 m ) : 303.88 MM



MEAN RADIAL DISTORTION CURVE



RADIAL DISTORTION FOR SEMI-DIAGONALS REFERRED TO PPS

