

CAMERA CALIBRATION CERTIFICATE

CAMERA TYPE : RC20

LENS TYPE : 15/4 UAGA-E

LENS NO. : 13126

CALIBRATION DATE : 21.02.91

WILD LEITZ LTD

*Leica*

*Leica Heerbrugg Ltd  
CH-9425 Heerbrugg*

*Calibration Department  
Supervisor*



CAMERA CALIBRATION

CAMERA: RC20 LENS: 15/4 UAGA-F NO.: 13126 CALIBRATION DATE: 21.02.9

APERTURE : F / 4.0  
 FILTER ON GONIOMETER : VIS (400 - 700 NM)  
 FILTER ON CAMERA : --  
 CALIBRATED FOCAL LENGTH : 152.92 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	-0.3	0.2	-0.1	0.0
20	0.3	-0.6	0.4	-0.2	0.0
30	0.2	-0.5	0.4	-0.9	-0.2
40	-0.1	-0.4	-0.2	-0.8	-0.3
50	-0.2	-1.0	-0.2	-1.2	-0.6
60	-1.2	-0.6	-0.5	-1.5	-0.9
70	-1.1	-0.8	-1.1	-1.2	-1.0
80	-0.9	-0.5	-0.4	-0.6	-0.6
90	-0.2	0.1	-0.4	-0.2	-0.1
100	-0.7	-0.3	0.5	0.2	0.0
110	0.3	0.6	1.2	1.9	1.0
120	-0.1	0.3	0.8	1.9	0.7
130	-1.1	-0.3	1.3	1.4	0.3
140	-1.4	-0.5	2.1	1.4	0.4
148	0.6	-2.0	1.1	0.9	0.1

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 : AGFAPAN 25 PROFESSIONAL (ASA SPEED: 25)  
 DEVELOPER : KODAK HC110 PREPARATION 2 SOLUTION C

ANGLE: (DEGREES)	0	5	10	15	20	25	30	35	40	45
RAD.	106	119	104	81	56	54	73	69	57	42
TANG.	106	94	103	79	74	78	71	71	55	33

AWAR (AREA WEIGHTED AVERAGE RESOLUTION) IN LP/MM : 69

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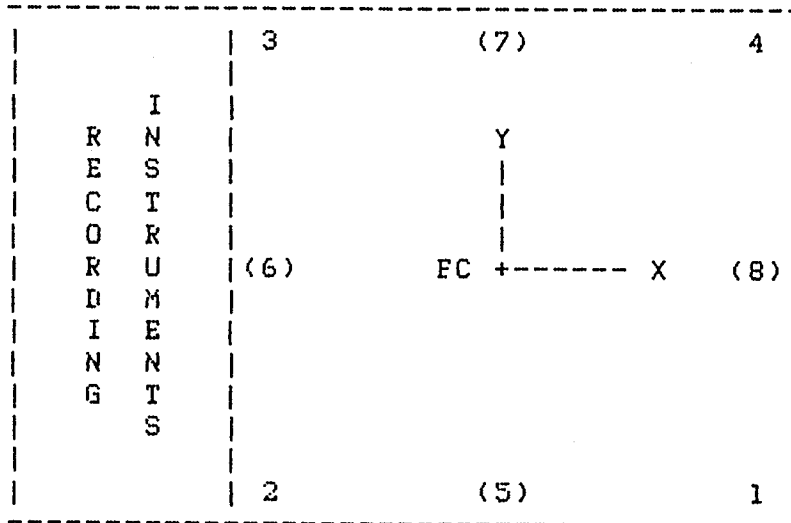
PRINCIPAL POINT OF AUTOCOLLIMATION (PPA) AND  
PRINCIPAL POINT OF SYMMETRY (PPS)

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REFERRED TO FC, SEE DIAGRAM

	X (MM)	Y (MM)
PPA	0.004	0.013
S	0.003	0.013

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TRIDUCIAL MARKS, REFERRED TO FC

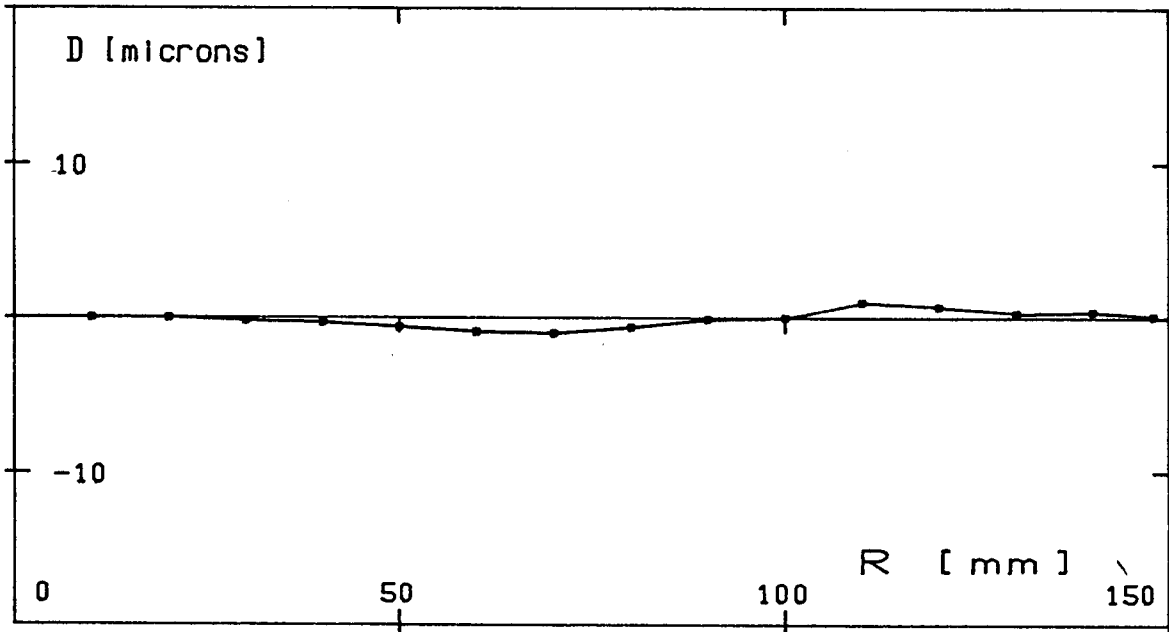
	X (MM)	Y (MM)		X (MM)	Y (MM)
1	105.998	-105.996	5	-0.004	-110.000
2	-106.000	-106.002	6	-110.004	0.005
3	-106.004	106.002	7	-0.001	110.007
4	106.001	106.002	8	110.004	0.003



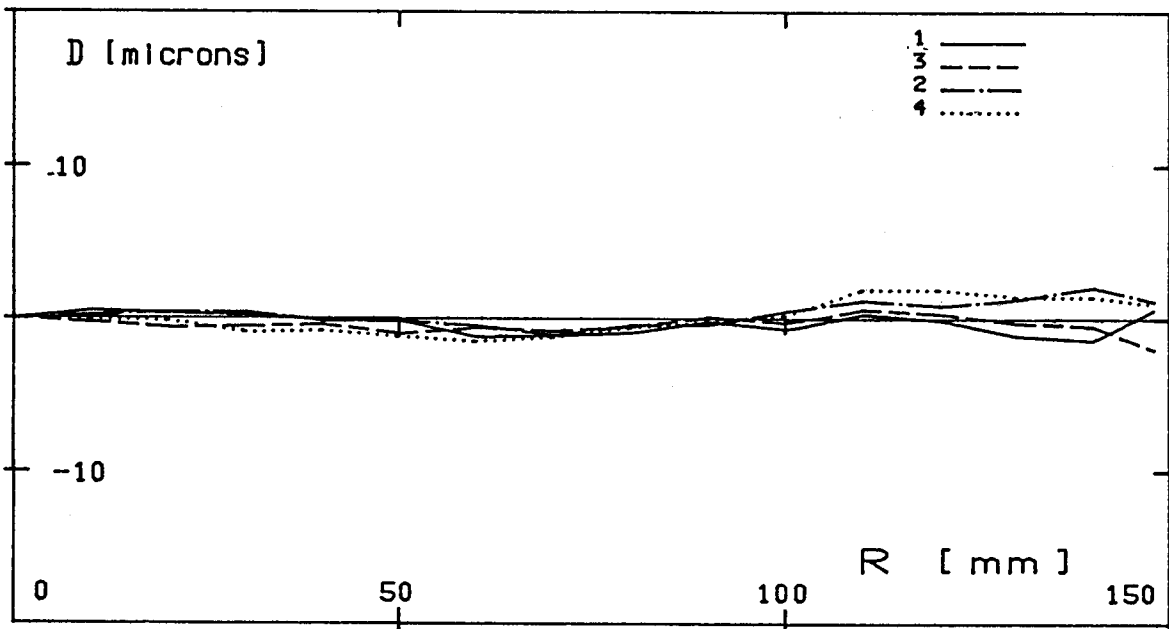
AS SEEN ON FOCAL PLANE FRAME

RC20 15/4 UAGA-F NO. 13126 21.02.91

APERTURE : F / 4.0  
FILTER ON GONIOMETER : VIS (400 - 700 NM)  
FILTER ON CAMERA : --  
C.F.L. : 152.92 MM



MEAN RADIAL DISTORTION CURVE



RADIAL DISTORTION FOR SEMI-DIAGONALS REFERRED TO PPS

RC20