


CAMERA CALIBRATION CERTIFICATE

CAMERA TYPE : RC10
LENS TYPE : 15 UAG II
LENS NO. : 3014

CALIBRATION DATE : 15.01.90

WILD LEITZ LTD
Wild Leitz Ltd
CH-9435 Heerbrugg

Calibration Department
Supervisor:  310



CAMERA CALIBRATION

CAMERA: RC10 LENS: 15 UAG II NO.: 3014 CALIBRATION DATE: 15.01.90

APERTURE : F / 4.0
 FILTER ON GONIOMETER : 450 NM
 FILTER ON CAMERA : ---
 CALIBRATED FOCAL LENGTH : 153.01 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	-0.5	-1.5	-0.9	-1.5	-1.1
20	-1.5	-3.0	-1.6	-2.8	-2.2
30	-2.4	-3.9	-2.1	-4.2	-3.1
40	-2.8	-4.2	-3.0	-4.5	-3.6
50	-2.5	-4.7	-3.0	-5.0	-3.8
60	-3.0	-3.3	-2.5	-4.3	-3.2
70	-1.8	-2.1	-2.4	-2.6	-2.2
80	-0.8	-0.1	-1.3	-0.9	-0.7
90	0.4	1.6	-0.8	0.8	0.5
100	0.3	1.2	-0.1	0.7	0.5
110	-0.1	0.2	-0.2	0.2	0.0
120	-0.6	-0.5	-1.7	-0.6	-0.8
130	0.0	0.8	-0.6	1.0	0.3
140	2.3	3.4	2.4	2.6	2.6
148	6.6	4.1	7.2	4.3	5.5

PHOTOGRAPHIC RESOLUTION (LINE PAIRS PER MILLIMETER)

INTERNATIONAL 3-LINE TEST-CHART. CONTRAST (LOG) : 2.0

APERTURE : 4.0
 FILTER : 450 NM
 FILM : AGFAPAN 25 PROFESSIONAL (ASA SPEED: 25)
 DEVELOPER : KODAK HCL10 PREPARATION 2 SOLUTION C

ANGLE: (DEGREES)	0	5	10	15	20	25	30	35	40	45
RAD.	95	84	59	32	31	34	46	69	32	13
TANG.	95	84	73	62	59	49	63	57	35	30

AWAR (AREA WEIGHTED AVERAGE RESOLUTION) IN LP/MM : 50

W150
310

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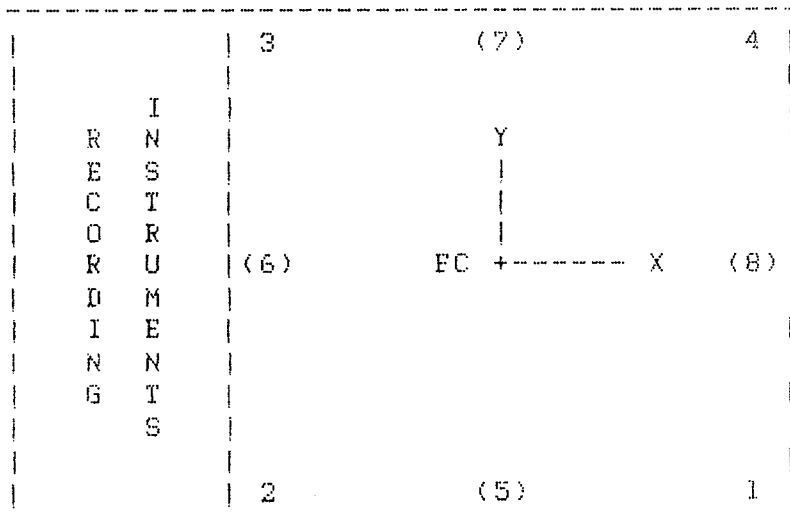
PRINCIPAL POINT OF AUTOCOLLIMATION (PPA) AND
PRINCIPAL POINT OF SYMMETRY (PPS)

REFERRED TO FC, SEE DIAGRAM

	X (MM)	Y (MM)
PPA	-0.001	0.007
S	-0.003	0.003

FIDUCIAL MARKS, REFERRED TO FC

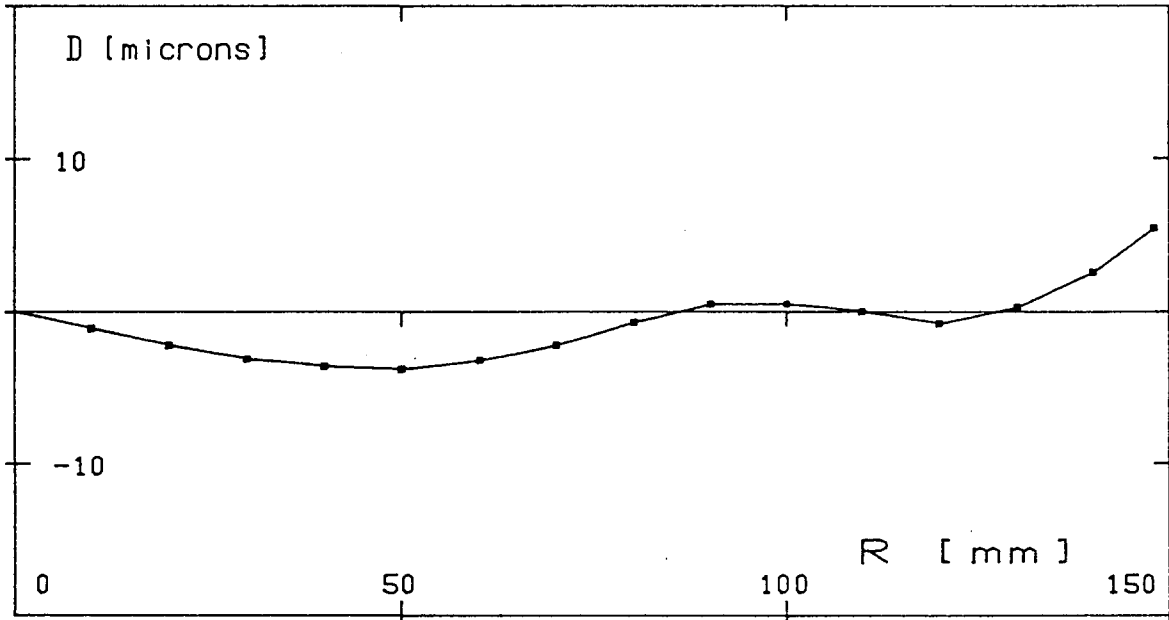
	X (MM)	Y (MM)		X (MM)	Y (MM)
1	105.999	-105.997	5	-0.007	-109.995
2	-106.005	-106.008	6	-109.996	0.003
3	-105.998	105.996	7	0.008	110.000
4	106.002	106.006	8	109.982	0.007



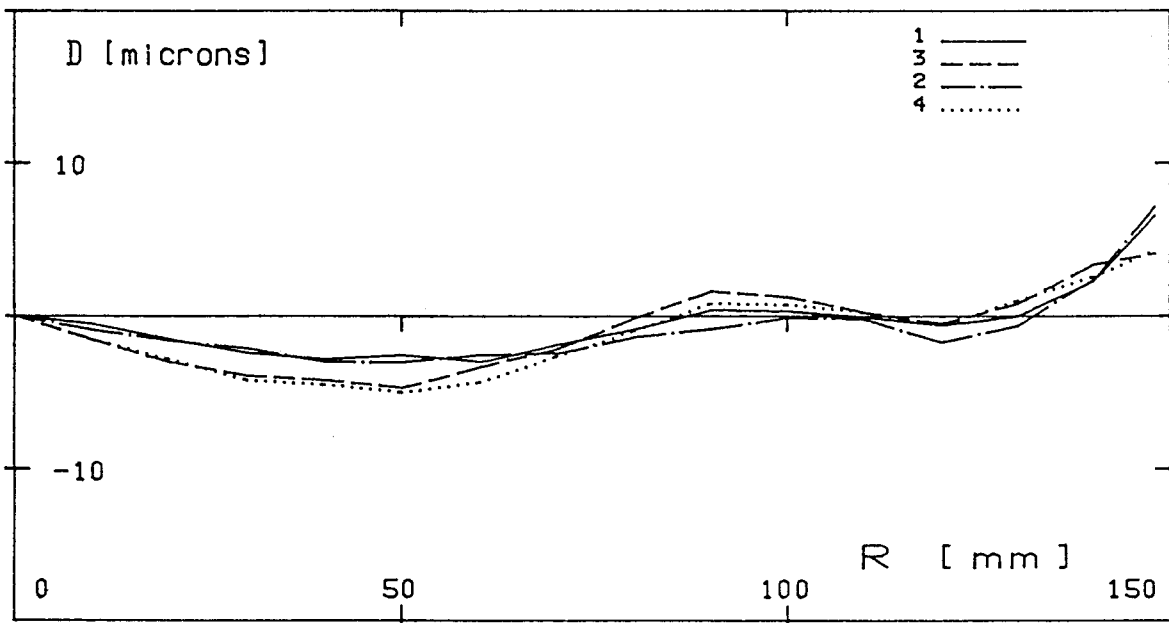
AS SEEN ON FOCAL PLANE FRAME

WILD
310

APERTURE : F / 4.0
 FILTER ON GONIOMETER : 450 NM
 FILTER ON CAMERA : --
 C.F.L. : 153.01 MM



MEAN RADIAL DISTORTION CURVE



RADIAL DISTORTION FOR SEMI-DIAGONALS REFERRED TO PPS