

ca 1322093

CAMERA CALIBRATION CERTIFICATE

CAMERA TYPE : RC30
LENS TYPE : 15/4 UAG-S
LENS NO. : 13220

CALIBRATION DATE : 05.04.93

LEICA HEERBRUGG LTD

Leica

Leica Heerbrugg Ltd
CH-9435 Heerbrugg

Calibration Department
Supervisor



CAMERA CALIBRATION

CAMERA: RC30 LENS: 15/4 UAG-S NO.: 13220 CALIBRATION DATE: 05.04.

APERTURE : F / 4.0
 FILTER ON GONIOMETER : VIS (400 - 700 NM)
 FILTER ON CAMERA : --
 CALIBRATED FOCAL LENGTH : 152.52 MM

RADIAL DISTORTION (MICROMETERS)

 REFERRED TO PRINCIPAL POINT OF SYMMETRY (PPS)
 (POSITIVE VALUES DENOTE IMAGE DISPLACEMENT AWAY FROM CENTER)

RADIUS M	SEMI - DIAGONALS				MEAN
	1	3	2	4	
10	0.0	-0.5	0.0	-0.3	-0.2
20	-0.4	-1.0	0.0	-0.2	-0.4
30	-0.9	-1.4	0.3	-0.8	-0.7
40	-0.9	-1.3	0.3	-0.7	-0.6
50	-0.6	-1.5	0.6	-0.4	-0.4
60	-1.2	-1.0	1.6	-0.3	-0.2
70	-0.8	-0.7	1.3	0.5	0.0
80	-0.9	0.1	1.8	1.0	0.5
90	-0.5	0.2	1.9	1.1	0.6
100	-1.1	-0.1	2.2	1.1	0.5
110	-1.5	-0.6	2.2	1.5	0.4
120	-1.7	-1.0	0.8	1.1	-0.2
130	-1.6	-1.5	1.7	1.7	0.0
140	-1.6	-1.8	-0.7	1.7	-0.6
148	-0.3	-2.4	0.9	1.2	-0.1

PHOTOGRAPHIC RESOLUTION (LINE PAIRS PER MILLIMETER)

 INTERNATIONAL 3-LINE TEST-CHART, CONTRAST (LOG) : 2.0
 APERTURE : 4.0
 FILTER : 450 NM
 FILM : KODAK PANATOMIC X 2412
 DEVELOPER : KODAK HC110

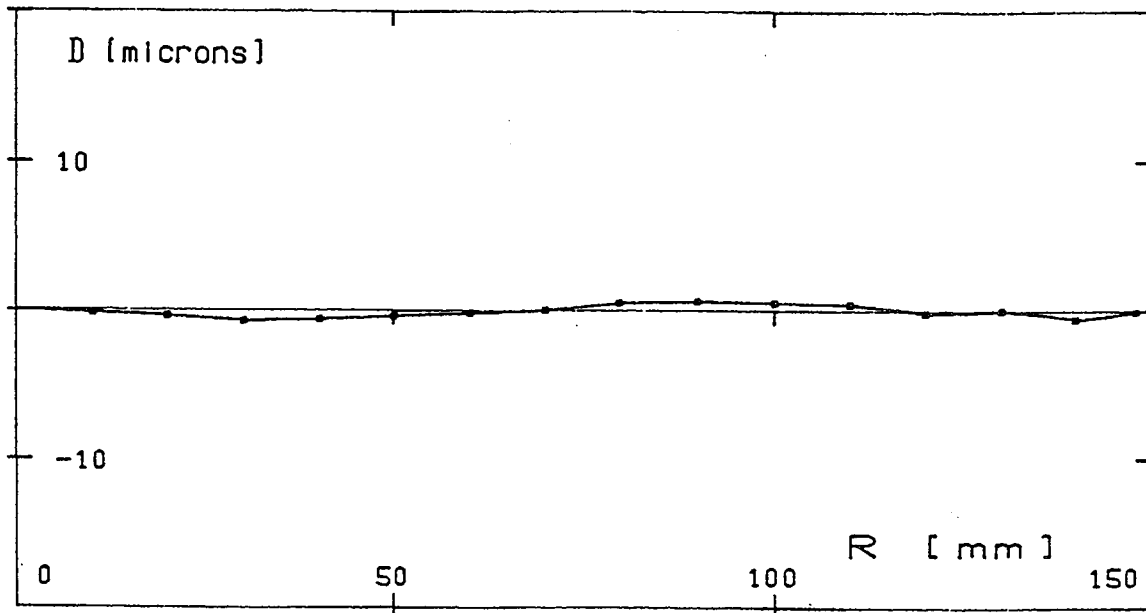
ANGLE: (DEGREES)	0	5	10	15	20	25	30	35	40	45
RAD.	93	93	92	113	98	95	114	121	113	93
TANG.	93	92	101	97	92	96	88	79	77	66

AWAR (AREA WEIGHTED AVERAGE RESOLUTION) IN LP/MM : 97

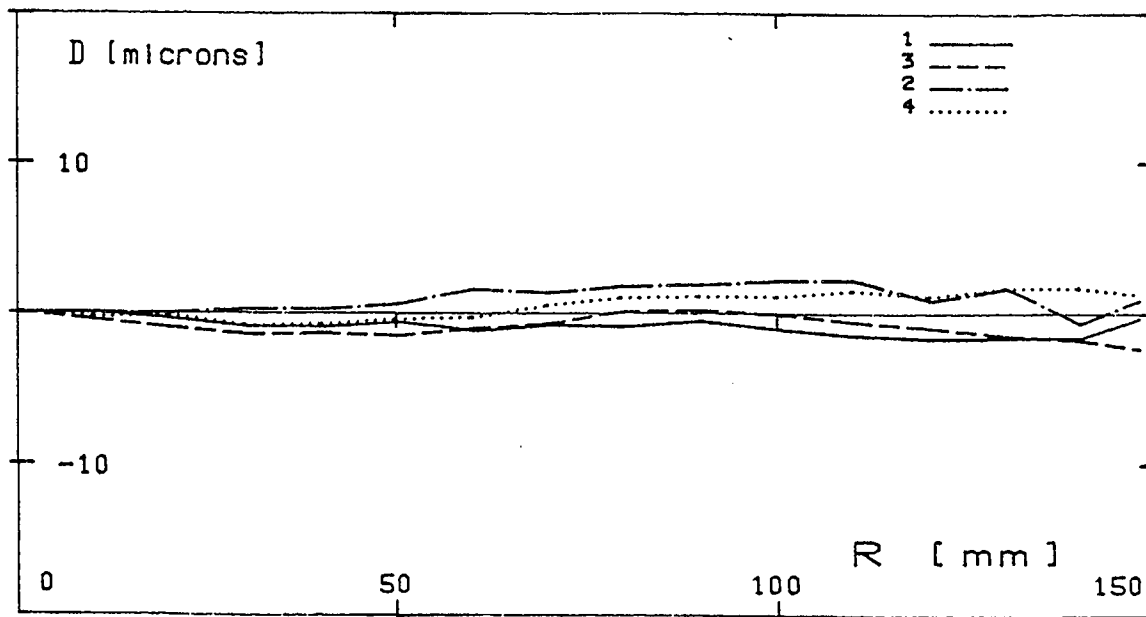
(MILD
 5/10)

RC30 15/4 UAG-S NO. 13220 05.04.93

APERTURE : F / 4.0
FILTER ON GONIOMETER : VIS (400 - 700 NM)
FILTER ON CAMERA : --
C.F.L. : 152.52 MM



MEAN RADIAL DISTORTION CURVE



RADIAL DISTORTION FOR SEMI-DIAGONALS REFERRED TO PPS



CAMERA CALIBRATION

CAMERA: RC30 LENS: 15/4 UAG-S NO.: 13220 CALIBRATION DATE: 05.04.9:

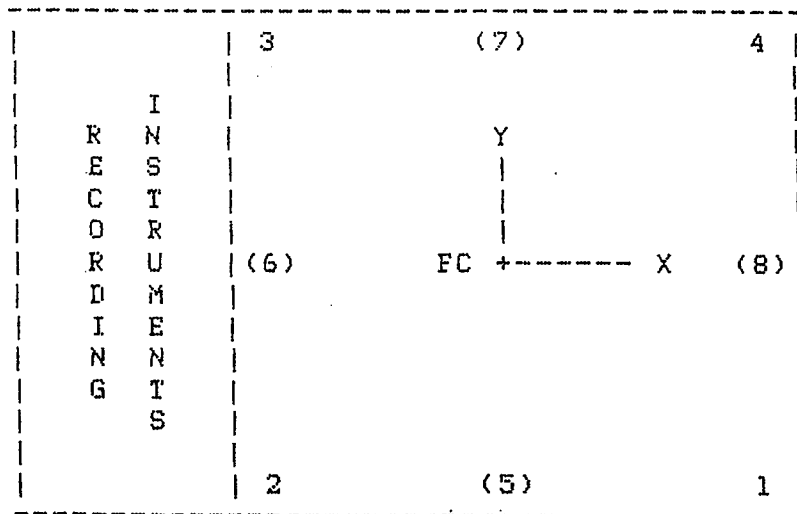
PRINCIPAL POINT OF AUTOCOLLIMATION (PPA) AND
 PRINCIPAL POINT OF SYMMETRY (PPS)

 REFERRED TO FC, SEE DIAGRAM

	X (MM)	Y (MM)
PPA	0.015	0.001
PPS	0.014	0.001

 REFERENCE MARKS, REFERRED TO FC

	X (MM)	Y (MM)		X (MM)	Y (MM)
1	105.998	-106.000	5	0.001	-112.005
2	-105.999	-105.999	6	-111.999	0.001
3	-106.000	106.002	7	0.000	112.001
4	106.000	106.001	8	111.999	0.002



AS SEEN ON FOCAL PLANE FRAME

