

CAMERA CALIBRATION CERTIFICATE

CAMERA TYPE : RC 30
LENS TYPE : 30/4 NAT-S
LENS NO. : 17101

Calibration date: 18.01.2005

LEICA AG, HEERBRUGG

 **swissoptic**
SwissOptic AG
Heinrich-Wild-Strasse
CH-9435 Heerbrugg
Schweiz


18.01.2005

Aperture: 4.0
 Filter on goniometer: VIS (400-700 NM)
 Filter on camera: --
 Principal distance for focussing distance 850 mm : 303.80 mm

Radial distortion (micrometers) referred to principal point of symmetry (PPS)
 (Positive values denote image displacement away from center)

Radius mm	Half - Sides				Mean
	1	3	2	4	
10	-0.6	-0.7	-0.6	-0.7	-0.6
20	-1.6	-1.7	-0.8	-1.4	-1.3
30	-1.6	-1.9	-0.8	-2.0	-1.5
40	-0.9	-1.3	-0.3	-1.6	-1.0
50	-0.4	-1.5	0.3	-1.3	-0.7
60	-1.0	-0.6	0.8	-0.9	-0.4
70	0.0	-0.6	0.8	-0.6	-0.1
80	0.0	0.0	1.2	-0.1	0.2
90	0.4	0.0	0.6	0.0	0.2
100	-0.7	-0.2	0.4	0.1	-0.1
110	-0.4	-0.3	0.7	0.5	0.1
120	-1.4	0.5	-0.5	0.6	-0.2
130	-2.0	-0.7	-1.4	0.0	-1.0
140	-1.2	-0.7	-0.8	0.7	-0.5
148	3.4	0.7	3.7	2.6	2.6

Photographic resolution (line pairs per millimeter)

International 3-line test-chart, contrast (log) : 2.0

Aperture: 4.0
 Filter: VIS (400-700 NM)
 Film: KODAK PANATOMIC X 2412
 Developer: KODAK HC110

Angle (deg)	0	5	10	15	20	25
Radial:	93	117	104	114	124	75
Tangential:	74	93	72	78	104	68

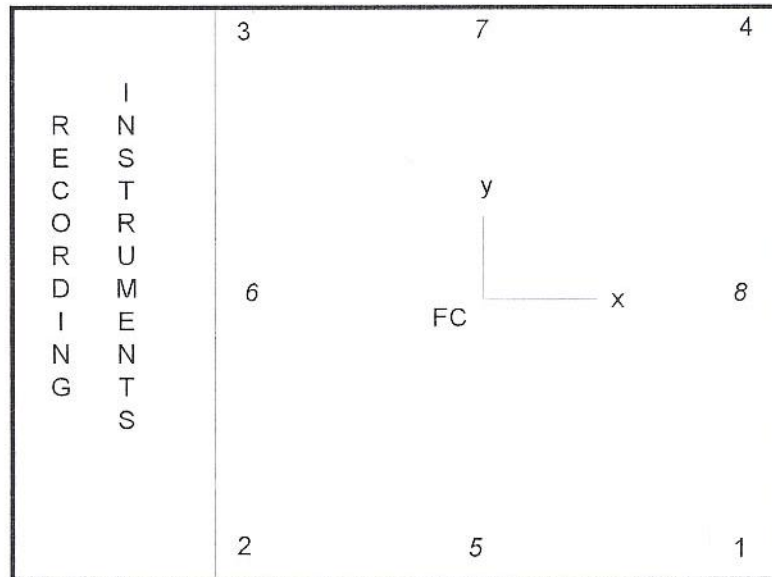
AWAR (Area weighted average resolution) in lp/mm: 98

Principal point of autocollimation (PPA) and principal point of symmetry (PPS)
referred to central cross (FC), see diagram

	x (mm)	y (mm)
PPA	-0.006	0.021
PPS	-0.003	-0.027

Fiducial marks, referred to central cross (FC)

	x (mm)	y (mm)		x (mm)	y (mm)
1	105.998	-105.997	5	0.003	-111.994
2	-106.003	-106.000	6	-111.997	-0.004
3	-105.999	105.998	7	0.002	111.987
4	106.003	106.000	8	112.001	-0.001

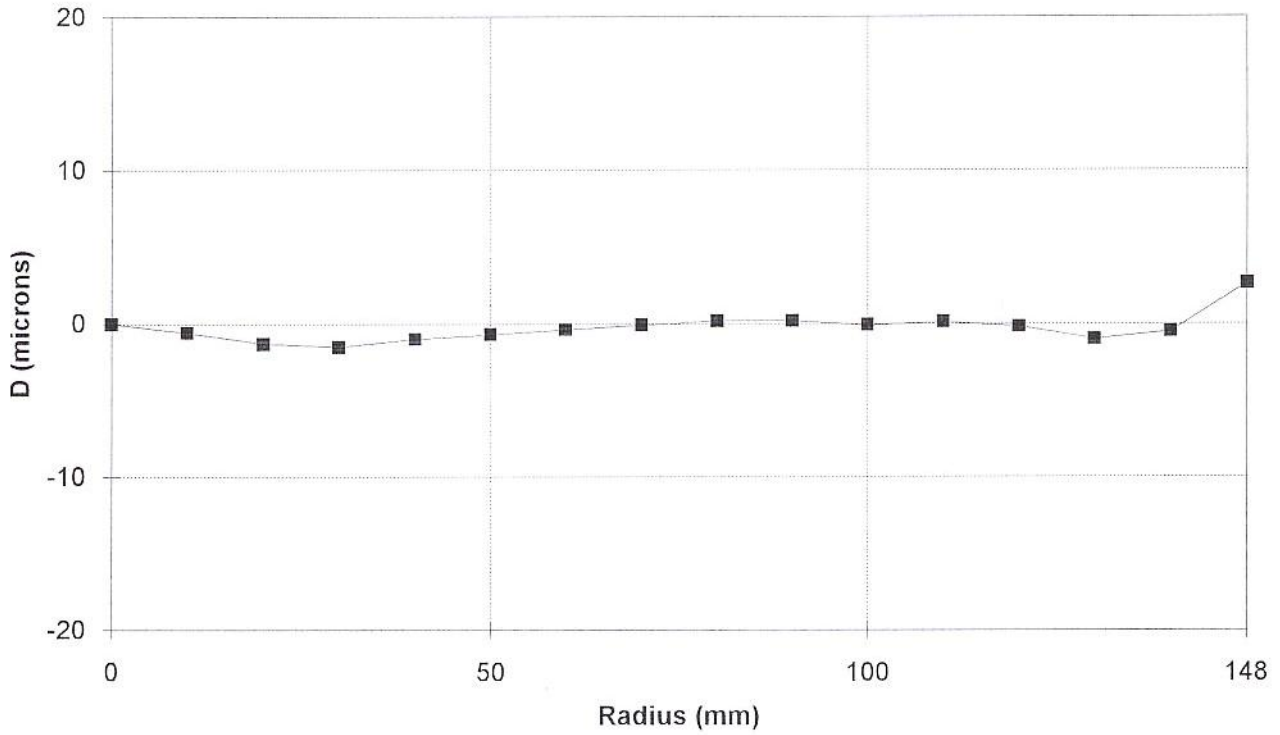


as seen on focal plane frame

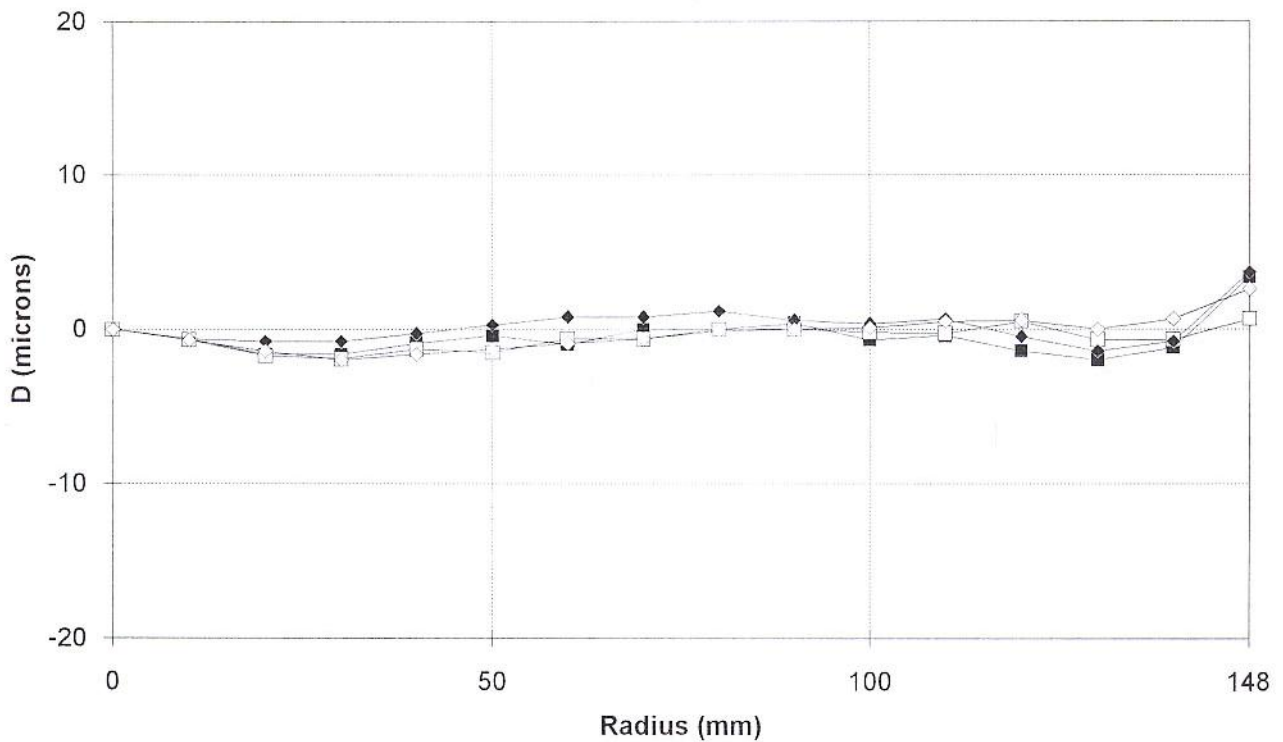


Aperture: 4.0
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Filter on camera: --
Principal distance for focussing distance 850 m m : 303.80 mm

Mean radial distortion



Radial distortion for semi-diagonals referred to PPS



—■— 1 —□— 3 —◆— 2 —◇— 4

