

# CAMERA CALIBRATION CERTIFICATE

CAMERA TYPE : RC20

LENS TYPE : 21 NAGIIA-F

LENS NO. : 7177

CALIBRATION DATE : 16.06.88

WILD HEERBRUGG LTD



## CAMERA CALIBRATION

CAMERA: RC20 LENS: 21 NAGIIA-F NO.: 7177 CALIBRATION DATE: 16.06.88

APERTURE : F / 4.0

FILTER ON GONIOMETER : 450 NM

FILTER ON CAMERA : --

PRINCIPAL DISTANCE FOR FOCUSSING DISTANCE 900 M : 214.76 MM

## RADIAL DISTORTION (MICROMETERS)

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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	1.2	0.2	0.8	0.5	0.6
20	2.1	0.8	2.0	1.3	1.5
30	2.3	2.0	2.9	2.2	2.3
40	3.1	3.8	3.3	3.9	3.5
50	3.7	4.0	4.1	4.3	4.0
60	2.1	3.6	3.8	3.3	3.2
70	0.8	1.7	1.5	1.8	1.4
80	-1.4	0.8	-0.1	0.8	0.0
90	-2.2	-0.6	-1.8	-0.4	-1.2
100	-4.0	-2.2	-2.7	-1.7	-2.6
110	-3.5	-3.2	-2.0	-2.2	-2.7
120	-2.8	-3.5	-2.1	-2.5	-2.7
130	-1.5	-2.6	-0.4	-0.8	-1.3
140	-0.6	-0.9	1.0	0.8	0.0
148	1.6	0.1	3.2	2.7	1.9

## 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:	0	5	10	15	20	25	30	35
(DEGREES)								
RAD.	75	75	83	82	56	48	46	69
TANG.	75	84	73	70	47	40	57	51

AWAR (AREA WEIGHTED AVERAGE RESOLUTION) IN LP/MM : 57

*M*

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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	0.003	0.009
S	-0.004	0.005

FIDUCIAL MARKS, REFERRED TO FC

	X (MM)	Y (MM)
1	105.998	-106.000
2	-106.003	-106.005
3	-105.998	106.000
4	106.002	106.004

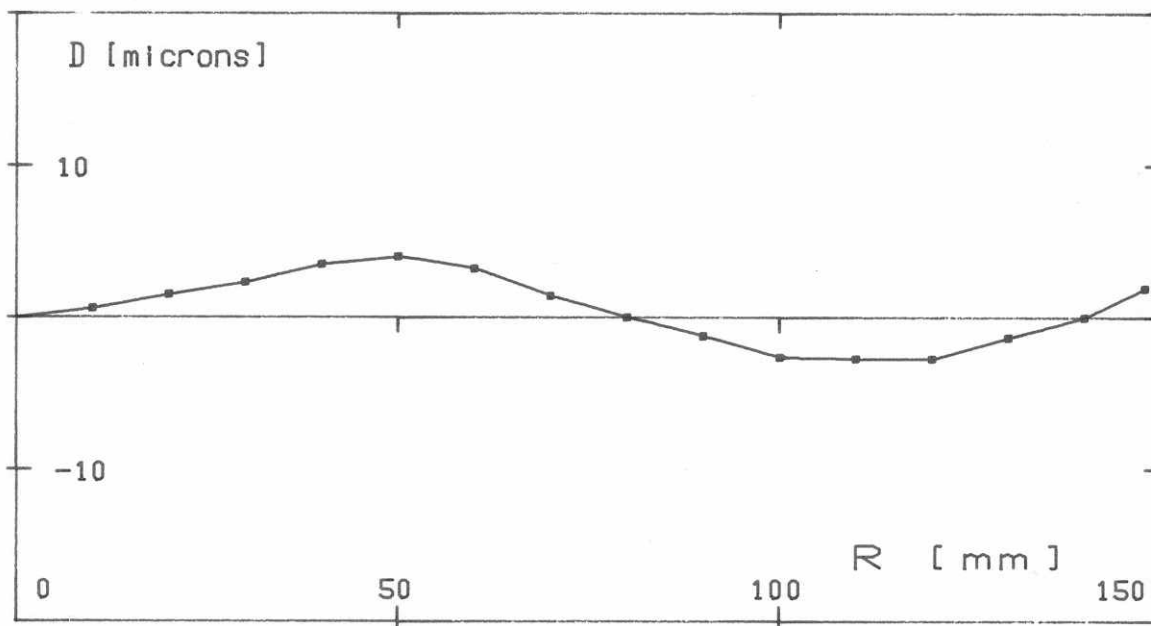
		3	(7)	4
	I			
	R N		Y	
	E S			
	C T			
	O R			
	R U	(6)	FC +----- X	(8)
	D M			
	I E			
	N N			
	G T			
	S			
		2	(5)	1

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AS SEEN ON FOCAL PLANE FRAME*M.*

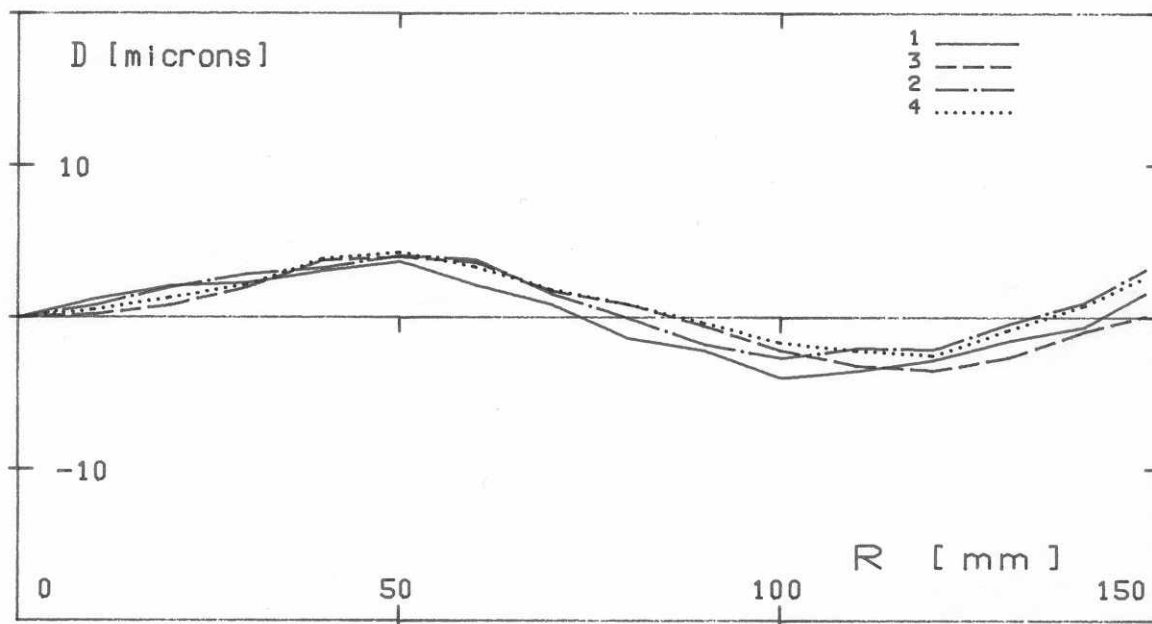
RC20 21 NAGIIA-F NO. 7177

16.06.88

APERTURE : F / 4.0  
 FILTER ON GONIOMETER : 450 NM  
 FILTER ON CAMERA : --  
 P.D. ( 900 m ) : 214.76 MM



MEAN RADIAL DISTORTION CURVE



RADIAL DISTORTION FOR SEMI-DIAGONALS  
 REFERRED TO PPS

*M.*