

# CAMERA CALIBRATION CERTIFICATE

CAMERA TYPE : RC10

LENS TYPE : 15 UAG II

LENS NO. : 3039

CALIBRATION DATE : 07.12.89

WILD LEITZ LTD

Wild Leitz Ltd  
CH-9435 Heerbrugg

Calibrating Department  
Supervisor: 

 **WILD LEITZ**

## CAMERA CALIBRATION

CAMERA: RC10 LENS: 15 UAG II NO.: 3038 CALIBRATION DATE: 07.12.89

APERTURE : F / 4.0  
 FILTER ON GONIOMETER : 450 NM  
 FILTER ON CAMERA : ---  
 CALIBRATED FOCAL LENGTH : 153.24 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	-2.0	-0.9	-1.8	-1.3
20	-1.4	-3.2	-1.6	-2.8	-2.2
30	-3.1	-4.3	-2.7	-4.4	-3.6
40	-3.3	-3.9	-3.5	-4.5	-3.8
50	-3.2	-3.5	-3.7	-3.6	-3.5
60	-3.4	-1.5	-2.5	-2.0	-2.3
70	-2.0	0.4	-1.9	0.3	-0.8
80	-1.2	2.9	-0.6	2.3	0.8
90	1.4	4.4	0.9	3.2	2.4
100	1.9	4.0	1.9	3.1	2.7
110	1.6	2.6	1.6	2.1	1.9
120	1.0	0.2	-0.1	-0.3	0.2
130	0.7	-1.6	0.3	-1.9	-0.6
140	0.8	-1.1	0.4	-1.6	-0.3
148	1.7	0.1	-0.2	-0.2	0.3

## 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 HC110 PREPARATION 2 SOLUTION C

ANGLE:	0	5	10	15	20	25	30	35	40	45
(DEGREES)										
RAD.	75	67	65	58	55	43	58	69	26	13
TANG.	75	84	58	56	53	55	56	57	25	19

AWAR (AREA WEIGHTED AVERAGE RESOLUTION) IN LP/MM : 51

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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	0.013	0.011
S	0.010	-0.001

FIDUCIAL MARKS, REFERRED TO FC  
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	X (MM)	Y (MM)
1	105.999	-106.000
2	-105.994	-105.996
3	-105.994	105.995
4	106.001	106.002

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|               | 3             (7)             4 | | |
|               | |               | |
|               | |               | |
|       I       | |               | |
|       R N     | |               | |
|       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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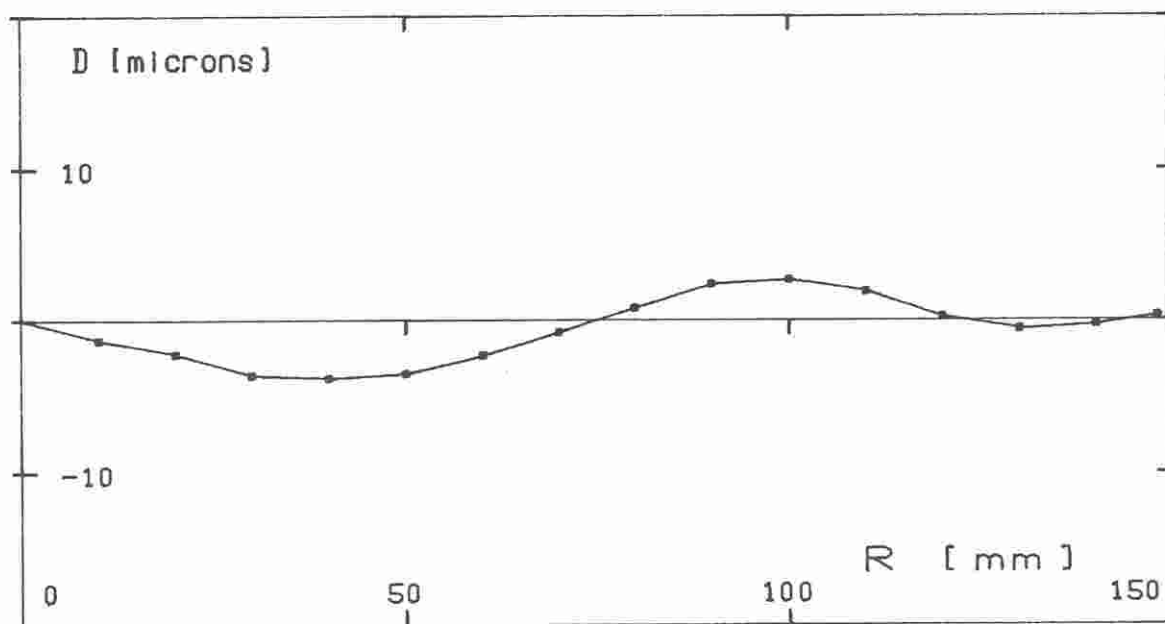
AS SEEN ON FOCAL PLANE FRAME



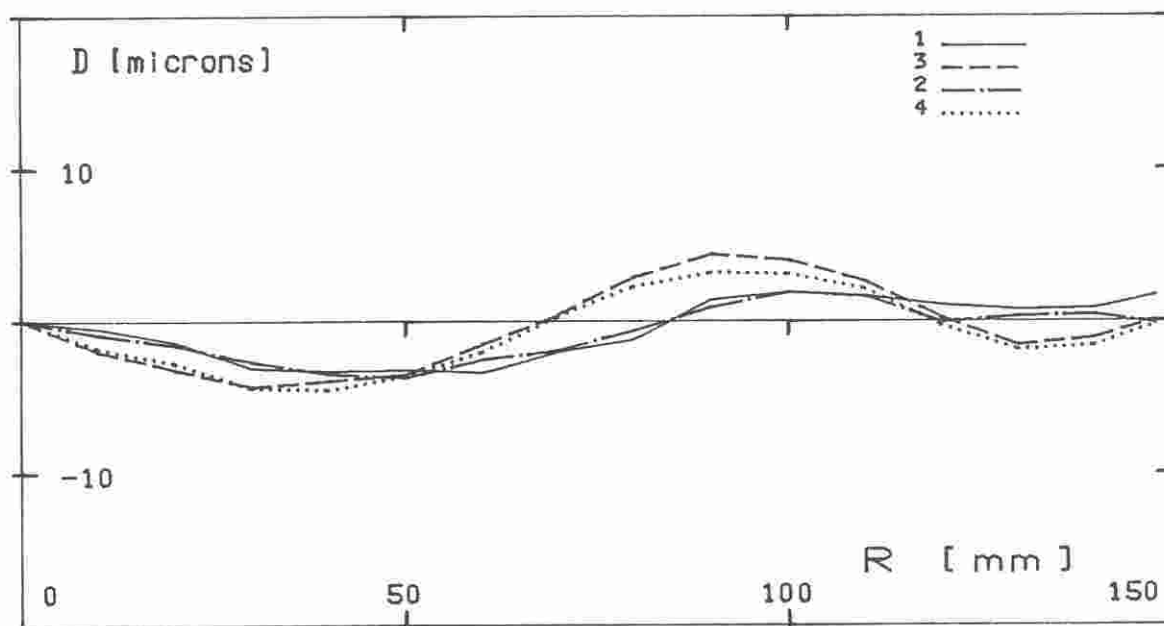
RC10 15 UAG II NO. 3039

07.12.89

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FILTER ON GONIOMETER : 450 NM  
FILTER ON CAMERA : --  
C.F.L. : 153.24 MM



MEAN RADIAL DISTORTION CURVE



RADIAL DISTORTION FOR SEMI-DIAGONALS  
REFERRED TO PPS

