

## CAMERA CALIBRATION CERTIFICATE

CAMERA TYPE : RC10A

LENS TYPE : 21 NAG II A

LENS NO. : 7181

CALIBRATION DATE : 28.01.85

WILD HEERBRUGG LTD



## CAMERA CALIBRATION

CAMERA: RC10A LENS: 21 NAG II A NO.: 7181 CALIBRATION DATE: 28.01.85

APERTURE : F / 4.0  
 FILTER ON GONIOMETER : 450 NM  
 FILTER ON CAMERA : --  
 PRINCIPAL DISTANCE FOR FOCUSING DISTANCE 900 M : 214.88 MM

## RADIAL DISTORTION (MICROMETERS)

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

| RADIUS | SEMI - DIAGONALS |      |      |      | MEAN |
|--------|------------------|------|------|------|------|
| MM     | 1                | 3    | 2    | 4    |      |
| 10     | 1.2              | 0.6  | 1.1  | 0.5  | 0.8  |
| 20     | 1.9              | 0.8  | 2.2  | 0.9  | 1.4  |
| 30     | 1.8              | 2.1  | 2.5  | 1.6  | 2.0  |
| 40     | 2.2              | 3.0  | 2.6  | 2.4  | 2.5  |
| 50     | 2.5              | 2.4  | 2.9  | 2.2  | 2.5  |
| 60     | 1.4              | 2.1  | 2.5  | 1.6  | 1.9  |
| 70     | 0.0              | 0.5  | 0.2  | 0.7  | 0.3  |
| 80     | -2.1             | -0.3 | -1.5 | -0.7 | -1.1 |
| 90     | -2.7             | -1.4 | -2.7 | -1.8 | -2.1 |
| 100    | -3.5             | -2.2 | -2.9 | -2.8 | -2.8 |
| 110    | -2.9             | -2.8 | -2.1 | -2.4 | -2.5 |
| 120    | -1.2             | -2.5 | -1.8 | -2.2 | -1.9 |
| 130    | -0.1             | -1.5 | -0.3 | -0.7 | -0.6 |
| 140    | 1.5              | 1.0  | 1.7  | 1.2  | 1.3  |
| 148    | 2.9              | 3.1  | 2.9  | 3.6  | 3.1  |

## 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 : AGFA-GEVAERT STUDIOAL LIQUID 1:15 6 MIN

ANGLE: 0 5 10 15 20 25 30 35  
 (DEGREES)

RAD. 75 84 74 73 56 43 41 62

TANG. 75 84 73 70 53 55 50 45

AWAR (AREA WEIGHTED AVERAGE RESOLUTION) IN LP/MM : 56

## CAMERA CALIBRATION

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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 | 0.007  | 0.024  |
| S   | 0.010  | 0.017  |

## FIDUCIAL MARKS, REFERRED TO FC

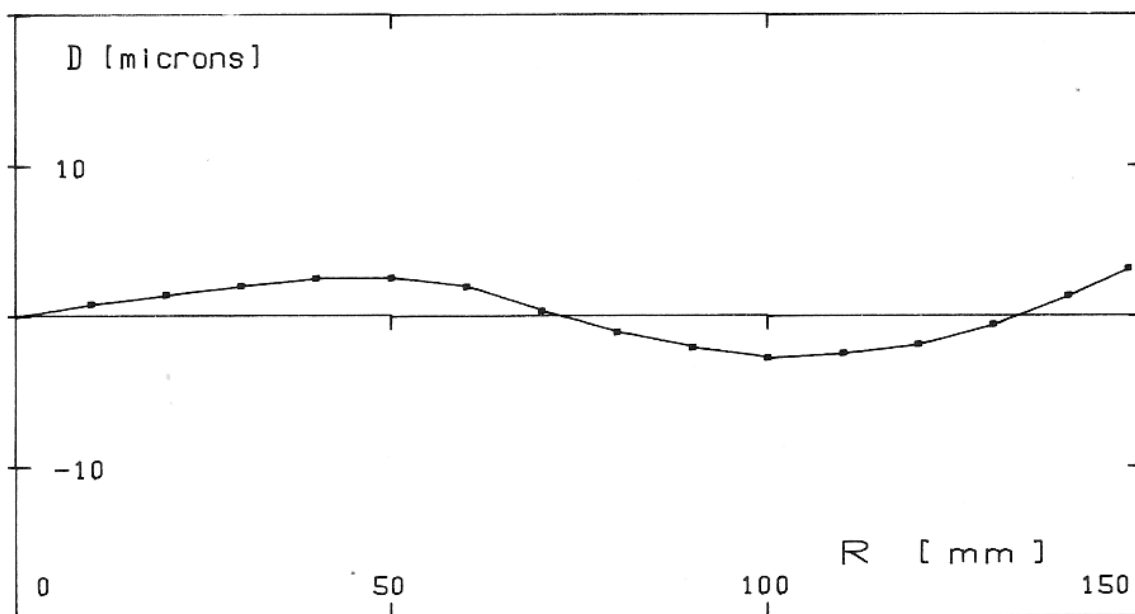
|   | X (MM)   | Y (MM)   |
|---|----------|----------|
| 1 | 106.002  | -106.003 |
| 2 | -105.999 | -105.999 |
| 3 | -106.000 | 106.000  |
| 4 | 105.998  | 105.999  |

|  |     |     |             |     |
|--|-----|-----|-------------|-----|
|  |     | 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   |

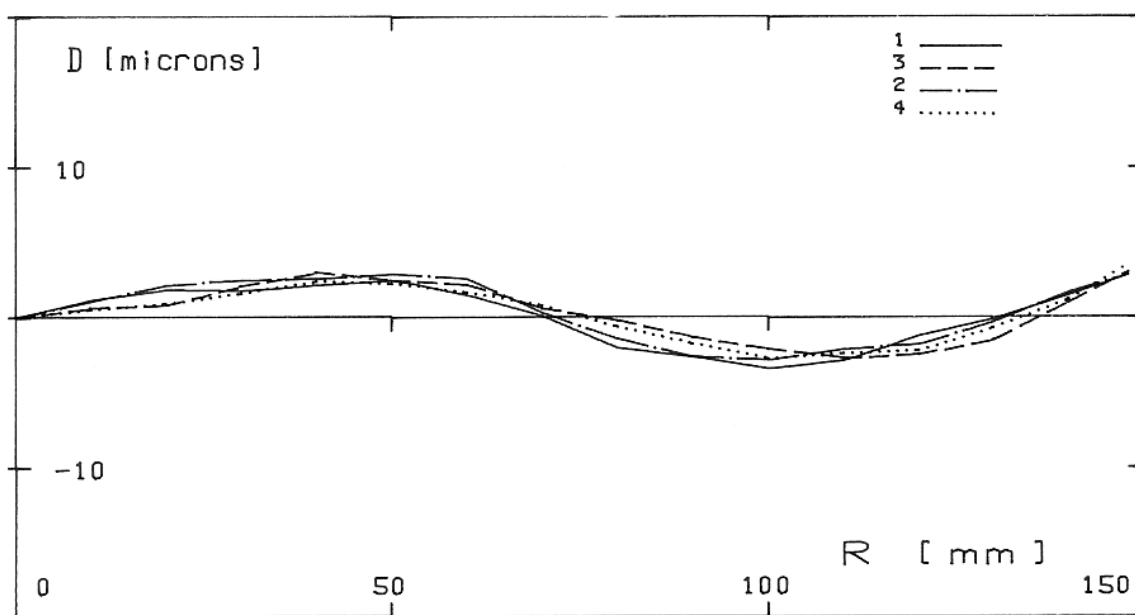
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AS SEEN ON FOCAL PLANE FRAME*ML*

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APERTURE : F / 4.0  
FILTER ON GONIOMETER : 450 NM  
FILTER ON CAMERA : --  
PD( 900 m) : 214.88 MM



MEAN RADIAL DISTORTION CURVE



RADIAL DISTORTION FOR SEMI-DIAGONALS  
REFERRED TO PPS