



Aerofilms

CALIBRATION NO: AF/ZEISS LMK 265005A/1

DATE: 15.9.94

Aerofilms Limited

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Tel 081-207 0666

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CAMERA CALIBRATION CERTIFICATE

LMK LENS CONE

NO. LMK 265005A

TYPE: CARL ZEISS JENA LMK



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CALIBRATION No. AF/ZEISS LMK 265005A/1

DATE OF CALIBRATION 15.9.94

LENS TYPE: CARL ZEISS JENA LMK

Serial No.: 265005A

FILTER TYPE: NONE FITTED

Serial No.: -

ORIGIN OF MEASUREMENTS O: The point of Symmetry

SIGN CONVENTION : Distortion is positive if away from origin

CALIBRATED AT A TEMPERATURE OF 20°C

CALIBRATION PERFORMED BY: D T PHILPOT

MEASUREMENTS

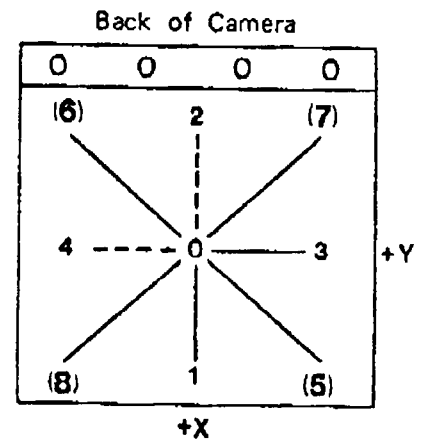
CALIBRATED PRINCIPAL DISTANCE: 152.207 mm

COORDINATES OF POINT OF SYMMETRY

x = -0.002 y = +0.003

COORDINATES OF PRINCIPAL POINT OF AUTOCOLLIMATION

x = -0.005 y = +0.010



RADIAL DISTORTION IN MILLIMETRES:

Radius (mm)	20	40	60	80	100	120	140
Semi diagonal (5)	+0.000	+0.002	-0.003	+0.000	+0.003	+0.005	-0.001
Semi diagonal (6)	+0.000	-0.001	+0.000	+0.002	+0.001	+0.004	+0.000
Semi diagonal (7)	+0.000	-0.002	+0.000	+0.000	+0.003	+0.003	-0.002
Semi diagonal (8)	-0.001	-0.003	-0.001	-0.001	+0.004	+0.008	+0.003
Mean	+0.000	-0.001	-0.001	+0.000	+0.003	+0.005	+0.000

BEFORE CALIBRATION THE OPTICAL UNIT WAS CHECKED AND FOUND TO BE IN A SERVICEABLE CONDITION.

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The Aerofilms logo features a stylized bird in flight. To its right is a large, handwritten signature in black ink. The signature is enclosed in a rectangular box.

CAMERA CALIBRATION



Aerofilms

LENS : CARL ZEISS
JENA LMK

NO.: 265005A

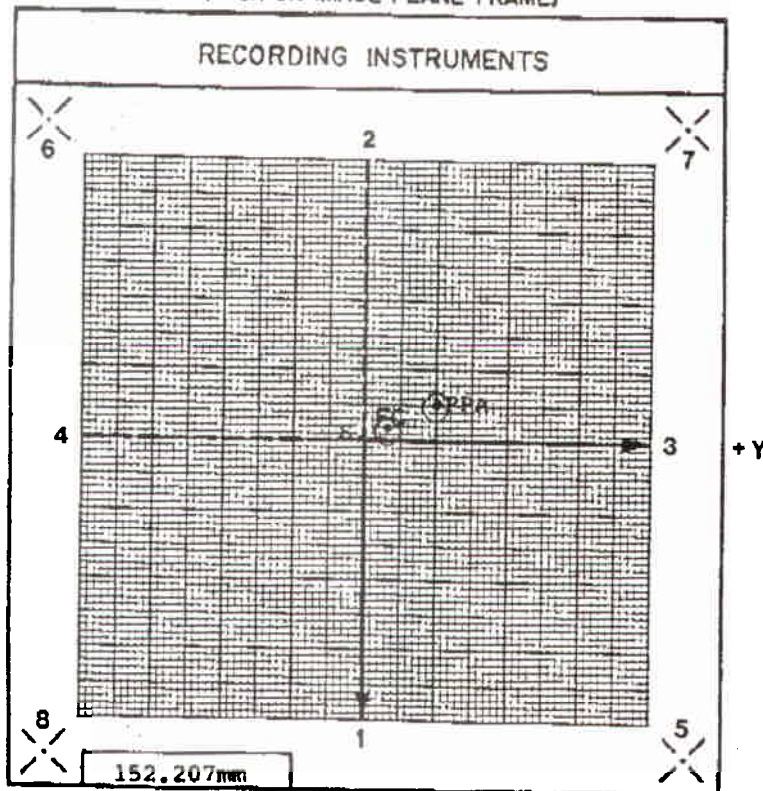
CALIBRATION DATE 15.9.94

POINT	FIDUCIAL COORDS	
	X MM	Y MM
FC	0.000	0.000
S	-0.002	+0.003
PPA	-0.005	+0.010

FIDUCIAL MARKS REFERED TO F.C.

S : POINT OF BEST SYMMETRY
PPA: PRINCIPAL POINT OF AUTOCOLLIMATION

(SEEN ON IMAGE PLANE FRAME)



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CALIBRATION RESULTS FOR ZEISS LMK

CAMERA LMK 15 265005A

DATE 15 SEPTEMBER 1994

CENTRE OF GRAVITY X= 110.0115 Y= 109.9976

FIDUCIAL COORDINATES (SIDES)

X1=	109.9955	X2=	-110.001	X3=	0.0185	X4=	-0.0065
Y1=	0.012625	Y2=	0.011625	Y3=	109.9896	Y4=	-109.998

DISTANCES 1-2= 219.997 3-4= 219.9880

FIDUCIAL COORDINATES (CORNERS)

X5=	110.0175	X6=	-110.015	X7=	-110.003	X8=	109.9955
Y5=	110.0026	Y6=	-110.006	Y7=	109.9886	Y8=	-110.000

DISTANCES (DIAG) 7-8= 311.1184 5-6= 311.1566

DISTANCES (SIDE)	7-5=	220.021	5-8=	220.003
	8-6=	220.011	6-7=	219.995



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CALIBRATION No. AF/ZEISS LMK 265005A/1

DATE OF CALIBRATION 15.9.94

RESOLUTION

LENS TYPE: CARL ZEISS JENA LMK SERIAL No.: 265005A

FOCAL LENGTH: 152.207mm

APERTURE F5.6

FILM TYPE: ORWO - NP15

HIGH CONTRAST TEST CHART

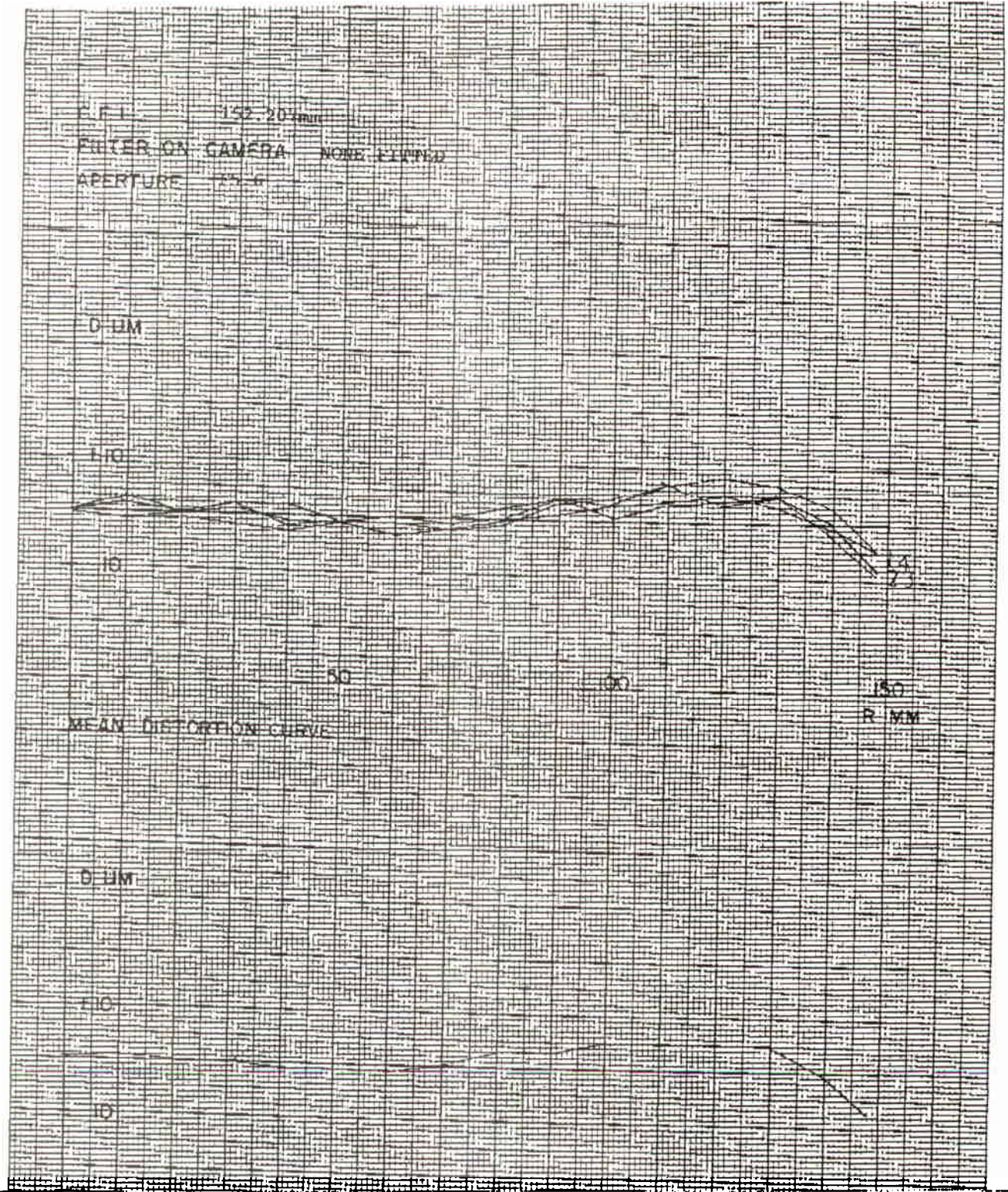
DEGREES OFF AXIS	RESOLUTION	
	Radial	Tangential
0	103	103
8	107	86
16	97	79
24	99	74
32	102	84
40	78	52
48	70	26

120							
100							
80							
60							
40							
20							
0							
	0	7	14	21	28	35	42



Measured by: ZEISS 21.3.85

Approved by:



CALIBRATION No. AF/ZEISS LMK 265005A/1

DATE OF CALIBRATION 15.9.94

RESOLUTION

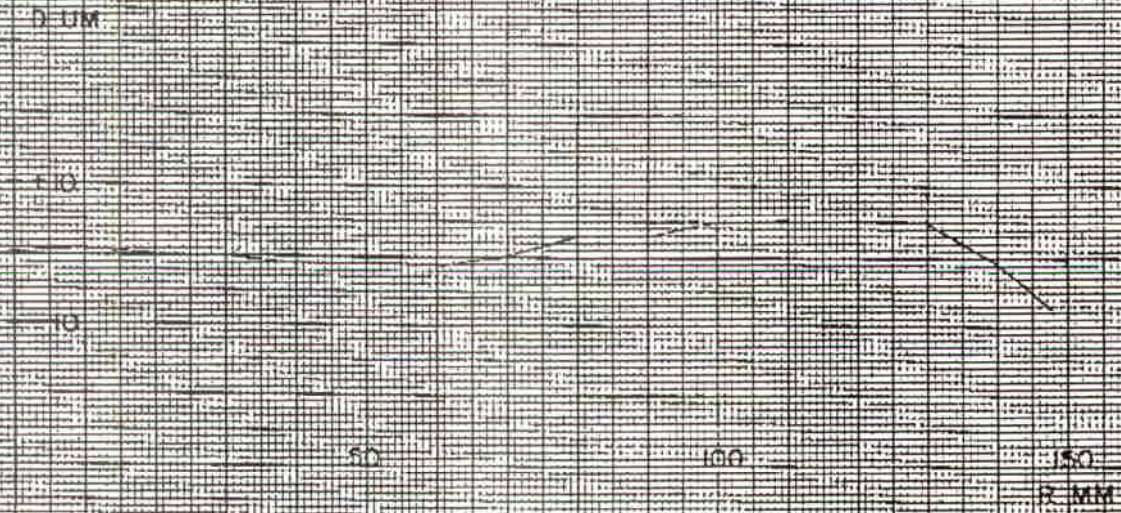
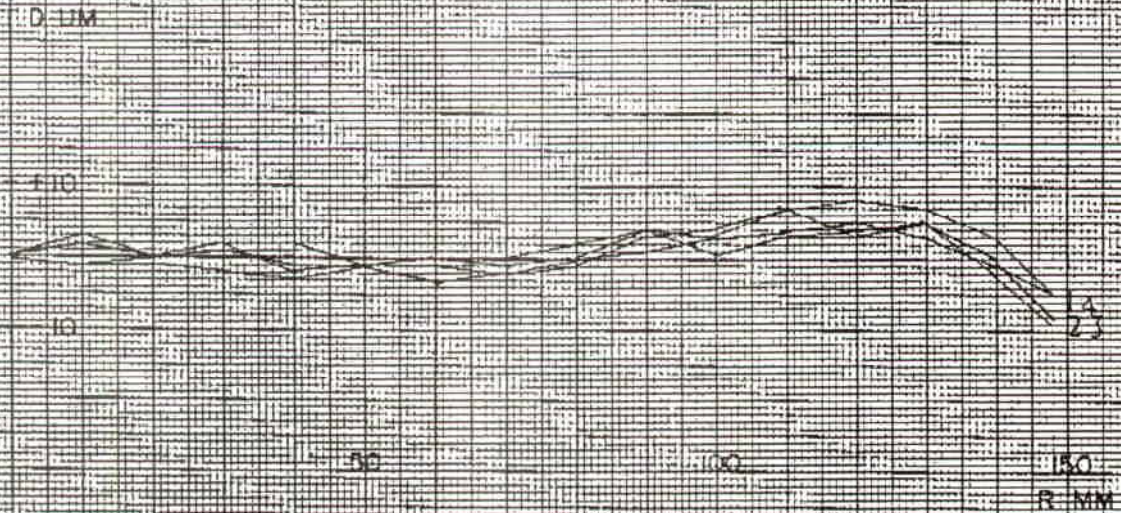
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SERIAL No.: 265005A

FOCAL LENGTH: 152.207mm

APERTURE F5.6

C.F.1 152.20mm
 FILTER ON CAMERA NONE FITTED
 APERTURE f/5.6



ADDRESS YMR 26-005A/3
 19-9-94

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