

SUPER BALTAR[®]

PROFESSIONAL MOTION PICTURE CAMERA LENSES



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PROFESSIONAL MOTION PICTURE

CAMERA LENSES

If you're interested in better professional motion picture photography, you'll be interested in Super Baltar lenses

Superior performance and unmatched quality make the Bausch & Lomb Super Baltars the finest professional motion picture and television camera lenses available today

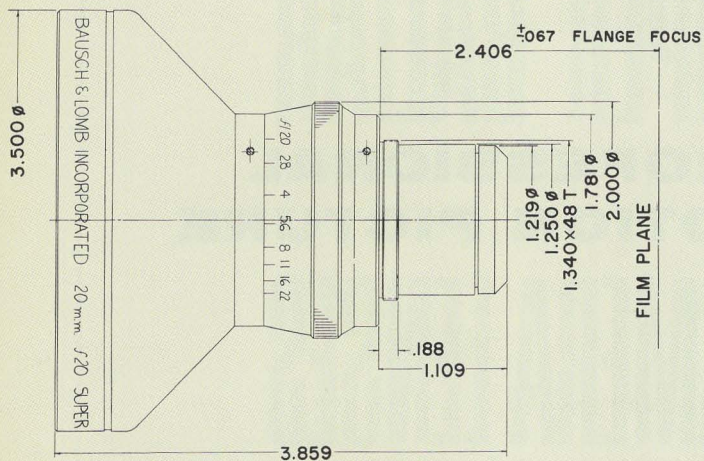
Super Baltars have been designed to provide high resolution, increased depth of field, high relative illumination and transmission characteristics, and excellent performance in low light level situations. The long back focal lengths of most of these lenses make them easily adaptable for reflex camera and television use. In aerospace applications, the lenses have served in recording valuable data both on the ground and from the space vehicle in flight.

Super Baltar lenses put no limit on imagination or creativity. They are available in eight focal lengths: 20mm, 25mm, 35mm, 50mm, 3", 4", 6", and 9", covering the formats most widely used in professional motion picture photography: 35mm and 70mm. All lenses have both F and T aperture stops.

For maximum versatility, Super Baltars are supplied in barrel with iris diaphragm permitting the lenses to be used on a variety of cameras simply by adapting the mount. However, if you need a specialized design for use in customized equipment or under adverse environmental conditions, the basic Super Baltars can be modified to meet your specifications. Quotations will be supplied on request.

The performance data shown in this catalog have been compiled from production lenses or computed on our advanced optical design computer system and are typical of the performance of Super Baltar lenses. However, performance of individual lenses may vary from the data shown.

20mm.



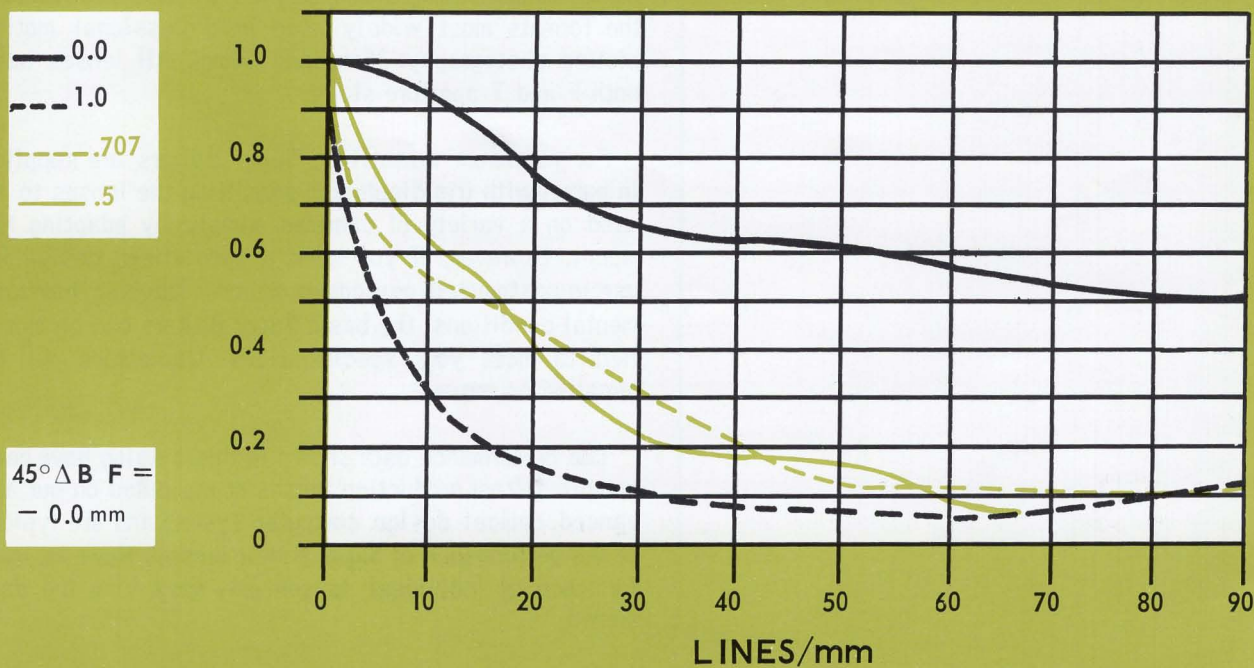
MINIMUM FREE APERTURE FRONT 2.677 ϕ REAR .945 ϕ

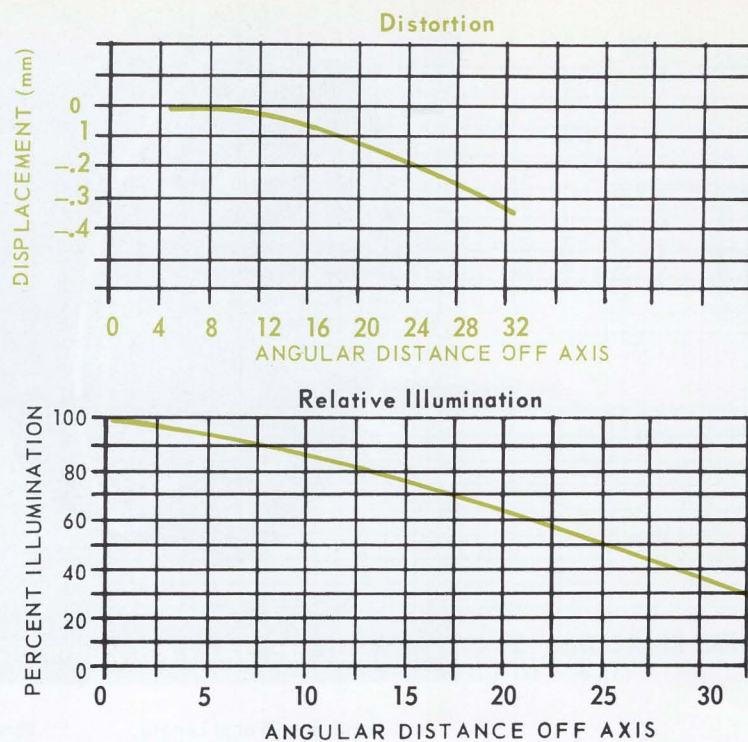


SUPER BALTAR 20mm F/2.0 • Catalog No. 51-15-32

Equivalent Focal Length	.21mm
Back Focal Length	.33mm
Front Focus	—39mm
Format Size	16 x 22mm
½ Angular Coverage.	.32°
Transmission at F/2.0	74%

FREQUENCY RESPONSE





Photographic Resolution in Lines/mm

(Plus-X film developed in Microdol for 9 minutes at 68°F.)

Angle	0°	5°	10°	15°	20°	25°	30°	32°
F/2.0 Sagittal	75	66	47	40	45	54	41	18
Tangential	75	47	36	39	42	34	36	24
F/4.0 Sagittal	84	75	53	52	45	60	46	18
Tangential	84	59	41	35	47	39	39	27
F/8.0 Sagittal	84	83	82	81	70	67	64	35
Tangential	84	74	46	35	33	49	45	43

(Kodak High Contrast film developed in D-19 for 6 minutes at 68°F.)

Angle	0°	5°	10°	15°	20°	25°	30°	32°
F/2.0 Sagittal	149	120	92	64	63	76	73	27
Tangential	149	94	65	62	59	69	71	47
F/4.0 Sagittal	169	169	132	116	79	86	63	27
Tangential	169	94	58	50	59	69	65	43
F/8.0 Sagittal	189	189	147	144	125	121	129	50
Tangential	189	133	123	62	59	69	127	85

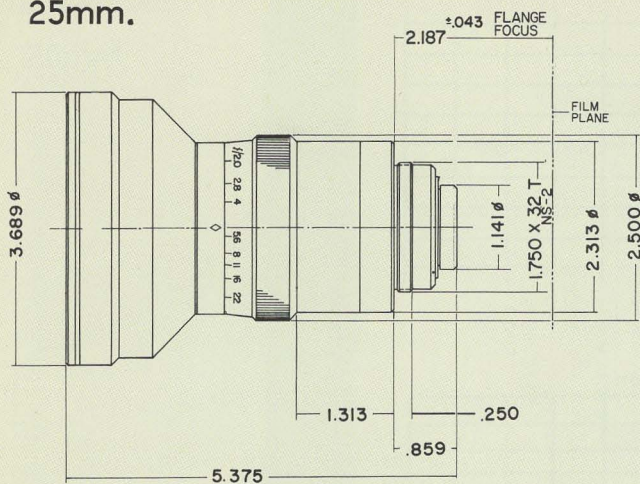
ORDERING INFORMATION

Catalog
No.

Description

51-15-32 20mm F/2.0 Super Baltar fixed focus lens in barrel with iris diaphragm

25mm.



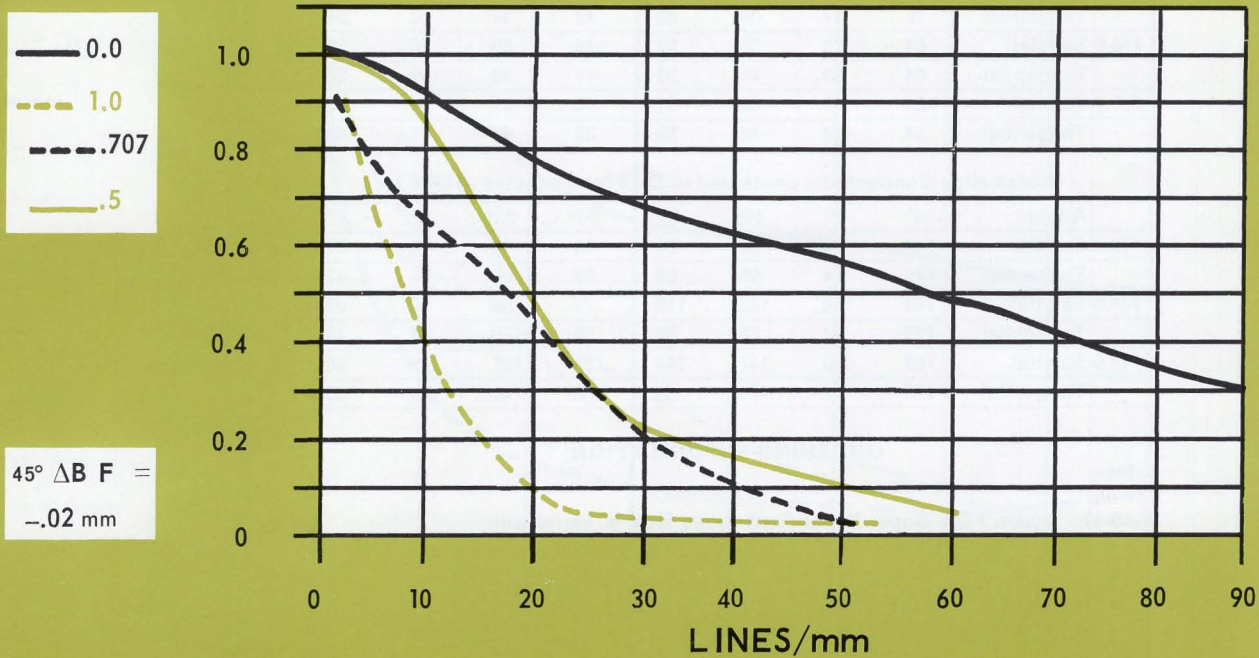
MINIMUM FREE APERTURE FRONT 3.071 ϕ REAR .799 ϕ

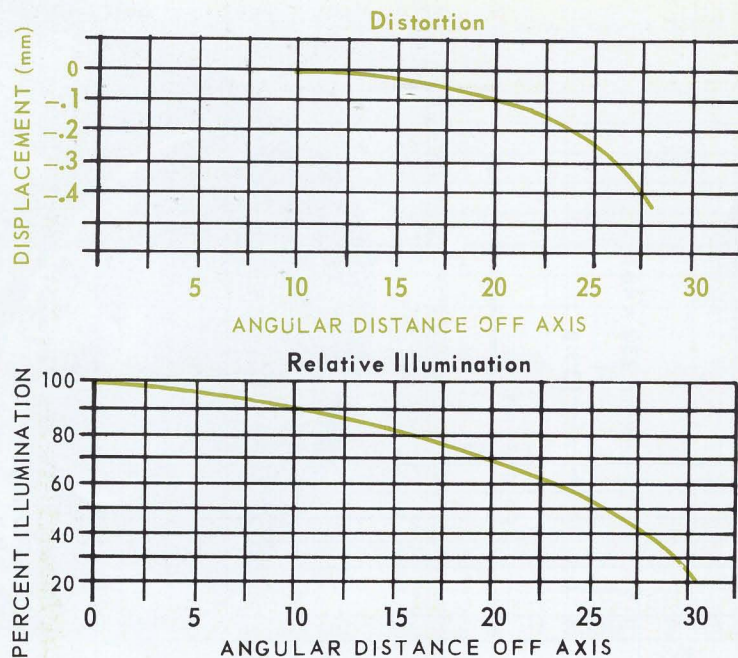


SUPER BALTAR 25mm F/2.0 • Catalog No. 51-15-33

Equivalent Focal Length	.26mm
Back Focal Length	.34mm
Front Focus	—54mm
Format Size	16 x 22mm
1/2 Angular Coverage	27 1/2°
Transmission at F/2.0	85%

FREQUENCY RESPONSE





Photographic Resolution in Lines/mm

(Plus-X film developed in Microdol for 7 minutes at 68°F without filter for high contrast.)

Angle	0°	5°	10°	15°	20°	25°	30°
F/2.0 Sagittal	67	53	52	41	31	30	26
Tangential	67	53	47	41	31	25	28
F/4.0 Sagittal	76	67	63	58	50	40	35
Tangential	76	75	61	56	40	31	34
F/8.0 Sagittal	76	76	75	69	50	40	35
Tangential	76	71	64	49	42	31	34

(Microfile film developed in D-19 for 6 minutes at 68°F without filter for high contrast.)

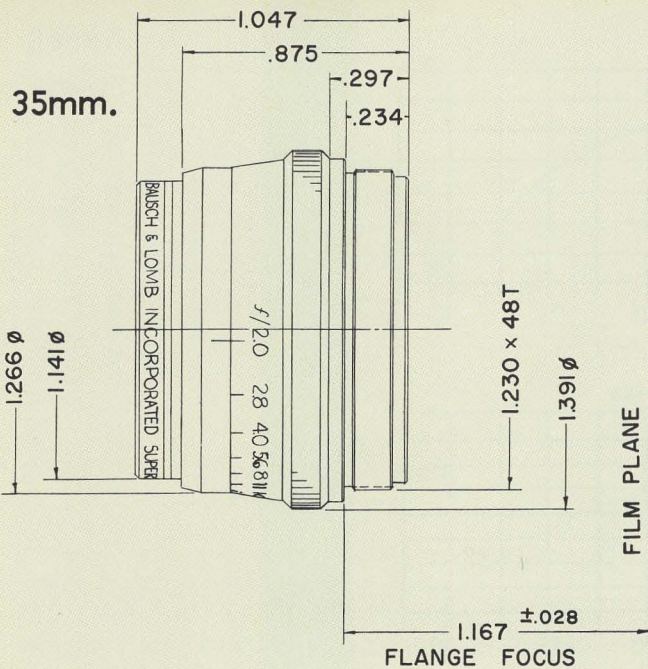
Angle	0°	5°	10°	15°	20°	25°	30°
F/2.0 Sagittal	120	120	110	100	71	70	44
Tangential	120	102	70	51	46	35	36
F/4.0 Sagittal	193	181	178	136	99	78	44
Tangential	193	181	151	113	62	44	49
F/8.0 Sagittal	193	181	168	165	113	83	73
Tangential	193	170	117	101	84	82	91

ORDERING INFORMATION

Catalog
No.

Description

51-15-33 25mm F/2.0 Super Baltar fixed focus lens in barrel with iris diaphragm



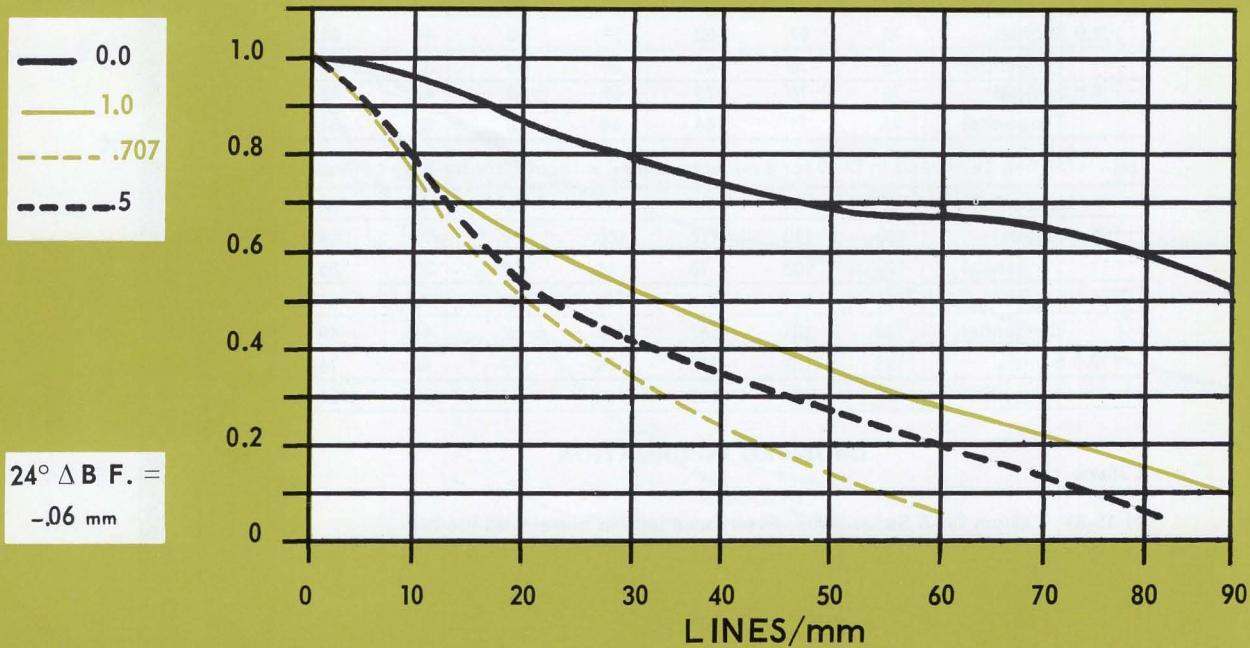
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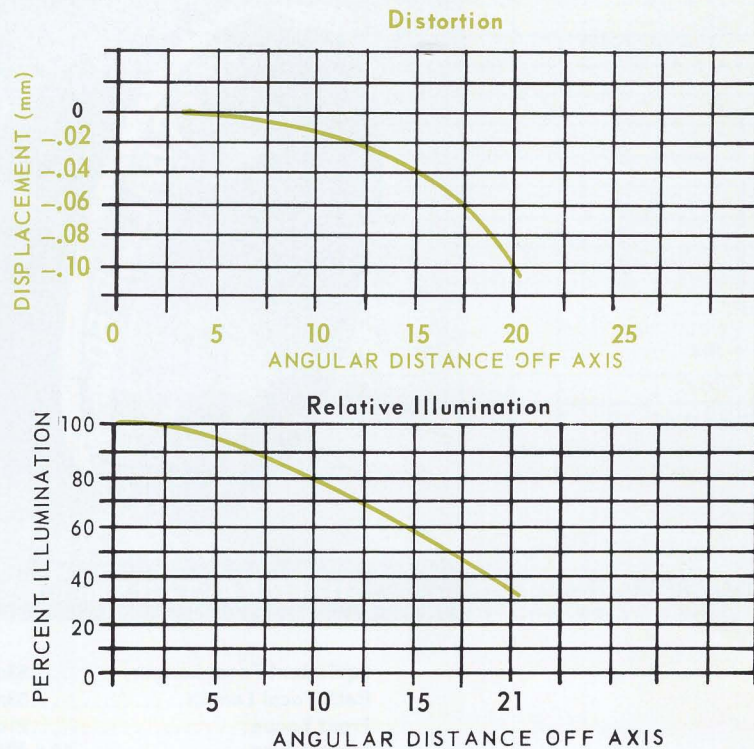


SUPER BALTAR 35mm F/2.0 • Catalog No. 51-15-34

Equivalent Focal Length	.35mm
Back Focal Length	.26mm
Front Focus	.20mm
Format Size	16 x 22mm
½ Angular Coverage.	.21°
Transmission at F/2.0	81%

FREQUENCY RESPONSE





Photographic Resolution in Lines/mm

(Plus-X film developed in Microdol for 9 minutes at 68°F.)

Angle	0°	5°	10°	15°	21°
F/2.0 Sagittal	86	67	53	41	45
Tangential	86	85	59	51	42
F/4.0 Sagittal	96	85	53	41	45
Tangential	96	85	66	43	42
F/8.0 Sagittal	96	96	75	52	50
Tangential	96	95	74	64	60

(Kodak High Contrast film developed in D-19 for 6 minutes at 68°F.)

Angle	0°	5°	10°	15°	21°
F/2.0 Sagittal	171	170	106	66	70
Tangential	171	170	118	114	96
F/4.0 Sagittal	190	215	168	83	50
Tangential	190	170	133	128	101
F/8.0 Sagittal	171	170	136	133	128
Tangential	171	139	148	128	113

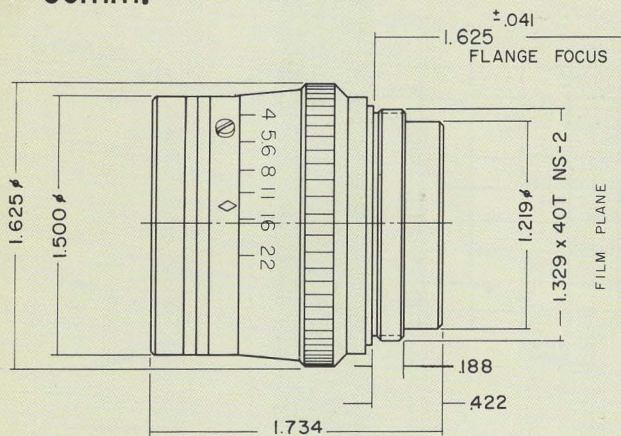
ORDERING INFORMATION

Catalog
No.

Description

51-15-34 35mm F/2.0 Super Baltar fixed focus lens in barrel with
iris diaphragm

50mm.



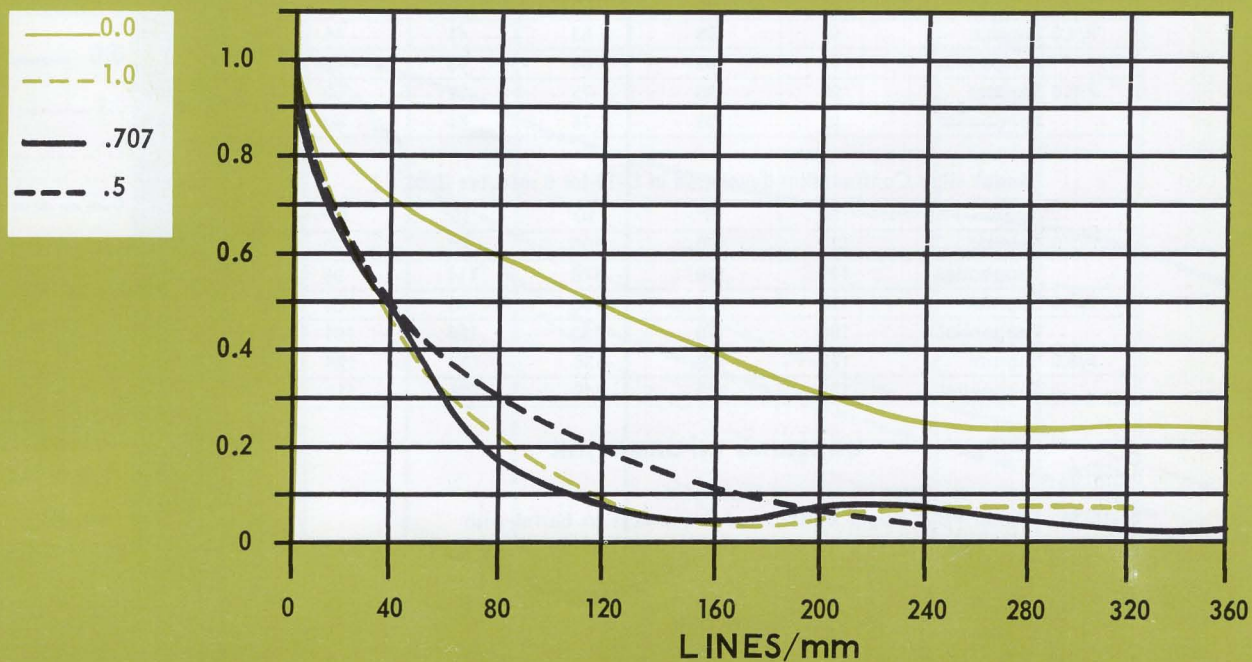
MINIMUM FREE APERTURE FRONT 1.157 ϕ REAR .772 ϕ

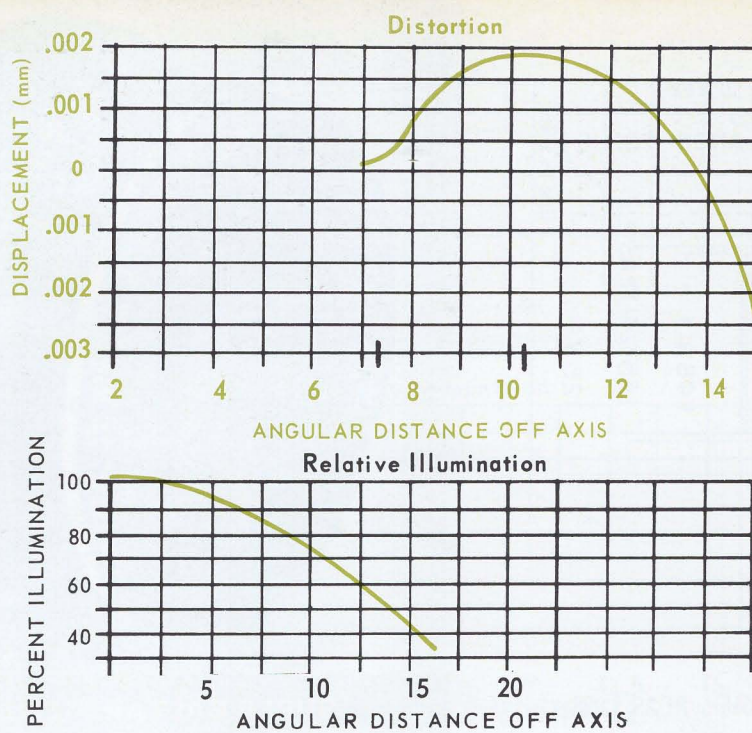


SUPER BALTAR 50mm F/2.0 • Catalog No. 51-15-35

Equivalent Focal Length	.53mm
Back Focal Length	.33mm
Front Focus	.21mm
Format Size	16 x 22mm
$\frac{1}{2}$ Angular Coverage	14.5°
Transmission at F/2.0	.88%

FREQUENCY RESPONSE





Photographic Resolution in Lines/mm
(Plus-X film developed in Microdol for 7 minutes at 68°F.)

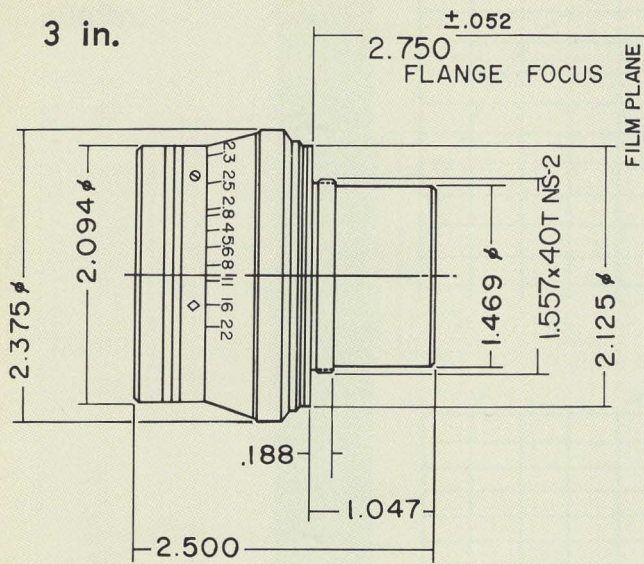
Angle	0°	5°	10°	13°	16°
F/2.0 Sagittal	85	57	57	63	50
Tangential	85	60	60	61	38
F/4.0 Sagittal	85	91	67	53	50
Tangential	85	75	66	44	38
F/8.0 Sagittal	96	91	71	53	50
Tangential	96	95	66	61	38

(Microfile film developed in D-19 for 6 minutes at 68°F.)

Angle	0°	5°	10°	13°	16°
F/2.0 Sagittal	239	220	203	180	109
Tangential	239	172	232	185	198
F/4.0 Sagittal	239	238	211	216	126
Tangential	239	212	207	208	70
F/8.0 Sagittal	239	238	210	158	126
Tangential	239	238	207	152	70

ORDERING INFORMATION

Catalog No.	Description
51-15-35	50mm F/2.0 Super Baltar fixed focus lens in barrel with iris diaphragm



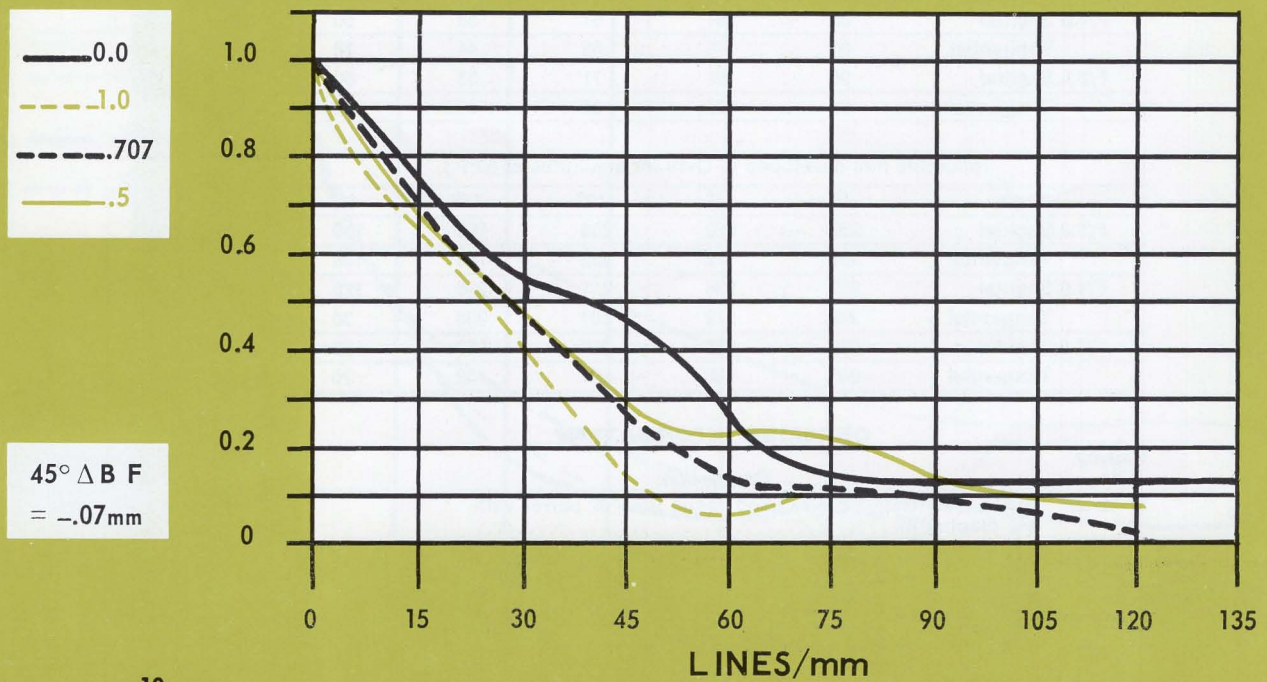
MINIMUM FREE APERTURE FRONT 1.646" REAR 1.098"

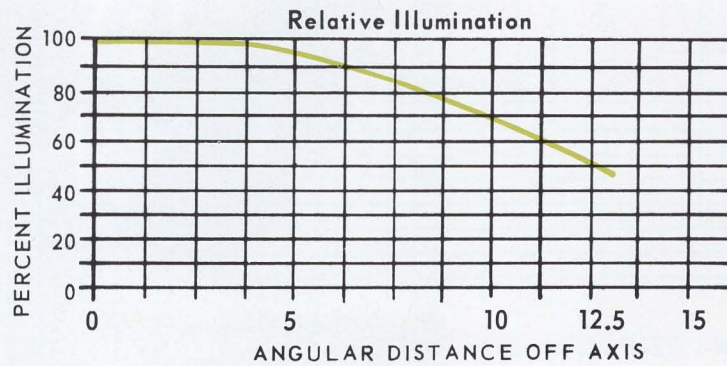
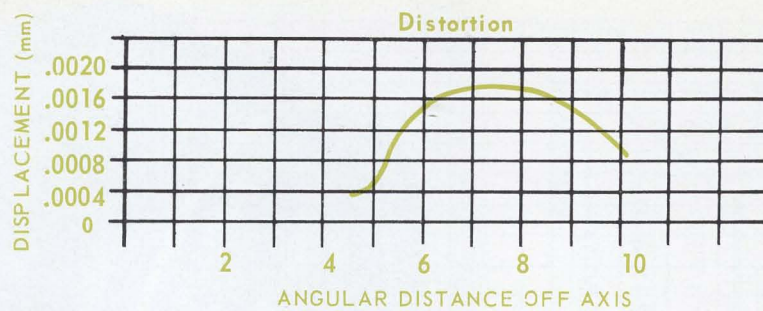


SUPER BALTAR 3" F/2.0 • Catalog No. 51 15-43

Equivalent Focal Length	75mm
Back Focal Length	47mm
Front Focus	29mm
Format Size	16 x 22mm
½ Angular Coverage.	10°
Transmission at F/2.0	90%

FREQUENCY RESPONSE





Photographic Resolution in Lines/mm
(Plus-X film developed in Microdol for 7 minutes at 68°F.)

Angle	0°	5°	10°	12.5°
F/2.0 Sagittal	71	63	50	49
Tangential	71	62	55	56
F/4.0 Sagittal	89	85	66	61
Tangential	89	94	78	76
F/8.0 Sagittal	114	113	79	67
Tangential	114	100	92	56

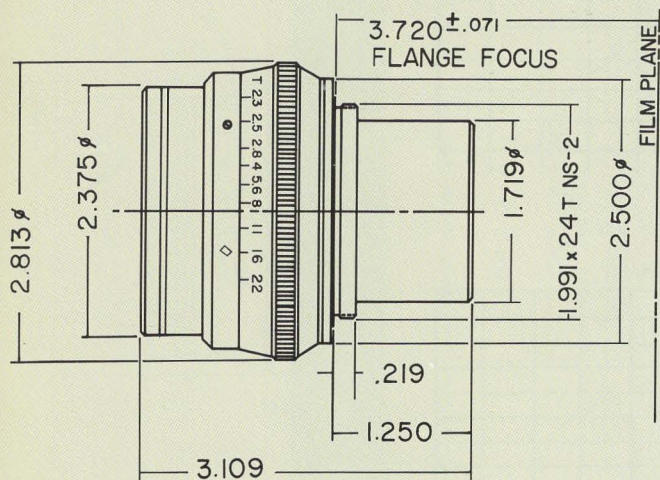
(Microfile film developed in D-19 for 6 minutes at 68°F.)

Angle	0°	5°	10°	12.5°
F/2.0 Sagittal	159	136	138	100
Tangential	159	145	124	102
F/4.0 Sagittal	201	201	160	112
Tangential	201	201	166	136
F/8.0 Sagittal	159	181	179	156
Tangential	159	179	154	149

ORDERING INFORMATION

Catalog No.	Description
51-15-43	3" F/2.0 Super Baltar fixed focus lens in barrel with iris diaphragm ..

4 in.



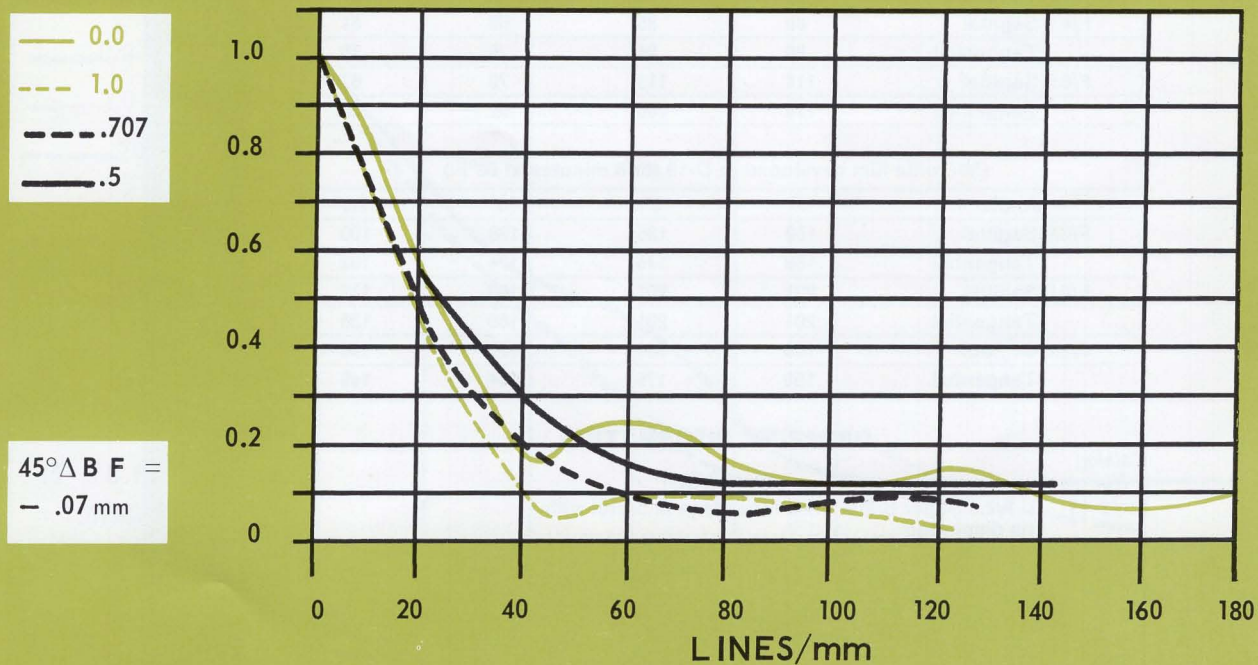
MINIMUM FREE APERTURE FRONT 2.000 ϕ REAR 1.425 ϕ

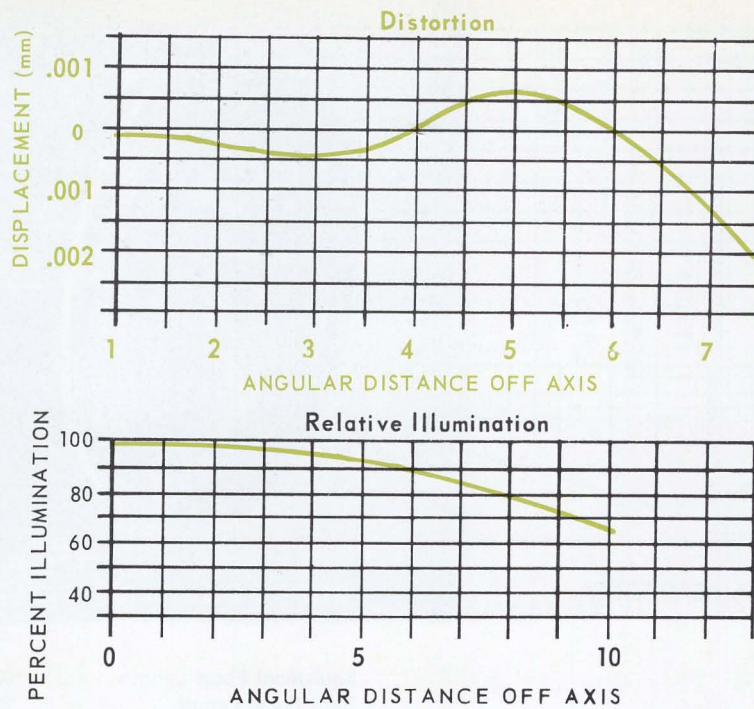


SUPER BALTAR 4" F/2.0 • Catalog No. 51 15-44

Equivalent Focal Length	100mm
Back Focal Length	64mm
Front Focus	42mm
Format Size	16 x 22mm
½ Angular Coverage	.75°
Transmission at F/2.0	72%

FREQUENCY RESPONSE





Photographic Resolution in Lines/mm
(Plus-X film developed in Microdol for 7 minutes at 68°F.)

Angle	0°	2.5°	5°	7.5°	10°
F/2.3 Sagittal	68	68	48	47	46
Tangential	68	53	43	42	41
F/4.0 Sagittal	87	75	75	60	42
Tangential	87	87	87	67	66
F/8.0 Sagittal	97	97	97	87	59
Tangential	87	87	97	97	95

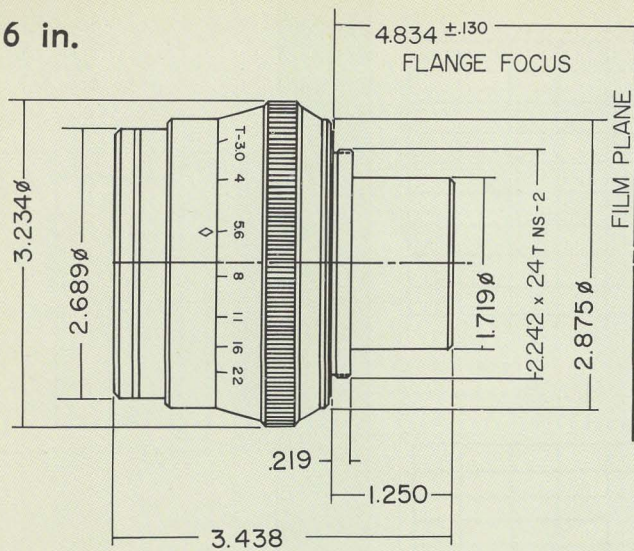
(Kodak High Resolution film developed in D-19 for 6 minutes at 68°F.)

Angle	0°	2.5°	5°	7.5°	10°
F/2.3 Sagittal	152	120	60	120	66
Tangential	152	76	67	106	105
F/4.0 Sagittal	214	214	193	134	95
Tangential	214	171	152	133	105
F/8.0 Sagittal	171	171	193	171	151
Tangential	171	171	193	171	169

ORDERING INFORMATION

<i>Catalog No.</i>	<i>Description</i>
51-15-44	4" F/2.0 Super Baltar fixed focus lens in barrel with iris diaphragm ..

6 in.



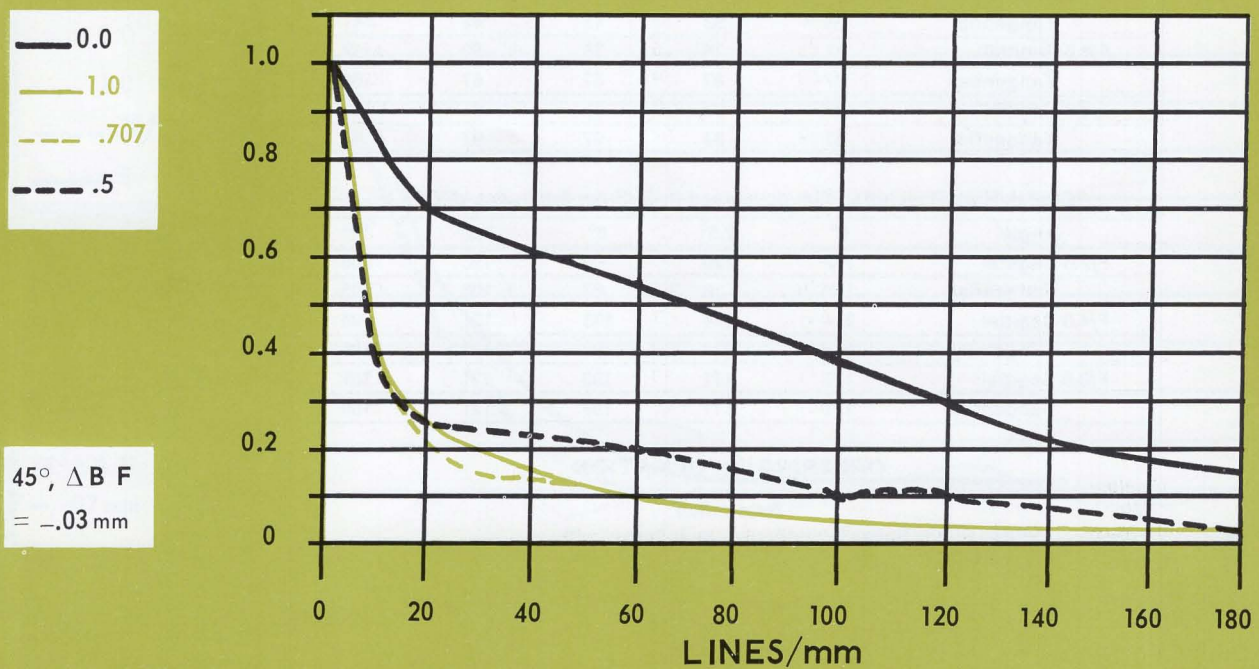
MINIMUM FREE APERTURE FRONT 2.142 ϕ REAR 1.346 ϕ

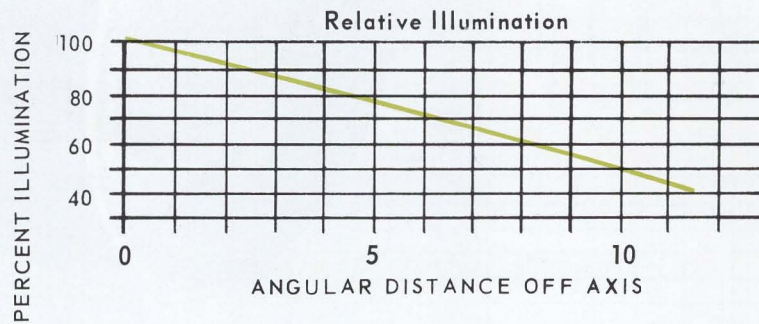
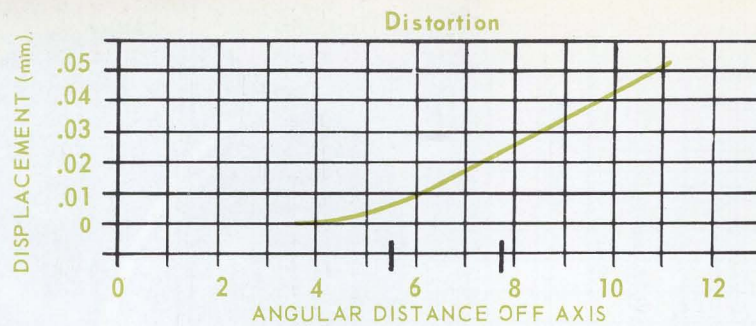


SUPER BALTAR 6" F/2.8 • Catalog No. 51-15-46

Equivalent Focal Length	152mm
Back Focal Length	93mm
Front Focus	105mm
Format Size	23 x 52.5mm
½ Angular Coverage.	11°
Transmission at F/2.8	.85%

FREQUENCY RESPONSE





Photographic Resolution in Lines/mm
(Plus-X film developed in Microdol for 7 minutes at 68°F.)

Angle	0°	5°	8°	11°
F/2.8 Sagittal	50	50	46	47
Tangential	50	53	43	36
F/4.0 Sagittal	60	56	44	47
Tangential	60	59	43	39
F/8.0 Sagittal	79	70	63	54
Tangential	79	63	58	46

(Kodak High Resolution film developed in D-19 for 6 minutes at 68°F.)

Angle	0°	5°	8°	11°
F/2.8 Sagittal	126	100	89	78
Tangential	126	100	79	67
F/4.0 Sagittal	141	107	94	86
Tangential	141	113	79	67
F/8.0 Sagittal	159	133	133	112
Tangential	159	120	94	64

ORDERING INFORMATION

Catalog No.	Description
51-15-46	6" F/2.8 Super Baltar fixed focus lens in barrel with iris diaphragm

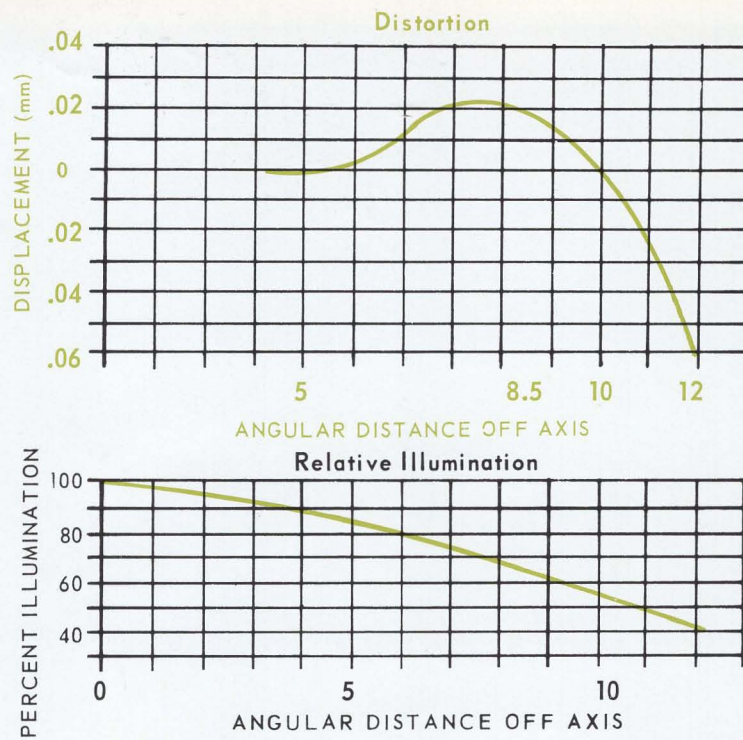
Technical drawing of a 24T film plane. The drawing shows a side view of the component with various dimensions and a scale. The dimensions are as follows:

- Overall width: 3.219 ϕ
- Top flange width: 2.875 ϕ
- Top flange thickness: .219
- Top flange outer diameter: 6.715 $\pm .116$
- Top flange inner diameter: 1.938 ϕ
- Top flange height: 2.242 x 24T - NS - 2
- Top flange outer diameter (bottom view): 2.984 ϕ
- Top flange inner diameter (bottom view): 1.688
- Top flange height (bottom view): 3.438

The drawing also includes a scale bar at the bottom, ranging from 0 to 1.000.

Equivalent Focal Length	229mm
Back Focal Length	133mm
Front Focus	244mm
Format Size	2.25 x 2.25"
½ Angular Coverage.	12°
Transmission at F/4.0	88%





Photographic Resolution in Lines/mm

(Plus-X film developed in Microdol for 7 minutes at 68°F.)

Angle	0°	5°	8°	12°
F/4.0 Sagittal	66	46	44	27
Tangential	66	26	23	11
F/8.0 Sagittal	84	55	49	36
Tangential	84	31	26	21

(Kodak High Resolution film developed in D-19 for 6 minutes at 68°F.)

Angle	0°	5°	8°	12°
F/4.0 Sagittal	119	79	66	30
Tangential	119	42	35	15
F/8.0 Sagittal	132	118	84	65
Tangential	132	64	52	34

ORDERING INFORMATION

Catalog No.	Description
51-15-49	9" F/4.0 Super Baltar fixed focus lens in barrel with iris diaphragm

NEW SUPER BALTAR PROFESSIONAL MOTION PICTURE CAMERA LENSES

BAUSCH & LOMB 