CANON SLR CAMERA SYSTEM

Guide Data for Close-Up, Macrophotography, and Photomicrography

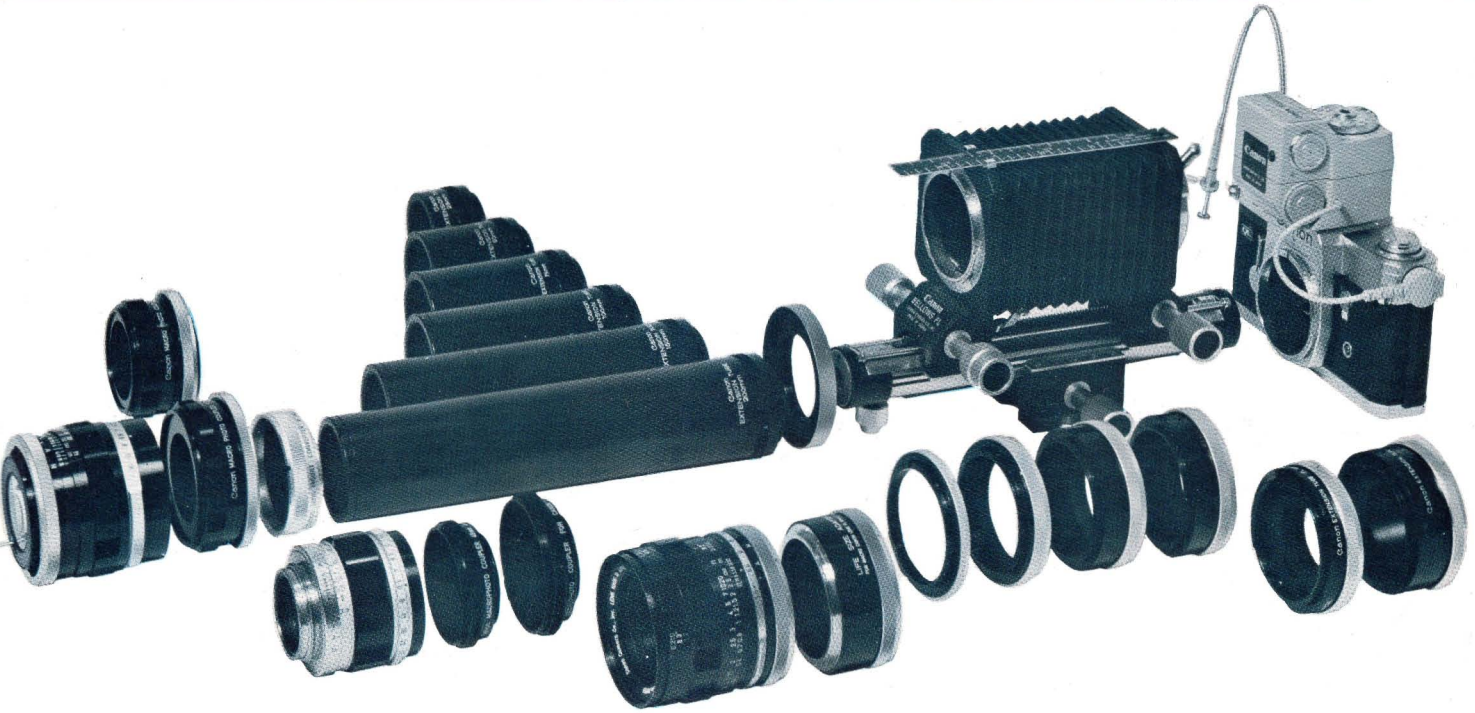
Canon

English Edition

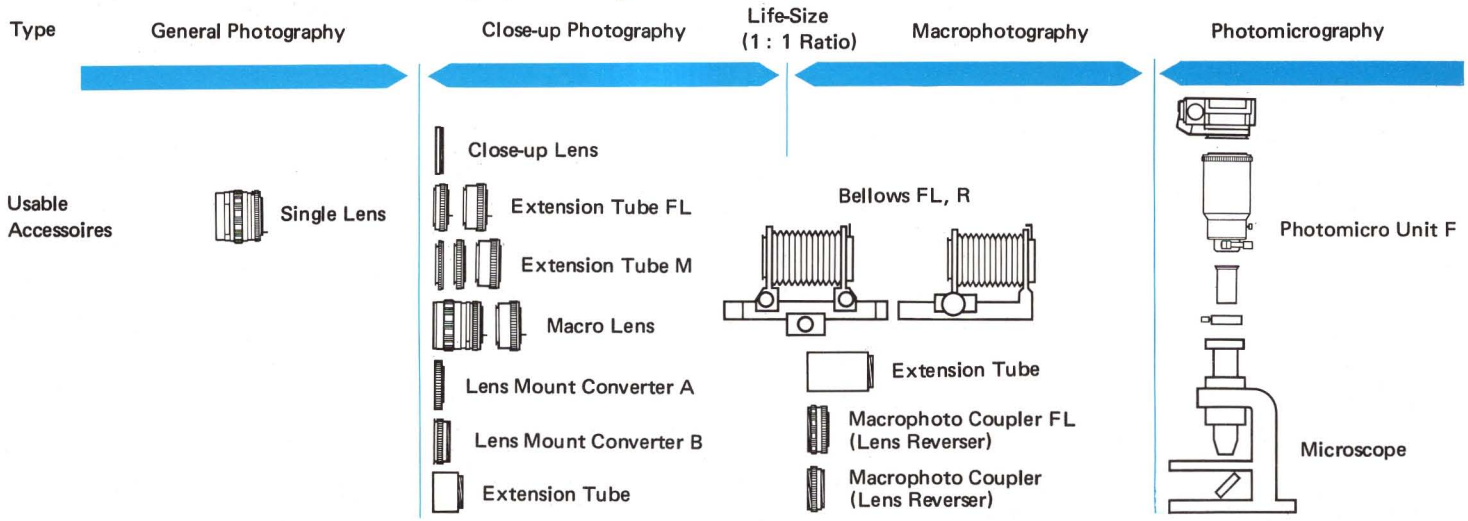
Canon SLR Cameras and Their Performances

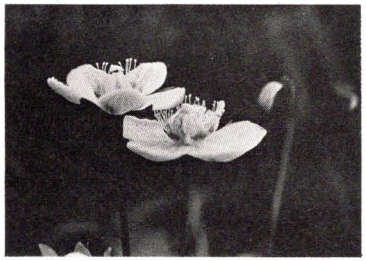
Specifications / Model	Standard Lenses	Interchangeable Lenses	Shutter Speeds	Aperture	Flash Synchronization
Canon Pellix QL	Canon FL50mm F1.8 FL50mm F1.4 II FL55mm F1.2	FL19mm F3.5R- FLP38mm F2.8- R1000mm F11, 22 Lenses	Focal plane shutter with speeds from 1/1000 to 1, B and X	Fully automatic pre-set aperture built-in	FP and X contacts FP, M, FM flash bulbs and electronic flash facility
Canon FT QL	Canon FL50mm F1.8 FL50mm F1.4 II FL55mm F1.2	FL19mm F3.5R- R1000mm F11, 21 Lenses	Same as above	Same as above	Same as above
Canon FX	Canon FL50mm F1.8 FL50mm F1.4 II FL55mm F1.2	FL19mm F3.5R- R1000mm F11, 21 Lenses	Same as above	Same as above	Same as above
Canon FP	Canon FL50mm F1.8 FL50mm F1.4 II FL55mm F1.2	FL19mm F3.5R- R1000mm F11, 21 Lenses	Same as above	Same as above	Same as above

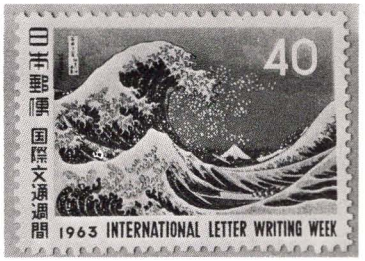
Mirror	Viewfinder	Light Measurement	Exposure Range	Size, Weight
Stationary Pellicle Mirror, half transparent type	Eye level type Built-in prism screen rangefinder	Built-in CdS through-the-lens exposure meter	EV0.5(with ASA 100 film, f/1.2 at 1 sec.) -EV18(f/16 at 1/1000 sec.) ASA25 - 2000	144 x 91 x 43mm (5-3/4"x3-5/6"x1-3/4") 755 grams (1 lb. 10-1/2 oz.) body only
Shockless quick-return system, Mirror can be rocked up.	Same as above	Same as above	EV2.5(with ASA 100 film, f/1.2 at 1/4 sec.) -EV18(f/16 at 1/1000 sec.) ASA25 - 2000	144 x 93 x 43mm (5-3/4"x3-5/6"x1-3/4") 740 grams (1 lb. 10 oz.) body only
Same as above	Eye level type Built-in split image rangefinder	Built-in CdS exposure meter	EV1(with ASA 100 film, f/1.4 at 1 sec.) -EV18(f/16 at 1/1000 sec.) ASA10 - 800	141 x 90 x 43mm (5-1/2"x3-1/2"x1-3/4") 670 grams (1 lb. 7-1/2 oz.) body only
Same as above	Same as above	CdS clip-on coupled exposure meter	Same as above	141 x 90 x 43mm (5-1/2"x3-1/2"x1-3/4") 650 grams (1 lb. 4 oz.) body only

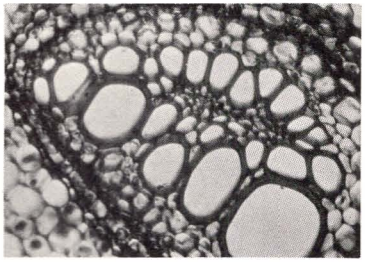


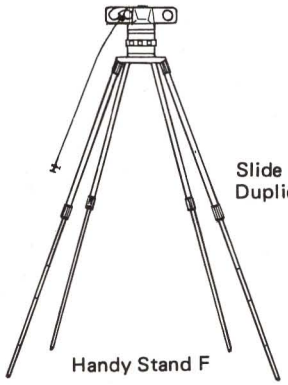
Canon System Accessories and Photographic Range

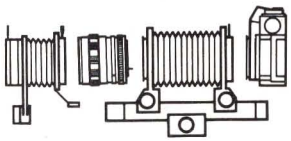


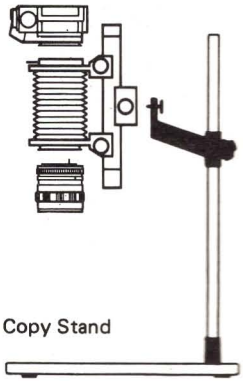




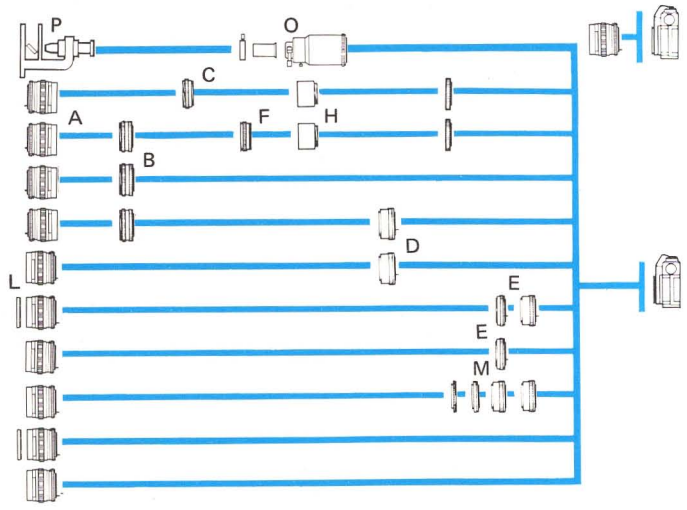


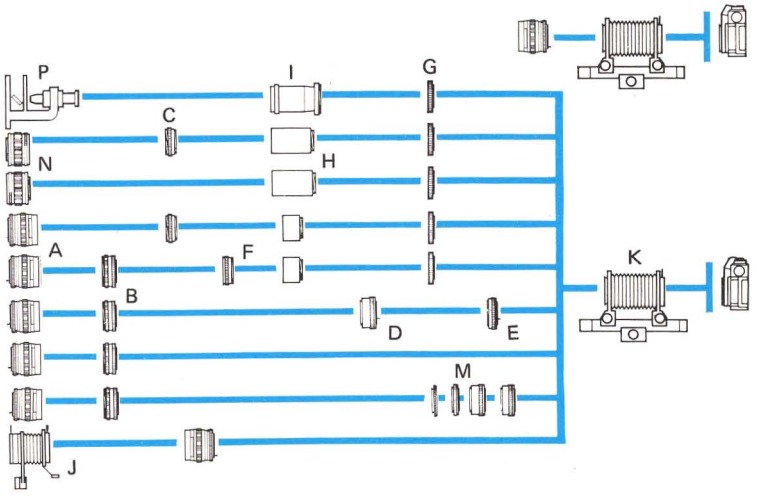






Combinations and Uses of Close-up Accessories





A: FL Lens

B: Macrophoto Coupler FL

C: Macrophoto Coupler

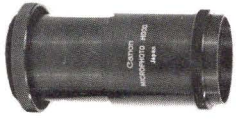
D: Life-Size Adapter

E: Extension Tube FL

F: Mount Converter B

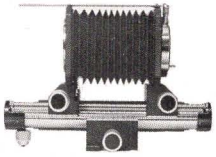
G: Mount Converter A

H: Extension Tube



I: Microphoto Hood

J: Slide Duplicator



K: Bellows FL

L: Close-up Lens

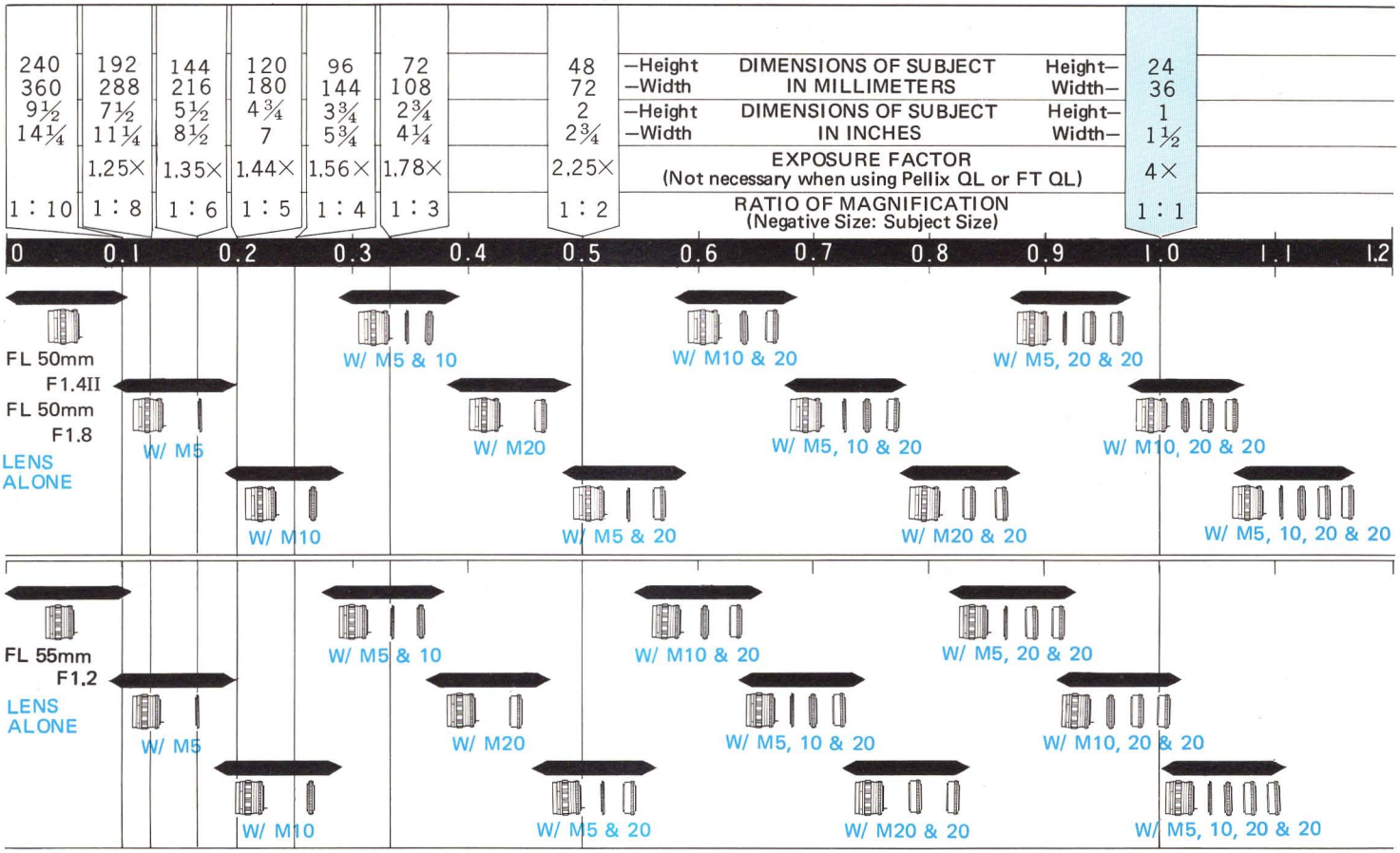
M: Extension Tube M

N: Screw-in Type Lens
(Rangefinder type)

O: Photomicro Unit F

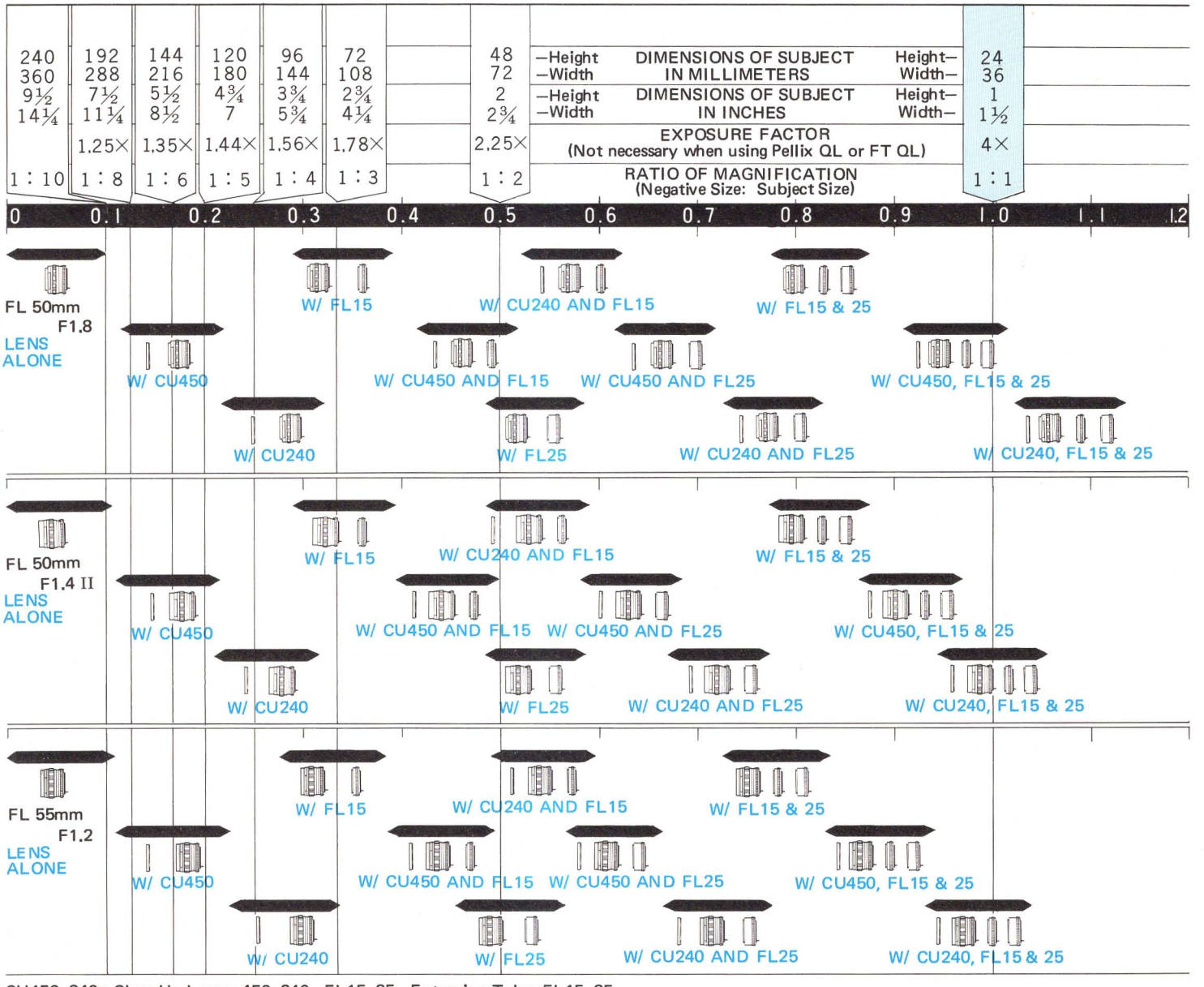
P: Microscope

Photographic Range with Standard Lens and M Tubes



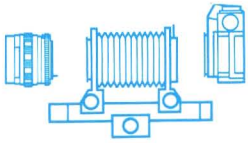
M5, 10, 20 : Extension Tubes M5, 10, 20

Photographic Range with Standard Lens FL Tubes and Close-Up Lenses (450, 240)



CU450, 240: Close-Up Lenses 450, 240 FL15, 25: Extension Tubes FL15, 25

Date when FL lenses are in standard direction attached onto Bellows FL

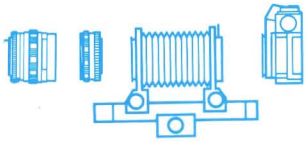


Lens \ Bellows FL Scale (mm) (in)		34.5 1-3/8	40 1-9/16	50 1-15/16	60 2-3/8	70 2-3/4	80 3-1/8	90 3-9/16	100 3-15/16	110 4-5/16	120 4-3/4	130 5-1/8	142.5 5-5/8
FL 35mm F 3.5	Magnification	0.97	1.12	1.41	1.69	1.97	2.25	2.53	2.81	3.09	3.37	3.65	4.01
	Subject Distance (mm)	158	159	162	168	175	183	191	200	209	218	227	239
	(in)	6-1/4	6-1/4	6-3/8	6-5/8	6-7/8	7-3/16	7-1/2	7-7/8	8-1/4	8-9/16	8-15/16	9-7/16
	Field Size (mm)	24.7 ×37.1	21.3 ×32.0	17.1 ×25.6	14.2 ×21.3	12.2 ×18.3	10.7 ×16.0	9.5 ×14.2	8.5 ×12.8	7.8 ×11.6	7.1 ×10.7	6.6 ×9.9	6.0 ×9.0
	(in)	15/16 ×1-7/16	13/16 ×1-1/4	11/16 ×1	9/16 ×13/16	1/2 ×3/4	7/16 ×5/8	3/8 ×9/16	5/16 ×1/2	5/16 ×7/16	1/4 ×7/16	1/4 ×3/8	1/4 ×3/8
FL 35mm F 2.5	Magnification	0.97	1.13	1.41	1.69	1.97	2.25	2.54	2.82	3.10	3.38	3.66	4.01
	Subject Distance (mm)	60	160	164	170	177	185	193	201	210	219	229	240
	(in)	2-3/8	6-5/16	6-7/16	6-11/16	6-15/16	7-5/16	7-5/8	7-15/16	13/16	8-5/8	9-1/16	9-7/16
	Field Size (mm)	24.7 ×37.0	21.3 ×32.0	17.0 ×25.6	14.2 ×21.3	12.2 ×18.3	10.7 ×16.0	9.5 ×14.2	8.5 ×12.8	7.8 ×11.6	7.1 ×10.7	6.6 ×9.8	6.0 ×9.0
	(in)	15/16 ×1-7/16	13/16 ×1-1/4	11/16 ×1.00	9/16 ×13/16	1/2 ×3/4	7/16 ×5/8	3/8 ×9/16	5/16 ×1/2	5/16 ×7/16	1/4 ×7/16	1/4 ×3/8	1/4 ×3/8
FL 50mm F 3.5	Magnification	0.67	0.78	0.97	1.16	1.36	1.55	1.74	1.94	2.13	2.33	2.52	2.76
	Subject Distance (mm)	216	211	208	209	213	218	224	231	239	247	255	266
	(in)	8-1/2	8-5/16	8-3/16	8-1/4	8-3/8	8-9/16	8-13/16	9-1/8	9-7/16	9-3/4	10-1/16	10-1/2
	Field Size (mm)	35.9 ×53.8	31.0 ×46.6	24.8 ×37.2	20.6 ×31.0	17.7 ×26.5	15.5 ×23.2	13.8 ×20.6	12.4 ×18.6	11.3 ×16.9	10.3 ×15.5	9.53 ×14.3	8.7 ×13.0
	(in)	1-7/16 ×2-1/8	1-1/4× 1-13/16	15/16 ×1-7/16	13/16 ×1-1/4	11/16 ×1-1/16	5/8 ×15/16	9/16 ×13/16	1/2 ×3/4	7/16 ×11/16	3/8 ×5/8	3/8 ×9/16	5/16 ×1/2
FL 50mm F 1.8II	Magnification	0.67	0.77	0.97	1.16	1.36	1.55	1.74	1.94	2.13	2.32	2.52	2.76
	Subject Distance (mm)	206	201	197	198	202	207	214	221	228	236	244	255
	(in)	8-1/8	7-15/16	7-3/4	7-13/16	7-15/16	8-1/8	8-7/16	8-11/16	8-15/16	9-5/16	9-5/8	10-1/16
	Field Size (mm)	35.9 ×53.9	31.0 ×46.5	24.8 ×37.2	20.7 ×31.0	17.7 ×26.6	15.5 ×23.2	13.8 ×20.7	12.4 ×18.6	11.3 ×16.9	10.3 ×15.5	9.53 ×14.3	8.69 ×13.0
	(in)	1-7/16 ×2-1/8	1-1/4× 1-13/16	3/4 ×1-7/16	13/16 ×1-1/4	11/16 ×1-1/16	5/8 ×5/16	9/16 ×13/16	1/2 ×3/4	7/16 ×11/16	3/8 ×5/8	3/8 ×9/16	5/16 ×1/2
FL 50mm F 1.4II	Magnification	0.67	0.78	0.97	1.16	1.36	1.55	1.74	1.94	2.13	2.33	2.52	2.76
	Subject Distance (mm)	198	193	189	190	194	199	206	213	220	228	236	247
	(in)	7-13/16	7-5/8	7-7/16	7-1/2	7-5/8	7-13/16	8-1/8	8-3/8	8-11/16	8-15/16	8-5/16	8-3/4
	Field Size (mm)	35.9 ×53.8	31.0 ×46.4	24.8 ×37.2	20.6 ×31.0	17.7 ×26.5	1.55 ×23.2	13.8 ×20.6	12.4 ×18.6	11.3 ×16.9	10.3 ×15.5	9.53 ×14.3	8.69 ×13.0
	(in)	1-7/16 ×2-1/8	1-1/4× 1-13/16	3/4 ×1-7/16	13/16 ×1-1/4	11/16 ×1-1/16	5/8 ×15/16	9/16 ×13/16	1/2 ×3/4	7/16 ×11/16	3/8 ×5/8	3/8 ×9/16	5/16 ×1/2
FL 55mm F 1.2	Magnification	0.63	0.73	0.91	1.09	1.27	1.46	1.64	1.82	2.00	2.18	2.36	2.59
	Subject Distance (mm)	213	206	201	201	204	209	214	221	228	236	244	254
	(in)	8-3/8	8-1/8	7-15/16	7-15/16	8-1/16	8-1/4	8-7/16	8-11/16	8-15/16	9-5/16	9-5/8	10
	Field Size (mm)	38.2 ×57.4	33.0 ×49.5	26.4 ×39.6	22.0 ×33.0	18.8 ×28.3	16.5 ×24.7	14.7 ×22.0	13.2 ×19.8	12.0 ×18.0	11.0 ×16.5	10.1 ×15.2	9.3 ×13.9
	(in)	1-1/2 ×2-1/4	1-5/16× 1-15/16	1-1/16 ×1-9/16	7/8 ×1-5/16	3/4 ×1-1/8	5/8 ×15/16	9/16 ×7/8	1/2 ×3/4	1/2 ×11/16	7/16 ×5/8	3/8 ×5/8	3/8 ×9/16
FL 58mm F 1.2	Magnification	0.59	0.69	0.86	1.03	1.21	1.38	1.55	1.72	1.90	2.07	2.24	2.46
	Subject Distance (mm)	231	223	216	215	217	201	226	232	239	247	255	265
	(in)	9-1/8	8-3/4	8-1/2	8-7/16	8-9/16	7-15/16	8-7/8	9-1/8	9-7/16	9-3/4	10-1/16	10-7/16
	Field Size (mm)	40.4 ×60.5	34.8 ×52.2	27.8 ×41.8	23.2 ×34.8	19.9 ×29.8	17.4 ×26.1	15.5 ×23.2	13.9 ×20.9	12.7 ×19.0	11.6 ×17.4	10.7 ×16.1	9.77 ×14.7
	(in)	1-9/16 ×2-3/8	1-3/8 ×2-1/16	1-1/8 ×1-5/8	15/16 ×1-3/8	13/16 ×1-3/16	11/16 ×1-1/16	5/8 ×8/7	9/16 ×13/16	1/2 ×3/4	7/16 ×11/16	7/16 ×5/8	7/8 ×9/16

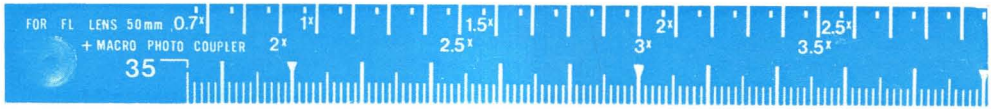
Lens	Bellows FL Scale (mm) (in)	34.5 1-3/8	40 1-9/16	50 1-15/16	60 2-3/8	70 2-3/4	80 3-1/8	90 3-9/16	100 3-15/16	110 4-5/16	120 4-3/4	130 5-1/8	142.5 5-5/8
FL 85mm F 1.8	Magnification	0.41	0.48	0.60	0.71	0.83	0.95	1.07	1.19	1.31	1.43	1.55	1.70
	Subject Distance (mm)	398	375	350	336	330	327	327	329	333	338	343	351
	(in)	1′ 3-11/16	1′ 2-3/4	1′1-3/4	1′1-1/4	1′5/16	1′7/8	1′7/8	1′7/8	1′1-1/8	1′1-5/16	1′1-1/2	1′1-13/16
	Field Size (mm)	58.4 ×87.7	50.4 ×75.6	40.3 ×60.5	33.6 ×50.4	28.8 ×43.2	25.2 ×37.8	22.4 ×33.6	20.2 ×30.2	18.3 ×27.5	16.8 ×25.2	15.5 ×23.3	14.1 ×21.2
	(in)	2-5/16 ×3-7/16	1-15/16 × 2-15/16	1-9/16 ×2-3/8	1-5/16× 1-15/16	1-1/8× 1-11/16	15/16 ×1-1/2	7/8× 1-5/16	13/16× 1-3/16	3/4× 1-1/16	11/16 ×15/16	5/8 ×15/16	9/16 ×13/16
FL 100mm F 3.5	Magnification	0.35	0.40	0.50	0.60	0.70	0.80	0.90	1.00	1.10	1.20	1.30	1.43
	Subject Distance (mm)	524	490	450	427	413	405	401	400	401	404	407	413
	(in)	1′8-5/8	1′7-5/16	1′ 5-11/16	1′4-13/16	1′4-1/4	1′3-15/16	1′3-13/16	1′3-3/4	1′3-13/16	1′3-7/8	1′4-1/16	1′4-1/4
	Field Size (mm)	69.4 ×104.0	59.9 ×89.8	47.9 ×71.9	39.9 ×59.9	34.2 ×51.3	29.9 ×44.9	26.7 ×39.9	24 ×35.9	21.8 ×32.7	20 ×30	18.4 ×27.6	16.8 ×25.2
	(in)	2-3/4 ×4-1/8	2-3/8 ×3-9/16	1-7/8× 2-13/16	1-9/16× 2-3/8	1-3/8 ×2-1/16	1-3/16 ×1-3/4	1-1/16 ×1-9/16	15/16 ×1-7/6	7/8 ×1-5/16	13/16 ×1-3/16	3/4 ×1-1/16	11/16 ×15/16
FL 135mm F 3.5	Magnification	0.26	0.3	0.37	0.45	0.52	0.60	0.67	0.74	0.82	0.81	0.97	1.06
	Subject Distance (mm)	847	781	700	650	617	595	580	570	564	560	559	559
	(in)	2′9-3/8	2′6-3/4	2′3-9/16	2′1-9/16	2′5/16	1′1-7/16	1′10-13/16	1′10-7/16	1′10-3/16	1′10-1/16	1′10	1′10
	Field Size (mm)	93.4 ×140	80.6 ×121	64.6 ×96.7	53.7 ×80.6	46.0 ×69.1	40.3 ×60.4	35.8 ×53.7	32.2 ×48.3	29.3 ×43.9	26.9 ×40.3	24.8 ×37.2	22.6 ×33.9
	(in)	3-11/16 ×5-1/2	3-3/16 ×4-3/4	2-9/16× 3-13/16	2-1/8 ×3-3/16	1-13/16 ×2-3/4	1-9/16 ×2-3/8	1-7/16 ×2-1/8	1-1/4 ×1-7/8	1-1/8 ×1-3/4	1-1/16 ×1-9/16	15/16 ×1-7/16	7/8 ×1-5/16
FL 135mm F 2.5	Magnification	0.26	0.30	0.38	0.46	0.53	0.61	0.68	0.76	0.84	0.91	0.99	1.08
	Subject Distance (mm)	801	738	661	614	583	562	548	538	533	529	528	529
	(in)	2′7-9/16	2′5-1/16	2′2-1/16	2′3/16	1′10-15/16	1′10-1/8	1′9-9/16	1′9-3/16	1′8-15/16	1′8-13/16	1′8-13/16	1′8-13/16
	Field Size (mm)	91.5 ×137	78.9 ×118	63.1 ×94.7	52.6 ×78.9	45.1 ×67.7	39.5 ×59.2	35.1 ×52.6	31.6 ×47.4	28.7 ×43.1	26.3 ×39.5	24.3 ×36.4	22.2 ×33.2
	(in)	3-5/8 ×5-3/8	3-1/16 ×4-5/8	2-1/2 ×3-3/4	2-1/16 ×3-1/8	1-3/4× 2-11/16	1-9/16 ×2-5/16	1-3/8 ×2-1/16	1-1/4 ×1-7/8	1-1/8× 1-11/16	1-1/16 ×1-9/16	15/16 ×1-7/16	7/8 ×1-5/16
FL 200mm F 4.5	Magnification	0.18	0.20	0.26	0.31	0.36	0.41	0.46	0.51	0.56	0.61	0.67	0.73
	Subject Distance (mm)	1535	1389	1208	1090	1009	951	908	876	851	832	818	804
	(in)	5′7/16	4′ 6-11/16	3′1-9/16	3′ 6-15/16	3′3-3/8	3′1-7/16	2′11-3/4	2′10-1/2	2′9-1/2	2′8-3/4	2′8-3/16	2′7-5/8
	Field Size (mm)	136 ×204	117 ×176	93.8 ×141	78.2 ×117	67.0 ×101	58.6 ×87.9	52.1 ×78.2	46.9 ×70.4	42.6 ×64.0	39.1 ×58.6	36.1 ×54.1	32.9 ×49.4
	(in)	5-3/8 ×8-1/16	4-5/8× 6-15/16	3-11/16 ×5-9/16	3-1/16 ×4-5/8	2-5/8× 3-15/16	2-5/16 ×3-7/16	2-1/16 ×3-1/16	1-7/8 ×2-3/4	1-11/16 ×2-1/2	1-9/16 ×2-5/16	1-7/16 ×2-1/8	1-5/16× 1-15/16
FL 200mm F 3.5	Magnification	0.18	0.20	0.25	0.30	0.36	0.41	0.46	0.51	0.56	0.61	0.66	0.72
	Subject Distance (mm)	1555	1406	1222	1103	1021	962	918	885	859	840	825	811
	(in)	5′1-1/4	4′7-3/8	3′1/8	3′7-7/16	3′4-3/16	3′1-7/8	3′1/8	2′10-13/16	2′9-13/16	2′9-1/16	2′8-1/2	2′7-15/16
	Field Size (mm)	137 ×205	118 ×177	94.5 ×142	78.8 ×118	67.5 ×101	59.1 ×88.6	52.5 ×78.8	47.3 ×70.9	43.0 ×64.4	39.4 ×59.1	36.4 ×54.5	33.2 ×49.8
	(in)	5-3/8 ×8-1/16	4-5/8× 6-15/16	3-3/4 ×5-9/16	3-1/8 ×4-5/8	2-11/16 ×3-15/16	2-5/16 ×3-1/2	2-1/16 ×3-1/8	1-7/8× 2-13/16	1-11/16 ×2-9/16	1-9/16 ×2-5/16	1-7/16 ×2-1/8	1-5/10× 1-15/16

The figures in this chart have been obtained through calculation. Therefore, slight aberration cannot be avoided during actual photography.

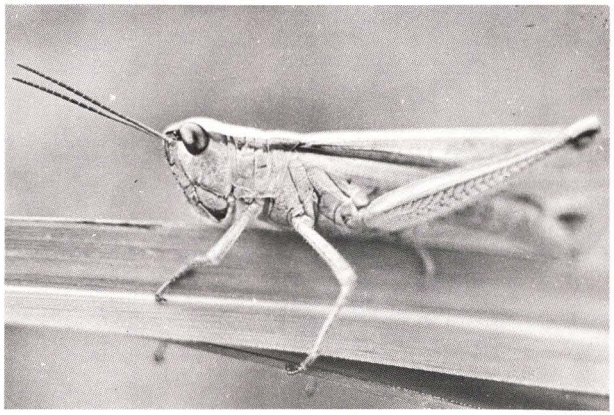
Data when FL lenses are attached onto Bellows FL in reversed direction using Macrophoto Coupler FL (the helicoid of the Macrophoto Coupler is not extended at this time)

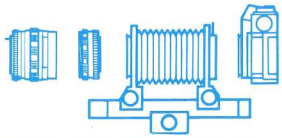


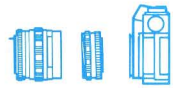
Lens	Bellows FL Scale (mm) (in)	34.5 1-3/8	40 1-9/16	50 1-15/16	60 2-3/8	70 2-3/4	80 3-1/8	90 3-9/16	100 3-15/16	110 4-5/16	120 4-3/4	130 5-1/8	*142.5 5-5/8
FL 35mm F 3.5	Magnification	2.78	2.93	3.21	3.50	3.78	4.06	4.34	4.62	4.90	5.18	5.46	5.83
	Subject Distance (mm)	199	204	213	222	231	240	250	259	269	278	288	300
	(in)	7-13/16	8-1/16	8-3/8	8-3/4	9-1/8	9-7/16	9-13/16	10-3/16	10-9/16	10-15/16	11-5/16	11-13/16
	Field Size (mm)	8.6	8.2	7.5	6.9	6.4	5.9	5.5	5.2	4.9	4.6	4.4	4.1
		×13.0	×12.3	×11.2	×10.3	×9.5	×8.9	×8.3	×7.8	×7.3	×6.9	×6.6	×6.2
	(in)	5/16	5/16	5/16	1/4	1/4	1/4	3/16	3/16	3/16	3/16	3/16	3/16
		×1/2	×1/2	×7/16	×7/16	×3/8	×3/8	×5/16	×5/16	×5/16	×1/4	×1/4	×1/4
FL 35mm F 2.5	Magnification	2.95	3.10	3.39	3.67	3.95	4.23	4.51	4.79	5.08	5.39	5.64	5.99
	Subject Distance (mm)	206	210	220	229	238	247	257	266	276	286	295	307
	(in)	8-1/8	8-1/4	8-11/16	9-1/16	9-3/8	9-3/4	10-1/8	10-1/2	10-7/8	11-1/4	11-5/8	1'1/16
	Field Size (mm)	8.1	7.7	7.1	6.6	6.1	5.7	5.3	5.0	4.7	4.5	4.3	4.0
		×12.2	×11.6	×10.6	×9.8	×9.1	×8.5	×8.0	×7.5	×7.1	×6.7	×6.4	×6.0
	(in)	5/16	5/16	1/4	1/4	1/4	1/4	3/16	3/16	3/16	3/16	3/16	3/16
		×1/2	×7/16	×7/16	×3/8	×3/8	×5/16	×5/16	×5/16	×1/4	×1/4	×1/4	×1/4
FL 50mm F 3.5	Magnification	1.74	1.85	2.04	2.24	2.43	2.63	2.82	3.01	3.21	3.40	3.59	3.84
	Subject Distance (mm)	224	228	235	243	251	260	268	277	286	295	304	316
	(in)	8-13/16	8-15/16	9-1/4	9-9/16	9-7/8	10-1/4	10-9/16	10-7/8	11-1/4	11-5/8	11-15/16	1'7/16
	Field Size (mm)	13.8	11.7	11.7	10.7	9.9	9.1	8.5	8.0	7.5	7.1	6.7	6.3
		×20.7	×19.5	×17.6	×16.1	×14.8	×13.7	×12.8	×12.0	×11.2	×10.6	×10.0	×9.4
	(in)	9/16	7/16	7/16	7/16	3/8	3/8	5/16	5/16	5/16	1/4	1/4	1/4
		×13/16	×3/4	×11/16	×5/8	×9/16	×9/16	×1/2	×1/2	×7/16	×7/16	×3/8	×3/8
FL 50mm F 1.8II	Magnification	1.77	1.87	2.07	2.26	2.45	2.65	2.84	3.03	3.23	3.42	3.62	3.86
	Subject Distance (mm)	214	218	226	233	242	250	259	268	277	286	295	306
	(in)	8-7/16	8-9/16	8-7/8	9-3/16	9-1/2	9-13/16	10-3/16	10-9/16	10-7/8	11-1/4	11-5/8	12-1/16
	Field Size (mm)	13.6	12.8	11.6	10.6	9.8	9.1	8.4	7.9	7.4	7.0	6.6	6.2
		×20.4	×19.2	×17.4	×15.9	×14.7	×13.6	×12.7	×11.9	×11.2	×10.5	×10.0	×9.3
	(in)	9/16	1/2	7/16	7/16	3/8	3/8	5/16	5/16	5/16	1/4	1/4	1/4
		×13/16	×3/4	×11/16	×5/8	×9/16	×9/16	×1/2	×7/16	×7/16	×7/16	×3/8	×3/8
FL 50mm F 1.4II	Magnification	2.01	2.11	2.31	2.50	2.69	2.89	3.03	3.28	3.47	3.66	3.86	4.10
	Subject Distance (mm)	251	219	227	236	244	253	262	271	280	289	298	310
	(in)	8-7/16	8-5/8	8-15/16	9-5/16	9-5/8	9-15/16	10-5/16	10-11/16	11-1/16	11-3/8	11-3/4	12-3/16
	Field Size (mm)	12.0	11.4	10.4	9.6	8.9	8.3	7.8	7.3	6.9	6.6	6.2	5.9
		×17.9	×17.0	×15.6	×14.4	×13.4	×12.5	×11.7	×11.0	×10.4	×9.8	×9.3	×8.8
	(in)	1/2	7/16	7/16	3/8	3/8	5/16	5/16	5/16	1/4	1/4	1/4	1/4
		×11/16	×11/16	×5/8	×9/16	×1/2	×1/2	×7/16	×7/16	×7/16	×3/8	×3/8	×3/8
FL 55mm F 1.2	Magnification	1.82	1.92	2.11	2.29	2.47	2.65	2.83	3.01	3.20	3.38	3.56	3.79
	Subject Distance (mm)	221	225	233	241	249	257	266	275	284	293	302	314
	(in)	8-11/16	8-7/8	9-3/16	9-1/2	9-13/16	10-1/8	10-1/2	10-13/16	11-3/16	11-9/16	11-7/8	12-3/8
	Field Size (mm)	13.1	12.5	11.4	10.5	9.7	9.1	8.5	8.0	7.5	7.1	6.7	6.3
		×19.7	×18.7	×17.1	×15.7	×14.6	×13.6	×12.7	×11.9	×11.3	×10.7	×10.1	×9.5
	(in)	1/2	1/2	7/16	7/16	3/8	3/8	5/16	5/16	5/16	1/4	1/4	1/4
		×3/4	×3/4	×11/16	×5/8	×9/16	×9/16	×1/2	×7/16	×7/16	×7/16	×3/8	×3/8
FL 58mm F 1.2	Magnification	1.59	1.69	1.86	2.03	2.20	2.38	2.55	2.72	2.89	3.07	3.24	3.45
	Subject Distance (mm)	227	231	238	245	253	261	269	278	287	295	304	316
	(in)	8-15/16	9-1/8	9-3/8	9-5/8	9-15/16	10-1/4	10-9/16	10-15/16	11-5/16	11-5/8	11-15/16	1'7/16
	Field Size (mm)	15.1	14.2	12.9	11.8	10.9	10.1	9.4	8.8	8.3	7.8	7.4	7.0
		×22.6	×21.3	×19.4	×17.7	×16.3	×15.2	×14.1	×13.2	×12.4	×11.7	×11.1	×10.4
	(in)	5/8	9/16	1/2	7/16	7/16	3/8	3/8	3/8	5/16	5/16	5/16	1/4
		×7/8	×13/16	×3/4	×11/16	×5/8	×5/8	×9/16	×1/2	×1/2	×7/16	×7/16	×7/16



Lens		Bellows FL Scale (mm) (in)	34.5 1-3/8	40 1-9/16	50 1-15/16	60 2-3/8	70 2-3/4	80 3-1/8	90 3-9/16	100 3-15/16	110 4-5/16	120 4-3/4	130 5-1/8	142.5 5-5/8
FL 85mm F 1.8	Magnification		0.42	0.49	0.60	0.72	0.84	0.96	1.08	1.2	1.32	1.44	1.56	1.70
	Subject Distance	(mm)	394	373	348	336	329	327	327	330	333	338	343	351
		(in)	1′3-1/2	1′2-11/16	1′1-11/16	1′1-1/4	1′15/16	1′7/8	1′7/8	1′15/16	1′1-1/8	1′1-5/16	1′1-1/2	1′1-13/16
	Field Size	(mm)	57.2 ×85.7	49.5 ×74.2	39.7 ×59.6	33.2 ×49.8	28.5 ×42.7	25 ×37.4	22.2 ×33.3	20 ×30	18.2 ×27.3	16.7 ×25.0	15.4 ×23.1	14.1 ×21.1
		(in)	2-1/4 ×3-3/8	1-15/16 ×2-16/15	1-9/16 ×2-3/8	1-5/16× 1-15/16	1-1/8× 1-11/16	15/16 ×1-1/2	7/8 ×1-5/16	13/16× 1-13/16	11/16 ×1-1/16	11/16 ×15/16	5/8 ×15/16	9/16 ×13/16
FL 100mm F 3.5	Magnification		0.03	0.09	0.91	0.29	0.39	0.49	0.59	0.69	0.79	0.89	0.99	1.12
	Subject Distance	(mm)	3103	1324	746	574	495	453	429	414	406	402	400	401
		(in)	10′2-3/16	4′4-1/8	2′5-3/8	1′10-5/8	1′7-1/2	1′5-13/16	1′4-7/8	1′4-5/16	1′3-15/16	1′3-13/16	1′3-3/4	1′3-13/16
	Field Size	(mm)	697.1 ×1045.6	268.1 ×402.1	126.5 ×189.8	82.8 ×124.2	61.5 ×92.3	4.90 ×73.4	40.6 ×61	34.8 ×52.1	30.3 ×45.5	26.9 ×40.4	24.2 ×36.3	21.5 ×32.2
		(in)	2-3/4 ×3′5-3/16	10-9/16 ×1′3-13/16	4-15/16 ×7-1/2	3-1/4 ×4-7/8	2-7/16 ×3-5/8	1-15/16 ×2-7/8	1-5/8 ×2-3/8	1-3/8 ×2-1/16	1-3/16 ×1-13/16	1-1/16 ×1-9/16	15/16 ×1-7/16	7/8 ×1-1/4
FL 135mm F 3.5	Magnification									0.01	0.08	0.16	0.23	0.32
	Subject Distance	(mm)								16666	1925	1165	901	747
		(in)								54′8-1/8	6′3-13/16	3′9-7/8	2′ 11-1/2	2′5-7/16
	Field Size	(mm)								2927 ×4390	290 ×435	153 ×229	104 ×155	74 ×111
		(in)								9′7-1/4 × 14′	11-7/16 ×1′5-1/8	6-1/16 ×9-1/16	4-1/8 ×6-1/8	2-15/16 ×4-3/8
FL 135mm F 2.5	Magnification					0.01	0.08	0.16	0.24	0.31	0.39	0.46	0.54	0.64
	Subject Distance	(mm)				16995	1845	1909	854	728	655	610	580	556
		(in)				55′9-1/8	6′5/8	3′7-11/16	2′9-5/8	2′4-11/16	2′1-13/16	2′1/16	1′8-13/16	1′9-7/8
	Field Size	(mm)				3053 ×4580	286 ×429	150 ×225	102 ×153	770 ×115	61.9 ×92.8	51.7 ×77.6	44.5 ×66.7	37.8 ×56.7
		(in)				10′3/16 × 15′5/16	11-1/4 ×1′4-7/8	5-7/8 ×8-7/8	4-1/16 ×6-1/16	3-1/16 ×4-1/2	2-7/16 ×3-5/8	2-1/16 ×3-1/16	1-3/4 ×2-5/8	1-1/2 ×2-1/4

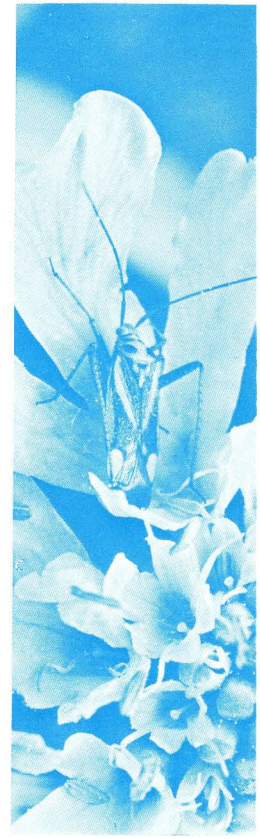






Lens	Adapter Used	Bellows FL+ Macrophoto Coupler both extended	Macrophoto Coupler FL + reversed FL lens: Macrophoto Coupler, min. length	Macrophoto Coupler FL + reversed FL lens: Macrophoto Coupler, max. length
FL 35mm F 3.5	Magnification	6.18	1.81	2.17
	Subject Distance (mm)	313	171	181
	(in)	12-5/16	6-3/4	7-1/8
	Field Size (mm)	3.9 ×5.8	13.3 ×19.9	11.0 ×16.6
	(in)	1/8 ×1/4	1/2 ×13/16	7/16 ×5/8
FL 35mm F 2.5	Magnification	6.36	1.98	2.34
	Subject Distance (mm)	320	177	187
	(in)	12-5/8	6-15/16	7-3/8
	Field Size (mm)	3.8 ×5.7	12.1 ×18.2	10.2 ×15.4
	(in)	1/8 ×1/4	1/2 ×11/16	3/8 ×5/8
FL 50mm F 3.5	Magnification	4.09	1.07	1.33
	Subject Distance (mm)	328	208.0	212.0
	(in)	12-15/16	8-3/16	8-11/16
	Field Size (mm)	5.9 ×8.3	22.3 ×33.5	18.1 ×27.1
	(in)	1/4 ×5/16	7/8 ×3/8	11/16 ×1-1/16
FL 50mm F 1.8	Magnification	4.11	1.10	1.35
	Subject Distance (mm)	319	198	202
	(in)	12-9/16	7-13/16	7-15/16
	Field Size (mm)	5.8 ×8.8	21.9 ×32.8	17.8 ×26.7
	(in)	1/4 ×3/8	7/8 ×1-5/16	11/16 ×1-1/16
FL 50mm F 1.4 II	Magnification	4.35	1.34	1.59
	Subject Distance (mm)	322	194	200
	(in)	12-11/16	7-5/8	7-7/8
	Field Size (mm)	5.5 ×8.3	17.9 ×26.9	15.1 ×22.7
	(in)	3/16 ×5/16	11/16 ×1-1/16	5/8 ×7/8
FL 55mm F 1.2	Magnification	4.02	1.20	1.43
	Subject Distance (mm)	326	202	208
	(in)	12-13/16	7-7/8	8-3/16
	Field Size (mm)	6.0 ×8.9	20.1 ×30.1	16.8 ×25.1
	(in)	1/4 ×3/8	13/16 ×1-3/16	11/16 ×15/16
FL 58mm F 1.2	Magnification	3.68	1.00	1.22
	Subject Distance (mm)	328	215	217
	(in)	12-15/16	8-7/8	8-9/16
	Field Size (mm)	6.5 ×9.8	24.1 ×36.1	19.7 ×29.6
	(in)	1/4 ×3/8	13/16 ×7/16	3/4 ×1-3/16

Lens	Adapter Used	Bellows FL+ Macrophoto Coupler both extended	Macrophoto Coupler FL + reversed FL lens: Macrophoto Coupler, min. length	Macrophoto Coupler FL + reversed FL lens: Macrophoto Coupler, max. length
FL 85mm F 1.8	Magnification	1.86	0.16	
	Subject Distance (mm)	·360	685	
	(in)	14-3/16	2′3	
	Field Size (mm)	12.9 ×19.4	146.4 ×219.7	
	(in)	1/2 ×3/4	5-3/4 ×8-5/8	
FL 100mm F 3.5	Magnification	1.25		
	Subject Distance (mm)	405		
	(in)	1′3-15/16		
	Field Size (mm)	19.3 ×29		
	(in)	3/4 ×1-1/8		
FL 135mm F 3.5	Magnification	0.42		
	Subject Distance (mm)	665		
	(in)	26-3/16		
	Field Size (mm)	56.9 ×85.4		
	(in)	2-1/4 ×3-3/8		
FL 135mm F 2.5	Magnification	0.73		
	Subject Distance (mm)	541		
	(in)	1′9-5/16		
	Field Size (mm)	32.7 ×49.1		
	(in)	1-5/16 ×1-15/16		
FL 200mm F 4.5	Magnification	0.08		
	Subject Distance (mm)	2753		
	(in)	9′3/8		
	Field Size (mm)	288 ×432		
	(in)	11-5/16 ×1′5		
FL 200mm F 3.5	Magnification	0.08		
	Subject Distance (mm)	2976		
	(in)	9′9-3/16		
	Field Size (mm)	313 ×496		
	(in)	1′5/16 ×1′6-7/16		



Exposures for Close-up and Macrophotography

In close-up and macrophotography using an extension tube or a bellows between the lens and the camera body, the aperture opening or f/stop of the lens does not coincide with that indicated on the f/stop scale on the lens.

The f/stop of the lens is the numerical value obtained by dividing the focal length with lens diameter. Thus, the f/stop value with an extension attachment differs from that of the lens measured alone. The value of the adjusted f/stop number should then be obtained by calculating the value of the focal length plus the extended length of the lens.

The photometry by the through-the-lens system, however, always gives the correct exposure value as it measures the light passing through the lens and reaching the film plane. It can adjust the exposure regardless of the difference in f/stops. This is one of the advantages of the through-the-lens light measuring system. If the exposure is to be obtained without using the through-the-lens photometry system, the exposure factor compensation must be made as follows:

1. Getting the exposure reading by an independent exposure meter.
2. Compensating it mathematically. The formulas for calculation are:

The Exposure Factor $B = (1 + \text{Magnification})^2$

$$\text{Magnification} = \frac{x'}{f} = \frac{\text{Lens Protrusion Length}}{\text{Focal Length of Lens}}$$

Example: To obtain exposure in close-up photography using 50mm lens with a 40mm extension tube.

$$(1 + \frac{50}{50})^2 = (1 + 0.8)^2 = 3.24$$

Thus, the figure obtained with the exposure meter is multiplied by 3.2X.

Close-Up Lenses

Type	Usable Lenses	Shooting Distance (mm) (in)	Picture Area (mm) (in)
48mm 450	FL 50mm F1.8 (Also other lenses with	540 - 325 (1'9¼" - 1'13/16")	313 x 209 - 175 x 117 (1' 5/16" x 8 ¼" - 6 7/8" x 4 5/8")
48mm 240	48mm screw diameter)	326 - 253 (1'13/16" - 9 15/16")	166 x 110 - 110 x 74 (6 9/16" x 4 5/16" - 4 5/16" x 2 15/16")
58mm 450	FL 50mm F1.4 II (Also other lenses with	553 - 341 (1'9 3/4" - 1'1 7/16")	211 x 316 - 113 - 169 (8 5/16" x 1' 7/16" - 4 7/16" x 6 5/8")
58mm 240	58 mm screw diameter)	338 - 266 (1'1 5/16" - 10 ½")	111 x 167 - 77 x 115 (4 3/8" x 6 9/16" - 3 1/16" x 4 ½")
58mm 450	FL 55mm F1.2 (Also other lenses with	554 - 344 (1'9 13/16" - 1' 1 9/16")	197 - 296 - 105 x 157 (7 3/4" x 11 5/8" - 4 1/8" x 6 3/16")
58mm 240	58mm screw diameter)	340 - 268 (1'1 3/8" - 10 9/16")	104 x 157 - 72 x 107 (4 1/8" x 6 3/16" - 2 13/16" x 4 3/16")
58mm 1800	Exclusive to FL 55 - 135mm F3.5	2030 - 1110 (6'7 15/16"- 3'7 11/16")	1190 x 790 - 230 x 150 (3'10 7/8" x 2'7 1/8" - 9 1/16" x 5 7/8")

Exposure factor and aperture conversion figures corresponding to photographic magnification (M)

M	Exposure factor	Aperture adjustment (f/stop to be opened)		M	Exposure factor	Aperture adjustment (f/stop to be opened)	
0.1	1.21	0.28	1/4	4.8	33.64	5.07	5
0.2	1.44	0.53	1/2	5.0	36.00	5.17	5 1/4
0.3	1.69	0.76	3/4	5.2	38.44	5.27	5 1/4
0.4	1.96	0.97	1	5.4	40.96	5.37	5 1/4
0.5	2.25	1.17	1 1/4	5.5	42.25	5.40	5 1/2
0.6	2.56	1.36	1 1/4	5.6	43.56	5.45	5 1/2
0.7	2.89	1.53	1 1/2	5.8	46.24	5.53	5 1/2
0.8	3.24	1.70	1 3/4	6.0	49.00	5.62	5 1/2
0.9	3.61	1.85	1 3/4	6.2	51.84	5.70	5 3/4
1.0	4.00	2.00	2	6.4	54.76	5.78	5 3/4
1.2	4.84	2.27	2 1/4	6.5	56.25	5.81	5 3/4
1.4	5.76	2.53	2 1/2	6.6	57.76	5.85	5 3/4
1.5	6.25	2.64	2 3/4	6.8	60.84	5.93	6
1.6	6.76	2.76	2 3/4	7.0	64.00	6.00	6
1.8	7.84	2.97	3	7.2	67.24	6.07	6
2.0	9.00	3.17	3 1/4	7.4	70.56	6.14	6 1/4
2.2	10.24	3.36	3 1/4	7.5	72.25	6.18	6 1/4
2.4	11.56	3.53	3 1/2	7.6	73.96	6.21	6 1/4
2.5	12.25	3.61	3 1/2	7.8	77.44	6.28	6 1/4
2.6	12.96	3.70	3 3/4	8.0	81.00	6.34	6 1/4
2.8	14.44	3.85	3 3/4	8.2	84.64	6.40	6 1/2
3.0	16.00	4.00	4	8.4	88.36	6.47	6 1/2
3.2	17.64	4.14	4 1/4	8.5	90.25	6.50	6 1/2
3.4	19.36	4.28	4 1/4	8.6	92.16	6.53	6 1/2
3.5	20.25	4.34	4 1/4	8.8	96.04	6.59	6 1/2
3.6	21.16	4.40	4 1/2	9.0	100.00	6.64	6 3/4
3.8	23.04	4.53	4 1/2	9.2	104.04	6.70	6 3/4
4.0	25.00	4.64	4 3/4	9.4	108.16	6.76	6 3/4
4.2	27.04	4.76	4 3/4	9.5	110.25	6.78	6 3/4
4.4	29.16	4.87	4 3/4	9.6	112.36	6.81	6 3/4
4.5	30.25	4.92	5	9.8	116.64	6.87	6 3/4
4.6	31.36	4.97	5	10.0	121.00	6.92	7

- Figures obtained with the exposure meter can be compensated with the above chart.
- The compensated shutter speed can be obtained by multiplying the shutter speed with the exposure factor.
- M denotes magnification.

Combination and Use of Canon System Accessoreis for Close-up, Macrophotography and Photomicrography

240	192	144	120	96	72	48	—Height —Width	DIMENSIONS OF SUBJECT IN MILLIMETERS
360	288	216	180	144	108	72		
9½	7½	5½	4¾	3¾	2¾	2	—Height —Width	DIMENSIONS OF SUBJECT IN INCHES
14¼	11¼	8½	7	5¾	4¼	2¾		
		1.35×	1.44×	1.56×	1.78×	2.25×		EXPOSURE FACTOR (Not necessary when using Pellix QL or FTQL)
1 : 10	1 : 8	1 : 6	1 : 5	1 : 4	1 : 3	1 : 2		RATIO OF MAGNIFICATION (Negative Size: Subject Size)

STANDARD LENS ALONE

STANDARD LENS W/ MOUNT CONVERTERS A & B

STANDARD LENS W/ CLOSE-UP LENS

STANDARD LENS W/ EXTENSION TUBE FL25

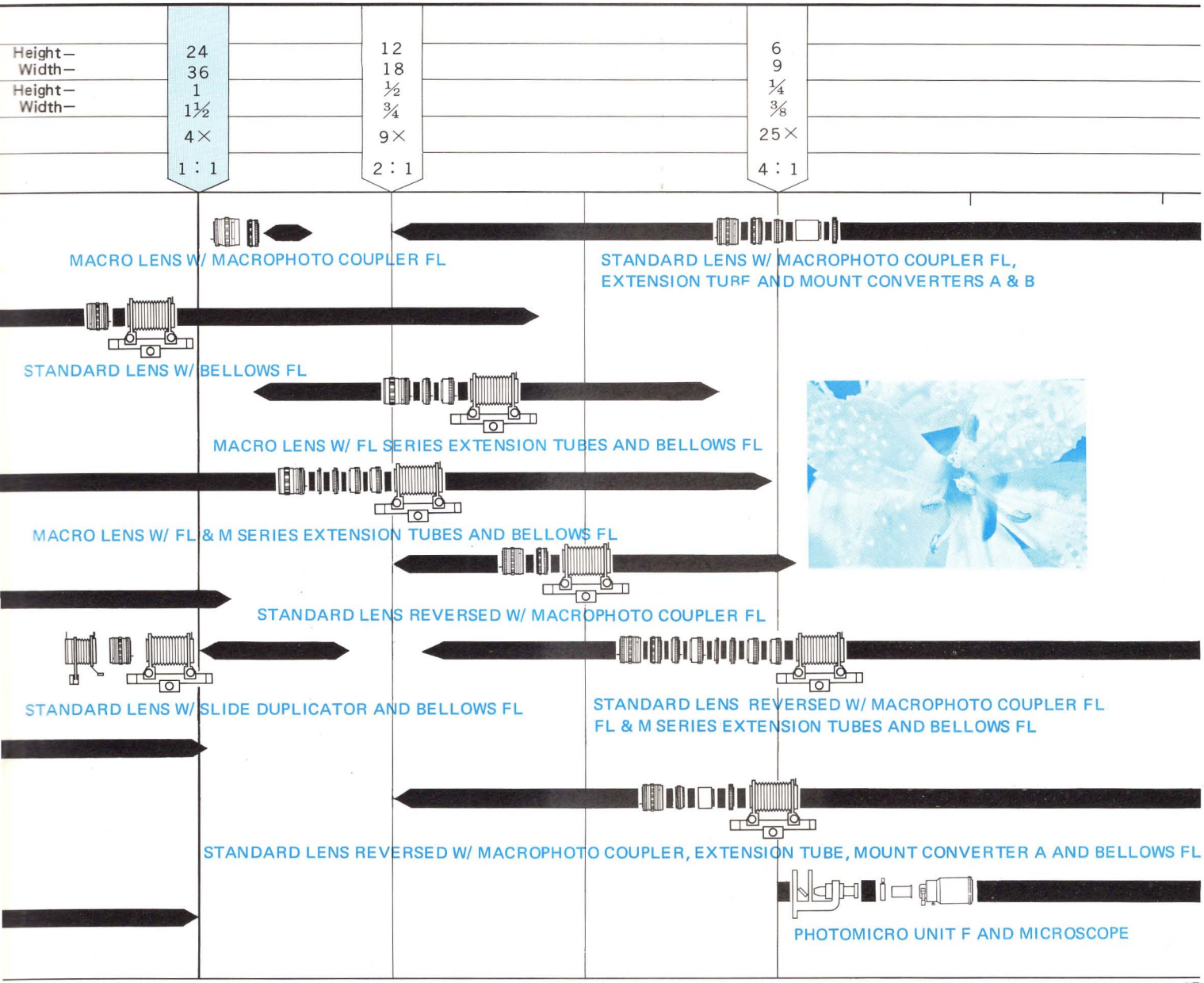
STANDARD LENS W/ EXTENSION TUBE FL15

STANDARD LENS W/ M SERIES EXTENSION TUBES

STANDARD LENS W/ CLOSE-UP LENS AND FL SERIES EXTENSION TUBES

MACRO LENS ALONE

MACRO LENS W/ LIFE-SIZE ADAPTER


Height—
Width—
Height—
Width—
24
36
1
1½
4×
1 : 1
12
18
½
¾
9×
2 : 1
6
9
¼
⅜
25×
4 : 1
MACRO LENS W/ MACROPHOTO COUPLER FL
STANDARD LENS W/ MACROPHOTO COUPLER FL,
EXTENSION TURF AND MOUNT CONVERTERS A & B
STANDARD LENS W/ BELLOWS FL
MACRO LENS W/ FL SERIES EXTENSION TUBES AND BELLOWS FL
MACRO LENS W/ FL & M SERIES EXTENSION TUBES AND BELLOWS FL
STANDARD LENS REVERSED W/ MACROPHOTO COUPLER FL
STANDARD LENS W/ SLIDE DUPLICATOR AND BELLOWS FL
STANDARD LENS REVERSED W/ MACROPHOTO COUPLER FL
FL & M SERIES EXTENSION TUBES AND BELLOWS FL
STANDARD LENS REVERSED W/ MACROPHOTO COUPLER, EXTENSION TUBE, MOUNT CONVERTER A AND BELLOWS FL
PHOTOMICRO UNIT F AND MICROSCOPE

Photomicrography

When the photographic magnification is ten times or more, close-up and macrophotography using only extension tubes or bellows will become difficult. Photomicrography then takes up where close-up and macrophotography end.
Photomicrography enables to record images of 20X or 30X magnification using a microscope. It usually requires greater techniques and experience since it must use a microscope as an optical observation medium.
Canon SLR camera with its through-the-lens photometry system and with attachment of Canon Booster makes photomicrography easier and more accurate.

MAGNIFICATION IN PHOTOMICROGRAPHY

A ratio of magnification of the microscope can be calculated by obtaining the product of magnifications of an objective and an eyepiece.
Theoretically it is feasible to observe and record an image of 2000X magnification by selecting a high magnifying objective, but in general practice photographing will be limited to the magnification of 200X to 300X because of the problem involving vibrations.
There are three ways to get photographic images in photomicrography:

1. Images formed by the objective.
2. Images formed by the objective and the eyepiece magnifying lens.
3. Images formed with a combination of the objective, eyepiece and photographic lens.

In the third method which includes the photographic lens, the ratio of magnification is the greatest. Therefore, the degree of vibration becomes the biggest. In general practice, an image formed by the objective and magnified by the eyepiece is reproduced.

THE COMBINATION OF ACCESSORIES IN PHOTOMICROGRAPHY

A helpful device in performing photomicrography using Canon single-lens reflex camera is the Canon Photomicro Unit F. By attaching the equipment between camera and microscope, photomicrography can be done easily and conveniently. Photomicro Unit F is composed of outer and inner hood barrels, shade barrel and tighting clamp ring. It can be used on any ordinary biolocigal or metallurgical microscope havign an eyepiece sleeve with a 25mm outer diameter.

An approximate magnification figure in photomicrography with or without eyepiece of microscope can be arrived at by using the fomula:
With eyepiece; total magnification = objective magnification x eyepiece magnification x camera extension (cm.) ÷ 25 (or ÷ 10 when measuring in inches.)
Without eyepiece; total magnification = objective magnification x camera extension (cm.) ÷ 25 (or ÷ 10 when measuring in inches.)
In case of Canon FT QL, camera length (length between principal point of eyepiece lens and film plane in camera) is 10.8mm (approx. 3/8").

When performing photomicrography with the use of a Microphoto Hood, instead of a Photomicro Unit F, it is necessary to attach the Lens Converter A.
Using the Microphoto Hood to connect the microscope eyepiece and the camera, the combination is made in the following manner:

Camera + Bellows + Lens Mount Converter A + Microphoto Hood + Microscope

If photomicrography is performed under this combination, the degree of magnification can be changed because the length of the camera side (length of the lens hood) is adjustable.
Photography is possible even after the bellows has been removed from the connection but the range, where cropping may be made, will be limited as the magnification is fixed.
In either case, the camera and attachments must be mounted on a rigid support, like Canon Copying Stand, to avoid vibrations.

PHOTOMICROGRAPHY EXPOSURE

The exposures in photomicrography vary with the following factors:

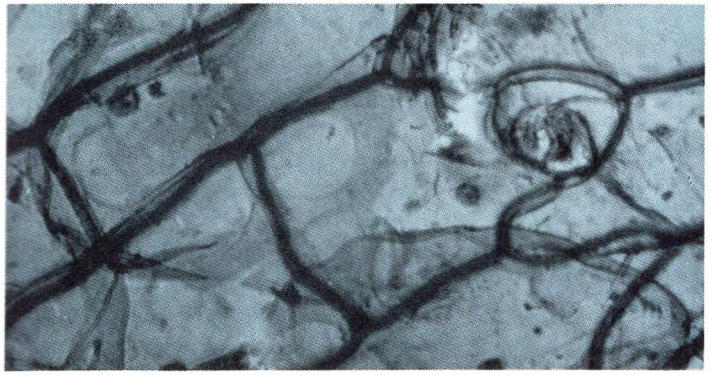
1. Intensity of the light used.
2. Speed of the film.
3. Multiplying factors of any filters used.
4. Density of the object to be reproduced.
5. Ratio of magnification.
6. Aperture opening (f/stop value).

Obtaining the proper exposure in photomicrography is very complicated since it depends on the above factors.
The exposure in photomicrography requires longer time than those of general, close-up and macrophotography.
When the magnification has been changed, while conditions for 1 to 4 remain the same, the exposure time changes in proportion to the square of the magnification. When the aperture opening has been changed with the adjustment of the objective lens and the sub-stage condenser, the exposure time varies in proportion to the square of the aperture opening.
As the magnification and aperture are adjusted, the exposure time obtained beforehand with the photographer's experience must be changed according to the following formula:

$$T' = T\left(\frac{NA}{NA'}\right)^2 \cdot \left(\frac{B'}{B}\right)^2$$

where T = Exposure time
B = Magnification
NA = Aperture opening
' = indicates value before adjustment

In the case of the through-the-lens photometry system, perform everying according to the instruction of the exposure meter.

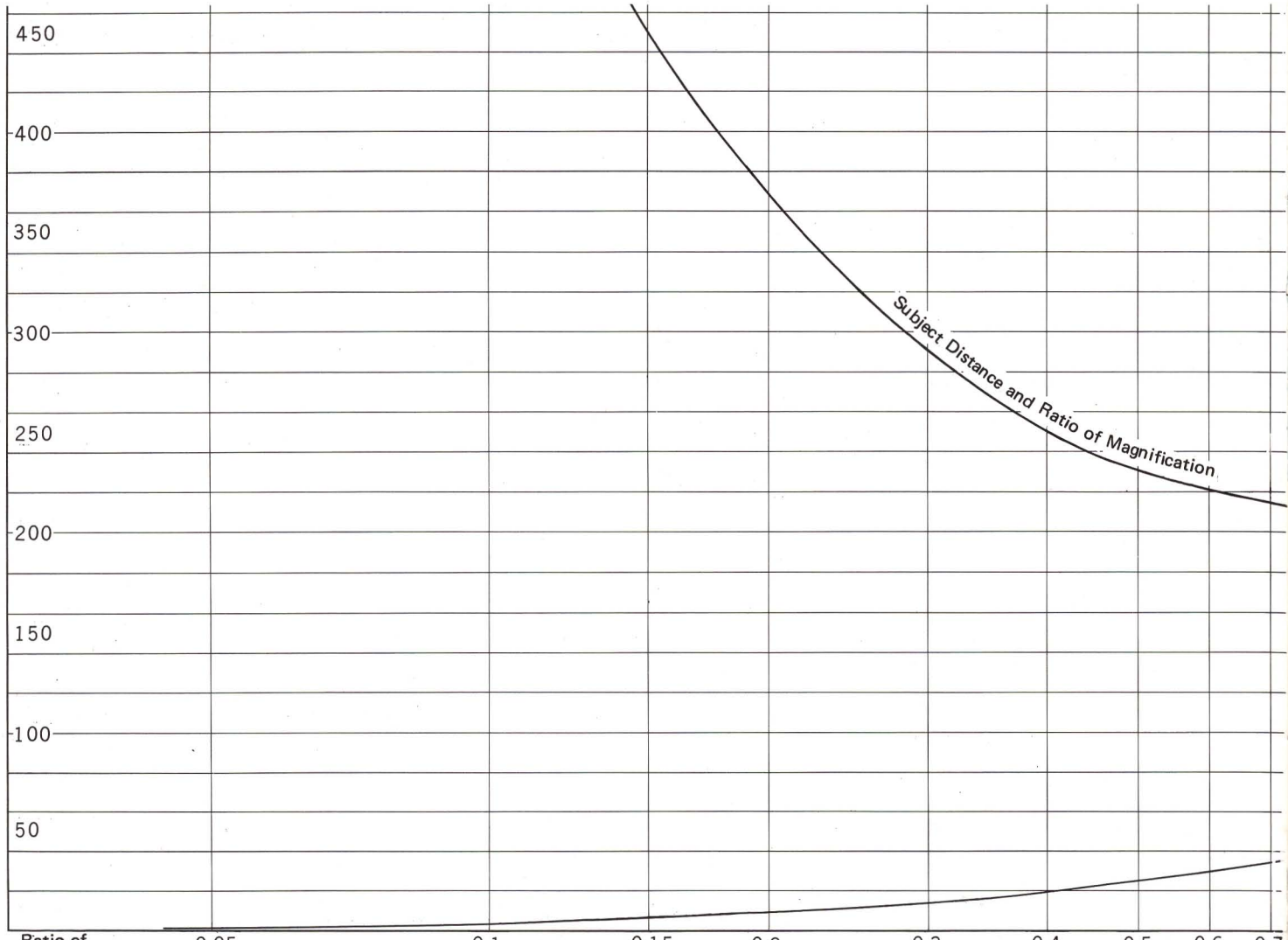


Stomata of the Orpine (20X)

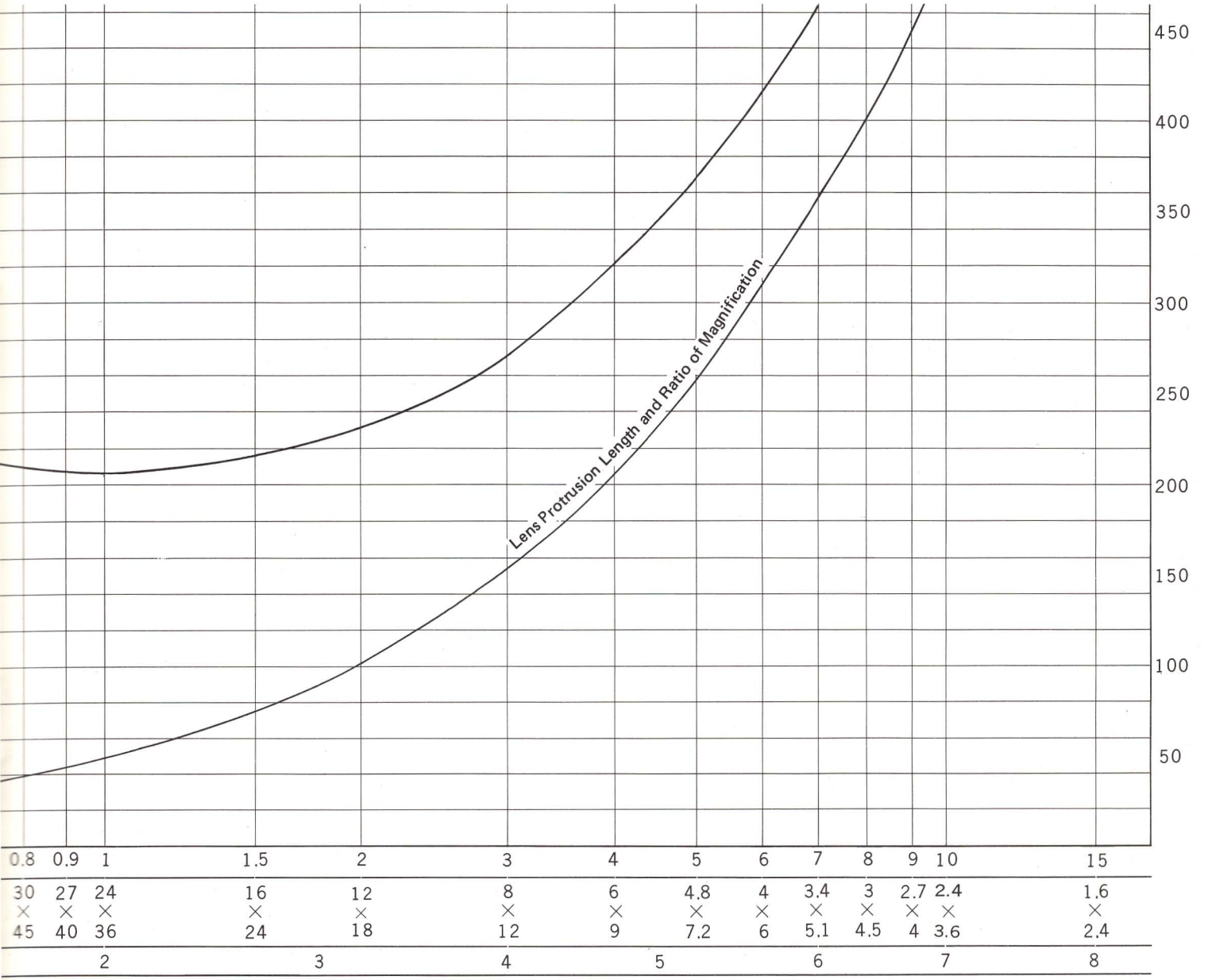
ADDITIONAL NOTES FOR PHOTOMICROGRAPHY

Illumination: The lighting must be performed specifically depending on the kind of microscope to be used and the object to be photographed.
Filter: Filters must be selected properly according to the light source, the film to be used and the object to be reproduced. In case the contrast of the object is low, the image on the film becomes a soft tone, and so a high contrast film is required.
Light Source: Other than light sources specially provided for photomicrography, the slide projector and artificial light can be used.
Objective Lens and Eyepiece: The lenses marked with P are recommended for photomicrography.
The subject of photomicrography is very broad and deals with many technical problems. One must consult on the subject with technical books for further information.

Close-up and Macrophotography with Canon FL 50mm Lenses (F3.5, F1.8, F1.4)



Ratio of Magnification	0.05	0.1	0.15	0.2	0.3	0.4	0.5	0.6	0.7
Picture Area	480 × 720	240 × 360	160 × 240	120 × 180	80 × 120	60 × 90	48 × 72	40 × 60	34 × 51
Exposure Compensation (Index)				0.5		1			


Lens Protrusion Length and Ratio of Magnification
450
400
350
300
250
200
150
100
50
0.8 0.9 1 1.5 2 3 4 5 6 7 8 9 10 15
30 × 45
27 × 40
24 × 36
16 × 24
12 × 18
8 × 12
6 × 9
4.8 × 7.2
4 × 6
3.4 × 5.1
3 × 4.5
2.7 × 4
2.4 × 3.6
1.6 × 2.4
2 3 4 5 6 7 8

Canon

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