

Four From Fuji An Evaluation Of The EX Lens Series

By Bob Mitchell

I just came out of the darkroom and I must tell you the exciting news—Fuji makes great enlarging lenses and that's for sure. The lenses I evaluated are Fujinon 50mm f/2.8 (95g) for 24 x 36mm negative size, 75mm f/4.5 (100g) for 6 x 7cm negative size, 90mm f/5.6 (95g) for 6 x 9cm negative size, and 135mm f/5.6 (310g) for 4 x 5-inch negative size. This series of lenses is called the EX series. A detailed list of specifications

Table I. Enlarging Lens Performance

Fujinon Lens	Full Aperture		Down 2 f/stops	
	Center	Corner	Center	Corner
50mm f/2.8	80	45	90	56
75mm f/4.5	45	40	72	50
90mm f/5.6	50	50	72	50
135mm f/5.6	45	28	45	36

for the EX series is presented at right. All four lenses are sharp as a tack and easy to use.

Three of the above lenses are Leica threaded for mounting on most enlargers. The the 135mm f/5.6 has a flange with holes for mounting on a lensboard. This lensboard mounting is quite common for lenses made to be used on enlargers for big negatives.

To look at these four lenses is a real pleasure. They all have handsome black mounts with large, easy to read markings. The aperture scale is marked with luminous paint so that it can be adjusted in the dark. The lenses are EBC coated to minimize ghost and flare.

Aperture ranges are as follows: the 50mm f/2.8 lens stops down to f/16. The 75mm f/4.5 lens stops down to f/22. The 90mm f/5.6 lens stops down to f/32 and the 135mm f/5.6 lens stops down to f/45.

Evaluation Method

As with previous lens evaluations, I did not evaluate each lens at every aperture. I simply made trial prints at the center and corner when the lens is wide

open and again, at the center and corner when the lens is stopped down two f/stops. These four readings are compiled in Table I, which reads in lines-per-millimeter. As you must know, as the focal length of the lenses increase, the lines-per-millimeter numbers will decrease. This is the nature of optics. However, I think you will agree that the numbers in this table are exciting.

Complete Line of Lenses

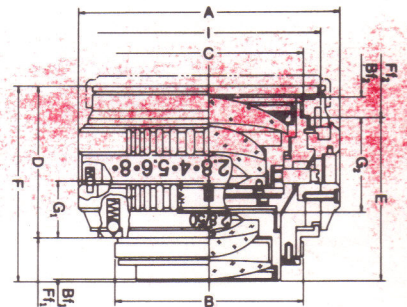
Fuji also offers a complete line of lenses for the professional photographer, including camera lenses such as found in the Fujinon SWDS line with 65, 75 and 90mm focal lengths for special wide angle shooting on view cameras. Then, there is the NSWS line of super-wide angle lenses available in focal lengths of 90, 105 and 125mm. Next, the NWS, WS lines feature focal lengths of 105, 125, 135, 150, 180, 210 and 250mm. This line also offers the W series of lenses with focal lengths of 300 and 360mm. Furthermore, Fuji offers its LS lens series along with the TS line of 300 and 400mm focal lengths. This line also includes a unique 600mm lens. To top off these fine lines of lenses, Fuji also offers its AS, SFS and CS series of special lenses for commercial photography.

Returning to the EX series of lenses which I evaluated, all four lenses are ones which you would be proud to own. Work well? There's no doubt about it.

For those who are interested in a complete description of my lens testing procedures, I refer you to my article "Schneider Enlarging Lenses," (September/October 1985). The method presented there can be used for evaluating any camera or enlarging lens.

For more information on Fujinon enlarging and large-format lenses, contact D.O. Industries, 317 East Chestnut Street, Rochester, NY 14445, for an informative series of brochures describing the complete Fujinon line. □

Contributing Editor Bob Mitchell has invented many successful photographic products and regularly evaluates darkroom and photographic equipment.



EBC Fujinon-EX Lenses

	50	75	90	135
Focal length	50	75	90	135
Maximum aperture	2.8	4.5	5.6	
Lens configuration (comp-elem)	4-6		6-6	
Angle of coverage	50°	55°	58°	62°
Minimum aperture	16	22	32	45
Magnification	15	8	7	6
Magnification range	2~20	1.5~15	1.5~10	
Achromatized wavelength range	380mμ ~ 700mμ			
Focal length	51.8	77.2	91.9	136.8
Barrel outer diameter (A)	54φ		64φ	
Flange mount thread size (B), (C)	39φ P = 1.0		53φ P = 0.75	
Barrel length (D), (E)	31		43	
	33.5		44	
Overall length (F)	40		54	
Flange focal length (F ₁)	38.5	68.6	82.1	121.2
(F ₂)	25.3	62.9	75.0	115.9
Back focal length (Bf ₁)	30.1	62.1	74.8	111.2
(Bf ₂)	21.2	63.7	72.9	107.7
Distance from 2nd principal point (H') to (G) rear flange	13.2	8.2	9.9	15.6
Distance from 1st point to front flange (G ₂)	26.4	14.3	17.0	20.9
Principal interval(ΔH)	-15.2	1.9	-2.3	-3.5
Attachment size (I)	46φ P = 0.75		55φ P = 0.75	

Length unit: mm



Lens Comparisons*

	50 mm f2.8			
	Full Aperture		Down 2 f/stops	
	Center	Corner	Center	Corner
Fuji EX	80	45	90	56
Schneider	64	45	64	64
Rodenstock	64	64	80	57
EL Nikkor	50	50	80	64

*These figures are taken from independent evaluations.

For more information on Fujinon Enlarging Lenses or Fujinon Professional Large Format Lenses, visit your local photographic dealer or write to: D. O. Industries/Fujinon, 317 East Chestnut Street, East Rochester, New York 14445, (716) 385-4920.