

MODERN PHOTOGRAPHY'S PHOTO BUYING GUIDE 1977

135MM F/2.3 VIVITAR FOCUSES TO 3 FT.

MANUFACTURER'S SPECIFICATIONS: 135mm f/2.3 Vivitar Series 1 in mounts for Pentax, Canon, Nikon, Minolta, Olympus OM-1, Konica and similar cameras. **FEATURES:** Apertures to f/22, focusing to 3 ft., accepts 72mm accessories, built-in telescoping lens hood. **PRICE:** \$219.50.

The chief claim to fame of the Vivitar Series 1, until now, has not been its optical excellence, but its scarcity. Announced in 1972 as the first trio of an entirely new, super lens series with super features, the now-famous first macrozoom 70-210mm f/3.5, the 135mm f/2.3 and the 200mm f/3 became conspicuous lenses because of their absence from the photo dealers' shelves. At last the 70-210mm made its appearance, and we're pleased now to announce the 135mm. To those made grumpy by the long wait, we can only say that this lens was worth the waiting.

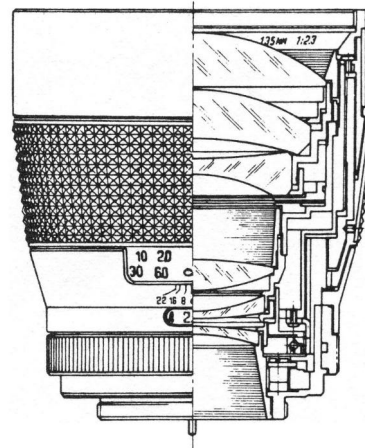
It is perhaps the most convenient and versatile 135mm lens we have ever tested. What other similar lens weighing but 27 oz. (766 g) and measuring 4.7 in. (12 cm) in length provides an f/2.3 aperture and allows focusing close enough for an eyes-only portrait?

The lens has an all-bright black finish, very large numerals, and a 2 $\frac{5}{8}$ -in. diameter at the lens mount end. This flares 1 $\frac{3}{4}$ in. outwards to a maximum width of 3 $\frac{1}{8}$ in. The flaring part of the mount serves as the focusing ring, having a 1-in.-wide rubberized gripping band with a diamond-studded pattern grip. At the front of the lens is a $\frac{3}{4}$ -in.-wide, smooth working, built-in collapsible lens hood. As a fast-action, low-light or portrait lens, it would be very hard to fault. While the lens passed its practical use tests in our hands with flying colors, let's see how well it did in the lab and in slide analysis.

Central color fringing (causes image unsharpness with color fringing): A rather strong reddish fringing could be seen on the optical bench. It persisted to f/4, but was mostly gone by f/5.6. Although the fringing was bright, the size of the pattern was very small. Our pictures indicated the same fringing, but we felt the correction for it was good.

Central spherical aberration (causes focus shift and flare): A moderate amount of flare wide open was substantially gone by f/4. However, in our pictures we found flare stronger, and noted that it didn't disappear until the aperture was f/5.6.

Edge lateral color fringing (causes persistent image unsharpness, possible multiple colored images): On the bench, we noted a very slight greenish to purplish fringing from $\frac{2}{3}$ of the way out to the corners. However, the fringe appeared to be very small — a fact borne out in our test pictures.



Resolution Power

135mm f/2.3 Vivitar Series 1 No. 2822002 At 1:50 Magnification				
f/no.	Center Lines/mm		Corner Lines/mm	
2.3	Exc.	50	Exc.	35
2.8	Exc.	50	Exc.	40
4	V/Good	50	Exc.	45
5.6	Good	45	Exc.	40
8	V/Good	50	Exc.	40
11	Exc.	56	Exc.	45
16	Exc.	50	Exc.	45
22	V/Good	45	V/Good	35

Actual Focal Length: 133.7mm

Image Contrast

135mm f/2.3 Vivitar Series 1 No. 2822002 At 30 lines/mm				
f/no.	Center Percentage		Corner Percentage	
2.3	Low	38	Low	30
2.8	Low	44	Low	32
4	Low	49	Medium	49
5.6	Medium	57	Medium	50
8	Medium	63	Medium	49
11	Medium	58	Medium	48
16	Medium	56	Medium	43
22	Low	46	Low	38

Edge astigmatism (causes image streaks): Very little astigmatism could be seen on the optical bench, even at maximum apertures. At the extreme corners, astigmatism was very slight at f/4 and almost gone by f/5.6. From our slides we judged astigmatism to be very well-corrected.

Edge coma (causes flare): Moderate skew-ray flare could be seen on the bench at f/2.3, but was mostly gone by f/3.5. Coma was well-controlled over the entire field — moderate at f/4 near the corners, and almost gone by f/5.6. Our test slides confirmed that coma was well corrected.

Optical decentering (causes problems in all areas): None observable.

Residual ghosts and flare: Only a normal amount present.

Linear distortion: We measured about one percent pincushion distortion — rather low for a lens of this focal length and speed.

With its fast handling and close-focusing capabilities, we found the new Vivitar to be an impressive performer.