

A newcomer crashes the IS/VR party

SPECIFICATIONS

80–400mm (80.29–397.94mm tested), f/4.5–5.6 (f/4.66–* tested), 20 elements in 14 groups. Focusing ring turns 140 degrees counterclockwise. Zoom ring turns 120 degrees counterclockwise. Focal lengths marked at 80-, 100-, 135-, 200-, 300-, and 400mm. Diagonal view angle: 30–6 degrees. Weight: 3.87 lb. Filter size: 77mm. Mounts: Canon AF, Nikon AF, Sigma AF. Included: softcase, lenshood, removable tripod collar. List price: \$1,499. Street price: Approx. \$1,199. *measurement not available due to instrument limitation.

WHAT YOU SHOULD KNOW: Sigma's long-awaited OS (Optical Stabilizer) is the first from an independent lens maker.

Modes are similar to Canon's IS, but Nikon users should check compatibility; image stabilization's not universal. OS (Optical Stabilizer) uses controls similar to Canon IS lenses, offering a choice of two-axis or single-axis panning stabilization.

HANDS ON: Massive and heavier than comparable Nikon VR and Canon IS zooms, this lens features Sigma's distinctive finish, and broad, rubberized zoom and focusing rings. Extras include a lock that stops zoom creep.

IN THE LAB: SQF data excellent at 80- and 200mm and acceptable at 400mm, minimal barrel distortion (0.2%) at 80mm, slight pincushion (0.9%) at 200mm, noticeable pincushion (1.1%) at 400mm. At closest focusing distance of 59.5 inches at 80mm, center sharpness was excellent f/4.5–22, good at f/32. Corner sharpness

was good at f/4.5, excellent f/8–22, very good at f/32.

Optimum performance at f/11. At closest focusing distance of 60 inches at 200mm, center sharpness was excellent f/5.6–16, good at f/22, acceptable at f/38. Corner sharpness was acceptable at f/5.6, good at f/8, very good f/11–16, good at f/22, poor at f/38. Optimum performance at f/16. At closest focusing distance of 63 inches at 400mm, center sharpness was excellent f/5.6–8, good f/11–16, poor f/22–38. Corner sharpness was poor at f/5.6, good at f/8, acceptable at f/11, poor f/16–38. Optimum performance at f/6.

IN THE FIELD: Test slides were very sharp and contrasty from center to corner at every aperture and focal length, except at f/5.6 at 400mm, where we found slight softness. Light falloff was gone by f/8 at 80mm and 200mm, by f/11 at 400mm.

OPTICAL STABILIZER TEST: Hand-holding test on Canon EOS 10D (1.6X 35mm magnification factor).

80MM (128MM EFFECTIVE): Slowest good shutter speed: 1/50 sec; slowest marginal shutter speed: 1/30 sec; average shutter-speed gain over nonstabilized results: +1.0. **250MM (400MM EFFECTIVE):** Slowest good shutter speed: 1/80 sec; slowest marginal shutter speed: 1/40 sec; average shutter-speed gain over nonstabilized results: +1.6.

400MM (640MM EFFECTIVE): Slowest good shutter speed: 1/125 sec; slowest marginal shutter speed: 1/80 sec; average shutter-speed gain over nonstabilized results: +2.0.

CONCLUSION: Despite the extra weight, this lens is an attractive, less expensive alternative to similar Nikon and Canon optical stabilization zooms.



@80mm

Size	5x7	8x10	11x14	16x20	20x24
4.5	96.7	95.7	93.3	89.1	84.3
8.0	97.1	96.2	94.2	90.9	87.2
11.0	97.0	96.0	93.9	90.2	86.1
16.0	96.4	95.3	92.8	88.2	82.9
22.0	95.6	94.2	91.0	84.8	77.2
32.0	94.7	93.2	89.2	80.8	70.1

@200mm

Size	5x7	8x10	11x14	16x20	20x24
5.6	96.2	94.5	89.7	82.1	76.6
8.0	97.0	95.8	92.8	88.0	84.5
11.0	97.0	95.8	92.7	87.8	84.3
16.0	96.8	95.4	91.8	86.2	81.8
22.0	96.2	94.5	89.7	81.8	74.7
38.0	93.8	90.7	81.1	64.9	51.4

@400mm

Size	5x7	8x10	11x14	16x20	20x24
5.6	81.9	70.3	49.9	32.7	25.5
8.0	85.3	76.3	60.7	45.6	36.7
11.0	89.3	82.6	71.8	64.4	58.6
16.0	92.9	88.4	81.5	81.5	77.9
22.0	94.6	91.2	85.8	85.4	80.9
38.0	92.3	87.5	77.7	66.0	55.6

key

A+	A	B+	B	C+	C	D	F
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