

# LENSTESTS



# Sigma

## Sigma's fast, ultrawide, constant-aperture zoom

**Hands on:** High-speed and constant-aperture design have made Sigma's 20–40mm f/2.8 DG impressive in both girth and length. The lens is lighter than it looks and balances very well on 35mm or digital SLRs of all sizes. Nicely finished in matte black with tiny gold flecks, it has very wide rubberized zoom and manual-focus collars that are ribbed for excellent grippability. The focal-length scale is very legible in white on black; the white-on-black distance scale under a protective window, a little less so. The depth-of-field scale only covers apertures from f/8–22, but there is an IR index. To select manual focus, you must pull the focusing collar back to M position and set a tab at the rear of the lens to M—a minor inconvenience. Curiously, if the tab is set to AF, the lens will autofocus properly whether the focusing collar is set to M or AF positions. Manual focusing action is smooth and well damped.

**In the lab:** SQF data indicate excellent overall performance at 20-, 28-, and 40mm. At 20mm, there was noticeable barrel distortion (1.9 percent), at 28mm, minimal pincushion distortion (0.45 percent), and at 40mm, noticeable pincushion distortion (1.3 percent).

At 20mm, exposure at the film plane was very accurate, with underexposure of 1/3-stop at f/2.8 due to light falloff, less than 1/10 stop under from f/4–8 and 1/5-stop under from f/11 to f/22. At 40mm, exposure was extremely accurate, with underexposure of 2/5 stop at f/2.8 due to light falloff, less than 1/10-stop under from f/4–16 and about 1/5-stop under at f/22.

At the closest focusing dis-

tance of 11 3/8 inches (1:7.8) at 20mm, center sharpness was excellent at all apertures. Corner sharpness was poor at f/2.8, acceptable at f/4, very good at f/5.6, excellent from f/8–11, and good from f/16–22. Optimum performance was at f/11.

At the closest distance of 11 1/4 inches (1:5.6) at 28mm, center sharpness was very good at f/2.8, excellent from f/4–16, and very good at f/22. Corner sharpness was poor from f/2.8–4, acceptable at f/5.6, good from f/8–16, and acceptable at f/22. Optimum performance was at f/16.

At the closest focusing distance of 10 3/4 inches (1:3.8) at 40mm, center sharpness was poor from f/2.8–4, acceptable at f/5.6, good from f/8–11, very good at f/16, and excellent at f/22. Corner sharpness was poor from f/2.8–5.6, acceptable from f/8–16, and good at f/22. Optimum performance was at f/22.

**In the field:** Test slides were sharp and contrasty from center to corners at all apertures and focal lengths except at 28mm and f/2.8, where both center and corner images were slightly soft. Flare was very well controlled throughout, a fine performance for this class of lens. Autofocus action was judged a tad slow and slightly noisy. The filter ring does not turn during (internal) focusing or zooming.

**Conclusion:** With a constant f/2.8 maximum aperture and overall imaging performance very close to top grade, single-focal-length lenses, this impressive optic should be on the short list of anyone needing a fast ultrawide-to wide-angle zoom.

### Sigma 20–40mm f/2.8 EX DG AF



### SPECIFICATIONS

20–40mm (20.76–38.57mm tested), f/2.8 (f/2.82 tested), 17 elements in 13 groups. Focusing turns 80 degrees counterclockwise. Zoom ring turns 50 degrees counterclockwise. Focal lengths marked at 20-, 24-, 28-, 35-, and 40mm. **Diagonal View Angle:** 94–57 degrees. **Weight:** 1lb 5 5/16 oz. **Filter size:** 82mm. **Mounts:** Canon AF, Minolta AF, Nikon AF, Pentax AF, and Sigma AF. **Lenshood:** Included. **Lens case:** Included. **List price:** \$1,186. **Street price:** Approx. \$600.

### SUBJECTIVE QUALITY FACTOR

M/Sec	A+	A	B+	B	C+	C	D	F
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@20mm							
MAG	5	6	8	12	17	22	
Size	4x6	5x7	8x10	11x14	16x20	20x24	
2.8	96.9	96.5	95.5	93.0	88.0	82.1	
4.0	97.0	96.6	95.6	93.2	88.4	82.8	
5.6	97.0	96.7	95.7	93.3	88.7	83.3	
8.0	96.9	96.6	95.5	93.0	88.2	82.3	
11.0	96.8	96.5	95.4	92.8	87.9	81.9	
16.0	96.4	96.0	94.8	91.9	86.2	79.4	
22.0	95.6	95.2	93.7	90.2	83.1	74.3	

@28mm							
MAG	5	6	8	12	17	22	
Size	4x6	5x7	8x10	11x14	16x20	20x24	
2.8	97.1	96.8	95.8	93.4	88.8	83.1	
4.0	97.1	96.8	95.8	93.5	88.9	83.4	
5.6	97.2	96.9	95.9	93.7	89.3	84.0	
8.0	97.3	97.0	96.1	93.9	89.7	84.8	
11.0	97.2	96.9	95.9	93.6	89.3	84.1	
16.0	96.6	96.3	95.2	92.5	87.2	80.8	
22.0	95.7	95.3	93.9	90.4	83.3	74.4	

@40mm							
MAG	5	6	8	12	17	22	
Size	4x6	5x7	8x10	11x14	16x20	20x24	
2.8	97.2	96.9	96.0	93.7	89.2	83.8	
4.0	97.6	97.4	96.6	94.7	91.2	87.1	
5.6	97.4	97.1	96.3	94.2	90.3	85.6	
8.0	97.1	96.8	95.8	93.5	88.9	83.2	
11.0	97.1	96.8	95.8	93.5	88.8	83.1	
16.0	96.9	96.5	95.5	92.9	87.9	81.6	
22.0	96.1	95.7	94.4	91.2	84.5	76.1	