



Canon

Stabilization plus performance

Hands on: Large, even by f/2.8 standards, this constant-aperture, mid-to-long tele is finished in Canon's familiar off-white "pro" epoxy paint. It's also distinguished by black, rubberized, amply-sized zoom and focusing rings. Focusing action is well damped but the zoom ring offers a bit too much resistance when turned toward longer focal lengths. The zoom ring markings of 70-, 100-, 135-, and 200mm are large and easily legible. Four switches line the barrel's midsection: manual/autofocus; stabilizer on/off; stabilizer mode; and a focusing range delimiter (4 feet, 6½ inches to infinity or 8 feet, 1½ inches to infinity). Focusing distances are displayed in large and legible numerals in both feet (green) and meters (white). No depth-of-field scale, but there are infrared focusing index marks for both 70mm and 100mm settings. The freely rotating tripod-mount collar is removable.

In the lab: SQF data indicate very good performance at the three tested focal lengths: 70mm, 135mm, and 200mm.

At 70mm, there was noticeable barrel distortion (1.28 percent); at 135mm, minimal pincushion (0.4 percent), and at 200mm, slight pincushion distortion (0.86 percent).

Exposure accuracy at the film plane for the tested focal lengths (70mm and 200mm) was in the accurate range, with about ½-stop underexposure at maximum aperture due to light falloff; ⅓-stop underexposure from f/4 to f/22; and ½-stop underexposure at f/32.

The 70mm close-focusing distance of 53¾ inches (1:15) showed excellent center sharpness from f/2.8 to f/22, and very good sharpness at f/32. Corner sharpness was poor at f/2.8, acceptable at f/4, very

good at f/5.6, excellent from f/8 to f/16, very good at f/22, and acceptable at f/32. Optimum performance was at f/8.

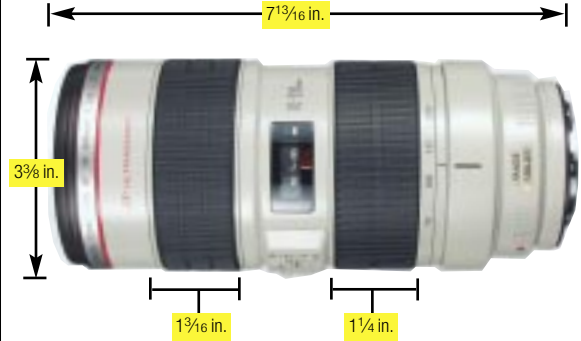
At the 135mm close-focusing distance of 53½ inches (1:10.5), center sharpness was excellent at every aperture. Corner sharpness was poor from f/2.8 to f/5.6, acceptable at f/8, good at f/11, excellent at f/16, and good from f/22 to f/32. Optimum performance was at f/16.

At 200mm, at the close-focusing distance of 53 inches (1:5.6), center sharpness was good at f/2.8, excellent from f/4 to f/8, good at f/11, acceptable at f/16, and poor from f/22 to f/32. Corner sharpness was good at f/2.8, very good at f/4, good at f/5.6, acceptable from f/8 to f/11, and poor from f/16 to f/32. Optimum performance was at f/4.

In the field: Test slides were very sharp and contrasty from center to corner at every aperture and focal length, except for f/32 which showed slight softening at both center and edges. Flare was well controlled at every focal length and aperture.

Conclusion: Image stabilization function gave very similar (i.e., excellent) results in the areas of speed, noise, sharpness, and focusing accuracy compared to previously tested Canon IS lenses. With nonmoving subjects, all of our handheld pictures were in sharp focus at all tested focal lengths (70-, 135-, and 200mm) at shutter speeds as slow as 1/25 sec. Even at 1/4 sec, 75 percent of the handheld test pictures were deemed sharp at 70mm. If you can deal with the extra weight and cost, this lens delivers on its promise of sharper pictures at slower shutter speeds.

Canon 70–200mm f/2.8L IS USM AF



SPECIFICATIONS

70–200mm (72.89–190.22mm tested), f/2.8 (f/2.94 tested), 23 elements in 18 groups. Focusing turns 50 degrees clockwise. Zoom ring turns 150 degrees counterclockwise. Focal lengths marked at 70-, 100-, 135-, and 200mm. **Diagonal View Angle:** 34–12 degrees. **Weight:** 3 lbs 8¹⁵/₁₆ oz. **Filter size:** 77mm. **Mount:** Canon AF. **Included:** Soft case, lenshood, tripod collar. **List price:** \$2,900. **Street price:** Approximately \$1,700.

SUBJECTIVE QUALITY FACTOR

Spec	A+	A	B+	B	C+	C	D	F
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@70mm							
MAG	5	6	8	12	17	22	
Size	4x6	5x7	8x10	11x14	16x20	20x24	
2.8	96.9	96.4	94.7	89.6	82.1	75.7	
4.0	97.4	97.1	95.7	91.9	86.1	80.8	
5.6	97.5	97.2	95.9	92.4	86.8	81.5	
8.0	97.5	97.2	95.9	92.3	86.7	81.1	
11.0	97.4	97.0	95.7	91.9	85.8	79.8	
16.0	97.0	96.6	95.0	90.5	83.2	76.2	
22.0	96.2	95.6	93.5	87.4	77.4	68.2	
32.0	94.9	94.1	91.1	82.2	67.9	55.9	

@135mm							
MAG	5	6	8	12	17	22	
Size	4x6	5x7	8x10	11x14	16x20	20x24	
2.8	96.0	95.3	92.9	85.6	74.6	66.1	
4.0	97.1	96.7	95.3	91.1	83.6	76.6	
5.6	97.6	97.3	96.1	92.7	87.0	81.5	
8.0	97.7	97.4	96.3	93.2	87.9	83.0	
11.0	97.7	97.4	96.3	93.1	87.7	82.6	
16.0	97.3	96.9	95.6	91.6	84.9	78.4	
22.0	96.6	96.1	94.2	88.8	79.5	70.7	
32.0	95.2	94.5	91.7	83.4	69.1	56.5	

@200mm							
MAG	5	6	8	12	17	22	
Size	4x6	5x7	8x10	11x14	16x20	20x24	
2.8	96.3	95.7	93.3	86.0	74.9	66.5	
4.0	96.8	96.3	94.3	88.5	79.0	71.1	
5.6	97.2	96.8	95.2	90.6	82.5	74.9	
8.0	97.6	97.2	95.9	92.0	85.4	79.2	
11.0	97.7	97.4	96.1	92.4	86.4	80.8	
16.0	97.4	97.0	95.6	91.3	84.0	77.2	
22.0	96.6	96.1	94.1	88.1	77.8	68.4	
32.0	95.4	94.6	91.8	82.9	68.0	55.2	