

Sigma 300–800mm f/5.6 EX APO HSM AF:

Heavy, bulky, optically superb, ideal for sports and nature



SPECIFICATIONS:

300–800mm f/5.6 (focal length test not possible), 18 elements in 16 groups. Focusing turns 180 degrees counterclockwise. Zoom ring turns 120 degrees counterclockwise. Focal lengths marked at 300-, 400-, 500-, 600-, 700-, and 800mm. Diagonal view angle: 8–3 degrees. Weight: 11 lbs 12 oz. Filter size: 46mm (inset holder). Mounts: Canon AF, Nikon AF, and Sigma AF. Included: lenshood, clear filter, polarizing filter, hardcase, removable tripod collar. List price: \$5,849. Street price: approx. \$4,500.

What you should know: Longest sports-nature zoom available.

Hands on: Bring a friend to help you get this monster out of the case and set up. Black, fine-crackle finish, ultrasmooth internal focusing with highly visible metric scale and harder-to-see red footage scale inset under plastic window; wide, rubber-ribbed focus and zoom rings turn with incredible smoothness. Long, solid mounting foot provides three standard 1/4-inch and one 3/16-inch (European) tripod threads to achieve proper camera-lens balance. Locking mount allows lens to turn 90 degrees, with clear markings for horizontal and vertical camera positions; 46mm inset filter holder has provision for rotating filters

In the lab: (No SQF figures were possible because we could not mount so large a lens on our test equipment. Lines per millimeter resolution figures are furnished instead.)

At 300mm, pincushion distortion was minimal (0.21%), with minimal barrel distortion (0.22%) at 500mm, and slight barrel distortion (0.66%) at 800mm.

Closest focusing distances: At 300mm, 18 ft 7 in. (1:16.8): Excellent center sharpness f/5.6–f/22, good f/32. Corners excellent f/5.6–f/16, very good f/22, acceptable f/32. Best overall at f/11.

At 500mm, 18 ft 6 1/2 in. (1:10.2): Excellent center sharpness f/5.6–f/16, very good f/22, poor f/32. Corners good f/5.6–f/8, excellent f/11–f/16, poor f/22–32. Best overall at f/11.

At 800mm, 18 ft 7 in. (1:6.51): Excellent center sharpness f/5.6–f/16, acceptable f/22, poor f/32. Corners excellent f/5.6–f/11, good f/16, poor f/22–f/32. Best overall at f/8.

In the field: Test slides were very sharp and contrasty at all focal lengths from center to corners. Slight softness at 300mm in corners at f/5.6, center and corners at f/32; at 500mm, corners at f/32; at 800mm, center and corners at f/32. Light falloff was gone by f/8.

Conclusion: Unique focal-length zoom, magnificent optical performance, but muscles needed to carry and set-up.

RESOLUTION (l/mm)

f/	Center	Corner
@ 300mm		
5.6	75 excellent	60 excellent
8.0	67 excellent	53 excellent
11.0	60 excellent	48 excellent
16.0	60 excellent	48 excellent
22.0	42 very good	33 good
32.0	33 acceptable	30 acceptable

@ 500mm		
5.6	67 excellent	53 excellent
8.0	75 excellent	53 excellent
11.0	67 excellent	59 excellent
16.0	53 excellent	47 excellent
22.0	42 very good	37 very good
32.0	30 poor	24 poor

@ 800mm		
5.6	48 excellent	42 excellent
8.0	48 excellent	42 excellent
11.0	53 excellent	48 excellent
16.0	48 very good	38 very good
22.0	38 good	30 acceptable
32.0	26 poor	20 poor