

Nikkor AF 180mm f/2.8 IF-ED - Review / Test Report

Lens Reviews - Nikon / Nikkor (APS-C)
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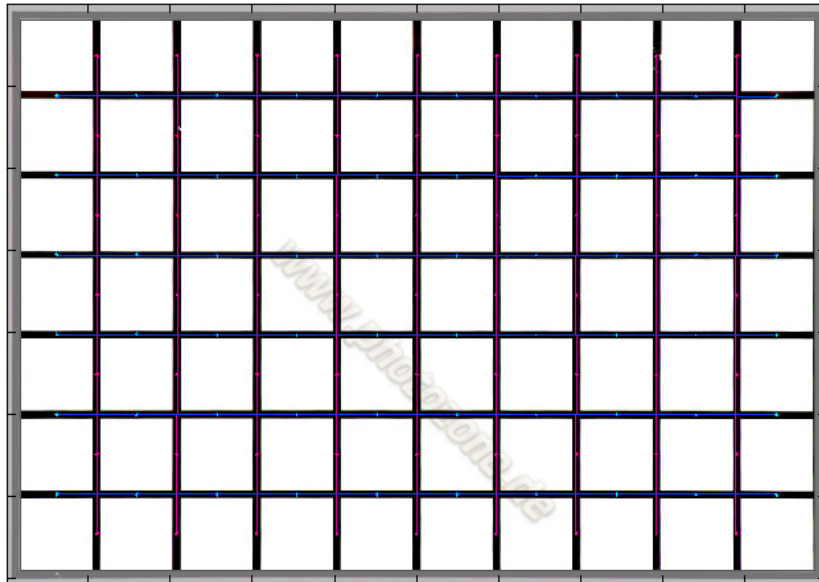
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Distortions

The AF 180mm f/2.8 IF-ED produces a very low degree of pincushion distortions (0.3%) which is not relevant under field conditions.

Distortion: 3rd order correction 06-Jun-2006 00:06:54
180mm



SMIA TV Distortion = 0.334%
 $k_1 = -0.00519$ ($r_u = r_d + k_1 r_d^2$)
 (r in center-corner units.)
 $h_1, h_2 = 0.00171, -0.00721$
 PW Pro Coeff. = -0.01256
 PW Pro Scale = 1.005
 Line calc: 3rd order

Selected EXIF data
 File: 2006:06:06 00:06:47
 Make: NIKON CORPORATION
 Model: NIKON D200
 Taken: 2006:06:03 15:57:07
 Res: 1000 x 705
 FL:
 Exp: 0.013 s (1/80)

Aper: f/11.0
 ISO: 200

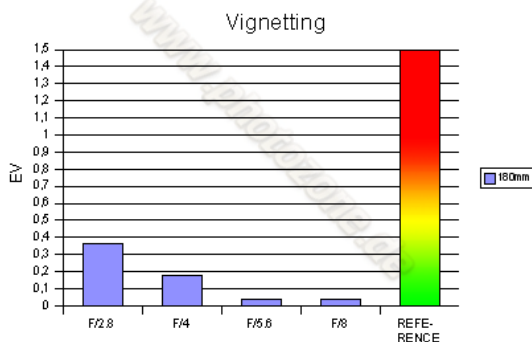


The chart above has a real-world size of about 120x80cm.

Vignetting

Thanks to the sweet spot behavior on the D200 vignetting is very well controlled even at max. aperture (0.36EV). You can easily go ahead shooting at f/2.8 without worrying about the issue.

Vignetting	F/2.8	F/4	F/5.6	F/8
180mm	0,36	0,18	0,04	0,04



MTF (resolution)

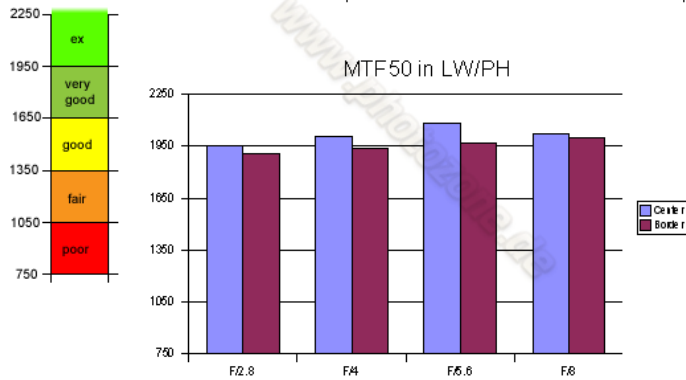
The F 180mm f/2.8 IF-ED was able to show very good to excellent resolution figures in the lab. Even better there's only a negligible difference between center and edge performance. The peak quality is reached at f/5.6 but it's only marginally worse at large aperture settings.

Beyond resolution the lens also convinced by providing exceptional contrast and a very good bokeh (out-of-focus blur although there's also some bokeh fringing. Both criterias are not measurable via the Imatest test procedure but the quality is obvious in real life images.

Below is a simplified summary of the formal findings. The chart shows in line widths per picture height (LW/PH) which can be taken as a quantity for sharpness. The chart is limited to the visually relevant LW/PH range of [750, 2250]. If you want to know more about the MTF50 figures you may check out the corresponding [Imatest Explanations](#).

Rating Scale: **Nikkor AF 180mm f/2.8 ED D**
Nikon (10mp)

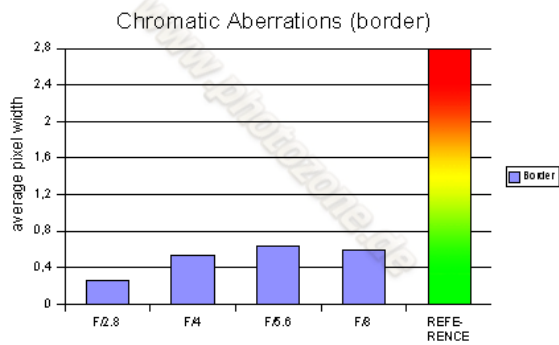
	180mm	F/2.8	F/4	F/5.6	F/8
max:					
Center	~2320 LW/PH	1949,5	2005	2082	2024,5
Border		1910,5	1934	1970	2001,5



Chromatic Aberrations (CAs)

Lateral Chromatic aberrations (color shadows at harsh contrast transitions) are very low and hardly an issue under field conditions. You may spot a little purple fringing here and there though (see e.g. the waterdrops on the swan sample below).

CAs	F/2.8	F/4	F/5.6	F/8
Border	0,25	0,53	0,64	0,59



Some readers were surprised about this finding because the current consensus suggested otherwise. Possibly the tested sample was simply very good in this respect - below is one of the border sample portions (@ f/4) where CAs are measured. As you can visually confirm the tested sample has no real issue here.

Upper left corner @ f/4

Lower right corner @ f/4

