

## AF Nikkor 50mm f/1.4D lens review

### Introduction

This classic lens has seven elements in six groups and dimensions of 64.5mm by 42.5mm; it focuses down to 45cm, weighs only 230g and takes 52mm filters. The maximum aperture of f/1.4 makes it indispensable for low-light photography; the fast aperture also ensures a very bright viewfinder view. Though made of plastic, it is reasonably well built. It handles very well and balances perfectly on all Nikon bodies I have tried it on (F80, F100, F6 and D70s).

[This](#), [this](#), and [this](#) photograph was taken with it. If necessary, you can find explanations of the terms below [here](#). MTF graphs for this lens can be found [here](#). For more reviews of the lens visit [here](#).



### Autofocus

One of the myths created by marketing people is that screw-driven lenses are much slower to focus than AF-S lenses. Contrary to this persuasive idea, my experience indicates that autofocus speed and accuracy to a very large degree depend on the camera's autofocus module. In case of the AF Nikkor 50mm f/1.4D lens, autofocus is quite sluggish on the Nikon D70s and very fast on the Nikon F100, although with occasional hunting; on the F6 autofocus is very fast, accurate and without hunting, albeit quite a bit audible.

### Sharpness

At f/1.4 and f/2 the lens' performance is far from perfect as there is discernible softness across the entire image; the difference in sharpness between the corners and the centre is almost indistinguishable, though. Sharpness improves noticeably at f/2.8 and from f/4 through to f/11 the lens performs very well indeed. At f/16 sharpness deteriorates again due to diffraction; nonetheless, the lens is perfectly usable at this aperture if greater depth of field is needed.

PhotoDo.com rated the lens at 4.2. My impression, however, has consistently been that it is not as sharp as one would expect it to be considering its "classic" status and a relatively long history of design and production.

### Light fall-off

As can be seen in the test shots below, the lens exhibits pretty dreadful light fall-off at f/1.4; it gets better at f/2 but still is quite visible in real-life photographs. At f/2.8 unevenness of illumination will be unnoticeable in most situations and the aberration is virtually gone by f/4.



f/1.4



f/2



f/2.8



f/4

### Distortion

Although some official Web sites claim that this lens is distortion-free, I am afraid it is *not*—it in fact shows quite noticeable barrel distortion; furthermore, it is more pronounced at closer distances. The upside, however, is that the aberration has a simple signature and that can be completely removed in post-processing.

### Flare and Ghosting

Once the standard of optical excellence, this lens has been eclipsed by newer Nikkor lenses that have adopted some of the latest innovations in lens design. Even some top-end zoom lenses (e.g., [AF-S Zoom-Nikkor 17-35mm f/2.8D IF-ED](#)) outperform the venerable prime lens in some areas, which includes flare control. While you will not see anything nasty when you have bright sources of light in your pictures, you are likely to notice some flare and overall contrast deterioration. In other words, it is not bad but I have seen better performance.

### Bokeh

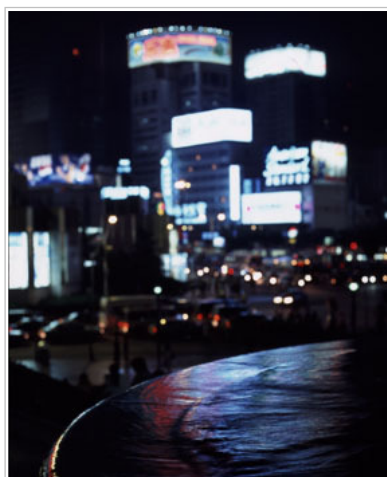
Bokeh is a very subjective criterion and you can see below for yourself what out-of-focus areas look like at different apertures.



f/1.4



f/2.8



f/4



f/5.6

If you are interested in my opinion, then here is what I see. Bokeh is plainly unsatisfactory at f/1.4—the blurry circles of distant lights are not evenly illuminated and their edges are well-defined and brighter than the centre. Thankfully, however, bokeh improves as the lens is being stopped down and it becomes fairly neutral by f/2.8. Here, the blurry circles are evenly illuminated; also note that the circles are actually seven-sided heptagons, which is due to the fact that the lens has seven diaphragm blades. At f/4 out-of-focus background looks somewhat softer and at f/5.6 bokeh is quite good—the circles are circles again, they are relatively evenly illuminated, and their edges are soft and not as bright.

In short, bokeh is, well, just so-so. In my experience it is bad enough to gradually become a niggling annoyance in the long term if your photographs often have out-of-focus background.

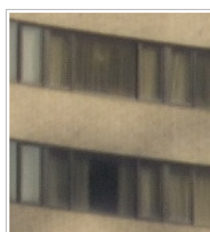
#### Conclusions

By and large, AF Nikkor 50mm f/1.4D is a reasonably good optic. It is fast, light and relatively affordable. This being said, the lens does not perform that well at f/1.4 and I avoid using it at this aperture unless I have no choice; pretty much the same holds at f/2, even though its performance does improve at this aperture. Although the lens performs quite well in the f/2.8 – f/16 range, it seems that the time for a major revamp of the standard Nikkor has come.

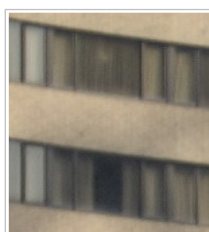
#### Update—the lens on a 6MP 1.5X crop factor DSLR

I was very interested to see how the lens would perform on a digital camera of a relatively low resolution and further tested it with the use of a Nikon D70s. Generally, my findings are consistent with the results of the previous tests with film. I have to note that digital capture, even at 6MP, is a far more merciless lens tester and the D70s accentuated all the shortcomings of the lens that I reported on above.

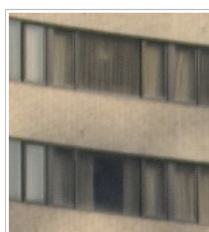
First of all, let's have a look at how the lens fared in the department of sharpness.



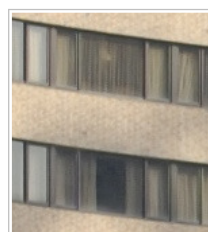
f/1.4



f/2



f/2.8



f/5.6

The images above are crops from the furthest corner of a test shot taken with the D70s; no sharpening was applied to any of them. As you can see, the lens performs quite poorly between f/1.4 and f/2.8 as there is a significant loss of resolution and contrast. Performance in the corners on a full-frame camera will be even worse.

As far as light fall-off is concerned, it is still quite pronounced at f/1.4 and, if one is being picky, visible at f/1.8 despite the 1.5X crop factor. At f/1.4 it actually has a very interesting pattern—it is not that the corners are a bit dark; it is that the whole frame is unevenly lit. This, of course, once again underlines the fact that if the lens is mounted on a full-frame camera light fall-off is really bad at this aperture.

On the D70s distortion is less pronounced than on a full-frame camera yet still noticeable, which once again confirms that the lens is *not* distortion free.

All of the above once again confirms that the lens is not a great performer in the f/1.4 – f/2.8 range. While light fall-off and distortion become less of an issue on a digital camera with a 1.5X crop factor (these aberrations can also be dealt with in post-processing), problems with sharpness become more pressing even on a 6MP DSLR. In the final analysis, I decided that there is no point in having a very fast lens that does not perform well wide-open. Time for a major update, Nikon!