

Test Results of the Hubble Optics 5-Star Artificial Star from a Japanese Customer

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Category: Equipment / Astronomy

I tested the Hubble Optics 5-Star Artificial Star to see whether it could be used indoors. It seemed that focusing might be possible by adding an extension tube, so I looked for a suitable substitute.

Fortunately, I found one. I used a **31.7 mm projection imaging adapter** that I had previously purchased from Kasai Trading. Although I had never actually used it before, it turned out to be very useful in this situation.



Equipment Used

From left to right:

- 2-inch to 31.7 mm adapter
- Kasai projection imaging adapter
- 31.7 mm adapter for flip mirror
- WA Plössl eyepiece (5 mm focal length)



Setup

When attached to my SE200N telescope, the setup became quite long. Since using it in the usual Newtonian observing position might cause flexure, I placed the telescope on the floor and carried out the test in that configuration.

Observations

The images seen through the eyepiece were captured using a digital camera in afocal (eyepiece projection) mode. Due to vignetting, the photos are not very clear, but the actual visual view was better.



- **Intra-focus image (inside focus)**



- **In-focus image**

Capturing this image was difficult, but diffraction rings were visible visually.



- **Extra-focus image (outside focus)**
The optical alignment was surprisingly good. Since the telescope had been left unused for some time, I expected it to be significantly misaligned. The wide tube rings may have helped maintain alignment.



- **Misalignment test**

For testing purposes, I intentionally introduced misalignment and observed the resulting image.

Conclusion

Overall, I am very satisfied with the results.

Thank you to telescopper for the helpful advice.

Postscript

My test instrument is an SE200N, so I cannot say how accurately this method will work for higher-end or different telescopes.

Please note that I cannot take responsibility if someone purchases this product based on these results and is dissatisfied.