

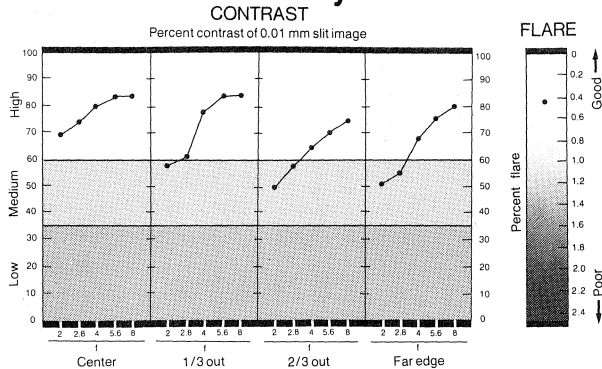
POP PHOTO LENS TEST

ZUIKO LENSES FOR OLYMPUS OM-3

Zuiko Auto-Macro 50-mm f/2 Ser. No. 101356

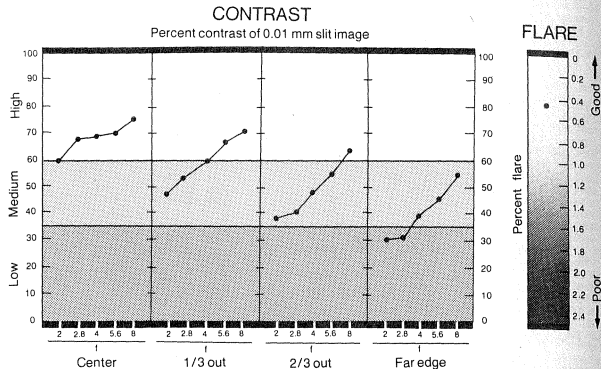
Dimensions: Outer diameter: 68.9 mm Length: 55.3 mm
Weight: 321 grams Filter size: 55-mm

Performance at infinity



Closest-subject distance from front of lens: 108 mm
Maximum subject magnification: 0.5X
Focal length measured: 52-mm
f-stop measured: f/2.08 T-stop: T-2.18
Distortion: None
Vignetting: None beyond f/4.5
Centering: Near perfect

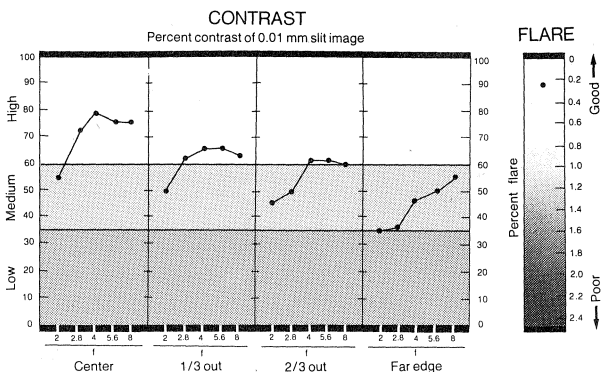
Performance at "macro" limit



Closest-subject distance from front of lens: 108 mm
Maximum subject magnification: 0.5X
Focal length measured: 40-mm
f-stop measured: f/3.12 T-stop: T-3.27
Distortion: None
Vignetting: None beyond f/4.5
Centering: Near perfect

Zuiko Auto-W 35-mm f/2 Ser. No. 152548

Dimensions: Outer diameter: 61 mm Length: 43 mm
Weight: 241 grams Filter size: 55-mm



Closest-subject distance from front of lens: 204 mm
Maximum subject magnification: 0.16X
Focal length measured: 35.5-mm
f-stop measured: f/2.09 T-stop: T-2.20
Distortion: Moderate barrel-type
Vignetting: None beyond f/4.5
Centering: Near perfect

INSIDE THE LENS

Both of these lenses are multicoated, have all-aluminum focusing helicoids with twin parallel-focusing guide arms, and use a minimum of wet lubrication.

The 35-mm f/2 has eight elements in seven groups and bears the distinction of producing the lowest flare level of any lens we have tested in recent history that I can recall. Its construction uses four elements with somewhat thick edges, so the low flare level is a tribute as much to the effectiveness of the edge blackening as it is to other baffling and to the multilayer coating.

The 50-mm f/2 Auto-Macro lens has nine elements in seven groups. The front (weak positive) group of two elements is cam-propelled by the main focusing helicoid. With smoothly machined cam-slots and nylon-like cam-followers, the lens employs the design used in nearly all of today's zoom lenses. The design results in a varying separation between the front group of elements and the rest of the lens as it's focused: The closer the subject is to the lens, the greater the separation. This is intended to minimize performance differences throughout the extensive focusing range, which extends from infinity to 108 mm from the front rim (half-life-size images). This lens also shows the effectiveness of efficient coating and blackening to produce a low flare level.

In both lenses, the autodiaphragm mechanism is quite simple and well-made. The mounting flanges are chrome-plated brass and are anchored with three good-sized screws. The only plastic is a small sleeve of tubing that cushions the impact of the diaphragm actuator, thus reducing noise and vibration. And, anything that can reduce the image-smearing effects of vibration before and during the exposure is a contribution to sharper pictures.

Norman Goldberg

Glossary

Centering: The center of curvature of each lens surface should lie on a common line.

Contrast Test: Electronic comparison of contrast levels between the image of a coarse and a fine slit; the result is expressed as a percentage.

Distortion: **Barrel distortion** causes straight lines in image to curve out; **pincushion distortion** causes lines to curve in. Does not influence sharpness, nor is it improved by stopping down.

Flare: Scattering of light that causes an overall loss in contrast. Also called "veiling glare."

T-stop: An aperture value based on light transmitted by a lens.

Vignetting: Darkening of corners on film. Improved by stopping down.