

Supplemental Material to: Sparse high-degree polynomials for wide-angle lenses

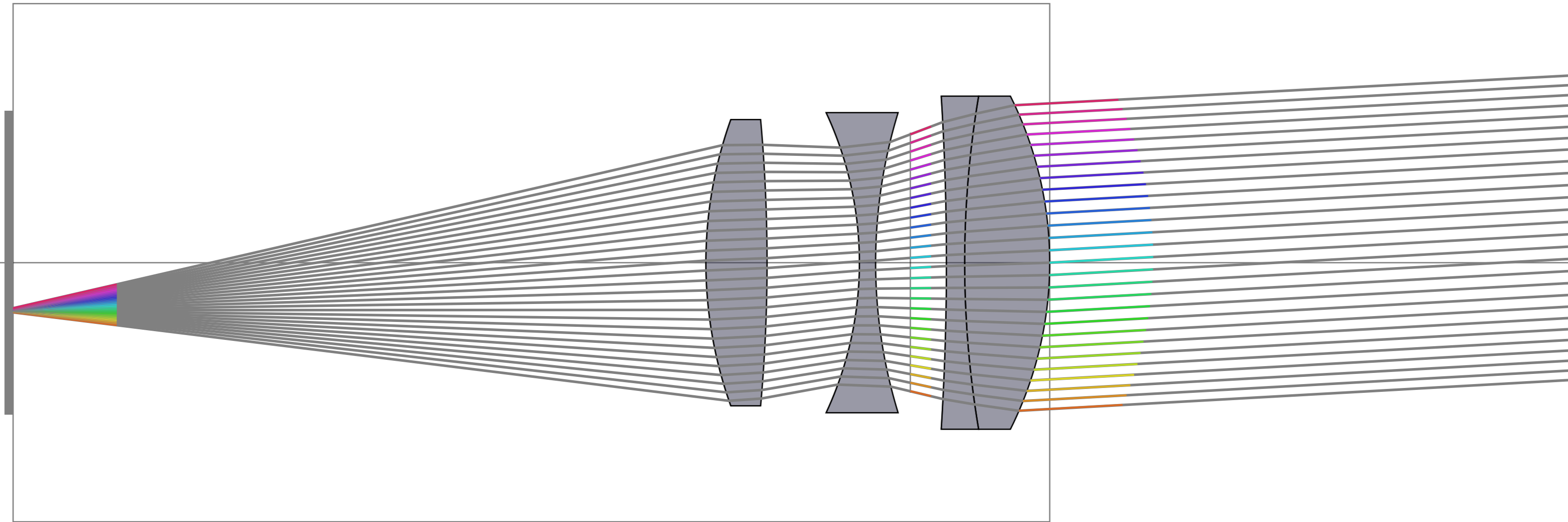
Emanuel Schrade, Johannes Hanika and Carsten Dachsbacher

Karlsruhe Institute of Technology, Germany.

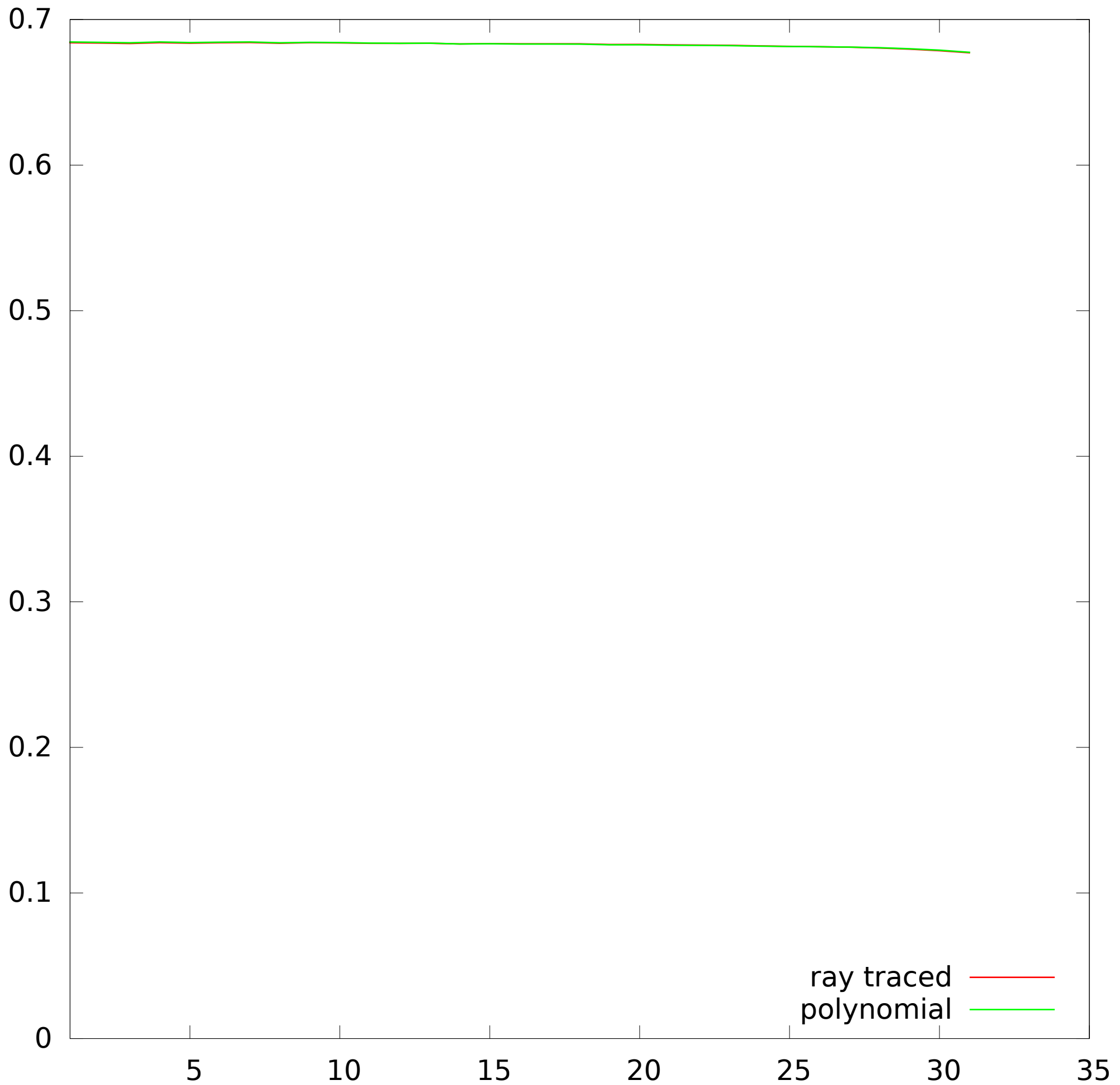
On the following pages we compare our polynomial fit to ray traced ground truth for other lenses than the ones shown in the paper. For each of the lenses we tested, there is a drawing of the lens system with ray traced rays (grey) and the evaluated polynomial (coloured). Ideally these two should match on both the aperture and the outer pupil.

Another plot shows the Fresnel transmittance for both ray traced rays and the fitted polynomial on the outer pupil for each lens.

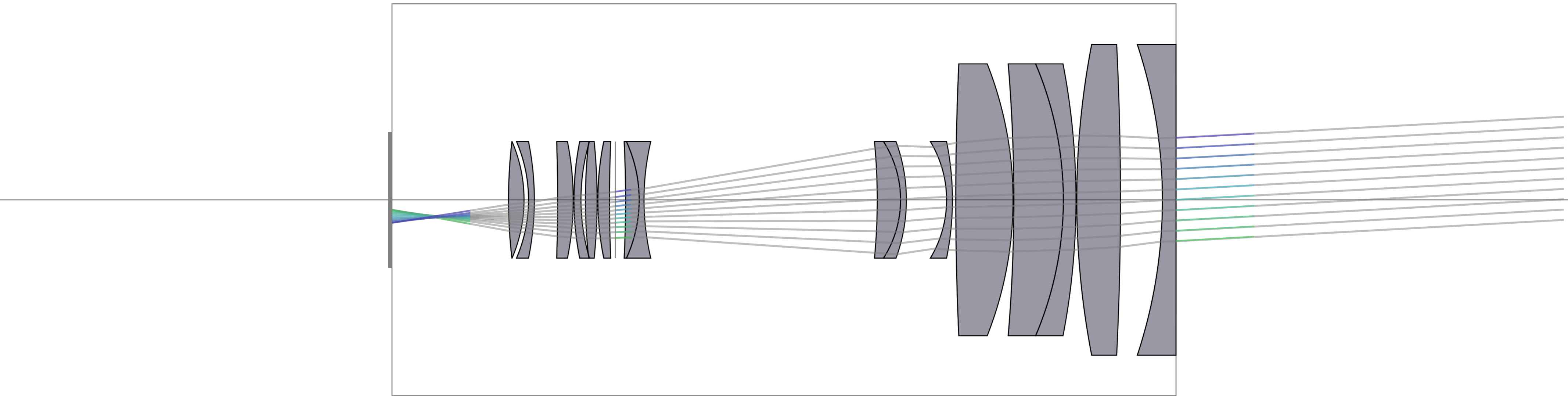
brendel tessar



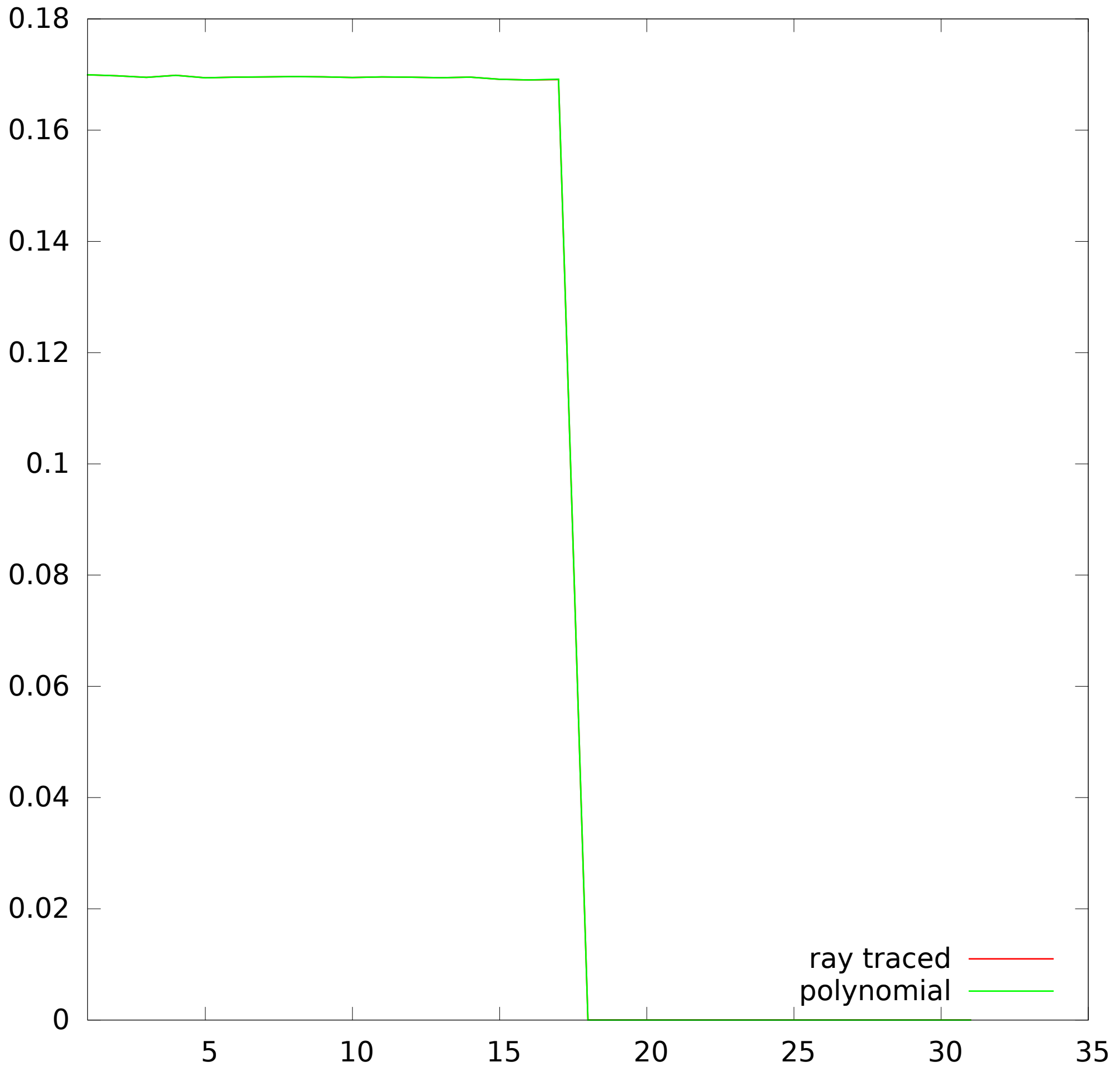
lenses/brendel-tessar.fx



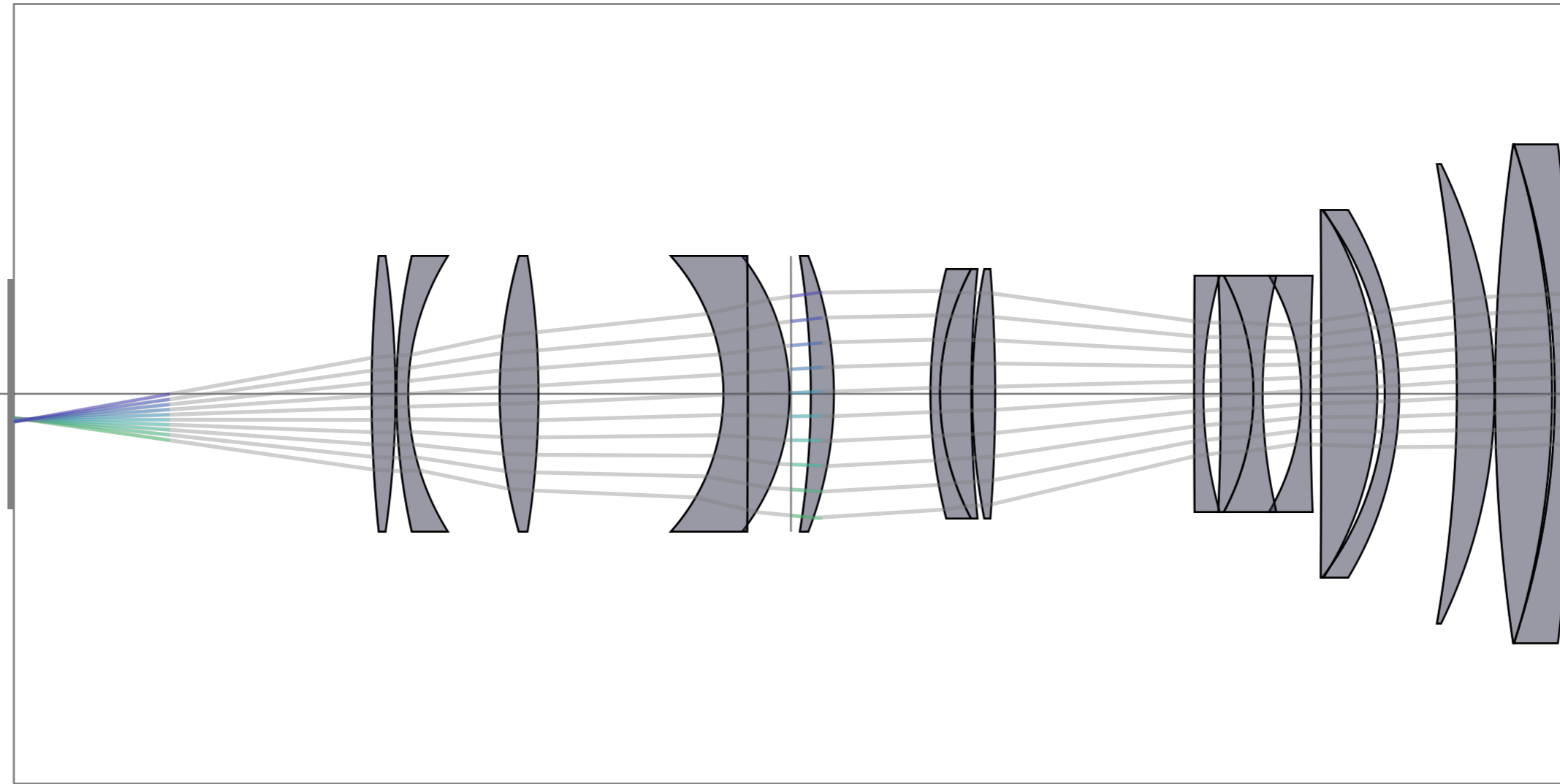
canon anamorphic



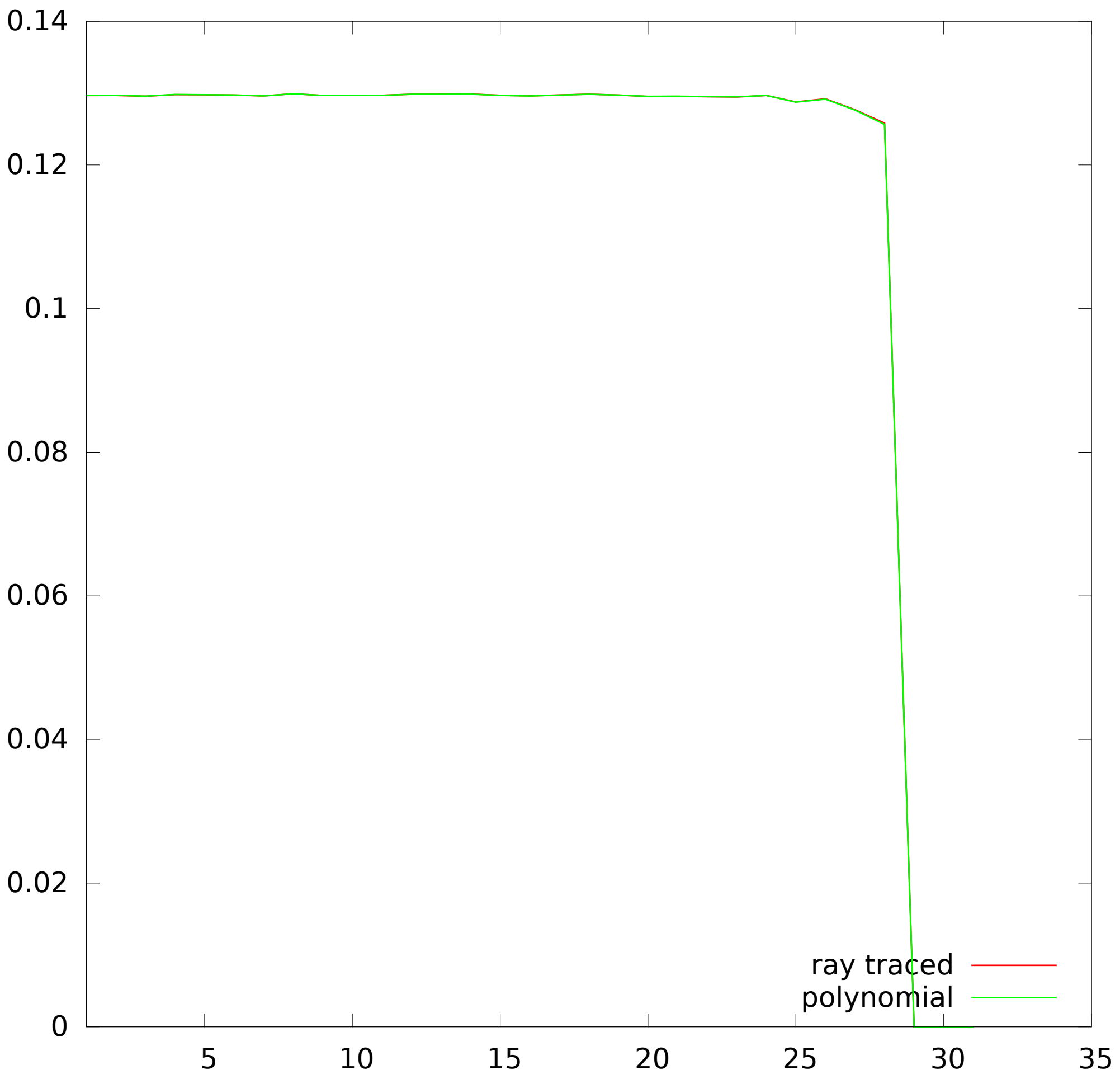
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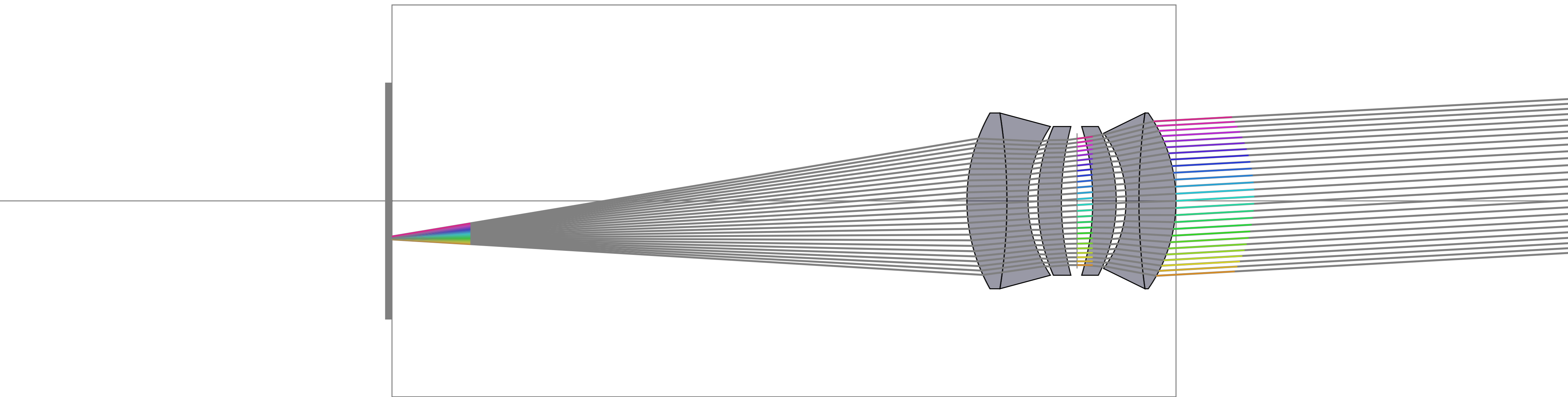
canon zoom



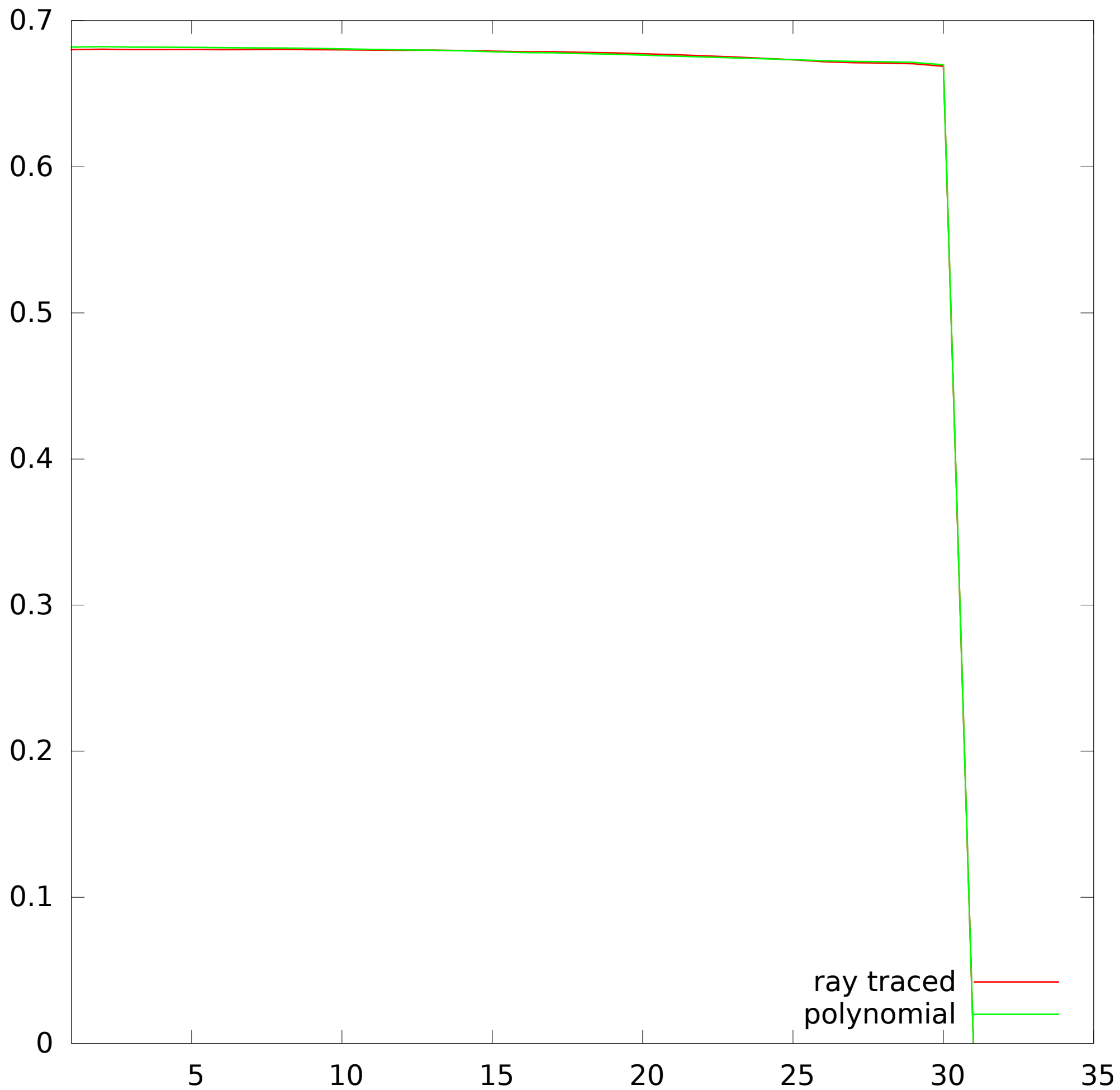
lenses/canon-zoom.fx



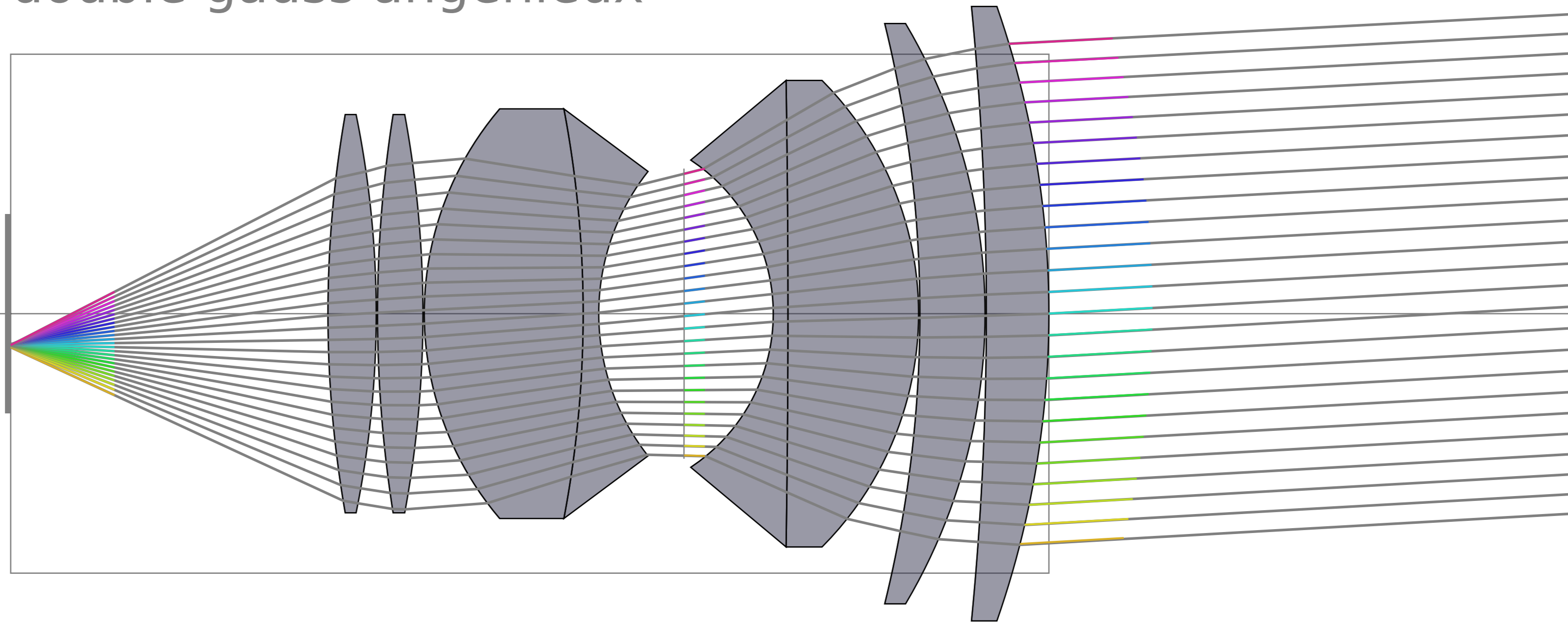
double gauss 1930



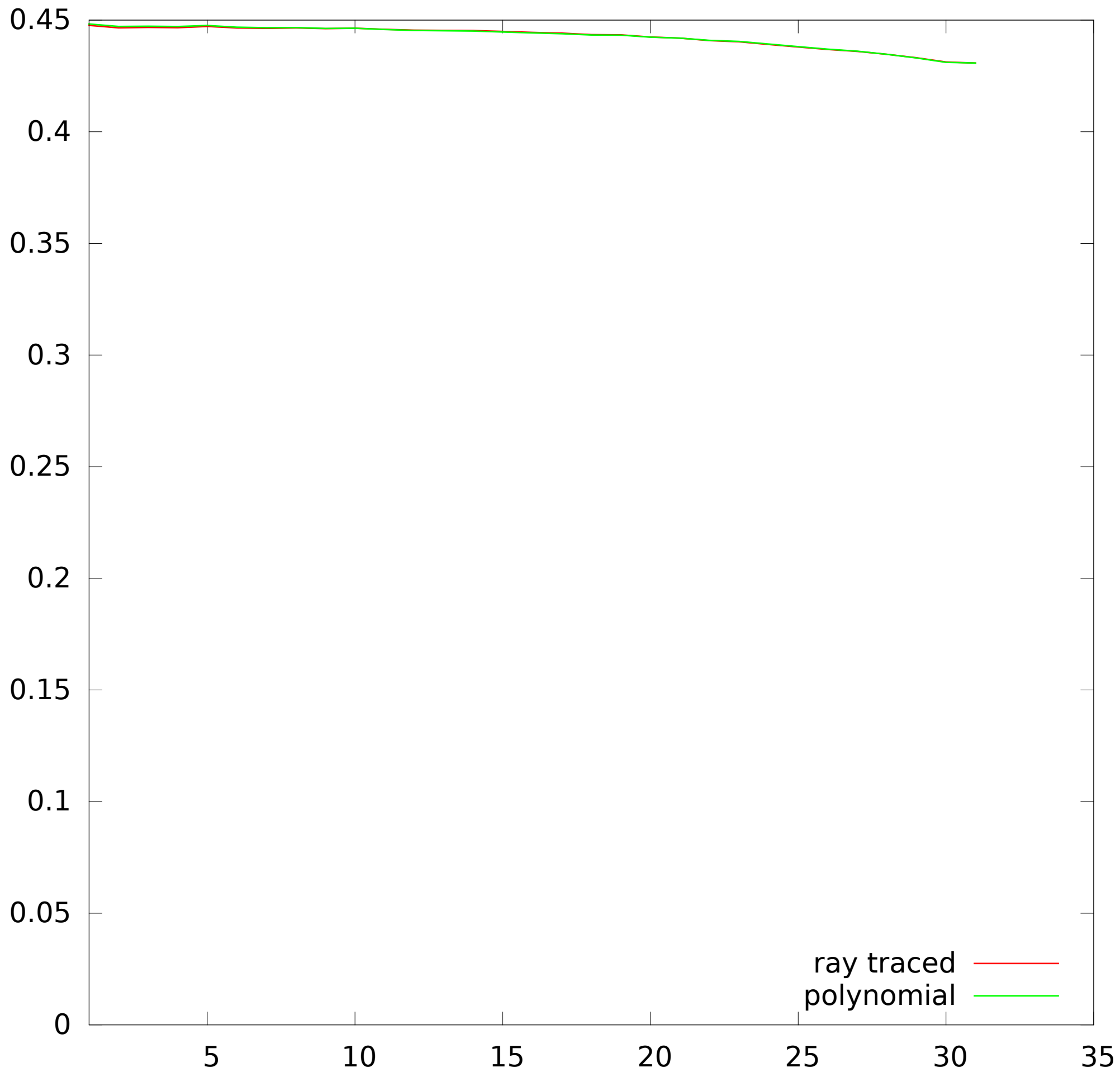
lenses/double-gauss-1930.fx



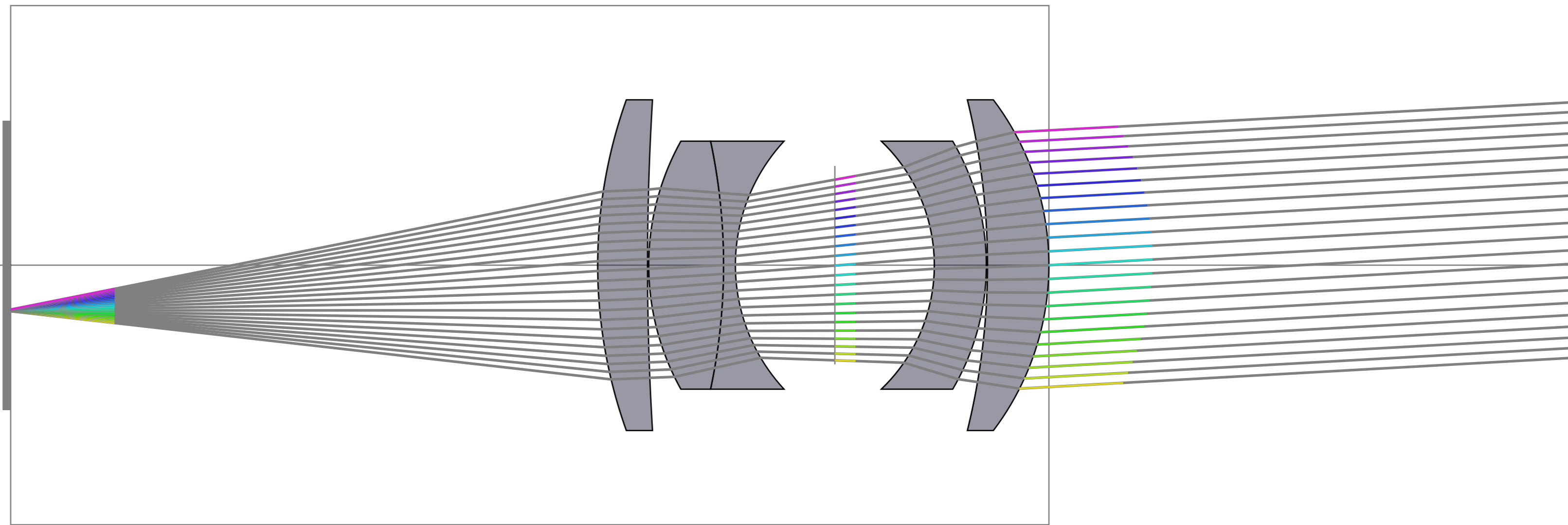
double gauss angenieueux



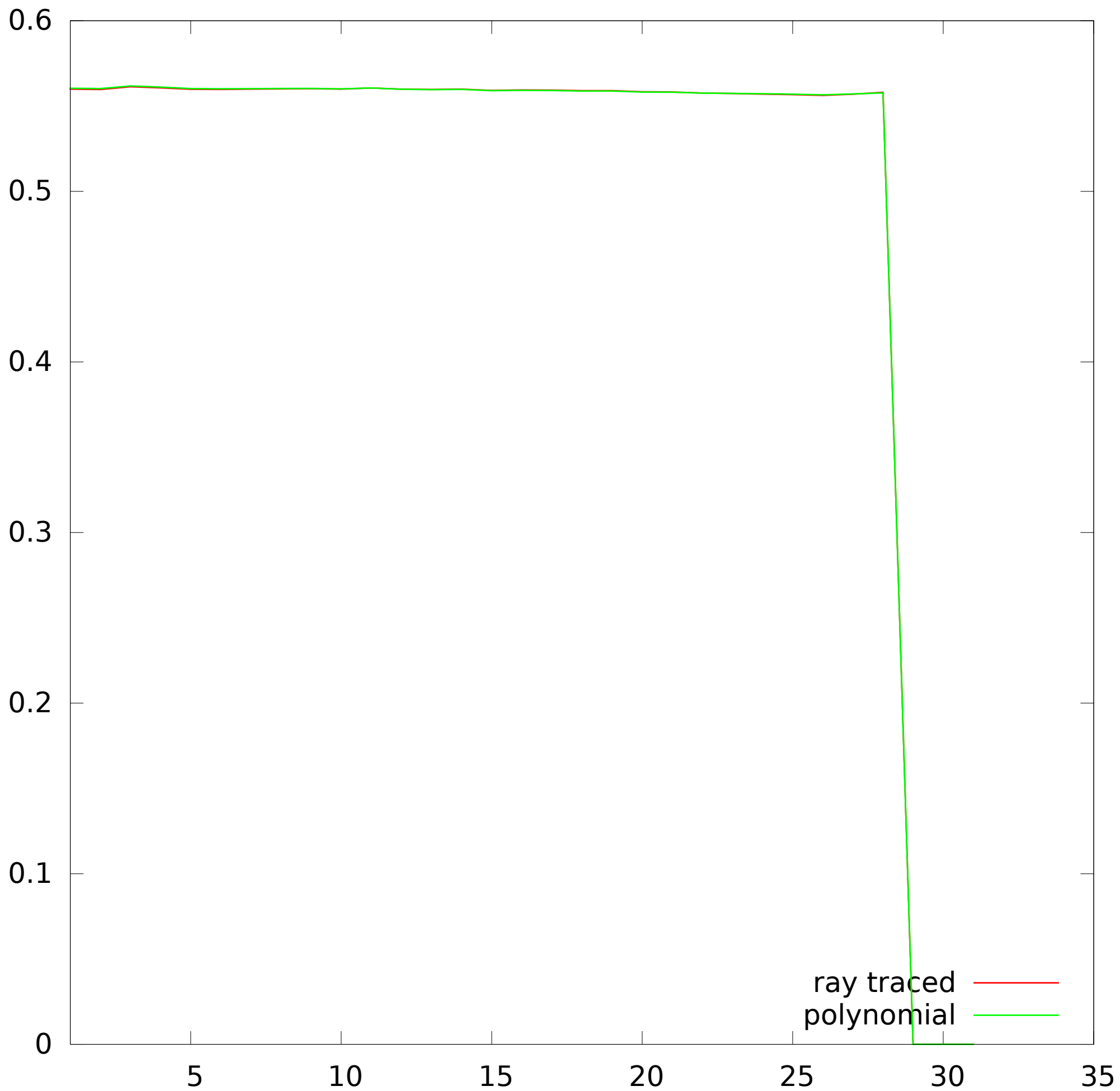
lenses/double-gauss-angenieux.fx



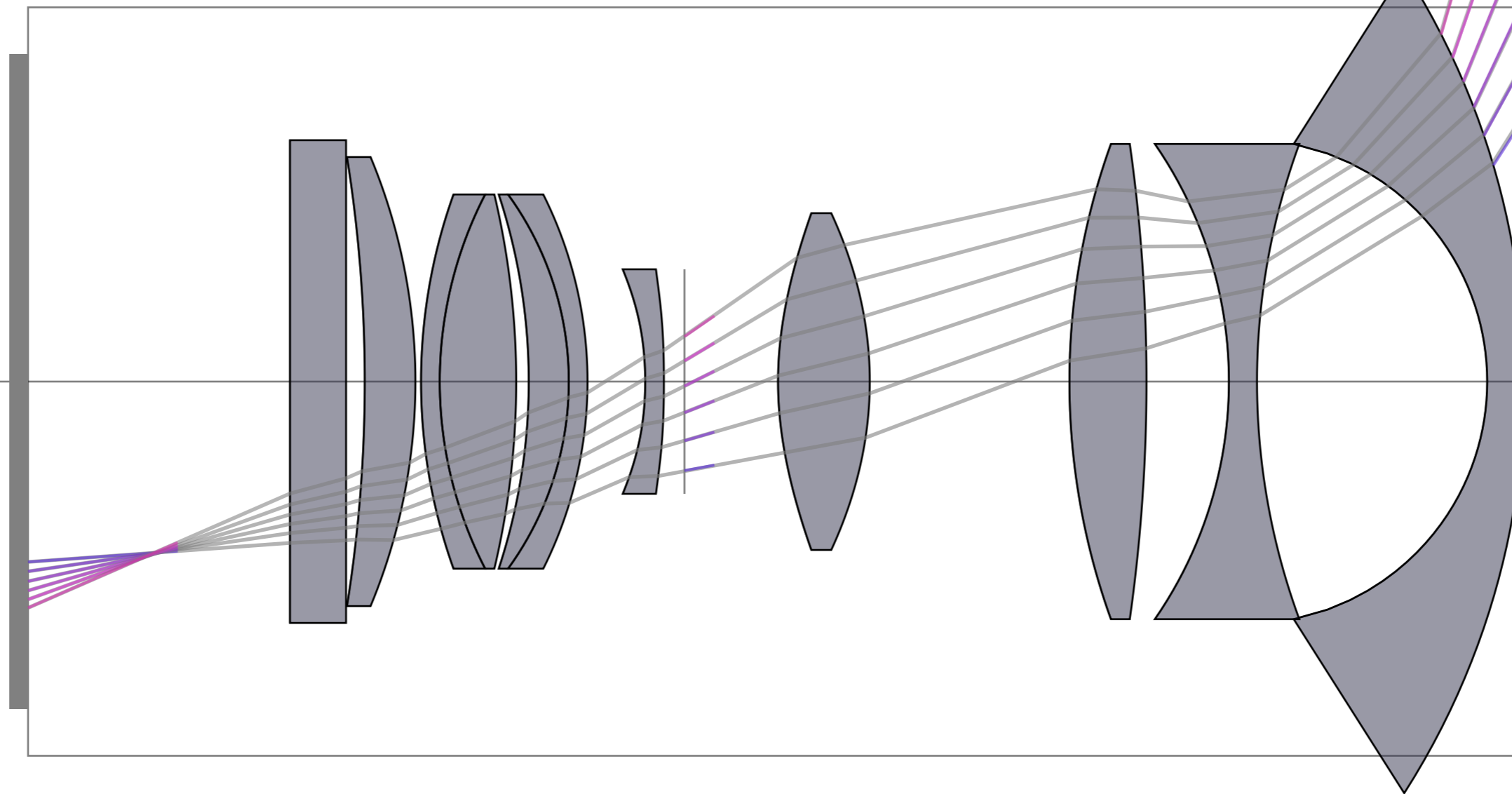
double gauss



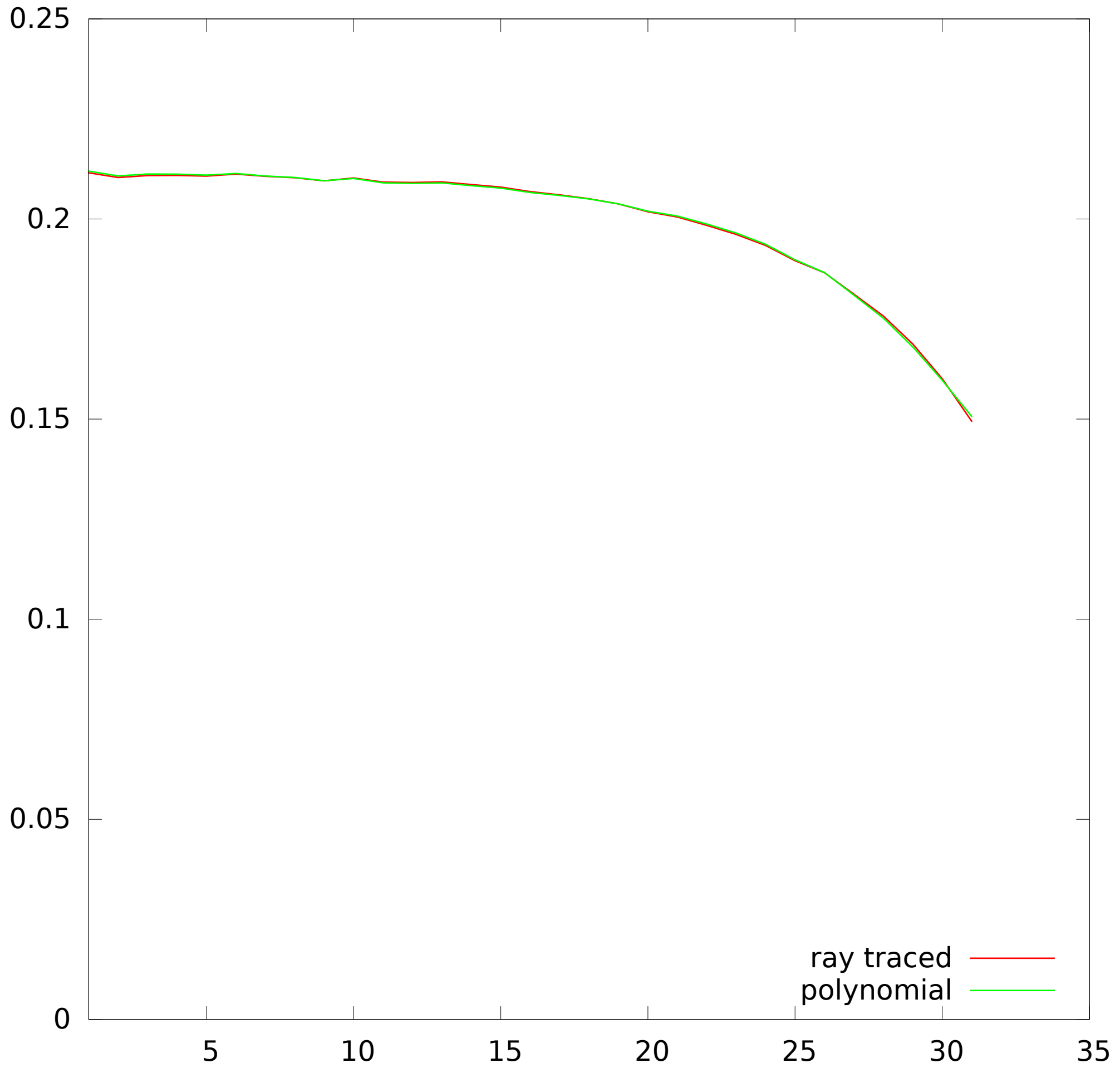
lenses/double-gauss.fx



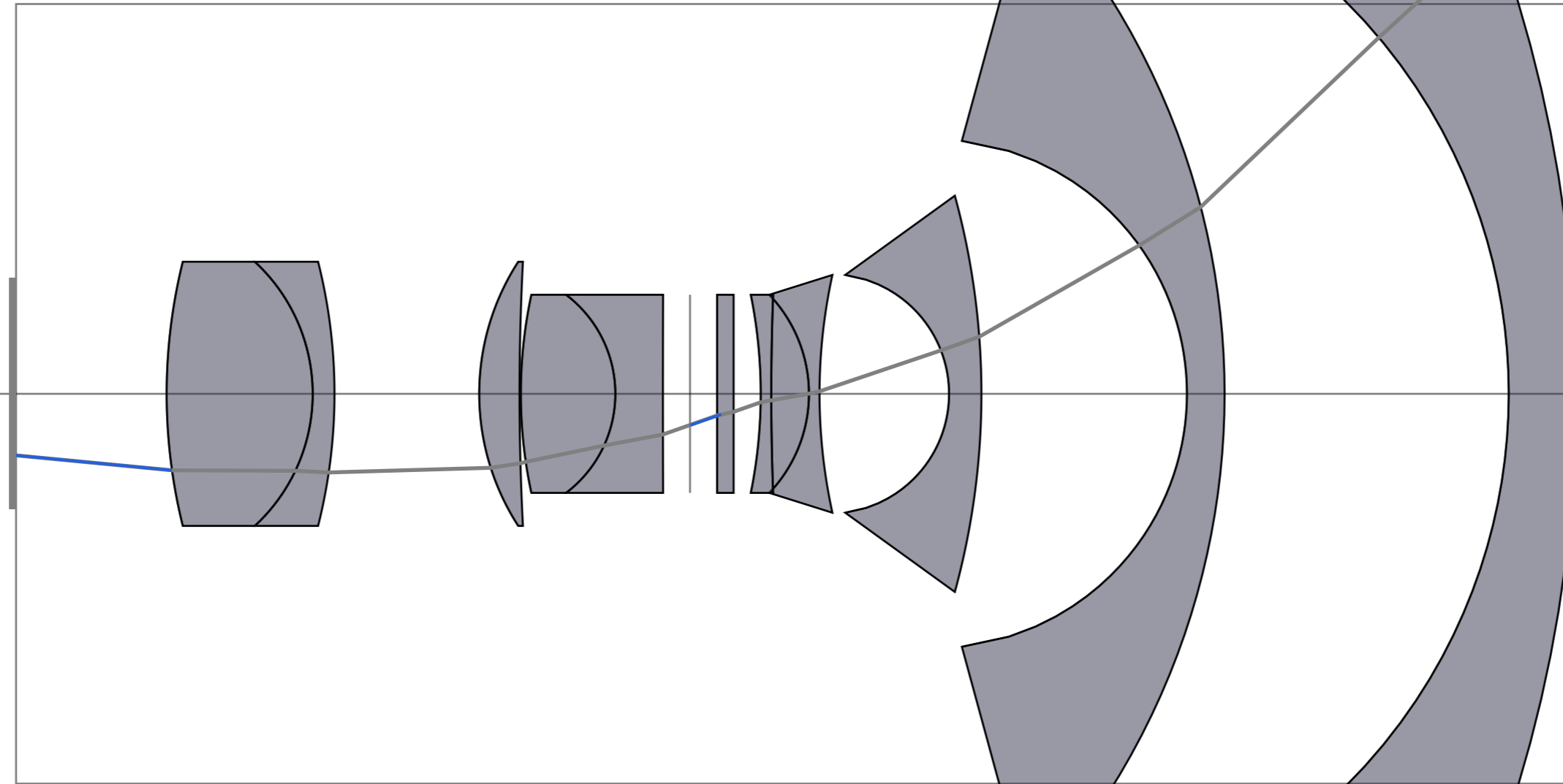
fisheye aspherical



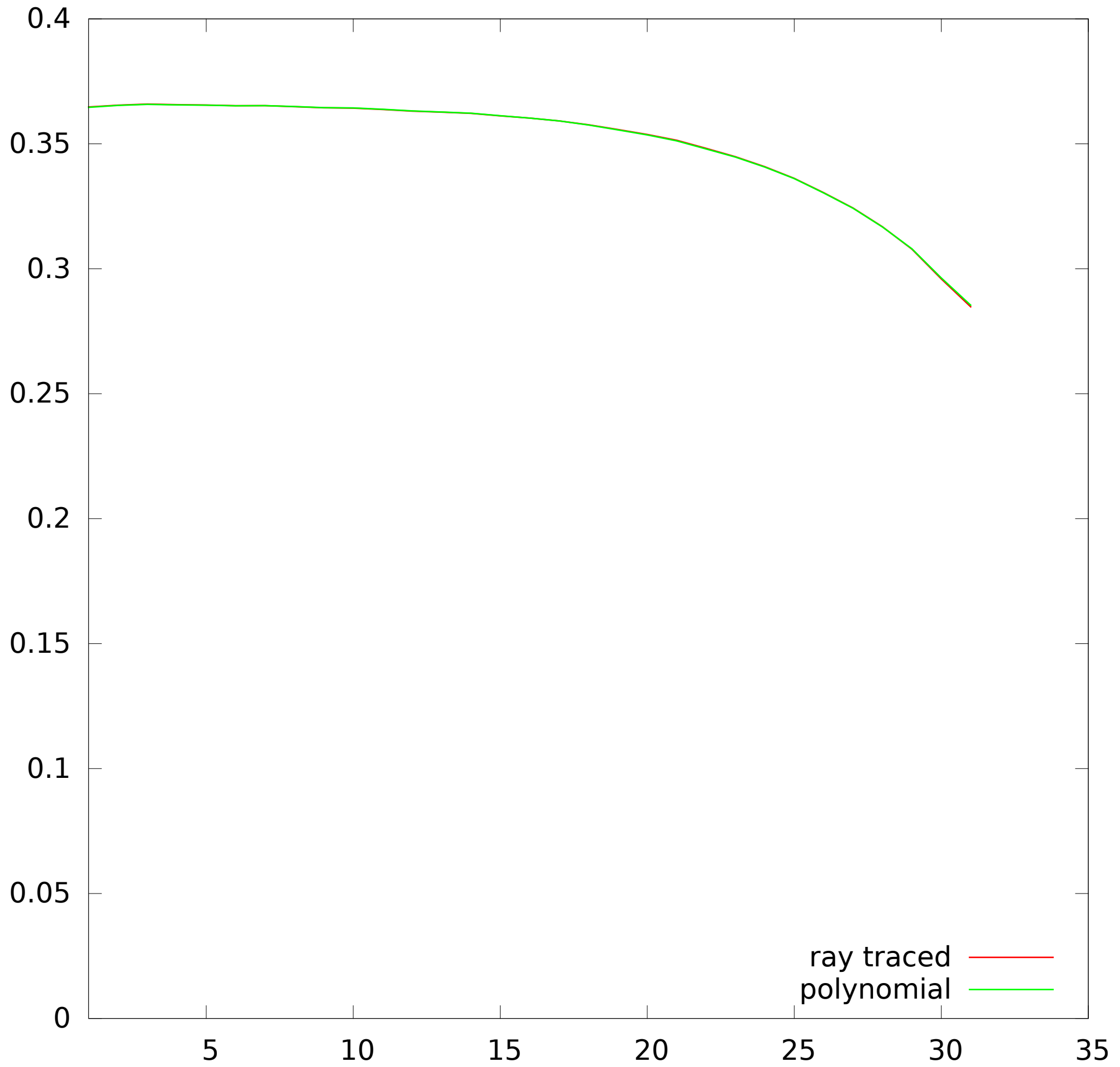
lenses/fisheye-aspherical.fx



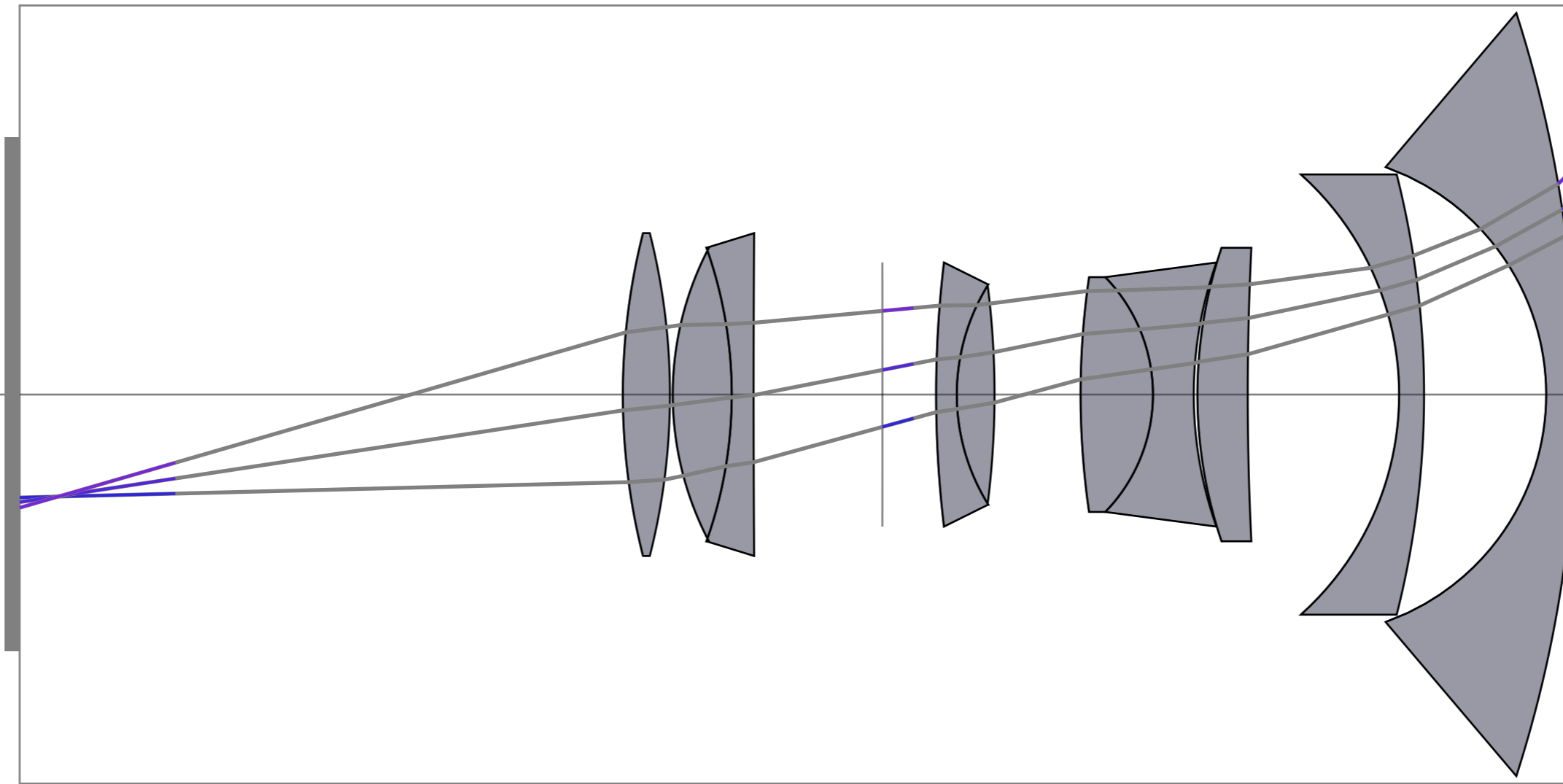
fisheye iii



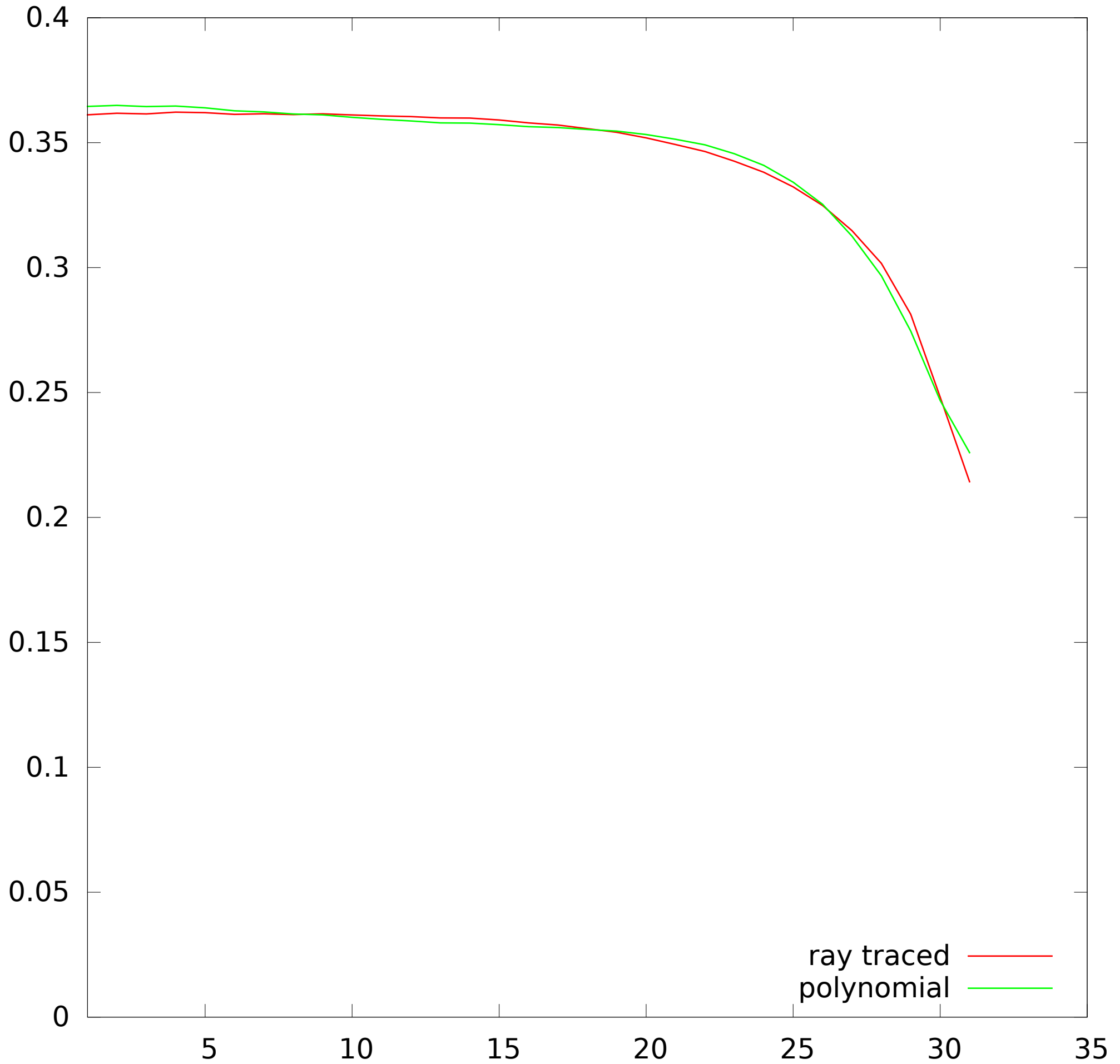
lenses/fisheye-iii.fx



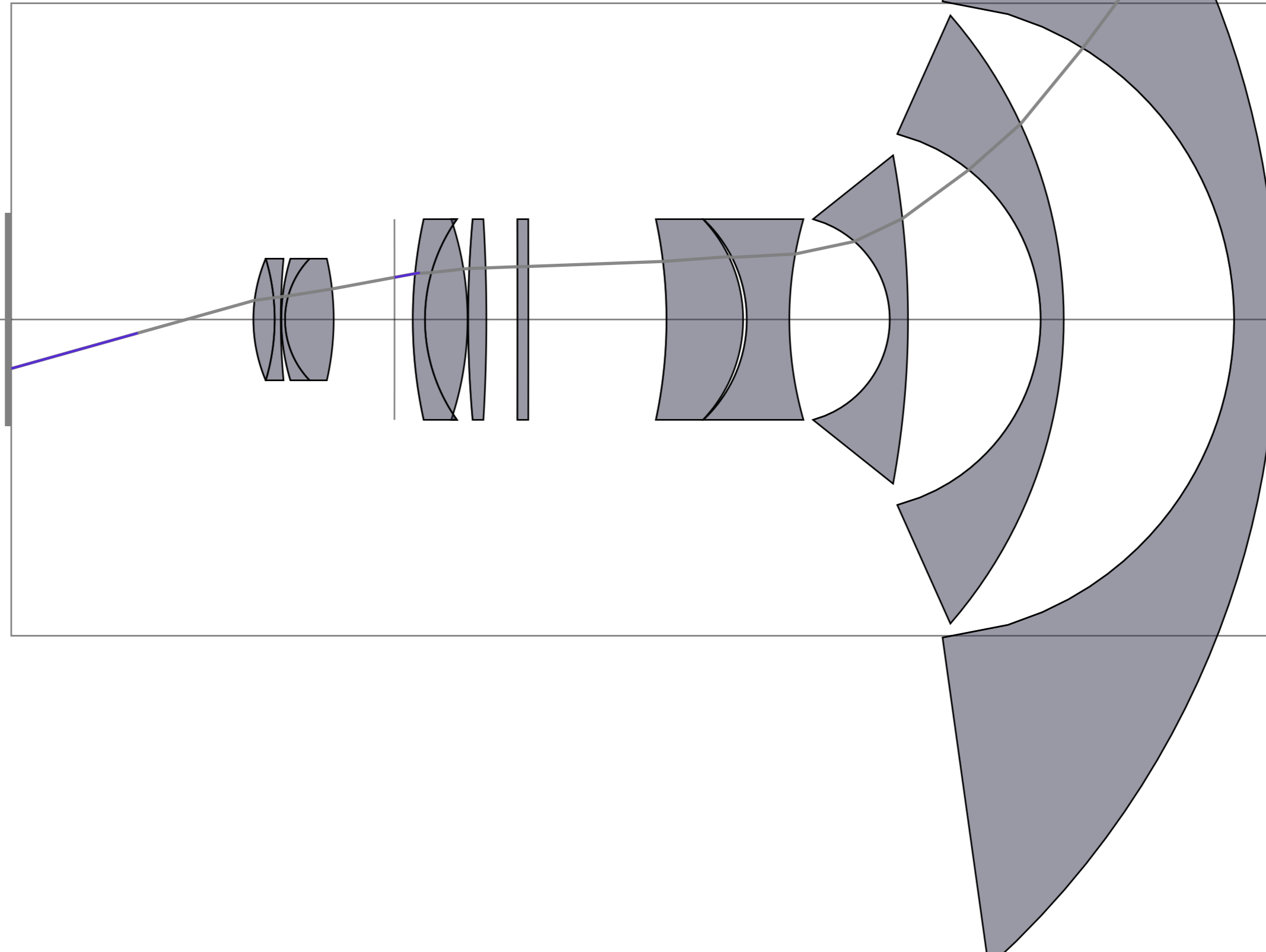
fisheye ii



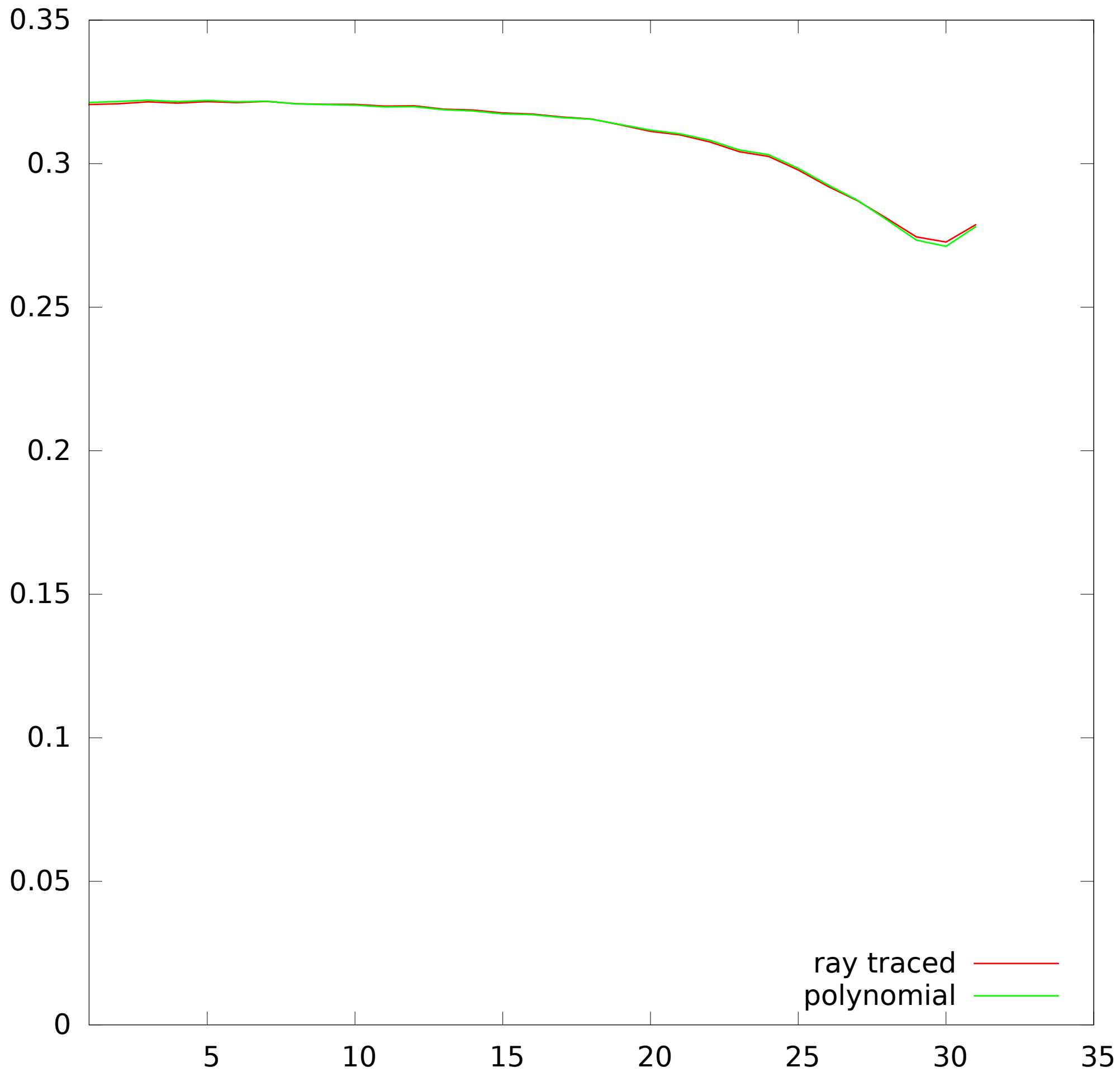
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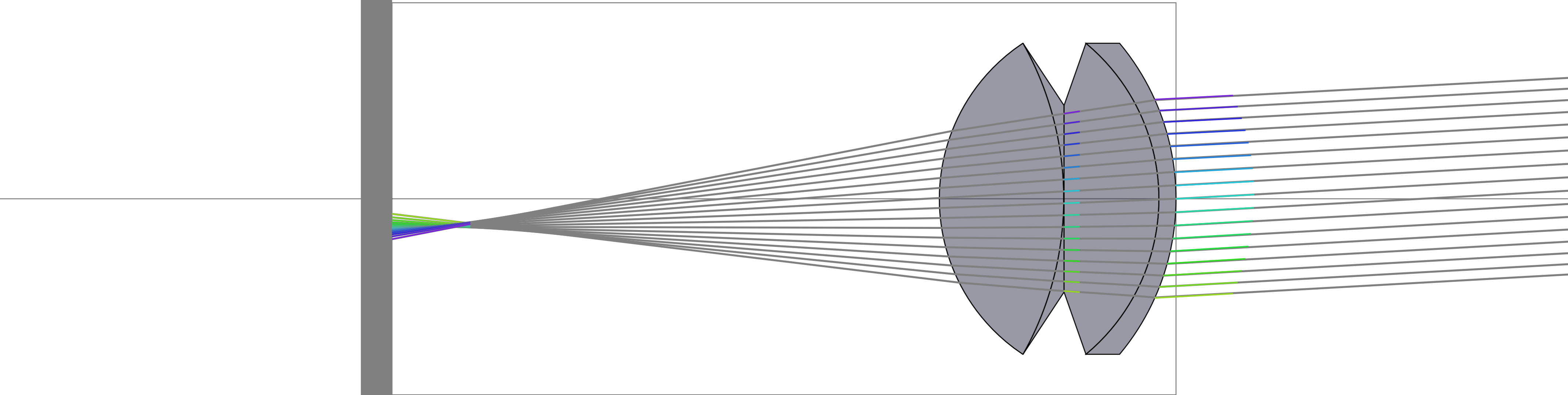
fish-eye



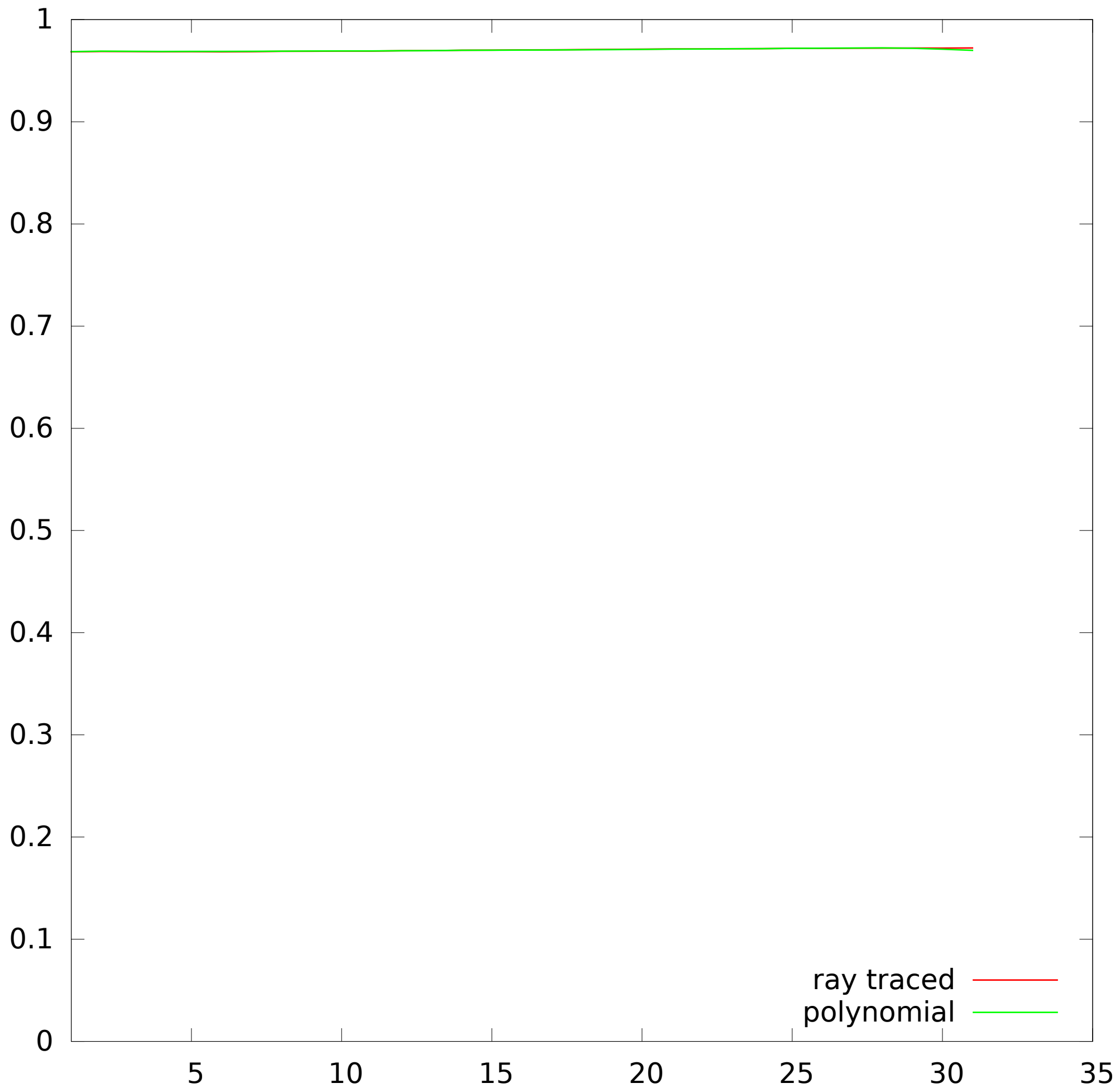
lenses/fisheye.fx



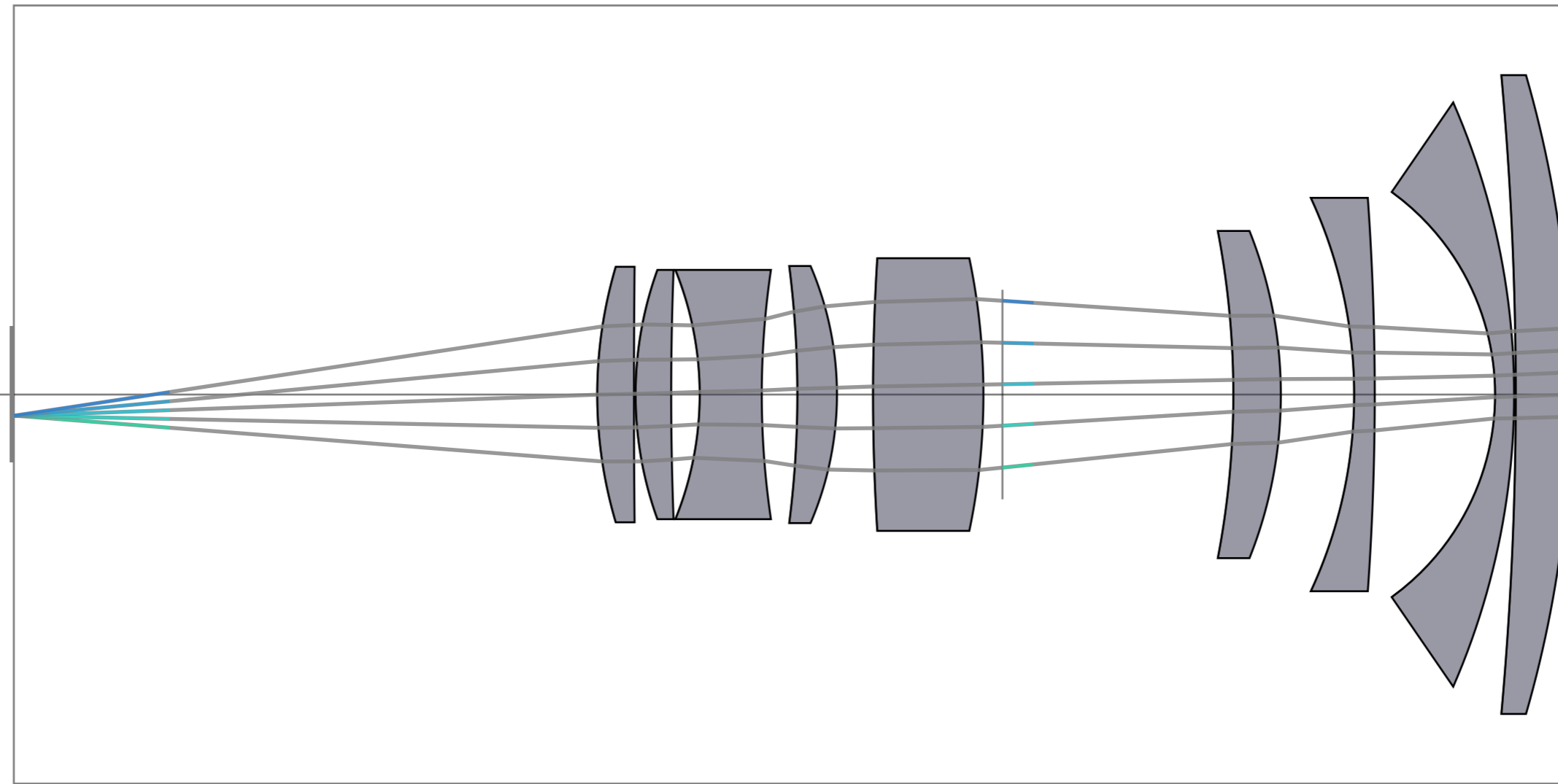
human eye



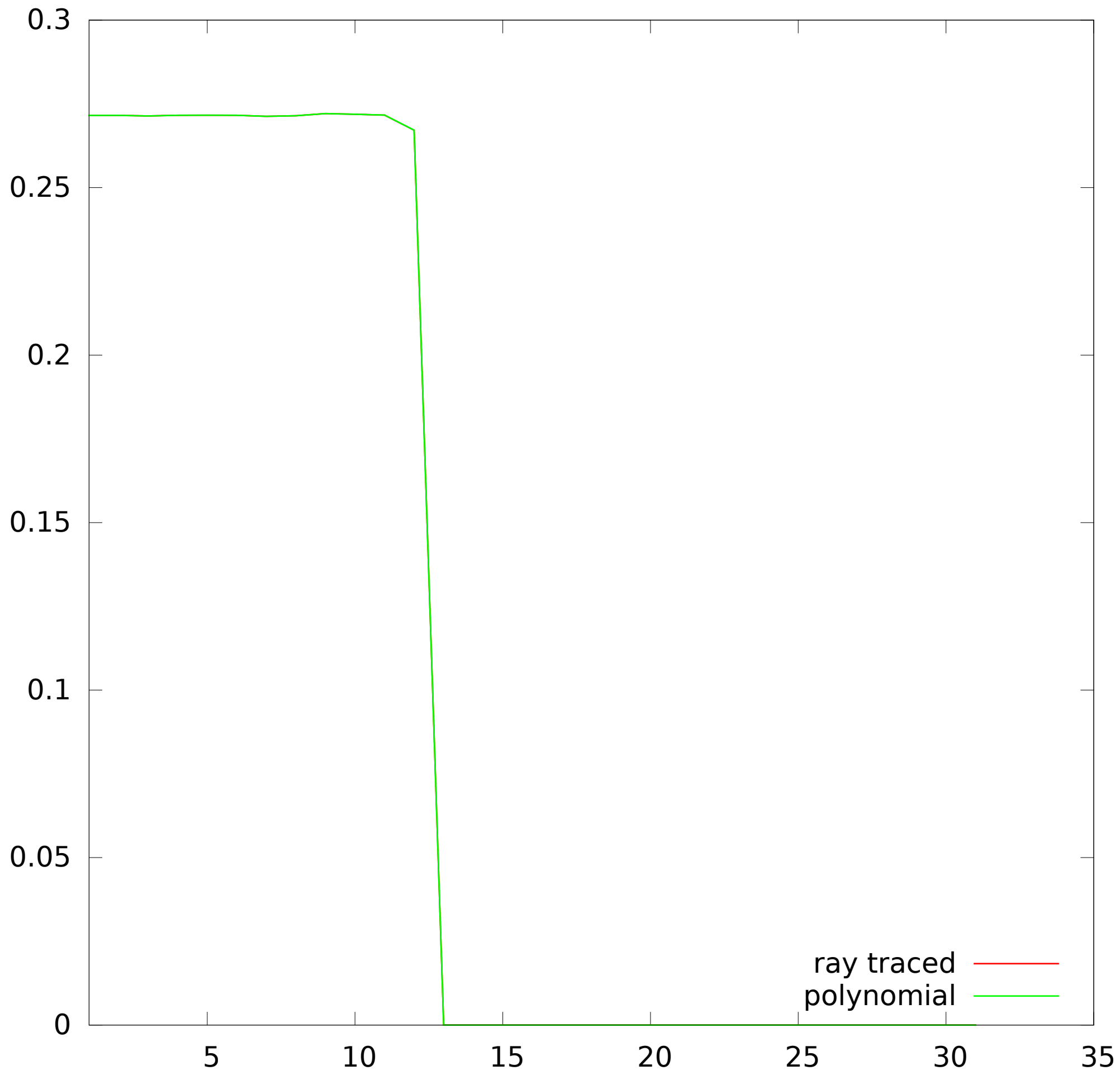
lenses/human-eye.fx



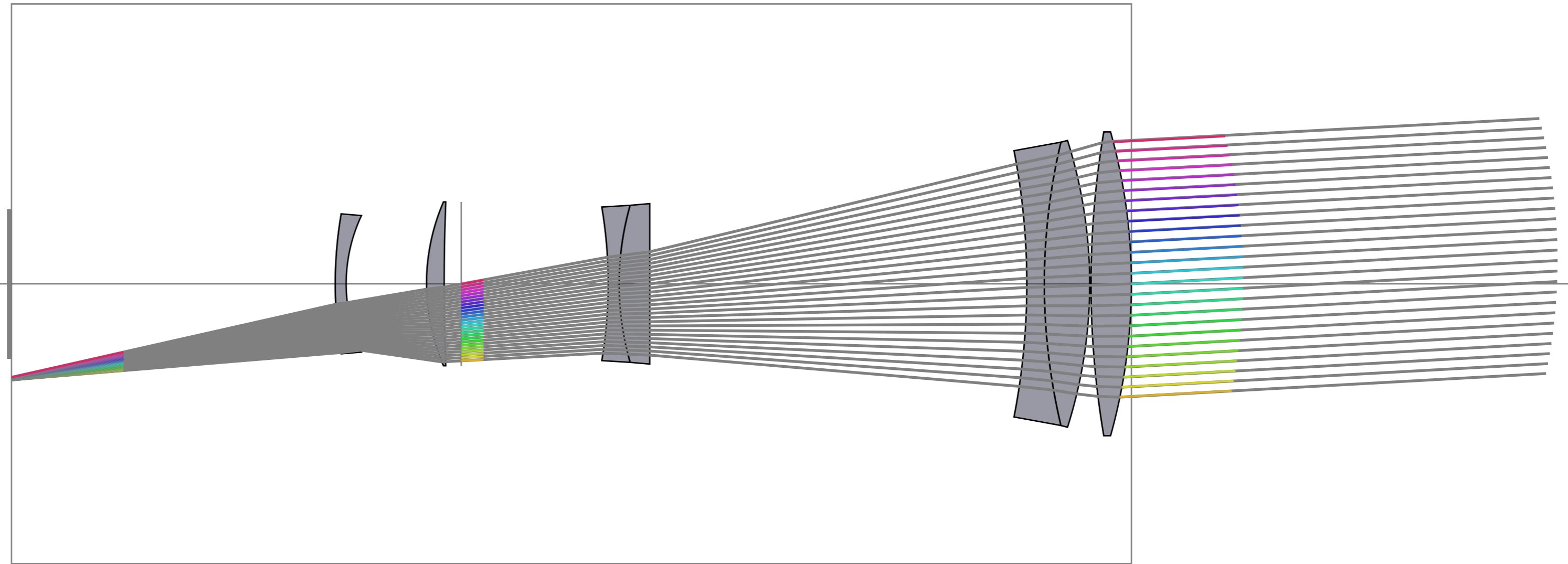
itoh zoom



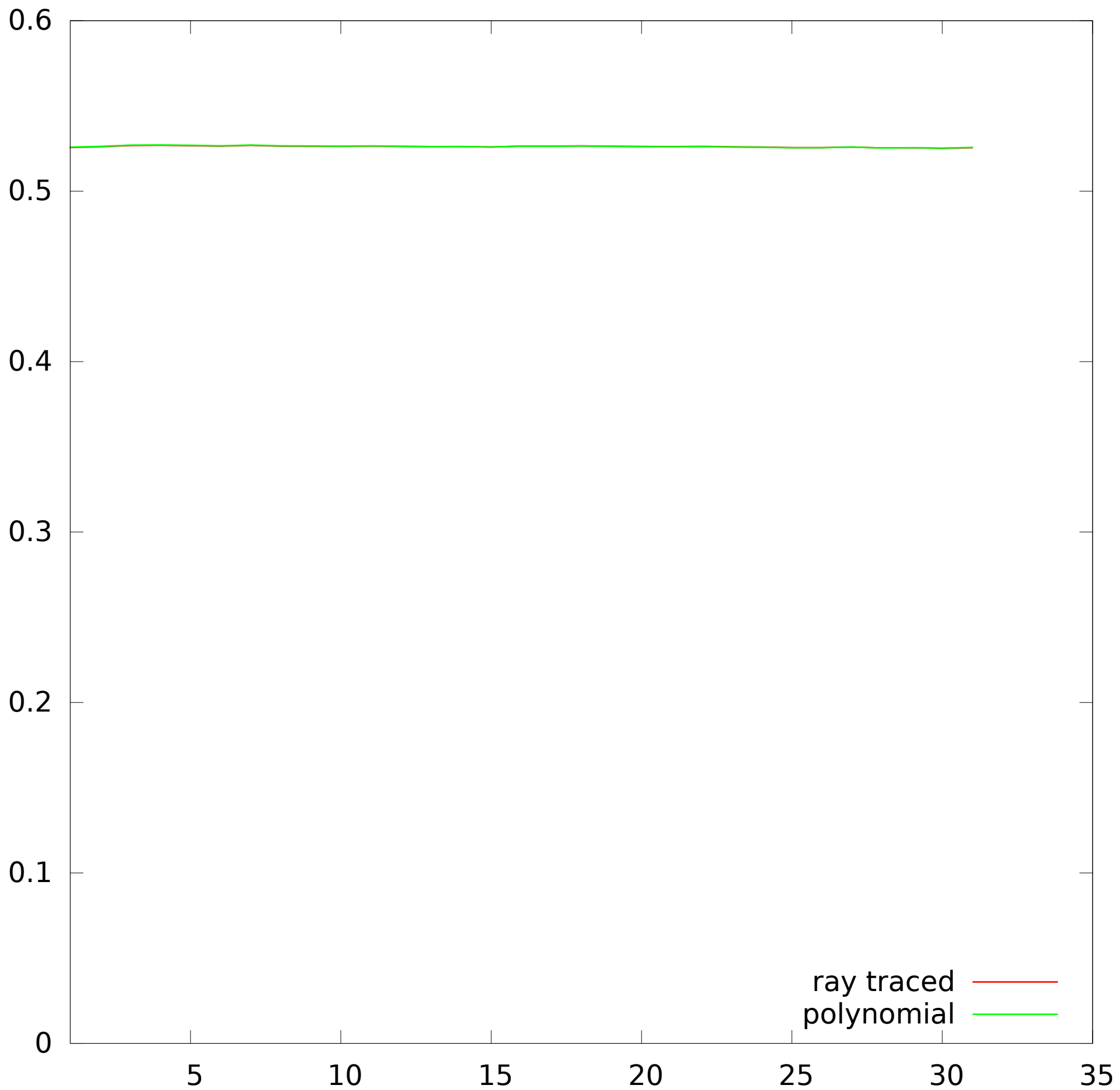
lenses/itoh-zoom.fx



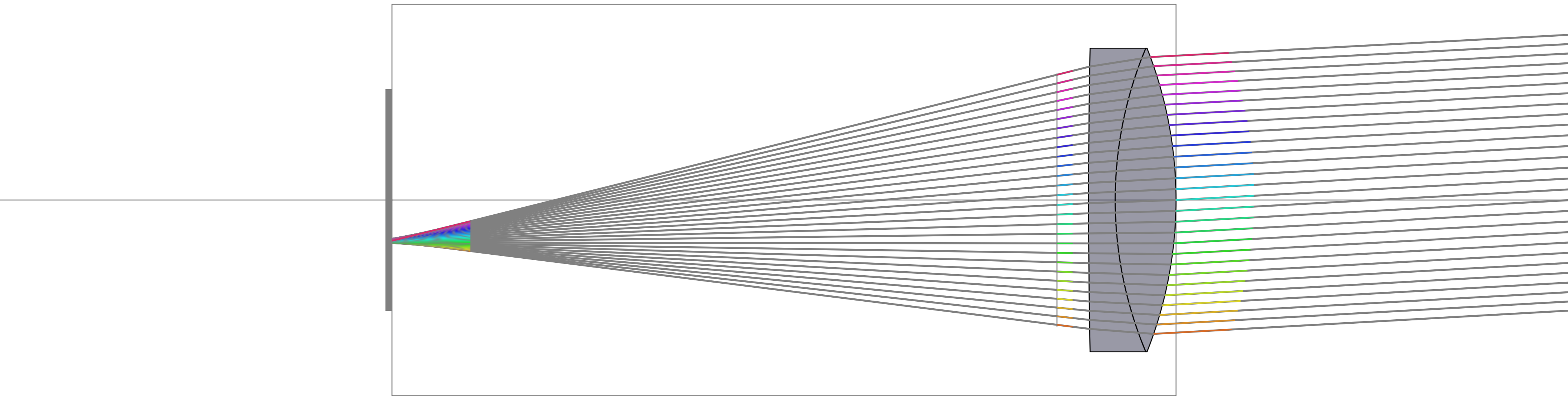
kreitzer tele



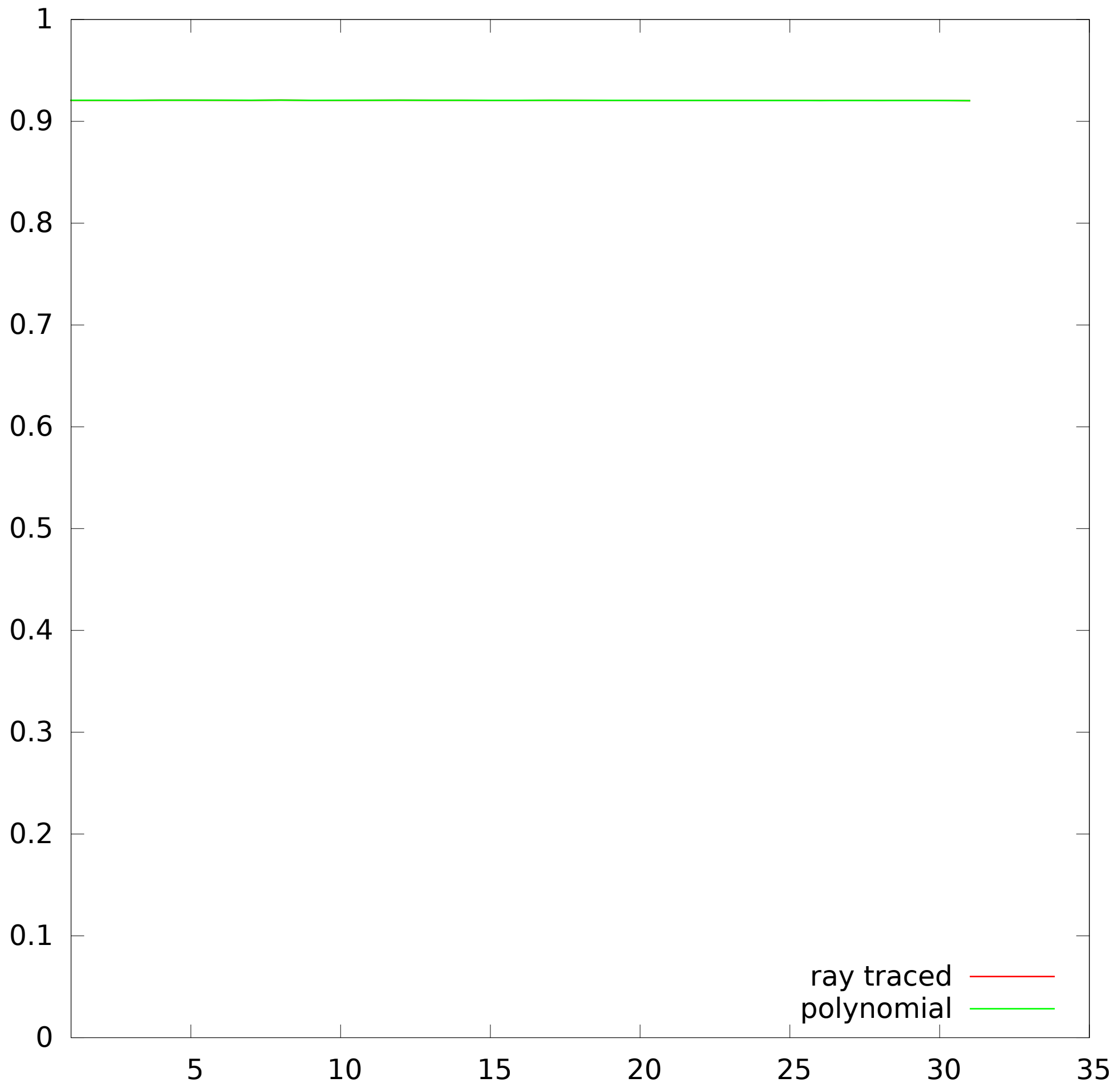
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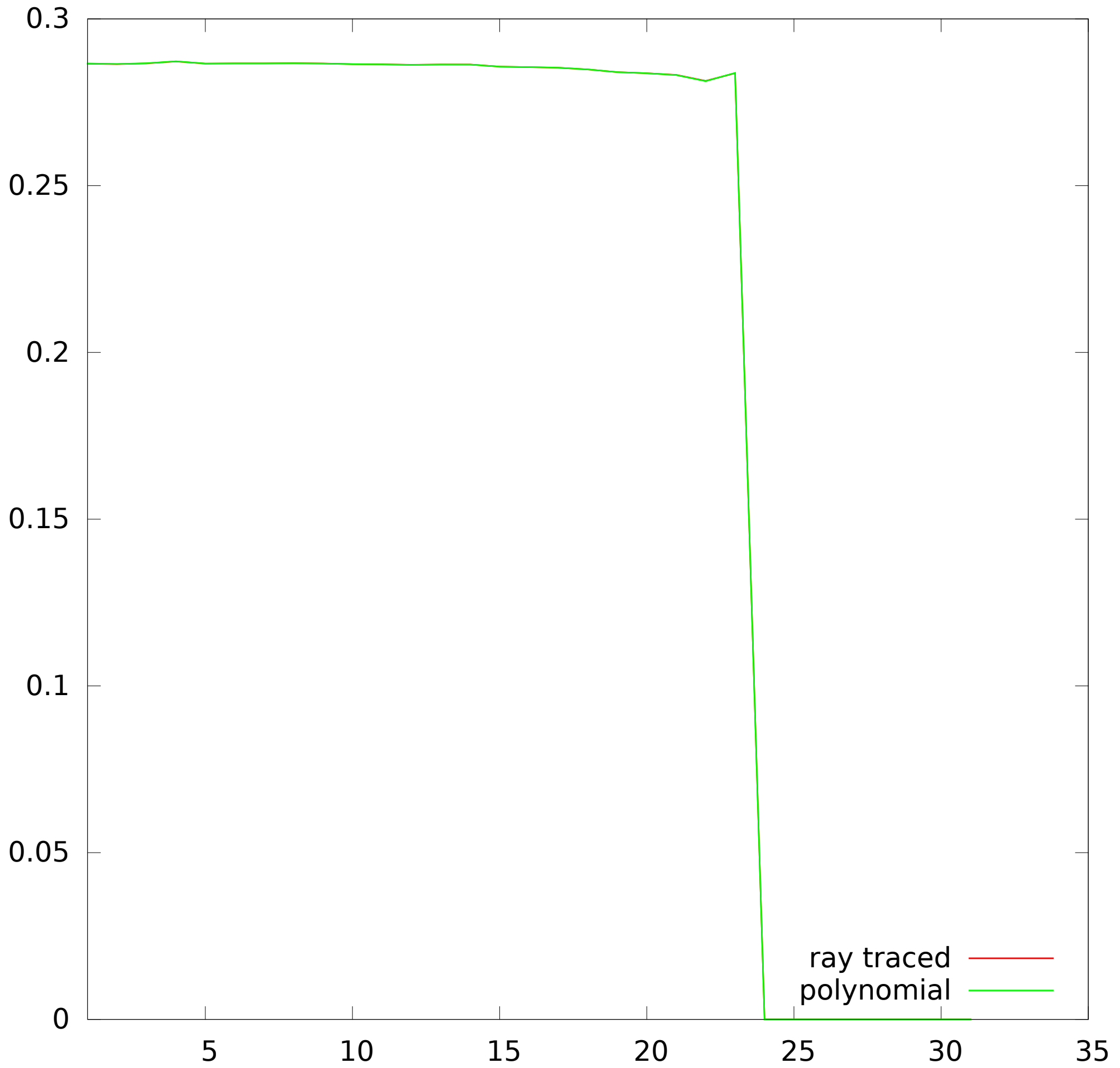
lensbaby



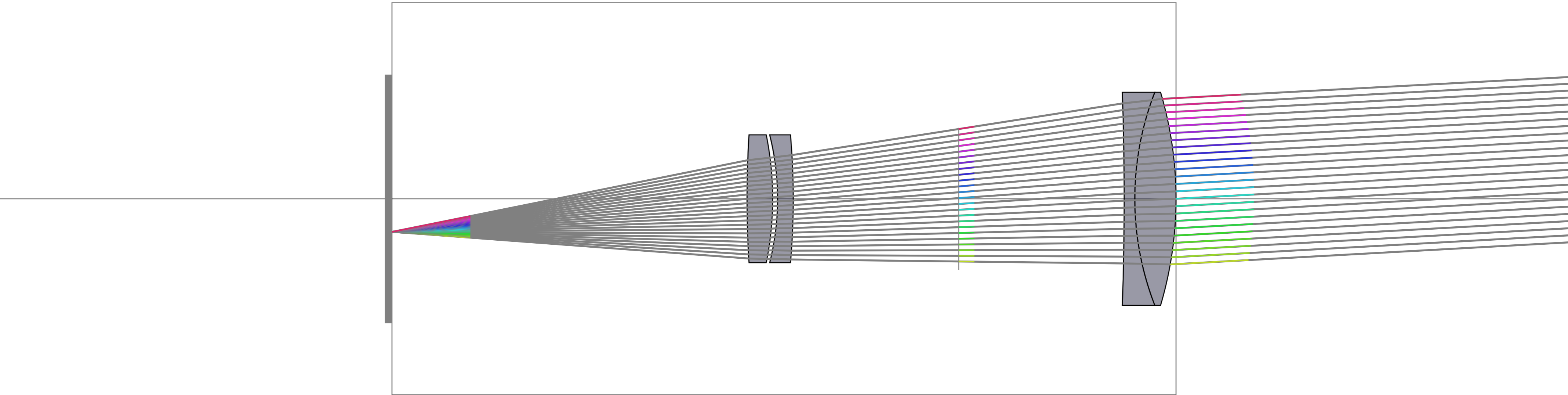
lenses/lensbaby.fx



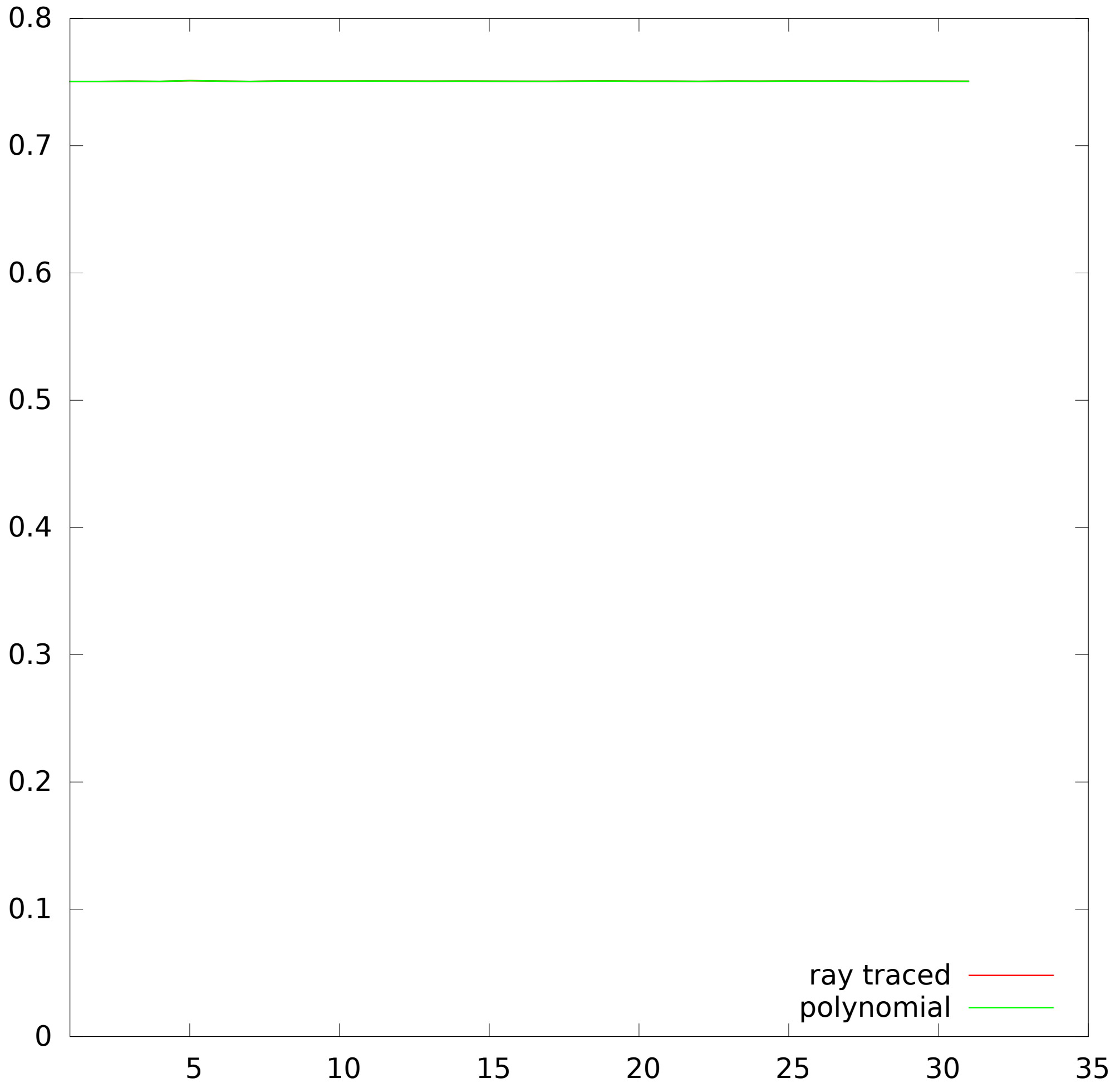
lenses/nikon-zoom.fx



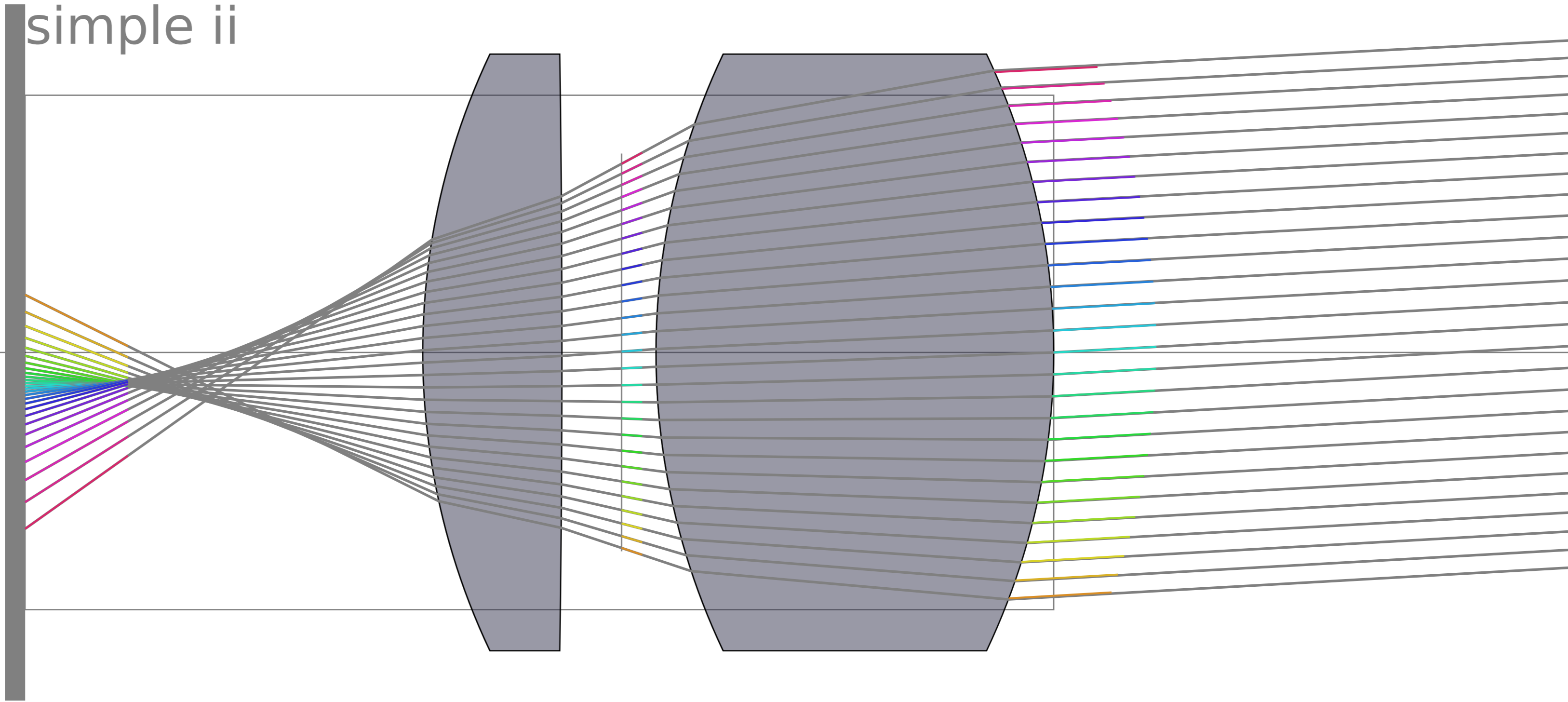
petzval



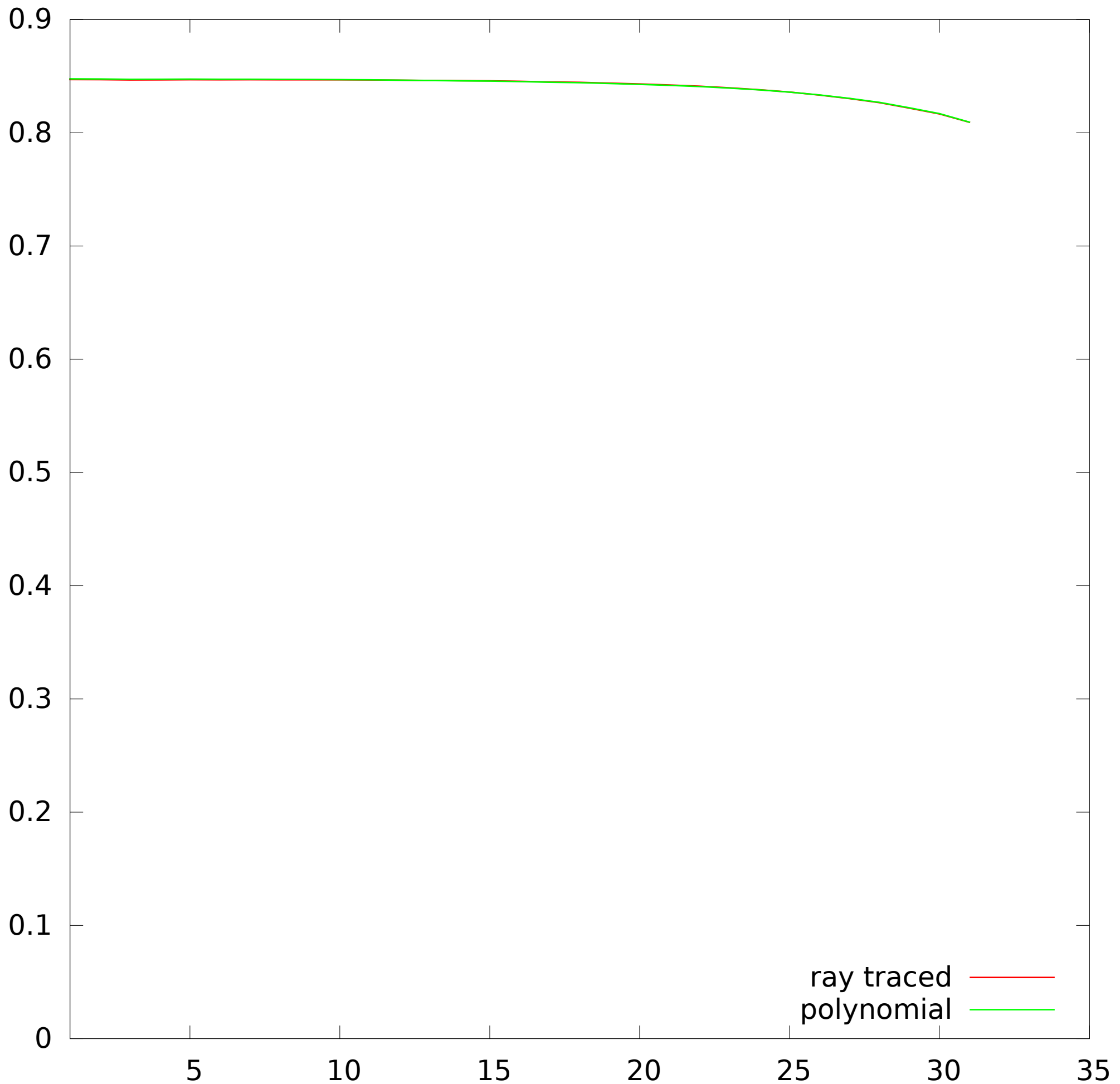
lenses/petzval.fx



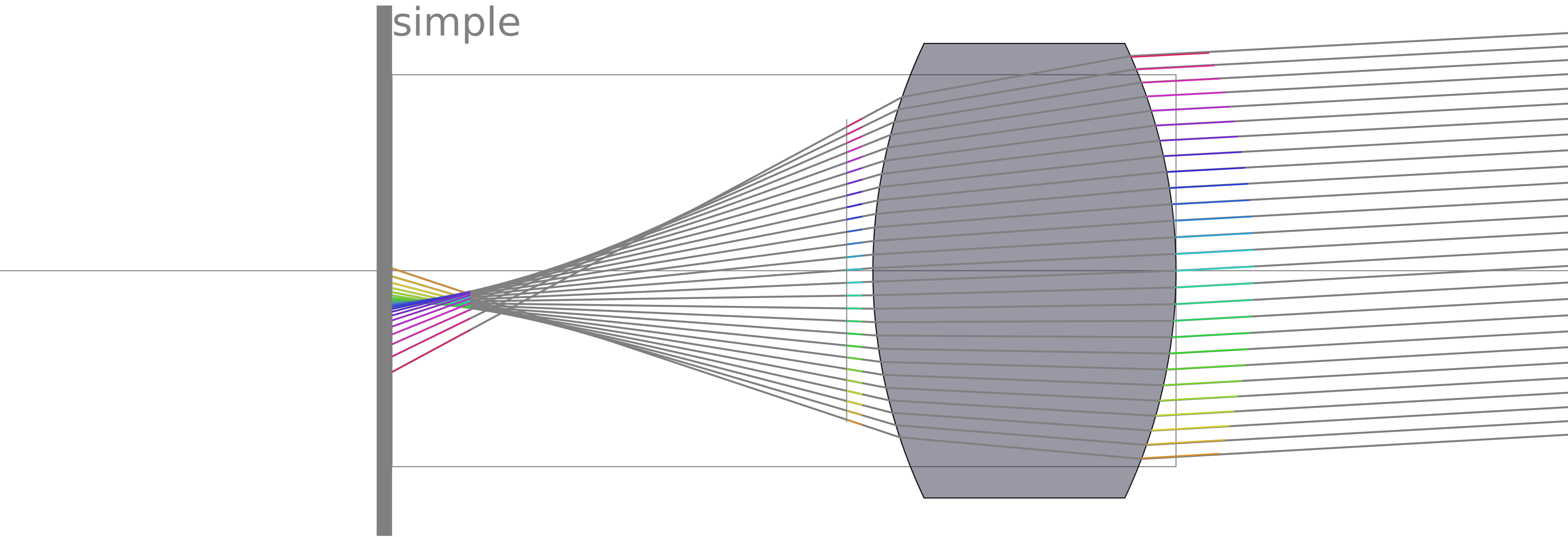
simple ii



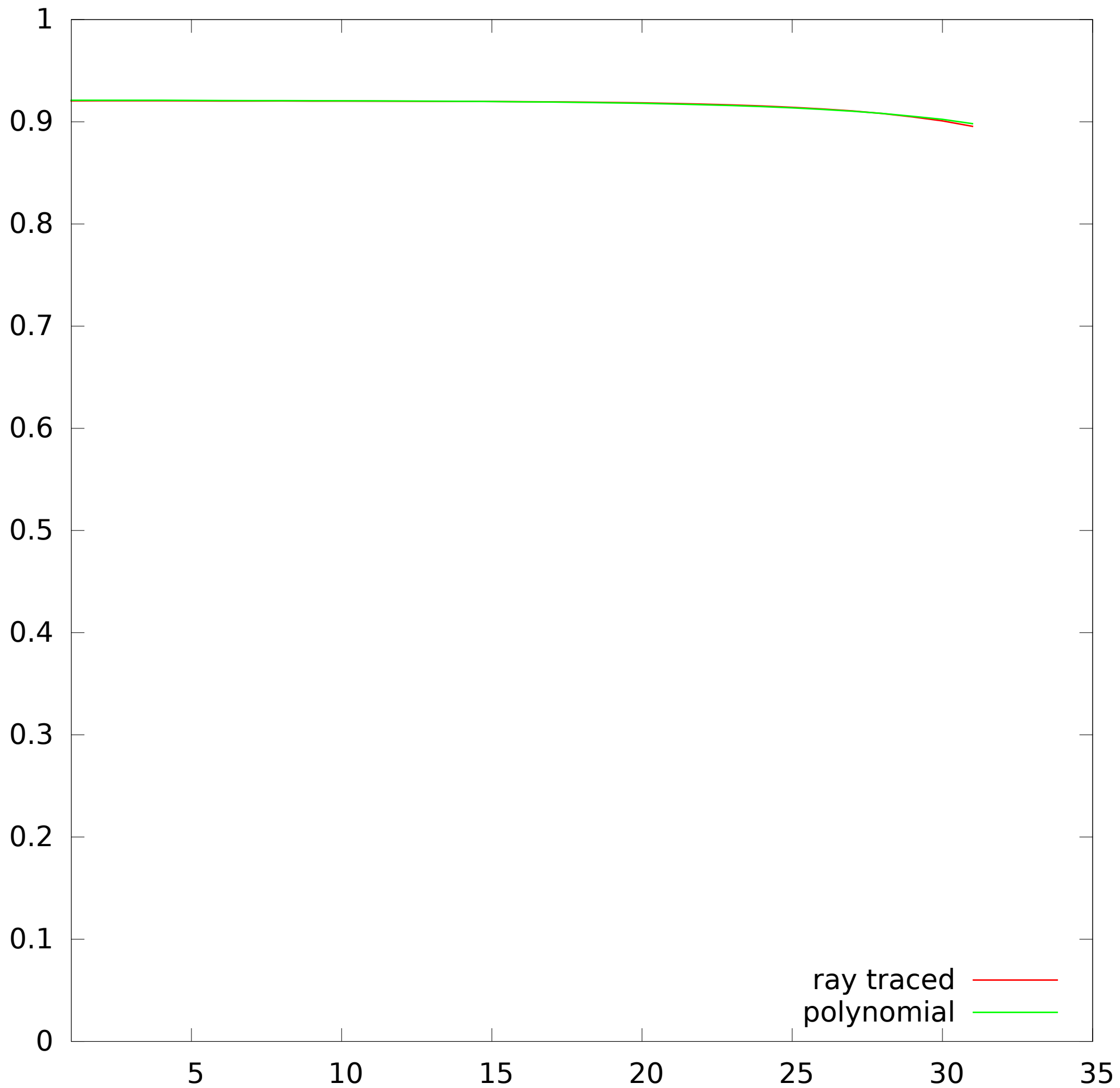
lenses/simple-ii.fx



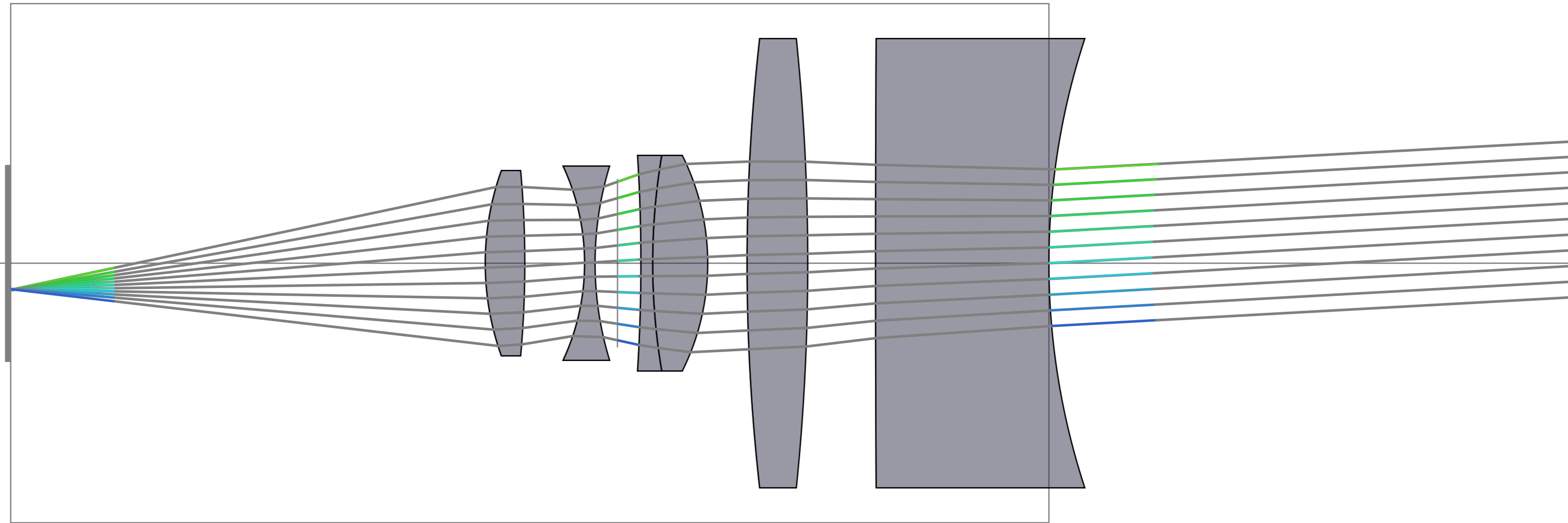
simple



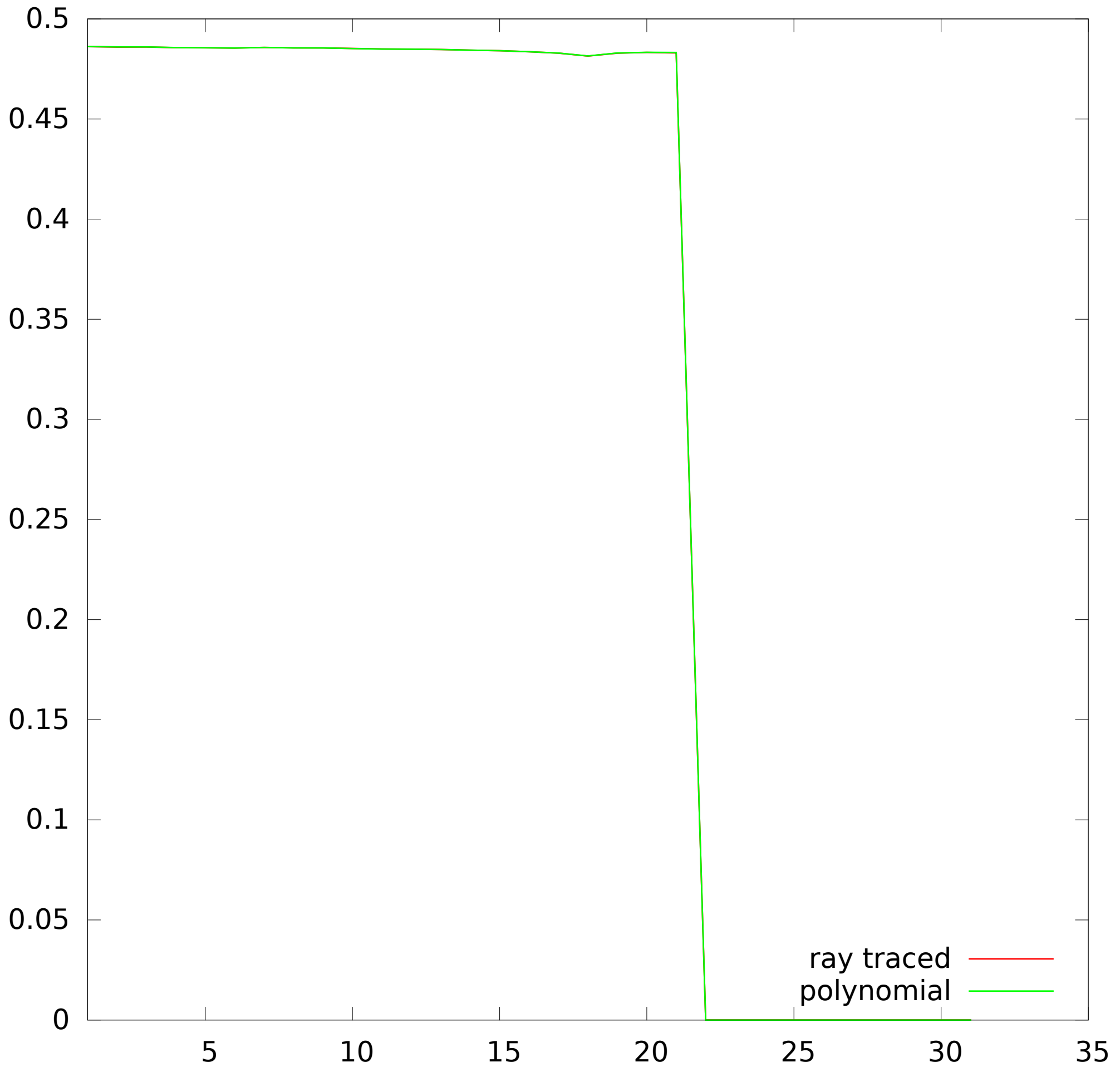
lenses/simple.fx



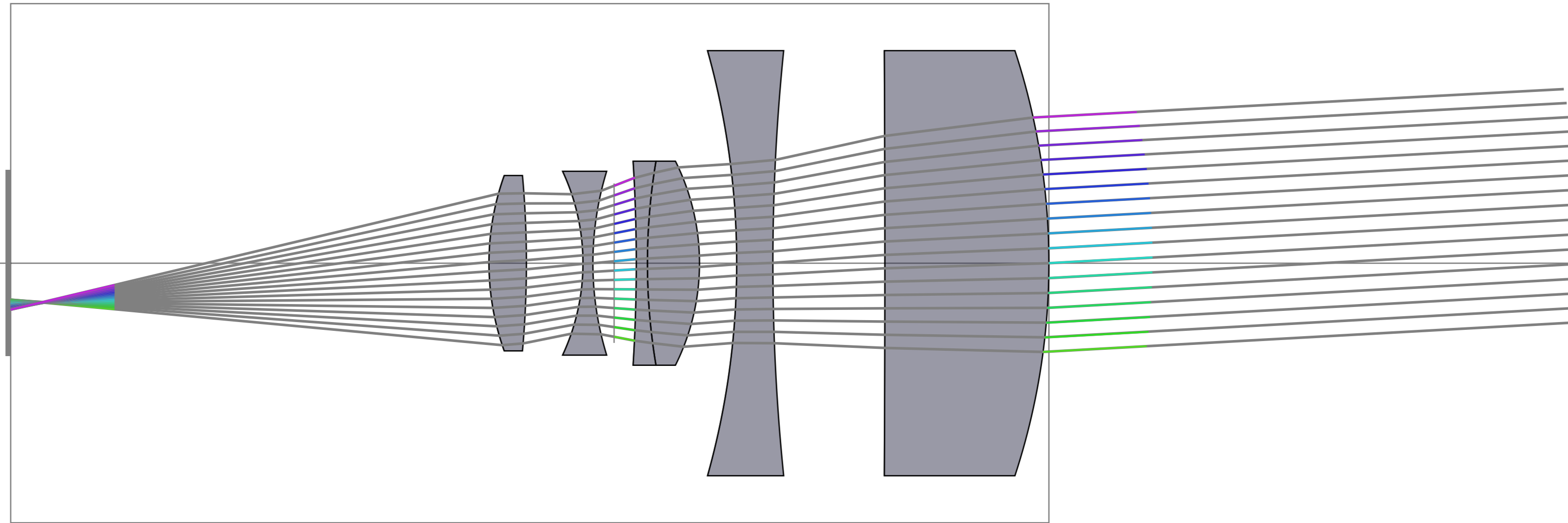
tessar anamorphic ii



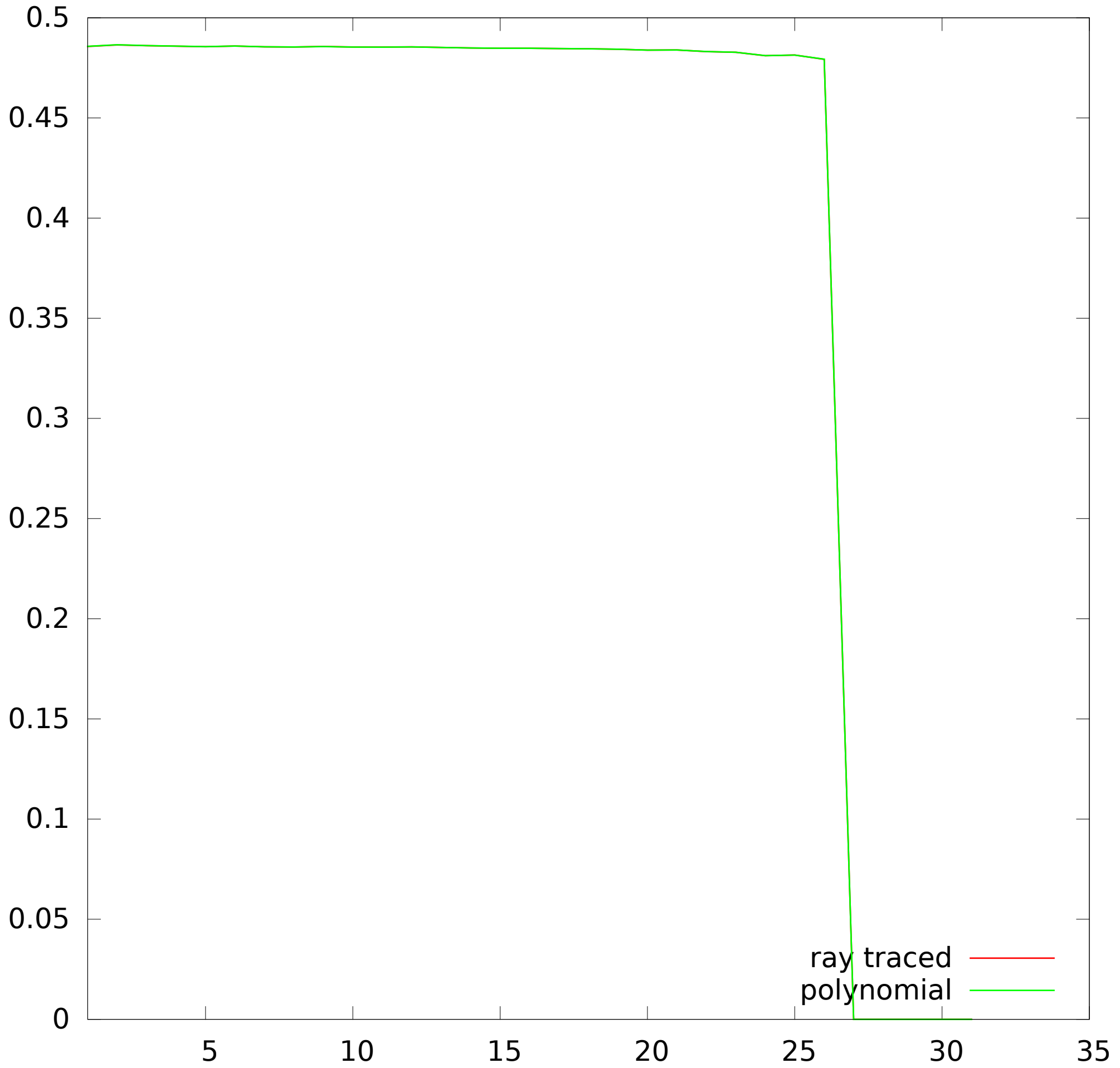
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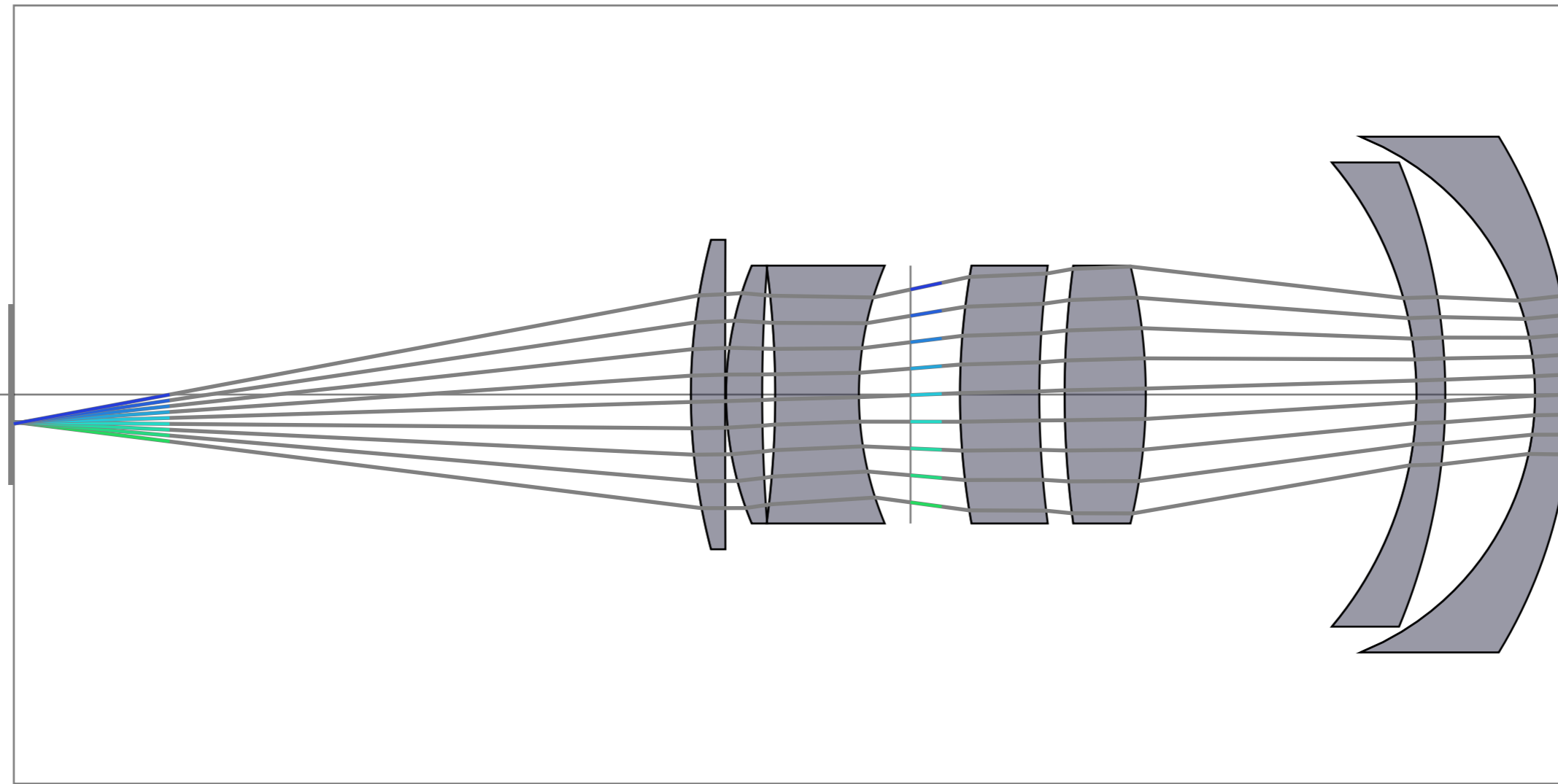
tessar anamorphic



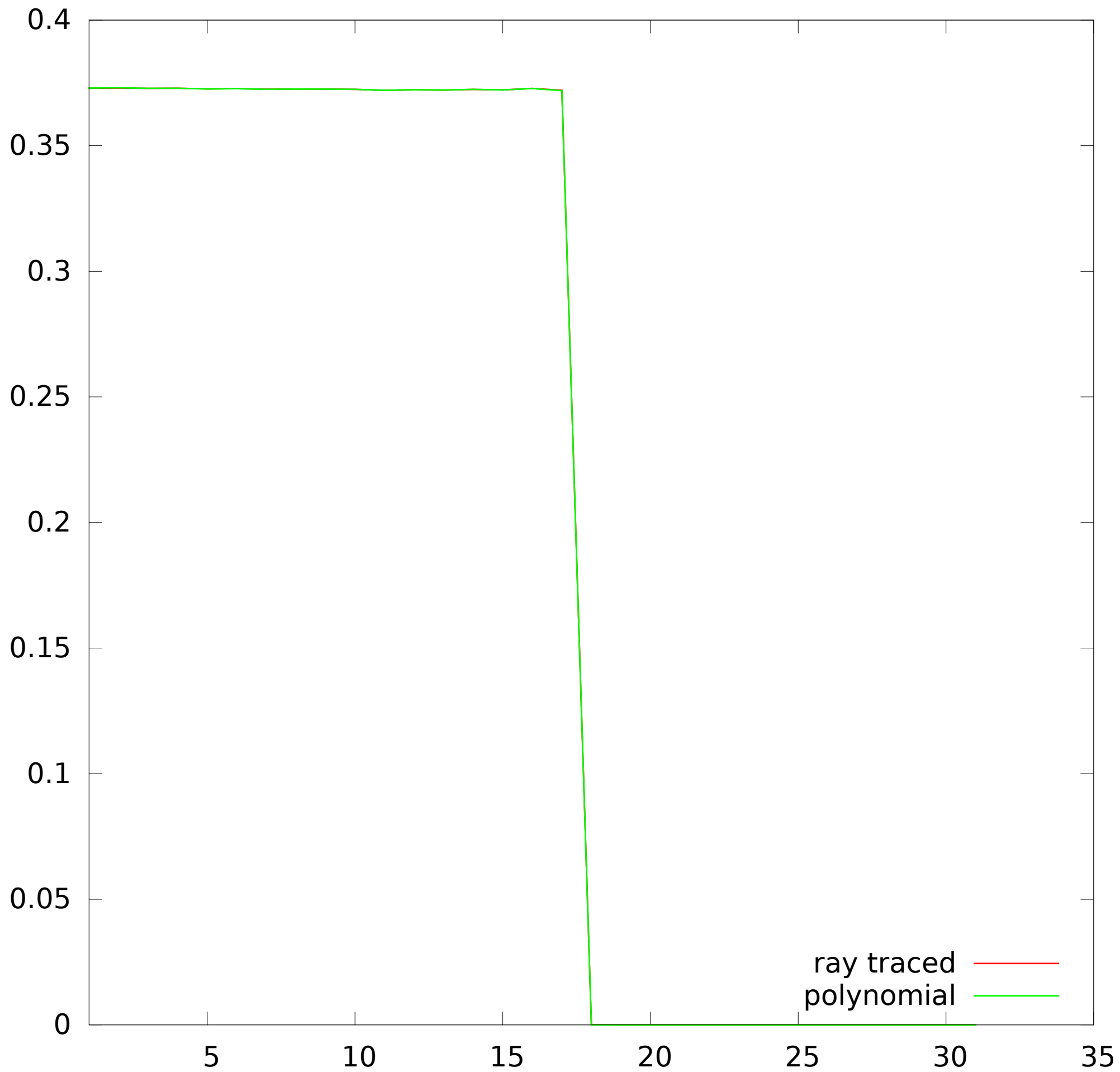
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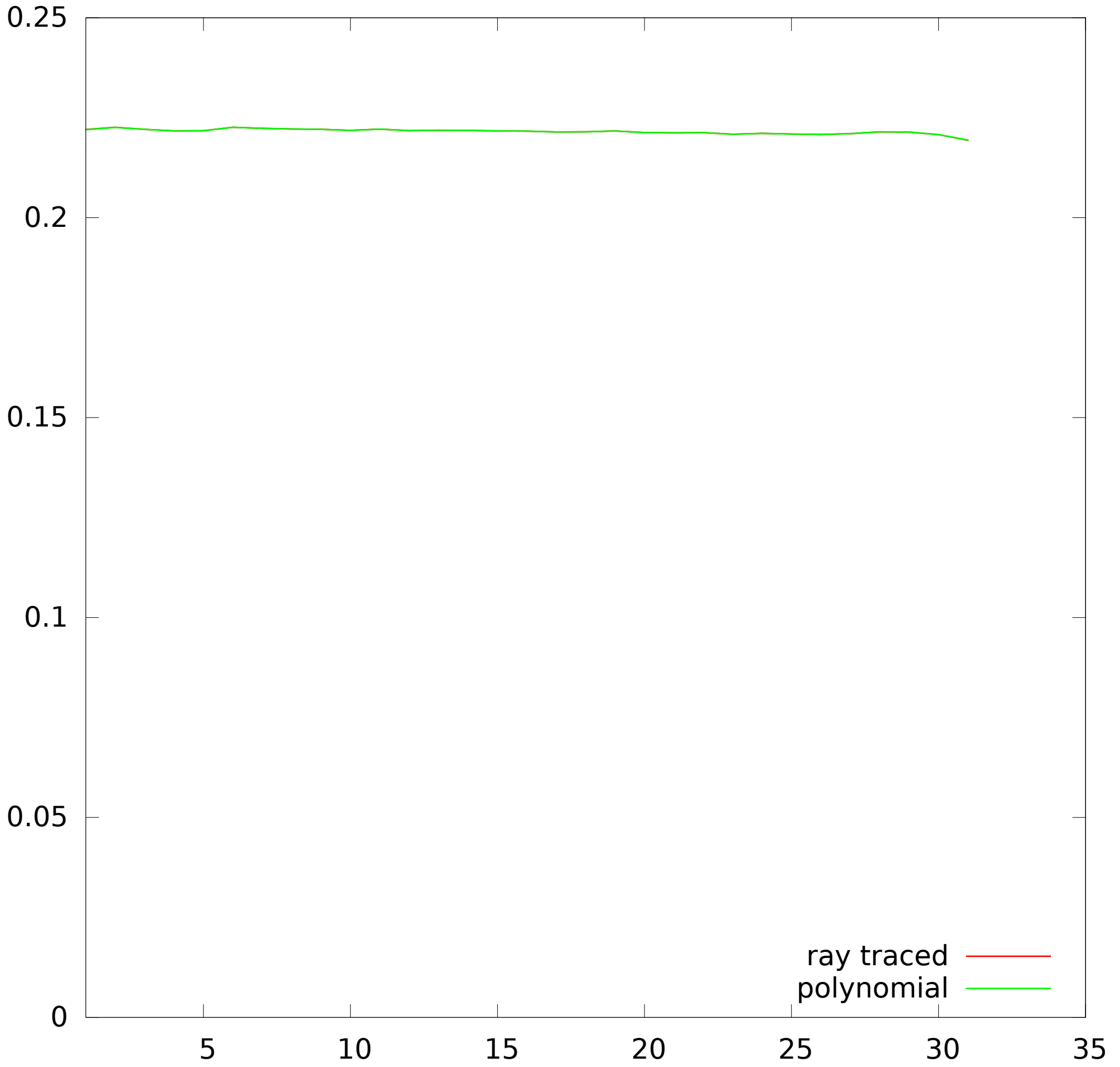
wideangle 1971



lenses/wideangle-1971.fx



lenses/wideangle-ii.fx



lenses/wideangle.fx

