Cone type	OS length (μm)	OS base (μm)	OS tip (μm)	OS volume (μm^3)	OS Surf. Area (μm^2)	A_e (μm^2)
L cones	16.1 ± 1.7 (n = 19)	5.1 ± 0.9 (n = 19)	2.7 ± 0.4 (n = 19)	202 ± 57 (n = 19)	198 ± 35 (n = 19)	1.93 ± 0.52 (n = 19)
M cones	14.6 ± 1.8 (n = 21)	4.4 ± 0.5** (n = 21)	2.6 ± 0.5 (n = 21)	143 ± 37** (n = 21)	159 ± 27** (n = 21)	1.37 ± 0.46** (n = 21)
S cones	10.7 ± 0.9** (n = 20)	5.5 ± 0.9 (n = 20)	3.3 ± 0.4** (n = 20)	172 ± 49 (n = 20)	149 ± 27** (n = 20)	1.65 ± 0.58 (n = 20)
Rods	30.3 ± 2.7 (n = 20)	2.3 ± 2.2 (n = 20)	2.3 ± 2.2 (n = 20)	54 ± 4 (n = 20)	215 ± 27 (n = 20)	0.66 ± 0.09 (n = 20)

Table S1. Physical dimensions of goldfish photoreceptors, Related to Figures 2, 3, and 5.
Values are mean ± SD, with the number of cells analyzed (n) in parentheses. A_e is the effective collecting area calculated as $A_e = V \times 2.303 \times \alpha_\lambda \times Q \times f$, where V is the outer-segment volume, α_λ is the axial pigment density (0.0124 for goldfish cones [S1] and 0.0161 for rods [S2]), Q is the quantum efficiency of isomerization (0.67 [S3]), and f is a polarization factor to account for the orientation of the chromophore (~0.5 for unpolarized light, [S4]). ** symbols indicate statistically-significant differences compared to one or both of the other cone types (p < 0.0001). Rods were not included in statistical analyses.

SUPPLEMENTAL REFERENCES

S1.   Hárosi, F.I., and MacNichol, E.F. (1974). Visual pigments of goldfish cones. Spectral properties and dichroism. J. Gen. Physiol. *63*, 279–304. Available at: http://www.ncbi.nlm.nih.gov/pubmed/4817352 [Accessed October 20, 2018].

S2.   Hárosi, F.I. (1975). Absorption spectra and linear dichroism of some amphibian photoreceptors. J. Gen. Physiol. *66*, 357–382.

S3.   Dartnall, H.J.A. (1972). Photosensitivity. In Handbook of Sensory Physiology (New York: Springer-Verlag), pp. 122–145.

S4.   Baylor, D.A., Lamb, T.D., and Yau, K.W. (1979). The membrane current of single rod outer segments. J. Physiol. *288*, 589–611. Available at: http://www.ncbi.nlm.nih.gov/pubmed/112242 [Accessed October 21, 2018].