

**Supplementary Table 1.** Summary of mean values in Refractive Error (Diopter, D), Vitreous Chamber Depth (VCD, mm), Axial Length (AL, mm), Anterior Chamber Depth (ACD, mm), Lens Thickness (LT, mm) and Corneal Radius Curvature (CRC, mm) (mean  $\pm$  SD) for guinea pigs under either white light (WL) or short-wavelength light (SL) fitted with monocular  $-5D$  lenses for 4 weeks (w).

		Lens-treated eye		Fellow eye	
		WL	SL	WL	SL
Refractive error (D)	0w	3.52 $\pm$ 0.79	3.72 $\pm$ 0.98	3.69 $\pm$ 0.93	3.85 $\pm$ 1.02
	1w	1.33 $\pm$ 1.41	1.80 $\pm$ 1.47	2.75 $\pm$ 1.27	2.83 $\pm$ 1.48
	2w	-0.20 $\pm$ 1.35	1.21 $\pm$ 1.35	3.26 $\pm$ 1.26	4.12 $\pm$ 1.34
	4w	-1.00 $\pm$ 1.88	2.06 $\pm$ 1.69	3.05 $\pm$ 1.78	5.34 $\pm$ 1.15
VCD (mm)	0w	3.18 $\pm$ 0.11	3.17 $\pm$ 0.13	3.19 $\pm$ 0.12	3.16 $\pm$ 0.15
	1w	3.21 $\pm$ 0.10	3.19 $\pm$ 0.11	3.16 $\pm$ 0.06	3.13 $\pm$ 0.09
	2w	3.42 $\pm$ 0.18	3.35 $\pm$ 0.12	3.22 $\pm$ 0.18	3.22 $\pm$ 0.11
	4w	3.54 $\pm$ 0.14	3.47 $\pm$ 0.14	3.30 $\pm$ 0.15	3.29 $\pm$ 0.13
AL (mm)	0w	7.64 $\pm$ 0.15	7.60 $\pm$ 0.16	7.63 $\pm$ 0.12	7.61 $\pm$ 0.15
	1w	7.72 $\pm$ 0.16	7.65 $\pm$ 0.15	7.59 $\pm$ 0.13	7.58 $\pm$ 0.13
	2w	8.06 $\pm$ 0.19	7.98 $\pm$ 0.14	7.78 $\pm$ 0.19	7.75 $\pm$ 0.14
	4w	8.38 $\pm$ 0.18	8.28 $\pm$ 0.15	8.09 $\pm$ 0.16	8.03 $\pm$ 0.12
ACD (mm)	0w	1.22 $\pm$ 0.05	1.22 $\pm$ 0.05	1.21 $\pm$ 0.05	1.21 $\pm$ 0.05
	1w	1.24 $\pm$ 0.04	1.23 $\pm$ 0.04	1.22 $\pm$ 0.03	1.23 $\pm$ 0.04
	2w	1.25 $\pm$ 0.07	1.27 $\pm$ 0.06	1.22 $\pm$ 0.06	1.24 $\pm$ 0.04
	4w	1.27 $\pm$ 0.09	1.27 $\pm$ 0.09	1.24 $\pm$ 0.07	1.25 $\pm$ 0.07
LT (mm)	0w	3.23 $\pm$ 0.10	3.20 $\pm$ 0.11	3.20 $\pm$ 0.10	3.19 $\pm$ 0.13
	1w	3.28 $\pm$ 0.11	3.24 $\pm$ 0.09	3.22 $\pm$ 0.08	3.23 $\pm$ 0.10
	2w	3.39 $\pm$ 0.07	3.36 $\pm$ 0.11	3.34 $\pm$ 0.12	3.29 $\pm$ 0.12
	4w	3.57 $\pm$ 0.09	3.54 $\pm$ 0.09	3.54 $\pm$ 0.10	3.49 $\pm$ 0.15
CRC (mm)	0w	3.40 $\pm$ 0.10	3.40 $\pm$ 0.12	3.38 $\pm$ 0.12	3.41 $\pm$ 0.13
	2w	3.40 $\pm$ 0.16	3.41 $\pm$ 0.13	3.40 $\pm$ 0.13	3.44 $\pm$ 0.14
	4w	3.70 $\pm$ 0.11	3.76 $\pm$ 0.11	3.72 $\pm$ 0.09	3.78 $\pm$ 0.15