**Figure S1. Outer retina function. (A)** Example combined-response electroretinogram recordings show a- and b-wave amplitude wild-type and  $Efemp1^{R345W}$  mice. **(B)** Mean derived amplitudes for a- and b-wave of wild-type (n = 8) and  $Efemp1^{R345W}$  mice (n = 9), are plotted against the ten tested luminances from 0.0001 to 30 cd.s.m<sup>2</sup> (Mean ± SD). Responses are not statistically different by non-linear curve fit between for a-wave (P = 0.59), or b-wave (P = 0.60).

