

Table S1. *ed* and *fred* are required in R1, R6, R7 and the cone cells for correct ommatidial rotation

| | <i>ed</i> MAO | <i>P</i> | <i>ed</i> s.d. | <i>P</i> | <i>fred</i> MAO | <i>P</i> | <i>fred</i> s.d. | <i>P</i> |
|--------------|---------------|----------|----------------|---------------------|-----------------|----------|------------------|---------------------|
| R1/R6/R7 mut | 68.8 | 0.29 | 76.1 | 5×10^{-6} | 86.1 | 0.60 | 22.3 | 2×10^{-15} |
| R1/R6/R7 wt | 83.2 | | 33.6 | | 87.6 | | 9.2 | |
| R2/R5 mut | 67.6 | 0.90 | 59.8 | 0.26 | 89.2 | 0.59 | 8.7 | 2×10^{-12} |
| R2/R5 wt | 69.1 | | 50.4 | | 88.1 | | 19.2 | |
| R3/R4 mut | 45.1 | 0.13 | 60.8 | 0.07 | 87.8 | 0.68 | 9.6 | 3×10^{-10} |
| R3/R4 wt | 73.4 | | 46.3 | | 86.8 | | 20.7 | |
| cc mut | 83 | 0.65 | 30 | 5×10^{-17} | 92.25 | 0.79 | 17.8 | 3×10^{-9} |
| cc wt | 90.12 | | 2.35 | | 91.01 | | 2.52 | |

Mut, mutant; wt, wild type; cc, cone cell.