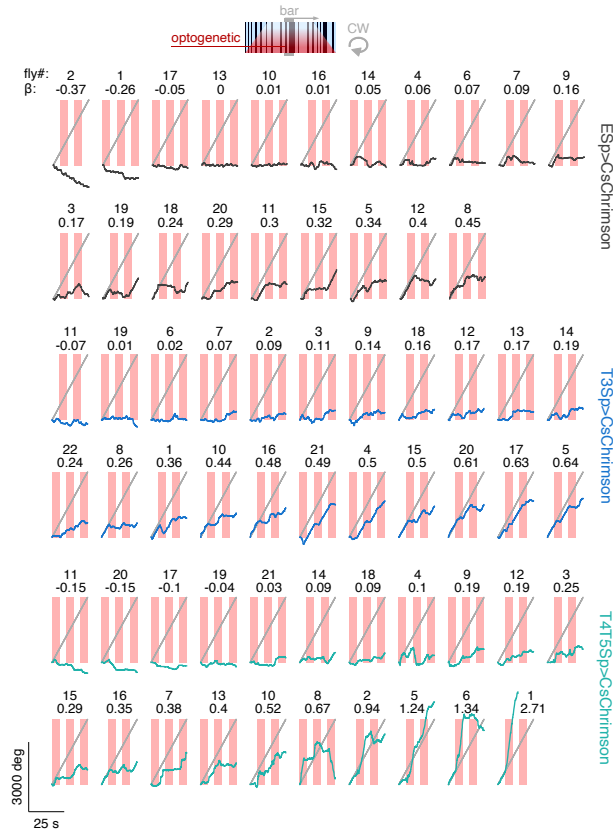


**Figure 5-figure supplement 1**



**Figure 5-figure supplement 1.** Raw unwrapped angular distance traveled by the flies during bar tracking and optogenetic stimulation. The traces represent the responses per genotype (black: EmptySp>CsChrimson; blue: T3Sp>CsChrimson; green: T4T5Sp>CsChrimson) to a CW revolving motion-defined bar at  $112.5^\circ \text{ s}^{-1}$  for 25 s. Gray line represents the bar angular displacement. The responses within genotype are sorted by the regression coefficient ( $\beta$ ) of a linear fitting to the data.