



Provisory figure caption . Effects of intensity and frequency in the positive control *Gr66a>Chrimson* and *NorpA<sup>P24</sup>+Gr28bd+TrpA1>Chrimson*. The probability of entering the lit arm in a total of three arms is 33%, indicated by a dashed red line. Flies show strong effects in occupancy and entries when supplemented with ATR. Increase in intensity yield stronger effects whereas frequency do not have an influence. Observe that although the mixture *Gr28bd+TrpA1* yields stronger effects under similar conditions, blinding the flies with *norpA* partially impairs their localization in the Y-maze. Speed traces of *norpA+Chrimson* and *norpA<sup>P24</sup>+Gr28bd+TrpA1>Chrimson* during the training protocol (blue: baseline; orange: lit when running, yellow: lit when stopping). To the right boxplots depicting the average of the three conditions across all flies. t1: first baseline period; t2: third baseline period; t2': fourth baseline period.