



S5 Fig. GLM ratemap reconstructions for example directional cells. To show that the LQW-SD 3×3 model could accurately reconstruct ratemaps of directional cells, we show example cells with homogeneous (A) and inhomogeneous (B) directionality. (A) The high maximal firing rates and crescent-like spatial modulation indicate that these may have been head-direction cells or cells with head-direction inputs. The GLM's directional predictors (arrows) were consistently large and well-aligned across grid sections. (B) Recordings with inhomogeneous directionality showed minimal spatial modulation but included center-facing (left) and clockwise (middle) or anti-clockwise (right) directionality.