## Supplementary Materials

Figure S1 Example psychometric functions for the brightness matching task. The data shown here are example fits from a brightness matching task from subject S05 under Condition 5 where amplitude varied across both electrodes. These data were collected on the electrode pair of C1 (E1) and B1(E2). See Fig. 1 for a schematic of the electrode array. Example fits are shown for two delays (0.075 and 9.0 ms). The x-axis shows absolute current ( $\mu$ A) for both E1 (green) and E2 (red). A minimum of 12 trials were carried out for each amplitude value.

