**Supplementary Figure 4. Reductions in amplitude or maximum level or expression under free running conditions can be explained by a decline in culture synchrony. (A)** Culture average gene expression profile under long day (LD, 16h light / 8h dark) and constant light (LL) is represented by a thick blue line. Examples of individual cell gene expression profiles under LD and LL are represented by thin grey lines. White rectangles represent photoperiods (light periods or days), blue filled rectangles correspond to skotoperiods (dark periods or nights) and light blue filled rectangles stand for subjective nights under LL free running conditions. When cultures are transferred to LL, cells get desynchronized and their individual gene expression profiles become largely out of phase. This results in a drastic reduction in the amplitude of the culture average gene expression profile although individual gene expression profiles maintain the same amplitude. **(B)** Culture average gene expression profile under LD and constant dark (DD) is represented by a thick blue line. Examples of individual cell gene expression profiles under LD and DD are represented by thin grey lines. When cultures are transferred to DD, cells get mildly desynchronized and their individual gene expression profiles become moderately out of phase. This results in a slight reduction in the amplitude of the culture average gene expression profile although individual gene expression profiles maintain the same amplitude.