Supplemental Figure 5.

Equinox

A. TG: None

B. TG: WT

C. TG: 2-3A

D. TG: 4A

E. TG: 5A

F. TG: 6A

G. TG: 7A

H. TG: 5-7A

I. TG: 1-4A

J. TG: 1-5A

K. TG: 1-6A

ZT (hr)

17  23.5  0.5  8  8.5  16
S5 Fig. Amplitude measures of locomotor rhythms exhibited by WT PDFR and by other PDFR Variants under Equinox (12:12) conditions. All behavioral records were recorded from han (pdfr mutant) flies that expressed either no UAS transgene (A – marked in YELLOW), or a WT pdfr cdNA (B – marked in BLACK) or a variety of Simple pdfr Variants (all marked in RED) including 2-3A (C), 4A (D), 5A (E), 6A (F), 7A (G), 5-7A (H), 1-4A (I), 1-5A (J), and 1-6A (K). These measures were averaged across all experiments run for each individual genotype (see Table 1 for N and n values). Top Right Box: A schematic of the PDFR C terminal segment for the WT and all variants studied: see Figure Legend 1 for details. Letters to the right of each variant C terminal segment correspond to the Panels in this Figure that display the behavior observed following its expression. Each Panel (A)-(L) contains sub-panels (1) through (3), each of which displays Bin-by-Bin analyses of activity levels sorted by 30 min bins, for three different time periods: (1) ZT17-23.5; (2) ZT 0.5 – 8; (3) ZT 8.5-16. The missing bin at timepoint 0 contains the startle response that accompanies the sudden lights-on signal. Blue asterisks indicate significantly-different activity levels according to a Student’s T-test following an ANOVA (p< 0.05). Red arrows highlight elevated Morning activity levels displayed by different PDFR variants. Blue arrows highlight elevated Evening activity levels produced by different PDFR variants.