Supplemental Figure 3.

Short Day

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
**S3 Fig.** Amplitude measures of locomotor rhythms exhibited by WT PDFR and by other PDFR Variants under Short-day (winter-like) 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.