

**Figure S3** Expression levels of *HvCCA1* in WT and mutant HvPHYC F380S lines. Expression of *HvCCA1* in Azumamugi (orange), Hayachinemugi (green) and its parental lines Kaikei 84 (purple) and Yukiwarimugi (blue). Full and dashed lines indicate genotypes with a wild type or a mutated *HvPHYC* allele, respectively. Plants were grown under short days for two weeks, and then released into continuous light. Samples were taken every 4 hours starting from the beginning of the first subjective night (T8). White and grey bars indicate days and subjective nights, respectively. Expression values are averages of two biological and two technical replicates relative to *HvActin* plus/minus standard deviation.

4 SI A. Pankin et al.