Figure S1: Leaf movement in the transgenic and control lines. *CCA1pro*::*CCA1-HA-YFP cca1-1#1*, *CCA1pro*::*CCA1-HA-YFP cca1-1#2*, *cca1-1* and wild-type plants (A), *LHYpro::LHY-myc LHY-null*, *LHY-null* and wild-type plants (B) and *CCA1pro*::*CCA1-myc cca1-1*LHY-null#1*, *CCA1pro*::*CCA1-myc cca1-1*LHY-null#2* and *cca1-1*LHY-null* plants (C) were transferred to LL after one week of growth in LD. Leaf movements were recorded every 20 minutes over seven days and analyzed by FFT-NLLS. The average leaf position is plotted against time.

Figure S2: CCA1-HA-YFP is localized to the nucleus in *CCA1pro*::*CCA1-HA-YFP cca1-1#2* plants. A. Two-week-old *CCA1pro*::*CCA1-HA-YFP cca1-1#2* plants were examined for yellow fluorescence by confocal microscopy three hours after lights-on. Right panel, DAPI staining (blue) of nuclei; Left panel, YFP (green) and chloroplast auto-fluorescence (red). B. Two-week-old *CCA1pro*::*CCA1-HA-YFP cca1-1#2* plants were grown in LD. Tissue was harvested at intervals starting two hours before lights-on and the nuclear and cytoplasmic fractions of the cells separated as described in the Materials and Methods. The levels of CCA1-HA-YFP protein were determined by western analysis with anti-HA antibodies. The coomassie-stained loading control is shown below. C. Two-week-old *CCA1pro*::*CCA1-HA-YFP cca1-1#1* plants were grown in LD. Tissue was harvested at intervals starting two hours before lights-on and the nuclear and cytoplasmic fractions of the cells separated as described in the Materials and Methods. The levels of RNA Polymerase II protein were determined by western analysis with anti-Phospho RNA polymerase II antibodies D. Two-week-old *CCA1pro*::*CCA1-HA-YFP cca1-1#2* plants were examined at intervals for yellow fluorescence by confocal microscopy. The white and black bars represent light and dark periods, respectively.

Figure S3: *LHY-null* plants do not express *LHY* mRNA. Two-week-old *LHY-null* and wild-type plants were grown in LD. The levels of *LHY* mRNA were determined by qPCR and plotted on a graph relative to *TUB2* mRNA expression.

Figure S4: The system used for protein detection is linear for the concentrations of protein used in our experiments. Protein extracts of *CCA1pro*::*CCA1-HA-YFP cca1-1#1* plants was diluted to three different concentrations and analyzed by western analysis with anti-HA antibodies. The plot of HA signal against the relative protein amount is shown below.