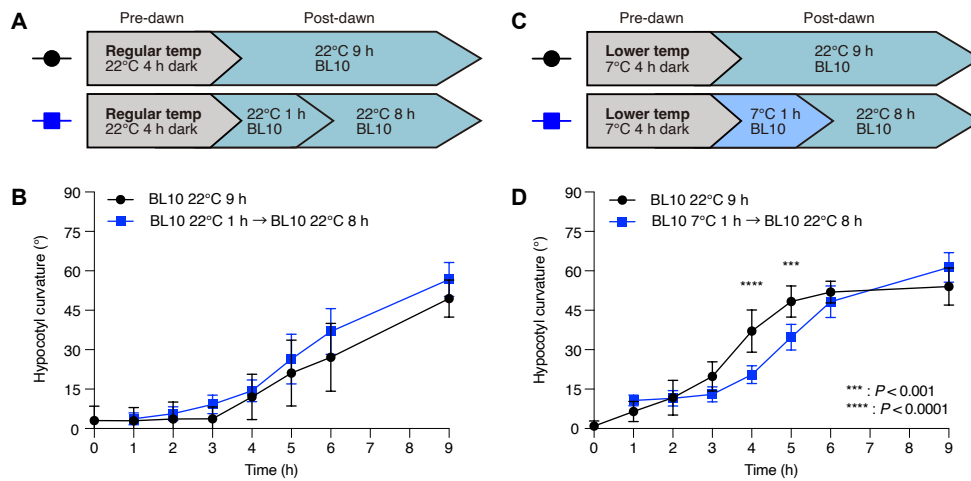


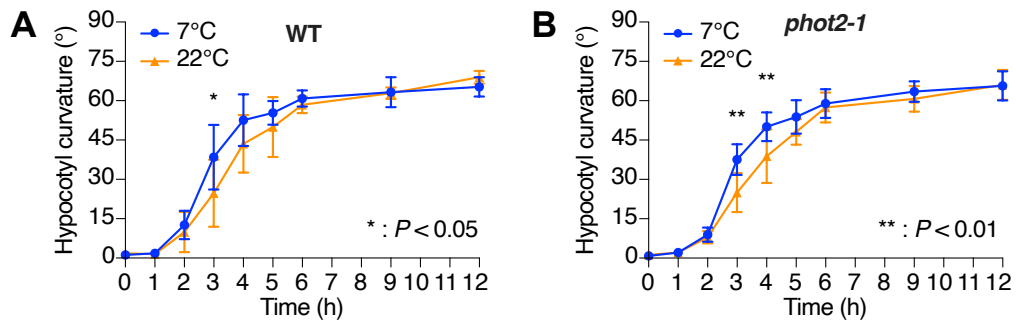
**Supplementary Fig. S1.** Photosynthesis does not mediate the cold priming of stomatal opening.

(A) CO<sub>2</sub> assimilation under various intensities of blue light (BL) and red light (RL) ( $n = 3$ ). (B) No significant difference in CO<sub>2</sub> assimilation was detected between BL at 70  $\mu\text{mol m}^{-2} \text{s}^{-1}$  (BL70) and RL at 50  $\mu\text{mol m}^{-2} \text{s}^{-1}$  (RL50). (C) Diagram of the dawn-mimicking conditions used to induce stomatal opening with red light (50  $\mu\text{mol m}^{-2} \text{s}^{-1}$ ; RL50). (D) Stomatal opening without cold priming in the WT under the dawn-mimicking conditions illustrated in (C) ( $n = 7$ ). Values are means  $\pm$  SD (A,B,D). n.s. indicates no significant difference ( $P = 0.4226$ ), as determined by Student's  $t$ -test (B,D).



**Supplementary Fig. S2.** A delayed cold priming of phototropism induced by BL irradiation under low-temperature conditions.

(A,C) Diagram of dawn-mimicking conditions used to induce phototropism with  $10 \mu\text{mol m}^{-2} \text{s}^{-1}$  of blue light (BL10). Temp, temperature. (B) Phototropism in the WT after dawn under the dawn-mimicking conditions illustrated in (A) ( $n = 5$ ). (D) Phototropism and cold priming in the WT after dawn under the dawn-mimicking conditions illustrated in (C) ( $n = 5$ ). Values are means  $\pm$  SD (B, D). Asterisks indicate significant differences (Sidak's multiple comparisons test) (B,D).



**Supplementary Fig. S3.** Cold priming of phototropism in the WT and *phot2-1* mutant under dim BL conditions.

Phototropism and cold priming in the WT (A) and *phot2-1* (B) after dawn under the dawn-mimicking conditions shown in Fig. 1I with weaker BL ( $1 \mu\text{mol m}^{-2} \text{s}^{-1}$ ) ( $n = 5$ ). Values are means  $\pm$  SD. Asterisks indicate significant differences (Sidak's multiple comparisons test).