



**SUPPLEMENTARY FIGURE 6 |** Maize canopy structure throughout a day as a function of air temperature detected by the non-invasive real-time phenotyping platform. **(A)** Fluctuation of air temperature throughout the 52nd DAS directly reflected in canopy appearance as shown at **(B)** 8:00 am ( $21.35 \pm 0.35^\circ\text{C}$ ), **(C)** 11:00 am ( $28.90 \pm 0.30^\circ\text{C}$ ), **(D)** 12:00 pm ( $36.15 \pm 0.65^\circ\text{C}$ ), **(E)** 1:00 pm ( $45.35 \pm 1.05^\circ\text{C}$ ), **(F)** 4:00 pm ( $34.35 \pm 0.05^\circ\text{C}$ ), and **(G)** 6:00 pm ( $27.55 \pm 0.25^\circ\text{C}$ ). Plants were, on average, directly affected and had their leaves rolled inward and then straightened upright, as observed from panels **C** to **G**, an effect pronounced during the peak in panel **E**. Values are expressed as the mean  $\pm$  SD. DAS, days after sowing; SD, standard deviation.