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Figure S1 Principal Component Analysis of gas chromatography electron ionization time-of-flight mass spectrometry (GC-EI-TOF/MS) data from leaf material of *fum2.2* at 20 or 4 °C. Plants of *fum2.2* were grown under 100 $\mu\text{mol m}^{-2} \text{s}^{-1}$ light, 8 h light/16 h dark, 500 $\mu\text{L L}^{-1}$ CO_2 , 20 °C light/18 °C dark conditions for 8 w, before being transferred to 4 °C for a single photoperiod. Fully expanded leaves were flash-frozen and excised at 0, 4 and 8 h after the photoperiod began. Circles are indicative only and have no statistical significance. (A) PCA constructed from the GC-EI-TOF/MS data from *fum2.2* line during the first photoperiod after transfer to 4 °C. Ten PCs were used in the calculation, accounting for 98.9% of the total variance. PC1 explained 65.9% of the total variance, with PC2 explaining a further 27.1% of the total variance. (B) Loadings plot of PCA data, indicating metabolites responsible for the variance in the data. In (B) named metabolites are those judged not to cluster with the majority of metabolites: organic acids are represented by filled circles, sugars by grey circles, amino acids by open circles, sugar alcohols by grey squares and unknown metabolites by striped circles.