## Supplementary material for: Evaluation of vertically resolved longwave radiation in SPARTACUS-Urban and the sensitivity to urban surface temperatures

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## 10 1 Supplementary Material

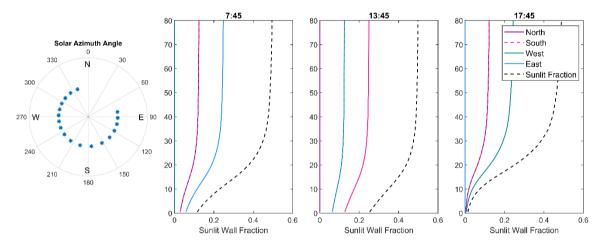


Figure SM 1: Demonstration of the  $T_{Wall}$  averaging method used for SPARTACUS-Urban simulations where facets are prescribed a temperature range

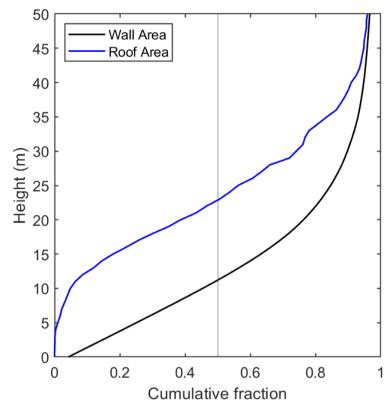


Figure SM 2: Cumulative fractions of wall and roof area with height

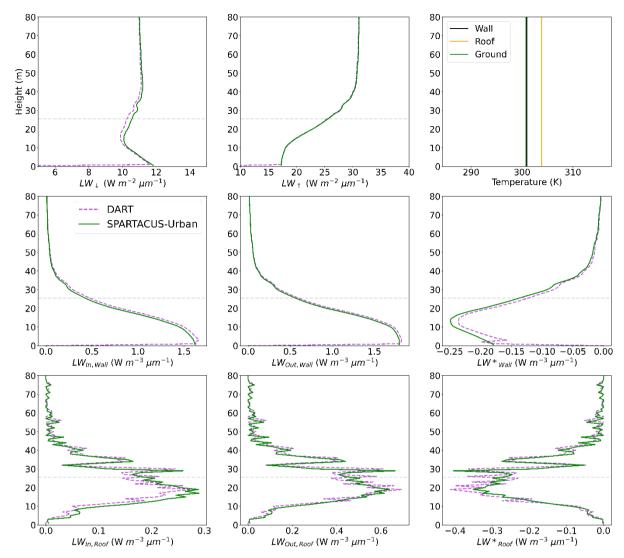


Figure SM 3: As Figure 6 but for 7:45 UTC

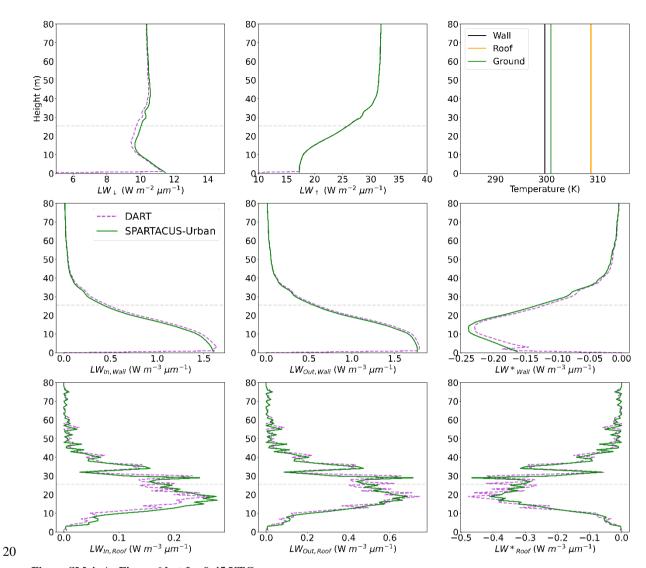


Figure SM 4: As Figure 6 but for 9:45 UTC

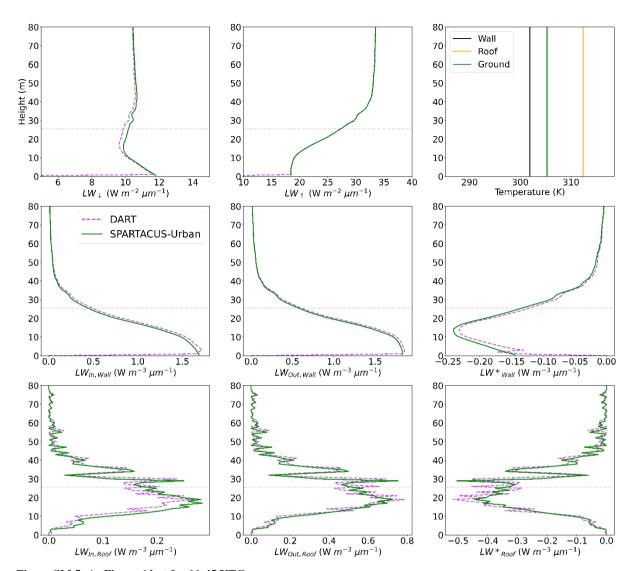


Figure SM 5: As Figure 6 but for 11:45 UTC

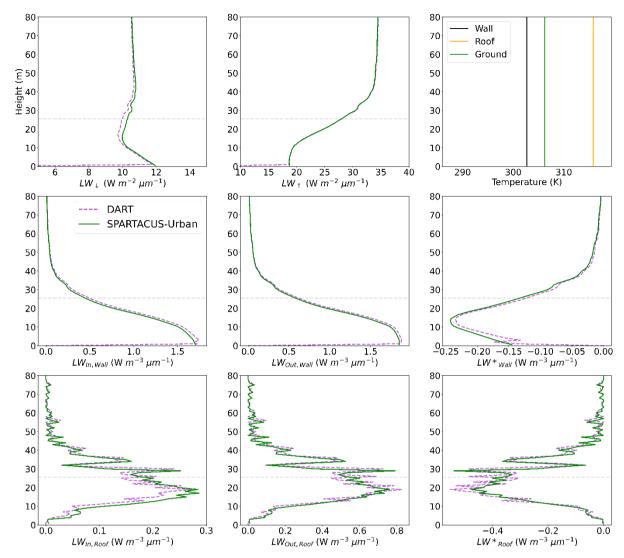


Figure SM 6: As Figure 6 but for 13:45 UTC

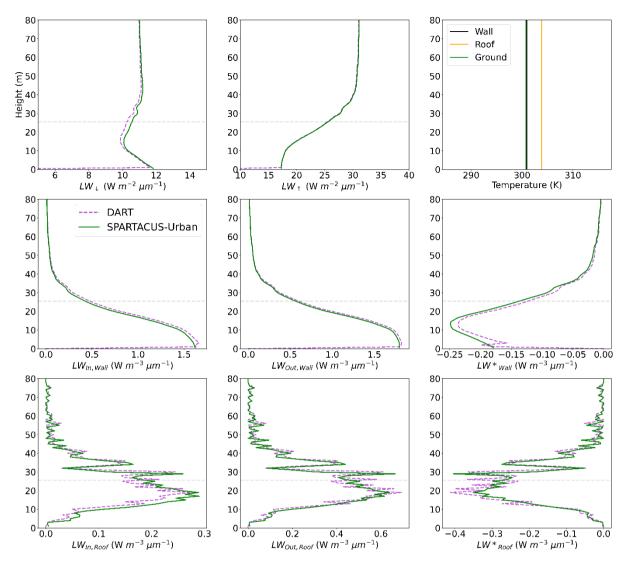


Figure SM 7: As Figure 6 but for 17:45 UTC

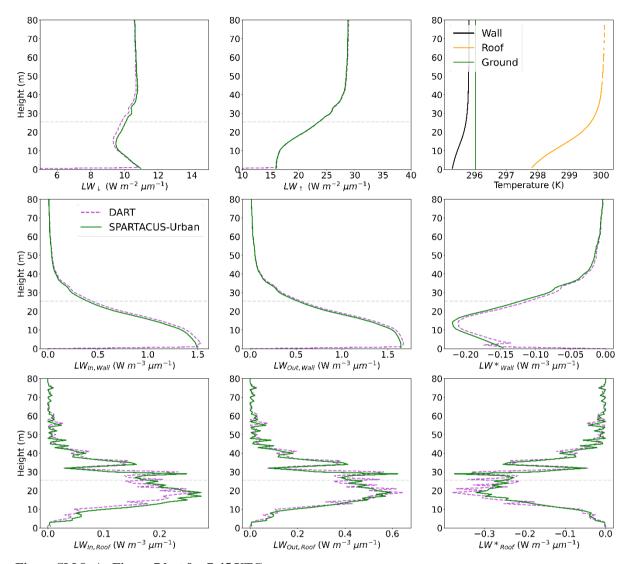


Figure SM 8: As Figure 7 but for 7:45 UTC

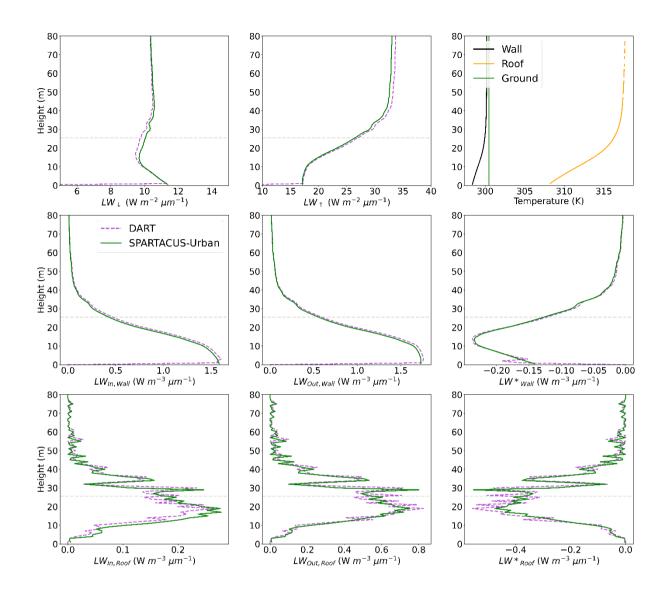


Figure SM 9: As Figure 7 but for 9:45 UTC

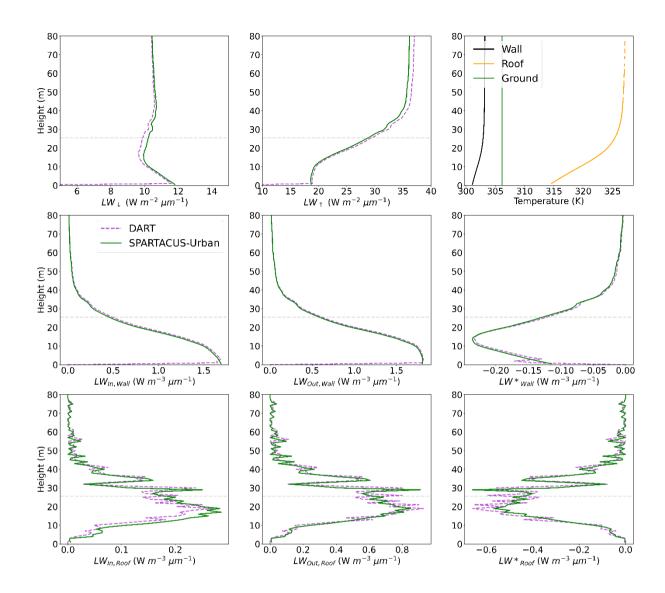


Figure SM 10: As Figure 7 but for 11:45 UTC

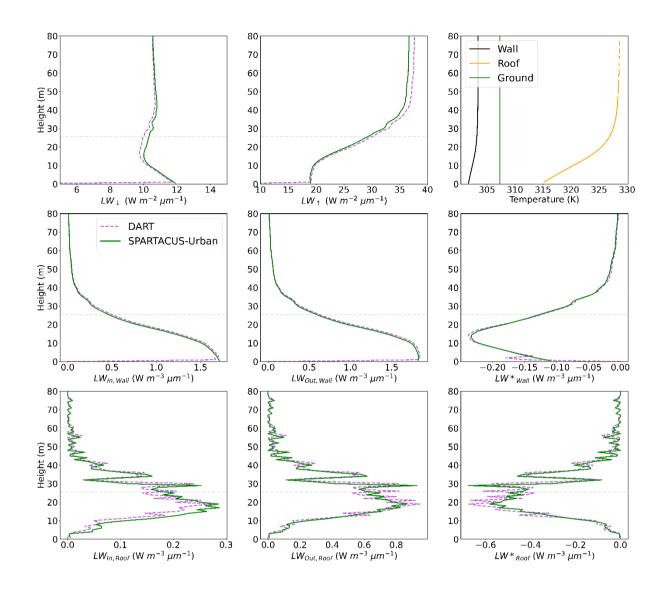


Figure SM 11: As Figure 7 but for 12:45 UTC

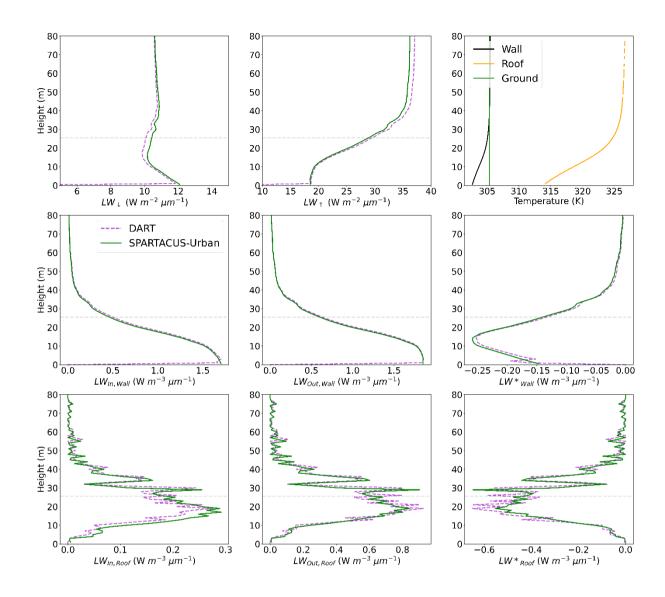


Figure SM 12: As Figure 7 but for 14:45 UTC

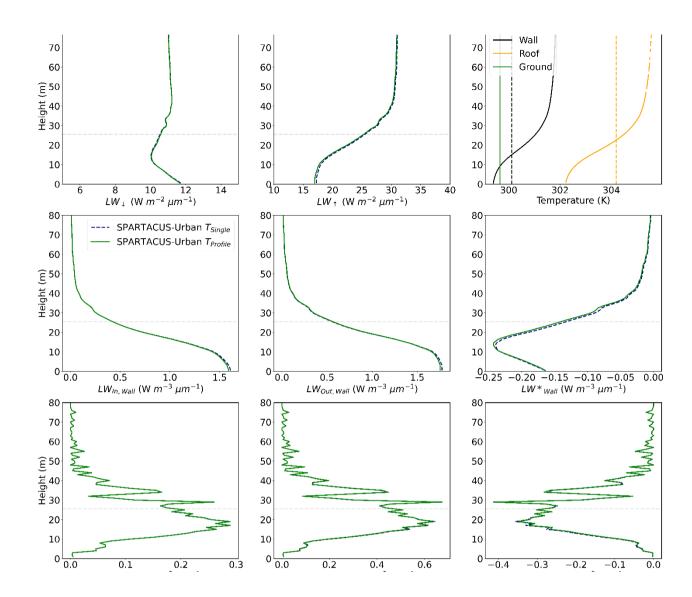
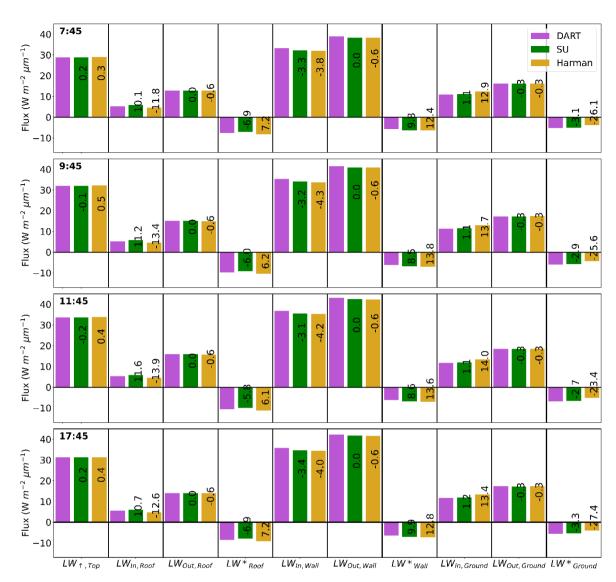


Figure SM 13: As Figure 9 but for 17:45 UTC



40 Figure SM 14: As Figure 10 but for all other time periods used.

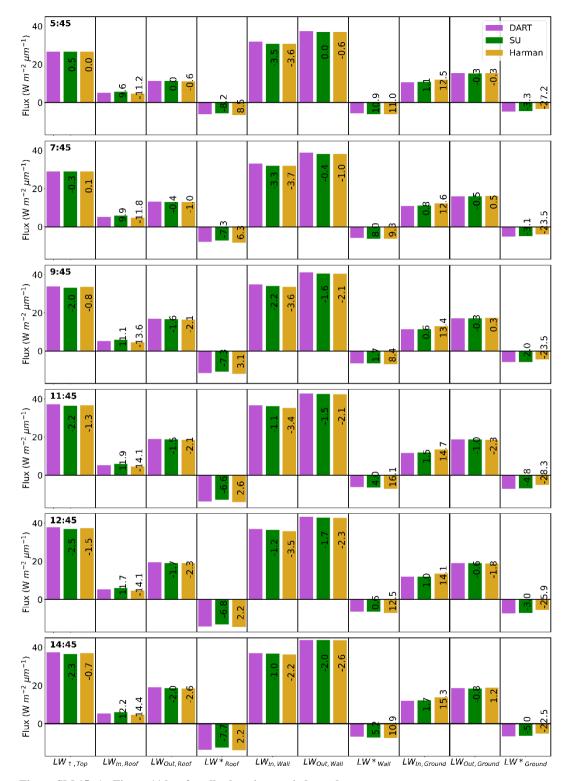


Figure SM 15: As Figure 11 but for all other time periods used.