

Table S1. Shows the different correlation coefficients between direct and diffuse solar radiation derived from the HP and UAV methods for different crown canopy density.

Solar radiation component	Correlation indicator	clear cut	30%	50%	70%	total
Diffuse	Bivariate correlation	0.24	0.10	-0.62**	-0.05	0.88**
	kendall's tau-b	0.25	0.15	-0.50**	-0.14	0.60**
	spearman's rho	0.30	0.21	-0.60*	-0.18	0.81**
Direct	Bivariate correlation	-0.29	0.21	-0.17	0.17	0.83**
	kendall's tau-b	-0.26	0.11	-0.16	0.07	0.62**
	spearman's rho	-0.30	0.20	-0.26	0.13	0.81**

**Correlation is significant at the 0.01 level (2-tailed).

*Correlation is significant at the 0.05 level (2-tailed).

Table S2. Statistical summary table for the two applied methods HP and UAV in units of W/m²/S.

Statistical index	Direct radiation	Diffuse radiation	Total solar radiation
N	64	64	64
MAD	136.54	8.85	139.17
MSE	21472.53	107.39	22017.68
RMSE	146.54	10.36	148.38
RMSE %	57.65	20.80	46.85
MAPE	380.14	45.68	202.87

N: Number of plots

MAD: Mean Absolute Deviation

MSE: Mean Square Error

RMSE: Root Mean Square Error

MAPE: Mean Absolute Percentage Error