

MONTHLY AVERAGE SOLAR INSOLATION CALCULATOR USING PVWATTS OUTPUT

BTU/ft²/day per kWh/m²/day 317

Enter the square feet of NET GLAZING (not gross window area) in E7, E25, E43, and E61

Enter the Glazing Solar Heat Gain Coefficient (SHGC) in cells G7, G25, G43, and G61

NOTE: these are NOT the NFRC Whole Window Values!

The dirt/off axis factor is a constant which accounts for dirt and the fact that the glazing has lower SHGC at acute angles.

Copy the input azimuth results from PVWatts into the yellow shaded cells in Column C

Azimuth	0	ft ² of glazing	70	SHGC	0.21	dirt/off axis	0.85
Month	Insolation,	BTU/ft ² /day	Days/month	BTU/ft ² /month	Fraction	BTU/month	

Jan	0.74	235	31	7,272	0.9	81,777
Feb	1.14	361	28	10,119	0.9	113,789
Mar	1.15	365	31	11,301	0.9	127,086
Apr	1.41	447	30	13,409	0.9	150,792
May	1.76	558	31	17,296	0.9	194,497
Jun	1.88	596	30	17,879	0.9	201,056
Jul	1.86	590	31	18,278	0.9	205,548
Aug	1.50	476	31	14,741	0.9	165,764
Sep	1.17	371	30	11,127	0.9	125,125
Oct	0.86	273	31	8,451	0.9	95,038
Nov	0.61	193	30	5,801	0.9	65,236
Dec	0.58	184	31	5,700	0.9	64,096

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Azimuth	90	ft ² of glazing	32	SHGC	0.21	dirt/off axis	0.85
Month	Insolation,	BTU/ft ² /day	Days/month	BTU/ft ² /month	Fraction	BTU/month	

Jan	1.48	469	31	14,544	0.9	74,768
Feb	2.14	678	28	18,995	0.9	97,648
Mar	2.59	821	31	25,452	0.9	130,843
Apr	2.96	938	30	28,150	0.9	144,711
May	3.27	1,037	31	32,134	0.9	165,196
Jun	3.38	1,071	30	32,144	0.9	165,245
Jul	3.48	1,103	31	34,198	0.9	175,805
Aug	3.07	973	31	30,169	0.9	155,092
Sep	2.40	761	30	22,824	0.9	117,334
Oct	2.00	634	31	19,654	0.9	101,037
Nov	1.29	409	30	12,268	0.9	63,067
Dec	1.15	365	31	11,301	0.9	58,096