

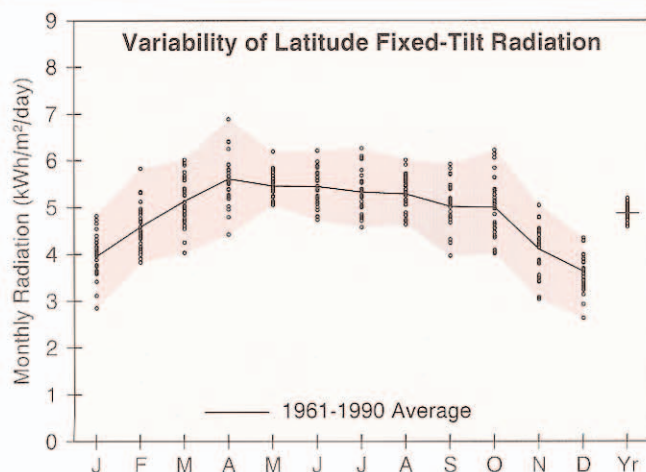
LATITUDE: 35.43° N

LONGITUDE: 82.53° W

ELEVATION: 661 meters

MEAN PRESSURE: 942 millibars

STATION TYPE: Secondary



Solar Radiation for Flat-Plate Collectors Facing South at a Fixed Tilt (kWh/m²/day), Uncertainty ±9%

Tilt (°)		Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year
0	Average	2.5	3.3	4.3	5.4	5.8	6.0	5.8	5.3	4.5	3.8	2.7	2.2	4.3
	Min/Max	2.0/2.9	2.9/3.9	3.5/4.9	4.3/6.5	5.4/6.6	5.3/6.9	5.0/6.8	4.7/5.9	3.7/5.1	3.2/4.5	2.2/3.1	1.8/2.5	4.1/4.6
Latitude -15	Average	3.5	4.2	4.9	5.7	5.8	5.9	5.7	5.5	5.0	4.6	3.6	3.1	4.8
	Min/Max	2.6/4.1	3.5/5.2	3.9/5.8	4.5/7.0	5.4/6.6	5.1/6.8	4.9/6.7	4.8/6.2	4.0/5.8	3.8/5.7	2.8/4.4	2.3/3.7	4.5/5.1
Latitude	Average	3.9	4.6	5.1	5.6	5.4	5.4	5.3	5.3	5.0	5.0	4.1	3.6	4.9
	Min/Max	2.8/4.8	3.8/5.8	4.0/6.0	4.4/6.9	5.1/6.2	4.7/6.2	4.6/6.3	4.6/6.0	4.0/5.9	4.0/6.2	3.0/5.0	2.6/4.3	4.6/5.2
Latitude +15	Average	4.2	4.7	5.0	5.2	4.8	4.7	4.7	4.8	4.8	5.0	4.3	3.9	4.7
	Min/Max	3.0/5.2	3.9/6.1	3.9/5.9	4.1/6.4	4.5/5.5	4.1/5.4	4.0/5.5	4.2/5.5	3.8/5.7	4.0/6.4	3.1/5.4	2.8/4.7	4.4/5.0
90	Average	3.8	3.9	3.6	3.0	2.4	2.1	2.2	2.6	3.1	3.9	3.7	3.5	3.2
	Min/Max	2.6/4.7	3.2/5.1	2.7/4.2	2.4/3.6	2.2/2.5	2.0/2.3	2.0/2.5	2.3/2.9	2.4/3.7	3.0/5.0	2.6/4.7	2.4/4.4	2.9/3.4

Solar Radiation for 1-Axis Tracking Flat-Plate Collectors with a North-South Axis (kWh/m²/day), Uncertainty ±9%

Axis Tilt (°)		Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year
0	Average	3.6	4.6	5.8	7.1	7.3	7.5	7.1	6.5	5.7	5.2	3.8	3.2	5.6
	Min/Max	2.6/4.3	3.8/5.9	4.4/6.9	5.4/9.1	6.5/8.7	6.2/9.1	5.9/8.8	5.6/7.7	4.4/6.8	4.2/6.5	2.8/4.7	2.3/3.8	5.2/6.1
Latitude -15	Average	4.3	5.3	6.3	7.4	7.3	7.4	7.1	6.7	6.1	5.8	4.5	3.8	6.0
	Min/Max	3.0/5.3	4.3/6.9	4.7/7.6	5.6/9.5	6.6/8.8	6.2/9.1	5.9/8.8	5.7/7.9	4.7/7.4	4.6/7.4	3.2/5.6	2.7/4.7	5.6/6.6
Latitude	Average	4.7	5.6	6.4	7.3	7.1	7.1	6.8	6.6	6.1	6.1	4.9	4.2	6.1
	Min/Max	3.2/5.8	4.5/7.3	4.8/7.8	5.6/9.5	6.4/8.5	5.9/8.7	5.7/8.4	5.6/7.8	4.7/7.5	4.8/7.8	3.4/6.1	2.9/5.2	5.6/6.7
Latitude +15	Average	4.9	5.7	6.4	7.1	6.7	6.6	6.4	6.2	6.0	6.1	5.0	4.5	6.0
	Min/Max	3.3/6.1	4.6/7.5	4.7/7.7	5.3/9.1	6.0/8.0	5.5/8.1	5.3/7.9	5.3/7.4	4.5/7.3	4.8/7.9	3.5/6.4	3.1/5.5	5.5/6.5

Solar Radiation for 2-Axis Tracking Flat-Plate Collectors (kWh/m²/day), Uncertainty ±9%

Tracker		Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year
2-Axis	Average	4.9	5.7	6.4	7.4	7.4	7.6	7.2	6.7	6.1	6.2	5.1	4.5	6.3
	Min/Max	3.4/6.2	4.6/7.6	4.8/7.8	5.7/9.6	6.6/8.9	6.3/9.3	6.0/8.9	5.8/8.0	4.7/7.5	4.8/7.9	3.5/6.4	3.1/5.6	5.8/6.9

Direct Beam Solar Radiation for Concentrating Collectors (kWh/m²/day), Uncertainty ±8%

Tracker		Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year
1-Axis, E-W Horiz Axis	Average	3.0	3.2	3.3	3.6	3.5	3.5	3.2	3.0	2.9	3.4	3.0	2.8	3.2
	Min/Max	1.8/4.1	2.3/4.9	2.2/4.4	2.3/5.3	2.7/4.6	2.4/4.9	2.3/4.4	2.3/4.0	1.9/3.9	2.3/4.9	1.8/4.2	1.6/3.8	2.8/3.7
1-Axis, N-S Horiz Axis	Average	2.4	3.1	3.8	4.7	4.5	4.5	4.1	3.8	3.4	3.5	2.5	2.1	3.5
	Min/Max	1.4/3.3	2.2/4.7	2.5/5.2	3.1/6.9	3.5/6.1	3.1/6.4	2.9/5.7	2.8/5.1	2.1/4.7	2.4/5.0	1.5/3.5	1.2/2.9	3.1/4.2
1-Axis, N-S Tilt=Latitude	Average	3.3	3.9	4.4	4.9	4.4	4.2	3.9	3.8	3.8	4.3	3.5	3.0	3.9
	Min/Max	1.9/4.6	2.8/6.0	2.9/5.9	3.2/7.2	3.4/5.9	2.9/6.0	2.7/5.4	2.8/5.1	2.4/5.2	2.9/6.1	2.1/4.7	1.7/4.1	3.4/4.6
2-Axis	Average	3.5	4.0	4.4	5.0	4.6	4.5	4.2	3.9	3.8	4.3	3.6	3.3	4.1
	Min/Max	2.1/4.9	2.9/6.1	2.9/5.9	3.3/7.3	3.5/6.2	3.1/6.5	2.9/5.8	2.9/5.3	2.4/5.2	2.9/6.1	2.2/5.0	1.9/4.5	3.6/4.8

Average Climatic Conditions

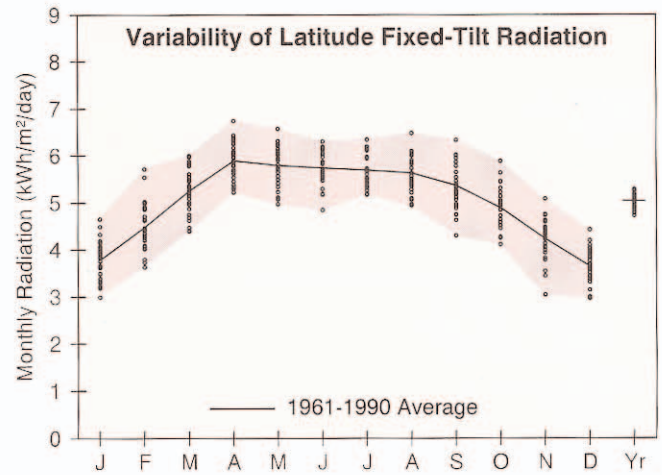
Element	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year
Temperature (°C)	2.1	3.7	8.6	12.9	17.2	20.8	22.7	22.2	19.0	13.3	8.6	4.2	12.9
Daily Minimum Temp	-4.0	-2.6	1.9	5.9	10.5	14.6	17.1	16.6	13.1	6.4	2.1	-1.9	6.6
Daily Maximum Temp	8.1	10.0	15.1	19.9	23.9	26.9	28.3	27.8	24.9	20.2	15.2	10.2	19.2
Record Minimum Temp	-26.7	-18.9	-12.8	-5.6	-2.2	1.7	6.7	5.6	-1.1	-6.1	-13.3	-21.7	-26.7
Record Maximum Temp	25.6	25.0	28.3	31.7	32.8	35.6	35.6	37.8	33.3	30.0	27.2	25.6	37.8
HDD, Base 18.3°C	504	409	303	166	65	10	3	3	36	164	292	439	2393
CDD, Base 18.3°C	0	0	0	0	31	83	137	123	56	7	0	0	437
Relative Humidity (%)	72	70	68	65	75	79	81	83	84	78	74	74	75
Wind Speed (m/s)	4.3	4.3	4.2	4.1	3.2	2.6	2.5	2.4	2.5	3.0	3.7	4.0	3.4

Cape Hatteras, NC

WBAN NO. 93729

LATITUDE: 35.27° N
LONGITUDE: 75.55° W
ELEVATION: 2 meters
MEAN PRESSURE: 1018 millibars

STATION TYPE: Primary



Solar Radiation for Flat-Plate Collectors Facing South at a Fixed Tilt (kWh/m²/day), Uncertainty ±9%

Tilt (°)		Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year
0	Average	2.4	3.3	4.4	5.6	6.1	6.4	6.2	5.6	4.8	3.7	2.8	2.2	4.5
	Min/Max	2.1/2.8	2.8/3.9	3.8/5.0	5.0/6.4	5.3/6.9	5.4/7.0	5.6/6.9	5.0/6.4	4.0/5.4	3.3/4.3	2.2/3.2	2.0/2.5	4.2/4.7
Latitude -15	Average	3.3	4.1	5.1	6.0	6.1	6.2	6.1	5.8	5.3	4.6	3.7	3.2	5.0
	Min/Max	2.7/4.0	3.4/5.1	4.3/5.8	5.3/6.8	5.3/7.0	5.2/6.8	5.5/6.8	5.1/6.7	4.3/6.2	3.9/5.4	2.8/4.4	2.6/3.8	4.7/5.2
Latitude	Average	3.8	4.5	5.2	5.9	5.8	5.7	5.7	5.6	5.4	4.9	4.2	3.6	5.0
	Min/Max	3.0/4.7	3.6/5.7	4.4/6.0	5.2/6.7	5.0/6.6	4.8/6.3	5.2/6.3	4.9/6.5	4.3/6.3	4.1/5.9	3.0/5.1	3.0/4.4	4.7/5.3
Latitude +15	Average	4.0	4.6	5.2	5.5	5.1	5.0	5.0	5.1	5.1	4.9	4.5	3.9	4.8
	Min/Max	3.1/5.0	3.7/6.0	4.3/5.9	4.8/6.3	4.4/5.8	4.3/5.4	4.6/5.5	4.5/5.9	4.1/6.1	4.1/6.0	3.1/5.4	3.1/4.8	4.5/5.1
90	Average	3.6	3.7	3.6	3.1	2.5	2.2	2.3	2.7	3.3	3.8	3.9	3.6	3.2
	Min/Max	2.7/4.5	3.0/5.0	3.0/4.1	2.8/3.5	2.3/2.7	2.1/2.3	2.2/2.5	2.4/3.0	2.7/4.0	3.1/4.7	2.6/4.8	2.8/4.4	2.9/3.3

Solar Radiation for 1-Axis Tracking Flat-Plate Collectors with a North-South Axis (kWh/m²/day), Uncertainty ±9%

Axis Tilt (°)		Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year
0	Average	3.4	4.5	5.9	7.5	7.8	8.0	7.7	7.1	6.2	5.1	3.9	3.2	5.9
	Min/Max	2.8/4.2	3.7/5.8	4.9/6.9	6.5/8.8	6.4/9.1	6.3/9.0	6.7/8.9	6.2/8.6	5.0/7.6	4.2/6.1	2.8/4.7	2.5/3.9	5.5/6.3
Latitude -15	Average	4.1	5.1	6.5	7.8	7.9	7.9	7.7	7.3	6.6	5.7	4.6	3.9	6.3
	Min/Max	3.2/5.1	4.1/6.8	5.3/7.6	6.8/9.2	6.4/9.2	6.2/8.9	6.7/8.9	6.3/8.8	5.2/8.1	4.7/7.0	3.2/5.6	3.0/4.8	5.9/6.7
Latitude	Average	4.5	5.4	6.6	7.7	7.6	7.6	7.4	7.2	6.7	6.0	5.0	4.3	6.3
	Min/Max	3.5/5.6	4.3/7.2	5.4/7.8	6.7/9.1	6.2/8.9	6.0/8.6	6.4/8.5	6.2/8.6	5.2/8.2	4.8/7.3	3.4/6.1	3.3/5.3	5.9/6.8
Latitude +15	Average	4.7	5.5	6.5	7.4	7.2	7.0	6.9	6.8	6.5	6.0	5.2	4.5	6.2
	Min/Max	3.6/5.9	4.3/7.4	5.3/7.7	6.4/8.8	5.8/8.4	5.5/8.0	6.0/8.0	5.9/8.2	5.1/8.1	4.8/7.4	3.5/6.4	3.5/5.6	5.8/6.6

Solar Radiation for 2-Axis Tracking Flat-Plate Collectors (kWh/m²/day), Uncertainty ±9%

Tracker		Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year
2-Axis	Average	4.7	5.5	6.6	7.8	7.9	8.1	7.8	7.4	6.7	6.0	5.2	4.6	6.5
	Min/Max	3.6/6.0	4.4/7.4	5.4/7.8	6.8/9.2	6.5/9.3	6.3/9.1	6.8/9.0	6.3/8.8	5.3/8.3	4.9/7.4	3.5/6.4	3.5/5.7	6.1/7.0

Direct Beam Solar Radiation for Concentrating Collectors (kWh/m²/day), Uncertainty ±8%

Tracker		Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year
1-Axis, E-W Horiz Axis	Average	2.8	3.1	3.4	3.9	3.8	3.8	3.6	3.4	3.2	3.2	3.1	2.8	3.4
	Min/Max	1.8/4.0	2.2/4.6	2.4/4.4	3.1/4.9	2.7/4.9	2.3/4.7	2.9/4.6	2.5/4.6	1.9/4.5	2.3/4.3	1.8/4.2	1.9/3.8	3.0/3.7
1-Axis, N-S Horiz Axis	Average	2.3	3.0	4.0	5.1	5.0	4.9	4.6	4.3	3.9	3.3	2.6	2.1	3.8
	Min/Max	1.5/3.2	2.0/4.5	2.8/5.2	4.0/6.5	3.5/6.4	3.0/6.1	3.6/6.0	3.2/6.0	2.4/5.4	2.3/4.4	1.4/3.5	1.3/2.9	3.4/4.2
1-Axis, N-S Tilt=Latitude	Average	3.1	3.8	4.6	5.3	4.8	4.6	4.4	4.4	4.2	4.0	3.5	3.0	4.2
	Min/Max	2.1/4.4	2.6/5.7	3.2/5.9	4.2/6.7	3.4/6.2	2.8/5.7	3.4/5.7	3.2/6.0	2.6/6.0	2.9/5.4	2.0/4.7	2.0/4.1	3.7/4.6
2-Axis	Average	3.4	3.9	4.6	5.4	5.1	5.0	4.7	4.5	4.3	4.1	3.7	3.3	4.3
	Min/Max	2.2/4.7	2.7/5.8	3.2/6.0	4.3/6.8	3.6/6.6	3.0/6.2	3.7/6.1	3.3/6.2	2.6/6.0	2.9/5.5	2.1/4.9	2.1/4.4	3.9/4.8

Average Climatic Conditions

Element	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year
Temperature (°C)	7.0	7.5	10.9	14.9	19.4	23.4	25.7	25.8	23.4	18.6	13.9	9.4	16.7
Daily Minimum Temp	2.6	3.1	6.4	10.4	15.3	19.7	22.1	22.2	19.8	14.6	9.6	5.1	12.6
Daily Maximum Temp	11.3	11.9	15.3	19.4	23.6	27.1	29.2	29.3	27.1	22.4	18.2	13.8	20.7
Record Minimum Temp	-14.4	-10.0	-7.2	-3.3	3.9	6.7	12.2	13.3	7.2	0.0	-5.6	-11.1	-14.4
Record Maximum Temp	23.9	24.4	27.2	31.7	32.8	35.0	35.0	34.4	33.3	31.7	27.2	25.6	35.0
HDD, Base 18.3°C	355	303	234	109	21	0	0	0	0	50	147	279	1499
CDD, Base 18.3°C	3	0	3	7	56	153	229	231	153	57	14	4	910
Relative Humidity (%)	75	74	74	72	77	79	81	81	78	76	75	75	77
Wind Speed (m/s)	5.2	5.3	5.3	5.2	4.7	4.7	4.4	4.2	4.7	4.9	4.9	5.0	4.9

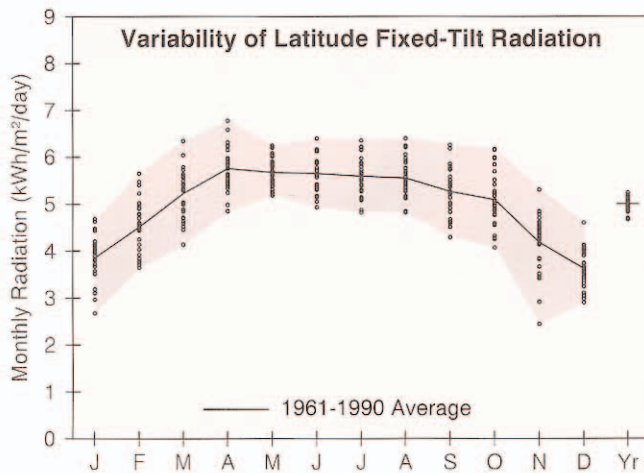
LATITUDE: 35.22° N

LONGITUDE: 80.93° W

ELEVATION: 234 meters

MEAN PRESSURE: 991 millibars

STATION TYPE: Secondary



Solar Radiation for Flat-Plate Collectors Facing South at a Fixed Tilt (kWh/m²/day), Uncertainty ±9%

Tilt (°)		Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year
0	Average	2.5	3.3	4.4	5.5	6.0	6.3	6.1	5.6	4.7	3.9	2.8	2.3	4.4
	Min/Max	2.0/2.8	2.8/3.8	3.6/5.2	4.7/6.4	5.5/6.6	5.5/7.1	5.3/6.9	4.9/6.3	4.0/5.4	3.3/4.5	2.0/3.3	2.0/2.6	4.2/4.6
Latitude -15	Average	3.4	4.1	5.0	5.9	6.0	6.1	6.0	5.8	5.2	4.7	3.7	3.1	4.9
	Min/Max	2.5/4.0	3.4/5.1	4.1/6.1	4.9/6.9	5.5/6.6	5.3/6.9	5.2/6.8	5.0/6.6	4.3/6.1	3.9/5.7	2.3/4.6	2.6/3.9	4.6/5.1
Latitude	Average	3.8	4.5	5.2	5.7	5.7	5.7	5.6	5.6	5.3	5.1	4.2	3.6	5.0
	Min/Max	2.7/4.7	3.6/5.7	4.1/6.3	4.8/6.8	5.2/6.2	4.9/6.4	4.8/6.3	4.8/6.4	4.3/6.3	4.1/6.2	2.4/5.3	2.9/4.6	4.7/5.2
Latitude +15	Average	4.1	4.6	5.1	5.3	5.0	4.9	4.9	5.1	5.0	5.2	4.4	3.9	4.8
	Min/Max	2.8/5.1	3.7/5.9	4.0/6.3	4.5/6.3	4.6/5.6	4.3/5.5	4.3/5.6	4.4/5.8	4.1/6.0	4.1/6.3	2.5/5.7	3.1/5.0	4.5/5.1
90	Average	3.6	3.8	3.6	3.1	2.5	2.2	2.3	2.7	3.3	4.0	3.8	3.5	3.2
	Min/Max	2.3/4.6	3.0/4.9	2.8/4.4	2.7/3.6	2.3/2.7	2.1/2.3	2.1/2.5	2.4/3.0	2.6/4.0	3.0/4.9	2.0/5.0	2.7/4.6	2.9/3.4

Solar Radiation for 1-Axis Tracking Flat-Plate Collectors with a North-South Axis (kWh/m²/day), Uncertainty ±9%

Axis Tilt (°)		Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year
0	Average	3.5	4.6	5.9	7.3	7.6	7.9	7.5	7.1	6.1	5.3	3.9	3.2	5.8
	Min/Max	2.5/4.2	3.6/5.8	4.6/7.5	6.0/8.9	6.8/8.6	6.6/9.2	6.2/8.9	5.9/8.5	4.9/7.4	4.3/6.6	2.3/5.0	2.5/4.0	5.4/6.2
Latitude -15	Average	4.2	5.2	6.4	7.6	7.7	7.8	7.5	7.3	6.5	6.0	4.6	3.8	6.2
	Min/Max	2.8/5.1	4.0/6.7	4.9/8.1	6.2/9.3	6.8/8.7	6.6/9.1	6.2/8.9	6.0/8.8	5.2/8.0	4.7/7.5	2.6/6.0	3.0/4.9	5.7/6.6
Latitude	Average	4.5	5.5	6.6	7.5	7.4	7.5	7.3	7.1	6.6	6.3	5.0	4.2	6.3
	Min/Max	3.0/5.6	4.2/7.1	4.9/8.4	6.1/9.3	6.6/8.4	6.3/8.8	5.9/8.6	5.9/8.6	5.2/8.1	4.8/7.8	2.7/6.5	3.2/5.5	5.8/6.6
Latitude +15	Average	4.7	5.6	6.5	7.2	7.0	6.9	6.8	6.8	6.4	6.3	5.2	4.5	6.2
	Min/Max	3.1/5.9	4.3/7.3	4.8/8.3	5.9/8.9	6.2/7.9	5.9/8.1	5.5/8.0	5.6/8.2	5.0/8.0	4.8/7.9	2.7/6.8	3.4/5.8	5.6/6.5

Solar Radiation for 2-Axis Tracking Flat-Plate Collectors (kWh/m²/day), Uncertainty ±9%

Tracker		Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year
2-Axis	Average	4.8	5.6	6.6	7.6	7.7	8.0	7.7	7.3	6.6	6.3	5.2	4.5	6.5
	Min/Max	3.1/6.0	4.3/7.3	5.0/8.4	6.2/9.4	6.9/8.8	6.7/9.3	6.3/9.0	6.0/8.8	5.2/8.1	4.9/7.9	2.7/6.8	3.4/5.9	5.9/6.9

Direct Beam Solar Radiation for Concentrating Collectors (kWh/m²/day), Uncertainty ±8%

Tracker		Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year
1-Axis, E-W Horiz Axis	Average	2.8	3.1	3.3	3.7	3.6	3.6	3.4	3.2	3.0	3.4	3.1	2.8	3.3
	Min/Max	1.4/4.0	2.0/4.5	2.1/4.7	2.5/5.1	2.7/4.3	2.6/5.0	2.5/4.5	2.3/4.4	2.1/4.3	2.2/4.7	1.0/4.4	1.8/4.0	2.8/3.5
1-Axis, N-S Horiz Axis	Average	2.3	3.0	3.9	4.8	4.7	4.7	4.4	4.2	3.7	3.6	2.6	2.1	3.7
	Min/Max	1.1/3.2	1.9/4.4	2.4/5.6	3.3/6.7	3.6/5.7	3.4/6.4	3.1/5.9	2.9/5.7	2.6/5.2	2.3/5.0	0.9/3.7	1.3/3.0	3.2/4.1
1-Axis, N-S Tilt=Latitude	Average	3.2	3.8	4.4	5.0	4.5	4.4	4.2	4.2	4.1	4.3	3.5	3.0	4.0
	Min/Max	1.6/4.4	2.4/5.6	2.8/6.3	3.5/6.9	3.5/5.5	3.2/6.0	3.0/5.6	2.9/5.7	2.8/5.8	2.8/6.0	1.2/5.0	1.8/4.3	3.5/4.4
2-Axis	Average	3.4	3.9	4.4	5.1	4.8	4.8	4.5	4.4	4.1	4.4	3.7	3.2	4.2
	Min/Max	1.7/4.7	2.5/5.7	2.8/6.3	3.5/7.0	3.7/5.8	3.5/6.5	3.2/6.0	3.0/5.9	2.8/5.8	2.8/6.1	1.3/5.3	2.0/4.6	3.6/4.6

Average Climatic Conditions

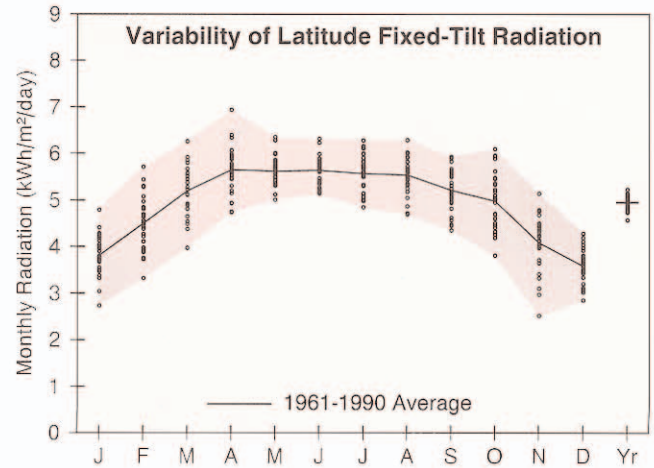
Element	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year
Temperature (°C)	4.1	5.8	10.5	15.2	19.7	24.3	26.3	25.7	22.4	16.3	11.2	5.9	15.6
Daily Minimum Temp	-1.3	-0.1	4.1	8.6	13.6	18.7	20.9	20.5	17.2	10.3	5.3	0.4	9.8
Daily Maximum Temp	9.4	11.7	16.8	21.8	25.7	29.9	31.6	30.9	27.7	22.2	17.0	11.3	21.3
Record Minimum Temp	-20.6	-15.0	-15.6	-4.4	0.0	7.2	11.7	11.7	3.9	-4.4	-11.7	-16.7	-20.6
Record Maximum Temp	25.6	27.2	32.2	33.9	37.8	39.4	39.4	39.4	40.0	36.7	29.4	25.0	40.0
HDD, Base 18.3°C	443	350	243	102	23	0	0	0	3	89	217	386	1856
CDD, Base 18.3°C	0	0	0	8	64	178	246	229	127	26	0	0	879
Relative Humidity (%)	66	62	61	59	67	70	72	73	73	70	68	67	67
Wind Speed (m/s)	3.4	3.6	3.9	3.8	3.4	3.1	2.9	2.8	2.9	2.9	3.1	3.3	3.3

Greensboro, NC

WBAN NO. 13723

LATITUDE: 36.08° N
LONGITUDE: 79.95° W
ELEVATION: 270 meters
MEAN PRESSURE: 986 millibars

STATION TYPE: Secondary



Solar Radiation for Flat-Plate Collectors Facing South at a Fixed Tilt (kWh/m²/day), Uncertainty ±9%

Tilt (°)		Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year
0	Average	2.4	3.2	4.3	5.4	6.0	6.3	6.1	5.5	4.6	3.7	2.7	2.2	4.4
	Min/Max	2.0/2.8	2.6/3.8	3.5/5.0	4.6/6.5	5.3/6.7	5.7/7.0	5.3/6.8	4.7/6.2	4.0/5.2	3.1/4.4	2.0/3.1	1.9/2.4	4.1/4.5
Latitude -15	Average	3.3	4.1	5.0	5.8	6.0	6.1	6.0	5.7	5.2	4.6	3.6	3.1	4.9
	Min/Max	2.5/4.1	3.1/5.1	3.9/6.0	4.8/7.0	5.3/6.7	5.6/6.9	5.2/6.8	4.9/6.5	4.3/5.8	3.6/5.6	2.4/4.5	2.5/3.7	4.5/5.1
Latitude	Average	3.8	4.5	5.2	5.7	5.6	5.6	5.6	5.5	5.2	5.0	4.1	3.6	5.0
	Min/Max	2.7/4.8	3.3/5.7	4.0/6.3	4.7/6.9	5.0/6.3	5.1/6.3	4.8/6.3	4.7/6.3	4.3/5.9	3.8/6.1	2.5/5.1	2.8/4.3	4.6/5.2
Latitude +15	Average	4.1	4.6	5.1	5.2	5.0	4.9	4.9	5.1	5.0	5.0	4.3	3.8	4.8
	Min/Max	2.8/5.2	3.3/6.0	3.8/6.2	4.4/6.4	4.5/5.6	4.5/5.5	4.3/5.5	4.3/5.8	4.1/5.7	3.8/6.2	2.6/5.5	3.0/4.7	4.4/5.0
90	Average	3.7	3.8	3.6	3.1	2.5	2.3	2.3	2.8	3.3	3.9	3.7	3.5	3.2
	Min/Max	2.4/4.7	2.7/5.0	2.7/4.5	2.7/3.7	2.3/2.7	2.1/2.4	2.2/2.5	2.4/3.1	2.7/3.8	2.9/4.8	2.1/4.8	2.7/4.3	2.9/3.4

Solar Radiation for 1-Axis Tracking Flat-Plate Collectors with a North-South Axis (kWh/m²/day), Uncertainty ±9%

Axis Tilt (°)		Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year
0	Average	3.4	4.5	5.9	7.2	7.6	7.9	7.6	7.1	6.1	5.2	3.8	3.1	5.8
	Min/Max	2.5/4.3	3.4/5.8	4.4/7.1	5.7/9.2	6.6/8.9	6.9/9.2	6.5/8.9	5.7/8.1	4.9/7.2	4.0/6.5	2.3/4.8	2.4/3.7	5.3/6.1
Latitude -15	Average	4.1	5.2	6.4	7.5	7.6	7.8	7.6	7.3	6.5	5.9	4.5	3.8	6.2
	Min/Max	2.9/5.3	3.8/6.8	4.8/7.8	5.9/9.7	6.6/8.9	6.9/9.1	6.4/8.9	5.9/8.4	5.2/7.7	4.4/7.4	2.6/5.8	2.9/4.6	5.6/6.6
Latitude	Average	4.5	5.5	6.6	7.4	7.4	7.5	7.3	7.1	6.5	6.1	4.8	4.2	6.3
	Min/Max	3.1/5.8	3.9/7.2	4.8/8.0	5.8/9.6	6.4/8.7	6.6/8.8	6.2/8.5	5.7/8.3	5.2/7.8	4.6/7.8	2.8/6.3	3.2/5.1	5.6/6.7
Latitude +15	Average	4.7	5.6	6.5	7.1	7.0	7.0	6.8	6.8	6.4	6.2	5.0	4.4	6.1
	Min/Max	3.2/6.1	3.9/7.4	4.7/8.0	5.6/9.3	6.0/8.2	6.1/8.1	5.8/8.0	5.4/7.9	5.1/7.6	4.6/7.9	2.8/6.6	3.3/5.4	5.5/6.6

Solar Radiation for 2-Axis Tracking Flat-Plate Collectors (kWh/m²/day), Uncertainty ±9%

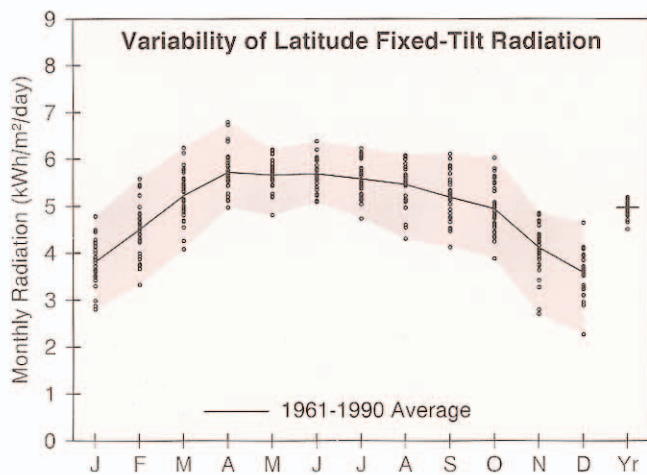
Tracker		Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year
2-Axis	Average	4.8	5.6	6.6	7.5	7.7	8.0	7.7	7.3	6.6	6.2	5.0	4.5	6.5
	Min/Max	3.2/6.2	4.0/7.4	4.8/8.1	5.9/9.7	6.7/9.1	7.0/9.3	6.6/9.0	5.9/8.4	5.3/7.8	4.6/7.9	2.8/6.6	3.3/5.4	5.8/6.9

Direct Beam Solar Radiation for Concentrating Collectors (kWh/m²/day), Uncertainty ±8%

Tracker		Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year
1-Axis, E-W Horiz Axis	Average	2.8	3.1	3.3	3.6	3.5	3.6	3.4	3.2	3.0	3.4	3.0	2.7	3.2
	Min/Max	1.6/4.1	1.7/4.6	2.0/4.3	2.3/5.2	2.8/4.5	2.7/4.7	2.4/4.3	2.2/4.1	2.1/3.9	2.1/4.7	1.2/4.2	1.8/3.6	2.7/3.6
1-Axis, N-S Horiz Axis	Average	2.2	3.0	3.9	4.7	4.6	4.7	4.4	4.2	3.7	3.5	2.5	2.0	3.6
	Min/Max	1.3/3.3	1.7/4.4	2.4/5.0	3.0/7.0	3.6/6.0	3.6/6.1	3.2/5.7	2.8/5.3	2.5/4.9	2.3/4.9	1.0/3.5	1.3/2.7	3.0/4.0
1-Axis, N-S Tilt=Latitude	Average	3.1	3.8	4.5	4.9	4.5	4.4	4.2	4.3	4.1	4.2	3.4	2.9	4.0
	Min/Max	1.7/4.6	2.2/5.7	2.8/5.8	3.2/7.2	3.5/5.8	3.4/5.7	3.0/5.4	2.9/5.4	2.8/5.4	2.8/6.0	1.4/4.8	1.9/3.9	3.4/4.5
2-Axis	Average	3.3	3.9	4.5	5.0	4.8	4.8	4.5	4.4	4.1	4.3	3.5	3.2	4.2
	Min/Max	1.9/4.9	2.2/5.8	2.8/5.8	3.2/7.4	3.7/6.2	3.7/6.2	3.3/5.8	2.9/5.5	2.8/5.4	2.8/6.1	1.4/5.1	2.0/4.2	3.5/4.7

Average Climatic Conditions

Element	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year
Temperature (°C)	2.6	4.4	9.3	14.2	18.8	22.8	24.9	24.3	20.9	14.8	9.7	4.7	14.3
Daily Minimum Temp	-3.0	-1.5	3.0	7.6	12.6	17.0	19.4	18.8	15.3	8.4	3.6	-0.8	8.4
Daily Maximum Temp	8.2	10.4	15.7	20.9	25.0	28.7	30.5	29.7	26.6	21.1	15.8	10.3	20.2
Record Minimum Temp	-22.2	-20.0	-15.0	-6.1	0.0	5.6	8.9	7.2	1.7	-6.7	-12.2	-17.8	-22.2
Record Maximum Temp	25.6	27.2	32.2	34.4	36.7	38.9	38.9	39.4	37.8	35.0	29.4	25.6	39.4
HDD, Base 18.3°C	487	389	279	131	43	3	0	0	9	126	258	422	2147
CDD, Base 18.3°C	0	0	0	7	59	138	205	184	87	15	0	0	696
Relative Humidity (%)	67	64	63	61	70	73	75	76	76	72	69	69	70
Wind Speed (m/s)	3.4	3.6	3.8	3.7	3.2	3.0	2.8	2.7	2.8	2.9	3.2	3.4	3.2



Raleigh, NC

WBAN NO. 13722

LATITUDE: 35.87° N

LONGITUDE: 78.78° W

ELEVATION: 134 meters

MEAN PRESSURE: 1002 millibars

STATION TYPE: Primary

Solar Radiation for Flat-Plate Collectors Facing South at a Fixed Tilt (kWh/m²/day), Uncertainty ±9%

Tilt (°)		Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year
0	Average	2.4	3.2	4.4	5.5	6.0	6.3	6.1	5.5	4.6	3.8	2.7	2.2	4.4
	Min/Max	2.0/2.8	2.5/3.8	3.6/5.1	4.8/6.4	5.1/6.6	5.7/7.1	5.2/6.8	4.3/6.1	3.8/5.3	3.2/4.4	2.0/3.0	1.6/2.6	4.0/4.6
Latitude -15	Average	3.4	4.1	5.0	5.8	6.0	6.2	6.0	5.7	5.1	4.6	3.7	3.1	4.9
	Min/Max	2.6/4.1	3.1/5.0	4.0/6.0	5.1/6.9	5.1/6.6	5.5/6.9	5.1/6.7	4.5/6.3	4.1/6.0	3.7/5.6	2.5/4.3	2.1/4.0	4.5/5.1
Latitude	Average	3.8	4.5	5.2	5.7	5.7	5.7	5.6	5.5	5.2	4.9	4.1	3.6	5.0
	Min/Max	2.8/4.8	3.3/5.6	4.1/6.2	5.0/6.8	4.8/6.2	5.1/6.4	4.7/6.2	4.3/6.1	4.1/6.1	3.9/6.0	2.7/4.8	2.3/4.6	4.5/5.2
Latitude +15	Average	4.1	4.6	5.1	5.3	5.0	4.9	4.9	5.0	5.0	5.0	4.3	3.8	4.8
	Min/Max	2.9/5.2	3.4/5.8	3.9/6.1	4.6/6.3	4.3/5.5	4.5/5.5	4.2/5.5	3.9/5.6	3.9/5.9	3.8/6.1	2.8/5.2	2.3/5.1	4.3/5.0
90	Average	3.6	3.8	3.6	3.1	2.5	2.3	2.4	2.8	3.3	3.8	3.7	3.5	3.2
	Min/Max	2.5/4.7	2.8/4.8	2.8/4.3	2.7/3.6	2.3/2.7	2.2/2.4	2.1/2.6	2.2/3.0	2.5/3.8	2.9/4.8	2.3/4.5	2.0/4.7	2.9/3.4

Solar Radiation for 1-Axis Tracking Flat-Plate Collectors with a North-South Axis (kWh/m²/day), Uncertainty ±9%

Axis Tilt (°)		Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year
0	Average	3.4	4.5	5.9	7.2	7.6	7.9	7.5	6.8	6.0	5.1	3.8	3.1	5.7
	Min/Max	2.5/4.3	3.3/5.8	4.5/7.2	6.1/8.9	6.2/8.6	6.8/9.2	6.1/8.7	5.3/7.8	4.6/7.3	4.0/6.4	2.5/4.5	2.0/4.0	5.2/6.0
Latitude -15	Average	4.1	5.2	6.4	7.5	7.6	7.8	7.5	7.0	6.4	5.8	4.5	3.8	6.1
	Min/Max	2.9/5.3	3.7/6.7	4.8/7.9	6.4/9.3	6.3/8.7	6.7/9.1	6.1/8.7	5.5/8.0	4.8/7.8	4.4/7.2	2.8/5.4	2.3/5.0	5.5/6.4
Latitude	Average	4.5	5.5	6.5	7.5	7.4	7.5	7.2	6.9	6.4	6.0	4.9	4.2	6.2
	Min/Max	3.1/5.8	3.9/7.1	4.8/8.1	6.3/9.2	6.1/8.5	6.4/8.7	5.9/8.4	5.4/7.9	4.8/7.9	4.5/7.6	3.0/5.9	2.5/5.6	5.5/6.5
Latitude +15	Average	4.7	5.6	6.5	7.2	7.0	7.0	6.7	6.5	6.3	6.1	5.0	4.4	6.1
	Min/Max	3.2/6.1	4.0/7.2	4.7/8.0	6.0/8.9	5.7/8.0	6.0/8.1	5.5/7.8	5.1/7.5	4.7/7.7	4.5/7.7	3.1/6.1	2.6/5.9	5.4/6.4

Solar Radiation for 2-Axis Tracking Flat-Plate Collectors (kWh/m²/day), Uncertainty ±9%

Tracker		Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year
2-Axis	Average	4.7	5.6	6.6	7.5	7.7	8.0	7.6	7.1	6.5	6.1	5.1	4.4	6.4
	Min/Max	3.3/6.2	4.0/7.3	4.8/8.1	6.4/9.3	6.3/8.8	6.8/9.3	6.2/8.9	5.5/8.0	4.8/7.9	4.5/7.7	3.1/6.2	2.6/6.0	5.7/6.7

Direct Beam Solar Radiation for Concentrating Collectors (kWh/m²/day), Uncertainty ±8%

Tracker		Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year
1-Axis, E-W Horiz Axis	Average	2.8	3.0	3.3	3.5	3.4	3.5	3.2	2.9	2.9	3.2	3.0	2.7	3.1
	Min/Max	1.5/4.1	1.9/4.4	1.9/4.5	2.6/4.9	2.3/4.3	2.4/4.6	2.1/4.3	1.8/3.7	1.8/4.0	1.9/4.6	1.4/3.8	1.1/4.0	2.7/3.4
1-Axis, N-S Horiz Axis	Average	2.2	2.9	3.8	4.6	4.5	4.6	4.1	3.8	3.5	3.3	2.5	2.0	3.5
	Min/Max	1.3/3.2	1.8/4.3	2.2/5.3	3.4/6.5	3.1/5.7	3.2/6.0	2.8/5.7	2.3/4.9	2.1/4.9	2.0/4.7	1.1/3.3	0.9/3.0	3.0/3.8
1-Axis, N-S Tilt=Latitude	Average	3.1	3.7	4.4	4.8	4.4	4.3	3.9	3.8	3.9	4.1	3.4	2.9	3.9
	Min/Max	1.7/4.5	2.3/5.5	2.6/6.0	3.6/6.8	3.0/5.5	3.0/5.6	2.7/5.4	2.3/4.9	2.3/5.4	2.4/5.8	1.5/4.4	1.3/4.3	3.3/4.2
2-Axis	Average	3.3	3.8	4.4	4.9	4.6	4.6	4.2	3.9	3.9	4.1	3.5	3.1	4.0
	Min/Max	1.9/4.8	2.4/5.6	2.6/6.1	3.6/6.9	3.2/5.8	3.3/6.1	2.9/5.8	2.4/5.1	2.3/5.4	2.4/5.9	1.6/4.7	1.4/4.7	3.4/4.4

Average Climatic Conditions

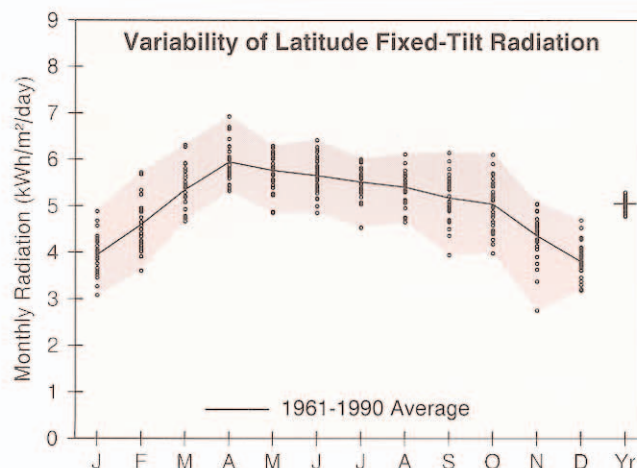
Element	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year
Temperature (°C)	3.8	5.6	10.2	15.0	19.4	23.5	25.6	25.1	21.7	15.6	10.7	5.9	15.2
Daily Minimum Temp	-1.8	-0.4	3.7	7.9	12.9	17.6	20.1	19.7	16.2	9.1	4.3	0.2	9.1
Daily Maximum Temp	9.4	11.4	16.7	22.1	25.9	29.4	31.1	30.4	27.3	22.0	17.0	11.5	21.2
Record Minimum Temp	-22.8	-15.0	-11.7	-5.0	-0.6	3.3	8.9	7.8	2.8	-7.2	-11.7	-15.6	-22.8
Record Maximum Temp	26.1	28.9	33.3	35.0	36.1	40.0	40.6	40.6	40.0	36.7	31.1	26.1	40.6
HDD, Base 18.3°C	449	358	254	107	26	0	0	0	5	105	230	386	1921
CDD, Base 18.3°C	0	0	3	7	61	155	226	208	107	21	0	0	787
Relative Humidity (%)	67	64	63	62	71	74	76	78	77	73	69	69	70
Wind Speed (m/s)	3.8	3.9	4.1	3.9	3.4	3.1	2.9	2.8	3.0	3.1	3.4	3.6	3.4

Wilmington, NC

WBAN NO. 13748

LATITUDE: 34.27° N
LONGITUDE: 77.90° W
ELEVATION: 9 meters
MEAN PRESSURE: 1017 millibars

STATION TYPE: Secondary



Solar Radiation for Flat-Plate Collectors Facing South at a Fixed Tilt (kWh/m²/day), Uncertainty $\pm 9\%$

Tilt (°)		Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year
0	Average	2.6	3.4	4.5	5.7	6.1	6.3	6.0	5.4	4.6	3.9	2.9	2.4	4.5
	Min/Max	2.2/3.0	2.8/4.0	4.1/5.2	5.2/6.6	5.2/6.6	5.4/7.1	4.9/6.5	4.7/6.1	3.7/5.4	3.3/4.5	2.1/3.3	2.1/2.8	4.2/4.7
Latitude -15	Average	3.5	4.2	5.2	6.0	6.1	6.1	5.9	5.6	5.1	4.7	3.9	3.3	5.0
	Min/Max	2.8/4.2	3.4/5.1	4.6/6.0	5.4/7.0	5.1/6.7	5.2/7.0	4.8/6.4	4.8/6.3	4.0/6.0	3.8/5.6	2.5/4.4	2.8/4.0	4.7/5.2
Latitude	Average	4.0	4.6	5.4	5.9	5.8	5.6	5.5	5.4	5.2	5.0	4.4	3.8	5.0
	Min/Max	3.1/4.9	3.6/5.7	4.7/6.3	5.3/6.9	4.8/6.3	4.8/6.4	4.5/6.0	4.7/6.1	3.9/6.1	4.0/6.1	2.8/5.1	3.2/4.7	4.8/5.3
Latitude +15	Average	4.2	4.7	5.3	5.5	5.1	4.9	4.8	4.9	5.0	5.1	4.6	4.1	4.9
	Min/Max	3.2/5.3	3.7/6.0	4.5/6.2	4.9/6.4	4.3/5.6	4.3/5.5	4.0/5.3	4.3/5.6	3.7/5.9	4.0/6.2	2.8/5.4	3.4/5.1	4.6/5.1
90	Average	3.7	3.8	3.6	3.1	2.4	2.1	2.2	2.6	3.2	3.9	3.9	3.7	3.2
	Min/Max	2.8/4.7	2.9/4.9	3.1/4.3	2.8/3.6	2.2/2.6	2.0/2.3	2.0/2.3	2.3/2.8	2.4/3.8	2.9/4.8	2.3/4.7	3.0/4.7	3.0/3.3

Solar Radiation for 1-Axis Tracking Flat-Plate Collectors with a North-South Axis (kWh/m²/day), Uncertainty $\pm 9\%$

Axis Tilt (°)		Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year
0	Average	3.7	4.7	6.1	7.5	7.8	7.8	7.5	6.8	6.0	5.3	4.1	3.4	5.9
	Min/Max	2.8/4.5	3.7/5.9	5.2/7.3	6.5/9.0	6.1/8.6	6.4/9.3	5.8/8.4	5.6/8.1	4.3/7.3	4.1/6.6	2.6/4.8	2.7/4.2	5.5/6.3
Latitude -15	Average	4.3	5.3	6.6	7.8	7.8	7.8	7.4	7.0	6.4	5.9	4.8	4.0	6.3
	Min/Max	3.3/5.4	4.1/6.8	5.6/7.9	6.7/9.4	6.1/8.7	6.3/9.2	5.8/8.3	5.7/8.3	4.5/7.8	4.5/7.4	2.9/5.7	3.3/5.1	5.8/6.7
Latitude	Average	4.7	5.6	6.7	7.8	7.6	7.4	7.2	6.9	6.4	6.2	5.2	4.5	6.3
	Min/Max	3.5/5.9	4.3/7.3	5.7/8.2	6.7/9.3	5.9/8.4	6.1/8.8	5.5/8.0	5.6/8.1	4.5/7.9	4.7/7.8	3.1/6.2	3.6/5.6	5.9/6.7
Latitude +15	Average	4.9	5.7	6.6	7.5	7.1	6.9	6.7	6.5	6.3	6.2	5.4	4.7	6.2
	Min/Max	3.7/6.2	4.3/7.4	5.6/8.1	6.4/9.0	5.5/7.9	5.6/8.2	5.2/7.5	5.3/7.7	4.4/7.7	4.7/7.9	3.1/6.4	3.7/6.0	5.7/6.6

Solar Radiation for 2-Axis Tracking Flat-Plate Collectors (kWh/m²/day), Uncertainty $\pm 9\%$

Tracker		Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year
2-Axis	Average	4.9	5.7	6.7	7.9	7.9	7.9	7.6	7.0	6.5	6.3	5.4	4.8	6.6
	Min/Max	3.7/6.3	4.4/7.4	5.7/8.2	6.8/9.4	6.2/8.8	6.5/9.4	5.8/8.5	5.7/8.3	4.6/7.9	4.7/7.9	3.1/6.5	3.8/6.1	6.1/7.0

Direct Beam Solar Radiation for Concentrating Collectors (kWh/m²/day), Uncertainty $\pm 8\%$

Tracker		Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year
1-Axis, E-W Horiz Axis	Average	2.9	3.1	3.4	3.8	3.6	3.6	3.3	3.0	2.9	3.3	3.2	2.9	3.3
	Min/Max	1.9/4.2	2.0/4.5	2.6/4.5	3.0/5.1	2.3/4.4	2.3/4.8	2.0/4.2	2.0/4.2	1.5/4.0	2.1/4.6	1.4/4.1	2.1/4.0	2.9/3.6
1-Axis, N-S Horiz Axis	Average	2.4	3.1	4.0	5.0	4.8	4.6	4.3	3.9	3.5	3.5	2.7	2.2	3.7
	Min/Max	1.5/3.4	2.0/4.5	3.0/5.3	3.8/6.6	3.0/5.8	3.0/6.3	2.7/5.4	2.6/5.5	1.9/4.9	2.2/4.9	1.2/3.5	1.5/3.1	3.2/4.1
1-Axis, N-S Tilt=Latitude	Average	3.3	3.9	4.6	5.2	4.6	4.3	4.0	3.9	3.9	4.2	3.6	3.1	4.0
	Min/Max	2.1/4.6	2.5/5.6	3.4/6.1	3.9/6.8	2.9/5.6	2.8/5.9	2.5/5.1	2.6/5.5	2.0/5.3	2.6/5.9	1.6/4.7	2.2/4.4	3.5/4.5
2-Axis	Average	3.5	4.0	4.6	5.2	4.9	4.7	4.3	4.0	3.9	4.2	3.8	3.4	4.2
	Min/Max	2.2/5.0	2.6/5.8	3.4/6.1	4.0/6.9	3.0/5.9	3.1/6.4	2.7/5.5	2.7/5.7	2.0/5.4	2.7/6.0	1.7/4.9	2.3/4.7	3.7/4.7

Average Climatic Conditions

Element	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year
Temperature (°C)	7.2	8.5	12.4	16.8	21.2	24.7	26.7	26.3	24.1	18.5	13.9	9.2	17.4
Daily Minimum Temp	1.3	2.4	6.2	10.3	15.2	19.7	22.1	21.7	18.5	12.1	7.1	3.1	11.6
Daily Maximum Temp	12.9	14.5	18.7	23.3	27.1	29.7	31.4	30.9	29.6	24.9	20.6	15.2	23.2
Record Minimum Temp	-15.0	-11.7	-12.8	-1.1	3.3	8.9	12.8	12.8	6.7	-2.8	-6.7	-17.8	-17.8
Record Maximum Temp	27.8	29.4	31.7	35.0	36.7	40.0	38.9	38.9	36.7	35.0	30.6	27.2	40.0
HDD, Base 18.3°C	351	276	188	64	6	0	0	0	0	57	144	288	1372
CDD, Base 18.3°C	4	0	6	19	93	192	260	248	172	62	11	4	1070
Relative Humidity (%)	71	68	69	67	74	76	78	81	80	76	73	72	74
Wind Speed (m/s)	3.9	4.2	4.3	4.4	3.9	3.7	3.4	3.1	3.4	3.4	3.5	3.7	3.8