

# NASA Surface meteorology and Solar Energy - Available Tables

At Latitude 34 and Longitude -85

## Geometry Information

Average elevation: 328 meters

Northern boundary  
35

Center  
Latitude 34.5  
Longitude -84.5

Western boundary  
-85

Eastern boundary  
-84

Southern boundary  
34

## Solar Geometry:

### Monthly Averaged Maximum Solar Angle Relative To The Horizon (degrees)

Lat 34 Lon -85	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Average	35.2	43.6	54.1	65.7	74.8	79.0	77.2	69.7	59.0	47.5	37.8	33.1

### Parameter Definition

#### Find a different location

<a href="#">Click on a desired map location</a>	<a href="#">Enter latitude and longitude</a>
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#### Additional information about the SSE data set

<a href="#">Accuracy</a>	<a href="#">Methodology</a>	<a href="#">Parameters (Units &amp; Definition)</a>
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## Parameters for Sizing and Pointing of Solar Panels and for Solar Thermal Applications:

### Monthly Averaged Insolation Incident On A Horizontal Surface (kWh/m<sup>2</sup>/day)

Lat 34 Lon -85	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Average
10-year Average	2.22	2.91	3.98	5.13	5.53	5.89	5.56	5.11	4.48	3.74	2.52	2.02	4.09

### Minimum And Maximum Difference From Monthly Averaged Insolation (%)

Lat 34 Lon -85	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Minimum	-21	-21	-18	-22	-16	-20	-9	-8	-13	-18	-23	-15
Maximum	17	15	19	13	16	13	11	11	15	18	19	13

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## Meteorology (Wind):

### Monthly Averaged Wind Speed At 10 m Above The Surface Of The Earth For Terrain Similar To Airports (m/s)

Lat 34 Lon -85	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Average
10-year Average	3.30	3.48	3.59	3.43	2.83	2.52	2.40	2.29	2.43	2.57	2.98	3.19	2.91

*It is recommended that users of these wind data review the SSE Methodology, Section 7. The user may wish to correct for biases as well as local effects within the selected grid region.*

*All height measurements are from the soil, water, or ice/snow surface instead of "effective" surface, which is usually taken to be near the tops of vegetated canopies.*

[Parameter Definition](#)

[Units Conversion Chart](#)

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Additional information about the SSE data set

<a href="#">Accuracy</a>	<a href="#">Methodology</a>	<a href="#">Parameters (Units &amp; Definition)</a>
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*Site Administration: NASA Langley ASDC*

# NASA Surface meteorology and Solar Energy - Available Tables

At Latitude **34** and Longitude **-85**

## Geometry Information

Average elevation: **328** meters

Northern boundary  
**35**

Center  
Latitude **34.5**  
Longitude **-84.5**

Western boundary  
**-85**

Eastern boundary  
**-84**

Southern boundary  
**34**

## Meteorology (Wind):

### Monthly Averaged Wind Speed At 50 m Above The Surface Of The Earth (m/s)

Lat 34 Lon -85	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Average
10-year Average	4.18	4.41	4.55	4.34	3.58	3.20	3.04	2.90	3.08	3.25	3.77	4.04	3.69

### Minimum And Maximum Difference From Monthly Averaged Wind Speed At 50 m (%)

Lat 34 Lon -85	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Average
Minimum	-12	-7	-7	-9	-16	-12	-14	-10	-12	-10	-15	-8	-11
Maximum	11	9	11	9	12	14	11	15	11	9	12	9	11

*It is recommended that users of these wind data review the SSE Methodology, Section 7. The user may wish to correct for biases as well as local effects within the selected grid region.*

*All height measurements are from the soil, water, or ice/snow surface instead of "effective" surface, which is usually taken to be near the tops of vegetated canopies.*

[Parameter Definition](#)

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