

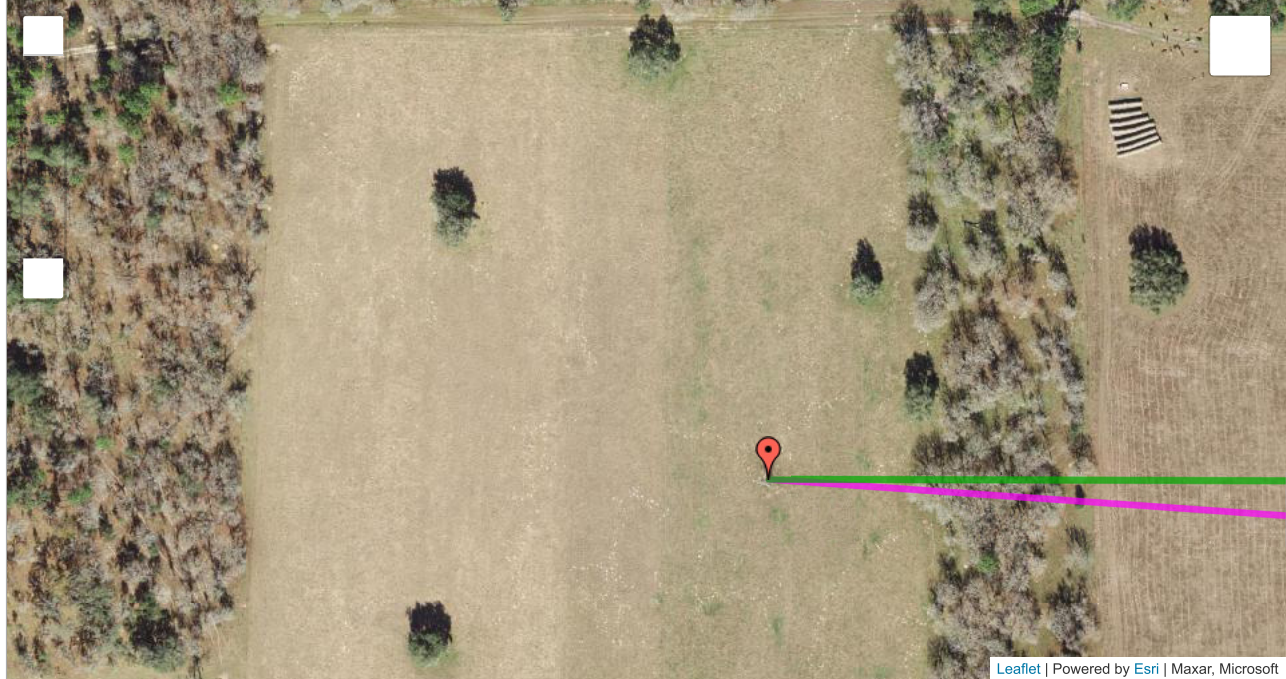


NOAA Solar Calculator

Find Sunrise, Sunset, Solar Noon and Solar Position for Any Place on Earth

Show: ☐ World Cities ☒ U.S. Cities ☐ GML ☐ GML Data Sites ☐ SurfRad & Solrad
Observatories

Move the large red pin to the desired location and enter the date and time at which to calculate the sun position.



Location:

Latitude: ?	Longitude: ?	Time Zone: ?
<input type="text" value="28.77171"/>	<input type="text" value="-82.312955"/>	<input type="text" value="America/New_York"/>
<input type="button" value="Save Location"/>		UTC Offset: ?
		<input type="text" value="-04:00"/>

Date:

Day:	Month:	Year:
<input type="text" value="23"/>	<input type="text" value="Sep"/>	<input type="text" value="2020"/>
Local Time:		
<input type="text" value="07"/>	:	<input type="text" value="50"/>
:	<input type="text" value="00"/>	<input type="checkbox"/> PM
<input type="button" value="Use Current Time"/>		

Result

Equation of Time ? (minutes):	Solar Declination ? (in°):	Solar Noon ? (hh:mm:ss):
<input type="text" value="7.77"/>	<input type="text" value="-0.36"/>	<input type="text" value="13:21:24"/>
Apparent Sunrise ? (hh:mm):	Apparent Sunset ? (hh:mm):	Az/EI ? (in °) at Local Time:
<input type="text" value="07:18"/>	<input type="text" value="19:24"/>	<input type="text" value="93.76"/>
<input type="text" value="6.21"/>		
<input checked="" type="checkbox"/> Show Sunrise ?	<input type="checkbox"/> Show Sunset ?	<input checked="" type="checkbox"/> Show Azimuth ?

Sunrise/Sunset Tables

Tables with times of sunrise, sunset and solar noon for each day of the year for the location and year specified in the form above can be created by clicking on the button below.

Create Sunrise/Sunset Tables for the Year

Tables will open up in a new tab/window

[Interested in Doing Your Own Calculations?](#)

Details about the calculations and spreadsheets that can be used to calculate solar data are available on the [solar calculation details](#) page.

Having Trouble?

- Check your Time Zone -- Is the time zone set correctly for this location? Our calculator attempts to determine the correct time zone for the given location and date, but because time zones and the start and end dates of Daylight Saving Time sometimes change, this value may not be accurate for historical or future dates.
- Click the Show Sunrise, Show Sunset and Show Azimuth checkboxes to display color-coded lines on the map indicating the direction of sunrise, sunset and solar position based on the Local Time and Date entered.
- This solar calculator is provided for research and entertainment purposes only. Due to variable atmospheric conditions and uncertainty inherent in the algorithms used, the actual observed values of sunrise, sunset and solar position may differ from the results presented here.

Questions?

Feel free to write to us with any questions or comments at [Webmaster](#).

Solar Calculation Resources:

- [NOAA Solar Calculator](#)
- [Old Sunrise Calculator](#)
- [Old Solar Pos Calculator](#)
- [Solar Calculator Links](#)
- [Solar Calculator Glossary](#)
- [Calculation Details](#)
- [Time Zone Table](#)



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