

Iraq Solar Irradiance Database

Solar Irradiance is a measure of how much solar power you are getting at your location, while solar insolation is a measure of solar irradiance over of a period of time (e.g., day).

The solar irradiance/insolation varies throughout the year depending on the seasons. It also varies throughout the day, depending on the position of the sun in the sky, and the weather.

This solar irradiance database provides daily, monthly, and annual average solar irradiance in $\text{KWh/m}^2\cdot\text{day}$, $\text{KWh/m}^2\cdot\text{month}$ & $\text{KWh/m}^2\cdot\text{year}$, resp.

This information can then be used to calculate the average daily, monthly, and annual energy produced by a photovoltaic system per day, month, and year.

This solar irradiance database includes data for Iraq only, therefore, we refer to it as Iraq Solar Irradiance (ISI) database. It includes data for 24 cities, 9 directions, and 6 tilt angles. To use it:

- Select city
- Select direction
- Select tilt angle
- Click "Get Solar Irradiance" to get:
 - Annual solar irradiance ($\text{KWh/m}^2\cdot\text{year}$) at your location for the selected panel's direction and tilt angle.
 - Chart of monthly solar irradiance ($\text{KWh/m}^2\cdot\text{month}$) at your location for the selected panel's direction and tilt angle.
 - Chart of annual solar irradiance ($\text{KWh/m}^2\cdot\text{year}$) vs. tilt angles at you location for selected panel's direction.

24

Cities

9

Directions

6

Tilt Angles

24 Cities

- | | | |
|----------------|----------------|--------------|
| • Abu Ghraib | • Faw | • Nasiriya |
| • Arbil | • Hilla | • Omara |
| • Baghdad | • Karbala | • Ramadi |
| • Baquba | • Kirkuk | • Samara |
| • Basra | • Kut | • Sinah |
| • Basra Qadima | • Mosul | • Sulaymania |
| • Diwaniya | • Mosul Jadida | • Sumawa |
| • Falluja | • Najaf | • Zubair |

9 Directions

- Directly South
- South East (22.5° from South)
- South East (45° from South)
- South East (67.5° from South)
- Directly East
- South West (22.5° from South)
- South West (45° from South)
- South West (67.5° from South)
- Directly West

6 Tilt Angles

- Best Summer Performance
- Best Winter Performance
- Optimal Year Round
- Adjusted throughout the Year
- Vertical Surface
- Horizontal Surface

Download ISI Database

www.tarcal.uk/solar-radiation.php




www.tarcal.uk

TARCAL

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- Public Generator Tariff Calculator
- National & Regional Electricity Bill Comparison
- Calculate Equivalent Solar Energy Capacity
- Design Equivalent Solar Energy System

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