

Climate Data

► DOE's Energy Plus Website

The screenshot shows a web browser window with the address http://www.eere.energy.gov/buildings/energyplus/cfm/weather_data.cfm. The page header includes the U.S. Department of Energy logo and the text "Energy Efficiency and Renewable Energy" with the tagline "Bringing you a prosperous future where energy is clean, abundant, reliable, and affordable". A green banner reads "Building Technologies Program". A navigation bar contains links: "About the Program", "Program Areas", "Information Resources", "Financial Opportunities", "Technologies", "Deployment", and "Home". The main heading is "EnergyPlus Energy Simulation Software". A search box is present with "Search Help" and "More Search Options" links. The left sidebar lists navigation options: "EnergyPlus Home", "About EnergyPlus", "Getting EnergyPlus", "Interfaces & Other Tools", "Documentation", and "Weather Data". The "Weather Data" section is active, displaying the heading "Weather Data" and the text: "Weather data for more than 900 locations are now available in EnergyPlus weather format — 295 locations in the USA, 55 locations in Canada, and more than 550 locations in 100 other countries throughout the world. The weather data are arranged by World Meteorological Organization region and Country." Below this is a bulleted list of regions: Africa (WMO Region 1), Asia (WMO Region 2), South America (WMO Region 3), North and Central America (WMO Region 4), Southwest Pacific (WMO Region 5), and Europe (WMO Region 6). At the bottom, there is a "Get Real-Time Weather Data by Email" button with a sun and cloud icon, and a "Printable Version" link.

Address: http://www.eere.energy.gov/buildings/energyplus/cfm/weather_data.cfm

U.S. Department of Energy
Energy Efficiency and Renewable Energy
Bringing you a prosperous future where energy is clean, abundant, reliable, and affordable

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Building Technologies Program

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EnergyPlus Energy Simulation Software

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Weather Data

Weather data for more than 900 locations are now available in EnergyPlus weather format — 295 locations in the USA, 55 locations in Canada, and more than 550 locations in 100 other countries throughout the world. The weather data are arranged by World Meteorological Organization region and Country.

- [Africa](#) (WMO Region 1)
- [Asia](#) (WMO Region 2)
- [South America](#) (WMO Region 3)
- [North and Central America](#) (WMO Region 4)
- [Southwest Pacific](#) (WMO Region 5)
- [Europe](#) (WMO Region 6)

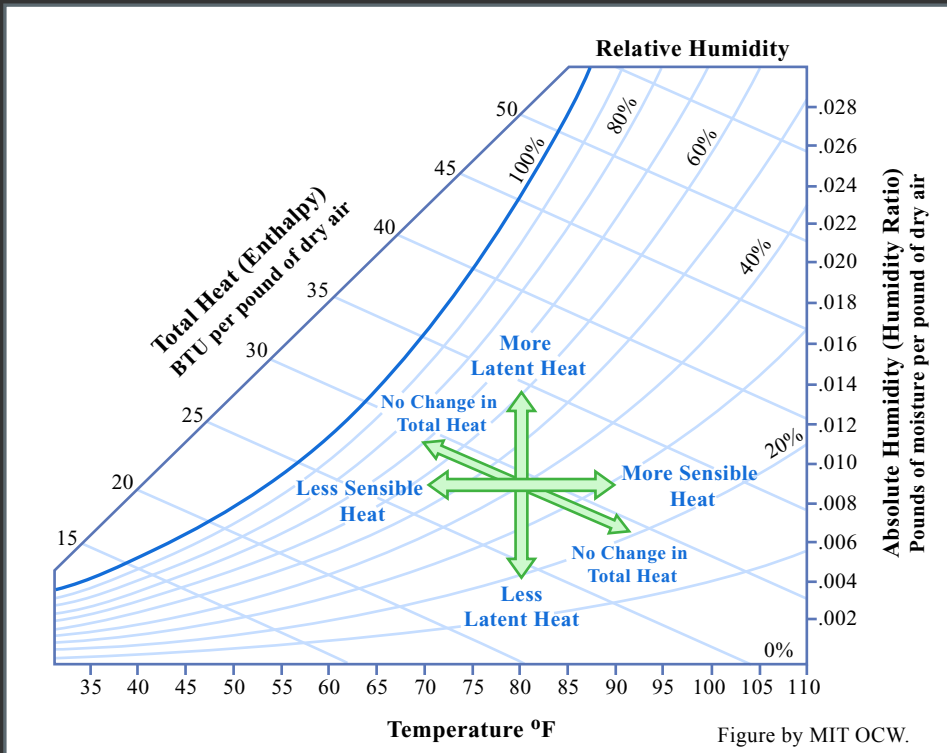
[Get Real-Time Weather Data by Email](#)

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Climate Data

► Measured quantities

- Dry/Wet Bulb Temperature [$^{\circ}\text{C}$] and Relative Humidity [%]
- Cloud Cover [%]
- Wind speed [km/h] and direction [Degree]
- Rainfall [mm]



Climate Data

► Measured quantities

- Dry/Wet Bulb Temperature [$^{\circ}\text{C}$] and Relative Humidity [%]
- Cloud Cover [%]
- Wind speed [km/h] and direction [$^{\circ}$]
- Rainfall [mm]
- Direct Solar Radiation [W/m^2]
- Diffuse Horizontal Solar Radiation [W/m^2]

Pyranometer (bare)

Pyranometer (shaded)

Pyrheliometer (normal)

Solar Tracker

Climate Data

► Relevant quantities

- Direct and Diffuse horizontal Solar Radiation [W/m^2]
- Name of site, latitude, longitude, altitude
- time & date, time zone

```
LOCATION, Boston, MA, USA, TMY--94701, 725090, 42.35, -71.07, -5.0, 6.0
DESIGN CONDITIONS, 1, Climate Design Data 2005 ASHRAE
Handbook, , Heating, 1, -13.5, -10.9, -24.7, 0.4, -11.8, -21.8, 0.5, -9.5, 14.6, 1.5, 12.9, 0.1, 7, 320, Cooling
, 7, 8.5, 32.7, 22.8, 30.9, 22, 29.1, 21.3, 24.5, 30.2, 23.5, 28.5, 22.6, 27.1, 6.3, 240, 22.7, 17.4, 27, 21.8, 16.
5, 26, 21.1, 15.7, 25.5, 73.6, 30.4, 69.9, 28.6, 66.6, 27, Extremes, 12.1, 10.9, 9.4, 27, 35.6, -17, 1.7, 2.2
TYPICAL/EXTREME PERIODS, 6, Summer - Week Nearest Max Temperature For
Period, Extreme, 8/10, 8/16, Summer - Week Nearest Average Temperature For
Period, Typical, 8/17, 8/23, Winter - Week Nearest Min Temperature For Period, Extreme, 1/27, 2/
2, Winter - Week Nearest Average Temperature For Period, Typical, 2/10, 2/16, Autumn - Week Nearest
Average Temperature For Period, Typical, 11/ 3, 11/ 9, Spring - Week Nearest Average Temperature
For Period, Typical, 4/19, 4/25
GROUND
TEMPERATURES, 3, .5, , , , 0.47, -0.51, 1.23, 3.94, 11.03, 16.51, 20.20, 21.32, 19.41, 15.16, 9.48, 4.21, 2, , , , 4
.07, 2.32, 2.68, 4.12, 8.87, 13.16, 16.59, 18.43, 18.04, 15.63, 11.72, 7.57, 4, , , , 7.04, 5.26, 4.87, 5.41, 8.09
, 10.98, 13.64, 15.48, 15.91, 14.87, 12.57, 9.76
HOLIDAYS/DAYLIGHT SAVINGS, No, 0, 0, 0
COMMENTS 1, TMY-94701 -- WMO#725090
COMMENTS 2, -- Ground temps produced with a standard soil diffusivity of 2.3225760E-03
{m**2/day}
DATA PERIODS, 1, 1, Data, Sunday, 1/ 1, 12/31
1966, 1, 1, 1, 60, ?0?0E7_0E0?0?9D0?9?9?9?9?0?0?9?9?9?9?9?9?9?9?9, 12.8, 7.8, 72, 101020, 0, 0, 325, 0, 0, 0, 99
9900, 999900, 999900, 99990, 230, 4.6, 5, 5, 777.7, 7777700, 9, 9999999999, 0, 0.0000, 0, 88
1966, 1, 1, 2, 60, ?0?0E7_0E0?0?9D0?9?9?9?9?0?0?0?0?0?0?9?9?9?9, 12.8, 7.8, 72, 101020, 0, 0, 322, 0, 0, 0, 99
9900, 999900, 999900, 99990, 230, 4.6, 10, 4, 16.1, 777700, 0, 9999999999, 0, 0.0000, 0, 88
etc.....
```