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| http://rredc.nrel.gov/images/sol_new.gif | National Solar Radiation Data Base  1991- 2005 Update: Typical Meteorological Year 3 |
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| Brief Summary of the TMY3s  This directory contains the data files for the typical meteorological year (TMY) data sets derived from the 1961-1990 and 1991-2005 National Solar Radiation Data Base (NSRDB) archives. Because they are based on more recent and accurate data, these new TMY3 data sets are recommended for use in place of earlier TMY2 data. The TMY3 data set contains data for 1020 locations, compared with 239 for the TMY2 data set.  The TMY3s are data sets of hourly values of solar radiation and meteorological elements for a 1-year period. Their intended use is for computer simulations of solar energy conversion systems and building systems to facilitate performance comparisons of different system types, configurations, and locations in the United States and its territories. Because they represent typical rather than extreme conditions, they are not suited for designing systems to meet the worst-case conditions occurring at a location.  TMY, TMY2 and TMY3 data sets cannot be used interchangeably because of differences in time (solar versus local), formats, elements, and units. Unless they are revised, computer programs designed for TMY and TMY2 data will not work with TMY3 data. NREL provides a conversion program to reformat TMY3 data to TMY2 data (see the [Software](http://rredc.nrel.gov/solar/old_data/nsrdb/1991-2005/tmy3/#software) section below.)  The TMY3 data sets and manual were produced by NREL's Electric Systems Center under the Solar Resource Characterization Project, which is funded and monitored by the U.S. Department of Energy's Energy Efficiency and Renewable Energy Office.  **19-JAN-2015 NOTICE**  Revision of TMY3 Weather Files  White Box Technologies (WBT), in collaboration with the National Renewable Energy Laboratory (NREL), has revised the TMY3 weather files to correct inconsistencies in units for illuminances, improve the reporting of Liquid Precipitation, replace all missing records with interpolated or filled values (chiefly for visibility, ceiling height, aerosol optical depth, and albedo), and add a new variable for Present Weather. The intent of this revision is not to redo the fundamental analysis, but correct some known errors and make modest improvements in the reporting of subsidiary climate variables. The only impacts from these corrections and changes are for daylighting simulations that use the illuminance values, and for building simulations that use the liquid precipitation to model green roofs or moisture transport through the building envelope. The addition of Present Weather may be of use to simulation programs that keep track of rain or snow fall, and is also helpful in assessing the reported liquid precipitation. Filling in missing data for Visibility, Ceiling Height, etc., should have no impact on the use of the TMY3s, but improves their overall record-keeping.     * Announcment: ["Revision of the TMY3 Weather Files"](http://rredc.nrel.gov/solar/old_data/nsrdb/1991-2005/tmy3/14_1229_announcement.pdf)     (*PDF, 94.4KB*) * [Improving the Reporting of Lquid Precipitation in the TMY3 Weather Files](http://rredc.nrel.gov/solar/old_data/nsrdb/1991-2005/tmy3/15_0115_TMY3_liquid_precip.pdf)     (*PDF, 627.7KB*)   Please note:   The original TMY3 files will be available through February 2015. After February links to these files will be removed unless a compelling reason can be made to maintain their availability. Email the [Webmaster](http://www.nrel.gov/rredc/webmaster.html) with your arguments in favor of maintaining availability of the orignial TMY3 files.  **20-AUG-2008 NOTICE**  All illuminance values for all TMY3 stations from January 2 to 31 should be multiplied by 100 to obtain the correct units of Lux. All luminance values for the same dates should be multiplied by 10 for the correct units of Candela per square meter.  NREL will be posting a corrected data set in the near future.  The Data   * Updated TMY3 Files   + Individual Station Files     - [In alphabetical order by state and city.](http://rredc.nrel.gov/solar/old_data/nsrdb/1991-2005/tmy3/by_state_and_city.html)     - [In numerical order by USAFN number.](http://rredc.nrel.gov/solar/old_data/nsrdb/1991-2005/tmy3/by_USAFN.html)   + All Stations in a Single Compressed File:     - [alltmy3a.zip](http://rredc.nrel.gov/solar/old_data/nsrdb/1991-2005/tmy3/zip/alltmy3a.zip) - 236.7 MB * Previous TMY3 Files (2008/08/20)   + Individual Station Files     - [In alphabetical order by state and city.](http://rredc.nrel.gov/solar/old_data/nsrdb/1991-2005/tmy3/by_state_and_city_old.html)     - [In numerical order by USAFN number.](http://rredc.nrel.gov/solar/old_data/nsrdb/1991-2005/tmy3/by_USAFN_old.html)   + All Stations in a Single Compressed File:     - [tmy3.tar.gz](http://rredc.nrel.gov/solar/old_data/nsrdb/1991-2005/data/tmy3.20080820/tmy3.tar.gz) - 228.7 MB * [TMY3\_StationsMeta.csv](http://rredc.nrel.gov/solar/old_data/nsrdb/1991-2005/tmy3/TMY3_StationsMeta.csv)   + [TMY3\_StationsMetaMeta.doc](http://rredc.nrel.gov/solar/old_data/nsrdb/1991-2005/tmy3/TMY3_StationsMetaMeta.doc) * [Errata](http://rredc.nrel.gov/solar/old_data/nsrdb/1991-2005/tmy3/TMY3_Errata.html)   Documentation   * [TMY3 User's Manual](http://www.nrel.gov/docs/fy08osti/43156.pdf) (PDF) * Announcment: ["Revision of the TMY3 Weather Files"](http://rredc.nrel.gov/solar/old_data/nsrdb/1991-2005/tmy3/14_1229_announcement.pdf)     (*PDF, 94.4KB*) * [Improving the Reporting of Lquid Precipitation in the TMY3 Weather Files](http://rredc.nrel.gov/solar/old_data/nsrdb/1991-2005/tmy3/15_0115_TMY3_liquid_precip.pdf)     (*PDF, 627.7KB*)     Software   * TMY3toTMY2: converts TMY3 files to TMY2 format.   + Windows version; documentation is included in the ZIP files.     - [TMY3toTMY2.zip](http://rredc.nrel.gov/solar/old_data/nsrdb/1991-2005/tmy3/agreement_1.html) - User interface version with easy configuration and file selection     - [TMY3toTMY2\_cmd.zip](http://rredc.nrel.gov/solar/old_data/nsrdb/1991-2005/tmy3/agreement_2.html) - Command line version for batch processing multiple files   + ANSI C version     - [TMY3toTMY2\_ansi.c](http://rredc.nrel.gov/solar/old_data/nsrdb/1991-2005/tmy3/agreement_3.html)   NOTE:  Users who downloaded **TMY3toTMY2\_ansi.c** before 1625 GMT on 11 July 2008 will find  that the *string.h* header file is included twice. The code will compile but will not  properly report latitude and longitude. One instance of *string.h* should be  replaced with *math.h* before compiling. This has been corrected in the code now  available for download.  Map of TMY3 Sites   |  |  | | --- | --- | |  | [http://rredc.nrel.gov/solar/old_data/nsrdb/1991-2005/tmy3/usTMYmaps3thumb.jpg](http://rredc.nrel.gov/solar/old_data/nsrdb/1991-2005/tmy3/usTMYmaps3medium.gif) | | [**Figure 1.**](http://rredc.nrel.gov/solar/old_data/nsrdb/1991-2005/tmy3/usTMYmaps3medium.gif) Shows the geographical coverage of the TMY3 ground stations. | |  |  |   Related Data Sets   * [Typical Meteorological Year 2 (TMY2) Files, 1961-1990](http://rredc.nrel.gov/solar/old_data/nsrdb/1961-1990/tmy2) | |
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