

| Observations of Solar Radiation from Hanford, CA |             |                    |                 |                         |                          |                              |
|--|-------------|--------------------|-----------------|-------------------------|--------------------------|------------------------------|
| YYYY-MM-DD                                       | HH:MM (LST) | Zenith Angle (deg) | Sun Angle (deg) | ETR (W/m <sup>2</sup> ) | ETRN (W/m <sup>2</sup> ) | Meas Glo (W/m <sup>2</sup> ) |
| 5/22/99  | 1:00        | 99                 | 0               | 0                       | 0                        | 0                            |
| 5/22/99  | 2:00        | 99                 | 0               | 0                       | 0                        | 0                            |
| 5/22/99  | 3:00        | 99                 | 0               | 0                       | 0                        | 0                            |
| 5/22/99  | 4:00        | 99                 | 0               | 0                       | 0                        | 0                            |
| 5/22/99  | 5:00        | 89.1               | 0.9             | 4                       | 255                      | 1                            |
| 5/22/99  | 6:00        | 82.7               | 7.3             | 168                     | 1333                     | 69                           |
| 5/22/99  | 7:00        | 71.2               | 18.8            | 428                     | 1333                     | 252                          |
| 5/22/99  | 8:00        | 59.3               | 30.7            | 679                     | 1333                     | 457                          |
| 5/22/99  | 9:00        | 47.2               | 42.8            | 903                     | 1333                     | 638                          |
| 5/22/99  | 10:00       | 35.4               | 54.6            | 1085                    | 1333                     | 693                          |
| 5/22/99  | 11:00       | 24.6               | 65.4            | 1211                    | 1333                     | 788                          |
| 5/22/99  | 12:00       | 17.2               | 72.8            | 1273                    | 1333                     | 983                          |
| 5/22/99  | 13:00       | 17.9               | 72.1            | 1268                    | 1333                     | 978                          |
| 5/22/99  | 14:00       | 26.2               | 63.8            | 1195                    | 1333                     | 896                          |
| 5/22/99  | 15:00       | 37.3               | 52.7            | 1059                    | 1333                     | 773                          |
| 5/22/99  | 16:00       | 49.2               | 40.8            | 870                     | 1333                     | 643                          |
| 5/22/99  | 17:00       | 61.2               | 28.8            | 641                     | 1333                     | 492                          |
| 5/22/99  | 18:00       | 73.1               | 16.9            | 387                     | 1333                     | 168                          |
| 5/22/99  | 19:00       | 84.5               | 5.5             | 129                     | 1333                     | 29                           |
| 5/22/99  | 20:00       | 89.8               | 0.2             | 0                       | 33                       | 0                            |
| 5/22/99  | 21:00       | 99                 | 0               | 0                       | 0                        | 0                            |
| 5/22/99  | 22:00       | 99                 | 0               | 0                       | 0                        | 0                            |
| 5/22/99  | 23:00       | 99                 | 0               | 0                       | 0                        | 0                            |
| 5/23/99  | 0:00:00     | 99                 | 0               | 0                       | 0                        | 0                            |