

| 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> ) |
| 12/16/98   | 1:00        | 99                 | 0               | 0                       | 0                        | 0                            |
| 12/16/98   | 2:00        | 99                 | 0               | 0                       | 0                        | 0                            |
| 12/16/98   | 3:00        | 99                 | 0               | 0                       | 0                        | 0                            |
| 12/16/98   | 4:00        | 99                 | 0               | 0                       | 0                        | 0                            |
| 12/16/98   | 5:00        | 99                 | 0               | 0                       | 0                        | 0                            |
| 12/16/98   | 6:00        | 99                 | 0               | 0                       | 0                        | 0                            |
| 12/16/98   | 7:00        | 99                 | 0               | 0                       | 0                        | 0                            |
| 12/16/98   | 8:00        | 85.6               | 4.4             | 99                      | 1307                     | 28                           |
| 12/16/98   | 9:00        | 76.7               | 13.3            | 326                     | 1412                     | 116                          |
| 12/16/98   | 10:00       | 68.7               | 21.3            | 512                     | 1412                     | 287                          |
| 12/16/98   | 11:00       | 63.0               | 27.0            | 642                     | 1412                     | 451                          |
| 12/16/98   | 12:00       | 60.0               | 30.0            | 706                     | 1412                     | 500                          |
| 12/16/98   | 13:00       | 60.3               | 29.7            | 699                     | 1412                     | 484                          |
| 12/16/98   | 14:00       | 63.9               | 26.1            | 622                     | 1412                     | 427                          |
| 12/16/98   | 15:00       | 70.1               | 19.9            | 480                     | 1412                     | 308                          |
| 12/16/98   | 16:00       | 78.4               | 11.6            | 284                     | 1412                     | 142                          |
| 12/16/98   | 17:00       | 86.5               | 3.5             | 62                      | 1024                     | 21                           |
| 12/16/98   | 18:00       | 99                 | 0               | 0                       | 0                        | 0                            |
| 12/16/98   | 19:00       | 99                 | 0               | 0                       | 0                        | 0                            |
| 12/16/98   | 20:00       | 99                 | 0               | 0                       | 0                        | 0                            |
| 12/16/98   | 21:00       | 99                 | 0               | 0                       | 0                        | 0                            |
| 12/16/98   | 22:00       | 99                 | 0               | 0                       | 0                        | 0                            |
| 12/16/98   | 23:00       | 99                 | 0               | 0                       | 0                        | 0                            |
| 12/17/98   | 0:00:00     | 99                 | 0               | 0                       | 0                        | 0                            |