

October 2004

Global Solar Radiation on a Horizontal Surface
Hourly Integrated and Daily Totals
Instrument: Eppley PSP
Watt-Hours per Square Meter

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily
1	0	0	0	0	0	1	43	159	314	481	620	697	597	527	386	175	96	23	0	0	0	0	0	0	4119
2	0	0	0	0	0	0	25	86	198	337	350	187	198	346	261	242	97	22	0	0	0	0	0	0	2348
3	0	0	0	0	0	0	48	192	407	586	697	756	754	673	527	340	132	16	0	0	0	0	0	0	5127
4	0	0	0	0	0	0	54	227	428	571	590	577	582	509	377	220	82	15	0	0	0	0	0	0	4231
5	0	0	0	0	0	0	32	139	354	607	693	716	744	642	479	263	105	21	0	0	0	0	0	0	4795
6	0	0	0	0	0	0	41	207	396	558	672	724	714	637	492	314	121	16	0	0	0	0	0	0	4891
7	0	0	0	0	0	0	26	183	333	353	575	625	454	408	315	195	65	12	0	0	0	0	0	0	3544
8	0	0	0	0	0	0	16	72	96	144	244	269	192	109	66	53	15 ?	2	0	0	0	0	0	0	1277
9	0	0	0	0	0	0	3	31	45	133	246	248	231	96	52	31	27	12	0	0	0	0	0	0	1157
10	0	0	0	0	0	0	2	?	46 ?	68	97	127	202	119	66	47	13 ?	4	0	0	0	0	0	0	791 ?
11	0	0	0	0	0	0	22	62	57	118	136	189	444	553	448	270	132	16	0	0	0	0	0	0	2445
12	0	0	0	0	0	0	27	125	137	154	209	242	364	384	264	171	51	3	0	0	0	0	0	0	2131
13	0	0	0	0	0	0	41	199	395	556	663	720	663	521	231	157	105	13	0	0	0	0	0	0	4264
14	0	0	0	0	0	0	19	70	151	248	500	244	91 ?	256	188	254	62	16	0	0	0	0	0	0	2100
15	0	0	0	0	0	0	45	203	403	569	679	732	715	629	484	298	105	12	0	0	0	0	0	0	4873
16	0	0	0	0	0	0	17	88	363	538	651	701	688	605	462	281	96	10	0	0	0	0	0	0	4499
17	0	0	0	0	0	0	14	25 ?	91	416	612	455	610	500	426	199	80	13	0	0	0	0	0	0	3442
18	0	0	0	0	0	0	16	102	244	272	215	453	556	486	351	253	90	14	0	0	0	0	0	0	3052
19	0	0	0	0	0	0	4	?	59 ?	75	434	536	495	333	201	168	53	9	0	0	0	0	0	0	2368 ?
20	0	0	0	0	0	0	19	35	96	213	331	358 ?	447	532	391	210	81	5	0	0	0	0	0	0	2717
21	0	0	0	0	0	0	10	53	129	236	535	636	590	529	317	185	33	4	0	0	0	0	0	0	3256
22	0	0	0	0	0	0	16	71	216	469	583	592	369	494	421	196	75	6	0	0	0	0	0	0	3510
23	0	0	0	0	0	0	13	46	140	187	238	228	369	414	308 ?	38 ?	28	8	0	0	0	0	0	0	2016 ?
24	0	0	0	0	0	0	25	136	257	411	548	664	637	495	370	255	69	2	0	0	0	0	0	0	3867
25	0	0	0	0	0	0	15	117	269	393	507	533	507	491	178	229	55	3	0	0	0	0	0	0	3295
26	0	0	0	0	0	0	25	142	314	479	567	622	546	452	314	227	68	2	0	0	0	0	0	0	3758
27	0	0	0	0	0	0	27	130	316	446	571	605	451	488	342	198	88	4	0	0	0	0	0	0	3666
28	0	0	0	0	0	0	24	120	251	424	544	600	528	302	269	222	62	3	0	0	0	0	0	0	3348
29	0	0	0	0	0	0	23	106	332	363	560	587	546	480	349	219	59	2	0	0	0	0	0	0	3626
30	0	0	0	0	0	0	5	54	199	237	406	589	544	504	365	202	61	3	0	0	0	0	0	0	3168
31	0	0	0	0	0	0	18	118	302	374	420	398	240	147	144	69	26	1	0	0	0	0	0	0	2257
Avg	0	0	0	0	0	0	23	114	237	355	474	504	486	441	318	199	72	9	0	0	0	0	0	0	3224
S D	0	0	0	0	0	0	13	58	123	167	179	197	181	159	130	80	32	7	0	0	0	0	0	0	1135
S/A	0	0	0	0	0	5.02	0.58	0.51	0.52	0.47	0.38	0.39	0.37	0.36	0.41	0.4	0.45	0.7	0	0	0	0	0	0	0.35
Min	0	0	0	0	0	0	2	25	45	68	97	127	91	96	52	31	13	1	0	0	0	0	0	0	791
Max	0	0	0	0	0	1	54	227	428	607	697	756	754	673	527	340	132	23	0	0	0	0	0	0	5127
n	0	0	0	0	0	4	328	338	360	371	369	368	363	372	361	360	359	139	0	0	0	0	0	0	4093

Daylight Data Recovery: 0.0% missing; 2.4% exceed the 15% QC threshold -- 4192 total daylight measurements.

Instrument: Eppley PSP Serial Number: 18036F3 Calibration Factor: 7.430 μV/W/m² Calibration Date: 05/1998

Data & Flag	Hour Column	Day Column
<value> *	> 20% Missing	> 10% Missing
<value> ?	> 20% Fail QC	> 10% Fail QC
<blank> *	> 90% Missing	> 90% Missing
<blank> ?	> 90% Fail QC	> 90% Fail QC

Note: Daily values with a missing flag (*) are not used in monthly statistics.

October 2004

Direct Normal Solar Radiation
 Hourly Integrated and Daily Totals
 Instrument: Eppley NIP
 Watt-Hours per Square Meter

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily	
1	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*	
2	0	0	0	0	0	*	*	*	?	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*	
3	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*	
4	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*	
5	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*	
6	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*	
7	0	0	0	0	0	0	?	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*	
8	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*	
9	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	240 ?	247 ?	0	0	0	0	0	0	*
10	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*
11	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*
12	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*
13	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*
14	0	0	0	0	0	0	726 ?	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*
15	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*
16	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*
17	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*
18	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*
19	0	0	0	0	0	0	?	?	?	*	*	*	*	*	*	*	*	*	?	0	0	0	0	0	0	*
20	0	0	0	0	0	0	*	*	*	*	*	*	?	*	*	*	*	*	*	0	0	0	0	0	0	*
21	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	842 ?	0	0	0	0	0	0	*
22	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*
23	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*
24	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*
25	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	711 *	0	0	0	0	0	0	*
26	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*
27	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*
28	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*
29	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*
30	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*
31	0	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	0	0	*
Avg	0	0	0	0	0	0	726	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	240	600	0	0	0	0	0	0	N/A	*
SD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	313	0	0	0	0	0	0	0	0
S/A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.52	0	0	0	0	0	0	0	0
Min	0	0	0	0	0	0	726	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	240	247	0	0	0	0	0	0	0	N/A
Max	0	0	0	0	0	0	726	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	240	842	0	0	0	0	0	0	0	N/A
n	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	4	7	0	0	0	0	0	0	0	0

Daylight Data Recovery: 96.4% missing; 3.1% exceed the 15% QC threshold -- 4192 total daylight measurements.

Instrument: Eppley NIP Serial Number: 25796E6 Calibration Factor: 8.670 $\mu\text{V}/\text{W}/\text{m}^2$ Calibration Date: 05/1998

Data & Flag	Hour Column	Day Column
<value> *	> 20% Missing	> 10% Missing
<value> ?	> 20% Fail QC	> 10% Fail QC
<blank> *	> 90% Missing	> 90% Missing
<blank> ?	> 90% Fail QC	> 90% Fail QC

Note: Daily values with a missing flag (*) are not used in monthly statistics.

October 2004

Diffuse Solar Radiation (Shadow Band) on a Horizontal Surface
 Hourly Integrated and Daily Totals
 Instrument: Eppley PSP
 Watt-Hours per Square Meter

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily
1	0	0	0	0	0	1	43	161	331	484 ?	579 ?	?	454 ?	417 ?	377 ?	184	101	25	0	0	0	0	0	0	3158 ?
2	0	0	0	0	0	0	25	88	211	344	354	191	204	355	252	255	101	23	0	0	0	0	0	0	2403
3	0	0	0	0	0	0	50	157 ?	?	?	?	?	?	?	?	357 ?	142	20	0	0	0	0	0	0	726 ?
4	0	0	0	0	0	0	61	191 ?	?	?	626 ?	531 ?	625 ?	539	414	230	84	15	0	0	0	0	0	0	3317 ?
5	0	0	0	0	0	0	33	118	303 ?	?	?	?	?	?	359 ?	272	118	21	0	0	0	0	0	0	1224 ?
6	0	0	0	0	0	0	43	194 ?	?	?	?	?	?	?	?	339 ?	146	20	0	0	0	0	0	0	742 ?
7	0	0	0	0	0	0	27	186	350	380	582 ?	590 ?	474	421	324	197	66	11	0	0	0	0	0	0	3609
8	0	0	0	0	0	0	15	72	97	145	246	272	194	110	63	48	14 ?	0	0	0	0	0	0	0	1276
9	0	0	0	0	0	0	3	31	46	134	248	248	233	97	49	31	28	13	0	0	0	0	0	0	1160
10	0	0	0	0	0	0	3	15 ?	39	69	98	128	203	120	63	46	13	3	0	0	0	0	0	0	799
11	0	0	0	0	0	0	23	62	57	119	137	191	403	518 ?	381 ?	201 ?	130	20	0	0	0	0	0	0	2243 ?
12	0	0	0	0	0	0	26	113	137	153	211	243	341	357	267	174	51	3	0	0	0	0	0	0	2076
13	0	0	0	0	0	0	43	180 ?	?	?	?	?	556 ?	466 ?	232	158	109	18	0	0	0	0	0	0	1763 ?
14	0	0	0	0	0	0	18	70	151	223	307 ?	246	64	266	192	198 ?	54	18	0	0	0	0	0	0	1807 ?
15	0	0	0	0	0	0	48	167 ?	?	?	?	?	?	?	?	?	123	15	0	0	0	0	0	0	353 ?
16	0	0	0	0	0	0	16	88	283 ?	?	?	?	?	?	?	?	267 ?	113	15	0	0	0	0	0	783 ?
17	0	0	0	0	0	0	16	22 ?	91	237 ?	544 ?	347 ?	507 ?	412 ?	392 ?	188	83	14	0	0	0	0	0	0	2853 ?
18	0	0	0	0	0	0	16	103	234	278	215	415	463 ?	400 ?	350 ?	238 ?	99	15	0	0	0	0	0	0	2825 ?
19	0	0	0	0	0	0	4	?	48	74	405	458 ?	367 ?	315	202	175	56	10	0	0	0	0	0	0	2112 ?
20	0	0	0	0	0	0	21	35	95	211	335	304 ?	417 ?	483 ?	349 ?	221	87	5	0	0	0	0	0	0	2562 ?
21	0	0	0	0	0	0	10	52	128	233	460 ?	?	414 ?	382 ?	288	201	34	4	0	0	0	0	0	0	2205 ?
22	0	0	0	0	0	0	18	70	214	352 ?	?	474 ?	386	336 ?	362 ?	205	79	6	0	0	0	0	0	0	2501 ?
23	0	0	0	0	0	0	14	42	138	185	237	227	377	415	257 ?	26	27	8	0	0	0	0	0	0	1955
24	0	0	0	0	0	0	28	142	269	300 ?	446 ?	?	?	377 ?	324 ?	207 ?	77	2	0	0	0	0	0	0	2172 ?
25	0	0	0	0	0	0	14	105	250 ?	371 ?	375 ?	353 ?	388 ?	421 ?	180	149 ?	54	3	0	0	0	0	0	0	2663 ?
26	0	0	0	0	0	0	26	148	339	?	?	?	482 ?	357 ?	273 ?	222 ?	76	3	0	0	0	0	0	0	1925 ?
27	0	0	0	0	0	0	27	136	344 ?	382 ?	?	?	343 ?	452 ?	234 ?	185 ?	82	5	0	0	0	0	0	0	2190 ?
28	0	0	0	0	0	0	27	121	226 ?	432 ?	523 ?	?	426 ?	300	251	232	68	4	0	0	0	0	0	0	2611 ?
29	0	0	0	0	0	0	26	108	?	293 ?	498 ?	509 ?	473 ?	460 ?	332 ?	217 ?	65	2	0	0	0	0	0	0	2982 ?
30	0	0	0	0	0	0	4	53	180	236	202 ?	377 ?	506 ?	450 ?	332 ?	198	66	4	0	0	0	0	0	0	2607 ?
31	0	0	0	0	0	0	17	120	297 ?	384	398	358	237	144	140	67	26	1	0	0	0	0	0	0	2188
Avg	0	0	0	0	0	0	24	105	194	262	365	340	381	360	268	190	77	10	0	0	0	0	0	0	2058 ?
S D	0	0	0	0	0	0	15	54	104	116	154	129	131	123	103	80	37	8	0	0	0	0	0	0	834
S/A	0	0	0	0	0	5.57	0.61	0.51	0.53	0.44	0.42	0.38	0.34	0.34	0.38	0.42	0.48	0.73	0	0	0	0	0	0	0.41
Min	0	0	0	0	0	0	3	15	39	69	98	128	64	97	49	26	13	0	0	0	0	0	0	0	353
Max	0	0	0	0	0	1	61	194	350	484	626	590	625	539	414	357	146	25	0	0	0	0	0	0	3609
n	0	0	0	0	0	4	321	323	260	229	177	166	206	212	244	290	360	139	0	0	0	0	0	0	2945

Daylight Data Recovery: 0.0% missing; 29.7% exceed the 15% QC threshold -- 4192 total daylight measurements.

Instrument: Eppley PSP Serial Number: 18039F3 Calibration Factor: 7.470 μV/W/m² Calibration Date: 05/1998

Data & Flag	Hour Column	Day Column
<value> *	> 20% Missing	> 10% Missing
<value> ?	> 20% Fail QC	> 10% Fail QC
<blank> *	> 90% Missing	> 90% Missing
<blank> ?	> 90% Fail QC	> 90% Fail QC

Note: Daily values with a missing flag (*) are not used in monthly statistics.