

Table 2.11(n) Design 97.5 percentile of beam and diffuse irradiance on vertical and horizontal surfaces: Swindon (Little Rissington) (2002–2012)

Month	Orientation		Daily mean irradiance (W·m ⁻²) and mean hourly irradiance (W·m ⁻²) for the 21st day of the given month																					
			Mean	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130	1230	1330	1430	1530	1630	1730	1830	1930	2030		
January	Normal to beam		420	0	0	0	0	0	0	0	0	800	508	668	786	754	544	142	0	0	0	0		
	N	Beam	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Diffuse	21	0	0	0	0	0	0	0	14	43	112	109	88	62	48	27	1	0	0	0	0	
	NE	Beam	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Diffuse	21	0	0	0	0	0	0	0	14	43	112	109	88	62	48	27	1	0	0	0	0	
	E	Beam	35	0	0	0	0	0	0	0	503	217	131	0	0	0	0	0	0	0	0	0	0	
		Diffuse	34	0	0	0	0	0	0	0	14	176	237	151	88	62	48	27	1	0	0	0	0	
	SE	Beam	114	0	0	0	0	0	0	0	785	466	534	500	332	122	1	0	0	0	0	0	0	
		Diffuse	61	0	0	0	0	0	0	0	14	256	390	335	225	125	75	33	1	0	0	0	0	
	Sunrise: 0757 Sunset: 1637	S	Beam	152	0	0	0	0	0	0	0	607	442	624	745	689	452	100	0	0	0	0	0	
			Diffuse	71	0	0	0	0	0	0	0	14	206	376	377	302	204	158	65	1	0	0	0	0
		SW	Beam	101	0	0	0	0	0	0	0	74	159	349	554	642	516	141	0	0	0	0	0	
			Diffuse	50	0	0	0	0	0	0	0	14	55	201	251	242	194	174	79	1	0	0	0	0
		W	Beam	26	0	0	0	0	0	0	0	0	0	0	0	38	219	279	99	0	0	0	0	0
			Diffuse	27	0	0	0	0	0	0	0	14	43	112	109	81	100	114	65	1	0	0	0	0
		NW	Beam	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			Diffuse	21	0	0	0	0	0	0	0	14	43	112	109	88	62	48	27	1	0	0	0	0
	Horiz.	Beam	44	0	0	0	0	0	0	4	131	127	201	246	215	120	17	0	0	0	0	0	0	
	Horiz.	Diffuse	36	0	0	0	0	0	0	22	65	217	195	138	89	78	56	2	0	0	0	0	0	
	Horiz.	Global	80	0	0	0	0	0	0	26	197	344	396	384	305	198	74	2	0	0	0	0	0	
February	Normal to beam		521	0	0	0	0	0	0	16	656	712	757	757	726	554	767	786	0	0	0	0		
	N	Beam	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Diffuse	28	0	0	0	0	0	12	34	63	83	97	100	92	79	59	31	30	0	0	0	0	
	NE	Beam	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Diffuse	28	0	0	0	0	0	12	34	63	83	97	100	92	79	59	31	30	0	0	0	0	
	E	Beam	39	0	0	0	0	0	0	13	437	324	162	0	0	0	0	0	0	0	0	0	0	
		Diffuse	35	0	0	0	0	0	12	34	154	141	116	100	92	79	59	31	30	0	0	0	0	
	SE	Beam	112	0	0	0	0	0	0	16	626	632	580	452	286	94	0	0	0	0	0	0	0	
		Diffuse	50	0	0	0	0	0	12	34	197	209	209	183	140	95	59	31	30	0	0	0	0	
	S	Beam	177	0	0	0	0	0	0	9	449	569	657	671	618	425	489	371	0	0	0	0	0	
		Diffuse	64	0	0	0	0	0	12	34	157	196	226	231	213	177	158	112	30	0	0	0	0	
	SW	Beam	150	0	0	0	0	0	0	0	9	173	350	496	588	506	738	746	0	0	0	0	0	
		Diffuse	59	0	0	0	0	0	12	34	56	108	157	193	207	197	214	201	30	0	0	0	0	
	W	Beam	74	0	0	0	0	0	0	0	0	0	0	0	31	213	292	555	685	0	0	0	0	
		Diffuse	43	0	0	0	0	0	12	34	63	83	97	89	124	144	173	186	30	0	0	0	0	
	NW	Beam	11	0	0	0	0	0	0	0	0	0	0	0	0	0	47	222	0	0	0	0	0	
		Diffuse	30	0	0	0	0	0	12	34	63	83	97	100	92	79	58	77	30	0	0	0	0	
	Horiz.	Beam	83	0	0	0	0	0	2	3	197	279	338	348	315	203	204	107	0	0	0	0		
	Horiz.	Diffuse	43	0	0	0	0	1	19	67	95	121	139	143	134	128	84	45	50	0	0	0		
	Horiz.	Global	126	0	0	0	0	1	22	70	293	400	477	492	448	331	287	152	50	0	0	0		
March	Normal to beam		521	0	0	0	0	0	329	658	669	720	722	747	766	771	727	658	0	0	0	0		
	N	Beam	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Diffuse	42	0	0	0	0	15	46	72	97	113	124	125	118	103	83	57	33	14	0	0	0	
	NE	Beam	16	0	0	0	0	0	161	182	31	0	0	0	0	0	0	0	0	0	0	0	0	
		Diffuse	45	0	0	0	0	17	98	103	89	113	124	125	118	103	83	57	41	14	0	0	0	
	E	Beam	73	0	0	0	0	0	311	546	439	316	138	0	0	0	0	0	0	0	0	0	0	
		Diffuse	57	0	0	0	0	19	145	185	180	160	132	125	118	103	83	57	45	14	0	0	0	
	SE	Beam	133	0	0	0	0	0	280	590	590	582	491	376	225	49	0	0	0	0	0	0	0	
		Diffuse	66	0	0	0	0	17	135	195	214	216	205	179	141	94	83	57	37	14	0	0	0	
	Sunrise: 0605 Sunset: 1822	S	Beam	170	0	0	0	0	0	84	288	396	508	556	584	568	501	373	225	0	0	0	0	
			Diffuse	71	0	0	0	0	15	74	127	171	201	219	221	209	183	146	100	33	14	0	0	
		SW	Beam	139	0	0	0	0	0	0	0	136	296	450	578	659	652	578	0	0	0	0	0	
			Diffuse	66	0	0	0	0	17	46	72	97	123	165	194	211	214	204	179	41	14	0	0	
		W	Beam	78	0	0	0	0	0	0	0	0	0	0	52	249	431	549	592	0	0	0	0	
			Diffuse	55	0	0	0	0	19	46	72	97	113	124	113	146	169	183	182	45	14	0	0	
		NW	Beam	16	0	0	0	0	0	0	0	0	0	0	0	0	0	124	259	0	0	0	0	
			Diffuse	45	0	0	0	0	17	46	72	97	113	124	125	118	103	95	107	37	14	0	0	
	Horiz.	Beam	141	0	0	0	0	27	67	228	313	401	440	462	450	397	297	181	116	0	0	0		
	Horiz.	Diffuse	59	0	0	0	3	18	86	108	144	161	175	173	160	140	117	85	29	23	0	0		
	Horiz.	Global	200	0	0	0	3	45	153	336	457	562	615	635	610	537	414	266	146	23	0	0		

Table continues

Table 2.11(n) Design 97.5 percentile of beam and diffuse irradiance on vertical and horizontal surfaces: Swindon (Little Rissington) (2002–2012)
— continued

Month	Orientation		Daily mean irradiance ($\text{W}\cdot\text{m}^{-2}$) and mean hourly irradiance ($\text{W}\cdot\text{m}^{-2}$) for the 21st day of the given month																				
			Mean	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130	1230	1330	1430	1530	1630	1730	1830	1930	2030	
April	Normal to beam		519	0	0	0	0	56	349	627	763	853	891	912	899	927	822	743	465	0	0	0	
	N	Beam	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	4	0	0	0	
		Diffuse	56	0	0	0	5	56	84	106	124	139	148	150	142	129	106	80	54	27	0	0	
	NE	Beam	21	0	0	0	0	40	188	205	76	0	0	0	0	0	0	0	0	0	0	0	
		Diffuse	60	0	0	0	5	67	144	139	116	139	148	150	142	129	106	80	55	27	0	0	
	E	Beam	75	0	0	0	0	54	319	496	469	338	135	0	0	0	0	0	0	0	0	0	
		Diffuse	69	0	0	0	5	72	183	206	193	169	139	150	142	129	106	80	55	28	0	0	
	SE	Beam	123	0	0	0	0	36	263	496	587	587	495	345	152	0	0	0	0	0	0	0	
		Diffuse	74	0	0	0	5	66	166	206	216	214	201	175	137	129	106	80	55	28	0	0	
	Sunrise: 0455 Sunset: 1915	S	Beam	153	0	0	0	0	53	206	361	493	565	583	532	459	293	137	0	0	0	0	
			Diffuse	74	0	0	0	5	44	102	139	172	197	213	216	202	178	138	93	55	27	0	0
		SW	Beam	155	0	0	0	0	0	0	0	109	304	479	600	703	649	567	315	0	0	0	
			Diffuse	77	0	0	0	5	44	84	106	124	129	168	198	214	220	203	180	140	27	0	0
		W	Beam	112	0	0	0	0	0	0	0	0	0	0	95	317	535	626	665	450	0	0	0
			Diffuse	73	0	0	0	5	44	84	106	124	139	148	132	165	191	198	199	177	28	0	0
		NW	Beam	41	0	0	0	0	0	0	0	0	0	0	0	0	54	236	373	321	0	0	0
			Diffuse	62	0	0	0	5	44	84	106	124	139	148	150	142	108	127	141	141	28	0	0
	Horiz.	Beam	211	0	0	0	1	12	132	324	482	609	676	695	652	603	445	302	119	9	0	0	
Diffuse		76	0	0	0	9	93	156	162	167	171	177	177	169	152	134	110	95	43	0	0		
Global		286	0	0	0	10	105	288	486	649	780	853	872	821	754	578	412	214	51	0	0		
May	Normal to beam		426	0	0	0	121	266	461	581	585	683	706	718	729	620	567	513	376	319	0	0	
	N	Beam	9	0	0	0	39	34	0	0	0	0	0	0	0	0	0	0	40	95	0	0	
		Diffuse	77	0	0	11	65	98	110	134	157	166	172	172	163	157	137	112	96	82	19	0	
	NE	Beam	36	0	0	0	107	199	265	215	89	0	0	0	0	0	0	0	0	0	0	0	
		Diffuse	83	0	0	11	89	156	183	174	161	166	172	172	163	157	137	112	83	48	19	0	
	E	Beam	79	0	0	0	113	248	402	437	341	254	96	0	0	0	0	0	0	0	0	0	
		Diffuse	92	0	0	11	91	173	224	232	226	196	163	172	163	157	137	112	83	48	21	0	
	SE	Beam	96	0	0	0	52	152	304	403	393	404	326	209	65	0	0	0	0	0	0	0	
		Diffuse	92	0	0	11	70	139	195	223	239	230	214	186	147	157	137	112	83	48	22	0	
	Sunrise: 0401 Sunset: 2004	S	Beam	91	0	0	0	0	28	133	215	318	365	374	345	235	139	41	0	0	0	0	
			Diffuse	86	0	0	11	42	80	113	152	193	210	222	221	206	193	159	114	83	48	19	0
		SW	Beam	104	0	0	0	0	0	0	0	45	190	320	422	412	393	342	219	143	0	0	
			Diffuse	93	0	0	11	42	80	110	134	157	148	184	210	223	237	226	199	154	98	19	0
		W	Beam	91	0	0	0	0	0	0	0	0	0	78	253	348	418	442	349	297	0	0	
			Diffuse	94	0	0	11	42	80	110	134	157	166	172	158	187	221	233	227	196	150	21	0
		NW	Beam	46	0	0	0	0	0	0	0	0	0	0	0	0	80	197	284	275	277	0	0
			Diffuse	86	0	0	11	42	80	110	134	157	166	172	172	163	154	174	182	172	143	22	0
	Horiz.	Beam	198	0	0	1	23	90	223	358	425	549	596	608	590	456	358	257	134	65	21	0	
Diffuse		117	0	0	17	88	156	193	214	251	243	247	243	228	243	223	188	153	92	25	3		
Global		315	0	0	19	111	246	416	573	675	792	843	851	819	700	581	446	286	157	46	3		
June	Normal to beam		488	0	0	0	225	438	595	676	750	805	793	752	757	656	552	719	602	461	0	0	
	N	Beam	16	0	0	0	83	78	0	0	0	0	0	0	0	0	0	0	75	144	0	0	
		Diffuse	79	0	0	18	86	103	109	131	148	159	168	173	166	160	146	110	94	98	35	3	
	NE	Beam	55	0	0	0	203	338	359	275	146	0	0	0	0	0	0	0	0	0	0	0	
		Diffuse	88	0	0	18	128	182	186	172	149	159	168	173	166	160	146	110	87	59	34	3	
	E	Beam	104	0	0	0	204	400	512	506	439	308	122	0	0	0	0	0	0	0	0	0	
		Diffuse	95	0	0	18	129	201	225	225	208	183	157	173	166	160	146	110	87	59	36	3	
	SE	Beam	111	0	0	0	86	228	364	440	475	451	347	206	60	0	0	0	0	0	0	0	
		Diffuse	92	0	0	18	87	149	187	210	216	209	199	181	146	160	146	110	87	59	36	3	
	Sunrise: 0342 Sunset: 2033	S	Beam	88	0	0	0	0	3	116	233	330	369	356	326	225	119	40	0	0	0	0	
			Diffuse	83	0	0	18	51	83	95	136	167	187	203	211	199	188	162	99	87	59	35	3
		SW	Beam	110	0	0	0	0	0	0	0	0	16	175	297	402	406	360	452	332	196	0	0
			Diffuse	92	0	0	18	51	83	109	131	148	129	167	200	214	230	227	186	159	113	34	3
		W	Beam	109	0	0	0	0	0	0	0	0	0	65	242	349	390	599	544	421	0	0	
			Diffuse	96	0	0	18	51	83	109	131	148	159	168	153	182	217	235	218	212	180	36	3
		NW	Beam	63	0	0	0	0	0	0	0	0	0	0	0	0	87	192	396	438	400	0	0
			Diffuse	88	0	0	18	51	83	109	131	148	159	168	173	166	155	182	174	186	174	36	3
	Horiz.	Beam	242	0	0	2	49	160	304	433	562	667	691	660	639	509	372	395	245	120	12	0	
Diffuse		110	0	0	30	102	147	172	193	200	202	217	234	223	240	239	155	136	102	54	5		
Global		353	0	0	31	151	307	475	626	763	868	908	894	862	748	612	549	381	222	65	6		

Table continues

Table 2.11(n) Design 97.5 percentile of beam and diffuse irradiance on vertical and horizontal surfaces: Swindon (Little Rissington) (2002–2012)
— continued

Month	Orientation		Daily mean irradiance ($\text{W}\cdot\text{m}^{-2}$) and mean hourly irradiance ($\text{W}\cdot\text{m}^{-2}$) for the 21st day of the given month																			
			Mean	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130	1230	1330	1430	1530	1630	1730	1830	1930	2030
July	Normal to beam		484	0	0	0	166	338	508	592	611	688	676	763	760	743	703	634	554	496	0	0
	N	Beam	12	0	0	0	59	55	0	0	0	0	0	0	0	0	0	0	42	133	0	0
		Diffuse	75	0	0	10	66	94	103	128	151	162	173	167	161	149	132	110	85	86	27	0
	NE	Beam	45	0	0	0	150	262	308	241	116	0	0	0	0	0	0	0	0	0	0	0
		Diffuse	83	0	0	10	98	163	182	173	159	162	173	167	161	149	132	110	83	51	26	0
	E	Beam	90	0	0	0	153	316	450	459	374	281	119	0	0	0	0	0	0	0	0	0
		Diffuse	92	0	0	10	99	181	222	229	224	197	171	167	161	149	132	110	83	51	30	0
	SE	Beam	103	0	0	0	67	185	328	408	412	417	327	244	93	0	0	0	0	0	0	0
		Diffuse	91	0	0	10	69	137	187	216	233	228	219	183	149	149	132	110	83	51	31	0
	Sunrise: 0408 Sunset: 2017	S	Beam	96	0	0	0	0	14	118	209	309	344	397	366	293	188	67	0	0	0	0
			Diffuse	83	0	0	10	39	74	98	142	183	204	223	213	203	181	150	110	83	51	27
		SW	Beam	120	0	0	0	0	0	0	0	20	159	318	424	484	485	426	331	234	0	0
			Diffuse	91	0	0	10	39	74	103	128	151	139	181	198	215	220	215	197	163	114	26
		W	Beam	112	0	0	0	0	0	0	0	0	0	52	234	392	499	535	511	464	0	0
			Diffuse	93	0	0	10	39	74	103	128	151	162	173	145	177	201	218	223	211	180	30
		NW	Beam	60	0	0	0	0	0	0	0	0	0	0	0	69	220	331	391	422	0	0
			Diffuse	84	0	0	10	39	74	103	128	151	162	173	167	161	135	157	174	179	168	31
		Horiz.	Beam	219	0	0	4	28	107	236	355	435	547	570	650	624	559	458	333	212	115	34
Horiz.		Diffuse	108	0	2	15	79	139	174	203	236	236	254	224	217	204	189	168	136	88	34	5
Horiz.		Global	328	0	2	19	106	246	410	558	671	783	824	873	840	764	647	502	347	202	68	5
August	Normal to beam		443	0	0	0	403	366	384	497	541	657	607	528	726	652	962	768	0	0	0	
	N	Beam	1	0	0	0	26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Diffuse	66	0	0	0	18	58	87	120	142	158	160	165	163	134	116	76	53	104	24	0
	NE	Beam	29	0	0	0	296	204	133	60	0	0	0	0	0	0	0	0	0	0	0	0
		Diffuse	74	0	0	0	22	143	154	162	148	158	160	165	163	134	116	76	53	104	24	0
	E	Beam	70	0	0	0	393	337	308	312	223	111	0	0	0	0	0	0	0	0	0	0
		Diffuse	85	0	0	23	174	198	218	221	204	161	165	163	134	116	76	53	104	24	0	0
	SE	Beam	96	0	0	0	259	272	302	382	375	370	236	96	0	0	0	0	0	0	0	0
		Diffuse	89	0	0	0	19	132	177	216	241	245	222	203	175	134	116	76	53	104	24	0
	S	Beam	109	0	0	0	0	48	119	228	306	412	386	313	363	238	188	3	0	0	0	0
		Diffuse	86	0	0	0	18	51	104	158	197	226	232	241	235	187	155	85	44	104	24	0
	SW	Beam	135	0	0	0	0	0	0	0	59	213	309	346	545	514	736	525	0	0	0	0
		Diffuse	88	0	0	22	51	87	120	142	158	185	221	244	226	221	161	148	104	24	0	0
	W	Beam	113	0	0	0	0	0	0	0	0	0	52	177	407	489	853	739	0	0	0	0
		Diffuse	83	0	0	0	23	51	87	120	142	158	160	156	197	196	215	177	191	104	24	0
	NW	Beam	50	0	0	0	0	0	0	0	0	0	0	0	0	31	177	470	520	0	0	0
		Diffuse	72	0	0	0	19	51	87	120	142	158	160	165	163	116	141	124	147	104	24	0
		Horiz.	Beam	165	0	0	0	36	88	137	197	312	385	499	465	387	479	361	404	207	0	0
Horiz.		Diffuse	104	0	0	3	21	92	162	219	242	261	240	259	273	188	176	77	72	174	40	0
Horiz.		Global	269	0	0	3	58	181	298	416	554	647	740	725	659	667	537	481	278	174	40	0
September	Normal to beam		460	0	0	0	0	514	554	589	629	516	709	575	771	783	803	0	0	0	0	
	N	Beam	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Diffuse	45	0	0	0	1	25	53	82	105	120	133	125	122	99	76	48	90	3	0	0
	NE	Beam	15	0	0	0	0	229	126	0	0	0	0	0	0	0	0	0	0	0	0	0
		Diffuse	48	0	0	0	1	28	109	106	105	120	133	125	122	99	76	48	90	3	0	0
	E	Beam	66	0	0	0	0	475	439	359	240	67	0	0	0	0	0	0	0	0	0	0
		Diffuse	60	0	0	0	1	32	174	185	180	159	141	125	122	99	76	48	90	3	0	0
	SE	Beam	114	0	0	0	0	442	495	511	490	330	322	137	4	0	0	0	0	0	0	0
		Diffuse	69	0	0	0	1	29	165	199	216	217	210	172	142	81	76	48	90	3	0	0
	Sunrise: 0547 Sunset: 1812	S	Beam	153	0	0	0	0	151	261	363	453	399	548	414	476	369	236	0	0	0	0
			Diffuse	74	0	0	0	1	25	89	140	181	209	228	219	211	173	132	83	90	3	0
		SW	Beam	140	0	0	0	0	0	0	3	150	235	453	448	669	700	692	0	0	0	0
			Diffuse	69	0	0	0	1	28	53	82	93	138	185	199	219	210	196	168	90	3	0
		W	Beam	89	0	0	0	0	0	0	0	0	0	93	220	470	621	742	0	0	0	0
			Diffuse	60	0	0	0	1	32	53	82	105	120	133	124	163	171	181	178	90	3	0
		NW	Beam	22	0	0	0	0	0	0	0	0	0	0	0	0	178	358	0	0	0	0
			Diffuse	48	0	0	0	1	29	53	82	105	120	133	125	122	99	95	106	90	3	0
		Horiz.	Beam	126	0	0	0	61	127	214	294	365	321	440	333	384	300	196	0	0	0	0
Horiz.		Diffuse	70	0	0	2	9	27	88	133	165	183	222	177	194	132	100	62	149	32	0	0
Horiz.		Global	196	0	0	2	9	88	215	346	459	548	543	618	527	516	400	258	149	32	0	0

Table continues

Table 2.11(n) Design 97.5 percentile of beam and diffuse irradiance on vertical and horizontal surfaces: Swindon (Little Rissington) (2002–2012)
— continued

Month	Orientation		Daily mean irradiance ($\text{W}\cdot\text{m}^{-2}$) and mean hourly irradiance ($\text{W}\cdot\text{m}^{-2}$) for the 21st day of the given month																					
			Mean	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130	1230	1330	1430	1530	1630	1730	1830	1930	2030		
October	Normal to beam		445	0	0	0	0	0	0	491	598	681	723	718	761	728	635	0	0	0	0	0		
	N	Beam	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Diffuse	27	0	0	0	0	1	34	53	75	88	94	93	82	66	43	18	0	0	0	0	0	
	NE	Beam	2	0	0	0	0	0	0	52	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Diffuse	28	0	0	0	0	1	34	64	75	88	94	93	82	66	43	22	0	0	0	0	0	
	E	Beam	42	0	0	0	0	0	0	372	340	233	66	0	0	0	0	0	0	0	0	0	0	
		Diffuse	36	0	0	0	0	1	37	151	149	126	92	93	82	66	43	22	0	0	0	0	0	
	SE	Beam	113	0	0	0	0	0	0	473	556	568	499	362	219	43	0	0	0	0	0	0	0	
		Diffuse	50	0	0	0	0	1	37	179	201	200	183	153	111	63	43	18	0	0	0	0	0	
	Sunrise: 0637 Sunset: 1705	S	Beam	170	0	0	0	0	0	298	445	571	639	630	621	517	357	0	0	0	0	0	0	
			Diffuse	61	0	0	0	0	1	34	131	174	200	212	210	192	162	121	18	0	0	0	0	0
		SW	Beam	134	0	0	0	0	0	0	74	239	405	529	660	688	612	0	0	0	0	0	0	
			Diffuse	52	0	0	0	0	1	34	53	84	127	163	189	198	180	22	0	0	0	0	0	0
		W	Beam	58	0	0	0	0	0	0	0	0	0	0	118	312	457	509	0	0	0	0	0	0
			Diffuse	38	0	0	0	0	1	37	53	75	88	94	102	130	150	156	22	0	0	0	0	0
		NW	Beam	4	0	0	0	0	0	0	0	0	0	0	0	0	107	0	0	0	0	0	0	0
			Diffuse	28	0	0	0	0	1	37	53	75	88	94	93	82	66	62	18	0	0	0	0	0
Horiz.	Beam	85	0	0	0	0	0	27	119	209	288	332	325	308	234	130	57	0	0	0	0	0	0	
	Diffuse	39	0	0	0	0	2	48	91	117	129	133	132	112	92	66	16	1	0	0	0	0	0	
	Global	124	0	0	0	0	3	75	210	327	418	464	457	421	326	196	73	1	0	0	0	0	0	
November	Normal to beam		380	0	0	0	0	0	0	516	606	650	682	689	657	0	0	0	0	0	0	0		
	N	Beam	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Diffuse	16	0	0	0	0	0	2	33	44	58	65	64	55	38	22	0	0	0	0	0	0	
	NE	Beam	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Diffuse	16	0	0	0	0	0	2	30	44	58	65	64	55	38	26	0	0	0	0	0	0	
	E	Beam	23	0	0	0	0	0	0	283	201	60	0	0	0	0	0	0	0	0	0	0	0	
		Diffuse	21	0	0	0	0	0	2	33	114	99	70	64	55	38	23	0	0	0	0	0	0	
	SE	Beam	92	0	0	0	0	0	0	496	529	478	380	242	87	0	0	0	0	0	0	0	0	
		Diffuse	36	0	0	0	0	0	3	36	169	177	166	140	101	53	20	0	0	0	0	0	0	
	Sunrise: 0732 Sunset: 1613	S	Beam	139	0	0	0	0	0	0	419	547	616	641	609	515	0	0	0	0	0	0	0	0
			Diffuse	47	0	0	0	0	0	2	33	149	182	198	199	183	150	22	0	0	0	0	0	0
		SW	Beam	105	0	0	0	0	0	0	96	245	393	527	619	641	0	0	0	0	0	0	0	0
			Diffuse	38	0	0	0	0	0	2	30	66	110	147	173	185	179	26	0	0	0	0	0	0
		W	Beam	32	0	0	0	0	0	0	0	0	0	104	267	391	0	0	0	0	0	0	0	0
			Diffuse	22	0	0	0	0	0	2	33	44	58	65	78	106	122	23	0	0	0	0	0	0
		NW	Beam	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			Diffuse	16	0	0	0	0	0	3	36	44	58	65	64	55	38	20	0	0	0	0	0	0
Horiz.	Beam	44	0	0	0	0	0	3	33	105	166	201	207	179	118	48	0	0	0	0	0	0	0	
	Diffuse	24	0	0	0	0	1	3	42	73	92	99	96	81	57	22	3	0	0	0	0	0	0	
	Global	68	0	0	0	0	1	6	75	178	258	300	303	260	176	70	3	0	0	0	0	0	0	
December	Normal to beam		375	0	0	0	0	0	0	797	797	238	511	613	422	0	0	0	0	0	0	0		
	N	Beam	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Diffuse	13	0	0	0	0	0	0	10	35	55	57	55	46	32	12	0	0	0	0	0	0	
	NE	Beam	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Diffuse	13	0	0	0	0	0	0	9	35	55	57	55	46	32	12	0	0	0	0	0	0	
	E	Beam	33	0	0	0	0	0	0	457	294	33	0	0	0	0	0	0	0	0	0	0	0	
		Diffuse	22	0	0	0	0	0	0	10	161	129	74	55	46	32	12	0	0	0	0	0	0	
	SE	Beam	97	0	0	0	0	0	0	779	719	185	312	253	85	0	0	0	0	0	0	0	0	
		Diffuse	39	0	0	0	0	0	0	11	256	254	122	132	101	56	12	0	0	0	0	0	0	
	Sunrise: 0807 Sunset: 1601	S	Beam	125	0	0	0	0	0	0	645	723	228	492	563	349	0	0	0	0	0	0	0	0
			Diffuse	46	0	0	0	0	0	0	10	216	255	136	179	174	130	12	0	0	0	0	0	0
		SW	Beam	80	0	0	0	0	0	0	133	303	138	385	542	408	0	0	0	0	0	0	0	0
			Diffuse	33	0	0	0	0	0	0	9	66	132	107	151	169	147	12	0	0	0	0	0	0
		W	Beam	20	0	0	0	0	0	0	0	0	0	51	204	229	0	0	0	0	0	0	0	0
			Diffuse	17	0	0	0	0	0	0	10	35	55	57	65	89	96	12	0	0	0	0	0	0
		NW	Beam	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			Diffuse	13	0	0	0	0	0	0	11	35	55	57	55	46	32	12	0	0	0	0	0	0
Horiz.	Beam	27	0	0	0	0	0	0	9	103	164	59	128	132	61	4	0	0	0	0	0	0	0	
	Diffuse	21	0	0	0	0	0	0	13	54	85	111	92	72	57	19	0	0	0	0	0	0	0	
	Global	48	0	0	0	0	0	0	22	157	249	170	220	204	118	22	0	0	0	0	0	0	0	