

Table 2.13(e) Design 97.5 percentile of beam and diffuse irradiance on vertical and horizontal surfaces: Glasgow (Bishopton) (2002–2011)

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 Sunrise: 0829 Sunset: 1629	Normal to beam		316	0	0	0	0	0	0	0	0	0	0	0	0	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	0	4	30	37	50	52	49	38	36	12	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	0	3	26	37	50	52	49	38	41	12	0	0	0	0
	E	Beam	15	0	0	0	0	0	0	0	0	0	206	151	0	0	0	0	0	0	0	0	0
		Diffuse	16	0	0	0	0	0	0	0	4	29	90	81	52	49	38	35	12	0	0	0	0
	SE	Beam	75	0	0	0	0	0	0	0	0	0	415	525	387	296	169	0	0	0	0	0	0
		Diffuse	30	0	0	0	0	0	0	0	4	33	144	172	140	115	74	31	12	0	0	0	0
	S	Beam	109	0	0	0	0	0	0	0	0	0	380	591	548	566	528	0	0	0	0	0	0
		Diffuse	39	0	0	0	0	0	0	0	4	30	135	188	179	179	161	36	12	0	0	0	0
	SW	Beam	79	0	0	0	0	0	0	0	0	0	123	311	388	505	577	0	0	0	0	0	0
		Diffuse	31	0	0	0	0	0	0	0	3	26	69	120	141	165	172	41	12	0	0	0	0
	W	Beam	18	0	0	0	0	0	0	0	0	0	0	0	1	148	288	0	0	0	0	0	0
		Diffuse	17	0	0	0	0	0	0	0	4	29	37	50	48	79	103	35	12	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	0	4	33	37	50	52	49	38	31	12	0	0	0	0
Horiz.	Beam	30	0	0	0	0	0	0	3	52	78	144	140	137	107	60	0	0	0	0	0	0	
	Diffuse	19	0	0	0	0	0	0	5	31	65	79	84	77	60	37	21	0	0	0	0	0	
	Global	49	0	0	0	0	0	0	8	83	142	222	223	215	167	97	21	0	0	0	0	0	
February Sunrise: 0728 Sunset: 1735	Normal to beam		305	0	0	0	0	0	0	549	645	229	407	639	531	340	11	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	32	0	0	0	0	0	1	36	49	82	188	164	100	69	52	21	5	0	0	0	0
	NE	Beam	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0
		Diffuse	32	0	0	0	0	0	1	34	47	82	188	164	100	69	52	21	5	0	0	0	0
	E	Beam	32	0	0	0	0	0	0	0	384	321	60	3	0	0	0	0	0	0	0	0	0
		Diffuse	42	0	0	0	0	0	1	40	138	166	256	164	100	69	52	21	5	0	0	0	0
	SE	Beam	83	0	0	0	0	0	0	0	533	594	186	266	291	122	0	0	0	0	0	0	0
		Diffuse	61	0	0	0	0	0	1	42	174	247	349	316	176	93	52	21	5	0	0	0	0
	S	Beam	113	0	0	0	0	0	0	0	370	519	203	373	569	430	232	6	0	0	0	0	0
		Diffuse	71	0	0	0	0	0	1	36	134	224	362	378	263	168	118	21	5	0	0	0	0
	SW	Beam	77	0	0	0	0	0	0	0	0	140	101	261	514	486	330	11	0	0	0	0	0
		Diffuse	58	0	0	0	0	0	1	34	49	112	286	314	246	182	146	21	5	0	0	0	0
	W	Beam	27	0	0	0	0	0	0	0	0	0	0	0	0	158	258	235	10	0	0	0	0
		Diffuse	39	0	0	0	0	0	1	40	49	82	188	164	135	126	119	21	5	0	0	0	0
	NW	Beam	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3	0	0	0	0	0
		Diffuse	32	0	0	0	0	0	1	42	49	82	188	164	100	69	54	21	5	0	0	0	0
Horiz.	Beam	48	0	0	0	0	0	0	67	129	209	87	163	245	175	82	1	0	0	0	0	0	
	Diffuse	58	0	0	0	0	0	2	40	79	134	393	323	166	112	95	42	8	0	0	0	0	
	Global	106	0	0	0	0	0	3	108	209	343	480	486	411	287	177	43	8	0	0	0	0	
March Sunrise: 0616 Sunset: 1834	Normal to beam		457	0	0	0	0	10	449	393	707	710	674	693	694	726	686	200	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	46	0	0	0	0	0	26	62	87	109	150	172	157	140	100	59	30	2	0	0	0
	NE	Beam	7	0	0	0	0	0	5	137	27	0	0	0	0	0	0	0	0	0	0	0	0
		Diffuse	47	0	0	0	0	0	26	96	95	109	150	172	157	140	100	59	30	2	0	0	0
	E	Beam	49	0	0	0	0	0	9	384	272	341	170	0	0	0	0	0	0	0	0	0	0
		Diffuse	57	0	0	0	0	0	26	162	163	171	177	172	157	140	100	59	30	2	0	0	0
	SE	Beam	109	0	0	0	0	0	8	407	357	602	522	383	251	91	0	0	0	0	0	0	0
		Diffuse	73	0	0	0	0	0	26	168	186	232	291	286	217	147	100	59	30	2	0	0	0
	S	Beam	159	0	0	0	0	0	2	191	233	510	569	555	549	488	413	270	39	0	0	0	0
		Diffuse	89	0	0	0	0	0	26	111	152	211	306	351	321	285	200	112	47	2	0	0	0
	SW	Beam	140	0	0	0	0	0	0	0	0	120	282	402	525	599	662	616	165	0	0	0	0
		Diffuse	83	0	0	0	0	0	26	62	87	118	213	294	312	324	272	192	86	2	0	0	0
	W	Beam	79	0	0	0	0	0	0	0	0	0	0	14	193	359	524	601	194	0	0	0	0
		Diffuse	64	0	0	0	0	0	26	62	87	109	150	147	196	240	232	188	95	2	0	0	0
	NW	Beam	18	0	0	0	0	0	0	0	0	0	0	0	0	0	78	234	110	0	0	0	0
		Diffuse	49	0	0	0	0	0	26	62	87	109	150	172	157	140	104	103	69	2	0	0	0
Horiz.	Beam	110	0	0	0	0	0	2	133	161	351	391	382	377	337	286	190	28	0	0	0	0	
	Diffuse	76	0	0	0	0	1	52	107	156	161	244	294	262	234	156	88	61	4	0	0	0	
	Global	186	0	0	0	0	1	54	240	317	512	635	675	640	571	443	278	89	4	0	0	0	

Table continues

Table 2.13(e) Design 97.5 percentile of beam and diffuse irradiance on vertical and horizontal surfaces: Glasgow (Bishopton) (2002–2011)
— 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		545	0	0	0	0	562	582	639	595	670	700	708	709	711	713	712	713	706	0	0		
	N	Beam	6	0	0	0	0	38	0	0	0	0	0	0	0	0	0	0	0	0	115	0	0	
		Diffuse	60	0	0	0	17	46	69	96	118	138	153	159	154	141	121	94	64	53	8	0	0	
	NE	Beam	43	0	0	0	0	415	325	220	68	0	0	0	0	0	0	0	0	0	0	0	0	
		Diffuse	67	0	0	0	21	136	138	133	119	138	153	159	154	141	121	94	64	31	8	0	0	
	E	Beam	101	0	0	0	0	549	541	523	387	295	139	0	0	0	0	0	0	0	0	0	0	
		Diffuse	79	0	0	0	21	168	189	203	194	184	160	159	154	141	121	94	64	31	10	0	0	
	SE	Beam	135	0	0	0	0	361	440	519	480	497	435	320	174	13	0	0	0	0	0	0	0	
		Diffuse	83	0	0	0	18	123	165	202	216	230	231	209	169	119	121	94	64	31	10	0	0	
	Sunrise: 0457 Sunset: 1936	S	Beam	139	0	0	0	0	81	211	292	408	475	492	464	400	302	177	35	0	0	0	0	
			Diffuse	83	0	0	0	17	41	81	131	172	210	240	251	240	215	175	121	61	31	8	0	0
		SW	Beam	158	0	0	0	0	0	0	0	0	80	238	376	482	553	582	565	508	407	0	0	
			Diffuse	90	0	0	0	21	41	69	96	118	135	184	223	245	253	245	218	180	124	8	0	0
		W	Beam	131	0	0	0	0	0	0	0	0	0	0	40	218	382	521	622	683	690	0	0	0
			Diffuse	86	0	0	0	21	41	69	96	118	138	153	141	180	210	230	232	224	193	10	0	0
		NW	Beam	62	0	0	0	0	0	0	0	0	0	0	0	0	0	154	315	458	569	0	0	0
			Diffuse	72	0	0	0	18	41	69	96	118	138	153	159	154	141	138	155	168	164	10	0	0
		Horiz.	Beam	182	0	0	0	39	112	198	300	344	442	495	508	490	447	382	297	201	99	19	0	0
Horiz.		Diffuse	88	0	0	3	18	65	108	146	183	205	228	238	230	211	182	141	96	46	9	0	0	
Horiz.		Global	270	0	0	3	57	177	307	446	527	647	723	746	720	658	564	438	297	145	27	0	0	
May	Normal to beam		498	0	0	0	14	238	490	315	288	980	898	1022	985	977	983	849	617	301	0	0		
	N	Beam	6	0	0	0	5	34	0	0	0	0	0	0	0	0	0	0	27	74	0	0	0	
		Diffuse	66	0	0	1	34	92	99	132	156	134	144	143	138	128	111	95	75	85	26	0	0	
	NE	Beam	27	0	0	0	12	182	288	120	46	0	0	0	0	0	0	0	0	0	0	0	0	
		Diffuse	73	0	0	1	34	142	171	177	181	134	144	143	138	128	111	95	80	57	26	0	0	
	E	Beam	69	0	0	0	13	223	435	245	178	406	163	0	0	0	0	0	0	0	0	0	0	
		Diffuse	80	0	0	1	34	156	212	217	225	157	138	143	138	128	111	95	80	57	26	0	0	
	SE	Beam	107	0	0	0	6	134	328	227	206	637	477	376	167	0	0	0	0	0	0	0	0	
		Diffuse	81	0	0	1	34	126	182	211	234	186	185	157	129	128	111	95	80	57	26	0	0	
	Sunrise: 0353 Sunset: 2035	S	Beam	135	0	0	0	0	28	75	113	494	511	595	534	442	313	127	0	0	0	0	0	0
			Diffuse	76	0	0	1	34	73	100	162	203	168	190	184	176	157	127	96	80	57	26	0	0
		SW	Beam	161	0	0	0	0	0	0	0	63	246	466	589	674	712	595	383	147	0	0	0	0
			Diffuse	81	0	0	1	34	73	99	132	156	113	150	168	183	187	178	172	159	109	26	0	0
		W	Beam	130	0	0	0	0	0	0	0	0	0	64	298	511	694	715	568	282	0	0	0	0
			Diffuse	81	0	0	1	34	73	99	132	156	134	144	119	146	166	176	192	203	153	26	0	0
		NW	Beam	59	0	0	0	0	0	0	0	0	0	0	0	0	49	270	416	420	251	0	0	0
			Diffuse	73	0	0	1	34	73	99	132	156	134	144	143	138	106	122	143	168	143	26	0	0
		Horiz.	Beam	243	0	0	0	3	76	223	182	196	743	720	829	772	707	622	440	239	76	2	0	0
Horiz.		Diffuse	88	0	0	1	66	144	168	249	299	130	159	131	133	125	108	112	122	109	42	0	0	
Horiz.		Global	330	0	0	1	69	220	390	431	495	873	879	960	906	831	730	552	362	185	44	0	0	
June	Normal to beam		429	0	0	0	84	373	515	322	806	682	813	847	870	751	866	630	573	7	4	0	0	
	N	Beam	6	0	0	0	32	71	0	0	0	0	0	0	0	0	0	0	34	2	2	0	0	
		Diffuse	72	0	2	29	68	101	103	137	131	155	154	153	148	145	122	114	89	50	24	11	0	
	NE	Beam	41	0	0	0	76	292	316	134	161	0	0	0	0	0	0	0	0	0	0	0	0	
		Diffuse	81	0	2	31	82	169	179	185	133	155	154	153	148	145	122	114	91	50	24	11	0	
	E	Beam	86	0	0	0	75	342	450	249	499	289	161	0	0	0	0	0	0	0	0	0	0	
		Diffuse	89	0	2	30	82	184	215	222	192	191	150	153	148	145	122	114	91	50	24	11	0	
	SE	Beam	107	0	0	0	30	192	321	218	546	422	412	297	139	0	0	0	0	0	0	0	0	
		Diffuse	88	0	2	28	67	138	180	212	200	219	193	169	138	145	122	114	91	50	24	11	0	
	Sunrise: 0329 Sunset: 2110	S	Beam	108	0	0	0	0	3	60	272	308	422	454	437	314	251	80	0	0	0	0	0	0
			Diffuse	81	0	2	29	46	79	95	161	152	195	195	184	178	136	117	91	50	24	11	0	0
		SW	Beam	119	0	0	0	0	0	0	0	14	185	345	479	484	592	419	339	3	1	0	0	0
			Diffuse	85	0	2	31	46	79	103	137	131	132	154	177	191	211	189	195	165	50	24	11	0
		W	Beam	94	0	0	0	0	0	0	0	0	0	34	241	371	586	513	514	6	3	0	0	0
			Diffuse	84	0	2	30	46	79	103	137	131	155	154	127	154	189	188	216	208	50	24	11	0
		NW	Beam	41	0	0	0	0	0	0	0	0	0	0	0	0	40	237	306	387	6	3	0	0
			Diffuse	76	0	2	28	46	79	103	137	131	155	154	153	148	126	133	168	177	50	24	11	0
		Horiz.	Beam	233	0	1	18	18	131	249	195	571	536	676	714	714	573	586	357	253	2	1	0*	0
Horiz.		Diffuse	102	0	3	42	97	144	171	257	163	222	189	180	168	193	139	173	145	100	47	18*	0	
Horiz.		Global	335	0	4	60	115	275	421	453	734	758	865	894	881	766	725	530	398	102	48	18*	0	

* Additional values at 2130: Horiz. Beam = 0; Horiz. Diffuse = 3; Horiz. Global = 3

Table continues

Table 2.13(e) Design 97.5 percentile of beam and diffuse irradiance on vertical and horizontal surfaces: Glasgow (Bishopton) (2002–2011)
— 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		442	0	0	0	130	73	11	213	427	531	735	865	912	898	819	791	742	668	139	0	
	N	Beam	11	0	0	0	49	13	0	0	0	0	0	0	0	0	0	0	9	143	58	0	
		Diffuse	70	0	0	12	61	83	78	128	148	159	154	147	141	132	120	101	66	77	57	8	
	NE	Beam	15	0	0	0	119	58	7	89	85	0	0	0	0	0	0	0	0	0	0	0	
		Diffuse	73	0	0	12	85	97	78	174	168	159	154	147	141	132	120	101	79	55	31	8	
	E	Beam	44	0	0	0	119	69	10	171	276	238	162	0	0	0	0	0	0	0	0	0	
		Diffuse	78	0	0	12	85	101	78	202	224	206	158	147	141	132	120	101	79	55	31	9	
	SE	Beam	76	0	0	0	49	39	7	152	305	350	405	341	183	0	0	0	0	0	0	0	
		Diffuse	81	0	0	12	61	91	78	196	232	236	205	170	137	132	120	101	79	55	31	9	
	Sunrise: 0359 Sunset: 2049	S	Beam	113	0	0	0	0	0	0	44	156	257	410	501	500	419	278	139	0	0	0	0
			Diffuse	80	0	0	12	37	63	78	159	189	211	206	195	183	165	143	106	79	55	31	8
		SW	Beam	154	0	0	0	0	0	0	0	0	13	175	368	524	606	589	559	471	342	48	0
			Diffuse	85	0	0	12	37	63	78	128	148	147	160	174	186	193	196	181	156	121	53	8
		W	Beam	139	0	0	0	0	0	0	0	0	0	0	19	241	438	555	651	676	626	125	0
			Diffuse	86	0	0	12	37	63	78	128	148	159	154	120	145	168	190	198	196	183	80	9
		NW	Beam	72	0	0	0	0	0	0	0	0	0	0	0	0	13	196	362	485	544	129	0
			Diffuse	78	0	0	12	37	63	78	128	148	159	154	147	141	106	129	146	159	165	82	9
		Horiz.	Beam	209	0	0	5	22	22	5	120	286	399	588	704	723	663	534	428	307	185	20	6
Horiz.		Diffuse	99	0	0	18	76	133	154	255	261	261	208	169	151	144	147	128	106	80	64	12	
Horiz.		Global	308	0	0	23	98	156	159	375	547	660	796	873	874	807	681	556	413	265	84	18	
August	Normal to beam		463	0	0	0	0	289	451	522	619	572	707	641	740	725	705	688	668	80	0	0	
	N	Beam	2	0	0	0	0	25	0	0	0	0	0	0	0	0	0	0	0	12	0	0	
		Diffuse	56	0	0	0	11	56	74	100	119	139	140	147	135	125	108	85	59	43	8	0	
	NE	Beam	31	0	0	0	0	218	259	190	82	0	0	0	0	0	0	0	0	0	0	0	
		Diffuse	63	0	0	0	11	119	146	142	122	139	140	147	135	125	108	85	59	32	9	0	
	E	Beam	82	0	0	0	0	283	421	432	411	261	153	0	0	0	0	0	0	0	0	0	
		Diffuse	75	0	0	0	11	141	192	207	200	188	148	147	135	125	108	85	59	32	10	0	
	SE	Beam	118	0	0	0	0	182	337	421	499	427	445	297	193	24	0	0	0	0	0	0	
		Diffuse	79	0	0	0	11	108	168	204	221	230	208	194	149	108	108	85	59	32	10	0	
	Sunrise: 0458 Sunset: 1944	S	Beam	133	0	0	0	0	0	55	164	295	342	476	444	486	412	306	180	42	0	0	0
			Diffuse	77	0	0	0	11	45	87	135	172	209	215	227	207	186	153	110	59	32	8	0
		SW	Beam	138	0	0	0	0	0	0	0	0	58	228	331	495	558	574	548	481	47	0	0
			Diffuse	79	0	0	0	11	45	74	100	119	137	163	201	208	216	209	189	156	55	9	0
		W	Beam	101	0	0	0	0	0	0	0	0	0	0	24	214	378	506	595	638	78	0	0
			Diffuse	73	0	0	0	11	45	74	100	119	139	140	131	153	179	195	199	190	66	10	0
		NW	Beam	38	0	0	0	0	0	0	0	0	0	0	0	0	0	141	294	421	64	0	0
			Diffuse	63	0	0	0	11	45	74	100	119	139	140	147	135	125	119	134	143	61	10	0
		Horiz.	Beam	168	0	0	0	1	56	151	243	356	376	500	462	515	461	384	294	196	12	13	0
Horiz.		Diffuse	84	0	1	2	18	86	129	166	182	221	197	221	184	172	152	123	87	67	10	0	
Horiz.		Global	252	0	1	2	19	142	281	409	538	598	697	683	699	633	536	417	283	80	24	0	
September	Normal to beam		426	0	0	0	0	0	213	633	674	711	720	716	689	720	707	180	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	41	0	0	0	0	10	43	68	92	115	135	143	114	114	81	53	22	0	0	0	
	NE	Beam	11	0	0	0	0	0	101	160	11	0	0	0	0	0	0	0	0	0	0	0	
		Diffuse	43	0	0	0	0	10	79	95	80	115	135	143	114	114	81	53	22	0	0	0	
	E	Beam	66	0	0	0	0	0	200	520	436	304	129	0	0	0	0	0	0	0	0	0	
		Diffuse	55	0	0	0	0	10	110	178	178	169	145	143	114	114	81	53	22	0	0	0	
	SE	Beam	129	0	0	0	0	0	183	576	606	588	503	373	213	54	0	0	0	0	0	0	
		Diffuse	68	0	0	0	0	10	105	191	217	238	247	225	145	108	81	53	22	0	0	0	
	Sunrise: 0558 Sunset: 1824	S	Beam	164	0	0	0	0	0	58	294	421	528	582	587	533	486	374	63	0	0	0	0
			Diffuse	78	0	0	0	0	10	66	126	174	224	269	287	219	227	157	80	22	0	0	0
		SW	Beam	121	0	0	0	0	0	0	0	0	158	321	456	541	633	646	159	0	0	0	0
			Diffuse	68	0	0	0	0	10	43	68	92	133	198	249	221	268	222	111	22	0	0	0
		W	Beam	58	0	0	0	0	0	0	0	0	0	0	59	232	410	539	162	0	0	0	0
			Diffuse	53	0	0	0	0	10	43	68	92	115	135	133	150	206	197	112	22	0	0	0
		NW	Beam	8	0	0	0	0	0	0	0	0	0	0	0	0	0	116	71	0	0	0	0
			Diffuse	43	0	0	0	0	10	43	68	92	115	135	143	114	114	95	83	22	0	0	0
		Horiz.	Beam	114	0	0	0	0	0	42	208	295	367	404	406	369	338	262	44	1	0	0	0
Horiz.		Diffuse	65	0	0	0	0	16	84	103	137	171	208	225	170	176	121	106	36	0	0	0	
Horiz.		Global	179	0	0	0	0	16	126	311	431	539	612	632	539	514	383	150	37	0	0	0	

Table continues

Table 2.13(e) Design 97.5 percentile of beam and diffuse irradiance on vertical and horizontal surfaces: Glasgow (Bishopton) (2002–2011)
— 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		362	0	0	0	0	0	0	286	348	607	419	733	656	637	653	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	15	39	61	74	84	95	75	60	60	79	2	0	0	0	0	
	NE	Beam	2	0	0	0	0	0	0	40	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Diffuse	27	0	0	0	0	1	15	53	61	74	84	95	75	60	60	79	2	0	0	0	0	
	E	Beam	30	0	0	0	0	0	0	225	211	235	59	0	0	0	0	0	0	0	0	0	0	
		Diffuse	35	0	0	0	0	1	18	109	123	120	98	95	75	60	60	79	2	0	0	0	0	
	SE	Beam	90	0	0	0	0	0	0	279	332	532	311	412	230	75	0	0	0	0	0	0	0	
		Diffuse	49	0	0	0	0	1	18	125	158	189	167	187	117	69	60	79	2	0	0	0	0	
	Sunrise: 0658 Sunset: 1707	S	Beam	143	0	0	0	0	0	169	258	517	381	668	564	481	397	0	0	0	0	0	0	
			Diffuse	63	0	0	0	0	1	15	92	137	185	186	255	194	163	212	79	2	0	0	0	0
		SW	Beam	117	0	0	0	0	0	0	33	199	228	533	568	605	637	0	0	0	0	0	0	
			Diffuse	57	0	0	0	0	1	15	39	72	111	144	219	195	191	309	79	2	0	0	0	0
		W	Beam	50	0	0	0	0	0	0	0	0	0	0	85	239	375	504	0	0	0	0	0	0
			Diffuse	40	0	0	0	0	1	18	39	61	74	84	100	119	138	255	79	2	0	0	0	0
		NW	Beam	3	0	0	0	0	0	0	0	0	0	0	0	0	76	0	0	0	0	0	0	0
			Diffuse	28	0	0	0	0	1	18	39	61	74	84	95	75	60	81	79	2	0	0	0	0
	Horiz.	Beam	58	0	0	0	0	0	31	51	98	215	164	288	235	183	122	0	0	0	0	0	0	
		Diffuse	45	0	0	0	0	6	17	74	111	114	147	145	113	91	105	132	17	0	0	0	0	
		Global	103	0	0	0	0	6	48	125	209	329	312	433	348	274	227	132	17	0	0	0	0	
November	Normal to beam		330	0	0	0	0	0	0	268	637	637	649	494	281	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	14	0	0	0	0	0	0	14	62	45	64	56	43	30	14	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	14	0	0	0	0	0	0	12	62	45	64	56	43	30	15	0	0	0	0	0	0	
	E	Beam	20	0	0	0	0	0	0	157	239	89	0	0	0	0	0	0	0	0	0	0	0	
		Diffuse	22	0	0	0	0	0	0	14	179	98	84	56	43	30	14	0	0	0	0	0	0	
	SE	Beam	83	0	0	0	0	0	0	262	577	496	394	200	51	0	0	0	0	0	0	0	0	
		Diffuse	40	0	0	0	0	0	0	16	253	183	215	152	91	47	13	0	0	0	0	0	0	
	Sunrise: 0803 Sunset: 1604	S	Beam	113	0	0	0	0	0	0	214	577	612	627	453	229	0	0	0	0	0	0	0	0
			Diffuse	48	0	0	0	0	0	0	14	219	183	252	214	154	99	14	0	0	0	0	0	0
		SW	Beam	77	0	0	0	0	0	0	41	239	370	492	440	273	0	0	0	0	0	0	0	0
			Diffuse	35	0	0	0	0	0	0	12	97	98	174	178	151	112	15	0	0	0	0	0	0
		W	Beam	16	0	0	0	0	0	0	0	0	0	0	69	170	157	0	0	0	0	0	0	0
			Diffuse	18	0	0	0	0	0	0	14	62	45	64	66	83	78	14	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	14	0	0	0	0	0	0	16	62	45	64	56	43	30	13	0	0	0	0	0	0
	Horiz.	Beam	27	0	0	0	0	0	21	35	127	151	156	102	39	14	0	0	0	0	0	0	0	
		Diffuse	23	0	0	0	0	0	1	15	128	70	107	89	72	57	18	4	0	0	0	0	0	
		Global	50	0	0	0	0	0	1	36	163	197	259	245	174	97	32	4	0	0	0	0	0	
December	Normal to beam		267	0	0	0	0	0	0	0	584	570	615	371	0	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	8	0	0	0	0	0	0	0	18	28	37	40	34	29	7	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	8	0	0	0	0	0	0	0	16	28	37	40	34	30	8	0	0	0	0	0	0	
	E	Beam	14	0	0	0	0	0	0	0	239	105	0	0	0	0	0	0	0	0	0	0	0	
		Diffuse	11	0	0	0	0	0	0	0	17	82	59	40	34	28	7	0	0	0	0	0	0	
	SE	Beam	66	0	0	0	0	0	0	0	542	464	403	172	0	0	0	0	0	0	0	0	0	
		Diffuse	24	0	0	0	0	0	0	0	19	155	145	132	82	28	6	0	0	0	0	0	0	
	Sunrise: 0844 Sunset: 1547	S	Beam	85	0	0	0	0	0	0	0	527	551	603	351	0	0	0	0	0	0	0	0	0
			Diffuse	28	0	0	0	0	0	0	0	18	151	166	181	131	29	7	0	0	0	0	0	0
		SW	Beam	54	0	0	0	0	0	0	0	203	316	451	324	0	0	0	0	0	0	0	0	0
			Diffuse	21	0	0	0	0	0	0	0	16	74	109	144	124	30	8	0	0	0	0	0	0
		W	Beam	6	0	0	0	0	0	0	0	0	0	34	108	0	0	0	0	0	0	0	0	0
			Diffuse	9	0	0	0	0	0	0	0	17	28	37	43	64	28	7	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	8	0	0	0	0	0	0	0	19	28	37	40	34	28	6	0	0	0	0	0	0
	Horiz.	Beam	16	0	0	0	0	0	0	24	76	99	113	59	12	12	0	0	0	0	0	0	0	
		Diffuse	13	0	0	0	0	0	0	1	21	44	59	63	61	43	8	0	0	0	0	0	0	
		Global	29	0	0	0	0	0	0	1	44	121	159	176	120	55	20	0	0	0	0	0	0	