

Table 2.13(j) Design 97.5 percentile of beam and diffuse irradiance on vertical and horizontal surfaces: Norwich (Holbeach) (2002–2011)

Month	Orientation		Daily mean irradiance ($W \cdot m^{-2}$) and mean hourly irradiance ($W \cdot m^{-2}$) 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: 0758 Sunset: 1623	Normal to beam		300	0	0	0	0	0	0	0	0	518	586	724	349	319	501	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	17	0	0	0	0	0	0	0	21	64	50	66	64	58	41	34	14	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	17	0	0	0	0	0	0	18	64	50	66	64	58	41	39	14	0	0	0	0	0
	E	Beam	28	0	0	0	0	0	0	0	314	235	120	0	0	0	0	0	0	0	0	0	0
		Diffuse	27	0	0	0	0	0	0	22	224	100	84	64	58	41	34	14	0	0	0	0	0
	SE	Beam	86	0	0	0	0	0	0	0	507	532	568	216	134	100	0	0	0	0	0	0	0
		Diffuse	44	0	0	0	0	0	0	25	326	169	194	128	100	64	29	14	0	0	0	0	0
	S	Beam	110	0	0	0	0	0	0	0	403	518	683	333	291	411	0	0	0	0	0	0	0
		Diffuse	49	0	0	0	0	0	0	21	271	166	222	162	146	141	34	14	0	0	0	0	0
	SW	Beam	70	0	0	0	0	0	0	0	63	200	398	255	277	480	0	0	0	0	0	0	0
		Diffuse	35	0	0	0	0	0	0	18	92	92	152	139	142	159	39	14	0	0	0	0	0
	W	Beam	17	0	0	0	0	0	0	0	0	0	0	28	102	269	0	0	0	0	0	0	0
		Diffuse	22	0	0	0	0	0	0	22	64	50	66	74	91	106	34	14	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	17	0	0	0	0	0	0	25	64	50	66	64	58	41	29	14	0	0	0	0	0	
Horiz.	Beam	34	0	0	0	0	0	0	38	84	142	208	103	84	98	69	0	0	0	0	0	0	
	Diffuse	28	0	0	0	0	0	2	21	121	79	99	119	109	69	33	24	0	0	0	0	0	
	Global	63	0	0	0	0	0	2	59	205	222	308	222	193	167	102	24	0	0	0	0	0	
February Sunrise: 0704 Sunset: 1722	Normal to beam		477	0	0	0	0	0	611	644	689	605	720	572	718	688	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	28	0	0	0	0	16	39	63	83	90	107	86	86	68	35	5	0	0	0	0	0
	NE	Beam	5	0	0	0	0	0	113	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Diffuse	29	0	0	0	0	16	60	63	83	90	107	86	86	68	39	5	0	0	0	0	0
	E	Beam	55	0	0	0	0	0	497	413	295	111	0	0	0	0	0	0	0	0	0	0	0
		Diffuse	39	0	0	0	0	19	147	147	137	105	107	86	86	68	38	5	0	0	0	0	0
	SE	Beam	125	0	0	0	0	0	589	613	606	455	417	213	103	0	0	0	0	0	0	0	0
		Diffuse	54	0	0	0	0	19	168	192	208	184	196	127	99	68	34	5	0	0	0	0	0
	S	Beam	166	0	0	0	0	0	337	453	562	532	642	486	544	427	0	0	0	0	0	0	0
		Diffuse	66	0	0	0	0	16	111	156	198	201	255	191	219	199	35	5	0	0	0	0	0
	SW	Beam	117	0	0	0	0	0	28	189	298	491	475	665	665	0	0	0	0	0	0	0	0
		Diffuse	56	0	0	0	0	16	39	61	113	148	216	188	253	278	39	5	0	0	0	0	0
	W	Beam	48	0	0	0	0	0	0	0	0	0	52	186	397	513	0	0	0	0	0	0	0
		Diffuse	40	0	0	0	0	19	39	63	83	90	101	121	179	227	38	5	0	0	0	0	0
NW	Beam	3	0	0	0	0	0	0	0	0	0	0	0	0	61	0	0	0	0	0	0	0	
	Diffuse	29	0	0	0	0	19	39	63	83	90	107	86	86	77	34	5	0	0	0	0	0	
Horiz.	Beam	79	0	0	0	0	23	116	196	269	266	323	239	249	168	43	7	0	0	0	0	0	
	Diffuse	43	0	0	0	0	21	60	95	123	140	163	136	133	113	45	6	0	0	0	0	0	
	Global	122	0	0	0	0	44	176	292	392	405	485	374	382	281	88	13	0	0	0	0	0	
March Sunrise: 0600 Sunset: 1813	Normal to beam		563	0	0	0	0	299	582	743	792	852	852	858	819	778	737	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	38	0	0	0	0	19	49	75	91	105	110	111	104	92	74	49	23	16	1	0	0
	NE	Beam	12	0	0	0	0	138	143	9	0	0	0	0	0	0	0	0	0	0	0	0	0
		Diffuse	41	0	0	0	21	96	101	77	105	110	111	104	92	74	49	27	16	1	0	0	0
	E	Beam	70	0	0	0	0	280	472	469	324	136	0	0	0	0	0	0	0	0	0	0	0
		Diffuse	52	0	0	0	23	140	180	165	142	110	111	104	92	74	49	30	16	1	0	0	0
	SE	Beam	138	0	0	0	0	257	525	655	635	568	415	234	33	0	0	0	0	0	0	0	0
		Diffuse	60	0	0	0	22	133	193	201	197	178	154	120	80	74	49	25	16	1	0	0	0
	S	Beam	188	0	0	0	0	84	270	457	574	668	673	637	527	389	238	0	0	0	0	0	0
		Diffuse	65	0	0	0	19	79	131	163	186	194	195	182	163	130	86	23	16	1	0	0	0
	SW	Beam	159	0	0	0	0	0	0	0	176	376	537	666	712	702	644	0	0	0	0	0	0
		Diffuse	60	0	0	0	21	49	75	91	117	148	174	187	193	186	165	27	16	1	0	0	0
	W	Beam	89	0	0	0	0	0	0	0	0	0	87	305	480	603	673	0	0	0	0	0	0
		Diffuse	51	0	0	0	23	49	75	91	105	110	103	131	155	169	170	30	16	1	0	0	0
NW	Beam	19	0	0	0	0	0	0	0	0	0	0	0	0	152	308	0	0	0	0	0	0	
	Diffuse	41	0	0	0	22	49	75	91	105	110	111	104	92	87	100	25	16	1	0	0	0	
Horiz.	Beam	149	0	0	0	23	65	207	350	439	511	515	488	405	300	186	97	0	0	0	0	0	
	Diffuse	50	0	0	0	26	94	118	124	134	130	131	121	113	95	67	18	26	13	0	0	0	
	Global	200	0	0	0	49	159	325	474	573	640	646	609	518	396	253	115	26	13	0	0	0	

Table continues

Table 2.13(j) Design 97.5 percentile of beam and diffuse irradiance on vertical and horizontal surfaces: Norwich (Holbeach) (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		521	0	0	0	0	72	287	551	763	882	914	944	940	912	853	726	489	0	0	0
	N	Beam	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	15	0	0	0
		Diffuse	52	0	0	0	17	60	88	109	119	126	131	129	122	110	93	74	51	25	2	0
	NE	Beam	17	0	0	0	0	50	146	162	49	0	0	0	0	0	0	0	0	0	0	0
		Diffuse	56	0	0	0	17	76	140	139	106	126	131	129	122	110	93	74	51	26	2	0
	E	Beam	68	0	0	0	0	70	258	425	450	324	110	0	0	0	0	0	0	0	0	0
		Diffuse	64	0	0	0	17	82	175	204	179	147	119	129	122	110	93	74	51	29	2	0
	SE	Beam	120	0	0	0	0	48	219	439	587	602	498	342	141	0	0	0	0	0	0	0
		Diffuse	68	0	0	0	17	75	163	207	203	187	171	146	115	110	93	74	51	28	2	0
	Sunrise: 0448 Sunset: 1908	S	Beam	158	0	0	0	0	52	196	380	528	594	612	558	447	294	122	0	0	0	0
			Diffuse	68	0	0	0	17	48	110	147	166	176	184	180	168	148	120	85	51	25	2
		SW	Beam	163	0	0	0	0	0	0	0	144	343	523	648	704	679	551	326	0	0	0
			Diffuse	70	0	0	0	17	48	88	109	119	121	150	168	179	182	178	167	134	26	2
		W	Beam	118	0	0	0	0	0	0	0	0	0	0	128	359	549	666	658	475	0	0
			Diffuse	68	0	0	0	17	48	88	109	119	126	131	119	143	162	176	188	173	29	2
		NW	Beam	44	0	0	0	0	0	0	0	0	0	0	0	72	263	379	346	0	0	0
			Diffuse	58	0	0	0	17	48	88	109	119	126	131	129	122	97	115	134	139	28	2
	Horiz.	Beam	210	0	0	0	1	18	113	290	485	627	686	707	666	575	444	281	116	24	0	0
		Diffuse	67	0	0	0	27	102	168	176	155	138	136	128	122	115	107	100	85	36	16	0
		Global	277	0	0	0	28	120	280	466	640	766	822	835	788	690	551	381	202	60	16	0
May	Normal to beam		574	0	0	0	219	636	638	255	385	1080	992	926	918	899	862	791	684	474	0	0
	N	Beam	15	0	0	0	64	63	0	0	0	0	0	0	0	0	0	0	86	152	0	0
		Diffuse	68	0	0	12	77	78	103	146	167	123	137	143	137	125	110	91	76	84	17	0
	NE	Beam	47	0	0	0	189	462	348	86	45	0	0	0	0	0	0	0	0	0	0	0
		Diffuse	76	0	0	12	120	171	169	189	180	123	137	143	137	125	110	91	68	43	17	0
	E	Beam	93	0	0	0	204	590	549	187	215	371	105	0	0	0	0	0	0	0	0	0
		Diffuse	83	0	0	12	125	201	216	223	233	129	121	143	137	125	110	91	68	43	19	0
	SE	Beam	114	0	0	0	99	373	428	178	259	634	449	256	66	0	0	0	0	0	0	0
		Diffuse	80	0	0	12	89	150	188	220	247	149	157	147	117	125	110	91	68	43	20	0
	Sunrise: 0352 Sunset: 1959	S	Beam	119	0	0	0	0	57	65	151	525	529	491	437	337	202	51	0	0	0	0
			Diffuse	73	0	0	12	49	74	101	181	213	141	165	177	166	146	118	82	68	43	17
		SW	Beam	155	0	0	0	0	0	0	0	109	299	438	552	610	602	524	390	203	0	0
			Diffuse	81	0	0	12	49	74	103	146	167	110	141	170	181	184	179	166	142	99	17
		W	Beam	142	0	0	0	0	0	0	0	0	0	128	343	525	649	690	637	440	0	0
			Diffuse	85	0	0	12	49	74	103	146	167	123	137	130	154	172	186	196	195	166	19
		NW	Beam	76	0	0	0	0	0	0	0	0	0	0	0	132	316	452	511	418	0	0
			Diffuse	77	0	0	12	49	74	103	146	167	123	137	143	137	118	135	154	168	160	20
	Horiz.	Beam	256	0	0	0	46	229	320	160	282	868	832	775	731	647	529	384	234	92	20	0
		Diffuse	84	0	0	19	97	112	156	285	304	79	117	143	139	133	124	115	99	74	22	0
		Global	340	0	0	20	144	341	476	445	586	947	949	918	870	780	654	499	332	166	42	0
June	Normal to beam		498	0	0	0	75	180	494	501	869	858	879	890	892	840	864	803	675	147	0	0
	N	Beam	8	0	0	0	25	27	0	0	0	0	0	0	0	0	0	0	95	49	0	0
		Diffuse	72	0	2	19	71	110	115	142	133	146	151	150	143	136	116	98	86	82	23	4
	NE	Beam	34	0	0	0	66	134	284	187	138	0	0	0	0	0	0	0	0	0	0	0
		Diffuse	77	0	2	19	84	148	186	182	126	146	151	150	143	136	116	98	78	56	23	4
	E	Beam	80	0	0	0	68	164	420	366	488	305	109	0	0	0	0	0	0	0	0	0
		Diffuse	83	0	2	19	85	158	223	232	177	163	136	150	143	136	116	98	78	56	23	4
	SE	Beam	103	0	0	0	30	97	310	330	553	479	379	233	57	0	0	0	0	0	0	0
		Diffuse	82	0	2	19	72	135	193	222	187	189	174	152	122	136	116	98	78	56	23	4
	Sunrise: 0333 Sunset: 2028	S	Beam	106	0	0	0	0	18	101	294	373	426	432	390	288	180	35	0	0	0	0
			Diffuse	75	0	2	19	50	88	111	159	149	173	181	179	168	154	119	84	78	56	23
		SW	Beam	132	0	0	0	0	0	0	0	48	224	378	494	533	570	505	367	60	0	0
			Diffuse	82	0	2	19	50	88	115	142	133	124	152	172	182	192	177	165	145	86	23
		W	Beam	122	0	0	0	0	0	0	0	0	0	102	309	466	626	679	613	134	0	0
			Diffuse	85	0	2	19	50	88	115	142	133	146	151	133	157	182	185	195	199	112	23
		NW	Beam	64	0	0	0	0	0	0	0	0	0	0	0	126	316	456	501	129	0	0
			Diffuse	78	0	2	19	50	88	115	142	133	146	151	150	143	128	139	156	175	110	23
	Horiz.	Beam	260	0	0	1	18	69	260	327	656	710	761	771	740	637	567	427	265	37	2	1
		Diffuse	92	0	3	31	106	178	195	239	147	165	164	160	152	158	129	121	113	114	38	6
		Global	353	0	3	32	124	247	455	566	803	876	925	931	892	795	697	548	378	150	40	8

Table continues

Table 2.13(j) Design 97.5 percentile of beam and diffuse irradiance on vertical and horizontal surfaces: Norwich (Holbeach) (2002–2011)
— *continued*

Month	Orientation		Daily mean irradiance ($W \cdot m^{-2}$) and mean hourly irradiance ($W \cdot m^{-2}$) 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		495	0	0	0	296	426	514	507	661	679	704	702	719	767	800	789	711	633	0	0	
	N	Beam	17	0	0	0	97	57	0	0	0	0	0	0	0	0	0	0	67	183	0	0	
		Diffuse	72	0	0	15	79	91	104	133	145	158	164	165	157	139	117	94	73	81	20	1	
	NE	Beam	49	0	0	0	263	320	297	190	103	0	0	0	0	0	0	0	0	0	0	0	
		Diffuse	81	0	0	16	134	170	177	174	145	158	164	165	157	139	117	94	72	45	19	1	
	E	Beam	94	0	0	0	274	397	449	384	389	258	103	0	0	0	0	0	0	0	0	0	
		Diffuse	90	0	0	16	138	193	218	228	209	188	157	165	157	139	117	94	72	45	24	1	
	SE	Beam	106	0	0	0	125	240	338	353	448	409	335	215	76	0	0	0	0	0	0	0	
		Diffuse	88	0	0	15	88	146	188	219	222	221	205	182	144	139	117	94	72	45	24	1	
	Sunrise: 0359 Sunset: 2012	S	Beam	99	0	0	0	0	0	29	116	244	320	371	373	349	301	207	73	0	0	0	0
			Diffuse	80	0	0	15	44	76	103	154	176	202	213	215	200	168	130	89	72	45	20	1
		SW	Beam	136	0	0	0	0	0	0	0	44	190	313	418	512	559	529	418	288	0	0	0
			Diffuse	87	0	0	16	44	76	104	133	145	142	175	202	214	207	190	170	145	105	19	1
		W	Beam	135	0	0	0	0	0	0	0	0	0	0	69	242	423	583	675	659	590	0	0
			Diffuse	89	0	0	16	44	76	104	133	145	158	164	151	178	191	195	196	194	176	24	1
		NW	Beam	77	0	0	0	0	0	0	0	0	0	0	0	86	266	426	513	547	0	0	0
			Diffuse	81	0	0	15	44	76	104	133	145	158	164	165	157	128	140	151	164	166	24	1
	Horiz.	Beam	228	0	0	7	57	144	248	310	475	541	590	591	580	564	508	401	261	139	58	0	
Diffuse		100	0	1	23	84	135	175	223	213	229	231	232	217	181	145	119	100	68	18	6		
Global		328	0	1	30	141	279	423	534	688	769	821	823	796	745	653	520	360	206	76	6		
August	Normal to beam		431	0	0	0	0	237	304	413	588	634	705	738	740	732	700	582	524	0	0	0	
	N	Beam	1	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	7	0	0	0	
		Diffuse	58	0	0	0	15	64	90	118	133	147	149	146	139	125	106	84	51	28	1	0	
	NE	Beam	21	0	0	0	0	168	160	129	48	0	0	0	0	0	0	0	0	0	0	0	
		Diffuse	64	0	0	0	15	119	148	155	129	147	149	146	139	125	106	84	54	30	1	0	
	E	Beam	64	0	0	0	0	230	276	323	355	244	98	0	0	0	0	0	0	0	0	0	
		Diffuse	74	0	0	0	15	140	186	214	206	183	144	146	139	125	106	84	54	35	1	0	
	SE	Beam	100	0	0	0	0	157	231	328	454	438	391	278	123	0	0	0	0	0	0	0	
		Diffuse	79	0	0	0	15	115	171	216	231	228	206	175	138	125	106	84	54	33	1	0	
	Sunrise: 0450 Sunset: 1914	S	Beam	123	0	0	0	0	0	50	141	287	375	456	479	443	365	250	106	0	0	0	0
			Diffuse	78	0	0	0	15	55	111	159	189	214	219	215	201	176	141	101	54	28	1	0
		SW	Beam	132	0	0	0	0	0	0	0	93	253	400	504	562	557	445	354	0	0	0	0
			Diffuse	81	0	0	0	15	55	90	118	133	147	177	199	213	215	206	187	145	30	1	0
		W	Beam	98	0	0	0	0	0	0	0	0	0	86	270	430	539	523	508	0	0	0	0
			Diffuse	76	0	0	0	15	55	90	118	133	147	149	137	167	188	202	207	187	35	1	0
		NW	Beam	38	0	0	0	0	0	0	0	0	0	0	0	45	204	295	364	0	0	0	0
			Diffuse	65	0	0	0	15	55	90	118	133	147	149	146	139	111	131	149	148	33	1	0
	Horiz.	Beam	169	0	0	0	1	56	117	215	371	449	529	555	528	466	370	230	130	45	0	0	
Diffuse		89	0	1	2	25	109	171	212	211	223	211	199	188	171	150	134	90	35	6	0		
Global		258	0	1	2	25	165	288	427	582	672	739	754	716	637	520	365	220	81	6	0		
September	Normal to beam		494	0	0	0	0	0	526	612	657	541	443	738	768	801	847	984	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	4	29	54	79	99	120	132	115	105	88	65	37	67	1	0	0	
	NE	Beam	14	0	0	0	0	0	218	118	0	0	0	0	0	0	0	0	0	0	0	0	
		Diffuse	44	0	0	0	4	32	105	96	99	120	132	115	105	88	65	37	67	1	0	0	
	E	Beam	65	0	0	0	0	0	479	473	382	190	43	0	0	0	0	0	0	0	0	0	
		Diffuse	55	0	0	0	4	37	172	178	167	157	139	115	105	88	65	37	67	1	0	0	
	SE	Beam	115	0	0	0	0	0	459	551	569	418	278	323	167	0	0	0	0	0	0	0	
		Diffuse	65	0	0	0	4	34	167	196	207	214	205	156	116	88	65	37	67	1	0	0	
	Sunrise: 0543 Sunset: 1801	S	Beam	164	0	0	0	0	0	170	306	422	401	349	577	554	490	389	272	0	0	0	0
			Diffuse	69	0	0	0	4	29	93	140	176	210	225	205	186	154	113	61	67	1	0	0
		SW	Beam	159	0	0	0	0	0	0	0	28	149	217	493	616	706	762	843	0	0	0	0
			Diffuse	64	0	0	0	4	32	54	79	91	146	188	189	197	191	171	128	67	1	0	0
		W	Beam	107	0	0	0	0	0	0	0	0	0	121	317	509	689	921	0	0	0	0	0
			Diffuse	55	0	0	0	4	37	54	79	99	120	132	118	143	157	159	137	67	1	0	0
		NW	Beam	29	0	0	0	0	0	0	0	0	0	0	0	13	212	459	0	0	0	0	0
			Diffuse	44	0	0	0	4	34	54	79	99	120	132	115	105	73	85	83	67	1	0	0
	Horiz.	Beam	130	0	0	0	0	68	135	239	327	309	269	444	426	378	302	214	0	0	0	0	
Diffuse		61	0	0	0	7	32	89	122	146	195	230	155	136	109	76	35	112	12	0	0		
Global		190	0	0	0	7	100	224	361	473	504	499	599	563	487	378	248	112	12	0	0		

Table continues

Table 2.13(j) Design 97.5 percentile of beam and diffuse irradiance on vertical and horizontal surfaces: Norwich (Holbeach) (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		537	0	0	0	0	0	0	462	647	749	809	841	869	756	771	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	24	0	0	0	0	0	35	54	71	81	84	80	70	57	34	12	0	0	0	0	0	
	NE	Beam	1	0	0	0	0	0	34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Diffuse	25	0	0	0	0	0	35	61	71	81	84	80	70	57	34	15	0	0	0	0	0	
	E	Beam	41	0	0	0	0	0	340	351	234	49	0	0	0	0	0	0	0	0	0	0	0	
		Diffuse	32	0	0	0	0	0	37	145	139	111	76	80	70	57	34	15	0	0	0	0	0	
	SE	Beam	120	0	0	0	0	0	447	598	618	546	407	231	26	0	0	0	0	0	0	0	0	
		Diffuse	45	0	0	0	0	0	38	175	194	184	162	131	92	52	34	12	0	0	0	0	0	
	Sunrise: 0635 Sunset: 1653	S	Beam	190	0	0	0	0	0	292	495	641	724	741	707	529	421	0	0	0	0	0	0	
			Diffuse	55	0	0	0	0	0	35	132	171	188	192	184	164	146	105	12	0	0	0	0	0
		SW	Beam	156	0	0	0	0	0	0	102	288	477	640	769	722	744	0	0	0	0	0	0	
			Diffuse	48	0	0	0	0	0	35	54	84	121	150	168	174	183	164	15	0	0	0	0	0
		W	Beam	70	0	0	0	0	0	0	0	0	0	0	165	381	492	631	0	0	0	0	0	0
			Diffuse	35	0	0	0	0	0	37	54	71	81	84	91	114	140	144	15	0	0	0	0	0
		NW	Beam	6	0	0	0	0	0	0	0	0	0	0	0	0	149	0	0	0	0	0	0	0
			Diffuse	25	0	0	0	0	0	38	54	71	81	84	80	70	57	55	12	0	0	0	0	0
	Horiz.	Beam	88	0	0	0	0	0	20	113	224	310	358	364	332	223	137	37	0	0	0	0	0	
		Diffuse	32	0	0	0	0	1	53	93	106	109	105	96	81	76	45	11	0	0	0	0	0	
		Global	121	0	0	0	0	1	73	206	330	418	463	460	412	299	182	49	0	0	0	0	0	
November	Normal to beam		417	0	0	0	0	0	0	558	599	622	640	659	672	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	15	0	0	0	0	0	4	32	42	55	61	59	50	33	35	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	15	0	0	0	0	0	4	29	42	55	61	59	50	33	38	0	0	0	0	0	0	
	E	Beam	21	0	0	0	0	0	0	292	181	39	0	0	0	0	0	0	0	0	0	0	0	
		Diffuse	20	0	0	0	0	0	5	33	107	91	62	59	50	33	36	0	0	0	0	0	0	
	SE	Beam	89	0	0	0	0	0	0	533	516	447	343	216	72	0	0	0	0	0	0	0	0	
		Diffuse	34	0	0	0	0	0	5	36	164	167	155	129	91	44	34	0	0	0	0	0	0	
	Sunrise: 0731 Sunset: 1558	S	Beam	138	0	0	0	0	0	0	462	548	593	602	579	518	0	0	0	0	0	0	0	0
			Diffuse	45	0	0	0	0	0	4	32	147	175	188	187	172	144	35	0	0	0	0	0	0
		SW	Beam	106	0	0	0	0	0	0	120	259	392	509	603	660	0	0	0	0	0	0	0	0
			Diffuse	38	0	0	0	0	0	4	29	66	108	142	166	178	176	38	0	0	0	0	0	0
		W	Beam	34	0	0	0	0	0	0	0	0	0	117	274	416	0	0	0	0	0	0	0	0
			Diffuse	22	0	0	0	0	0	5	33	42	55	61	78	104	121	36	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	5	36	42	55	61	59	50	33	34	0	0	0	0	0	0
	Horiz.	Beam	41	0	0	0	0	0	9	57	112	159	184	183	157	105	10	0	0	0	0	0	0	
		Diffuse	23	0	0	0	0	0	4	34	67	86	94	90	75	49	52	2	0	0	0	0	0	
		Global	64	0	0	0	0	0	14	91	179	245	277	273	231	153	62	2	0	0	0	0	0	
December	Normal to beam		342	0	0	0	0	0	0	291	481	576	717	672	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	11	0	0	0	0	0	8	28	42	48	52	41	40	10	0	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	11	0	0	0	0	0	8	28	42	48	52	41	43	12	0	0	0	0	0	0	0	
	E	Beam	16	0	0	0	0	0	0	160	165	64	0	0	0	0	0	0	0	0	0	0	0	
		Diffuse	15	0	0	0	0	0	8	78	82	59	52	41	37	10	0	0	0	0	0	0	0	
	SE	Beam	77	0	0	0	0	0	0	283	429	438	424	263	0	0	0	0	0	0	0	0	0	
		Diffuse	29	0	0	0	0	0	8	114	149	146	143	94	34	9	0	0	0	0	0	0	0	
	Sunrise: 0809 Sunset: 1545	S	Beam	106	0	0	0	0	0	0	240	441	556	692	614	0	0	0	0	0	0	0	0	0
			Diffuse	36	0	0	0	0	0	8	101	152	174	206	172	40	10	0	0	0	0	0	0	0
		SW	Beam	73	0	0	0	0	0	0	56	196	348	554	605	0	0	0	0	0	0	0	0	0
			Diffuse	28	0	0	0	0	0	8	47	90	125	174	170	43	12	0	0	0	0	0	0	0
		W	Beam	14	0	0	0	0	0	0	0	0	0	92	242	0	0	0	0	0	0	0	0	0
			Diffuse	14	0	0	0	0	0	8	28	42	48	65	89	37	10	0	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	11	0	0	0	0	0	8	28	42	48	52	41	34	9	0	0	0	0	0	0	0
	Horiz.	Beam	27	0	0	0	0	0	1	37	94	134	166	129	77	21	0	0	0	0	0	0	0	
		Diffuse	17	0	0	0	0	0	13	53	71	77	77	61	38	10	0	0	0	0	0	0	0	
		Global	44	0	0	0	0	0	13	89	165	211	243	190	115	31	0	0	0	0	0	0	0	