

**Table 5. Shadow Flicker Impact Summary**

House ID	Receptor	Window	Easting	Northing	Height (m)	Degrees from North	Days/Year	Max Hours/Year	Total Hours	Corrected Total Hours/ Year
1521	GSH886	4	441552	4791469	2	135	124	1.01	105.3	40.2
2100	GSH887	1	441480	4791417	2	0	115	0.86	79.4	30.3
2100	GSH887	2	441480	4791417	2	45	115	0.87	79.8	30.5
2100	GSH887	3	441480	4791417	2	90	115	0.87	79.8	30.5
2100	GSH887	4	441480	4791417	2	135	115	0.87	79.4	30.3
383	GSH888	1	441465	4791444	2	0	101	0.85	64.5	24.6
383	GSH888	2	441465	4791444	2	45	101	0.85	64.8	24.8
383	GSH888	3	441465	4791444	2	90	101	0.85	64.9	24.8
383	GSH888	4	441465	4791444	2	135	102	0.85	64.7	24.7
1522	GSH889	1	441229	4790698	2	0	36	0.45	12.7	4.9
1522	GSH889	2	441229	4790698	2	45	36	0.45	12.7	4.9
1522	GSH889	3	441229	4790698	2	90	36	0.45	12.8	4.9
1522	GSH889	4	441229	4790698	2	135	36	0.45	12.7	4.9
880	GSH89	2	437194	4790674	2	45	105	0.44	34.4	13.1
880	GSH89	3	437194	4790674	2	90	105	0.44	34.5	13.2
880	GSH89	4	437194	4790674	2	135	105	0.44	34.5	13.2
880	GSH89	5	437194	4790674	2	180	105	0.44	34.4	13.1
663	GSH890	1	441332	4790705	2	0	40	0.5	15.9	6.1
663	GSH890	2	441332	4790705	2	45	40	0.51	16	6.1
663	GSH890	3	441332	4790705	2	90	40	0.51	16	6.1
663	GSH890	4	441332	4790705	2	135	40	0.51	16	6.1
1250	GSH891	1	441507	4790753	2	0	52	0.64	25.4	9.7
1250	GSH891	2	441507	4790753	2	45	52	0.64	25.5	9.7
1250	GSH891	3	441507	4790753	2	90	52	0.64	25.6	9.8
1250	GSH891	4	441507	4790753	2	135	52	0.64	25.5	9.7
927	GSH892	1	441535	4790763	2	0	53	0.66	27.6	10.5
927	GSH892	2	441535	4790763	2	45	53	0.67	27.8	10.6
927	GSH892	3	441535	4790763	2	90	53	0.67	27.8	10.6
927	GSH892	4	441535	4790763	2	135	53	0.67	27.7	10.6
125	GSH893	1	441566	4790753	2	0	57	0.7	30.8	11.8
125	GSH893	2	441566	4790753	2	45	58	0.7	31.1	11.9
125	GSH893	3	441566	4790753	2	90	58	0.7	31.2	11.9
125	GSH893	4	441566	4790753	2	135	58	0.7	31	11.8
1251	GSH894	1	441430	4790553	2	0	55	0.55	23.7	9.1
1251	GSH894	2	441430	4790553	2	45	55	0.55	23.8	9.1
1251	GSH894	3	441430	4790553	2	90	55	0.55	23.8	9.1
1251	GSH894	4	441430	4790553	2	135	55	0.55	23.7	9.1
928	GSH895	1	441394	4790518	2	0	55	0.52	22.1	8.4
928	GSH895	2	441394	4790518	2	45	54	0.53	22.1	8.4
928	GSH895	3	441394	4790518	2	90	54	0.53	22.1	8.4
928	GSH895	4	441394	4790518	2	135	55	0.52	22.1	8.4
2101	GSH896	1	441587	4790457	2	0	58	0.6	28.9	11.0
2101	GSH896	2	441587	4790457	2	45	58	0.61	29	11.1
2101	GSH896	3	441587	4790457	2	90	58	0.61	29	11.1
2101	GSH896	4	441587	4790457	2	135	58	0.6	28.8	11.0
1802	GSH897	1	441620	4790476	2	0	55	0.61	27	10.3
1802	GSH897	2	441620	4790476	2	45	55	0.61	27.1	10.4
1802	GSH897	3	441620	4790476	2	90	55	0.61	27.1	10.4
1802	GSH897	4	441620	4790476	2	135	55	0.6	26.8	10.2
47	GSH90	2	437275	4790999	2	45	36	0.37	10.5	4.0
47	GSH90	3	437275	4790999	2	90	36	0.37	10.5	4.0
47	GSH90	4	437275	4790999	2	135	36	0.37	10.5	4.0
47	GSH90	5	437275	4790999	2	180	36	0.37	10.5	4.0
2016	GSH91	2	437481	4791206	2	45	43	0.4	14.3	5.5
2016	GSH91	3	437481	4791206	2	90	43	0.4	14.3	5.5
2016	GSH91	4	437481	4791206	2	135	43	0.4	14.4	5.5
2016	GSH91	5	437481	4791206	2	180	43	0.4	14.3	5.5
1803	GSH915	5	441259	4789017	2	180	30	0.34	8.1	3.1
1803	GSH915	6	441259	4789017	2	225	30	0.34	8.2	3.1
1803	GSH915	7	441259	4789017	2	270	30	0.34	8.2	3.1
1803	GSH915	8	441259	4789017	2	315	30	0.34	8.1	3.1
1804	GSH916	5	441265	4788971	2	180	30	0.35	8	3.1
1804	GSH916	6	441265	4788971	2	225	30	0.35	8.1	3.1
1804	GSH916	7	441265	4788971	2	270	30	0.35	8	3.1
1804	GSH916	8	441265	4788971	2	315	30	0.35	8	3.1
2017	GSH92	2	437475	4791235	2	45	33	0.33	8.6	3.3
2017	GSH92	3	437475	4791235	2	90	33	0.33	8.7	3.3
2017	GSH92	4	437475	4791235	2	135	33	0.33	8.7	3.3
2017	GSH92	5	437475	4791235	2	180	33	0.33	8.7	3.3

**Table 5. Shadow Flicker Impact Summary**

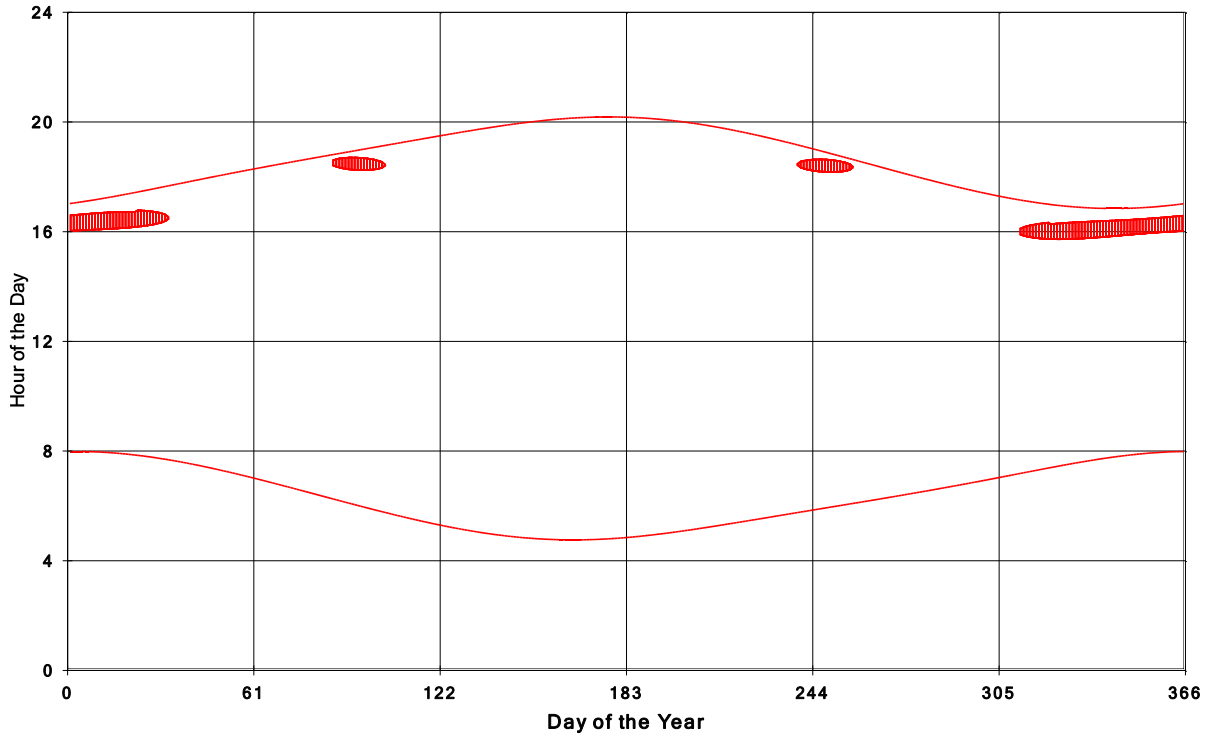
House ID	Receptor	Window	Easting	Northing	Height (m)	Degrees from North	Days/Year	Max Hours/Year	Total Hours	Corrected Total Hours/ Year
1255	GSH921	1	441030	4788028	2	0	46	0.43	16.2	6.2
1255	GSH921	6	441030	4788028	2	225	46	0.43	16.3	6.2
1255	GSH921	7	441030	4788028	2	270	46	0.43	16.4	6.3
1255	GSH921	8	441030	4788028	2	315	46	0.43	16.3	6.2
127	GSH922	1	441043	4787987	2	0	23	0.24	4.4	1.7
127	GSH922	6	441043	4787987	2	225	23	0.24	4.4	1.7
127	GSH922	7	441043	4787987	2	270	23	0.24	4.5	1.7
127	GSH922	8	441043	4787987	2	315	23	0.24	4.5	1.7
128	GSH924	1	441106	4787995	2	0	45	0.4	14.8	5.7
128	GSH924	6	441106	4787995	2	225	45	0.4	14.9	5.7
128	GSH924	7	441106	4787995	2	270	45	0.4	14.9	5.7
128	GSH924	8	441106	4787995	2	315	45	0.4	14.9	5.7
2294	GSHADD15	1	448472	4799891	2	0	62	0.49	25.9	9.9
2294	GSHADD15	2	448472	4799891	2	45	62	0.49	26	9.9
2294	GSHADD15	3	448472	4799891	2	90	62	0.49	25.9	9.9
2294	GSHADD15	4	448472	4799891	2	135	62	0.48	25.8	9.9
2297	GSHADD18	8	455963	4794187	2	315	58	0.36	18.6	7.1
2298	GSHADD19	2	445396	4792564	2	45	70	0.5	26.1	10.0
2298	GSHADD19	3	445396	4792564	2	90	70	0.5	26.3	10.0
2298	GSHADD19	4	445396	4792564	2	135	70	0.5	26.3	10.0
2298	GSHADD19	5	445396	4792564	2	180	70	0.5	26.2	10.0
2305	GSHADD26	1	455756	4792991	2	0	49	0.51	20.5	7.8
2305	GSHADD26	5	455756	4792991	2	180	28	0.36	7.9	3.0
2305	GSHADD26	6	455756	4792991	2	225	77	0.51	28.5	10.9
2305	GSHADD26	7	455756	4792991	2	270	78	0.51	28.7	11.0
2305	GSHADD26	8	455756	4792991	2	315	78	0.51	28.7	11.0
2310	GSHADD31	5	455200	4796931	2	180	28	0.37	8.1	3.1
2310	GSHADD31	6	455200	4796931	2	225	29	0.37	8.2	3.1
2310	GSHADD31	7	455200	4796931	2	270	29	0.37	8.2	3.1
2310	GSHADD31	8	455200	4796931	2	315	29	0.37	8.2	3.1
2318	GSHADD39	1	437177	4790495	2	0	26	0.34	7.2	2.8
2318	GSHADD39	2	437177	4790495	2	45	66	0.44	20.9	8.0
2318	GSHADD39	3	437177	4790495	2	90	66	0.44	21	8.0
2318	GSHADD39	4	437177	4790495	2	135	66	0.44	21	8.0
2318	GSHADD39	5	437177	4790495	2	180	40	0.44	13.7	5.2
2320	GSHADD41	1	437246	4790441	2	0	28	0.36	7.9	3.0
2320	GSHADD41	2	437246	4790441	2	45	69	0.47	23	8.8
2320	GSHADD41	3	437246	4790441	2	90	69	0.47	23.1	8.8
2320	GSHADD41	4	437246	4790441	2	135	69	0.47	23	8.8
2320	GSHADD41	5	437246	4790441	2	180	41	0.47	15	5.7
2284	GSHADD5	2	445277	4792814	2	45	17	0.18	2.5	1.0
2284	GSHADD5	3	445277	4792814	2	90	17	0.19	2.5	1.0
2284	GSHADD5	4	445277	4792814	2	135	17	0.19	2.5	1.0
2284	GSHADD5	5	445277	4792814	2	180	17	0.18	2.5	1.0
2287	GSHADD8	4	455945	4794187	2	135	55	0.36	17.7	6.8
2287	GSHADD8	5	455945	4794187	2	180	56	0.36	17.8	6.8
2287	GSHADD8	6	455945	4794187	2	225	56	0.36	17.8	6.8
2287	GSHADD8	7	455945	4794187	2	270	56	0.36	17.8	6.8

Notes: NPR – Non-participating Point of Reception  
 VNPR – Non-participating Vacant Lot Point of Reception  
 PR – Participating Point of Reception  
 VPR – Participating Vacant Lot Point of Reception  
 1 Corrected hours per year based on 38% annual sunshine at London International Airport

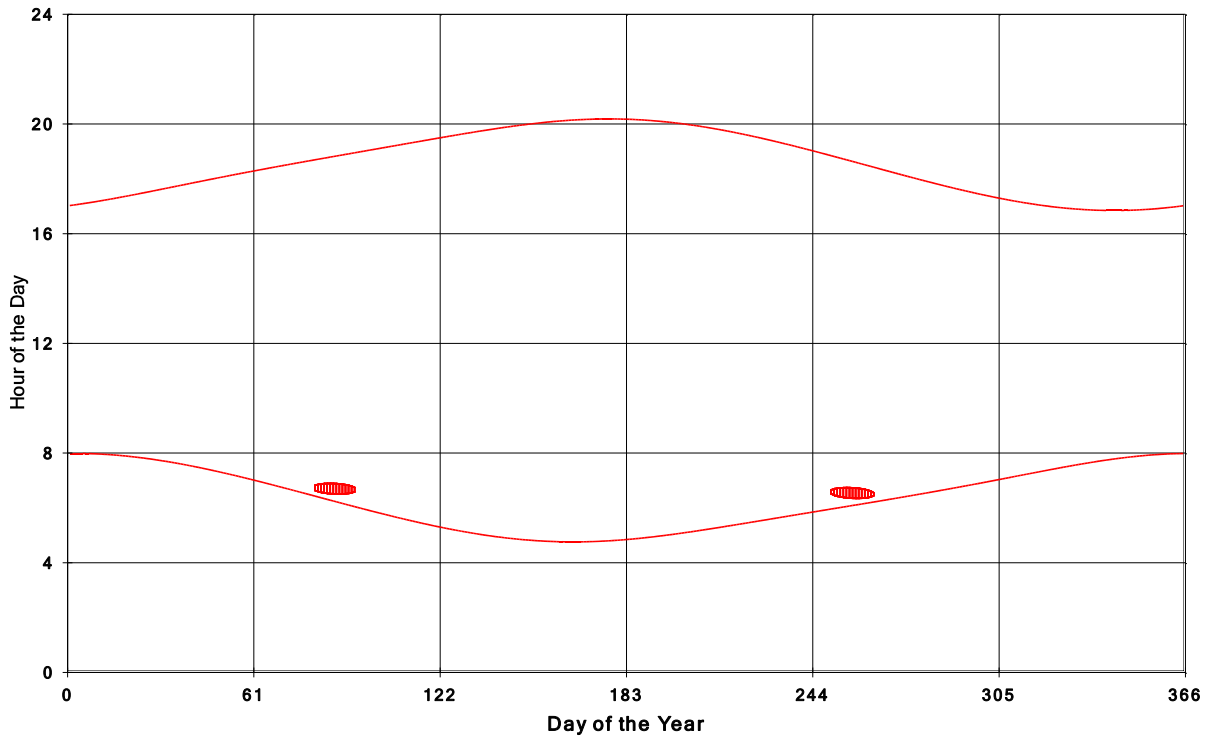
# Appendix A

## Shadow Time Graphs

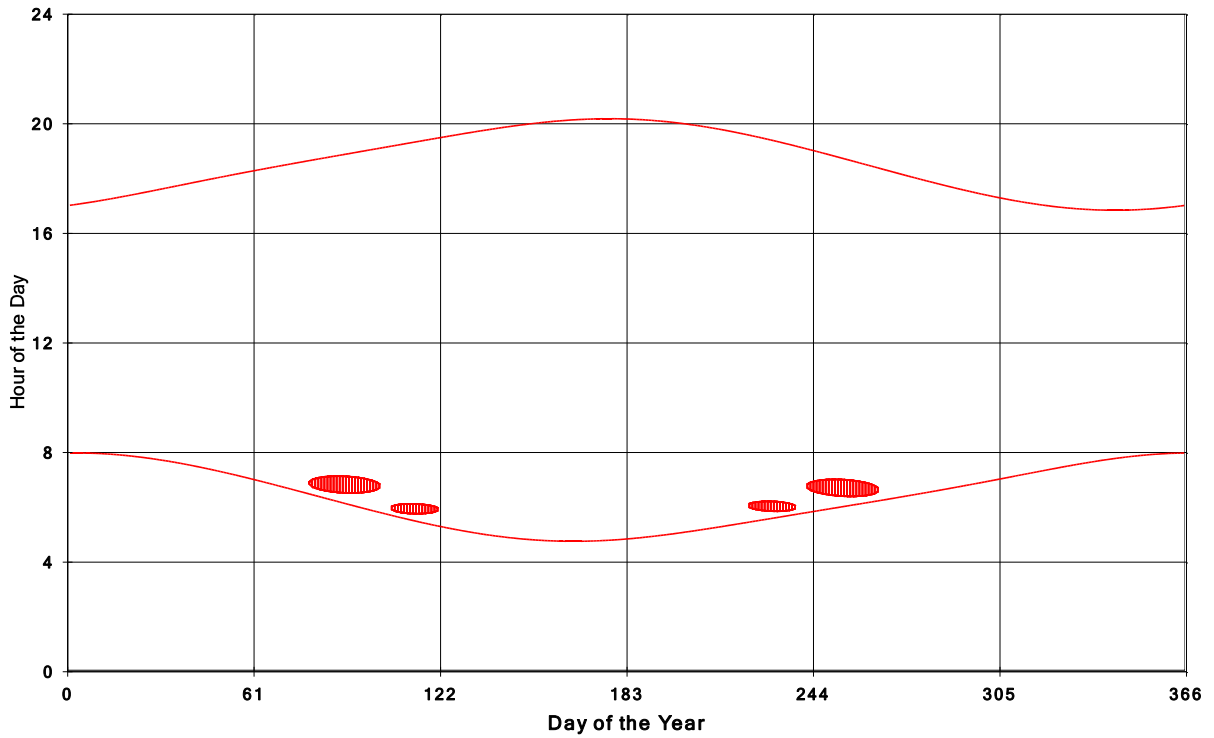
**Goshen Wind Energy Centre  
Shadow Times on House 1, All Windows from All Turbines**



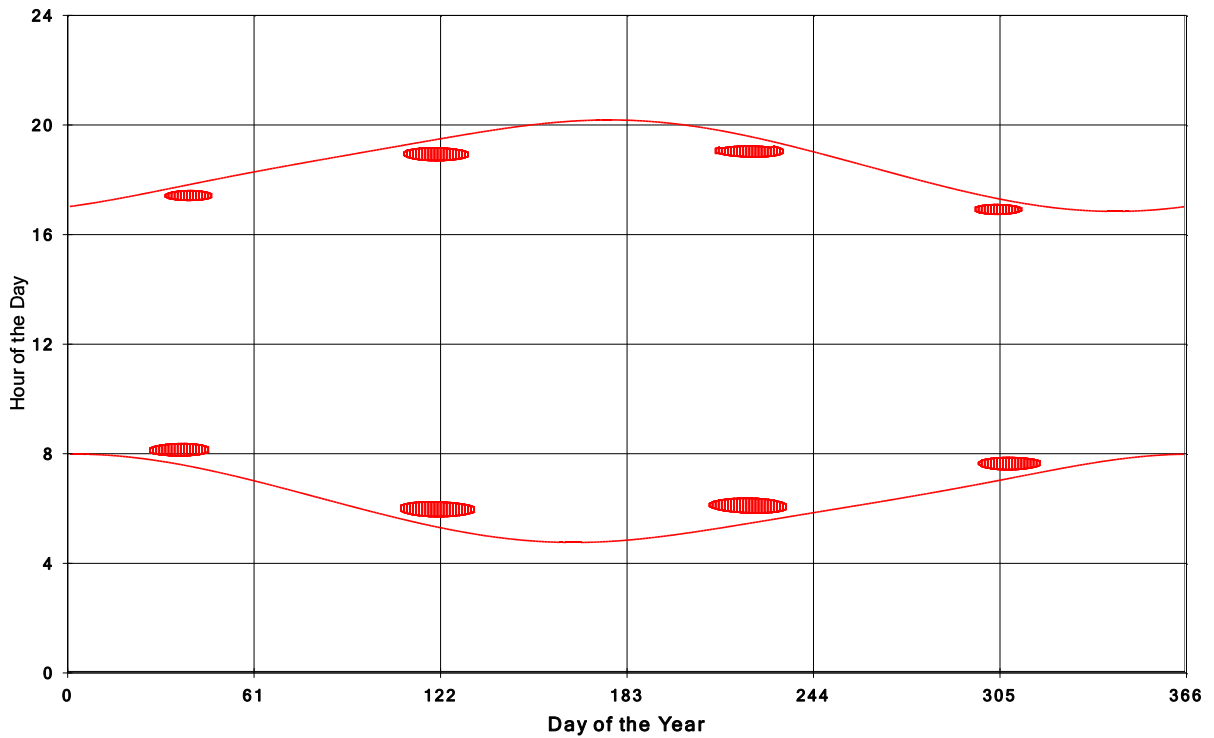
**Goshen Wind Energy Centre  
Shadow Times on House 2, All Windows from All Turbines**



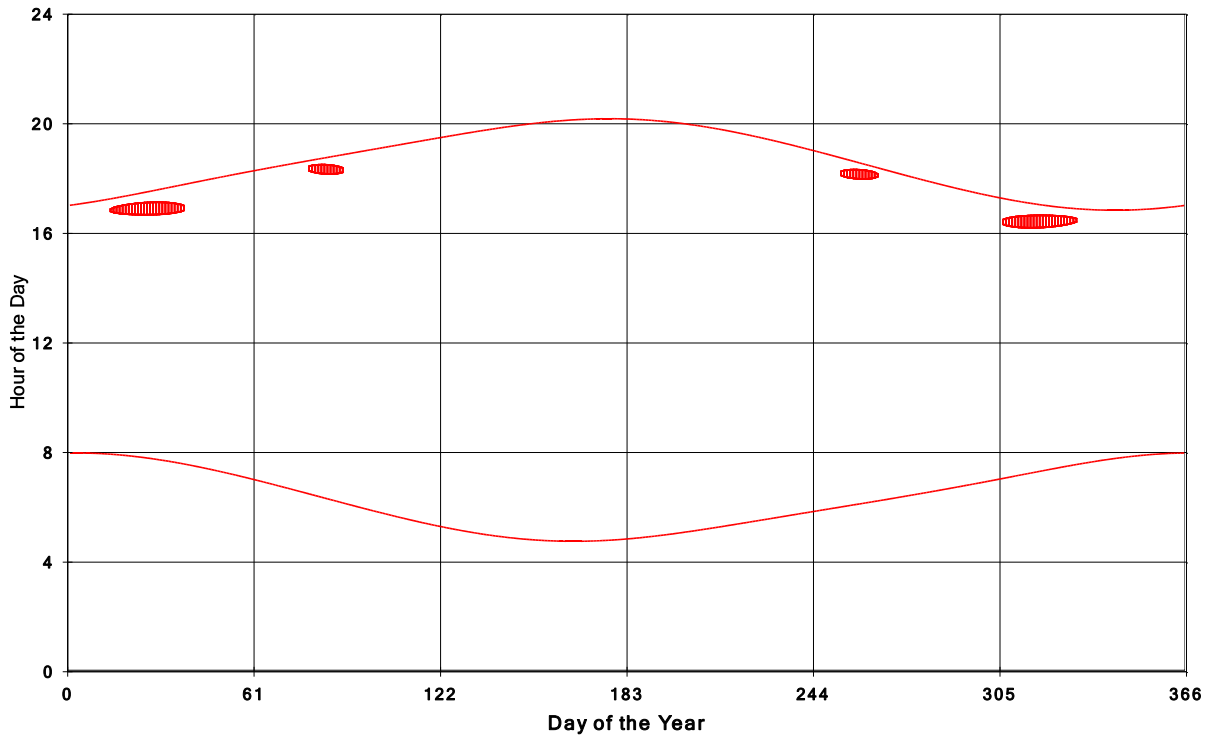
**Goshen Wind Energy Centre  
Shadow Times on House 3, All Windows from All Turbines:**



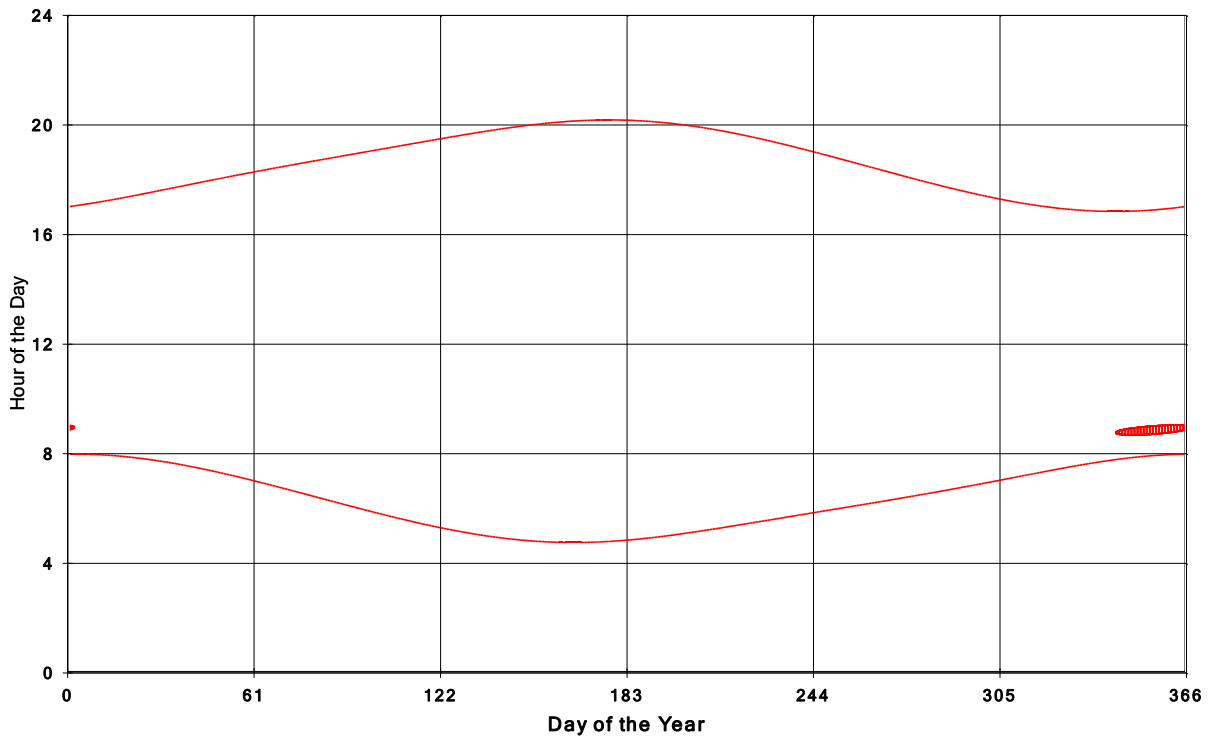
**Goshen Wind Energy Centre  
Shadow Times on House 4, All Windows from All Turbines:**



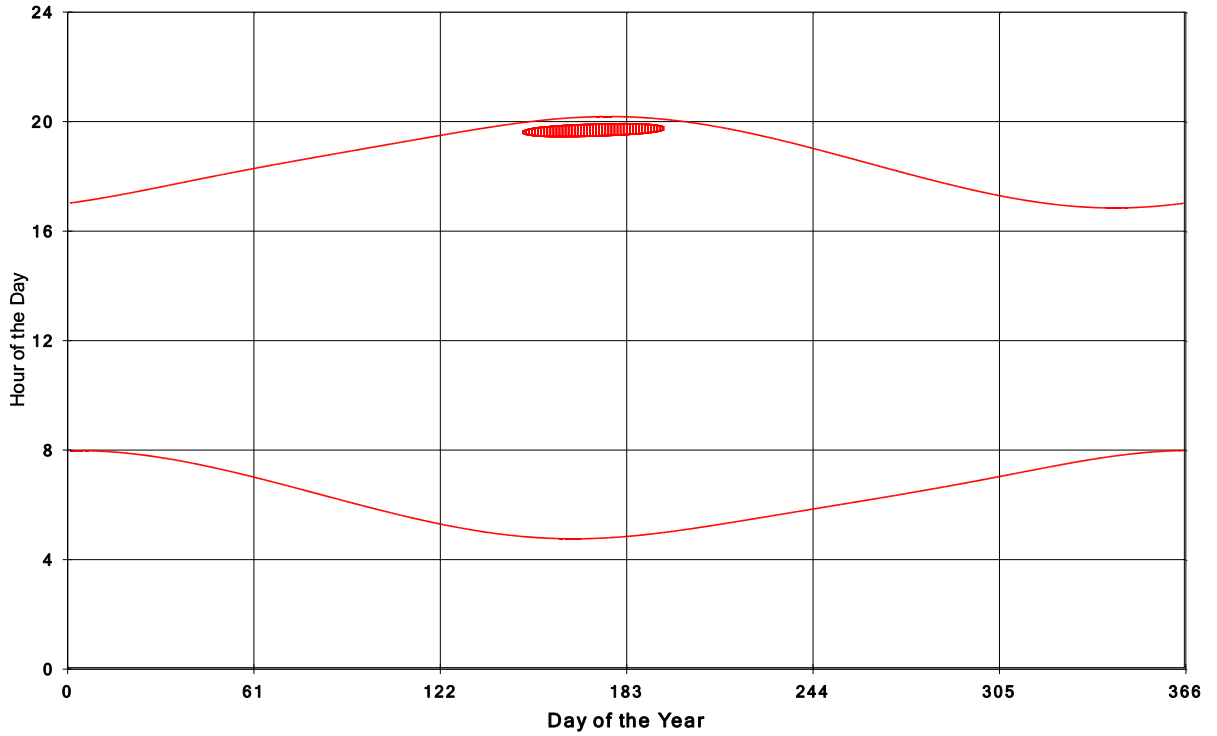
**Goshen Wind Energy Centre  
Shadow Times on House 7, All Windows from All Turbines:**



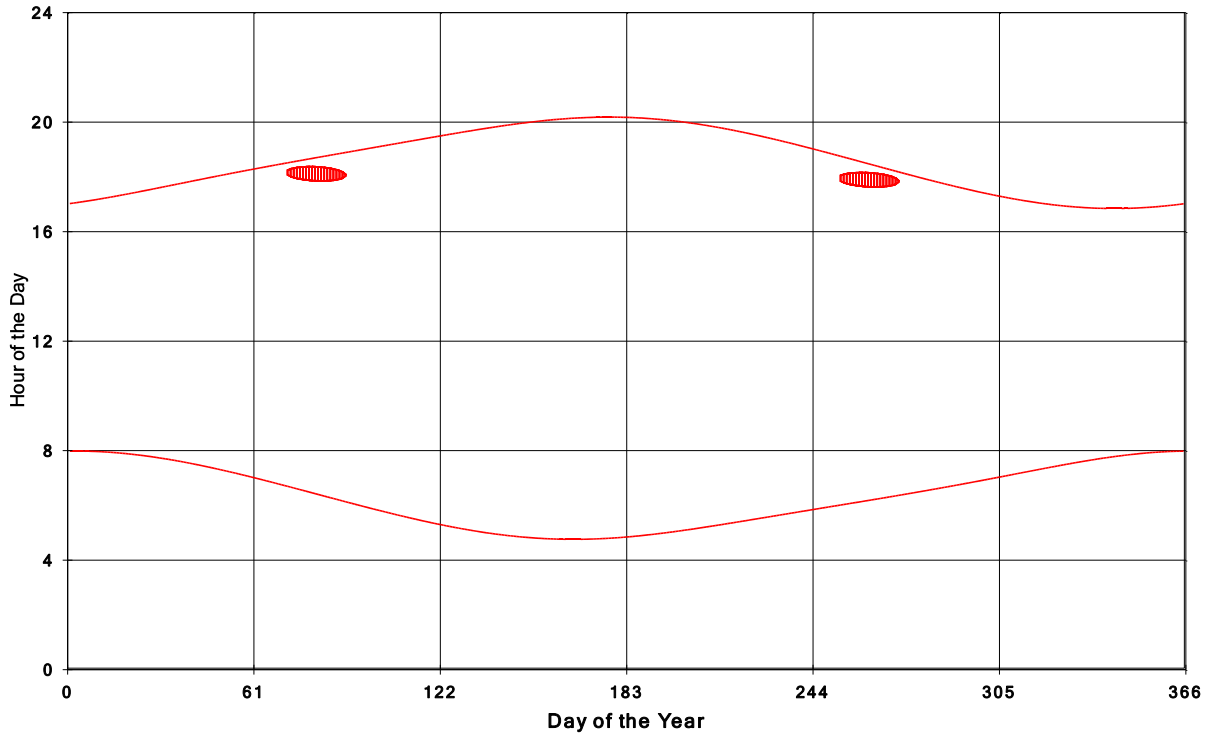
**Goshen Wind Energy Centre  
Shadow Times on House 8, All Windows from All Turbines:**



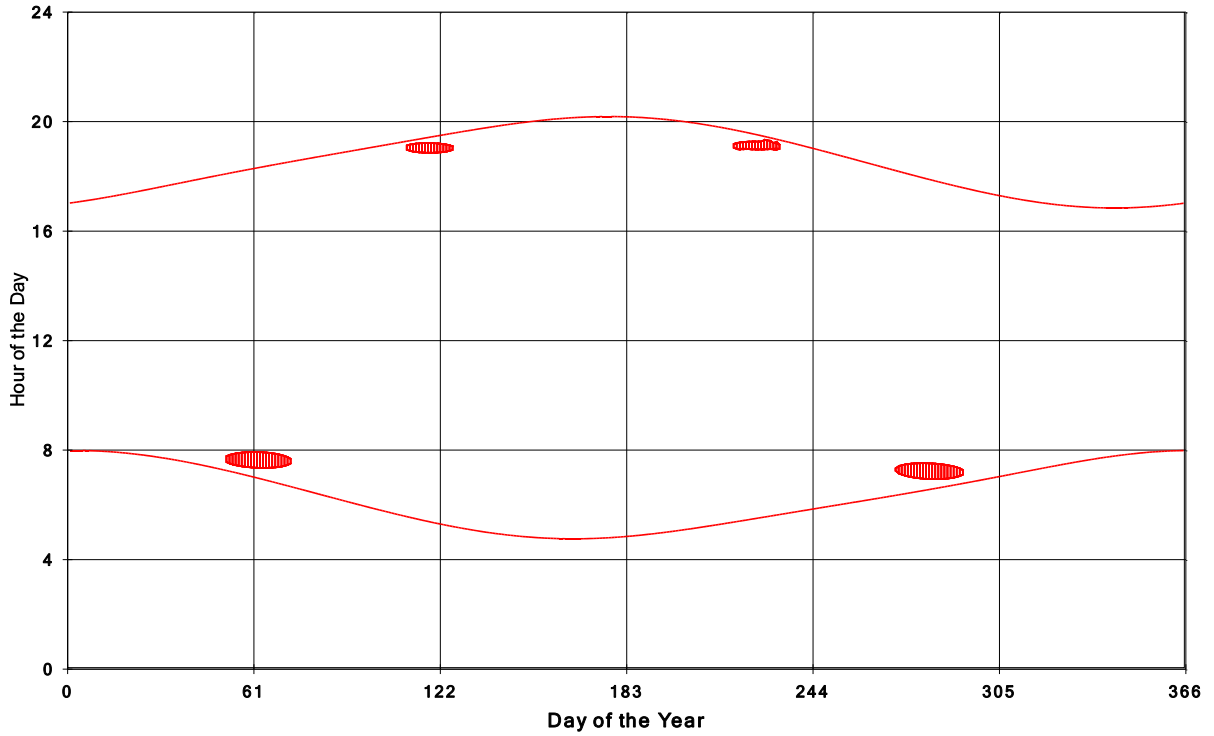
Goshen Wind Energy Centre  
Shadow Times on House 10, All Windows from All Turbine:



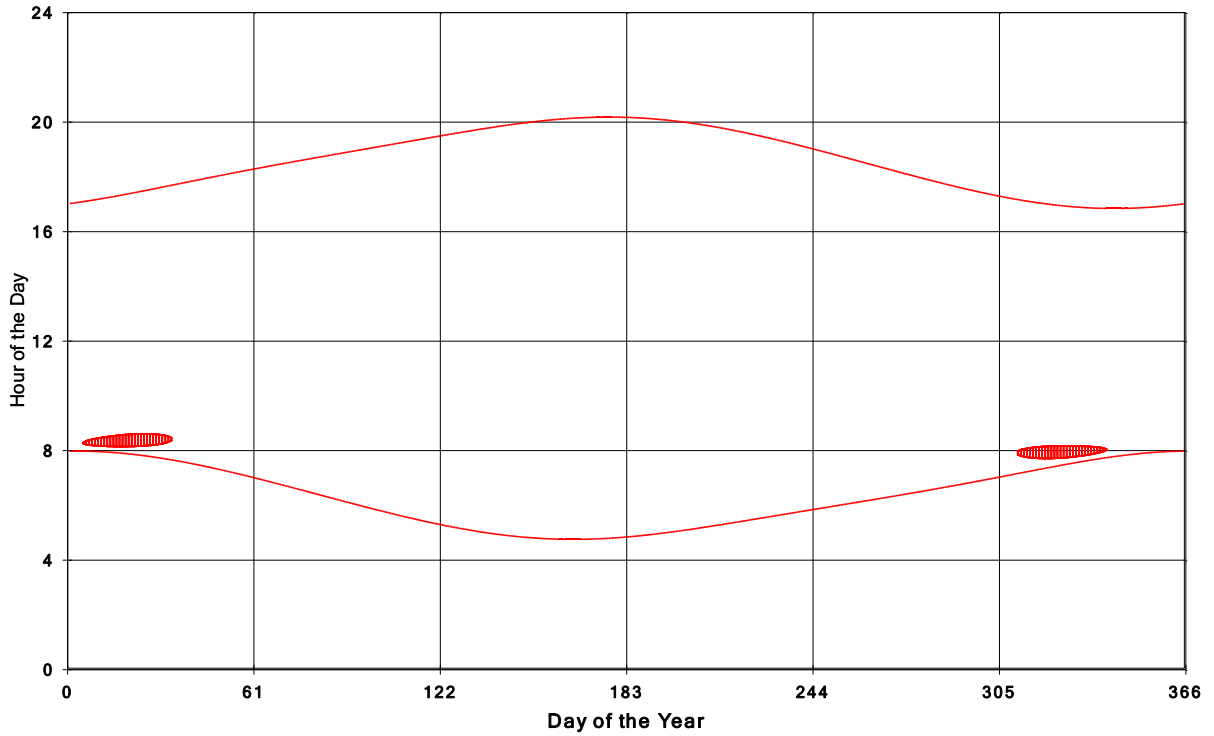
Goshen Wind Energy Centre  
Shadow Times on House 11, All Windows from All Turbine:



**Goshen Wind Energy Centre  
Shadow Times on House 12, All Windows from All Turbine:**

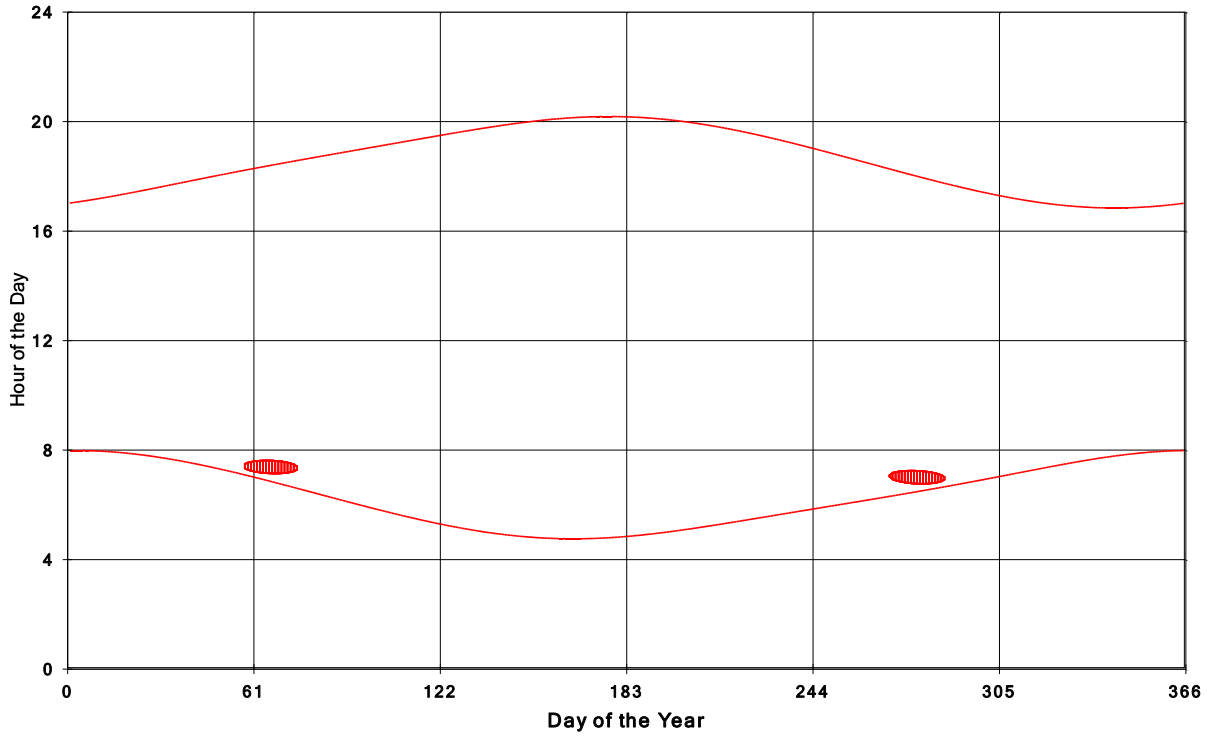


**Goshen Wind Energy Centre  
Shadow Times on House 13, All Windows from All Turbine:**

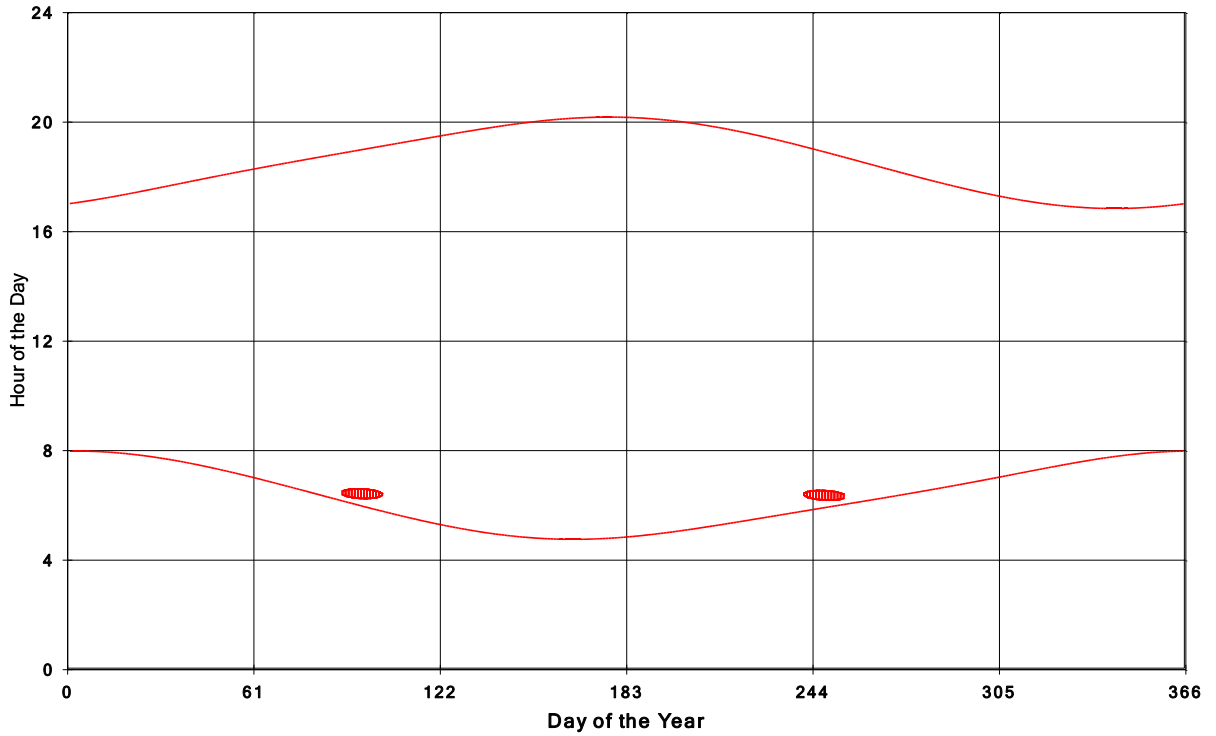




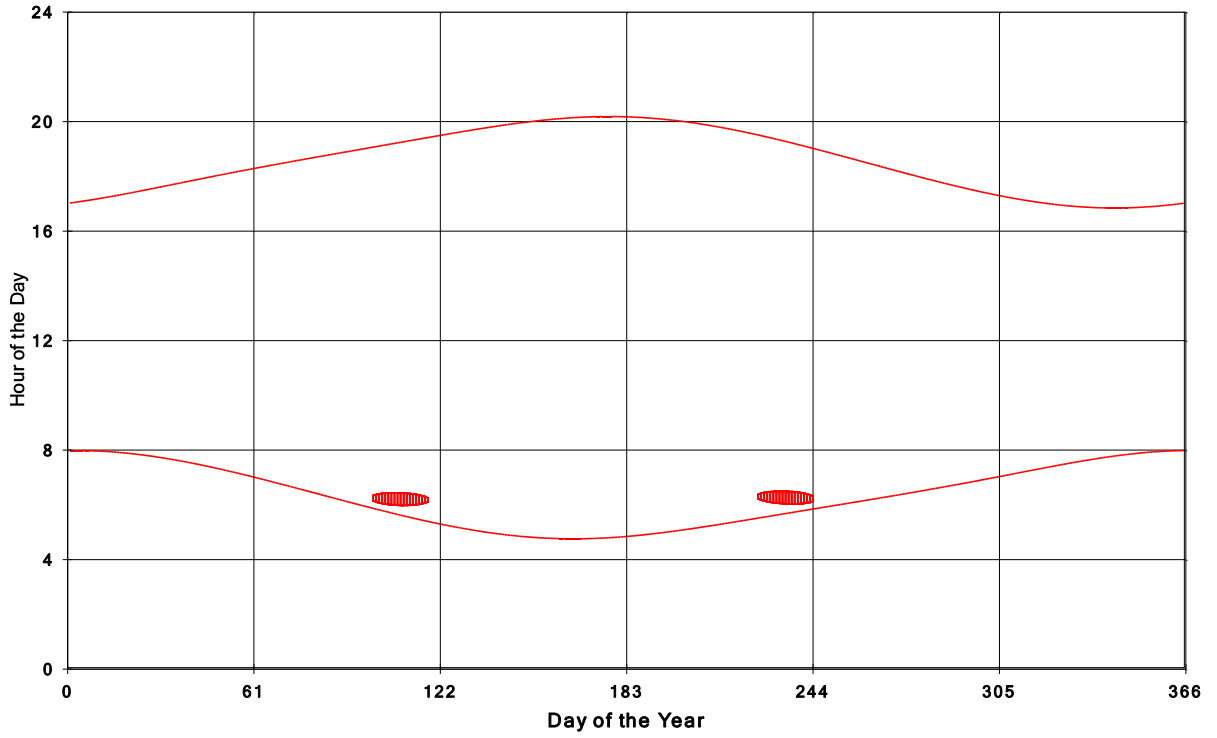
Goshen Wind Energy Centre  
Shadow Times on House 14, All Windows from All Turbine:



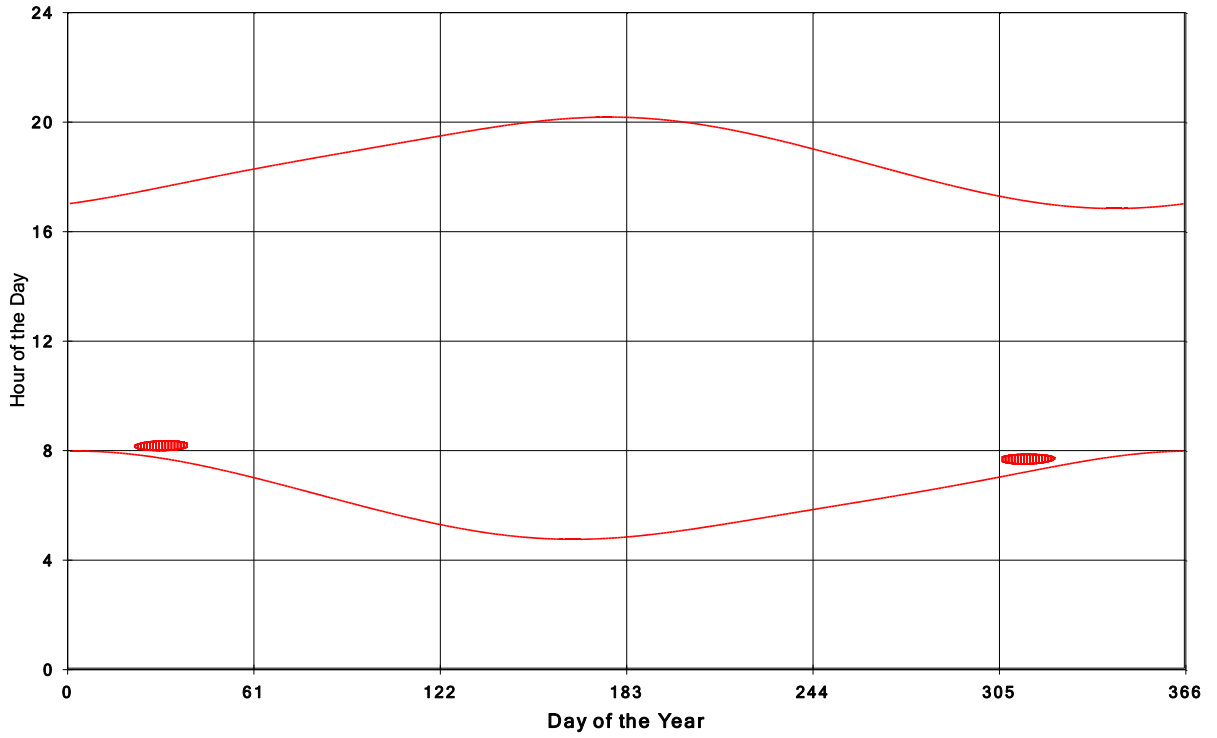
Goshen Wind Energy Centre  
Shadow Times on House 17, All Windows from All Turbine:



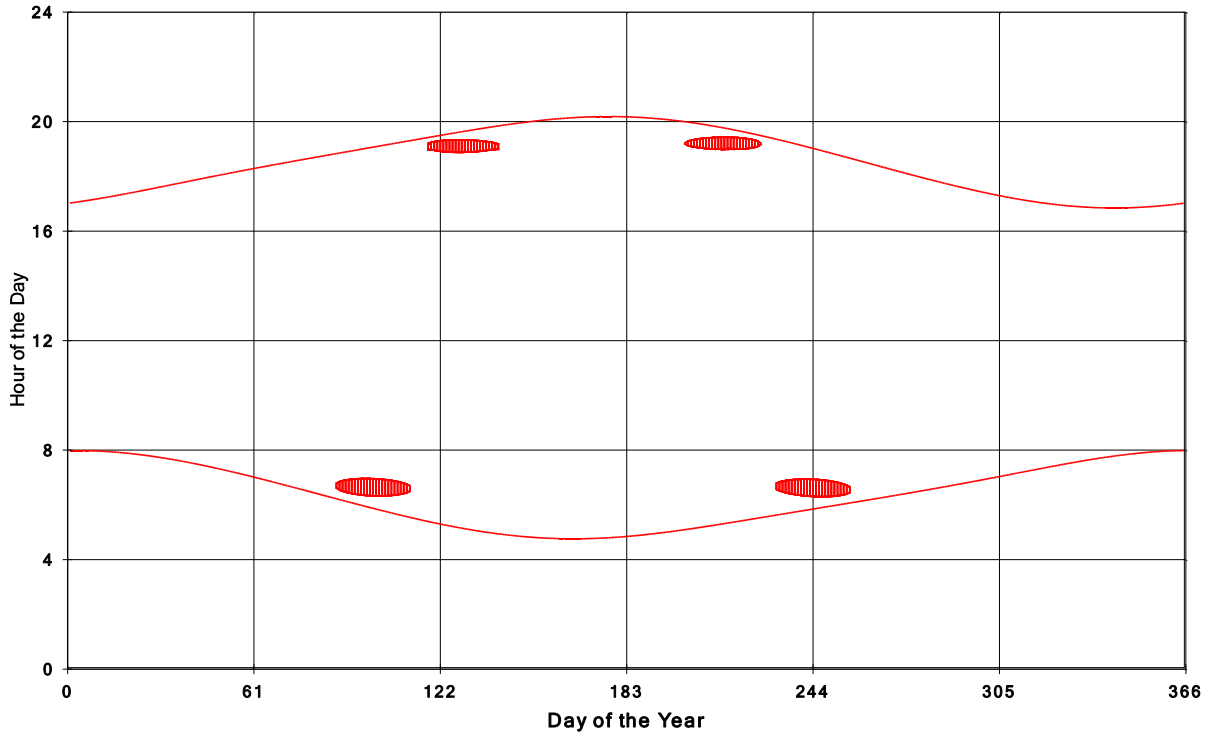
Goshen Wind Energy Centre  
 Shadow Times on House 18, All Windows from All Turbine:



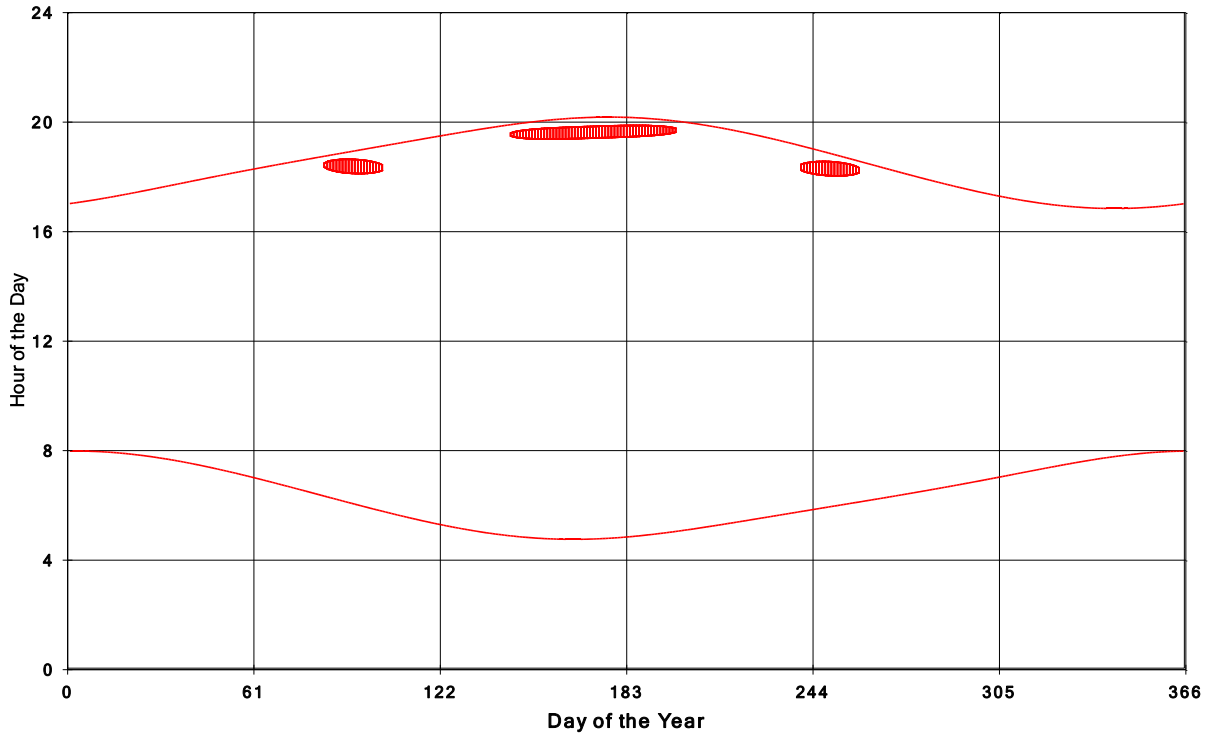
Goshen Wind Energy Centre  
 Shadow Times on House 24, All Windows from All Turbine:



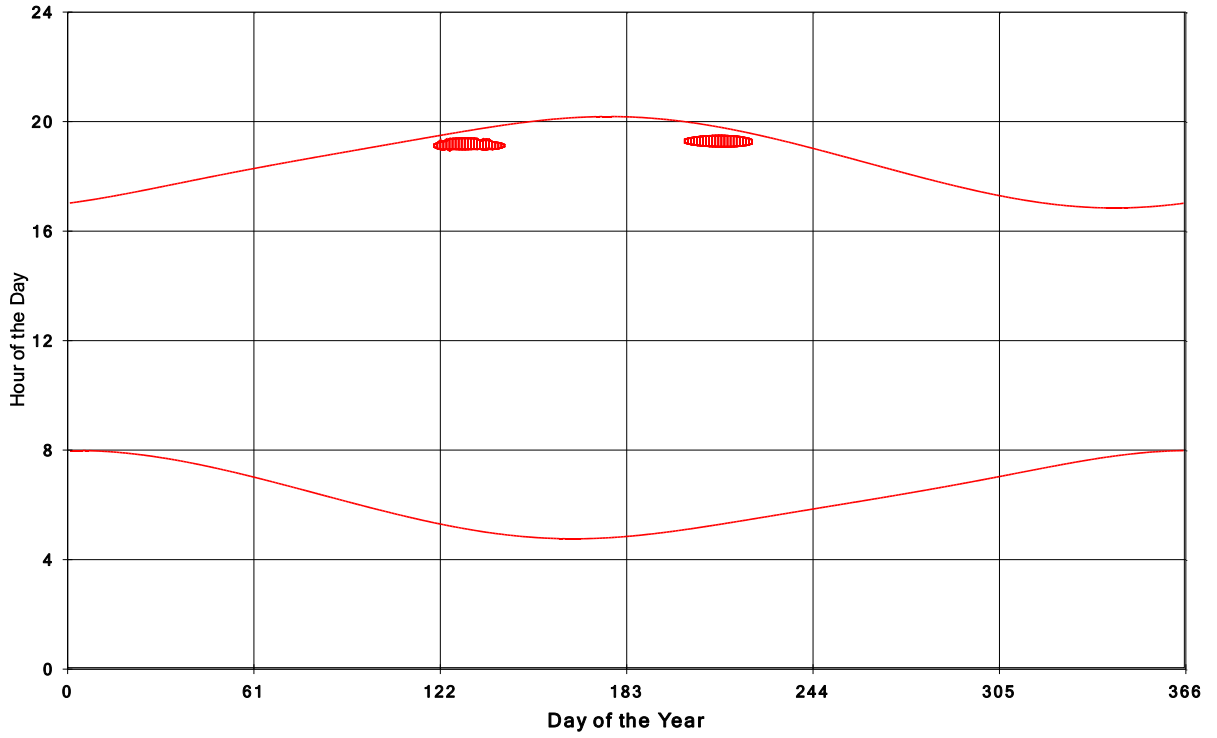
Goshen Wind Energy Centre  
 Shadow Times on House 25, All Windows from All Turbine:



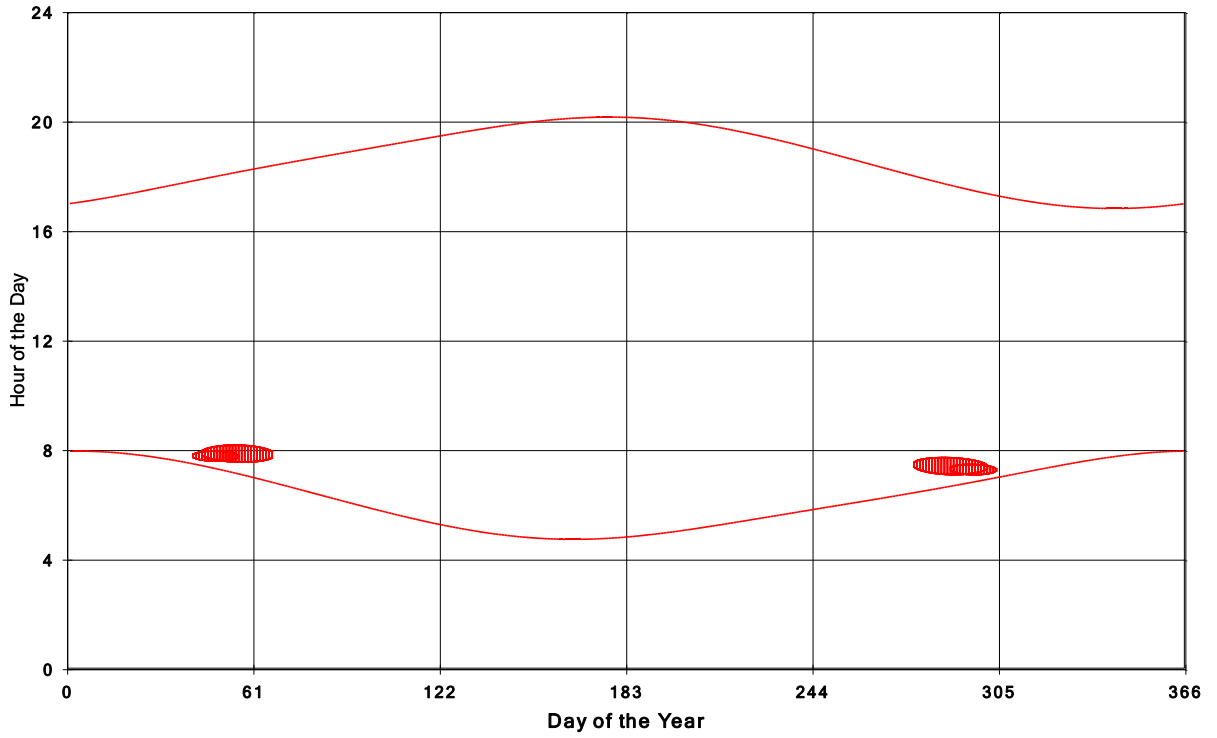
Goshen Wind Energy Centre  
 Shadow Times on House 27, All Windows from All Turbine:



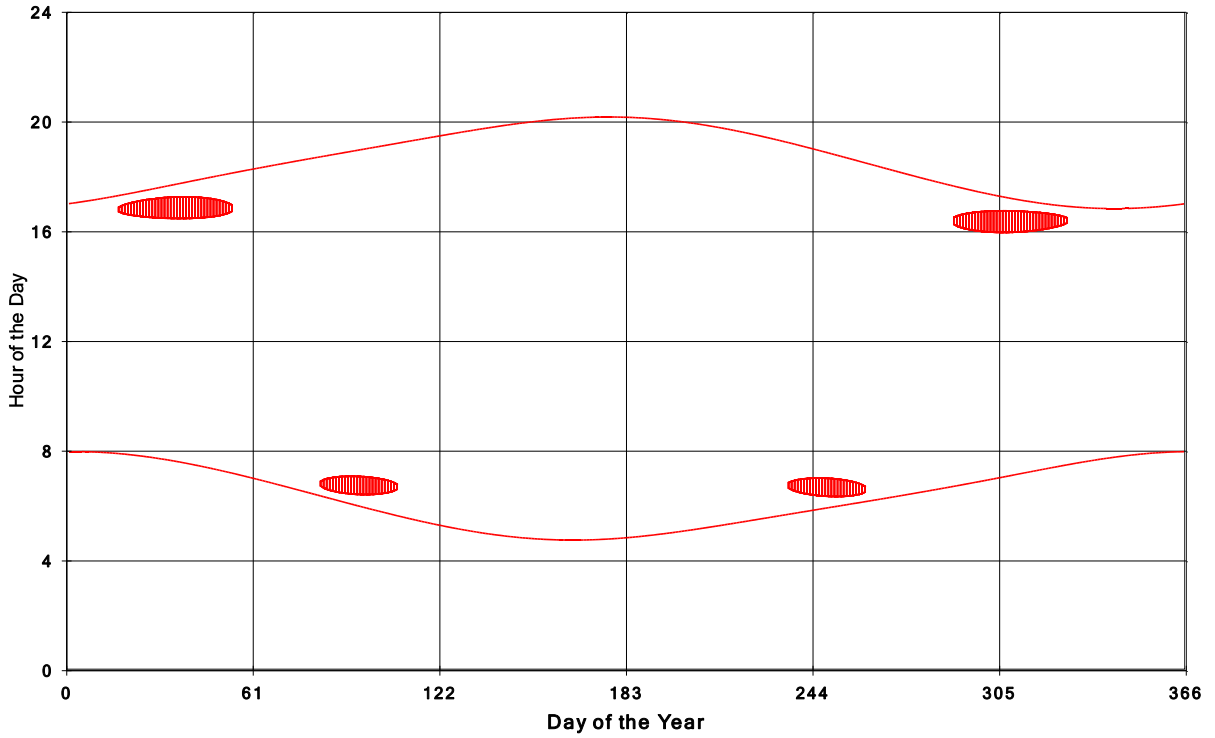
**Goshen Wind Energy Centre  
Shadow Times on House 28, All Windows from All Turbine:**



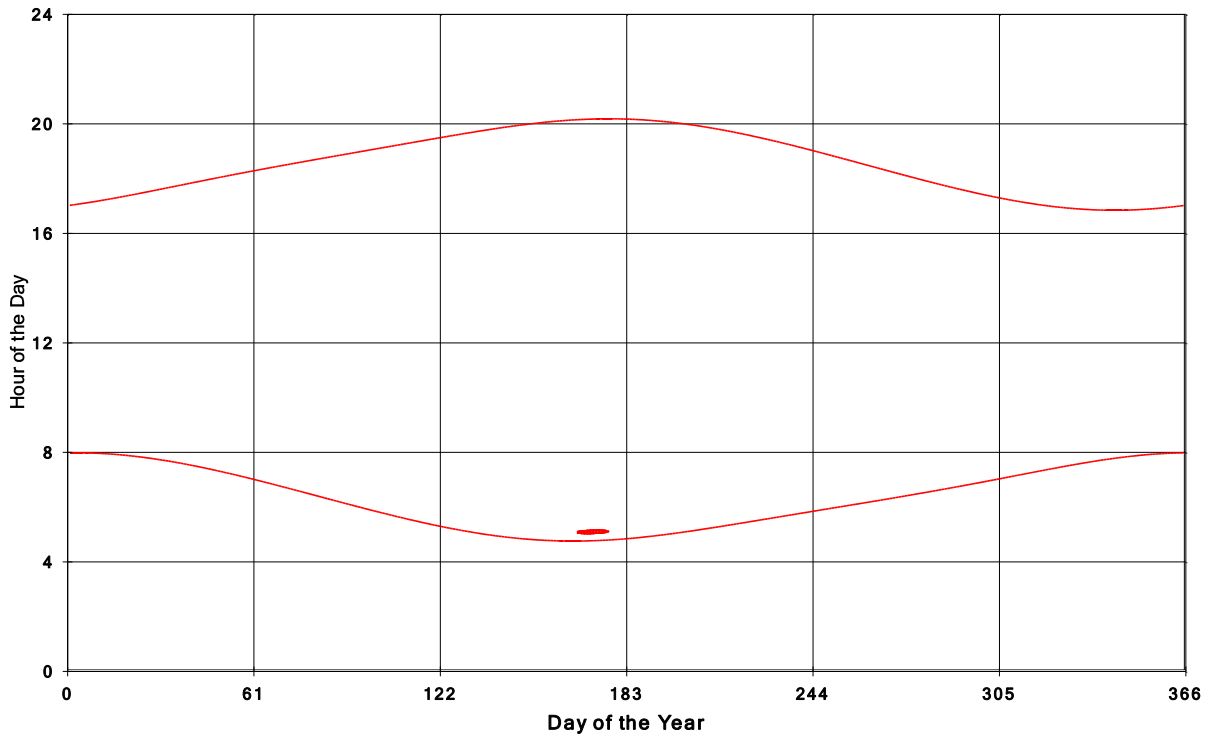
**Goshen Wind Energy Centre  
Shadow Times on House 31, All Windows from All Turbine:**



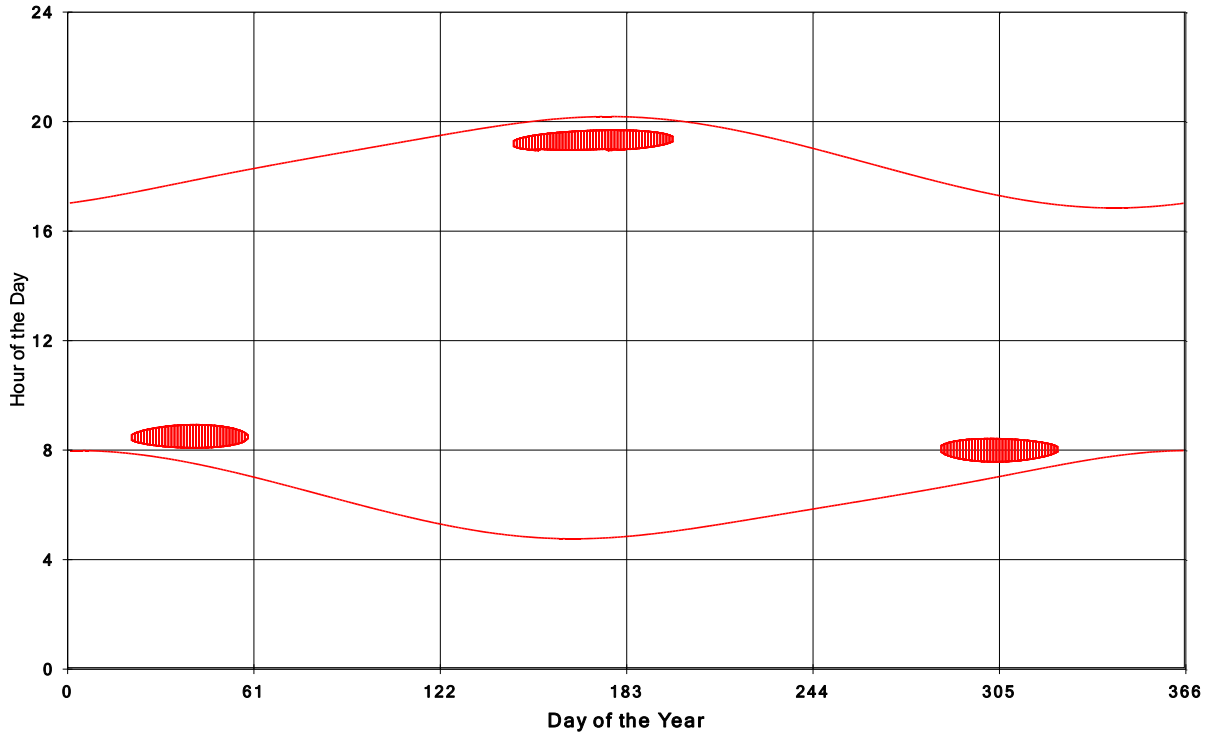
**Jericho Wind Energy Centre  
Shadow Times on House 33, All Windows from All Turbine:**



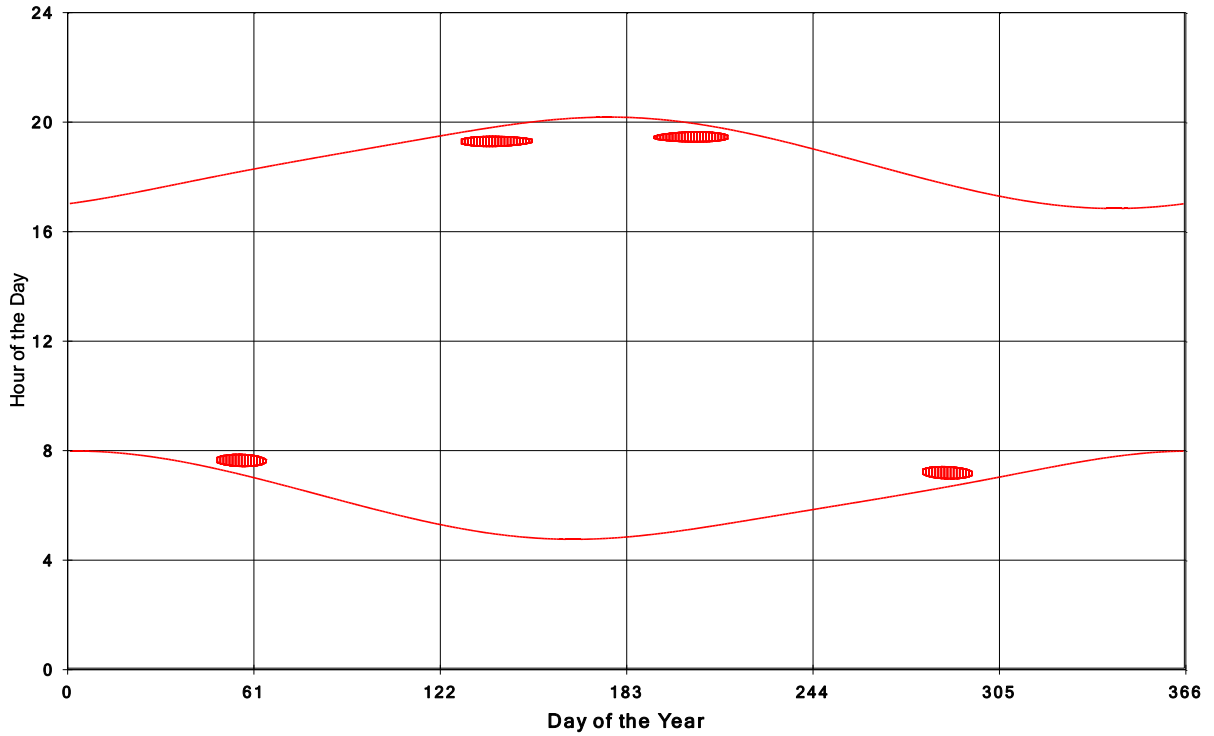
**Goshen Wind Energy Centre  
Shadow Times on House 34, All Windows from All Turbine:**



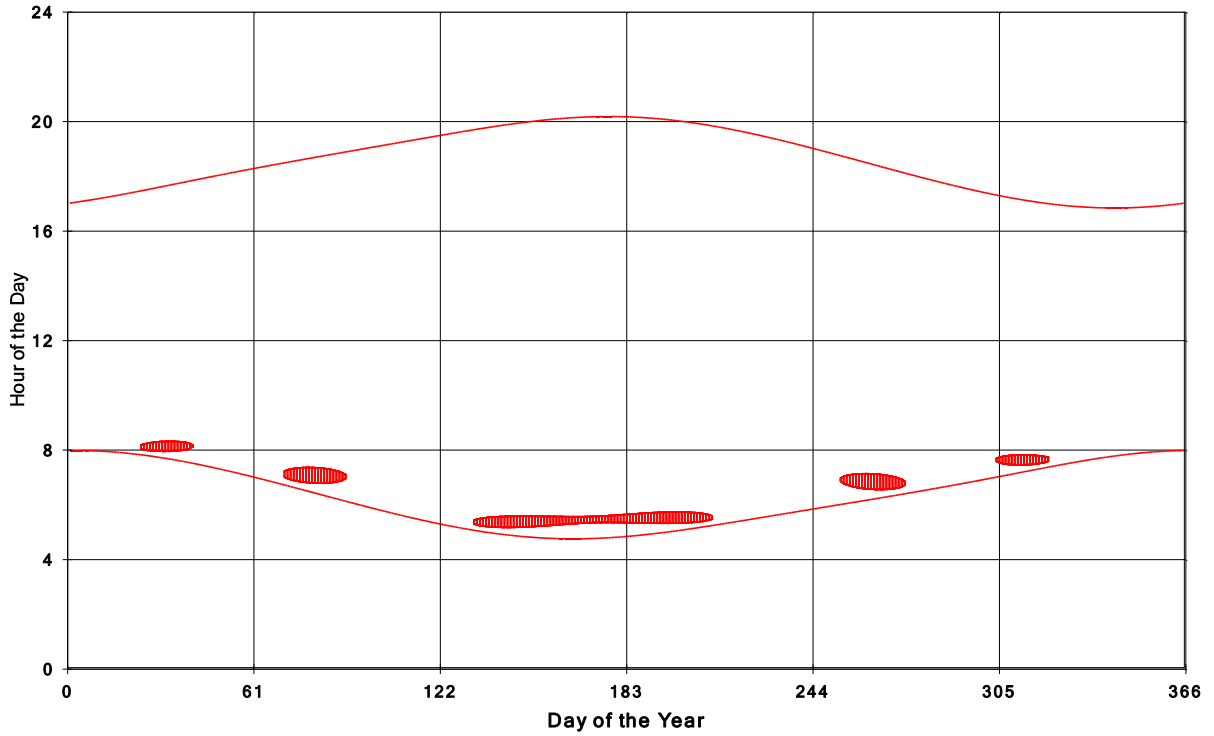
Goshen Wind Energy Centre  
 Shadow Times on House 35, All Windows from All Turbine:



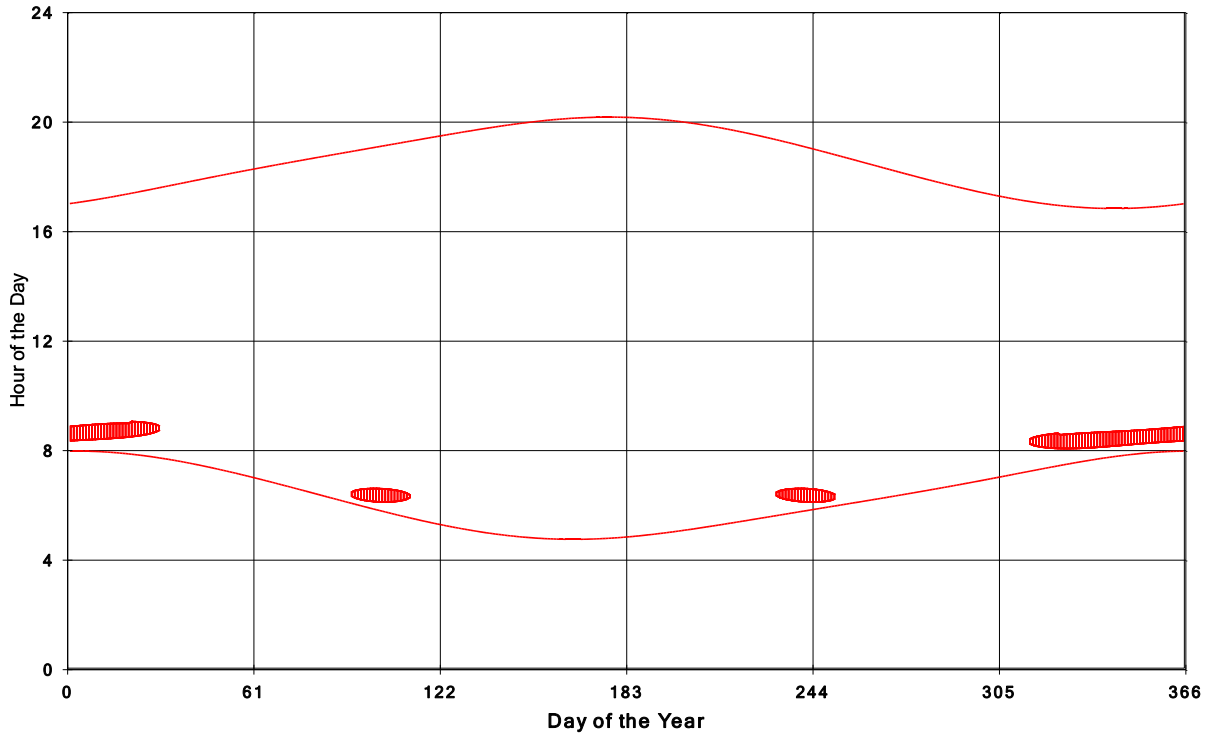
Goshen Wind Energy Centre  
 Shadow Times on House 36, All Windows from All Turbine:



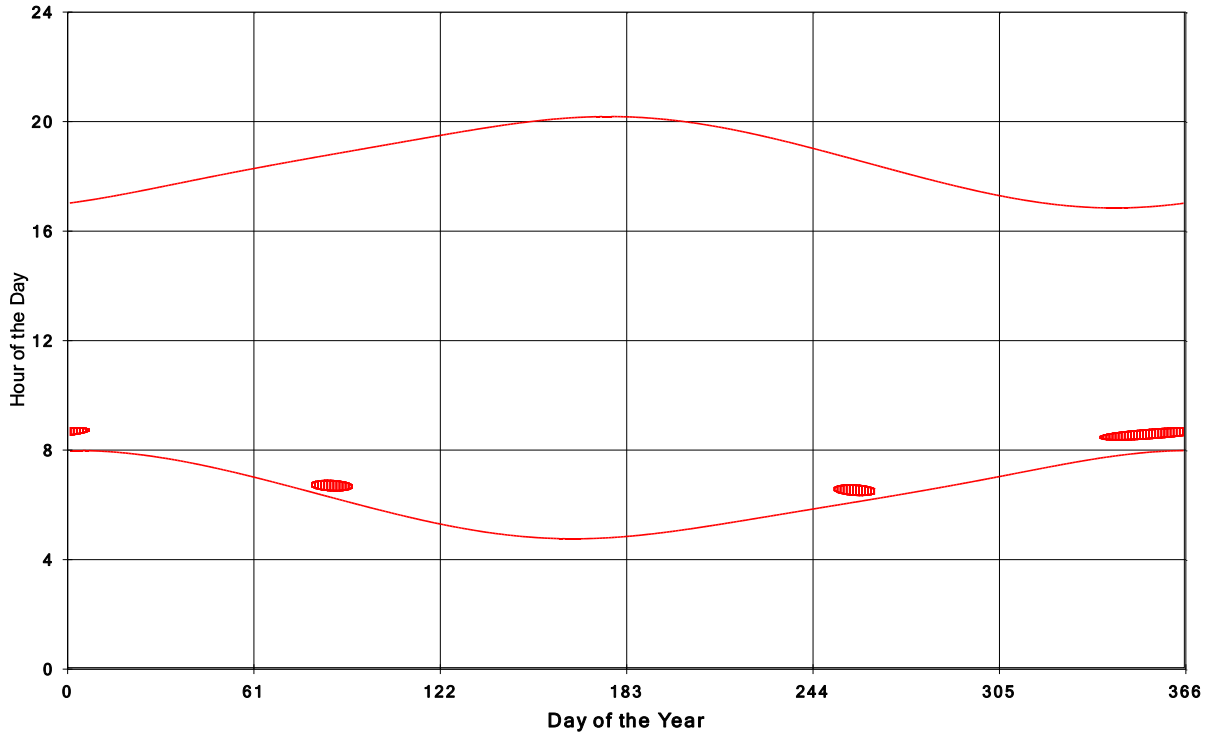
Goshen Wind Energy Centre  
 Shadow Times on House 44, All Windows from All Turbine:



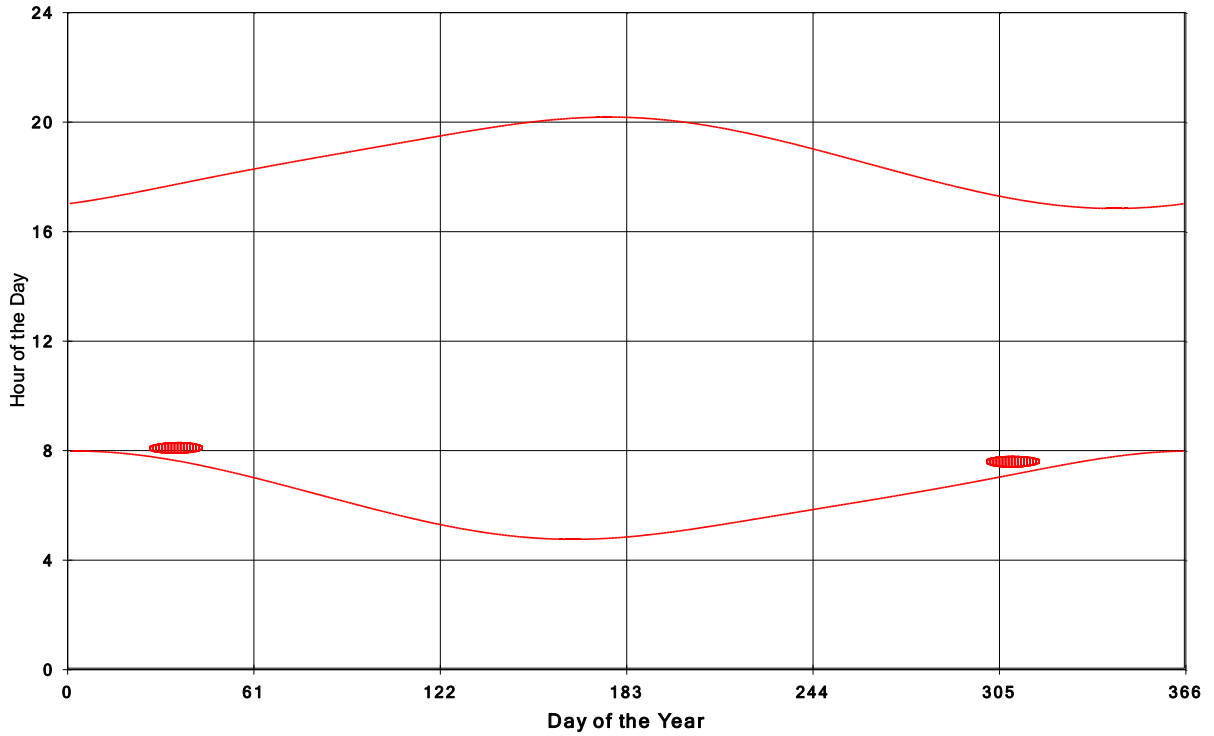
Goshen Wind Energy Centre  
 Shadow Times on House 45, All Windows from All Turbine:



Goshen Wind Energy Centre  
 Shadow Times on House 46, All Windows from All Turbine:

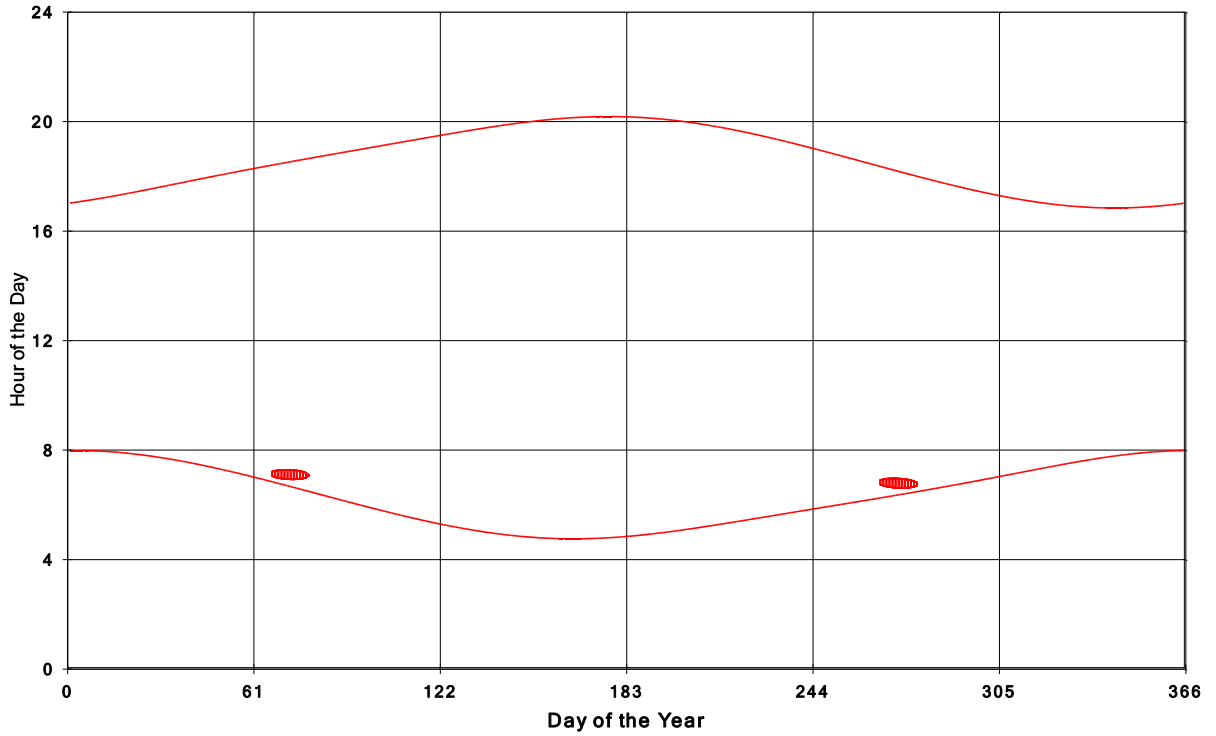


Goshen Wind Energy Centre  
 Shadow Times on House 47, All Windows from All Turbine:

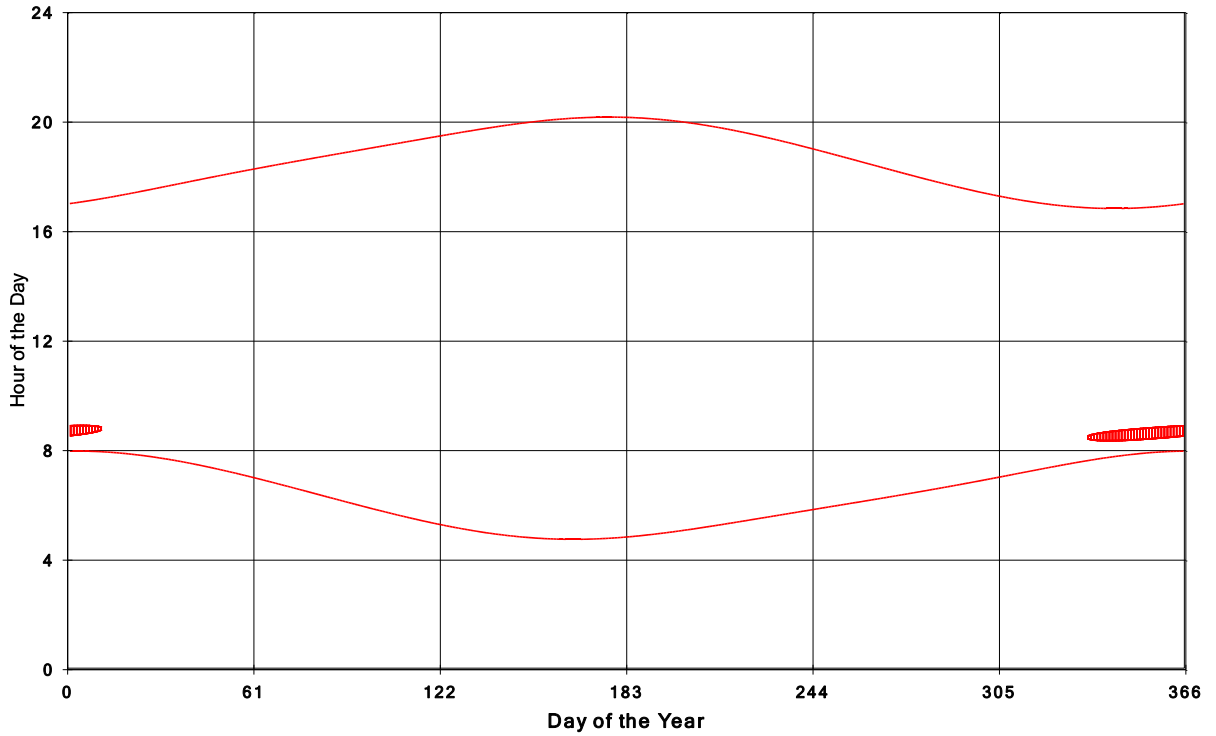




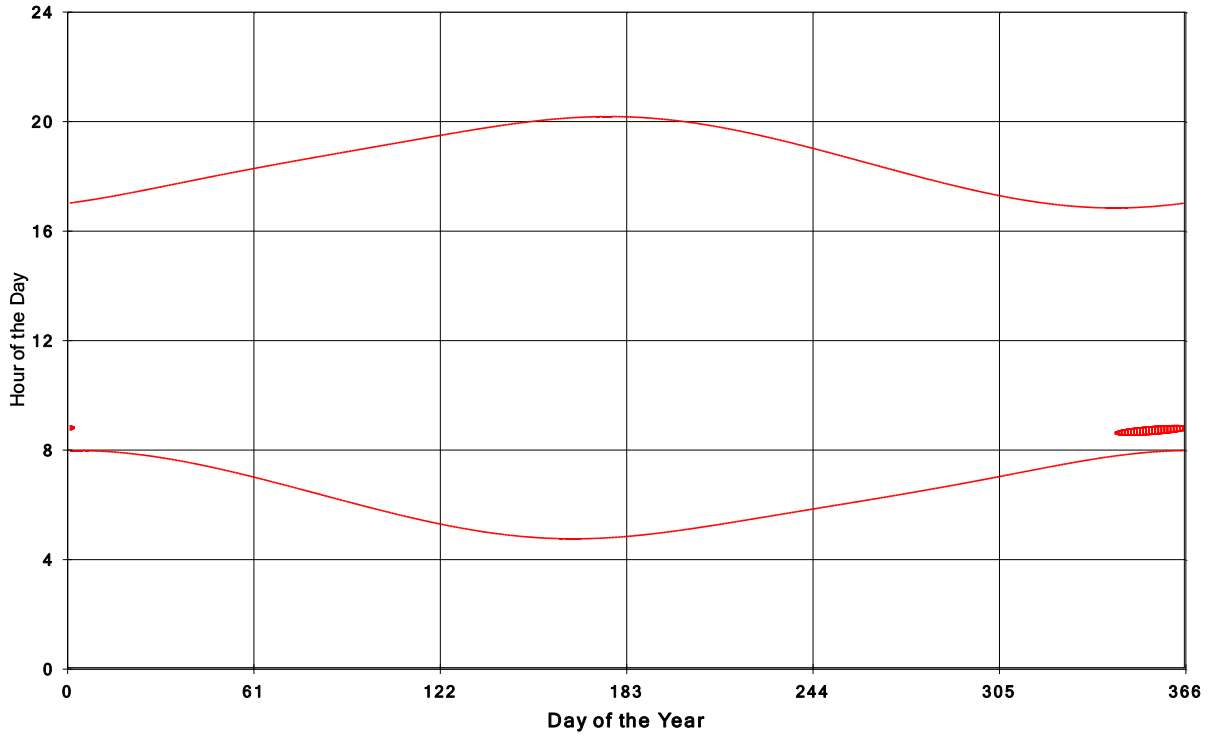
**Goshen Wind Energy Centre  
Shadow Times on House 56, All Windows from All Turbine:**



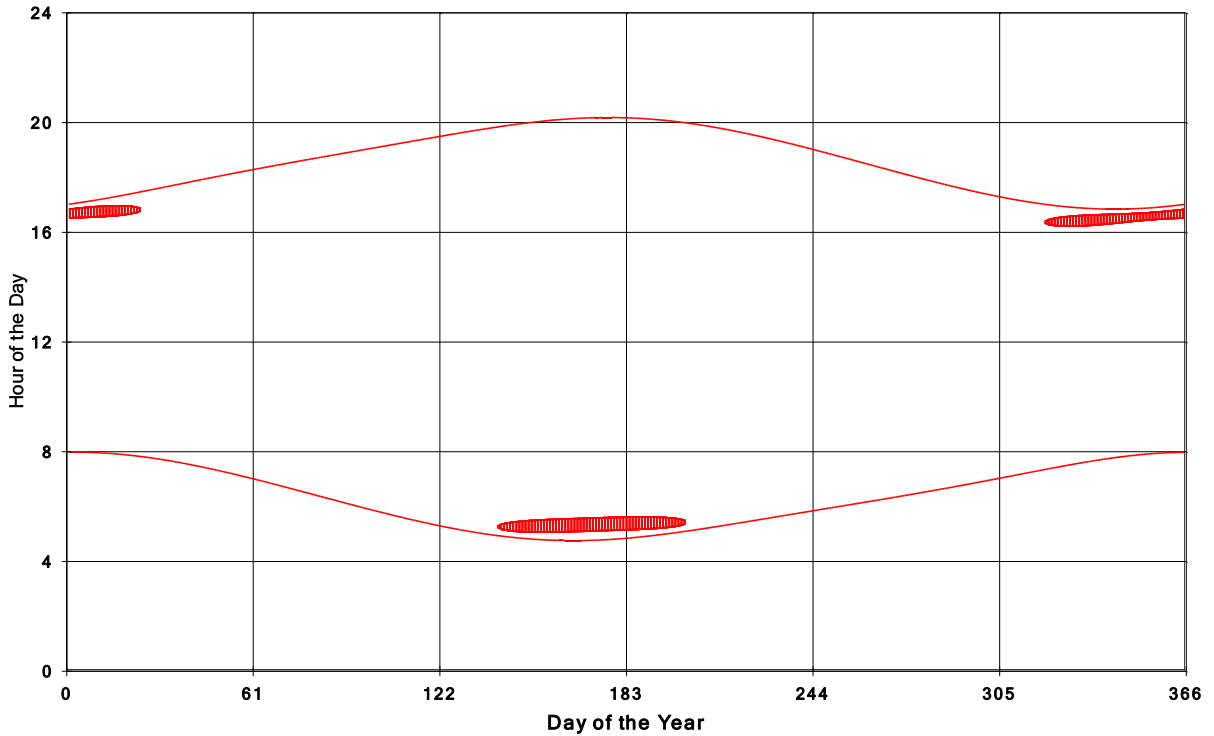
**Goshen Wind Energy Centre  
Shadow Times on House 71, All Windows from All Turbine:**



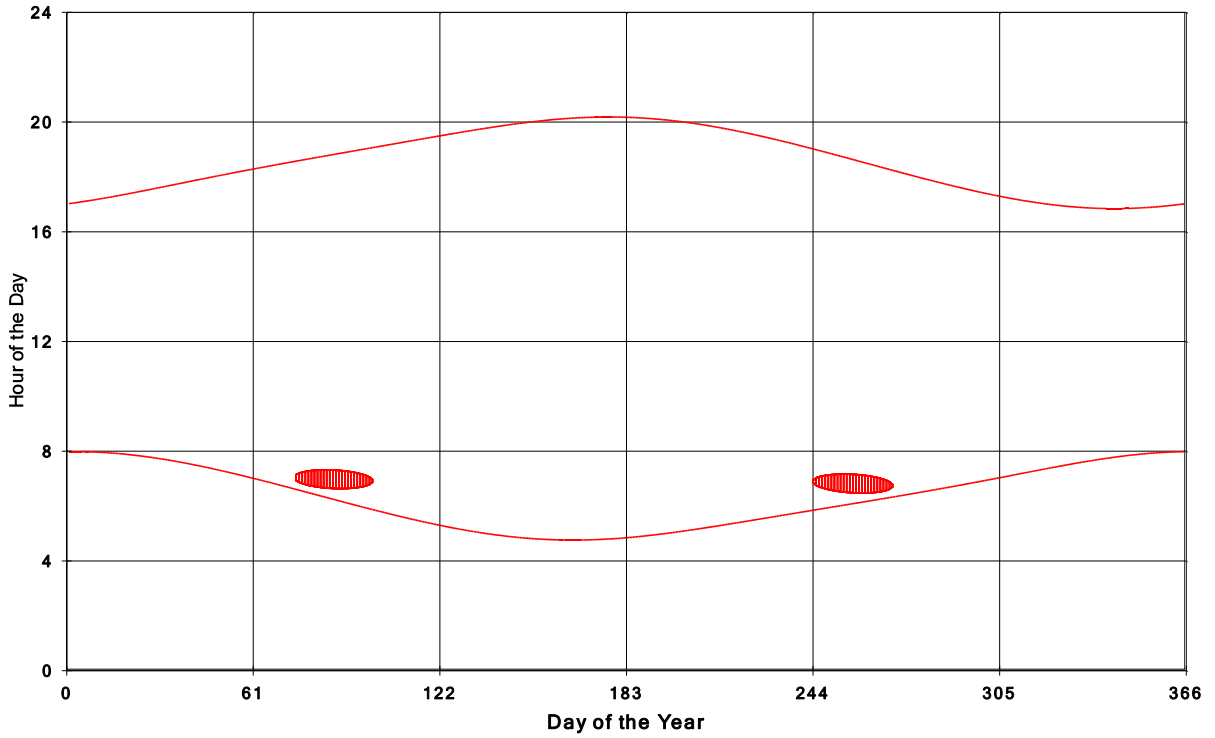
**Goshen Wind Energy Centre  
Shadow Times on House 72, All Windows from All Turbine:**



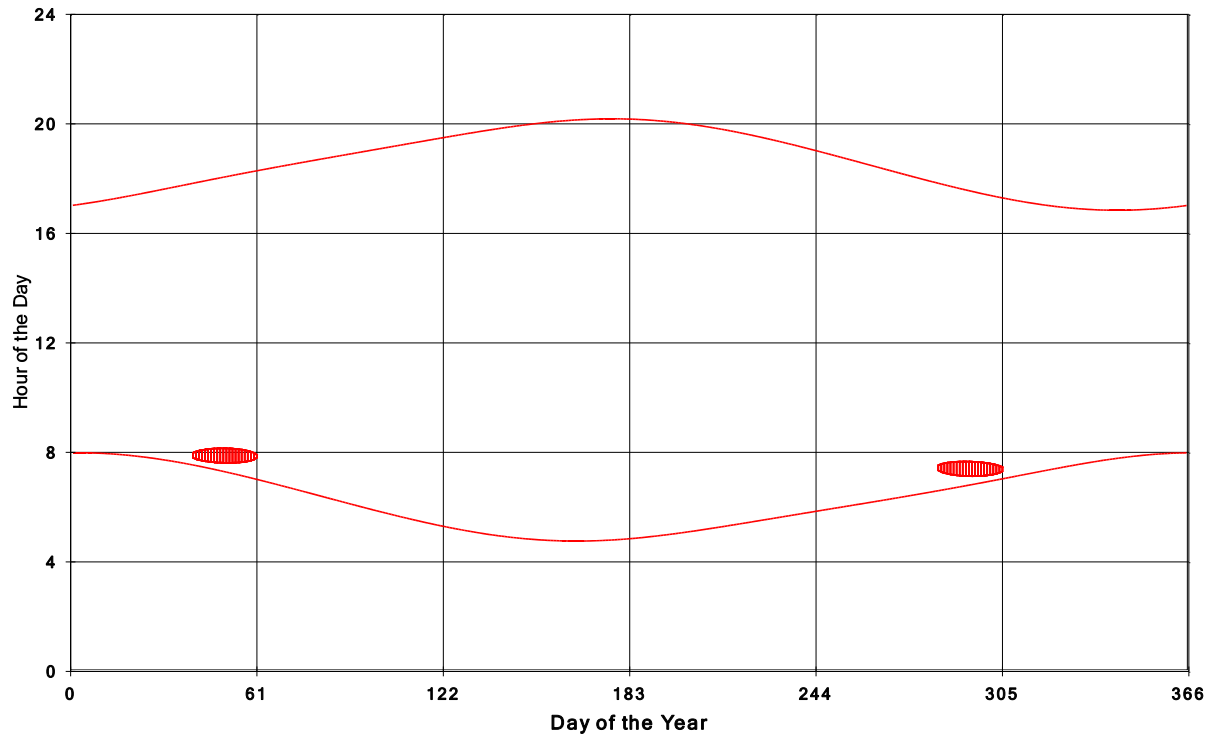
**Jericho Wind Energy Centre  
Shadow Times on House 73, All Windows from All Turbine:**



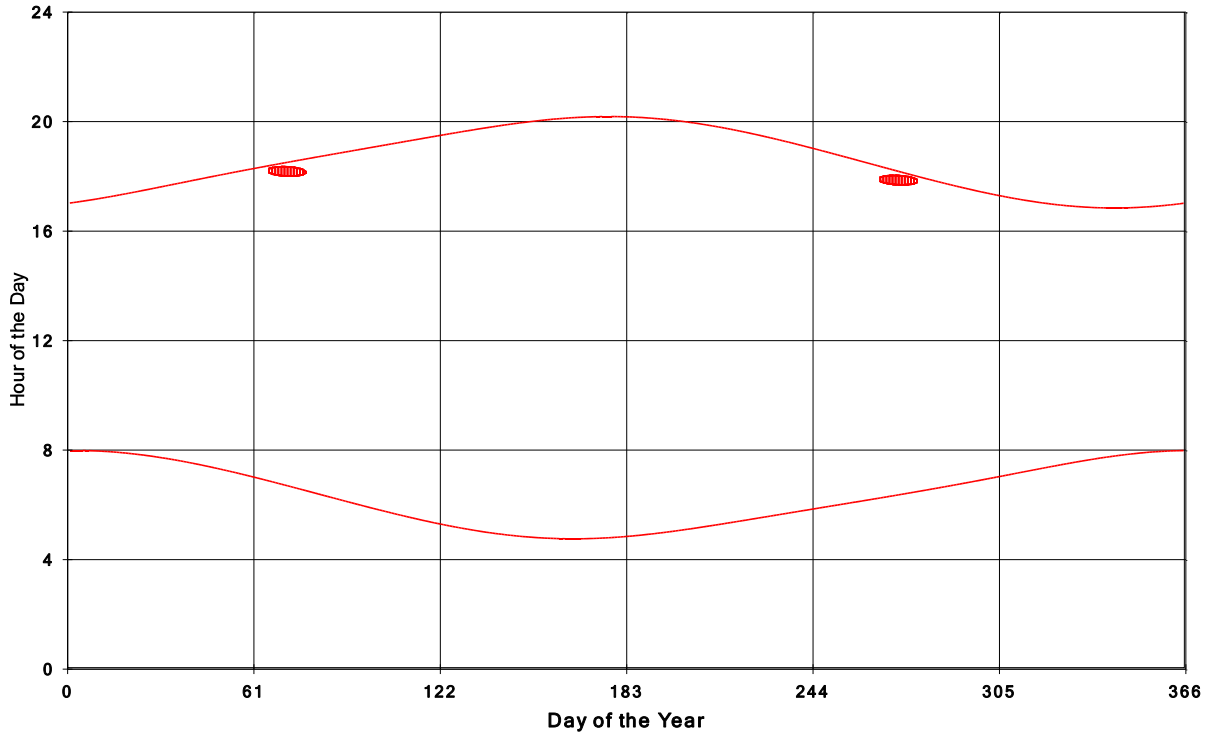
**Jericho Wind Energy Centre  
Shadow Times on House 74, All Windows from All Turbine:**



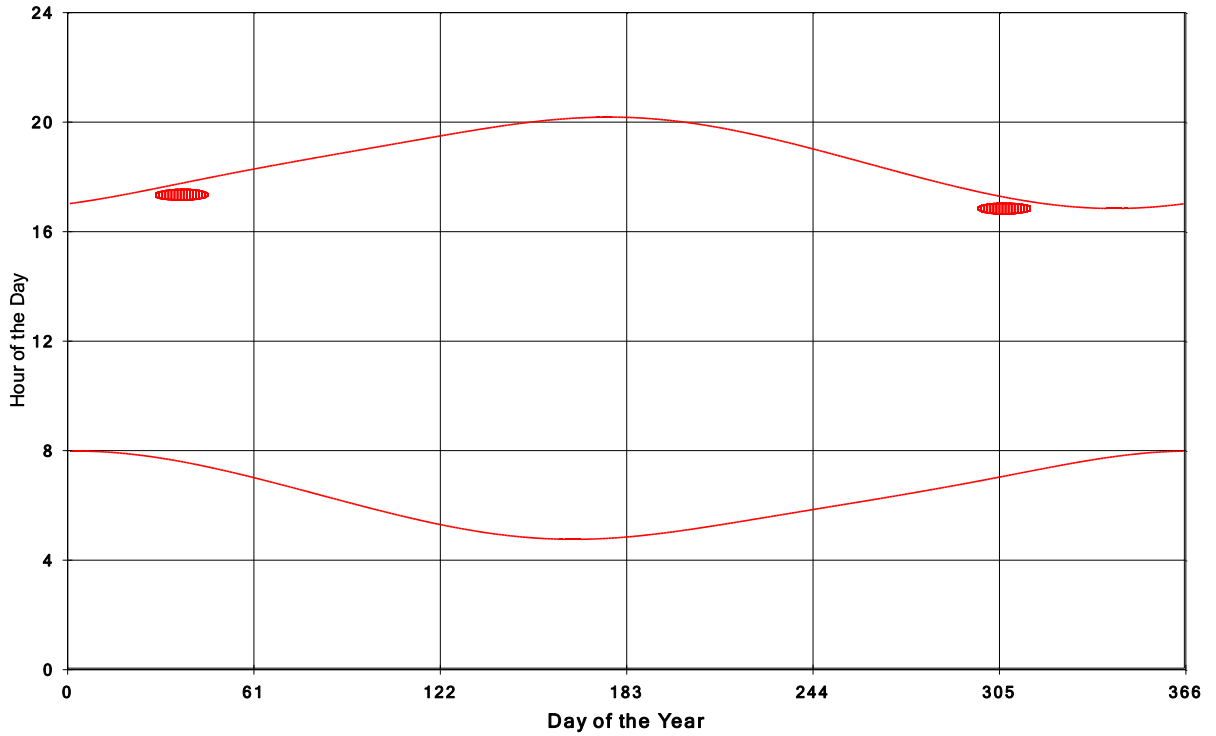
**Goshen Wind Energy Centre  
Shadow Times on House 75, All Windows from All Turbine:**



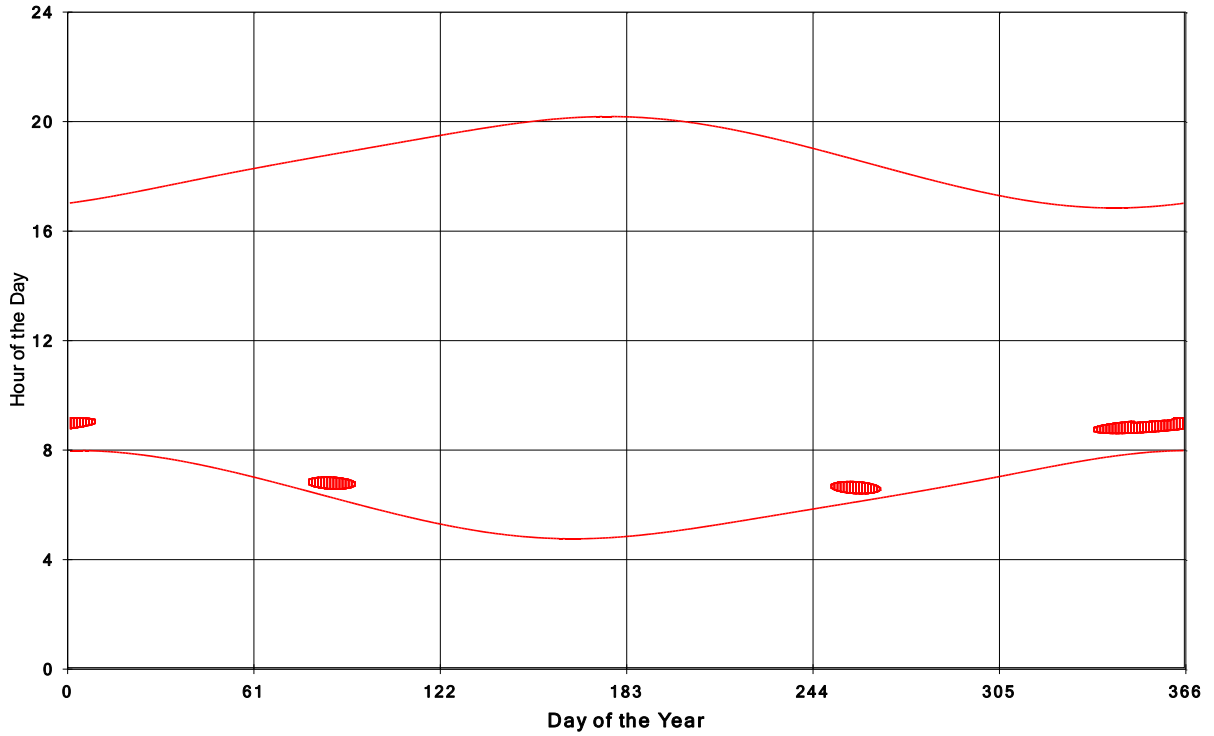
Goshen Wind Energy Centre  
 Shadow Times on House 80, All Windows from All Turbine:



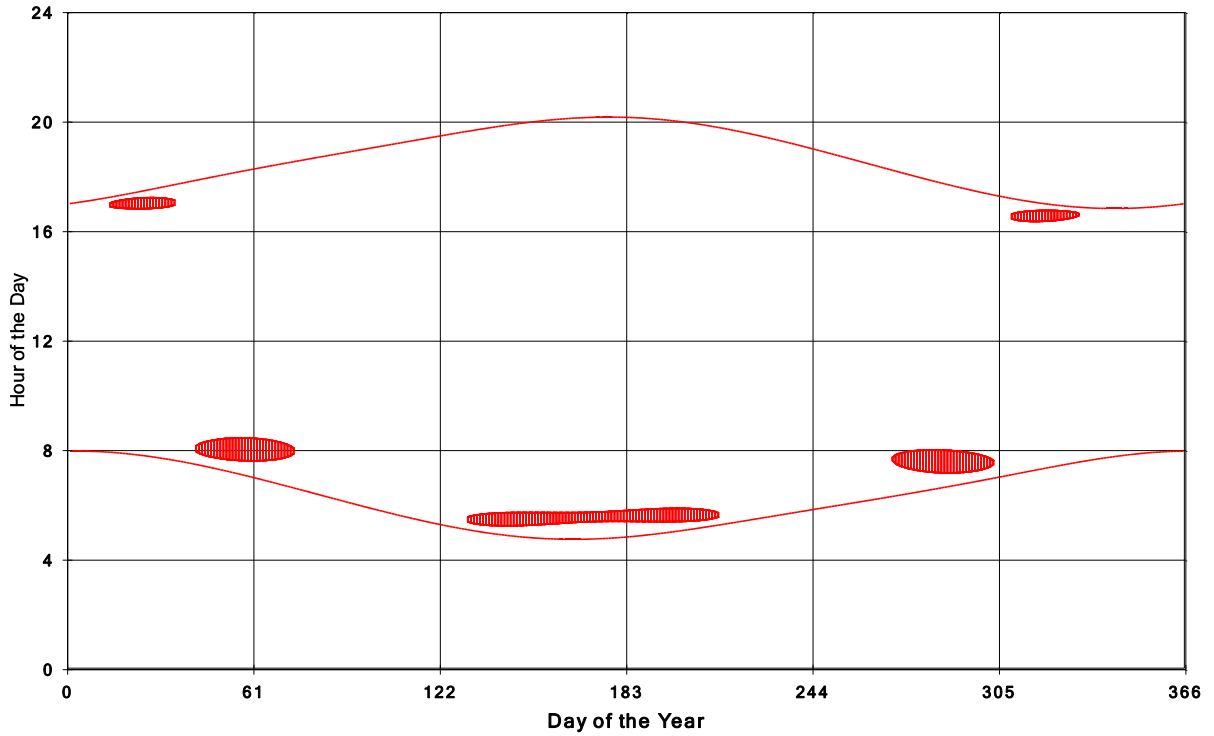
Goshen Wind Energy Centre  
 Shadow Times on House 81, All Windows from All Turbine:



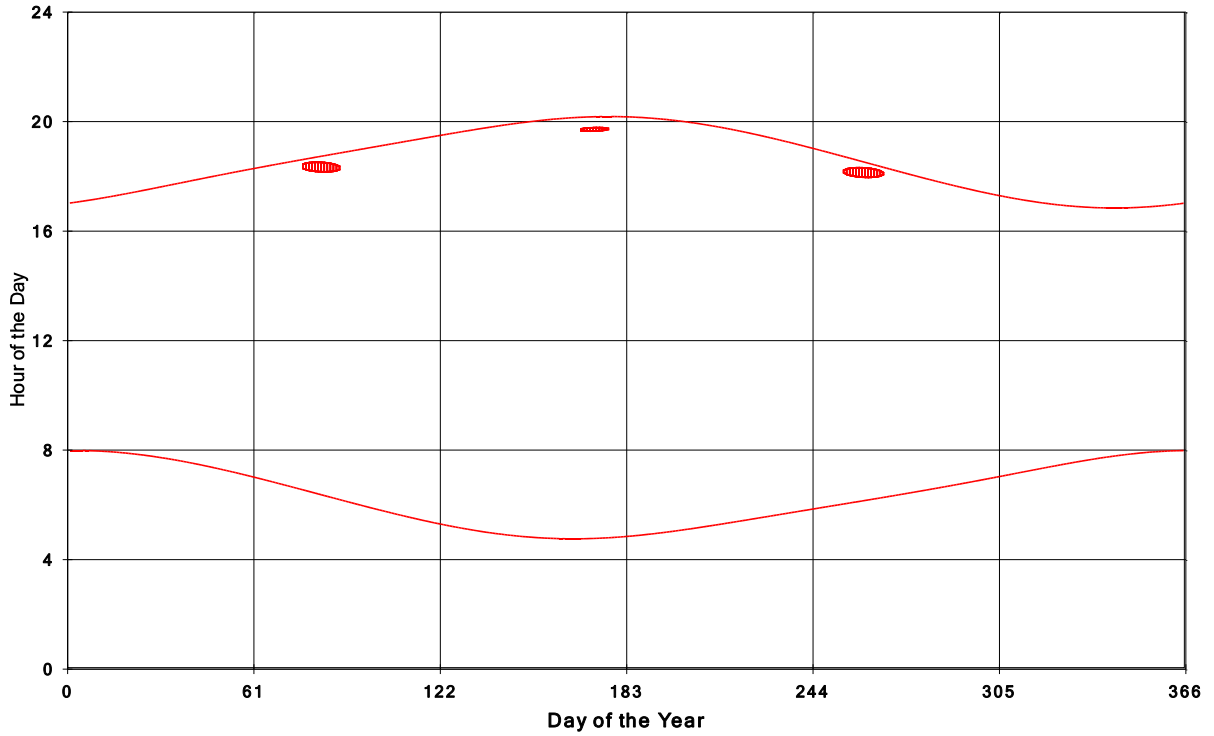
Goshen Wind Energy Centre  
 Shadow Times on House 82, All Windows from All Turbine:



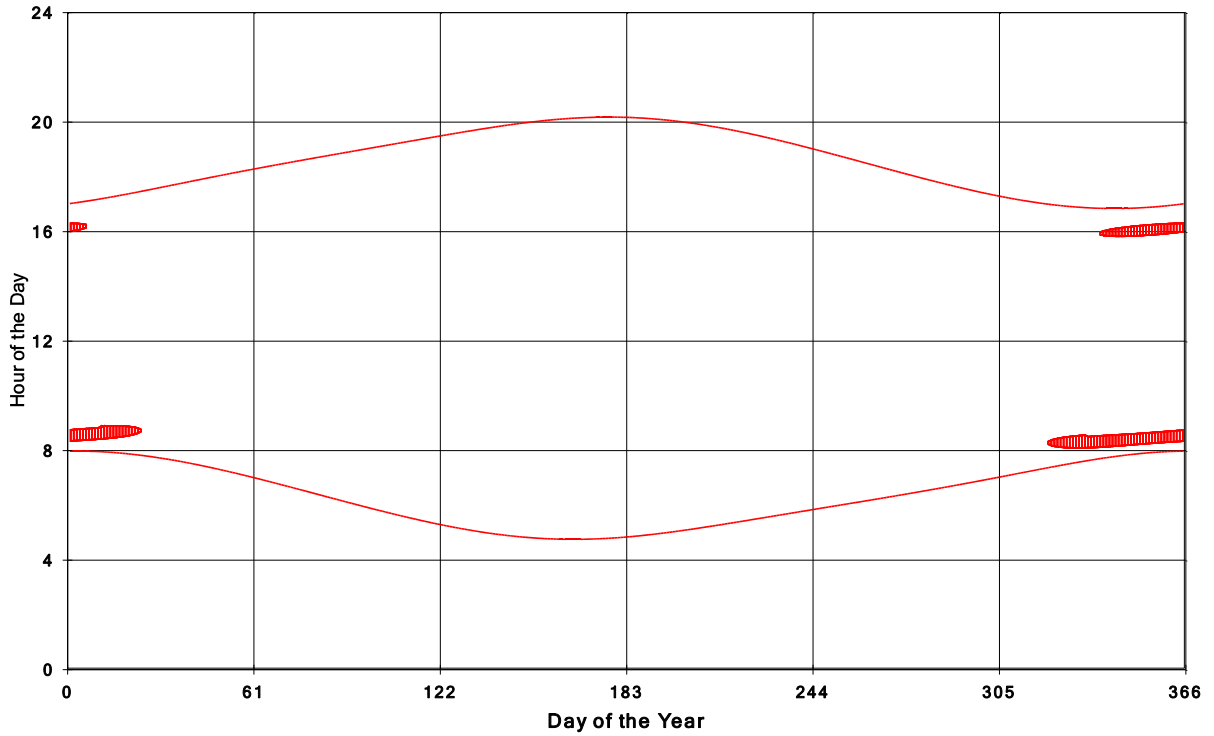
Goshen Wind Energy Centre  
 Shadow Times on House 83, All Windows from All Turbine:



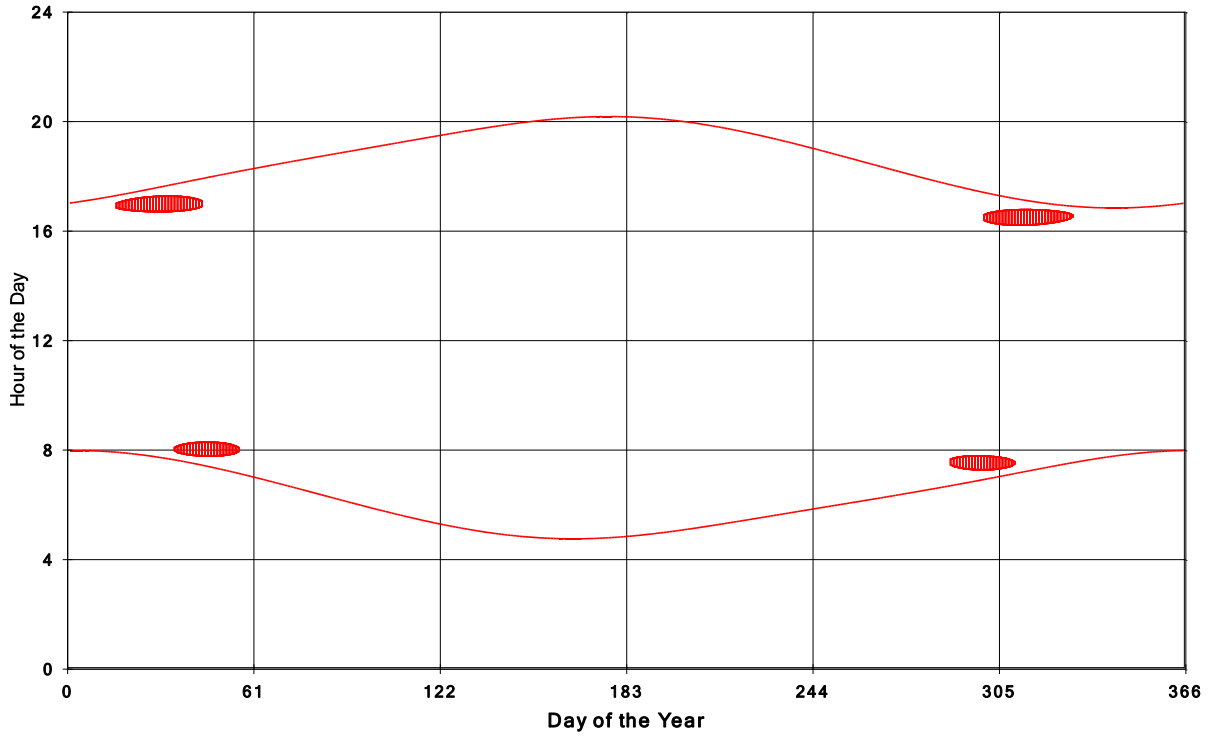
Goshen Wind Energy Centre  
 Shadow Times on House 84, All Windows from All Turbine:



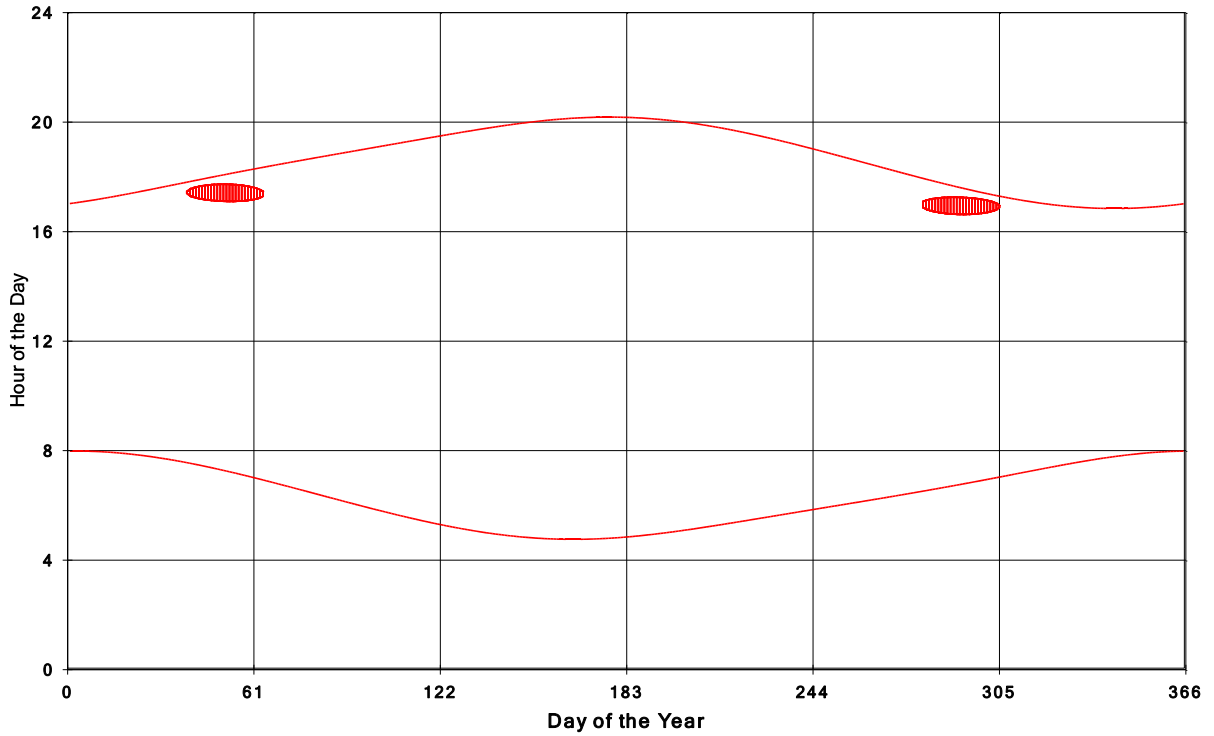
Goshen Wind Energy Centre  
 Shadow Times on House 85, All Windows from All Turbine:



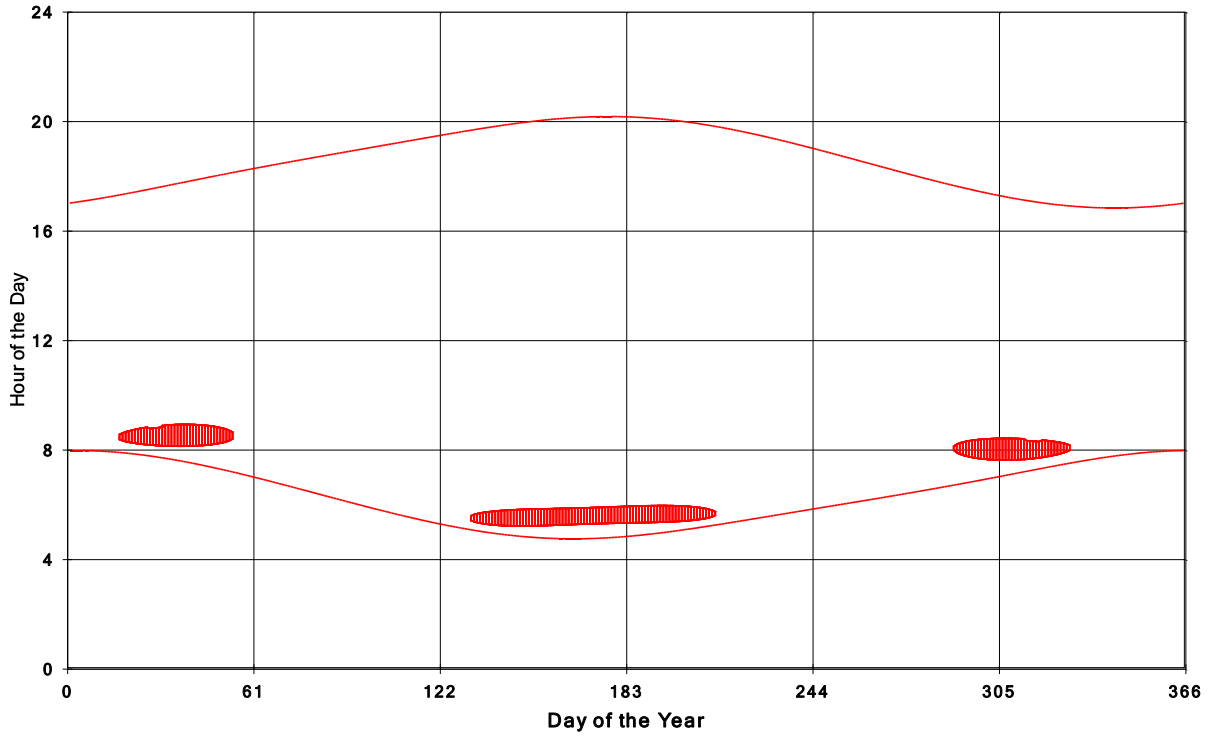
Goshen Wind Energy Centre  
 Shadow Times on House 86, All Windows from All Turbine:



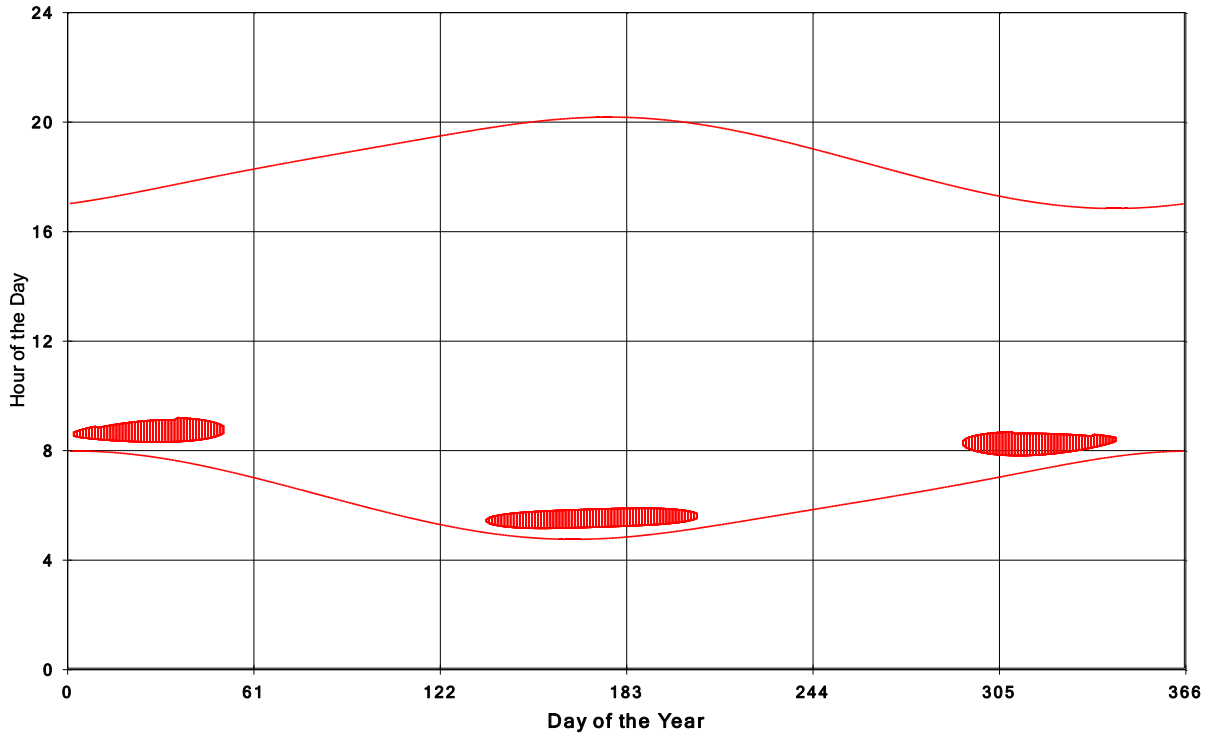
Goshen Wind Energy Centre  
 Shadow Times on House 87, All Windows from All Turbine:



Goshen Wind Energy Centre  
 Shadow Times on House 100, All Windows from All Turbine:

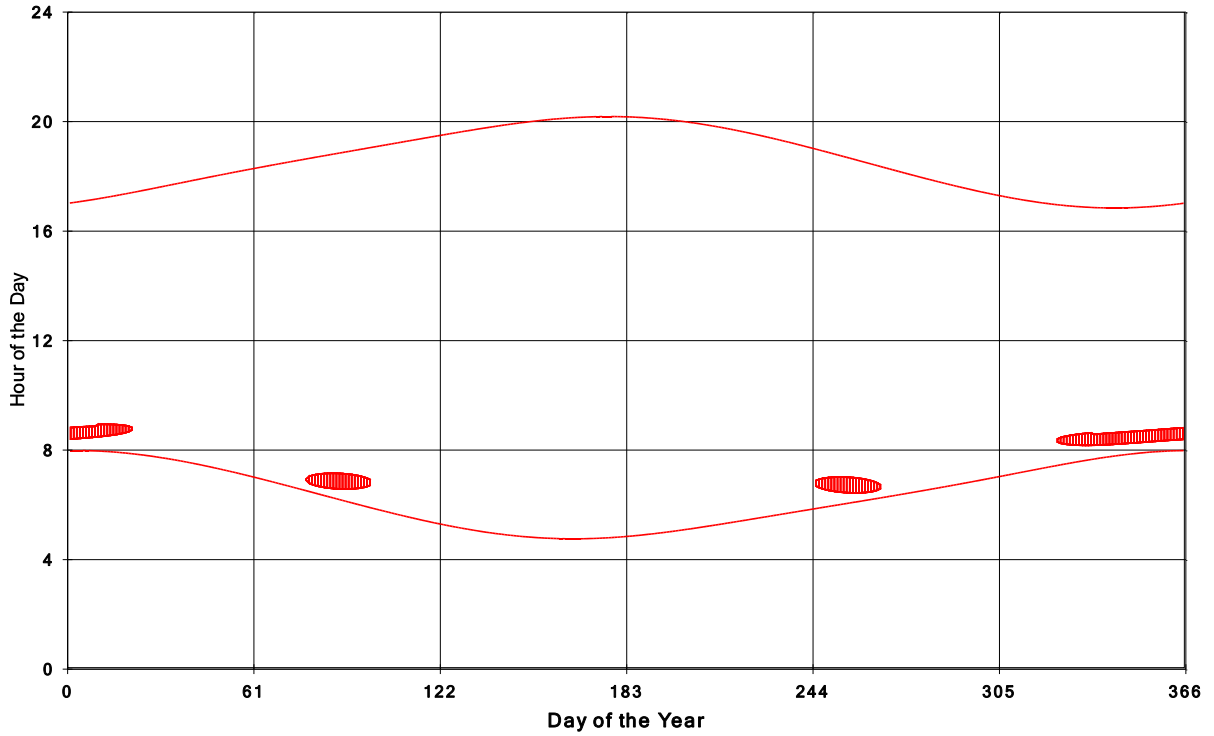


Goshen Wind Energy Centre  
 Shadow Times on House 101, All Windows from All Turbine:

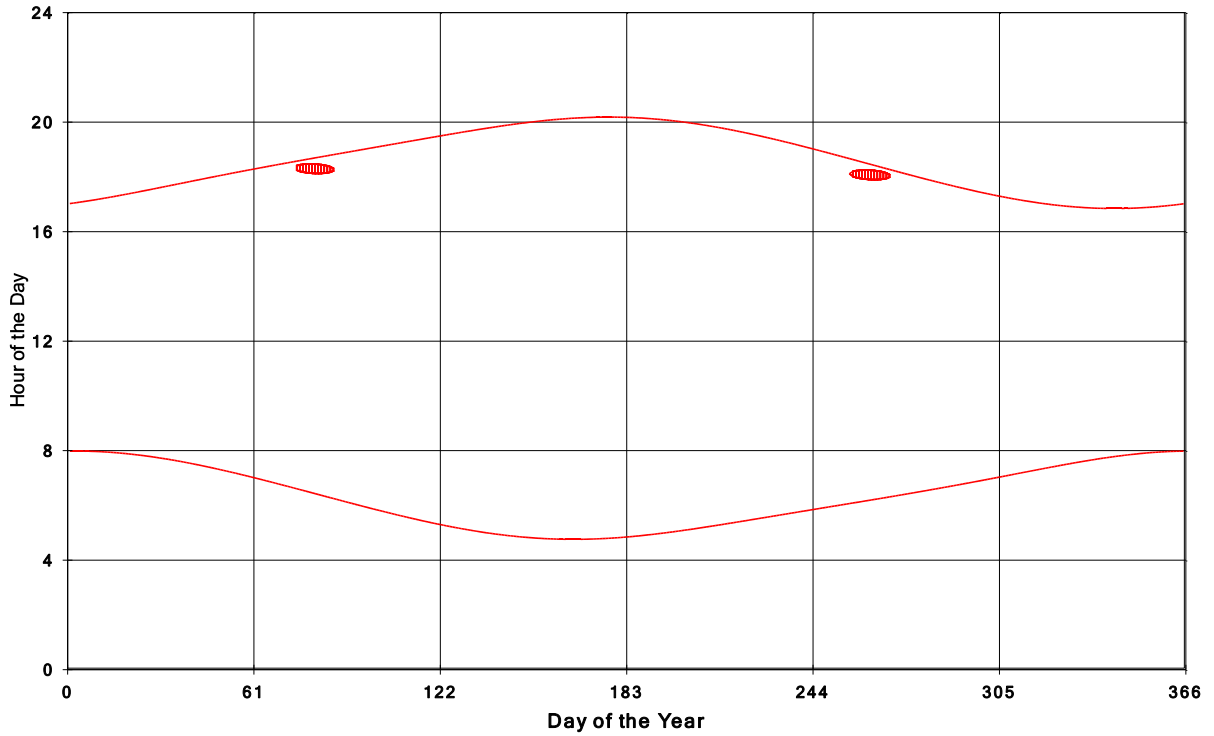




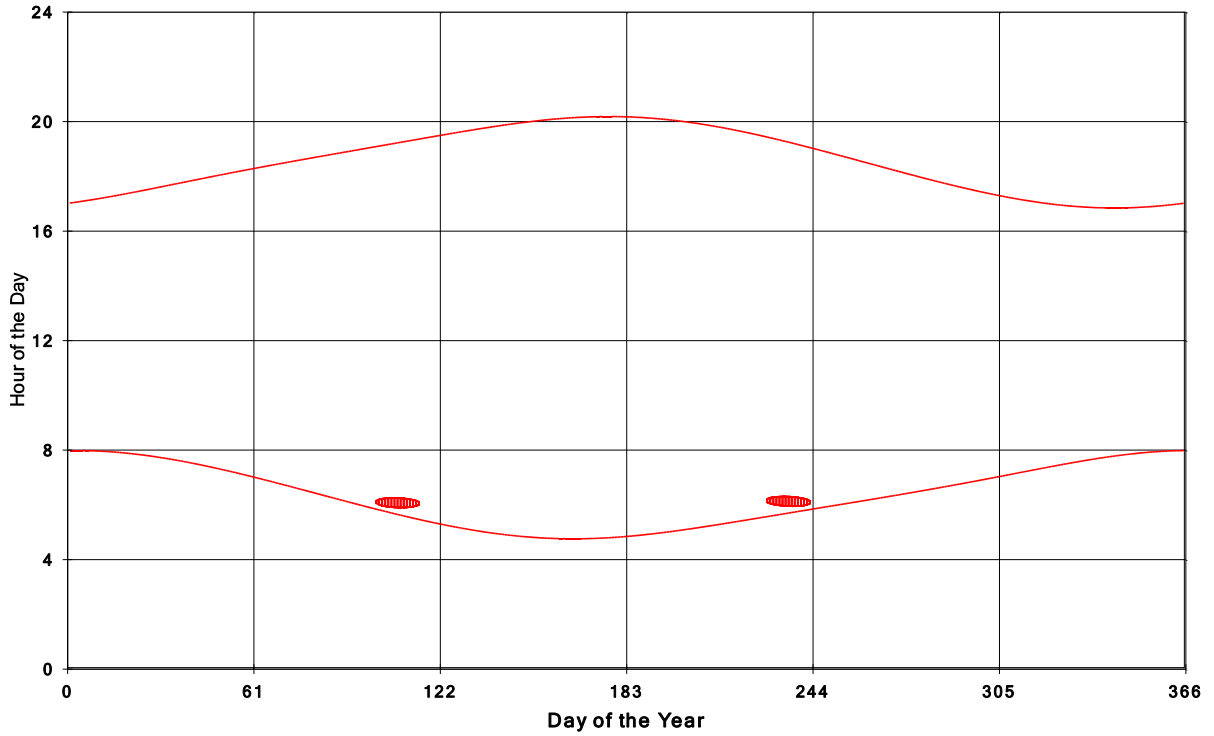
Goshen Wind Energy Centre  
 Shadow Times on House 104, All Windows from All Turbine:



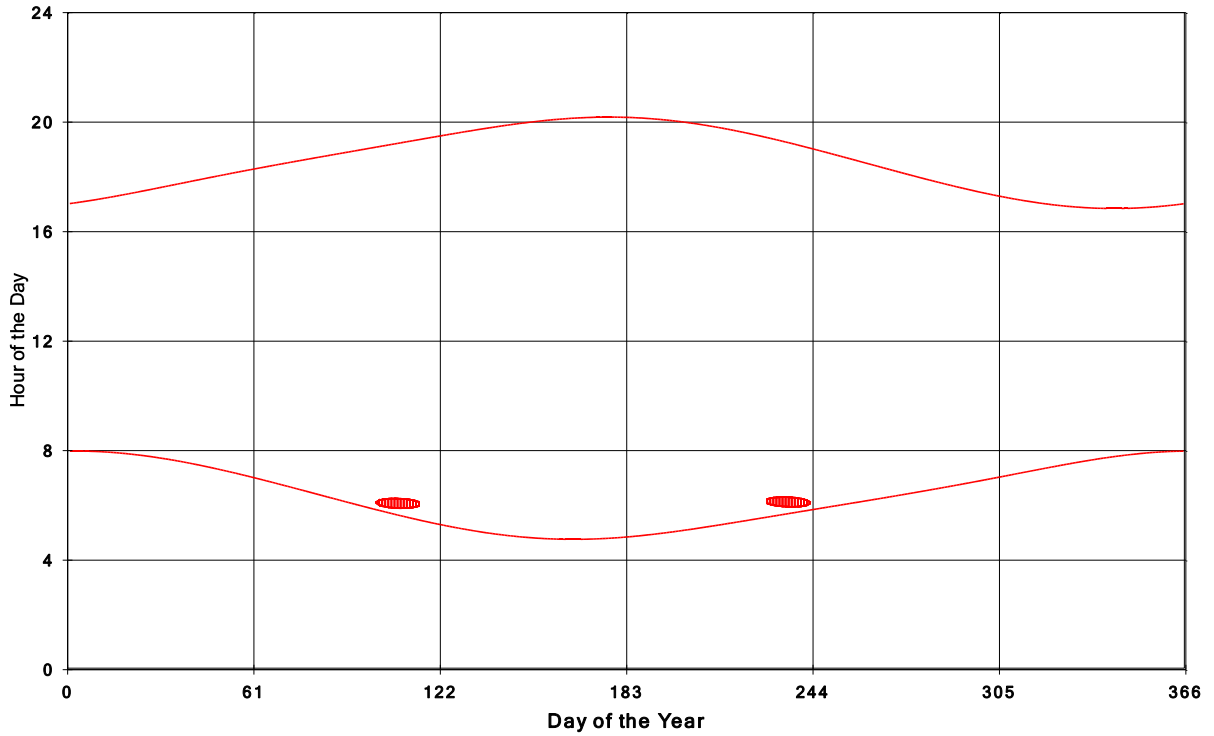
Goshen Wind Energy Centre  
 Shadow Times on House 105, All Windows from All Turbine:



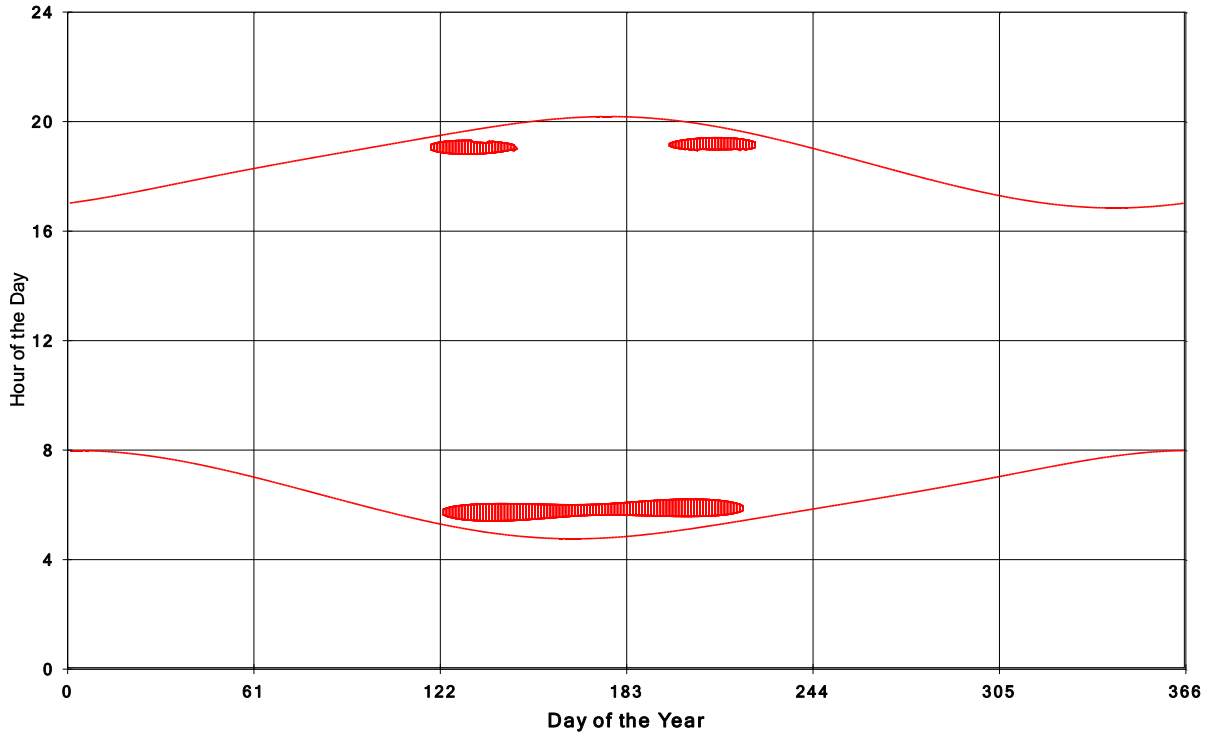
Goshen Wind Energy Centre  
 Shadow Times on House 107, All Windows from All Turbine:



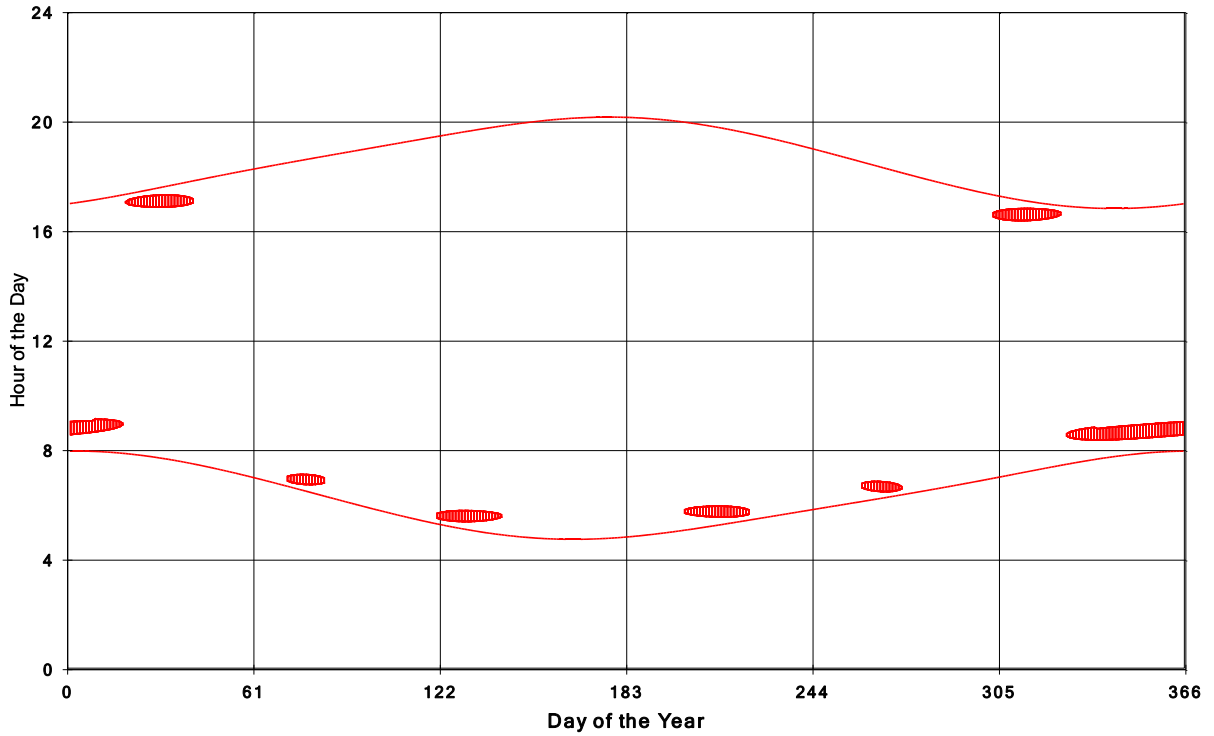
Goshen Wind Energy Centre  
 Shadow Times on House 108, All Windows from All Turbine:



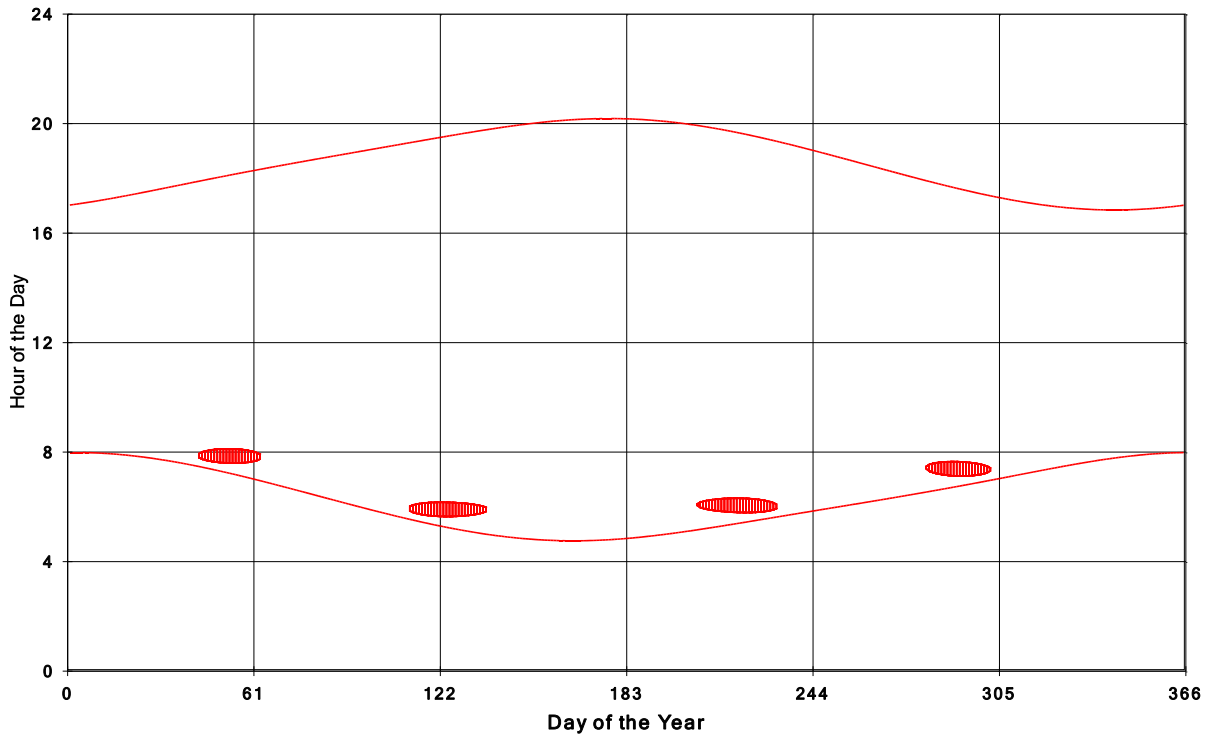
Goshen Wind Energy Centre  
 Shadow Times on House 110, All Windows from All Turbine:



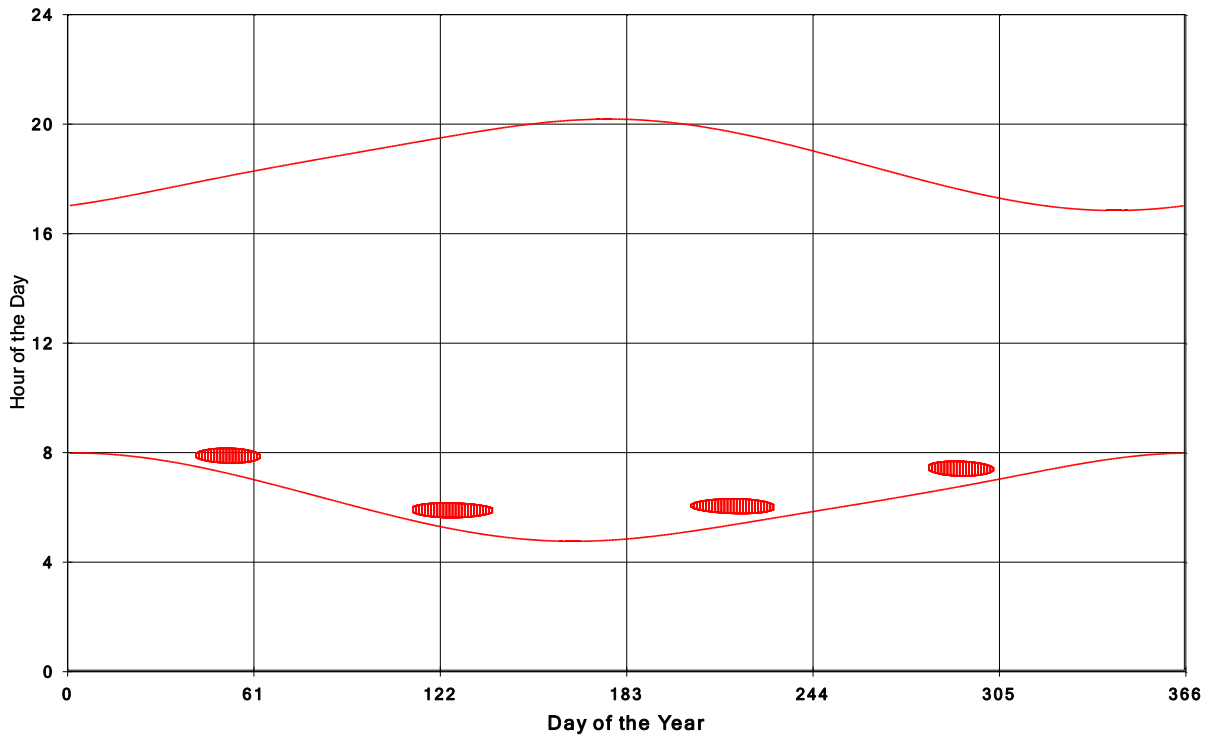
Goshen Wind Energy Centre  
 Shadow Times on House 112, All Windows from All Turbine:



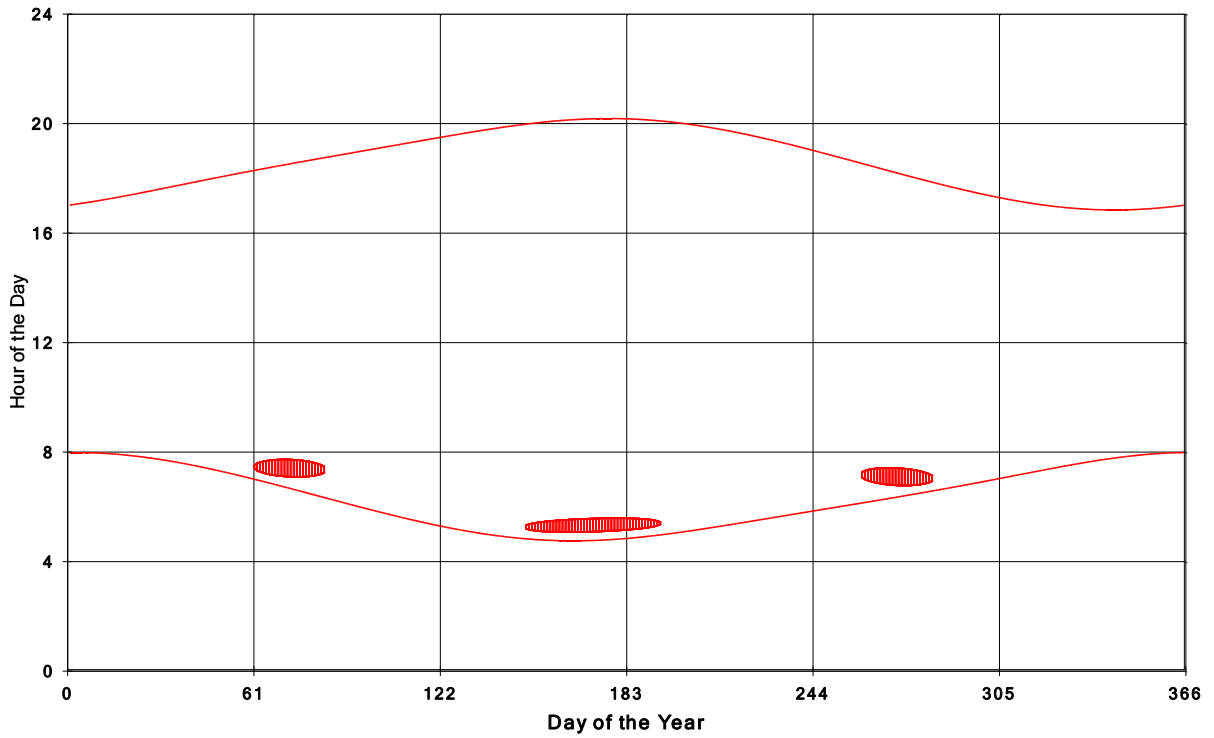
Goshen Wind Energy Centre  
 Shadow Times on House 113, All Windows from All Turbine:



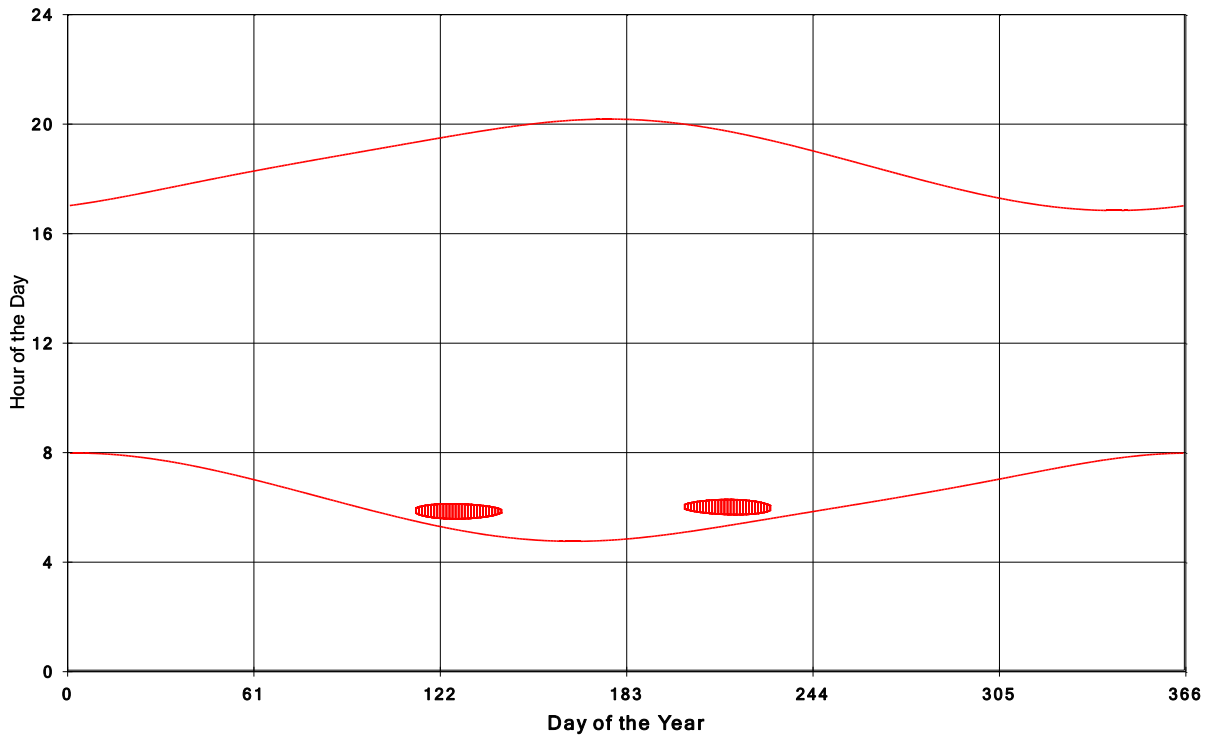
Goshen Wind Energy Centre  
 Shadow Times on House 114, All Windows from All Turbine:



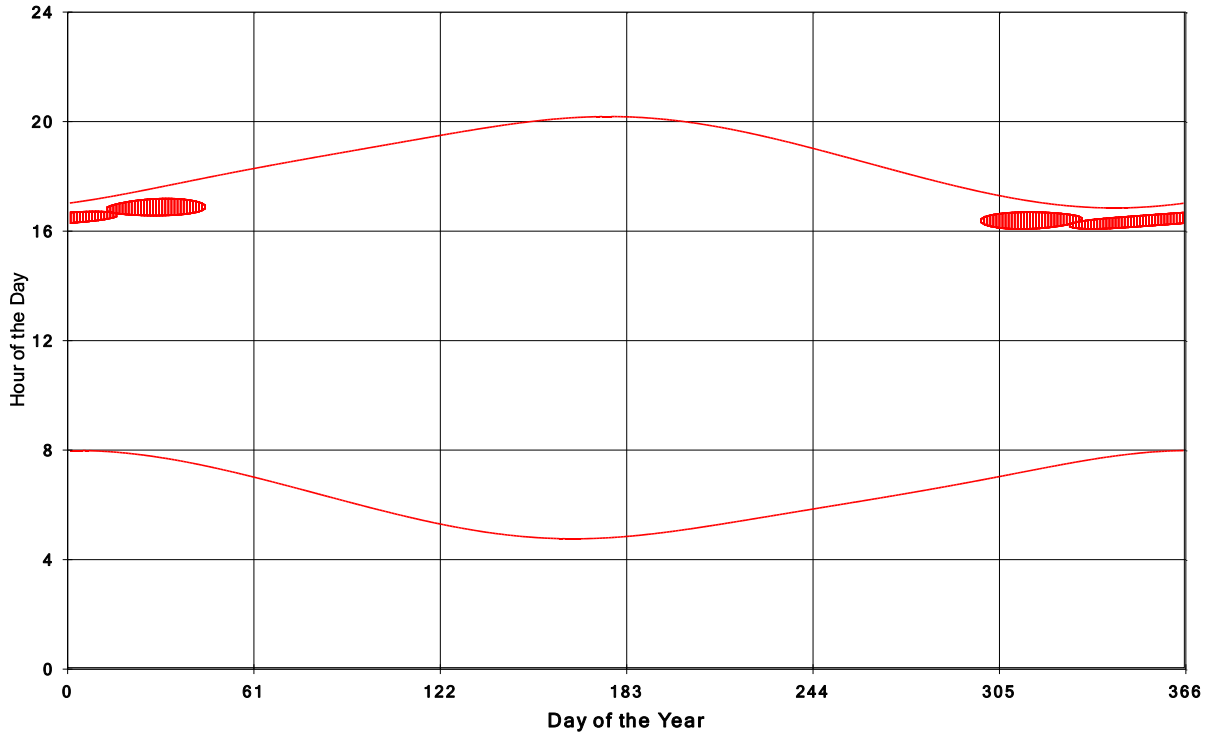
Goshen Wind Energy Centre  
 Shadow Times on House 115, All Windows from All Turbine:



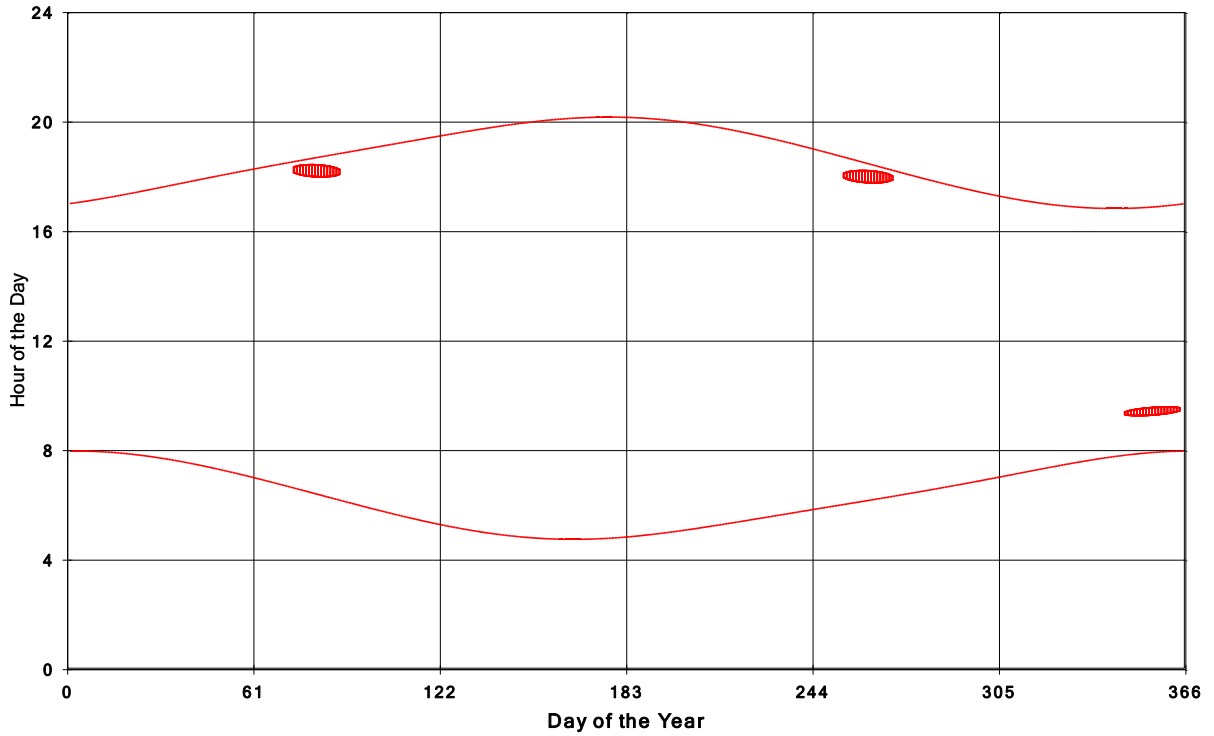
Goshen Wind Energy Centre  
 Shadow Times on House 116, All Windows from All Turbine:



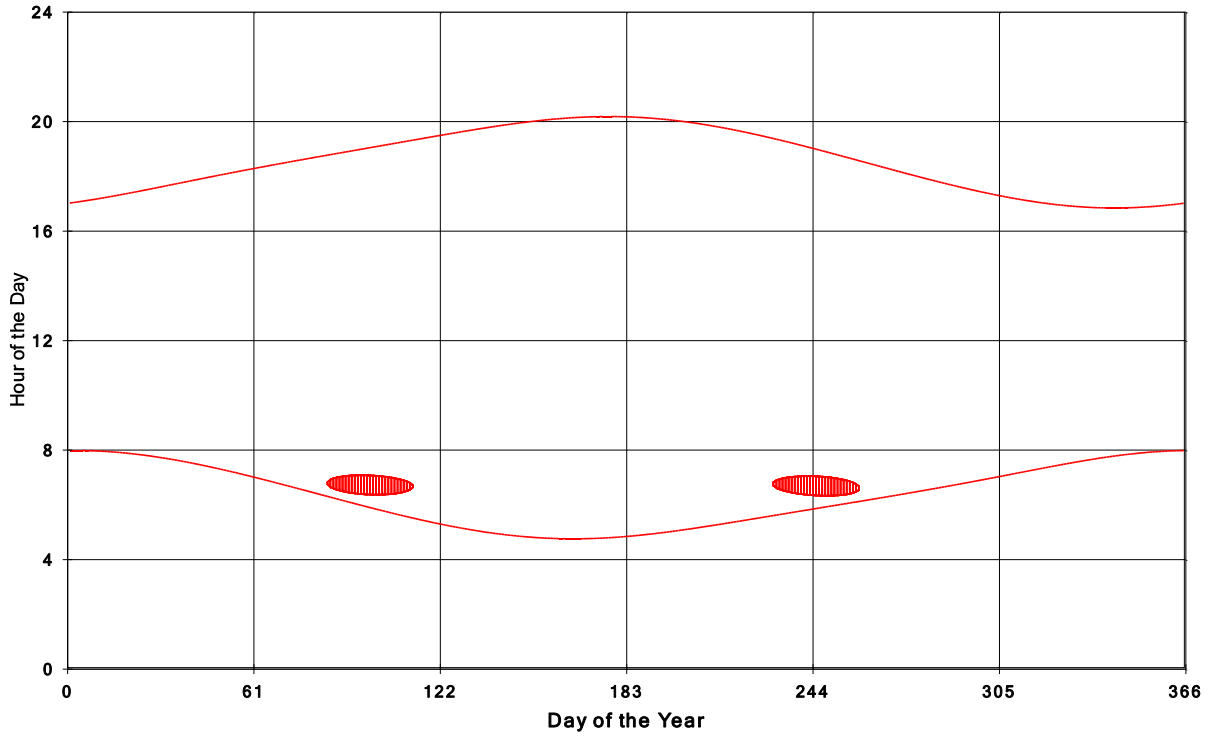
Goshen Wind Energy Centre  
 Shadow Times on House 120, All Windows from All Turbine:



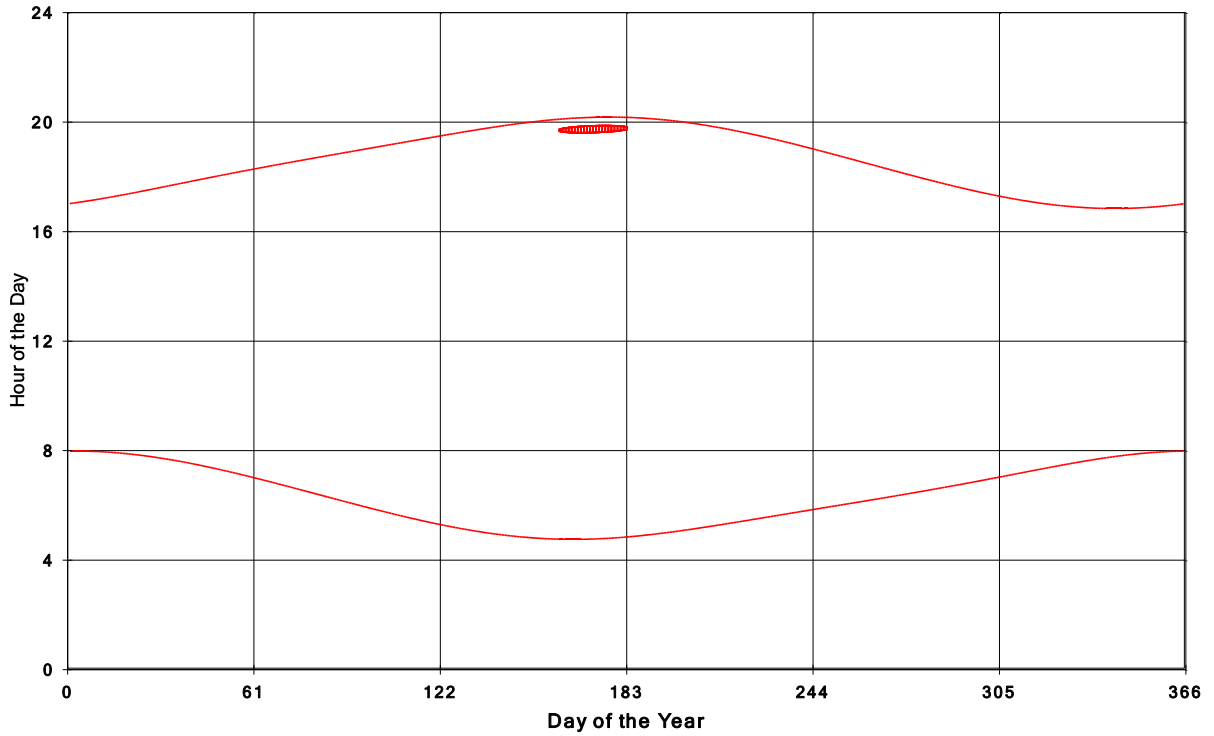
Goshen Wind Energy Centre  
 Shadow Times on House 121, All Windows from All Turbine:



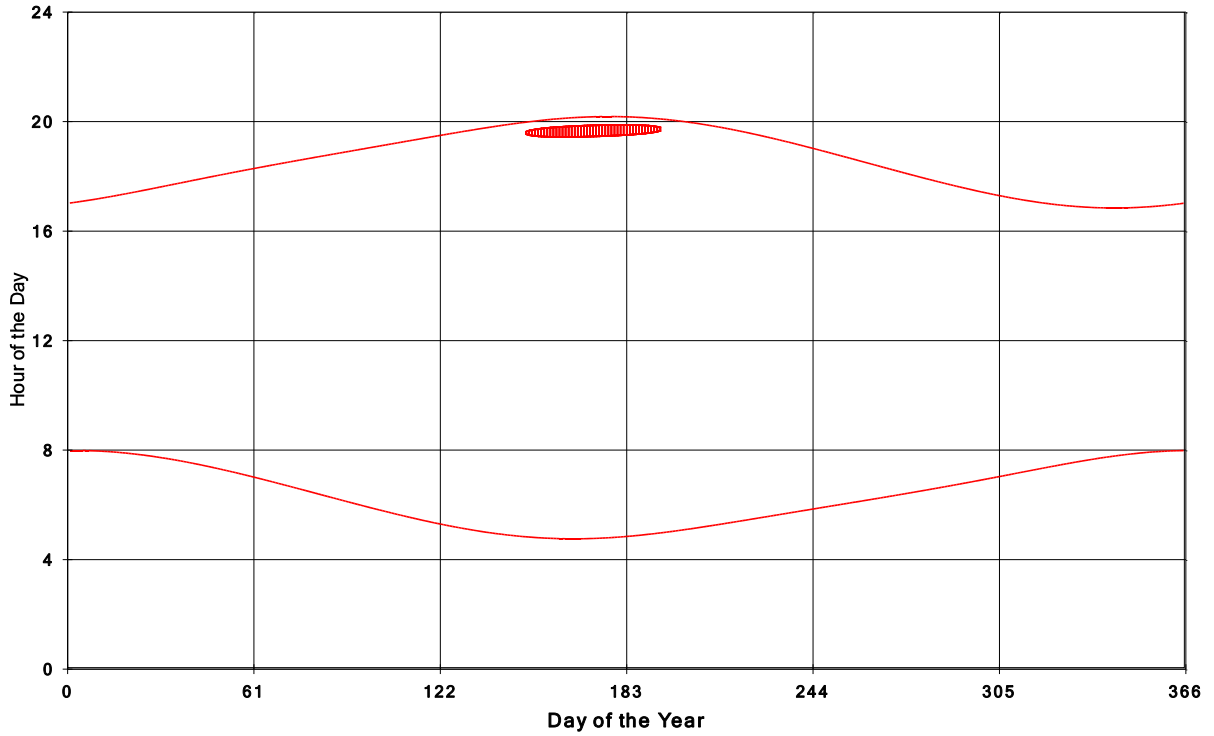
Goshen Wind Energy Centre  
Shadow Times on House 125, All Windows from All Turbine:



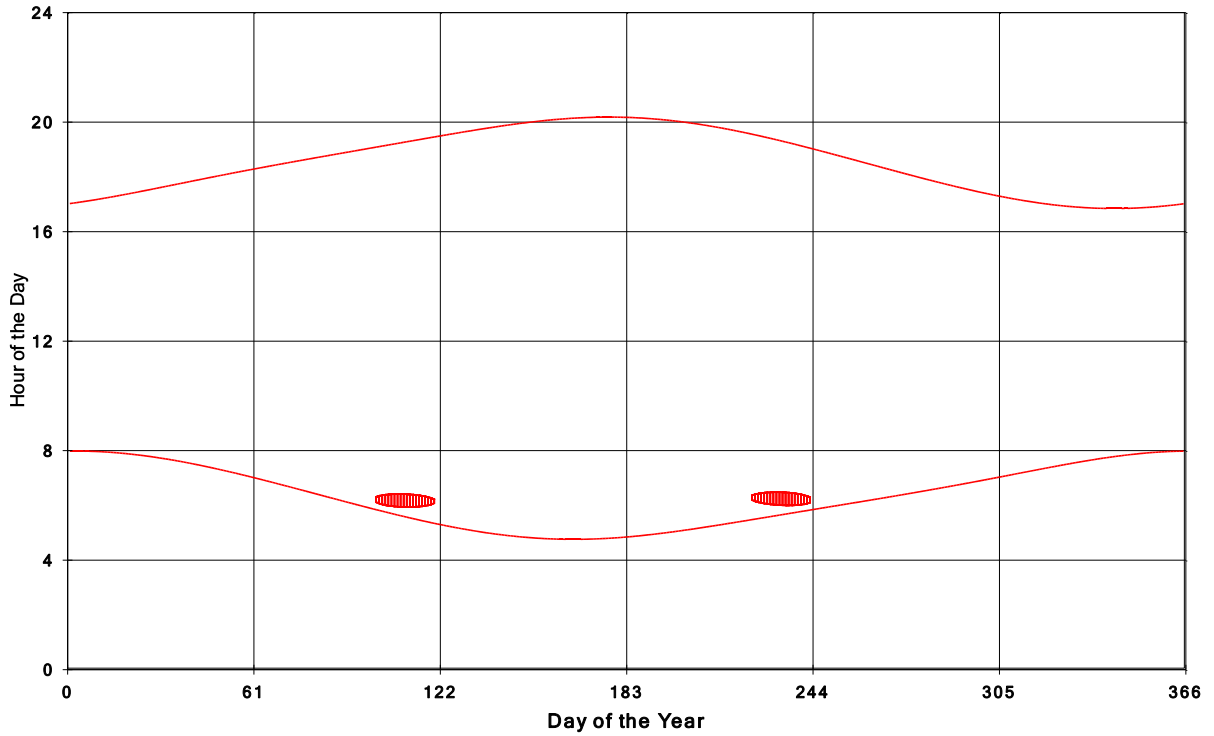
Goshen Wind Energy Centre  
Shadow Times on House 127, All Windows from All Turbine:



Goshen Wind Energy Centre  
 Shadow Times on House 128, All Windows from All Turbine:

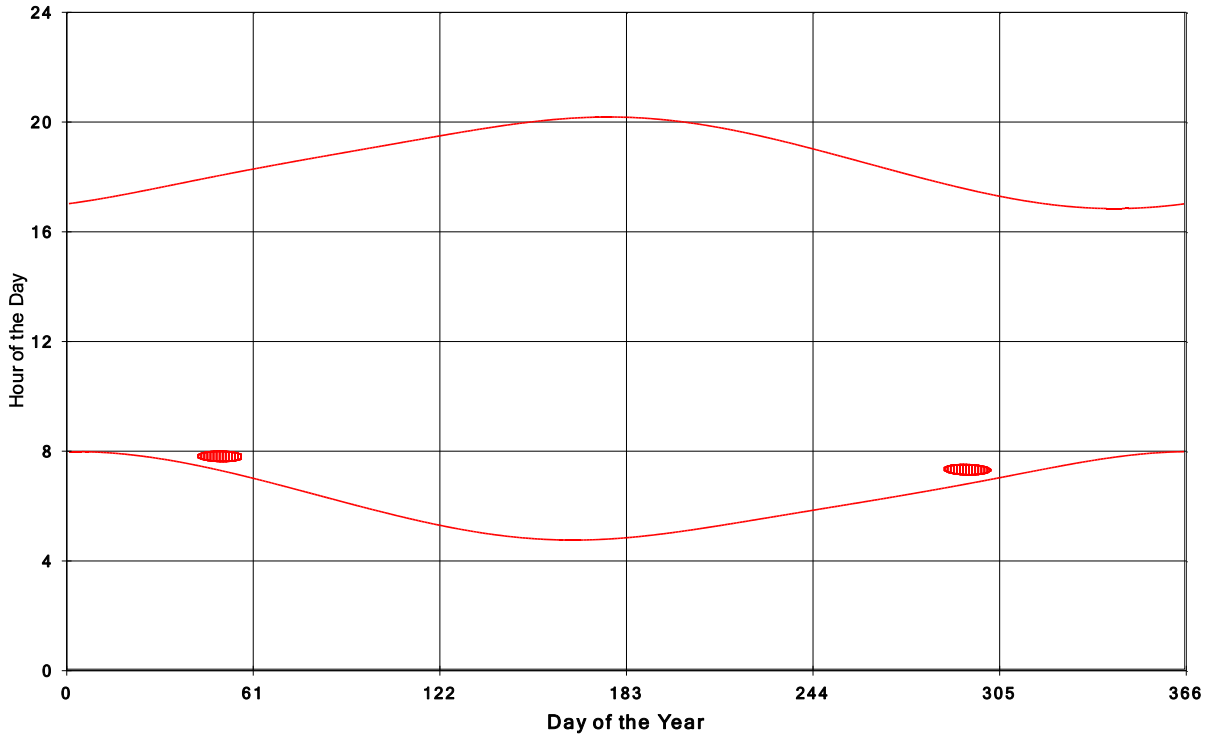


Goshen Wind Energy Centre  
 Shadow Times on House 134, All Windows from All Turbine:

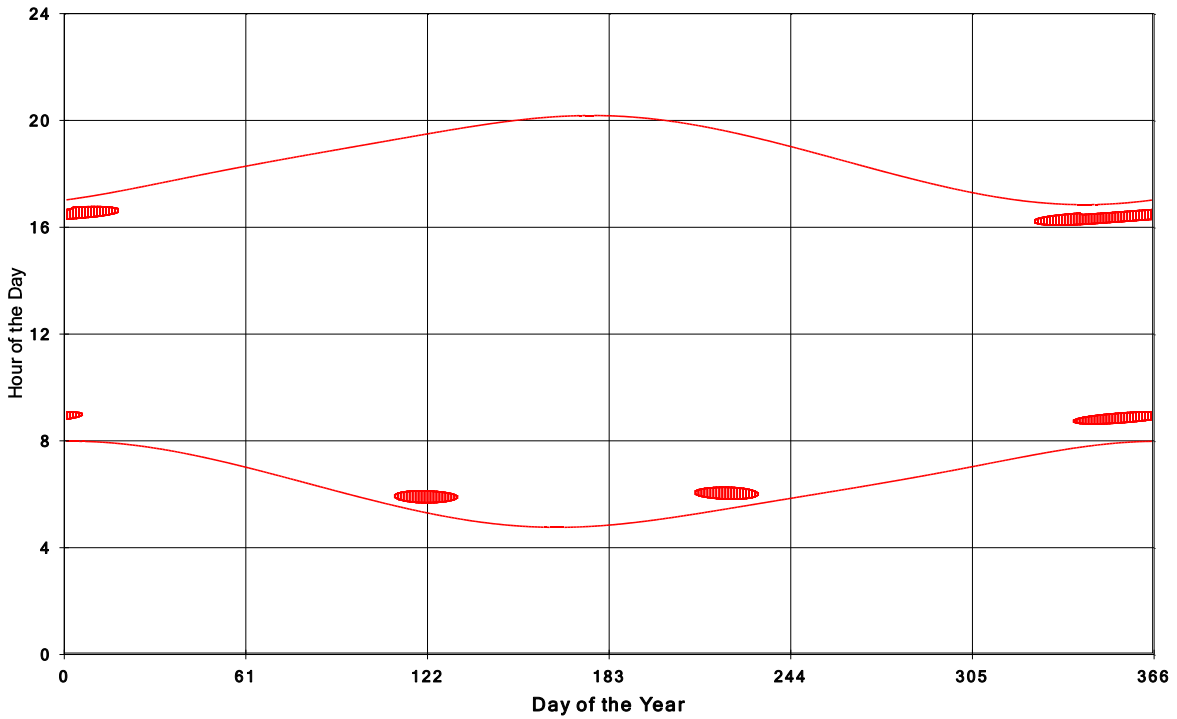




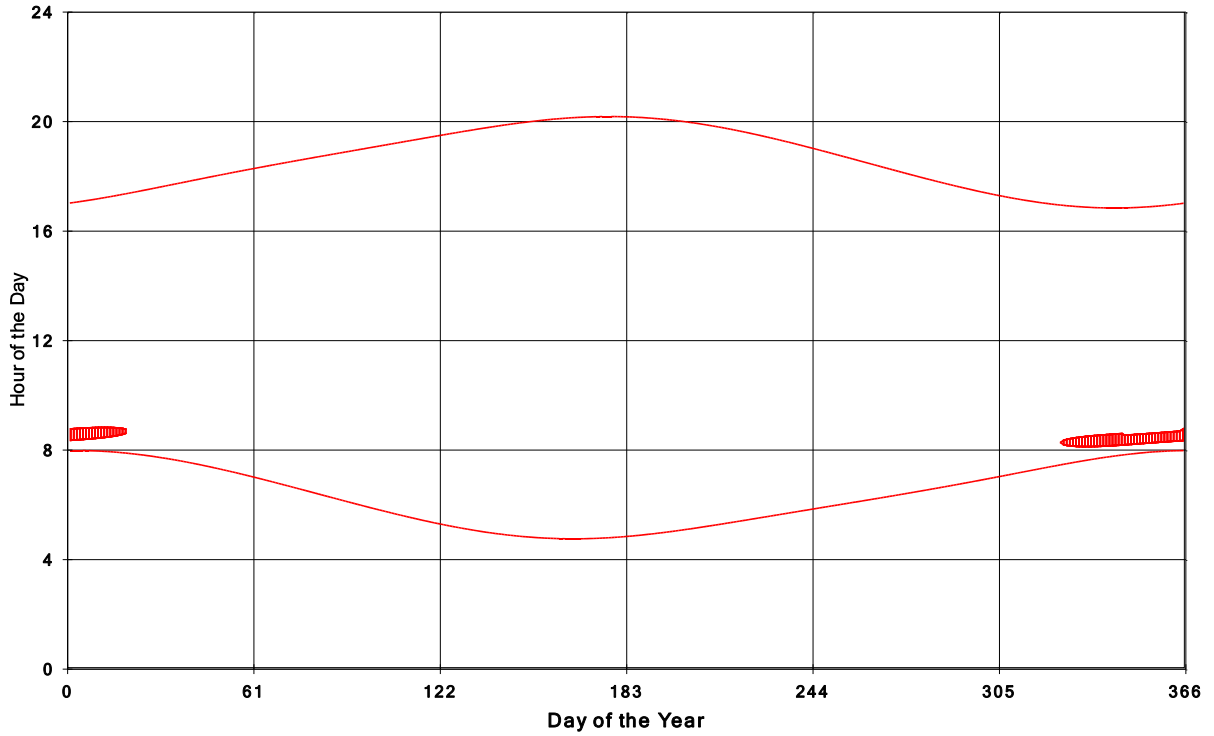
**Jericho Wind Energy Centre  
Shadow Times on House 135, All Windows from All Turbine:**



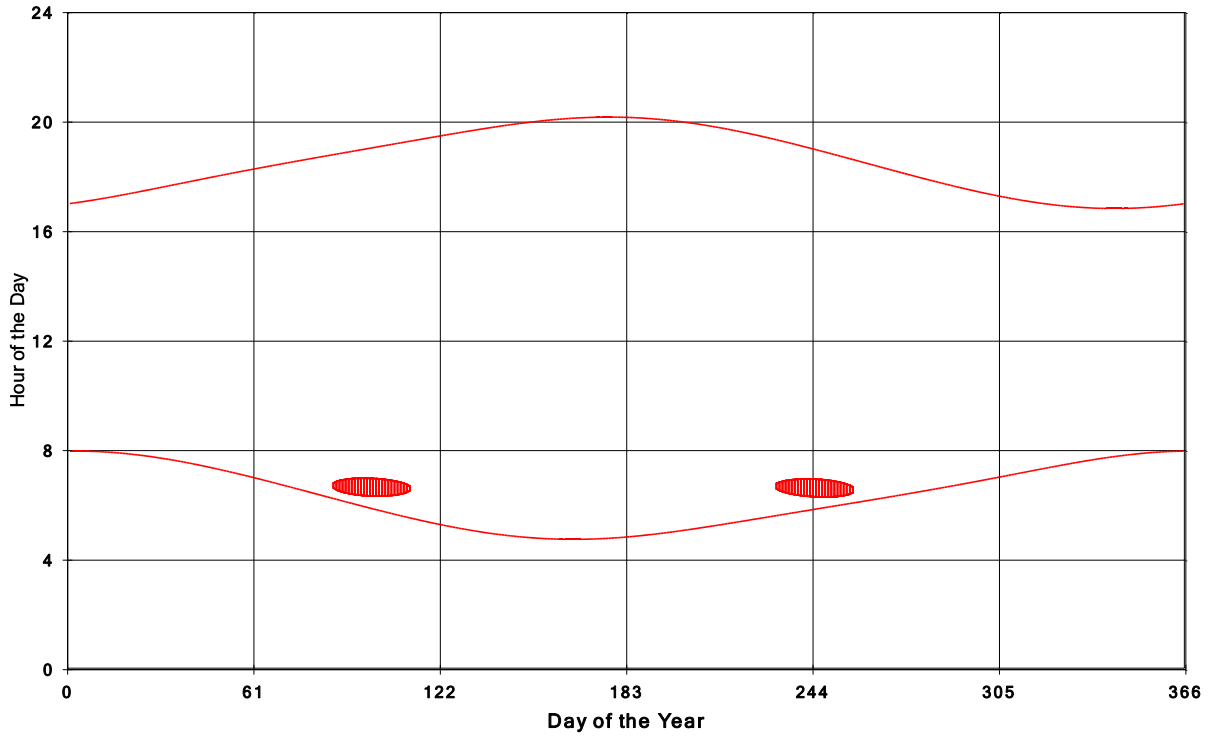
**Jericho Wind Energy Centre  
Shadow Times on House 136, All Windows from All Turbine:**



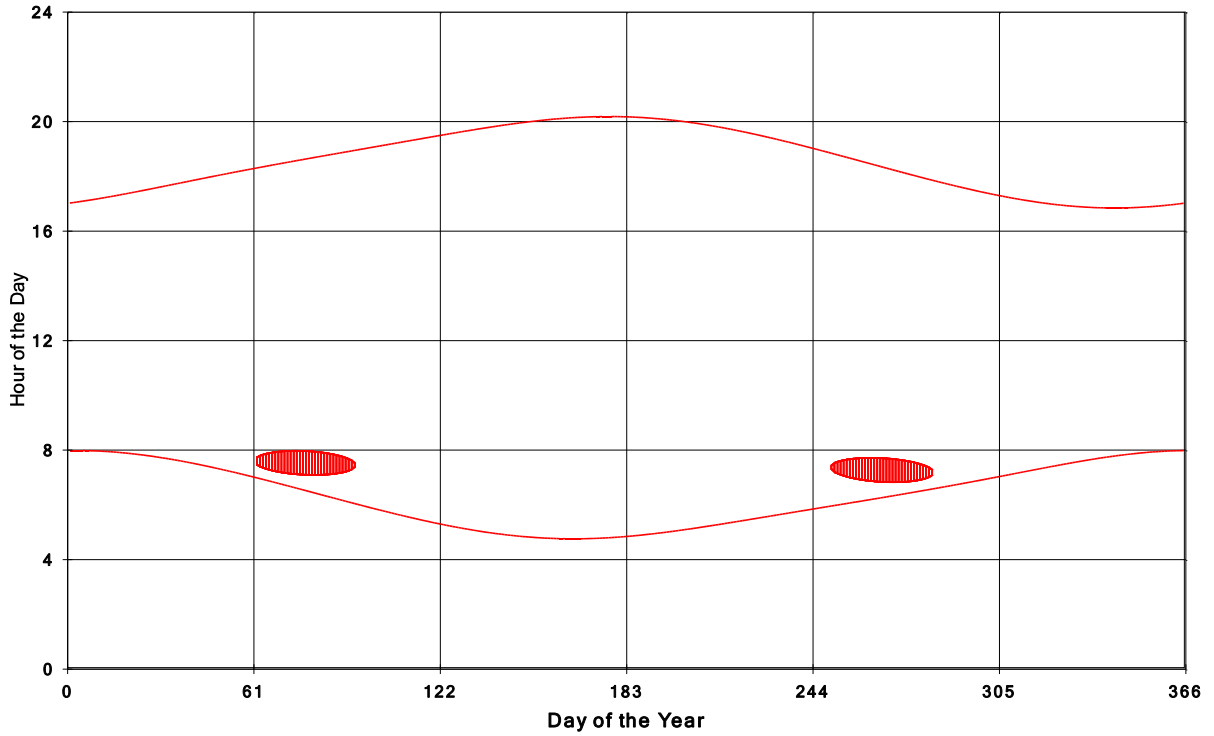
Goshen Wind Energy Centre  
Shadow Times on House 137, All Windows from All Turbine:



Goshen Wind Energy Centre  
Shadow Times on House 138, All Windows from All Turbine:



Goshen Wind Energy Centre  
Shadow Times on House 139, All Windows from All Turbine:



Goshen Wind Energy Centre  
Shadow Times on House 140, All Windows from All Turbine:

