

Bay Islands, Honduras

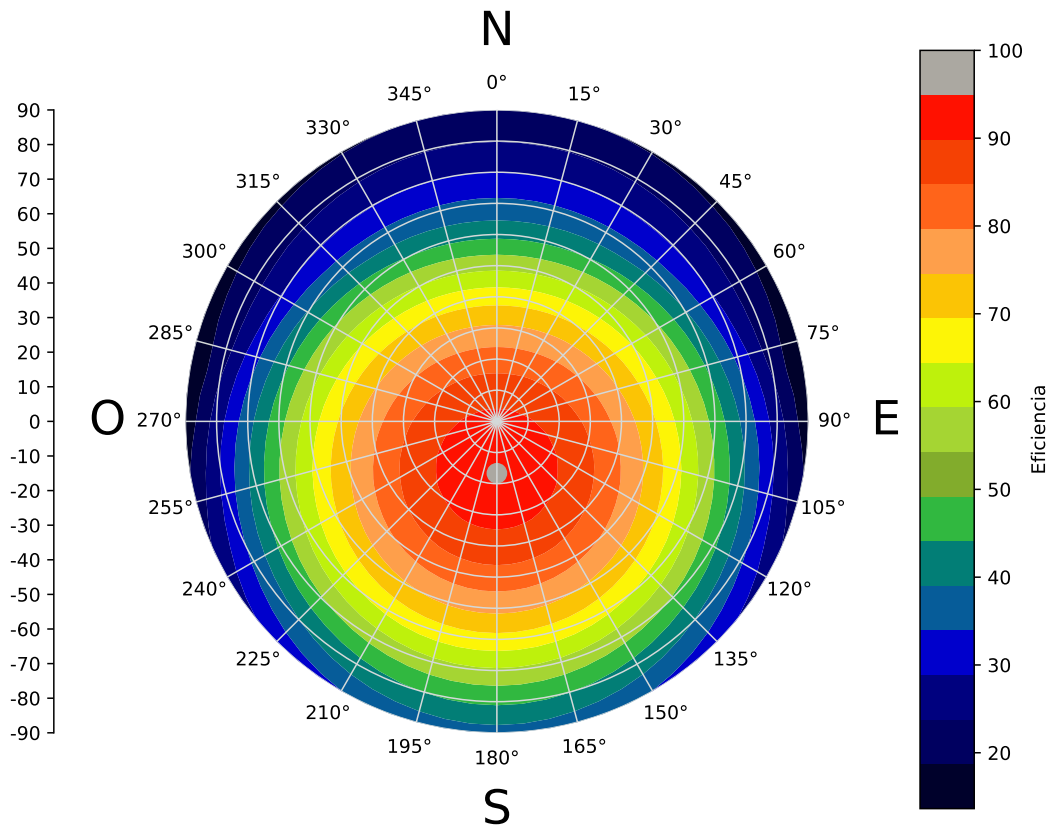
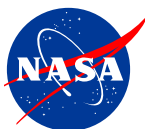


Tabla 1: Generalidades

Latitud	16.314393902502818
Longitud	-86.5387272834778
Modelo de declinación solar	Modelo de Cooper (1961)
Modelo de radiación promedio en superficies inclinadas	Modelo de Klein - Theilacker



Los datos fueron obtenidos de la National Aeronautics and Space Administration (NASA) Langley Research Center (LaRC) Prediction of Worldwide Energy Resource (POWER), Proyecto financiado a través del Programa de Ciencia/Tecnología Aplicada de la NASA.

Tabla 2: Promedios mensuales y anuales de irradiancia de onda corta (Γ), irradiancia UVA (β), índice de claridad de insolación del cielo (α), albedo (ρ), ángulo de declinación solar (δ) y ángulo de puesta del sol (θ).

	Γ	β	α	ρ	δ	θ
Enero	5.2101	12.0519	0.5637	0.0561	-20.8472	83.5947
Febrero	5.4534	11.4939	0.5653	0.0593	-13.3253	86.0153
Marzo	5.9424	10.1124	0.5829	0.0599	-2.3892	89.2975
Abril	6.3347	10.5147	0.594	0.0598	9.4932	92.8146
Mayo	6.0976	10.1882	0.5802	0.0562	18.8058	95.7294
Junio	5.9233	10.2545	0.5678	0.0568	23.0771	97.1642
Julio	5.8488	10.2227	0.5639	0.0538	21.1015	96.4907
Agosto	5.9535	10.3894	0.5677	0.0544	13.296	93.9777
Septiembre	5.8318	10.2825	0.576	0.054	1.9936	90.586
Octubre	5.3634	9.9779	0.5566	0.0585	-9.8485	87.0774
Noviembre	4.516	8.1457	0.5217	0.0558	-19.0505	84.191
Diciembre	4.3516	7.9061	0.5312	0.0584	-23.0956	82.8294
Promedio	5.4559	9.4624	0.5669	0.0571	—	89.9806

Tabla 3: Azimut de 0°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9911	0.9915	0.9918	0.9913	0.9909	0.9911	0.9915	0.9918	0.9912	0.9911	0.9911	0.9913
5	1.0067	0.9903	0.9719	0.9528	0.9406	0.9354	0.9384	0.944	0.9609	0.9848	1.001	1.0094	0.9697
10	1.0156	0.9833	0.9459	0.9074	0.8837	0.8737	0.8796	0.89	0.9232	0.9721	1.0045	1.0212	0.9417
15	1.0177	0.9704	0.9137	0.856	0.821	0.8066	0.8151	0.8299	0.8789	0.9533	1.0016	1.0265	0.9076
20	1.013	0.9515	0.8756	0.799	0.7531	0.7343	0.7455	0.7642	0.8284	0.9285	0.9924	1.0253	0.8676
25	1.0016	0.9268	0.8317	0.7368	0.6805	0.6575	0.6712	0.6933	0.7721	0.8979	0.9769	1.0176	0.822
30	0.9835	0.8965	0.7826	0.6699	0.6037	0.5768	0.593	0.6178	0.7103	0.8618	0.9552	1.0034	0.7712
35	0.9588	0.8609	0.7284	0.5988	0.5233	0.4928	0.5113	0.5383	0.6436	0.8204	0.9275	0.9828	0.7156
40	0.9278	0.8202	0.6698	0.524	0.44	0.4061	0.4267	0.4554	0.5724	0.7741	0.894	0.956	0.6555
45	0.8907	0.7747	0.607	0.4462	0.3544	0.3174	0.3401	0.3697	0.4974	0.7231	0.8549	0.9232	0.5916
50	0.8477	0.7248	0.5406	0.3658	0.2671	0.2276	0.252	0.2819	0.419	0.6679	0.8106	0.8846	0.5241
55	0.7992	0.6708	0.471	0.2837	0.1789	0.1823	0.1835	0.1927	0.3379	0.6089	0.7613	0.8406	0.4592
60	0.7456	0.6131	0.3989	0.2003	0.1653	0.1765	0.1774	0.104	0.2547	0.5465	0.7076	0.7914	0.4068
65	0.6873	0.5523	0.3248	0.1409	0.1597	0.1703	0.171	0.1014	0.17	0.4813	0.6497	0.7375	0.3622
70	0.6247	0.4887	0.2491	0.1363	0.1538	0.1639	0.1644	0.0988	0.0845	0.4137	0.5881	0.6793	0.3204
75	0.5583	0.4229	0.1726	0.1316	0.1478	0.1572	0.1575	0.096	0.0619	0.3442	0.5233	0.6171	0.2825
80	0.4886	0.3553	0.1428	0.1267	0.1416	0.1504	0.1505	0.0932	0.0613	0.2734	0.4558	0.5516	0.2493
85	0.4161	0.2864	0.1367	0.1218	0.1353	0.1435	0.1434	0.0903	0.0608	0.1778	0.386	0.4831	0.2151
90	0.3414	0.192	0.1306	0.1168	0.129	0.1366	0.1362	0.0874	0.0602	0.1682	0.3146	0.4121	0.1854



Tabla 4: Azimut de 5°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9911	0.9915	0.9918	0.9913	0.9909	0.9911	0.9915	0.9918	0.9912	0.9911	0.9911	0.9913
5	1.0066	0.9903	0.972	0.9529	0.9407	0.9355	0.9386	0.9442	0.961	0.9848	1.0009	1.0093	0.9697
10	1.0155	0.9833	0.9461	0.9077	0.884	0.8741	0.8799	0.8904	0.9234	0.9721	1.0044	1.021	0.9418
15	1.0175	0.9703	0.9139	0.8564	0.8216	0.8072	0.8157	0.8304	0.8792	0.9533	1.0015	1.0263	0.9078
20	1.0128	0.9514	0.8758	0.7996	0.7538	0.7351	0.7462	0.7648	0.8288	0.9285	0.9922	1.025	0.8678
25	1.0012	0.9268	0.832	0.7375	0.6814	0.6585	0.6722	0.6941	0.7726	0.898	0.9767	1.0172	0.8223
30	0.9831	0.8965	0.7829	0.6707	0.6048	0.5779	0.5941	0.6188	0.7109	0.8619	0.9549	1.0029	0.7716
35	0.9583	0.8609	0.7289	0.5997	0.5246	0.4941	0.5125	0.5394	0.6443	0.8205	0.9271	0.9822	0.716
40	0.9273	0.8201	0.6702	0.5251	0.4414	0.4076	0.4282	0.4566	0.5733	0.7741	0.8936	0.9554	0.6561
45	0.8901	0.7746	0.6075	0.4473	0.3559	0.3191	0.3416	0.3711	0.4983	0.7232	0.8545	0.9225	0.5921
50	0.8471	0.7247	0.5411	0.3671	0.2687	0.2293	0.2537	0.2835	0.42	0.668	0.8101	0.8839	0.5248
55	0.7986	0.6707	0.4716	0.285	0.1806	0.1823	0.1835	0.1944	0.339	0.609	0.7609	0.8398	0.4596
60	0.7449	0.6131	0.3995	0.2017	0.1653	0.1765	0.1774	0.1047	0.2559	0.5467	0.7071	0.7906	0.407
65	0.6866	0.5522	0.3254	0.1409	0.1597	0.1703	0.171	0.1014	0.1714	0.4814	0.6492	0.7367	0.3622
70	0.6239	0.4886	0.2498	0.1363	0.1538	0.1639	0.1644	0.0988	0.0862	0.4138	0.5876	0.6784	0.3205
75	0.5575	0.4228	0.1733	0.1316	0.1478	0.1572	0.1575	0.096	0.0623	0.3444	0.5227	0.6162	0.2824
80	0.4878	0.3552	0.1429	0.1267	0.1416	0.1504	0.1505	0.0932	0.0616	0.2735	0.4552	0.5506	0.2491
85	0.4152	0.2863	0.1367	0.1218	0.1353	0.1435	0.1434	0.0903	0.061	0.1778	0.3855	0.4821	0.2149
90	0.3405	0.192	0.1306	0.1168	0.129	0.1366	0.1362	0.0874	0.0604	0.1682	0.314	0.4112	0.1852

Tabla 5: Azimut de 10°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9911	0.9915	0.9918	0.9913	0.9909	0.9911	0.9915	0.9918	0.9912	0.9911	0.9911	0.9913
5	1.0064	0.9902	0.9722	0.9533	0.9413	0.9361	0.9392	0.9447	0.9613	0.9848	1.0008	1.009	0.97
10	1.015	0.9833	0.9464	0.9085	0.8851	0.8753	0.8811	0.8914	0.924	0.9722	1.0041	1.0206	0.9423
15	1.0169	0.9703	0.9145	0.8577	0.8232	0.8089	0.8173	0.8319	0.8802	0.9534	1.0011	1.0256	0.9084
20	1.0119	0.9513	0.8766	0.8012	0.756	0.7374	0.7485	0.7668	0.8301	0.9287	0.9916	1.0241	0.8687
25	1.0002	0.9266	0.8329	0.7395	0.6841	0.6614	0.6749	0.6966	0.7742	0.8982	0.9759	1.016	0.8234
30	0.9818	0.8963	0.784	0.6731	0.6079	0.5814	0.5974	0.6217	0.7128	0.8621	0.9541	1.0015	0.7728
35	0.9569	0.8607	0.7301	0.6025	0.5282	0.4981	0.5163	0.5428	0.6465	0.8207	0.9262	0.9806	0.7175
40	0.9257	0.8199	0.6716	0.5282	0.4455	0.4121	0.4324	0.4605	0.5757	0.7744	0.8925	0.9536	0.6577
45	0.8883	0.7744	0.609	0.4508	0.3604	0.324	0.3463	0.3754	0.5011	0.7235	0.8533	0.9205	0.5939
50	0.8452	0.7245	0.5427	0.3709	0.2736	0.2347	0.2587	0.2881	0.4231	0.6683	0.8088	0.8818	0.5267
55	0.7965	0.6705	0.4734	0.2892	0.1858	0.1823	0.1835	0.1994	0.3424	0.6094	0.7595	0.8375	0.4608
60	0.7428	0.6128	0.4014	0.2061	0.1653	0.1765	0.1774	0.1099	0.2596	0.547	0.7056	0.7882	0.4077
65	0.6843	0.552	0.3273	0.1409	0.1597	0.1703	0.171	0.1014	0.1754	0.4818	0.6476	0.7342	0.3622
70	0.6216	0.4884	0.2519	0.1363	0.1538	0.1639	0.1644	0.0988	0.0903	0.4143	0.586	0.6758	0.3204
75	0.5551	0.4225	0.1755	0.1316	0.1478	0.1572	0.1575	0.096	0.063	0.3448	0.5211	0.6135	0.2821
80	0.4853	0.3549	0.143	0.1267	0.1416	0.1504	0.1505	0.0932	0.0623	0.274	0.4535	0.5479	0.2486
85	0.4128	0.2861	0.1368	0.1218	0.1353	0.1435	0.1434	0.0903	0.0617	0.1778	0.3838	0.4793	0.2144
90	0.3381	0.192	0.1306	0.1168	0.129	0.1366	0.1362	0.0874	0.061	0.1682	0.3123	0.4084	0.1847



Tabla 6: Azimut de 15°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9911	0.9915	0.9918	0.9913	0.9909	0.9911	0.9915	0.9918	0.9912	0.9911	0.9911	0.9913
5	1.0061	0.9902	0.9725	0.954	0.9422	0.9371	0.9401	0.9456	0.9618	0.9849	1.0005	1.0086	0.9703
10	1.0143	0.9832	0.9471	0.9099	0.8869	0.8773	0.8829	0.893	0.9251	0.9723	1.0036	1.0198	0.9429
15	1.0158	0.9701	0.9154	0.8597	0.8259	0.8119	0.8201	0.8344	0.8817	0.9536	1.0003	1.0244	0.9095
20	1.0105	0.9512	0.8778	0.8039	0.7595	0.7413	0.7522	0.7701	0.8322	0.9289	0.9907	1.0225	0.8701
25	0.9985	0.9264	0.8344	0.7429	0.6885	0.6662	0.6795	0.7007	0.7767	0.8985	0.9747	1.0141	0.8251
30	0.9798	0.8961	0.7858	0.6771	0.6132	0.5871	0.6028	0.6266	0.7159	0.8625	0.9526	0.9992	0.7749
35	0.9546	0.8604	0.7321	0.6071	0.5342	0.5047	0.5226	0.5485	0.6501	0.8212	0.9246	0.978	0.7198
40	0.923	0.8196	0.6739	0.5334	0.4522	0.4195	0.4394	0.4668	0.5798	0.7749	0.8907	0.9506	0.6603
45	0.8854	0.7741	0.6115	0.4566	0.3678	0.3322	0.3541	0.3824	0.5056	0.724	0.8513	0.9173	0.5969
50	0.842	0.7241	0.5455	0.3772	0.2817	0.2435	0.2671	0.2957	0.4281	0.6689	0.8067	0.8782	0.5299
55	0.7932	0.6701	0.4763	0.2959	0.1945	0.1823	0.1835	0.2076	0.3479	0.61	0.7572	0.8337	0.4627
60	0.7392	0.6124	0.4044	0.2133	0.1653	0.1765	0.1774	0.1186	0.2655	0.5477	0.7032	0.7842	0.409
65	0.6806	0.5515	0.3306	0.1409	0.1597	0.1703	0.171	0.1014	0.1815	0.4825	0.6451	0.73	0.3621
70	0.6178	0.4879	0.2553	0.1363	0.1538	0.1639	0.1644	0.0988	0.0965	0.4149	0.5833	0.6714	0.3204
75	0.5511	0.4221	0.179	0.1316	0.1478	0.1572	0.1575	0.096	0.0637	0.3455	0.5184	0.6091	0.2816
80	0.4813	0.3544	0.1432	0.1267	0.1416	0.1504	0.1505	0.0932	0.0631	0.2747	0.4507	0.5433	0.2478
85	0.4087	0.2856	0.1369	0.1218	0.1353	0.1435	0.1434	0.0903	0.0624	0.1778	0.3809	0.4747	0.2135
90	0.334	0.192	0.1306	0.1168	0.129	0.1366	0.1362	0.0874	0.0617	0.1682	0.3095	0.4038	0.1838

Tabla 7: Azimut de 20°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9911	0.9915	0.9918	0.9913	0.9909	0.9911	0.9915	0.9918	0.9912	0.9911	0.9911	0.9913
5	1.0056	0.9901	0.9729	0.955	0.9434	0.9385	0.9414	0.9467	0.9626	0.985	1.0002	1.0081	0.9708
10	1.0133	0.9831	0.9479	0.9117	0.8894	0.8801	0.8855	0.8954	0.9265	0.9725	1.0029	1.0186	0.9439
15	1.0143	0.97	0.9167	0.8625	0.8296	0.816	0.824	0.8379	0.8839	0.9539	0.9993	1.0227	0.9109
20	1.0086	0.951	0.8794	0.8076	0.7645	0.7468	0.7573	0.7747	0.8351	0.9293	0.9893	1.0203	0.872
25	0.9961	0.9262	0.8365	0.7475	0.6946	0.673	0.6859	0.7064	0.7803	0.8989	0.9731	1.0113	0.8275
30	0.9769	0.8958	0.7882	0.6826	0.6204	0.5951	0.6104	0.6334	0.7202	0.863	0.9507	0.996	0.7777
35	0.9513	0.86	0.7349	0.6134	0.5426	0.5139	0.5313	0.5563	0.655	0.8217	0.9223	0.9743	0.7231
40	0.9194	0.8192	0.677	0.5406	0.4616	0.4298	0.4492	0.4756	0.5854	0.7755	0.8882	0.9465	0.664
45	0.8814	0.7736	0.615	0.4645	0.3782	0.3435	0.3648	0.3921	0.5119	0.7247	0.8485	0.9127	0.6009
50	0.8377	0.7236	0.5492	0.3859	0.293	0.2558	0.2788	0.3063	0.435	0.6697	0.8037	0.8733	0.5343
55	0.7885	0.6695	0.4803	0.3052	0.2065	0.1823	0.1917	0.219	0.3552	0.6108	0.754	0.8285	0.466
60	0.7343	0.6118	0.4087	0.2232	0.1653	0.1765	0.1774	0.1306	0.2732	0.5485	0.6998	0.7786	0.4107
65	0.6755	0.5509	0.3351	0.1409	0.1597	0.1703	0.171	0.1014	0.1896	0.4834	0.6415	0.7241	0.362
70	0.6124	0.4873	0.26	0.1363	0.1538	0.1639	0.1644	0.0988	0.1049	0.4159	0.5796	0.6654	0.3202
75	0.5456	0.4214	0.1838	0.1316	0.1478	0.1572	0.1575	0.096	0.0644	0.3465	0.5146	0.6029	0.2808
80	0.4757	0.3538	0.1433	0.1267	0.1416	0.1504	0.1505	0.0932	0.0638	0.2757	0.4469	0.537	0.2466
85	0.403	0.2849	0.1371	0.1218	0.1353	0.1435	0.1434	0.0903	0.0632	0.1778	0.377	0.4683	0.2121
90	0.3283	0.192	0.1308	0.1168	0.129	0.1366	0.1362	0.0874	0.0625	0.1682	0.3056	0.3974	0.1826



Tabla 8: Azimut de 25°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9911	0.9915	0.9918	0.9913	0.9909	0.9911	0.9915	0.9918	0.9912	0.9911	0.9911	0.9913
5	1.0049	0.9901	0.9735	0.9562	0.945	0.9403	0.943	0.9482	0.9635	0.9851	0.9998	1.0074	0.9714
10	1.0121	0.9829	0.949	0.9141	0.8926	0.8835	0.8889	0.8983	0.9284	0.9727	1.0021	1.0172	0.9451
15	1.0125	0.9698	0.9183	0.8661	0.8343	0.8212	0.829	0.8423	0.8867	0.9542	0.998	1.0206	0.9127
20	1.0061	0.9507	0.8816	0.8124	0.7708	0.7537	0.7638	0.7806	0.8387	0.9297	0.9876	1.0175	0.8744
25	0.993	0.9258	0.8392	0.7534	0.7024	0.6815	0.694	0.7137	0.7849	0.8994	0.971	1.0079	0.8305
30	0.9733	0.8954	0.7913	0.6896	0.6296	0.6053	0.62	0.642	0.7256	0.8636	0.9482	0.9919	0.7813
35	0.9471	0.8596	0.7385	0.6215	0.5532	0.5255	0.5423	0.5662	0.6613	0.8225	0.9194	0.9696	0.7272
40	0.9147	0.8187	0.681	0.5496	0.4736	0.4429	0.4616	0.4868	0.5925	0.7764	0.885	0.9412	0.6687
45	0.8763	0.773	0.6194	0.4745	0.3914	0.3579	0.3785	0.4044	0.5198	0.7256	0.845	0.9069	0.6061
50	0.8321	0.723	0.554	0.3968	0.3072	0.2714	0.2936	0.3197	0.4436	0.6706	0.7998	0.867	0.5399
55	0.7826	0.6689	0.4854	0.3169	0.2218	0.1838	0.2075	0.2333	0.3644	0.6118	0.7499	0.8218	0.4707
60	0.728	0.6111	0.4142	0.2356	0.1653	0.1765	0.1774	0.1458	0.2829	0.5497	0.6954	0.7715	0.4128
65	0.6689	0.5502	0.3409	0.1533	0.1597	0.1703	0.171	0.1014	0.1997	0.4846	0.637	0.7167	0.3628
70	0.6056	0.4865	0.266	0.1363	0.1538	0.1639	0.1644	0.0988	0.1154	0.4171	0.5749	0.6577	0.32
75	0.5386	0.4206	0.19	0.1316	0.1478	0.1572	0.1575	0.096	0.0619	0.3477	0.5098	0.5949	0.2795
80	0.4685	0.353	0.1434	0.1269	0.1416	0.1504	0.1505	0.0932	0.0645	0.2769	0.442	0.5289	0.245
85	0.3958	0.2841	0.1372	0.1218	0.1353	0.1435	0.1434	0.0903	0.0639	0.1778	0.3721	0.4602	0.2105
90	0.321	0.192	0.1309	0.1168	0.129	0.1366	0.1362	0.0874	0.0632	0.1682	0.3006	0.3892	0.1809

Tabla 9: Azimut de 30°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9911	0.9915	0.9918	0.9913	0.9909	0.9911	0.9915	0.9918	0.9912	0.9911	0.9911	0.9913
5	1.0042	0.99	0.9741	0.9576	0.9469	0.9424	0.945	0.95	0.9646	0.9852	0.9992	1.0065	0.9721
10	1.0106	0.9828	0.9503	0.917	0.8964	0.8878	0.8928	0.9019	0.9306	0.973	1.001	1.0155	0.9466
15	1.0102	0.9695	0.9202	0.8704	0.84	0.8275	0.8349	0.8476	0.89	0.9546	0.9965	1.018	0.915
20	1.0031	0.9503	0.8842	0.8181	0.7783	0.762	0.7717	0.7876	0.8431	0.9302	0.9856	1.0141	0.8774
25	0.9893	0.9254	0.8423	0.7605	0.7117	0.6918	0.7038	0.7224	0.7904	0.9001	0.9684	1.0037	0.8342
30	0.9689	0.8949	0.7951	0.698	0.6408	0.6175	0.6315	0.6524	0.7322	0.8644	0.9452	0.9869	0.7856
35	0.9421	0.859	0.7428	0.6312	0.566	0.5396	0.5556	0.5781	0.6689	0.8234	0.916	0.9639	0.7322
40	0.9091	0.818	0.6859	0.5606	0.4879	0.4586	0.4766	0.5002	0.6011	0.7774	0.8811	0.9349	0.6743
45	0.8701	0.7723	0.6247	0.4866	0.4072	0.3753	0.395	0.4193	0.5292	0.7267	0.8407	0.8999	0.6123
50	0.8254	0.7222	0.5598	0.4099	0.3244	0.2902	0.3115	0.3358	0.4537	0.6718	0.7952	0.8594	0.5466
55	0.7754	0.668	0.4916	0.331	0.2401	0.2039	0.2266	0.2505	0.3753	0.6131	0.7449	0.8137	0.4779
60	0.7205	0.6102	0.4208	0.2505	0.1653	0.1765	0.1774	0.164	0.2944	0.551	0.6902	0.763	0.4153
65	0.661	0.5493	0.3478	0.1689	0.1597	0.1703	0.171	0.1014	0.2117	0.486	0.6315	0.7077	0.3639
70	0.5974	0.4856	0.2732	0.1363	0.1538	0.1639	0.1644	0.0988	0.1279	0.4185	0.5693	0.6484	0.3198
75	0.5302	0.4196	0.1974	0.1316	0.1478	0.1572	0.1575	0.096	0.0619	0.3492	0.5039	0.5854	0.2781
80	0.4599	0.352	0.1435	0.1278	0.1416	0.1504	0.1505	0.0932	0.0652	0.2785	0.436	0.5192	0.2432
85	0.3871	0.2831	0.1373	0.1227	0.1353	0.1435	0.1434	0.0903	0.0646	0.1778	0.3661	0.4503	0.2085
90	0.3123	0.192	0.1311	0.1175	0.129	0.1366	0.1362	0.0874	0.0639	0.1682	0.2946	0.3793	0.179



Tabla 10: Azimut de 35°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9911	0.9915	0.9918	0.9913	0.9909	0.9911	0.9915	0.9918	0.9912	0.9911	0.9911	0.9913
5	1.0033	0.9899	0.9749	0.9593	0.9492	0.9448	0.9474	0.952	0.9659	0.9854	0.9986	1.0055	0.973
10	1.0088	0.9825	0.9518	0.9204	0.9008	0.8927	0.8975	0.906	0.9332	0.9733	0.9998	1.0135	0.9484
15	1.0076	0.9692	0.9225	0.8754	0.8467	0.8348	0.8418	0.8538	0.8939	0.9551	0.9946	1.0151	0.9175
20	0.9996	0.9499	0.8872	0.8247	0.7871	0.7717	0.7809	0.7958	0.8483	0.9309	0.9832	1.0102	0.8808
25	0.985	0.9249	0.8461	0.7687	0.7226	0.7038	0.7151	0.7326	0.7968	0.9009	0.9655	0.9988	0.8384
30	0.9639	0.8943	0.7995	0.7078	0.6537	0.6317	0.645	0.6644	0.7398	0.8653	0.9417	0.9812	0.7907
35	0.9363	0.8583	0.7479	0.6425	0.5808	0.5559	0.5711	0.592	0.6777	0.8244	0.912	0.9573	0.738
40	0.9026	0.8173	0.6915	0.5732	0.5046	0.4769	0.4939	0.5158	0.6109	0.7785	0.8766	0.9275	0.6808
45	0.8629	0.7715	0.6309	0.5006	0.4256	0.3955	0.4141	0.4364	0.5401	0.728	0.8358	0.8918	0.6194
50	0.8177	0.7213	0.5665	0.425	0.3443	0.3121	0.3322	0.3544	0.4655	0.6732	0.7899	0.8506	0.5544
55	0.7671	0.6671	0.4989	0.3472	0.2614	0.2273	0.2488	0.2705	0.3878	0.6146	0.7392	0.8042	0.4862
60	0.7117	0.6092	0.4285	0.2676	0.1775	0.1765	0.1774	0.1851	0.3077	0.5525	0.6842	0.753	0.4192
65	0.6518	0.5482	0.3559	0.1868	0.1597	0.1703	0.171	0.1014	0.2256	0.4876	0.6252	0.6973	0.3651
70	0.5878	0.4845	0.2815	0.1363	0.1538	0.1639	0.1644	0.0988	0.1422	0.4202	0.5627	0.6376	0.3195
75	0.5204	0.4185	0.2059	0.1316	0.1478	0.1572	0.1575	0.096	0.0619	0.3509	0.4972	0.5743	0.2766
80	0.4499	0.3508	0.1436	0.1286	0.1416	0.1504	0.1505	0.0932	0.0659	0.2802	0.4291	0.5079	0.241
85	0.377	0.2819	0.1374	0.1235	0.1353	0.1435	0.1434	0.0903	0.0653	0.1778	0.3591	0.4389	0.2061
90	0.3021	0.192	0.1312	0.1183	0.129	0.1366	0.1362	0.0874	0.0646	0.1682	0.2876	0.3678	0.1767

Tabla 11: Azimut de 40°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9911	0.9915	0.9918	0.9913	0.9909	0.9911	0.9915	0.9918	0.9912	0.9911	0.9911	0.9913
5	1.0023	0.9898	0.9758	0.9612	0.9517	0.9476	0.95	0.9544	0.9673	0.9855	0.9979	1.0044	0.974
10	1.0068	0.9823	0.9536	0.9242	0.9059	0.8982	0.9027	0.9107	0.9361	0.9736	0.9984	1.0112	0.9503
15	1.0046	0.9689	0.9251	0.8811	0.8542	0.8431	0.8497	0.8608	0.8982	0.9556	0.9926	1.0117	0.9205
20	0.9957	0.9495	0.8906	0.8323	0.7971	0.7827	0.7913	0.8051	0.8541	0.9316	0.9805	1.0057	0.8847
25	0.9801	0.9243	0.8503	0.7781	0.735	0.7174	0.728	0.744	0.804	0.9017	0.9621	0.9933	0.8432
30	0.9581	0.8936	0.8045	0.7189	0.6683	0.6478	0.6602	0.6781	0.7483	0.8663	0.9377	0.9747	0.7964
35	0.9297	0.8576	0.7536	0.6552	0.5976	0.5743	0.5886	0.6077	0.6875	0.8256	0.9074	0.9499	0.7446
40	0.8952	0.8164	0.6979	0.5875	0.5235	0.4977	0.5135	0.5334	0.622	0.7798	0.8715	0.9191	0.6881
45	0.8548	0.7706	0.638	0.5163	0.4463	0.4183	0.4357	0.4558	0.5522	0.7294	0.8302	0.8826	0.6275
50	0.8088	0.7203	0.5742	0.4421	0.3668	0.3368	0.3556	0.3755	0.4787	0.6748	0.7838	0.8406	0.5632
55	0.7577	0.666	0.5071	0.3655	0.2855	0.2537	0.2739	0.293	0.4019	0.6162	0.7327	0.7936	0.4956
60	0.7017	0.6081	0.4372	0.2869	0.203	0.1765	0.191	0.2089	0.3226	0.5543	0.6773	0.7417	0.4258
65	0.6413	0.547	0.365	0.2071	0.1597	0.1703	0.171	0.1238	0.2412	0.4894	0.618	0.6855	0.3683
70	0.577	0.4832	0.2909	0.1363	0.1538	0.1639	0.1644	0.0988	0.1584	0.4221	0.5552	0.6254	0.3191
75	0.5093	0.4172	0.2156	0.1316	0.1478	0.1572	0.1575	0.096	0.0748	0.3529	0.4895	0.5617	0.2759
80	0.4386	0.3495	0.1437	0.1294	0.1416	0.1504	0.1505	0.0932	0.0665	0.2822	0.4213	0.495	0.2385
85	0.3655	0.2806	0.1375	0.1244	0.1353	0.1435	0.1434	0.0903	0.0659	0.1778	0.3512	0.4259	0.2034
90	0.2906	0.192	0.1313	0.1192	0.129	0.1366	0.1362	0.0874	0.0653	0.1682	0.2796	0.3547	0.1742



Tabla 12: Azimut de 45°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9911	0.9915	0.9918	0.9913	0.9909	0.9911	0.9915	0.9918	0.9912	0.9911	0.9911	0.9913
5	1.0012	0.9896	0.9767	0.9633	0.9545	0.9507	0.9529	0.957	0.969	0.9857	0.9972	1.0031	0.9751
10	1.0046	0.9821	0.9555	0.9284	0.9115	0.9044	0.9086	0.9159	0.9393	0.974	0.9969	1.0087	0.9525
15	1.0013	0.9685	0.9279	0.8874	0.8626	0.8523	0.8584	0.8686	0.9031	0.9562	0.9903	1.0079	0.9237
20	0.9913	0.949	0.8943	0.8406	0.8082	0.7948	0.8028	0.8154	0.8605	0.9323	0.9774	1.0008	0.889
25	0.9747	0.9237	0.8549	0.7884	0.7487	0.7324	0.7422	0.7568	0.812	0.9027	0.9584	0.9872	0.8485
30	0.9517	0.8929	0.81	0.7312	0.6845	0.6656	0.6771	0.6932	0.7578	0.8674	0.9333	0.9674	0.8027
35	0.9224	0.8567	0.7599	0.6693	0.6163	0.5948	0.608	0.625	0.6984	0.8268	0.9024	0.9416	0.7518
40	0.8869	0.8155	0.705	0.6034	0.5443	0.5206	0.5353	0.5529	0.6343	0.7813	0.8658	0.9098	0.6963
45	0.8457	0.7695	0.6458	0.5338	0.4693	0.4435	0.4596	0.4773	0.5657	0.731	0.8239	0.8724	0.6365
50	0.799	0.7192	0.5827	0.461	0.3917	0.3642	0.3816	0.3987	0.4932	0.6765	0.777	0.8296	0.5729
55	0.7472	0.6648	0.5162	0.3857	0.3122	0.283	0.3016	0.3178	0.4175	0.6181	0.7255	0.7817	0.5059
60	0.6906	0.6068	0.4469	0.3083	0.2312	0.2008	0.2204	0.2351	0.339	0.5563	0.6696	0.7292	0.4362
65	0.6297	0.5457	0.3751	0.2294	0.1597	0.1703	0.171	0.1513	0.2584	0.4915	0.61	0.6724	0.372
70	0.565	0.4819	0.3014	0.1496	0.1538	0.1639	0.1644	0.0988	0.1763	0.4243	0.5469	0.6118	0.3198
75	0.4969	0.4158	0.2263	0.1316	0.1478	0.1572	0.1575	0.096	0.0932	0.3551	0.481	0.5477	0.2755
80	0.426	0.3481	0.1438	0.1302	0.1416	0.1504	0.1505	0.0943	0.0671	0.2845	0.4126	0.4808	0.2358
85	0.3528	0.2792	0.1376	0.1252	0.1353	0.1435	0.1434	0.0913	0.0665	0.1778	0.3424	0.4115	0.2005
90	0.2778	0.192	0.1314	0.12	0.129	0.1366	0.1362	0.0881	0.0659	0.1682	0.2708	0.3403	0.1714

Tabla 13: Azimut de 50°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9911	0.9915	0.9918	0.9913	0.9909	0.9911	0.9915	0.9918	0.9912	0.9911	0.9911	0.9913
5	1	0.9895	0.9778	0.9656	0.9576	0.9541	0.9561	0.9598	0.9707	0.986	0.9963	1.0017	0.9763
10	1.0021	0.9818	0.9576	0.933	0.9176	0.9111	0.9149	0.9216	0.9428	0.9744	0.9952	1.006	0.9548
15	0.9977	0.9681	0.9311	0.8943	0.8717	0.8623	0.8679	0.877	0.9084	0.9568	0.9878	1.0039	0.9272
20	0.9865	0.9484	0.8985	0.8497	0.8202	0.8081	0.8154	0.8266	0.8675	0.9332	0.9741	0.9954	0.8936
25	0.9688	0.923	0.86	0.7997	0.7636	0.7488	0.7578	0.7707	0.8207	0.9037	0.9543	0.9805	0.8543
30	0.9447	0.8921	0.816	0.7445	0.7022	0.685	0.6955	0.7096	0.7681	0.8687	0.9285	0.9595	0.8095
35	0.9144	0.8558	0.7668	0.6847	0.6365	0.6171	0.6291	0.6439	0.7103	0.8283	0.8968	0.9325	0.7597
40	0.878	0.8145	0.7128	0.6206	0.5671	0.5456	0.559	0.5741	0.6475	0.7829	0.8596	0.8996	0.7051
45	0.8359	0.7684	0.6543	0.5527	0.4944	0.4711	0.4857	0.5006	0.5802	0.7328	0.8171	0.8612	0.6462
50	0.7883	0.7179	0.592	0.4816	0.4189	0.394	0.4098	0.424	0.509	0.6784	0.7697	0.8175	0.5834
55	0.7358	0.6635	0.5262	0.4076	0.3412	0.3149	0.3318	0.3449	0.4344	0.6201	0.7176	0.7688	0.5172
60	0.6785	0.6054	0.4573	0.3315	0.2619	0.2345	0.2523	0.2637	0.3569	0.5584	0.6613	0.7155	0.4481
65	0.6171	0.5442	0.386	0.2537	0.1815	0.1703	0.1719	0.1812	0.2771	0.4937	0.6013	0.6581	0.378
70	0.5519	0.4803	0.3127	0.1748	0.1538	0.1639	0.1644	0.0988	0.1957	0.4266	0.5379	0.5969	0.3215
75	0.4834	0.4143	0.238	0.1316	0.1478	0.1572	0.1575	0.096	0.1131	0.3574	0.4717	0.5325	0.2751
80	0.4122	0.3465	0.1625	0.1309	0.1416	0.1504	0.1505	0.0953	0.0676	0.2869	0.4032	0.4652	0.2344
85	0.3389	0.2776	0.1377	0.1259	0.1353	0.1435	0.1434	0.0923	0.0671	0.2154	0.3328	0.3957	0.2005
90	0.2638	0.192	0.1315	0.1208	0.129	0.1366	0.1362	0.0892	0.0664	0.1682	0.2612	0.3245	0.1683



Tabla 14: Azimut de 55°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9911	0.9915	0.9918	0.9913	0.9909	0.9911	0.9915	0.9918	0.9912	0.9911	0.9911	0.9913
5	0.9986	0.9893	0.9789	0.9681	0.9608	0.9577	0.9595	0.9629	0.9726	0.9862	0.9954	1.0003	0.9775
10	0.9995	0.9815	0.9598	0.9379	0.9241	0.9183	0.9218	0.9277	0.9466	0.9749	0.9934	1.003	0.9574
15	0.9938	0.9676	0.9344	0.9016	0.8815	0.8731	0.8781	0.8862	0.914	0.9575	0.9851	0.9995	0.931
20	0.9814	0.9478	0.9029	0.8595	0.8332	0.8224	0.8289	0.8387	0.8751	0.9341	0.9706	0.9895	0.8987
25	0.9625	0.9223	0.8655	0.8118	0.7796	0.7665	0.7745	0.7856	0.83	0.9048	0.9499	0.9734	0.8605
30	0.9372	0.8912	0.8225	0.7588	0.7212	0.7059	0.7153	0.7273	0.7792	0.87	0.9233	0.9511	0.8169
35	0.9057	0.8548	0.7742	0.7011	0.6583	0.6411	0.6518	0.6642	0.723	0.8298	0.8909	0.9228	0.7682
40	0.8683	0.8134	0.7211	0.639	0.5915	0.5725	0.5844	0.5968	0.6618	0.7846	0.853	0.8887	0.7146
45	0.8252	0.7672	0.6634	0.573	0.5212	0.5006	0.5137	0.5256	0.5959	0.7346	0.8098	0.8492	0.6566
50	0.7768	0.7166	0.6019	0.5036	0.448	0.426	0.4402	0.4511	0.526	0.6804	0.7617	0.8045	0.5947
55	0.7235	0.6621	0.5368	0.4312	0.3723	0.3492	0.3643	0.3739	0.4525	0.6223	0.7091	0.7549	0.5293
60	0.6655	0.6039	0.4686	0.3564	0.2948	0.2708	0.2866	0.2944	0.376	0.5607	0.6524	0.7008	0.4609
65	0.6035	0.5427	0.3978	0.2798	0.216	0.1912	0.2078	0.2134	0.2972	0.4961	0.5919	0.6427	0.39
70	0.5378	0.4787	0.325	0.2018	0.1538	0.1639	0.1644	0.1313	0.2164	0.4291	0.5282	0.581	0.3259
75	0.4689	0.4126	0.2506	0.1316	0.1478	0.1572	0.1575	0.096	0.1345	0.36	0.4617	0.5161	0.2745
80	0.3974	0.3448	0.1753	0.1267	0.1416	0.1504	0.1505	0.0932	0.0613	0.2895	0.393	0.4485	0.231
85	0.3239	0.2758	0.1378	0.1267	0.1353	0.1435	0.1434	0.0934	0.0675	0.2181	0.3225	0.3788	0.1972
90	0.2488	0.192	0.1316	0.1216	0.129	0.1366	0.1362	0.0903	0.0669	0.1682	0.2508	0.3075	0.165

Tabla 15: Azimut de 60°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9911	0.9915	0.9918	0.9913	0.9909	0.9911	0.9915	0.9918	0.9912	0.9911	0.9911	0.9913
5	0.9973	0.9892	0.9801	0.9707	0.9643	0.9615	0.9632	0.9661	0.9746	0.9864	0.9945	0.9987	0.9789
10	0.9968	0.9812	0.9622	0.9432	0.9311	0.926	0.929	0.9341	0.9507	0.9754	0.9915	0.9999	0.9601
15	0.9896	0.9671	0.938	0.9095	0.8919	0.8846	0.8889	0.8958	0.9201	0.9582	0.9823	0.9948	0.9351
20	0.9759	0.9472	0.9076	0.8699	0.8469	0.8375	0.8432	0.8515	0.883	0.935	0.9668	0.9834	0.904
25	0.9557	0.9215	0.8713	0.8246	0.7966	0.7852	0.7922	0.8014	0.8399	0.906	0.9453	0.9657	0.8671
30	0.9292	0.8903	0.8294	0.7741	0.7413	0.7281	0.7363	0.746	0.7909	0.8714	0.9178	0.942	0.8247
35	0.8966	0.8538	0.7821	0.7186	0.6815	0.6665	0.6759	0.6857	0.7365	0.8314	0.8846	0.9124	0.7771
40	0.8581	0.8122	0.7299	0.6586	0.6175	0.601	0.6115	0.621	0.6768	0.7864	0.8459	0.8771	0.7247
45	0.814	0.7659	0.6732	0.5946	0.5498	0.532	0.5434	0.5522	0.6124	0.7366	0.802	0.8364	0.6677
50	0.7646	0.7152	0.6125	0.5269	0.4789	0.46	0.4724	0.4799	0.5439	0.6826	0.7533	0.7906	0.6067
55	0.7104	0.6606	0.5481	0.4562	0.4054	0.3856	0.3987	0.4047	0.4717	0.6246	0.7001	0.7401	0.5422
60	0.6517	0.6023	0.4806	0.3828	0.3298	0.3092	0.3231	0.327	0.3963	0.5631	0.6428	0.6852	0.4745
65	0.589	0.541	0.4104	0.3074	0.2526	0.2315	0.2459	0.2474	0.3184	0.4987	0.5819	0.6264	0.4042
70	0.5228	0.477	0.338	0.2305	0.1744	0.1639	0.1679	0.1666	0.2385	0.4317	0.5178	0.564	0.3328
75	0.4535	0.4108	0.264	0.1526	0.1478	0.1572	0.1575	0.096	0.1571	0.3627	0.4511	0.4986	0.2758
80	0.3817	0.343	0.1889	0.1267	0.1416	0.1504	0.1505	0.0932	0.075	0.2923	0.3821	0.4307	0.2297
85	0.308	0.274	0.1378	0.1273	0.1354	0.1435	0.1434	0.0945	0.068	0.2209	0.3115	0.3608	0.1938
90	0.2329	0.192	0.1317	0.1223	0.129	0.1366	0.1362	0.0914	0.0674	0.1682	0.2398	0.2895	0.1614



Tabla 16: Azimut de 65°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9911	0.9915	0.9918	0.9913	0.9909	0.9911	0.9915	0.9918	0.9912	0.9911	0.9911	0.9913
5	0.9958	0.989	0.9814	0.9735	0.968	0.9656	0.967	0.9695	0.9767	0.9867	0.9935	0.997	0.9803
10	0.9939	0.9808	0.9647	0.9487	0.9384	0.9341	0.9367	0.941	0.9549	0.9759	0.9895	0.9966	0.9629
15	0.9853	0.9666	0.9417	0.9177	0.9028	0.8966	0.9003	0.906	0.9264	0.959	0.9793	0.9899	0.9393
20	0.9702	0.9465	0.9126	0.8808	0.8614	0.8534	0.8583	0.8649	0.8914	0.9361	0.9629	0.9769	0.9096
25	0.9486	0.9207	0.8774	0.8381	0.8145	0.8049	0.8109	0.8181	0.8502	0.9073	0.9404	0.9577	0.8741
30	0.9208	0.8893	0.8366	0.79	0.7625	0.7514	0.7584	0.7657	0.8032	0.8729	0.912	0.9325	0.833
35	0.8869	0.8527	0.7905	0.7369	0.7058	0.6933	0.7012	0.7083	0.7506	0.8331	0.878	0.9015	0.7866
40	0.8473	0.8109	0.7393	0.6792	0.6447	0.631	0.6398	0.6463	0.6926	0.7883	0.8385	0.8649	0.7352
45	0.8021	0.7645	0.6835	0.6172	0.5797	0.565	0.5747	0.5801	0.6298	0.7387	0.7938	0.823	0.6793
50	0.7517	0.7137	0.6236	0.5514	0.5114	0.4958	0.5062	0.5101	0.5627	0.6848	0.7444	0.7761	0.6193
55	0.6966	0.659	0.56	0.4824	0.4401	0.4238	0.4349	0.4369	0.4918	0.627	0.6906	0.7245	0.5556
60	0.6371	0.6007	0.4932	0.4105	0.3665	0.3496	0.3613	0.3611	0.4176	0.5657	0.6328	0.6688	0.4887
65	0.5738	0.5393	0.4235	0.3364	0.291	0.2738	0.286	0.2832	0.3406	0.5014	0.5714	0.6091	0.4191
70	0.507	0.4752	0.3516	0.2605	0.2142	0.1969	0.2095	0.2036	0.2615	0.4345	0.507	0.5462	0.3473
75	0.4373	0.409	0.278	0.1836	0.1478	0.1572	0.1575	0.1232	0.1808	0.3656	0.4399	0.4803	0.28
80	0.3652	0.3411	0.2033	0.1267	0.1416	0.1504	0.1505	0.0932	0.0992	0.2952	0.3707	0.412	0.2291
85	0.2913	0.2721	0.1379	0.128	0.1368	0.1435	0.1434	0.0955	0.0683	0.2238	0.3	0.3419	0.1902
90	0.2161	0.192	0.1317	0.1229	0.1302	0.1366	0.1362	0.0924	0.0678	0.1682	0.2283	0.2705	0.1577

Tabla 17: Azimut de 70°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9911	0.9915	0.9918	0.9913	0.9909	0.9911	0.9915	0.9918	0.9912	0.9911	0.9911	0.9913
5	0.9943	0.9888	0.9827	0.9763	0.9718	0.9698	0.971	0.9731	0.979	0.987	0.9924	0.9953	0.9818
10	0.9908	0.9805	0.9673	0.9544	0.9461	0.9425	0.9446	0.948	0.9593	0.9765	0.9874	0.9932	0.9659
15	0.9808	0.9661	0.9456	0.9263	0.9142	0.9091	0.9122	0.9166	0.933	0.9598	0.9762	0.9848	0.9437
20	0.9642	0.9459	0.9177	0.8921	0.8765	0.87	0.874	0.8789	0.9001	0.9371	0.9588	0.9701	0.9154
25	0.9413	0.9199	0.8838	0.8521	0.8331	0.8254	0.8303	0.8354	0.861	0.9086	0.9353	0.9494	0.8813
30	0.9121	0.8883	0.8442	0.8066	0.7845	0.7756	0.7813	0.7862	0.8159	0.8744	0.906	0.9226	0.8415
35	0.8769	0.8515	0.7991	0.756	0.731	0.7211	0.7276	0.7318	0.7652	0.8349	0.871	0.8902	0.7964
40	0.836	0.8096	0.749	0.7005	0.673	0.6622	0.6693	0.6726	0.709	0.7903	0.8307	0.8522	0.7462
45	0.7897	0.7631	0.6942	0.6407	0.6109	0.5993	0.6071	0.609	0.6478	0.7409	0.7853	0.809	0.6914
50	0.7383	0.7122	0.6352	0.5769	0.5451	0.5329	0.5414	0.5415	0.5822	0.6872	0.7352	0.7609	0.6324
55	0.6823	0.6573	0.5724	0.5096	0.4762	0.4635	0.4725	0.4705	0.5127	0.6296	0.6807	0.7083	0.5696
60	0.622	0.5989	0.5063	0.4393	0.4046	0.3916	0.4011	0.3966	0.4397	0.5684	0.6224	0.6516	0.5035
65	0.5579	0.5374	0.4372	0.3665	0.3309	0.3178	0.3276	0.3203	0.3638	0.5042	0.5605	0.5912	0.4346
70	0.4905	0.4733	0.3658	0.2918	0.2557	0.2425	0.2526	0.2422	0.2855	0.4374	0.4956	0.5276	0.3634
75	0.4204	0.407	0.2926	0.2157	0.1794	0.1663	0.1767	0.1628	0.2055	0.3686	0.4283	0.4612	0.2904
80	0.348	0.3391	0.2182	0.1387	0.1416	0.1504	0.1505	0.0932	0.1243	0.2982	0.3589	0.3926	0.2295
85	0.2738	0.2701	0.143	0.1286	0.1382	0.1439	0.145	0.0964	0.0687	0.2269	0.288	0.3222	0.1871
90	0.1986	0.192	0.1318	0.1235	0.1316	0.1366	0.1375	0.0934	0.0681	0.1682	0.2162	0.2507	0.154



Tabla 18: Azimut de 75°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9911	0.9915	0.9918	0.9913	0.9909	0.9911	0.9915	0.9918	0.9912	0.9911	0.9911	0.9913
5	0.9927	0.9887	0.984	0.9793	0.9758	0.9742	0.9751	0.9768	0.9812	0.9872	0.9913	0.9935	0.9833
10	0.9877	0.9801	0.97	0.9604	0.954	0.9512	0.9529	0.9554	0.9638	0.977	0.9853	0.9896	0.9689
15	0.9761	0.9656	0.9497	0.9351	0.926	0.9221	0.9245	0.9275	0.9397	0.9606	0.973	0.9795	0.9483
20	0.958	0.9452	0.923	0.9038	0.892	0.8871	0.8902	0.8933	0.9091	0.9382	0.9545	0.9631	0.9215
25	0.9336	0.919	0.8904	0.8666	0.8523	0.8465	0.8503	0.8532	0.8721	0.9099	0.9301	0.9407	0.8887
30	0.9031	0.8873	0.852	0.8237	0.8073	0.8007	0.805	0.8073	0.8291	0.876	0.8998	0.9124	0.8503
35	0.8666	0.8503	0.808	0.7756	0.7571	0.7498	0.7547	0.7561	0.7803	0.8367	0.8639	0.8785	0.8065
40	0.8244	0.8083	0.759	0.7225	0.7022	0.6943	0.6998	0.6998	0.7258	0.7923	0.8227	0.8391	0.7575
45	0.7769	0.7616	0.7052	0.6649	0.643	0.6346	0.6406	0.6389	0.6664	0.7432	0.7765	0.7946	0.7039
50	0.7245	0.7106	0.6472	0.6031	0.5799	0.5712	0.5776	0.5738	0.6023	0.6896	0.7257	0.7453	0.6459
55	0.6675	0.6556	0.5852	0.5376	0.5134	0.5045	0.5113	0.5051	0.5342	0.6322	0.6706	0.6916	0.5841
60	0.6064	0.5971	0.5198	0.4689	0.444	0.4349	0.4421	0.4332	0.4624	0.5711	0.6116	0.634	0.5188
65	0.5416	0.5356	0.4514	0.3975	0.3721	0.3631	0.3705	0.3586	0.3875	0.5071	0.5492	0.5727	0.4506
70	0.4736	0.4714	0.3805	0.324	0.2984	0.2895	0.2971	0.2819	0.3102	0.4404	0.4839	0.5084	0.3799
75	0.4029	0.405	0.3077	0.2488	0.2233	0.2147	0.2225	0.2036	0.2309	0.3717	0.4162	0.4415	0.3074
80	0.3302	0.3371	0.2335	0.1725	0.1474	0.1504	0.1505	0.1244	0.1502	0.3014	0.3466	0.3725	0.2347
85	0.2559	0.268	0.1585	0.1218	0.1353	0.1435	0.1434	0.0903	0.0688	0.2301	0.2756	0.3019	0.1828
90	0.1805	0.192	0.1318	0.1241	0.133	0.1386	0.1391	0.0944	0.0684	0.1682	0.2038	0.2303	0.1503

Tabla 19: Azimut de 80°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9911	0.9915	0.9918	0.9913	0.9909	0.9911	0.9915	0.9918	0.9912	0.9911	0.9911	0.9913
5	0.9911	0.9885	0.9854	0.9824	0.9798	0.9786	0.9794	0.9805	0.9836	0.9875	0.9902	0.9917	0.9849
10	0.9845	0.9798	0.9728	0.9664	0.962	0.96	0.9613	0.9628	0.9685	0.9776	0.983	0.986	0.9721
15	0.9713	0.965	0.9538	0.9442	0.938	0.9353	0.937	0.9386	0.9467	0.9615	0.9697	0.9741	0.9529
20	0.9517	0.9444	0.9285	0.9157	0.9079	0.9046	0.9067	0.9081	0.9182	0.9393	0.9502	0.956	0.9276
25	0.9258	0.9181	0.8971	0.8813	0.872	0.8682	0.8707	0.8714	0.8834	0.9113	0.9247	0.9319	0.8963
30	0.8938	0.8862	0.8599	0.8412	0.8305	0.8262	0.8292	0.8289	0.8425	0.8776	0.8934	0.902	0.8593
35	0.856	0.8491	0.8172	0.7957	0.7837	0.7791	0.7825	0.7808	0.7956	0.8386	0.8566	0.8665	0.8168
40	0.8125	0.807	0.7692	0.745	0.7321	0.7272	0.7309	0.7275	0.7431	0.7944	0.8145	0.8257	0.7691
45	0.7639	0.7601	0.7165	0.6896	0.6758	0.6708	0.6748	0.6694	0.6853	0.7455	0.7675	0.7798	0.7166
50	0.7104	0.709	0.6594	0.6299	0.6155	0.6104	0.6147	0.6069	0.6229	0.6922	0.7159	0.7293	0.6597
55	0.6524	0.6539	0.5983	0.5663	0.5515	0.5464	0.5509	0.5404	0.5561	0.6348	0.6601	0.6745	0.5988
60	0.5904	0.5953	0.5336	0.4992	0.4842	0.4792	0.484	0.4705	0.4856	0.574	0.6006	0.6159	0.5344
65	0.5248	0.5336	0.4658	0.4292	0.4142	0.4094	0.4144	0.3977	0.4118	0.51	0.5377	0.5538	0.4669
70	0.4562	0.4694	0.3955	0.3568	0.342	0.3375	0.3426	0.3224	0.3354	0.4435	0.472	0.4888	0.3968
75	0.3851	0.403	0.3231	0.2826	0.2681	0.2641	0.2693	0.2453	0.2568	0.3748	0.4039	0.4213	0.3248
80	0.312	0.335	0.2493	0.207	0.1932	0.1896	0.1949	0.167	0.1766	0.3046	0.3341	0.3519	0.2512
85	0.2374	0.2659	0.1745	0.1306	0.1353	0.1435	0.1434	0.0903	0.0956	0.2333	0.2629	0.2811	0.1828
90	0.162	0.192	0.1318	0.1246	0.1343	0.1404	0.1407	0.0952	0.0686	0.1682	0.191	0.2094	0.1465



Tabla 20: Azimut de 85°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9911	0.9915	0.9918	0.9913	0.9909	0.9911	0.9915	0.9918	0.9912	0.9911	0.9911	0.9913
5	0.9894	0.9883	0.9868	0.9854	0.9839	0.9831	0.9836	0.9843	0.9859	0.9878	0.9891	0.9899	0.9865
10	0.9812	0.9794	0.9756	0.9726	0.9702	0.9691	0.9698	0.9704	0.9732	0.9781	0.9808	0.9823	0.9752
15	0.9665	0.9645	0.958	0.9534	0.9502	0.9488	0.9497	0.95	0.9537	0.9623	0.9663	0.9686	0.9576
20	0.9453	0.9437	0.934	0.9279	0.924	0.9224	0.9235	0.9231	0.9275	0.9405	0.9457	0.9487	0.9339
25	0.9179	0.9172	0.904	0.8963	0.8919	0.8901	0.8915	0.8899	0.8949	0.9127	0.9192	0.9229	0.904
30	0.8844	0.8852	0.868	0.8589	0.854	0.8522	0.8538	0.8508	0.8561	0.8793	0.8869	0.8914	0.8684
35	0.8452	0.8479	0.8265	0.816	0.8107	0.8089	0.8107	0.8059	0.8112	0.8405	0.8492	0.8543	0.8272
40	0.8005	0.8056	0.7796	0.7678	0.7623	0.7605	0.7625	0.7556	0.7605	0.7965	0.8062	0.812	0.7808
45	0.7506	0.7586	0.7279	0.7147	0.7091	0.7075	0.7096	0.7003	0.7045	0.7478	0.7584	0.7648	0.7295
50	0.696	0.7073	0.6718	0.657	0.6516	0.6501	0.6523	0.6404	0.6437	0.6947	0.706	0.713	0.6737
55	0.637	0.6521	0.6115	0.5953	0.59	0.5888	0.5911	0.5763	0.5784	0.6376	0.6495	0.6571	0.6137
60	0.5741	0.5934	0.5476	0.5299	0.525	0.5241	0.5265	0.5084	0.5091	0.5768	0.5894	0.5975	0.5501
65	0.5078	0.5317	0.4805	0.4613	0.4569	0.4564	0.4589	0.4373	0.4364	0.513	0.526	0.5345	0.4834
70	0.4386	0.4673	0.4107	0.3901	0.3863	0.3863	0.3888	0.3635	0.3609	0.4466	0.4598	0.4688	0.414
75	0.367	0.4009	0.3388	0.3168	0.3136	0.3142	0.3167	0.2876	0.283	0.378	0.3914	0.4008	0.3424
80	0.2935	0.3329	0.2652	0.2419	0.2396	0.2407	0.2432	0.2101	0.2034	0.3079	0.3213	0.331	0.2692
85	0.2187	0.2638	0.1906	0.166	0.1646	0.1664	0.1689	0.1316	0.1227	0.2366	0.25	0.2599	0.195
90	0.1433	0.192	0.1318	0.125	0.1356	0.1423	0.1422	0.096	0.0687	0.1682	0.1781	0.1882	0.1426

Tabla 21: Azimut de 90°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9911	0.9915	0.9918	0.9913	0.9909	0.9911	0.9915	0.9918	0.9912	0.9911	0.9911	0.9913
5	0.9878	0.9881	0.9883	0.9886	0.9881	0.9877	0.9879	0.9882	0.9883	0.9881	0.9879	0.988	0.9881
10	0.9779	0.979	0.9785	0.9788	0.9784	0.9781	0.9784	0.9781	0.9779	0.9787	0.9785	0.9786	0.9784
15	0.9616	0.9639	0.9622	0.9626	0.9625	0.9623	0.9625	0.9614	0.9608	0.9632	0.9629	0.963	0.9624
20	0.9388	0.9429	0.9396	0.9401	0.9402	0.9402	0.9405	0.9381	0.9369	0.9416	0.9413	0.9414	0.9401
25	0.9099	0.9163	0.9109	0.9114	0.9119	0.9122	0.9124	0.9085	0.9064	0.9141	0.9137	0.9139	0.9118
30	0.875	0.8841	0.8762	0.8768	0.8777	0.8783	0.8785	0.8728	0.8697	0.881	0.8804	0.8807	0.8776
35	0.8343	0.8466	0.8358	0.8364	0.8379	0.8389	0.839	0.8311	0.8269	0.8424	0.8417	0.842	0.8378
40	0.7883	0.8042	0.7901	0.7907	0.7928	0.7941	0.7942	0.7839	0.7781	0.7987	0.7978	0.7983	0.7926
45	0.7372	0.7571	0.7394	0.7399	0.7427	0.7444	0.7445	0.7314	0.7238	0.7502	0.7491	0.7497	0.7425
50	0.6815	0.7057	0.6843	0.6843	0.6879	0.6901	0.6902	0.6741	0.6646	0.6972	0.696	0.6967	0.6877
55	0.6215	0.6503	0.6249	0.6245	0.6288	0.6316	0.6316	0.6123	0.6007	0.6403	0.6388	0.6396	0.6287
60	0.5577	0.5915	0.5617	0.5608	0.566	0.5693	0.5693	0.5465	0.5327	0.5797	0.5781	0.579	0.566
65	0.4907	0.5297	0.4953	0.4936	0.4998	0.5037	0.5037	0.4772	0.4612	0.5161	0.5142	0.5152	0.5
70	0.4208	0.4653	0.426	0.4236	0.4308	0.4353	0.4352	0.4049	0.3865	0.4497	0.4476	0.4487	0.4312
75	0.3487	0.3988	0.3545	0.3513	0.3594	0.3646	0.3645	0.3301	0.3094	0.3812	0.3789	0.3801	0.3601
80	0.2749	0.3307	0.2813	0.277	0.2863	0.2922	0.2919	0.2535	0.2303	0.3112	0.3085	0.3099	0.2873
85	0.1999	0.2616	0.2069	0.2015	0.2119	0.2185	0.2182	0.1755	0.1499	0.24	0.2371	0.2386	0.2133
90	0.1244	0.192	0.1318	0.1254	0.1368	0.1441	0.1437	0.0967	0.0688	0.1682	0.1651	0.1668	0.1386



Tabla 22: Azimut de 95°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9911	0.9915	0.9918	0.9913	0.9909	0.9911	0.9915	0.9918	0.9912	0.9911	0.9911	0.9913
5	0.9861	0.9879	0.9897	0.9917	0.9922	0.9923	0.9923	0.992	0.9907	0.9884	0.9868	0.9861	0.9897
10	0.9746	0.9786	0.9813	0.985	0.9867	0.9872	0.987	0.9857	0.9827	0.9793	0.9763	0.9749	0.9816
15	0.9567	0.9634	0.9664	0.9718	0.9747	0.9758	0.9753	0.9728	0.9678	0.9641	0.9596	0.9575	0.9672
20	0.9324	0.9422	0.9452	0.9523	0.9564	0.9581	0.9574	0.9532	0.9462	0.9427	0.9368	0.9341	0.9464
25	0.9019	0.9153	0.9178	0.9265	0.932	0.9343	0.9333	0.9271	0.918	0.9155	0.9082	0.9049	0.9196
30	0.8655	0.883	0.8844	0.8946	0.9014	0.9044	0.9032	0.8948	0.8833	0.8826	0.8739	0.87	0.8868
35	0.8235	0.8454	0.8452	0.8568	0.8651	0.8688	0.8673	0.8564	0.8425	0.8443	0.8342	0.8298	0.8483
40	0.7762	0.8028	0.8006	0.8136	0.8232	0.8276	0.826	0.8122	0.7956	0.8008	0.7895	0.7845	0.8044
45	0.7239	0.7555	0.751	0.765	0.7761	0.7813	0.7794	0.7625	0.7431	0.7525	0.7399	0.7346	0.7554
50	0.667	0.704	0.6967	0.7116	0.7241	0.73	0.728	0.7077	0.6854	0.6998	0.686	0.6803	0.7017
55	0.606	0.6486	0.6382	0.6536	0.6676	0.6743	0.672	0.6483	0.623	0.643	0.6282	0.6221	0.6437
60	0.5414	0.5897	0.5758	0.5915	0.607	0.6145	0.612	0.5845	0.5563	0.5826	0.5668	0.5604	0.5819
65	0.4735	0.5277	0.51	0.5259	0.5427	0.551	0.5484	0.517	0.4858	0.5191	0.5023	0.4958	0.5166
70	0.403	0.4632	0.4413	0.4571	0.4753	0.4843	0.4816	0.4462	0.4121	0.4529	0.4353	0.4286	0.4484
75	0.3304	0.3967	0.3702	0.3856	0.4052	0.415	0.4121	0.3726	0.3357	0.3845	0.3663	0.3595	0.3778
80	0.2562	0.3286	0.2973	0.3121	0.3329	0.3435	0.3406	0.2967	0.2571	0.3144	0.2957	0.2889	0.3053
85	0.1811	0.2594	0.2231	0.237	0.2591	0.2704	0.2674	0.2193	0.177	0.2433	0.2241	0.2173	0.2315
90	0.1244	0.192	0.1482	0.161	0.1842	0.1963	0.1931	0.1407	0.096	0.1716	0.1651	0.1668	0.1616

Tabla 23: Azimut de 100°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9911	0.9915	0.9918	0.9913	0.9909	0.9911	0.9915	0.9918	0.9912	0.9911	0.9911	0.9913
5	0.9845	0.9877	0.9911	0.9947	0.9963	0.9968	0.9965	0.9958	0.993	0.9887	0.9857	0.9843	0.9913
10	0.9714	0.9783	0.9841	0.9911	0.9949	0.9962	0.9955	0.9933	0.9874	0.9799	0.974	0.9712	0.9848
15	0.9518	0.9628	0.9706	0.981	0.9869	0.9892	0.988	0.9841	0.9748	0.9649	0.9562	0.952	0.9719
20	0.9259	0.9415	0.9507	0.9643	0.9725	0.9758	0.9742	0.9681	0.9554	0.9439	0.9324	0.9268	0.9526
25	0.894	0.9144	0.9246	0.9414	0.9518	0.9562	0.954	0.9455	0.9294	0.9169	0.9027	0.8959	0.9272
30	0.8561	0.8819	0.8924	0.9122	0.9249	0.9303	0.9277	0.9166	0.8968	0.8843	0.8674	0.8594	0.8958
35	0.8127	0.8441	0.8545	0.8771	0.892	0.8985	0.8954	0.8813	0.8579	0.8462	0.8268	0.8176	0.8587
40	0.7641	0.8014	0.811	0.8362	0.8534	0.8609	0.8574	0.8401	0.8129	0.803	0.7811	0.7709	0.816
45	0.7106	0.754	0.7624	0.7899	0.8093	0.8179	0.814	0.7933	0.7621	0.7549	0.7308	0.7196	0.7682
50	0.6526	0.7023	0.7091	0.7385	0.7601	0.7697	0.7654	0.7411	0.706	0.7023	0.6761	0.664	0.7156
55	0.5906	0.6468	0.6514	0.6824	0.706	0.7167	0.7121	0.6839	0.6451	0.6457	0.6176	0.6047	0.6586
60	0.5251	0.5878	0.5898	0.6221	0.6476	0.6592	0.6544	0.6222	0.5796	0.5855	0.5556	0.5421	0.5976
65	0.4565	0.5258	0.5246	0.5578	0.5852	0.5978	0.5927	0.5564	0.5102	0.5221	0.4906	0.4765	0.533
70	0.3854	0.4612	0.4565	0.4902	0.5194	0.5329	0.5276	0.487	0.4374	0.456	0.4232	0.4087	0.4655
75	0.3123	0.3946	0.3859	0.4197	0.4505	0.465	0.4594	0.4146	0.3617	0.3877	0.3538	0.339	0.3953
80	0.2378	0.3265	0.3132	0.3468	0.3791	0.3945	0.3887	0.3396	0.2837	0.3177	0.2829	0.268	0.3232
85	0.1624	0.2573	0.2392	0.2722	0.3058	0.3219	0.3161	0.2627	0.2039	0.2466	0.2112	0.1962	0.2496
90	0.1244	0.192	0.1643	0.1963	0.2311	0.248	0.2421	0.1843	0.123	0.1749	0.1651	0.1668	0.1844



Tabla 24: Azimut de 105°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9911	0.9915	0.9918	0.9913	0.9909	0.9911	0.9915	0.9918	0.9912	0.9911	0.9911	0.9913
5	0.9829	0.9875	0.9925	0.9978	1.0004	1.0012	1.0008	0.9996	0.9954	0.989	0.9846	0.9825	0.9928
10	0.9682	0.9779	0.9869	0.9972	1.0029	1.0051	1.0039	1.0008	0.992	0.9805	0.9718	0.9676	0.9879
15	0.947	0.9622	0.9747	0.99	0.9989	1.0024	1.0005	0.9952	0.9817	0.9658	0.9529	0.9466	0.9765
20	0.9196	0.9407	0.9562	0.9762	0.9884	0.9933	0.9907	0.9828	0.9645	0.945	0.928	0.9197	0.9588
25	0.8862	0.9135	0.9314	0.956	0.9714	0.9777	0.9744	0.9637	0.9405	0.9183	0.8973	0.8871	0.9348
30	0.8469	0.8808	0.9004	0.9296	0.948	0.9558	0.9518	0.938	0.91	0.8859	0.8611	0.8489	0.9048
35	0.8021	0.8429	0.8636	0.897	0.9185	0.9277	0.9231	0.9059	0.8731	0.8481	0.8195	0.8056	0.8689
40	0.7522	0.8	0.8213	0.8585	0.8831	0.8936	0.8884	0.8677	0.8299	0.8051	0.773	0.7574	0.8275
45	0.6975	0.7525	0.7736	0.8144	0.8419	0.8538	0.848	0.8235	0.7808	0.7572	0.7218	0.7048	0.7808
50	0.6385	0.7007	0.7213	0.7651	0.7954	0.8086	0.8023	0.7738	0.7263	0.7048	0.6664	0.648	0.7293
55	0.5755	0.6451	0.6644	0.7108	0.7438	0.7583	0.7515	0.7189	0.6667	0.6484	0.6071	0.5876	0.6732
60	0.5091	0.586	0.6035	0.652	0.6875	0.7033	0.696	0.6592	0.6025	0.5883	0.5446	0.524	0.613
65	0.4398	0.5239	0.539	0.5892	0.627	0.6439	0.6363	0.5952	0.5342	0.525	0.4791	0.4576	0.5492
70	0.368	0.4592	0.4714	0.5227	0.5627	0.5807	0.5728	0.5272	0.4623	0.459	0.4112	0.389	0.4822
75	0.2944	0.3926	0.4012	0.4531	0.495	0.5141	0.5059	0.4559	0.3873	0.3908	0.3415	0.3188	0.4126
80	0.2196	0.3244	0.3289	0.381	0.4246	0.4445	0.4361	0.3818	0.3098	0.3209	0.2704	0.2474	0.3408
85	0.144	0.2552	0.2551	0.3067	0.3518	0.3726	0.3641	0.3053	0.2303	0.2499	0.1985	0.1762	0.2675
90	0.1244	0.192	0.1803	0.231	0.2773	0.2989	0.2902	0.2272	0.1495	0.1782	0.1651	0.1668	0.2067

Tabla 25: Azimut de 110°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9911	0.9915	0.9918	0.9913	0.9909	0.9911	0.9915	0.9918	0.9912	0.9911	0.9911	0.9913
5	0.9813	0.9874	0.9938	1.0008	1.0043	1.0056	1.0049	1.0032	0.9976	0.9892	0.9835	0.9807	0.9944
10	0.965	0.9775	0.9896	1.0031	1.0108	1.0137	1.0121	1.0081	0.9965	0.981	0.9697	0.964	0.9909
15	0.9424	0.9617	0.9788	0.9988	1.0106	1.0153	1.0127	1.006	0.9884	0.9666	0.9497	0.9413	0.981
20	0.9134	0.94	0.9615	0.9878	1.0038	1.0103	1.0068	0.9971	0.9733	0.9461	0.9238	0.9127	0.9647
25	0.8785	0.9127	0.9379	0.9704	0.9904	0.9987	0.9943	0.9814	0.9515	0.9197	0.8921	0.8784	0.9422
30	0.8379	0.8798	0.9082	0.9465	0.9706	0.9806	0.9753	0.9589	0.9229	0.8875	0.8548	0.8387	0.9135
35	0.7918	0.8417	0.8726	0.9164	0.9444	0.9562	0.95	0.9299	0.8879	0.8499	0.8124	0.7939	0.8789
40	0.7406	0.7987	0.8313	0.8802	0.9121	0.9256	0.9186	0.8945	0.8465	0.8071	0.765	0.7443	0.8387
45	0.6848	0.751	0.7846	0.8383	0.8738	0.8889	0.8813	0.853	0.7991	0.7595	0.713	0.6903	0.7931
50	0.6246	0.6991	0.7331	0.7909	0.8299	0.8466	0.8383	0.8058	0.7461	0.7073	0.6568	0.6324	0.7426
55	0.5607	0.6434	0.6771	0.7384	0.7807	0.799	0.79	0.7531	0.6879	0.651	0.597	0.5709	0.6874
60	0.4935	0.5842	0.617	0.6812	0.7265	0.7462	0.7367	0.6953	0.6249	0.5911	0.5338	0.5063	0.6281
65	0.4234	0.522	0.5531	0.6198	0.6678	0.6889	0.6788	0.633	0.5576	0.5279	0.4678	0.4391	0.5649
70	0.3511	0.4573	0.486	0.5544	0.605	0.6273	0.6169	0.5664	0.4865	0.462	0.3995	0.3699	0.4985
75	0.277	0.3906	0.4162	0.4857	0.5385	0.562	0.5512	0.4962	0.4122	0.3939	0.3294	0.2991	0.4293
80	0.2018	0.3223	0.3442	0.4142	0.4689	0.4934	0.4824	0.4229	0.3352	0.3241	0.2581	0.2273	0.3579
85	0.1303	0.2531	0.2705	0.3404	0.3967	0.422	0.4108	0.3469	0.256	0.253	0.1861	0.1762	0.2868
90	0.1244	0.192	0.1958	0.2648	0.3223	0.3485	0.3372	0.2689	0.1753	0.1814	0.1651	0.1668	0.2285



Tabla 26: Azimut de 115°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9911	0.9915	0.9918	0.9913	0.9909	0.9911	0.9915	0.9918	0.9912	0.9911	0.9911	0.9913
5	0.9798	0.9872	0.9952	1.0036	1.0081	1.0098	1.0089	1.0068	0.9998	0.9895	0.9824	0.9789	0.9958
10	0.962	0.9772	0.9922	1.0088	1.0184	1.0221	1.02	1.0151	1.0009	0.9815	0.9676	0.9606	0.9939
15	0.9378	0.9612	0.9827	1.0073	1.0219	1.0278	1.0245	1.0165	0.9949	0.9674	0.9466	0.9362	0.9854
20	0.9075	0.9393	0.9667	0.9991	1.0188	1.0268	1.0224	1.011	0.9819	0.9471	0.9197	0.9059	0.9705
25	0.8711	0.9118	0.9443	0.9842	1.0089	1.0191	1.0135	0.9985	0.962	0.921	0.887	0.8701	0.9493
30	0.8291	0.8788	0.9158	0.9628	0.9924	1.0047	0.9981	0.9791	0.9354	0.8891	0.8488	0.8288	0.9219
35	0.7817	0.8406	0.8812	0.9351	0.9694	0.9838	0.9761	0.9531	0.9021	0.8517	0.8055	0.7826	0.8886
40	0.7294	0.7974	0.841	0.9012	0.9401	0.9565	0.9478	0.9205	0.8625	0.8091	0.7572	0.7316	0.8495
45	0.6724	0.7496	0.7953	0.8614	0.9046	0.9229	0.9134	0.8816	0.8167	0.7616	0.7045	0.6764	0.805
50	0.6112	0.6976	0.7446	0.8159	0.8633	0.8834	0.8731	0.8367	0.7651	0.7097	0.6476	0.6172	0.7555
55	0.5464	0.6417	0.6894	0.7652	0.8163	0.8383	0.8272	0.7861	0.7082	0.6536	0.5871	0.5547	0.7012
60	0.4783	0.5824	0.63	0.7095	0.7642	0.7878	0.776	0.7303	0.6464	0.5938	0.5233	0.4891	0.6426
65	0.4075	0.5202	0.5667	0.6493	0.7072	0.7324	0.72	0.6695	0.5802	0.5307	0.4569	0.4212	0.5801
70	0.3346	0.4554	0.5001	0.5851	0.6459	0.6724	0.6595	0.6043	0.5099	0.4649	0.3882	0.3513	0.5143
75	0.2601	0.3886	0.4307	0.5173	0.5805	0.6083	0.5951	0.5352	0.4362	0.3969	0.3178	0.28	0.4456
80	0.1846	0.3204	0.359	0.4464	0.5118	0.5406	0.5271	0.4626	0.3597	0.3271	0.2463	0.2078	0.3744
85	0.1303	0.2511	0.2855	0.3729	0.44	0.4699	0.4561	0.3871	0.2808	0.2561	0.1746	0.1762	0.3067
90	0.1244	0.192	0.2108	0.2975	0.3659	0.3965	0.3826	0.3093	0.2003	0.1844	0.1651	0.1668	0.2496

Tabla 27: Azimut de 120°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9911	0.9915	0.9918	0.9913	0.9909	0.9911	0.9915	0.9918	0.9912	0.9911	0.9911	0.9913
5	0.9783	0.987	0.9964	1.0064	1.0118	1.0138	1.0127	1.0102	1.0019	0.9898	0.9814	0.9773	0.9973
10	0.9591	0.9768	0.9947	1.0143	1.0257	1.0302	1.0276	1.0219	1.0051	0.9821	0.9656	0.9573	0.9967
15	0.9335	0.9607	0.9864	1.0154	1.0328	1.0398	1.0359	1.0266	1.0011	0.9681	0.9436	0.9313	0.9896
20	0.9017	0.9387	0.9716	1.0098	1.0331	1.0426	1.0374	1.0243	0.9901	0.9482	0.9157	0.8995	0.9761
25	0.864	0.911	0.9504	0.9975	1.0266	1.0386	1.032	1.0149	0.9721	0.9222	0.8821	0.862	0.9561
30	0.8207	0.8778	0.923	0.9785	1.0134	1.0278	1.0199	0.9985	0.9473	0.8906	0.843	0.8193	0.93
35	0.7721	0.8395	0.8895	0.9531	0.9934	1.0103	1.0012	0.9753	0.9158	0.8534	0.7988	0.7717	0.8978
40	0.7186	0.7962	0.8503	0.9213	0.967	0.9861	0.9759	0.9453	0.8778	0.811	0.7498	0.7194	0.8599
45	0.6605	0.7483	0.8056	0.8835	0.9342	0.9555	0.9442	0.9089	0.8336	0.7637	0.6963	0.6629	0.8164
50	0.5984	0.6961	0.7557	0.8399	0.8952	0.9187	0.9065	0.8663	0.7834	0.7119	0.6387	0.6027	0.7678
55	0.5326	0.6401	0.7012	0.7908	0.8505	0.876	0.8629	0.8178	0.7278	0.656	0.5776	0.5391	0.7144
60	0.4638	0.5808	0.6424	0.7365	0.8003	0.8277	0.8137	0.7637	0.6671	0.5963	0.5133	0.4727	0.6565
65	0.3923	0.5184	0.5797	0.6776	0.7451	0.7741	0.7595	0.7045	0.6018	0.5334	0.4464	0.404	0.5947
70	0.3188	0.4536	0.5136	0.6144	0.6851	0.7156	0.7004	0.6406	0.5323	0.4677	0.3773	0.3334	0.5294
75	0.2439	0.3868	0.4446	0.5474	0.6208	0.6528	0.6371	0.5725	0.4593	0.3998	0.3066	0.2616	0.4611
80	0.168	0.3185	0.3732	0.4771	0.5529	0.586	0.5699	0.5006	0.3832	0.33	0.2349	0.1891	0.3903
85	0.1303	0.2492	0.2999	0.4041	0.4816	0.5157	0.4995	0.4256	0.3046	0.2591	0.1746	0.1762	0.3267
90	0.1244	0.192	0.2253	0.3288	0.4076	0.4425	0.4262	0.348	0.2242	0.1874	0.1651	0.1668	0.2698



Tabla 28: Azimut de 125°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9911	0.9915	0.9918	0.9913	0.9909	0.9911	0.9915	0.9918	0.9912	0.9911	0.9911	0.9913
5	0.977	0.9869	0.9976	1.009	1.0153	1.0177	1.0163	1.0134	1.0039	0.99	0.9805	0.9757	0.9986
10	0.9563	0.9765	0.9971	1.0195	1.0326	1.0378	1.0349	1.0284	1.009	0.9825	0.9636	0.9542	0.9994
15	0.9293	0.9602	0.99	1.0232	1.0431	1.0512	1.0467	1.0362	1.007	0.9689	0.9407	0.9266	0.9936
20	0.8963	0.9381	0.9763	1.02	1.0468	1.0577	1.0516	1.0369	0.9979	0.9491	0.9119	0.8933	0.9813
25	0.8573	0.9102	0.9563	1.0101	1.0435	1.0572	1.0496	1.0305	0.9817	0.9234	0.8774	0.8544	0.9626
30	0.8127	0.8769	0.9299	0.9934	1.0333	1.0498	1.0407	1.0169	0.9586	0.892	0.8375	0.8103	0.9377
35	0.763	0.8384	0.8974	0.9702	1.0162	1.0354	1.025	0.9964	0.9287	0.855	0.7925	0.7613	0.9066
40	0.7083	0.795	0.8591	0.9404	0.9925	1.0143	1.0025	0.969	0.8923	0.8128	0.7427	0.7078	0.8697
45	0.6492	0.747	0.8153	0.9045	0.9622	0.9865	0.9735	0.9349	0.8496	0.7657	0.6885	0.6502	0.8273
50	0.5861	0.6947	0.7663	0.8626	0.9256	0.9523	0.9382	0.8944	0.8007	0.7141	0.6303	0.5888	0.7795
55	0.5195	0.6386	0.7124	0.815	0.883	0.9119	0.8968	0.8478	0.7463	0.6583	0.5686	0.5243	0.7269
60	0.4499	0.5792	0.6543	0.7622	0.8347	0.8656	0.8496	0.7955	0.6866	0.5988	0.5038	0.4571	0.6698
65	0.3779	0.5167	0.5921	0.7045	0.781	0.8137	0.7969	0.7377	0.6222	0.536	0.4364	0.3876	0.6086
70	0.3038	0.4519	0.5265	0.6423	0.7223	0.7567	0.7393	0.6751	0.5535	0.4704	0.367	0.3165	0.5438
75	0.2285	0.385	0.4578	0.5761	0.6591	0.695	0.677	0.6079	0.4811	0.4025	0.296	0.2442	0.4758
80	0.1523	0.3166	0.3867	0.5063	0.5919	0.629	0.6106	0.5368	0.4054	0.3328	0.224	0.1856	0.4065
85	0.1303	0.2474	0.3135	0.4336	0.5211	0.5592	0.5406	0.4622	0.3271	0.2619	0.1746	0.1762	0.3456
90	0.1244	0.192	0.239	0.3584	0.4472	0.4862	0.4675	0.3847	0.2468	0.1902	0.1651	0.1668	0.289

Tabla 29: Azimut de 130°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9911	0.9915	0.9918	0.9913	0.9909	0.9911	0.9915	0.9918	0.9912	0.9911	0.9911	0.9913
5	0.9756	0.9867	0.9988	1.0115	1.0186	1.0213	1.0197	1.0165	1.0058	0.9902	0.9796	0.9742	0.9999
10	0.9537	0.9762	0.9994	1.0244	1.0391	1.045	1.0417	1.0344	1.0128	0.983	0.9618	0.9512	1.0019
15	0.9255	0.9598	0.9933	1.0305	1.0528	1.0619	1.0568	1.0452	1.0126	0.9696	0.9381	0.9222	0.9974
20	0.8911	0.9375	0.9808	1.0297	1.0596	1.0718	1.065	1.0488	1.0052	0.95	0.9084	0.8875	0.9863
25	0.8509	0.9095	0.9617	1.022	1.0593	1.0747	1.0661	1.0451	0.9907	0.9245	0.8731	0.8472	0.9687
30	0.8052	0.8761	0.9364	1.0074	1.052	1.0704	1.0602	1.0343	0.9692	0.8933	0.8324	0.8018	0.9449
35	0.7543	0.8374	0.9049	0.9862	1.0377	1.0591	1.0474	1.0162	0.9409	0.8565	0.7866	0.7516	0.9149
40	0.6987	0.7939	0.8675	0.9584	1.0165	1.0408	1.0276	0.9912	0.9059	0.8145	0.736	0.6969	0.879
45	0.6386	0.7457	0.8245	0.9242	0.9886	1.0156	1.0011	0.9593	0.8646	0.7676	0.6812	0.6382	0.8374
50	0.5746	0.6934	0.7762	0.8839	0.9542	0.9838	0.968	0.9208	0.817	0.7161	0.6224	0.5758	0.7905
55	0.5072	0.6372	0.723	0.8378	0.9135	0.9455	0.9286	0.876	0.7636	0.6605	0.5601	0.5104	0.7386
60	0.4369	0.5777	0.6654	0.7863	0.8669	0.9011	0.8832	0.8253	0.705	0.6011	0.4948	0.4424	0.6822
65	0.3642	0.5152	0.6038	0.7297	0.8147	0.8509	0.8321	0.7689	0.6414	0.5384	0.427	0.3722	0.6215
70	0.2897	0.4502	0.5386	0.6684	0.7572	0.7953	0.7758	0.7074	0.5734	0.4729	0.3573	0.3005	0.5572
75	0.214	0.3833	0.4702	0.6029	0.695	0.7346	0.7145	0.6411	0.5015	0.405	0.286	0.2278	0.4897
80	0.1375	0.315	0.3993	0.5337	0.6285	0.6694	0.6489	0.5706	0.4263	0.3354	0.2138	0.1856	0.422
85	0.1303	0.2456	0.3263	0.4613	0.5581	0.6001	0.5793	0.4964	0.3482	0.2645	0.1746	0.1762	0.3634
90	0.1244	0.192	0.2519	0.3863	0.4844	0.5272	0.5063	0.4191	0.268	0.1929	0.1651	0.1668	0.307



Tabla 30: Azimut de 135°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9911	0.9915	0.9918	0.9913	0.9909	0.9911	0.9915	0.9918	0.9912	0.9911	0.9911	0.9913
5	0.9744	0.9866	0.9998	1.0138	1.0216	1.0247	1.0229	1.0193	1.0076	0.9905	0.9787	0.9729	1.0011
10	0.9513	0.9759	1.0014	1.0289	1.0452	1.0517	1.048	1.04	1.0162	0.9834	0.9602	0.9485	1.0042
15	0.9219	0.9594	0.9965	1.0372	1.0619	1.0719	1.0662	1.0536	1.0177	0.9702	0.9356	0.9181	1.0008
20	0.8863	0.9369	0.9849	1.0386	1.0715	1.085	1.0774	1.0598	1.012	0.9509	0.9051	0.8821	0.9909
25	0.845	0.9088	0.9668	1.033	1.074	1.0909	1.0814	1.0588	0.9991	0.9256	0.869	0.8406	0.9744
30	0.7983	0.8753	0.9424	1.0204	1.0693	1.0896	1.0784	1.0503	0.9791	0.8945	0.8276	0.7939	0.9516
35	0.7463	0.8365	0.9118	1.0011	1.0576	1.081	1.0681	1.0346	0.9522	0.8579	0.7811	0.7425	0.9226
40	0.6897	0.7928	0.8752	0.975	1.0388	1.0654	1.0508	1.0118	0.9185	0.8161	0.7299	0.6867	0.8876
45	0.6287	0.7446	0.833	0.9425	1.0131	1.0426	1.0266	0.9819	0.8784	0.7693	0.6744	0.627	0.8468
50	0.5639	0.6922	0.7854	0.9037	0.9807	1.0131	0.9957	0.9453	0.832	0.718	0.615	0.5637	0.8007
55	0.4958	0.6359	0.7329	0.859	0.9418	0.9768	0.9582	0.9022	0.7797	0.6625	0.5522	0.4975	0.7495
60	0.4248	0.5763	0.6757	0.8086	0.8968	0.9342	0.9145	0.8529	0.7219	0.6032	0.4865	0.4287	0.6937
65	0.3516	0.5137	0.6146	0.753	0.846	0.8855	0.8648	0.7978	0.6592	0.5406	0.4183	0.3579	0.6336
70	0.2766	0.4487	0.5498	0.6926	0.7897	0.8311	0.8096	0.7373	0.5918	0.4752	0.3482	0.2857	0.5697
75	0.2005	0.3818	0.4818	0.6278	0.7283	0.7714	0.7493	0.6719	0.5205	0.4074	0.2767	0.2125	0.5025
80	0.1362	0.3134	0.4111	0.5591	0.6624	0.7069	0.6843	0.602	0.4456	0.3378	0.2044	0.1856	0.4374
85	0.1303	0.244	0.3382	0.487	0.5925	0.638	0.6151	0.5282	0.3678	0.267	0.1746	0.1762	0.3799
90	0.1244	0.192	0.2638	0.412	0.5189	0.5653	0.5423	0.451	0.2876	0.1953	0.1651	0.1668	0.3237

Tabla 31: Azimut de 140°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9911	0.9915	0.9918	0.9913	0.9909	0.9911	0.9915	0.9918	0.9912	0.9911	0.9911	0.9913
5	0.9733	0.9864	1.0008	1.0159	1.0244	1.0277	1.0258	1.0219	1.0092	0.9907	0.978	0.9716	1.0021
10	0.9491	0.9757	1.0034	1.0331	1.0508	1.0578	1.0538	1.0452	1.0194	0.9838	0.9586	0.946	1.0064
15	0.9185	0.959	0.9993	1.0434	1.0701	1.081	1.0748	1.0612	1.0224	0.9708	0.9333	0.9144	1.004
20	0.882	0.9364	0.9887	1.0467	1.0824	1.097	1.0888	1.0699	1.0182	0.9516	0.9021	0.8771	0.9951
25	0.8396	0.9082	0.9715	1.043	1.0874	1.1057	1.0955	1.0712	1.0067	0.9265	0.8653	0.8345	0.9796
30	0.7919	0.8745	0.9479	1.0323	1.0852	1.1071	1.095	1.065	0.9881	0.8957	0.8231	0.7867	0.9577
35	0.739	0.8357	0.9181	1.0147	1.0758	1.1012	1.0871	1.0515	0.9624	0.8592	0.776	0.7342	0.9296
40	0.6815	0.7919	0.8823	0.9902	1.0592	1.0879	1.0721	1.0306	0.93	0.8176	0.7242	0.6774	0.8954
45	0.6197	0.7436	0.8408	0.9592	1.0355	1.0674	1.05	1.0026	0.891	0.7709	0.6681	0.6168	0.8555
50	0.5542	0.691	0.7939	0.9218	1.0049	1.0399	1.021	0.9677	0.8457	0.7197	0.6083	0.5527	0.8101
55	0.4853	0.6347	0.7419	0.8783	0.9677	1.0055	0.9853	0.9261	0.7944	0.6643	0.545	0.4856	0.7595
60	0.4138	0.575	0.6853	0.829	0.9242	0.9644	0.9431	0.8782	0.7374	0.6052	0.4789	0.4162	0.7042
65	0.34	0.5124	0.6245	0.7743	0.8746	0.9171	0.8947	0.8242	0.6753	0.5427	0.4103	0.3448	0.6446
70	0.2646	0.4473	0.56	0.7147	0.8193	0.8639	0.8406	0.7647	0.6086	0.4773	0.3399	0.2721	0.5811
75	0.1881	0.3804	0.4923	0.6505	0.7588	0.8051	0.7812	0.7	0.5377	0.4096	0.2682	0.1986	0.5142
80	0.1362	0.3119	0.4218	0.5822	0.6935	0.7412	0.7168	0.6307	0.4632	0.3401	0.1957	0.1856	0.4516
85	0.1303	0.2426	0.3491	0.5104	0.6239	0.6727	0.6479	0.5572	0.3856	0.2692	0.1746	0.1762	0.395
90	0.1244	0.192	0.2747	0.4355	0.5504	0.6001	0.5752	0.4801	0.3055	0.1976	0.1651	0.1668	0.3389



Tabla 32: Azimut de 145°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9911	0.9915	0.9918	0.9913	0.9909	0.9911	0.9915	0.9918	0.9912	0.9911	0.9911	0.9913
5	0.9723	0.9863	1.0016	1.0177	1.0269	1.0305	1.0285	1.0242	1.0106	0.9908	0.9773	0.9705	1.0031
10	0.9471	0.9755	1.0051	1.0369	1.0558	1.0634	1.059	1.0498	1.0223	0.9842	0.9573	0.9437	1.0083
15	0.9156	0.9586	1.0019	1.049	1.0776	1.0892	1.0826	1.0681	1.0267	0.9713	0.9312	0.911	1.0069
20	0.878	0.936	0.9921	1.0541	1.0922	1.1078	1.099	1.079	1.0238	0.9523	0.8994	0.8727	0.9989
25	0.8348	0.9076	0.9757	1.0521	1.0996	1.1191	1.1081	1.0824	1.0136	0.9274	0.8619	0.8289	0.9843
30	0.7861	0.8739	0.9529	1.043	1.0996	1.1229	1.1099	1.0783	0.9962	0.8967	0.8192	0.7802	0.9632
35	0.7324	0.8349	0.9238	1.0269	1.0922	1.1193	1.1043	1.0666	0.9717	0.8604	0.7714	0.7268	0.9359
40	0.6741	0.791	0.8887	1.0039	1.0775	1.1082	1.0913	1.0476	0.9403	0.8189	0.7191	0.6691	0.9025
45	0.6115	0.7426	0.8478	0.9742	1.0557	1.0897	1.0711	1.0212	0.9023	0.7724	0.6625	0.6076	0.8632
50	0.5453	0.69	0.8015	0.938	1.0268	1.064	1.0438	0.9878	0.8579	0.7213	0.6022	0.5427	0.8184
55	0.4759	0.6336	0.75	0.8956	0.9911	1.0312	1.0096	0.9476	0.8075	0.666	0.5385	0.475	0.7685
60	0.4038	0.5739	0.6939	0.8473	0.9488	0.9917	0.9688	0.9009	0.7513	0.6069	0.472	0.4049	0.7137
65	0.3296	0.5112	0.6334	0.7935	0.9004	0.9456	0.9216	0.848	0.6899	0.5445	0.4031	0.333	0.6545
70	0.2538	0.4461	0.5692	0.7345	0.846	0.8934	0.8685	0.7893	0.6236	0.4792	0.3325	0.2599	0.5913
75	0.177	0.3791	0.5018	0.6708	0.7862	0.8354	0.8098	0.7253	0.5531	0.4116	0.2605	0.1948	0.5255
80	0.1362	0.3106	0.4315	0.603	0.7214	0.7721	0.746	0.6564	0.4789	0.3421	0.1879	0.1856	0.4643
85	0.1303	0.2413	0.3589	0.5314	0.6521	0.7039	0.6774	0.5832	0.4015	0.2712	0.1746	0.1762	0.4085
90	0.1244	0.192	0.2846	0.4566	0.5788	0.6313	0.6048	0.5062	0.3215	0.1996	0.1651	0.1668	0.3526

Tabla 33: Azimut de 150°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9911	0.9915	0.9918	0.9913	0.9909	0.9911	0.9915	0.9918	0.9912	0.9911	0.9911	0.9913
5	0.9714	0.9862	1.0024	1.0194	1.0291	1.033	1.0308	1.0263	1.0119	0.991	0.9767	0.9695	1.004
10	0.9453	0.9753	1.0066	1.0402	1.0602	1.0682	1.0636	1.0539	1.0248	0.9845	0.9561	0.9417	1.01
15	0.9129	0.9583	1.0042	1.0539	1.0842	1.0964	1.0895	1.0742	1.0304	0.9718	0.9294	0.908	1.0094
20	0.8746	0.9356	0.9951	1.0606	1.1009	1.1174	1.1081	1.0871	1.0287	0.953	0.897	0.8687	1.0022
25	0.8305	0.9071	0.9794	1.0601	1.1103	1.1309	1.1193	1.0923	1.0196	0.9282	0.859	0.8241	0.9884
30	0.781	0.8733	0.9573	1.0525	1.1122	1.1369	1.1231	1.09	1.0033	0.8976	0.8157	0.7744	0.9681
35	0.7266	0.8342	0.9288	1.0377	1.1067	1.1353	1.1194	1.08	0.9798	0.8614	0.7674	0.7202	0.9415
40	0.6675	0.7903	0.8943	1.016	1.0937	1.1261	1.1082	1.0625	0.9494	0.82	0.7146	0.6617	0.9087
45	0.6044	0.7418	0.854	0.9875	1.0735	1.1094	1.0897	1.0377	0.9122	0.7737	0.6576	0.5994	0.8701
50	0.5375	0.6891	0.8082	0.9523	1.046	1.0853	1.0639	1.0056	0.8686	0.7227	0.5968	0.5339	0.8258
55	0.4676	0.6327	0.7572	0.9109	1.0116	1.054	1.0311	0.9666	0.8189	0.6675	0.5328	0.4655	0.7764
60	0.395	0.5729	0.7015	0.8634	0.9705	1.0157	0.9915	0.9209	0.7635	0.6085	0.4659	0.3949	0.722
65	0.3203	0.5101	0.6414	0.8103	0.9231	0.9708	0.9454	0.8689	0.7026	0.5461	0.3968	0.3226	0.6632
70	0.2442	0.445	0.5774	0.7519	0.8696	0.9195	0.8931	0.8109	0.6368	0.4809	0.3259	0.249	0.6004
75	0.1672	0.3779	0.5101	0.6887	0.8104	0.8622	0.8351	0.7475	0.5667	0.4133	0.2538	0.1948	0.5356
80	0.1362	0.3095	0.44	0.6212	0.746	0.7994	0.7717	0.6791	0.4927	0.3438	0.184	0.1856	0.4758
85	0.1303	0.2401	0.3675	0.5498	0.677	0.7314	0.7035	0.6061	0.4154	0.273	0.1746	0.1762	0.4204
90	0.1244	0.192	0.2932	0.4751	0.6037	0.6589	0.6308	0.5292	0.3355	0.2014	0.1651	0.1668	0.3647



Tabla 34: Azimut de 150°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9911	0.9915	0.9918	0.9913	0.9909	0.9911	0.9915	0.9918	0.9912	0.9911	0.9911	0.9913
5	0.9707	0.9861	1.0031	1.0208	1.0311	1.0351	1.0328	1.0281	1.013	0.9911	0.9761	0.9686	1.0047
10	0.9438	0.9751	1.0079	1.043	1.064	1.0724	1.0676	1.0574	1.027	0.9848	0.955	0.94	1.0115
15	0.9107	0.9581	1.0061	1.0582	1.0898	1.1027	1.0954	1.0795	1.0336	0.9722	0.9279	0.9055	1.0116
20	0.8716	0.9352	0.9977	1.0662	1.1083	1.1256	1.1158	1.094	1.0329	0.9535	0.8949	0.8654	1.0051
25	0.8268	0.9067	0.9826	1.067	1.1194	1.1411	1.1289	1.1008	1.0248	0.9288	0.8564	0.8199	0.9919
30	0.7766	0.8728	0.961	1.0606	1.123	1.1489	1.1344	1.1	1.0094	0.8983	0.8127	0.7695	0.9723
35	0.7215	0.8337	0.9332	1.047	1.1191	1.149	1.1324	1.0915	0.9868	0.8623	0.764	0.7145	0.9462
40	0.6619	0.7896	0.8992	1.0264	1.1076	1.1414	1.1228	1.0754	0.9572	0.821	0.7107	0.6553	0.914
45	0.5982	0.7411	0.8594	0.9988	1.0887	1.1263	1.1057	1.0517	0.9208	0.7747	0.6533	0.5924	0.8759
50	0.5308	0.6884	0.814	0.9646	1.0626	1.1036	1.0812	1.0208	0.8778	0.7239	0.5922	0.5263	0.8322
55	0.4604	0.6318	0.7634	0.924	1.0293	1.0735	1.0496	0.9828	0.8287	0.6687	0.5278	0.4574	0.7831
60	0.3874	0.572	0.708	0.8772	0.9892	1.0364	1.011	0.938	0.7737	0.6098	0.4607	0.3864	0.7292
65	0.3124	0.5092	0.6482	0.8247	0.9426	0.9924	0.9658	0.8868	0.7134	0.5475	0.3913	0.3136	0.6707
70	0.236	0.4441	0.5845	0.7668	0.8897	0.9419	0.9143	0.8295	0.6481	0.4824	0.3202	0.2398	0.6081
75	0.1587	0.377	0.5173	0.704	0.8311	0.8852	0.8568	0.7665	0.5782	0.4148	0.2479	0.1948	0.5444
80	0.1362	0.3085	0.4473	0.6367	0.7672	0.8228	0.7938	0.6984	0.5044	0.3454	0.184	0.1856	0.4859
85	0.1303	0.2391	0.3749	0.5655	0.6983	0.7551	0.7258	0.6257	0.4273	0.2746	0.1746	0.1762	0.4306
90	0.1244	0.192	0.3006	0.4909	0.6251	0.6826	0.6532	0.5488	0.3474	0.203	0.1651	0.1668	0.375

Tabla 35: Azimut de 160°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9911	0.9915	0.9918	0.9913	0.9909	0.9911	0.9915	0.9918	0.9912	0.9911	0.9911	0.9913
5	0.97	0.9861	1.0036	1.022	1.0326	1.0368	1.0344	1.0295	1.0139	0.9912	0.9757	0.9679	1.0053
10	0.9425	0.9749	1.009	1.0454	1.0671	1.0759	1.0709	1.0603	1.0288	0.985	0.9541	0.9386	1.0127
15	0.9088	0.9579	1.0077	1.0617	1.0945	1.1078	1.1002	1.0838	1.0363	0.9725	0.9266	0.9034	1.0134
20	0.8691	0.9349	0.9998	1.0708	1.1145	1.1324	1.1223	1.0997	1.0364	0.9539	0.8932	0.8626	1.0075
25	0.8237	0.9064	0.9852	1.0727	1.1271	1.1495	1.1368	1.1079	1.0291	0.9293	0.8543	0.8164	0.9949
30	0.773	0.8724	0.9642	1.0673	1.132	1.1588	1.1438	1.1083	1.0145	0.899	0.8102	0.7654	0.9757
35	0.7174	0.8332	0.9367	1.0547	1.1294	1.1604	1.1431	1.101	0.9926	0.8631	0.7611	0.7098	0.9502
40	0.6572	0.7891	0.9032	1.0349	1.1191	1.1542	1.1348	1.086	0.9636	0.8218	0.7075	0.6501	0.9185
45	0.5931	0.7405	0.8638	1.0082	1.1014	1.1403	1.1189	1.0634	0.9278	0.7757	0.6498	0.5866	0.8808
50	0.5253	0.6877	0.8188	0.9748	1.0762	1.1187	1.0955	1.0334	0.8854	0.7248	0.5884	0.52	0.8374
55	0.4545	0.6312	0.7685	0.9348	1.0439	1.0897	1.0649	0.9963	0.8368	0.6698	0.5237	0.4507	0.7887
60	0.3811	0.5713	0.7134	0.8886	1.0046	1.0535	1.0272	0.9522	0.7822	0.6109	0.4564	0.3793	0.7351
65	0.3059	0.5085	0.6539	0.8366	0.9587	1.0103	0.9827	0.9016	0.7222	0.5487	0.3868	0.3062	0.6768
70	0.2292	0.4433	0.5904	0.7791	0.9065	0.9605	0.9318	0.8448	0.6572	0.4836	0.3155	0.2321	0.6145
75	0.1517	0.3762	0.5233	0.7166	0.8483	0.9043	0.8748	0.7822	0.5877	0.416	0.2431	0.1948	0.5516
80	0.1362	0.3077	0.4533	0.6496	0.7847	0.8423	0.8122	0.7144	0.514	0.3466	0.184	0.1856	0.4942
85	0.1303	0.2383	0.381	0.5785	0.716	0.7748	0.7443	0.6418	0.437	0.2758	0.1746	0.1762	0.4391
90	0.1244	0.192	0.3067	0.5039	0.6428	0.7022	0.6718	0.565	0.3571	0.2043	0.1651	0.1668	0.3835



Tabla 36: Azimut de 165°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9911	0.9915	0.9918	0.9913	0.9909	0.9911	0.9915	0.9918	0.9912	0.9911	0.9911	0.9913
5	0.9695	0.986	1.004	1.023	1.0339	1.0382	1.0357	1.0307	1.0146	0.9913	0.9754	0.9673	1.0058
10	0.9415	0.9748	1.0099	1.0472	1.0696	1.0786	1.0734	1.0626	1.0302	0.9852	0.9535	0.9374	1.0137
15	0.9073	0.9577	1.009	1.0644	1.0982	1.1119	1.1041	1.0872	1.0384	0.9728	0.9256	0.9017	1.0148
20	0.8671	0.9347	1.0015	1.0744	1.1194	1.1378	1.1273	1.1041	1.0392	0.9543	0.8919	0.8603	1.0093
25	0.8213	0.9061	0.9873	1.0771	1.133	1.1561	1.1431	1.1134	1.0325	0.9298	0.8527	0.8137	0.9972
30	0.7702	0.872	0.9666	1.0725	1.1391	1.1666	1.1512	1.1148	1.0185	0.8995	0.8082	0.7622	0.9784
35	0.7141	0.8328	0.9396	1.0607	1.1375	1.1693	1.1516	1.1085	0.9971	0.8636	0.7589	0.7061	0.9533
40	0.6536	0.7887	0.9064	1.0417	1.1282	1.1642	1.1443	1.0943	0.9687	0.8225	0.705	0.6459	0.9219
45	0.589	0.74	0.8672	1.0156	1.1113	1.1513	1.1293	1.0726	0.9333	0.7764	0.647	0.5821	0.8846
50	0.5209	0.6872	0.8225	0.9827	1.087	1.1306	1.1068	1.0433	0.8914	0.7256	0.5854	0.5151	0.8415
55	0.4498	0.6306	0.7725	0.9433	1.0554	1.1025	1.0769	1.0068	0.8431	0.6706	0.5205	0.4455	0.7931
60	0.3762	0.5707	0.7177	0.8976	1.0168	1.067	1.0399	0.9633	0.7888	0.6118	0.453	0.3737	0.7397
65	0.3007	0.5079	0.6583	0.8459	0.9714	1.0244	0.996	0.9132	0.7291	0.5496	0.3832	0.3004	0.6817
70	0.2238	0.4427	0.595	0.7887	0.9196	0.9751	0.9456	0.8568	0.6643	0.4845	0.3118	0.226	0.6195
75	0.1462	0.3755	0.5281	0.7264	0.8618	0.9194	0.889	0.7945	0.5949	0.417	0.2393	0.1948	0.5573
80	0.1362	0.307	0.4582	0.6596	0.7985	0.8577	0.8267	0.7269	0.5214	0.3476	0.184	0.1856	0.5008
85	0.1303	0.2376	0.3858	0.5886	0.73	0.7904	0.759	0.6545	0.4445	0.2769	0.1746	0.1762	0.4457
90	0.1244	0.192	0.3115	0.514	0.6568	0.7348	0.6864	0.5777	0.3646	0.2053	0.1651	0.1668	0.3916

Tabla 37: Azimut de 170°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9911	0.9915	0.9918	0.9913	0.9909	0.9911	0.9915	0.9918	0.9912	0.9911	0.9911	0.9913
5	0.9692	0.986	1.0043	1.0236	1.0348	1.0392	1.0366	1.0315	1.0151	0.9914	0.9751	0.9669	1.0061
10	0.9408	0.9747	1.0105	1.0486	1.0714	1.0806	1.0753	1.0643	1.0312	0.9853	0.953	0.9366	1.0144
15	0.9063	0.9576	1.0099	1.0664	1.1008	1.1148	1.1068	1.0896	1.0399	0.973	0.9248	0.9005	1.0159
20	0.8657	0.9346	1.0027	1.077	1.1228	1.1416	1.131	1.1074	1.0412	0.9545	0.8909	0.8588	1.0107
25	0.8196	0.9059	0.9888	1.0803	1.1373	1.1608	1.1476	1.1174	1.035	0.9301	0.8515	0.8118	0.9988
30	0.7681	0.8718	0.9684	1.0763	1.1442	1.1722	1.1565	1.1195	1.0213	0.8998	0.8068	0.7599	0.9804
35	0.7118	0.8325	0.9416	1.065	1.1433	1.1758	1.1577	1.1138	1.0004	0.864	0.7572	0.7034	0.9555
40	0.651	0.7884	0.9086	1.0465	1.1347	1.1714	1.1511	1.1003	0.9723	0.823	0.7032	0.6429	0.9244
45	0.5861	0.7397	0.8697	1.0209	1.1185	1.1592	1.1368	1.0791	0.9373	0.7769	0.645	0.5788	0.8873
50	0.5178	0.6869	0.8252	0.9885	1.0947	1.1392	1.1149	1.0504	0.8956	0.7262	0.5832	0.5116	0.8445
55	0.4465	0.6302	0.7754	0.9494	1.0637	1.1116	1.0855	1.0144	0.8476	0.6712	0.5182	0.4417	0.7963
60	0.3727	0.5703	0.7207	0.904	1.0255	1.0767	1.049	0.9713	0.7936	0.6124	0.4505	0.3697	0.743
65	0.297	0.5075	0.6615	0.8526	0.9805	1.0346	1.0055	0.9215	0.734	0.5503	0.3807	0.2962	0.6851
70	0.22	0.4422	0.5983	0.7956	0.9291	0.9856	0.9555	0.8654	0.6693	0.4852	0.3092	0.2217	0.6231
75	0.1423	0.3751	0.5315	0.7335	0.8716	0.9303	0.8992	0.8034	0.6	0.4177	0.2366	0.1948	0.5613
80	0.1362	0.3066	0.4617	0.6667	0.8085	0.8689	0.8372	0.7359	0.5266	0.3483	0.184	0.1856	0.5055
85	0.1303	0.2372	0.3893	0.5957	0.7402	0.8189	0.7698	0.6636	0.4496	0.2776	0.1746	0.1762	0.4519
90	0.1244	0.192	0.315	0.5212	0.667	0.7465	0.7112	0.5868	0.3698	0.206	0.1651	0.1668	0.3976



Tabla 38: Azimut de 175°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9911	0.9915	0.9918	0.9913	0.9909	0.9911	0.9915	0.9918	0.9912	0.9911	0.9911	0.9913
5	0.969	0.9859	1.0045	1.024	1.0353	1.0397	1.0372	1.032	1.0154	0.9914	0.975	0.9667	1.0064
10	0.9404	0.9747	1.0108	1.0494	1.0724	1.0817	1.0764	1.0653	1.0318	0.9854	0.9527	0.9362	1.0148
15	0.9056	0.9575	1.0105	1.0676	1.1024	1.1166	1.1085	1.0911	1.0408	0.9731	0.9244	0.8998	1.0165
20	0.8649	0.9345	1.0034	1.0786	1.1249	1.1439	1.1332	1.1093	1.0424	0.9547	0.8903	0.8578	1.0115
25	0.8185	0.9058	0.9897	1.0823	1.1399	1.1637	1.1503	1.1198	1.0364	0.9303	0.8507	0.8106	0.9998
30	0.7669	0.8717	0.9694	1.0786	1.1472	1.1756	1.1597	1.1223	1.0231	0.9001	0.8059	0.7585	0.9816
35	0.7104	0.8324	0.9428	1.0676	1.1468	1.1796	1.1613	1.1171	1.0024	0.8643	0.7563	0.7018	0.9569
40	0.6494	0.7882	0.91	1.0494	1.1386	1.1757	1.1552	1.104	0.9745	0.8232	0.7021	0.6411	0.926
45	0.5844	0.7395	0.8713	1.0241	1.1228	1.164	1.1413	1.0831	0.9397	0.7772	0.6438	0.5768	0.889
50	0.5159	0.6866	0.8269	0.9919	1.0994	1.1444	1.1197	1.0547	0.8982	0.7265	0.5819	0.5094	0.8463
55	0.4444	0.63	0.7772	0.953	1.0686	1.1172	1.0907	1.0189	0.8503	0.6716	0.5168	0.4394	0.7982
60	0.3705	0.57	0.7226	0.9078	1.0307	1.0825	1.0545	0.9761	0.7964	0.6128	0.4491	0.3673	0.745
65	0.2947	0.5072	0.6635	0.8566	0.986	1.0407	1.0113	0.9265	0.7369	0.5507	0.3791	0.2936	0.6872
70	0.2177	0.442	0.6003	0.7998	0.9348	0.992	0.9615	0.8706	0.6723	0.4856	0.3076	0.219	0.6253
75	0.142	0.3748	0.5336	0.7377	0.8775	0.9369	0.9055	0.8087	0.603	0.4181	0.235	0.1948	0.564
80	0.1362	0.3063	0.4638	0.671	0.8145	0.8758	0.8436	0.7414	0.5296	0.3488	0.184	0.1856	0.5084
85	0.1303	0.2369	0.3914	0.6001	0.7464	0.8259	0.7903	0.6691	0.4526	0.278	0.1746	0.1762	0.456
90	0.1244	0.192	0.3171	0.5255	0.6845	0.7536	0.7178	0.5925	0.3727	0.2064	0.1651	0.1668	0.4015

Tabla 39: Azimut de 180°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9911	0.9915	0.9918	0.9913	0.9909	0.9911	0.9915	0.9918	0.9912	0.9911	0.9911	0.9913
5	0.9689	0.9859	1.0046	1.0242	1.0355	1.0399	1.0374	1.0322	1.0155	0.9914	0.9749	0.9666	1.0064
10	0.9402	0.9747	1.011	1.0496	1.0728	1.0821	1.0768	1.0656	1.032	0.9854	0.9526	0.936	1.0149
15	0.9054	0.9575	1.0107	1.068	1.1029	1.1172	1.109	1.0916	1.0411	0.9731	0.9242	0.8995	1.0167
20	0.8646	0.9344	1.0037	1.0791	1.1256	1.1447	1.1339	1.11	1.0428	0.9547	0.8901	0.8575	1.0118
25	0.8182	0.9057	0.99	1.0829	1.1408	1.1646	1.1512	1.1206	1.0369	0.9303	0.8505	0.8102	1.0002
30	0.7665	0.8716	0.9698	1.0794	1.1483	1.1767	1.1608	1.1233	1.0236	0.9001	0.8057	0.758	0.982
35	0.7099	0.8323	0.9432	1.0685	1.148	1.1809	1.1625	1.1181	1.003	0.8644	0.7559	0.7013	0.9573
40	0.6488	0.7881	0.9105	1.0504	1.1399	1.1772	1.1565	1.1052	0.9752	0.8233	0.7017	0.6405	0.9265
45	0.5838	0.7394	0.8718	1.0252	1.1242	1.1656	1.1428	1.0844	0.9405	0.7773	0.6434	0.5762	0.8895
50	0.5153	0.6866	0.8274	0.9931	1.101	1.1461	1.1214	1.0561	0.8991	0.7266	0.5815	0.5087	0.8469
55	0.4437	0.6299	0.7778	0.9543	1.0703	1.119	1.0925	1.0205	0.8512	0.6717	0.5164	0.4386	0.7988
60	0.3698	0.57	0.7232	0.9091	1.0325	1.0845	1.0564	0.9777	0.7974	0.6129	0.4486	0.3665	0.7457
65	0.294	0.5071	0.6641	0.8579	0.9879	1.0427	1.0133	0.9282	0.7379	0.5508	0.3786	0.2928	0.6879
70	0.2169	0.4419	0.601	0.8011	0.9367	0.9942	0.9635	0.8723	0.6733	0.4857	0.3071	0.2182	0.626
75	0.142	0.3747	0.5343	0.7391	0.8794	0.9391	0.9075	0.8105	0.604	0.4183	0.2344	0.1948	0.5649
80	0.1362	0.3062	0.4645	0.6724	0.8166	0.8781	0.8458	0.7432	0.5306	0.3489	0.184	0.1856	0.5093
85	0.1303	0.2368	0.3921	0.6015	0.7485	0.8283	0.7925	0.6709	0.4536	0.2782	0.1746	0.1762	0.457
90	0.1244	0.192	0.3178	0.5269	0.6866	0.7559	0.72	0.5944	0.3736	0.2066	0.1651	0.1668	0.4025