Olancho, Honduras

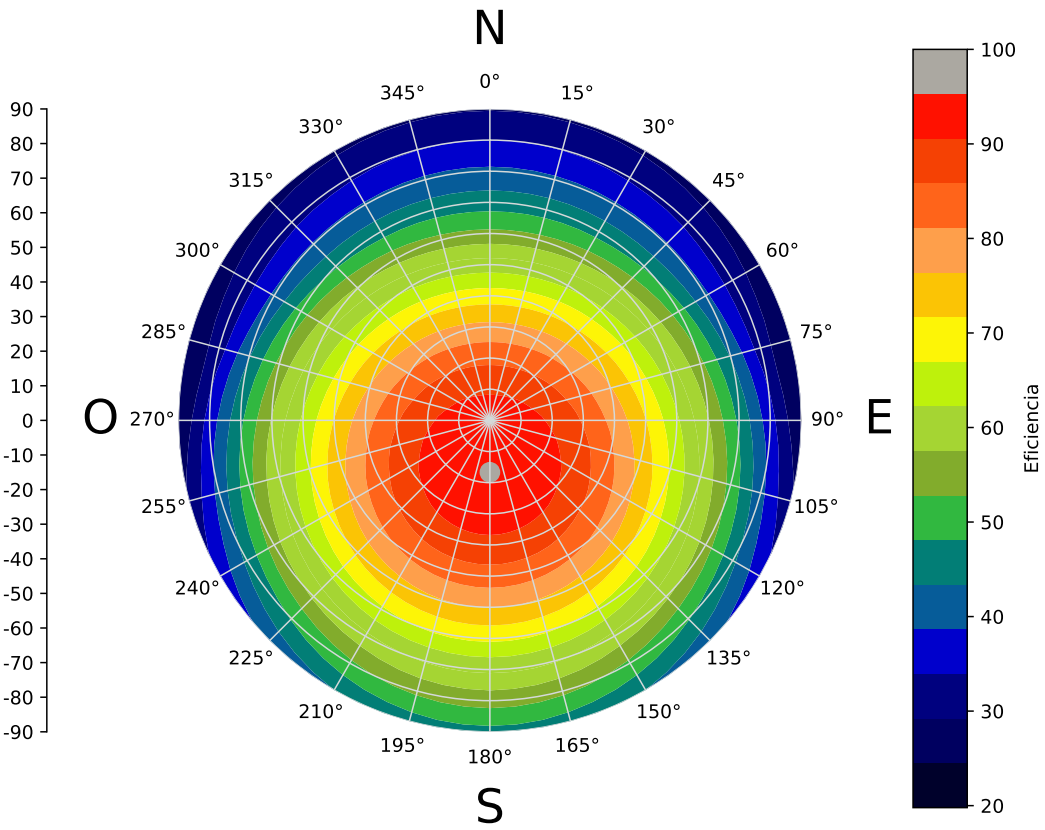

Tabla 1: Generalidades

Latitud	14.67109613028814
Longitud	-86.21893823146821
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	4.7925	11.7902	0.523	0.1393	-20.8472	84.2731
Febrero	4.9786	11.2779	0.5121	0.1284	-13.3253	86.4365
Marzo	5.4625	9.6925	0.5316	0.1392	-2.3892	89.3716
Abril	5.6767	9.7741	0.5392	0.144	9.4932	92.5173
Mayo	5.3812	9.4498	0.5221	0.1348	18.8058	95.123
Junio	5.1529	9.4384	0.5076	0.1349	23.0771	96.4048
Julio	5.1557	9.4222	0.5124	0.1339	21.1015	95.8032
Agosto	5.2859	9.6031	0.5269	0.1373	13.296	93.5573
Septiembre	5.2612	9.6553	0.5363	0.1476	1.9936	90.5241
Octubre	4.9824	9.7832	0.514	0.1284	-9.8485	87.3861
Noviembre	4.4848	8.7437	0.5082	0.1412	-19.0505	84.8059
Diciembre	4.2476	8.4282	0.5049	0.1429	-23.0956	83.5894
Promedio	5.0018	9.1486	0.5165	0.1316	—	89.9827

Tabla 3: Azimut de 0°

$\beta°$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9916	0.9919	0.9916	0.9914	0.9915	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	1.0081	0.9919	0.9753	0.957	0.9453	0.9398	0.9426	0.9475	0.964	0.9871	1.0023	1.0102	0.9726
10	1.0188	0.9871	0.9531	0.9162	0.8932	0.8825	0.8879	0.8971	0.9298	0.9772	1.0077	1.0233	0.9478
15	1.0231	0.9768	0.9251	0.8699	0.8358	0.82	0.828	0.841	0.8894	0.9617	1.0071	1.0304	0.9174
20	1.0212	0.961	0.8916	0.8183	0.7735	0.7529	0.7633	0.7797	0.8431	0.9406	1.0006	1.0314	0.8814
25	1.0128	0.9399	0.8527	0.7619	0.7068	0.6814	0.6943	0.7134	0.7912	0.9141	0.9882	1.0263	0.8403
30	0.9982	0.9137	0.8089	0.7011	0.6362	0.6064	0.6216	0.6429	0.7343	0.8824	0.9701	1.0151	0.7942
35	0.9774	0.8824	0.7604	0.6363	0.5622	0.5282	0.5456	0.5685	0.6726	0.8457	0.9463	0.9979	0.7436
40	0.9506	0.8464	0.7076	0.5681	0.4855	0.4476	0.467	0.4909	0.6067	0.8044	0.917	0.9749	0.6889
45	0.9179	0.806	0.6509	0.497	0.4066	0.3651	0.3864	0.4107	0.537	0.7587	0.8825	0.9461	0.6304
50	0.8797	0.7614	0.5907	0.4235	0.3261	0.2815	0.3044	0.3285	0.4641	0.709	0.8429	0.912	0.5687
55	0.8362	0.7131	0.5275	0.3483	0.2448	0.2306	0.2304	0.245	0.3886	0.6556	0.7988	0.8726	0.5076
60	0.7878	0.6612	0.4618	0.2718	0.2207	0.2261	0.2259	0.1608	0.311	0.599	0.7502	0.8283	0.4587
65	0.7348	0.6064	0.3941	0.1994	0.2162	0.2214	0.2212	0.1444	0.232	0.5397	0.6978	0.7795	0.4156
70	0.6776	0.5489	0.3248	0.1963	0.2116	0.2165	0.2162	0.144	0.152	0.478	0.6417	0.7264	0.3778
75	0.6167	0.4892	0.2546	0.193	0.2069	0.2115	0.2111	0.1436	0.1074	0.4144	0.5825	0.6696	0.3417
80	0.5525	0.4277	0.2051	0.1897	0.202	0.2063	0.2059	0.1432	0.1101	0.3494	0.5206	0.6094	0.3102
85	0.4855	0.365	0.2002	0.1863	0.197	0.201	0.2006	0.1427	0.1129	0.2405	0.4564	0.5463	0.2779
90	0.4163	0.2609	0.1953	0.183	0.1921	0.1957	0.1953	0.1423	0.1156	0.2315	0.3905	0.4808	0.2499

Tabla 4: Azimut de 5°

$\beta°$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9916	0.9919	0.9916	0.9914	0.9915	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	1.008	0.9919	0.9753	0.9571	0.9454	0.9399	0.9427	0.9476	0.9641	0.9871	1.0023	1.0101	0.9726
10	1.0186	0.9871	0.9532	0.9165	0.8935	0.8829	0.8883	0.8974	0.93	0.9773	1.0076	1.0232	0.948
15	1.0229	0.9768	0.9252	0.8702	0.8363	0.8206	0.8285	0.8415	0.8897	0.9617	1.007	1.0302	0.9175
20	1.0209	0.961	0.8918	0.8188	0.7741	0.7536	0.764	0.7803	0.8434	0.9406	1.0004	1.0311	0.8817
25	1.0124	0.9399	0.853	0.7625	0.7076	0.6824	0.6952	0.7142	0.7917	0.9141	0.988	1.0259	0.8406
30	0.9978	0.9136	0.8092	0.7018	0.6372	0.6075	0.6226	0.6438	0.7348	0.8824	0.9698	1.0146	0.7946
35	0.9769	0.8823	0.7607	0.6371	0.5633	0.5295	0.5468	0.5696	0.6732	0.8457	0.9459	0.9973	0.744
40	0.95	0.8463	0.708	0.5691	0.4868	0.449	0.4683	0.4921	0.6074	0.8044	0.9166	0.9742	0.6893
45	0.9173	0.8059	0.6513	0.4981	0.408	0.3667	0.3878	0.412	0.5378	0.7587	0.882	0.9455	0.6309
50	0.879	0.7613	0.5912	0.4247	0.3276	0.2831	0.306	0.33	0.4651	0.709	0.8425	0.9112	0.5692
55	0.8355	0.7129	0.528	0.3495	0.2463	0.2306	0.2304	0.2465	0.3896	0.6557	0.7983	0.8718	0.5079
60	0.787	0.6611	0.4623	0.2731	0.2207	0.2261	0.2259	0.1624	0.3122	0.5991	0.7497	0.8275	0.4589
65	0.734	0.6062	0.3946	0.1994	0.2162	0.2214	0.2212	0.1444	0.2332	0.5397	0.6972	0.7786	0.4155
70	0.6768	0.5487	0.3254	0.1963	0.2116	0.2165	0.2162	0.144	0.1535	0.478	0.6411	0.7255	0.3778
75	0.6159	0.489	0.2552	0.193	0.2069	0.2115	0.2111	0.1436	0.1074	0.4144	0.5819	0.6687	0.3415
80	0.5517	0.4276	0.2052	0.1897	0.202	0.2063	0.2059	0.1432	0.1104	0.3495	0.5199	0.6085	0.31
85	0.4847	0.3649	0.2002	0.1863	0.197	0.201	0.2006	0.1427	0.1131	0.2405	0.4558	0.5454	0.2777
90	0.4154	0.2609	0.1953	0.183	0.1921	0.1957	0.1953	0.1423	0.1158	0.2315	0.3899	0.4799	0.2497

Tabla 5: Azimut de 10°

$\beta°$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9916	0.9919	0.9916	0.9914	0.9915	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	1.0077	0.9919	0.9755	0.9575	0.9459	0.9405	0.9433	0.9481	0.9644	0.9872	1.0021	1.0098	0.9728
10	1.0182	0.987	0.9535	0.9172	0.8945	0.884	0.8893	0.8984	0.9305	0.9773	1.0073	1.0227	0.9483
15	1.0222	0.9767	0.9257	0.8713	0.8377	0.8222	0.8301	0.8429	0.8905	0.9617	1.0065	1.0294	0.9181
20	1.02	0.9608	0.8923	0.8202	0.7761	0.7558	0.7661	0.7821	0.8446	0.9406	0.9998	1.0301	0.8824
25	1.0113	0.9397	0.8537	0.7643	0.71	0.6851	0.6978	0.7165	0.7931	0.9142	0.9872	1.0246	0.8415
30	0.9964	0.9133	0.81	0.7039	0.64	0.6107	0.6256	0.6465	0.7365	0.8825	0.9688	1.0132	0.7956
35	0.9754	0.8821	0.7617	0.6396	0.5667	0.5332	0.5503	0.5727	0.6752	0.8458	0.9448	0.9957	0.7453
40	0.9483	0.846	0.7091	0.5718	0.4905	0.4531	0.4723	0.4957	0.6096	0.8045	0.9154	0.9724	0.6907
45	0.9154	0.8056	0.6525	0.5012	0.4121	0.3712	0.3922	0.416	0.5403	0.7588	0.8807	0.9434	0.6325
50	0.877	0.761	0.5925	0.4281	0.3321	0.2881	0.3107	0.3343	0.4678	0.7091	0.8411	0.909	0.5709
55	0.8334	0.7125	0.5294	0.3532	0.2511	0.2306	0.2304	0.2512	0.3926	0.6558	0.7967	0.8694	0.5089
60	0.7848	0.6607	0.4638	0.277	0.2207	0.2261	0.2259	0.1673	0.3155	0.5992	0.7481	0.825	0.4595
65	0.7316	0.6058	0.3962	0.2002	0.2162	0.2214	0.2212	0.1444	0.2368	0.5399	0.6955	0.776	0.4154
70	0.6743	0.5483	0.3271	0.1963	0.2116	0.2165	0.2162	0.144	0.1572	0.4782	0.6394	0.7228	0.3777
75	0.6133	0.4886	0.257	0.193	0.2069	0.2115	0.2111	0.1436	0.1074	0.4146	0.5801	0.6659	0.3411
80	0.5491	0.4271	0.2054	0.1897	0.202	0.2063	0.2059	0.1432	0.1111	0.3496	0.5181	0.6056	0.3094
85	0.4821	0.3644	0.2004	0.1863	0.197	0.201	0.2006	0.1427	0.1137	0.2405	0.454	0.5425	0.2771
90	0.4128	0.2609	0.1954	0.183	0.1921	0.1957	0.1953	0.1423	0.1164	0.2315	0.3881	0.477	0.2492

Tabla 6: Azimut de 15°

$\beta°$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9916	0.9919	0.9916	0.9914	0.9915	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	1.0074	0.9918	0.9757	0.9581	0.9468	0.9414	0.9441	0.9489	0.9648	0.9872	1.0019	1.0094	0.9731
10	1.0174	0.9869	0.954	0.9184	0.8961	0.8858	0.891	0.8999	0.9315	0.9773	1.0067	1.0218	0.9489
15	1.0211	0.9765	0.9264	0.8731	0.8402	0.825	0.8327	0.8452	0.8919	0.9618	1.0057	1.0282	0.919
20	1.0185	0.9606	0.8933	0.8226	0.7793	0.7594	0.7695	0.7852	0.8464	0.9407	0.9987	1.0285	0.8836
25	1.0095	0.9393	0.8549	0.7672	0.714	0.6896	0.702	0.7203	0.7954	0.9143	0.9859	1.0226	0.8429
30	0.9943	0.913	0.8115	0.7075	0.6448	0.616	0.6307	0.6511	0.7393	0.8826	0.9673	1.0108	0.7974
35	0.9729	0.8816	0.7634	0.6437	0.5722	0.5393	0.5561	0.578	0.6784	0.846	0.9431	0.993	0.7473
40	0.9455	0.8456	0.7109	0.5765	0.4967	0.46	0.4788	0.5016	0.6133	0.8047	0.9134	0.9693	0.693
45	0.9124	0.805	0.6545	0.5063	0.4189	0.3788	0.3994	0.4225	0.5444	0.759	0.8785	0.9401	0.635
50	0.8737	0.7604	0.5947	0.4337	0.3395	0.2963	0.3185	0.3414	0.4723	0.7093	0.8387	0.9054	0.5736
55	0.8298	0.7119	0.5318	0.3592	0.2589	0.2306	0.2367	0.2588	0.3975	0.656	0.7942	0.8655	0.5109
60	0.781	0.66	0.4663	0.2834	0.2207	0.2261	0.2259	0.1754	0.3207	0.5995	0.7455	0.8209	0.4604
65	0.7277	0.6051	0.3989	0.2069	0.2162	0.2214	0.2212	0.1444	0.2422	0.5401	0.6927	0.7717	0.4157
70	0.6703	0.5475	0.3299	0.1963	0.2116	0.2165	0.2162	0.144	0.1628	0.4784	0.6365	0.7183	0.3774
75	0.6091	0.4878	0.2599	0.193	0.2069	0.2115	0.2111	0.1436	0.1074	0.4149	0.5771	0.6613	0.3403
80	0.5448	0.4264	0.2055	0.1897	0.202	0.2063	0.2059	0.1432	0.1118	0.3499	0.5151	0.6009	0.3085
85	0.4777	0.3636	0.2006	0.1863	0.197	0.201	0.2006	0.1427	0.1144	0.2405	0.4509	0.5378	0.2761
90	0.4085	0.2609	0.1955	0.183	0.1921	0.1957	0.1953	0.1423	0.117	0.2315	0.385	0.4722	0.2482

Tabla 7: Azimut de 20°

$\beta°$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9916	0.9919	0.9916	0.9914	0.9915	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	1.0068	0.9917	0.9761	0.9589	0.9479	0.9427	0.9453	0.9499	0.9655	0.9872	1.0015	1.0089	0.9735
10	1.0164	0.9867	0.9547	0.9201	0.8984	0.8884	0.8935	0.9021	0.9328	0.9774	1.006	1.0207	0.9497
15	1.0196	0.9762	0.9275	0.8756	0.8436	0.8288	0.8363	0.8485	0.8938	0.9619	1.0046	1.0265	0.9202
20	1.0164	0.9602	0.8947	0.8259	0.7838	0.7644	0.7743	0.7895	0.849	0.9409	0.9973	1.0262	0.8852
25	1.007	0.9389	0.8566	0.7714	0.7196	0.6958	0.7079	0.7256	0.7986	0.9144	0.9841	1.0198	0.845
30	0.9913	0.9124	0.8135	0.7124	0.6514	0.6234	0.6377	0.6574	0.7431	0.8828	0.9652	1.0075	0.7998
35	0.9694	0.881	0.7656	0.6494	0.5798	0.5478	0.5641	0.5852	0.6828	0.8462	0.9406	0.9892	0.7501
40	0.9416	0.8449	0.7135	0.5828	0.5052	0.4696	0.4878	0.5098	0.6183	0.8049	0.9107	0.9651	0.6962
45	0.9081	0.8043	0.6574	0.5133	0.4283	0.3893	0.4094	0.4316	0.55	0.7593	0.8755	0.9354	0.6385
50	0.8691	0.7596	0.5977	0.4414	0.3497	0.3077	0.3293	0.3512	0.4784	0.7096	0.8354	0.9003	0.5775
55	0.8249	0.711	0.535	0.3675	0.2699	0.2306	0.2482	0.2694	0.4041	0.6563	0.7907	0.8601	0.514
60	0.7758	0.6591	0.4698	0.2922	0.2207	0.2261	0.2259	0.1865	0.3276	0.5998	0.7418	0.8151	0.4617
65	0.7222	0.6041	0.4026	0.2161	0.2162	0.2214	0.2212	0.1444	0.2495	0.5405	0.6889	0.7657	0.4161
70	0.6646	0.5465	0.3338	0.1963	0.2116	0.2165	0.2162	0.144	0.1704	0.4788	0.6325	0.7121	0.3769
75	0.6033	0.4868	0.2639	0.193	0.2069	0.2115	0.2111	0.1436	0.1074	0.4152	0.573	0.6549	0.3392
80	0.5389	0.4253	0.2056	0.1897	0.202	0.2063	0.2059	0.1432	0.1124	0.3502	0.5109	0.5944	0.3071
85	0.4717	0.3626	0.2007	0.1863	0.197	0.201	0.2006	0.1427	0.1151	0.2844	0.4467	0.5312	0.2783
90	0.4024	0.2609	0.1957	0.183	0.1921	0.1957	0.1953	0.1423	0.1177	0.2315	0.3807	0.4656	0.2469

Tabla 8: Azimut de 25°

$\beta°$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9916	0.9919	0.9916	0.9914	0.9915	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	1.0062	0.9916	0.9765	0.96	0.9493	0.9443	0.9469	0.9513	0.9663	0.9872	1.001	1.0081	0.9741
10	1.015	0.9865	0.9555	0.9222	0.9013	0.8916	0.8965	0.9048	0.9344	0.9775	1.0051	1.0192	0.9508
15	1.0176	0.9758	0.9288	0.8788	0.8479	0.8336	0.8409	0.8526	0.8963	0.962	1.0032	1.0243	0.9218
20	1.0138	0.9597	0.8964	0.8302	0.7896	0.7709	0.7804	0.7949	0.8523	0.941	0.9954	1.0233	0.8873
25	1.0037	0.9383	0.8587	0.7766	0.7267	0.7037	0.7154	0.7324	0.8027	0.9146	0.9818	1.0163	0.8476
30	0.9874	0.9118	0.816	0.7186	0.6598	0.6328	0.6466	0.6654	0.748	0.883	0.9625	1.0033	0.8029
35	0.965	0.8802	0.7686	0.6565	0.5895	0.5586	0.5744	0.5945	0.6885	0.8465	0.9375	0.9843	0.7537
40	0.9367	0.844	0.7167	0.5909	0.5161	0.4817	0.4993	0.5202	0.6247	0.8052	0.9072	0.9597	0.7002
45	0.9027	0.8033	0.6609	0.5223	0.4403	0.4027	0.422	0.443	0.5571	0.7596	0.8717	0.9294	0.6429
50	0.8632	0.7585	0.6016	0.4511	0.3627	0.3221	0.343	0.3637	0.4861	0.71	0.8313	0.8939	0.5823
55	0.8186	0.7099	0.5392	0.3779	0.2838	0.2406	0.2629	0.2827	0.4123	0.6567	0.7863	0.8532	0.5187
60	0.7692	0.6579	0.4743	0.3033	0.2207	0.2261	0.2259	0.2007	0.3363	0.6002	0.7371	0.8078	0.4633
65	0.7153	0.6029	0.4073	0.2277	0.2162	0.2214	0.2212	0.1444	0.2586	0.5409	0.684	0.758	0.4165
70	0.6574	0.5453	0.3387	0.1963	0.2116	0.2165	0.2162	0.144	0.1798	0.4792	0.6274	0.7042	0.3764
75	0.5959	0.4855	0.2689	0.193	0.2069	0.2115	0.2111	0.1436	0.1074	0.4157	0.5678	0.6468	0.3378
80	0.5313	0.424	0.2057	0.1902	0.202	0.2063	0.2059	0.1432	0.1131	0.3507	0.5056	0.5861	0.3053
85	0.4641	0.3612	0.2008	0.1867	0.197	0.201	0.2006	0.1427	0.1158	0.2849	0.4413	0.5228	0.2766
90	0.3948	0.2609	0.1958	0.1831	0.1921	0.1957	0.1953	0.1423	0.1184	0.2315	0.3753	0.4572	0.2452

Tabla 9: Azimut de 30°

$\beta°$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9916	0.9919	0.9916	0.9914	0.9915	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	1.0054	0.9915	0.977	0.9613	0.9511	0.9463	0.9487	0.953	0.9673	0.9873	1.0004	1.0072	0.9747
10	1.0134	0.9862	0.9566	0.9248	0.9048	0.8955	0.9002	0.9081	0.9364	0.9776	1.0039	1.0174	0.9521
15	1.0152	0.9754	0.9304	0.8827	0.8531	0.8395	0.8464	0.8575	0.8993	0.9622	1.0015	1.0217	0.9237
20	1.0106	0.9592	0.8985	0.8353	0.7965	0.7786	0.7877	0.8015	0.8563	0.9412	0.9932	1.0198	0.8899
25	0.9998	0.9376	0.8613	0.7829	0.7353	0.7133	0.7245	0.7405	0.8077	0.9149	0.979	1.012	0.8507
30	0.9828	0.9109	0.8191	0.7261	0.67	0.6442	0.6574	0.675	0.7539	0.8833	0.9592	0.9982	0.8067
35	0.9597	0.8793	0.7721	0.6652	0.6011	0.5717	0.5867	0.6056	0.6953	0.8468	0.9338	0.9785	0.758
40	0.9308	0.8429	0.7207	0.6007	0.5292	0.4964	0.5132	0.5327	0.6323	0.8056	0.903	0.9531	0.705
45	0.8961	0.8022	0.6653	0.533	0.4548	0.4188	0.4373	0.4568	0.5655	0.76	0.8671	0.9222	0.6483
50	0.8561	0.7573	0.6063	0.4628	0.3784	0.3396	0.3596	0.3787	0.4952	0.7104	0.8263	0.8861	0.5881
55	0.811	0.7086	0.5443	0.3904	0.3006	0.2593	0.2807	0.2987	0.4221	0.6572	0.781	0.8449	0.5249
60	0.7611	0.6565	0.4797	0.3165	0.2219	0.2261	0.2259	0.2176	0.3466	0.6007	0.7314	0.799	0.4653
65	0.7069	0.6014	0.413	0.2416	0.2162	0.2214	0.2212	0.1444	0.2694	0.5414	0.678	0.7488	0.417
70	0.6487	0.5437	0.3445	0.1963	0.2116	0.2165	0.2162	0.144	0.1909	0.4798	0.6212	0.6947	0.3757
75	0.587	0.4839	0.2749	0.193	0.2069	0.2115	0.2111	0.1436	0.1118	0.4162	0.5615	0.6369	0.3365
80	0.5222	0.4224	0.2058	0.1909	0.202	0.2063	0.2059	0.1432	0.1137	0.3513	0.4991	0.5761	0.3032
85	0.4549	0.3596	0.2009	0.1874	0.197	0.201	0.2006	0.1427	0.1164	0.2854	0.4347	0.5127	0.2745
90	0.3855	0.2609	0.196	0.1839	0.1921	0.1957	0.1953	0.1423	0.1191	0.2315	0.3688	0.447	0.2432

Tabla 10: Azimut de 35°

$\beta°$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9916	0.9919	0.9916	0.9914	0.9915	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	1.0044	0.9913	0.9777	0.9628	0.9531	0.9486	0.9509	0.9549	0.9684	0.9874	0.9998	1.0062	0.9755
10	1.0116	0.9859	0.9578	0.9278	0.9089	0.9001	0.9045	0.912	0.9387	0.9777	1.0026	1.0154	0.9536
15	1.0124	0.9749	0.9322	0.8871	0.8592	0.8463	0.8528	0.8633	0.9027	0.9624	0.9995	1.0186	0.926
20	1.0069	0.9585	0.901	0.8412	0.8045	0.7876	0.7962	0.8091	0.8609	0.9415	0.9906	1.0158	0.8928
25	0.9953	0.9368	0.8643	0.7903	0.7452	0.7245	0.735	0.75	0.8134	0.9152	0.9758	1.007	0.8544
30	0.9774	0.91	0.8226	0.7348	0.6818	0.6574	0.6698	0.6863	0.7607	0.8836	0.9554	0.9923	0.811
35	0.9535	0.8782	0.7762	0.6752	0.6147	0.5868	0.6011	0.6185	0.7031	0.8472	0.9294	0.9717	0.763
40	0.9238	0.8417	0.7252	0.612	0.5444	0.5134	0.5293	0.5471	0.6412	0.806	0.8981	0.9455	0.7107
45	0.8885	0.8008	0.6703	0.5455	0.4715	0.4375	0.455	0.4728	0.5752	0.7605	0.8617	0.9139	0.6544
50	0.8479	0.7558	0.6118	0.4763	0.3966	0.3599	0.3788	0.396	0.5057	0.7109	0.8205	0.877	0.5948
55	0.8022	0.707	0.5503	0.4049	0.32	0.281	0.3012	0.3173	0.4333	0.6577	0.7747	0.8352	0.5321
60	0.7518	0.6549	0.486	0.3318	0.2425	0.2261	0.2259	0.2373	0.3585	0.6013	0.7248	0.7888	0.4691
65	0.6971	0.5997	0.4195	0.2576	0.2162	0.2214	0.2212	0.1565	0.2818	0.542	0.6711	0.7381	0.4185
70	0.6386	0.5419	0.3513	0.1963	0.2116	0.2165	0.2162	0.144	0.2038	0.4804	0.6141	0.6836	0.3749
75	0.5766	0.4821	0.2819	0.193	0.2069	0.2115	0.2111	0.1436	0.1251	0.4169	0.5541	0.6255	0.3357
80	0.5116	0.4205	0.2059	0.1916	0.202	0.2063	0.2059	0.1432	0.1143	0.3519	0.4916	0.5645	0.3008
85	0.4441	0.3577	0.2011	0.1882	0.197	0.201	0.2006	0.1427	0.1171	0.2861	0.4272	0.5009	0.272
90	0.3747	0.2609	0.1961	0.1846	0.1921	0.1957	0.1953	0.1423	0.1197	0.2315	0.3612	0.4352	0.2408

Tabla 11: Azimut de 40°

$\beta°$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9916	0.9919	0.9916	0.9914	0.9915	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	1.0034	0.9911	0.9784	0.9645	0.9554	0.9511	0.9533	0.9571	0.9697	0.9874	0.999	1.005	0.9763
10	1.0094	0.9855	0.9592	0.9311	0.9135	0.9052	0.9094	0.9163	0.9413	0.9778	1.0011	1.0131	0.9553
15	1.0092	0.9743	0.9343	0.8922	0.8661	0.854	0.8601	0.8698	0.9067	0.9626	0.9973	1.0151	0.9285
20	1.0028	0.9578	0.9037	0.8479	0.8136	0.7978	0.8058	0.8177	0.8661	0.9417	0.9876	1.0112	0.8961
25	0.9901	0.9359	0.8677	0.7986	0.7565	0.7371	0.747	0.7607	0.8198	0.9155	0.9722	1.0013	0.8585
30	0.9713	0.9089	0.8267	0.7447	0.6951	0.6723	0.684	0.6989	0.7683	0.884	0.9511	0.9856	0.8159
35	0.9465	0.877	0.7808	0.6866	0.63	0.604	0.6173	0.6331	0.712	0.8476	0.9245	0.964	0.7686
40	0.916	0.8403	0.7304	0.6247	0.5616	0.5326	0.5475	0.5635	0.6511	0.8065	0.8926	0.9369	0.717
45	0.8799	0.7993	0.676	0.5595	0.4905	0.4587	0.4751	0.4908	0.5861	0.761	0.8556	0.9044	0.6614
50	0.8385	0.7542	0.6181	0.4915	0.4171	0.3829	0.4006	0.4156	0.5175	0.7115	0.8138	0.8667	0.6023
55	0.7922	0.7053	0.5569	0.4212	0.342	0.3056	0.3245	0.3382	0.446	0.6583	0.7677	0.8242	0.5402
60	0.7412	0.653	0.4931	0.3491	0.2658	0.2274	0.2474	0.2594	0.3719	0.6019	0.7173	0.7772	0.4754
65	0.6861	0.5977	0.4269	0.2756	0.2162	0.2214	0.2212	0.1796	0.2958	0.5427	0.6633	0.726	0.421
70	0.6271	0.5399	0.359	0.2014	0.2116	0.2165	0.2162	0.144	0.2183	0.4811	0.606	0.671	0.3743
75	0.5648	0.48	0.2898	0.193	0.2069	0.2115	0.2111	0.1436	0.14	0.4176	0.5458	0.6126	0.3347
80	0.4996	0.4184	0.2198	0.1923	0.202	0.2063	0.2059	0.1436	0.1149	0.3527	0.4831	0.5513	0.2992
85	0.432	0.3555	0.2012	0.1889	0.197	0.201	0.2006	0.1431	0.1176	0.2868	0.4186	0.4875	0.2692
90	0.3625	0.2609	0.1962	0.1854	0.1921	0.1957	0.1953	0.1425	0.1203	0.2315	0.3526	0.4218	0.2381

Tabla 12: Azimut de 45°

$\beta°$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9916	0.9919	0.9916	0.9914	0.9915	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	1.0022	0.9909	0.9792	0.9663	0.958	0.954	0.956	0.9595	0.9712	0.9875	0.9982	1.0037	0.9772
10	1.0071	0.9851	0.9608	0.9349	0.9186	0.911	0.9148	0.9212	0.9442	0.978	0.9994	1.0105	0.9571
15	1.0057	0.9737	0.9366	0.8978	0.8737	0.8625	0.8682	0.877	0.911	0.9628	0.9948	1.0113	0.9313
20	0.9981	0.957	0.9068	0.8553	0.8237	0.8091	0.8165	0.8273	0.8718	0.942	0.9844	1.0061	0.8998
25	0.9844	0.9349	0.8715	0.8078	0.769	0.751	0.7602	0.7725	0.827	0.9158	0.9681	0.995	0.8631
30	0.9645	0.9077	0.8311	0.7556	0.7099	0.6889	0.6996	0.713	0.7768	0.8844	0.9463	0.9781	0.8213
35	0.9388	0.8756	0.7859	0.6992	0.647	0.623	0.6353	0.6492	0.7218	0.8481	0.919	0.9555	0.7749
40	0.9073	0.8388	0.7362	0.6388	0.5807	0.5539	0.5677	0.5816	0.662	0.807	0.8864	0.9274	0.724
45	0.8703	0.7976	0.6824	0.5751	0.5115	0.4822	0.4973	0.5108	0.5981	0.7616	0.8488	0.8939	0.6691
50	0.8282	0.7523	0.625	0.5084	0.4398	0.4083	0.4246	0.4372	0.5306	0.7122	0.8065	0.8554	0.6107
55	0.7811	0.7033	0.5644	0.4392	0.3663	0.3328	0.3502	0.3614	0.4599	0.659	0.7598	0.8121	0.5491
60	0.7295	0.6509	0.5009	0.3681	0.2915	0.2562	0.2746	0.2839	0.3866	0.6027	0.7091	0.7643	0.4849
65	0.6738	0.5956	0.4351	0.2956	0.2162	0.2214	0.2212	0.2053	0.3112	0.5435	0.6547	0.7125	0.4238
70	0.6144	0.5377	0.3675	0.2221	0.2116	0.2165	0.2162	0.144	0.2343	0.4819	0.597	0.657	0.375
75	0.5517	0.4777	0.2985	0.193	0.2069	0.2115	0.2111	0.1436	0.1564	0.4184	0.5365	0.5982	0.3336
80	0.4862	0.416	0.2287	0.193	0.202	0.2063	0.2059	0.1446	0.1154	0.3535	0.4737	0.5366	0.2968
85	0.4185	0.3532	0.2013	0.1896	0.197	0.201	0.2006	0.1441	0.1182	0.2877	0.409	0.4727	0.2661
90	0.349	0.2609	0.1963	0.1861	0.1921	0.1957	0.1953	0.1435	0.1209	0.2315	0.343	0.4069	0.2351

Tabla 13: Azimut de 50°

$\beta°$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9916	0.9919	0.9916	0.9914	0.9915	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	1.0009	0.9907	0.98	0.9684	0.9608	0.9571	0.959	0.9621	0.9728	0.9876	0.9973	1.0023	0.9782
10	1.0045	0.9846	0.9625	0.939	0.9241	0.9172	0.9207	0.9265	0.9474	0.9781	0.9976	1.0077	0.9592
15	1.0019	0.9731	0.9391	0.9039	0.882	0.8718	0.877	0.8849	0.9157	0.963	0.9921	1.0071	0.9343
20	0.9931	0.9561	0.9101	0.8634	0.8347	0.8214	0.8282	0.8378	0.8781	0.9423	0.9808	1.0006	0.9039
25	0.9781	0.9338	0.8757	0.8179	0.7826	0.7663	0.7746	0.7854	0.8348	0.9162	0.9637	0.9882	0.8681
30	0.9571	0.9064	0.836	0.7675	0.726	0.7069	0.7167	0.7283	0.7861	0.8849	0.9411	0.97	0.8273
35	0.9303	0.8741	0.7915	0.7128	0.6655	0.6437	0.6549	0.6668	0.7324	0.8486	0.913	0.9462	0.7817
40	0.8978	0.8371	0.7425	0.6542	0.6014	0.5772	0.5897	0.6014	0.6739	0.8076	0.8797	0.9169	0.7316
45	0.8599	0.7958	0.6894	0.592	0.5343	0.5078	0.5215	0.5325	0.6112	0.7623	0.8414	0.8824	0.6775
50	0.8168	0.7503	0.6326	0.5267	0.4646	0.436	0.4509	0.4607	0.5447	0.7129	0.7985	0.8429	0.6198
55	0.769	0.7012	0.5724	0.4588	0.3928	0.3624	0.3783	0.3866	0.475	0.6598	0.7513	0.7988	0.5589
60	0.7167	0.6487	0.5094	0.3888	0.3195	0.2876	0.3043	0.3105	0.4026	0.6035	0.7	0.7503	0.4951
65	0.6604	0.5932	0.4441	0.3172	0.2452	0.2214	0.2294	0.2331	0.3279	0.5443	0.6452	0.6978	0.4299
70	0.6005	0.5352	0.3767	0.2446	0.2116	0.2165	0.2162	0.155	0.2516	0.4827	0.5872	0.6417	0.3766
75	0.5374	0.4751	0.308	0.193	0.2069	0.2115	0.2111	0.1436	0.1743	0.4193	0.5264	0.5826	0.3324
80	0.4717	0.4134	0.2384	0.1897	0.202	0.2063	0.2059	0.1432	0.1101	0.3544	0.4634	0.5207	0.2933
85	0.4038	0.3506	0.2013	0.1903	0.197	0.201	0.2006	0.1451	0.1187	0.2886	0.3986	0.4566	0.2627
90	0.3342	0.2609	0.1964	0.1868	0.1921	0.1957	0.1953	0.1445	0.1214	0.2315	0.3325	0.3907	0.2318

Tabla 14: Azimut de 55°

$\beta°$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9916	0.9919	0.9916	0.9914	0.9915	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9995	0.9904	0.9809	0.9706	0.9638	0.9605	0.9622	0.965	0.9745	0.9877	0.9963	1.0008	0.9793
10	1.0018	0.9841	0.9643	0.9434	0.9301	0.9239	0.9271	0.9321	0.9508	0.9783	0.9957	1.0046	0.9614
15	0.9978	0.9723	0.9419	0.9105	0.8909	0.8818	0.8865	0.8934	0.9208	0.9633	0.9892	1.0026	0.9376
20	0.9876	0.9551	0.9137	0.8722	0.8465	0.8347	0.8407	0.849	0.8848	0.9427	0.9769	0.9946	0.9082
25	0.9714	0.9326	0.8801	0.8287	0.7972	0.7827	0.7901	0.7993	0.8431	0.9166	0.959	0.9808	0.8735
30	0.9492	0.905	0.8413	0.7803	0.7434	0.7263	0.7351	0.7447	0.796	0.8854	0.9354	0.9613	0.8336
35	0.9212	0.8725	0.7976	0.7275	0.6854	0.666	0.676	0.6857	0.7437	0.8492	0.9065	0.9362	0.789
40	0.8876	0.8353	0.7492	0.6706	0.6237	0.6021	0.6133	0.6226	0.6866	0.8083	0.8725	0.9057	0.7398
45	0.8486	0.7938	0.6969	0.6101	0.5588	0.5352	0.5475	0.5558	0.6252	0.763	0.8335	0.8701	0.6865
50	0.8046	0.7482	0.6407	0.5463	0.4912	0.4658	0.479	0.486	0.5599	0.7136	0.7899	0.8296	0.6296
55	0.756	0.6989	0.5811	0.4798	0.4213	0.3943	0.4084	0.4136	0.4912	0.6606	0.7421	0.7845	0.5693
60	0.7029	0.6462	0.5186	0.411	0.3496	0.3212	0.3361	0.3391	0.4197	0.6043	0.6903	0.7351	0.5062
65	0.646	0.5906	0.4536	0.3405	0.2766	0.2472	0.2628	0.263	0.3459	0.5452	0.635	0.682	0.4407
70	0.5855	0.5326	0.3867	0.2687	0.2116	0.2165	0.2162	0.186	0.2702	0.4837	0.5766	0.6253	0.38
75	0.5221	0.4724	0.3183	0.1962	0.2069	0.2115	0.2111	0.1436	0.1934	0.4202	0.5156	0.5657	0.3314
80	0.456	0.4107	0.2488	0.1897	0.202	0.2063	0.2059	0.1432	0.1159	0.3554	0.4524	0.5035	0.2908
85	0.3879	0.3478	0.2014	0.1909	0.197	0.201	0.2006	0.1461	0.1191	0.2896	0.3874	0.4392	0.259
90	0.3183	0.2609	0.1965	0.1874	0.1921	0.1957	0.1953	0.1455	0.1219	0.2315	0.3213	0.3733	0.2283

Tabla 15: Azimut de 60°

$\beta°$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9916	0.9919	0.9916	0.9914	0.9915	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.998	0.9902	0.9819	0.9729	0.967	0.9641	0.9656	0.968	0.9763	0.9878	0.9953	0.9992	0.9805
10	0.9988	0.9836	0.9663	0.9481	0.9365	0.931	0.9338	0.9382	0.9544	0.9785	0.9936	1.0014	0.9637
15	0.9934	0.9716	0.9448	0.9175	0.9004	0.8925	0.8966	0.9024	0.9262	0.9635	0.9861	0.9978	0.9411
20	0.9819	0.9541	0.9175	0.8814	0.8591	0.8487	0.854	0.8609	0.892	0.943	0.9729	0.9883	0.9128
25	0.9643	0.9313	0.8848	0.8401	0.8128	0.8001	0.8066	0.814	0.852	0.9171	0.9539	0.973	0.8792
30	0.9407	0.9035	0.8469	0.7939	0.7618	0.7469	0.7546	0.7622	0.8065	0.8859	0.9295	0.952	0.8404
35	0.9115	0.8708	0.804	0.7431	0.7065	0.6896	0.6984	0.7057	0.7557	0.8498	0.8997	0.9255	0.7967
40	0.8767	0.8334	0.7565	0.6881	0.6474	0.6286	0.6384	0.645	0.7001	0.8089	0.8648	0.8938	0.7485
45	0.8367	0.7916	0.7048	0.6293	0.5849	0.5644	0.5751	0.5806	0.64	0.7637	0.825	0.8569	0.6961
50	0.7917	0.7459	0.6493	0.5671	0.5194	0.4974	0.5089	0.5128	0.5759	0.7144	0.7808	0.8153	0.6399
55	0.7421	0.6964	0.5903	0.5021	0.4514	0.4281	0.4404	0.4422	0.5084	0.6614	0.7323	0.7693	0.5804
60	0.6883	0.6436	0.5284	0.4346	0.3815	0.357	0.37	0.3693	0.4379	0.6052	0.6799	0.7191	0.5179
65	0.6307	0.5879	0.4638	0.3651	0.31	0.2846	0.2982	0.2947	0.3649	0.5461	0.6242	0.6651	0.4529
70	0.5697	0.5298	0.3973	0.2942	0.2377	0.2165	0.2255	0.2189	0.2899	0.4847	0.5654	0.6079	0.3864
75	0.5057	0.4695	0.3291	0.2224	0.2069	0.2115	0.2111	0.1436	0.2136	0.4213	0.504	0.5478	0.3322
80	0.4394	0.4077	0.2599	0.1897	0.202	0.2063	0.2059	0.1432	0.1365	0.3564	0.4406	0.4852	0.2894
85	0.3711	0.3448	0.2015	0.1915	0.1976	0.201	0.2006	0.147	0.1195	0.2906	0.3755	0.4207	0.2551
90	0.3014	0.2609	0.1966	0.188	0.1925	0.1957	0.1953	0.1464	0.1223	0.2315	0.3094	0.3547	0.2245

Tabla 16: Azimut de 65°

$\beta°$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9916	0.9919	0.9916	0.9914	0.9915	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9965	0.9899	0.9829	0.9754	0.9703	0.9678	0.9691	0.9712	0.9782	0.9878	0.9942	0.9975	0.9817
10	0.9957	0.9831	0.9683	0.953	0.9432	0.9385	0.9409	0.9445	0.9581	0.9787	0.9914	0.998	0.9661
15	0.9888	0.9707	0.9478	0.9248	0.9104	0.9037	0.9071	0.9118	0.9319	0.9638	0.9829	0.9927	0.9447
20	0.9758	0.953	0.9216	0.8911	0.8723	0.8635	0.868	0.8734	0.8995	0.9434	0.9686	0.9816	0.9176
25	0.9567	0.93	0.8898	0.8521	0.8291	0.8184	0.8239	0.8295	0.8613	0.9175	0.9486	0.9647	0.8851
30	0.9319	0.9019	0.8528	0.8081	0.7811	0.7686	0.7751	0.7805	0.8175	0.8865	0.9232	0.9422	0.8474
35	0.9013	0.869	0.8107	0.7594	0.7287	0.7145	0.7219	0.7267	0.7683	0.8504	0.8925	0.9143	0.8048
40	0.8653	0.8314	0.764	0.7064	0.6723	0.6565	0.6647	0.6686	0.7142	0.8096	0.8567	0.8812	0.7576
45	0.8241	0.7894	0.7132	0.6495	0.6122	0.595	0.6041	0.6065	0.6555	0.7645	0.8162	0.8431	0.7061
50	0.7781	0.7435	0.6583	0.589	0.549	0.5306	0.5403	0.5409	0.5928	0.7153	0.7711	0.8004	0.6508
55	0.7275	0.6938	0.6	0.5254	0.4831	0.4636	0.474	0.4723	0.5264	0.6623	0.722	0.7533	0.592
60	0.6729	0.6409	0.5386	0.4592	0.415	0.3945	0.4055	0.4011	0.4569	0.6062	0.6691	0.7022	0.5302
65	0.6145	0.5851	0.4745	0.3909	0.3451	0.3239	0.3353	0.328	0.3848	0.5471	0.6128	0.6474	0.4658
70	0.5529	0.5268	0.4084	0.321	0.274	0.2523	0.2641	0.2534	0.3106	0.4857	0.5536	0.5895	0.3994
75	0.4885	0.4665	0.3405	0.25	0.2069	0.2115	0.2111	0.1778	0.2349	0.4223	0.4919	0.5289	0.3359
80	0.4219	0.4046	0.2716	0.1897	0.202	0.2063	0.2059	0.1432	0.1582	0.3575	0.4282	0.466	0.2879
85	0.3534	0.3416	0.2015	0.1921	0.1988	0.201	0.2011	0.1479	0.1199	0.2917	0.363	0.4012	0.2511
90	0.2836	0.2609	0.1966	0.1886	0.1937	0.1957	0.1955	0.1474	0.1226	0.2315	0.2968	0.3352	0.2207

Tabla 17: Azimut de 70°

$\beta°$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9916	0.9919	0.9916	0.9914	0.9915	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9949	0.9896	0.984	0.978	0.9738	0.9718	0.9728	0.9745	0.9801	0.9879	0.993	0.9957	0.983
10	0.9925	0.9825	0.9704	0.9581	0.9502	0.9464	0.9483	0.9511	0.9621	0.9789	0.9891	0.9945	0.9687
15	0.984	0.9699	0.951	0.9325	0.9208	0.9153	0.9182	0.9217	0.9377	0.9641	0.9795	0.9874	0.9485
20	0.9694	0.9519	0.9258	0.9012	0.886	0.8789	0.8826	0.8864	0.9073	0.9438	0.9641	0.9746	0.9227
25	0.9489	0.9286	0.895	0.8646	0.8461	0.8374	0.8419	0.8456	0.8709	0.918	0.9431	0.9561	0.8914
30	0.9226	0.9003	0.8589	0.8229	0.8012	0.7911	0.7964	0.7996	0.8289	0.887	0.9166	0.9321	0.8548
35	0.8907	0.8671	0.8177	0.7764	0.7518	0.7403	0.7463	0.7486	0.7814	0.8511	0.885	0.9027	0.8133
40	0.8534	0.8293	0.7719	0.7255	0.6981	0.6855	0.6921	0.6931	0.7288	0.8104	0.8483	0.8682	0.767
45	0.811	0.7871	0.7218	0.6704	0.6407	0.6269	0.6342	0.6335	0.6717	0.7653	0.8069	0.8288	0.7165
50	0.7639	0.741	0.6677	0.6117	0.5799	0.5651	0.573	0.5701	0.6103	0.7161	0.7611	0.7848	0.6621
55	0.7124	0.6911	0.6101	0.5497	0.5161	0.5005	0.5089	0.5035	0.5451	0.6633	0.7113	0.7366	0.604
60	0.6569	0.6381	0.5492	0.4849	0.4498	0.4335	0.4424	0.4341	0.4767	0.6072	0.6577	0.6846	0.5429
65	0.5978	0.5821	0.4857	0.4178	0.3816	0.3648	0.374	0.3625	0.4055	0.5482	0.6009	0.629	0.4791
70	0.5355	0.5237	0.4199	0.3489	0.3119	0.2947	0.3042	0.2892	0.332	0.4868	0.5413	0.5704	0.4132
75	0.4707	0.4633	0.3524	0.2786	0.2412	0.2238	0.2335	0.2147	0.2569	0.4234	0.4793	0.5093	0.3456
80	0.4036	0.4014	0.2837	0.2076	0.202	0.2063	0.2059	0.1432	0.1807	0.3586	0.4153	0.4459	0.2879
85	0.3349	0.3384	0.2142	0.1926	0.2	0.2019	0.2025	0.1488	0.1201	0.2929	0.35	0.381	0.2481
90	0.2651	0.2609	0.1967	0.1891	0.1948	0.1964	0.1969	0.1482	0.1229	0.2315	0.2837	0.3148	0.2168

Tabla 18: Azimut de 75°

$\beta°$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9916	0.9919	0.9916	0.9914	0.9915	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9932	0.9893	0.9851	0.9806	0.9774	0.9758	0.9766	0.9779	0.9822	0.9881	0.9919	0.9939	0.9843
10	0.9892	0.9819	0.9726	0.9634	0.9574	0.9544	0.9559	0.9579	0.9662	0.9791	0.9868	0.9908	0.9713
15	0.9791	0.969	0.9542	0.9404	0.9315	0.9274	0.9295	0.9318	0.9438	0.9644	0.976	0.982	0.9524
20	0.9629	0.9507	0.9301	0.9117	0.9002	0.8948	0.8976	0.8998	0.9153	0.9442	0.9595	0.9674	0.9279
25	0.9408	0.9272	0.9003	0.8775	0.8636	0.8571	0.8605	0.8622	0.8808	0.9185	0.9374	0.9472	0.8978
30	0.913	0.8986	0.8652	0.8382	0.8219	0.8143	0.8183	0.8192	0.8407	0.8876	0.9099	0.9216	0.8624
35	0.8797	0.8651	0.825	0.7939	0.7756	0.767	0.7715	0.7711	0.7949	0.8517	0.8772	0.8906	0.822
40	0.8411	0.8271	0.7801	0.7451	0.7248	0.7153	0.7204	0.7184	0.7439	0.8111	0.8396	0.8547	0.7768
45	0.7975	0.7847	0.7308	0.692	0.67	0.6598	0.6653	0.6612	0.6883	0.7661	0.7974	0.8139	0.7272
50	0.7492	0.7384	0.6774	0.6351	0.6116	0.6007	0.6067	0.6002	0.6282	0.717	0.7508	0.7687	0.6737
55	0.6967	0.6884	0.6204	0.5747	0.55	0.5385	0.5449	0.5357	0.5643	0.6643	0.7002	0.7194	0.6165
60	0.6403	0.6351	0.5602	0.5113	0.4857	0.4738	0.4804	0.4682	0.497	0.6082	0.646	0.6664	0.5561
65	0.5804	0.579	0.4972	0.4455	0.4192	0.4069	0.4138	0.3982	0.4267	0.5492	0.5887	0.61	0.4929
70	0.5176	0.5205	0.4318	0.3776	0.3508	0.3383	0.3455	0.3261	0.3541	0.4879	0.5286	0.5507	0.4275
75	0.4522	0.4601	0.3646	0.3081	0.2813	0.2687	0.276	0.2527	0.2796	0.4246	0.4662	0.489	0.3603
80	0.3848	0.3981	0.2962	0.2377	0.211	0.2063	0.2059	0.1783	0.2038	0.3598	0.402	0.4253	0.2924
85	0.3159	0.335	0.2269	0.1863	0.197	0.201	0.2006	0.1427	0.1273	0.294	0.3365	0.3601	0.2436
90	0.246	0.2609	0.1967	0.1896	0.196	0.198	0.1983	0.1491	0.1232	0.2315	0.2702	0.2939	0.2128

Tabla 19: Azimut de 80°

$\beta°$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9916	0.9919	0.9916	0.9914	0.9915	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9915	0.989	0.9862	0.9833	0.9811	0.98	0.9806	0.9814	0.9843	0.9882	0.9906	0.992	0.9857
10	0.9858	0.9813	0.9749	0.9688	0.9647	0.9627	0.9637	0.9649	0.9703	0.9793	0.9844	0.9871	0.974
15	0.974	0.9681	0.9576	0.9484	0.9425	0.9397	0.9412	0.9422	0.95	0.9647	0.9724	0.9765	0.9564
20	0.9562	0.9495	0.9345	0.9223	0.9147	0.9111	0.913	0.9136	0.9235	0.9446	0.9547	0.9601	0.9332
25	0.9326	0.9257	0.9058	0.8907	0.8815	0.8771	0.8795	0.8792	0.891	0.919	0.9315	0.9382	0.9043
30	0.9032	0.8969	0.8717	0.8538	0.8431	0.8381	0.8408	0.8393	0.8527	0.8882	0.903	0.9108	0.8701
35	0.8685	0.8631	0.8324	0.8118	0.7999	0.7942	0.7973	0.7942	0.8086	0.8524	0.8693	0.8783	0.8308
40	0.8285	0.8249	0.7884	0.7651	0.752	0.7459	0.7493	0.7442	0.7594	0.8119	0.8307	0.8409	0.7868
45	0.7836	0.7823	0.74	0.714	0.7	0.6934	0.6971	0.6896	0.7052	0.767	0.7876	0.7987	0.7382
50	0.7342	0.7357	0.6874	0.6589	0.6441	0.6371	0.6411	0.631	0.6466	0.718	0.7402	0.7523	0.6855
55	0.6807	0.6855	0.6311	0.6002	0.5848	0.5775	0.5817	0.5686	0.584	0.6653	0.6889	0.7018	0.6292
60	0.6234	0.6321	0.5714	0.5383	0.5224	0.5149	0.5194	0.5029	0.5178	0.6092	0.634	0.6478	0.5695
65	0.5627	0.5759	0.5089	0.4737	0.4576	0.45	0.4545	0.4345	0.4485	0.5503	0.5761	0.5905	0.5069
70	0.4992	0.5173	0.444	0.4069	0.3907	0.383	0.3877	0.3639	0.3766	0.489	0.5156	0.5305	0.442
75	0.4333	0.4567	0.3772	0.3383	0.3222	0.3146	0.3194	0.2915	0.3028	0.4257	0.4529	0.4682	0.3752
80	0.3655	0.3946	0.3089	0.2684	0.2527	0.2452	0.2501	0.2179	0.2275	0.361	0.3884	0.4041	0.307
85	0.2964	0.3316	0.2398	0.1979	0.197	0.201	0.2006	0.1437	0.1513	0.2952	0.3228	0.3387	0.243
90	0.2264	0.2609	0.1967	0.19	0.1971	0.1996	0.1996	0.1498	0.1234	0.2315	0.2564	0.2724	0.2086

Tabla 20: Azimut de 85°

$\beta°$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9916	0.9919	0.9916	0.9914	0.9915	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9898	0.9887	0.9874	0.9861	0.9849	0.9842	0.9845	0.9849	0.9864	0.9883	0.9894	0.9901	0.9871
10	0.9823	0.9807	0.9772	0.9743	0.9722	0.971	0.9717	0.9719	0.9745	0.9795	0.982	0.9833	0.9767
15	0.9689	0.9672	0.961	0.9566	0.9537	0.9521	0.953	0.9527	0.9563	0.9651	0.9688	0.9708	0.9605
20	0.9494	0.9483	0.939	0.9331	0.9294	0.9276	0.9286	0.9275	0.9318	0.945	0.9499	0.9526	0.9385
25	0.9242	0.9242	0.9114	0.904	0.8997	0.8975	0.8987	0.8964	0.9012	0.9196	0.9256	0.9289	0.911
30	0.8933	0.8951	0.8783	0.8696	0.8646	0.8622	0.8636	0.8596	0.8648	0.8889	0.896	0.8999	0.878
35	0.8571	0.8611	0.84	0.8299	0.8245	0.8219	0.8235	0.8175	0.8226	0.8531	0.8612	0.8658	0.8399
40	0.8157	0.8226	0.7968	0.7854	0.7797	0.7769	0.7786	0.7703	0.775	0.8127	0.8217	0.8268	0.7969
45	0.7696	0.7798	0.7492	0.7364	0.7304	0.7274	0.7293	0.7184	0.7224	0.7679	0.7776	0.7833	0.7493
50	0.719	0.733	0.6974	0.6831	0.677	0.674	0.676	0.6621	0.6652	0.7189	0.7294	0.7356	0.6976
55	0.6644	0.6827	0.6418	0.6261	0.62	0.6169	0.619	0.6019	0.6039	0.6663	0.6774	0.6839	0.642
60	0.6061	0.6291	0.5828	0.5657	0.5597	0.5567	0.5588	0.5382	0.5388	0.6103	0.6219	0.6289	0.5831
65	0.5447	0.5727	0.5208	0.5024	0.4966	0.4936	0.4959	0.4714	0.4705	0.5515	0.5634	0.5707	0.5212
70	0.4805	0.514	0.4563	0.4366	0.4311	0.4283	0.4306	0.4021	0.3995	0.4902	0.5024	0.51	0.4568
75	0.4141	0.4533	0.3899	0.3688	0.3638	0.3612	0.3634	0.3308	0.3262	0.4269	0.4393	0.4472	0.3904
80	0.3459	0.3912	0.3219	0.2996	0.2951	0.2927	0.295	0.258	0.2514	0.3622	0.3746	0.3826	0.3225
85	0.2766	0.3281	0.2529	0.2294	0.2256	0.2235	0.2258	0.1843	0.1755	0.2965	0.3088	0.3169	0.2536
90	0.2065	0.2609	0.1967	0.1904	0.1981	0.2011	0.2009	0.1505	0.1235	0.2315	0.2423	0.2505	0.2044

Tabla 21: Azimut de 90°

$\beta°$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9916	0.9919	0.9916	0.9914	0.9915	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.988	0.9884	0.9885	0.9889	0.9886	0.9884	0.9885	0.9885	0.9885	0.9884	0.9882	0.9882	0.9884
10	0.9789	0.9801	0.9795	0.9798	0.9797	0.9795	0.9796	0.9791	0.9788	0.9797	0.9795	0.9795	0.9795
15	0.9637	0.9663	0.9644	0.9648	0.9649	0.9647	0.9648	0.9633	0.9626	0.9654	0.9651	0.9651	0.9646
20	0.9426	0.9471	0.9435	0.944	0.9442	0.9442	0.9443	0.9415	0.9402	0.9454	0.9451	0.9451	0.9439
25	0.9157	0.9228	0.917	0.9175	0.918	0.918	0.9182	0.9137	0.9115	0.9201	0.9196	0.9197	0.9176
30	0.8833	0.8933	0.8849	0.8855	0.8863	0.8865	0.8866	0.8801	0.877	0.8895	0.8889	0.8889	0.8859
35	0.8456	0.8591	0.8476	0.8482	0.8494	0.8497	0.8498	0.841	0.8366	0.8539	0.8531	0.8532	0.8489
40	0.8029	0.8203	0.8054	0.8058	0.8075	0.8081	0.8081	0.7967	0.7907	0.8135	0.8126	0.8127	0.807
45	0.7554	0.7773	0.7586	0.7588	0.761	0.7618	0.7618	0.7474	0.7396	0.7687	0.7676	0.7678	0.7605
50	0.7037	0.7303	0.7076	0.7075	0.7102	0.7112	0.7111	0.6935	0.6839	0.7199	0.7186	0.7187	0.7097
55	0.648	0.6798	0.6527	0.6521	0.6554	0.6567	0.6566	0.6354	0.6238	0.6673	0.6658	0.6659	0.655
60	0.5888	0.626	0.5943	0.5932	0.5971	0.5987	0.5986	0.5736	0.5599	0.6114	0.6096	0.6098	0.5968
65	0.5265	0.5695	0.5328	0.5312	0.5358	0.5376	0.5374	0.5085	0.4926	0.5526	0.5506	0.5508	0.5355
70	0.4617	0.5107	0.4688	0.4664	0.4717	0.4739	0.4737	0.4406	0.4224	0.4913	0.4891	0.4894	0.4716
75	0.3947	0.4499	0.4027	0.3995	0.4056	0.408	0.4078	0.3704	0.3498	0.4281	0.4256	0.4259	0.4057
80	0.3262	0.3877	0.3349	0.3309	0.3377	0.3405	0.3402	0.2984	0.2755	0.3634	0.3607	0.361	0.3381
85	0.2566	0.3245	0.2661	0.2611	0.2687	0.2719	0.2715	0.2251	0.1998	0.2977	0.2947	0.295	0.2694
90	0.1865	0.2609	0.1967	0.1907	0.1991	0.2026	0.2022	0.1512	0.1235	0.2315	0.2282	0.2286	0.2001

Tabla 22: Azimut de 95°

$\beta°$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9916	0.9919	0.9916	0.9914	0.9915	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9863	0.9881	0.9897	0.9916	0.9924	0.9926	0.9925	0.9921	0.9906	0.9885	0.987	0.9863	0.9898
10	0.9754	0.9795	0.9818	0.9853	0.9872	0.9879	0.9876	0.9862	0.983	0.9799	0.977	0.9757	0.9822
15	0.9585	0.9654	0.9678	0.9731	0.9761	0.9773	0.9767	0.9739	0.9689	0.9657	0.9614	0.9594	0.9687
20	0.9357	0.9459	0.9481	0.9549	0.9591	0.9608	0.96	0.9555	0.9485	0.9459	0.9402	0.9376	0.9493
25	0.9072	0.9213	0.9226	0.9309	0.9363	0.9386	0.9375	0.931	0.9218	0.9206	0.9136	0.9104	0.9243
30	0.8733	0.8916	0.8915	0.9013	0.9079	0.9107	0.9095	0.9006	0.8892	0.8901	0.8818	0.8779	0.8938
35	0.8341	0.8571	0.8552	0.8664	0.8742	0.8776	0.8761	0.8645	0.8505	0.8546	0.845	0.8406	0.858
40	0.79	0.818	0.8139	0.8262	0.8353	0.8392	0.8375	0.8229	0.8063	0.8143	0.8035	0.7986	0.8171
45	0.7413	0.7748	0.7679	0.7813	0.7915	0.796	0.7942	0.7763	0.7569	0.7696	0.7576	0.7522	0.7716
50	0.6883	0.7276	0.7177	0.7318	0.7433	0.7483	0.7462	0.7248	0.7025	0.7208	0.7077	0.7019	0.7217
55	0.6316	0.6769	0.6635	0.6781	0.6908	0.6964	0.6941	0.6689	0.6438	0.6683	0.6542	0.6479	0.6679
60	0.5715	0.623	0.6057	0.6207	0.6345	0.6406	0.6382	0.609	0.581	0.6124	0.5974	0.5908	0.6104
65	0.5084	0.5663	0.5448	0.5599	0.5749	0.5815	0.5789	0.5456	0.5147	0.5537	0.5378	0.5309	0.5498
70	0.4429	0.5073	0.4812	0.4962	0.5124	0.5194	0.5167	0.479	0.4453	0.4925	0.4758	0.4687	0.4865
75	0.3754	0.4465	0.4154	0.4301	0.4473	0.4549	0.452	0.4099	0.3734	0.4293	0.412	0.4047	0.4209
80	0.3065	0.3842	0.348	0.3621	0.3803	0.3883	0.3854	0.3386	0.2994	0.3646	0.3467	0.3393	0.3536
85	0.2367	0.321	0.2793	0.2927	0.3118	0.3202	0.3172	0.2659	0.2241	0.2989	0.2806	0.2731	0.2851
90	0.1865	0.2609	0.21	0.2224	0.2424	0.2511	0.248	0.1921	0.1479	0.2327	0.2282	0.2286	0.2209

Tabla 23: Azimut de 100°

$\beta°$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9916	0.9919	0.9916	0.9914	0.9915	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9845	0.9878	0.9908	0.9944	0.9962	0.9968	0.9965	0.9956	0.9927	0.9886	0.9857	0.9844	0.9912
10	0.9719	0.9789	0.984	0.9908	0.9947	0.9963	0.9955	0.9932	0.9872	0.9802	0.9746	0.9719	0.9849
15	0.9533	0.9645	0.9713	0.9812	0.9872	0.9898	0.9885	0.9845	0.9752	0.966	0.9578	0.9538	0.9727
20	0.9289	0.9447	0.9526	0.9657	0.9737	0.9773	0.9756	0.9694	0.9567	0.9463	0.9354	0.9301	0.9547
25	0.8988	0.9198	0.9281	0.9442	0.9544	0.9589	0.9568	0.9481	0.932	0.9211	0.9077	0.9011	0.9309
30	0.8633	0.8898	0.8981	0.9171	0.9294	0.9348	0.9322	0.9209	0.9012	0.8907	0.8748	0.867	0.9016
35	0.8227	0.8551	0.8627	0.8844	0.8988	0.9051	0.9022	0.8877	0.8644	0.8553	0.8369	0.8281	0.8669
40	0.7772	0.8158	0.8223	0.8464	0.8628	0.8701	0.8668	0.849	0.8218	0.8151	0.7945	0.7845	0.8272
45	0.7272	0.7723	0.7772	0.8035	0.8218	0.83	0.8263	0.8049	0.7739	0.7705	0.7477	0.7368	0.7827
50	0.6731	0.7249	0.7277	0.7558	0.7761	0.7851	0.781	0.7558	0.721	0.7218	0.697	0.6852	0.7337
55	0.6153	0.674	0.6742	0.7038	0.7259	0.7357	0.7313	0.7021	0.6635	0.6693	0.6427	0.63	0.6807
60	0.5542	0.6199	0.617	0.6479	0.6716	0.6822	0.6776	0.6441	0.6018	0.6135	0.5852	0.5719	0.6239
65	0.4904	0.5631	0.5567	0.5884	0.6137	0.625	0.6201	0.5823	0.5365	0.5548	0.525	0.5111	0.5639
70	0.4242	0.504	0.4935	0.5257	0.5526	0.5646	0.5594	0.5171	0.4679	0.4937	0.4626	0.4482	0.5011
75	0.3562	0.4431	0.4281	0.4605	0.4887	0.5012	0.4959	0.449	0.3966	0.4305	0.3984	0.3836	0.436
80	0.2869	0.3807	0.3609	0.3931	0.4225	0.4356	0.4301	0.3785	0.3232	0.3659	0.3329	0.3178	0.369
85	0.2169	0.3175	0.2924	0.3241	0.3545	0.3681	0.3624	0.3062	0.2481	0.3002	0.2666	0.2514	0.3007
90	0.1865	0.2609	0.2231	0.2539	0.2852	0.2992	0.2935	0.2326	0.172	0.234	0.2282	0.2286	0.2415

Tabla 24: Azimut de 105°

$\beta°$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9916	0.9919	0.9916	0.9914	0.9915	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9828	0.9875	0.9919	0.9971	0.9999	1.001	1.0004	0.9991	0.9948	0.9887	0.9845	0.9825	0.9925
10	0.9685	0.9783	0.9863	0.9962	1.002	1.0045	1.0033	1.0002	0.9913	0.9804	0.9722	0.9682	0.9876
15	0.9483	0.9636	0.9746	0.9893	0.9981	1.002	1.0001	0.9948	0.9813	0.9663	0.9542	0.9482	0.9767
20	0.9222	0.9435	0.957	0.9762	0.9882	0.9935	0.9909	0.9831	0.9649	0.9467	0.9307	0.9228	0.96
25	0.8906	0.9183	0.9336	0.9573	0.9723	0.9789	0.9757	0.965	0.942	0.9216	0.9019	0.8921	0.9374
30	0.8536	0.8881	0.9045	0.9325	0.9505	0.9585	0.9546	0.9408	0.913	0.8913	0.8679	0.8563	0.9093
35	0.8115	0.8531	0.8701	0.9021	0.9229	0.9323	0.9278	0.9106	0.8779	0.856	0.829	0.8157	0.8758
40	0.7646	0.8136	0.8306	0.8663	0.8899	0.9005	0.8955	0.8746	0.837	0.8159	0.7856	0.7707	0.8371
45	0.7134	0.7698	0.7863	0.8253	0.8516	0.8634	0.8579	0.833	0.7906	0.7713	0.7379	0.7216	0.7935
50	0.6581	0.7222	0.7376	0.7795	0.8083	0.8213	0.8153	0.7863	0.7391	0.7227	0.6864	0.6687	0.7455
55	0.5993	0.6711	0.6848	0.7291	0.7604	0.7744	0.7679	0.7347	0.6829	0.6703	0.6313	0.6124	0.6932
60	0.5373	0.6169	0.6282	0.6746	0.7081	0.7231	0.7162	0.6785	0.6223	0.6146	0.5732	0.5533	0.6372
65	0.4726	0.56	0.5684	0.6163	0.6519	0.6679	0.6606	0.6183	0.5579	0.5559	0.5125	0.4916	0.5778
70	0.4058	0.5008	0.5056	0.5548	0.5922	0.609	0.6014	0.5545	0.4901	0.4948	0.4496	0.428	0.5155
75	0.3373	0.4397	0.4406	0.4903	0.5294	0.5469	0.5391	0.4874	0.4195	0.4317	0.385	0.3628	0.4508
80	0.2676	0.3773	0.3736	0.4235	0.464	0.4821	0.4741	0.4178	0.3465	0.367	0.3193	0.2967	0.3841
85	0.1974	0.314	0.3052	0.3548	0.3965	0.4151	0.407	0.3459	0.2717	0.3014	0.2528	0.236	0.3165
90	0.1865	0.2609	0.236	0.2848	0.3274	0.3464	0.3382	0.2725	0.1957	0.2352	0.2282	0.2286	0.2617

Tabla 25: Azimut de 110°

$\beta°$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9916	0.9919	0.9916	0.9914	0.9915	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9812	0.9872	0.9931	0.9997	1.0035	1.005	1.0042	1.0025	0.9968	0.9888	0.9834	0.9807	0.9938
10	0.9652	0.9777	0.9885	1.0015	1.0092	1.0126	1.0109	1.007	0.9954	0.9806	0.9699	0.9645	0.9902
15	0.9433	0.9627	0.9779	0.9971	1.0088	1.014	1.0115	1.0049	0.9873	0.9666	0.9507	0.9428	0.9806
20	0.9157	0.9424	0.9613	0.9866	1.0023	1.0093	1.0059	0.9964	0.9728	0.9471	0.9261	0.9156	0.9651
25	0.8825	0.9169	0.9389	0.9701	0.9897	0.9985	0.9942	0.9815	0.9518	0.9221	0.8961	0.8832	0.9438
30	0.844	0.8864	0.9109	0.9476	0.971	0.9816	0.9765	0.9602	0.9246	0.8919	0.8611	0.8458	0.9168
35	0.8005	0.8511	0.8774	0.9194	0.9465	0.9588	0.9529	0.9329	0.8912	0.8567	0.8213	0.8037	0.8844
40	0.7523	0.8114	0.8387	0.8856	0.9164	0.9302	0.9235	0.8995	0.8518	0.8166	0.7769	0.7572	0.8467
45	0.6999	0.7674	0.7952	0.8466	0.8807	0.8961	0.8887	0.8605	0.8069	0.7722	0.7284	0.7067	0.8041
50	0.6435	0.7197	0.7472	0.8025	0.8398	0.8566	0.8487	0.816	0.7568	0.7236	0.676	0.6526	0.7569
55	0.5836	0.6684	0.6951	0.7537	0.794	0.8122	0.8036	0.7665	0.7018	0.6713	0.6203	0.5953	0.7055
60	0.5207	0.614	0.6391	0.7006	0.7437	0.7631	0.754	0.7121	0.6423	0.6156	0.5615	0.5351	0.6502
65	0.4553	0.5569	0.5798	0.6436	0.6891	0.7096	0.7001	0.6535	0.5788	0.557	0.5003	0.4726	0.5914
70	0.3878	0.4976	0.5175	0.583	0.6308	0.6523	0.6423	0.5909	0.5118	0.4959	0.4369	0.4083	0.5296
75	0.3188	0.4365	0.4527	0.5194	0.5691	0.5914	0.5811	0.5249	0.4418	0.4328	0.372	0.3426	0.4653
80	0.2488	0.374	0.386	0.4532	0.5044	0.5275	0.517	0.456	0.3692	0.3682	0.306	0.276	0.3989
85	0.1906	0.3107	0.3178	0.3849	0.4374	0.4611	0.4504	0.3846	0.2947	0.3026	0.2393	0.236	0.3342
90	0.1865	0.2609	0.2486	0.3149	0.3685	0.3925	0.3818	0.3113	0.2188	0.2364	0.2282	0.2286	0.2814

Tabla 26: Azimut de 115°

$\beta°$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9916	0.9919	0.9916	0.9914	0.9915	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9796	0.9869	0.9941	1.0023	1.0069	1.0089	1.0079	1.0058	0.9988	0.9889	0.9822	0.9789	0.9951
10	0.962	0.9771	0.9906	1.0066	1.0161	1.0204	1.0183	1.0135	0.9993	0.9808	0.9676	0.961	0.9928
15	0.9385	0.9618	0.981	1.0047	1.0191	1.0256	1.0224	1.0147	0.9931	0.9669	0.9473	0.9375	0.9844
20	0.9094	0.9413	0.9655	0.9966	1.0159	1.0246	1.0203	1.0093	0.9804	0.9475	0.9216	0.9086	0.9701
25	0.8747	0.9155	0.9441	0.9824	1.0065	1.0174	1.0121	0.9974	0.9612	0.9226	0.8906	0.8746	0.9499
30	0.8347	0.8847	0.917	0.9622	0.991	1.0039	0.9976	0.9791	0.9357	0.8925	0.8546	0.8356	0.9241
35	0.7899	0.8492	0.8844	0.9361	0.9694	0.9844	0.9771	0.9544	0.904	0.8573	0.8138	0.792	0.8927
40	0.7404	0.8093	0.8466	0.9044	0.9419	0.9589	0.9507	0.9237	0.8662	0.8174	0.7685	0.7442	0.856
45	0.6868	0.7651	0.8038	0.8672	0.9088	0.9276	0.9186	0.8871	0.8227	0.773	0.7191	0.6924	0.8143
50	0.6293	0.7171	0.7566	0.8248	0.8703	0.8908	0.881	0.8448	0.7738	0.7245	0.666	0.637	0.768
55	0.5684	0.6657	0.705	0.7776	0.8266	0.8488	0.8382	0.7972	0.72	0.6722	0.6096	0.5786	0.7173
60	0.5047	0.6111	0.6496	0.7258	0.7781	0.8017	0.7905	0.7446	0.6616	0.6166	0.5502	0.5175	0.6627
65	0.4385	0.5539	0.5908	0.6699	0.7251	0.7501	0.7383	0.6875	0.599	0.558	0.4884	0.4542	0.6045
70	0.3704	0.4945	0.5289	0.6104	0.6681	0.6942	0.6819	0.6262	0.5327	0.497	0.4246	0.3892	0.5432
75	0.3009	0.4333	0.4645	0.5475	0.6074	0.6345	0.6219	0.5612	0.4633	0.4339	0.3593	0.3229	0.4792
80	0.2306	0.3708	0.398	0.4818	0.5436	0.5714	0.5585	0.493	0.3912	0.3693	0.2931	0.256	0.4131
85	0.1906	0.3074	0.33	0.4139	0.477	0.5055	0.4924	0.422	0.3169	0.3037	0.2358	0.236	0.3526
90	0.1865	0.2609	0.2609	0.3441	0.4083	0.4372	0.4239	0.3489	0.2411	0.2375	0.2282	0.2286	0.3005

Tabla 27: Azimut de 120°

$\beta°$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9916	0.9919	0.9916	0.9914	0.9915	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.978	0.9866	0.9951	1.0048	1.0103	1.0127	1.0115	1.009	1.0007	0.989	0.9811	0.9772	0.9963
10	0.9589	0.9765	0.9927	1.0115	1.0228	1.0278	1.0253	1.0198	1.003	0.981	0.9654	0.9576	0.9952
15	0.9339	0.961	0.9841	1.0119	1.0291	1.0367	1.0329	1.0241	0.9987	0.9672	0.9441	0.9325	0.988
20	0.9033	0.9402	0.9695	1.0062	1.029	1.0393	1.0342	1.0217	0.9877	0.9479	0.9173	0.902	0.9749
25	0.8671	0.9142	0.9491	0.9942	1.0227	1.0355	1.0292	1.0127	0.9703	0.9231	0.8853	0.8663	0.9558
30	0.8258	0.8832	0.9229	0.9762	1.0101	1.0254	1.0179	0.9971	0.9464	0.893	0.8483	0.8259	0.931
35	0.7797	0.8474	0.8911	0.9522	0.9913	1.009	1.0004	0.9751	0.9162	0.8579	0.8066	0.7808	0.9006
40	0.729	0.8073	0.8541	0.9223	0.9665	0.9865	0.9767	0.9468	0.8799	0.8181	0.7604	0.7316	0.8649
45	0.6742	0.7629	0.8121	0.8869	0.9358	0.9579	0.9472	0.9125	0.8378	0.7738	0.7102	0.6786	0.8242
50	0.6157	0.7147	0.7655	0.8461	0.8995	0.9236	0.912	0.8723	0.7902	0.7253	0.6564	0.6221	0.7786
55	0.5539	0.6631	0.7146	0.8004	0.8578	0.8838	0.8713	0.8266	0.7375	0.6731	0.5993	0.5626	0.7287
60	0.4893	0.6084	0.6598	0.7499	0.8111	0.8388	0.8255	0.7757	0.68	0.6175	0.5393	0.5006	0.6747
65	0.4224	0.5511	0.6014	0.6952	0.7597	0.7888	0.7749	0.7201	0.6183	0.559	0.477	0.4365	0.617
70	0.3537	0.4916	0.5399	0.6365	0.7039	0.7344	0.7199	0.66	0.5527	0.498	0.4128	0.3708	0.5562
75	0.2838	0.4303	0.4758	0.5744	0.6442	0.6758	0.6609	0.5959	0.4839	0.435	0.3472	0.3041	0.4926
80	0.2131	0.3677	0.4095	0.5093	0.5811	0.6135	0.5983	0.5284	0.4122	0.3704	0.2807	0.2434	0.4273
85	0.1906	0.3043	0.3416	0.4416	0.515	0.5481	0.5327	0.4578	0.3382	0.3048	0.2358	0.236	0.3705
90	0.1865	0.2609	0.2726	0.372	0.4464	0.4799	0.4644	0.3849	0.2625	0.2386	0.2282	0.2286	0.3188

Tabla 28: Azimut de 125°

$\beta°$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9916	0.9919	0.9916	0.9914	0.9915	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9765	0.9864	0.9961	1.0071	1.0135	1.0162	1.0149	1.012	1.0025	0.9891	0.9801	0.9756	0.9975
10	0.956	0.976	0.9946	1.0161	1.0291	1.0349	1.0321	1.0258	1.0066	0.9811	0.9633	0.9544	0.9975
15	0.9296	0.9603	0.987	1.0188	1.0385	1.0473	1.043	1.033	1.004	0.9675	0.941	0.9277	0.9915
20	0.8975	0.9392	0.9734	1.0153	1.0415	1.0533	1.0474	1.0334	0.9947	0.9482	0.9132	0.8956	0.9794
25	0.86	0.9129	0.9538	1.0055	1.0381	1.0528	1.0455	1.0272	0.9788	0.9235	0.8803	0.8585	0.9614
30	0.8174	0.8817	0.9285	0.9895	1.0283	1.0458	1.0372	1.0143	0.9565	0.8936	0.8423	0.8166	0.9376
35	0.77	0.8457	0.8976	0.9674	1.0121	1.0324	1.0224	0.9948	0.9278	0.8585	0.7997	0.7702	0.9082
40	0.7181	0.8053	0.8613	0.9393	0.9898	1.0126	1.0015	0.9688	0.8929	0.8188	0.7527	0.7197	0.8734
45	0.6622	0.7608	0.82	0.9056	0.9614	0.9867	0.9744	0.9367	0.8521	0.7745	0.7018	0.6654	0.8335
50	0.6027	0.7124	0.774	0.8664	0.9272	0.9548	0.9414	0.8985	0.8056	0.7261	0.6472	0.6079	0.7887
55	0.54	0.6607	0.7237	0.822	0.8875	0.9171	0.9028	0.8546	0.754	0.674	0.5895	0.5474	0.7394
60	0.4747	0.6058	0.6693	0.7728	0.8424	0.874	0.8588	0.8053	0.6975	0.6184	0.529	0.4845	0.686
65	0.4071	0.5484	0.6114	0.7191	0.7924	0.8256	0.8097	0.751	0.6366	0.56	0.4662	0.4197	0.6289
70	0.3378	0.4887	0.5503	0.6613	0.7379	0.7725	0.756	0.692	0.5717	0.499	0.4016	0.3534	0.5685
75	0.2674	0.4274	0.4865	0.5999	0.6792	0.715	0.698	0.6288	0.5034	0.436	0.3357	0.2861	0.5053
80	0.1964	0.3647	0.4204	0.5353	0.6167	0.6535	0.6361	0.5619	0.4321	0.3715	0.2689	0.2434	0.4418
85	0.1906	0.3013	0.3527	0.468	0.551	0.5885	0.5709	0.4918	0.3583	0.3058	0.2358	0.236	0.3876
90	0.1865	0.2609	0.2837	0.3984	0.4825	0.5205	0.5027	0.419	0.2827	0.2396	0.2282	0.2286	0.3361

Tabla 29: Azimut de 130°

$\beta°$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9916	0.9919	0.9916	0.9914	0.9915	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9752	0.9861	0.997	1.0093	1.0165	1.0196	1.018	1.0148	1.0042	0.9892	0.9791	0.9741	0.9986
10	0.9532	0.9755	0.9964	1.0205	1.0351	1.0416	1.0384	1.0314	1.0099	0.9813	0.9614	0.9514	0.9997
15	0.9254	0.9595	0.9897	1.0253	1.0474	1.0573	1.0524	1.0413	1.0089	0.9677	0.9381	0.9231	0.9947
20	0.892	0.9382	0.9769	1.0239	1.0532	1.0664	1.0599	1.0445	1.0012	0.9486	0.9094	0.8896	0.9837
25	0.8533	0.9117	0.9582	1.0161	1.0525	1.069	1.0608	1.0408	0.9869	0.9239	0.8755	0.8511	0.9667
30	0.8094	0.8803	0.9337	1.0019	1.0453	1.065	1.0553	1.0304	0.966	0.894	0.8367	0.8079	0.9438
35	0.7609	0.8441	0.9036	0.9817	1.0317	1.0544	1.0432	1.0132	0.9386	0.8591	0.7933	0.7602	0.9153
40	0.7079	0.8035	0.8681	0.9553	1.0117	1.0373	1.0247	0.9895	0.9051	0.8194	0.7455	0.7085	0.8814
45	0.651	0.7588	0.8274	0.9232	0.9855	1.0138	1	0.9593	0.8655	0.7752	0.6938	0.6531	0.8422
50	0.5905	0.7103	0.782	0.8854	0.9533	0.9841	0.9691	0.923	0.8202	0.7269	0.6386	0.5945	0.7982
55	0.527	0.6584	0.7322	0.8423	0.9153	0.9484	0.9323	0.8808	0.7695	0.6748	0.5803	0.5331	0.7495
60	0.4609	0.6034	0.6784	0.7943	0.8719	0.907	0.89	0.833	0.7139	0.6193	0.5192	0.4694	0.6967
65	0.3927	0.5458	0.6208	0.7416	0.8232	0.8602	0.8424	0.78	0.6537	0.5609	0.456	0.4039	0.6401
70	0.3229	0.4861	0.5601	0.6846	0.7698	0.8084	0.7899	0.722	0.5895	0.4999	0.391	0.337	0.5801
75	0.2521	0.4247	0.4965	0.6238	0.712	0.7519	0.7328	0.6597	0.5216	0.437	0.3248	0.2693	0.5172
80	0.1947	0.362	0.4307	0.5597	0.6502	0.6911	0.6716	0.5935	0.4507	0.3724	0.2579	0.2434	0.4565
85	0.1906	0.2985	0.363	0.4927	0.5848	0.6265	0.6068	0.5237	0.3772	0.3068	0.2358	0.236	0.4035
90	0.1865	0.2609	0.2941	0.4232	0.5165	0.5586	0.5388	0.451	0.3016	0.2406	0.2282	0.2286	0.3524

Tabla 30: Azimut de 135°

$\beta°$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9916	0.9919	0.9916	0.9914	0.9915	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9739	0.9859	0.9979	1.0113	1.0193	1.0227	1.021	1.0175	1.0057	0.9892	0.9782	0.9726	0.9996
10	0.9506	0.9751	0.9981	1.0245	1.0406	1.0478	1.0443	1.0367	1.013	0.9815	0.9596	0.9485	1.0017
15	0.9216	0.9589	0.9922	1.0314	1.0556	1.0665	1.0611	1.0491	1.0135	0.968	0.9354	0.9189	0.9977
20	0.887	0.9373	0.9803	1.0318	1.0641	1.0786	1.0714	1.0547	1.0073	0.9489	0.9058	0.8841	0.9876
25	0.847	0.9106	0.9624	1.0259	1.0659	1.0841	1.0751	1.0535	0.9943	0.9243	0.8711	0.8443	0.9715
30	0.8021	0.879	0.9386	1.0135	1.0612	1.0828	1.0721	1.0453	0.9747	0.8945	0.8315	0.7997	0.9496
35	0.7524	0.8426	0.9092	0.9949	1.0499	1.0748	1.0625	1.0303	0.9487	0.8596	0.7873	0.7509	0.9219
40	0.6984	0.8018	0.8744	0.9702	1.032	1.0601	1.0463	1.0086	0.9163	0.82	0.7388	0.698	0.8888
45	0.6405	0.7569	0.8343	0.9395	1.0079	1.0389	1.0237	0.9804	0.8779	0.7758	0.6865	0.6416	0.8503
50	0.5792	0.7083	0.7895	0.903	0.9775	1.0113	0.9948	0.9458	0.8336	0.7276	0.6306	0.5821	0.8069
55	0.5149	0.6562	0.7401	0.8612	0.9412	0.9775	0.9598	0.9051	0.7839	0.6755	0.5717	0.5198	0.7589
60	0.4481	0.6011	0.6867	0.8142	0.8992	0.9377	0.919	0.8587	0.729	0.6201	0.5102	0.4553	0.7066
65	0.3793	0.5435	0.6296	0.7624	0.8518	0.8924	0.8727	0.8068	0.6696	0.5617	0.4465	0.3891	0.6504
70	0.309	0.4836	0.5692	0.7062	0.7994	0.8417	0.8213	0.7499	0.6059	0.5008	0.3812	0.3217	0.5908
75	0.2378	0.4221	0.5059	0.646	0.7424	0.7861	0.7651	0.6884	0.5385	0.4379	0.3147	0.2536	0.5282
80	0.1947	0.3594	0.4402	0.5823	0.6812	0.7259	0.7045	0.6227	0.4679	0.3733	0.2476	0.2434	0.4703
85	0.1906	0.2959	0.3727	0.5155	0.6162	0.6617	0.6401	0.5533	0.3946	0.3077	0.2358	0.236	0.4183
90	0.1865	0.2609	0.3038	0.4462	0.548	0.594	0.5722	0.4807	0.3192	0.2415	0.2282	0.2286	0.3675

Tabla 31: Azimut de 140°

$\beta°$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9916	0.9919	0.9916	0.9914	0.9915	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9727	0.9857	0.9987	1.0132	1.0218	1.0256	1.0237	1.0199	1.0072	0.9893	0.9774	0.9714	1.0005
10	0.9483	0.9747	0.9997	1.0282	1.0457	1.0535	1.0496	1.0415	1.0159	0.9816	0.9579	0.946	1.0035
15	0.9181	0.9582	0.9946	1.0369	1.0632	1.075	1.0691	1.0562	1.0178	0.9682	0.9329	0.9151	1.0004
20	0.8824	0.9365	0.9834	1.0391	1.074	1.0898	1.082	1.0641	1.0128	0.9492	0.9025	0.879	0.9912
25	0.8413	0.9096	0.9662	1.0348	1.0782	1.0979	1.0881	1.065	1.0012	0.9247	0.867	0.838	0.976
30	0.7953	0.8778	0.9431	1.0241	1.0757	1.0991	1.0875	1.059	0.9828	0.8949	0.8267	0.7923	0.9549
35	0.7446	0.8412	0.9143	1.007	1.0665	1.0935	1.0802	1.046	0.9579	0.8601	0.7818	0.7423	0.928
40	0.6897	0.8003	0.8801	0.9837	1.0507	1.081	1.0661	1.0262	0.9266	0.8205	0.7327	0.6885	0.8955
45	0.631	0.7553	0.8407	0.9544	1.0283	1.0619	1.0454	0.9996	0.8892	0.7764	0.6797	0.6311	0.8577
50	0.5688	0.7064	0.7963	0.9192	0.9996	1.0362	1.0183	0.9666	0.8459	0.7282	0.6233	0.5707	0.815
55	0.5038	0.6542	0.7474	0.8784	0.9648	1.0041	0.9849	0.9274	0.797	0.6762	0.5639	0.5076	0.7675
60	0.4364	0.5991	0.6944	0.8323	0.9242	0.9659	0.9456	0.8822	0.7429	0.6208	0.5019	0.4425	0.7157
65	0.367	0.5413	0.6376	0.7814	0.8779	0.9218	0.9005	0.8314	0.6841	0.5625	0.4379	0.3757	0.6599
70	0.2963	0.4814	0.5774	0.7259	0.8265	0.8721	0.8501	0.7754	0.6209	0.5016	0.3722	0.3078	0.6006
75	0.2247	0.4198	0.5144	0.6662	0.7702	0.8174	0.7946	0.7145	0.5539	0.4387	0.3055	0.2507	0.5392
80	0.1947	0.357	0.4489	0.6029	0.7095	0.7578	0.7346	0.6493	0.4836	0.3742	0.2433	0.2434	0.4833
85	0.1906	0.2935	0.3815	0.5364	0.6449	0.694	0.6705	0.5802	0.4105	0.3086	0.2358	0.236	0.4319
90	0.1865	0.2609	0.3126	0.4672	0.5767	0.6263	0.6027	0.5078	0.3351	0.2424	0.2282	0.2286	0.3812

Tabla 32: Azimut de 145°

$\beta°$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9916	0.9919	0.9916	0.9914	0.9915	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9716	0.9855	0.9994	1.0149	1.0241	1.0282	1.0261	1.0221	1.0085	0.9894	0.9766	0.9702	1.0014
10	0.9462	0.9743	1.0011	1.0316	1.0503	1.0587	1.0545	1.0458	1.0184	0.9817	0.9564	0.9436	1.0052
15	0.915	0.9577	0.9966	1.0419	1.07	1.0826	1.0763	1.0627	1.0215	0.9684	0.9307	0.9116	1.0029
20	0.8782	0.9357	0.9861	1.0457	1.083	1.0999	1.0915	1.0726	1.0178	0.9494	0.8996	0.8744	0.9945
25	0.8362	0.9087	0.9696	1.0429	1.0893	1.1103	1.0999	1.0755	1.0073	0.925	0.8634	0.8323	0.98
30	0.7892	0.8767	0.9471	1.0337	1.0888	1.1138	1.1014	1.0713	0.99	0.8953	0.8224	0.7856	0.9596
35	0.7376	0.84	0.919	1.018	1.0815	1.1103	1.0961	1.0601	0.9661	0.8605	0.7768	0.7347	0.9334
40	0.6819	0.7989	0.8853	0.9959	1.0674	1.0999	1.0839	1.0419	0.9358	0.821	0.7271	0.6799	0.9016
45	0.6223	0.7537	0.8464	0.9678	1.0467	1.0826	1.065	1.017	0.8993	0.777	0.6736	0.6216	0.8644
50	0.5595	0.7048	0.8025	0.9336	1.0196	1.0586	1.0395	0.9854	0.8569	0.7288	0.6167	0.5604	0.8222
55	0.4938	0.6525	0.754	0.8938	0.9861	1.0281	1.0075	0.9474	0.8087	0.6768	0.5568	0.4967	0.7752
60	0.4258	0.5972	0.7013	0.8486	0.9467	0.9912	0.9695	0.9033	0.7553	0.6215	0.4944	0.4309	0.7238
65	0.3559	0.5393	0.6448	0.7984	0.9015	0.9482	0.9255	0.8535	0.697	0.5631	0.4301	0.3635	0.6684
70	0.2848	0.4794	0.5849	0.7435	0.8509	0.8996	0.876	0.7982	0.6343	0.5023	0.3641	0.2952	0.6094
75	0.2129	0.4177	0.5221	0.6844	0.7952	0.8455	0.8212	0.738	0.5677	0.4394	0.2972	0.2507	0.5493
80	0.1947	0.3549	0.4567	0.6214	0.735	0.7865	0.7617	0.6733	0.4977	0.3749	0.2433	0.2434	0.4953
85	0.1906	0.2914	0.3894	0.5551	0.6707	0.723	0.6979	0.6044	0.4247	0.3093	0.2358	0.236	0.444
90	0.1865	0.2609	0.3206	0.486	0.6026	0.6554	0.6302	0.5321	0.3494	0.2431	0.2282	0.2286	0.3936

Tabla 33: Azimut de 150°

$\beta°$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9916	0.9919	0.9916	0.9914	0.9915	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9707	0.9853	1	1.0164	1.0261	1.0304	1.0283	1.024	1.0096	0.9894	0.9759	0.9692	1.0021
10	0.9443	0.974	1.0023	1.0345	1.0543	1.0632	1.0588	1.0496	1.0207	0.9819	0.9551	0.9416	1.0067
15	0.9122	0.9572	0.9985	1.0463	1.076	1.0894	1.0827	1.0683	1.0249	0.9686	0.9287	0.9086	1.0051
20	0.8745	0.9351	0.9886	1.0514	1.0909	1.1088	1.0999	1.0801	1.0222	0.9497	0.897	0.8704	0.9974
25	0.8316	0.9079	0.9726	1.05	1.099	1.1213	1.1102	1.0847	1.0127	0.9253	0.8602	0.8273	0.9836
30	0.7838	0.8757	0.9507	1.0421	1.1003	1.1267	1.1136	1.0822	0.9964	0.8956	0.8186	0.7797	0.9638
35	0.7314	0.8389	0.9231	1.0276	1.0947	1.1252	1.1101	1.0725	0.9734	0.8609	0.7725	0.7279	0.9382
40	0.6749	0.7977	0.8899	1.0067	1.0822	1.1165	1.0996	1.0558	0.9439	0.8214	0.7222	0.6723	0.9069
45	0.6147	0.7524	0.8514	0.9796	1.063	1.1009	1.0822	1.0322	0.9082	0.7774	0.6682	0.6133	0.8703
50	0.5512	0.7033	0.808	0.9464	1.0371	1.0784	1.0581	1.0019	0.8664	0.7293	0.6109	0.5513	0.8285
55	0.485	0.6509	0.7599	0.9074	1.0049	1.0492	1.0275	0.965	0.819	0.6774	0.5506	0.487	0.782
60	0.4165	0.5955	0.7074	0.863	0.9665	1.0135	0.9905	0.9219	0.7662	0.622	0.4879	0.4206	0.731
65	0.3462	0.5376	0.6511	0.8134	0.9222	0.9716	0.9475	0.8729	0.7084	0.5638	0.4232	0.3528	0.6759
70	0.2747	0.4776	0.5915	0.7591	0.8723	0.9238	0.8988	0.8184	0.6461	0.5029	0.357	0.2841	0.6172
75	0.2025	0.4159	0.5288	0.7003	0.8173	0.8704	0.8447	0.7587	0.5798	0.44	0.2898	0.2507	0.5583
80	0.1947	0.353	0.4636	0.6377	0.7575	0.8119	0.7856	0.6943	0.51	0.3756	0.2433	0.2434	0.5059
85	0.1906	0.2895	0.3964	0.5716	0.6934	0.7486	0.722	0.6257	0.4372	0.31	0.2358	0.236	0.4547
90	0.1865	0.2609	0.3276	0.5025	0.6254	0.681	0.6544	0.5534	0.3619	0.2438	0.2282	0.2286	0.4045

Tabla 34: Azimut de 150°

$\beta°$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9916	0.9919	0.9916	0.9914	0.9915	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9699	0.9852	1.0005	1.0176	1.0279	1.0324	1.0301	1.0256	1.0106	0.9895	0.9754	0.9683	1.0027
10	0.9427	0.9737	1.0034	1.0371	1.0578	1.0671	1.0624	1.0529	1.0226	0.982	0.9539	0.9398	1.0079
15	0.9098	0.9568	1.0001	1.05	1.0811	1.0952	1.0882	1.0732	1.0278	0.9687	0.927	0.9059	1.007
20	0.8713	0.9345	0.9906	1.0564	1.0977	1.1164	1.1071	1.0865	1.026	0.9499	0.8948	0.8669	0.9998
25	0.8277	0.9072	0.9752	1.0562	1.1074	1.1307	1.1191	1.0926	1.0173	0.9255	0.8574	0.823	0.9866
30	0.7792	0.8749	0.9538	1.0493	1.1102	1.1379	1.1242	1.0915	1.0018	0.8959	0.8153	0.7746	0.9674
35	0.7261	0.838	0.9266	1.0358	1.106	1.1379	1.1221	1.0832	0.9796	0.8613	0.7687	0.7221	0.9423
40	0.669	0.7966	0.8938	1.0159	1.0949	1.1308	1.1131	1.0678	0.9509	0.8218	0.718	0.6657	0.9115
45	0.6082	0.7512	0.8557	0.9897	1.0769	1.1166	1.0971	1.0453	0.9158	0.7779	0.6636	0.6061	0.8753
50	0.5441	0.7021	0.8127	0.9573	1.0522	1.0954	1.0742	1.016	0.8746	0.7297	0.6058	0.5436	0.834
55	0.4774	0.6496	0.7649	0.9191	1.021	1.0674	1.0446	0.9801	0.8277	0.6778	0.5452	0.4786	0.7878
60	0.4084	0.5941	0.7127	0.8753	0.9835	1.0327	1.0086	0.9378	0.7754	0.6225	0.4822	0.4118	0.7371
65	0.3378	0.5361	0.6567	0.8262	0.94	0.9917	0.9665	0.8895	0.7181	0.5643	0.4172	0.3436	0.6823
70	0.266	0.476	0.5971	0.7723	0.8908	0.9446	0.9184	0.8356	0.6561	0.5035	0.3508	0.2745	0.6238
75	0.1987	0.4143	0.5346	0.7139	0.8362	0.8918	0.8649	0.7764	0.5901	0.4406	0.2835	0.2507	0.5663
80	0.1947	0.3514	0.4695	0.6515	0.7768	0.8336	0.8062	0.7123	0.5205	0.3761	0.2433	0.2434	0.5149
85	0.1906	0.2878	0.4023	0.5856	0.7128	0.7705	0.7428	0.6439	0.4478	0.3106	0.2358	0.236	0.4639
90	0.1865	0.2609	0.3336	0.5165	0.6449	0.703	0.6751	0.5717	0.3726	0.2444	0.2282	0.2286	0.4138

Tabla 35: Azimut de 160°

$\beta°$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9916	0.9919	0.9916	0.9914	0.9915	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9692	0.9851	1.001	1.0187	1.0293	1.034	1.0317	1.027	1.0114	0.9895	0.9749	0.9675	1.0033
10	0.9414	0.9734	1.0043	1.0392	1.0606	1.0703	1.0655	1.0556	1.0242	0.982	0.953	0.9383	1.009
15	0.9078	0.9564	1.0014	1.0532	1.0854	1.0999	1.0927	1.0772	1.0301	0.9688	0.9256	0.9038	1.0085
20	0.8687	0.9341	0.9924	1.0605	1.1033	1.1227	1.1131	1.0918	1.0291	0.95	0.8929	0.864	1.0019
25	0.8244	0.9066	0.9773	1.0612	1.1144	1.1385	1.1265	1.0991	1.0212	0.9257	0.8551	0.8195	0.9891
30	0.7753	0.8742	0.9563	1.0553	1.1184	1.1471	1.1329	1.0992	1.0064	0.8962	0.8126	0.7704	0.9704
35	0.7217	0.8372	0.9295	1.0427	1.1154	1.1485	1.1321	1.092	0.9848	0.8615	0.7656	0.7172	0.9457
40	0.6641	0.7958	0.8971	1.0236	1.1054	1.1426	1.1242	1.0777	0.9566	0.8221	0.7145	0.6603	0.9153
45	0.6027	0.7503	0.8593	0.9981	1.0885	1.1296	1.1093	1.0562	0.922	0.7782	0.6598	0.6001	0.8795
50	0.5383	0.701	0.8165	0.9664	1.0647	1.1095	1.0875	1.0277	0.8814	0.7301	0.6017	0.5371	0.8385
55	0.4711	0.6485	0.769	0.9287	1.0344	1.0824	1.0588	0.9926	0.8349	0.6782	0.5408	0.4717	0.7926
60	0.4018	0.5929	0.7171	0.8855	0.9976	1.0486	1.0237	0.951	0.783	0.623	0.4775	0.4045	0.7422
65	0.3308	0.5349	0.6613	0.8368	0.9547	1.0083	0.9822	0.9033	0.726	0.5647	0.4123	0.336	0.6876
70	0.2588	0.4748	0.6019	0.7833	0.906	0.9619	0.9347	0.8498	0.6644	0.5039	0.3457	0.2666	0.6293
75	0.1987	0.413	0.5394	0.7252	0.8519	0.9096	0.8816	0.791	0.5985	0.441	0.2783	0.2507	0.5732
80	0.1947	0.3501	0.4744	0.6629	0.7928	0.8518	0.8232	0.7272	0.529	0.3766	0.2433	0.2434	0.5224
85	0.1906	0.2865	0.4072	0.5971	0.729	0.7888	0.76	0.6589	0.4564	0.311	0.2358	0.236	0.4714
90	0.1865	0.2609	0.3385	0.5281	0.661	0.7211	0.6923	0.5867	0.3812	0.2449	0.2282	0.2286	0.4215

Tabla 36: Azimut de 165°

$\beta°$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9916	0.9919	0.9916	0.9914	0.9915	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9687	0.985	1.0013	1.0195	1.0304	1.0353	1.0329	1.0281	1.012	0.9896	0.9745	0.967	1.0037
10	0.9403	0.9733	1.0049	1.0408	1.0629	1.0728	1.0679	1.0577	1.0255	0.9821	0.9523	0.9372	1.0098
15	0.9062	0.9561	1.0024	1.0556	1.0887	1.1037	1.0962	1.0804	1.032	0.9689	0.9245	0.902	1.0097
20	0.8667	0.9337	0.9937	1.0638	1.1078	1.1277	1.1178	1.096	1.0316	0.9501	0.8914	0.8618	1.0035
25	0.8219	0.9062	0.979	1.0652	1.1198	1.1446	1.1323	1.1043	1.0242	0.9259	0.8533	0.8167	0.9911
30	0.7723	0.8737	0.9583	1.06	1.1249	1.1544	1.1397	1.1053	1.0099	0.8963	0.8105	0.7671	0.9727
35	0.7183	0.8366	0.9318	1.048	1.1228	1.1568	1.14	1.099	0.9888	0.8617	0.7632	0.7134	0.9484
40	0.6602	0.7951	0.8996	1.0296	1.1137	1.1519	1.133	1.0854	0.9611	0.8223	0.7118	0.6561	0.9183
45	0.5985	0.7495	0.8622	1.0046	1.0975	1.1398	1.119	1.0647	0.927	0.7785	0.6567	0.5954	0.8828
50	0.5337	0.7002	0.8196	0.9735	1.0745	1.1206	1.0979	1.0369	0.8866	0.7304	0.5984	0.532	0.842
55	0.4662	0.6476	0.7723	0.9363	1.0448	1.0943	1.07	1.0024	0.8405	0.6785	0.5373	0.4663	0.7964
60	0.3966	0.592	0.7206	0.8934	1.0087	1.0611	1.0354	0.9614	0.7888	0.6233	0.4738	0.3988	0.7462
65	0.3254	0.5339	0.6649	0.8451	0.9663	1.0214	0.9945	0.9141	0.7321	0.565	0.4085	0.33	0.6918
70	0.2531	0.4738	0.6056	0.7918	0.918	0.9755	0.9475	0.861	0.6707	0.5043	0.3417	0.2604	0.6336
75	0.1987	0.412	0.5432	0.7339	0.8643	0.9236	0.8948	0.8024	0.605	0.4414	0.2741	0.2507	0.5787
80	0.1947	0.349	0.4782	0.6718	0.8054	0.8661	0.8367	0.7388	0.5357	0.377	0.2433	0.2434	0.5283
85	0.1906	0.2854	0.4111	0.6061	0.7418	0.8033	0.7736	0.6707	0.4631	0.3114	0.2358	0.236	0.4774
90	0.1865	0.2609	0.3423	0.5371	0.6738	0.7498	0.7173	0.5985	0.3879	0.2452	0.2282	0.2286	0.4297

Tabla 37: Azimut de 170°

$\beta°$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9916	0.9919	0.9916	0.9914	0.9915	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9683	0.9849	1.0016	1.0201	1.0313	1.0362	1.0337	1.0288	1.0125	0.9896	0.9743	0.9665	1.004
10	0.9396	0.9731	1.0054	1.042	1.0645	1.0746	1.0696	1.0592	1.0264	0.9822	0.9517	0.9364	1.0104
15	0.9051	0.9559	1.0032	1.0574	1.0911	1.1064	1.0988	1.0827	1.0334	0.969	0.9237	0.9008	1.0106
20	0.8652	0.9334	0.9947	1.0661	1.1109	1.1313	1.1212	1.099	1.0334	0.9502	0.8904	0.8601	1.0047
25	0.8201	0.9058	0.9802	1.0681	1.1238	1.1491	1.1365	1.108	1.0264	0.926	0.852	0.8147	0.9925
30	0.7701	0.8733	0.9597	1.0633	1.1295	1.1596	1.1446	1.1096	1.0125	0.8965	0.8089	0.7647	0.9744
35	0.7158	0.8361	0.9334	1.0519	1.1281	1.1628	1.1456	1.104	0.9917	0.8619	0.7614	0.7107	0.9503
40	0.6574	0.7946	0.9015	1.0339	1.1196	1.1586	1.1393	1.091	0.9643	0.8225	0.7098	0.653	0.9205
45	0.5954	0.749	0.8642	1.0094	1.1041	1.1472	1.1259	1.0708	0.9305	0.7786	0.6546	0.5921	0.8851
50	0.5303	0.6996	0.8218	0.9786	1.0816	1.1285	1.1054	1.0435	0.8904	0.7306	0.5961	0.5284	0.8446
55	0.4626	0.647	0.7746	0.9417	1.0524	1.1028	1.078	1.0095	0.8445	0.6788	0.5348	0.4624	0.7991
60	0.3928	0.5914	0.7231	0.8991	1.0166	1.0701	1.0439	0.9688	0.793	0.6235	0.4712	0.3947	0.749
65	0.3214	0.5332	0.6675	0.8511	0.9746	1.0309	1.0034	0.9218	0.7364	0.5653	0.4057	0.3257	0.6948
70	0.249	0.473	0.6083	0.798	0.9267	0.9853	0.9567	0.869	0.6751	0.5045	0.3388	0.2578	0.6369
75	0.1987	0.4112	0.546	0.7402	0.8732	0.9338	0.9043	0.8106	0.6095	0.4417	0.2712	0.2507	0.5826
80	0.1947	0.3483	0.481	0.6782	0.8145	0.8766	0.8465	0.7472	0.5403	0.3772	0.2433	0.2434	0.5326
85	0.1906	0.2846	0.4138	0.6125	0.7511	0.828	0.7836	0.6792	0.4678	0.3117	0.2358	0.236	0.4829
90	0.1865	0.2609	0.3451	0.5435	0.6921	0.7606	0.7275	0.607	0.3925	0.2455	0.2282	0.2286	0.4348

Tabla 38: Azimut de 175°

$\beta°$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9916	0.9919	0.9916	0.9914	0.9915	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9681	0.9849	1.0017	1.0205	1.0318	1.0367	1.0343	1.0293	1.0128	0.9896	0.9741	0.9663	1.0042
10	0.9391	0.973	1.0057	1.0427	1.0655	1.0757	1.0706	1.0602	1.0269	0.9822	0.9514	0.9359	1.0108
15	0.9044	0.9558	1.0036	1.0584	1.0926	1.1081	1.1003	1.084	1.0342	0.969	0.9232	0.9001	1.0112
20	0.8643	0.9333	0.9953	1.0675	1.1129	1.1334	1.1232	1.1008	1.0344	0.9503	0.8898	0.8592	1.0054
25	0.819	0.9056	0.9809	1.0698	1.1261	1.1517	1.139	1.1102	1.0277	0.9261	0.8513	0.8134	0.9934
30	0.7688	0.8731	0.9606	1.0654	1.1323	1.1627	1.1476	1.1123	1.014	0.8966	0.808	0.7633	0.9754
35	0.7143	0.8359	0.9344	1.0542	1.1313	1.1664	1.149	1.107	0.9935	0.862	0.7603	0.709	0.9514
40	0.6557	0.7943	0.9026	1.0365	1.1232	1.1627	1.1432	1.0944	0.9663	0.8226	0.7086	0.6512	0.9218
45	0.5936	0.7486	0.8654	1.0122	1.108	1.1516	1.1301	1.0745	0.9326	0.7788	0.6533	0.59	0.8866
50	0.5283	0.6993	0.8231	0.9816	1.0859	1.1333	1.11	1.0475	0.8927	0.7307	0.5947	0.5262	0.8461
55	0.4605	0.6466	0.7761	0.945	1.0569	1.1079	1.0829	1.0137	0.8469	0.6789	0.5333	0.4601	0.8007
60	0.3906	0.591	0.7246	0.9026	1.0214	1.0756	1.049	0.9732	0.7956	0.6237	0.4696	0.3922	0.7507
65	0.3191	0.5328	0.6691	0.8547	0.9797	1.0366	1.0088	0.9265	0.739	0.5654	0.404	0.3231	0.6966
70	0.2466	0.4726	0.6099	0.8017	0.9319	0.9913	0.9623	0.8738	0.6778	0.5047	0.3371	0.2578	0.639
75	0.1987	0.4108	0.5477	0.744	0.8786	0.9399	0.9101	0.8155	0.6122	0.4418	0.2694	0.2507	0.585
80	0.1947	0.3478	0.4827	0.682	0.8201	0.883	0.8525	0.7522	0.5429	0.3774	0.2433	0.2434	0.5352
85	0.1906	0.2842	0.4156	0.6163	0.7569	0.8345	0.8012	0.6843	0.4704	0.3118	0.2358	0.236	0.4865
90	0.1865	0.2609	0.3468	0.5473	0.6979	0.7671	0.7337	0.6123	0.3951	0.2457	0.2282	0.2286	0.4375

Tabla 39: Azimut de 180°

$\beta°$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9916	0.9919	0.9916	0.9914	0.9915	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.968	0.9849	1.0018	1.0206	1.0319	1.0369	1.0344	1.0294	1.0128	0.9896	0.974	0.9662	1.0042
10	0.939	0.973	1.0058	1.043	1.0658	1.0761	1.071	1.0605	1.0271	0.9822	0.9513	0.9357	1.0109
15	0.9042	0.9558	1.0038	1.0588	1.0931	1.1086	1.1009	1.0845	1.0344	0.9691	0.9231	0.8998	1.0113
20	0.864	0.9332	0.9955	1.068	1.1135	1.1342	1.1239	1.1014	1.0348	0.9503	0.8896	0.8588	1.0056
25	0.8186	0.9056	0.9812	1.0704	1.1269	1.1526	1.1398	1.1109	1.0281	0.9261	0.851	0.813	0.9937
30	0.7684	0.873	0.9609	1.0661	1.1332	1.1638	1.1486	1.1132	1.0145	0.8966	0.8077	0.7628	0.9757
35	0.7138	0.8358	0.9347	1.055	1.1324	1.1676	1.1501	1.108	0.9941	0.862	0.76	0.7085	0.9518
40	0.6551	0.7942	0.903	1.0373	1.1244	1.164	1.1444	1.0955	0.9669	0.8227	0.7082	0.6505	0.9222
45	0.5929	0.7485	0.8658	1.0131	1.1093	1.1531	1.1315	1.0757	0.9333	0.7788	0.6528	0.5894	0.887
50	0.5277	0.6992	0.8236	0.9827	1.0873	1.1349	1.1115	1.0489	0.8935	0.7308	0.5942	0.5255	0.8466
55	0.4598	0.6465	0.7765	0.9461	1.0585	1.1096	1.0845	1.0151	0.8477	0.6789	0.5328	0.4593	0.8013
60	0.3898	0.5908	0.7251	0.9037	1.023	1.0774	1.0508	0.9747	0.7964	0.6237	0.469	0.3914	0.7513
65	0.3183	0.5327	0.6696	0.8558	0.9813	1.0385	1.0106	0.928	0.7399	0.5655	0.4034	0.3222	0.6972
70	0.2458	0.4725	0.6105	0.8029	0.9337	0.9933	0.9642	0.8754	0.6786	0.5047	0.3365	0.2578	0.6397
75	0.1987	0.4106	0.5482	0.7452	0.8804	0.942	0.912	0.8172	0.6131	0.4419	0.2688	0.2507	0.5857
80	0.1947	0.3477	0.4833	0.6833	0.822	0.8991	0.8545	0.7539	0.5438	0.3774	0.2433	0.2434	0.5372
85	0.1906	0.284	0.4161	0.6176	0.7589	0.8367	0.8032	0.686	0.4712	0.3119	0.2358	0.236	0.4873
90	0.1865	0.2609	0.3473	0.5486	0.6998	0.7693	0.7357	0.6142	0.3959	0.2457	0.2282	0.2286	0.4384