

## Cortés, Honduras

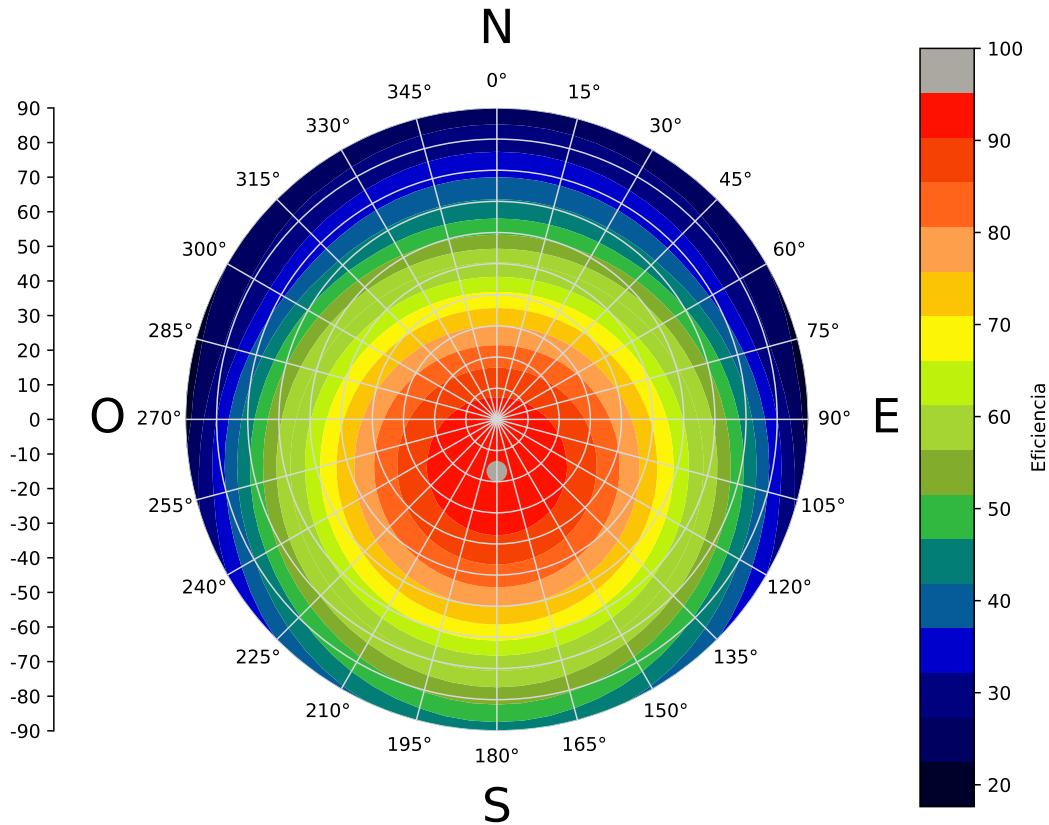


Tabla 1: Generalidades

Latitud	15.505433
Longitud	-88.024884
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 ( $\Gamma$ ), irradiancia UVA ( $\beta$ ), índice de claridad de insolación del cielo ( $\alpha$ ), albedo ( $\rho$ ), ángulo de declinación solar ( $\delta$ ) y ángulo de puesta del sol ( $\theta$ ).

	$\Gamma$	$\beta$	$\alpha$	$\rho$	$\delta$	$\theta$
Enero	4.6423	10.7404	0.5101	0.1209	-20.8472	83.9301
Febrero	4.8754	10.2716	0.4994	0.1032	-13.3253	86.2235
Marzo	5.3369	8.9378	0.5241	0.1195	-2.3892	89.3341
Abril	5.6312	9.1851	0.5294	0.1285	9.4932	92.6676
Mayo	5.4188	8.9086	0.5209	0.121	18.8058	95.4296
Junio	5.3327	9.0616	0.5084	0.1168	23.0771	96.7887
Julio	5.3808	9.1816	0.5206	0.12	21.1015	96.1508
Agosto	5.4037	9.2753	0.5213	0.1255	13.296	93.7699
Septiembre	5.2298	9.1159	0.529	0.1374	1.9936	90.5554
Octubre	4.8449	8.9691	0.5003	0.1109	-9.8485	87.23
Noviembre	4.0655	7.2573	0.4643	0.1102	-19.0505	84.495
Diciembre	3.8935	7.0984	0.4676	0.111	-23.0956	83.2052
Promedio	4.9141	8.4165	0.5092	0.1108	—	89.9817

Tabla 3: Azimut de 0°

$\beta^\circ$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9911	0.9913	0.9916	0.9918	0.9912	0.9911	0.9911	0.9914
5	1.0075	0.9912	0.9736	0.9551	0.943	0.9373	0.9399	0.9455	0.9625	0.986	1.0017	1.01	0.9711
10	1.0175	0.9854	0.9495	0.9122	0.8886	0.8777	0.8827	0.8931	0.9267	0.9748	1.0062	1.0227	0.9448
15	1.0211	0.9739	0.9195	0.8637	0.8289	0.8127	0.8201	0.8349	0.8847	0.9579	1.0046	1.0292	0.9126
20	1.0181	0.9567	0.8839	0.8099	0.7641	0.7429	0.7527	0.7714	0.8368	0.9351	0.9969	1.0293	0.8748
25	1.0087	0.934	0.8428	0.7512	0.6949	0.6688	0.6808	0.7029	0.7833	0.9069	0.9831	1.0232	0.8317
30	0.9928	0.9059	0.7965	0.688	0.6217	0.591	0.6052	0.6301	0.7246	0.8733	0.9634	1.0107	0.7836
35	0.9706	0.8727	0.7456	0.6208	0.5452	0.51	0.5263	0.5535	0.6613	0.8347	0.938	0.9922	0.7309
40	0.9423	0.8345	0.6902	0.5502	0.4658	0.4266	0.4447	0.4736	0.5937	0.7913	0.9069	0.9676	0.674
45	0.9081	0.7918	0.6309	0.4766	0.3843	0.3413	0.3612	0.3911	0.5224	0.7435	0.8705	0.9371	0.6132
50	0.8683	0.7448	0.5681	0.4007	0.3013	0.2549	0.2763	0.3067	0.4479	0.6916	0.829	0.901	0.5492
55	0.8231	0.6938	0.5023	0.323	0.2174	0.2076	0.2057	0.2209	0.3709	0.636	0.7828	0.8597	0.4869
60	0.7729	0.6394	0.4339	0.2442	0.1994	0.2033	0.2017	0.1347	0.2918	0.5771	0.7321	0.8133	0.437
65	0.7181	0.5818	0.3636	0.1793	0.1954	0.1989	0.1975	0.1272	0.2113	0.5155	0.6774	0.7622	0.394
70	0.6591	0.5215	0.2918	0.1764	0.1912	0.1942	0.1931	0.1271	0.1301	0.4515	0.6191	0.7068	0.3551
75	0.5963	0.459	0.219	0.1734	0.1868	0.1894	0.1886	0.127	0.0979	0.3856	0.5577	0.6477	0.319
80	0.5302	0.3947	0.18	0.1704	0.1824	0.1845	0.1839	0.1269	0.1006	0.3184	0.4935	0.585	0.2875
85	0.4614	0.3292	0.1755	0.1673	0.1779	0.1795	0.1792	0.1268	0.1033	0.2164	0.4272	0.5195	0.2553
90	0.3903	0.2293	0.171	0.1642	0.1733	0.1745	0.1745	0.1267	0.1061	0.2079	0.3591	0.4516	0.2274



Tabla 4: Azimut de 5°

$\beta^\circ$	01	02	03	04	05	06	07	08	09	10	11	12	Annual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9911	0.9913	0.9916	0.9918	0.9912	0.9911	0.9911	0.9914
5	1.0074	0.9912	0.9736	0.9552	0.9432	0.9375	0.9401	0.9456	0.9626	0.986	1.0016	1.0099	0.9712
10	1.0174	0.9854	0.9496	0.9125	0.889	0.878	0.8831	0.8935	0.9269	0.9749	1.0061	1.0225	0.9449
15	1.0209	0.9739	0.9197	0.8641	0.8294	0.8133	0.8207	0.8354	0.885	0.9579	1.0044	1.0289	0.9128
20	1.0178	0.9567	0.8841	0.8104	0.7648	0.7437	0.7534	0.772	0.8372	0.9352	0.9967	1.029	0.8751
25	1.0083	0.9339	0.843	0.7518	0.6958	0.6698	0.6817	0.7037	0.7838	0.9069	0.9829	1.0228	0.832
30	0.9924	0.9058	0.7969	0.6887	0.6228	0.5921	0.6062	0.6311	0.7252	0.8734	0.9632	1.0103	0.784
35	0.9701	0.8726	0.7459	0.6217	0.5463	0.5113	0.5275	0.5546	0.662	0.8348	0.9376	0.9916	0.7313
40	0.9418	0.8345	0.6906	0.5512	0.4671	0.4281	0.4461	0.4748	0.5945	0.7914	0.9066	0.9669	0.6745
45	0.9075	0.7917	0.6314	0.4777	0.3858	0.3429	0.3627	0.3925	0.5233	0.7436	0.8701	0.9364	0.6138
50	0.8676	0.7447	0.5686	0.4019	0.3028	0.2566	0.278	0.3082	0.4489	0.6917	0.8286	0.9003	0.5498
55	0.8224	0.6937	0.5028	0.3243	0.2191	0.2076	0.2057	0.2226	0.3719	0.6361	0.7823	0.8589	0.4873
60	0.7722	0.6393	0.4345	0.2456	0.1994	0.2033	0.2017	0.1363	0.293	0.5772	0.7316	0.8124	0.4372
65	0.7173	0.5816	0.3642	0.1793	0.1954	0.1989	0.1975	0.1272	0.2127	0.5156	0.6769	0.7613	0.394
70	0.6583	0.5214	0.2924	0.1764	0.1912	0.1942	0.1931	0.1271	0.1317	0.4516	0.6186	0.706	0.3551
75	0.5955	0.4589	0.2197	0.1734	0.1868	0.1894	0.1886	0.127	0.0984	0.3857	0.5571	0.6467	0.3189
80	0.5294	0.3946	0.1801	0.1704	0.1824	0.1845	0.1839	0.1269	0.1009	0.3185	0.493	0.5841	0.2874
85	0.4605	0.3291	0.1755	0.1673	0.1779	0.1795	0.1792	0.1268	0.1036	0.2164	0.4266	0.5186	0.2551
90	0.3895	0.2293	0.171	0.1642	0.1733	0.1745	0.1745	0.1267	0.1062	0.2079	0.3585	0.4506	0.2272

Tabla 5: Azimut de 10°

$\beta^\circ$	01	02	03	04	05	06	07	08	09	10	11	12	Annual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9911	0.9913	0.9916	0.9918	0.9912	0.9911	0.9911	0.9914
5	1.0072	0.9911	0.9738	0.9556	0.9437	0.9381	0.9406	0.9461	0.9629	0.986	1.0015	1.0097	0.9714
10	1.017	0.9853	0.95	0.9133	0.89	0.8792	0.8842	0.8944	0.9275	0.9749	1.0058	1.022	0.9453
15	1.0202	0.9738	0.9202	0.8653	0.8309	0.815	0.8223	0.8369	0.8859	0.958	1.004	1.0282	0.9134
20	1.017	0.9565	0.8847	0.812	0.7669	0.746	0.7556	0.774	0.8384	0.9353	0.9961	1.028	0.8759
25	1.0072	0.9338	0.8438	0.7537	0.6983	0.6726	0.6844	0.7061	0.7853	0.9071	0.9821	1.0216	0.833
30	0.9911	0.9057	0.7978	0.691	0.6258	0.5955	0.6094	0.6339	0.727	0.8735	0.9623	1.0088	0.7852
35	0.9687	0.8724	0.747	0.6243	0.5498	0.5152	0.5312	0.5579	0.664	0.8349	0.9366	0.99	0.7327
40	0.9402	0.8342	0.6919	0.5541	0.4711	0.4324	0.4502	0.4786	0.5968	0.7916	0.9054	0.9651	0.676
45	0.9057	0.7914	0.6327	0.481	0.3901	0.3477	0.3673	0.3966	0.5259	0.7438	0.8688	0.9344	0.6155
50	0.8657	0.7444	0.5701	0.4055	0.3075	0.2618	0.2829	0.3127	0.4518	0.6919	0.8272	0.8981	0.5516
55	0.8203	0.6934	0.5044	0.3282	0.224	0.2076	0.2057	0.2274	0.3751	0.6363	0.7808	0.8565	0.4883
60	0.7699	0.6389	0.4362	0.2497	0.1994	0.2033	0.2017	0.1414	0.2965	0.5775	0.7301	0.81	0.4379
65	0.715	0.5813	0.3659	0.1793	0.1954	0.1989	0.1975	0.1272	0.2165	0.5158	0.6753	0.7587	0.3939
70	0.6559	0.521	0.2943	0.1764	0.1912	0.1942	0.1931	0.1271	0.1355	0.4519	0.6169	0.7033	0.3551
75	0.593	0.4585	0.2217	0.1734	0.1868	0.1894	0.1886	0.127	0.0991	0.386	0.5554	0.644	0.3186
80	0.5269	0.3942	0.1802	0.1704	0.1824	0.1845	0.1839	0.1269	0.1016	0.3188	0.4912	0.5813	0.2869
85	0.458	0.3287	0.1756	0.1673	0.1779	0.1795	0.1792	0.1268	0.1042	0.2164	0.4248	0.5157	0.2545
90	0.3869	0.2293	0.171	0.1642	0.1733	0.1745	0.1745	0.1267	0.1068	0.2079	0.3567	0.4477	0.2266



Tabla 6: Azimut de 15°

$\beta^\circ$	01	02	03	04	05	06	07	08	09	10	11	12	Annual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9911	0.9913	0.9916	0.9918	0.9912	0.9911	0.9911	0.9914
5	1.0069	0.9911	0.9741	0.9562	0.9445	0.939	0.9416	0.9469	0.9634	0.9861	1.0012	1.0092	0.9717
10	1.0162	0.9852	0.9505	0.9145	0.8917	0.8811	0.886	0.8961	0.9285	0.975	1.0053	1.0212	0.946
15	1.0191	0.9736	0.921	0.8672	0.8335	0.8179	0.8251	0.8393	0.8874	0.9581	1.0032	1.027	0.9144
20	1.0155	0.9563	0.8858	0.8145	0.7703	0.7497	0.7592	0.7772	0.8403	0.9354	0.9951	1.0264	0.8772
25	1.0054	0.9335	0.8452	0.7569	0.7025	0.6773	0.6889	0.7101	0.7877	0.9073	0.9809	1.0195	0.8346
30	0.989	0.9053	0.7994	0.6947	0.6308	0.601	0.6147	0.6387	0.7299	0.8738	0.9608	1.0065	0.7871
35	0.9662	0.872	0.7489	0.6286	0.5556	0.5216	0.5373	0.5634	0.6674	0.8352	0.9349	0.9873	0.7349
40	0.9374	0.8338	0.6939	0.559	0.4775	0.4396	0.4571	0.4847	0.6007	0.7919	0.9035	0.9621	0.6784
45	0.9027	0.791	0.635	0.4864	0.3972	0.3556	0.3748	0.4035	0.5302	0.7441	0.8668	0.9311	0.6182
50	0.8624	0.7439	0.5725	0.4114	0.3153	0.2703	0.2911	0.3201	0.4565	0.6923	0.825	0.8945	0.5546
55	0.8168	0.6929	0.507	0.3346	0.2323	0.2076	0.2065	0.2354	0.3803	0.6367	0.7784	0.8527	0.4901
60	0.7663	0.6384	0.4389	0.2565	0.1994	0.2033	0.2017	0.1499	0.302	0.5779	0.7275	0.8058	0.439
65	0.7111	0.5807	0.3689	0.1793	0.1954	0.1989	0.1975	0.1272	0.2222	0.5163	0.6726	0.7544	0.3937
70	0.6519	0.5204	0.2974	0.1764	0.1912	0.1942	0.1931	0.1271	0.1415	0.4523	0.6142	0.6988	0.3549
75	0.5889	0.4579	0.2249	0.1734	0.1868	0.1894	0.1886	0.127	0.0997	0.3865	0.5526	0.6394	0.3179
80	0.5227	0.3936	0.1803	0.1704	0.1824	0.1845	0.1839	0.1269	0.1023	0.3193	0.4883	0.5766	0.2859
85	0.4538	0.3281	0.1758	0.1673	0.1779	0.1795	0.1792	0.1268	0.1049	0.2164	0.4219	0.511	0.2535
90	0.3827	0.2293	0.1712	0.1642	0.1733	0.1745	0.1745	0.1267	0.1075	0.2079	0.3538	0.443	0.2257

Tabla 7: Azimut de 20°

$\beta^\circ$	01	02	03	04	05	06	07	08	09	10	11	12	Annual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9911	0.9913	0.9916	0.9918	0.9912	0.9911	0.9911	0.9914
5	1.0063	0.991	0.9745	0.9571	0.9457	0.9403	0.9428	0.9481	0.9641	0.9861	1.0009	1.0087	0.9721
10	1.0152	0.9851	0.9513	0.9163	0.8941	0.8838	0.8885	0.8983	0.9299	0.9751	1.0045	1.0201	0.9469
15	1.0176	0.9734	0.9222	0.8698	0.8371	0.8218	0.8288	0.8427	0.8895	0.9583	1.0021	1.0252	0.9157
20	1.0135	0.956	0.8874	0.818	0.775	0.755	0.7642	0.7817	0.8431	0.9357	0.9937	1.0241	0.8789
25	1.0029	0.9331	0.8471	0.7612	0.7084	0.6838	0.6951	0.7157	0.7911	0.9076	0.9792	1.0168	0.8368
30	0.986	0.9049	0.8017	0.6999	0.6377	0.6088	0.6221	0.6453	0.734	0.8741	0.9587	1.0032	0.7897
35	0.9629	0.8715	0.7514	0.6346	0.5636	0.5305	0.5458	0.5709	0.6721	0.8356	0.9326	0.9835	0.7379
40	0.9336	0.8332	0.6968	0.5657	0.4865	0.4496	0.4666	0.4933	0.606	0.7923	0.9009	0.9578	0.6819
45	0.8986	0.7904	0.6382	0.4939	0.4071	0.3666	0.3853	0.4129	0.5361	0.7446	0.8639	0.9264	0.622
50	0.8579	0.7432	0.576	0.4195	0.326	0.2822	0.3025	0.3304	0.4631	0.6928	0.8218	0.8894	0.5587
55	0.812	0.6922	0.5107	0.3433	0.2438	0.2076	0.2187	0.2464	0.3873	0.6373	0.7751	0.8473	0.4935
60	0.7612	0.6376	0.4428	0.2658	0.1994	0.2033	0.2017	0.1616	0.3094	0.5785	0.724	0.8001	0.4405
65	0.7058	0.5799	0.373	0.1874	0.1954	0.1989	0.1975	0.1272	0.2299	0.5169	0.6689	0.7485	0.3941
70	0.6463	0.5196	0.3017	0.1764	0.1912	0.1942	0.1931	0.1271	0.1494	0.4529	0.6103	0.6926	0.3546
75	0.5832	0.457	0.2293	0.1734	0.1868	0.1894	0.1886	0.127	0.0979	0.3871	0.5486	0.633	0.3168
80	0.5169	0.3927	0.1805	0.1704	0.1824	0.1845	0.1839	0.1269	0.103	0.32	0.4843	0.5701	0.2846
85	0.4479	0.3272	0.1759	0.1673	0.1779	0.1795	0.1792	0.1268	0.1056	0.2164	0.4178	0.5044	0.2522
90	0.3768	0.2293	0.1713	0.1642	0.1733	0.1745	0.1745	0.1267	0.1082	0.2079	0.3497	0.4364	0.2244



Tabla 8: Azimut de 25°

$\beta^\circ$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9911	0.9913	0.9916	0.9918	0.9912	0.9911	0.9911	0.9914
5	1.0057	0.9909	0.975	0.9582	0.9473	0.942	0.9444	0.9495	0.9649	0.9862	1.0004	1.0079	0.9727
10	1.0139	0.9849	0.9523	0.9186	0.8972	0.8872	0.8918	0.9012	0.9316	0.9753	1.0036	1.0186	0.948
15	1.0156	0.9731	0.9237	0.8732	0.8416	0.8269	0.8337	0.847	0.8921	0.9585	1.0008	1.0231	0.9174
20	1.0109	0.9556	0.8893	0.8225	0.781	0.7617	0.7706	0.7874	0.8466	0.936	0.9919	1.0213	0.8812
25	0.9998	0.9327	0.8495	0.7668	0.7158	0.6921	0.703	0.7227	0.7955	0.9079	0.977	1.0132	0.8397
30	0.9823	0.9043	0.8045	0.7065	0.6465	0.6186	0.6315	0.6536	0.7392	0.8746	0.9561	0.999	0.7931
35	0.9586	0.8709	0.7547	0.6422	0.5737	0.5418	0.5565	0.5806	0.6781	0.8361	0.9296	0.9787	0.7418
40	0.9288	0.8325	0.7005	0.5743	0.4979	0.4623	0.4787	0.5042	0.6128	0.7929	0.8975	0.9524	0.6862
45	0.8933	0.7896	0.6422	0.5033	0.4197	0.3806	0.3987	0.4249	0.5436	0.7452	0.8602	0.9205	0.6268
50	0.8522	0.7424	0.5803	0.4298	0.3396	0.2974	0.3169	0.3435	0.4712	0.6934	0.8179	0.883	0.564
55	0.8059	0.6913	0.5153	0.3544	0.2583	0.2133	0.2341	0.2604	0.396	0.638	0.7708	0.8404	0.4982
60	0.7547	0.6366	0.4479	0.2775	0.1994	0.2033	0.2017	0.1763	0.3185	0.5792	0.7195	0.7929	0.4423
65	0.699	0.5789	0.3783	0.1997	0.1954	0.1989	0.1975	0.1272	0.2395	0.5177	0.6642	0.7409	0.3948
70	0.6393	0.5185	0.3072	0.1764	0.1912	0.1942	0.1931	0.1271	0.1594	0.4538	0.6054	0.6847	0.3542
75	0.576	0.4559	0.2349	0.1734	0.1868	0.1894	0.1886	0.127	0.0979	0.388	0.5436	0.6249	0.3155
80	0.5095	0.3916	0.1806	0.1707	0.1824	0.1845	0.1839	0.1269	0.1037	0.3208	0.4792	0.5619	0.283
85	0.4404	0.3261	0.1761	0.1675	0.1779	0.1795	0.1792	0.1268	0.1063	0.2164	0.4126	0.4961	0.2504
90	0.3693	0.2293	0.1715	0.1642	0.1733	0.1745	0.1745	0.1267	0.1089	0.2079	0.3445	0.428	0.2227

Tabla 9: Azimut de 30°

$\beta^\circ$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9911	0.9913	0.9916	0.9918	0.9912	0.9911	0.9911	0.9914
5	1.0049	0.9908	0.9756	0.9596	0.9491	0.9441	0.9464	0.9512	0.966	0.9863	0.9999	1.0071	0.9734
10	1.0123	0.9846	0.9535	0.9213	0.9008	0.8912	0.8957	0.9046	0.9337	0.9755	1.0026	1.0169	0.9494
15	1.0133	0.9727	0.9254	0.8773	0.8471	0.833	0.8395	0.8522	0.8952	0.9587	0.9992	1.0205	0.9195
20	1.0078	0.9552	0.8917	0.8279	0.7882	0.7698	0.7783	0.7942	0.8508	0.9363	0.9897	1.0178	0.884
25	0.996	0.9321	0.8524	0.7735	0.7248	0.7021	0.7126	0.7312	0.8007	0.9084	0.9743	1.0089	0.8431
30	0.9778	0.9037	0.8079	0.7145	0.6572	0.6305	0.6428	0.6637	0.7454	0.8751	0.953	0.9939	0.7971
35	0.9534	0.8701	0.7586	0.6514	0.5859	0.5554	0.5695	0.5922	0.6853	0.8367	0.926	0.9729	0.7465
40	0.923	0.8316	0.7049	0.5846	0.5116	0.4776	0.4933	0.5172	0.6209	0.7936	0.8935	0.9459	0.6915
45	0.8869	0.7886	0.647	0.5147	0.4348	0.3974	0.4147	0.4393	0.5526	0.7459	0.8558	0.9133	0.6326
50	0.8453	0.7413	0.5856	0.4422	0.356	0.3156	0.3344	0.3591	0.4809	0.6942	0.813	0.8753	0.5702
55	0.7985	0.6901	0.521	0.3676	0.2759	0.2328	0.2528	0.2771	0.4063	0.6388	0.7657	0.8321	0.5049
60	0.7468	0.6355	0.4539	0.2915	0.1994	0.2033	0.2017	0.1941	0.3295	0.5801	0.714	0.7841	0.4445
65	0.6908	0.5777	0.3846	0.2144	0.1954	0.1989	0.1975	0.1272	0.2509	0.5186	0.6585	0.7317	0.3955
70	0.6308	0.5172	0.3137	0.1764	0.1912	0.1942	0.1931	0.1271	0.1712	0.4547	0.5995	0.6752	0.3537
75	0.5672	0.4546	0.2416	0.1734	0.1868	0.1894	0.1886	0.127	0.0979	0.389	0.5375	0.6152	0.314
80	0.5006	0.3903	0.1807	0.1715	0.1824	0.1845	0.1839	0.1269	0.1044	0.3218	0.473	0.5519	0.281
85	0.4314	0.3247	0.1762	0.1683	0.1779	0.1795	0.1792	0.1268	0.107	0.2164	0.4064	0.486	0.2483
90	0.3602	0.2293	0.1716	0.165	0.1733	0.1745	0.1745	0.1267	0.1096	0.2079	0.3382	0.4179	0.2207



Tabla 10: Azimut de 35°

$\beta^\circ$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9911	0.9913	0.9916	0.9918	0.9912	0.9911	0.9911	0.9914
5	1.004	0.9907	0.9763	0.9612	0.9512	0.9465	0.9487	0.9532	0.9672	0.9864	0.9992	1.006	0.9742
10	1.0105	0.9844	0.9549	0.9245	0.9051	0.896	0.9002	0.9087	0.9362	0.9757	1.0013	1.0148	0.951
15	1.0106	0.9723	0.9275	0.882	0.8534	0.8401	0.8462	0.8582	0.8989	0.9591	0.9973	1.0174	0.9219
20	1.0042	0.9546	0.8944	0.8341	0.7966	0.7792	0.7872	0.8022	0.8556	0.9367	0.9872	1.0138	0.8872
25	0.9915	0.9314	0.8558	0.7812	0.7352	0.7137	0.7236	0.7411	0.8067	0.9089	0.9712	1.004	0.847
30	0.9725	0.9029	0.8119	0.7237	0.6695	0.6443	0.6559	0.6755	0.7526	0.8757	0.9494	0.988	0.8018
35	0.9473	0.8692	0.7632	0.662	0.6001	0.5713	0.5846	0.6057	0.6936	0.8374	0.9218	0.9661	0.7519
40	0.9162	0.8306	0.71	0.5965	0.5276	0.4953	0.5102	0.5324	0.6302	0.7943	0.8888	0.9384	0.6976
45	0.8794	0.7875	0.6527	0.5279	0.4524	0.417	0.4334	0.456	0.5629	0.7468	0.8506	0.905	0.6393
50	0.8372	0.7401	0.5917	0.4565	0.3751	0.3368	0.3546	0.3772	0.492	0.6952	0.8075	0.8663	0.5775
55	0.7898	0.6889	0.5276	0.3829	0.2963	0.2555	0.2744	0.2965	0.4182	0.6398	0.7597	0.8225	0.5127
60	0.7377	0.6341	0.4609	0.3077	0.2165	0.2033	0.2017	0.2146	0.342	0.5812	0.7077	0.7739	0.4484
65	0.6813	0.5763	0.3919	0.2313	0.1954	0.1989	0.1975	0.1319	0.2641	0.5197	0.6519	0.721	0.3968
70	0.6209	0.5158	0.3213	0.1764	0.1912	0.1942	0.1931	0.1271	0.1848	0.4559	0.5927	0.6642	0.3531
75	0.5571	0.4531	0.2494	0.1734	0.1868	0.1894	0.1886	0.127	0.1049	0.3902	0.5305	0.6038	0.3128
80	0.4902	0.3887	0.1808	0.1723	0.1824	0.1845	0.1839	0.1269	0.105	0.323	0.4658	0.5403	0.2787
85	0.4209	0.3232	0.1763	0.1691	0.1779	0.1795	0.1792	0.1268	0.1077	0.2164	0.3991	0.4743	0.2459
90	0.3497	0.2293	0.1717	0.1658	0.1733	0.1745	0.1745	0.1267	0.1103	0.2079	0.3309	0.4061	0.2184

Tabla 11: Azimut de 40°

$\beta^\circ$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9911	0.9913	0.9916	0.9918	0.9912	0.9911	0.9911	0.9914
5	1.0029	0.9905	0.9771	0.963	0.9536	0.9492	0.9512	0.9555	0.9686	0.9865	0.9985	1.0049	0.9751
10	1.0084	0.9841	0.9564	0.928	0.9099	0.9014	0.9053	0.9132	0.9389	0.9759	0.9998	1.0125	0.9528
15	1.0075	0.9719	0.9298	0.8874	0.8606	0.8481	0.8539	0.865	0.903	0.9594	0.9951	1.014	0.9246
20	1.0002	0.954	0.8975	0.8412	0.8062	0.7898	0.7974	0.8112	0.8611	0.9372	0.9844	1.0092	0.8908
25	0.9865	0.9307	0.8596	0.79	0.747	0.7269	0.7362	0.7523	0.8136	0.9095	0.9677	0.9983	0.8515
30	0.9665	0.902	0.8164	0.7342	0.6835	0.6599	0.6708	0.6887	0.7607	0.8764	0.9452	0.9814	0.8071
35	0.9405	0.8682	0.7684	0.674	0.6162	0.5892	0.6017	0.6209	0.703	0.8382	0.9171	0.9585	0.758
40	0.9086	0.8295	0.7158	0.61	0.5456	0.5154	0.5294	0.5495	0.6408	0.7952	0.8835	0.9298	0.7044
45	0.871	0.7862	0.659	0.5427	0.4722	0.4391	0.4544	0.4749	0.5744	0.7478	0.8447	0.8956	0.6468
50	0.8281	0.7388	0.5987	0.4726	0.3966	0.3608	0.3774	0.3977	0.5045	0.6962	0.8011	0.856	0.5857
55	0.7801	0.6874	0.5351	0.4001	0.3193	0.2811	0.2988	0.3184	0.4316	0.641	0.7529	0.8115	0.5214
60	0.7274	0.6325	0.4688	0.3259	0.2409	0.2033	0.2193	0.2377	0.3562	0.5824	0.7006	0.7624	0.4548
65	0.6705	0.5746	0.4002	0.2504	0.1954	0.1989	0.1975	0.1561	0.2788	0.521	0.6444	0.7089	0.3997
70	0.6097	0.5141	0.3299	0.1764	0.1912	0.1942	0.1931	0.1271	0.2002	0.4572	0.5849	0.6516	0.3525
75	0.5455	0.4514	0.2583	0.1734	0.1868	0.1894	0.1886	0.127	0.1207	0.3915	0.5225	0.5909	0.3122
80	0.4785	0.387	0.1809	0.173	0.1824	0.1845	0.1839	0.1271	0.1056	0.3244	0.4576	0.5272	0.276
85	0.4091	0.3214	0.1764	0.1698	0.1779	0.1795	0.1792	0.1268	0.1083	0.2564	0.3909	0.461	0.2464
90	0.3378	0.2293	0.1718	0.1666	0.1733	0.1745	0.1745	0.1267	0.1109	0.2079	0.3227	0.3928	0.2157



Tabla 12: Azimut de 45°

$\beta^\circ$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9911	0.9913	0.9916	0.9918	0.9912	0.9911	0.9911	0.9914
5	1.0018	0.9903	0.9779	0.9649	0.9563	0.9522	0.9541	0.9581	0.9701	0.9867	0.9977	1.0036	0.9761
10	1.0061	0.9837	0.9582	0.932	0.9152	0.9074	0.911	0.9183	0.942	0.9762	0.9983	1.0099	0.9549
15	1.0041	0.9714	0.9324	0.8933	0.8686	0.8571	0.8624	0.8725	0.9076	0.9598	0.9928	1.0101	0.9277
20	0.9956	0.9533	0.9009	0.8491	0.8167	0.8016	0.8086	0.8212	0.8672	0.9377	0.9813	1.0042	0.8948
25	0.9809	0.9298	0.8638	0.7998	0.7601	0.7415	0.7501	0.7647	0.8211	0.9101	0.9638	0.9921	0.8565
30	0.9599	0.901	0.8215	0.7457	0.699	0.6771	0.6872	0.7034	0.7697	0.8771	0.9406	0.974	0.813
35	0.9329	0.867	0.7741	0.6873	0.634	0.609	0.6206	0.6378	0.7133	0.8391	0.9118	0.95	0.7647
40	0.9001	0.8282	0.7222	0.6249	0.5656	0.5377	0.5506	0.5684	0.6523	0.7962	0.8776	0.9203	0.712
45	0.8616	0.7848	0.6661	0.5592	0.4942	0.4636	0.4778	0.4957	0.5871	0.7489	0.8383	0.8851	0.6552
50	0.8179	0.7372	0.6064	0.4904	0.4204	0.3874	0.4027	0.4203	0.5183	0.6974	0.7941	0.8447	0.5948
55	0.7692	0.6858	0.5434	0.4192	0.3448	0.3095	0.3259	0.3426	0.4463	0.6422	0.7454	0.7994	0.5311
60	0.7159	0.6308	0.4776	0.346	0.2678	0.2306	0.2479	0.2633	0.3718	0.5837	0.6926	0.7496	0.4648
65	0.6585	0.5728	0.4094	0.2715	0.1954	0.1989	0.1975	0.1828	0.2952	0.5224	0.6361	0.6955	0.403
70	0.5973	0.5122	0.3394	0.196	0.1912	0.1942	0.1931	0.1271	0.2171	0.4586	0.5763	0.6377	0.3533
75	0.5327	0.4495	0.268	0.1734	0.1868	0.1894	0.1886	0.127	0.1381	0.393	0.5136	0.5766	0.3114
80	0.4655	0.385	0.1959	0.1737	0.1824	0.1845	0.1839	0.1281	0.1061	0.3259	0.4486	0.5126	0.2744
85	0.3959	0.3194	0.1765	0.1706	0.1779	0.1795	0.1792	0.1279	0.1088	0.2579	0.3817	0.4462	0.2435
90	0.3245	0.2293	0.1719	0.1673	0.1733	0.1745	0.1745	0.1276	0.1115	0.2079	0.3135	0.378	0.2128

Tabla 13: Azimut de 50°

$\beta^\circ$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9911	0.9913	0.9916	0.9918	0.9912	0.9911	0.9911	0.9914
5	1.0005	0.9901	0.9789	0.9671	0.9592	0.9554	0.9572	0.9608	0.9718	0.9868	0.9968	1.0022	0.9772
10	1.0036	0.9833	0.9601	0.9363	0.9211	0.9139	0.9172	0.9238	0.9454	0.9765	0.9965	1.0071	0.9571
15	1.0003	0.9708	0.9353	0.8998	0.8773	0.8668	0.8716	0.8808	0.9126	0.9602	0.9902	1.0059	0.931
20	0.9907	0.9526	0.9047	0.8577	0.8283	0.8145	0.8209	0.8321	0.8739	0.9383	0.9778	0.9986	0.8992
25	0.9748	0.9289	0.8684	0.8104	0.7743	0.7574	0.7652	0.7782	0.8294	0.9108	0.9596	0.9852	0.8619
30	0.9527	0.8999	0.8269	0.7583	0.7159	0.696	0.7052	0.7194	0.7795	0.878	0.9356	0.9659	0.8194
35	0.9246	0.8658	0.7804	0.7017	0.6534	0.6307	0.6412	0.6562	0.7246	0.84	0.9061	0.9407	0.7721
40	0.8908	0.8268	0.7293	0.6412	0.5873	0.562	0.5737	0.589	0.6649	0.7973	0.8712	0.9099	0.7203
45	0.8514	0.7833	0.6739	0.577	0.5181	0.4903	0.5032	0.5184	0.601	0.75	0.8312	0.8737	0.6643
50	0.8068	0.7356	0.6149	0.5098	0.4464	0.4163	0.4303	0.4449	0.5333	0.6987	0.7864	0.8323	0.6046
55	0.7574	0.684	0.5524	0.4399	0.3725	0.3405	0.3554	0.3689	0.4624	0.6436	0.7372	0.7862	0.5417
60	0.7034	0.629	0.4871	0.3679	0.2972	0.2633	0.2791	0.2911	0.3887	0.5852	0.6839	0.7356	0.476
65	0.6454	0.5709	0.4194	0.2944	0.2208	0.1989	0.202	0.212	0.3129	0.5239	0.627	0.6809	0.409
70	0.5837	0.5102	0.3497	0.2198	0.1912	0.1942	0.1931	0.1321	0.2355	0.4602	0.5669	0.6225	0.3549
75	0.5188	0.4474	0.2787	0.1734	0.1868	0.1894	0.1886	0.127	0.157	0.3946	0.5039	0.561	0.3105
80	0.4512	0.3829	0.2068	0.1744	0.1824	0.1845	0.1839	0.1292	0.1066	0.3275	0.4387	0.4967	0.2721
85	0.3815	0.3172	0.1766	0.1713	0.1779	0.1795	0.1792	0.129	0.1094	0.2596	0.3717	0.4302	0.2402
90	0.3101	0.2293	0.172	0.1681	0.1733	0.1745	0.1745	0.1287	0.112	0.2079	0.3035	0.3619	0.2096





Tabla 14: Azimut de 55°

$\beta^\circ$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9911	0.9913	0.9916	0.9918	0.9912	0.9911	0.9911	0.9914
5	0.9992	0.9899	0.9799	0.9694	0.9624	0.9589	0.9605	0.9638	0.9736	0.987	0.9959	1.0007	0.9784
10	1.0009	0.9829	0.9621	0.941	0.9274	0.9209	0.9239	0.9297	0.949	0.9768	0.9946	1.0041	0.9594
15	0.9963	0.9702	0.9383	0.9067	0.8867	0.8772	0.8816	0.8896	0.918	0.9607	0.9874	1.0014	0.9345
20	0.9854	0.9518	0.9087	0.8669	0.8407	0.8283	0.834	0.8438	0.881	0.9389	0.9741	0.9927	0.9039
25	0.9682	0.9279	0.8734	0.8218	0.7897	0.7745	0.7815	0.7927	0.8382	0.9116	0.955	0.9779	0.8677
30	0.9449	0.8987	0.8328	0.7718	0.734	0.7163	0.7245	0.7366	0.79	0.8789	0.9302	0.9572	0.8263
35	0.9157	0.8644	0.7872	0.7173	0.6742	0.6539	0.6633	0.6759	0.7366	0.8411	0.8999	0.9307	0.78
40	0.8808	0.8253	0.7368	0.6586	0.6107	0.588	0.5985	0.6112	0.6784	0.7984	0.8642	0.8987	0.7291
45	0.8404	0.7817	0.6823	0.5962	0.5439	0.519	0.5306	0.5428	0.6158	0.7513	0.8235	0.8614	0.6741
50	0.7949	0.7338	0.6239	0.5305	0.4742	0.4474	0.4599	0.4712	0.5493	0.7	0.7781	0.819	0.6152
55	0.7447	0.6821	0.5622	0.4621	0.4023	0.3737	0.3871	0.3971	0.4795	0.645	0.7284	0.7719	0.553
60	0.69	0.6269	0.4974	0.3914	0.3287	0.2985	0.3126	0.3209	0.4069	0.5867	0.6746	0.7205	0.4879
65	0.6313	0.5688	0.4301	0.319	0.2538	0.2223	0.237	0.2432	0.3319	0.5255	0.6172	0.6651	0.4204
70	0.5691	0.508	0.3609	0.2453	0.1912	0.1942	0.1931	0.1645	0.2552	0.4619	0.5567	0.6062	0.3588
75	0.5038	0.4451	0.2901	0.1734	0.1868	0.1894	0.1886	0.127	0.1773	0.3963	0.4935	0.5442	0.3096
80	0.4359	0.3806	0.2184	0.1704	0.1824	0.1845	0.1839	0.1269	0.1006	0.3293	0.4281	0.4796	0.2684
85	0.366	0.3149	0.1766	0.172	0.1779	0.1795	0.1792	0.13	0.1098	0.2614	0.361	0.4128	0.2368
90	0.2946	0.2293	0.1721	0.1688	0.1733	0.1745	0.1745	0.1297	0.1125	0.2079	0.2927	0.3445	0.2062

Tabla 15: Azimut de 60°

$\beta^\circ$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9911	0.9913	0.9916	0.9918	0.9912	0.9911	0.9911	0.9914
5	0.9977	0.9897	0.981	0.9719	0.9657	0.9627	0.9641	0.9669	0.9755	0.9871	0.9949	0.999	0.9797
10	0.998	0.9825	0.9643	0.946	0.934	0.9283	0.931	0.936	0.9528	0.9771	0.9926	1.0009	0.962
15	0.992	0.9696	0.9416	0.9141	0.8966	0.8884	0.8922	0.899	0.9237	0.9612	0.9844	0.9967	0.9383
20	0.9797	0.951	0.913	0.8767	0.8538	0.843	0.848	0.8563	0.8886	0.9396	0.9702	0.9864	0.9089
25	0.9612	0.9269	0.8787	0.8339	0.8059	0.7927	0.7988	0.8081	0.8476	0.9124	0.9502	0.9701	0.8739
30	0.9367	0.8975	0.8391	0.7862	0.7533	0.7378	0.745	0.7548	0.8011	0.8798	0.9245	0.948	0.8336
35	0.9062	0.863	0.7944	0.7337	0.6964	0.6786	0.6869	0.6969	0.7494	0.8422	0.8933	0.9201	0.7884
40	0.8702	0.8237	0.7449	0.6771	0.6355	0.6157	0.6249	0.6346	0.6926	0.7997	0.8569	0.8868	0.7385
45	0.8288	0.7799	0.6912	0.6165	0.5711	0.5495	0.5596	0.5686	0.6315	0.7527	0.8154	0.8483	0.6844
50	0.7823	0.7319	0.6336	0.5526	0.5038	0.4804	0.4913	0.4992	0.5663	0.7015	0.7694	0.8049	0.6264
55	0.7311	0.6801	0.5725	0.4857	0.4339	0.409	0.4207	0.427	0.4977	0.6466	0.719	0.7568	0.565
60	0.6757	0.6248	0.5083	0.4163	0.3621	0.3358	0.3481	0.3526	0.4261	0.5884	0.6647	0.7045	0.5006
65	0.6163	0.5665	0.4415	0.345	0.2888	0.2614	0.2742	0.2763	0.352	0.5272	0.6068	0.6484	0.4337
70	0.5535	0.5057	0.3727	0.2723	0.2145	0.1942	0.1995	0.1989	0.276	0.4637	0.5459	0.5889	0.3655
75	0.4878	0.4427	0.3023	0.1987	0.1868	0.1894	0.1886	0.127	0.1987	0.3981	0.4824	0.5264	0.3107
80	0.4196	0.3782	0.2308	0.1704	0.1824	0.1845	0.1839	0.1269	0.1207	0.3312	0.4168	0.4614	0.2672
85	0.3495	0.3125	0.1767	0.1726	0.1782	0.1795	0.1792	0.131	0.1102	0.2633	0.3496	0.3944	0.2331
90	0.278	0.2293	0.1722	0.1694	0.1735	0.1745	0.1745	0.1308	0.1129	0.2079	0.2812	0.326	0.2025





Tabla 16: Azimut de 65°

$\beta^\circ$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9911	0.9913	0.9916	0.9918	0.9912	0.9911	0.9911	0.9914
5	0.9962	0.9895	0.9822	0.9745	0.9692	0.9666	0.9678	0.9703	0.9775	0.9873	0.9938	0.9973	0.981
10	0.995	0.9821	0.9666	0.9512	0.941	0.9362	0.9384	0.9426	0.9568	0.9774	0.9906	0.9975	0.9646
15	0.9875	0.9689	0.945	0.9219	0.9071	0.9	0.9033	0.9089	0.9297	0.9617	0.9813	0.9916	0.9422
20	0.9738	0.9501	0.9175	0.887	0.8677	0.8585	0.8627	0.8694	0.8965	0.9403	0.9661	0.9797	0.9141
25	0.9539	0.9258	0.8843	0.8466	0.823	0.8118	0.817	0.8243	0.8574	0.9132	0.9451	0.9619	0.8804
30	0.928	0.8962	0.8457	0.8012	0.7736	0.7604	0.7665	0.774	0.8127	0.8808	0.9185	0.9382	0.8413
35	0.8963	0.8615	0.8019	0.751	0.7196	0.7046	0.7116	0.7188	0.7627	0.8433	0.8864	0.909	0.7972
40	0.859	0.8221	0.7534	0.6964	0.6615	0.6448	0.6526	0.6593	0.7076	0.8009	0.8491	0.8743	0.7484
45	0.8165	0.7781	0.7005	0.6378	0.5998	0.5815	0.59	0.5957	0.6479	0.7541	0.8069	0.8346	0.6953
50	0.769	0.7299	0.6437	0.5757	0.5348	0.5151	0.5243	0.5286	0.5842	0.703	0.7601	0.79	0.6382
55	0.7169	0.6779	0.5833	0.5104	0.4671	0.4461	0.456	0.4585	0.5168	0.6482	0.7091	0.7409	0.5776
60	0.6606	0.6225	0.5197	0.4424	0.3972	0.375	0.3854	0.3858	0.4462	0.5901	0.6542	0.6877	0.5139
65	0.6006	0.5642	0.4535	0.3723	0.3255	0.3024	0.3133	0.3111	0.3731	0.529	0.5959	0.6308	0.4476
70	0.5372	0.5032	0.3851	0.3006	0.2526	0.2288	0.24	0.2349	0.2979	0.4655	0.5346	0.5706	0.3793
75	0.471	0.4402	0.315	0.2278	0.1868	0.1894	0.1886	0.1579	0.2212	0.4001	0.4708	0.5076	0.3147
80	0.4025	0.3756	0.2439	0.1704	0.1824	0.1845	0.1839	0.1269	0.1436	0.3331	0.4049	0.4423	0.2662
85	0.3322	0.3099	0.1767	0.1732	0.1795	0.1795	0.1794	0.132	0.1106	0.2653	0.3376	0.3751	0.2292
90	0.2607	0.2293	0.1722	0.17	0.1747	0.1745	0.1745	0.1317	0.1133	0.2079	0.2691	0.3066	0.1987

Tabla 17: Azimut de 70°

$\beta^\circ$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9911	0.9913	0.9916	0.9918	0.9912	0.9911	0.9911	0.9914
5	0.9946	0.9893	0.9834	0.9773	0.9729	0.9707	0.9717	0.9737	0.9796	0.9875	0.9927	0.9956	0.9824
10	0.9919	0.9816	0.969	0.9566	0.9483	0.9443	0.9462	0.9495	0.961	0.9778	0.9884	0.994	0.9674
15	0.9828	0.9682	0.9485	0.93	0.918	0.9122	0.9149	0.9192	0.936	0.9623	0.978	0.9864	0.9464
20	0.9676	0.9491	0.9222	0.8977	0.8821	0.8746	0.878	0.883	0.9048	0.941	0.9618	0.9728	0.9195
25	0.9462	0.9246	0.8901	0.8599	0.8408	0.8317	0.836	0.8411	0.8676	0.9141	0.9398	0.9533	0.8871
30	0.9189	0.8948	0.8525	0.8169	0.7946	0.7839	0.7889	0.7939	0.8248	0.8819	0.9122	0.9281	0.8493
35	0.8859	0.86	0.8098	0.769	0.7437	0.7316	0.7373	0.7417	0.7766	0.8445	0.8792	0.8974	0.8064
40	0.8474	0.8203	0.7622	0.7166	0.6886	0.675	0.6814	0.6849	0.7231	0.8023	0.841	0.8613	0.7587
45	0.8037	0.7762	0.7102	0.66	0.6296	0.6147	0.6217	0.6239	0.665	0.7555	0.798	0.8203	0.7066
50	0.7551	0.7278	0.6542	0.5997	0.5671	0.5511	0.5586	0.5591	0.6027	0.7046	0.7505	0.7745	0.6504
55	0.7021	0.6757	0.5945	0.536	0.5016	0.4846	0.4927	0.4911	0.5366	0.65	0.6988	0.7243	0.5907
60	0.6449	0.6202	0.5316	0.4696	0.4337	0.4158	0.4243	0.4203	0.4672	0.5919	0.6433	0.6702	0.5277
65	0.5842	0.5617	0.4659	0.4007	0.3637	0.3451	0.3539	0.3472	0.395	0.5309	0.5845	0.6124	0.4621
70	0.5202	0.5007	0.398	0.3301	0.2922	0.273	0.2822	0.2724	0.3206	0.4675	0.5228	0.5516	0.3943
75	0.4536	0.4376	0.3283	0.2581	0.2198	0.2001	0.2096	0.1964	0.2446	0.4021	0.4587	0.488	0.3247
80	0.3847	0.3729	0.2574	0.1853	0.1824	0.1845	0.1839	0.1269	0.1674	0.3352	0.3926	0.4223	0.2663
85	0.3142	0.3072	0.1858	0.1738	0.1808	0.1801	0.181	0.1329	0.1109	0.2673	0.325	0.3549	0.2262
90	0.2426	0.2293	0.1723	0.1706	0.176	0.1748	0.176	0.1327	0.1136	0.2079	0.2566	0.2863	0.1949



Tabla 18: Azimut de 75°

$\beta^\circ$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9911	0.9913	0.9916	0.9918	0.9912	0.9911	0.9911	0.9914
5	0.993	0.989	0.9846	0.9801	0.9767	0.9749	0.9757	0.9773	0.9818	0.9877	0.9916	0.9938	0.9838
10	0.9886	0.9811	0.9714	0.9622	0.9559	0.9528	0.9542	0.9566	0.9653	0.9782	0.9861	0.9904	0.9702
15	0.978	0.9675	0.9522	0.9383	0.9292	0.9248	0.9268	0.9298	0.9424	0.9628	0.9747	0.981	0.9506
20	0.9612	0.9482	0.927	0.9087	0.8969	0.8912	0.8938	0.897	0.9133	0.9417	0.9574	0.9657	0.9252
25	0.9383	0.9235	0.8961	0.8735	0.8592	0.8522	0.8555	0.8584	0.8781	0.915	0.9343	0.9445	0.8941
30	0.9096	0.8934	0.8596	0.833	0.8163	0.8082	0.812	0.8144	0.8373	0.8829	0.9057	0.9177	0.8575
35	0.8752	0.8584	0.8179	0.7875	0.7687	0.7594	0.7638	0.7652	0.7908	0.8457	0.8717	0.8854	0.8158
40	0.8354	0.8185	0.7713	0.7373	0.7165	0.7062	0.7111	0.7113	0.7391	0.8037	0.8327	0.8479	0.7692
45	0.7905	0.7742	0.7203	0.6828	0.6603	0.649	0.6544	0.6529	0.6826	0.7571	0.7889	0.8055	0.7182
50	0.7408	0.7257	0.6651	0.6244	0.6004	0.5883	0.594	0.5906	0.6217	0.7063	0.7406	0.7585	0.663
55	0.6868	0.6734	0.6061	0.5625	0.5372	0.5244	0.5305	0.5247	0.5569	0.6517	0.6882	0.7072	0.6041
60	0.6288	0.6178	0.5439	0.4975	0.4713	0.4578	0.4643	0.4558	0.4887	0.5938	0.6321	0.6521	0.542
65	0.5672	0.5592	0.4788	0.43	0.4031	0.389	0.3958	0.3844	0.4176	0.5329	0.5728	0.5935	0.477
70	0.5026	0.498	0.4113	0.3604	0.3331	0.3186	0.3256	0.311	0.344	0.4695	0.5106	0.5319	0.4097
75	0.4355	0.4349	0.342	0.2893	0.2618	0.2471	0.2542	0.2361	0.2686	0.4042	0.4461	0.4679	0.3406
80	0.3663	0.3702	0.2714	0.2172	0.1898	0.1845	0.1839	0.1603	0.192	0.3373	0.3798	0.4017	0.2712
85	0.2956	0.3044	0.1999	0.1673	0.1779	0.1795	0.1792	0.1268	0.1146	0.2695	0.3121	0.3341	0.2217
90	0.2239	0.2293	0.1723	0.1711	0.1773	0.1766	0.1775	0.1336	0.1139	0.2079	0.2436	0.2654	0.191

Tabla 19: Azimut de 80°

$\beta^\circ$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9911	0.9913	0.9916	0.9918	0.9912	0.9911	0.9911	0.9914
5	0.9913	0.9888	0.9858	0.9829	0.9805	0.9793	0.9799	0.9809	0.984	0.9879	0.9904	0.9919	0.9853
10	0.9853	0.9806	0.9739	0.9679	0.9636	0.9614	0.9624	0.9639	0.9697	0.9786	0.9838	0.9867	0.9731
15	0.9731	0.9667	0.9559	0.9468	0.9407	0.9376	0.9391	0.9407	0.9489	0.9634	0.9712	0.9755	0.955
20	0.9547	0.9472	0.932	0.92	0.9121	0.9081	0.91	0.9113	0.922	0.9425	0.9528	0.9583	0.9309
25	0.9302	0.9222	0.9022	0.8874	0.878	0.8732	0.8754	0.8762	0.8889	0.916	0.9287	0.9355	0.9012
30	0.9	0.892	0.8668	0.8495	0.8385	0.833	0.8356	0.8354	0.85	0.884	0.8991	0.907	0.8659
35	0.8642	0.8567	0.8262	0.8064	0.7941	0.7879	0.7908	0.7893	0.8054	0.847	0.8641	0.8731	0.8254
40	0.8231	0.8167	0.7806	0.7585	0.7451	0.7381	0.7414	0.7382	0.7554	0.8051	0.8242	0.8342	0.78
45	0.7769	0.7721	0.7305	0.7061	0.6917	0.6841	0.6878	0.6826	0.7006	0.7586	0.7795	0.7904	0.7301
50	0.7261	0.7235	0.6762	0.6496	0.6344	0.6263	0.6302	0.6227	0.6412	0.708	0.7304	0.7421	0.6759
55	0.6711	0.6711	0.618	0.5895	0.5736	0.565	0.5692	0.5591	0.5777	0.6535	0.6773	0.6897	0.6179
60	0.6122	0.6153	0.5565	0.5261	0.5097	0.5008	0.5052	0.4922	0.5107	0.5957	0.6206	0.6335	0.5565
65	0.5499	0.5566	0.4919	0.4599	0.4433	0.434	0.4386	0.4224	0.4406	0.5349	0.5608	0.5741	0.4922
70	0.4847	0.4954	0.425	0.3914	0.3748	0.3653	0.37	0.3504	0.3679	0.4716	0.4982	0.5118	0.4255
75	0.417	0.4321	0.356	0.3212	0.3047	0.295	0.2998	0.2766	0.2932	0.4063	0.4333	0.4472	0.3569
80	0.3475	0.3673	0.2857	0.2497	0.2336	0.2238	0.2287	0.2017	0.217	0.3395	0.3667	0.3807	0.2868
85	0.2765	0.3015	0.2144	0.1775	0.1779	0.1795	0.1792	0.1268	0.1399	0.2717	0.2989	0.3128	0.2214
90	0.2047	0.2293	0.1724	0.1716	0.1785	0.1784	0.179	0.1344	0.1141	0.2079	0.2304	0.244	0.187



Tabla 20: Azimut de 85°

$\beta^\circ$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9911	0.9913	0.9916	0.9918	0.9912	0.9911	0.9911	0.9914
5	0.9897	0.9885	0.9871	0.9858	0.9845	0.9836	0.984	0.9847	0.9862	0.9881	0.9893	0.99	0.9868
10	0.9819	0.9801	0.9765	0.9737	0.9714	0.9701	0.9707	0.9713	0.9741	0.979	0.9815	0.9829	0.9761
15	0.968	0.966	0.9597	0.9555	0.9524	0.9506	0.9515	0.9517	0.9556	0.964	0.9678	0.9698	0.9594
20	0.948	0.9462	0.937	0.9314	0.9275	0.9254	0.9264	0.9259	0.9308	0.9432	0.9482	0.9509	0.9367
25	0.922	0.921	0.9084	0.9016	0.897	0.8945	0.8957	0.8941	0.8998	0.9169	0.923	0.9263	0.9084
30	0.8903	0.8906	0.8742	0.8662	0.8611	0.8582	0.8596	0.8566	0.8628	0.8852	0.8923	0.8961	0.8744
35	0.8531	0.8551	0.8346	0.8256	0.82	0.8167	0.8183	0.8137	0.8201	0.8483	0.8564	0.8607	0.8352
40	0.8106	0.8148	0.79	0.78	0.774	0.7705	0.7722	0.7656	0.772	0.8065	0.8155	0.8202	0.791
45	0.7632	0.7701	0.7409	0.7298	0.7235	0.7197	0.7216	0.7126	0.7188	0.7602	0.77	0.775	0.7421
50	0.7113	0.7213	0.6875	0.6752	0.6689	0.6648	0.6669	0.6553	0.6609	0.7097	0.7201	0.7254	0.6889
55	0.6552	0.6687	0.6301	0.6168	0.6105	0.6062	0.6084	0.5939	0.5988	0.6554	0.6663	0.6719	0.6318
60	0.5954	0.6128	0.5692	0.555	0.5487	0.5443	0.5466	0.529	0.533	0.5976	0.609	0.6147	0.5713
65	0.5323	0.5539	0.5053	0.4902	0.4841	0.4796	0.482	0.461	0.4639	0.5369	0.5485	0.5544	0.5077
70	0.4664	0.4926	0.4388	0.4228	0.4171	0.4126	0.415	0.3904	0.3921	0.4737	0.4855	0.4914	0.4415
75	0.3983	0.4293	0.3703	0.3535	0.3482	0.3436	0.3461	0.3177	0.318	0.4085	0.4203	0.4262	0.3733
80	0.3283	0.3645	0.3002	0.2826	0.2779	0.2734	0.2759	0.2436	0.2423	0.3417	0.3535	0.3593	0.3036
85	0.2572	0.2986	0.2291	0.2108	0.2068	0.2023	0.2049	0.1685	0.1656	0.2739	0.2855	0.2911	0.2329
90	0.1853	0.2293	0.1724	0.1719	0.1797	0.1801	0.1804	0.1352	0.1142	0.2079	0.2169	0.2223	0.183

Tabla 21: Azimut de 90°

$\beta^\circ$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9911	0.9913	0.9916	0.9918	0.9912	0.9911	0.9911	0.9914
5	0.9879	0.9883	0.9884	0.9888	0.9884	0.9881	0.9882	0.9884	0.9885	0.9883	0.9881	0.9881	0.9883
10	0.9786	0.9796	0.9791	0.9795	0.9793	0.9789	0.9791	0.9787	0.9786	0.9793	0.9791	0.9791	0.9791
15	0.963	0.9652	0.9636	0.9642	0.9641	0.9638	0.964	0.9628	0.9623	0.9646	0.9642	0.9642	0.9638
20	0.9413	0.9452	0.9421	0.9429	0.943	0.9427	0.9429	0.9405	0.9396	0.944	0.9436	0.9434	0.9426
25	0.9138	0.9198	0.9147	0.9158	0.9162	0.9159	0.9161	0.9122	0.9107	0.9179	0.9173	0.917	0.9156
30	0.8805	0.8891	0.8816	0.883	0.8837	0.8835	0.8837	0.8781	0.8758	0.8863	0.8855	0.8852	0.883
35	0.8418	0.8534	0.8432	0.8449	0.846	0.8458	0.846	0.8382	0.835	0.8496	0.8486	0.8481	0.845
40	0.798	0.8129	0.7996	0.8016	0.8032	0.8031	0.8032	0.7931	0.7886	0.808	0.8068	0.8061	0.802
45	0.7494	0.768	0.7514	0.7535	0.7556	0.7555	0.7557	0.7429	0.737	0.7618	0.7604	0.7595	0.7542
50	0.6963	0.719	0.6988	0.701	0.7036	0.7036	0.7038	0.6881	0.6807	0.7114	0.7097	0.7087	0.7021
55	0.6391	0.6663	0.6422	0.6444	0.6476	0.6477	0.6479	0.629	0.62	0.6572	0.6552	0.6539	0.6459
60	0.5784	0.6102	0.582	0.5841	0.588	0.5882	0.5884	0.566	0.5554	0.5996	0.5972	0.5958	0.5861
65	0.5146	0.5513	0.5187	0.5206	0.5252	0.5255	0.5257	0.4997	0.4873	0.539	0.5362	0.5346	0.5232
70	0.448	0.4899	0.4527	0.4544	0.4597	0.4602	0.4603	0.4306	0.4164	0.4758	0.4727	0.4709	0.4576
75	0.3794	0.4265	0.3846	0.3859	0.392	0.3926	0.3927	0.3591	0.343	0.4106	0.4072	0.4051	0.3899
80	0.3091	0.3616	0.3148	0.3157	0.3226	0.3233	0.3234	0.2857	0.2678	0.3439	0.3401	0.3377	0.3205
85	0.2377	0.2957	0.2439	0.2443	0.252	0.2528	0.2529	0.2111	0.1914	0.2762	0.272	0.2693	0.2499
90	0.1657	0.2293	0.1724	0.1723	0.1808	0.1817	0.1818	0.1358	0.1142	0.2079	0.2033	0.2004	0.1788



Tabla 22: Azimut de 95°

$\beta^\circ$	01	02	03	04	05	06	07	08	09	10	11	12	Annual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9911	0.9913	0.9916	0.9918	0.9912	0.9911	0.9911	0.9914
5	0.9862	0.988	0.9897	0.9917	0.9924	0.9925	0.9925	0.9921	0.9907	0.9885	0.9869	0.9862	0.9898
10	0.9752	0.9791	0.9817	0.9854	0.9872	0.9877	0.9875	0.9862	0.9831	0.9797	0.9768	0.9753	0.9821
15	0.9579	0.9644	0.9674	0.9729	0.9758	0.9769	0.9765	0.9738	0.969	0.9651	0.9607	0.9585	0.9683
20	0.9346	0.9442	0.9471	0.9544	0.9585	0.9601	0.9594	0.9552	0.9484	0.9448	0.9389	0.9359	0.9485
25	0.9055	0.9185	0.9209	0.93	0.9353	0.9373	0.9365	0.9303	0.9216	0.9188	0.9115	0.9078	0.9228
30	0.8707	0.8876	0.889	0.8998	0.9064	0.9089	0.9078	0.8994	0.8887	0.8874	0.8788	0.8742	0.8916
35	0.8306	0.8517	0.8517	0.8641	0.872	0.8749	0.8736	0.8628	0.8498	0.8509	0.8408	0.8356	0.8549
40	0.7854	0.811	0.8091	0.8232	0.8323	0.8356	0.8342	0.8205	0.8052	0.8094	0.7981	0.7921	0.813
45	0.7355	0.7659	0.7619	0.7772	0.7876	0.7913	0.7898	0.7731	0.7553	0.7634	0.7507	0.744	0.7663
50	0.6813	0.7168	0.7101	0.7267	0.7383	0.7424	0.7407	0.7208	0.7005	0.7132	0.6993	0.6919	0.7151
55	0.6231	0.6639	0.6543	0.6718	0.6847	0.6892	0.6873	0.6639	0.6411	0.6591	0.644	0.636	0.6599
60	0.5615	0.6077	0.5948	0.6131	0.6272	0.632	0.6301	0.603	0.5777	0.6015	0.5854	0.5768	0.6009
65	0.4968	0.5486	0.5321	0.551	0.5662	0.5714	0.5693	0.5384	0.5107	0.541	0.5239	0.5147	0.5387
70	0.4296	0.4871	0.4666	0.4859	0.5022	0.5077	0.5056	0.4707	0.4406	0.4779	0.46	0.4503	0.4737
75	0.3605	0.4236	0.3989	0.4184	0.4357	0.4414	0.4392	0.4003	0.3679	0.4128	0.3941	0.3839	0.4064
80	0.2898	0.3587	0.3294	0.3488	0.3672	0.3731	0.3709	0.3278	0.2933	0.3461	0.3267	0.3162	0.3373
85	0.2182	0.2928	0.2586	0.2778	0.2971	0.3033	0.3009	0.2537	0.2171	0.2784	0.2584	0.2475	0.267
90	0.1657	0.2293	0.1872	0.2059	0.2261	0.2324	0.23	0.1786	0.1401	0.2102	0.2033	0.2004	0.2008

Tabla 23: Azimut de 100°

$\beta^\circ$	01	02	03	04	05	06	07	08	09	10	11	12	Annual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9911	0.9913	0.9916	0.9918	0.9912	0.9911	0.9911	0.9914
5	0.9846	0.9877	0.991	0.9946	0.9963	0.9969	0.9966	0.9958	0.993	0.9887	0.9857	0.9843	0.9913
10	0.9718	0.9786	0.9842	0.9912	0.995	0.9965	0.9958	0.9936	0.9876	0.9801	0.9744	0.9715	0.985
15	0.9529	0.9637	0.9712	0.9815	0.9875	0.9899	0.9888	0.9848	0.9756	0.9657	0.9572	0.9529	0.9727
20	0.928	0.9432	0.9522	0.9658	0.9739	0.9773	0.9758	0.9697	0.9572	0.9455	0.9343	0.9285	0.9543
25	0.8973	0.9173	0.9272	0.944	0.9543	0.9586	0.9567	0.9482	0.9324	0.9198	0.9058	0.8986	0.93
30	0.861	0.8862	0.8964	0.9164	0.9289	0.934	0.9317	0.9206	0.9014	0.8885	0.872	0.8634	0.9
35	0.8195	0.85	0.8601	0.8832	0.8977	0.9037	0.901	0.887	0.8644	0.8522	0.8331	0.8231	0.8646
40	0.7729	0.8092	0.8186	0.8445	0.8611	0.8679	0.8649	0.8477	0.8216	0.8109	0.7894	0.7781	0.8239
45	0.7218	0.7639	0.7722	0.8007	0.8193	0.8268	0.8235	0.803	0.7733	0.765	0.7412	0.7287	0.7783
50	0.6664	0.7145	0.7214	0.7521	0.7726	0.7808	0.7773	0.7532	0.72	0.7149	0.689	0.6753	0.7281
55	0.6072	0.6615	0.6663	0.699	0.7214	0.7303	0.7264	0.6986	0.662	0.6609	0.633	0.6182	0.6737
60	0.5446	0.6052	0.6075	0.6419	0.666	0.6754	0.6714	0.6396	0.5998	0.6035	0.5738	0.558	0.6156
65	0.4792	0.546	0.5454	0.5811	0.6069	0.6168	0.6126	0.5768	0.5338	0.543	0.5117	0.4951	0.554
70	0.4114	0.4844	0.4804	0.5172	0.5444	0.5548	0.5504	0.5105	0.4646	0.48	0.4473	0.4299	0.4896
75	0.3417	0.4208	0.4131	0.4505	0.4791	0.4899	0.4853	0.4412	0.3926	0.415	0.3811	0.3629	0.4228
80	0.2707	0.3558	0.3438	0.3816	0.4114	0.4225	0.4179	0.3695	0.3184	0.3484	0.3135	0.2948	0.354
85	0.1988	0.2899	0.2733	0.3109	0.3418	0.3532	0.3485	0.2959	0.2426	0.2807	0.245	0.2259	0.2839
90	0.1657	0.2293	0.2019	0.2392	0.271	0.2826	0.2778	0.221	0.1657	0.2124	0.2033	0.2004	0.2225



Tabla 24: Azimut de 105°

$\beta^\circ$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9911	0.9913	0.9916	0.9918	0.9912	0.9911	0.9911	0.9914
5	0.9829	0.9875	0.9923	0.9975	1.0002	1.0012	1.0007	0.9995	0.9952	0.9889	0.9846	0.9824	0.9927
10	0.9685	0.9781	0.9867	0.9969	1.0027	1.0051	1.004	1.0008	0.9919	0.9805	0.9721	0.9678	0.9879
15	0.9479	0.9629	0.975	0.99	0.9989	1.0027	1.001	0.9956	0.9821	0.9663	0.9538	0.9473	0.977
20	0.9214	0.9422	0.9571	0.977	0.989	0.9942	0.9919	0.984	0.9658	0.9463	0.9298	0.9212	0.96
25	0.8892	0.9161	0.9333	0.9579	0.973	0.9795	0.9766	0.9658	0.943	0.9207	0.9002	0.8896	0.9371
30	0.8515	0.8847	0.9036	0.9328	0.951	0.9587	0.9552	0.9415	0.914	0.8897	0.8654	0.8527	0.9084
35	0.8085	0.8484	0.8684	0.9019	0.9231	0.932	0.928	0.9109	0.8788	0.8534	0.8255	0.8108	0.8742
40	0.7606	0.8073	0.8279	0.8655	0.8895	0.8996	0.8951	0.8745	0.8377	0.8123	0.7809	0.7643	0.8346
45	0.7083	0.7619	0.7824	0.8238	0.8505	0.8617	0.8568	0.8324	0.7911	0.7666	0.7318	0.7136	0.7901
50	0.6517	0.7123	0.7324	0.7771	0.8064	0.8186	0.8132	0.785	0.7392	0.7166	0.6788	0.6589	0.7409
55	0.5915	0.6591	0.6782	0.7258	0.7575	0.7707	0.7649	0.7326	0.6826	0.6627	0.6221	0.6007	0.6874
60	0.5281	0.6027	0.62	0.6702	0.7042	0.7182	0.7121	0.6756	0.6215	0.6054	0.5623	0.5395	0.63
65	0.4619	0.5434	0.5585	0.6107	0.6468	0.6615	0.6551	0.6145	0.5566	0.545	0.4997	0.4757	0.5691
70	0.3934	0.4817	0.494	0.5478	0.5858	0.6012	0.5945	0.5496	0.4882	0.4821	0.4348	0.4098	0.5052
75	0.3232	0.4181	0.427	0.482	0.5217	0.5375	0.5307	0.4814	0.4169	0.4171	0.3682	0.3423	0.4388
80	0.2518	0.353	0.3581	0.4137	0.4548	0.4711	0.4641	0.4105	0.3431	0.3505	0.3004	0.2737	0.3704
85	0.1798	0.287	0.2877	0.3435	0.3858	0.4024	0.3953	0.3374	0.2676	0.2829	0.2318	0.2082	0.3008
90	0.1657	0.2293	0.2164	0.2719	0.3151	0.3319	0.3248	0.2626	0.1908	0.2146	0.2033	0.2004	0.2439

Tabla 25: Azimut de 110°

$\beta^\circ$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9911	0.9913	0.9916	0.9918	0.9912	0.9911	0.9911	0.9914
5	0.9813	0.9873	0.9935	1.0003	1.0039	1.0054	1.0048	1.003	0.9973	0.989	0.9834	0.9806	0.9942
10	0.9652	0.9776	0.9892	1.0024	1.0102	1.0135	1.012	1.0079	0.9962	0.9809	0.9699	0.9642	0.9908
15	0.9431	0.9622	0.9786	0.9983	1.0101	1.0153	1.0129	1.0062	0.9885	0.9668	0.9505	0.9419	0.9812
20	0.915	0.9413	0.962	0.9879	1.0038	1.0107	1.0076	0.9979	0.9742	0.947	0.9254	0.914	0.9656
25	0.8813	0.9149	0.9393	0.9714	0.9912	0.9999	0.996	0.983	0.9533	0.9216	0.8948	0.8807	0.944
30	0.8421	0.8833	0.9107	0.9488	0.9725	0.9828	0.9782	0.9618	0.9262	0.8907	0.8589	0.8422	0.9165
35	0.7978	0.8468	0.8765	0.9202	0.9478	0.9597	0.9543	0.9342	0.8929	0.8547	0.8181	0.7988	0.8835
40	0.7486	0.8055	0.837	0.886	0.9172	0.9306	0.9246	0.9006	0.8534	0.8137	0.7725	0.7509	0.8451
45	0.695	0.7599	0.7924	0.8463	0.881	0.8958	0.8892	0.8611	0.8083	0.7681	0.7227	0.6988	0.8015
50	0.6374	0.7102	0.7432	0.8015	0.8394	0.8555	0.8483	0.8161	0.7579	0.7182	0.6689	0.6429	0.7533
55	0.5762	0.6569	0.6897	0.7519	0.7928	0.8101	0.8024	0.7659	0.7026	0.6645	0.6115	0.5836	0.7007
60	0.5119	0.6003	0.6322	0.6977	0.7415	0.7599	0.7517	0.7108	0.6427	0.6072	0.551	0.5214	0.644
65	0.4449	0.5408	0.5713	0.6396	0.6858	0.7052	0.6966	0.6512	0.5787	0.547	0.4879	0.4567	0.5838
70	0.3759	0.4791	0.5072	0.5777	0.6263	0.6464	0.6375	0.5877	0.5111	0.4841	0.4227	0.3901	0.5205
75	0.3052	0.4154	0.4406	0.5128	0.5632	0.584	0.5749	0.5206	0.4405	0.4192	0.3557	0.3221	0.4545
80	0.2334	0.3503	0.372	0.4451	0.4972	0.5185	0.5092	0.4505	0.3672	0.3527	0.2876	0.2531	0.3864
85	0.1697	0.2842	0.3017	0.3752	0.4287	0.4504	0.4409	0.3778	0.292	0.285	0.2189	0.2082	0.3194
90	0.1657	0.2293	0.2305	0.3037	0.3582	0.3801	0.3706	0.3032	0.2152	0.2168	0.2033	0.2004	0.2648



Tabla 26: Azimut de 115°

$\beta^\circ$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9911	0.9913	0.9916	0.9918	0.9912	0.9911	0.9911	0.9914
5	0.9797	0.987	0.9947	1.003	1.0076	1.0095	1.0086	1.0065	0.9994	0.9892	0.9824	0.9788	0.9955
10	0.9621	0.9771	0.9916	1.0078	1.0175	1.0216	1.0197	1.0148	1.0004	0.9812	0.9677	0.9607	0.9935
15	0.9384	0.9615	0.9822	1.0063	1.021	1.0274	1.0245	1.0164	0.9946	0.9674	0.9472	0.9367	0.9853
20	0.9089	0.9403	0.9667	0.9985	1.0181	1.0267	1.0228	1.0114	0.9823	0.9477	0.9211	0.9071	0.971
25	0.8737	0.9138	0.9451	0.9844	1.0089	1.0196	1.0148	0.9997	0.9633	0.9225	0.8895	0.8722	0.9506
30	0.8331	0.882	0.9176	0.9642	0.9934	1.0062	1.0004	0.9814	0.938	0.8918	0.8526	0.8321	0.9244
35	0.7874	0.8452	0.8844	0.9379	0.9717	0.9864	0.9798	0.9568	0.9064	0.8559	0.8109	0.7872	0.8925
40	0.737	0.8038	0.8458	0.9058	0.944	0.9606	0.9531	0.9258	0.8686	0.815	0.7645	0.7379	0.8552
45	0.6822	0.758	0.8021	0.8681	0.9104	0.9288	0.9205	0.8889	0.825	0.7696	0.7138	0.6845	0.8127
50	0.6236	0.7081	0.7537	0.8251	0.8713	0.8912	0.8823	0.8461	0.776	0.7198	0.6592	0.6274	0.7653
55	0.5614	0.6546	0.7009	0.777	0.8269	0.8483	0.8387	0.798	0.7219	0.6662	0.6012	0.567	0.7135
60	0.4962	0.5979	0.644	0.7244	0.7775	0.8002	0.7901	0.7447	0.6631	0.6091	0.5402	0.5039	0.6576
65	0.4285	0.5384	0.5836	0.6674	0.7235	0.7474	0.7368	0.6867	0.6001	0.5489	0.4766	0.4384	0.598
70	0.3588	0.4765	0.52	0.6066	0.6654	0.6902	0.6792	0.6245	0.5333	0.4861	0.4109	0.3711	0.5352
75	0.2877	0.4127	0.4538	0.5425	0.6034	0.629	0.6177	0.5585	0.4633	0.4212	0.3436	0.3026	0.4697
80	0.2156	0.3476	0.3854	0.4754	0.5382	0.5644	0.5528	0.4891	0.3905	0.3547	0.2753	0.2332	0.4018
85	0.1697	0.2815	0.3153	0.4059	0.4702	0.4968	0.4851	0.4169	0.3155	0.2871	0.2114	0.2082	0.3386
90	0.1657	0.2293	0.2442	0.3346	0.3998	0.4266	0.4149	0.3425	0.2389	0.2188	0.2033	0.2004	0.2849

Tabla 27: Azimut de 120°

$\beta^\circ$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9911	0.9913	0.9916	0.9918	0.9912	0.9911	0.9911	0.9914
5	0.9782	0.9868	0.9958	1.0056	1.0111	1.0134	1.0124	1.0098	1.0014	0.9894	0.9813	0.9772	0.9969
10	0.9591	0.9767	0.9939	1.013	1.0244	1.0294	1.0272	1.0214	1.0043	0.9816	0.9656	0.9573	0.9961
15	0.9339	0.9608	0.9856	1.014	1.0314	1.039	1.0355	1.0262	1.0005	0.9679	0.9441	0.9317	0.9892
20	0.9029	0.9395	0.9712	1.0087	1.0318	1.0421	1.0374	1.0243	0.99	0.9484	0.9169	0.9005	0.9761
25	0.8663	0.9127	0.9506	0.997	1.0258	1.0386	1.0328	1.0156	0.9729	0.9233	0.8844	0.864	0.957
30	0.8244	0.8807	0.9242	0.979	1.0134	1.0286	1.0217	1.0003	0.9493	0.8928	0.8466	0.8224	0.9319
35	0.7774	0.8437	0.892	0.9549	0.9947	1.0121	1.0042	0.9784	0.9193	0.857	0.8039	0.7761	0.9011
40	0.7258	0.8021	0.8543	0.9248	0.9697	0.9893	0.9805	0.95	0.8832	0.8163	0.7567	0.7254	0.8648
45	0.67	0.7561	0.8114	0.889	0.9387	0.9604	0.9506	0.9155	0.841	0.771	0.7053	0.6707	0.8233
50	0.6103	0.7061	0.7637	0.8477	0.9019	0.9255	0.9149	0.8749	0.7933	0.7213	0.65	0.6125	0.7768
55	0.5472	0.6525	0.7116	0.8012	0.8596	0.8849	0.8735	0.8288	0.7404	0.6678	0.5913	0.5511	0.7258
60	0.4812	0.5957	0.6554	0.7499	0.8121	0.8389	0.8269	0.7772	0.6827	0.6108	0.5297	0.487	0.6706
65	0.4128	0.536	0.5955	0.6941	0.7597	0.7878	0.7753	0.7208	0.6205	0.5507	0.4656	0.4208	0.6116
70	0.3425	0.4741	0.5323	0.6343	0.7029	0.7321	0.7191	0.6598	0.5545	0.488	0.3995	0.3529	0.5493
75	0.2709	0.4102	0.4664	0.5709	0.642	0.6721	0.6587	0.5947	0.4851	0.4232	0.3319	0.2838	0.4842
80	0.1985	0.345	0.3983	0.5044	0.5775	0.6083	0.5947	0.5261	0.4127	0.3567	0.2634	0.216	0.4168
85	0.1697	0.2789	0.3284	0.4353	0.5099	0.5412	0.5274	0.4544	0.338	0.2891	0.2114	0.2082	0.3577
90	0.1657	0.2293	0.2573	0.3641	0.4397	0.4713	0.4574	0.3801	0.2615	0.2209	0.2033	0.2004	0.3042



Tabla 28: Azimut de 125°

$\beta^\circ$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9911	0.9913	0.9916	0.9918	0.9912	0.9911	0.9911	0.9914
5	0.9767	0.9866	0.9969	1.008	1.0144	1.0172	1.0159	1.0129	1.0033	0.9896	0.9803	0.9755	0.9981
10	0.9562	0.9762	0.996	1.0179	1.0311	1.0368	1.0342	1.0276	1.0081	0.9819	0.9636	0.9541	0.9987
15	0.9296	0.9602	0.9888	1.0213	1.0412	1.05	1.046	1.0355	1.0061	0.9684	0.9411	0.9269	0.993
20	0.8973	0.9386	0.9754	1.0183	1.0449	1.0566	1.0513	1.0366	0.9974	0.9491	0.913	0.8942	0.9811
25	0.8593	0.9116	0.9559	1.0089	1.0419	1.0566	1.0499	1.0308	0.982	0.9241	0.8795	0.8562	0.9631
30	0.8161	0.8794	0.9304	0.993	1.0324	1.0499	1.042	1.0182	0.96	0.8937	0.8409	0.8132	0.9391
35	0.7679	0.8423	0.8991	0.971	1.0165	1.0365	1.0274	0.9989	0.9316	0.8581	0.7974	0.7655	0.9094
40	0.7152	0.8005	0.8623	0.9428	0.9941	1.0167	1.0065	0.973	0.8969	0.8175	0.7493	0.7135	0.874
45	0.6583	0.7544	0.8202	0.9088	0.9655	0.9904	0.9792	0.9407	0.8562	0.7723	0.6972	0.6577	0.8334
50	0.5976	0.7042	0.7732	0.8691	0.931	0.958	0.9458	0.9023	0.8097	0.7228	0.6412	0.5983	0.7878
55	0.5336	0.6505	0.7218	0.8241	0.8906	0.9197	0.9066	0.858	0.7579	0.6694	0.582	0.5359	0.7375
60	0.4669	0.5935	0.6661	0.7741	0.8449	0.8756	0.8618	0.8081	0.7012	0.6124	0.5198	0.471	0.683
65	0.3978	0.5338	0.6067	0.7194	0.794	0.8263	0.8118	0.7531	0.6399	0.5524	0.4552	0.404	0.6245
70	0.327	0.4717	0.544	0.6606	0.7385	0.772	0.757	0.6933	0.5746	0.4898	0.3888	0.3355	0.5627
75	0.2549	0.4078	0.4784	0.5979	0.6786	0.7131	0.6977	0.6292	0.5057	0.425	0.3209	0.2659	0.4979
80	0.1822	0.3426	0.4105	0.532	0.6148	0.6501	0.6344	0.5612	0.4338	0.3586	0.2521	0.216	0.4323
85	0.1697	0.2765	0.3408	0.4632	0.5477	0.5835	0.5676	0.4899	0.3593	0.291	0.2114	0.2082	0.3757
90	0.1657	0.2293	0.2697	0.392	0.4776	0.5137	0.4977	0.4158	0.2829	0.2228	0.2033	0.2004	0.3226

Tabla 29: Azimut de 130°

$\beta^\circ$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9911	0.9913	0.9916	0.9918	0.9912	0.9911	0.9911	0.9914
5	0.9754	0.9864	0.998	1.0104	1.0176	1.0207	1.0193	1.0159	1.0051	0.9897	0.9794	0.974	0.9993
10	0.9535	0.9758	0.9981	1.0225	1.0373	1.0438	1.0409	1.0335	1.0116	0.9822	0.9617	0.9511	1.001
15	0.9256	0.9596	0.9919	1.0282	1.0505	1.0604	1.0559	1.0443	1.0114	0.9689	0.9383	0.9224	0.9965
20	0.8919	0.9378	0.9795	1.0274	1.0571	1.0704	1.0644	1.0481	1.0043	0.9497	0.9093	0.8882	0.9857
25	0.8528	0.9106	0.9609	1.02	1.0571	1.0735	1.0661	1.0451	0.9905	0.9249	0.875	0.8488	0.9688
30	0.8083	0.8783	0.9363	1.0062	1.0503	1.0699	1.061	1.035	0.9701	0.8946	0.8355	0.8045	0.9458
35	0.759	0.841	0.9059	0.9861	1.037	1.0595	1.0493	1.0182	0.9431	0.8591	0.7912	0.7555	0.9171
40	0.7052	0.799	0.8699	0.9597	1.017	1.0424	1.0309	0.9946	0.9098	0.8187	0.7424	0.7024	0.8827
45	0.6473	0.7527	0.8286	0.9273	0.9907	1.0187	1.0061	0.9644	0.8704	0.7736	0.6895	0.6454	0.8429
50	0.5857	0.7024	0.7822	0.8892	0.9583	0.9886	0.9749	0.9279	0.8251	0.7242	0.633	0.585	0.798
55	0.5209	0.6486	0.7313	0.8456	0.9198	0.9523	0.9377	0.8854	0.7744	0.6708	0.5731	0.5217	0.7485
60	0.4534	0.5915	0.6762	0.7968	0.8757	0.9102	0.8947	0.8371	0.7186	0.614	0.5105	0.456	0.6945
65	0.3837	0.5317	0.6173	0.7432	0.8263	0.8624	0.8462	0.7834	0.6581	0.554	0.4455	0.3883	0.6367
70	0.3124	0.4695	0.555	0.6852	0.7719	0.8094	0.7926	0.7247	0.5935	0.4915	0.3786	0.3192	0.5753
75	0.2399	0.4056	0.4897	0.6232	0.7129	0.7516	0.7343	0.6614	0.5251	0.4267	0.3105	0.2491	0.5108
80	0.1735	0.3403	0.422	0.5578	0.6498	0.6893	0.6717	0.5941	0.4535	0.3603	0.2415	0.216	0.4475
85	0.1697	0.2741	0.3524	0.4893	0.5831	0.6231	0.6053	0.5232	0.3793	0.2928	0.2114	0.2082	0.3927
90	0.1657	0.2293	0.2814	0.4183	0.5132	0.5535	0.5356	0.4492	0.303	0.2245	0.2033	0.2004	0.3398





Tabla 30: Azimut de 135°

$\beta^\circ$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9911	0.9913	0.9916	0.9918	0.9912	0.9911	0.9911	0.9914
5	0.9741	0.9862	0.9989	1.0125	1.0205	1.0239	1.0224	1.0186	1.0067	0.9899	0.9785	0.9726	1.0004
10	0.951	0.9755	1	1.0268	1.0431	1.0503	1.047	1.039	1.0149	0.9825	0.96	0.9483	1.0032
15	0.9219	0.959	0.9947	1.0346	1.0592	1.0701	1.0651	1.0524	1.0163	0.9693	0.9357	0.9182	0.9997
20	0.887	0.9371	0.9832	1.0358	1.0685	1.0831	1.0765	1.0589	1.0108	0.9503	0.9059	0.8827	0.99
25	0.8467	0.9097	0.9655	1.0304	1.0711	1.0893	1.081	1.0583	0.9984	0.9256	0.8707	0.842	0.9741
30	0.8011	0.8772	0.9418	1.0185	1.0669	1.0885	1.0787	1.0507	0.9794	0.8955	0.8305	0.7964	0.9521
35	0.7507	0.8397	0.9122	1.0001	1.056	1.0808	1.0695	1.0361	0.9538	0.8601	0.7854	0.7463	0.9242
40	0.6959	0.7976	0.8769	0.9754	1.0383	1.0662	1.0536	1.0146	0.9217	0.8198	0.736	0.692	0.8907
45	0.6371	0.7512	0.8363	0.9446	1.0142	1.0449	1.031	0.9864	0.8835	0.7748	0.6824	0.634	0.8517
50	0.5746	0.7008	0.7906	0.9078	0.9836	1.017	1.0019	0.9517	0.8394	0.7255	0.6253	0.5726	0.8076
55	0.5091	0.6468	0.7402	0.8655	0.9469	0.9827	0.9665	0.9108	0.7896	0.6722	0.5649	0.5085	0.7586
60	0.4409	0.5896	0.6856	0.8178	0.9043	0.9422	0.9251	0.8639	0.7346	0.6154	0.5018	0.442	0.7053
65	0.3706	0.5297	0.6271	0.7652	0.8562	0.8959	0.8781	0.8115	0.6749	0.5556	0.4364	0.3736	0.6479
70	0.2988	0.4675	0.5651	0.708	0.8029	0.8442	0.8256	0.7538	0.6109	0.493	0.3692	0.304	0.5869
75	0.226	0.4035	0.5002	0.6467	0.7448	0.7873	0.7682	0.6914	0.543	0.4283	0.3008	0.2335	0.5228
80	0.1735	0.3382	0.4327	0.5817	0.6823	0.7257	0.7063	0.6246	0.4718	0.362	0.2316	0.216	0.4622
85	0.1697	0.272	0.3632	0.5135	0.6159	0.6599	0.6403	0.5541	0.3978	0.2944	0.2114	0.2082	0.4084
90	0.1657	0.2293	0.2923	0.4426	0.5462	0.5904	0.5707	0.4802	0.3216	0.2262	0.2033	0.2004	0.3557

Tabla 31: Azimut de 140°

$\beta^\circ$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9911	0.9913	0.9916	0.9918	0.9912	0.9911	0.9911	0.9914
5	0.973	0.986	0.9998	1.0145	1.0232	1.0269	1.0252	1.0212	1.0082	0.99	0.9777	0.9713	1.0014
10	0.9487	0.9751	1.0017	1.0307	1.0484	1.0563	1.0527	1.044	1.0179	0.9828	0.9584	0.9457	1.0052
15	0.9184	0.9585	0.9973	1.0404	1.0671	1.0789	1.0735	1.0599	1.0207	0.9697	0.9334	0.9144	1.0027
20	0.8825	0.9364	0.9866	1.0435	1.079	1.0948	1.0876	1.0687	1.0166	0.9508	0.9028	0.8776	0.9939
25	0.8411	0.9089	0.9698	1.0399	1.084	1.1037	1.0947	1.0704	1.0057	0.9262	0.8668	0.8357	0.9789
30	0.7945	0.8762	0.9468	1.0297	1.0821	1.1055	1.0949	1.065	0.9879	0.8962	0.8259	0.789	0.9578
35	0.7432	0.8386	0.9179	1.0129	1.0734	1.1003	1.0881	1.0525	0.9635	0.861	0.7802	0.7378	0.9308
40	0.6874	0.7963	0.8834	0.9898	1.0578	1.0881	1.0744	1.0329	0.9326	0.8207	0.7301	0.6825	0.898
45	0.6277	0.7498	0.8434	0.9603	1.0356	1.0689	1.0538	1.0065	0.8955	0.7758	0.676	0.6235	0.8597
50	0.5645	0.6993	0.7983	0.9249	1.0068	1.043	1.0266	0.9735	0.8524	0.7266	0.6183	0.5613	0.8163
55	0.4982	0.6452	0.7484	0.8837	0.9717	1.0105	0.9929	0.9341	0.8035	0.6735	0.5574	0.4964	0.7679
60	0.4294	0.5879	0.6942	0.837	0.9305	0.9716	0.953	0.8885	0.7493	0.6168	0.4938	0.4292	0.7151
65	0.3586	0.5279	0.6361	0.7853	0.8836	0.9266	0.9072	0.8371	0.6903	0.5569	0.4281	0.3602	0.6582
70	0.2864	0.4656	0.5744	0.7288	0.8313	0.876	0.8558	0.7804	0.6268	0.4945	0.3606	0.2901	0.5976
75	0.2132	0.4016	0.5097	0.6681	0.7739	0.8199	0.7993	0.7187	0.5593	0.4298	0.2919	0.2236	0.5341
80	0.1735	0.3362	0.4425	0.6035	0.712	0.759	0.7379	0.6525	0.4885	0.3635	0.2226	0.216	0.4756
85	0.1697	0.27	0.3731	0.5356	0.646	0.6936	0.6723	0.5823	0.4147	0.2959	0.2114	0.2082	0.4227
90	0.1657	0.2293	0.3022	0.4648	0.5763	0.6241	0.6028	0.5085	0.3385	0.2277	0.2033	0.2004	0.3703



Tabla 32: Azimut de 145°

$\beta^\circ$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9911	0.9913	0.9916	0.9918	0.9912	0.9911	0.9911	0.9914
5	0.9719	0.9859	1.0006	1.0163	1.0256	1.0296	1.0278	1.0234	1.0096	0.9901	0.977	0.9702	1.0023
10	0.9466	0.9748	1.0033	1.0343	1.0532	1.0616	1.0578	1.0485	1.0206	0.983	0.957	0.9434	1.007
15	0.9154	0.9581	0.9997	1.0457	1.0742	1.0869	1.0811	1.0666	1.0248	0.97	0.9312	0.9109	1.0054
20	0.8784	0.9358	0.9897	1.0504	1.0884	1.1053	1.0976	1.0775	1.0219	0.9513	0.8999	0.8731	0.9974
25	0.836	0.9081	0.9736	1.0485	1.0956	1.1167	1.1071	1.0813	1.0122	0.9268	0.8633	0.8301	0.9833
30	0.7885	0.8753	0.9513	1.0398	1.0958	1.1209	1.1095	1.0778	0.9956	0.8969	0.8217	0.7823	0.963
35	0.7363	0.8376	0.9231	1.0245	1.0891	1.1179	1.1048	1.0672	0.9723	0.8617	0.7754	0.7301	0.9367
40	0.6798	0.7952	0.8892	1.0027	1.0754	1.1078	1.0931	1.0494	0.9424	0.8216	0.7247	0.6739	0.9046
45	0.6193	0.7485	0.8498	0.9745	1.0549	1.0906	1.0744	1.0247	0.9062	0.7768	0.6701	0.6141	0.867
50	0.5553	0.6979	0.8052	0.9402	1.0277	1.0664	1.0489	0.9931	0.8639	0.7277	0.6119	0.5511	0.8241
55	0.4885	0.6437	0.7558	0.9	0.994	1.0355	1.0167	0.955	0.8159	0.6746	0.5506	0.4854	0.7763
60	0.4191	0.5864	0.702	0.8543	0.9541	0.998	0.9782	0.9106	0.7625	0.6179	0.4867	0.4176	0.7239
65	0.3478	0.5263	0.6441	0.8033	0.9082	0.9543	0.9335	0.8602	0.704	0.5582	0.4206	0.3481	0.6674
70	0.2752	0.464	0.5828	0.7475	0.8568	0.9046	0.8831	0.8043	0.641	0.4958	0.3528	0.2775	0.6071
75	0.2017	0.3999	0.5183	0.6873	0.8001	0.8494	0.8272	0.7433	0.574	0.4311	0.2839	0.2236	0.545
80	0.1735	0.3344	0.4512	0.6231	0.7387	0.789	0.7664	0.6775	0.5034	0.3648	0.2195	0.216	0.4881
85	0.1697	0.2682	0.382	0.5554	0.673	0.7238	0.701	0.6076	0.4298	0.2973	0.2114	0.2082	0.4356
90	0.1657	0.2293	0.3111	0.4846	0.6034	0.6545	0.6316	0.5339	0.3537	0.2291	0.2033	0.2004	0.3834

Tabla 33: Azimut de 150°

$\beta^\circ$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9911	0.9913	0.9916	0.9918	0.9912	0.9911	0.9911	0.9914
5	0.971	0.9857	1.0013	1.0179	1.0277	1.032	1.03	1.0254	1.0108	0.9902	0.9763	0.9691	1.0031
10	0.9448	0.9745	1.0047	1.0374	1.0574	1.0663	1.0623	1.0525	1.023	0.9832	0.9557	0.9413	1.0086
15	0.9126	0.9577	1.0017	1.0503	1.0805	1.0939	1.0878	1.0725	1.0283	0.9704	0.9293	0.9079	1.0077
20	0.8748	0.9352	0.9925	1.0565	1.0966	1.1146	1.1064	1.0853	1.0266	0.9517	0.8974	0.869	1.0006
25	0.8316	0.9075	0.9769	1.056	1.1058	1.1281	1.118	1.0909	1.0179	0.9273	0.8603	0.8251	0.9871
30	0.7833	0.8745	0.9553	1.0487	1.1079	1.1344	1.1223	1.0892	1.0023	0.8975	0.8181	0.7764	0.9675
35	0.7303	0.8367	0.9277	1.0347	1.1029	1.1334	1.1196	1.0802	0.98	0.8624	0.7712	0.7234	0.9419
40	0.673	0.7942	0.8943	1.0141	1.0909	1.1251	1.1096	1.0639	0.951	0.8224	0.7201	0.6663	0.9104
45	0.6118	0.7474	0.8554	0.987	1.0719	1.1097	1.0925	1.0406	0.9156	0.7777	0.6649	0.6057	0.8734
50	0.5473	0.6967	0.8113	0.9537	1.0461	1.0871	1.0685	1.0103	0.8741	0.7286	0.6063	0.5421	0.831
55	0.4798	0.6424	0.7624	0.9144	1.0136	1.0576	1.0377	0.9734	0.8268	0.6756	0.5446	0.4758	0.7837
60	0.41	0.585	0.7089	0.8695	0.9748	1.0213	1.0003	0.93	0.774	0.619	0.4803	0.4074	0.7317
65	0.3383	0.5249	0.6513	0.8192	0.9299	0.9787	0.9567	0.8805	0.7161	0.5593	0.4139	0.3375	0.6755
70	0.2653	0.4625	0.5902	0.7639	0.8793	0.9299	0.9071	0.8253	0.6535	0.4969	0.3459	0.2665	0.6155
75	0.1915	0.3983	0.5259	0.7041	0.8232	0.8753	0.8519	0.7649	0.5868	0.4323	0.2769	0.2236	0.5546
80	0.1735	0.3329	0.4589	0.6403	0.7623	0.8154	0.7915	0.6995	0.5164	0.366	0.2195	0.216	0.4993
85	0.1697	0.2667	0.3898	0.5727	0.6968	0.7506	0.7264	0.6298	0.443	0.2985	0.2114	0.2082	0.447
90	0.1657	0.2293	0.3189	0.5021	0.6272	0.6812	0.657	0.5562	0.3669	0.2303	0.2033	0.2004	0.3949



Tabla 34: Azimut de 150°

$\beta^\circ$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9911	0.9913	0.9916	0.9918	0.9912	0.9911	0.9911	0.9914
5	0.9702	0.9856	1.0019	1.0192	1.0295	1.034	1.032	1.0272	1.0119	0.9903	0.9758	0.9683	1.0038
10	0.9432	0.9743	1.0059	1.0401	1.0611	1.0704	1.0661	1.0559	1.0251	0.9834	0.9546	0.9396	1.01
15	0.9103	0.9573	1.0035	1.0543	1.0859	1.1	1.0936	1.0776	1.0314	0.9706	0.9277	0.9053	1.0098
20	0.8717	0.9348	0.9948	1.0618	1.1038	1.1226	1.114	1.092	1.0306	0.952	0.8953	0.8656	1.0032
25	0.8277	0.9069	0.9798	1.0625	1.1146	1.1379	1.1273	1.0992	1.0228	0.9278	0.8576	0.8208	0.9904
30	0.7788	0.8738	0.9587	1.0563	1.1183	1.146	1.1334	1.0989	1.0081	0.898	0.8149	0.7714	0.9714
35	0.7251	0.8359	0.9316	1.0434	1.1148	1.1467	1.1322	1.0913	0.9866	0.863	0.7676	0.7176	0.9463
40	0.6672	0.7933	0.8987	1.0238	1.1042	1.1401	1.1238	1.0764	0.9584	0.8231	0.716	0.6598	0.9154
45	0.6054	0.7465	0.8603	0.9977	1.0865	1.1261	1.1081	1.0543	0.9237	0.7784	0.6605	0.5986	0.8788
50	0.5404	0.6957	0.8166	0.9653	1.0619	1.1048	1.0854	1.0251	0.8828	0.7294	0.6015	0.5343	0.8369
55	0.4724	0.6413	0.768	0.9268	1.0305	1.0765	1.0557	0.9892	0.836	0.6764	0.5395	0.4675	0.79
60	0.4022	0.5838	0.7148	0.8825	0.9927	1.0414	1.0193	0.9467	0.7838	0.6199	0.4749	0.3987	0.7384
65	0.3301	0.5236	0.6576	0.8328	0.9486	0.9997	0.9766	0.8979	0.7264	0.5602	0.4083	0.3283	0.6825
70	0.2568	0.4612	0.5966	0.778	0.8986	0.9516	0.9277	0.8434	0.6641	0.4979	0.3401	0.257	0.6227
75	0.1828	0.397	0.5324	0.7186	0.8431	0.8977	0.8731	0.7833	0.5977	0.4333	0.2708	0.2236	0.5628
80	0.1735	0.3316	0.4655	0.6549	0.7825	0.8382	0.8131	0.7183	0.5275	0.367	0.2195	0.216	0.509
85	0.1697	0.2653	0.3965	0.5876	0.7172	0.7735	0.7482	0.6488	0.4542	0.2996	0.2114	0.2082	0.4567
90	0.1657	0.2293	0.3257	0.517	0.6477	0.7042	0.6789	0.5753	0.3782	0.2314	0.2033	0.2004	0.4048

Tabla 35: Azimut de 160°

$\beta^\circ$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9911	0.9913	0.9916	0.9918	0.9912	0.9911	0.9911	0.9914
5	0.9696	0.9855	1.0024	1.0203	1.031	1.0357	1.0336	1.0286	1.0127	0.9904	0.9753	0.9675	1.0044
10	0.9419	0.9741	1.0068	1.0423	1.0641	1.0738	1.0693	1.0587	1.0268	0.9836	0.9537	0.9381	1.0111
15	0.9083	0.957	1.005	1.0576	1.0903	1.105	1.0983	1.0818	1.0339	0.9709	0.9264	0.9031	1.0115
20	0.8691	0.9344	0.9967	1.0662	1.1097	1.1292	1.1203	1.0976	1.0339	0.9523	0.8935	0.8627	1.0055
25	0.8246	0.9064	0.9822	1.0678	1.1219	1.1461	1.1351	1.106	1.0269	0.9281	0.8554	0.8173	0.9932
30	0.775	0.8733	0.9616	1.0626	1.1269	1.1557	1.1426	1.107	1.0129	0.8985	0.8123	0.7672	0.9746
35	0.7208	0.8352	0.9349	1.0506	1.1247	1.1578	1.1427	1.1006	0.992	0.8635	0.7646	0.7128	0.95
40	0.6624	0.7926	0.9024	1.0319	1.1152	1.1524	1.1355	1.0867	0.9644	0.8236	0.7127	0.6544	0.9195
45	0.6001	0.7457	0.8643	1.0066	1.0986	1.1396	1.121	1.0656	0.9303	0.779	0.6568	0.5927	0.8834
50	0.5346	0.6948	0.8209	0.9749	1.075	1.1195	1.0993	1.0374	0.89	0.7301	0.5975	0.5279	0.8418
55	0.4663	0.6404	0.7726	0.937	1.0445	1.0923	1.0706	1.0022	0.8437	0.6771	0.5352	0.4606	0.7952
60	0.3957	0.5828	0.7198	0.8933	1.0074	1.058	1.0351	0.9604	0.7918	0.6207	0.4704	0.3914	0.7439
65	0.3233	0.5226	0.6627	0.844	0.964	1.017	0.9931	0.9123	0.7347	0.561	0.4035	0.3207	0.6882
70	0.2497	0.4602	0.6019	0.7896	0.9146	0.9697	0.9448	0.8582	0.6728	0.4987	0.3352	0.2491	0.6287
75	0.1774	0.3959	0.5378	0.7304	0.8595	0.9162	0.8906	0.7986	0.6067	0.4342	0.2658	0.2236	0.5697
80	0.1735	0.3305	0.471	0.667	0.7992	0.8571	0.831	0.7339	0.5366	0.3679	0.2195	0.216	0.5169
85	0.1697	0.2642	0.402	0.5998	0.7341	0.7926	0.7663	0.6645	0.4634	0.3004	0.2114	0.2082	0.4647
90	0.1657	0.2293	0.3312	0.5292	0.6646	0.7232	0.6969	0.591	0.3874	0.2322	0.2033	0.2004	0.4129



Tabla 36: Azimut de 165°

$\beta^\circ$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9911	0.9913	0.9916	0.9918	0.9912	0.9911	0.9911	0.9914
5	0.969	0.9854	1.0027	1.0212	1.0322	1.037	1.0348	1.0297	1.0134	0.9904	0.975	0.967	1.0048
10	0.9409	0.9739	1.0076	1.0441	1.0664	1.0764	1.0719	1.0609	1.0281	0.9837	0.953	0.937	1.012
15	0.9068	0.9568	1.0061	1.0602	1.0939	1.1089	1.1021	1.0851	1.0359	0.971	0.9253	0.9014	1.0128
20	0.8671	0.9341	0.9983	1.0696	1.1143	1.1344	1.1252	1.1019	1.0365	0.9526	0.8921	0.8605	1.0072
25	0.8221	0.906	0.9841	1.072	1.1276	1.1525	1.1412	1.1114	1.0301	0.9284	0.8537	0.8145	0.9953
30	0.7721	0.8728	0.9638	1.0676	1.1336	1.1632	1.1498	1.1134	1.0167	0.8988	0.8103	0.7639	0.9772
35	0.7174	0.8347	0.9374	1.0563	1.1324	1.1664	1.1509	1.1078	0.9963	0.8639	0.7623	0.709	0.9529
40	0.6586	0.792	0.9052	1.0382	1.1239	1.1621	1.1447	1.0949	0.9692	0.8241	0.71	0.6502	0.9228
45	0.596	0.745	0.8674	1.0135	1.1081	1.1503	1.1311	1.0745	0.9356	0.7795	0.6539	0.588	0.8869
50	0.5301	0.6941	0.8243	0.9824	1.0853	1.1311	1.1103	1.047	0.8956	0.7306	0.5944	0.5228	0.8457
55	0.4615	0.6397	0.7763	0.945	1.0555	1.1046	1.0823	1.0125	0.8496	0.6777	0.5319	0.4552	0.7993
60	0.3906	0.5821	0.7236	0.9017	1.019	1.0711	1.0475	0.9712	0.798	0.6212	0.4669	0.3857	0.7482
65	0.318	0.5218	0.6667	0.8528	0.9761	1.0307	1.006	0.9236	0.7412	0.5616	0.3998	0.3147	0.6928
70	0.2442	0.4593	0.6061	0.7986	0.9271	0.9839	0.9582	0.8699	0.6795	0.4993	0.3313	0.2429	0.6334
75	0.1774	0.3951	0.5421	0.7397	0.8724	0.9308	0.9045	0.8106	0.6135	0.4348	0.2618	0.2236	0.5755
80	0.1735	0.3296	0.4754	0.6764	0.8124	0.872	0.8452	0.746	0.5437	0.3686	0.2195	0.216	0.5232
85	0.1697	0.2633	0.4063	0.6093	0.7475	0.8077	0.7806	0.6768	0.4704	0.3011	0.2114	0.2082	0.471
90	0.1657	0.2293	0.3355	0.5387	0.678	0.7541	0.7111	0.6034	0.3945	0.2329	0.2033	0.2004	0.4206

Tabla 37: Azimut de 170°

$\beta^\circ$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9911	0.9913	0.9916	0.9918	0.9912	0.9911	0.9911	0.9914
5	0.9687	0.9854	1.003	1.0218	1.0331	1.038	1.0358	1.0305	1.0139	0.9905	0.9747	0.9665	1.0052
10	0.9401	0.9738	1.0082	1.0453	1.0681	1.0783	1.0737	1.0625	1.0291	0.9838	0.9525	0.9361	1.0126
15	0.9057	0.9566	1.007	1.0621	1.0964	1.1118	1.1048	1.0875	1.0373	0.9712	0.9245	0.9002	1.0137
20	0.8657	0.9339	0.9994	1.072	1.1176	1.1381	1.1288	1.1051	1.0384	0.9527	0.8911	0.8588	1.0085
25	0.8203	0.9058	0.9855	1.0751	1.1317	1.1571	1.1455	1.1153	1.0324	0.9286	0.8524	0.8125	0.9969
30	0.7699	0.8725	0.9654	1.0712	1.1385	1.1687	1.1549	1.1179	1.0194	0.8991	0.8088	0.7615	0.979
35	0.715	0.8344	0.9393	1.0604	1.138	1.1727	1.1569	1.1131	0.9994	0.8642	0.7606	0.7063	0.955
40	0.6558	0.7916	0.9073	1.0428	1.1301	1.1691	1.1514	1.1007	0.9727	0.8244	0.7082	0.6471	0.9251
45	0.593	0.7446	0.8697	1.0185	1.1149	1.158	1.1384	1.0809	0.9393	0.7798	0.6519	0.5846	0.8895
50	0.5269	0.6936	0.8268	0.9878	1.0927	1.1394	1.1182	1.0539	0.8996	0.731	0.5921	0.5192	0.8484
55	0.458	0.6391	0.7789	0.9507	1.0634	1.1135	1.0908	1.0198	0.8539	0.6781	0.5295	0.4513	0.8023
60	0.3869	0.5815	0.7264	0.9077	1.0274	1.0805	1.0564	0.979	0.8025	0.6217	0.4643	0.3816	0.7513
65	0.3141	0.5212	0.6697	0.8591	0.9849	1.0406	1.0154	0.9317	0.7458	0.5621	0.3972	0.3104	0.696
70	0.2402	0.4587	0.6091	0.8051	0.9362	0.9941	0.9679	0.8783	0.6842	0.4998	0.3286	0.2384	0.6367
75	0.1774	0.3945	0.5452	0.7463	0.8818	0.9414	0.9145	0.8191	0.6183	0.4353	0.259	0.2236	0.5797
80	0.1735	0.329	0.4785	0.6832	0.822	0.8829	0.8554	0.7548	0.5485	0.369	0.2195	0.216	0.5277
85	0.1697	0.2627	0.4095	0.616	0.7572	0.8345	0.7911	0.6857	0.4754	0.3016	0.2114	0.2082	0.4769
90	0.1657	0.2293	0.3386	0.5455	0.6978	0.7654	0.7348	0.6123	0.3994	0.2334	0.2033	0.2004	0.4272



Tabla 38: Azimut de 175°

$\beta^\circ$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9911	0.9913	0.9916	0.9918	0.9912	0.9911	0.9911	0.9914
5	0.9685	0.9853	1.0032	1.0222	1.0336	1.0386	1.0363	1.031	1.0142	0.9905	0.9746	0.9663	1.0054
10	0.9397	0.9738	1.0085	1.0461	1.0692	1.0795	1.0748	1.0635	1.0297	0.9838	0.9522	0.9357	1.013
15	0.9051	0.9565	1.0075	1.0632	1.0979	1.1135	1.1064	1.0889	1.0381	0.9712	0.9241	0.8994	1.0143
20	0.8648	0.9337	1	1.0735	1.1196	1.1404	1.1309	1.107	1.0395	0.9528	0.8905	0.8579	1.0092
25	0.8192	0.9056	0.9863	1.0769	1.1342	1.1599	1.1482	1.1176	1.0338	0.9288	0.8517	0.8113	0.9978
30	0.7687	0.8723	0.9664	1.0733	1.1414	1.172	1.1581	1.1207	1.021	0.8992	0.8079	0.7601	0.9801
35	0.7135	0.8342	0.9404	1.0629	1.1413	1.1764	1.1605	1.1162	1.0013	0.8644	0.7596	0.7046	0.9563
40	0.6542	0.7914	0.9085	1.0456	1.1338	1.1733	1.1554	1.1042	0.9747	0.8246	0.707	0.6453	0.9265
45	0.5912	0.7443	0.8711	1.0215	1.1191	1.1626	1.1428	1.0848	0.9416	0.7801	0.6506	0.5826	0.891
50	0.5249	0.6933	0.8283	0.991	1.0971	1.1444	1.1229	1.0581	0.902	0.7312	0.5908	0.517	0.8501
55	0.4559	0.6388	0.7805	0.9542	1.0681	1.1189	1.0959	1.0243	0.8565	0.6783	0.528	0.449	0.804
60	0.3847	0.5812	0.7281	0.9114	1.0324	1.0861	1.0618	0.9837	0.8052	0.6219	0.4628	0.3791	0.7532
65	0.3118	0.5209	0.6714	0.8629	0.9901	1.0465	1.021	0.9366	0.7486	0.5623	0.3956	0.3078	0.698
70	0.2378	0.4584	0.6109	0.809	0.9417	1.0003	0.9738	0.8833	0.6871	0.5001	0.3269	0.2358	0.6388
75	0.1774	0.3941	0.5471	0.7503	0.8874	0.9479	0.9206	0.8243	0.6212	0.4356	0.2573	0.2236	0.5822
80	0.1735	0.3286	0.4804	0.6872	0.8278	0.8896	0.8617	0.7601	0.5514	0.3693	0.2195	0.216	0.5304
85	0.1697	0.2623	0.4114	0.6201	0.7632	0.8413	0.8105	0.691	0.4782	0.3019	0.2114	0.2082	0.4808
90	0.1657	0.2293	0.3405	0.5496	0.7039	0.7722	0.7412	0.6178	0.4022	0.2337	0.2033	0.2004	0.43

Tabla 39: Azimut de 180°

$\beta^\circ$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9911	0.9913	0.9916	0.9918	0.9912	0.9911	0.9911	0.9914
5	0.9684	0.9853	1.0033	1.0224	1.0338	1.0388	1.0365	1.0312	1.0143	0.9905	0.9745	0.9662	1.0054
10	0.9396	0.9737	1.0086	1.0463	1.0695	1.0798	1.0751	1.0638	1.0299	0.9838	0.9521	0.9355	1.0132
15	0.9048	0.9565	1.0076	1.0636	1.0984	1.114	1.1069	1.0894	1.0384	0.9713	0.9239	0.8992	1.0145
20	0.8645	0.9337	1.0003	1.074	1.1203	1.1411	1.1316	1.1076	1.0399	0.9529	0.8903	0.8575	1.0095
25	0.8189	0.9056	0.9866	1.0775	1.135	1.1608	1.1491	1.1184	1.0343	0.9288	0.8514	0.8109	0.9981
30	0.7682	0.8723	0.9667	1.0741	1.1424	1.1731	1.1591	1.1216	1.0216	0.8992	0.8076	0.7596	0.9805
35	0.713	0.8341	0.9408	1.0637	1.1424	1.1777	1.1617	1.1173	1.0019	0.8644	0.7593	0.7041	0.9567
40	0.6536	0.7913	0.909	1.0465	1.1351	1.1747	1.1567	1.1054	0.9754	0.8246	0.7066	0.6447	0.927
45	0.5906	0.7442	0.8715	1.0225	1.1204	1.1642	1.1443	1.0861	0.9423	0.7801	0.6502	0.5819	0.8915
50	0.5242	0.6932	0.8288	0.9921	1.0986	1.1461	1.1245	1.0595	0.9028	0.7313	0.5903	0.5163	0.8506
55	0.4552	0.6387	0.781	0.9553	1.0697	1.1207	1.0976	1.0258	0.8573	0.6784	0.5275	0.4482	0.8046
60	0.3839	0.5811	0.7286	0.9126	1.0341	1.088	1.0636	0.9852	0.8061	0.622	0.4623	0.3783	0.7538
65	0.311	0.5208	0.672	0.8641	0.9919	1.0485	1.0229	0.9382	0.7495	0.5624	0.395	0.307	0.6986
70	0.237	0.4582	0.6115	0.8103	0.9435	1.0024	0.9758	0.885	0.688	0.5002	0.3263	0.2349	0.6394
75	0.1774	0.394	0.5477	0.7517	0.8893	0.95	0.9226	0.826	0.6221	0.4357	0.2567	0.2236	0.5831
80	0.1735	0.3285	0.4811	0.6885	0.8297	0.8919	0.8638	0.7618	0.5523	0.3694	0.2195	0.216	0.5313
85	0.1697	0.2622	0.412	0.6214	0.7653	0.8436	0.8126	0.6928	0.4791	0.302	0.2114	0.2082	0.4817
90	0.1657	0.2293	0.3412	0.5509	0.7059	0.7745	0.7434	0.6197	0.403	0.2338	0.2033	0.2004	0.4309