

## Lempira, Honduras

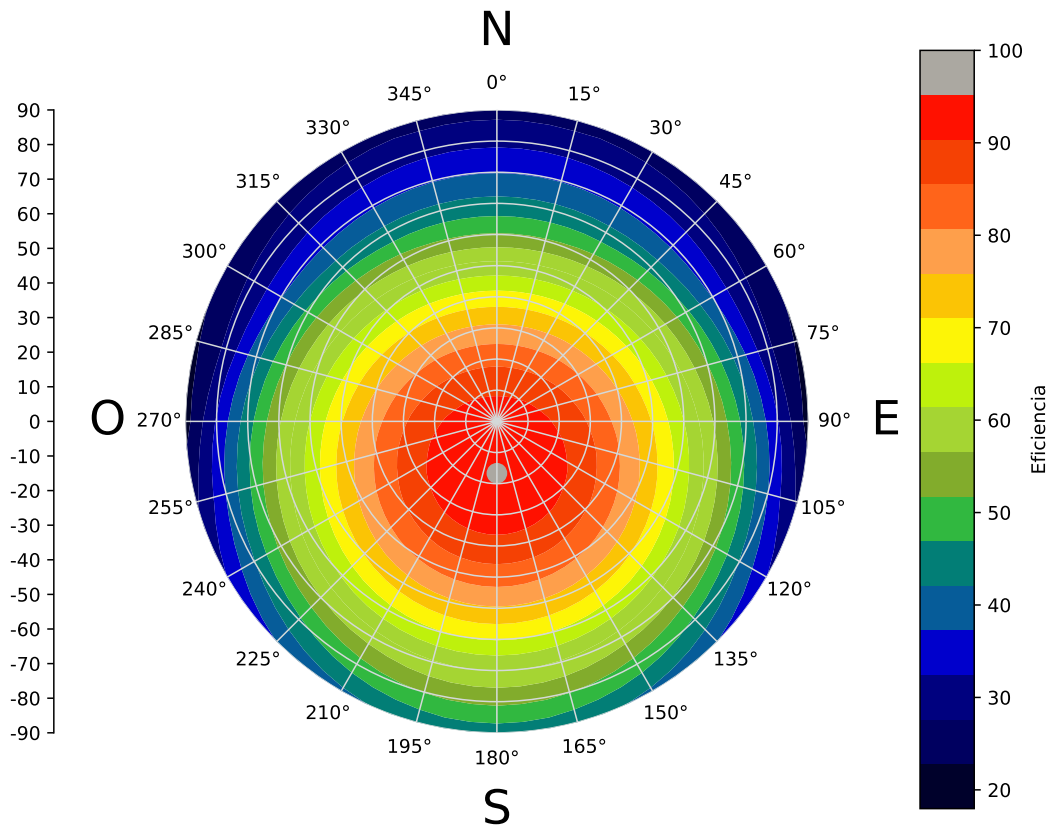
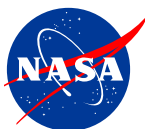


Tabla 1: Generalidades

Latitud	14.58892033857119
Longitud	-88.5805642604828
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	5.1262	11.5125	0.5549	0.1405	-20.8472	84.3067
Febrero	5.3808	11.027	0.5458	0.133	-13.3253	86.4573
Marzo	5.8551	9.6875	0.5675	0.1423	-2.3892	89.3753
Abril	5.9061	9.5604	0.5664	0.147	9.4932	92.5026
Mayo	5.512	8.9963	0.544	0.1402	18.8058	95.0929
Junio	5.468	9.3039	0.5394	0.1351	23.0771	96.3672
Julio	5.7537	9.6976	0.5601	0.1378	21.1015	95.7691
Agosto	5.6629	9.6198	0.559	0.1397	13.296	93.5364
Septiembre	5.3437	9.3212	0.5648	0.1465	1.9936	90.521
Octubre	5.1769	9.3977	0.534	0.1383	-9.8485	87.4014
Noviembre	4.6695	8.0443	0.5297	0.1382	-19.0505	84.8363
Diciembre	4.6031	8.0151	0.5471	0.1361	-23.0956	83.6271
Promedio	5.3092	8.9471	0.5478	0.1355	—	89.9828

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	0.9916	0.9919	0.9916	0.9912	0.9913	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	1.0093	0.9925	0.9745	0.9558	0.9436	0.9376	0.9396	0.9465	0.9639	0.9872	1.0036	1.013	0.9723
10	1.0211	0.9881	0.9514	0.9138	0.8899	0.8782	0.8821	0.8952	0.9295	0.9773	1.01	1.0286	0.9471
15	1.0265	0.9779	0.9223	0.8661	0.8308	0.8136	0.8193	0.8381	0.8889	0.9615	1.0103	1.0379	0.9161
20	1.0253	0.962	0.8876	0.8132	0.7667	0.7441	0.7516	0.7757	0.8424	0.9401	1.0044	1.0406	0.8795
25	1.0175	0.9405	0.8474	0.7553	0.6983	0.6704	0.6795	0.7084	0.7903	0.9132	0.9924	1.0369	0.8375
30	1.0033	0.9136	0.8021	0.693	0.6259	0.593	0.6036	0.6367	0.7331	0.881	0.9744	1.0267	0.7905
35	0.9827	0.8815	0.752	0.6267	0.5502	0.5125	0.5245	0.5612	0.6711	0.8438	0.9505	1.0101	0.7389
40	0.9559	0.8445	0.6976	0.557	0.4717	0.4296	0.4428	0.4825	0.6049	0.8017	0.9209	0.9872	0.683
45	0.9231	0.8028	0.6391	0.4843	0.391	0.3448	0.3591	0.4012	0.5349	0.7552	0.8858	0.9582	0.6233
50	0.8846	0.7567	0.5771	0.4093	0.3088	0.2589	0.2742	0.3178	0.4617	0.7047	0.8456	0.9234	0.5602
55	0.8406	0.7066	0.5121	0.3325	0.2258	0.2075	0.1983	0.2332	0.3858	0.6504	0.8004	0.883	0.498
60	0.7915	0.6529	0.4444	0.2545	0.2022	0.2041	0.1955	0.148	0.3078	0.5928	0.7506	0.8373	0.4485
65	0.7376	0.596	0.3747	0.1803	0.199	0.2006	0.1925	0.1315	0.2284	0.5323	0.6967	0.7866	0.4047
70	0.6793	0.5363	0.3035	0.1784	0.1957	0.1969	0.1894	0.132	0.148	0.4694	0.639	0.7314	0.3666
75	0.6172	0.4742	0.2313	0.1765	0.1923	0.193	0.1862	0.1324	0.102	0.4047	0.578	0.672	0.33
80	0.5517	0.4103	0.1797	0.1745	0.1887	0.1891	0.183	0.1329	0.105	0.3384	0.5141	0.609	0.298
85	0.4832	0.3451	0.1769	0.1725	0.1852	0.1851	0.1796	0.1334	0.108	0.2235	0.4479	0.5427	0.2653
90	0.4123	0.2301	0.1741	0.1704	0.1816	0.1811	0.1763	0.1339	0.1111	0.2167	0.3798	0.4737	0.2368



Tabla 4: Azimut de 5°

$\beta^\circ$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9916	0.9919	0.9916	0.9912	0.9913	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	1.0092	0.9925	0.9746	0.9559	0.9438	0.9378	0.9398	0.9467	0.964	0.9872	1.0036	1.0129	0.9723
10	1.021	0.9881	0.9515	0.914	0.8902	0.8786	0.8825	0.8955	0.9297	0.9773	1.0099	1.0284	0.9472
15	1.0262	0.9778	0.9225	0.8665	0.8313	0.8141	0.8198	0.8386	0.8892	0.9615	1.0101	1.0376	0.9163
20	1.0249	0.9619	0.8878	0.8137	0.7674	0.7449	0.7523	0.7763	0.8428	0.9401	1.0042	1.0402	0.8797
25	1.0171	0.9404	0.8477	0.7559	0.6991	0.6714	0.6804	0.7092	0.7908	0.9132	0.9921	1.0364	0.8378
30	1.0028	0.9135	0.8024	0.6937	0.6269	0.5941	0.6047	0.6376	0.7337	0.881	0.9741	1.0261	0.7909
35	0.9822	0.8814	0.7524	0.6276	0.5513	0.5138	0.5257	0.5623	0.6718	0.8438	0.9501	1.0094	0.7393
40	0.9553	0.8444	0.698	0.558	0.4729	0.431	0.4442	0.4837	0.6056	0.8018	0.9205	0.9865	0.6835
45	0.9225	0.8026	0.6395	0.4854	0.3924	0.3464	0.3607	0.4025	0.5357	0.7553	0.8854	0.9575	0.6238
50	0.8839	0.7566	0.5776	0.4105	0.3104	0.2607	0.2758	0.3193	0.4626	0.7047	0.845	0.9226	0.5608
55	0.8398	0.7065	0.5126	0.3338	0.2275	0.2075	0.1983	0.2348	0.3868	0.6504	0.7998	0.8821	0.4983
60	0.7906	0.6527	0.4449	0.2559	0.2022	0.2041	0.1955	0.1496	0.3089	0.5928	0.75	0.8363	0.4487
65	0.7367	0.5958	0.3753	0.1803	0.199	0.2006	0.1925	0.1315	0.2296	0.5323	0.6961	0.7856	0.4046
70	0.6785	0.5361	0.3041	0.1784	0.1957	0.1969	0.1894	0.132	0.1495	0.4695	0.6384	0.7304	0.3666
75	0.6163	0.4741	0.2319	0.1765	0.1923	0.193	0.1862	0.1324	0.102	0.4047	0.5774	0.671	0.3298
80	0.5508	0.4102	0.1798	0.1745	0.1887	0.1891	0.183	0.1329	0.1053	0.3385	0.5135	0.6079	0.2978
85	0.4823	0.3449	0.1769	0.1725	0.1852	0.1851	0.1796	0.1334	0.1083	0.2235	0.4472	0.5416	0.265
90	0.4114	0.2301	0.1741	0.1704	0.1816	0.1811	0.1763	0.1339	0.1113	0.2167	0.3791	0.4727	0.2366

Tabla 5: Azimut de 10°

$\beta^\circ$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9916	0.9919	0.9916	0.9912	0.9913	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	1.009	0.9925	0.9747	0.9563	0.9443	0.9384	0.9404	0.9472	0.9643	0.9872	1.0034	1.0126	0.9725
10	1.0205	0.988	0.9518	0.9148	0.8912	0.8798	0.8836	0.8965	0.9303	0.9773	1.0096	1.0279	0.9476
15	1.0255	0.9777	0.923	0.8676	0.8328	0.8159	0.8215	0.84	0.8901	0.9616	1.0096	1.0367	0.9168
20	1.024	0.9617	0.8884	0.8151	0.7694	0.7472	0.7545	0.7782	0.8439	0.9402	1.0035	1.0391	0.8804
25	1.0159	0.9402	0.8484	0.7578	0.7016	0.6742	0.6831	0.7115	0.7922	0.9133	0.9913	1.035	0.8387
30	1.0014	0.9132	0.8033	0.696	0.6299	0.5975	0.6079	0.6404	0.7353	0.8811	0.973	1.0245	0.792
35	0.9806	0.8811	0.7534	0.6301	0.5547	0.5177	0.5294	0.5655	0.6737	0.8439	0.949	1.0076	0.7406
40	0.9535	0.844	0.6991	0.5609	0.4768	0.4354	0.4484	0.4874	0.6078	0.8019	0.9192	0.9844	0.6849
45	0.9205	0.8022	0.6408	0.4886	0.3967	0.3512	0.3653	0.4066	0.5382	0.7554	0.8839	0.9552	0.6254
50	0.8817	0.7561	0.579	0.414	0.315	0.2658	0.2808	0.3237	0.4653	0.7048	0.8435	0.9201	0.5625
55	0.8375	0.706	0.514	0.3376	0.2324	0.2075	0.1983	0.2395	0.3898	0.6505	0.7982	0.8794	0.4992
60	0.7882	0.6523	0.4465	0.2599	0.2022	0.2041	0.1955	0.1546	0.3123	0.5929	0.7483	0.8335	0.4492
65	0.7342	0.5953	0.3769	0.1816	0.199	0.2006	0.1925	0.1315	0.2332	0.5325	0.6943	0.7827	0.4045
70	0.6758	0.5356	0.3059	0.1784	0.1957	0.1969	0.1894	0.132	0.1532	0.4696	0.6365	0.7273	0.3664
75	0.6136	0.4735	0.2338	0.1765	0.1923	0.193	0.1862	0.1324	0.102	0.4048	0.5754	0.6678	0.3293
80	0.548	0.4096	0.18	0.1745	0.1887	0.1891	0.183	0.1329	0.106	0.3386	0.5115	0.6047	0.2972
85	0.4795	0.3443	0.1771	0.1725	0.1852	0.1851	0.1796	0.1334	0.1089	0.2235	0.4452	0.5384	0.2644
90	0.4086	0.2301	0.1742	0.1704	0.1816	0.1811	0.1763	0.1339	0.1119	0.2167	0.377	0.4694	0.2359



Tabla 6: Azimut de 15°

$\beta^\circ$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9916	0.9919	0.9916	0.9912	0.9913	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	1.0086	0.9924	0.975	0.9569	0.9451	0.9393	0.9413	0.948	0.9647	0.9872	1.0031	1.0122	0.9728
10	1.0197	0.9878	0.9523	0.916	0.8929	0.8817	0.8855	0.8981	0.9312	0.9773	1.009	1.0269	0.9482
15	1.0243	0.9774	0.9237	0.8695	0.8353	0.8187	0.8242	0.8424	0.8915	0.9616	1.0087	1.0353	0.9177
20	1.0224	0.9614	0.8894	0.8176	0.7728	0.7509	0.7581	0.7814	0.8458	0.9403	1.0023	1.0373	0.8816
25	1.014	0.9398	0.8497	0.7609	0.7058	0.6789	0.6876	0.7154	0.7946	0.9134	0.9899	1.0327	0.8402
30	0.9991	0.9128	0.8048	0.6996	0.6348	0.603	0.6132	0.6451	0.7381	0.8812	0.9714	1.0218	0.7938
35	0.9779	0.8806	0.7552	0.6344	0.5604	0.5241	0.5356	0.5709	0.677	0.844	0.947	1.0045	0.7426
40	0.9506	0.8434	0.7011	0.5656	0.4832	0.4425	0.4553	0.4934	0.6115	0.802	0.917	0.9809	0.6872
45	0.9172	0.8016	0.643	0.4939	0.4037	0.3591	0.3729	0.4132	0.5423	0.7556	0.8815	0.9513	0.6279
50	0.8782	0.7554	0.5813	0.4198	0.3227	0.2743	0.2891	0.331	0.4699	0.705	0.8409	0.9159	0.5653
55	0.8337	0.7053	0.5165	0.3438	0.2405	0.2075	0.2044	0.2473	0.3948	0.6507	0.7954	0.875	0.5013
60	0.7842	0.6515	0.4491	0.2666	0.2022	0.2041	0.1955	0.1628	0.3175	0.5931	0.7454	0.8288	0.4501
65	0.73	0.5945	0.3797	0.1886	0.199	0.2006	0.1925	0.1315	0.2387	0.5327	0.6912	0.7778	0.4047
70	0.6715	0.5347	0.3088	0.1784	0.1957	0.1969	0.1894	0.132	0.1589	0.4699	0.6333	0.7222	0.366
75	0.6092	0.4726	0.2369	0.1765	0.1923	0.193	0.1862	0.1324	0.102	0.4051	0.5722	0.6626	0.3284
80	0.5435	0.4087	0.1801	0.1745	0.1887	0.1891	0.183	0.1329	0.1067	0.3389	0.5082	0.5994	0.2961
85	0.4749	0.3434	0.1773	0.1725	0.1852	0.1851	0.1796	0.1334	0.1096	0.2235	0.4418	0.533	0.2633
90	0.404	0.2301	0.1744	0.1704	0.1816	0.1811	0.1763	0.1339	0.1125	0.2167	0.3737	0.464	0.2349

Tabla 7: Azimut de 20°

$\beta^\circ$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9916	0.9919	0.9916	0.9912	0.9913	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	1.008	0.9923	0.9754	0.9578	0.9463	0.9406	0.9426	0.9491	0.9654	0.9873	1.0027	1.0115	0.9732
10	1.0186	0.9876	0.9531	0.9178	0.8953	0.8843	0.888	0.9003	0.9325	0.9774	1.0082	1.0256	0.949
15	1.0226	0.9771	0.9248	0.8721	0.8389	0.8227	0.8281	0.8457	0.8934	0.9617	1.0075	1.0334	0.919
20	1.0202	0.961	0.8909	0.8211	0.7775	0.7562	0.7632	0.7857	0.8484	0.9404	1.0007	1.0347	0.8833
25	1.0113	0.9392	0.8515	0.7651	0.7116	0.6854	0.6939	0.7208	0.7978	0.9136	0.9879	1.0296	0.8423
30	0.9959	0.9121	0.8069	0.7047	0.6417	0.6107	0.6207	0.6515	0.742	0.8814	0.969	1.018	0.7962
35	0.9742	0.8798	0.7576	0.6402	0.5683	0.5329	0.5441	0.5783	0.6814	0.8442	0.9443	1.0001	0.7455
40	0.9464	0.8426	0.7038	0.5722	0.4921	0.4525	0.4649	0.5018	0.6166	0.8022	0.914	0.9761	0.6904
45	0.9127	0.8007	0.6459	0.5012	0.4135	0.37	0.3834	0.4225	0.5479	0.7558	0.8782	0.946	0.6315
50	0.8733	0.7544	0.5845	0.4278	0.3333	0.2862	0.3005	0.3411	0.4761	0.7053	0.8373	0.9102	0.5692
55	0.8285	0.7042	0.52	0.3524	0.2519	0.2075	0.2166	0.2581	0.4014	0.651	0.7916	0.8689	0.5043
60	0.7786	0.6504	0.4528	0.2757	0.2022	0.2041	0.1955	0.1743	0.3245	0.5934	0.7413	0.8223	0.4513
65	0.7242	0.5933	0.3837	0.1982	0.199	0.2006	0.1925	0.1315	0.246	0.533	0.687	0.771	0.405
70	0.6655	0.5335	0.3129	0.1784	0.1957	0.1969	0.1894	0.132	0.1665	0.4702	0.6289	0.7152	0.3654
75	0.6029	0.4714	0.2411	0.1765	0.1923	0.193	0.1862	0.1324	0.102	0.4054	0.5676	0.6553	0.3272
80	0.5371	0.4074	0.1803	0.1745	0.1887	0.1891	0.183	0.1329	0.1074	0.3392	0.5036	0.592	0.2946
85	0.4685	0.3421	0.1774	0.1725	0.1852	0.1851	0.1796	0.1334	0.1103	0.2721	0.4372	0.5255	0.2657
90	0.3975	0.2301	0.1745	0.1704	0.1816	0.1811	0.1763	0.1339	0.1132	0.2167	0.369	0.4565	0.2334



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	0.9916	0.9919	0.9916	0.9912	0.9913	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	1.0073	0.9921	0.9758	0.9589	0.9478	0.9423	0.9442	0.9505	0.9662	0.9873	1.0022	1.0107	0.9738
10	1.0172	0.9873	0.954	0.92	0.8983	0.8877	0.8913	0.9031	0.9342	0.9775	1.0071	1.024	0.9501
15	1.0205	0.9767	0.9262	0.8754	0.8433	0.8277	0.8329	0.8499	0.8959	0.9618	1.006	1.0309	0.9206
20	1.0174	0.9604	0.8927	0.8255	0.7834	0.7629	0.7696	0.7913	0.8517	0.9405	0.9987	1.0314	0.8855
25	1.0078	0.9386	0.8537	0.7706	0.7189	0.6936	0.7018	0.7277	0.8019	0.9137	0.9854	1.0255	0.8449
30	0.9918	0.9113	0.8096	0.7112	0.6504	0.6205	0.6301	0.6597	0.7469	0.8816	0.9661	1.0132	0.7994
35	0.9695	0.8789	0.7606	0.6477	0.5784	0.5442	0.555	0.5877	0.6871	0.8445	0.9409	0.9947	0.7491
40	0.9412	0.8415	0.7072	0.5806	0.5034	0.4651	0.477	0.5124	0.623	0.8025	0.9102	0.9699	0.6945
45	0.9069	0.7995	0.6497	0.5105	0.426	0.3839	0.3969	0.4342	0.5551	0.7561	0.874	0.9393	0.636
50	0.867	0.7532	0.5886	0.4379	0.3467	0.3013	0.3151	0.3538	0.4838	0.7056	0.8328	0.9029	0.574
55	0.8218	0.7029	0.5244	0.3632	0.2663	0.2177	0.2322	0.2718	0.4096	0.6514	0.7867	0.861	0.5091
60	0.7716	0.6489	0.4576	0.2872	0.2022	0.2041	0.1955	0.1887	0.3332	0.5938	0.7362	0.814	0.4528
65	0.7168	0.5918	0.3886	0.2102	0.199	0.2006	0.1925	0.1315	0.2551	0.5334	0.6816	0.7623	0.4053
70	0.6578	0.532	0.3181	0.1784	0.1957	0.1969	0.1894	0.132	0.1759	0.4706	0.6233	0.7062	0.3647
75	0.595	0.4698	0.2463	0.1765	0.1923	0.193	0.1862	0.1324	0.102	0.4058	0.5619	0.6461	0.3256
80	0.5291	0.4058	0.1804	0.175	0.1887	0.1891	0.183	0.1329	0.108	0.3396	0.4977	0.5825	0.2927
85	0.4603	0.3405	0.1776	0.1729	0.1852	0.1851	0.1796	0.1334	0.111	0.2725	0.4313	0.516	0.2638
90	0.3894	0.2301	0.1747	0.1706	0.1816	0.1811	0.1763	0.1339	0.1139	0.2167	0.3631	0.4469	0.2315

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	0.9916	0.9919	0.9916	0.9912	0.9913	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	1.0065	0.992	0.9764	0.9602	0.9496	0.9444	0.9462	0.9522	0.9672	0.9873	1.0015	1.0097	0.9744
10	1.0154	0.987	0.9551	0.9226	0.9019	0.8918	0.8952	0.9065	0.9362	0.9776	1.0059	1.022	0.9514
15	1.018	0.9762	0.9279	0.8794	0.8487	0.8338	0.8388	0.855	0.8989	0.962	1.0041	1.0279	0.9225
20	1.014	0.9597	0.8949	0.8307	0.7906	0.7709	0.7773	0.798	0.8557	0.9407	0.9963	1.0275	0.888
25	1.0036	0.9377	0.8565	0.7771	0.7278	0.7036	0.7114	0.736	0.8068	0.914	0.9823	1.0206	0.8481
30	0.9869	0.9103	0.8128	0.7189	0.6609	0.6324	0.6415	0.6696	0.7528	0.8819	0.9625	1.0075	0.8032
35	0.9639	0.8778	0.7643	0.6567	0.5904	0.5578	0.568	0.5991	0.6939	0.8448	0.9368	0.988	0.7535
40	0.9348	0.8403	0.7113	0.5907	0.5169	0.4804	0.4917	0.5251	0.6307	0.8028	0.9056	0.9625	0.6994
45	0.8999	0.7981	0.6543	0.5216	0.4409	0.4007	0.413	0.4483	0.5635	0.7565	0.869	0.9311	0.6414
50	0.8594	0.7517	0.5935	0.45	0.363	0.3195	0.3326	0.3691	0.4929	0.706	0.8273	0.894	0.5799
55	0.8137	0.7013	0.5297	0.3762	0.2837	0.2371	0.251	0.2881	0.4194	0.6518	0.7808	0.8516	0.5154
60	0.763	0.6472	0.4633	0.3009	0.2036	0.2041	0.1955	0.206	0.3436	0.5943	0.73	0.804	0.4546
65	0.7078	0.5901	0.3946	0.2245	0.199	0.2006	0.1925	0.1315	0.2659	0.5339	0.6751	0.7518	0.4056
70	0.6485	0.5301	0.3242	0.1784	0.1957	0.1969	0.1894	0.132	0.1871	0.4711	0.6166	0.6953	0.3638
75	0.5855	0.4679	0.2527	0.1765	0.1923	0.193	0.1862	0.1324	0.1076	0.4063	0.555	0.635	0.3242
80	0.5193	0.4039	0.1805	0.1758	0.1887	0.1891	0.183	0.1329	0.1087	0.3401	0.4906	0.5712	0.2903
85	0.4505	0.3386	0.1777	0.1736	0.1852	0.1851	0.1796	0.1334	0.1117	0.273	0.4241	0.5045	0.2614
90	0.3795	0.2301	0.1748	0.1714	0.1816	0.1811	0.1763	0.1339	0.1146	0.2167	0.3559	0.4354	0.2293



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	0.9916	0.9919	0.9916	0.9912	0.9913	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	1.0055	0.9918	0.977	0.9618	0.9517	0.9468	0.9485	0.9541	0.9683	0.9874	1.0008	1.0085	0.9752
10	1.0134	0.9866	0.9564	0.9257	0.9061	0.8965	0.8997	0.9104	0.9385	0.9777	1.0044	1.0196	0.9529
15	1.015	0.9756	0.9298	0.884	0.855	0.8409	0.8456	0.8608	0.9024	0.9621	1.002	1.0244	0.9248
20	1.0101	0.9589	0.8975	0.8369	0.7989	0.7803	0.7863	0.8058	0.8603	0.9409	0.9934	1.0229	0.891
25	0.9988	0.9368	0.8596	0.7847	0.7381	0.7152	0.7226	0.7457	0.8126	0.9142	0.9788	1.015	0.8518
30	0.9811	0.9092	0.8166	0.728	0.6731	0.6461	0.6547	0.681	0.7596	0.8822	0.9583	1.0007	0.8076
35	0.9573	0.8765	0.7686	0.6671	0.6045	0.5735	0.5832	0.6123	0.7018	0.8451	0.932	0.9803	0.7585
40	0.9274	0.8388	0.7162	0.6024	0.5327	0.4981	0.5088	0.5399	0.6396	0.8032	0.9002	0.9539	0.7051
45	0.8918	0.7965	0.6596	0.5345	0.4583	0.4202	0.4318	0.4646	0.5733	0.7569	0.863	0.9216	0.6477
50	0.8506	0.7499	0.5993	0.464	0.3818	0.3406	0.3529	0.3868	0.5035	0.7065	0.8209	0.8837	0.5867
55	0.8043	0.6994	0.536	0.3912	0.3038	0.2598	0.2727	0.3071	0.4307	0.6523	0.774	0.8406	0.5226
60	0.7531	0.6453	0.4699	0.3167	0.2249	0.2041	0.1955	0.2261	0.3555	0.5948	0.7227	0.7924	0.4584
65	0.6974	0.588	0.4015	0.2411	0.199	0.2006	0.1925	0.1443	0.2784	0.5344	0.6675	0.7397	0.407
70	0.6377	0.528	0.3314	0.1784	0.1957	0.1969	0.1894	0.132	0.2	0.4716	0.6088	0.6827	0.3627
75	0.5744	0.4657	0.26	0.1765	0.1923	0.193	0.1862	0.1324	0.1209	0.4069	0.5469	0.622	0.3231
80	0.508	0.4016	0.1806	0.1765	0.1887	0.1891	0.183	0.1329	0.1093	0.3407	0.4824	0.558	0.2876
85	0.439	0.3363	0.1778	0.1744	0.1852	0.1851	0.1796	0.1334	0.1123	0.2736	0.4158	0.4911	0.2586
90	0.368	0.2301	0.175	0.1722	0.1816	0.1811	0.1763	0.1339	0.1153	0.2167	0.3475	0.4219	0.2266

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	0.9916	0.9919	0.9916	0.9912	0.9913	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	1.0043	0.9915	0.9778	0.9635	0.9541	0.9494	0.951	0.9564	0.9697	0.9875	1	1.0072	0.976
10	1.0112	0.9861	0.9579	0.9292	0.9109	0.9019	0.9049	0.9149	0.9411	0.9778	1.0028	1.017	0.9546
15	1.0116	0.9749	0.932	0.8892	0.8621	0.8489	0.8533	0.8675	0.9063	0.9623	0.9995	1.0205	0.9273
20	1.0056	0.9581	0.9004	0.8438	0.8083	0.7909	0.7965	0.8146	0.8655	0.9412	0.9902	1.0177	0.8944
25	0.9933	0.9357	0.8632	0.7933	0.7497	0.7283	0.7352	0.7566	0.8191	0.9145	0.9748	1.0085	0.856
30	0.9746	0.9079	0.8208	0.7382	0.6869	0.6616	0.6696	0.694	0.7673	0.8825	0.9536	0.9931	0.8125
35	0.9498	0.875	0.7735	0.6788	0.6204	0.5914	0.6004	0.6272	0.7107	0.8455	0.9266	0.9716	0.7642
40	0.9191	0.8372	0.7216	0.6156	0.5505	0.5181	0.528	0.5567	0.6495	0.8037	0.8941	0.9441	0.7115
45	0.8826	0.7947	0.6656	0.5491	0.4779	0.4423	0.453	0.483	0.5842	0.7574	0.8564	0.9108	0.6547
50	0.8406	0.748	0.6059	0.4797	0.4031	0.3645	0.376	0.4068	0.5153	0.707	0.8136	0.8721	0.5944
55	0.7936	0.6973	0.543	0.4081	0.3266	0.2853	0.2974	0.3285	0.4434	0.6528	0.7662	0.8281	0.5309
60	0.7418	0.643	0.4773	0.3346	0.249	0.2053	0.2178	0.2487	0.3689	0.5954	0.7145	0.7792	0.4646
65	0.6856	0.5856	0.4093	0.2598	0.199	0.2006	0.1925	0.168	0.2925	0.535	0.6589	0.7259	0.4094
70	0.6254	0.5255	0.3395	0.1843	0.1957	0.1969	0.1894	0.132	0.2146	0.4723	0.5999	0.6684	0.362
75	0.5618	0.4632	0.2683	0.1765	0.1923	0.193	0.1862	0.1324	0.1359	0.4076	0.5378	0.6073	0.3219
80	0.4952	0.3991	0.1964	0.1773	0.1887	0.1891	0.183	0.1334	0.1098	0.3414	0.4731	0.543	0.2858
85	0.4261	0.3337	0.178	0.1752	0.1852	0.1851	0.1796	0.1338	0.1129	0.2743	0.4064	0.4759	0.2555
90	0.355	0.2301	0.1751	0.173	0.1816	0.1811	0.1763	0.1341	0.1159	0.2167	0.3381	0.4067	0.2236



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	0.9916	0.9919	0.9916	0.9912	0.9913	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	1.0031	0.9913	0.9786	0.9655	0.9568	0.9524	0.9539	0.9588	0.9711	0.9875	0.9991	1.0057	0.977
10	1.0087	0.9856	0.9595	0.9331	0.9162	0.9078	0.9106	0.9198	0.944	0.9779	1.001	1.0141	0.9565
15	1.0079	0.9742	0.9344	0.895	0.87	0.8578	0.8618	0.8749	0.9106	0.9625	0.9968	1.0161	0.9302
20	1.0007	0.9571	0.9036	0.8515	0.8187	0.8026	0.8079	0.8244	0.8713	0.9414	0.9866	1.0119	0.8981
25	0.9872	0.9345	0.8672	0.8029	0.7627	0.7429	0.7492	0.7687	0.8263	0.9148	0.9704	1.0014	0.8607
30	0.9674	0.9065	0.8255	0.7495	0.7023	0.6789	0.6862	0.7083	0.7759	0.8829	0.9483	0.9847	0.818
35	0.9415	0.8733	0.7789	0.6918	0.638	0.6112	0.6195	0.6437	0.7205	0.8459	0.9206	0.9619	0.7706
40	0.9098	0.8353	0.7277	0.6302	0.5703	0.5403	0.5494	0.5752	0.6605	0.8042	0.8874	0.9333	0.7186
45	0.8724	0.7927	0.6723	0.5652	0.4996	0.4667	0.4765	0.5034	0.5963	0.7579	0.8489	0.8989	0.6626
50	0.8296	0.7458	0.6132	0.4972	0.4266	0.391	0.4014	0.4289	0.5284	0.7076	0.8056	0.8591	0.6029
55	0.7818	0.6949	0.5508	0.4267	0.3518	0.3136	0.3246	0.3521	0.4574	0.6535	0.7576	0.8143	0.5399
60	0.7293	0.6405	0.4856	0.3543	0.2756	0.2353	0.2467	0.2737	0.3837	0.596	0.7054	0.7646	0.4742
65	0.6725	0.583	0.4179	0.2804	0.199	0.2006	0.1925	0.1942	0.3079	0.5357	0.6494	0.7106	0.412
70	0.6119	0.5228	0.3484	0.2057	0.1957	0.1969	0.1894	0.132	0.2306	0.473	0.59	0.6525	0.3624
75	0.5479	0.4604	0.2775	0.1765	0.1923	0.193	0.1862	0.1324	0.1524	0.4083	0.5276	0.591	0.3205
80	0.481	0.3963	0.2058	0.178	0.1887	0.1891	0.183	0.1344	0.1104	0.3422	0.4628	0.5263	0.2832
85	0.4117	0.3308	0.1781	0.1759	0.1852	0.1851	0.1796	0.1349	0.1134	0.2751	0.3959	0.4591	0.2521
90	0.3405	0.2301	0.1752	0.1738	0.1816	0.1811	0.1763	0.1352	0.1164	0.2167	0.3276	0.3898	0.2204

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	0.9916	0.9919	0.9916	0.9912	0.9913	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	1.0017	0.991	0.9795	0.9676	0.9597	0.9557	0.957	0.9615	0.9727	0.9876	0.9981	1.0041	0.978
10	1.0059	0.9851	0.9613	0.9374	0.9219	0.9143	0.9169	0.9252	0.9472	0.9781	0.999	1.0109	0.9586
15	1.0038	0.9734	0.9371	0.9014	0.8787	0.8675	0.8711	0.8829	0.9154	0.9627	0.9938	1.0114	0.9333
20	0.9953	0.956	0.9071	0.8599	0.8301	0.8155	0.8202	0.835	0.8776	0.9417	0.9826	1.0056	0.9022
25	0.9805	0.9331	0.8715	0.8133	0.7768	0.7587	0.7645	0.7819	0.8341	0.9152	0.9655	0.9936	0.8657
30	0.9595	0.9049	0.8307	0.7618	0.719	0.6977	0.7043	0.724	0.7851	0.8833	0.9426	0.9755	0.824
35	0.9325	0.8715	0.7848	0.706	0.6571	0.6327	0.6402	0.6616	0.7312	0.8464	0.914	0.9514	0.7775
40	0.8996	0.8333	0.7343	0.6461	0.5918	0.5645	0.5727	0.5953	0.6724	0.8047	0.88	0.9214	0.7263
45	0.8612	0.7904	0.6796	0.5827	0.5233	0.4933	0.5022	0.5256	0.6094	0.7585	0.8408	0.8859	0.6711
50	0.8175	0.7433	0.6212	0.5161	0.4523	0.4198	0.4292	0.4529	0.5426	0.7082	0.7968	0.845	0.6121
55	0.7688	0.6923	0.5593	0.447	0.3792	0.3445	0.3543	0.3779	0.4726	0.6541	0.7482	0.7992	0.5498
60	0.7156	0.6378	0.4945	0.3757	0.3046	0.2679	0.2781	0.3009	0.3998	0.5968	0.6955	0.7487	0.4847
65	0.6582	0.5802	0.4273	0.3029	0.229	0.2006	0.201	0.2226	0.3247	0.5365	0.639	0.6939	0.418
70	0.597	0.5199	0.3582	0.229	0.1957	0.1969	0.1894	0.1436	0.2481	0.4738	0.5792	0.6352	0.3638
75	0.5326	0.4574	0.2875	0.1765	0.1923	0.193	0.1862	0.1324	0.1703	0.4091	0.5165	0.5732	0.3189
80	0.4654	0.3932	0.216	0.1745	0.1887	0.1891	0.183	0.1329	0.105	0.343	0.4515	0.5082	0.2792
85	0.396	0.3277	0.1782	0.1766	0.1852	0.1851	0.1796	0.1359	0.1139	0.2759	0.3845	0.4408	0.2483
90	0.3247	0.2301	0.1753	0.1745	0.1816	0.1811	0.1763	0.1362	0.117	0.2167	0.3161	0.3714	0.2167





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	0.9916	0.9919	0.9916	0.9912	0.9913	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	1.0002	0.9907	0.9805	0.9699	0.9628	0.9592	0.9604	0.9644	0.9744	0.9877	0.997	1.0024	0.9791
10	1.003	0.9845	0.9632	0.9419	0.9281	0.9213	0.9236	0.931	0.9506	0.9782	0.9968	1.0074	0.9608
15	0.9994	0.9725	0.94	0.9082	0.8879	0.8779	0.8812	0.8916	0.9205	0.963	0.9906	1.0062	0.9366
20	0.9895	0.9549	0.9109	0.8689	0.8424	0.8292	0.8335	0.8465	0.8844	0.942	0.9784	0.9988	0.9066
25	0.9733	0.9317	0.8762	0.8244	0.7919	0.7758	0.7809	0.7961	0.8424	0.9156	0.9603	0.9852	0.8712
30	0.951	0.9032	0.8362	0.7751	0.7369	0.7178	0.7237	0.7408	0.7951	0.8838	0.9364	0.9656	0.8305
35	0.9227	0.8696	0.7911	0.7212	0.6777	0.6559	0.6625	0.6809	0.7426	0.8469	0.9069	0.94	0.7848
40	0.8887	0.8311	0.7414	0.6631	0.6149	0.5904	0.5977	0.617	0.6852	0.8053	0.8721	0.9087	0.7346
45	0.8492	0.7881	0.6875	0.6014	0.5487	0.5219	0.5297	0.5494	0.6234	0.7591	0.8321	0.8719	0.6802
50	0.8045	0.7408	0.6297	0.5365	0.4798	0.4508	0.459	0.4787	0.5578	0.7089	0.7874	0.8298	0.622
55	0.7549	0.6896	0.5684	0.4687	0.4087	0.3776	0.3862	0.4054	0.4888	0.6549	0.7381	0.7829	0.5604
60	0.7009	0.6349	0.5042	0.3987	0.3358	0.3029	0.3118	0.3301	0.417	0.5975	0.6848	0.7315	0.4958
65	0.6428	0.5771	0.4374	0.3269	0.2617	0.2273	0.2363	0.2532	0.3428	0.5373	0.6279	0.6759	0.4289
70	0.5811	0.5167	0.3686	0.2539	0.1957	0.1969	0.1894	0.1753	0.2667	0.4746	0.5676	0.6166	0.3669
75	0.5162	0.4541	0.2983	0.1802	0.1923	0.193	0.1862	0.1324	0.1895	0.41	0.5046	0.554	0.3176
80	0.4487	0.3898	0.227	0.1745	0.1887	0.1891	0.183	0.1329	0.1116	0.3439	0.4393	0.4887	0.2764
85	0.379	0.3243	0.1782	0.1773	0.1852	0.1851	0.1796	0.1369	0.1144	0.2768	0.3722	0.421	0.2442
90	0.3078	0.2301	0.1754	0.1752	0.1816	0.1811	0.1763	0.1372	0.1174	0.2167	0.3038	0.3516	0.2128

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	0.9916	0.9919	0.9916	0.9912	0.9913	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9986	0.9904	0.9815	0.9723	0.9661	0.9629	0.964	0.9675	0.9762	0.9878	0.9959	1.0005	0.9803
10	0.9999	0.9838	0.9653	0.9468	0.9347	0.9287	0.9307	0.9371	0.9542	0.9784	0.9946	1.0038	0.9632
15	0.9947	0.9716	0.943	0.9154	0.8977	0.889	0.8918	0.9008	0.9259	0.9632	0.9872	1.0008	0.9401
20	0.9833	0.9536	0.9149	0.8785	0.8554	0.8439	0.8476	0.8587	0.8915	0.9423	0.9739	0.9916	0.9113
25	0.9657	0.9302	0.8812	0.8363	0.808	0.7939	0.7983	0.8112	0.8513	0.916	0.9548	0.9763	0.8769
30	0.942	0.9014	0.8421	0.7891	0.756	0.7393	0.7444	0.7586	0.8056	0.8843	0.9299	0.955	0.8373
35	0.9124	0.8675	0.7979	0.7373	0.6996	0.6805	0.6862	0.7014	0.7546	0.8475	0.8994	0.9279	0.7927
40	0.8771	0.8288	0.749	0.6812	0.6394	0.618	0.6242	0.6399	0.6987	0.8059	0.8636	0.8951	0.7434
45	0.8364	0.7855	0.6958	0.6213	0.5757	0.5522	0.5589	0.5747	0.6383	0.7598	0.8228	0.8569	0.6899
50	0.7907	0.738	0.6388	0.558	0.5091	0.4837	0.4907	0.5061	0.574	0.7096	0.7773	0.8137	0.6325
55	0.7402	0.6866	0.5781	0.4918	0.4399	0.4128	0.42	0.4347	0.5061	0.6557	0.7274	0.7657	0.5716
60	0.6853	0.6318	0.5144	0.4231	0.3688	0.3401	0.3476	0.361	0.4352	0.5984	0.6735	0.7132	0.5077
65	0.6265	0.5739	0.4481	0.3524	0.2963	0.2662	0.2737	0.2856	0.3618	0.5382	0.616	0.6568	0.4413
70	0.5641	0.5134	0.3797	0.2804	0.2228	0.1969	0.1991	0.2089	0.2865	0.4755	0.5553	0.5968	0.3733
75	0.4988	0.4507	0.3097	0.2074	0.1923	0.193	0.1862	0.1324	0.2098	0.4109	0.492	0.5337	0.3181
80	0.4309	0.3863	0.2387	0.1745	0.1887	0.1891	0.183	0.1329	0.1323	0.3448	0.4264	0.4679	0.2746
85	0.3611	0.3208	0.1783	0.1779	0.1858	0.1851	0.1796	0.1379	0.1148	0.2777	0.3591	0.4	0.2398
90	0.2897	0.2301	0.1755	0.1758	0.182	0.1811	0.1763	0.1382	0.1178	0.2167	0.2907	0.3305	0.2087





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	0.9916	0.9919	0.9916	0.9912	0.9913	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.997	0.9901	0.9826	0.9749	0.9696	0.9668	0.9678	0.9708	0.9781	0.9878	0.9947	0.9986	0.9815
10	0.9966	0.9832	0.9674	0.9519	0.9417	0.9365	0.9382	0.9436	0.958	0.9785	0.9922	0.9999	0.9656
15	0.9898	0.9706	0.9462	0.923	0.9081	0.9006	0.903	0.9104	0.9316	0.9635	0.9837	0.995	0.9438
20	0.9768	0.9523	0.9192	0.8886	0.8691	0.8593	0.8624	0.8714	0.8991	0.9427	0.9692	0.984	0.9162
25	0.9577	0.9286	0.8864	0.8487	0.8249	0.8129	0.8166	0.827	0.8607	0.9164	0.9489	0.967	0.883
30	0.9325	0.8995	0.8483	0.8038	0.776	0.7618	0.766	0.7773	0.8167	0.8848	0.923	0.9439	0.8445
35	0.9015	0.8654	0.805	0.7542	0.7226	0.7064	0.7111	0.7229	0.7673	0.848	0.8915	0.9152	0.8009
40	0.8649	0.8264	0.757	0.7002	0.6651	0.647	0.6521	0.664	0.7129	0.8065	0.8548	0.8809	0.7526
45	0.823	0.7829	0.7046	0.6422	0.604	0.5841	0.5896	0.6012	0.6539	0.7605	0.8131	0.8413	0.7
50	0.7761	0.7351	0.6483	0.5806	0.5397	0.5182	0.5239	0.5348	0.5909	0.7104	0.7668	0.7967	0.6435
55	0.7246	0.6835	0.5883	0.516	0.4727	0.4497	0.4556	0.4654	0.5242	0.6565	0.7161	0.7475	0.5833
60	0.6689	0.6285	0.5252	0.4486	0.4035	0.3792	0.3851	0.3935	0.4543	0.5992	0.6615	0.694	0.5201
65	0.6093	0.5705	0.4594	0.3792	0.3326	0.3071	0.3131	0.3195	0.3818	0.5391	0.6035	0.6367	0.4543
70	0.5463	0.5098	0.3914	0.3081	0.2604	0.234	0.2399	0.2441	0.3072	0.4765	0.5424	0.576	0.3863
75	0.4805	0.447	0.3217	0.2359	0.1923	0.193	0.1862	0.1678	0.2311	0.4119	0.4787	0.5123	0.3215
80	0.4123	0.3826	0.2509	0.1745	0.1887	0.1891	0.183	0.1329	0.1541	0.3458	0.4128	0.4461	0.2727
85	0.3422	0.317	0.1784	0.1785	0.1871	0.1851	0.1802	0.1388	0.1151	0.2787	0.3454	0.3779	0.2354
90	0.2708	0.2301	0.1756	0.1764	0.1833	0.1811	0.1766	0.1392	0.1182	0.2167	0.2769	0.3083	0.2044

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	0.9916	0.9919	0.9916	0.9912	0.9913	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9953	0.9897	0.9837	0.9775	0.9732	0.9709	0.9717	0.9741	0.9801	0.9879	0.9934	0.9966	0.9828
10	0.9931	0.9825	0.9696	0.9572	0.9489	0.9447	0.9461	0.9503	0.962	0.9787	0.9897	0.9959	0.9682
15	0.9847	0.9696	0.9495	0.9309	0.9189	0.9127	0.9147	0.9205	0.9375	0.9637	0.98	0.9891	0.9476
20	0.9701	0.951	0.9236	0.899	0.8833	0.8753	0.8778	0.8847	0.9069	0.943	0.9643	0.9761	0.9213
25	0.9493	0.9269	0.8919	0.8617	0.8425	0.8327	0.8357	0.8434	0.8703	0.9168	0.9429	0.9572	0.8893
30	0.9226	0.8976	0.8547	0.8192	0.7968	0.7853	0.7886	0.7968	0.8281	0.8853	0.9158	0.9324	0.8519
35	0.8902	0.8631	0.8124	0.7718	0.7465	0.7333	0.7369	0.7452	0.7804	0.8486	0.8833	0.9019	0.8095
40	0.8522	0.8239	0.7653	0.7199	0.6919	0.6771	0.6811	0.689	0.7276	0.8072	0.8456	0.866	0.7622
45	0.8091	0.7801	0.7138	0.6639	0.6335	0.6173	0.6215	0.6287	0.6701	0.7613	0.8029	0.8249	0.7106
50	0.761	0.7321	0.6582	0.6041	0.5717	0.5541	0.5584	0.5646	0.6084	0.7112	0.7558	0.779	0.6549
55	0.7084	0.6803	0.5989	0.5411	0.5069	0.4881	0.4925	0.4973	0.5429	0.6573	0.7043	0.7286	0.5956
60	0.6517	0.6251	0.5364	0.4752	0.4396	0.4198	0.4242	0.4272	0.4741	0.6001	0.6491	0.674	0.5331
65	0.5914	0.5669	0.4711	0.407	0.3703	0.3496	0.354	0.3548	0.4026	0.54	0.5905	0.6158	0.4678
70	0.5277	0.5061	0.4036	0.3369	0.2996	0.2781	0.2823	0.2807	0.3288	0.4774	0.5289	0.5543	0.4004
75	0.4614	0.4432	0.3342	0.2656	0.2279	0.2058	0.2098	0.2055	0.2533	0.4129	0.4648	0.4899	0.3312
80	0.3928	0.3787	0.2637	0.1934	0.1887	0.1891	0.183	0.1329	0.1767	0.3468	0.3987	0.4233	0.2723
85	0.3225	0.3131	0.1924	0.1791	0.1883	0.1861	0.1817	0.1397	0.1154	0.2798	0.3311	0.3549	0.232
90	0.251	0.2301	0.1756	0.177	0.1845	0.1818	0.1781	0.1401	0.1185	0.2167	0.2625	0.2852	0.2001



Tabla 18: Azimut de 75°

$\beta^\circ$	01	02	03	04	05	06	07	08	09	10	11	12	Annual
0	0.9911	0.9912	0.9916	0.9919	0.9916	0.9912	0.9913	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9935	0.9894	0.9848	0.9803	0.9769	0.9751	0.9757	0.9776	0.9821	0.988	0.9921	0.9945	0.9842
10	0.9896	0.9818	0.9719	0.9626	0.9563	0.9531	0.9541	0.9573	0.966	0.9789	0.9871	0.9918	0.9709
15	0.9794	0.9685	0.953	0.9391	0.93	0.9252	0.9267	0.9308	0.9436	0.964	0.9761	0.9829	0.9516
20	0.9631	0.9496	0.9281	0.9098	0.898	0.8919	0.8937	0.8985	0.9149	0.9434	0.9593	0.968	0.9265
25	0.9407	0.9252	0.8975	0.875	0.8607	0.8532	0.8553	0.8604	0.8803	0.9173	0.9366	0.9471	0.8958
30	0.9124	0.8955	0.8614	0.8349	0.8183	0.8094	0.8118	0.8168	0.8399	0.8858	0.9084	0.9205	0.8596
35	0.8785	0.8608	0.82	0.7899	0.7711	0.761	0.7636	0.7682	0.7939	0.8493	0.8748	0.8883	0.8183
40	0.8391	0.8212	0.7738	0.7402	0.7195	0.7082	0.711	0.7148	0.7427	0.8079	0.836	0.8507	0.7721
45	0.7946	0.7772	0.7232	0.6862	0.6639	0.6515	0.6543	0.6571	0.6868	0.762	0.7925	0.8081	0.7214
50	0.7454	0.729	0.6684	0.6283	0.6046	0.5912	0.5941	0.5954	0.6265	0.712	0.7444	0.7608	0.6667
55	0.6917	0.677	0.6098	0.5669	0.5421	0.5277	0.5306	0.5302	0.5622	0.6582	0.6922	0.7091	0.6082
60	0.6341	0.6216	0.5479	0.5026	0.4768	0.4617	0.4645	0.462	0.4946	0.6011	0.6363	0.6534	0.5464
65	0.5729	0.5632	0.4832	0.4356	0.4093	0.3935	0.3961	0.3912	0.424	0.541	0.577	0.5942	0.4818
70	0.5086	0.5023	0.4161	0.3666	0.34	0.3236	0.3261	0.3185	0.3509	0.4784	0.5149	0.5319	0.4148
75	0.4417	0.4393	0.3471	0.2961	0.2694	0.2526	0.2548	0.2443	0.2761	0.4139	0.4505	0.4669	0.3461
80	0.3727	0.3747	0.2768	0.2245	0.1982	0.1891	0.183	0.1691	0.1999	0.3479	0.3841	0.3999	0.2767
85	0.3022	0.309	0.2057	0.1725	0.1852	0.1851	0.1796	0.1334	0.123	0.2808	0.3163	0.3312	0.227
90	0.2306	0.2301	0.1757	0.1775	0.1857	0.1835	0.1796	0.1409	0.1187	0.2167	0.2477	0.2614	0.1957

Tabla 19: Azimut de 80°

$\beta^\circ$	01	02	03	04	05	06	07	08	09	10	11	12	Annual
0	0.9911	0.9912	0.9916	0.9919	0.9916	0.9912	0.9913	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9917	0.989	0.986	0.9831	0.9807	0.9794	0.9799	0.9812	0.9842	0.9881	0.9908	0.9924	0.9855
10	0.986	0.9811	0.9743	0.9682	0.9639	0.9616	0.9624	0.9644	0.9702	0.9791	0.9845	0.9875	0.9736
15	0.974	0.9674	0.9565	0.9474	0.9413	0.938	0.939	0.9415	0.9498	0.9643	0.9722	0.9766	0.9557
20	0.956	0.9482	0.9328	0.9208	0.913	0.9088	0.91	0.9125	0.9232	0.9438	0.9541	0.9596	0.9319
25	0.9319	0.9235	0.9032	0.8886	0.8792	0.8741	0.8754	0.8777	0.8905	0.9177	0.9302	0.9368	0.9024
30	0.902	0.8935	0.8682	0.8511	0.8402	0.8342	0.8356	0.8373	0.852	0.8864	0.9008	0.9083	0.8675
35	0.8665	0.8584	0.8278	0.8084	0.7963	0.7894	0.7909	0.7917	0.8077	0.8499	0.8661	0.8743	0.8273
40	0.8257	0.8186	0.7826	0.7609	0.7477	0.74	0.7416	0.7412	0.7582	0.8086	0.8263	0.835	0.7822
45	0.7799	0.7743	0.7328	0.709	0.6949	0.6864	0.688	0.6861	0.7038	0.7628	0.7817	0.7908	0.7325
50	0.7294	0.7258	0.6788	0.653	0.6382	0.629	0.6305	0.6268	0.6449	0.7128	0.7328	0.7421	0.6787
55	0.6746	0.6736	0.621	0.5934	0.578	0.5682	0.5696	0.5638	0.5819	0.6591	0.6798	0.6891	0.621
60	0.616	0.618	0.5597	0.5305	0.5148	0.5045	0.5057	0.4975	0.5154	0.602	0.6231	0.6323	0.56
65	0.5539	0.5594	0.4955	0.4649	0.4491	0.4383	0.4392	0.4284	0.4458	0.542	0.5633	0.5721	0.496
70	0.489	0.4984	0.4289	0.3969	0.3812	0.3701	0.3708	0.357	0.3736	0.4795	0.5007	0.5089	0.4296
75	0.4215	0.4353	0.3603	0.3273	0.3119	0.3004	0.3008	0.2839	0.2993	0.415	0.4358	0.4434	0.3612
80	0.3521	0.3706	0.2902	0.2563	0.2414	0.2297	0.2298	0.2096	0.2236	0.349	0.3692	0.3758	0.2914
85	0.2814	0.3049	0.2193	0.1847	0.1852	0.1851	0.1796	0.1346	0.147	0.2819	0.3012	0.3069	0.226
90	0.2097	0.2301	0.1757	0.1779	0.1869	0.1852	0.1811	0.1417	0.1189	0.2167	0.2325	0.237	0.1911



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	0.9916	0.9919	0.9916	0.9912	0.9913	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9898	0.9887	0.9872	0.9859	0.9846	0.9838	0.9841	0.9848	0.9863	0.9882	0.9894	0.9902	0.9869
10	0.9823	0.9804	0.9767	0.9739	0.9717	0.9704	0.9708	0.9716	0.9744	0.9793	0.9818	0.9832	0.9764
15	0.9685	0.9663	0.9601	0.9559	0.9528	0.951	0.9515	0.9522	0.9561	0.9646	0.9682	0.9702	0.9598
20	0.9487	0.9467	0.9375	0.932	0.9282	0.9259	0.9265	0.9267	0.9315	0.9442	0.9488	0.9512	0.9373
25	0.9229	0.9217	0.9091	0.9025	0.8981	0.8953	0.8958	0.8953	0.9008	0.9182	0.9237	0.9263	0.9091
30	0.8914	0.8913	0.8751	0.8674	0.8625	0.8593	0.8598	0.8581	0.8642	0.8869	0.8931	0.8959	0.8754
35	0.8543	0.856	0.8357	0.8272	0.8218	0.8182	0.8186	0.8156	0.8217	0.8505	0.8572	0.86	0.8364
40	0.8121	0.8159	0.7915	0.7819	0.7763	0.7723	0.7726	0.7679	0.7739	0.8093	0.8164	0.8191	0.7924
45	0.7649	0.7713	0.7426	0.7321	0.7264	0.7219	0.7221	0.7155	0.721	0.7636	0.7708	0.7733	0.7438
50	0.7131	0.7226	0.6894	0.6781	0.6723	0.6675	0.6674	0.6586	0.6636	0.7137	0.721	0.7231	0.6909
55	0.6572	0.6701	0.6323	0.6202	0.6145	0.6093	0.6091	0.5978	0.6019	0.66	0.6672	0.6688	0.634
60	0.5976	0.6143	0.5717	0.5588	0.5534	0.5479	0.5474	0.5335	0.5365	0.603	0.6098	0.6108	0.5737
65	0.5347	0.5556	0.5081	0.4945	0.4894	0.4837	0.4829	0.4661	0.4679	0.543	0.5493	0.5496	0.5104
70	0.469	0.4944	0.4419	0.4277	0.4231	0.4172	0.4161	0.3961	0.3965	0.4805	0.4862	0.4856	0.4445
75	0.401	0.4312	0.3736	0.3589	0.3549	0.3488	0.3474	0.3241	0.3229	0.4161	0.4209	0.4194	0.3766
80	0.3313	0.3665	0.3039	0.2886	0.2853	0.2791	0.2773	0.2505	0.2477	0.3501	0.354	0.3514	0.3071
85	0.2602	0.3007	0.2331	0.2173	0.2149	0.2087	0.2064	0.1761	0.1714	0.283	0.2859	0.2822	0.2366
90	0.1885	0.2301	0.1757	0.1783	0.188	0.1869	0.1825	0.1424	0.119	0.2167	0.2171	0.2122	0.1865

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	0.9916	0.9919	0.9916	0.9912	0.9913	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.988	0.9883	0.9884	0.9888	0.9885	0.9882	0.9883	0.9885	0.9885	0.9883	0.9881	0.988	0.9883
10	0.9786	0.9796	0.9791	0.9796	0.9795	0.9791	0.9792	0.9789	0.9787	0.9795	0.9791	0.9789	0.9792
15	0.963	0.9652	0.9637	0.9644	0.9645	0.9641	0.9641	0.9631	0.9625	0.9649	0.9642	0.9637	0.9639
20	0.9414	0.9453	0.9423	0.9433	0.9436	0.9432	0.9431	0.941	0.9399	0.9446	0.9435	0.9426	0.9428
25	0.9139	0.9199	0.915	0.9164	0.917	0.9166	0.9163	0.913	0.9111	0.9187	0.9171	0.9158	0.9159
30	0.8807	0.8892	0.882	0.8839	0.8849	0.8845	0.884	0.8791	0.8764	0.8875	0.8853	0.8834	0.8834
35	0.8421	0.8535	0.8437	0.846	0.8475	0.8471	0.8464	0.8396	0.8358	0.8512	0.8483	0.8457	0.8456
40	0.7983	0.8131	0.8004	0.8031	0.8052	0.8047	0.8038	0.7948	0.7896	0.81	0.8064	0.803	0.8027
45	0.7498	0.7683	0.7524	0.7554	0.7581	0.7576	0.7564	0.745	0.7384	0.7644	0.7599	0.7557	0.7551
50	0.6968	0.7193	0.7001	0.7033	0.7066	0.7061	0.7046	0.6907	0.6823	0.7146	0.7091	0.704	0.7031
55	0.6397	0.6666	0.6437	0.6471	0.6512	0.6507	0.6488	0.6321	0.622	0.661	0.6544	0.6483	0.6471
60	0.5791	0.6107	0.5838	0.5873	0.5922	0.5916	0.5895	0.5697	0.5577	0.604	0.5963	0.5892	0.5876
65	0.5154	0.5518	0.5207	0.5243	0.53	0.5295	0.5269	0.5039	0.4901	0.544	0.5353	0.527	0.5249
70	0.4489	0.4904	0.455	0.4586	0.4652	0.4646	0.4617	0.4354	0.4195	0.4816	0.4716	0.4622	0.4596
75	0.3804	0.4271	0.3871	0.3906	0.3982	0.3976	0.3943	0.3645	0.3466	0.4171	0.4059	0.3953	0.3921
80	0.3102	0.3623	0.3176	0.321	0.3295	0.3289	0.3251	0.2918	0.2718	0.3512	0.3387	0.3268	0.3229
85	0.2389	0.2965	0.2469	0.2501	0.2596	0.259	0.2548	0.2178	0.1958	0.2842	0.2704	0.2573	0.2526
90	0.1671	0.2301	0.1757	0.1786	0.189	0.1884	0.1838	0.1431	0.1191	0.2167	0.2016	0.1872	0.1817



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	0.9916	0.9919	0.9916	0.9912	0.9913	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9861	0.9879	0.9897	0.9917	0.9924	0.9926	0.9925	0.9921	0.9906	0.9884	0.9867	0.9859	0.9897
10	0.9749	0.9789	0.9816	0.9853	0.9873	0.9879	0.9876	0.9862	0.983	0.9797	0.9764	0.9745	0.9819
15	0.9575	0.9641	0.9673	0.9729	0.9761	0.9772	0.9767	0.9739	0.9688	0.9652	0.9602	0.9572	0.9681
20	0.9341	0.9438	0.947	0.9545	0.9589	0.9605	0.9597	0.9553	0.9483	0.9449	0.9382	0.9341	0.9483
25	0.9049	0.9181	0.9209	0.9303	0.9359	0.938	0.9369	0.9306	0.9215	0.9192	0.9106	0.9052	0.9227
30	0.87	0.8871	0.889	0.9003	0.9073	0.9098	0.9083	0.9	0.8886	0.8881	0.8776	0.8709	0.8914
35	0.8298	0.8511	0.8517	0.8649	0.8732	0.8761	0.8743	0.8635	0.8498	0.8518	0.8394	0.8314	0.8548
40	0.7846	0.8104	0.8094	0.8242	0.8339	0.8371	0.835	0.8216	0.8053	0.8108	0.7964	0.787	0.813
45	0.7346	0.7653	0.7623	0.7786	0.7897	0.7933	0.7907	0.7746	0.7556	0.7652	0.7489	0.738	0.7664
50	0.6804	0.7161	0.7107	0.7284	0.7409	0.7448	0.7418	0.7226	0.7011	0.7154	0.6972	0.6848	0.7153
55	0.6222	0.6632	0.6551	0.674	0.6878	0.692	0.6886	0.6663	0.642	0.6619	0.6417	0.6279	0.6602
60	0.5606	0.607	0.5958	0.6157	0.6309	0.6353	0.6314	0.6058	0.5789	0.6049	0.5829	0.5675	0.6014
65	0.496	0.5479	0.5333	0.554	0.5706	0.5752	0.5709	0.5418	0.5122	0.545	0.5212	0.5043	0.5394
70	0.4289	0.4864	0.468	0.4894	0.5072	0.512	0.5073	0.4746	0.4425	0.4826	0.457	0.4387	0.4746
75	0.3597	0.423	0.4005	0.4224	0.4414	0.4463	0.4411	0.4048	0.3702	0.4182	0.3909	0.3712	0.4075
80	0.2892	0.3581	0.3313	0.3533	0.3735	0.3785	0.3729	0.3329	0.2959	0.3523	0.3234	0.3022	0.3386
85	0.2177	0.2922	0.2608	0.2829	0.3042	0.3092	0.3031	0.2594	0.2202	0.2853	0.2549	0.2324	0.2685
90	0.1671	0.2301	0.1896	0.2115	0.2338	0.2389	0.2324	0.1849	0.1436	0.2178	0.2016	0.1872	0.2032

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	0.9916	0.9919	0.9916	0.9912	0.9913	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9842	0.9875	0.9909	0.9945	0.9963	0.997	0.9967	0.9957	0.9927	0.9885	0.9854	0.9837	0.9911
10	0.9712	0.9781	0.984	0.991	0.995	0.9966	0.996	0.9934	0.9872	0.9799	0.9737	0.9702	0.9847
15	0.952	0.9631	0.9709	0.9814	0.9876	0.9902	0.9891	0.9846	0.9751	0.9655	0.9562	0.9508	0.9722
20	0.9268	0.9424	0.9517	0.9657	0.9741	0.9776	0.9762	0.9695	0.9566	0.9453	0.9329	0.9256	0.9537
25	0.8959	0.9163	0.9267	0.944	0.9547	0.9591	0.9572	0.9481	0.9317	0.9196	0.904	0.8948	0.9294
30	0.8594	0.885	0.8959	0.9166	0.9295	0.9348	0.9324	0.9207	0.9007	0.8886	0.8699	0.8585	0.8993
35	0.8177	0.8487	0.8596	0.8835	0.8987	0.9048	0.9019	0.8873	0.8637	0.8525	0.8306	0.8172	0.8638
40	0.771	0.8077	0.8182	0.8451	0.8624	0.8693	0.8659	0.8482	0.8209	0.8115	0.7865	0.7711	0.8231
45	0.7197	0.7623	0.772	0.8016	0.8211	0.8286	0.8247	0.8038	0.7728	0.766	0.738	0.7205	0.7776
50	0.6641	0.7128	0.7213	0.7533	0.7749	0.783	0.7786	0.7543	0.7196	0.7163	0.6854	0.6658	0.7275
55	0.6049	0.6597	0.6664	0.7006	0.7241	0.7329	0.7279	0.7001	0.6618	0.6628	0.6291	0.6076	0.6732
60	0.5422	0.6033	0.6077	0.6438	0.6693	0.6786	0.6731	0.6416	0.5998	0.6059	0.5696	0.5461	0.6151
65	0.4768	0.5441	0.5458	0.5835	0.6107	0.6205	0.6144	0.5792	0.5341	0.5461	0.5072	0.4819	0.5537
70	0.4089	0.4825	0.481	0.52	0.5489	0.559	0.5524	0.5135	0.4652	0.4837	0.4425	0.4154	0.4894
75	0.3393	0.4189	0.4139	0.4538	0.4842	0.4946	0.4875	0.4448	0.3936	0.4193	0.376	0.3472	0.4228
80	0.2683	0.3539	0.3449	0.3854	0.4172	0.4278	0.4202	0.3736	0.3197	0.3534	0.3082	0.2778	0.3542
85	0.1965	0.288	0.2746	0.3153	0.3484	0.359	0.351	0.3006	0.2443	0.2864	0.2396	0.2077	0.2843
90	0.1671	0.2301	0.2035	0.244	0.2782	0.2889	0.2804	0.2263	0.1678	0.2189	0.2016	0.1872	0.2245



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	0.9916	0.9919	0.9916	0.9912	0.9913	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9824	0.9872	0.992	0.9973	1.0001	1.0013	1.0009	0.9993	0.9948	0.9886	0.9841	0.9816	0.9925
10	0.9676	0.9774	0.9863	0.9966	1.0026	1.0052	1.0042	1.0005	0.9913	0.9801	0.9711	0.966	0.9874
15	0.9466	0.962	0.9744	0.9897	0.9989	1.0029	1.0014	0.9952	0.9813	0.9657	0.9523	0.9445	0.9762
20	0.9197	0.941	0.9564	0.9766	0.9891	0.9945	0.9924	0.9834	0.9647	0.9457	0.9277	0.9173	0.959
25	0.8871	0.9145	0.9325	0.9576	0.9732	0.98	0.9772	0.9654	0.9418	0.9201	0.8976	0.8844	0.9359
30	0.849	0.8829	0.9027	0.9326	0.9514	0.9594	0.956	0.941	0.9126	0.8892	0.8623	0.8463	0.9071
35	0.8057	0.8463	0.8675	0.9019	0.9237	0.933	0.929	0.9106	0.8773	0.8531	0.8219	0.8032	0.8728
40	0.7575	0.805	0.8269	0.8656	0.8905	0.9009	0.8963	0.8744	0.8362	0.8122	0.7767	0.7554	0.8331
45	0.7049	0.7593	0.7816	0.8242	0.8519	0.8634	0.8581	0.8326	0.7896	0.7668	0.7272	0.7032	0.7886
50	0.6481	0.7096	0.7316	0.7778	0.8083	0.8207	0.8148	0.7854	0.7378	0.7171	0.6738	0.6471	0.7394
55	0.5877	0.6563	0.6775	0.7267	0.7599	0.7732	0.7666	0.7334	0.6813	0.6637	0.6167	0.5876	0.6859
60	0.5242	0.5997	0.6195	0.6715	0.7071	0.7211	0.714	0.6768	0.6204	0.6069	0.5564	0.525	0.6285
65	0.4578	0.5403	0.5581	0.6124	0.6503	0.665	0.6572	0.6161	0.5557	0.5471	0.4935	0.4598	0.5678
70	0.3893	0.4786	0.4937	0.55	0.5899	0.6052	0.5968	0.5517	0.4875	0.4847	0.4283	0.3925	0.504
75	0.3191	0.4149	0.427	0.4846	0.5264	0.5421	0.5332	0.484	0.4165	0.4204	0.3614	0.3237	0.4378
80	0.2477	0.3499	0.3582	0.4168	0.4602	0.4762	0.4668	0.4137	0.3432	0.3545	0.2933	0.2538	0.3695
85	0.1757	0.2839	0.2881	0.3471	0.3919	0.408	0.3981	0.3412	0.268	0.2875	0.2245	0.1917	0.3005
90	0.1671	0.2301	0.217	0.276	0.3219	0.3381	0.3277	0.267	0.1916	0.22	0.2016	0.1872	0.2455

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	0.9916	0.9919	0.9916	0.9912	0.9913	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9806	0.9868	0.9932	1	1.0039	1.0055	1.0049	1.0028	0.9969	0.9887	0.9828	0.9795	0.9938
10	0.964	0.9767	0.9886	1.002	1.01	1.0136	1.0123	1.0074	0.9954	0.9803	0.9685	0.9619	0.9901
15	0.9413	0.9609	0.9778	0.9978	1.01	1.0154	1.0134	1.0055	0.9873	0.966	0.9484	0.9383	0.9802
20	0.9127	0.9396	0.961	0.9873	1.0037	1.011	1.0082	0.9971	0.9726	0.9461	0.9226	0.9091	0.9642
25	0.8784	0.9128	0.9381	0.9708	0.9912	1.0003	0.9968	0.9822	0.9516	0.9206	0.8914	0.8744	0.9424
30	0.8388	0.8809	0.9094	0.9482	0.9727	0.9835	0.9792	0.9609	0.9242	0.8897	0.8549	0.8344	0.9147
35	0.794	0.844	0.8751	0.9198	0.9482	0.9606	0.9555	0.9334	0.8906	0.8537	0.8134	0.7895	0.8815
40	0.7444	0.8024	0.8355	0.8857	0.9179	0.9318	0.9259	0.8999	0.8511	0.8129	0.7672	0.74	0.8429
45	0.6905	0.7565	0.7909	0.8462	0.882	0.8974	0.8907	0.8606	0.8059	0.7675	0.7168	0.6864	0.7993
50	0.6325	0.7065	0.7418	0.8016	0.8409	0.8575	0.8501	0.8158	0.7555	0.718	0.6624	0.6289	0.751
55	0.571	0.653	0.6883	0.7522	0.7947	0.8125	0.8044	0.7659	0.7002	0.6646	0.6045	0.568	0.6983
60	0.5065	0.5962	0.6309	0.6984	0.7439	0.7627	0.7539	0.7111	0.6404	0.6078	0.5436	0.5043	0.6416
65	0.4393	0.5366	0.5701	0.6406	0.6888	0.7085	0.699	0.652	0.5766	0.548	0.48	0.4382	0.5815
70	0.3701	0.4747	0.5062	0.5792	0.6298	0.6502	0.6401	0.5889	0.5093	0.4857	0.4144	0.3701	0.5182
75	0.2994	0.411	0.4397	0.5147	0.5675	0.5884	0.5777	0.5223	0.4389	0.4214	0.3471	0.3006	0.4524
80	0.2276	0.3459	0.3713	0.4475	0.5021	0.5234	0.5122	0.4527	0.366	0.3555	0.2787	0.2303	0.3844
85	0.1695	0.2798	0.3013	0.3782	0.4342	0.4558	0.4441	0.3807	0.2911	0.2886	0.2097	0.1917	0.3187
90	0.1671	0.2301	0.2303	0.3072	0.3644	0.3861	0.3739	0.3067	0.2148	0.2211	0.2016	0.1872	0.2659



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	0.9916	0.9919	0.9916	0.9912	0.9913	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9789	0.9865	0.9943	1.0027	1.0075	1.0096	1.0088	1.0061	0.9988	0.9888	0.9815	0.9775	0.9951
10	0.9606	0.976	0.9909	1.0073	1.0172	1.0217	1.0201	1.0141	0.9993	0.9804	0.966	0.9579	0.9926
15	0.9362	0.9599	0.9812	1.0056	1.0207	1.0275	1.025	1.0155	0.9931	0.9663	0.9447	0.9324	0.984
20	0.906	0.9382	0.9654	0.9977	1.0178	1.0269	1.0235	1.0102	0.9803	0.9464	0.9177	0.9012	0.9693
25	0.8701	0.9112	0.9435	0.9835	1.0087	1.02	1.0157	0.9984	0.961	0.921	0.8853	0.8646	0.9486
30	0.8289	0.8789	0.9158	0.9633	0.9933	1.0067	1.0015	0.9801	0.9354	0.8902	0.8477	0.8229	0.9221
35	0.7826	0.8417	0.8825	0.9371	0.9718	0.9873	0.9811	0.9554	0.9035	0.8543	0.8051	0.7763	0.8899
40	0.7317	0.7999	0.8437	0.905	0.9444	0.9617	0.9547	0.9245	0.8655	0.8136	0.758	0.7252	0.8523
45	0.6765	0.7537	0.8	0.8675	0.9112	0.9302	0.9223	0.8877	0.8217	0.7683	0.7066	0.67	0.8096
50	0.6174	0.7035	0.7516	0.8247	0.8724	0.8931	0.8843	0.8452	0.7726	0.7188	0.6514	0.6112	0.7622
55	0.5549	0.6498	0.6988	0.7769	0.8284	0.8505	0.8409	0.7972	0.7185	0.6654	0.5928	0.5491	0.7103
60	0.4894	0.5928	0.642	0.7245	0.7795	0.8029	0.7925	0.7443	0.6598	0.6087	0.5311	0.4843	0.6543
65	0.4214	0.5331	0.5816	0.6679	0.7261	0.7505	0.7394	0.6867	0.5969	0.549	0.467	0.4172	0.5947
70	0.3516	0.4711	0.5182	0.6075	0.6685	0.6938	0.682	0.6249	0.5303	0.4867	0.4009	0.3484	0.532
75	0.2803	0.4072	0.4521	0.5438	0.6072	0.6332	0.6208	0.5593	0.4605	0.4224	0.3332	0.2783	0.4665
80	0.2082	0.342	0.3839	0.4772	0.5426	0.5691	0.5561	0.4905	0.388	0.3565	0.2645	0.2076	0.3988
85	0.1695	0.2759	0.3141	0.4082	0.4752	0.502	0.4885	0.4189	0.3134	0.2896	0.2071	0.1917	0.3378
90	0.1671	0.2301	0.2431	0.3373	0.4056	0.4325	0.4185	0.345	0.2372	0.2221	0.2016	0.1872	0.2856

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	0.9916	0.9919	0.9916	0.9912	0.9913	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9773	0.9862	0.9954	1.0052	1.0109	1.0135	1.0126	1.0094	1.0007	0.9889	0.9803	0.9756	0.9963
10	0.9573	0.9754	0.993	1.0124	1.0241	1.0295	1.0276	1.0205	1.003	0.9806	0.9636	0.954	0.9951
15	0.9313	0.9589	0.9844	1.0132	1.0309	1.0391	1.0361	1.0251	0.9987	0.9665	0.9411	0.9266	0.9877
20	0.8995	0.9369	0.9696	1.0076	1.0314	1.0422	1.0382	1.0229	0.9877	0.9468	0.913	0.8936	0.9741
25	0.8621	0.9096	0.9487	0.9958	1.0254	1.0389	1.0338	1.014	0.9701	0.9214	0.8795	0.8552	0.9545
30	0.8194	0.877	0.922	0.9778	1.0131	1.0291	1.023	0.9985	0.9461	0.8907	0.8408	0.8118	0.9291
35	0.7718	0.8396	0.8896	0.9536	0.9945	1.0128	1.0057	0.9765	0.9158	0.8549	0.7972	0.7636	0.898
40	0.7195	0.7974	0.8517	0.9236	0.9698	0.9903	0.9822	0.9482	0.8792	0.8142	0.7491	0.7109	0.8614
45	0.6631	0.751	0.8087	0.8879	0.9391	0.9617	0.9526	0.9137	0.8369	0.769	0.6969	0.6544	0.8196
50	0.6028	0.7006	0.761	0.8467	0.9027	0.9272	0.9171	0.8733	0.789	0.7195	0.6408	0.5942	0.7729
55	0.5393	0.6467	0.7088	0.8005	0.8608	0.887	0.876	0.8273	0.736	0.6662	0.5815	0.531	0.7218
60	0.4729	0.5895	0.6526	0.7494	0.8137	0.8414	0.8296	0.7761	0.6783	0.6096	0.5192	0.4651	0.6665
65	0.4042	0.5297	0.5928	0.694	0.7618	0.7909	0.7782	0.72	0.6163	0.5499	0.4545	0.3971	0.6074
70	0.3337	0.4675	0.5297	0.6346	0.7056	0.7356	0.7222	0.6594	0.5504	0.4877	0.3879	0.3276	0.5452
75	0.262	0.4035	0.464	0.5716	0.6453	0.6762	0.6621	0.5948	0.4811	0.4234	0.3199	0.2569	0.4801
80	0.1895	0.3383	0.396	0.5056	0.5815	0.6129	0.5982	0.5266	0.4091	0.3575	0.251	0.1961	0.4135
85	0.1695	0.2722	0.3263	0.4369	0.5145	0.5464	0.5311	0.4555	0.3347	0.2906	0.2071	0.1917	0.3564
90	0.1671	0.2301	0.2554	0.3662	0.4451	0.477	0.4612	0.3818	0.2586	0.2231	0.2016	0.1872	0.3045



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	0.9916	0.9919	0.9916	0.9912	0.9913	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9757	0.9858	0.9964	1.0077	1.0142	1.0172	1.0162	1.0125	1.0025	0.989	0.9792	0.9737	0.9975
10	0.9541	0.9748	0.9951	1.0172	1.0307	1.0369	1.0347	1.0267	1.0066	0.9808	0.9614	0.9503	0.9974
15	0.9266	0.958	0.9874	1.0203	1.0407	1.0501	1.0467	1.0342	1.004	0.9668	0.9377	0.9212	0.9911
20	0.8933	0.9357	0.9736	1.0171	1.0443	1.0568	1.0522	1.0349	0.9947	0.9471	0.9085	0.8864	0.9787
25	0.8545	0.908	0.9537	1.0074	1.0413	1.0568	1.0511	1.0288	0.9787	0.9218	0.8739	0.8463	0.9602
30	0.8104	0.8752	0.9279	0.9915	1.0319	1.0503	1.0434	1.016	0.9562	0.8912	0.8342	0.8012	0.9358
35	0.7614	0.8375	0.8963	0.9694	1.0161	1.0372	1.0291	0.9966	0.9274	0.8554	0.7897	0.7515	0.9056
40	0.7079	0.7951	0.8592	0.9412	0.9939	1.0176	1.0084	0.9706	0.8923	0.8148	0.7407	0.6974	0.8699
45	0.6503	0.7485	0.817	0.9072	0.9656	0.9917	0.9814	0.9384	0.8512	0.7696	0.6876	0.6395	0.829
50	0.589	0.6979	0.7699	0.8677	0.9314	0.9596	0.9482	0.9	0.8046	0.7202	0.6308	0.5781	0.7831
55	0.5245	0.6437	0.7184	0.8229	0.8915	0.9216	0.9093	0.8559	0.7526	0.667	0.5707	0.5137	0.7327
60	0.4573	0.5864	0.6627	0.7731	0.8461	0.878	0.8647	0.8062	0.6958	0.6104	0.5078	0.4469	0.678
65	0.3879	0.5264	0.6033	0.7188	0.7958	0.8292	0.815	0.7515	0.6346	0.5507	0.4426	0.378	0.6195
70	0.3168	0.4641	0.5407	0.6603	0.7408	0.7753	0.7604	0.6921	0.5694	0.4886	0.3756	0.3078	0.5576
75	0.2445	0.4001	0.4752	0.598	0.6815	0.717	0.7013	0.6284	0.5007	0.4243	0.3072	0.2366	0.4929
80	0.1718	0.3347	0.4075	0.5325	0.6183	0.6545	0.6382	0.5609	0.429	0.3585	0.2381	0.1961	0.4283
85	0.1695	0.2686	0.3379	0.4642	0.5518	0.5884	0.5715	0.4902	0.3549	0.2916	0.2071	0.1917	0.3739
90	0.1671	0.2301	0.2671	0.3936	0.4825	0.5192	0.5018	0.4166	0.2789	0.2241	0.2016	0.1872	0.3225

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	0.9916	0.9919	0.9916	0.9912	0.9913	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9742	0.9855	0.9974	1.0099	1.0173	1.0207	1.0195	1.0153	1.0042	0.989	0.9781	0.972	0.9986
10	0.9512	0.9742	0.997	1.0217	1.0368	1.0438	1.0414	1.0324	1.01	0.9809	0.9592	0.9469	0.9996
15	0.9222	0.9571	0.9903	1.027	1.0499	1.0604	1.0567	1.0427	1.009	0.967	0.9346	0.916	0.9944
20	0.8875	0.9346	0.9774	1.0259	1.0564	1.0704	1.0653	1.0462	1.0012	0.9474	0.9043	0.8796	0.983
25	0.8473	0.9066	0.9584	1.0184	1.0563	1.0737	1.0673	1.0428	0.9868	0.9222	0.8687	0.838	0.9655
30	0.8019	0.8735	0.9334	1.0044	1.0496	1.0702	1.0625	1.0325	0.9657	0.8916	0.8281	0.7913	0.9421
35	0.7517	0.8356	0.9027	0.9842	1.0363	1.06	1.0511	1.0154	0.9383	0.8559	0.7826	0.7401	0.9128
40	0.697	0.793	0.8664	0.9578	1.0166	1.0432	1.033	0.9917	0.9045	0.8154	0.7328	0.6847	0.878
45	0.6383	0.7461	0.8248	0.9254	0.9905	1.0198	1.0084	0.9615	0.8647	0.7703	0.6789	0.6254	0.8378
50	0.576	0.6953	0.7783	0.8874	0.9584	0.9901	0.9775	0.9251	0.8191	0.7209	0.6213	0.5629	0.7927
55	0.5106	0.641	0.7273	0.8439	0.9203	0.9542	0.9406	0.8826	0.7682	0.6678	0.5606	0.4975	0.7429
60	0.4426	0.5835	0.6722	0.7953	0.8766	0.9125	0.8978	0.8345	0.7123	0.6112	0.4972	0.4297	0.6888
65	0.3725	0.5233	0.6132	0.742	0.8277	0.8652	0.8496	0.7811	0.6518	0.5516	0.4315	0.3601	0.6308
70	0.3008	0.461	0.551	0.6843	0.7738	0.8126	0.7962	0.7228	0.5872	0.4894	0.364	0.2891	0.5694
75	0.2282	0.3968	0.4858	0.6228	0.7154	0.7553	0.7381	0.6599	0.519	0.4252	0.2953	0.2174	0.5049
80	0.1718	0.3314	0.4183	0.5577	0.6529	0.6936	0.6757	0.5931	0.4477	0.3593	0.2259	0.1961	0.4436
85	0.1695	0.2652	0.3489	0.4897	0.5869	0.6279	0.6095	0.5227	0.3738	0.2924	0.2071	0.1917	0.3904
90	0.1671	0.2301	0.2781	0.4192	0.5177	0.5589	0.5399	0.4493	0.2979	0.225	0.2016	0.1872	0.3393





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	0.9916	0.9919	0.9916	0.9912	0.9913	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9728	0.9853	0.9983	1.012	1.0202	1.0239	1.0227	1.018	1.0058	0.9891	0.9771	0.9704	0.9996
10	0.9485	0.9736	0.9988	1.0259	1.0426	1.0503	1.0476	1.0377	1.0131	0.9811	0.9572	0.9437	1.0017
15	0.9181	0.9563	0.993	1.0333	1.0584	1.0701	1.0659	1.0507	1.0136	0.9672	0.9316	0.9113	0.9975
20	0.8821	0.9335	0.9809	1.0342	1.0677	1.0831	1.0776	1.0566	1.0073	0.9477	0.9004	0.8733	0.987
25	0.8406	0.9053	0.9627	1.0285	1.0702	1.0894	1.0824	1.0557	0.9943	0.9226	0.8639	0.8302	0.9705
30	0.794	0.872	0.9386	1.0164	1.066	1.0888	1.0803	1.0477	0.9746	0.8921	0.8223	0.7821	0.9479
35	0.7426	0.8338	0.9086	0.9979	1.0551	1.0813	1.0715	1.0329	0.9483	0.8564	0.7761	0.7295	0.9195
40	0.6869	0.7909	0.873	0.9731	1.0376	1.067	1.0558	1.0113	0.9158	0.8159	0.7254	0.6728	0.8855
45	0.6272	0.7439	0.8321	0.9423	1.0137	1.0459	1.0335	0.983	0.8772	0.7709	0.6708	0.6124	0.8461
50	0.5639	0.6929	0.7861	0.9056	0.9834	1.0184	1.0047	0.9483	0.8326	0.7216	0.6126	0.5488	0.8016
55	0.4977	0.6384	0.7357	0.8634	0.9471	0.9844	0.9696	0.9075	0.7826	0.6684	0.5512	0.4824	0.7524
60	0.429	0.5808	0.681	0.8159	0.9049	0.9444	0.9285	0.8608	0.7275	0.6119	0.4872	0.4137	0.6988
65	0.3582	0.5205	0.6224	0.7635	0.8572	0.8986	0.8816	0.8086	0.6677	0.5523	0.4211	0.3434	0.6413
70	0.286	0.458	0.5605	0.7066	0.8044	0.8473	0.8294	0.7512	0.6037	0.4902	0.3532	0.2718	0.5802
75	0.2129	0.3938	0.4956	0.6457	0.7469	0.7909	0.7723	0.6892	0.536	0.426	0.2842	0.2005	0.5162
80	0.1718	0.3283	0.4283	0.5811	0.685	0.7298	0.7105	0.6229	0.465	0.3602	0.2146	0.1961	0.4578
85	0.1695	0.2621	0.359	0.5134	0.6193	0.6646	0.6447	0.5529	0.3913	0.2933	0.2071	0.1917	0.4057
90	0.1671	0.2301	0.2883	0.443	0.5502	0.5956	0.5753	0.4796	0.3155	0.2258	0.2016	0.1872	0.355

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	0.9916	0.9919	0.9916	0.9912	0.9913	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9716	0.985	0.9991	1.014	1.0229	1.0269	1.0255	1.0205	1.0072	0.9892	0.9762	0.9689	1.0006
10	0.946	0.9731	1.0004	1.0297	1.0478	1.0562	1.0533	1.0426	1.0159	0.9812	0.9554	0.9408	1.0035
15	0.9144	0.9556	0.9954	1.039	1.0662	1.0789	1.0744	1.0579	1.0178	0.9674	0.9289	0.9069	1.0002
20	0.8772	0.9325	0.9841	1.0417	1.078	1.0948	1.0887	1.0662	1.0129	0.9479	0.8968	0.8676	0.9907
25	0.8345	0.9041	0.9667	1.0378	1.0829	1.1037	1.0962	1.0675	1.0011	0.9229	0.8594	0.823	0.975
30	0.7868	0.8705	0.9433	1.0273	1.081	1.1057	1.0966	1.0617	0.9826	0.8924	0.8171	0.7737	0.9532
35	0.7343	0.8321	0.914	1.0104	1.0724	1.1007	1.0901	1.0489	0.9576	0.8569	0.77	0.7198	0.9256
40	0.6776	0.7891	0.879	0.9871	1.0569	1.0887	1.0767	1.0292	0.9261	0.8164	0.7187	0.662	0.8923
45	0.6169	0.7418	0.8387	0.9577	1.0349	1.0699	1.0565	1.0027	0.8885	0.7714	0.6633	0.6005	0.8536
50	0.5529	0.6907	0.7934	0.9223	1.0063	1.0443	1.0296	0.9696	0.8449	0.7222	0.6045	0.5358	0.8097
55	0.4859	0.636	0.7433	0.8812	0.9715	1.0121	0.9962	0.9302	0.7958	0.6691	0.5426	0.4685	0.761
60	0.4164	0.5783	0.689	0.8347	0.9308	0.9736	0.9566	0.8848	0.7414	0.6125	0.4781	0.3991	0.7079
65	0.3451	0.5179	0.6308	0.7832	0.8843	0.9292	0.911	0.8336	0.6823	0.553	0.4116	0.3281	0.6508
70	0.2724	0.4553	0.5692	0.727	0.8325	0.879	0.8599	0.7772	0.6188	0.4909	0.3434	0.2559	0.5901
75	0.199	0.391	0.5046	0.6666	0.7757	0.8234	0.8035	0.7159	0.5515	0.4267	0.2741	0.2005	0.5277
80	0.1718	0.3255	0.4374	0.6024	0.7144	0.763	0.7424	0.6501	0.4808	0.3609	0.2126	0.1961	0.4715
85	0.1695	0.2592	0.3682	0.535	0.649	0.6981	0.6769	0.5804	0.4073	0.294	0.2071	0.1917	0.4197
90	0.1671	0.2301	0.2976	0.4647	0.58	0.6293	0.6076	0.5073	0.3315	0.2266	0.2016	0.1872	0.3692



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	0.9916	0.9919	0.9916	0.9912	0.9913	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9704	0.9848	0.9999	1.0157	1.0252	1.0296	1.0281	1.0227	1.0085	0.9892	0.9754	0.9676	1.0014
10	0.9437	0.9727	1.0019	1.0332	1.0526	1.0615	1.0584	1.0471	1.0185	0.9813	0.9538	0.9381	1.0052
15	0.911	0.9549	0.9976	1.0441	1.0733	1.0868	1.082	1.0645	1.0216	0.9676	0.9264	0.903	1.0027
20	0.8727	0.9316	0.987	1.0485	1.0873	1.1052	1.0988	1.0749	1.0179	0.9482	0.8936	0.8623	0.994
25	0.829	0.903	0.9703	1.0462	1.0944	1.1167	1.1086	1.0782	1.0073	0.9232	0.8554	0.8166	0.9791
30	0.7803	0.8692	0.9475	1.0372	1.0946	1.121	1.1113	1.0743	0.9899	0.8928	0.8124	0.7661	0.958
35	0.7269	0.8306	0.9188	1.0217	1.0879	1.1182	1.107	1.0633	0.9658	0.8573	0.7646	0.7111	0.9311
40	0.6692	0.7874	0.8845	0.9998	1.0743	1.1083	1.0956	1.0453	0.9354	0.8168	0.7126	0.6522	0.8984
45	0.6077	0.74	0.8447	0.9715	1.0539	1.0914	1.0772	1.0204	0.8986	0.7719	0.6567	0.5897	0.8603
50	0.5429	0.6887	0.7999	0.9372	1.027	1.0676	1.052	0.9887	0.856	0.7227	0.5973	0.5242	0.817
55	0.4752	0.6339	0.7502	0.8971	0.9936	1.037	1.0201	0.9506	0.8076	0.6696	0.5349	0.4561	0.7688
60	0.4052	0.576	0.6963	0.8515	0.954	1	0.9818	0.9063	0.7538	0.6131	0.47	0.3859	0.7162
65	0.3333	0.5155	0.6384	0.8008	0.9086	0.9567	0.9374	0.8562	0.6953	0.5536	0.403	0.3143	0.6594
70	0.2602	0.4529	0.577	0.7453	0.8577	0.9075	0.8873	0.8006	0.6323	0.4915	0.3345	0.2416	0.599
75	0.1864	0.3885	0.5126	0.6854	0.8016	0.8528	0.8317	0.7399	0.5653	0.4274	0.265	0.2005	0.5381
80	0.1718	0.3229	0.4456	0.6216	0.7408	0.7929	0.771	0.6746	0.4949	0.3616	0.2126	0.1961	0.4839
85	0.1695	0.2566	0.3766	0.5543	0.6757	0.7283	0.7059	0.6051	0.4216	0.2947	0.2071	0.1917	0.4323
90	0.1671	0.2301	0.3059	0.4841	0.6068	0.6595	0.6366	0.5321	0.3459	0.2272	0.2016	0.1872	0.382

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	0.9916	0.9919	0.9916	0.9912	0.9913	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9694	0.9846	1.0005	1.0173	1.0273	1.0319	1.0304	1.0247	1.0097	0.9893	0.9746	0.9664	1.0022
10	0.9417	0.9723	1.0032	1.0362	1.0567	1.0662	1.0629	1.0509	1.0208	0.9814	0.9523	0.9358	1.0067
15	0.9081	0.9543	0.9995	1.0487	1.0795	1.0938	1.0888	1.0703	1.025	0.9678	0.9243	0.8995	1.005
20	0.8688	0.9308	0.9896	1.0545	1.0954	1.1145	1.1077	1.0825	1.0223	0.9484	0.8907	0.8578	0.9969
25	0.8241	0.902	0.9735	1.0535	1.1045	1.1281	1.1196	1.0876	1.0127	0.9234	0.8519	0.8109	0.9826
30	0.7745	0.8681	0.9513	1.0459	1.1065	1.1345	1.1243	1.0854	0.9963	0.8931	0.8082	0.7593	0.9623
35	0.7203	0.8293	0.9231	1.0317	1.1015	1.1337	1.1218	1.076	0.9731	0.8576	0.7598	0.7034	0.9359
40	0.6618	0.786	0.8893	1.0109	1.0896	1.1256	1.1122	1.0595	0.9435	0.8172	0.7072	0.6435	0.9039
45	0.5996	0.7384	0.85	0.9837	1.0707	1.1104	1.0954	1.0359	0.9075	0.7723	0.6508	0.5802	0.8663
50	0.5341	0.687	0.8056	0.9504	1.0452	1.0882	1.0717	1.0056	0.8656	0.7231	0.5909	0.5139	0.8234
55	0.4658	0.632	0.7564	0.9112	1.013	1.059	1.0412	0.9686	0.8179	0.6701	0.528	0.4451	0.7757
60	0.3952	0.5741	0.7027	0.8664	0.9746	1.0232	1.0041	0.9253	0.7648	0.6137	0.4627	0.3743	0.7234
65	0.3229	0.5135	0.6451	0.8163	0.9301	0.981	0.9608	0.876	0.7067	0.5542	0.3954	0.3021	0.667
70	0.2494	0.4507	0.5839	0.7613	0.8799	0.9327	0.9114	0.8211	0.6441	0.4921	0.3266	0.229	0.6069
75	0.1753	0.3863	0.5197	0.7019	0.8245	0.8786	0.8565	0.761	0.5774	0.428	0.2569	0.2005	0.5472
80	0.1718	0.3207	0.4528	0.6384	0.7641	0.8192	0.7963	0.6961	0.5072	0.3622	0.2126	0.1961	0.4948
85	0.1695	0.2544	0.3839	0.5713	0.6992	0.7549	0.7314	0.6269	0.4341	0.2953	0.2071	0.1917	0.4433
90	0.1671	0.2301	0.3133	0.5012	0.6304	0.6861	0.6622	0.5539	0.3584	0.2279	0.2016	0.1872	0.3933



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	0.9916	0.9919	0.9916	0.9912	0.9913	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9686	0.9844	1.0011	1.0186	1.0291	1.034	1.0323	1.0264	1.0106	0.9893	0.974	0.9654	1.0028
10	0.94	0.9719	1.0043	1.0389	1.0603	1.0703	1.0668	1.0543	1.0227	0.9815	0.9511	0.9338	1.008
15	0.9055	0.9538	1.0012	1.0526	1.0848	1.0998	1.0945	1.0752	1.0279	0.9679	0.9224	0.8965	1.0068
20	0.8654	0.9302	0.9918	1.0596	1.1025	1.1224	1.1153	1.0891	1.0261	0.9486	0.8883	0.8538	0.9994
25	0.82	0.9012	0.9762	1.0599	1.1132	1.1379	1.129	1.0956	1.0173	0.9236	0.8489	0.806	0.9857
30	0.7696	0.8671	0.9545	1.0534	1.1168	1.1461	1.1354	1.0949	1.0017	0.8933	0.8046	0.7536	0.9659
35	0.7146	0.8282	0.9268	1.0402	1.1133	1.147	1.1346	1.0869	0.9794	0.8579	0.7557	0.6968	0.9401
40	0.6555	0.7847	0.8934	1.0204	1.1027	1.1405	1.1264	1.0717	0.9505	0.8176	0.7026	0.6361	0.9085
45	0.5926	0.737	0.8546	0.9942	1.0852	1.1268	1.1111	1.0493	0.9152	0.7727	0.6457	0.572	0.8714
50	0.5265	0.6854	0.8105	0.9617	1.0608	1.1059	1.0887	1.02	0.8738	0.7235	0.5854	0.505	0.8289
55	0.4577	0.6304	0.7617	0.9233	1.0297	1.0779	1.0593	0.984	0.8266	0.6706	0.5222	0.4356	0.7816
60	0.3867	0.5724	0.7083	0.8791	0.9922	1.0432	1.0233	0.9416	0.7741	0.6141	0.4565	0.3643	0.7296
65	0.314	0.5117	0.6509	0.8296	0.9485	1.0019	0.9808	0.893	0.7164	0.5546	0.3889	0.2916	0.6735
70	0.2401	0.4489	0.5899	0.775	0.899	0.9543	0.9322	0.8387	0.6541	0.4926	0.3199	0.2182	0.6136
75	0.174	0.3844	0.5258	0.7159	0.8441	0.9009	0.8778	0.779	0.5877	0.4285	0.25	0.2005	0.5557
80	0.1718	0.3187	0.459	0.6527	0.784	0.8419	0.818	0.7144	0.5178	0.3627	0.2126	0.1961	0.5041
85	0.1695	0.2524	0.3901	0.5858	0.7194	0.7778	0.7533	0.6454	0.4447	0.2958	0.2071	0.1917	0.4528
90	0.1671	0.2301	0.3196	0.5157	0.6505	0.709	0.6841	0.5725	0.3691	0.2284	0.2016	0.1872	0.4029

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	0.9916	0.9919	0.9916	0.9912	0.9913	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9679	0.9843	1.0015	1.0197	1.0306	1.0357	1.0339	1.0277	1.0115	0.9894	0.9735	0.9646	1.0034
10	0.9386	0.9717	1.0052	1.041	1.0633	1.0736	1.07	1.0571	1.0243	0.9816	0.95	0.9321	1.009
15	0.9034	0.9534	1.0026	1.0558	1.0892	1.1048	1.0993	1.0794	1.0303	0.968	0.9209	0.894	1.0084
20	0.8626	0.9296	0.9936	1.0638	1.1083	1.129	1.1216	1.0945	1.0292	0.9487	0.8862	0.8505	1.0015
25	0.8165	0.9005	0.9784	1.0651	1.1204	1.146	1.1368	1.1023	1.0212	0.9238	0.8464	0.802	0.9883
30	0.7655	0.8663	0.9571	1.0596	1.1253	1.1557	1.1446	1.1028	1.0063	0.8936	0.8016	0.7488	0.9689
35	0.7099	0.8272	0.9299	1.0473	1.123	1.158	1.1451	1.0959	0.9846	0.8581	0.7523	0.6913	0.9436
40	0.6502	0.7837	0.8969	1.0283	1.1136	1.1528	1.1383	1.0818	0.9562	0.8178	0.6988	0.63	0.9124
45	0.5868	0.7359	0.8584	1.0029	1.0971	1.1403	1.1241	1.0604	0.9215	0.773	0.6415	0.5653	0.8756
50	0.5203	0.6842	0.8146	0.9711	1.0737	1.1205	1.1027	1.032	0.8806	0.7239	0.5808	0.4977	0.8335
55	0.451	0.6291	0.766	0.9332	1.0435	1.0936	1.0743	0.9968	0.8338	0.6709	0.5173	0.4278	0.7865
60	0.3796	0.571	0.7129	0.8896	1.0068	1.0597	1.0391	0.955	0.7816	0.6145	0.4514	0.356	0.7348
65	0.3065	0.5102	0.6557	0.8405	0.9638	1.0192	0.9974	0.9071	0.7244	0.555	0.3835	0.283	0.6789
70	0.2324	0.4473	0.5949	0.7864	0.9148	0.9723	0.9494	0.8532	0.6624	0.493	0.3143	0.2092	0.6191
75	0.174	0.3828	0.5308	0.7275	0.8603	0.9193	0.8955	0.7939	0.5962	0.4289	0.2442	0.2005	0.5628
80	0.1718	0.3171	0.4641	0.6645	0.8006	0.8607	0.8361	0.7296	0.5264	0.3631	0.2126	0.1961	0.5119
85	0.1695	0.2508	0.3953	0.5977	0.7361	0.7968	0.7715	0.6608	0.4534	0.2963	0.2071	0.1917	0.4606
90	0.1671	0.2301	0.3247	0.5277	0.6673	0.7279	0.7023	0.5879	0.3778	0.2288	0.2016	0.1872	0.4109



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	0.9916	0.9919	0.9916	0.9912	0.9913	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9673	0.9842	1.0019	1.0205	1.0318	1.037	1.0352	1.0288	1.0121	0.9894	0.9731	0.9639	1.0038
10	0.9374	0.9714	1.0059	1.0428	1.0656	1.0763	1.0726	1.0592	1.0256	0.9817	0.9492	0.9308	1.0099
15	0.9017	0.953	1.0037	1.0583	1.0927	1.1087	1.1031	1.0826	1.0321	0.9681	0.9197	0.8921	1.0097
20	0.8604	0.9292	0.9951	1.0672	1.1129	1.1342	1.1266	1.0987	1.0317	0.9488	0.8846	0.848	1.0031
25	0.8138	0.9	0.9802	1.0692	1.126	1.1524	1.1429	1.1076	1.0242	0.924	0.8444	0.7988	0.9903
30	0.7623	0.8657	0.9592	1.0644	1.1319	1.1632	1.1519	1.109	1.0098	0.8937	0.7993	0.745	0.9713
35	0.7062	0.8265	0.9323	1.0528	1.1307	1.1666	1.1534	1.103	0.9886	0.8583	0.7496	0.687	0.9463
40	0.6461	0.7828	0.8996	1.0345	1.1222	1.1625	1.1475	1.0897	0.9607	0.8181	0.6958	0.6251	0.9154
45	0.5823	0.7349	0.8613	1.0097	1.1065	1.1509	1.1343	1.0691	0.9264	0.7732	0.6382	0.56	0.8789
50	0.5153	0.6832	0.8178	0.9784	1.0839	1.132	1.1138	1.0414	0.8859	0.7241	0.5772	0.492	0.8371
55	0.4457	0.628	0.7695	0.941	1.0544	1.1059	1.0861	1.0068	0.8395	0.6712	0.5135	0.4216	0.7903
60	0.374	0.5698	0.7166	0.8978	1.0182	1.0728	1.0516	0.9656	0.7875	0.6148	0.4473	0.3495	0.7388
65	0.3007	0.5091	0.6595	0.8491	0.9758	1.0328	1.0104	0.9181	0.7305	0.5553	0.3793	0.2762	0.6831
70	0.2264	0.4461	0.5988	0.7952	0.9273	0.9865	0.9629	0.8646	0.6687	0.4933	0.3099	0.2047	0.6237
75	0.174	0.3816	0.5348	0.7366	0.8731	0.9339	0.9094	0.8056	0.6028	0.4292	0.2397	0.2005	0.5684
80	0.1718	0.3159	0.4681	0.6737	0.8136	0.8756	0.8503	0.7415	0.533	0.3635	0.2126	0.1961	0.518
85	0.1695	0.2495	0.3993	0.607	0.7493	0.8118	0.7859	0.6728	0.46	0.2966	0.2071	0.1917	0.4667
90	0.1671	0.2301	0.3288	0.5369	0.6805	0.758	0.7291	0.5999	0.3845	0.2291	0.2016	0.1872	0.4194

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	0.9916	0.9919	0.9916	0.9912	0.9913	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9669	0.9841	1.0022	1.0212	1.0327	1.0379	1.0361	1.0296	1.0126	0.9894	0.9728	0.9634	1.0041
10	0.9366	0.9713	1.0065	1.044	1.0673	1.0782	1.0744	1.0608	1.0265	0.9817	0.9486	0.9299	1.0105
15	0.9005	0.9528	1.0044	1.0602	1.0952	1.1116	1.1058	1.0849	1.0335	0.9682	0.9188	0.8907	1.0105
20	0.8588	0.9288	0.9961	1.0696	1.1162	1.1379	1.1302	1.1018	1.0335	0.9489	0.8835	0.8461	1.0043
25	0.8118	0.8996	0.9815	1.0722	1.1301	1.157	1.1473	1.1113	1.0264	0.9241	0.843	0.7965	0.9917
30	0.76	0.8652	0.9607	1.0679	1.1367	1.1686	1.1571	1.1134	1.0124	0.8939	0.7976	0.7423	0.973
35	0.7036	0.826	0.934	1.0568	1.1362	1.1728	1.1594	1.1081	0.9915	0.8585	0.7477	0.6839	0.9482
40	0.6431	0.7822	0.9015	1.039	1.1283	1.1695	1.1542	1.0954	0.964	0.8182	0.6936	0.6217	0.9176
45	0.579	0.7343	0.8635	1.0145	1.1133	1.1586	1.1416	1.0753	0.9299	0.7734	0.6358	0.5561	0.8813
50	0.5118	0.6825	0.8202	0.9837	1.0912	1.1403	1.1217	1.0481	0.8897	0.7243	0.5747	0.4878	0.8397
55	0.4419	0.6273	0.7719	0.9467	1.0622	1.1148	1.0946	1.014	0.8435	0.6714	0.5107	0.4172	0.793
60	0.37	0.569	0.7192	0.9037	1.0265	1.0821	1.0606	0.9732	0.7917	0.615	0.4444	0.3448	0.7417
65	0.2965	0.5082	0.6623	0.8552	0.9844	1.0427	1.0198	0.926	0.7348	0.5556	0.3762	0.2713	0.6861
70	0.222	0.4453	0.6016	0.8015	0.9362	0.9967	0.9727	0.8728	0.6732	0.4936	0.3067	0.2047	0.6273
75	0.174	0.3807	0.5378	0.7431	0.8823	0.9445	0.9195	0.814	0.6073	0.4294	0.2365	0.2005	0.5725
80	0.1718	0.315	0.4711	0.6802	0.8231	0.8865	0.8607	0.75	0.5376	0.3637	0.2126	0.1961	0.5224
85	0.1695	0.2486	0.4022	0.6136	0.759	0.8378	0.809	0.6814	0.4647	0.2968	0.2071	0.1917	0.4735
90	0.1671	0.2301	0.3316	0.5436	0.6996	0.7693	0.7399	0.6086	0.3891	0.2294	0.2016	0.1872	0.4248



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	0.9916	0.9919	0.9916	0.9912	0.9913	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9667	0.984	1.0023	1.0215	1.0332	1.0385	1.0367	1.0301	1.0128	0.9894	0.9726	0.9632	1.0043
10	0.9362	0.9712	1.0068	1.0447	1.0683	1.0793	1.0755	1.0617	1.027	0.9817	0.9483	0.9293	1.0108
15	0.8998	0.9527	1.0049	1.0613	1.0967	1.1133	1.1074	1.0863	1.0343	0.9682	0.9183	0.8898	1.0111
20	0.8579	0.9287	0.9967	1.071	1.1182	1.1401	1.1323	1.1037	1.0345	0.949	0.8828	0.845	1.005
25	0.8107	0.8993	0.9823	1.074	1.1325	1.1598	1.15	1.1136	1.0277	0.9241	0.8421	0.7952	0.9926
30	0.7586	0.8649	0.9617	1.07	1.1396	1.1719	1.1602	1.1161	1.0139	0.8939	0.7966	0.7407	0.974
35	0.702	0.8257	0.9351	1.0592	1.1395	1.1766	1.163	1.1112	0.9933	0.8586	0.7465	0.682	0.9494
40	0.6413	0.7819	0.9027	1.0417	1.132	1.1737	1.1582	1.0988	0.9659	0.8183	0.6923	0.6196	0.9189
45	0.577	0.7339	0.8647	1.0175	1.1174	1.1632	1.1461	1.0791	0.9321	0.7735	0.6344	0.5538	0.8827
50	0.5096	0.6821	0.8215	0.9869	1.0956	1.1453	1.1265	1.0522	0.892	0.7244	0.5731	0.4853	0.8412
55	0.4396	0.6268	0.7734	0.95	1.0669	1.1201	1.0998	1.0183	0.8459	0.6715	0.509	0.4145	0.7947
60	0.3676	0.5686	0.7208	0.9073	1.0315	1.0878	1.066	0.9777	0.7943	0.6151	0.4426	0.342	0.7434
65	0.294	0.5077	0.6639	0.8589	0.9896	1.0486	1.0255	0.9307	0.7374	0.5557	0.3744	0.2683	0.6879
70	0.2194	0.4448	0.6034	0.8053	0.9416	1.0029	0.9786	0.8777	0.6758	0.4937	0.3048	0.2047	0.6294
75	0.174	0.3802	0.5395	0.7469	0.8879	0.951	0.9256	0.819	0.6099	0.4296	0.2345	0.2005	0.5749
80	0.1718	0.3144	0.4729	0.6842	0.8289	0.8932	0.867	0.7552	0.5403	0.3638	0.2126	0.1961	0.525
85	0.1695	0.248	0.404	0.6175	0.765	0.8446	0.8155	0.6867	0.4674	0.297	0.2071	0.1917	0.4762
90	0.1671	0.2301	0.3334	0.5475	0.7056	0.7761	0.7464	0.614	0.3917	0.2295	0.2016	0.1872	0.4275

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	0.9916	0.9919	0.9916	0.9912	0.9913	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9666	0.984	1.0024	1.0217	1.0333	1.0387	1.0369	1.0303	1.0129	0.9894	0.9726	0.9631	1.0043
10	0.936	0.9711	1.0069	1.045	1.0687	1.0797	1.0758	1.0621	1.0272	0.9817	0.9482	0.9291	1.011
15	0.8996	0.9526	1.0051	1.0616	1.0972	1.1138	1.108	1.0868	1.0346	0.9682	0.9181	0.8896	1.0113
20	0.8575	0.9286	0.9969	1.0715	1.1189	1.1409	1.1331	1.1043	1.0349	0.949	0.8825	0.8446	1.0052
25	0.8103	0.8993	0.9825	1.0746	1.1333	1.1607	1.1509	1.1144	1.0282	0.9242	0.8418	0.7947	0.9929
30	0.7581	0.8648	0.962	1.0707	1.1406	1.173	1.1613	1.117	1.0145	0.894	0.7962	0.7401	0.9744
35	0.7014	0.8256	0.9354	1.06	1.1406	1.1778	1.1642	1.1122	0.9939	0.8586	0.7461	0.6814	0.9498
40	0.6407	0.7818	0.9031	1.0426	1.1333	1.1751	1.1596	1.1	0.9666	0.8184	0.6919	0.6189	0.9193
45	0.5764	0.7338	0.8652	1.0185	1.1187	1.1648	1.1475	1.0803	0.9328	0.7735	0.6339	0.5531	0.8832
50	0.5089	0.6819	0.822	0.9879	1.0971	1.147	1.1281	1.0535	0.8927	0.7245	0.5726	0.4845	0.8417
55	0.4389	0.6267	0.7739	0.9512	1.0685	1.1219	1.1015	1.0198	0.8467	0.6715	0.5085	0.4136	0.7952
60	0.3668	0.5684	0.7213	0.9085	1.0331	1.0897	1.0678	0.9792	0.7951	0.6152	0.4421	0.3411	0.744
65	0.2931	0.5075	0.6645	0.8602	0.9913	1.0506	1.0274	0.9323	0.7383	0.5557	0.3738	0.2673	0.6885
70	0.2185	0.4446	0.6039	0.8066	0.9434	1.005	0.9806	0.8793	0.6767	0.4937	0.3042	0.2047	0.6301
75	0.174	0.38	0.5401	0.7482	0.8898	0.9531	0.9277	0.8207	0.6108	0.4296	0.2338	0.2005	0.5757
80	0.1718	0.3142	0.4735	0.6855	0.8308	0.9103	0.8692	0.7569	0.5412	0.3639	0.2126	0.1961	0.5272
85	0.1695	0.2479	0.4046	0.6189	0.7764	0.8469	0.8176	0.6884	0.4682	0.297	0.2071	0.1917	0.4778
90	0.1671	0.2301	0.334	0.5489	0.7076	0.7783	0.7486	0.6159	0.3925	0.2296	0.2016	0.1872	0.4285