

Copán, Honduras

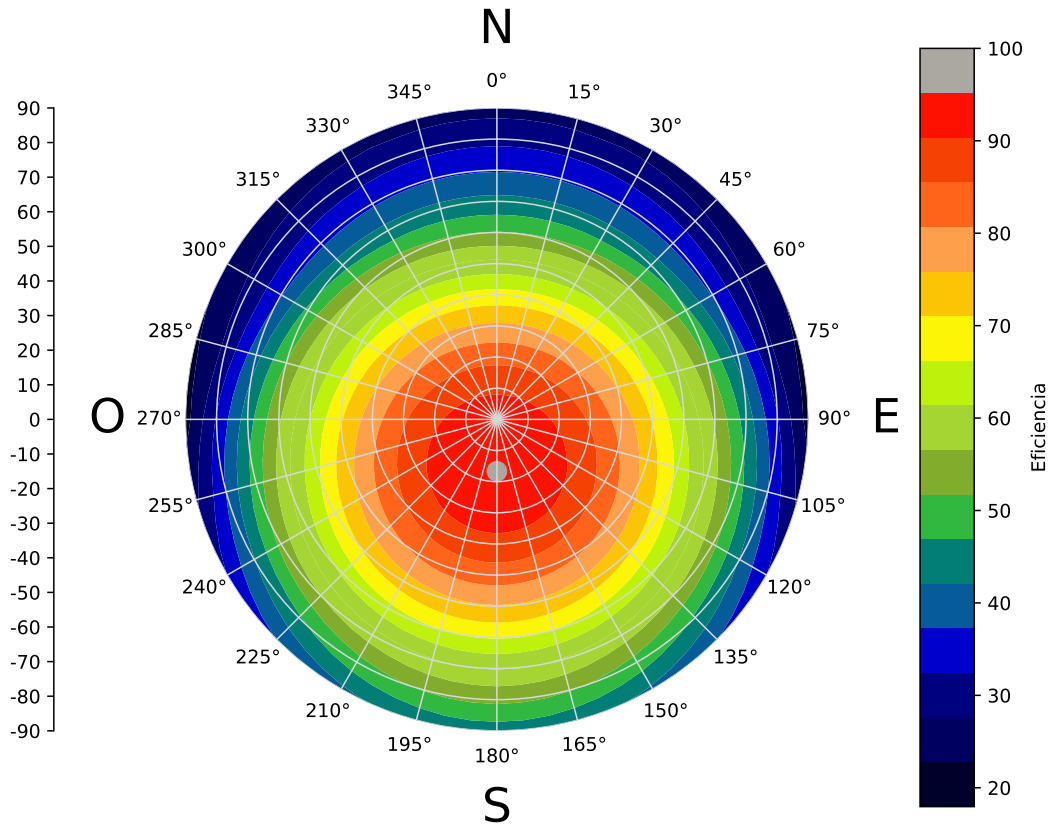


Tabla 1: Generalidades

Latitud	14.767547901031019
Longitud	-88.77810895442963
Modelo de declinación solar	Modelo de Cooper (1961)
Modelo de radiación promedio en superficies inclinadas	Modelo de Klein - Theilacker



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



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

	Γ	β	α	ρ	δ	θ
Enero	5.1262	11.5125	0.5549	0.1405	-20.8472	84.2336
Febrero	5.3808	11.027	0.5458	0.133	-13.3253	86.4119
Marzo	5.8551	9.6875	0.5675	0.1423	-2.3892	89.3673
Abril	5.9061	9.5604	0.5664	0.147	9.4932	92.5346
Mayo	5.512	8.9963	0.544	0.1402	18.8058	95.1583
Junio	5.468	9.3039	0.5394	0.1351	23.0771	96.4491
Julio	5.7537	9.6976	0.5601	0.1378	21.1015	95.8432
Agosto	5.6629	9.6198	0.559	0.1397	13.296	93.5818
Septiembre	5.3437	9.3212	0.5648	0.1465	1.9936	90.5277
Octubre	5.1769	9.3977	0.534	0.1383	-9.8485	87.3681
Noviembre	4.6695	8.0443	0.5297	0.1382	-19.0505	84.7701
Diciembre	4.6031	8.0151	0.5471	0.1361	-23.0956	83.5452
Promedio	5.3092	8.9471	0.5478	0.1355	—	89.9826

Tabla 3: Azimut de 0°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9916	0.9919	0.9915	0.9912	0.9913	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	1.0091	0.9923	0.9743	0.9556	0.9435	0.9375	0.9395	0.9463	0.9636	0.987	1.0034	1.0128	0.9721
10	1.0206	0.9877	0.9509	0.9134	0.8896	0.878	0.8819	0.8948	0.929	0.9768	1.0096	1.0282	0.9467
15	1.0257	0.9772	0.9216	0.8655	0.8304	0.8132	0.8189	0.8376	0.8882	0.9609	1.0096	1.0372	0.9155
20	1.0243	0.9611	0.8867	0.8124	0.7662	0.7437	0.7511	0.775	0.8414	0.9393	1.0035	1.0397	0.8787
25	1.0163	0.9395	0.8463	0.7544	0.6976	0.6699	0.6789	0.7075	0.7891	0.9122	0.9913	1.0357	0.8365
30	1.0019	0.9124	0.8008	0.6919	0.6251	0.5924	0.6029	0.6356	0.7316	0.8798	0.9731	1.0253	0.7894
35	0.9811	0.8801	0.7505	0.6255	0.5493	0.5118	0.5237	0.56	0.6694	0.8423	0.949	1.0085	0.7376
40	0.9541	0.8429	0.6958	0.5556	0.4707	0.4288	0.4419	0.4811	0.603	0.8001	0.9192	0.9855	0.6816
45	0.9211	0.801	0.6372	0.4828	0.3899	0.344	0.3581	0.3997	0.5328	0.7534	0.884	0.9564	0.6217
50	0.8824	0.7548	0.5751	0.4076	0.3076	0.258	0.2731	0.3162	0.4594	0.7027	0.8435	0.9214	0.5585
55	0.8382	0.7046	0.5098	0.3307	0.2246	0.2075	0.1983	0.2315	0.3834	0.6483	0.7982	0.8808	0.4963
60	0.789	0.6508	0.4421	0.2526	0.2022	0.2041	0.1955	0.1461	0.3052	0.5906	0.7483	0.835	0.4468
65	0.735	0.5938	0.3723	0.1803	0.199	0.2006	0.1925	0.1315	0.2257	0.53	0.6943	0.7842	0.4033
70	0.6766	0.534	0.301	0.1784	0.1957	0.1969	0.1894	0.132	0.1452	0.4671	0.6365	0.7289	0.3651
75	0.6144	0.4719	0.2287	0.1765	0.1923	0.193	0.1862	0.1324	0.102	0.4022	0.5755	0.6695	0.3287
80	0.5488	0.4079	0.1797	0.1745	0.1887	0.1891	0.183	0.1329	0.105	0.3359	0.5115	0.6064	0.297
85	0.4803	0.3426	0.1769	0.1725	0.1852	0.1851	0.1796	0.1334	0.108	0.2235	0.4452	0.5401	0.2644
90	0.4094	0.2301	0.1741	0.1704	0.1816	0.1811	0.1763	0.1339	0.1111	0.2167	0.3771	0.4711	0.2361



Tabla 4: Azimut de 5°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9916	0.9919	0.9915	0.9912	0.9913	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	1.009	0.9923	0.9743	0.9557	0.9436	0.9377	0.9397	0.9465	0.9637	0.987	1.0033	1.0127	0.9721
10	1.0205	0.9876	0.951	0.9137	0.8899	0.8784	0.8823	0.8952	0.9292	0.9768	1.0095	1.028	0.9468
15	1.0255	0.9772	0.9218	0.8659	0.8309	0.8138	0.8195	0.8381	0.8884	0.9609	1.0094	1.0369	0.9157
20	1.024	0.9611	0.8869	0.8129	0.7669	0.7445	0.7518	0.7756	0.8418	0.9393	1.0033	1.0393	0.8789
25	1.0159	0.9394	0.8465	0.755	0.6984	0.6708	0.6798	0.7083	0.7896	0.9122	0.991	1.0353	0.8368
30	1.0014	0.9123	0.8011	0.6926	0.6261	0.5935	0.604	0.6366	0.7322	0.8798	0.9727	1.0248	0.7898
35	0.9805	0.88	0.7509	0.6263	0.5504	0.5131	0.5249	0.5611	0.6701	0.8423	0.9486	1.0079	0.738
40	0.9535	0.8428	0.6962	0.5565	0.472	0.4303	0.4433	0.4823	0.6037	0.8001	0.9188	0.9848	0.682
45	0.9204	0.8009	0.6376	0.4839	0.3913	0.3456	0.3597	0.401	0.5336	0.7535	0.8835	0.9556	0.6222
50	0.8817	0.7547	0.5755	0.4088	0.3092	0.2597	0.2748	0.3177	0.4603	0.7028	0.843	0.9206	0.5591
55	0.8375	0.7045	0.5104	0.332	0.2262	0.2075	0.1983	0.233	0.3844	0.6483	0.7976	0.8799	0.4966
60	0.7882	0.6506	0.4426	0.254	0.2022	0.2041	0.1955	0.1478	0.3064	0.5906	0.7478	0.8341	0.447
65	0.7341	0.5936	0.3728	0.1803	0.199	0.2006	0.1925	0.1315	0.227	0.5301	0.6937	0.7832	0.4032
70	0.6758	0.5338	0.3016	0.1784	0.1957	0.1969	0.1894	0.132	0.1468	0.4671	0.6359	0.7279	0.3651
75	0.6135	0.4717	0.2294	0.1765	0.1923	0.193	0.1862	0.1324	0.102	0.4023	0.5748	0.6684	0.3285
80	0.5479	0.4078	0.1798	0.1745	0.1887	0.1891	0.183	0.1329	0.1053	0.336	0.5109	0.6053	0.2968
85	0.4794	0.3425	0.1769	0.1725	0.1852	0.1851	0.1796	0.1334	0.1083	0.2235	0.4446	0.539	0.2642
90	0.4085	0.2301	0.1741	0.1704	0.1816	0.1811	0.1763	0.1339	0.1113	0.2167	0.3764	0.47	0.2359

Tabla 5: Azimut de 10°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9916	0.9919	0.9915	0.9912	0.9913	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	1.0088	0.9923	0.9745	0.9561	0.9441	0.9382	0.9402	0.947	0.964	0.987	1.0032	1.0124	0.9723
10	1.02	0.9875	0.9513	0.9144	0.891	0.8795	0.8834	0.8961	0.9298	0.9768	1.0091	1.0274	0.9472
15	1.0248	0.9771	0.9223	0.8671	0.8324	0.8155	0.8211	0.8395	0.8893	0.9609	1.0089	1.0361	0.9162
20	1.023	0.9609	0.8875	0.8144	0.7689	0.7467	0.754	0.7775	0.8429	0.9393	1.0026	1.0382	0.8797
25	1.0147	0.9392	0.8473	0.7569	0.701	0.6737	0.6825	0.7106	0.791	0.9123	0.9902	1.0339	0.8378
30	1	0.912	0.802	0.6949	0.6291	0.5969	0.6072	0.6394	0.7339	0.8799	0.9717	1.0232	0.7908
35	0.9789	0.8797	0.7519	0.6289	0.5539	0.517	0.5287	0.5643	0.6721	0.8424	0.9474	1.0061	0.7393
40	0.9517	0.8425	0.6974	0.5595	0.4758	0.4346	0.4475	0.486	0.606	0.8002	0.9175	0.9827	0.6834
45	0.9185	0.8005	0.639	0.4871	0.3956	0.3503	0.3643	0.4051	0.5361	0.7536	0.8821	0.9533	0.6238
50	0.8796	0.7543	0.5769	0.4123	0.3138	0.2649	0.2798	0.3221	0.4631	0.7029	0.8415	0.9181	0.5608
55	0.8352	0.704	0.5119	0.3358	0.2311	0.2075	0.1983	0.2378	0.3874	0.6485	0.796	0.8773	0.4976
60	0.7858	0.6502	0.4442	0.2581	0.2022	0.2041	0.1955	0.1528	0.3097	0.5908	0.746	0.8313	0.4476
65	0.7316	0.5931	0.3745	0.1803	0.199	0.2006	0.1925	0.1315	0.2306	0.5302	0.6919	0.7803	0.403
70	0.6732	0.5333	0.3034	0.1784	0.1957	0.1969	0.1894	0.132	0.1505	0.4673	0.634	0.7249	0.3649
75	0.6109	0.4712	0.2313	0.1765	0.1923	0.193	0.1862	0.1324	0.102	0.4024	0.5729	0.6653	0.328
80	0.5452	0.4072	0.18	0.1745	0.1887	0.1891	0.183	0.1329	0.106	0.3362	0.5089	0.6021	0.2962
85	0.4767	0.3419	0.1771	0.1725	0.1852	0.1851	0.1796	0.1334	0.1089	0.2235	0.4426	0.5358	0.2635
90	0.4058	0.2301	0.1742	0.1704	0.1816	0.1811	0.1763	0.1339	0.1119	0.2167	0.3744	0.4668	0.2353



Tabla 6: Azimut de 15°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9916	0.9919	0.9915	0.9912	0.9913	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	1.0084	0.9922	0.9748	0.9567	0.945	0.9392	0.9412	0.9478	0.9645	0.987	1.0029	1.0119	0.9726
10	1.0192	0.9874	0.9519	0.9157	0.8927	0.8814	0.8852	0.8977	0.9307	0.9769	1.0085	1.0265	0.9478
15	1.0236	0.9768	0.9231	0.8689	0.8349	0.8184	0.8239	0.8419	0.8907	0.961	1.0081	1.0347	0.9172
20	1.0214	0.9606	0.8886	0.8169	0.7723	0.7505	0.7576	0.7807	0.8448	0.9394	1.0015	1.0364	0.8809
25	1.0128	0.9388	0.8486	0.76	0.7051	0.6784	0.687	0.7145	0.7933	0.9124	0.9888	1.0317	0.8393
30	0.9977	0.9116	0.8035	0.6985	0.6341	0.6024	0.6126	0.644	0.7367	0.88	0.9701	1.0205	0.7926
35	0.9763	0.8792	0.7537	0.6331	0.5596	0.5234	0.5348	0.5697	0.6753	0.8426	0.9455	1.003	0.7414
40	0.9488	0.8419	0.6994	0.5643	0.4822	0.4418	0.4544	0.4921	0.6097	0.8004	0.9154	0.9793	0.6858
45	0.9153	0.7999	0.6411	0.4924	0.4027	0.3582	0.3719	0.4118	0.5403	0.7538	0.8797	0.9495	0.6264
50	0.8761	0.7536	0.5793	0.4181	0.3215	0.2734	0.288	0.3294	0.4677	0.7031	0.8389	0.914	0.5636
55	0.8315	0.7033	0.5144	0.3421	0.2393	0.2075	0.2033	0.2456	0.3924	0.6487	0.7933	0.8729	0.4995
60	0.7818	0.6494	0.4469	0.2647	0.2022	0.2041	0.1955	0.161	0.3151	0.591	0.7432	0.8266	0.4485
65	0.7275	0.5923	0.3774	0.1867	0.199	0.2006	0.1925	0.1315	0.2361	0.5305	0.6889	0.7755	0.4032
70	0.6689	0.5325	0.3064	0.1784	0.1957	0.1969	0.1894	0.132	0.1562	0.4675	0.6309	0.7198	0.3646
75	0.6065	0.4703	0.2344	0.1765	0.1923	0.193	0.1862	0.1324	0.102	0.4027	0.5697	0.6601	0.3272
80	0.5407	0.4064	0.1801	0.1745	0.1887	0.1891	0.183	0.1329	0.1067	0.3365	0.5056	0.5968	0.2951
85	0.4721	0.3411	0.1773	0.1725	0.1852	0.1851	0.1796	0.1334	0.1096	0.2235	0.4393	0.5304	0.2624
90	0.4012	0.2301	0.1743	0.1704	0.1816	0.1811	0.1763	0.1339	0.1125	0.2167	0.3711	0.4614	0.2342

Tabla 7: Azimut de 20°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9916	0.9919	0.9915	0.9912	0.9913	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	1.0078	0.9921	0.9751	0.9576	0.9462	0.9405	0.9424	0.9489	0.9651	0.987	1.0025	1.0113	0.973
10	1.0181	0.9872	0.9526	0.9174	0.895	0.8841	0.8878	0.8999	0.932	0.977	1.0077	1.0252	0.9487
15	1.0219	0.9765	0.9242	0.8715	0.8385	0.8224	0.8277	0.8452	0.8927	0.9611	1.0069	1.0327	0.9184
20	1.0193	0.9602	0.89	0.8204	0.777	0.7558	0.7627	0.785	0.8474	0.9396	0.9999	1.0338	0.8826
25	1.0101	0.9383	0.8504	0.7643	0.7109	0.6849	0.6933	0.72	0.7966	0.9125	0.9868	1.0285	0.8414
30	0.9945	0.911	0.8057	0.7037	0.6409	0.6102	0.62	0.6505	0.7406	0.8802	0.9678	1.0168	0.7952
35	0.9727	0.8785	0.7561	0.639	0.5675	0.5323	0.5434	0.5772	0.6798	0.8428	0.9429	0.9987	0.7442
40	0.9447	0.8411	0.7021	0.5709	0.4911	0.4517	0.464	0.5005	0.6148	0.8007	0.9124	0.9745	0.689
45	0.9108	0.7991	0.6441	0.4998	0.4125	0.3692	0.3825	0.4211	0.546	0.7541	0.8765	0.9443	0.63
50	0.8712	0.7527	0.5826	0.4262	0.3322	0.2853	0.2995	0.3395	0.4739	0.7034	0.8354	0.9083	0.5675
55	0.8263	0.7023	0.5179	0.3507	0.2507	0.2075	0.2156	0.2565	0.3991	0.649	0.7895	0.8668	0.5027
60	0.7763	0.6484	0.4506	0.2739	0.2022	0.2041	0.1955	0.1725	0.3221	0.5914	0.7392	0.8202	0.4497
65	0.7217	0.5912	0.3814	0.1963	0.199	0.2006	0.1925	0.1315	0.2435	0.5308	0.6847	0.7687	0.4035
70	0.6629	0.5313	0.3105	0.1784	0.1957	0.1969	0.1894	0.132	0.1639	0.4679	0.6266	0.7128	0.364
75	0.6003	0.4692	0.2386	0.1765	0.1923	0.193	0.1862	0.1324	0.102	0.4031	0.5652	0.6529	0.326
80	0.5344	0.4052	0.1802	0.1745	0.1887	0.1891	0.183	0.1329	0.1074	0.3369	0.5011	0.5895	0.2936
85	0.4658	0.3398	0.1774	0.1725	0.1852	0.1851	0.1796	0.1334	0.1103	0.2235	0.4347	0.523	0.2609
90	0.3948	0.2301	0.1745	0.1704	0.1816	0.1811	0.1763	0.1339	0.1132	0.2167	0.3665	0.454	0.2328



Tabla 8: Azimut de 25°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9916	0.9919	0.9915	0.9912	0.9913	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	1.0071	0.9919	0.9756	0.9587	0.9477	0.9422	0.9441	0.9503	0.966	0.9871	1.002	1.0105	0.9736
10	1.0167	0.9869	0.9536	0.9196	0.898	0.8875	0.891	0.9027	0.9337	0.9771	1.0067	1.0236	0.9498
15	1.0199	0.9761	0.9256	0.8749	0.843	0.8274	0.8326	0.8494	0.8952	0.9612	1.0054	1.0303	0.9201
20	1.0165	0.9596	0.8919	0.8248	0.7829	0.7625	0.7691	0.7906	0.8508	0.9398	0.9979	1.0306	0.8847
25	1.0067	0.9376	0.8527	0.7697	0.7183	0.6932	0.7013	0.7269	0.8008	0.9128	0.9843	1.0245	0.8441
30	0.9905	0.9102	0.8084	0.7102	0.6497	0.62	0.6295	0.6587	0.7456	0.8805	0.9648	1.012	0.7983
35	0.968	0.8776	0.7592	0.6465	0.5775	0.5435	0.5542	0.5866	0.6856	0.8431	0.9395	0.9933	0.7479
40	0.9395	0.8401	0.7056	0.5793	0.5024	0.4644	0.4762	0.5111	0.6213	0.801	0.9086	0.9684	0.6932
45	0.905	0.798	0.648	0.5091	0.425	0.3832	0.396	0.4328	0.5532	0.7545	0.8723	0.9376	0.6345
50	0.865	0.7515	0.5867	0.4363	0.3457	0.3004	0.3141	0.3523	0.4817	0.7038	0.8309	0.901	0.5725
55	0.8196	0.7011	0.5223	0.3616	0.2652	0.2168	0.2312	0.2702	0.4074	0.6495	0.7847	0.859	0.5074
60	0.7693	0.647	0.4554	0.2854	0.2022	0.2041	0.1955	0.187	0.3309	0.5918	0.7341	0.812	0.4512
65	0.7144	0.5898	0.3864	0.2084	0.199	0.2006	0.1925	0.1315	0.2527	0.5313	0.6794	0.7601	0.4038
70	0.6553	0.5299	0.3158	0.1784	0.1957	0.1969	0.1894	0.132	0.1734	0.4684	0.6211	0.7039	0.3633
75	0.5925	0.4677	0.244	0.1765	0.1923	0.193	0.1862	0.1324	0.102	0.4036	0.5596	0.6438	0.3245
80	0.5265	0.4037	0.1804	0.175	0.1887	0.1891	0.183	0.1329	0.108	0.3374	0.4953	0.5802	0.2917
85	0.4577	0.3383	0.1776	0.1728	0.1852	0.1851	0.1796	0.1334	0.111	0.2702	0.4289	0.5136	0.2628
90	0.3867	0.2301	0.1747	0.1706	0.1816	0.1811	0.1763	0.1339	0.1139	0.2167	0.3607	0.4445	0.2309

Tabla 9: Azimut de 30°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9916	0.9919	0.9915	0.9912	0.9913	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	1.0062	0.9918	0.9762	0.9601	0.9495	0.9443	0.946	0.952	0.967	0.9871	1.0013	1.0095	0.9742
10	1.015	0.9866	0.9547	0.9223	0.9017	0.8916	0.8949	0.9061	0.9357	0.9772	1.0055	1.0216	0.9511
15	1.0173	0.9756	0.9273	0.8789	0.8484	0.8335	0.8384	0.8545	0.8982	0.9614	1.0035	1.0273	0.922
20	1.0132	0.959	0.8941	0.8301	0.7901	0.7705	0.7769	0.7974	0.8548	0.94	0.9955	1.0267	0.8873
25	1.0026	0.9368	0.8555	0.7763	0.7272	0.7031	0.7109	0.7353	0.8058	0.913	0.9814	1.0197	0.8473
30	0.9856	0.9093	0.8117	0.718	0.6602	0.6318	0.6409	0.6686	0.7515	0.8808	0.9613	1.0063	0.8022
35	0.9624	0.8766	0.763	0.6555	0.5897	0.5572	0.5674	0.598	0.6924	0.8435	0.9355	0.9867	0.7523
40	0.9332	0.8389	0.7098	0.5895	0.5161	0.4797	0.4909	0.5239	0.629	0.8014	0.9041	0.961	0.6981
45	0.8981	0.7966	0.6526	0.5203	0.44	0.4	0.4122	0.447	0.5618	0.7549	0.8673	0.9295	0.64
50	0.8575	0.7501	0.5917	0.4485	0.362	0.3187	0.3317	0.3677	0.491	0.7043	0.8255	0.8923	0.5784
55	0.8116	0.6995	0.5278	0.3746	0.2826	0.2363	0.25	0.2866	0.4173	0.65	0.7789	0.8497	0.5137
60	0.7608	0.6454	0.4612	0.2992	0.2024	0.2041	0.1955	0.2044	0.3414	0.5924	0.728	0.8021	0.4531
65	0.7055	0.5881	0.3925	0.2228	0.199	0.2006	0.1925	0.1315	0.2636	0.5319	0.673	0.7498	0.4042
70	0.6461	0.5281	0.322	0.1784	0.1957	0.1969	0.1894	0.132	0.1847	0.469	0.6144	0.6932	0.3625
75	0.5831	0.4659	0.2504	0.1765	0.1923	0.193	0.1862	0.1324	0.1052	0.4042	0.5527	0.6327	0.3229
80	0.5169	0.4018	0.1805	0.1757	0.1887	0.1891	0.183	0.1329	0.1087	0.338	0.4884	0.5689	0.2894
85	0.448	0.3364	0.1777	0.1736	0.1852	0.1851	0.1796	0.1334	0.1117	0.2708	0.4218	0.5022	0.2605
90	0.377	0.2301	0.1748	0.1714	0.1816	0.1811	0.1763	0.1339	0.1146	0.2167	0.3536	0.4331	0.2287



Tabla 10: Azimut de 35°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9916	0.9919	0.9915	0.9912	0.9913	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	1.0053	0.9916	0.9768	0.9616	0.9516	0.9466	0.9483	0.954	0.9681	0.9872	1.0006	1.0083	0.975
10	1.013	0.9862	0.956	0.9254	0.9059	0.8963	0.8995	0.9101	0.938	0.9773	1.0041	1.0193	0.9526
15	1.0144	0.9751	0.9292	0.8835	0.8547	0.8406	0.8452	0.8604	0.9017	0.9616	1.0014	1.0239	0.9243
20	1.0093	0.9583	0.8967	0.8362	0.7984	0.7799	0.7859	0.8052	0.8595	0.9402	0.9927	1.0221	0.8904
25	0.9978	0.9359	0.8587	0.784	0.7375	0.7148	0.7221	0.745	0.8116	0.9133	0.9779	1.014	0.851
30	0.9799	0.9082	0.8155	0.7271	0.6725	0.6456	0.6541	0.6802	0.7584	0.8811	0.9572	0.9997	0.8066
35	0.9559	0.8753	0.7674	0.666	0.6038	0.573	0.5826	0.6113	0.7004	0.8439	0.9308	0.9791	0.7574
40	0.9259	0.8375	0.7147	0.6012	0.5319	0.4974	0.508	0.5388	0.638	0.8019	0.8988	0.9525	0.7039
45	0.8901	0.7951	0.658	0.5333	0.4574	0.4195	0.431	0.4634	0.5716	0.7554	0.8615	0.9201	0.6464
50	0.8488	0.7484	0.5976	0.4626	0.3808	0.3398	0.3521	0.3855	0.5016	0.7049	0.8192	0.8821	0.5853
55	0.8023	0.6977	0.5341	0.3897	0.3028	0.2589	0.2718	0.3057	0.4287	0.6506	0.7722	0.8388	0.5211
60	0.751	0.6435	0.4679	0.3151	0.2238	0.2041	0.1955	0.2246	0.3534	0.593	0.7208	0.7905	0.457
65	0.6952	0.5862	0.3995	0.2395	0.199	0.2006	0.1925	0.1427	0.2762	0.5325	0.6655	0.7377	0.4056
70	0.6355	0.5261	0.3293	0.1784	0.1957	0.1969	0.1894	0.132	0.1978	0.4697	0.6067	0.6807	0.3615
75	0.5721	0.4638	0.2579	0.1765	0.1923	0.193	0.1862	0.1324	0.1186	0.4049	0.5448	0.6199	0.3219
80	0.5057	0.3997	0.1806	0.1765	0.1887	0.1891	0.183	0.1329	0.1093	0.3387	0.4803	0.5558	0.2867
85	0.4367	0.3343	0.1778	0.1744	0.1852	0.1851	0.1796	0.1334	0.1123	0.2715	0.4136	0.4889	0.2577
90	0.3656	0.2301	0.175	0.1722	0.1816	0.1811	0.1763	0.1339	0.1153	0.2167	0.3454	0.4198	0.2261

Tabla 11: Azimut de 40°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9916	0.9919	0.9915	0.9912	0.9913	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	1.0041	0.9914	0.9776	0.9634	0.954	0.9493	0.9509	0.9562	0.9695	0.9873	0.9998	1.007	0.9759
10	1.0108	0.9858	0.9575	0.9289	0.9107	0.9017	0.9047	0.9146	0.9407	0.9774	1.0024	1.0166	0.9543
15	1.0111	0.9744	0.9315	0.8888	0.8618	0.8486	0.853	0.8671	0.9057	0.9618	0.999	1.02	0.9269
20	1.0049	0.9574	0.8997	0.8432	0.8079	0.7905	0.7962	0.814	0.8647	0.9405	0.9895	1.017	0.8938
25	0.9923	0.9349	0.8623	0.7926	0.7492	0.7279	0.7347	0.7559	0.8181	0.9137	0.9739	1.0077	0.8553
30	0.9735	0.907	0.8198	0.7373	0.6863	0.6612	0.6691	0.6932	0.7662	0.8816	0.9525	0.9921	0.8117
35	0.9485	0.8739	0.7723	0.6778	0.6197	0.5908	0.5998	0.6262	0.7094	0.8444	0.9254	0.9704	0.7632
40	0.9176	0.8359	0.7203	0.6145	0.5497	0.5175	0.5274	0.5556	0.6481	0.8024	0.8928	0.9428	0.7104
45	0.881	0.7934	0.6641	0.5479	0.4771	0.4416	0.4523	0.4819	0.5826	0.756	0.8549	0.9094	0.6535
50	0.839	0.7465	0.6043	0.4784	0.4022	0.3638	0.3751	0.4055	0.5136	0.7055	0.8121	0.8705	0.593
55	0.7918	0.6957	0.5413	0.4067	0.3256	0.2846	0.2965	0.3272	0.4415	0.6512	0.7646	0.8264	0.5294
60	0.7399	0.6414	0.4755	0.3331	0.2479	0.2045	0.2169	0.2473	0.367	0.5937	0.7128	0.7775	0.4631
65	0.6836	0.5839	0.4074	0.2583	0.199	0.2006	0.1925	0.1665	0.2904	0.5333	0.6571	0.724	0.4081
70	0.6234	0.5238	0.3375	0.1827	0.1957	0.1969	0.1894	0.132	0.2125	0.4705	0.598	0.6665	0.3607
75	0.5597	0.4614	0.2663	0.1765	0.1923	0.193	0.1862	0.1324	0.1337	0.4057	0.5358	0.6053	0.3207
80	0.493	0.3972	0.1944	0.1773	0.1887	0.1891	0.183	0.1334	0.1099	0.3395	0.4711	0.541	0.2848
85	0.4239	0.3318	0.1779	0.1752	0.1852	0.1851	0.1796	0.1337	0.1129	0.2724	0.4043	0.4739	0.2547
90	0.3528	0.2301	0.1751	0.173	0.1816	0.1811	0.1763	0.1341	0.1159	0.2167	0.336	0.4047	0.2231



Tabla 12: Azimut de 45°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9916	0.9919	0.9915	0.9912	0.9913	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	1.0029	0.9911	0.9784	0.9653	0.9567	0.9523	0.9538	0.9587	0.9709	0.9874	0.9989	1.0055	0.9768
10	1.0083	0.9853	0.9592	0.9329	0.916	0.9077	0.9104	0.9195	0.9436	0.9776	1.0006	1.0137	0.9562
15	1.0074	0.9737	0.934	0.8946	0.8697	0.8575	0.8615	0.8745	0.9101	0.962	0.9963	1.0157	0.9298
20	1	0.9565	0.9029	0.851	0.8184	0.8023	0.8075	0.8239	0.8706	0.9408	0.9859	1.0113	0.8976
25	0.9863	0.9337	0.8664	0.8022	0.7622	0.7425	0.7488	0.7681	0.8254	0.9141	0.9696	1.0006	0.86
30	0.9664	0.9056	0.8246	0.7487	0.7017	0.6784	0.6857	0.7076	0.7748	0.882	0.9474	0.9838	0.8172
35	0.9404	0.8723	0.7778	0.6909	0.6373	0.6107	0.6189	0.6428	0.7193	0.8449	0.9195	0.9608	0.7696
40	0.9085	0.8342	0.7264	0.6292	0.5695	0.5397	0.5488	0.5742	0.6592	0.803	0.8862	0.932	0.7176
45	0.8709	0.7914	0.6709	0.5641	0.4989	0.4661	0.4759	0.5024	0.5948	0.7567	0.8476	0.8976	0.6614
50	0.828	0.7444	0.6117	0.496	0.4258	0.3903	0.4007	0.4277	0.5268	0.7062	0.8041	0.8577	0.6016
55	0.7801	0.6935	0.5492	0.4254	0.3509	0.3129	0.3238	0.3509	0.4557	0.652	0.7561	0.8127	0.5386
60	0.7275	0.639	0.4839	0.3529	0.2747	0.2345	0.2458	0.2724	0.3819	0.5945	0.7038	0.763	0.4728
65	0.6706	0.5815	0.4162	0.279	0.199	0.2006	0.1925	0.1928	0.3061	0.5341	0.6477	0.7089	0.4108
70	0.6099	0.5212	0.3466	0.2042	0.1957	0.1969	0.1894	0.132	0.2287	0.4713	0.5882	0.6508	0.3612
75	0.5459	0.4588	0.2757	0.1765	0.1923	0.193	0.1862	0.1324	0.1504	0.4066	0.5258	0.5892	0.3194
80	0.4789	0.3946	0.2039	0.178	0.1887	0.1891	0.183	0.1344	0.1104	0.3404	0.4609	0.5245	0.2822
85	0.4096	0.3291	0.178	0.1759	0.1852	0.1851	0.1796	0.1348	0.1135	0.2733	0.394	0.4573	0.2513
90	0.3385	0.2301	0.1752	0.1737	0.1816	0.1811	0.1763	0.1351	0.1165	0.2167	0.3257	0.388	0.2199

Tabla 13: Azimut de 50°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9916	0.9919	0.9915	0.9912	0.9913	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	1.0015	0.9909	0.9793	0.9675	0.9596	0.9556	0.9569	0.9614	0.9725	0.9874	0.9979	1.0039	0.9779
10	1.0056	0.9848	0.961	0.9371	0.9218	0.9142	0.9167	0.9249	0.9468	0.9778	0.9987	1.0106	0.9583
15	1.0033	0.973	0.9367	0.901	0.8784	0.8672	0.8709	0.8826	0.9149	0.9623	0.9934	1.0109	0.9329
20	0.9947	0.9555	0.9065	0.8594	0.8298	0.8152	0.8199	0.8346	0.8769	0.9411	0.9821	1.005	0.9017
25	0.9797	0.9325	0.8708	0.8127	0.7763	0.7584	0.7641	0.7813	0.8333	0.9145	0.9648	0.9929	0.8651
30	0.9586	0.9041	0.8298	0.7611	0.7185	0.6973	0.7039	0.7233	0.7842	0.8825	0.9417	0.9746	0.8233
35	0.9314	0.8706	0.7838	0.7052	0.6566	0.6323	0.6397	0.6608	0.7301	0.8455	0.913	0.9504	0.7766
40	0.8984	0.8323	0.7332	0.6452	0.5911	0.5639	0.5721	0.5945	0.6712	0.8036	0.8789	0.9203	0.7254
45	0.8599	0.7893	0.6784	0.5817	0.5226	0.4927	0.5015	0.5246	0.6081	0.7574	0.8396	0.8847	0.67
50	0.8161	0.7421	0.6198	0.515	0.4515	0.4192	0.4285	0.4519	0.5412	0.7069	0.7955	0.8437	0.611
55	0.7673	0.691	0.5579	0.4458	0.3784	0.3438	0.3536	0.3767	0.471	0.6528	0.7468	0.7978	0.5486
60	0.714	0.6365	0.493	0.3745	0.3038	0.2672	0.2773	0.2997	0.3981	0.5953	0.694	0.7472	0.4834
65	0.6565	0.5788	0.4257	0.3016	0.2282	0.2006	0.2002	0.2214	0.323	0.535	0.6375	0.6923	0.4167
70	0.5953	0.5184	0.3565	0.2276	0.1957	0.1969	0.1894	0.1423	0.2463	0.4722	0.5776	0.6336	0.3627
75	0.5308	0.4559	0.2859	0.1765	0.1923	0.193	0.1862	0.1324	0.1685	0.4075	0.5149	0.5715	0.318
80	0.4636	0.3916	0.2143	0.1745	0.1887	0.1891	0.183	0.1329	0.105	0.3414	0.4498	0.5065	0.2784
85	0.3941	0.3261	0.1781	0.1766	0.1852	0.1851	0.1796	0.1358	0.114	0.2743	0.3828	0.4391	0.2476
90	0.3229	0.2301	0.1753	0.1745	0.1816	0.1811	0.1763	0.1362	0.117	0.2167	0.3144	0.3697	0.2163



Tabla 14: Azimut de 55°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Annual
0	0.9911	0.9912	0.9916	0.9919	0.9915	0.9912	0.9913	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	1.0001	0.9906	0.9803	0.9698	0.9627	0.9591	0.9603	0.9643	0.9742	0.9875	0.9969	1.0022	0.979
10	1.0027	0.9842	0.9629	0.9417	0.928	0.9212	0.9234	0.9308	0.9503	0.978	0.9966	1.0072	0.9606
15	0.999	0.9721	0.9396	0.9079	0.8877	0.8777	0.8809	0.8912	0.92	0.9626	0.9902	1.0058	0.9362
20	0.9889	0.9544	0.9104	0.8685	0.8421	0.829	0.8332	0.8461	0.8838	0.9415	0.9779	0.9983	0.9062
25	0.9726	0.9311	0.8756	0.8239	0.7915	0.7755	0.7805	0.7956	0.8417	0.9149	0.9597	0.9846	0.8706
30	0.9502	0.9025	0.8354	0.7744	0.7365	0.7175	0.7233	0.7402	0.7942	0.883	0.9357	0.9648	0.8298
35	0.9218	0.8688	0.7903	0.7204	0.6772	0.6555	0.6621	0.6802	0.7416	0.8461	0.9061	0.9391	0.7841
40	0.8877	0.8302	0.7404	0.6623	0.6143	0.59	0.5972	0.6162	0.6841	0.8043	0.8711	0.9077	0.7338
45	0.848	0.7871	0.6864	0.6005	0.5481	0.5214	0.5291	0.5486	0.6223	0.7581	0.831	0.8708	0.6793
50	0.8032	0.7397	0.6285	0.5355	0.4791	0.4502	0.4584	0.4778	0.5566	0.7078	0.7862	0.8287	0.621
55	0.7536	0.6884	0.5672	0.4677	0.4079	0.377	0.3856	0.4044	0.4875	0.6537	0.7369	0.7817	0.5593
60	0.6995	0.6337	0.5028	0.3976	0.335	0.3023	0.3111	0.329	0.4155	0.5963	0.6835	0.7302	0.4947
65	0.6413	0.5759	0.436	0.3258	0.2609	0.2267	0.2356	0.2521	0.3412	0.536	0.6265	0.6745	0.4277
70	0.5795	0.5154	0.3671	0.2527	0.1957	0.1969	0.1894	0.1742	0.2652	0.4733	0.5662	0.6152	0.3659
75	0.5146	0.4528	0.2968	0.179	0.1923	0.193	0.1862	0.1324	0.1879	0.4086	0.5032	0.5526	0.3166
80	0.4471	0.3885	0.2255	0.1745	0.1887	0.1891	0.183	0.1329	0.11	0.3424	0.4378	0.4872	0.2756
85	0.3774	0.3229	0.1782	0.1773	0.1852	0.1851	0.1796	0.1368	0.1144	0.2753	0.3707	0.4195	0.2435
90	0.3061	0.2301	0.1754	0.1752	0.1816	0.1811	0.1763	0.1372	0.1175	0.2167	0.3023	0.3501	0.2124

Tabla 15: Azimut de 60°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Annual
0	0.9911	0.9912	0.9916	0.9919	0.9915	0.9912	0.9913	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9985	0.9903	0.9814	0.9722	0.966	0.9628	0.9639	0.9674	0.9761	0.9876	0.9957	1.0004	0.9802
10	0.9996	0.9836	0.965	0.9466	0.9346	0.9286	0.9306	0.9369	0.9539	0.9782	0.9943	1.0035	0.963
15	0.9944	0.9712	0.9427	0.9151	0.8975	0.8888	0.8916	0.9005	0.9255	0.9629	0.9869	1.0004	0.9398
20	0.9828	0.9532	0.9145	0.8781	0.8551	0.8437	0.8473	0.8583	0.891	0.9419	0.9735	0.9912	0.9109
25	0.9651	0.9297	0.8806	0.8358	0.8077	0.7936	0.798	0.8107	0.8507	0.9154	0.9542	0.9758	0.8764
30	0.9413	0.9008	0.8414	0.7885	0.7556	0.739	0.744	0.7581	0.8049	0.8836	0.9292	0.9544	0.8367
35	0.9116	0.8668	0.7971	0.7366	0.6992	0.6802	0.6858	0.7008	0.7538	0.8467	0.8986	0.9271	0.792
40	0.8762	0.828	0.7481	0.6805	0.6389	0.6176	0.6238	0.6392	0.6978	0.8051	0.8628	0.8943	0.7427
45	0.8354	0.7847	0.6949	0.6205	0.5752	0.5518	0.5584	0.5739	0.6373	0.7589	0.8219	0.856	0.6891
50	0.7896	0.7371	0.6377	0.5572	0.5085	0.4832	0.4901	0.5053	0.5729	0.7086	0.7763	0.8127	0.6316
55	0.739	0.6856	0.577	0.4909	0.4393	0.4123	0.4195	0.4338	0.5049	0.6546	0.7263	0.7646	0.5706
60	0.684	0.6307	0.5133	0.4221	0.3682	0.3396	0.347	0.3601	0.4339	0.5973	0.6723	0.7121	0.5067
65	0.6252	0.5728	0.4469	0.3514	0.2956	0.2657	0.2731	0.2846	0.3605	0.537	0.6148	0.6556	0.4403
70	0.5628	0.5122	0.3784	0.2793	0.222	0.1969	0.1985	0.2079	0.2852	0.4743	0.5541	0.5955	0.3723
75	0.4974	0.4495	0.3084	0.2063	0.1923	0.193	0.1862	0.1324	0.2084	0.4097	0.4907	0.5324	0.3172
80	0.4295	0.3851	0.2373	0.1745	0.1887	0.1891	0.183	0.1329	0.1309	0.3435	0.4251	0.4666	0.2739
85	0.3596	0.3195	0.1783	0.1779	0.1858	0.1851	0.1796	0.1378	0.1148	0.2765	0.3578	0.3987	0.2393
90	0.2883	0.2301	0.1755	0.1758	0.182	0.1811	0.1763	0.1382	0.1179	0.2167	0.2893	0.3292	0.2084



Tabla 16: Azimut de 65°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9916	0.9919	0.9915	0.9912	0.9913	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9969	0.99	0.9825	0.9748	0.9695	0.9668	0.9677	0.9707	0.978	0.9877	0.9946	0.9985	0.9815
10	0.9964	0.983	0.9672	0.9517	0.9415	0.9364	0.9381	0.9434	0.9578	0.9784	0.992	0.9997	0.9655
15	0.9895	0.9703	0.9459	0.9228	0.9079	0.9005	0.9028	0.9102	0.9313	0.9632	0.9834	0.9948	0.9435
20	0.9764	0.952	0.9188	0.8882	0.8688	0.8591	0.8622	0.8711	0.8986	0.9423	0.9688	0.9836	0.9158
25	0.9572	0.9281	0.8859	0.8483	0.8246	0.8127	0.8163	0.8266	0.8601	0.9159	0.9485	0.9665	0.8826
30	0.9319	0.899	0.8477	0.8034	0.7756	0.7616	0.7657	0.7769	0.8161	0.8842	0.9224	0.9434	0.844
35	0.9008	0.8648	0.8043	0.7537	0.7222	0.7061	0.7107	0.7223	0.7666	0.8474	0.8909	0.9145	0.8004
40	0.8641	0.8257	0.7562	0.6996	0.6647	0.6467	0.6517	0.6634	0.7121	0.8058	0.8541	0.8801	0.752
45	0.8222	0.7821	0.7038	0.6415	0.6036	0.5838	0.5891	0.6005	0.6531	0.7598	0.8123	0.8405	0.6993
50	0.7752	0.7343	0.6474	0.5799	0.5392	0.5178	0.5234	0.5341	0.5899	0.7096	0.7659	0.7958	0.6427
55	0.7236	0.6827	0.5874	0.5152	0.4722	0.4493	0.4551	0.4647	0.5232	0.6556	0.7152	0.7466	0.5826
60	0.6678	0.6276	0.5242	0.4478	0.403	0.3787	0.3846	0.3927	0.4533	0.5983	0.6606	0.6931	0.5193
65	0.6082	0.5695	0.4583	0.3783	0.332	0.3066	0.3125	0.3187	0.3807	0.5381	0.6025	0.6357	0.4534
70	0.5452	0.5088	0.3903	0.3072	0.2598	0.2336	0.2394	0.2433	0.3061	0.4754	0.5413	0.5749	0.3854
75	0.4793	0.446	0.3206	0.235	0.1923	0.193	0.1862	0.1669	0.23	0.4108	0.4776	0.5112	0.3207
80	0.4111	0.3816	0.2498	0.1745	0.1887	0.1891	0.183	0.1329	0.1529	0.3447	0.4117	0.445	0.2721
85	0.341	0.316	0.1783	0.1785	0.187	0.1851	0.1801	0.1388	0.1152	0.2777	0.3443	0.3768	0.2349
90	0.2695	0.2301	0.1755	0.1764	0.1832	0.1811	0.1765	0.1391	0.1182	0.2167	0.2758	0.3072	0.2041

Tabla 17: Azimut de 70°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9916	0.9919	0.9915	0.9912	0.9913	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9952	0.9897	0.9836	0.9775	0.9731	0.9708	0.9716	0.9741	0.98	0.9879	0.9933	0.9965	0.9828
10	0.993	0.9824	0.9695	0.957	0.9488	0.9446	0.9459	0.9502	0.9618	0.9786	0.9895	0.9957	0.9681
15	0.9845	0.9693	0.9493	0.9307	0.9187	0.9126	0.9145	0.9203	0.9372	0.9635	0.9797	0.9888	0.9474
20	0.9697	0.9507	0.9232	0.8988	0.8831	0.8752	0.8776	0.8845	0.9065	0.9427	0.964	0.9758	0.921
25	0.9489	0.9266	0.8915	0.8614	0.8423	0.8325	0.8354	0.8431	0.8699	0.9165	0.9425	0.9568	0.8889
30	0.9221	0.8971	0.8542	0.8188	0.7965	0.785	0.7883	0.7964	0.8276	0.8848	0.9153	0.9319	0.8515
35	0.8896	0.8626	0.8118	0.7713	0.7462	0.733	0.7367	0.7448	0.7798	0.8481	0.8827	0.9014	0.809
40	0.8516	0.8233	0.7647	0.7194	0.6916	0.6769	0.6808	0.6886	0.727	0.8066	0.845	0.8654	0.7617
45	0.8084	0.7795	0.7131	0.6633	0.6331	0.617	0.6211	0.6282	0.6694	0.7606	0.8023	0.8243	0.71
50	0.7602	0.7315	0.6574	0.6035	0.5713	0.5538	0.5581	0.5641	0.6077	0.7105	0.7551	0.7783	0.6543
55	0.7076	0.6796	0.5981	0.5405	0.5064	0.4878	0.4921	0.4967	0.5421	0.6566	0.7036	0.7278	0.5949
60	0.6509	0.6244	0.5356	0.4746	0.4391	0.4194	0.4238	0.4266	0.4733	0.5994	0.6483	0.6732	0.5324
65	0.5905	0.5661	0.4703	0.4063	0.3699	0.3493	0.3535	0.3542	0.4017	0.5392	0.5897	0.615	0.4671
70	0.5268	0.5053	0.4027	0.3362	0.2991	0.2777	0.2819	0.2801	0.3279	0.4766	0.528	0.5534	0.3996
75	0.4604	0.4424	0.3333	0.2648	0.2274	0.2054	0.2094	0.2048	0.2523	0.412	0.4639	0.4891	0.3304
80	0.3918	0.3779	0.2627	0.1926	0.1887	0.1891	0.183	0.1329	0.1757	0.346	0.3978	0.4224	0.2717
85	0.3215	0.3123	0.1914	0.1791	0.1882	0.186	0.1816	0.1397	0.1155	0.2789	0.3302	0.354	0.2315
90	0.25	0.2301	0.1756	0.177	0.1845	0.1817	0.1781	0.1401	0.1185	0.2167	0.2616	0.2843	0.1998



Tabla 18: Azimut de 75°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9916	0.9919	0.9915	0.9912	0.9913	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9934	0.9893	0.9848	0.9802	0.9769	0.9751	0.9757	0.9776	0.9821	0.988	0.992	0.9944	0.9841
10	0.9895	0.9817	0.9718	0.9625	0.9562	0.953	0.954	0.9572	0.9659	0.9788	0.987	0.9916	0.9708
15	0.9792	0.9683	0.9528	0.9389	0.9298	0.9251	0.9266	0.9307	0.9434	0.9638	0.9759	0.9827	0.9515
20	0.9628	0.9494	0.9279	0.9096	0.8978	0.8917	0.8935	0.8983	0.9147	0.9432	0.959	0.9677	0.9263
25	0.9404	0.9249	0.8972	0.8748	0.8605	0.853	0.8551	0.8601	0.88	0.917	0.9363	0.9468	0.8955
30	0.9121	0.8952	0.861	0.8347	0.8181	0.8093	0.8117	0.8166	0.8396	0.8855	0.908	0.9201	0.8593
35	0.878	0.8604	0.8196	0.7896	0.7709	0.7608	0.7634	0.7679	0.7935	0.8489	0.8744	0.8879	0.8179
40	0.8386	0.8208	0.7734	0.7398	0.7192	0.708	0.7108	0.7145	0.7423	0.8075	0.8356	0.8503	0.7717
45	0.7941	0.7768	0.7227	0.6858	0.6636	0.6512	0.6541	0.6567	0.6863	0.7616	0.792	0.8076	0.721
50	0.7448	0.7285	0.6678	0.6279	0.6042	0.5909	0.5938	0.595	0.6259	0.7115	0.7439	0.7602	0.6662
55	0.6911	0.6765	0.6092	0.5665	0.5417	0.5275	0.5303	0.5297	0.5616	0.6577	0.6916	0.7085	0.6077
60	0.6334	0.621	0.5473	0.5021	0.4764	0.4614	0.4642	0.4615	0.4939	0.6005	0.6357	0.6528	0.5459
65	0.5722	0.5626	0.4825	0.4351	0.4089	0.3932	0.3958	0.3907	0.4233	0.5404	0.5764	0.5935	0.4812
70	0.5079	0.5017	0.4154	0.3661	0.3396	0.3233	0.3257	0.3179	0.3503	0.4778	0.5143	0.5312	0.4143
75	0.441	0.4387	0.3464	0.2955	0.269	0.2523	0.2545	0.2437	0.2754	0.4133	0.4498	0.4663	0.3455
80	0.372	0.3741	0.2761	0.224	0.1978	0.1891	0.183	0.1686	0.1992	0.3472	0.3834	0.3992	0.2761
85	0.3014	0.3084	0.2049	0.1725	0.1852	0.1851	0.1796	0.1334	0.1223	0.2802	0.3157	0.3305	0.2266
90	0.2298	0.2301	0.1756	0.1775	0.1857	0.1835	0.1796	0.1409	0.1188	0.2167	0.247	0.2607	0.1955

Tabla 19: Azimut de 80°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9916	0.9919	0.9915	0.9912	0.9913	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9916	0.989	0.986	0.983	0.9807	0.9794	0.9798	0.9811	0.9842	0.9881	0.9907	0.9923	0.9855
10	0.9859	0.981	0.9742	0.9682	0.9639	0.9616	0.9623	0.9643	0.9701	0.979	0.9844	0.9874	0.9735
15	0.9739	0.9673	0.9564	0.9473	0.9412	0.938	0.9389	0.9413	0.9497	0.9642	0.9721	0.9765	0.9556
20	0.9558	0.948	0.9326	0.9207	0.9129	0.9087	0.9099	0.9123	0.923	0.9436	0.9539	0.9595	0.9317
25	0.9317	0.9233	0.903	0.8885	0.8791	0.874	0.8753	0.8775	0.8903	0.9176	0.93	0.9366	0.9022
30	0.9017	0.8932	0.8679	0.8509	0.8401	0.834	0.8355	0.8372	0.8517	0.8861	0.9006	0.908	0.8673
35	0.8662	0.8582	0.8275	0.8082	0.7961	0.7892	0.7908	0.7915	0.8075	0.8496	0.8658	0.874	0.827
40	0.8254	0.8183	0.7823	0.7607	0.7475	0.7399	0.7414	0.741	0.7579	0.8083	0.826	0.8347	0.7819
45	0.7795	0.774	0.7325	0.7087	0.6947	0.6863	0.6878	0.6858	0.7035	0.7625	0.7814	0.7905	0.7323
50	0.729	0.7255	0.6784	0.6527	0.638	0.6289	0.6303	0.6265	0.6445	0.7125	0.7324	0.7417	0.6784
55	0.6742	0.6732	0.6206	0.5931	0.5778	0.5681	0.5694	0.5635	0.5816	0.6588	0.6794	0.6887	0.6207
60	0.6155	0.6176	0.5593	0.5302	0.5146	0.5043	0.5055	0.4972	0.515	0.6016	0.6227	0.6319	0.5596
65	0.5535	0.5591	0.4951	0.4645	0.4488	0.4381	0.439	0.428	0.4453	0.5416	0.5629	0.5716	0.4956
70	0.4885	0.498	0.4284	0.3966	0.381	0.3699	0.3705	0.3567	0.3731	0.4791	0.5003	0.5085	0.4292
75	0.421	0.4349	0.3598	0.3269	0.3116	0.3002	0.3005	0.2835	0.2989	0.4145	0.4354	0.4429	0.3608
80	0.3516	0.3702	0.2897	0.256	0.2412	0.2295	0.2295	0.2092	0.2232	0.3485	0.3687	0.3754	0.2911
85	0.2809	0.3045	0.2188	0.1843	0.1852	0.1851	0.1796	0.1342	0.1466	0.2815	0.3008	0.3064	0.2257
90	0.2092	0.2301	0.1757	0.1779	0.1869	0.1852	0.181	0.1417	0.119	0.2167	0.2321	0.2365	0.191



Tabla 20: Azimut de 85°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9916	0.9919	0.9915	0.9912	0.9913	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9898	0.9886	0.9872	0.9859	0.9846	0.9838	0.984	0.9848	0.9863	0.9882	0.9894	0.9902	0.9869
10	0.9822	0.9803	0.9767	0.9739	0.9716	0.9703	0.9707	0.9716	0.9744	0.9793	0.9818	0.9832	0.9763
15	0.9685	0.9663	0.96	0.9559	0.9528	0.951	0.9515	0.9522	0.9561	0.9645	0.9682	0.9701	0.9597
20	0.9486	0.9467	0.9374	0.932	0.9282	0.9259	0.9264	0.9266	0.9314	0.9441	0.9487	0.9511	0.9373
25	0.9228	0.9216	0.909	0.9024	0.898	0.8952	0.8957	0.8952	0.9007	0.9181	0.9236	0.9262	0.909
30	0.8913	0.8912	0.875	0.8673	0.8624	0.8592	0.8597	0.858	0.8641	0.8868	0.893	0.8958	0.8753
35	0.8542	0.8559	0.8356	0.827	0.8217	0.8181	0.8185	0.8155	0.8216	0.8504	0.8571	0.8599	0.8363
40	0.8119	0.8157	0.7913	0.7818	0.7762	0.7722	0.7725	0.7678	0.7737	0.8092	0.8162	0.8189	0.7923
45	0.7647	0.7711	0.7424	0.732	0.7263	0.7218	0.722	0.7153	0.7209	0.7634	0.7707	0.7731	0.7436
50	0.7129	0.7224	0.6892	0.6779	0.6722	0.6674	0.6673	0.6585	0.6634	0.7135	0.7208	0.7229	0.6907
55	0.657	0.67	0.6321	0.62	0.6144	0.6092	0.609	0.5977	0.6017	0.6598	0.667	0.6686	0.6339
60	0.5974	0.6142	0.5715	0.5586	0.5532	0.5478	0.5473	0.5333	0.5363	0.6028	0.6096	0.6106	0.5736
65	0.5345	0.5554	0.5078	0.4943	0.4893	0.4836	0.4828	0.4659	0.4677	0.5428	0.5491	0.5494	0.5102
70	0.4688	0.4942	0.4416	0.4275	0.423	0.4171	0.416	0.3959	0.3963	0.4803	0.486	0.4854	0.4443
75	0.4008	0.431	0.3734	0.3587	0.3547	0.3487	0.3472	0.3239	0.3227	0.4158	0.4207	0.4192	0.3764
80	0.331	0.3663	0.3036	0.2884	0.2852	0.279	0.2772	0.2504	0.2474	0.3498	0.3538	0.3512	0.3069
85	0.26	0.3005	0.2328	0.2171	0.2148	0.2085	0.2063	0.1759	0.1711	0.2828	0.2856	0.282	0.2365
90	0.1883	0.2301	0.1757	0.1783	0.188	0.1868	0.1825	0.1424	0.1191	0.2167	0.2169	0.212	0.1864

Tabla 21: Azimut de 90°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9916	0.9919	0.9915	0.9912	0.9913	0.9916	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	0.9791
15	0.963	0.9652	0.9637	0.9644	0.9644	0.9641	0.9641	0.963	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	0.9445	0.9435	0.9426	0.9428
25	0.9139	0.9199	0.915	0.9164	0.917	0.9166	0.9163	0.9129	0.9112	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	0.8051	0.8047	0.8038	0.7948	0.7897	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	0.7	0.7033	0.7066	0.7061	0.7046	0.6907	0.6824	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	0.5837	0.5873	0.5922	0.5916	0.5895	0.5697	0.5578	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	0.5352	0.527	0.5249
70	0.4489	0.4904	0.4549	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	0.3907	0.3982	0.3976	0.3943	0.3645	0.3466	0.4171	0.4059	0.3953	0.3921
80	0.3102	0.3623	0.3175	0.321	0.3295	0.3289	0.3251	0.2918	0.2719	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	0.1891	0.1884	0.1838	0.1431	0.1191	0.2167	0.2016	0.1872	0.1817



Tabla 22: Azimut de 95°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Annual
0	0.9911	0.9912	0.9916	0.9919	0.9915	0.9912	0.9913	0.9916	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	0.9868	0.9859	0.9897
10	0.9749	0.9789	0.9816	0.9854	0.9873	0.9879	0.9876	0.9862	0.983	0.9797	0.9764	0.9746	0.982
15	0.9575	0.9642	0.9674	0.973	0.9761	0.9772	0.9767	0.9739	0.9689	0.9652	0.9602	0.9573	0.9681
20	0.9342	0.9439	0.9471	0.9546	0.9589	0.9605	0.9597	0.9554	0.9484	0.945	0.9382	0.9342	0.9483
25	0.905	0.9182	0.921	0.9303	0.936	0.938	0.9369	0.9307	0.9216	0.9193	0.9107	0.9053	0.9227
30	0.8701	0.8872	0.8891	0.9004	0.9074	0.9098	0.9084	0.9	0.8888	0.8882	0.8777	0.871	0.8915
35	0.83	0.8512	0.8519	0.865	0.8733	0.8761	0.8743	0.8636	0.85	0.8519	0.8395	0.8315	0.8549
40	0.7847	0.8105	0.8095	0.8243	0.834	0.8372	0.835	0.8218	0.8055	0.8109	0.7966	0.7871	0.8131
45	0.7348	0.7654	0.7624	0.7787	0.7898	0.7933	0.7908	0.7747	0.7559	0.7653	0.749	0.7382	0.7665
50	0.6806	0.7162	0.7109	0.7285	0.741	0.7448	0.7418	0.7228	0.7013	0.7156	0.6974	0.685	0.7155
55	0.6224	0.6633	0.6552	0.6741	0.6879	0.692	0.6886	0.6664	0.6422	0.6621	0.6419	0.6281	0.6604
60	0.5608	0.6072	0.596	0.6159	0.631	0.6354	0.6315	0.606	0.5791	0.6051	0.5831	0.5677	0.6016
65	0.4962	0.5481	0.5335	0.5542	0.5707	0.5752	0.571	0.5419	0.5125	0.5452	0.5214	0.5045	0.5395
70	0.4291	0.4866	0.4682	0.4896	0.5074	0.5121	0.5074	0.4748	0.4428	0.4829	0.4572	0.4389	0.4747
75	0.36	0.4232	0.4007	0.4226	0.4415	0.4464	0.4412	0.405	0.3705	0.4184	0.3912	0.3714	0.4077
80	0.2894	0.3583	0.3315	0.3535	0.3737	0.3786	0.373	0.3331	0.2962	0.3525	0.3236	0.3025	0.3388
85	0.2179	0.2924	0.261	0.2831	0.3043	0.3093	0.3032	0.2596	0.2205	0.2855	0.2552	0.2327	0.2687
90	0.1671	0.2301	0.1898	0.2117	0.234	0.239	0.2325	0.1851	0.1439	0.218	0.2016	0.1872	0.2033

Tabla 23: Azimut de 100°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Annual
0	0.9911	0.9912	0.9916	0.9919	0.9915	0.9912	0.9913	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9843	0.9876	0.9909	0.9945	0.9963	0.997	0.9967	0.9958	0.9928	0.9885	0.9854	0.9837	0.9911
10	0.9713	0.9782	0.984	0.9911	0.995	0.9966	0.996	0.9934	0.9873	0.98	0.9738	0.9703	0.9848
15	0.9521	0.9632	0.971	0.9815	0.9876	0.9902	0.9892	0.9847	0.9752	0.9656	0.9563	0.9509	0.9723
20	0.927	0.9425	0.9519	0.9658	0.9742	0.9777	0.9762	0.9696	0.9567	0.9455	0.9331	0.9258	0.9538
25	0.8961	0.9165	0.9269	0.9442	0.9548	0.9592	0.9573	0.9483	0.9319	0.9198	0.9042	0.895	0.9295
30	0.8597	0.8852	0.8962	0.9168	0.9296	0.9349	0.9325	0.9208	0.901	0.8888	0.8701	0.8588	0.8995
35	0.8179	0.8489	0.8599	0.8837	0.8988	0.9049	0.902	0.8875	0.864	0.8527	0.8308	0.8175	0.8641
40	0.7713	0.808	0.8185	0.8453	0.8626	0.8694	0.866	0.8485	0.8213	0.8118	0.7868	0.7713	0.8234
45	0.72	0.7626	0.7723	0.8018	0.8212	0.8287	0.8248	0.8041	0.7731	0.7663	0.7383	0.7208	0.7778
50	0.6645	0.7132	0.7216	0.7536	0.7751	0.7832	0.7787	0.7546	0.72	0.7166	0.6857	0.6662	0.7277
55	0.6053	0.6601	0.6667	0.7009	0.7244	0.7331	0.7281	0.7004	0.6623	0.6632	0.6295	0.6079	0.6735
60	0.5427	0.6037	0.6081	0.6442	0.6695	0.6787	0.6732	0.6419	0.6003	0.6063	0.5699	0.5465	0.6154
65	0.4772	0.5445	0.5462	0.5838	0.611	0.6206	0.6146	0.5796	0.5346	0.5465	0.5076	0.4823	0.554
70	0.4094	0.4829	0.4814	0.5203	0.5491	0.5591	0.5526	0.5138	0.4657	0.4841	0.443	0.4159	0.4898
75	0.3397	0.4193	0.4143	0.4541	0.4845	0.4948	0.4877	0.4451	0.3941	0.4197	0.3765	0.3477	0.4231
80	0.2688	0.3544	0.3453	0.3857	0.4175	0.428	0.4204	0.374	0.3203	0.3538	0.3087	0.2783	0.3546
85	0.197	0.2884	0.275	0.3157	0.3487	0.3592	0.3513	0.301	0.2449	0.2868	0.24	0.2082	0.2847
90	0.1671	0.2301	0.2039	0.2444	0.2785	0.2891	0.2807	0.2267	0.1684	0.2193	0.2016	0.1872	0.2248



Tabla 24: Azimut de 105°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9916	0.9919	0.9915	0.9912	0.9913	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9825	0.9872	0.9921	0.9974	1.0002	1.0013	1.0009	0.9993	0.9949	0.9887	0.9841	0.9816	0.9925
10	0.9677	0.9775	0.9864	0.9967	1.0026	1.0052	1.0043	1.0006	0.9915	0.9802	0.9712	0.9661	0.9875
15	0.9468	0.9621	0.9746	0.9898	0.999	1.003	1.0015	0.9953	0.9815	0.9659	0.9524	0.9447	0.9764
20	0.9199	0.9412	0.9566	0.9768	0.9892	0.9946	0.9925	0.9836	0.965	0.9459	0.9279	0.9175	0.9592
25	0.8874	0.9148	0.9327	0.9578	0.9734	0.9801	0.9774	0.9656	0.9421	0.9204	0.8979	0.8847	0.9362
30	0.8493	0.8832	0.9031	0.9329	0.9515	0.9596	0.9562	0.9413	0.913	0.8895	0.8626	0.8467	0.9074
35	0.8061	0.8467	0.8679	0.9022	0.9239	0.9332	0.9292	0.9109	0.8778	0.8535	0.8223	0.8036	0.8731
40	0.758	0.8054	0.8274	0.866	0.8907	0.9011	0.8965	0.8747	0.8367	0.8126	0.7772	0.7558	0.8335
45	0.7054	0.7598	0.7821	0.8246	0.8522	0.8636	0.8583	0.8329	0.7901	0.7672	0.7277	0.7037	0.789
50	0.6487	0.7101	0.7322	0.7782	0.8086	0.8209	0.815	0.7859	0.7384	0.7176	0.6743	0.6477	0.7398
55	0.5884	0.6568	0.678	0.7272	0.7602	0.7734	0.7669	0.7339	0.6819	0.6642	0.6172	0.5881	0.6864
60	0.5248	0.6003	0.62	0.672	0.7074	0.7214	0.7143	0.6773	0.6211	0.6074	0.557	0.5255	0.629
65	0.4585	0.5409	0.5587	0.613	0.6506	0.6653	0.6575	0.6166	0.5564	0.5476	0.4941	0.4604	0.5683
70	0.39	0.4792	0.4944	0.5505	0.5902	0.6054	0.5971	0.5522	0.4883	0.4853	0.4289	0.3931	0.5046
75	0.3198	0.4155	0.4276	0.4852	0.5267	0.5423	0.5335	0.4846	0.4173	0.421	0.3621	0.3243	0.4383
80	0.2484	0.3505	0.3589	0.4174	0.4606	0.4765	0.4671	0.4142	0.3439	0.3551	0.294	0.2545	0.3701
85	0.1765	0.2845	0.2887	0.3477	0.3922	0.4083	0.3985	0.3417	0.2688	0.2882	0.2252	0.1917	0.301
90	0.1671	0.2301	0.2177	0.2766	0.3223	0.3384	0.3281	0.2676	0.1924	0.2207	0.2016	0.1872	0.2458

Tabla 25: Azimut de 110°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9916	0.9919	0.9915	0.9912	0.9913	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9807	0.9869	0.9933	1.0001	1.0039	1.0055	1.0049	1.0028	0.997	0.9888	0.9829	0.9796	0.9939
10	0.9642	0.9769	0.9888	1.0022	1.0101	1.0136	1.0124	1.0075	0.9955	0.9804	0.9687	0.962	0.9902
15	0.9416	0.9611	0.9781	0.998	1.0101	1.0155	1.0135	1.0057	0.9875	0.9662	0.9487	0.9386	0.9804
20	0.9131	0.9399	0.9613	0.9876	1.0039	1.0111	1.0083	0.9973	0.973	0.9464	0.923	0.9094	0.9645
25	0.8789	0.9132	0.9385	0.9711	0.9914	1.0004	0.9969	0.9825	0.952	0.9209	0.8918	0.8748	0.9427
30	0.8393	0.8813	0.9098	0.9486	0.9729	0.9836	0.9794	0.9612	0.9247	0.8901	0.8553	0.8349	0.9151
35	0.7945	0.8444	0.8756	0.9202	0.9485	0.9608	0.9557	0.9338	0.8912	0.8542	0.8139	0.79	0.8819
40	0.745	0.8029	0.836	0.8862	0.9182	0.932	0.9262	0.9003	0.8517	0.8134	0.7678	0.7406	0.8434
45	0.6912	0.7571	0.7916	0.8467	0.8824	0.8976	0.8911	0.8611	0.8067	0.7681	0.7174	0.687	0.7998
50	0.6333	0.7072	0.7425	0.8022	0.8413	0.8578	0.8505	0.8164	0.7563	0.7186	0.6631	0.6296	0.7515
55	0.5718	0.6537	0.689	0.7529	0.7951	0.8128	0.8048	0.7665	0.7011	0.6653	0.6053	0.5688	0.6989
60	0.5073	0.5969	0.6317	0.6991	0.7443	0.763	0.7543	0.7117	0.6413	0.6085	0.5444	0.5051	0.6423
65	0.4402	0.5374	0.5709	0.6413	0.6893	0.7088	0.6994	0.6526	0.5776	0.5488	0.4808	0.439	0.5822
70	0.3711	0.4755	0.507	0.58	0.6303	0.6506	0.6406	0.5896	0.5103	0.4866	0.4152	0.371	0.519
75	0.3003	0.4118	0.4406	0.5154	0.568	0.5888	0.5781	0.523	0.4399	0.4222	0.3479	0.3015	0.4531
80	0.2286	0.3467	0.3722	0.4483	0.5026	0.5238	0.5126	0.4534	0.367	0.3564	0.2796	0.2312	0.3852
85	0.1695	0.2807	0.3022	0.3789	0.4348	0.4562	0.4445	0.3814	0.2921	0.2894	0.2106	0.1917	0.3193
90	0.1671	0.2301	0.2312	0.308	0.365	0.3865	0.3743	0.3074	0.2158	0.2219	0.2016	0.1872	0.2664

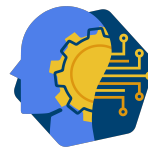


Tabla 26: Azimut de 115°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9916	0.9919	0.9915	0.9912	0.9913	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.979	0.9866	0.9944	1.0028	1.0075	1.0096	1.0089	1.0062	0.9989	0.9889	0.9816	0.9776	0.9952
10	0.9608	0.9762	0.9911	1.0075	1.0173	1.0217	1.0202	1.0143	0.9995	0.9806	0.9662	0.9581	0.9928
15	0.9365	0.9602	0.9815	1.0059	1.0208	1.0276	1.0251	1.0157	0.9934	0.9666	0.945	0.9327	0.9842
20	0.9064	0.9386	0.9657	0.998	1.018	1.0271	1.0237	1.0105	0.9807	0.9468	0.9181	0.9016	0.9696
25	0.8706	0.9116	0.944	0.9839	1.0089	1.0202	1.0159	0.9988	0.9616	0.9214	0.8858	0.8651	0.949
30	0.8295	0.8794	0.9164	0.9638	0.9936	1.007	1.0018	0.9805	0.936	0.8908	0.8482	0.8234	0.9225
35	0.7833	0.8423	0.8831	0.9376	0.9722	0.9875	0.9814	0.9559	0.9042	0.8549	0.8058	0.7769	0.8904
40	0.7325	0.8005	0.8445	0.9056	0.9448	0.962	0.955	0.9251	0.8663	0.8142	0.7587	0.7259	0.8529
45	0.6773	0.7544	0.8008	0.8681	0.9116	0.9305	0.9227	0.8883	0.8226	0.769	0.7074	0.6708	0.8103
50	0.6183	0.7043	0.7524	0.8254	0.8729	0.8934	0.8847	0.8459	0.7736	0.7196	0.6523	0.6121	0.7629
55	0.5558	0.6506	0.6997	0.7776	0.8289	0.8509	0.8414	0.798	0.7196	0.6663	0.5937	0.5501	0.7111
60	0.4904	0.5937	0.643	0.7253	0.7801	0.8033	0.793	0.7451	0.6609	0.6096	0.5321	0.4853	0.6551
65	0.4225	0.534	0.5827	0.6688	0.7267	0.751	0.7399	0.6875	0.598	0.5499	0.468	0.4182	0.5956
70	0.3527	0.472	0.5192	0.6084	0.6691	0.6943	0.6826	0.6257	0.5315	0.4877	0.4019	0.3495	0.5329
75	0.2815	0.4082	0.4532	0.5447	0.6078	0.6337	0.6213	0.5602	0.4617	0.4235	0.3343	0.2794	0.4674
80	0.2094	0.343	0.385	0.4781	0.5432	0.5696	0.5567	0.4914	0.3893	0.3576	0.2656	0.2087	0.3998
85	0.1695	0.277	0.3152	0.4091	0.4759	0.5025	0.4891	0.4198	0.3146	0.2907	0.2071	0.1917	0.3385
90	0.1671	0.2301	0.2442	0.3383	0.4063	0.433	0.419	0.3459	0.2385	0.2232	0.2016	0.1872	0.2862

Tabla 27: Azimut de 120°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9916	0.9919	0.9915	0.9912	0.9913	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9774	0.9863	0.9955	1.0053	1.011	1.0135	1.0126	1.0095	1.0009	0.989	0.9804	0.9757	0.9964
10	0.9575	0.9756	0.9932	1.0126	1.0242	1.0295	1.0277	1.0207	1.0033	0.9808	0.9639	0.9542	0.9953
15	0.9317	0.9592	0.9847	1.0134	1.0311	1.0392	1.0363	1.0253	0.9991	0.9669	0.9415	0.927	0.988
20	0.9	0.9374	0.9701	1.008	1.0316	1.0424	1.0384	1.0232	0.9882	0.9472	0.9135	0.8941	0.9745
25	0.8627	0.9101	0.9493	0.9963	1.0257	1.0391	1.0341	1.0145	0.9707	0.922	0.88	0.8558	0.955
30	0.8201	0.8776	0.9227	0.9783	1.0135	1.0293	1.0233	0.9991	0.9468	0.8914	0.8414	0.8124	0.9297
35	0.7726	0.8402	0.8903	0.9543	0.9949	1.0132	1.0061	0.9771	0.9166	0.8556	0.798	0.7643	0.8986
40	0.7204	0.7982	0.8526	0.9243	0.9703	0.9907	0.9826	0.9489	0.8802	0.815	0.75	0.7118	0.8621
45	0.6641	0.7519	0.8096	0.8887	0.9396	0.9621	0.9531	0.9144	0.8379	0.7699	0.6978	0.6553	0.8204
50	0.604	0.7016	0.762	0.8476	0.9032	0.9276	0.9176	0.8741	0.7902	0.7205	0.6419	0.5952	0.7738
55	0.5405	0.6477	0.7099	0.8014	0.8614	0.8875	0.8765	0.8282	0.7373	0.6673	0.5825	0.5321	0.7227
60	0.4742	0.5906	0.6538	0.7504	0.8144	0.8419	0.8301	0.777	0.6796	0.6107	0.5203	0.4663	0.6674
65	0.4055	0.5308	0.594	0.695	0.7625	0.7914	0.7788	0.7209	0.6176	0.551	0.4557	0.3983	0.6085
70	0.3351	0.4687	0.531	0.6356	0.7063	0.7362	0.7228	0.6604	0.5518	0.4889	0.3892	0.3288	0.5462
75	0.2634	0.4047	0.4652	0.5727	0.646	0.6767	0.6627	0.5958	0.4826	0.4246	0.3212	0.2582	0.4812
80	0.1909	0.3395	0.3973	0.5067	0.5822	0.6135	0.5989	0.5277	0.4105	0.3588	0.2523	0.1961	0.4145
85	0.1695	0.2734	0.3276	0.438	0.5153	0.5469	0.5318	0.4565	0.3362	0.2919	0.2071	0.1917	0.3572
90	0.1671	0.2301	0.2567	0.3673	0.4458	0.4776	0.4619	0.3829	0.2601	0.2244	0.2016	0.1872	0.3052



Tabla 28: Azimut de 125°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9916	0.9919	0.9915	0.9912	0.9913	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9758	0.986	0.9966	1.0078	1.0143	1.0172	1.0162	1.0126	1.0027	0.9891	0.9793	0.9738	0.9976
10	0.9544	0.975	0.9953	1.0174	1.0308	1.0369	1.0348	1.0269	1.0069	0.981	0.9616	0.9506	0.9976
15	0.927	0.9584	0.9878	1.0206	1.0409	1.0502	1.0469	1.0345	1.0044	0.9672	0.9381	0.9216	0.9915
20	0.8939	0.9362	0.9741	1.0175	1.0446	1.057	1.0525	1.0353	0.9952	0.9476	0.9091	0.8869	0.9791
25	0.8552	0.9086	0.9544	1.008	1.0417	1.0571	1.0514	1.0293	0.9794	0.9224	0.8746	0.847	0.9608
30	0.8112	0.8759	0.9287	0.9921	1.0323	1.0506	1.0437	1.0166	0.9571	0.8919	0.835	0.802	0.9364
35	0.7624	0.8383	0.8972	0.9701	1.0166	1.0375	1.0295	0.9973	0.9283	0.8563	0.7906	0.7523	0.9064
40	0.709	0.796	0.8602	0.942	0.9945	1.018	1.0089	0.9714	0.8934	0.8157	0.7417	0.6984	0.8708
45	0.6515	0.7495	0.8181	0.9081	0.9662	0.9921	0.9819	0.9392	0.8525	0.7707	0.6887	0.6405	0.8299
50	0.5903	0.699	0.7711	0.8687	0.932	0.9601	0.9488	0.9009	0.8059	0.7214	0.632	0.5792	0.7841
55	0.5259	0.6449	0.7196	0.8239	0.8922	0.9222	0.9099	0.8569	0.7541	0.6682	0.572	0.515	0.7337
60	0.4587	0.5876	0.664	0.7742	0.8469	0.8786	0.8654	0.8073	0.6973	0.6116	0.5092	0.4482	0.6791
65	0.3894	0.5277	0.6047	0.7199	0.7966	0.8298	0.8157	0.7526	0.6362	0.5521	0.444	0.3794	0.6207
70	0.3183	0.4654	0.5421	0.6615	0.7416	0.776	0.7611	0.6932	0.571	0.4899	0.377	0.3092	0.5589
75	0.2461	0.4014	0.4767	0.5992	0.6823	0.7176	0.702	0.6296	0.5024	0.4257	0.3087	0.238	0.4942
80	0.1733	0.3361	0.409	0.5337	0.6192	0.6552	0.6389	0.5621	0.4307	0.3599	0.2396	0.1961	0.4295
85	0.1695	0.27	0.3394	0.4654	0.5527	0.5891	0.5723	0.4914	0.3566	0.293	0.2071	0.1917	0.3749
90	0.1671	0.2301	0.2686	0.3948	0.4834	0.5199	0.5026	0.4179	0.2806	0.2255	0.2016	0.1872	0.3233

Tabla 29: Azimut de 130°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9916	0.9919	0.9915	0.9912	0.9913	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9744	0.9857	0.9975	1.0101	1.0174	1.0207	1.0196	1.0155	1.0044	0.9892	0.9783	0.9721	0.9987
10	0.9515	0.9744	0.9973	1.0219	1.037	1.0439	1.0415	1.0326	1.0103	0.9812	0.9595	0.9472	0.9999
15	0.9227	0.9575	0.9907	1.0274	1.0501	1.0606	1.0569	1.0431	1.0095	0.9674	0.935	0.9165	0.9948
20	0.8881	0.9351	0.978	1.0264	1.0567	1.0707	1.0656	1.0466	1.0019	0.9479	0.9049	0.8802	0.9835
25	0.8481	0.9073	0.9591	1.019	1.0567	1.074	1.0677	1.0433	0.9876	0.9229	0.8694	0.8387	0.9661
30	0.8028	0.8743	0.9343	1.0051	1.0501	1.0706	1.063	1.0332	0.9667	0.8925	0.8289	0.7922	0.9428
35	0.7527	0.8365	0.9037	0.985	1.0369	1.0604	1.0515	1.0162	0.9393	0.8569	0.7836	0.7411	0.9137
40	0.6982	0.794	0.8675	0.9587	1.0172	1.0437	1.0335	0.9926	0.9058	0.8164	0.7339	0.6858	0.8789
45	0.6396	0.7472	0.826	0.9264	0.9912	1.0203	1.009	0.9625	0.8661	0.7714	0.6801	0.6266	0.8389
50	0.5774	0.6965	0.7796	0.8885	0.9591	0.9906	0.9782	0.9261	0.8206	0.7222	0.6227	0.5642	0.7938
55	0.5121	0.6422	0.7287	0.8451	0.9211	0.9548	0.9413	0.8838	0.7698	0.6691	0.562	0.4989	0.7441
60	0.4442	0.5849	0.6737	0.7965	0.8775	0.9131	0.8985	0.8357	0.714	0.6126	0.4986	0.4312	0.69
65	0.3742	0.5248	0.6148	0.7433	0.8285	0.8658	0.8503	0.7824	0.6536	0.553	0.433	0.3616	0.6321
70	0.3026	0.4624	0.5526	0.6857	0.7747	0.8133	0.797	0.7241	0.5891	0.4909	0.3656	0.2907	0.5707
75	0.2299	0.3983	0.4874	0.6241	0.7163	0.756	0.7389	0.6613	0.5209	0.4267	0.297	0.2191	0.5063
80	0.1718	0.333	0.4199	0.5591	0.6539	0.6943	0.6766	0.5944	0.4496	0.361	0.2276	0.1961	0.4448
85	0.1695	0.2668	0.3505	0.4911	0.5878	0.6287	0.6103	0.5241	0.3758	0.2941	0.2071	0.1917	0.3915
90	0.1671	0.2301	0.2798	0.4207	0.5186	0.5596	0.5408	0.4507	0.2998	0.2266	0.2016	0.1872	0.3402



Tabla 30: Azimut de 135°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9916	0.9919	0.9915	0.9912	0.9913	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.973	0.9854	0.9985	1.0122	1.0203	1.024	1.0227	1.0182	1.006	0.9893	0.9773	0.9705	0.9998
10	0.9488	0.9739	0.9991	1.0262	1.0427	1.0504	1.0477	1.038	1.0134	0.9814	0.9575	0.944	1.0019
15	0.9187	0.9568	0.9934	1.0337	1.0587	1.0702	1.0662	1.051	1.0141	0.9677	0.9321	0.9118	0.9979
20	0.8828	0.9341	0.9816	1.0347	1.068	1.0834	1.0779	1.0572	1.008	0.9483	0.901	0.874	0.9876
25	0.8415	0.906	0.9635	1.0292	1.0706	1.0897	1.0828	1.0563	0.9951	0.9233	0.8647	0.831	0.9711
30	0.795	0.8728	0.9395	1.0172	1.0665	1.0892	1.0808	1.0485	0.9756	0.893	0.8233	0.783	0.9487
35	0.7438	0.8347	0.9096	0.9988	1.0557	1.0817	1.072	1.0338	0.9495	0.8574	0.7771	0.7306	0.9204
40	0.6882	0.7921	0.8742	0.9741	1.0383	1.0675	1.0564	1.0122	0.9172	0.8171	0.7266	0.674	0.8865
45	0.6286	0.7451	0.8334	0.9434	1.0144	1.0465	1.0342	0.9841	0.8787	0.7721	0.6721	0.6137	0.8472
50	0.5655	0.6942	0.7876	0.9068	0.9842	1.019	1.0054	0.9495	0.8342	0.7229	0.614	0.5502	0.8028
55	0.4994	0.6398	0.7372	0.8646	0.9479	0.9851	0.9704	0.9087	0.7843	0.6699	0.5528	0.4839	0.7537
60	0.4307	0.5823	0.6826	0.8172	0.9058	0.9451	0.9293	0.8621	0.7293	0.6134	0.4889	0.4154	0.7002
65	0.3601	0.5221	0.6241	0.7649	0.8582	0.8993	0.8825	0.8099	0.6697	0.5539	0.4228	0.3451	0.6427
70	0.2879	0.4596	0.5623	0.7081	0.8055	0.848	0.8303	0.7526	0.6057	0.4919	0.355	0.2736	0.5817
75	0.2149	0.3955	0.4974	0.6472	0.7479	0.7917	0.7732	0.6906	0.538	0.4277	0.2861	0.2014	0.5176
80	0.1718	0.33	0.4301	0.5826	0.6861	0.7307	0.7115	0.6244	0.4671	0.3619	0.2165	0.1961	0.4591
85	0.1695	0.2638	0.3609	0.5149	0.6204	0.6654	0.6457	0.5544	0.3935	0.2951	0.2071	0.1917	0.4069
90	0.1671	0.2301	0.2901	0.4446	0.5513	0.5965	0.5762	0.4811	0.3176	0.2276	0.2016	0.1872	0.3559

Tabla 31: Azimut de 140°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9916	0.9919	0.9915	0.9912	0.9913	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9718	0.9852	0.9993	1.0141	1.023	1.027	1.0256	1.0206	1.0074	0.9893	0.9764	0.9691	1.0007
10	0.9463	0.9734	1.0008	1.03	1.048	1.0563	1.0534	1.0429	1.0163	0.9816	0.9558	0.9411	1.0038
15	0.915	0.9561	0.9959	1.0394	1.0665	1.0791	1.0746	1.0583	1.0184	0.9679	0.9294	0.9074	1.0007
20	0.8779	0.9331	0.9848	1.0423	1.0784	1.095	1.0891	1.0668	1.0136	0.9486	0.8975	0.8683	0.9913
25	0.8354	0.9049	0.9676	1.0385	1.0834	1.1041	1.0966	1.0682	1.0021	0.9237	0.8603	0.8239	0.9757
30	0.7879	0.8715	0.9443	1.0282	1.0816	1.1062	1.0971	1.0625	0.9838	0.8934	0.8181	0.7747	0.9541
35	0.7356	0.8332	0.9151	1.0114	1.073	1.1012	1.0907	1.0498	0.9589	0.858	0.7712	0.721	0.9266
40	0.679	0.7903	0.8803	0.9882	1.0577	1.0893	1.0774	1.0302	0.9276	0.8177	0.72	0.6633	0.8934
45	0.6185	0.7432	0.8402	0.9589	1.0357	1.0705	1.0572	1.0038	0.8901	0.7728	0.6648	0.6019	0.8548
50	0.5546	0.6921	0.7949	0.9236	1.0072	1.0449	1.0303	0.9709	0.8467	0.7236	0.6061	0.5374	0.811
55	0.4877	0.6376	0.745	0.8825	0.9725	1.0128	0.997	0.9315	0.7976	0.6707	0.5443	0.4702	0.7625
60	0.4184	0.5799	0.6908	0.8361	0.9318	0.9744	0.9574	0.8862	0.7434	0.6142	0.4799	0.4009	0.7094
65	0.3471	0.5196	0.6327	0.7847	0.8853	0.93	0.9119	0.8351	0.6843	0.5548	0.4134	0.3299	0.6524
70	0.2745	0.4571	0.5711	0.7286	0.8336	0.8798	0.8608	0.7787	0.6209	0.4927	0.3453	0.2579	0.5918
75	0.2011	0.3928	0.5065	0.6682	0.7768	0.8243	0.8045	0.7175	0.5537	0.4286	0.2761	0.2005	0.5292
80	0.1718	0.3273	0.4394	0.6041	0.7156	0.7639	0.7434	0.6517	0.483	0.3628	0.2126	0.1961	0.4727
85	0.1695	0.2611	0.3703	0.5367	0.6502	0.699	0.6779	0.582	0.4096	0.296	0.2071	0.1917	0.4209
90	0.1671	0.2301	0.2996	0.4664	0.5812	0.6302	0.6086	0.5089	0.3338	0.2285	0.2016	0.1872	0.3703

Tabla 32: Azimut de 145°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9916	0.9919	0.9915	0.9912	0.9913	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9707	0.985	1	1.0159	1.0253	1.0296	1.0282	1.0229	1.0087	0.9894	0.9756	0.9678	1.0016
10	0.9441	0.973	1.0023	1.0335	1.0528	1.0617	1.0586	1.0473	1.0189	0.9817	0.9541	0.9385	1.0055
15	0.9116	0.9554	0.9982	1.0446	1.0736	1.087	1.0823	1.0649	1.0223	0.9681	0.927	0.9035	1.0032
20	0.8735	0.9323	0.9878	1.0491	1.0877	1.1055	1.0992	1.0755	1.0187	0.9489	0.8943	0.8631	0.9946
25	0.83	0.9038	0.9712	1.0469	1.0949	1.1171	1.109	1.0789	1.0083	0.924	0.8564	0.8175	0.9798
30	0.7815	0.8702	0.9486	1.0381	1.0952	1.1215	1.1119	1.0752	0.9911	0.8938	0.8134	0.7671	0.959
35	0.7282	0.8318	0.9201	1.0228	1.0886	1.1188	1.1076	1.0643	0.9672	0.8584	0.7659	0.7124	0.9322
40	0.6707	0.7887	0.8859	1.0009	1.0751	1.1089	1.0963	1.0464	0.9369	0.8182	0.714	0.6536	0.8996
45	0.6094	0.7414	0.8463	0.9728	1.0548	1.0921	1.0779	1.0216	0.9004	0.7733	0.6582	0.5912	0.8616
50	0.5447	0.6902	0.8016	0.9386	1.0279	1.0683	1.0528	0.9901	0.8578	0.7243	0.5989	0.5258	0.8184
55	0.4771	0.6356	0.7521	0.8986	0.9946	1.0378	1.021	0.9521	0.8096	0.6713	0.5367	0.4579	0.7704
60	0.4072	0.5778	0.6982	0.8531	0.9551	1.0008	0.9828	0.9078	0.756	0.6149	0.4718	0.3878	0.7178
65	0.3355	0.5174	0.6404	0.8024	0.9098	0.9576	0.9384	0.8578	0.6975	0.5555	0.405	0.3162	0.6611
70	0.2624	0.4548	0.5791	0.747	0.8589	0.9084	0.8883	0.8022	0.6346	0.4935	0.3365	0.2437	0.6008
75	0.1887	0.3904	0.5147	0.6871	0.8028	0.8537	0.8327	0.7416	0.5677	0.4294	0.2671	0.2005	0.5397
80	0.1718	0.3249	0.4478	0.6234	0.742	0.7938	0.7721	0.6763	0.4973	0.3636	0.2126	0.1961	0.4851
85	0.1695	0.2586	0.3787	0.5561	0.6769	0.7292	0.707	0.6069	0.424	0.2968	0.2071	0.1917	0.4336
90	0.1671	0.2301	0.3081	0.4859	0.6081	0.6605	0.6377	0.5338	0.3483	0.2293	0.2016	0.1872	0.3832

Tabla 33: Azimut de 150°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9916	0.9919	0.9915	0.9912	0.9913	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9697	0.9848	1.0007	1.0174	1.0274	1.032	1.0304	1.0248	1.0099	0.9895	0.9748	0.9666	1.0023
10	0.9421	0.9726	1.0036	1.0366	1.0569	1.0664	1.0631	1.0513	1.0212	0.9818	0.9527	0.9362	1.007
15	0.9087	0.9549	1.0001	1.0492	1.0798	1.0941	1.089	1.0707	1.0257	0.9683	0.9249	0.9001	1.0055
20	0.8696	0.9315	0.9904	1.0551	1.0959	1.1148	1.1081	1.0831	1.0232	0.9491	0.8915	0.8585	0.9976
25	0.8252	0.9029	0.9745	1.0543	1.105	1.1285	1.12	1.0883	1.0138	0.9243	0.8529	0.8119	0.9835
30	0.7758	0.8691	0.9524	1.0469	1.1072	1.135	1.1248	1.0863	0.9976	0.8942	0.8093	0.7605	0.9633
35	0.7217	0.8305	0.9245	1.0328	1.1023	1.1342	1.1225	1.0771	0.9746	0.8589	0.7611	0.7047	0.9371
40	0.6634	0.7873	0.8908	1.0121	1.0904	1.1263	1.1129	1.0607	0.9451	0.8186	0.7087	0.645	0.9051
45	0.6014	0.7399	0.8517	0.9851	1.0717	1.1111	1.0962	1.0373	0.9094	0.7739	0.6524	0.5818	0.8676
50	0.536	0.6886	0.8074	0.9519	1.0462	1.089	1.0726	1.007	0.8675	0.7248	0.5926	0.5156	0.8249
55	0.4678	0.6338	0.7583	0.9128	1.0141	1.0599	1.0422	0.9701	0.82	0.6719	0.5299	0.447	0.7773
60	0.3974	0.5759	0.7048	0.8681	0.9757	1.0241	1.0051	0.9269	0.767	0.6156	0.4647	0.3763	0.7251
65	0.3252	0.5154	0.6472	0.818	0.9313	0.9819	0.9618	0.8777	0.709	0.5562	0.3975	0.3042	0.6688
70	0.2518	0.4527	0.5861	0.7631	0.8812	0.9336	0.9125	0.8228	0.6465	0.4942	0.3288	0.2312	0.6087
75	0.1777	0.3883	0.5219	0.7037	0.8257	0.8796	0.8576	0.7627	0.5799	0.4301	0.2591	0.2005	0.5489
80	0.1718	0.3228	0.4551	0.6402	0.7654	0.8202	0.7975	0.6979	0.5098	0.3644	0.2126	0.1961	0.4961
85	0.1695	0.2565	0.3862	0.5732	0.7005	0.7559	0.7326	0.6287	0.4366	0.2975	0.2071	0.1917	0.4447
90	0.1671	0.2301	0.3156	0.5031	0.6317	0.6872	0.6634	0.5557	0.361	0.23	0.2016	0.1872	0.3945



Tabla 34: Azimut de 150°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9916	0.9919	0.9915	0.9912	0.9913	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9688	0.9846	1.0013	1.0188	1.0293	1.034	1.0324	1.0265	1.0109	0.9895	0.9742	0.9656	1.003
10	0.9404	0.9723	1.0047	1.0392	1.0605	1.0704	1.067	1.0546	1.0232	0.9819	0.9515	0.9342	1.0083
15	0.9062	0.9544	1.0018	1.0531	1.0852	1.1001	1.0948	1.0757	1.0286	0.9685	0.923	0.8971	1.0074
20	0.8663	0.9309	0.9926	1.0603	1.1029	1.1228	1.1157	1.0897	1.027	0.9493	0.8891	0.8546	1.0001
25	0.8211	0.9021	0.9772	1.0607	1.1137	1.1383	1.1295	1.0964	1.0185	0.9246	0.8499	0.8071	0.9866
30	0.7709	0.8682	0.9557	1.0544	1.1175	1.1466	1.136	1.0959	1.0031	0.8945	0.8058	0.7548	0.9669
35	0.7161	0.8294	0.9282	1.0414	1.1141	1.1476	1.1352	1.088	0.9809	0.8592	0.7571	0.6982	0.9413
40	0.6572	0.7861	0.895	1.0217	1.1036	1.1412	1.1272	1.0729	0.9522	0.819	0.7041	0.6377	0.9098
45	0.5945	0.7386	0.8563	0.9956	1.0861	1.1275	1.112	1.0507	0.9171	0.7743	0.6474	0.5738	0.8728
50	0.5285	0.6871	0.8124	0.9633	1.0618	1.1067	1.0896	1.0215	0.8758	0.7253	0.5872	0.5069	0.8305
55	0.4598	0.6322	0.7637	0.9249	1.0308	1.0788	1.0603	0.9856	0.8288	0.6724	0.5241	0.4376	0.7833
60	0.3889	0.5743	0.7104	0.8808	0.9934	1.0441	1.0243	0.9433	0.7764	0.6161	0.4586	0.3664	0.7314
65	0.3163	0.5137	0.6531	0.8314	0.9498	1.0028	0.9819	0.8948	0.7189	0.5567	0.3911	0.2938	0.6754
70	0.2426	0.451	0.5921	0.7769	0.9003	0.9553	0.9333	0.8405	0.6567	0.4948	0.3222	0.2204	0.6155
75	0.174	0.3865	0.5281	0.7179	0.8454	0.9019	0.879	0.7809	0.5904	0.4307	0.2523	0.2005	0.5573
80	0.1718	0.3209	0.4614	0.6547	0.7854	0.8429	0.8192	0.7163	0.5204	0.365	0.2126	0.1961	0.5056
85	0.1695	0.2546	0.3925	0.5878	0.7207	0.7788	0.7545	0.6474	0.4474	0.2981	0.2071	0.1917	0.4542
90	0.1671	0.2301	0.322	0.5177	0.6519	0.71	0.6853	0.5744	0.3718	0.2307	0.2016	0.1872	0.4042

Tabla 35: Azimut de 160°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9916	0.9919	0.9915	0.9912	0.9913	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9681	0.9845	1.0018	1.0199	1.0308	1.0357	1.034	1.0279	1.0117	0.9896	0.9737	0.9648	1.0035
10	0.939	0.972	1.0057	1.0414	1.0635	1.0738	1.0702	1.0574	1.0248	0.982	0.9505	0.9326	1.0094
15	0.9041	0.954	1.0032	1.0563	1.0896	1.1051	1.0996	1.0799	1.031	0.9686	0.9215	0.8947	1.009
20	0.8635	0.9304	0.9945	1.0646	1.1088	1.1294	1.1221	1.0952	1.0302	0.9495	0.8871	0.8514	1.0022
25	0.8177	0.9015	0.9795	1.066	1.121	1.1465	1.1373	1.1032	1.0224	0.9248	0.8474	0.8031	0.9892
30	0.7669	0.8674	0.9584	1.0606	1.126	1.1562	1.1452	1.1038	1.0077	0.8948	0.8029	0.75	0.97
35	0.7115	0.8286	0.9313	1.0485	1.1238	1.1586	1.1458	1.0971	0.9862	0.8595	0.7537	0.6927	0.9448
40	0.652	0.7851	0.8985	1.0297	1.1145	1.1535	1.1391	1.083	0.958	0.8194	0.7004	0.6316	0.9137
45	0.5888	0.7375	0.8601	1.0043	1.0981	1.1411	1.125	1.0618	0.9234	0.7747	0.6432	0.5671	0.8771
50	0.5223	0.686	0.8166	0.9727	1.0748	1.1214	1.1037	1.0335	0.8827	0.7257	0.5827	0.4996	0.8351
55	0.4532	0.631	0.7681	0.9349	1.0447	1.0945	1.0754	0.9984	0.8361	0.6729	0.5193	0.4298	0.7882
60	0.3819	0.5729	0.7151	0.8914	1.008	1.0607	1.0402	0.9568	0.784	0.6165	0.4535	0.3582	0.7366
65	0.309	0.5123	0.658	0.8424	0.9651	1.0202	0.9985	0.9089	0.7269	0.5572	0.3858	0.2852	0.6808
70	0.235	0.4495	0.5972	0.7883	0.9162	0.9733	0.9506	0.8551	0.665	0.4952	0.3166	0.2115	0.6211
75	0.174	0.385	0.5332	0.7295	0.8617	0.9204	0.8967	0.7959	0.5989	0.4312	0.2466	0.2005	0.5645
80	0.1718	0.3194	0.4666	0.6665	0.802	0.8618	0.8373	0.7316	0.5291	0.3655	0.2126	0.1961	0.5134
85	0.1695	0.2531	0.3978	0.5998	0.7375	0.7979	0.7728	0.6628	0.4561	0.2986	0.2071	0.1917	0.4621
90	0.1671	0.2301	0.3273	0.5297	0.6687	0.729	0.7036	0.5899	0.3806	0.2312	0.2016	0.1872	0.4122



Tabla 36: Azimut de 165°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9916	0.9919	0.9915	0.9912	0.9913	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9676	0.9844	1.0021	1.0207	1.0319	1.0371	1.0353	1.029	1.0123	0.9896	0.9733	0.9641	1.004
10	0.9379	0.9718	1.0064	1.0431	1.0659	1.0764	1.0728	1.0596	1.0261	0.9821	0.9497	0.9313	1.0103
15	0.9024	0.9537	1.0043	1.0589	1.0931	1.109	1.1034	1.0831	1.0329	0.9687	0.9203	0.8927	1.0102
20	0.8613	0.93	0.996	1.0679	1.1134	1.1345	1.127	1.0994	1.0327	0.9497	0.8855	0.8488	1.0039
25	0.815	0.901	0.9813	1.0701	1.1266	1.1528	1.1434	1.1084	1.0254	0.925	0.8455	0.7999	0.9912
30	0.7637	0.8668	0.9605	1.0655	1.1327	1.1638	1.1525	1.11	1.0113	0.895	0.8006	0.7463	0.9724
35	0.7078	0.8279	0.9338	1.0541	1.1315	1.1672	1.1541	1.1042	0.9903	0.8597	0.7511	0.6885	0.9475
40	0.6479	0.7843	0.9012	1.0359	1.1231	1.1632	1.1484	1.091	0.9626	0.8196	0.6974	0.6268	0.9168
45	0.5843	0.7366	0.8632	1.0112	1.1076	1.1517	1.1352	1.0705	0.9284	0.7749	0.64	0.5618	0.8804
50	0.5175	0.685	0.8198	0.9801	1.085	1.1329	1.1148	1.043	0.8881	0.726	0.5792	0.4939	0.8388
55	0.448	0.63	0.7716	0.9428	1.0556	1.1068	1.0872	1.0085	0.8418	0.6732	0.5156	0.4237	0.7921
60	0.3764	0.5719	0.7188	0.8997	1.0195	1.0737	1.0527	0.9674	0.79	0.6169	0.4495	0.3517	0.7407
65	0.3032	0.5112	0.6619	0.851	0.9771	1.0339	1.0116	0.9199	0.7331	0.5576	0.3816	0.2785	0.685
70	0.229	0.4484	0.6012	0.7972	0.9286	0.9875	0.9641	0.8665	0.6714	0.4956	0.3123	0.2047	0.6256
75	0.174	0.3839	0.5374	0.7386	0.8745	0.935	0.9107	0.8076	0.6055	0.4316	0.2422	0.2005	0.5701
80	0.1718	0.3182	0.4707	0.6758	0.8151	0.8767	0.8516	0.7435	0.5358	0.3659	0.2126	0.1961	0.5195
85	0.1695	0.2519	0.4019	0.6091	0.7508	0.8129	0.7873	0.6748	0.4629	0.299	0.2071	0.1917	0.4682
90	0.1671	0.2301	0.3313	0.5391	0.682	0.7593	0.7306	0.602	0.3873	0.2316	0.2016	0.1872	0.4208

Tabla 37: Azimut de 170°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9916	0.9919	0.9915	0.9912	0.9913	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9672	0.9843	1.0024	1.0213	1.0328	1.038	1.0362	1.0298	1.0128	0.9896	0.973	0.9637	1.0043
10	0.9371	0.9717	1.0069	1.0444	1.0676	1.0783	1.0746	1.0611	1.027	0.9821	0.9491	0.9303	1.0109
15	0.9013	0.9534	1.0051	1.0607	1.0956	1.1118	1.1061	1.0854	1.0342	0.9688	0.9195	0.8914	1.0111
20	0.8598	0.9297	0.997	1.0703	1.1167	1.1383	1.1306	1.1025	1.0345	0.9498	0.8844	0.847	1.005
25	0.813	0.9006	0.9826	1.0731	1.1307	1.1574	1.1479	1.1122	1.0276	0.9251	0.8441	0.7976	0.9927
30	0.7614	0.8664	0.9621	1.069	1.1375	1.1692	1.1577	1.1145	1.0139	0.8951	0.7989	0.7436	0.9741
35	0.7052	0.8274	0.9355	1.0581	1.137	1.1735	1.1601	1.1093	0.9932	0.8599	0.7492	0.6854	0.9495
40	0.6449	0.7838	0.9032	1.0404	1.1293	1.1702	1.1551	1.0967	0.9659	0.8198	0.6953	0.6234	0.919
45	0.581	0.736	0.8653	1.0161	1.1143	1.1594	1.1426	1.0768	0.932	0.7752	0.6376	0.558	0.8829
50	0.514	0.6844	0.8222	0.9854	1.0923	1.1412	1.1227	1.0497	0.8919	0.7262	0.5767	0.4898	0.8414
55	0.4443	0.6293	0.7741	0.9484	1.0634	1.1157	1.0957	1.0157	0.8459	0.6734	0.5129	0.4193	0.7948
60	0.3725	0.5711	0.7215	0.9056	1.0278	1.0831	1.0617	0.975	0.7943	0.6171	0.4467	0.3471	0.7436
65	0.2991	0.5104	0.6647	0.8572	0.9857	1.0437	1.021	0.9279	0.7375	0.5578	0.3786	0.2736	0.6881
70	0.2247	0.4475	0.6041	0.8036	0.9376	0.9978	0.9739	0.8747	0.6759	0.4959	0.3092	0.2047	0.6291
75	0.174	0.383	0.5403	0.7452	0.8837	0.9456	0.9208	0.816	0.6101	0.4318	0.239	0.2005	0.5742
80	0.1718	0.3173	0.4737	0.6824	0.8246	0.8877	0.862	0.7521	0.5405	0.3662	0.2126	0.1961	0.5239
85	0.1695	0.251	0.4049	0.6157	0.7605	0.8392	0.7978	0.6835	0.4676	0.2993	0.2071	0.1917	0.474
90	0.1671	0.2301	0.3343	0.5457	0.7013	0.7706	0.7414	0.6107	0.392	0.2319	0.2016	0.1872	0.4262



Tabla 38: Azimut de 175°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9916	0.9919	0.9915	0.9912	0.9913	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9669	0.9843	1.0026	1.0217	1.0333	1.0386	1.0368	1.0303	1.0131	0.9897	0.9729	0.9634	1.0044
10	0.9367	0.9716	1.0072	1.0451	1.0686	1.0795	1.0757	1.0621	1.0276	0.9822	0.9487	0.9298	1.0112
15	0.9005	0.9533	1.0056	1.0618	1.0971	1.1135	1.1078	1.0869	1.0351	0.9689	0.9189	0.8905	1.0117
20	0.8588	0.9295	0.9976	1.0718	1.1187	1.1405	1.1328	1.1044	1.0355	0.9498	0.8837	0.8459	1.0058
25	0.8119	0.9004	0.9834	1.0749	1.1332	1.1602	1.1505	1.1145	1.029	0.9252	0.8432	0.7963	0.9936
30	0.76	0.8661	0.963	1.0711	1.1404	1.1725	1.1609	1.1172	1.0154	0.8952	0.7979	0.742	0.9751
35	0.7036	0.8271	0.9366	1.0605	1.1403	1.1772	1.1637	1.1124	0.995	0.86	0.748	0.6835	0.9507
40	0.6432	0.7834	0.9044	1.0431	1.133	1.1744	1.1591	1.1002	0.9678	0.8199	0.694	0.6213	0.9203
45	0.5791	0.7356	0.8666	1.0191	1.1184	1.164	1.147	1.0806	0.9342	0.7753	0.6362	0.5557	0.8843
50	0.5118	0.684	0.8236	0.9886	1.0967	1.1462	1.1275	1.0538	0.8942	0.7264	0.5751	0.4873	0.8429
55	0.442	0.6288	0.7756	0.9518	1.0681	1.1211	1.1008	1.0201	0.8483	0.6736	0.5112	0.4167	0.7965
60	0.3701	0.5707	0.7231	0.9092	1.0328	1.0888	1.0672	0.9796	0.7968	0.6173	0.4449	0.3443	0.7454
65	0.2966	0.5099	0.6663	0.8609	0.991	1.0497	1.0267	0.9327	0.7401	0.558	0.3768	0.2707	0.6899
70	0.2221	0.447	0.6059	0.8074	0.943	1.004	0.9799	0.8797	0.6786	0.4961	0.3073	0.2047	0.6313
75	0.174	0.3825	0.5421	0.7491	0.8893	0.9521	0.9269	0.8211	0.6128	0.432	0.2371	0.2005	0.5766
80	0.1718	0.3168	0.4755	0.6864	0.8303	0.8944	0.8684	0.7573	0.5432	0.3663	0.2126	0.1961	0.5266
85	0.1695	0.2505	0.4067	0.6197	0.7665	0.846	0.817	0.6888	0.4703	0.2995	0.2071	0.1917	0.4778
90	0.1671	0.2301	0.3361	0.5497	0.7073	0.7774	0.7479	0.6161	0.3947	0.2321	0.2016	0.1872	0.429

Tabla 39: Azimut de 180°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9916	0.9919	0.9915	0.9912	0.9913	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9668	0.9842	1.0026	1.0218	1.0335	1.0388	1.037	1.0304	1.0132	0.9897	0.9728	0.9633	1.0045
10	0.9365	0.9716	1.0074	1.0454	1.0689	1.0799	1.0761	1.0624	1.0277	0.9822	0.9486	0.9296	1.0113
15	0.9003	0.9532	1.0058	1.0622	1.0976	1.1141	1.1083	1.0873	1.0353	0.9689	0.9188	0.8902	1.0118
20	0.8585	0.9294	0.9978	1.0723	1.1194	1.1413	1.1335	1.105	1.0359	0.9498	0.8835	0.8455	1.006
25	0.8115	0.9003	0.9837	1.0755	1.134	1.1612	1.1514	1.1153	1.0294	0.9252	0.843	0.7958	0.9938
30	0.7595	0.866	0.9633	1.0718	1.1414	1.1736	1.1619	1.1181	1.0159	0.8952	0.7976	0.7415	0.9755
35	0.7031	0.827	0.937	1.0613	1.1414	1.1785	1.1649	1.1134	0.9956	0.86	0.7476	0.6829	0.9511
40	0.6426	0.7833	0.9048	1.044	1.1342	1.1758	1.1604	1.1013	0.9685	0.82	0.6936	0.6206	0.9208
45	0.5784	0.7355	0.8671	1.02	1.1198	1.1656	1.1485	1.0819	0.9349	0.7753	0.6358	0.5549	0.8848
50	0.5111	0.6838	0.8241	0.9896	1.0982	1.1479	1.1291	1.0552	0.895	0.7264	0.5746	0.4865	0.8435
55	0.4412	0.6287	0.7761	0.953	1.0697	1.1228	1.1026	1.0215	0.8491	0.6736	0.5107	0.4158	0.7971
60	0.3693	0.5705	0.7236	0.9104	1.0344	1.0907	1.069	0.9811	0.7977	0.6174	0.4444	0.3434	0.746
65	0.2957	0.5098	0.6669	0.8622	0.9927	1.0516	1.0286	0.9342	0.741	0.558	0.3762	0.2697	0.6906
70	0.2212	0.4469	0.6065	0.8087	0.9448	1.006	0.9818	0.8813	0.6795	0.4961	0.3067	0.2047	0.632
75	0.174	0.3823	0.5427	0.7504	0.8912	0.9542	0.929	0.8228	0.6137	0.4321	0.2364	0.2005	0.5774
80	0.1718	0.3166	0.4762	0.6877	0.8323	0.9117	0.8705	0.759	0.5441	0.3664	0.2126	0.1961	0.5287
85	0.1695	0.2503	0.4073	0.6211	0.7685	0.8482	0.8192	0.6906	0.4711	0.2996	0.2071	0.1917	0.4787
90	0.1671	0.2301	0.3367	0.5511	0.7093	0.7797	0.7501	0.618	0.3955	0.2321	0.2016	0.1872	0.4299