

La Paz, Honduras

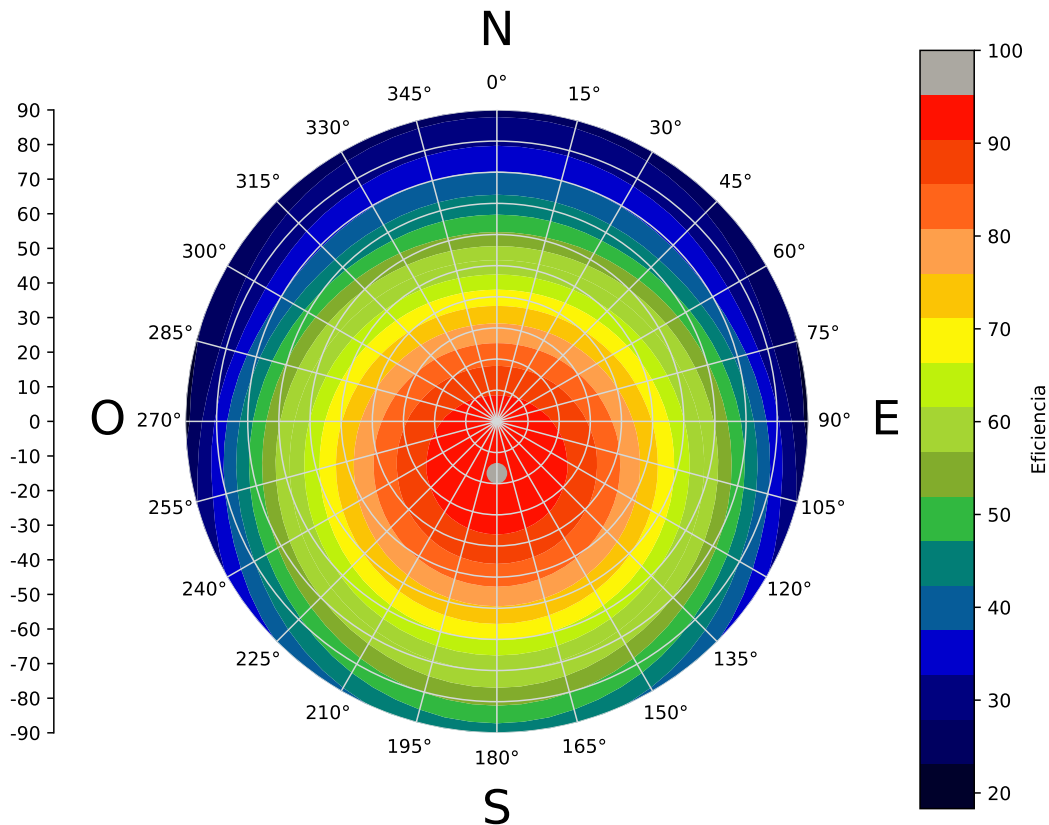
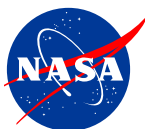


Tabla 1: Generalidades

Latitud	14.32603511475516
Longitud	-87.68331170082094
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	5.0106	11.2813	0.5498	0.1358	-20.8472	84.4141
Febrero	5.284	10.8397	0.5355	0.1264	-13.3253	86.524
Marzo	5.7792	9.5151	0.561	0.1366	-2.3892	89.387
Abril	5.8647	9.3606	0.5641	0.1428	9.4932	92.4555
Mayo	5.5276	8.9649	0.5439	0.134	18.8058	94.9969
Junio	5.4922	9.2333	0.5385	0.1323	23.0771	96.247
Julio	5.6018	9.3965	0.5506	0.1325	21.1015	95.6603
Agosto	5.6237	9.4445	0.5588	0.1373	13.296	93.4698
Septiembre	5.4408	9.3257	0.5679	0.1444	1.9936	90.5112
Octubre	5.1652	9.3383	0.5323	0.1321	-9.8485	87.4503
Noviembre	4.5643	7.8582	0.5175	0.1332	-19.0505	84.9337
Diciembre	4.4363	7.7153	0.5267	0.131	-23.0956	83.7474
Promedio	5.2449	8.7716	0.5416	0.129	—	89.9831

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	0.9916	0.9913	0.9914	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	1.0093	0.9927	0.9751	0.9565	0.9442	0.938	0.9406	0.947	0.9643	0.9875	1.0035	1.0122	0.9726
10	1.0211	0.9884	0.9525	0.9151	0.8911	0.8791	0.884	0.8962	0.9303	0.9779	1.0098	1.0271	0.9477
15	1.0265	0.9785	0.924	0.8681	0.8326	0.8148	0.822	0.8395	0.8901	0.9625	1.01	1.0358	0.917
20	1.0253	0.9628	0.8899	0.8158	0.7691	0.7457	0.7551	0.7775	0.8439	0.9415	1.0042	1.038	0.8808
25	1.0177	0.9417	0.8503	0.7587	0.7012	0.6724	0.6839	0.7107	0.7922	0.9149	0.9923	1.0339	0.8392
30	1.0036	0.9152	0.8056	0.697	0.6294	0.5954	0.6089	0.6394	0.7353	0.883	0.9744	1.0235	0.7926
35	0.9831	0.8835	0.7562	0.6314	0.5541	0.5153	0.5306	0.5644	0.6736	0.8461	0.9507	1.0068	0.7413
40	0.9565	0.8469	0.7023	0.5623	0.4761	0.4326	0.4497	0.486	0.6077	0.8044	0.9214	0.9839	0.6858
45	0.924	0.8056	0.6444	0.4903	0.3959	0.3482	0.3668	0.4051	0.5379	0.7583	0.8866	0.9551	0.6265
50	0.8857	0.76	0.583	0.4158	0.3141	0.2626	0.2826	0.3221	0.4649	0.708	0.8467	0.9205	0.5638
55	0.8419	0.7104	0.5184	0.3396	0.2315	0.2097	0.2054	0.2378	0.3892	0.654	0.8019	0.8805	0.5017
60	0.7931	0.6572	0.4513	0.2621	0.2056	0.2061	0.202	0.1528	0.3114	0.5967	0.7526	0.8353	0.4522
65	0.7395	0.6008	0.3821	0.1853	0.2019	0.2023	0.1984	0.1334	0.2321	0.5365	0.6992	0.7852	0.4081
70	0.6817	0.5416	0.3113	0.1828	0.1981	0.1983	0.1947	0.1336	0.1519	0.4739	0.642	0.7307	0.3701
75	0.6199	0.4801	0.2395	0.1804	0.1941	0.1942	0.1909	0.1339	0.1017	0.4093	0.5816	0.6722	0.3331
80	0.5547	0.4168	0.1842	0.1778	0.19	0.1901	0.1869	0.1341	0.1046	0.3433	0.5183	0.61	0.3009
85	0.4866	0.352	0.1807	0.1752	0.1859	0.1858	0.1829	0.1343	0.1075	0.2763	0.4526	0.5447	0.2721
90	0.4161	0.2362	0.1772	0.1726	0.1818	0.1815	0.1789	0.1346	0.1105	0.2182	0.3851	0.4769	0.2391



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	0.9916	0.9913	0.9914	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	1.0092	0.9927	0.9751	0.9566	0.9444	0.9382	0.9408	0.9472	0.9644	0.9875	1.0034	1.0121	0.9726
10	1.0209	0.9884	0.9526	0.9154	0.8914	0.8795	0.8843	0.8965	0.9305	0.9779	1.0097	1.027	0.9478
15	1.0262	0.9784	0.9242	0.8685	0.8331	0.8154	0.8225	0.84	0.8904	0.9625	1.0099	1.0355	0.9172
20	1.025	0.9628	0.8901	0.8163	0.7698	0.7465	0.7559	0.7782	0.8443	0.9415	1.004	1.0377	0.881
25	1.0173	0.9416	0.8506	0.7593	0.702	0.6734	0.6848	0.7115	0.7927	0.9149	0.992	1.0335	0.8395
30	1.0031	0.9151	0.8059	0.6978	0.6303	0.5965	0.61	0.6404	0.7359	0.8831	0.9741	1.023	0.7929
35	0.9826	0.8834	0.7565	0.6323	0.5553	0.5165	0.5318	0.5654	0.6743	0.8461	0.9503	1.0062	0.7417
40	0.956	0.8467	0.7026	0.5633	0.4774	0.4341	0.4511	0.4873	0.6084	0.8045	0.9209	0.9833	0.6863
45	0.9233	0.8054	0.6448	0.4913	0.3973	0.3498	0.3684	0.4064	0.5387	0.7583	0.8861	0.9544	0.627
50	0.885	0.7598	0.5834	0.417	0.3157	0.2643	0.2843	0.3236	0.4658	0.708	0.8462	0.9197	0.5644
55	0.8412	0.7102	0.5189	0.3408	0.2331	0.2097	0.2054	0.2393	0.3903	0.654	0.8013	0.8796	0.502
60	0.7923	0.657	0.4518	0.2634	0.2056	0.2061	0.202	0.1544	0.3126	0.5967	0.752	0.8344	0.4524
65	0.7387	0.6006	0.3826	0.1854	0.2019	0.2023	0.1984	0.1334	0.2334	0.5365	0.6986	0.7843	0.408
70	0.6808	0.5414	0.3119	0.1828	0.1981	0.1983	0.1947	0.1336	0.1534	0.4739	0.6414	0.7297	0.37
75	0.619	0.4799	0.2402	0.1804	0.1941	0.1942	0.1909	0.1339	0.1017	0.4093	0.5809	0.6711	0.333
80	0.5538	0.4166	0.1844	0.1778	0.19	0.1901	0.1869	0.1341	0.1049	0.3433	0.5176	0.609	0.3007
85	0.4857	0.3519	0.1807	0.1752	0.1859	0.1858	0.1829	0.1343	0.1077	0.2764	0.4519	0.5437	0.2718
90	0.4152	0.2362	0.1772	0.1726	0.1818	0.1815	0.1789	0.1346	0.1106	0.2182	0.3844	0.4758	0.2389

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	0.9916	0.9913	0.9914	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	1.009	0.9926	0.9753	0.957	0.9449	0.9388	0.9413	0.9476	0.9646	0.9875	1.0032	1.0118	0.9728
10	1.0205	0.9883	0.9529	0.9161	0.8925	0.8806	0.8854	0.8974	0.931	0.9779	1.0093	1.0264	0.9482
15	1.0255	0.9783	0.9246	0.8696	0.8346	0.8171	0.8242	0.8414	0.8912	0.9626	1.0094	1.0347	0.9178
20	1.024	0.9626	0.8907	0.8178	0.7718	0.7488	0.758	0.78	0.8454	0.9415	1.0033	1.0366	0.8817
25	1.0161	0.9414	0.8513	0.7611	0.7045	0.6762	0.6875	0.7138	0.7941	0.915	0.9911	1.0322	0.8403
30	1.0017	0.9148	0.8068	0.6999	0.6333	0.5998	0.6131	0.6431	0.7375	0.8831	0.9731	1.0214	0.794
35	0.981	0.883	0.7575	0.6348	0.5587	0.5204	0.5355	0.5686	0.6762	0.8462	0.9492	1.0044	0.7429
40	0.9542	0.8464	0.7038	0.5661	0.4812	0.4384	0.4552	0.4909	0.6106	0.8045	0.9196	0.9812	0.6877
45	0.9213	0.805	0.646	0.4945	0.4015	0.3545	0.3729	0.4104	0.5412	0.7584	0.8847	0.9521	0.6285
50	0.8828	0.7594	0.5847	0.4204	0.3202	0.2694	0.2891	0.3279	0.4686	0.7081	0.8446	0.9173	0.5661
55	0.8389	0.7098	0.5203	0.3445	0.238	0.2097	0.2054	0.244	0.3932	0.6541	0.7997	0.8771	0.5029
60	0.7899	0.6565	0.4533	0.2674	0.2056	0.2061	0.202	0.1594	0.3158	0.5968	0.7503	0.8316	0.4529
65	0.7362	0.6001	0.3842	0.1896	0.2019	0.2023	0.1984	0.1334	0.2369	0.5366	0.6967	0.7814	0.4082
70	0.6782	0.5409	0.3136	0.1828	0.1981	0.1983	0.1947	0.1336	0.157	0.474	0.6395	0.7268	0.3698
75	0.6163	0.4794	0.242	0.1804	0.1941	0.1942	0.1909	0.1339	0.1017	0.4095	0.579	0.6681	0.3324
80	0.551	0.416	0.1845	0.1778	0.19	0.1901	0.1869	0.1341	0.1055	0.3434	0.5156	0.6059	0.3001
85	0.4829	0.3513	0.1809	0.1752	0.1859	0.1858	0.1829	0.1343	0.1083	0.2765	0.4499	0.5406	0.2712
90	0.4124	0.2362	0.1772	0.1726	0.1818	0.1815	0.1789	0.1346	0.1112	0.2182	0.3824	0.4727	0.2383



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	0.9916	0.9913	0.9914	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	1.0086	0.9925	0.9755	0.9576	0.9458	0.9398	0.9422	0.9484	0.9651	0.9875	1.003	1.0114	0.9731
10	1.0197	0.9881	0.9534	0.9173	0.8941	0.8825	0.8872	0.899	0.932	0.978	1.0088	1.0255	0.9488
15	1.0243	0.978	0.9254	0.8714	0.8371	0.8199	0.8268	0.8438	0.8926	0.9626	1.0085	1.0333	0.9186
20	1.0225	0.9623	0.8917	0.8202	0.7751	0.7525	0.7616	0.7832	0.8473	0.9416	1.0021	1.0348	0.8829
25	1.0141	0.941	0.8525	0.7641	0.7086	0.6808	0.6919	0.7176	0.7964	0.915	0.9897	1.03	0.8418
30	0.9994	0.9143	0.8083	0.7035	0.6382	0.6053	0.6184	0.6477	0.7402	0.8832	0.9714	1.0188	0.7957
35	0.9784	0.8825	0.7592	0.6389	0.5643	0.5267	0.5415	0.5739	0.6794	0.8463	0.9473	1.0014	0.745
40	0.9512	0.8457	0.7056	0.5708	0.4875	0.4455	0.462	0.4968	0.6142	0.8046	0.9175	0.9779	0.6899
45	0.9181	0.8044	0.6481	0.4997	0.4085	0.3623	0.3803	0.417	0.5452	0.7585	0.8823	0.9484	0.6311
50	0.8793	0.7587	0.587	0.4261	0.3278	0.2778	0.2972	0.3351	0.473	0.7082	0.8421	0.9133	0.5688
55	0.8351	0.709	0.5227	0.3506	0.246	0.2097	0.2133	0.2517	0.3981	0.6543	0.797	0.8728	0.505
60	0.7859	0.6557	0.4558	0.2739	0.2056	0.2061	0.202	0.1675	0.321	0.597	0.7474	0.8271	0.4538
65	0.732	0.5993	0.3869	0.1964	0.2019	0.2023	0.1984	0.1334	0.2423	0.5368	0.6937	0.7767	0.4083
70	0.6738	0.54	0.3165	0.1828	0.1981	0.1983	0.1947	0.1336	0.1626	0.4742	0.6364	0.7218	0.3694
75	0.6118	0.4785	0.2449	0.1804	0.1941	0.1942	0.1909	0.1339	0.1017	0.4096	0.5758	0.663	0.3316
80	0.5465	0.4151	0.1847	0.1778	0.19	0.1901	0.1869	0.1341	0.1062	0.3436	0.5123	0.6007	0.299
85	0.4783	0.3503	0.1811	0.1752	0.1859	0.1858	0.1829	0.1343	0.109	0.2766	0.4466	0.5353	0.2701
90	0.4078	0.2362	0.1774	0.1726	0.1818	0.1815	0.1789	0.1346	0.1118	0.2182	0.3791	0.4674	0.2373

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	0.9916	0.9913	0.9914	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	1.008	0.9924	0.9759	0.9584	0.9469	0.9411	0.9435	0.9495	0.9657	0.9876	1.0026	1.0107	0.9735
10	1.0185	0.9879	0.9541	0.919	0.8965	0.8851	0.8897	0.9012	0.9332	0.978	1.008	1.0242	0.9496
15	1.0226	0.9777	0.9264	0.874	0.8406	0.8238	0.8306	0.847	0.8945	0.9627	1.0073	1.0315	0.9199
20	1.0203	0.9618	0.8931	0.8236	0.7797	0.7577	0.7665	0.7875	0.8498	0.9417	1.0006	1.0323	0.8845
25	1.0114	0.9404	0.8542	0.7683	0.7143	0.6872	0.6981	0.723	0.7995	0.9151	0.9878	1.0269	0.8439
30	0.9962	0.9136	0.8103	0.7085	0.6449	0.613	0.6257	0.6541	0.7441	0.8833	0.9691	1.0152	0.7982
35	0.9747	0.8817	0.7615	0.6447	0.5721	0.5355	0.5499	0.5813	0.6838	0.8465	0.9446	0.9972	0.7478
40	0.9471	0.8449	0.7082	0.5773	0.4963	0.4553	0.4714	0.5051	0.6192	0.8048	0.9145	0.9732	0.6931
45	0.9135	0.8034	0.6509	0.5068	0.4181	0.3732	0.3907	0.4262	0.5508	0.7587	0.8791	0.9433	0.6346
50	0.8744	0.7577	0.5901	0.4339	0.3383	0.2896	0.3085	0.3451	0.4791	0.7084	0.8385	0.9078	0.5726
55	0.8299	0.7079	0.526	0.3591	0.2572	0.2097	0.2253	0.2624	0.4046	0.6545	0.7932	0.8668	0.508
60	0.7803	0.6546	0.4594	0.2828	0.2056	0.2061	0.202	0.1788	0.3279	0.5972	0.7434	0.8208	0.4549
65	0.7262	0.5981	0.3907	0.2057	0.2019	0.2023	0.1984	0.1334	0.2495	0.537	0.6895	0.7701	0.4086
70	0.6678	0.5388	0.3204	0.1828	0.1981	0.1983	0.1947	0.1336	0.17	0.4744	0.632	0.715	0.3688
75	0.6056	0.4772	0.2489	0.1804	0.1941	0.1942	0.1909	0.1339	0.1017	0.4099	0.5713	0.656	0.3303
80	0.5402	0.4138	0.1848	0.1778	0.19	0.1901	0.1869	0.1341	0.1069	0.3438	0.5078	0.5936	0.2975
85	0.4719	0.349	0.1812	0.1752	0.1859	0.1858	0.1829	0.1343	0.1097	0.2769	0.442	0.5281	0.2686
90	0.4014	0.2362	0.1776	0.1726	0.1818	0.1815	0.1789	0.1346	0.1125	0.2182	0.3745	0.4602	0.2358



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	0.9916	0.9913	0.9914	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	1.0073	0.9923	0.9763	0.9595	0.9484	0.9428	0.9451	0.9509	0.9666	0.9876	1.002	1.0099	0.9741
10	1.0171	0.9876	0.955	0.9212	0.8994	0.8885	0.8929	0.9039	0.9349	0.9781	1.0069	1.0226	0.9507
15	1.0205	0.9772	0.9278	0.8772	0.845	0.8288	0.8354	0.8512	0.8969	0.9627	1.0058	1.0291	0.9215
20	1.0175	0.9612	0.8948	0.8279	0.7856	0.7643	0.7728	0.793	0.8531	0.9418	0.9985	1.0292	0.8866
25	1.008	0.9397	0.8564	0.7736	0.7216	0.6954	0.7059	0.7298	0.8036	0.9153	0.9853	1.023	0.8465
30	0.9921	0.9128	0.8128	0.7148	0.6535	0.6227	0.6349	0.6622	0.7489	0.8835	0.9662	1.0105	0.8012
35	0.97	0.8808	0.7644	0.652	0.582	0.5466	0.5606	0.5906	0.6894	0.8466	0.9412	0.9919	0.7513
40	0.9418	0.8438	0.7115	0.5855	0.5074	0.4679	0.4834	0.5156	0.6255	0.805	0.9107	0.9673	0.6971
45	0.9078	0.8023	0.6546	0.5159	0.4304	0.387	0.4039	0.4377	0.5578	0.7589	0.8749	0.9368	0.639
50	0.8681	0.7564	0.594	0.4438	0.3516	0.3046	0.3228	0.3577	0.4867	0.7087	0.834	0.9007	0.5774
55	0.8232	0.7065	0.5303	0.3697	0.2714	0.2212	0.2406	0.2759	0.4127	0.6547	0.7884	0.8593	0.5128
60	0.7733	0.6531	0.464	0.2941	0.2056	0.2061	0.202	0.1931	0.3364	0.5974	0.7383	0.8128	0.4564
65	0.7188	0.5965	0.3955	0.2175	0.2019	0.2023	0.1984	0.1334	0.2584	0.5373	0.6842	0.7617	0.4088
70	0.6601	0.5372	0.3253	0.1828	0.1981	0.1983	0.1947	0.1336	0.1793	0.4747	0.6265	0.7063	0.3681
75	0.5978	0.4756	0.254	0.1804	0.1941	0.1942	0.1909	0.1339	0.1017	0.4102	0.5656	0.6471	0.3288
80	0.5321	0.4121	0.1849	0.1783	0.19	0.1901	0.1869	0.1341	0.1076	0.3442	0.502	0.5845	0.2956
85	0.4638	0.3474	0.1814	0.1757	0.1859	0.1858	0.1829	0.1343	0.1104	0.2772	0.4362	0.5189	0.2666
90	0.3932	0.2362	0.1777	0.1729	0.1818	0.1815	0.1789	0.1346	0.1132	0.2182	0.3686	0.4509	0.234

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	0.9916	0.9913	0.9914	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	1.0064	0.9921	0.9769	0.9608	0.9502	0.9448	0.947	0.9526	0.9675	0.9876	1.0014	1.009	0.9747
10	1.0154	0.9873	0.9561	0.9238	0.903	0.8925	0.8968	0.9073	0.9368	0.9781	1.0057	1.0207	0.952
15	1.018	0.9767	0.9294	0.8811	0.8503	0.8349	0.8411	0.8562	0.8999	0.9628	1.0039	1.0262	0.9234
20	1.0141	0.9605	0.8969	0.8331	0.7926	0.7723	0.7805	0.7996	0.857	0.9419	0.9961	1.0254	0.8892
25	1.0038	0.9388	0.859	0.7801	0.7303	0.7053	0.7153	0.738	0.8085	0.9154	0.9823	1.0183	0.8496
30	0.9872	0.9118	0.8159	0.7225	0.6639	0.6344	0.6461	0.6719	0.7547	0.8837	0.9626	1.005	0.805
35	0.9644	0.8796	0.768	0.6607	0.5939	0.5601	0.5734	0.6018	0.6961	0.8468	0.9372	0.9855	0.7556
40	0.9355	0.8425	0.7155	0.5954	0.5208	0.483	0.4978	0.5282	0.6331	0.8052	0.9062	0.9601	0.7019
45	0.9008	0.8008	0.6589	0.5268	0.4451	0.4036	0.4198	0.4517	0.5661	0.7592	0.8699	0.9289	0.6443
50	0.8606	0.7548	0.5987	0.4557	0.3676	0.3226	0.34	0.3728	0.4957	0.709	0.8286	0.8921	0.5832
55	0.8151	0.7049	0.5354	0.3824	0.2886	0.2405	0.259	0.2921	0.4223	0.655	0.7826	0.8501	0.519
60	0.7647	0.6514	0.4694	0.3075	0.2087	0.2061	0.202	0.2103	0.3466	0.5978	0.7322	0.8032	0.4583
65	0.7098	0.5947	0.4012	0.2316	0.2019	0.2023	0.1984	0.1334	0.2691	0.5376	0.6778	0.7516	0.4091
70	0.6509	0.5353	0.3313	0.1828	0.1981	0.1983	0.1947	0.1336	0.1903	0.475	0.6198	0.6959	0.3672
75	0.5882	0.4736	0.2601	0.1804	0.1941	0.1942	0.1909	0.1339	0.1109	0.4105	0.5587	0.6363	0.3277
80	0.5224	0.4101	0.185	0.1791	0.19	0.1901	0.1869	0.1341	0.1082	0.3445	0.495	0.5735	0.2933
85	0.454	0.3453	0.1815	0.1764	0.1859	0.1858	0.1829	0.1343	0.1111	0.2776	0.4291	0.5078	0.2643
90	0.3833	0.2362	0.1779	0.1737	0.1818	0.1815	0.1789	0.1346	0.1139	0.2182	0.3615	0.4398	0.2318



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	0.9916	0.9913	0.9914	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	1.0054	0.9919	0.9775	0.9623	0.9523	0.9471	0.9492	0.9545	0.9687	0.9877	1.0007	1.0078	0.9754
10	1.0134	0.9869	0.9573	0.9268	0.9071	0.8972	0.9012	0.9112	0.9391	0.9782	1.0043	1.0184	0.9534
15	1.015	0.9761	0.9312	0.8857	0.8565	0.8419	0.8478	0.862	0.9033	0.963	1.0018	1.0228	0.9256
20	1.0102	0.9597	0.8994	0.8391	0.8008	0.7816	0.7893	0.8073	0.8615	0.942	0.9933	1.0209	0.8921
25	0.999	0.9378	0.8621	0.7875	0.7405	0.7168	0.7262	0.7476	0.8141	0.9156	0.9788	1.0128	0.8532
30	0.9815	0.9106	0.8195	0.7313	0.676	0.648	0.6591	0.6833	0.7614	0.8839	0.9585	0.9985	0.8093
35	0.9578	0.8783	0.7721	0.6709	0.6077	0.5758	0.5883	0.6149	0.7038	0.8471	0.9324	0.9781	0.7606
40	0.9281	0.841	0.7201	0.6068	0.5363	0.5006	0.5145	0.5429	0.6418	0.8055	0.9009	0.9518	0.7075
45	0.8927	0.7992	0.664	0.5395	0.4623	0.423	0.4382	0.4678	0.5757	0.7595	0.8641	0.9197	0.6505
50	0.8518	0.753	0.6043	0.4694	0.3861	0.3436	0.36	0.3903	0.5061	0.7093	0.8223	0.8822	0.5899
55	0.8057	0.703	0.5414	0.3971	0.3084	0.263	0.2804	0.3109	0.4334	0.6554	0.7758	0.8395	0.5262
60	0.7548	0.6493	0.4758	0.323	0.2298	0.2061	0.202	0.2301	0.3584	0.5981	0.725	0.7919	0.462
65	0.6995	0.5926	0.4079	0.2479	0.2019	0.2023	0.1984	0.1486	0.2814	0.538	0.6703	0.7399	0.4107
70	0.6401	0.5331	0.3382	0.1828	0.1981	0.1983	0.1947	0.1336	0.2031	0.4755	0.6121	0.6837	0.3661
75	0.5772	0.4713	0.2672	0.1804	0.1941	0.1942	0.1909	0.1339	0.124	0.4109	0.5508	0.6238	0.3266
80	0.5111	0.4078	0.1851	0.1799	0.19	0.1901	0.1869	0.1341	0.1088	0.345	0.4869	0.5607	0.2905
85	0.4425	0.343	0.1816	0.1772	0.1859	0.1858	0.1829	0.1343	0.1117	0.278	0.4209	0.4949	0.2616
90	0.3719	0.2362	0.178	0.1744	0.1818	0.1815	0.1789	0.1346	0.1146	0.2182	0.3532	0.4268	0.2292

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	0.9916	0.9913	0.9914	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	1.0043	0.9917	0.9782	0.9641	0.9546	0.9498	0.9518	0.9567	0.97	0.9877	0.9999	1.0066	0.9763
10	1.0112	0.9864	0.9587	0.9303	0.9118	0.9025	0.9063	0.9156	0.9417	0.9783	1.0027	1.0159	0.9551
15	1.0117	0.9754	0.9333	0.8908	0.8635	0.8498	0.8554	0.8686	0.9072	0.9631	0.9994	1.019	0.9281
20	1.0057	0.9588	0.9022	0.8459	0.8101	0.7921	0.7993	0.816	0.8667	0.9422	0.9901	1.0159	0.8954
25	0.9935	0.9367	0.8655	0.796	0.752	0.7299	0.7387	0.7584	0.8205	0.9158	0.9749	1.0066	0.8574
30	0.975	0.9093	0.8236	0.7413	0.6896	0.6635	0.6738	0.6961	0.769	0.8841	0.9538	0.9911	0.8142
35	0.9503	0.8767	0.7768	0.6825	0.6234	0.5935	0.6052	0.6296	0.7126	0.8474	0.9271	0.9696	0.7662
40	0.9198	0.8393	0.7254	0.6198	0.5539	0.5204	0.5335	0.5594	0.6516	0.8058	0.8949	0.9423	0.7138
45	0.8835	0.7973	0.6698	0.5537	0.4816	0.4448	0.4591	0.4861	0.5865	0.7598	0.8574	0.9093	0.6574
50	0.8418	0.751	0.6107	0.4848	0.4071	0.3673	0.3826	0.4101	0.5177	0.7097	0.8151	0.8709	0.5974
55	0.7951	0.7008	0.5482	0.4136	0.3309	0.2883	0.3046	0.332	0.4459	0.6558	0.7681	0.8275	0.5342
60	0.7436	0.647	0.4829	0.3405	0.2535	0.2085	0.2256	0.2525	0.3716	0.5986	0.7169	0.7792	0.4684
65	0.6877	0.5901	0.4154	0.2662	0.2019	0.2023	0.1984	0.172	0.2952	0.5385	0.6618	0.7265	0.413
70	0.6279	0.5306	0.3459	0.191	0.1981	0.1983	0.1947	0.1336	0.2174	0.4759	0.6033	0.6699	0.3656
75	0.5646	0.4688	0.2752	0.1804	0.1941	0.1942	0.1909	0.1339	0.1387	0.4114	0.5417	0.6096	0.3253
80	0.4984	0.4052	0.2036	0.1806	0.19	0.1901	0.1869	0.1346	0.1094	0.3454	0.4777	0.5462	0.289
85	0.4296	0.3403	0.1817	0.1779	0.1859	0.1858	0.1829	0.1348	0.1123	0.2785	0.4115	0.4802	0.2585
90	0.3589	0.2362	0.1781	0.1752	0.1818	0.1815	0.1789	0.1348	0.1152	0.2182	0.3439	0.4121	0.2262



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	0.9916	0.9913	0.9914	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	1.003	0.9914	0.979	0.966	0.9572	0.9528	0.9546	0.9592	0.9714	0.9878	0.999	1.0051	0.9772
10	1.0087	0.9859	0.9603	0.9341	0.9171	0.9084	0.9119	0.9205	0.9445	0.9784	1.0008	1.0131	0.957
15	1.0079	0.9747	0.9357	0.8965	0.8713	0.8587	0.8638	0.8759	0.9115	0.9632	0.9967	1.0148	0.9309
20	1.0008	0.9578	0.9053	0.8535	0.8204	0.8038	0.8104	0.8257	0.8724	0.9424	0.9865	1.0103	0.8991
25	0.9874	0.9355	0.8693	0.8053	0.7648	0.7443	0.7524	0.7704	0.8276	0.9161	0.9705	0.9997	0.8619
30	0.9678	0.9078	0.8281	0.7524	0.7047	0.6806	0.6901	0.7103	0.7774	0.8844	0.9486	0.983	0.8196
35	0.9421	0.875	0.782	0.6952	0.6408	0.6131	0.6239	0.6459	0.7222	0.8477	0.9211	0.9603	0.7724
40	0.9105	0.8374	0.7312	0.6341	0.5734	0.5424	0.5545	0.5777	0.6624	0.8062	0.8882	0.9318	0.7208
45	0.8733	0.7952	0.6763	0.5695	0.5031	0.4691	0.4822	0.5062	0.5983	0.7602	0.8501	0.8978	0.6651
50	0.8308	0.7487	0.6177	0.5019	0.4304	0.3936	0.4076	0.4319	0.5306	0.7101	0.8071	0.8585	0.6057
55	0.7833	0.6983	0.5557	0.4319	0.3558	0.3164	0.3314	0.3554	0.4597	0.6562	0.7596	0.8141	0.5432
60	0.7311	0.6445	0.4909	0.3599	0.2798	0.2382	0.2539	0.2772	0.3861	0.599	0.7079	0.7651	0.4778
65	0.6746	0.5875	0.4237	0.2864	0.2031	0.2023	0.1984	0.1979	0.3104	0.539	0.6524	0.7117	0.4156
70	0.6143	0.5278	0.3545	0.212	0.1981	0.1983	0.1947	0.1336	0.2332	0.4764	0.5935	0.6545	0.3659
75	0.5507	0.4659	0.284	0.1804	0.1941	0.1942	0.1909	0.1339	0.1549	0.4119	0.5317	0.5939	0.3239
80	0.4842	0.4023	0.2127	0.1813	0.19	0.1901	0.1869	0.1357	0.1099	0.346	0.4674	0.5302	0.2864
85	0.4152	0.3374	0.1818	0.1787	0.1859	0.1858	0.1829	0.1358	0.1128	0.279	0.4012	0.464	0.2551
90	0.3445	0.2362	0.1783	0.1759	0.1818	0.1815	0.1789	0.1359	0.1157	0.2182	0.3335	0.3958	0.223

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	0.9916	0.9913	0.9914	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	1.0017	0.9911	0.9798	0.968	0.9601	0.956	0.9577	0.9618	0.9729	0.9878	0.998	1.0036	0.9782
10	1.0059	0.9853	0.962	0.9382	0.9227	0.9149	0.9181	0.9258	0.9477	0.9785	0.9989	1.01	0.959
15	1.0038	0.9738	0.9382	0.9027	0.8798	0.8683	0.8729	0.8838	0.9161	0.9634	0.9938	1.0102	0.9339
20	0.9954	0.9567	0.9087	0.8617	0.8317	0.8165	0.8226	0.8362	0.8786	0.9426	0.9827	1.0042	0.9031
25	0.9807	0.9341	0.8735	0.8155	0.7787	0.76	0.7674	0.7834	0.8352	0.9163	0.9657	0.9922	0.8669
30	0.9599	0.9062	0.8331	0.7645	0.7212	0.6992	0.7078	0.7258	0.7865	0.8847	0.9429	0.9741	0.8255
35	0.933	0.8732	0.7876	0.7091	0.6597	0.6345	0.6443	0.6637	0.7327	0.848	0.9146	0.9501	0.7792
40	0.9004	0.8353	0.7375	0.6496	0.5946	0.5664	0.5773	0.5976	0.6741	0.8066	0.8809	0.9204	0.7284
45	0.8622	0.7929	0.6833	0.5866	0.5264	0.4955	0.5074	0.5282	0.6112	0.7606	0.8421	0.8852	0.6735
50	0.8188	0.7462	0.6253	0.5205	0.4557	0.4222	0.4349	0.4557	0.5446	0.7105	0.7985	0.8448	0.6148
55	0.7704	0.6957	0.5639	0.4518	0.3828	0.347	0.3605	0.3809	0.4746	0.6567	0.7503	0.7995	0.5528
60	0.7175	0.6417	0.4995	0.3809	0.3085	0.2706	0.2847	0.3041	0.4019	0.5996	0.6981	0.7497	0.4881
65	0.6604	0.5845	0.4327	0.3084	0.2331	0.2023	0.2081	0.226	0.327	0.5395	0.6421	0.6956	0.4216
70	0.5996	0.5248	0.3639	0.2348	0.1981	0.1983	0.1947	0.1472	0.2503	0.477	0.5829	0.6378	0.3674
75	0.5355	0.4628	0.2936	0.1804	0.1941	0.1942	0.1909	0.1339	0.1726	0.4125	0.5208	0.5767	0.3223
80	0.4687	0.3991	0.2225	0.1778	0.19	0.1901	0.1869	0.1341	0.1046	0.3466	0.4563	0.5126	0.2824
85	0.3996	0.3342	0.1819	0.1794	0.1859	0.1858	0.1829	0.1368	0.1133	0.2796	0.3899	0.4463	0.2513
90	0.3287	0.2362	0.1784	0.1766	0.1818	0.1815	0.1789	0.1369	0.1162	0.2182	0.3222	0.378	0.2195



Tabla 14: Azimut de 55°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9916	0.9919	0.9916	0.9913	0.9914	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	1.0002	0.9908	0.9808	0.9703	0.9632	0.9595	0.961	0.9647	0.9746	0.9879	0.9969	1.0019	0.9793
10	1.003	0.9847	0.9639	0.9427	0.9289	0.9218	0.9247	0.9315	0.951	0.9786	0.9968	1.0066	0.9612
15	0.9995	0.9729	0.941	0.9094	0.889	0.8786	0.8828	0.8924	0.9211	0.9635	0.9906	1.0052	0.9372
20	0.9896	0.9555	0.9123	0.8705	0.8438	0.8302	0.8356	0.8476	0.8852	0.9428	0.9785	0.9977	0.9074
25	0.9736	0.9326	0.878	0.8264	0.7936	0.7769	0.7835	0.7974	0.8435	0.9166	0.9605	0.9841	0.8722
30	0.9514	0.9044	0.8384	0.7775	0.7389	0.7192	0.7269	0.7424	0.7963	0.885	0.9368	0.9645	0.8318
35	0.9233	0.8712	0.7937	0.724	0.68	0.6575	0.6662	0.6828	0.7439	0.8484	0.9076	0.9391	0.7865
40	0.8895	0.8331	0.7444	0.6664	0.6174	0.5922	0.6019	0.619	0.6867	0.807	0.8731	0.9081	0.7366
45	0.8502	0.7904	0.6909	0.605	0.5515	0.5239	0.5344	0.5517	0.6251	0.7611	0.8335	0.8717	0.6824
50	0.8058	0.7436	0.6335	0.5405	0.4829	0.4529	0.4642	0.4812	0.5596	0.711	0.7891	0.8301	0.6245
55	0.7565	0.6928	0.5727	0.4731	0.4119	0.3799	0.3918	0.4081	0.4907	0.6573	0.7403	0.7838	0.5632
60	0.7028	0.6386	0.5088	0.4034	0.3392	0.3054	0.3179	0.333	0.4189	0.6001	0.6875	0.7331	0.4991
65	0.645	0.5814	0.4424	0.332	0.2652	0.2299	0.2428	0.2562	0.3447	0.5401	0.6311	0.6783	0.4324
70	0.5837	0.5215	0.374	0.2593	0.1981	0.1983	0.1947	0.1785	0.2687	0.4776	0.5714	0.6198	0.3705
75	0.5192	0.4594	0.304	0.1858	0.1941	0.1942	0.1909	0.1339	0.1915	0.4131	0.509	0.5582	0.3211
80	0.452	0.3957	0.233	0.1778	0.19	0.1901	0.1869	0.1341	0.1136	0.3472	0.4443	0.4938	0.2799
85	0.3827	0.3307	0.182	0.18	0.1859	0.1858	0.1829	0.1378	0.1138	0.2803	0.3778	0.4272	0.2472
90	0.3118	0.2362	0.1784	0.1773	0.1818	0.1815	0.1789	0.1379	0.1167	0.2182	0.31	0.3588	0.2156

Tabla 15: Azimut de 60°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9916	0.9919	0.9916	0.9913	0.9914	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9986	0.9905	0.9818	0.9727	0.9664	0.9632	0.9645	0.9678	0.9764	0.9879	0.9958	1.0001	0.9805
10	0.9999	0.9841	0.9658	0.9475	0.9354	0.9292	0.9317	0.9376	0.9546	0.9787	0.9945	1.0031	0.9635
15	0.9948	0.972	0.9439	0.9165	0.8987	0.8896	0.8932	0.9015	0.9265	0.9637	0.9872	1	0.9406
20	0.9835	0.9542	0.9162	0.8799	0.8566	0.8447	0.8494	0.8596	0.8923	0.9431	0.9741	0.9907	0.912
25	0.966	0.9311	0.8828	0.8381	0.8095	0.7949	0.8006	0.8123	0.8522	0.9169	0.955	0.9755	0.8779
30	0.9424	0.9026	0.844	0.7912	0.7577	0.7405	0.7472	0.76	0.8067	0.8854	0.9304	0.9543	0.8385
35	0.913	0.8691	0.8002	0.7398	0.7016	0.6819	0.6895	0.703	0.7558	0.8488	0.9002	0.9274	0.7942
40	0.878	0.8307	0.7517	0.6841	0.6416	0.6196	0.628	0.6417	0.7	0.8074	0.8647	0.895	0.7452
45	0.8375	0.7878	0.6989	0.6245	0.5781	0.554	0.5631	0.5767	0.6397	0.7616	0.8243	0.8573	0.692
50	0.792	0.7407	0.6422	0.5616	0.5117	0.4855	0.4953	0.5083	0.5754	0.7116	0.7792	0.8145	0.6348
55	0.7418	0.6898	0.582	0.4957	0.4428	0.4148	0.4251	0.4371	0.5076	0.6578	0.7297	0.7671	0.5743
60	0.6872	0.6354	0.5186	0.4273	0.3718	0.3423	0.353	0.3636	0.4368	0.6007	0.6763	0.7154	0.5107
65	0.6287	0.578	0.4527	0.357	0.2994	0.2685	0.2796	0.2882	0.3635	0.5407	0.6193	0.6598	0.4446
70	0.5668	0.518	0.3846	0.2852	0.226	0.1983	0.2053	0.2117	0.2882	0.4782	0.5592	0.6007	0.3769
75	0.5018	0.4559	0.315	0.2125	0.1941	0.1942	0.1909	0.1345	0.2115	0.4138	0.4964	0.5385	0.3216
80	0.4343	0.392	0.2442	0.1778	0.19	0.1901	0.1869	0.1341	0.134	0.3479	0.4315	0.4737	0.278
85	0.3648	0.327	0.1821	0.1806	0.1866	0.1858	0.1829	0.1388	0.1142	0.281	0.3648	0.4069	0.243
90	0.2938	0.2362	0.1785	0.178	0.1823	0.1815	0.1789	0.1389	0.1171	0.2182	0.297	0.3385	0.2116



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	0.9916	0.9913	0.9914	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.997	0.9902	0.9828	0.9752	0.9699	0.967	0.9682	0.971	0.9783	0.988	0.9946	0.9983	0.9817
10	0.9966	0.9834	0.9679	0.9525	0.9422	0.9369	0.9391	0.944	0.9583	0.9788	0.9921	0.9994	0.9659
15	0.9899	0.971	0.947	0.9239	0.9089	0.9012	0.9042	0.911	0.9321	0.9639	0.9837	0.9944	0.9443
20	0.977	0.9529	0.9202	0.8898	0.8701	0.86	0.864	0.8723	0.8997	0.9433	0.9694	0.9834	0.9168
25	0.958	0.9294	0.8878	0.8503	0.8262	0.8138	0.8186	0.828	0.8614	0.9172	0.9493	0.9664	0.8839
30	0.933	0.9006	0.85	0.8057	0.7775	0.7629	0.7685	0.7785	0.8175	0.8857	0.9235	0.9436	0.8456
35	0.9022	0.8668	0.807	0.7564	0.7243	0.7076	0.7139	0.7242	0.7682	0.8492	0.8924	0.9151	0.8023
40	0.8658	0.8282	0.7594	0.7027	0.667	0.6483	0.6554	0.6656	0.7139	0.8079	0.856	0.8812	0.7543
45	0.8241	0.7851	0.7074	0.645	0.6061	0.5856	0.5932	0.6029	0.655	0.7621	0.8147	0.8421	0.7019
50	0.7775	0.7378	0.6514	0.5837	0.542	0.5198	0.5279	0.5367	0.5921	0.7121	0.7687	0.7981	0.6457
55	0.7263	0.6866	0.5918	0.5194	0.4751	0.4514	0.46	0.4675	0.5254	0.6584	0.7186	0.7496	0.5858
60	0.6708	0.6321	0.529	0.4524	0.4061	0.381	0.3899	0.3957	0.4556	0.6013	0.6645	0.6969	0.5229
65	0.6116	0.5745	0.4635	0.3832	0.3352	0.309	0.3182	0.3218	0.3831	0.5414	0.607	0.6404	0.4574
70	0.549	0.5144	0.3959	0.3124	0.2632	0.2361	0.2454	0.2466	0.3086	0.4789	0.5464	0.5805	0.3898
75	0.4835	0.4521	0.3265	0.2405	0.1941	0.1942	0.1909	0.1704	0.2325	0.4145	0.4833	0.5178	0.325
80	0.4156	0.3882	0.256	0.1778	0.19	0.1901	0.1869	0.1341	0.1554	0.3486	0.4181	0.4526	0.2761
85	0.3459	0.3231	0.1821	0.1812	0.1879	0.1858	0.1835	0.1397	0.1145	0.2817	0.3513	0.3856	0.2385
90	0.2749	0.2362	0.1786	0.1785	0.1835	0.1815	0.1793	0.1398	0.1175	0.2182	0.2834	0.3171	0.2074

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	0.9916	0.9913	0.9914	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9953	0.9898	0.9839	0.9778	0.9734	0.9711	0.972	0.9743	0.9802	0.9881	0.9934	0.9963	0.983
10	0.9932	0.9827	0.9701	0.9577	0.9493	0.945	0.9467	0.9507	0.9622	0.979	0.9897	0.9955	0.9685
15	0.9848	0.9699	0.9502	0.9317	0.9195	0.9132	0.9157	0.921	0.9379	0.9641	0.98	0.9886	0.9481
20	0.9703	0.9515	0.9245	0.9	0.8841	0.8759	0.8791	0.8854	0.9074	0.9436	0.9645	0.9758	0.9218
25	0.9497	0.9277	0.893	0.8629	0.8436	0.8335	0.8373	0.8442	0.8709	0.9175	0.9433	0.957	0.8901
30	0.9231	0.8986	0.8562	0.8207	0.798	0.7861	0.7906	0.7978	0.8288	0.8861	0.9164	0.9324	0.8529
35	0.8909	0.8645	0.8141	0.7736	0.7478	0.7343	0.7393	0.7463	0.7811	0.8496	0.8842	0.9023	0.8107
40	0.8531	0.8256	0.7674	0.722	0.6934	0.6783	0.6838	0.6903	0.7284	0.8084	0.8468	0.8669	0.7637
45	0.8102	0.7822	0.7162	0.6662	0.6352	0.6185	0.6245	0.6301	0.671	0.7626	0.8046	0.8263	0.7123
50	0.7624	0.7346	0.6609	0.6068	0.5735	0.5555	0.5619	0.5662	0.6093	0.7127	0.7579	0.7811	0.6569
55	0.7101	0.6833	0.6019	0.544	0.5088	0.4896	0.4963	0.499	0.5439	0.659	0.7069	0.7313	0.5979
60	0.6538	0.6286	0.5398	0.4784	0.4417	0.4213	0.4283	0.429	0.4751	0.602	0.6522	0.6776	0.5356
65	0.5937	0.5708	0.4748	0.4105	0.3725	0.3512	0.3584	0.3568	0.4035	0.542	0.5941	0.6202	0.4707
70	0.5304	0.5105	0.4075	0.3406	0.3018	0.2798	0.2871	0.2828	0.3297	0.4796	0.5331	0.5596	0.4036
75	0.4645	0.4482	0.3385	0.2695	0.2302	0.2076	0.2149	0.2076	0.2542	0.4152	0.4696	0.4963	0.3347
80	0.3962	0.3842	0.2682	0.1976	0.19	0.1901	0.1869	0.1341	0.1776	0.3493	0.4041	0.4307	0.2758
85	0.3263	0.3191	0.1972	0.1752	0.1859	0.1858	0.1829	0.1343	0.1075	0.2824	0.3371	0.3633	0.2331
90	0.2552	0.2362	0.1786	0.1791	0.1847	0.1823	0.1807	0.1407	0.1178	0.2182	0.2692	0.2948	0.2031



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	0.9916	0.9913	0.9914	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9935	0.9894	0.985	0.9805	0.9771	0.9753	0.976	0.9778	0.9822	0.9881	0.9921	0.9943	0.9843
10	0.9896	0.982	0.9723	0.963	0.9567	0.9533	0.9547	0.9576	0.9662	0.9791	0.9871	0.9915	0.9711
15	0.9795	0.9688	0.9535	0.9397	0.9305	0.9256	0.9275	0.9312	0.9439	0.9643	0.9762	0.9827	0.952
20	0.9633	0.9501	0.9288	0.9106	0.8986	0.8923	0.8948	0.899	0.9153	0.9438	0.9595	0.9679	0.927
25	0.9411	0.9259	0.8984	0.876	0.8615	0.8537	0.8567	0.861	0.8807	0.9178	0.9371	0.9473	0.8964
30	0.9129	0.8965	0.8626	0.8362	0.8192	0.8101	0.8135	0.8176	0.8404	0.8865	0.9091	0.9209	0.8605
35	0.8792	0.8621	0.8215	0.7914	0.7721	0.7618	0.7656	0.7691	0.7944	0.8501	0.8758	0.8891	0.8193
40	0.84	0.8229	0.7756	0.7419	0.7207	0.7091	0.7132	0.7158	0.7433	0.8089	0.8374	0.8521	0.7734
45	0.7958	0.7792	0.7252	0.6881	0.6651	0.6524	0.6569	0.6582	0.6874	0.7631	0.7942	0.8101	0.723
50	0.7468	0.7314	0.6707	0.6305	0.6059	0.5922	0.5969	0.5966	0.6271	0.7133	0.7466	0.7634	0.6685
55	0.6935	0.6799	0.6124	0.5694	0.5435	0.5289	0.5337	0.5315	0.5629	0.6597	0.6949	0.7125	0.6102
60	0.6361	0.6249	0.5508	0.5052	0.4784	0.4629	0.4679	0.4634	0.4952	0.6027	0.6395	0.6576	0.5487
65	0.5753	0.567	0.4864	0.4385	0.4109	0.3947	0.3998	0.3928	0.4246	0.5427	0.5808	0.5993	0.4844
70	0.5113	0.5066	0.4196	0.3698	0.3417	0.3249	0.33	0.3201	0.3515	0.4804	0.5193	0.5379	0.4178
75	0.4448	0.4441	0.3509	0.2994	0.2712	0.254	0.259	0.246	0.2766	0.416	0.4554	0.474	0.3493
80	0.3762	0.3801	0.2809	0.2281	0.2	0.1901	0.1874	0.1709	0.2004	0.3501	0.3896	0.408	0.2801
85	0.306	0.3149	0.21	0.1752	0.1859	0.1858	0.1829	0.1343	0.1235	0.2832	0.3225	0.3404	0.2304
90	0.2348	0.2362	0.1787	0.1796	0.1859	0.184	0.1822	0.1415	0.118	0.2182	0.2545	0.2717	0.1988

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	0.9916	0.9913	0.9914	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9917	0.9891	0.9861	0.9832	0.9809	0.9795	0.9801	0.9813	0.9843	0.9882	0.9908	0.9923	0.9856
10	0.986	0.9812	0.9745	0.9685	0.9642	0.9618	0.9628	0.9646	0.9703	0.9792	0.9845	0.9874	0.9738
15	0.9742	0.9677	0.9569	0.9478	0.9417	0.9383	0.9396	0.9417	0.95	0.9645	0.9724	0.9766	0.9559
20	0.9562	0.9486	0.9333	0.9214	0.9135	0.9091	0.9107	0.9128	0.9234	0.9441	0.9544	0.9598	0.9323
25	0.9323	0.9241	0.904	0.8894	0.8798	0.8745	0.8764	0.8781	0.8907	0.9182	0.9307	0.9373	0.903
30	0.9025	0.8944	0.8691	0.852	0.8409	0.8347	0.8368	0.8379	0.8523	0.8869	0.9016	0.9091	0.8682
35	0.8672	0.8596	0.829	0.8095	0.797	0.7899	0.7924	0.7924	0.808	0.8505	0.8672	0.8756	0.8282
40	0.8266	0.8202	0.784	0.7622	0.7485	0.7406	0.7432	0.7419	0.7585	0.8094	0.8278	0.8369	0.7833
45	0.7811	0.7762	0.7345	0.7105	0.6958	0.6871	0.6899	0.6869	0.7041	0.7637	0.7836	0.7934	0.7339
50	0.7309	0.7282	0.6807	0.6547	0.6391	0.6298	0.6327	0.6277	0.6452	0.7139	0.7351	0.7454	0.6803
55	0.6764	0.6764	0.6232	0.5953	0.579	0.5691	0.572	0.5647	0.5823	0.6603	0.6826	0.6932	0.6229
60	0.6181	0.6212	0.5622	0.5326	0.5159	0.5054	0.5083	0.4985	0.5157	0.6033	0.6265	0.6372	0.5621
65	0.5564	0.5632	0.4983	0.4672	0.4502	0.4392	0.4422	0.4295	0.446	0.5435	0.5672	0.5779	0.4984
70	0.4918	0.5026	0.4319	0.3995	0.3824	0.371	0.3739	0.3582	0.3738	0.4811	0.5052	0.5158	0.4323
75	0.4247	0.44	0.3636	0.33	0.3131	0.3014	0.3042	0.2852	0.2995	0.4167	0.4409	0.4512	0.3642
80	0.3557	0.3759	0.2938	0.2593	0.2427	0.2308	0.2334	0.2109	0.2238	0.3509	0.3749	0.3848	0.2947
85	0.2853	0.3107	0.2231	0.1879	0.1859	0.1858	0.1829	0.136	0.1471	0.284	0.3076	0.3169	0.2294
90	0.214	0.2362	0.1787	0.18	0.187	0.1856	0.1836	0.1423	0.1182	0.2182	0.2395	0.2482	0.1943



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	0.9916	0.9913	0.9914	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9898	0.9887	0.9873	0.986	0.9847	0.9839	0.9842	0.9849	0.9864	0.9883	0.9895	0.9902	0.987
10	0.9823	0.9805	0.9769	0.9741	0.9718	0.9705	0.971	0.9717	0.9745	0.9794	0.9819	0.9833	0.9765
15	0.9687	0.9666	0.9603	0.9561	0.953	0.9512	0.9519	0.9524	0.9562	0.9647	0.9684	0.9704	0.96
20	0.949	0.9471	0.9379	0.9324	0.9285	0.9261	0.927	0.9269	0.9316	0.9444	0.9492	0.9516	0.9376
25	0.9233	0.9223	0.9096	0.9029	0.8983	0.8955	0.8964	0.8955	0.9009	0.9185	0.9243	0.9272	0.9096
30	0.8919	0.8922	0.8758	0.868	0.8628	0.8595	0.8605	0.8584	0.8643	0.8873	0.894	0.8972	0.876
35	0.8551	0.8572	0.8366	0.8279	0.8222	0.8185	0.8195	0.816	0.8218	0.851	0.8584	0.8619	0.8372
40	0.8131	0.8174	0.7925	0.7828	0.7768	0.7726	0.7737	0.7683	0.7739	0.8099	0.818	0.8215	0.7934
45	0.7661	0.7731	0.7439	0.7332	0.7268	0.7223	0.7234	0.716	0.7211	0.7643	0.7729	0.7765	0.745
50	0.7147	0.7248	0.6909	0.6793	0.6728	0.6679	0.669	0.6592	0.6636	0.7145	0.7235	0.727	0.6923
55	0.6591	0.6728	0.634	0.6215	0.615	0.6098	0.6108	0.5984	0.6019	0.661	0.6701	0.6736	0.6357
60	0.5998	0.6175	0.5737	0.5604	0.5539	0.5485	0.5494	0.5341	0.5365	0.604	0.6133	0.6165	0.5756
65	0.5372	0.5592	0.5103	0.4962	0.49	0.4843	0.4851	0.4668	0.4678	0.5442	0.5534	0.5562	0.5126
70	0.4719	0.4985	0.4444	0.4296	0.4237	0.4178	0.4185	0.3969	0.3963	0.4819	0.4909	0.4933	0.447
75	0.4043	0.4358	0.3764	0.361	0.3555	0.3495	0.35	0.3249	0.3227	0.4175	0.4262	0.4281	0.3793
80	0.3349	0.3716	0.3069	0.2909	0.286	0.2798	0.2801	0.2514	0.2474	0.3517	0.3599	0.3612	0.3101
85	0.2642	0.3063	0.2363	0.2198	0.2156	0.2094	0.2095	0.177	0.1711	0.2848	0.2924	0.2931	0.24
90	0.1929	0.2362	0.1787	0.1803	0.1881	0.1872	0.185	0.143	0.1183	0.2182	0.2243	0.2242	0.1897

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	0.9916	0.9913	0.9914	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.988	0.9883	0.9885	0.9888	0.9886	0.9883	0.9884	0.9885	0.9885	0.9883	0.9881	0.9881	0.9884
10	0.9786	0.9797	0.9792	0.9797	0.9795	0.9792	0.9793	0.9789	0.9787	0.9795	0.9792	0.9791	0.9792
15	0.9632	0.9655	0.9638	0.9645	0.9645	0.9642	0.9642	0.9631	0.9624	0.9649	0.9644	0.9641	0.9641
20	0.9417	0.9456	0.9424	0.9434	0.9436	0.9433	0.9433	0.9411	0.9398	0.9447	0.9439	0.9434	0.943
25	0.9143	0.9204	0.9153	0.9166	0.917	0.9167	0.9166	0.913	0.9111	0.9188	0.9178	0.917	0.9162
30	0.8813	0.89	0.8824	0.8841	0.885	0.8846	0.8844	0.8791	0.8763	0.8877	0.8863	0.8851	0.8839
35	0.8429	0.8546	0.8443	0.8464	0.8476	0.8472	0.8469	0.8397	0.8356	0.8515	0.8496	0.848	0.8462
40	0.7994	0.8145	0.8011	0.8035	0.8052	0.8048	0.8044	0.7949	0.7894	0.8104	0.8081	0.806	0.8035
45	0.7511	0.77	0.7533	0.756	0.7581	0.7577	0.7571	0.7452	0.7381	0.7649	0.762	0.7594	0.7561
50	0.6983	0.7215	0.7012	0.704	0.7066	0.7063	0.7055	0.6909	0.682	0.7151	0.7117	0.7085	0.7043
55	0.6416	0.6692	0.645	0.6479	0.6512	0.6508	0.6499	0.6323	0.6216	0.6616	0.6575	0.6538	0.6485
60	0.5813	0.6137	0.5853	0.5883	0.5922	0.5918	0.5907	0.5699	0.5573	0.6047	0.6	0.5956	0.5892
65	0.5179	0.5552	0.5224	0.5254	0.5301	0.5297	0.5283	0.5043	0.4896	0.5449	0.5395	0.5344	0.5268
70	0.4518	0.4944	0.457	0.4599	0.4652	0.4649	0.4633	0.4357	0.419	0.4826	0.4764	0.4706	0.4617
75	0.3837	0.4316	0.3893	0.3921	0.3982	0.3978	0.396	0.3649	0.346	0.4183	0.4113	0.4048	0.3945
80	0.3139	0.3673	0.3201	0.3227	0.3295	0.3292	0.3271	0.2922	0.2712	0.3525	0.3447	0.3375	0.3256
85	0.243	0.302	0.2497	0.252	0.2596	0.2593	0.257	0.2183	0.1951	0.2856	0.2771	0.269	0.2556
90	0.1716	0.2362	0.1787	0.1806	0.1891	0.1888	0.1863	0.1437	0.1184	0.2182	0.2089	0.2001	0.185



Tabla 22: Azimut de 95°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9916	0.9919	0.9916	0.9913	0.9914	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9861	0.9879	0.9896	0.9916	0.9924	0.9926	0.9925	0.9921	0.9906	0.9884	0.9868	0.986	0.9897
10	0.9749	0.9789	0.9815	0.9853	0.9872	0.9879	0.9876	0.9861	0.9829	0.9797	0.9765	0.9749	0.982
15	0.9576	0.9643	0.9673	0.9728	0.9759	0.9772	0.9766	0.9738	0.9687	0.9651	0.9605	0.9579	0.9681
20	0.9344	0.9441	0.947	0.9544	0.9588	0.9604	0.9596	0.9552	0.9481	0.9449	0.9387	0.9351	0.9484
25	0.9053	0.9186	0.9209	0.9302	0.9357	0.9379	0.9368	0.9305	0.9212	0.9192	0.9113	0.9068	0.9229
30	0.8706	0.8878	0.8891	0.9002	0.9071	0.9097	0.9083	0.8998	0.8883	0.8881	0.8786	0.8731	0.8917
35	0.8307	0.8521	0.852	0.8648	0.8729	0.8759	0.8742	0.8634	0.8494	0.8519	0.8408	0.8342	0.8552
40	0.7857	0.8117	0.8097	0.8242	0.8336	0.837	0.835	0.8215	0.8049	0.8109	0.7982	0.7905	0.8136
45	0.736	0.7669	0.7628	0.7787	0.7893	0.7931	0.7908	0.7744	0.7551	0.7654	0.7511	0.7424	0.7672
50	0.682	0.7181	0.7114	0.7286	0.7405	0.7446	0.742	0.7225	0.7005	0.7158	0.6999	0.6901	0.7163
55	0.6242	0.6656	0.6559	0.6743	0.6874	0.6918	0.6889	0.6661	0.6413	0.6623	0.645	0.634	0.6614
60	0.5629	0.6099	0.5968	0.6161	0.6304	0.6351	0.6319	0.6057	0.5781	0.6055	0.5867	0.5747	0.6028
65	0.4986	0.5513	0.5346	0.5546	0.5701	0.575	0.5715	0.5417	0.5114	0.5457	0.5256	0.5125	0.541
70	0.4318	0.4903	0.4695	0.4901	0.5067	0.5119	0.508	0.4745	0.4416	0.4834	0.462	0.448	0.4765
75	0.3631	0.4273	0.4022	0.4232	0.4409	0.4462	0.4421	0.4048	0.3692	0.4191	0.3965	0.3815	0.4097
80	0.2929	0.363	0.3332	0.3544	0.373	0.3784	0.374	0.3329	0.2949	0.3533	0.3296	0.3137	0.3411
85	0.2217	0.2976	0.263	0.2841	0.3037	0.3092	0.3045	0.2595	0.2191	0.2864	0.2618	0.245	0.2713
90	0.1716	0.2362	0.1921	0.2129	0.2333	0.2388	0.2339	0.185	0.1424	0.219	0.2089	0.2001	0.2062

Tabla 23: Azimut de 100°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9916	0.9919	0.9916	0.9913	0.9914	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9843	0.9875	0.9908	0.9944	0.9963	0.997	0.9967	0.9957	0.9927	0.9885	0.9855	0.9839	0.9911
10	0.9713	0.9782	0.9838	0.9908	0.9948	0.9965	0.9958	0.9932	0.987	0.9798	0.9739	0.9707	0.9847
15	0.9522	0.9632	0.9707	0.9811	0.9873	0.99	0.9888	0.9844	0.9748	0.9653	0.9565	0.9517	0.9722
20	0.9271	0.9427	0.9516	0.9654	0.9738	0.9774	0.9758	0.9692	0.9562	0.9452	0.9335	0.927	0.9537
25	0.8964	0.9168	0.9265	0.9437	0.9543	0.9589	0.9568	0.9478	0.9313	0.9195	0.9049	0.8967	0.9295
30	0.8601	0.8857	0.8958	0.9162	0.929	0.9345	0.9319	0.9203	0.9002	0.8885	0.871	0.8611	0.8995
35	0.8185	0.8496	0.8596	0.8831	0.898	0.9044	0.9014	0.8869	0.8631	0.8524	0.8321	0.8205	0.8641
40	0.7721	0.8089	0.8183	0.8447	0.8617	0.8689	0.8654	0.8478	0.8202	0.8115	0.7884	0.7751	0.8236
45	0.721	0.7639	0.7722	0.8012	0.8203	0.8282	0.8242	0.8033	0.7719	0.766	0.7404	0.7254	0.7782
50	0.6658	0.7148	0.7215	0.753	0.774	0.7826	0.7782	0.7538	0.7187	0.7164	0.6882	0.6717	0.7282
55	0.6068	0.6621	0.6668	0.7004	0.7232	0.7324	0.7276	0.6996	0.6608	0.663	0.6325	0.6144	0.6741
60	0.5445	0.6061	0.6083	0.6437	0.6683	0.6781	0.6728	0.6411	0.5987	0.6061	0.5735	0.554	0.6163
65	0.4794	0.5473	0.5466	0.5835	0.6097	0.6199	0.6143	0.5787	0.533	0.5464	0.5117	0.4908	0.5551
70	0.4119	0.4862	0.482	0.5201	0.5478	0.5585	0.5524	0.513	0.4639	0.4841	0.4477	0.4255	0.4911
75	0.3426	0.4231	0.4151	0.454	0.4832	0.4941	0.4877	0.4443	0.3922	0.4199	0.3818	0.3584	0.4247
80	0.272	0.3587	0.3463	0.3858	0.4161	0.4273	0.4205	0.3732	0.3183	0.3541	0.3146	0.2901	0.3564
85	0.2007	0.2933	0.2762	0.3159	0.3473	0.3586	0.3515	0.3002	0.2428	0.2872	0.2466	0.2212	0.2868
90	0.1716	0.2362	0.2054	0.2448	0.2771	0.2885	0.2812	0.226	0.1663	0.2198	0.2089	0.2001	0.2271



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	0.9916	0.9913	0.9914	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9825	0.9872	0.9919	0.9972	1	1.0012	1.0007	0.9992	0.9947	0.9885	0.9841	0.9818	0.9924
10	0.9676	0.9775	0.9861	0.9963	1.0023	1.005	1.0039	1.0003	0.9911	0.9799	0.9713	0.9666	0.9873
15	0.9468	0.9621	0.9741	0.9893	0.9985	1.0027	1.0009	0.9949	0.9809	0.9656	0.9526	0.9456	0.9762
20	0.92	0.9412	0.956	0.9761	0.9885	0.9942	0.9917	0.983	0.9642	0.9455	0.9283	0.9189	0.959
25	0.8876	0.9149	0.9321	0.9569	0.9725	0.9795	0.9764	0.9648	0.9412	0.9199	0.8985	0.8867	0.9359
30	0.8496	0.8835	0.9023	0.9319	0.9505	0.9589	0.9552	0.9404	0.9119	0.8889	0.8635	0.8493	0.9072
35	0.8066	0.8472	0.8671	0.9011	0.9228	0.9324	0.928	0.9099	0.8765	0.8528	0.8235	0.807	0.8729
40	0.7587	0.8062	0.8266	0.8649	0.8894	0.9003	0.8952	0.8736	0.8352	0.812	0.7788	0.76	0.8334
45	0.7063	0.7608	0.7814	0.8234	0.8507	0.8627	0.8571	0.8318	0.7885	0.7666	0.7297	0.7088	0.789
50	0.6499	0.7115	0.7315	0.777	0.807	0.82	0.8137	0.7846	0.7366	0.717	0.6768	0.6537	0.7399
55	0.5898	0.6586	0.6775	0.726	0.7585	0.7724	0.7656	0.7325	0.6799	0.6636	0.6202	0.5951	0.6866
60	0.5265	0.6024	0.6196	0.6708	0.7056	0.7203	0.713	0.6759	0.619	0.6068	0.5605	0.5336	0.6295
65	0.4605	0.5435	0.5584	0.6118	0.6487	0.6641	0.6563	0.6152	0.5541	0.5471	0.4981	0.4695	0.569
70	0.3924	0.4822	0.4942	0.5495	0.5883	0.6043	0.596	0.5507	0.4859	0.4849	0.4336	0.4033	0.5054
75	0.3225	0.419	0.4276	0.4843	0.5247	0.5412	0.5325	0.4831	0.4148	0.4206	0.3673	0.3356	0.4394
80	0.2515	0.3545	0.3591	0.4166	0.4585	0.4753	0.4663	0.4128	0.3414	0.3548	0.2998	0.2669	0.3715
85	0.1799	0.289	0.2892	0.3471	0.3902	0.4072	0.3978	0.3403	0.2661	0.288	0.2316	0.2061	0.3027
90	0.1716	0.2362	0.2184	0.2762	0.3202	0.3373	0.3276	0.2662	0.1897	0.2206	0.2089	0.2001	0.2477

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	0.9916	0.9913	0.9914	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9807	0.9868	0.993	0.9998	1.0037	1.0054	1.0047	1.0026	0.9967	0.9886	0.9829	0.9798	0.9937
10	0.9641	0.9767	0.9883	1.0016	1.0097	1.0134	1.0118	1.0071	0.9951	0.9801	0.9687	0.9626	0.9899
15	0.9415	0.961	0.9774	0.9972	1.0094	1.0151	1.0127	1.0051	0.9868	0.9658	0.9488	0.9396	0.98
20	0.9131	0.9398	0.9604	0.9866	1.0029	1.0105	1.0073	0.9965	0.9721	0.9457	0.9233	0.911	0.9641
25	0.879	0.9132	0.9375	0.9699	0.9903	0.9997	0.9956	0.9815	0.9508	0.9202	0.8923	0.877	0.9422
30	0.8395	0.8814	0.9087	0.9472	0.9716	0.9828	0.9779	0.9601	0.9233	0.8893	0.8562	0.8378	0.9146
35	0.7949	0.8448	0.8744	0.9186	0.9469	0.9598	0.9541	0.9325	0.8896	0.8533	0.8151	0.7937	0.8815
40	0.7456	0.8035	0.8348	0.8845	0.9164	0.9309	0.9244	0.8989	0.8499	0.8125	0.7694	0.7452	0.843
45	0.6919	0.7579	0.7904	0.845	0.8804	0.8964	0.8891	0.8595	0.8046	0.7671	0.7194	0.6925	0.7995
50	0.6343	0.7083	0.7413	0.8004	0.8391	0.8564	0.8484	0.8146	0.754	0.7176	0.6655	0.636	0.7513
55	0.5731	0.6551	0.6879	0.751	0.7928	0.8114	0.8027	0.7646	0.6986	0.6642	0.6082	0.5763	0.6988
60	0.5089	0.5988	0.6306	0.6972	0.7419	0.7615	0.7522	0.7098	0.6387	0.6075	0.5478	0.5136	0.6424
65	0.4421	0.5397	0.5699	0.6395	0.6867	0.7073	0.6974	0.6507	0.5748	0.5478	0.4849	0.4486	0.5824
70	0.3733	0.4782	0.5062	0.5782	0.6277	0.649	0.6386	0.5876	0.5073	0.4856	0.4198	0.3817	0.5194
75	0.3029	0.415	0.4399	0.5138	0.5653	0.5872	0.5763	0.521	0.4368	0.4214	0.3531	0.3134	0.4538
80	0.2315	0.3503	0.3717	0.4467	0.4999	0.5222	0.5109	0.4514	0.3638	0.3556	0.2854	0.2442	0.3861
85	0.1747	0.2848	0.3019	0.3775	0.432	0.4546	0.4429	0.3794	0.2888	0.2888	0.217	0.2061	0.3207
90	0.1716	0.2362	0.2312	0.3067	0.3622	0.3849	0.373	0.3054	0.2125	0.2214	0.2089	0.2001	0.2678



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	0.9916	0.9913	0.9914	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.979	0.9865	0.9941	1.0024	1.0073	1.0094	1.0086	1.006	0.9987	0.9887	0.9816	0.9779	0.995
10	0.9607	0.976	0.9905	1.0068	1.0168	1.0214	1.0195	1.0137	0.9989	0.9802	0.9663	0.9588	0.9925
15	0.9364	0.96	0.9806	1.0049	1.02	1.027	1.0241	1.0149	0.9926	0.9659	0.9452	0.9339	0.9838
20	0.9063	0.9384	0.9646	0.9967	1.0169	1.0263	1.0223	1.0095	0.9796	0.946	0.9185	0.9034	0.969
25	0.8706	0.9115	0.9427	0.9824	1.0075	1.0193	1.0142	0.9975	0.9601	0.9205	0.8863	0.8676	0.9484
30	0.8296	0.8794	0.9149	0.962	0.9919	1.0059	0.9998	0.9791	0.9343	0.8897	0.8491	0.8266	0.9219
35	0.7836	0.8425	0.8815	0.9356	0.9702	0.9863	0.9792	0.9543	0.9022	0.8537	0.8069	0.781	0.8897
40	0.7329	0.8009	0.8428	0.9035	0.9426	0.9606	0.9526	0.9233	0.864	0.8129	0.7602	0.7309	0.8523
45	0.678	0.755	0.7991	0.8658	0.9092	0.929	0.9201	0.8863	0.8201	0.7676	0.7093	0.6767	0.8097
50	0.6192	0.7052	0.7507	0.823	0.8702	0.8917	0.882	0.8437	0.7709	0.7181	0.6546	0.6189	0.7624
55	0.557	0.6518	0.6979	0.7752	0.8261	0.8491	0.8386	0.7957	0.7166	0.6648	0.5965	0.558	0.7106
60	0.4918	0.5953	0.6412	0.7228	0.7771	0.8014	0.7902	0.7427	0.6577	0.6082	0.5355	0.4943	0.6548
65	0.4242	0.536	0.581	0.6662	0.7235	0.749	0.7371	0.685	0.5947	0.5485	0.472	0.4284	0.5955
70	0.3547	0.4744	0.5177	0.6059	0.6659	0.6923	0.6798	0.6232	0.528	0.4863	0.4064	0.3607	0.5329
75	0.2838	0.4111	0.4518	0.5423	0.6045	0.6316	0.6186	0.5576	0.458	0.4221	0.3394	0.2918	0.4677
80	0.2121	0.3464	0.3838	0.4758	0.5399	0.5675	0.554	0.4887	0.3855	0.3563	0.2714	0.2223	0.4003
85	0.1747	0.2808	0.3142	0.4069	0.4725	0.5005	0.4866	0.4172	0.3108	0.2895	0.2155	0.2061	0.3396
90	0.1716	0.2362	0.2435	0.3363	0.4028	0.4309	0.4168	0.3434	0.2345	0.2222	0.2089	0.2001	0.2873

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	0.9916	0.9913	0.9914	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9773	0.9861	0.9951	1.0049	1.0107	1.0133	1.0123	1.0092	1.0005	0.9887	0.9804	0.976	0.9962
10	0.9574	0.9753	0.9925	1.0118	1.0236	1.0291	1.0268	1.0201	1.0026	0.9803	0.9639	0.955	0.9949
15	0.9315	0.9589	0.9837	1.0123	1.0301	1.0385	1.035	1.0244	0.9981	0.9661	0.9416	0.9283	0.9874
20	0.8998	0.9371	0.9687	1.0065	1.0303	1.0415	1.0368	1.022	0.9868	0.9462	0.9138	0.8961	0.9738
25	0.8626	0.9098	0.9477	0.9944	1.024	1.038	1.0321	1.013	0.9691	0.9208	0.8806	0.8585	0.9542
30	0.8202	0.8775	0.9209	0.9762	1.0114	1.028	1.0209	0.9973	0.9448	0.89	0.8423	0.8159	0.9288
35	0.7727	0.8402	0.8883	0.9519	0.9926	1.0117	1.0034	0.9751	0.9143	0.8541	0.7991	0.7687	0.8977
40	0.7208	0.7984	0.8504	0.9217	0.9676	0.989	0.9797	0.9466	0.8776	0.8134	0.7515	0.7171	0.8611
45	0.6646	0.7523	0.8074	0.8858	0.9367	0.9603	0.9499	0.912	0.835	0.7681	0.6997	0.6616	0.8194
50	0.6047	0.7022	0.7597	0.8446	0.9001	0.9256	0.9143	0.8715	0.787	0.7187	0.6442	0.6025	0.7729
55	0.5415	0.6486	0.7076	0.7983	0.858	0.8853	0.873	0.8254	0.7338	0.6654	0.5854	0.5404	0.7219
60	0.4754	0.5919	0.6515	0.7472	0.8108	0.8397	0.8266	0.7741	0.6759	0.6088	0.5237	0.4758	0.6668
65	0.4071	0.5325	0.5917	0.6918	0.7588	0.789	0.7752	0.7179	0.6137	0.5491	0.4596	0.409	0.608
70	0.3369	0.4708	0.5288	0.6324	0.7024	0.7337	0.7192	0.6573	0.5477	0.487	0.3936	0.3406	0.5459
75	0.2656	0.4073	0.4632	0.5695	0.6421	0.6743	0.6592	0.5927	0.4784	0.4228	0.3262	0.2712	0.481
80	0.1934	0.3425	0.3954	0.5036	0.5782	0.611	0.5954	0.5245	0.4062	0.357	0.258	0.2121	0.4148
85	0.1747	0.2769	0.326	0.4351	0.5112	0.5444	0.5285	0.4534	0.3317	0.2902	0.2155	0.2061	0.3578
90	0.1716	0.2362	0.2553	0.3646	0.4418	0.4751	0.4588	0.3797	0.2556	0.2229	0.2089	0.2001	0.3059



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	0.9916	0.9913	0.9914	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9757	0.9858	0.9961	1.0073	1.0139	1.017	1.0158	1.0122	1.0023	0.9888	0.9793	0.9742	0.9974
10	0.9543	0.9747	0.9945	1.0165	1.03	1.0365	1.0338	1.0262	1.0061	0.9805	0.9617	0.9515	0.9972
15	0.9269	0.958	0.9866	1.0193	1.0397	1.0495	1.0454	1.0334	1.0033	0.9663	0.9383	0.9231	0.9908
20	0.8937	0.9358	0.9726	1.0157	1.043	1.0559	1.0505	1.0339	0.9937	0.9465	0.9094	0.8891	0.9783
25	0.855	0.9083	0.9525	1.0058	1.0397	1.0558	1.049	1.0276	0.9775	0.9211	0.8751	0.8499	0.9598
30	0.8112	0.8756	0.9265	0.9896	1.03	1.0491	1.0409	1.0146	0.9548	0.8904	0.8358	0.8057	0.9354
35	0.7624	0.8381	0.8948	0.9673	1.0139	1.0358	1.0264	0.995	0.9257	0.8545	0.7917	0.757	0.9052
40	0.7092	0.796	0.8577	0.9389	0.9914	1.016	1.0054	0.9688	0.8904	0.8138	0.7431	0.704	0.8696
45	0.6519	0.7497	0.8153	0.9048	0.9629	0.99	0.9781	0.9364	0.8491	0.7686	0.6905	0.6472	0.8287
50	0.5909	0.6994	0.7683	0.8652	0.9284	0.9578	0.9449	0.8979	0.8023	0.7192	0.6343	0.5869	0.7829
55	0.5267	0.6456	0.7168	0.8202	0.8883	0.9197	0.9058	0.8536	0.7502	0.666	0.5748	0.5238	0.7326
60	0.4598	0.5887	0.6612	0.7704	0.8428	0.876	0.8611	0.8039	0.6932	0.6094	0.5125	0.4581	0.6781
65	0.3908	0.5291	0.6019	0.7161	0.7923	0.827	0.8113	0.7491	0.6318	0.5498	0.4479	0.3905	0.6198
70	0.32	0.4673	0.5393	0.6576	0.7372	0.7731	0.7567	0.6896	0.5664	0.4876	0.3815	0.3215	0.5582
75	0.2482	0.4037	0.474	0.5954	0.6778	0.7147	0.6977	0.6259	0.4976	0.4235	0.3137	0.2515	0.4936
80	0.1778	0.3389	0.4065	0.53	0.6146	0.6523	0.6347	0.5584	0.4258	0.3577	0.2452	0.2121	0.4295
85	0.1747	0.2732	0.3371	0.4618	0.548	0.5862	0.5682	0.4877	0.3516	0.2909	0.2155	0.2061	0.3751
90	0.1716	0.2362	0.2666	0.3914	0.4787	0.517	0.4987	0.4142	0.2755	0.2236	0.2089	0.2001	0.3235

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	0.9916	0.9913	0.9914	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9743	0.9855	0.9971	1.0095	1.017	1.0205	1.0191	1.0151	1.004	0.9889	0.9782	0.9726	0.9985
10	0.9513	0.9741	0.9963	1.0209	1.0361	1.0434	1.0404	1.0318	1.0094	0.9806	0.9595	0.9482	0.9993
15	0.9225	0.9571	0.9894	1.0259	1.0488	1.0597	1.0552	1.0419	1.0082	0.9665	0.9351	0.9181	0.994
20	0.8879	0.9346	0.9762	1.0244	1.0549	1.0695	1.0634	1.0451	1.0002	0.9467	0.9052	0.8825	0.9826
25	0.8479	0.9068	0.957	1.0165	1.0545	1.0725	1.0649	1.0414	0.9855	0.9214	0.8699	0.8418	0.965
30	0.8027	0.8739	0.9318	1.0023	1.0474	1.0689	1.0598	1.0309	0.9642	0.8907	0.8297	0.7962	0.9415
35	0.7527	0.8361	0.9009	0.9818	1.0339	1.0585	1.0479	1.0136	0.9364	0.8549	0.7847	0.746	0.9123
40	0.6983	0.7938	0.8645	0.9552	1.0138	1.0414	1.0295	0.9897	0.9025	0.8143	0.7353	0.6917	0.8775
45	0.6399	0.7472	0.8228	0.9226	0.9875	1.0179	1.0047	0.9593	0.8624	0.7691	0.6819	0.6336	0.8374
50	0.5779	0.6967	0.7764	0.8844	0.9551	0.988	0.9736	0.9227	0.8166	0.7197	0.6249	0.5723	0.7924
55	0.5129	0.6428	0.7254	0.8408	0.9168	0.952	0.9365	0.8801	0.7655	0.6665	0.5648	0.5081	0.7427
60	0.4452	0.5857	0.6703	0.7922	0.8729	0.9101	0.8936	0.8319	0.7094	0.6099	0.5019	0.4415	0.6887
65	0.3754	0.526	0.6114	0.7388	0.8238	0.8627	0.8453	0.7784	0.6487	0.5504	0.4368	0.3732	0.6309
70	0.3041	0.464	0.5492	0.6812	0.7698	0.8102	0.7919	0.72	0.584	0.4882	0.37	0.3035	0.5697
75	0.2318	0.4004	0.4842	0.6197	0.7113	0.7528	0.7339	0.6571	0.5156	0.4241	0.3019	0.233	0.5055
80	0.1778	0.3355	0.4168	0.5547	0.6487	0.691	0.6716	0.5903	0.4442	0.3584	0.2332	0.2121	0.4445
85	0.1747	0.2698	0.3476	0.4869	0.5826	0.6254	0.6055	0.5199	0.3702	0.2916	0.2155	0.2061	0.3913
90	0.1716	0.2362	0.2771	0.4165	0.5134	0.5563	0.5361	0.4465	0.2942	0.2242	0.2089	0.2001	0.3401



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	0.9916	0.9913	0.9914	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9729	0.9852	0.9979	1.0116	1.0198	1.0237	1.0221	1.0177	1.0055	0.9889	0.9773	0.971	0.9995
10	0.9486	0.9735	0.998	1.025	1.0418	1.0498	1.0465	1.0371	1.0125	0.9807	0.9576	0.9451	1.0014
15	0.9184	0.9563	0.9919	1.032	1.0572	1.0693	1.0643	1.0497	1.0127	0.9666	0.9322	0.9135	0.997
20	0.8825	0.9335	0.9796	1.0325	1.0661	1.0821	1.0754	1.0554	1.0061	0.9469	0.9013	0.8765	0.9865
25	0.8412	0.9054	0.9612	1.0265	1.0682	1.0881	1.0797	1.0542	0.9928	0.9216	0.8652	0.8343	0.9699
30	0.7948	0.8723	0.9368	1.014	1.0636	1.0872	1.0773	1.046	0.9728	0.891	0.824	0.7873	0.9473
35	0.7437	0.8343	0.9066	0.9952	1.0524	1.0795	1.068	1.0309	0.9464	0.8552	0.7782	0.7358	0.9188
40	0.6882	0.7917	0.8708	0.9702	1.0346	1.065	1.052	1.009	0.9136	0.8146	0.728	0.6802	0.8848
45	0.6288	0.7449	0.8298	0.9392	1.0103	1.0438	1.0294	0.9806	0.8746	0.7695	0.6739	0.621	0.8455
50	0.5659	0.6943	0.7839	0.9023	0.9798	1.0161	1.0003	0.9457	0.8299	0.7202	0.6162	0.5586	0.8011
55	0.5	0.6401	0.7334	0.8599	0.9432	0.982	0.965	0.9047	0.7796	0.667	0.5555	0.4935	0.752
60	0.4316	0.5829	0.6787	0.8124	0.9008	0.9418	0.9237	0.8579	0.7243	0.6104	0.4921	0.4261	0.6986
65	0.3612	0.523	0.6202	0.7599	0.8529	0.8959	0.8768	0.8055	0.6644	0.5509	0.4265	0.357	0.6412
70	0.2894	0.461	0.5584	0.7031	0.8	0.8445	0.8246	0.7481	0.6002	0.4888	0.3593	0.2867	0.5803
75	0.2166	0.3972	0.4936	0.6421	0.7423	0.7881	0.7674	0.686	0.5323	0.4247	0.291	0.218	0.5166
80	0.1778	0.3323	0.4264	0.5776	0.6804	0.727	0.7058	0.6197	0.4612	0.3589	0.2221	0.2121	0.4584
85	0.1747	0.2666	0.3574	0.51	0.6146	0.6617	0.6401	0.5497	0.3875	0.2922	0.2155	0.2061	0.4063
90	0.1716	0.2362	0.2869	0.4398	0.5455	0.5928	0.5708	0.4765	0.3115	0.2248	0.2089	0.2001	0.3555

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	0.9916	0.9913	0.9914	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9716	0.985	0.9987	1.0135	1.0225	1.0267	1.0249	1.0202	1.0069	0.989	0.9764	0.9696	1.0004
10	0.9461	0.973	0.9996	1.0288	1.047	1.0556	1.0521	1.042	1.0153	0.9808	0.9558	0.9423	1.0032
15	0.9147	0.9555	0.9943	1.0376	1.0649	1.078	1.0726	1.0569	1.0169	0.9668	0.9295	0.9093	0.9997
20	0.8776	0.9325	0.9827	1.0399	1.0762	1.0936	1.0864	1.0649	1.0116	0.9471	0.8978	0.8709	0.9901
25	0.8351	0.9042	0.965	1.0356	1.0808	1.1023	1.0933	1.0659	0.9996	0.9219	0.8608	0.8274	0.9743
30	0.7876	0.8708	0.9413	1.0248	1.0785	1.1041	1.0933	1.0598	0.9808	0.8913	0.8188	0.7791	0.9525
35	0.7354	0.8326	0.9118	1.0075	1.0694	1.0988	1.0863	1.0467	0.9554	0.8556	0.7722	0.7264	0.9249
40	0.6789	0.7898	0.8767	0.984	1.0536	1.0866	1.0725	1.0267	0.9237	0.815	0.7213	0.6698	0.8916
45	0.6186	0.7428	0.8362	0.9543	1.0312	1.0676	1.0519	1	0.8858	0.7699	0.6665	0.6095	0.8529
50	0.5548	0.692	0.7908	0.9186	1.0024	1.0418	1.0247	0.9667	0.842	0.7206	0.6083	0.5461	0.8091
55	0.4882	0.6377	0.7407	0.8774	0.9673	1.0095	0.9911	0.9272	0.7926	0.6675	0.547	0.4801	0.7605
60	0.4191	0.5803	0.6864	0.8308	0.9263	0.9709	0.9513	0.8816	0.738	0.6109	0.4831	0.412	0.7076
65	0.3481	0.5203	0.6283	0.7792	0.8796	0.9262	0.9057	0.8303	0.6787	0.5514	0.4171	0.3422	0.6506
70	0.2758	0.4582	0.5667	0.723	0.8277	0.876	0.8545	0.7738	0.615	0.4893	0.3496	0.2714	0.5901
75	0.2027	0.3944	0.5022	0.6627	0.7708	0.8204	0.7981	0.7124	0.5475	0.4252	0.281	0.218	0.5279
80	0.1778	0.3294	0.4352	0.5986	0.7094	0.7599	0.7371	0.6467	0.4767	0.3595	0.2221	0.2121	0.472
85	0.1747	0.2636	0.3663	0.5312	0.6439	0.695	0.6717	0.577	0.4031	0.2927	0.2155	0.2061	0.4201
90	0.1716	0.2362	0.2958	0.4611	0.5749	0.6262	0.6026	0.5038	0.3273	0.2254	0.2089	0.2001	0.3695



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	0.9916	0.9913	0.9914	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9705	0.9847	0.9994	1.0152	1.0248	1.0293	1.0275	1.0224	1.0082	0.989	0.9755	0.9683	1.0012
10	0.9439	0.9726	1.001	1.0322	1.0516	1.0609	1.0571	1.0463	1.0178	0.9809	0.9541	0.9397	1.0048
15	0.9113	0.9548	0.9964	1.0426	1.0719	1.0859	1.0801	1.0634	1.0206	0.9669	0.9271	0.9055	1.0022
20	0.8731	0.9316	0.9855	1.0465	1.0854	1.104	1.0963	1.0735	1.0165	0.9473	0.8946	0.8659	0.9933
25	0.8296	0.903	0.9684	1.0438	1.0921	1.1152	1.1055	1.0764	1.0056	0.9221	0.8568	0.8212	0.9783
30	0.7811	0.8694	0.9454	1.0344	1.0918	1.1192	1.1077	1.0722	0.9879	0.8915	0.8141	0.7718	0.9572
35	0.728	0.831	0.9165	1.0186	1.0847	1.1162	1.1029	1.061	0.9636	0.8558	0.7668	0.718	0.9303
40	0.6706	0.7881	0.8819	0.9963	1.0707	1.1061	1.091	1.0427	0.9328	0.8153	0.7153	0.6603	0.8976
45	0.6094	0.7409	0.842	0.9678	1.05	1.0889	1.0723	1.0175	0.8958	0.7702	0.6599	0.5991	0.8595
50	0.5449	0.6899	0.797	0.9333	1.0228	1.0649	1.0468	0.9857	0.8528	0.721	0.6011	0.5349	0.8163
55	0.4775	0.6355	0.7474	0.893	0.9891	1.0342	1.0146	0.9474	0.8042	0.6679	0.5393	0.4681	0.7682
60	0.4078	0.578	0.6934	0.8473	0.9493	0.997	0.9762	0.9029	0.7502	0.6114	0.475	0.3993	0.7156
65	0.3363	0.5179	0.6356	0.7965	0.9037	0.9536	0.9316	0.8526	0.6914	0.5518	0.4087	0.3289	0.6591
70	0.2636	0.4557	0.5743	0.7409	0.8526	0.9043	0.8814	0.7969	0.6283	0.4898	0.3408	0.2576	0.5988
75	0.1902	0.3918	0.51	0.681	0.7963	0.8495	0.8258	0.7362	0.5611	0.4257	0.2719	0.218	0.5381
80	0.1778	0.3267	0.4431	0.6173	0.7354	0.7895	0.7652	0.6708	0.4906	0.36	0.2221	0.2121	0.4842
85	0.1747	0.2609	0.3742	0.5502	0.6703	0.7249	0.7002	0.6014	0.4172	0.2932	0.2155	0.2061	0.4324
90	0.1716	0.2362	0.3039	0.4801	0.6013	0.6562	0.6311	0.5284	0.3414	0.2258	0.2089	0.2001	0.3821

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	0.9916	0.9913	0.9914	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9695	0.9845	1.0001	1.0167	1.0269	1.0317	1.0297	1.0243	1.0093	0.989	0.9748	0.9672	1.002
10	0.9419	0.9722	1.0023	1.0352	1.0557	1.0656	1.0616	1.0502	1.0201	0.9809	0.9527	0.9375	1.0063
15	0.9083	0.9542	0.9982	1.0471	1.078	1.0929	1.0867	1.0691	1.0239	0.967	0.9249	0.9021	1.0044
20	0.8692	0.9308	0.9879	1.0524	1.0935	1.1132	1.105	1.081	1.0209	0.9474	0.8917	0.8614	0.9962
25	0.8248	0.902	0.9715	1.051	1.102	1.1265	1.1163	1.0857	1.0109	0.9222	0.8533	0.8157	0.9818
30	0.7754	0.8683	0.949	1.043	1.1036	1.1326	1.1204	1.0832	0.9942	0.8917	0.81	0.7653	0.9614
35	0.7214	0.8297	0.9206	1.0283	1.0982	1.1315	1.1174	1.0735	0.9707	0.8561	0.7621	0.7106	0.935
40	0.6632	0.7866	0.8865	1.0072	1.0858	1.1233	1.1074	1.0567	0.9408	0.8156	0.71	0.652	0.9029
45	0.6013	0.7393	0.8471	0.9798	1.0666	1.1078	1.0902	1.0329	0.9045	0.7706	0.6541	0.5899	0.8653
50	0.5361	0.6881	0.8026	0.9462	1.0407	1.0853	1.0662	1.0023	0.8623	0.7213	0.5948	0.5249	0.8226
55	0.4681	0.6336	0.7533	0.9068	1.0083	1.056	1.0354	0.9651	0.8144	0.6682	0.5325	0.4575	0.7749
60	0.3979	0.576	0.6996	0.8619	0.9695	1.02	0.9981	0.9217	0.761	0.6117	0.4678	0.388	0.7228
65	0.326	0.5158	0.642	0.8117	0.9248	0.9777	0.9546	0.8722	0.7027	0.5522	0.4012	0.3172	0.6665
70	0.2528	0.4535	0.5809	0.7567	0.8745	0.9293	0.9051	0.8172	0.6399	0.4902	0.333	0.2454	0.6065
75	0.1808	0.3895	0.5168	0.6972	0.8189	0.8751	0.8502	0.757	0.5731	0.4261	0.2639	0.218	0.5472
80	0.1778	0.3244	0.4501	0.6338	0.7584	0.8157	0.79	0.6921	0.5028	0.3604	0.2221	0.2121	0.495
85	0.1747	0.2586	0.3813	0.5668	0.6935	0.7513	0.7252	0.6229	0.4295	0.2936	0.2155	0.2061	0.4432
90	0.1716	0.2362	0.3109	0.4969	0.6246	0.6826	0.6562	0.5499	0.3538	0.2263	0.2089	0.2001	0.3932



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	0.9916	0.9913	0.9914	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9687	0.9843	1.0006	1.018	1.0286	1.0337	1.0316	1.026	1.0103	0.9891	0.9742	0.9662	1.0026
10	0.9402	0.9718	1.0034	1.0377	1.0593	1.0696	1.0654	1.0535	1.022	0.981	0.9515	0.9355	1.0076
15	0.9058	0.9537	0.9998	1.0509	1.0833	1.0988	1.0924	1.074	1.0268	0.9671	0.9231	0.8992	1.0062
20	0.8659	0.9301	0.9901	1.0574	1.1004	1.1211	1.1125	1.0875	1.0246	0.9475	0.8893	0.8576	0.9987
25	0.8206	0.9012	0.9741	1.0572	1.1106	1.1362	1.1255	1.0937	1.0155	0.9224	0.8503	0.811	0.9849
30	0.7705	0.8672	0.9521	1.0503	1.1137	1.1441	1.1314	1.0926	0.9996	0.8919	0.8065	0.7597	0.965
35	0.7157	0.8285	0.9241	1.0367	1.1098	1.1447	1.13	1.0843	0.9769	0.8563	0.758	0.7042	0.9391
40	0.6569	0.7853	0.8905	1.0166	1.0988	1.138	1.1214	1.0688	0.9476	0.8158	0.7054	0.6448	0.9075
45	0.5943	0.7378	0.8515	0.9901	1.0809	1.124	1.1056	1.0461	0.912	0.7708	0.6491	0.5821	0.8704
50	0.5286	0.6866	0.8073	0.9573	1.0561	1.1029	1.0828	1.0166	0.8704	0.7216	0.5894	0.5164	0.828
55	0.4601	0.6319	0.7583	0.9187	1.0247	1.0748	1.0532	0.9804	0.8229	0.6685	0.5267	0.4483	0.7807
60	0.3894	0.5742	0.7049	0.8743	0.9869	1.0399	1.0169	0.9378	0.7701	0.6121	0.4617	0.3784	0.7289
65	0.317	0.514	0.6475	0.8247	0.943	0.9984	0.9742	0.8891	0.7122	0.5526	0.3947	0.3071	0.6729
70	0.2436	0.4516	0.5866	0.7701	0.8933	0.9507	0.9255	0.8346	0.6498	0.4905	0.3264	0.2349	0.6131
75	0.1808	0.3876	0.5226	0.711	0.8382	0.8972	0.8711	0.7749	0.5832	0.4265	0.2571	0.218	0.5557
80	0.1778	0.3224	0.456	0.6478	0.7781	0.8381	0.8114	0.7103	0.5131	0.3608	0.2221	0.2121	0.5042
85	0.1747	0.2566	0.3873	0.581	0.7134	0.774	0.7468	0.6413	0.4399	0.294	0.2155	0.2061	0.4525
90	0.1716	0.2362	0.317	0.5111	0.6445	0.7052	0.6778	0.5683	0.3642	0.2267	0.2089	0.2001	0.4026

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	0.9916	0.9913	0.9914	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9679	0.9842	1.001	1.0191	1.0301	1.0354	1.0332	1.0273	1.0111	0.9891	0.9737	0.9654	1.0031
10	0.9387	0.9715	1.0042	1.0399	1.0622	1.0729	1.0685	1.0562	1.0236	0.981	0.9505	0.9339	1.0086
15	0.9037	0.9532	1.0012	1.0541	1.0876	1.1038	1.0971	1.0781	1.0291	0.9672	0.9216	0.8968	1.0078
20	0.8631	0.9295	0.9918	1.0616	1.1062	1.1276	1.1187	1.0928	1.0277	0.9476	0.8873	0.8544	1.0007
25	0.8172	0.9005	0.9763	1.0624	1.1177	1.1443	1.1332	1.1003	1.0193	0.9225	0.8478	0.8071	0.9874
30	0.7664	0.8664	0.9546	1.0564	1.1221	1.1536	1.1404	1.1004	1.004	0.8921	0.8035	0.7551	0.9679
35	0.7111	0.8275	0.9271	1.0437	1.1194	1.1556	1.1403	1.0932	0.982	0.8565	0.7547	0.6989	0.9425
40	0.6516	0.7842	0.8938	1.0243	1.1096	1.1502	1.133	1.0787	0.9533	0.816	0.7017	0.6389	0.9113
45	0.5886	0.7366	0.8551	0.9985	1.0927	1.1374	1.1184	1.0571	0.9182	0.771	0.6449	0.5755	0.8745
50	0.5223	0.6853	0.8112	0.9665	1.0689	1.1174	1.0966	1.0284	0.877	0.7218	0.5848	0.5093	0.8325
55	0.4534	0.6305	0.7625	0.9284	1.0384	1.0903	1.0679	0.993	0.83	0.6688	0.5219	0.4408	0.7855
60	0.3823	0.5728	0.7094	0.8846	1.0013	1.0563	1.0325	0.9511	0.7776	0.6123	0.4566	0.3704	0.7339
65	0.3096	0.5124	0.6522	0.8354	0.9581	1.0156	0.9905	0.9029	0.7201	0.5529	0.3894	0.2987	0.6782
70	0.2359	0.45	0.5914	0.7812	0.9089	0.9686	0.9424	0.849	0.6579	0.4908	0.3208	0.2263	0.6186
75	0.1808	0.386	0.5274	0.7224	0.8542	0.9155	0.8885	0.7896	0.5915	0.4268	0.2514	0.218	0.5627
80	0.1778	0.3208	0.4609	0.6594	0.7944	0.8568	0.8291	0.7253	0.5215	0.3611	0.2221	0.2121	0.5118
85	0.1747	0.2549	0.3922	0.5927	0.7299	0.7929	0.7647	0.6564	0.4484	0.2943	0.2155	0.2061	0.4602
90	0.1716	0.2362	0.3219	0.5228	0.661	0.7239	0.6956	0.5835	0.3728	0.227	0.2089	0.2001	0.4104



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	0.9916	0.9913	0.9914	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9674	0.9841	1.0014	1.0199	1.0313	1.0367	1.0345	1.0284	1.0117	0.9891	0.9733	0.9648	1.0035
10	0.9376	0.9713	1.0049	1.0415	1.0645	1.0756	1.071	1.0584	1.0248	0.9811	0.9497	0.9327	1.0094
15	0.902	0.9529	1.0022	1.0566	1.0911	1.1077	1.1008	1.0813	1.031	0.9673	0.9204	0.895	1.009
20	0.8609	0.929	0.9932	1.0649	1.1107	1.1328	1.1236	1.0971	1.0301	0.9477	0.8857	0.852	1.0023
25	0.8145	0.8999	0.978	1.0664	1.1233	1.1506	1.1392	1.1055	1.0223	0.9226	0.8459	0.804	0.9893
30	0.7632	0.8658	0.9566	1.0611	1.1287	1.1611	1.1475	1.1066	1.0075	0.8922	0.8012	0.7515	0.9702
35	0.7074	0.8268	0.9294	1.0491	1.1269	1.1642	1.1485	1.1002	0.986	0.8566	0.752	0.6947	0.9452
40	0.6475	0.7833	0.8964	1.0304	1.118	1.1598	1.1421	1.0866	0.9577	0.8162	0.6987	0.6342	0.9142
45	0.584	0.7357	0.858	1.0052	1.1019	1.148	1.1284	1.0657	0.9231	0.7712	0.6416	0.5704	0.8778
50	0.5174	0.6843	0.8143	0.9737	1.0789	1.1289	1.1075	1.0377	0.8822	0.722	0.5813	0.5038	0.836
55	0.4481	0.6295	0.7658	0.9361	1.0491	1.1025	1.0795	1.0029	0.8355	0.669	0.5181	0.4348	0.7892
60	0.3767	0.5716	0.7129	0.8927	1.0126	1.0692	1.0447	0.9615	0.7834	0.6125	0.4526	0.3641	0.7379
65	0.3038	0.5112	0.6558	0.8438	0.9699	1.0291	1.0034	0.9138	0.7261	0.5531	0.3852	0.2921	0.6823
70	0.2299	0.4488	0.5951	0.7899	0.9212	0.9826	0.9557	0.8602	0.6641	0.4911	0.3165	0.2237	0.6232
75	0.1808	0.3847	0.5313	0.7312	0.8668	0.93	0.9022	0.8012	0.598	0.427	0.2469	0.218	0.5682
80	0.1778	0.3195	0.4647	0.6684	0.8073	0.8717	0.8431	0.737	0.5281	0.3613	0.2221	0.2121	0.5177
85	0.1747	0.2536	0.3961	0.6018	0.7429	0.8077	0.7788	0.6683	0.455	0.2946	0.2155	0.2061	0.4663
90	0.1716	0.2362	0.3258	0.5319	0.674	0.7536	0.7217	0.5954	0.3794	0.2272	0.2089	0.2001	0.4188

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	0.9916	0.9913	0.9914	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.967	0.984	1.0016	1.0205	1.0321	1.0376	1.0354	1.0292	1.0122	0.9891	0.973	0.9643	1.0038
10	0.9368	0.9711	1.0055	1.0428	1.0662	1.0774	1.0728	1.0599	1.0257	0.9811	0.9491	0.9317	1.01
15	0.9008	0.9526	1.003	1.0584	1.0935	1.1105	1.1035	1.0836	1.0323	0.9673	0.9195	0.8936	1.0099
20	0.8593	0.9287	0.9942	1.0672	1.1139	1.1364	1.1271	1.1001	1.0319	0.9478	0.8846	0.8502	1.0035
25	0.8125	0.8995	0.9792	1.0693	1.1273	1.1552	1.1435	1.1092	1.0244	0.9227	0.8445	0.8018	0.9908
30	0.7609	0.8653	0.9581	1.0645	1.1334	1.1665	1.1526	1.111	1.0101	0.8923	0.7995	0.7488	0.9719
35	0.7047	0.8262	0.931	1.053	1.1324	1.1704	1.1544	1.1053	0.9888	0.8567	0.7501	0.6917	0.9471
40	0.6445	0.7827	0.8983	1.0348	1.1241	1.1667	1.1487	1.0922	0.9609	0.8163	0.6966	0.6308	0.9164
45	0.5808	0.735	0.86	1.01	1.1086	1.1556	1.1356	1.0719	0.9265	0.7713	0.6393	0.5667	0.8801
50	0.5138	0.6836	0.8165	0.9788	1.0861	1.1371	1.1153	1.0444	0.886	0.7222	0.5788	0.4998	0.8385
55	0.4443	0.6287	0.7682	0.9416	1.0568	1.1113	1.0879	1.01	0.8395	0.6691	0.5154	0.4305	0.7919
60	0.3727	0.5708	0.7154	0.8985	1.0208	1.0785	1.0535	0.969	0.7875	0.6127	0.4497	0.3596	0.7407
65	0.2996	0.5104	0.6585	0.8498	0.9784	1.0389	1.0126	0.9216	0.7303	0.5532	0.3822	0.2874	0.6852
70	0.2255	0.4479	0.5979	0.7961	0.93	0.9928	0.9653	0.8683	0.6685	0.4912	0.3134	0.2237	0.6267
75	0.1808	0.3838	0.5341	0.7376	0.876	0.9405	0.9121	0.8094	0.6024	0.4272	0.2437	0.218	0.5721
80	0.1778	0.3185	0.4676	0.6748	0.8166	0.8825	0.8533	0.7455	0.5326	0.3615	0.2221	0.2121	0.5221
85	0.1747	0.2527	0.3989	0.6083	0.7524	0.8333	0.8012	0.6768	0.4596	0.2947	0.2155	0.2061	0.4728
90	0.1716	0.2362	0.3285	0.5384	0.6928	0.7648	0.7323	0.6041	0.3839	0.2274	0.2089	0.2001	0.4241



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	0.9916	0.9913	0.9914	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9667	0.9839	1.0018	1.0209	1.0326	1.0382	1.0359	1.0297	1.0124	0.9891	0.9728	0.9641	1.004
10	0.9363	0.971	1.0058	1.0435	1.0672	1.0786	1.0739	1.0609	1.0262	0.9811	0.9487	0.9312	1.0104
15	0.9001	0.9525	1.0034	1.0594	1.095	1.1122	1.1051	1.085	1.0331	0.9673	0.919	0.8928	1.0104
20	0.8583	0.9285	0.9948	1.0686	1.1159	1.1387	1.1292	1.1019	1.0329	0.9478	0.8839	0.8491	1.0041
25	0.8113	0.8993	0.9799	1.071	1.1297	1.1579	1.1462	1.1115	1.0257	0.9228	0.8436	0.8005	0.9916
30	0.7595	0.865	0.959	1.0666	1.1363	1.1698	1.1557	1.1136	1.0116	0.8923	0.7985	0.7473	0.9729
35	0.7031	0.8259	0.9321	1.0554	1.1356	1.1741	1.1579	1.1083	0.9906	0.8568	0.749	0.6899	0.9482
40	0.6428	0.7824	0.8994	1.0374	1.1277	1.1709	1.1526	1.0956	0.9628	0.8164	0.6953	0.6288	0.9177
45	0.5788	0.7346	0.8612	1.0129	1.1126	1.1602	1.14	1.0756	0.9286	0.7714	0.6379	0.5645	0.8815
50	0.5117	0.6831	0.8179	0.982	1.0905	1.142	1.12	1.0484	0.8882	0.7222	0.5772	0.4973	0.84
55	0.4421	0.6282	0.7696	0.9449	1.0614	1.1166	1.0929	1.0143	0.8419	0.6692	0.5138	0.4279	0.7936
60	0.3703	0.5703	0.7169	0.9019	1.0257	1.0841	1.0589	0.9735	0.79	0.6128	0.448	0.3568	0.7424
65	0.2971	0.5099	0.66	0.8535	0.9835	1.0448	1.0182	0.9263	0.7329	0.5533	0.3804	0.2845	0.687
70	0.2229	0.4473	0.5995	0.7998	0.9353	0.9989	0.9711	0.8732	0.6711	0.4913	0.3115	0.2237	0.6288
75	0.1808	0.3832	0.5358	0.7414	0.8815	0.9469	0.9181	0.8144	0.605	0.4273	0.2418	0.218	0.5745
80	0.1778	0.318	0.4693	0.6787	0.8223	0.9036	0.8596	0.7505	0.5352	0.3616	0.2221	0.2121	0.5259
85	0.1747	0.2521	0.4006	0.6121	0.7584	0.8401	0.8076	0.682	0.4622	0.2948	0.2155	0.2061	0.4755
90	0.1716	0.2362	0.3302	0.5423	0.6987	0.7715	0.7387	0.6094	0.3865	0.2275	0.2089	0.2001	0.4268

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	0.9916	0.9913	0.9914	0.9917	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9667	0.9839	1.0018	1.021	1.0328	1.0384	1.0361	1.0298	1.0125	0.9891	0.9728	0.964	1.0041
10	0.9362	0.971	1.0059	1.0437	1.0675	1.079	1.0743	1.0612	1.0264	0.9811	0.9486	0.931	1.0105
15	0.8999	0.9524	1.0036	1.0598	1.0955	1.1127	1.1056	1.0855	1.0334	0.9673	0.9188	0.8925	1.0106
20	0.858	0.9285	0.995	1.0691	1.1166	1.1394	1.1299	1.1025	1.0333	0.9478	0.8837	0.8487	1.0044
25	0.811	0.8992	0.9802	1.0716	1.1305	1.1588	1.147	1.1122	1.0262	0.9228	0.8433	0.8	0.9919
30	0.759	0.8649	0.9593	1.0673	1.1373	1.1708	1.1568	1.1145	1.0121	0.8924	0.7982	0.7467	0.9733
35	0.7026	0.8258	0.9324	1.0562	1.1367	1.1753	1.1591	1.1093	0.9911	0.8568	0.7486	0.6893	0.9486
40	0.6422	0.7822	0.8998	1.0383	1.1289	1.1723	1.1539	1.0967	0.9635	0.8164	0.6948	0.6281	0.9181
45	0.5781	0.7345	0.8617	1.0138	1.114	1.1617	1.1414	1.0768	0.9293	0.7714	0.6374	0.5637	0.882
50	0.511	0.683	0.8183	0.983	1.0919	1.1437	1.1216	1.0498	0.889	0.7223	0.5767	0.4965	0.8406
55	0.4413	0.628	0.7701	0.946	1.063	1.1184	1.0946	1.0157	0.8427	0.6693	0.5132	0.4271	0.7941
60	0.3695	0.5701	0.7174	0.9031	1.0273	1.086	1.0606	0.975	0.7908	0.6128	0.4474	0.3559	0.743
65	0.2963	0.5097	0.6606	0.8547	0.9853	1.0467	1.02	0.9279	0.7338	0.5534	0.3798	0.2836	0.6876
70	0.222	0.4472	0.6001	0.801	0.9371	1.001	0.9731	0.8748	0.672	0.4914	0.3108	0.2237	0.6295
75	0.1808	0.383	0.5363	0.7427	0.8833	0.9491	0.9201	0.8161	0.6059	0.4273	0.2411	0.218	0.5753
80	0.1778	0.3178	0.4699	0.68	0.8242	0.9058	0.8617	0.7523	0.5361	0.3616	0.2221	0.2121	0.5268
85	0.1747	0.2519	0.4012	0.6134	0.7694	0.8423	0.8097	0.6838	0.463	0.2949	0.2155	0.2061	0.4772
90	0.1716	0.2362	0.3308	0.5436	0.7006	0.7738	0.7408	0.6113	0.3873	0.2275	0.2089	0.2001	0.4277