

Yoro, Honduras

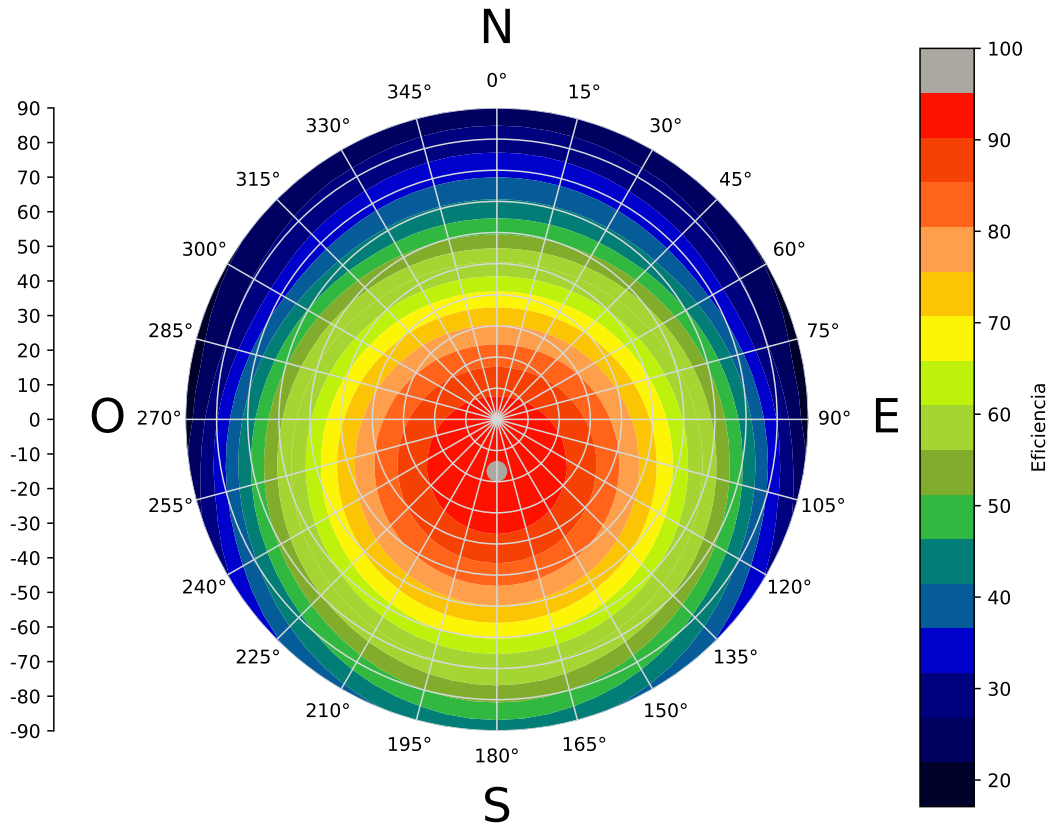


Tabla 1: Generalidades

Latitud	15.137970309763
Longitud	-87.12794959545137
Modelo de declinación solar	Modelo de Cooper (1961)
Modelo de radiación promedio en superficies inclinadas	Modelo de Klein - Theilacker



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



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

	Γ	β	α	ρ	δ	θ
Enero	4.7662	10.8953	0.5244	0.1191	-20.8472	84.0815
Febrero	5.011	10.4264	0.5125	0.101	-13.3253	86.3175
Marzo	5.4569	9.0547	0.5375	0.1172	-2.3892	89.3507
Abril	5.7112	9.172	0.5447	0.1243	9.4932	92.6013
Mayo	5.5104	8.9476	0.5337	0.1192	18.8058	95.2942
Junio	5.4725	9.1845	0.5237	0.117	23.0771	96.6193
Julio	5.5294	9.3086	0.5334	0.1187	21.1015	95.9973
Agosto	5.5094	9.3435	0.5352	0.1234	13.296	93.676
Septiembre	5.3418	9.1976	0.5442	0.1356	1.9936	90.5416
Octubre	4.9489	9.0606	0.5117	0.1102	-9.8485	87.2989
Noviembre	4.1565	7.3167	0.4757	0.1075	-19.0505	84.6322
Diciembre	4.0343	7.2171	0.4851	0.1067	-23.0956	83.3748
Promedio	5.0341	8.5094	0.521	0.1092	—	89.9821

Tabla 3: Azimut de 0°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9911	0.9913	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	1.0083	0.9917	0.9739	0.9553	0.943	0.9368	0.9394	0.9457	0.963	0.9864	1.0025	1.011	0.9714
10	1.019	0.9864	0.95	0.9126	0.8886	0.8766	0.8817	0.8935	0.9277	0.9756	1.0077	1.0246	0.9453
15	1.0232	0.9753	0.9202	0.8643	0.8287	0.8111	0.8186	0.8355	0.8861	0.959	1.0067	1.0318	0.9134
20	1.0209	0.9584	0.8847	0.8106	0.7638	0.7407	0.7505	0.7721	0.8386	0.9365	0.9995	1.0327	0.8757
25	1.012	0.9359	0.8437	0.7519	0.6945	0.666	0.6781	0.7037	0.7854	0.9085	0.9863	1.0272	0.8327
30	0.9966	0.9079	0.7975	0.6888	0.6211	0.5875	0.6017	0.631	0.7271	0.875	0.967	1.0152	0.7847
35	0.9748	0.8747	0.7465	0.6216	0.5444	0.506	0.5222	0.5544	0.6641	0.8365	0.9418	0.9971	0.732
40	0.9469	0.8366	0.6911	0.551	0.4648	0.4219	0.4399	0.4745	0.5968	0.7931	0.9109	0.9727	0.675
45	0.9129	0.7937	0.6316	0.4773	0.3831	0.3359	0.3557	0.392	0.5257	0.7452	0.8746	0.9425	0.6142
50	0.8733	0.7465	0.5686	0.4013	0.2998	0.2489	0.2702	0.3075	0.4515	0.6931	0.8332	0.9065	0.55
55	0.8282	0.6953	0.5026	0.3235	0.2157	0.1997	0.1971	0.2218	0.3746	0.6373	0.7868	0.865	0.4873
60	0.778	0.6405	0.434	0.2445	0.1953	0.1958	0.1934	0.1354	0.2956	0.5782	0.736	0.8185	0.4371
65	0.7231	0.5825	0.3633	0.1754	0.1913	0.1917	0.1895	0.1241	0.2152	0.5163	0.681	0.7671	0.3934
70	0.664	0.5217	0.2911	0.1725	0.1873	0.1875	0.1855	0.1241	0.134	0.4519	0.6223	0.7114	0.3544
75	0.601	0.4586	0.218	0.1695	0.183	0.1831	0.1814	0.124	0.096	0.3856	0.5604	0.6517	0.3177
80	0.5346	0.3937	0.1734	0.1664	0.1787	0.1787	0.1772	0.124	0.0987	0.318	0.4957	0.5885	0.2856
85	0.4654	0.3275	0.1693	0.1633	0.1743	0.1741	0.1729	0.124	0.1014	0.2091	0.4287	0.5223	0.2527
90	0.3939	0.2205	0.1651	0.1602	0.1699	0.1695	0.1685	0.1239	0.1042	0.2012	0.36	0.4535	0.2242



Tabla 4: Azimut de 5°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Annual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9911	0.9913	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	1.0082	0.9917	0.9739	0.9554	0.9431	0.937	0.9396	0.9459	0.9631	0.9864	1.0024	1.0109	0.9715
10	1.0189	0.9864	0.9502	0.9129	0.8889	0.877	0.8821	0.8938	0.9279	0.9757	1.0076	1.0244	0.9455
15	1.023	0.9752	0.9204	0.8647	0.8292	0.8117	0.8191	0.836	0.8864	0.959	1.0065	1.0316	0.9136
20	1.0206	0.9583	0.8849	0.8111	0.7645	0.7415	0.7513	0.7727	0.8389	0.9365	0.9993	1.0324	0.876
25	1.0116	0.9358	0.8439	0.7526	0.6953	0.6669	0.679	0.7045	0.7859	0.9085	0.986	1.0267	0.8331
30	0.9961	0.9078	0.7978	0.6895	0.6221	0.5887	0.6028	0.6319	0.7277	0.8751	0.9667	1.0147	0.7851
35	0.9743	0.8747	0.7468	0.6225	0.5456	0.5073	0.5234	0.5555	0.6648	0.8365	0.9414	0.9965	0.7324
40	0.9463	0.8365	0.6915	0.5519	0.4661	0.4233	0.4413	0.4758	0.5975	0.7931	0.9105	0.9721	0.6755
45	0.9123	0.7936	0.6321	0.4784	0.3845	0.3376	0.3573	0.3934	0.5266	0.7452	0.8742	0.9418	0.6147
50	0.8726	0.7464	0.5691	0.4025	0.3014	0.2506	0.2719	0.309	0.4524	0.6932	0.8327	0.9057	0.5506
55	0.8275	0.6952	0.5031	0.3248	0.2173	0.1997	0.1971	0.2234	0.3756	0.6374	0.7863	0.8642	0.4876
60	0.7772	0.6404	0.4345	0.2459	0.1953	0.1958	0.1934	0.1371	0.2968	0.5783	0.7354	0.8176	0.4373
65	0.7223	0.5823	0.3639	0.1754	0.1913	0.1917	0.1895	0.1241	0.2165	0.5163	0.6804	0.7662	0.3934
70	0.6631	0.5216	0.2917	0.1725	0.1873	0.1875	0.1855	0.1241	0.1355	0.452	0.6218	0.7104	0.3544
75	0.6001	0.4585	0.2187	0.1695	0.183	0.1831	0.1814	0.124	0.0965	0.3857	0.5598	0.6507	0.3176
80	0.5338	0.3936	0.1736	0.1664	0.1787	0.1787	0.1772	0.124	0.099	0.318	0.4951	0.5875	0.2855
85	0.4646	0.3274	0.1693	0.1633	0.1743	0.1741	0.1729	0.124	0.1017	0.2091	0.4281	0.5213	0.2525
90	0.393	0.2205	0.1651	0.1602	0.1699	0.1695	0.1685	0.1239	0.1043	0.2012	0.3593	0.4525	0.224

Tabla 5: Azimut de 10°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Annual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9911	0.9913	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	1.008	0.9917	0.9741	0.9558	0.9437	0.9376	0.9402	0.9463	0.9634	0.9865	1.0022	1.0106	0.9717
10	1.0184	0.9863	0.9505	0.9137	0.8899	0.8782	0.8832	0.8948	0.9284	0.9757	1.0072	1.0239	0.9459
15	1.0223	0.9751	0.9209	0.8658	0.8308	0.8134	0.8208	0.8374	0.8873	0.959	1.006	1.0308	0.9141
20	1.0197	0.9582	0.8856	0.8126	0.7666	0.7438	0.7535	0.7746	0.8401	0.9366	0.9987	1.0313	0.8768
25	1.0105	0.9356	0.8447	0.7545	0.6979	0.6698	0.6817	0.7069	0.7874	0.9086	0.9852	1.0255	0.834
30	0.9948	0.9076	0.7988	0.6918	0.6252	0.5921	0.6061	0.6348	0.7294	0.8752	0.9657	1.0132	0.7862
35	0.9728	0.8744	0.7479	0.6251	0.549	0.5112	0.5271	0.5588	0.6668	0.8366	0.9404	0.9948	0.7337
40	0.9446	0.8362	0.6927	0.5549	0.4701	0.4277	0.4455	0.4795	0.5998	0.7933	0.9093	0.9702	0.677
45	0.9104	0.7933	0.6334	0.4817	0.3889	0.3424	0.3619	0.3975	0.5292	0.7454	0.8729	0.9396	0.6164
50	0.8706	0.7461	0.5706	0.4061	0.3061	0.2558	0.2768	0.3135	0.4553	0.6934	0.8312	0.9034	0.5524
55	0.8253	0.6948	0.5047	0.3286	0.2223	0.1997	0.1971	0.2282	0.3787	0.6376	0.7848	0.8618	0.4886
60	0.7749	0.64	0.4362	0.25	0.1953	0.1958	0.1934	0.1421	0.3002	0.5785	0.7338	0.815	0.4379
65	0.7199	0.5819	0.3656	0.1754	0.1913	0.1917	0.1895	0.1241	0.2203	0.5166	0.6787	0.7635	0.3932
70	0.6606	0.5211	0.2936	0.1725	0.1873	0.1875	0.1855	0.1241	0.1394	0.4522	0.62	0.7076	0.3543
75	0.5976	0.458	0.2206	0.1695	0.183	0.1831	0.1814	0.124	0.096	0.3859	0.558	0.6478	0.3171
80	0.5311	0.3931	0.1737	0.1664	0.1787	0.1787	0.1772	0.124	0.0997	0.3183	0.4933	0.5846	0.2849
85	0.4619	0.3269	0.1694	0.1633	0.1743	0.1741	0.1729	0.124	0.1023	0.2091	0.4262	0.5183	0.2519
90	0.3904	0.2205	0.1651	0.1602	0.1699	0.1695	0.1685	0.1239	0.1049	0.2012	0.3575	0.4495	0.2234



Tabla 6: Azimut de 15°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9911	0.9913	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	1.0076	0.9916	0.9744	0.9564	0.9445	0.9385	0.9411	0.9471	0.9639	0.9865	1.002	1.0102	0.972
10	1.0176	0.9862	0.951	0.9149	0.8917	0.8801	0.885	0.8964	0.9294	0.9758	1.0067	1.023	0.9465
15	1.0212	0.9749	0.9217	0.8677	0.8333	0.8163	0.8235	0.8399	0.8887	0.9591	1.0052	1.0295	0.9151
20	1.0182	0.9579	0.8866	0.8151	0.77	0.7476	0.7571	0.7778	0.842	0.9367	0.9976	1.0296	0.878
25	1.0086	0.9353	0.8461	0.7576	0.7021	0.6746	0.6862	0.7109	0.7898	0.9088	0.9839	1.0234	0.8356
30	0.9926	0.9072	0.8003	0.6955	0.6302	0.5977	0.6114	0.6395	0.7323	0.8754	0.9642	1.0108	0.7881
35	0.9703	0.874	0.7497	0.6294	0.5548	0.5176	0.5333	0.5642	0.6701	0.8369	0.9386	0.9919	0.7359
40	0.9418	0.8357	0.6947	0.5597	0.4765	0.435	0.4525	0.4856	0.6036	0.7935	0.9073	0.967	0.6794
45	0.9073	0.7928	0.6356	0.487	0.396	0.3504	0.3695	0.4043	0.5334	0.7457	0.8707	0.9361	0.6191
50	0.8672	0.7455	0.573	0.4119	0.3138	0.2645	0.2851	0.3209	0.4599	0.6937	0.8288	0.8996	0.5553
55	0.8217	0.6942	0.5072	0.335	0.2306	0.1997	0.1999	0.2361	0.3838	0.6379	0.7822	0.8577	0.4905
60	0.7711	0.6393	0.4389	0.2567	0.1953	0.1958	0.1934	0.1505	0.3056	0.5789	0.7311	0.8107	0.4389
65	0.7159	0.5812	0.3685	0.1777	0.1913	0.1917	0.1895	0.1241	0.2259	0.5169	0.6759	0.759	0.3932
70	0.6565	0.5204	0.2967	0.1725	0.1873	0.1875	0.1855	0.1241	0.1452	0.4526	0.6171	0.703	0.354
75	0.5933	0.4573	0.2238	0.1695	0.183	0.1831	0.1814	0.124	0.096	0.3863	0.555	0.643	0.3163
80	0.5268	0.3924	0.1738	0.1664	0.1787	0.1787	0.1772	0.124	0.1004	0.3186	0.4902	0.5797	0.2839
85	0.4575	0.3262	0.1696	0.1633	0.1743	0.1741	0.1729	0.124	0.103	0.2091	0.4231	0.5133	0.2509
90	0.386	0.2205	0.1653	0.1602	0.1699	0.1695	0.1685	0.1239	0.1056	0.2012	0.3544	0.4446	0.2225

Tabla 7: Azimut de 20°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9911	0.9913	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	1.0071	0.9915	0.9748	0.9573	0.9457	0.9399	0.9424	0.9483	0.9645	0.9865	1.0016	1.0096	0.9724
10	1.0166	0.986	0.9518	0.9167	0.894	0.8828	0.8876	0.8987	0.9308	0.9759	1.0059	1.0218	0.9474
15	1.0196	0.9746	0.9228	0.8703	0.8369	0.8203	0.8274	0.8432	0.8907	0.9593	1.0041	1.0277	0.9164
20	1.0161	0.9575	0.8881	0.8186	0.7747	0.7529	0.7622	0.7823	0.8447	0.9369	0.9961	1.0273	0.8798
25	1.006	0.9349	0.8479	0.7619	0.7079	0.6811	0.6925	0.7164	0.7931	0.909	0.9821	1.0205	0.8378
30	0.9895	0.9067	0.8025	0.7007	0.6371	0.6055	0.6189	0.646	0.7363	0.8756	0.962	1.0073	0.7907
35	0.9668	0.8734	0.7522	0.6353	0.5628	0.5266	0.5419	0.5718	0.6748	0.8372	0.9361	0.988	0.7389
40	0.9378	0.835	0.6975	0.5664	0.4855	0.4451	0.4621	0.4941	0.6089	0.7939	0.9045	0.9626	0.6828
45	0.903	0.792	0.6387	0.4945	0.4059	0.3615	0.3801	0.4137	0.5392	0.7461	0.8676	0.9313	0.6228
50	0.8625	0.7447	0.5763	0.42	0.3246	0.2765	0.2966	0.3312	0.4663	0.6941	0.8255	0.8943	0.5594
55	0.8166	0.6933	0.5108	0.3437	0.2421	0.1997	0.2121	0.2471	0.3907	0.6384	0.7787	0.8521	0.4938
60	0.7658	0.6384	0.4427	0.266	0.1953	0.1958	0.1934	0.1621	0.3129	0.5793	0.7273	0.8047	0.4403
65	0.7104	0.5803	0.3726	0.1874	0.1913	0.1917	0.1895	0.1241	0.2335	0.5174	0.672	0.7528	0.3936
70	0.6507	0.5194	0.3009	0.1725	0.1873	0.1875	0.1855	0.1241	0.153	0.4531	0.613	0.6965	0.3536
75	0.5874	0.4563	0.2281	0.1695	0.183	0.1831	0.1814	0.124	0.096	0.3868	0.5508	0.6364	0.3152
80	0.5208	0.3914	0.174	0.1664	0.1787	0.1787	0.1772	0.124	0.1011	0.3192	0.4859	0.5729	0.2825
85	0.4514	0.3251	0.1697	0.1633	0.1743	0.1741	0.1729	0.124	0.1037	0.2091	0.4188	0.5065	0.2494
90	0.3798	0.2205	0.1654	0.1602	0.1699	0.1695	0.1685	0.1239	0.1063	0.2012	0.35	0.4377	0.2211



Tabla 8: Azimut de 25°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9911	0.9913	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	1.0064	0.9914	0.9752	0.9584	0.9472	0.9416	0.944	0.9497	0.9654	0.9866	1.0011	1.0088	0.973
10	1.0152	0.9858	0.9528	0.9189	0.8971	0.8862	0.8908	0.9015	0.9325	0.976	1.005	1.0203	0.9485
15	1.0176	0.9743	0.9243	0.8737	0.8414	0.8254	0.8322	0.8475	0.8933	0.9595	1.0027	1.0255	0.9181
20	1.0134	0.9571	0.89	0.8231	0.7807	0.7597	0.7686	0.788	0.8481	0.9372	0.9943	1.0243	0.882
25	1.0027	0.9343	0.8503	0.7674	0.7154	0.6895	0.7005	0.7234	0.7974	0.9093	0.9797	1.0167	0.8406
30	0.9856	0.906	0.8053	0.7072	0.6459	0.6154	0.6283	0.6544	0.7414	0.876	0.9592	1.0029	0.794
35	0.9623	0.8726	0.7554	0.6429	0.5729	0.538	0.5527	0.5814	0.6806	0.8376	0.9329	0.9829	0.7427
40	0.9328	0.8342	0.7011	0.5749	0.4969	0.4579	0.4743	0.5049	0.6155	0.7943	0.901	0.9569	0.6871
45	0.8975	0.7911	0.6427	0.5039	0.4185	0.3756	0.3936	0.4257	0.5466	0.7465	0.8637	0.9251	0.6275
50	0.8565	0.7437	0.5806	0.4303	0.3382	0.2918	0.3112	0.3442	0.4743	0.6946	0.8213	0.8876	0.5645
55	0.8103	0.6922	0.5154	0.3547	0.2567	0.207	0.2277	0.261	0.3992	0.6389	0.7741	0.8449	0.4985
60	0.7591	0.6372	0.4477	0.2776	0.1953	0.1958	0.1934	0.1769	0.3219	0.5799	0.7226	0.7972	0.442
65	0.7033	0.5791	0.3778	0.1996	0.1913	0.1917	0.1895	0.1241	0.2429	0.518	0.667	0.7448	0.3941
70	0.6434	0.5182	0.3063	0.1725	0.1873	0.1875	0.1855	0.1241	0.1628	0.4537	0.6078	0.6883	0.3531
75	0.5798	0.455	0.2336	0.1695	0.183	0.1831	0.1814	0.124	0.096	0.3875	0.5455	0.6279	0.3139
80	0.5131	0.3901	0.1741	0.1668	0.1787	0.1787	0.1772	0.124	0.1018	0.3199	0.4805	0.5642	0.2808
85	0.4436	0.3238	0.1699	0.1636	0.1743	0.1741	0.1729	0.124	0.1044	0.2091	0.4133	0.4977	0.2476
90	0.372	0.2205	0.1656	0.1603	0.1699	0.1695	0.1685	0.1239	0.107	0.2012	0.3445	0.4289	0.2193

Tabla 9: Azimut de 30°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9911	0.9913	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	1.0056	0.9913	0.9758	0.9598	0.9491	0.9436	0.946	0.9514	0.9664	0.9867	1.0005	1.0079	0.9737
10	1.0136	0.9855	0.9539	0.9216	0.9007	0.8903	0.8948	0.905	0.9345	0.9761	1.0038	1.0185	0.9499
15	1.0151	0.9739	0.926	0.8777	0.8469	0.8316	0.8381	0.8526	0.8964	0.9597	1.001	1.0227	0.9201
20	1.0102	0.9565	0.8923	0.8284	0.7879	0.7678	0.7764	0.7948	0.8523	0.9375	0.992	1.0207	0.8847
25	0.9988	0.9336	0.8531	0.7741	0.7243	0.6996	0.7101	0.7319	0.8025	0.9096	0.9769	1.0123	0.8439
30	0.9809	0.9052	0.8086	0.7151	0.6566	0.6274	0.6397	0.6644	0.7475	0.8764	0.9559	0.9976	0.798
35	0.9569	0.8717	0.7593	0.652	0.5852	0.5518	0.5658	0.5929	0.6877	0.8381	0.9291	0.9769	0.7473
40	0.9268	0.8331	0.7054	0.5852	0.5107	0.4733	0.489	0.5179	0.6235	0.7949	0.8967	0.9501	0.6922
45	0.8908	0.79	0.6474	0.5152	0.4336	0.3926	0.4098	0.44	0.5554	0.7471	0.859	0.9176	0.6332
50	0.8493	0.7424	0.5858	0.4425	0.3546	0.3102	0.3288	0.3597	0.4838	0.6953	0.8162	0.8795	0.5707
55	0.8026	0.6909	0.521	0.3678	0.2742	0.2268	0.2465	0.2777	0.4094	0.6396	0.7687	0.8362	0.5051
60	0.7509	0.6359	0.4536	0.2915	0.1953	0.1958	0.1934	0.1945	0.3326	0.5807	0.7168	0.788	0.4441
65	0.6948	0.5776	0.384	0.2142	0.1913	0.1917	0.1895	0.1241	0.2541	0.5188	0.661	0.7352	0.3947
70	0.6346	0.5167	0.3127	0.1725	0.1873	0.1875	0.1855	0.1241	0.1744	0.4545	0.6016	0.6783	0.3525
75	0.5708	0.4534	0.2402	0.1695	0.183	0.1831	0.1814	0.124	0.096	0.3883	0.5391	0.6177	0.3122
80	0.5038	0.3885	0.1742	0.1676	0.1787	0.1787	0.1772	0.124	0.1025	0.3207	0.4739	0.5538	0.2786
85	0.4343	0.3222	0.17	0.1644	0.1743	0.1741	0.1729	0.124	0.1051	0.2091	0.4067	0.4872	0.2454
90	0.3626	0.2205	0.1657	0.1611	0.1699	0.1695	0.1685	0.1239	0.1077	0.2012	0.3379	0.4183	0.2172



Tabla 10: Azimut de 35°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9911	0.9913	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	1.0046	0.9911	0.9765	0.9613	0.9512	0.9461	0.9483	0.9534	0.9676	0.9868	0.9998	1.0068	0.9745
10	1.0117	0.9851	0.9553	0.9248	0.905	0.8951	0.8993	0.909	0.9369	0.9763	1.0025	1.0163	0.9514
15	1.0123	0.9734	0.928	0.8824	0.8532	0.8387	0.8449	0.8586	0.9	0.9599	0.999	1.0195	0.9225
20	1.0064	0.9559	0.895	0.8347	0.7964	0.7773	0.7854	0.8027	0.857	0.9378	0.9893	1.0164	0.8879
25	0.9941	0.9328	0.8564	0.7818	0.7348	0.7114	0.7213	0.7417	0.8085	0.91	0.9737	1.0071	0.8478
30	0.9755	0.9043	0.8126	0.7243	0.6689	0.6413	0.653	0.6761	0.7546	0.8769	0.952	0.9915	0.8026
35	0.9506	0.8706	0.7638	0.6625	0.5994	0.5678	0.5811	0.6063	0.6958	0.8386	0.9247	0.9698	0.7526
40	0.9197	0.8319	0.7104	0.597	0.5266	0.4913	0.5061	0.533	0.6327	0.7955	0.8918	0.9422	0.6982
45	0.8831	0.7886	0.6529	0.5283	0.4512	0.4123	0.4286	0.4566	0.5655	0.7478	0.8535	0.9089	0.6398
50	0.8409	0.741	0.5918	0.4567	0.3737	0.3316	0.3492	0.3778	0.4947	0.696	0.8103	0.8701	0.5778
55	0.7936	0.6894	0.5275	0.383	0.2946	0.2497	0.2684	0.297	0.421	0.6404	0.7624	0.8261	0.5128
60	0.7414	0.6342	0.4604	0.3076	0.2146	0.1958	0.1934	0.2149	0.3449	0.5815	0.7101	0.7773	0.448
65	0.6848	0.5759	0.3912	0.231	0.1913	0.1917	0.1895	0.1321	0.267	0.5197	0.6539	0.7241	0.396
70	0.6243	0.5149	0.3201	0.1725	0.1873	0.1875	0.1855	0.1241	0.1878	0.4554	0.5943	0.6667	0.3517
75	0.5602	0.4516	0.2479	0.1695	0.183	0.1831	0.1814	0.124	0.1079	0.3893	0.5316	0.6058	0.3113
80	0.493	0.3866	0.1743	0.1684	0.1787	0.1787	0.1772	0.124	0.1031	0.3216	0.4663	0.5417	0.2761
85	0.4234	0.3203	0.1701	0.1652	0.1743	0.1741	0.1729	0.124	0.1058	0.2531	0.399	0.4749	0.2464
90	0.3517	0.2205	0.1659	0.1619	0.1699	0.1695	0.1685	0.1239	0.1084	0.2012	0.3301	0.406	0.2148

Tabla 11: Azimut de 40°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9911	0.9913	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	1.0035	0.9909	0.9773	0.9631	0.9536	0.9488	0.9509	0.9557	0.969	0.9869	0.9991	1.0056	0.9754
10	1.0095	0.9848	0.9568	0.9283	0.9098	0.9006	0.9045	0.9135	0.9396	0.9765	1.001	1.0139	0.9532
15	1.0091	0.9728	0.9303	0.8878	0.8604	0.8469	0.8526	0.8654	0.9041	0.9602	0.9967	1.0159	0.9252
20	1.0022	0.9552	0.898	0.8417	0.8059	0.7881	0.7956	0.8117	0.8625	0.9382	0.9863	1.0117	0.8914
25	0.9889	0.9319	0.8602	0.7905	0.7466	0.7246	0.7339	0.7528	0.8152	0.9105	0.9699	1.0012	0.8522
30	0.9693	0.9032	0.817	0.7346	0.6829	0.6571	0.668	0.6893	0.7626	0.8775	0.9477	0.9845	0.8078
35	0.9435	0.8694	0.7688	0.6745	0.6155	0.5859	0.5983	0.6215	0.705	0.8393	0.9196	0.9618	0.7586
40	0.9118	0.8306	0.7161	0.6104	0.5447	0.5115	0.5254	0.55	0.643	0.7962	0.8861	0.9332	0.7049
45	0.8743	0.7871	0.6592	0.543	0.4711	0.4347	0.4499	0.4754	0.5768	0.7486	0.8473	0.899	0.6472
50	0.8314	0.7394	0.5986	0.4728	0.3952	0.3558	0.3723	0.3981	0.507	0.6969	0.8036	0.8594	0.5859
55	0.7834	0.6877	0.5348	0.4001	0.3177	0.2756	0.2931	0.3188	0.4342	0.6413	0.7552	0.8147	0.5214
60	0.7307	0.6324	0.4682	0.3257	0.239	0.1958	0.2129	0.2379	0.3588	0.5825	0.7025	0.7652	0.4543
65	0.6736	0.574	0.3993	0.25	0.1913	0.1917	0.1895	0.1562	0.2815	0.5207	0.646	0.7114	0.3988
70	0.6126	0.5129	0.3285	0.1735	0.1873	0.1875	0.1855	0.1241	0.2028	0.4565	0.586	0.6536	0.3509
75	0.5482	0.4496	0.2565	0.1695	0.183	0.1831	0.1814	0.124	0.1233	0.3903	0.5231	0.5923	0.3104
80	0.4808	0.3845	0.1744	0.1691	0.1787	0.1787	0.1772	0.1243	0.1037	0.3227	0.4577	0.528	0.2733
85	0.411	0.3182	0.1702	0.166	0.1743	0.1741	0.1729	0.1241	0.1064	0.2542	0.3903	0.461	0.2436
90	0.3393	0.2205	0.166	0.1627	0.1699	0.1695	0.1685	0.1239	0.109	0.2012	0.3213	0.392	0.212



Tabla 12: Azimut de 45°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9911	0.9913	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	1.0023	0.9907	0.9781	0.9651	0.9563	0.9518	0.9537	0.9582	0.9705	0.987	0.9982	1.0042	0.9763
10	1.0072	0.9844	0.9585	0.9323	0.9152	0.9066	0.9103	0.9185	0.9427	0.9767	0.9993	1.0112	0.9552
15	1.0055	0.9722	0.9329	0.8937	0.8684	0.8559	0.8612	0.8729	0.9086	0.9605	0.9942	1.0119	0.9282
20	0.9975	0.9544	0.9014	0.8495	0.8165	0.8	0.807	0.8216	0.8684	0.9386	0.983	1.0064	0.8954
25	0.9831	0.9309	0.8643	0.8002	0.7597	0.7394	0.748	0.7652	0.8226	0.911	0.9658	0.9946	0.8571
30	0.9624	0.9021	0.8219	0.7461	0.6984	0.6745	0.6846	0.7039	0.7714	0.8781	0.9428	0.9768	0.8136
35	0.9356	0.868	0.7745	0.6877	0.6333	0.6059	0.6174	0.6383	0.7152	0.84	0.9141	0.9529	0.7652
40	0.9029	0.8291	0.7224	0.6252	0.5646	0.534	0.5468	0.5689	0.6544	0.797	0.8799	0.9233	0.7124
45	0.8646	0.7855	0.6662	0.5593	0.4931	0.4594	0.4735	0.4961	0.5893	0.7495	0.8404	0.8881	0.6554
50	0.8209	0.7376	0.6062	0.4904	0.4191	0.3826	0.3978	0.4206	0.5205	0.6978	0.7961	0.8475	0.5948
55	0.7721	0.6857	0.543	0.4191	0.3432	0.3043	0.3204	0.3428	0.4487	0.6423	0.7472	0.802	0.5309
60	0.7188	0.6303	0.4768	0.3457	0.2659	0.2248	0.2418	0.2634	0.3742	0.5835	0.6941	0.7518	0.4643
65	0.6611	0.5719	0.4083	0.2709	0.1913	0.1917	0.1895	0.1828	0.2976	0.5218	0.6372	0.6974	0.4018
70	0.5997	0.5107	0.3378	0.1952	0.1873	0.1875	0.1855	0.1241	0.2195	0.4576	0.5769	0.6391	0.3517
75	0.5349	0.4473	0.2661	0.1695	0.183	0.1831	0.1814	0.124	0.1404	0.3915	0.5137	0.5774	0.3094
80	0.4673	0.3822	0.1935	0.1699	0.1787	0.1787	0.1772	0.1254	0.1042	0.3239	0.4481	0.5127	0.2718
85	0.3973	0.3159	0.1703	0.1667	0.1743	0.1741	0.1729	0.1252	0.1069	0.2554	0.3806	0.4456	0.2404
90	0.3255	0.2205	0.1661	0.1634	0.1699	0.1695	0.1685	0.125	0.1096	0.2012	0.3116	0.3766	0.209

Tabla 13: Azimut de 50°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9911	0.9913	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	1.001	0.9905	0.9791	0.9672	0.9592	0.9551	0.9569	0.961	0.9721	0.9871	0.9973	1.0028	0.9774
10	1.0045	0.9839	0.9604	0.9366	0.921	0.9132	0.9165	0.924	0.9459	0.9769	0.9974	1.0083	0.9574
15	1.0016	0.9716	0.9357	0.9001	0.8772	0.8657	0.8706	0.8811	0.9135	0.9609	0.9914	1.0075	0.9314
20	0.9923	0.9535	0.9051	0.858	0.828	0.813	0.8193	0.8325	0.875	0.939	0.9794	1.0006	0.8996
25	0.9767	0.9298	0.8688	0.8108	0.7739	0.7555	0.7633	0.7786	0.8307	0.9116	0.9613	0.9875	0.8624
30	0.9549	0.9008	0.8273	0.7586	0.7153	0.6936	0.7027	0.7198	0.781	0.8787	0.9375	0.9683	0.8199
35	0.927	0.8665	0.7806	0.702	0.6527	0.6278	0.6382	0.6566	0.7262	0.8407	0.908	0.9432	0.7725
40	0.8932	0.8274	0.7293	0.6414	0.5864	0.5585	0.5702	0.5894	0.6667	0.7978	0.873	0.9124	0.7205
45	0.8539	0.7836	0.6738	0.5771	0.517	0.4864	0.4992	0.5187	0.6029	0.7504	0.8329	0.8761	0.6643
50	0.8094	0.7356	0.6145	0.5097	0.445	0.4119	0.4256	0.4451	0.5353	0.6988	0.788	0.8346	0.6044
55	0.7598	0.6836	0.5518	0.4396	0.3709	0.3355	0.3502	0.369	0.4644	0.6434	0.7385	0.7882	0.5412
60	0.7057	0.6281	0.4862	0.3674	0.2953	0.2579	0.2733	0.2911	0.3908	0.5847	0.6849	0.7372	0.4752
65	0.6475	0.5695	0.4181	0.2937	0.2187	0.1917	0.1956	0.2118	0.315	0.523	0.6276	0.6821	0.4078
70	0.5856	0.5083	0.348	0.2188	0.1873	0.1875	0.1855	0.1318	0.2375	0.4589	0.5669	0.6232	0.3533
75	0.5204	0.4448	0.2765	0.1695	0.183	0.1831	0.1814	0.124	0.159	0.3928	0.5035	0.561	0.3083
80	0.4525	0.3797	0.2042	0.1664	0.1787	0.1787	0.1772	0.124	0.0987	0.3253	0.4376	0.4961	0.2682
85	0.3823	0.3133	0.1704	0.1674	0.1743	0.1741	0.1729	0.1263	0.1074	0.2568	0.37	0.4288	0.237
90	0.3105	0.2205	0.1662	0.1642	0.1699	0.1695	0.1685	0.126	0.1101	0.2012	0.301	0.3597	0.2056



Tabla 14: Azimut de 55°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9911	0.9913	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9996	0.9902	0.9801	0.9696	0.9624	0.9587	0.9602	0.9639	0.9739	0.9872	0.9963	1.0012	0.9786
10	1.0017	0.9834	0.9624	0.9412	0.9273	0.9203	0.9233	0.9299	0.9495	0.9772	0.9954	1.0051	0.9597
15	0.9975	0.9708	0.9386	0.907	0.8865	0.8763	0.8806	0.8899	0.9188	0.9613	0.9885	1.0028	0.9349
20	0.9868	0.9525	0.909	0.8672	0.8404	0.827	0.8326	0.8442	0.882	0.9395	0.9755	0.9944	0.9043
25	0.9699	0.9287	0.8737	0.8221	0.7893	0.7727	0.7797	0.793	0.8394	0.9122	0.9565	0.9798	0.8681
30	0.9468	0.8994	0.833	0.7721	0.7335	0.714	0.7222	0.7369	0.7913	0.8795	0.9318	0.9592	0.8266
35	0.9177	0.865	0.7873	0.7174	0.6735	0.6512	0.6606	0.6762	0.7381	0.8415	0.9014	0.9328	0.7802
40	0.8829	0.8256	0.7367	0.6587	0.6098	0.5849	0.5953	0.6114	0.6799	0.7988	0.8657	0.9007	0.7292
45	0.8425	0.7817	0.682	0.5961	0.5427	0.5154	0.5267	0.543	0.6174	0.7514	0.8248	0.8633	0.6739
50	0.797	0.7335	0.6234	0.5303	0.4729	0.4433	0.4555	0.4713	0.551	0.6999	0.7792	0.8207	0.6148
55	0.7466	0.6813	0.5613	0.4617	0.4007	0.3691	0.3821	0.3971	0.4813	0.6446	0.7291	0.7733	0.5524
60	0.6917	0.6257	0.4962	0.3908	0.3268	0.2934	0.3071	0.3208	0.4086	0.5859	0.675	0.7214	0.487
65	0.6329	0.567	0.4286	0.3181	0.2517	0.2167	0.231	0.2429	0.3336	0.5243	0.6172	0.6656	0.4191
70	0.5704	0.5057	0.3589	0.2441	0.1873	0.1875	0.1855	0.164	0.2568	0.4602	0.5562	0.6061	0.3569
75	0.5048	0.4421	0.2877	0.1695	0.183	0.1831	0.1814	0.124	0.1789	0.3942	0.4924	0.5435	0.3071
80	0.4365	0.3769	0.2156	0.1664	0.1787	0.1787	0.1772	0.124	0.1003	0.3267	0.4264	0.4782	0.2655
85	0.3662	0.3105	0.1705	0.1681	0.1743	0.1741	0.1729	0.1273	0.1079	0.2582	0.3586	0.4107	0.2333
90	0.2943	0.2205	0.1663	0.1649	0.1699	0.1695	0.1685	0.1271	0.1106	0.2012	0.2896	0.3415	0.202

Tabla 15: Azimut de 60°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9911	0.9913	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9981	0.99	0.9811	0.972	0.9657	0.9624	0.9638	0.9671	0.9757	0.9873	0.9953	0.9995	0.9798
10	0.9987	0.9829	0.9645	0.9461	0.934	0.9278	0.9304	0.9362	0.9532	0.9774	0.9933	1.0018	0.9622
15	0.993	0.9701	0.9418	0.9143	0.8965	0.8875	0.8913	0.8993	0.9244	0.9616	0.9853	0.9978	0.9386
20	0.9809	0.9515	0.9132	0.8769	0.8536	0.8418	0.8468	0.8565	0.8894	0.9401	0.9713	0.9878	0.9092
25	0.9626	0.9274	0.8789	0.8341	0.8056	0.7911	0.7972	0.8084	0.8486	0.9128	0.9514	0.9716	0.8741
30	0.9382	0.8979	0.8392	0.7863	0.7528	0.7358	0.7429	0.7551	0.8022	0.8802	0.9257	0.9496	0.8338
35	0.9078	0.8633	0.7943	0.7338	0.6957	0.6762	0.6843	0.6971	0.7506	0.8424	0.8944	0.9217	0.7885
40	0.8718	0.8237	0.7446	0.677	0.6346	0.6128	0.6219	0.6348	0.6939	0.7997	0.8579	0.8883	0.7384
45	0.8304	0.7796	0.6907	0.6163	0.5701	0.5461	0.556	0.5687	0.6328	0.7525	0.8163	0.8496	0.6841
50	0.7838	0.7312	0.6328	0.5522	0.5025	0.4766	0.4873	0.4992	0.5677	0.7011	0.7699	0.8058	0.6258
55	0.7325	0.6789	0.5714	0.4851	0.4324	0.4047	0.4161	0.4269	0.4991	0.6459	0.7192	0.7574	0.5641
60	0.6769	0.6232	0.5069	0.4155	0.3603	0.331	0.343	0.3523	0.4275	0.5872	0.6645	0.7047	0.4994
65	0.6173	0.5643	0.4397	0.3439	0.2867	0.2561	0.2685	0.2758	0.3534	0.5257	0.6062	0.6481	0.4321
70	0.5542	0.5029	0.3705	0.2709	0.2122	0.1875	0.1933	0.1982	0.2773	0.4617	0.5448	0.5879	0.3635
75	0.4882	0.4393	0.2996	0.197	0.183	0.1831	0.1814	0.124	0.1999	0.3957	0.4807	0.5248	0.3081
80	0.4196	0.374	0.2277	0.1664	0.1787	0.1787	0.1772	0.124	0.1218	0.3282	0.4144	0.4591	0.2642
85	0.3491	0.3076	0.1706	0.1687	0.1748	0.1741	0.1729	0.1283	0.1083	0.2597	0.3465	0.3914	0.2293
90	0.2771	0.2205	0.1664	0.1655	0.1702	0.1695	0.1685	0.1281	0.111	0.2012	0.2774	0.3221	0.1981



Tabla 16: Azimut de 65°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9911	0.9913	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9965	0.9897	0.9823	0.9746	0.9692	0.9664	0.9676	0.9704	0.9777	0.9875	0.9941	0.9977	0.9811
10	0.9956	0.9824	0.9668	0.9513	0.941	0.9357	0.938	0.9428	0.9572	0.9777	0.9911	0.9982	0.9648
15	0.9883	0.9693	0.9452	0.9221	0.907	0.8993	0.9025	0.9091	0.9303	0.9621	0.982	0.9926	0.9425
20	0.9748	0.9505	0.9176	0.8871	0.8674	0.8574	0.8616	0.8696	0.8972	0.9406	0.9669	0.9808	0.9143
25	0.955	0.9261	0.8843	0.8468	0.8227	0.8104	0.8155	0.8244	0.8582	0.9135	0.946	0.963	0.8805
30	0.9291	0.8964	0.8456	0.8013	0.7731	0.7586	0.7646	0.7741	0.8136	0.881	0.9193	0.9394	0.8413
35	0.8975	0.8615	0.8017	0.751	0.7189	0.7024	0.7093	0.7189	0.7636	0.8433	0.8871	0.9101	0.7971
40	0.8602	0.8217	0.7529	0.6962	0.6607	0.6422	0.6498	0.6593	0.7086	0.8008	0.8497	0.8752	0.7481
45	0.8176	0.7774	0.6999	0.6375	0.5987	0.5784	0.5868	0.5956	0.649	0.7537	0.8072	0.8352	0.6947
50	0.77	0.7288	0.6428	0.5751	0.5335	0.5116	0.5206	0.5284	0.5852	0.7023	0.7601	0.7903	0.6374
55	0.7177	0.6764	0.582	0.5096	0.4656	0.4421	0.4517	0.4581	0.5178	0.6472	0.7087	0.7408	0.5765
60	0.6612	0.6205	0.5181	0.4414	0.3954	0.3706	0.3806	0.3853	0.4473	0.5886	0.6534	0.6871	0.5125
65	0.6009	0.5615	0.4515	0.3711	0.3235	0.2975	0.308	0.3104	0.3741	0.5271	0.5946	0.6296	0.4458
70	0.5372	0.5	0.3827	0.2991	0.2503	0.2234	0.2342	0.2341	0.2988	0.4632	0.5328	0.5688	0.377
75	0.4707	0.4363	0.3122	0.226	0.183	0.1831	0.1814	0.1569	0.222	0.3972	0.4683	0.5052	0.3119
80	0.4018	0.371	0.2405	0.1664	0.1787	0.1787	0.1772	0.124	0.1443	0.3298	0.4018	0.4391	0.2628
85	0.3311	0.3045	0.1706	0.1693	0.1761	0.1741	0.1732	0.1293	0.1087	0.2613	0.3338	0.3711	0.2253
90	0.259	0.2205	0.1664	0.1661	0.1715	0.1695	0.1686	0.1291	0.1114	0.2012	0.2646	0.3018	0.1942

Tabla 17: Azimut de 70°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9911	0.9913	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9949	0.9894	0.9834	0.9773	0.9729	0.9705	0.9715	0.9738	0.9798	0.9876	0.993	0.9959	0.9825
10	0.9923	0.9818	0.9691	0.9567	0.9483	0.9439	0.9458	0.9496	0.9613	0.978	0.9888	0.9945	0.9675
15	0.9835	0.9684	0.9486	0.9301	0.9178	0.9116	0.9142	0.9193	0.9364	0.9625	0.9786	0.9871	0.9465
20	0.9683	0.9494	0.9222	0.8977	0.8818	0.8736	0.8771	0.8831	0.9053	0.9412	0.9624	0.9736	0.9196
25	0.947	0.9247	0.89	0.8599	0.8405	0.8305	0.8347	0.8412	0.8682	0.9142	0.9404	0.9541	0.8871
30	0.9197	0.8948	0.8523	0.8168	0.7941	0.7823	0.7872	0.7939	0.8255	0.8819	0.9127	0.9288	0.8492
35	0.8867	0.8596	0.8094	0.7688	0.7431	0.7296	0.7352	0.7417	0.7773	0.8443	0.8795	0.8979	0.8061
40	0.8481	0.8197	0.7616	0.7162	0.6878	0.6727	0.6789	0.6848	0.7238	0.8019	0.8411	0.8616	0.7582
45	0.8043	0.7751	0.7094	0.6595	0.6285	0.612	0.6188	0.6237	0.6657	0.7548	0.7978	0.8202	0.7058
50	0.7555	0.7264	0.6531	0.599	0.5658	0.548	0.5552	0.5588	0.6034	0.7036	0.7499	0.7741	0.6494
55	0.7023	0.6738	0.593	0.5351	0.5001	0.4811	0.4887	0.4906	0.5373	0.6485	0.6978	0.7234	0.5893
60	0.6449	0.6177	0.5298	0.4684	0.4319	0.4118	0.4198	0.4196	0.4678	0.5901	0.6419	0.6688	0.526
65	0.5838	0.5586	0.4637	0.3993	0.3617	0.3406	0.349	0.3464	0.3956	0.5287	0.5825	0.6105	0.46
70	0.5195	0.497	0.3953	0.3284	0.2899	0.2681	0.2767	0.2714	0.3211	0.4648	0.5203	0.5489	0.3918
75	0.4525	0.4332	0.3252	0.2561	0.2172	0.1948	0.2035	0.1952	0.2449	0.3988	0.4555	0.4847	0.3218
80	0.3833	0.3678	0.2538	0.183	0.1787	0.1787	0.1772	0.124	0.1677	0.3314	0.3887	0.4182	0.2627
85	0.3123	0.3013	0.1817	0.1699	0.1773	0.1749	0.1747	0.1302	0.109	0.263	0.3205	0.35	0.2221
90	0.2402	0.2205	0.1665	0.1667	0.1727	0.17	0.1702	0.13	0.1117	0.2012	0.2513	0.2806	0.1901



Tabla 18: Azimut de 75°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9911	0.9913	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9932	0.9891	0.9846	0.9801	0.9767	0.9748	0.9756	0.9774	0.9819	0.9878	0.9918	0.994	0.9839
10	0.989	0.9813	0.9715	0.9622	0.9558	0.9524	0.9539	0.9567	0.9655	0.9783	0.9864	0.9908	0.9703
15	0.9784	0.9676	0.9522	0.9384	0.9291	0.9242	0.9263	0.9299	0.9427	0.9629	0.975	0.9814	0.9507
20	0.9617	0.9482	0.927	0.9087	0.8967	0.8904	0.893	0.8971	0.9136	0.9418	0.9577	0.9661	0.9252
25	0.9388	0.9233	0.8959	0.8734	0.8589	0.8512	0.8544	0.8584	0.8786	0.915	0.9346	0.9449	0.8939
30	0.91	0.8931	0.8593	0.8328	0.8159	0.8068	0.8106	0.8144	0.8377	0.8827	0.9058	0.9179	0.8572
35	0.8755	0.8577	0.8173	0.7872	0.768	0.7577	0.7619	0.7651	0.7913	0.8453	0.8716	0.8854	0.8153
40	0.8356	0.8175	0.7705	0.7368	0.7157	0.7042	0.7089	0.711	0.7395	0.803	0.8323	0.8476	0.7686
45	0.7905	0.7728	0.7192	0.6822	0.6593	0.6467	0.6517	0.6526	0.683	0.7561	0.7881	0.8048	0.7172
50	0.7406	0.7238	0.6637	0.6235	0.5991	0.5855	0.5909	0.5901	0.6221	0.7049	0.7394	0.7573	0.6618
55	0.6864	0.671	0.6044	0.5614	0.5358	0.5212	0.5269	0.5241	0.5573	0.65	0.6866	0.7055	0.6025
60	0.6281	0.6148	0.5418	0.4962	0.4696	0.4542	0.4602	0.455	0.489	0.5916	0.63	0.6498	0.54
65	0.5662	0.5556	0.4763	0.4284	0.4011	0.385	0.3912	0.3834	0.4177	0.5302	0.5701	0.5906	0.4747
70	0.5013	0.4938	0.4084	0.3585	0.3308	0.3141	0.3205	0.3098	0.3441	0.4664	0.5073	0.5284	0.407
75	0.4337	0.43	0.3386	0.2871	0.2592	0.2421	0.2486	0.2347	0.2685	0.4005	0.4422	0.4636	0.3374
80	0.3641	0.3645	0.2675	0.2146	0.187	0.1787	0.1772	0.1587	0.1917	0.3331	0.3752	0.3967	0.2674
85	0.293	0.298	0.1955	0.1633	0.1743	0.1741	0.1729	0.124	0.1142	0.2647	0.3068	0.3283	0.2174
90	0.2208	0.2205	0.1665	0.1672	0.174	0.1718	0.1717	0.1309	0.1119	0.2012	0.2376	0.2588	0.1861

Tabla 19: Azimut de 80°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9911	0.9913	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9915	0.9888	0.9859	0.9829	0.9805	0.9792	0.9798	0.981	0.984	0.9879	0.9906	0.992	0.9853
10	0.9855	0.9807	0.974	0.9679	0.9635	0.9611	0.9622	0.964	0.9698	0.9786	0.984	0.9869	0.9732
15	0.9733	0.9667	0.9559	0.9468	0.9406	0.9372	0.9386	0.9407	0.9491	0.9634	0.9714	0.9756	0.9549
20	0.9549	0.9471	0.9318	0.9199	0.9119	0.9075	0.9093	0.9113	0.9222	0.9424	0.9529	0.9584	0.9308
25	0.9304	0.9219	0.9019	0.8873	0.8776	0.8723	0.8745	0.8761	0.8891	0.9157	0.9286	0.9354	0.9009
30	0.9001	0.8914	0.8664	0.8492	0.8381	0.8319	0.8344	0.8352	0.8502	0.8836	0.8988	0.9067	0.8655
35	0.8641	0.8558	0.8255	0.806	0.7935	0.7865	0.7893	0.7891	0.8056	0.8463	0.8635	0.8725	0.8248
40	0.8228	0.8153	0.7796	0.7579	0.7443	0.7364	0.7395	0.7379	0.7556	0.8041	0.8232	0.8332	0.7792
45	0.7764	0.7704	0.7293	0.7053	0.6907	0.6821	0.6854	0.6821	0.7006	0.7573	0.7782	0.789	0.7289
50	0.7254	0.7212	0.6746	0.6486	0.6332	0.6239	0.6275	0.6221	0.6412	0.7063	0.7286	0.7402	0.6744
55	0.6701	0.6682	0.6161	0.5882	0.5721	0.5622	0.566	0.5583	0.5777	0.6514	0.675	0.6872	0.616
60	0.6108	0.6119	0.5541	0.5245	0.508	0.4976	0.5015	0.4912	0.5105	0.5931	0.6178	0.6305	0.5543
65	0.5482	0.5525	0.4892	0.458	0.4414	0.4304	0.4344	0.4213	0.4403	0.5318	0.5573	0.5704	0.4896
70	0.4826	0.4906	0.4217	0.3893	0.3726	0.3612	0.3653	0.349	0.3675	0.468	0.4941	0.5074	0.4224
75	0.4145	0.4267	0.3523	0.3187	0.3022	0.2905	0.2947	0.275	0.2926	0.4022	0.4286	0.442	0.3533
80	0.3445	0.3612	0.2815	0.2469	0.2308	0.2189	0.223	0.1998	0.2163	0.3349	0.3614	0.3747	0.2828
85	0.2731	0.2946	0.2097	0.1743	0.1743	0.1741	0.1729	0.124	0.1391	0.2665	0.2928	0.306	0.2168
90	0.2009	0.2205	0.1665	0.1676	0.1752	0.1736	0.1732	0.1317	0.1121	0.2012	0.2235	0.2364	0.1819



Tabla 20: Azimut de 85°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9911	0.9913	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9897	0.9885	0.9871	0.9858	0.9845	0.9836	0.984	0.9847	0.9862	0.9881	0.9893	0.9901	0.9868
10	0.982	0.9801	0.9765	0.9737	0.9714	0.97	0.9706	0.9713	0.9742	0.9789	0.9815	0.9829	0.9761
15	0.9681	0.9658	0.9596	0.9554	0.9523	0.9504	0.9512	0.9516	0.9557	0.9639	0.9677	0.9698	0.9593
20	0.948	0.9459	0.9367	0.9312	0.9273	0.9249	0.9259	0.9258	0.9308	0.943	0.948	0.9507	0.9365
25	0.9219	0.9204	0.908	0.9013	0.8967	0.8938	0.895	0.894	0.8998	0.9165	0.9226	0.9258	0.908
30	0.89	0.8897	0.8736	0.8658	0.8606	0.8573	0.8586	0.8564	0.8628	0.8845	0.8916	0.8953	0.8738
35	0.8525	0.8538	0.8338	0.825	0.8194	0.8156	0.817	0.8133	0.82	0.8473	0.8553	0.8595	0.8344
40	0.8098	0.8131	0.7889	0.7792	0.7732	0.7691	0.7706	0.7651	0.7718	0.8053	0.8141	0.8186	0.7899
45	0.7622	0.7679	0.7395	0.7288	0.7226	0.718	0.7196	0.712	0.7185	0.7586	0.7681	0.7729	0.7407
50	0.7099	0.7186	0.6856	0.674	0.6677	0.6628	0.6645	0.6545	0.6605	0.7077	0.7177	0.7228	0.6872
55	0.6535	0.6654	0.6279	0.6154	0.6091	0.6038	0.6056	0.5929	0.5984	0.6529	0.6633	0.6686	0.6297
60	0.5933	0.6089	0.5666	0.5532	0.5471	0.5416	0.5434	0.5278	0.5324	0.5947	0.6054	0.6108	0.5688
65	0.5299	0.5494	0.5022	0.4881	0.4822	0.4765	0.4783	0.4596	0.4632	0.5335	0.5444	0.5498	0.5047
70	0.4636	0.4874	0.4353	0.4205	0.4149	0.409	0.4108	0.3888	0.3912	0.4697	0.4807	0.486	0.4382
75	0.395	0.4233	0.3663	0.3508	0.3457	0.3396	0.3414	0.3159	0.317	0.4039	0.4148	0.42	0.3695
80	0.3246	0.3578	0.2957	0.2796	0.2752	0.269	0.2707	0.2416	0.2412	0.3366	0.3473	0.3523	0.2993
85	0.253	0.2912	0.2241	0.2075	0.2038	0.1975	0.1991	0.1662	0.1643	0.2683	0.2786	0.2833	0.2281
90	0.1807	0.2205	0.1666	0.168	0.1763	0.1753	0.1746	0.1325	0.1123	0.2012	0.2092	0.2137	0.1776

Tabla 21: Azimut de 90°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9911	0.9913	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9879	0.9882	0.9884	0.9888	0.9884	0.988	0.9882	0.9884	0.9885	0.9882	0.9881	0.9881	0.9883
10	0.9785	0.9795	0.979	0.9795	0.9792	0.9789	0.979	0.9787	0.9786	0.9793	0.979	0.9789	0.979
15	0.9628	0.9649	0.9634	0.9641	0.964	0.9636	0.9638	0.9627	0.9622	0.9643	0.964	0.9638	0.9636
20	0.941	0.9447	0.9417	0.9427	0.9428	0.9424	0.9426	0.9404	0.9395	0.9436	0.9431	0.9428	0.9423
25	0.9133	0.919	0.9141	0.9154	0.9159	0.9155	0.9156	0.912	0.9105	0.9172	0.9165	0.9161	0.9151
30	0.8798	0.8879	0.8808	0.8825	0.8833	0.8829	0.8829	0.8777	0.8755	0.8854	0.8844	0.8839	0.8823
35	0.8408	0.8518	0.8421	0.8442	0.8454	0.845	0.845	0.8378	0.8346	0.8484	0.8471	0.8464	0.844
40	0.7967	0.8109	0.7982	0.8007	0.8024	0.802	0.8019	0.7925	0.7881	0.8064	0.8048	0.8039	0.8007
45	0.7478	0.7654	0.7497	0.7524	0.7546	0.7542	0.7541	0.7421	0.7364	0.7599	0.7579	0.7567	0.7526
50	0.6943	0.7159	0.6968	0.6996	0.7024	0.702	0.7018	0.6871	0.68	0.709	0.7067	0.7052	0.7001
55	0.6368	0.6625	0.6398	0.6427	0.6462	0.6457	0.6455	0.6278	0.6191	0.6544	0.6516	0.6498	0.6435
60	0.5757	0.6058	0.5791	0.5821	0.5863	0.5859	0.5855	0.5647	0.5544	0.5962	0.593	0.5909	0.5833
65	0.5114	0.5462	0.5154	0.5184	0.5233	0.5228	0.5224	0.4982	0.4862	0.5351	0.5314	0.529	0.52
70	0.4445	0.4841	0.4489	0.4518	0.4575	0.457	0.4565	0.4288	0.4151	0.4714	0.4672	0.4645	0.454
75	0.3753	0.42	0.3803	0.383	0.3896	0.3891	0.3884	0.3571	0.3416	0.4057	0.4009	0.3979	0.3857
80	0.3046	0.3543	0.31	0.3125	0.3199	0.3194	0.3186	0.2835	0.2662	0.3384	0.3331	0.3298	0.3159
85	0.2327	0.2877	0.2386	0.2408	0.249	0.2485	0.2477	0.2087	0.1896	0.2701	0.2643	0.2605	0.2448
90	0.1603	0.2205	0.1666	0.1683	0.1774	0.1769	0.176	0.1331	0.1123	0.2012	0.1949	0.1908	0.1732



Tabla 22: Azimut de 95°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9911	0.9913	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9862	0.9879	0.9897	0.9917	0.9924	0.9925	0.9925	0.9921	0.9907	0.9884	0.9868	0.9861	0.9897
10	0.9749	0.9789	0.9815	0.9853	0.9871	0.9878	0.9875	0.9861	0.983	0.9796	0.9765	0.975	0.9819
15	0.9575	0.964	0.9671	0.9727	0.9758	0.9769	0.9764	0.9737	0.9688	0.9648	0.9602	0.9579	0.968
20	0.934	0.9435	0.9467	0.9541	0.9584	0.9599	0.9592	0.955	0.9482	0.9442	0.9381	0.935	0.948
25	0.9046	0.9175	0.9203	0.9295	0.935	0.9371	0.9361	0.93	0.9212	0.918	0.9104	0.9064	0.9222
30	0.8696	0.8862	0.8881	0.8992	0.906	0.9085	0.9073	0.899	0.8882	0.8863	0.8772	0.8724	0.8907
35	0.8292	0.8498	0.8504	0.8633	0.8714	0.8743	0.8729	0.8622	0.8491	0.8494	0.8388	0.8332	0.8537
40	0.7836	0.8086	0.8076	0.8221	0.8315	0.8348	0.8332	0.8198	0.8044	0.8076	0.7956	0.7891	0.8115
45	0.7334	0.763	0.76	0.7759	0.7867	0.7903	0.7884	0.7722	0.7543	0.7611	0.7477	0.7405	0.7645
50	0.6787	0.7132	0.7079	0.7251	0.7371	0.7411	0.739	0.7197	0.6994	0.7104	0.6956	0.6877	0.7129
55	0.6202	0.6597	0.6516	0.67	0.6833	0.6876	0.6853	0.6626	0.6399	0.6558	0.6398	0.6311	0.6572
60	0.5581	0.6028	0.5917	0.611	0.6256	0.6301	0.6276	0.6015	0.5763	0.5978	0.5805	0.5711	0.5978
65	0.493	0.543	0.5285	0.5486	0.5643	0.5691	0.5664	0.5367	0.5091	0.5367	0.5183	0.5083	0.5352
70	0.4253	0.4808	0.4625	0.4831	0.5001	0.505	0.5022	0.4688	0.4389	0.4731	0.4537	0.443	0.4697
75	0.3557	0.4166	0.3943	0.4152	0.4333	0.4384	0.4354	0.3982	0.366	0.4074	0.387	0.3758	0.402
80	0.2845	0.3509	0.3243	0.3453	0.3645	0.3697	0.3665	0.3254	0.2912	0.3402	0.3189	0.3072	0.3324
85	0.2124	0.2842	0.253	0.274	0.2941	0.2994	0.2961	0.2511	0.2149	0.2719	0.2499	0.2377	0.2616
90	0.1603	0.2205	0.1811	0.2017	0.2228	0.2281	0.2247	0.1757	0.1377	0.203	0.1949	0.1908	0.1951

Tabla 23: Azimut de 100°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9911	0.9913	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9844	0.9876	0.9909	0.9946	0.9963	0.9969	0.9967	0.9958	0.9929	0.9886	0.9856	0.9841	0.9912
10	0.9714	0.9783	0.984	0.991	0.9949	0.9966	0.9959	0.9935	0.9874	0.9799	0.974	0.971	0.9848
15	0.9523	0.9631	0.9709	0.9813	0.9874	0.99	0.9889	0.9846	0.9753	0.9653	0.9565	0.952	0.9723
20	0.9271	0.9423	0.9516	0.9654	0.9737	0.9773	0.9757	0.9694	0.9567	0.9448	0.9333	0.9272	0.9537
25	0.8961	0.916	0.9263	0.9435	0.9541	0.9585	0.9565	0.9478	0.9318	0.9188	0.9044	0.8968	0.9292
30	0.8595	0.8844	0.8953	0.9157	0.9285	0.9338	0.9314	0.9201	0.9007	0.8872	0.8701	0.8611	0.899
35	0.8176	0.8478	0.8587	0.8822	0.8972	0.9034	0.9005	0.8863	0.8635	0.8504	0.8306	0.8202	0.8632
40	0.7707	0.8064	0.8168	0.8433	0.8604	0.8674	0.8642	0.8469	0.8205	0.8087	0.7864	0.7745	0.8222
45	0.7191	0.7605	0.7701	0.7993	0.8184	0.8261	0.8225	0.8019	0.7721	0.7624	0.7376	0.7244	0.7762
50	0.6633	0.7106	0.7189	0.7504	0.7715	0.7799	0.7759	0.7519	0.7186	0.7118	0.6847	0.6703	0.7256
55	0.6036	0.6569	0.6634	0.697	0.7201	0.729	0.7247	0.6971	0.6604	0.6573	0.6281	0.6125	0.6708
60	0.5406	0.5998	0.6041	0.6396	0.6644	0.6739	0.6693	0.6379	0.598	0.5994	0.5681	0.5514	0.6122
65	0.4747	0.5399	0.5415	0.5785	0.605	0.615	0.6101	0.5749	0.5318	0.5384	0.5054	0.4877	0.5502
70	0.4063	0.4776	0.4761	0.5141	0.5423	0.5526	0.5475	0.5083	0.4624	0.4748	0.4402	0.4216	0.4853
75	0.3362	0.4133	0.4082	0.4471	0.4767	0.4873	0.4819	0.4388	0.3902	0.4092	0.3732	0.3539	0.418
80	0.2646	0.3475	0.3385	0.3779	0.4087	0.4196	0.414	0.3669	0.3159	0.342	0.3049	0.2848	0.3488
85	0.1923	0.2808	0.2674	0.3069	0.3389	0.3499	0.3441	0.2931	0.2399	0.2737	0.2357	0.2151	0.2781
90	0.1603	0.2205	0.1955	0.2348	0.2677	0.2787	0.2729	0.2179	0.1628	0.2048	0.1949	0.1908	0.2168



Tabla 24: Azimut de 105°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9911	0.9913	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9827	0.9873	0.9922	0.9974	1.0002	1.0013	1.0008	0.9994	0.995	0.9887	0.9843	0.9821	0.9926
10	0.968	0.9777	0.9865	0.9967	1.0026	1.0053	1.0041	1.0007	0.9917	0.9802	0.9716	0.9671	0.9877
15	0.9471	0.9622	0.9746	0.9897	0.9989	1.003	1.0012	0.9954	0.9817	0.9657	0.9529	0.9462	0.9765
20	0.9203	0.9411	0.9565	0.9765	0.9889	0.9944	0.992	0.9836	0.9652	0.9454	0.9285	0.9196	0.9593
25	0.8877	0.9146	0.9323	0.9572	0.9728	0.9796	0.9766	0.9653	0.9422	0.9195	0.8984	0.8874	0.9361
30	0.8496	0.8827	0.9024	0.9319	0.9506	0.9588	0.9551	0.9408	0.913	0.8881	0.863	0.8499	0.9072
35	0.8062	0.8459	0.8668	0.9008	0.9225	0.932	0.9278	0.9101	0.8777	0.8515	0.8226	0.8074	0.8726
40	0.7579	0.8042	0.8259	0.8642	0.8888	0.8994	0.8946	0.8735	0.8363	0.8099	0.7773	0.7602	0.8327
45	0.705	0.7581	0.7801	0.8222	0.8496	0.8614	0.8561	0.8312	0.7895	0.7637	0.7277	0.7086	0.7878
50	0.648	0.7079	0.7297	0.7752	0.8053	0.8181	0.8122	0.7836	0.7374	0.7132	0.6739	0.6531	0.7381
55	0.5873	0.6541	0.675	0.7236	0.7562	0.7699	0.7636	0.731	0.6806	0.6588	0.6165	0.5941	0.6842
60	0.5233	0.5969	0.6164	0.6676	0.7026	0.7171	0.7104	0.6738	0.6193	0.6009	0.556	0.5321	0.6264
65	0.4566	0.5368	0.5543	0.6078	0.645	0.6601	0.653	0.6124	0.5541	0.54	0.4926	0.4674	0.565
70	0.3876	0.4744	0.4893	0.5446	0.5837	0.5994	0.592	0.5472	0.4855	0.4765	0.427	0.4006	0.5007
75	0.3169	0.41	0.4219	0.4784	0.5193	0.5354	0.5277	0.4788	0.414	0.4109	0.3597	0.3322	0.4338
80	0.245	0.3441	0.3524	0.4098	0.4522	0.4686	0.4607	0.4077	0.3401	0.3437	0.291	0.2628	0.3648
85	0.1725	0.2774	0.2815	0.3392	0.3829	0.3995	0.3914	0.3343	0.2644	0.2754	0.2217	0.1981	0.2949
90	0.1603	0.2205	0.2097	0.2672	0.3119	0.3286	0.3203	0.2593	0.1874	0.2066	0.1949	0.1908	0.2381

Tabla 25: Azimut de 110°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9911	0.9913	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.981	0.987	0.9934	1.0002	1.004	1.0056	1.0049	1.003	0.9971	0.9889	0.9831	0.9802	0.994
10	0.9646	0.9771	0.9889	1.0022	1.0102	1.0137	1.0122	1.0077	0.9959	0.9805	0.9692	0.9633	0.9905
15	0.9421	0.9614	0.9781	0.9979	1.0101	1.0156	1.0132	1.0059	0.9879	0.9662	0.9493	0.9406	0.9807
20	0.9137	0.94	0.9612	0.9874	1.0037	1.0111	1.0079	0.9975	0.9734	0.946	0.9238	0.9121	0.9648
25	0.8795	0.9132	0.9382	0.9706	0.991	1.0002	0.9962	0.9825	0.9524	0.9202	0.8926	0.8781	0.9429
30	0.8398	0.8811	0.9093	0.9478	0.9722	0.9831	0.9783	0.961	0.925	0.889	0.8562	0.839	0.9151
35	0.795	0.8439	0.8748	0.919	0.9473	0.9599	0.9543	0.9333	0.8914	0.8525	0.8147	0.7948	0.8817
40	0.7454	0.8021	0.8348	0.8845	0.9165	0.9307	0.9244	0.8995	0.8518	0.811	0.7685	0.7461	0.8429
45	0.6913	0.7558	0.7899	0.8445	0.8801	0.8958	0.8888	0.8598	0.8064	0.7649	0.7179	0.6932	0.799
50	0.6331	0.7054	0.7403	0.7994	0.8383	0.8553	0.8477	0.8145	0.7558	0.7145	0.6634	0.6364	0.7503
55	0.5714	0.6513	0.6863	0.7494	0.7915	0.8097	0.8014	0.764	0.7002	0.6602	0.6053	0.5762	0.6972
60	0.5065	0.594	0.6283	0.695	0.7399	0.7592	0.7504	0.7087	0.6401	0.6024	0.5441	0.5131	0.6401
65	0.439	0.5338	0.5669	0.6365	0.684	0.7042	0.6949	0.6489	0.5759	0.5415	0.4802	0.4476	0.5794
70	0.3694	0.4712	0.5023	0.5743	0.6242	0.6451	0.6354	0.5851	0.5081	0.4781	0.4141	0.3801	0.5156
75	0.2982	0.4068	0.4352	0.509	0.5609	0.5824	0.5724	0.5178	0.4372	0.4126	0.3464	0.3111	0.4491
80	0.2259	0.3409	0.366	0.4409	0.4946	0.5165	0.5062	0.4474	0.3638	0.3454	0.2775	0.2413	0.3805
85	0.1639	0.2741	0.2953	0.3707	0.4258	0.4479	0.4374	0.3745	0.2883	0.2772	0.208	0.1981	0.3134
90	0.1603	0.2205	0.2235	0.2989	0.355	0.3772	0.3666	0.2997	0.2114	0.2083	0.1949	0.1908	0.2589



Tabla 26: Azimut de 115°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9911	0.9913	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9793	0.9868	0.9945	1.0029	1.0076	1.0097	1.0088	1.0064	0.9992	0.989	0.982	0.9784	0.9954
10	0.9613	0.9765	0.9912	1.0076	1.0174	1.022	1.02	1.0146	0.9999	0.9808	0.9669	0.9597	0.9932
15	0.9372	0.9605	0.9816	1.0059	1.0209	1.0278	1.0248	1.0161	0.994	0.9666	0.9459	0.9351	0.9847
20	0.9072	0.9389	0.9658	0.9979	1.018	1.0272	1.0232	1.0109	0.9814	0.9466	0.9192	0.9049	0.9701
25	0.8715	0.9118	0.9439	0.9836	1.0087	1.0202	1.0152	0.999	0.9622	0.9209	0.887	0.8692	0.9494
30	0.8304	0.8795	0.916	0.9631	0.993	1.0067	1.0007	0.9806	0.9366	0.8898	0.8495	0.8284	0.9229
35	0.7842	0.8421	0.8825	0.9366	0.9712	0.9869	0.98	0.9557	0.9047	0.8534	0.8071	0.7827	0.8906
40	0.7333	0.8	0.8435	0.9042	0.9433	0.961	0.9532	0.9246	0.8667	0.8121	0.76	0.7325	0.8528
45	0.678	0.7535	0.7993	0.8662	0.9096	0.9291	0.9204	0.8874	0.8228	0.7661	0.7085	0.6782	0.8099
50	0.6187	0.7029	0.7505	0.8228	0.8703	0.8914	0.882	0.8444	0.7735	0.7158	0.6532	0.6202	0.7621
55	0.556	0.6487	0.6972	0.7745	0.8256	0.8482	0.8381	0.796	0.7191	0.6616	0.5944	0.5589	0.7099
60	0.4902	0.5912	0.6399	0.7214	0.776	0.7999	0.7891	0.7425	0.6601	0.6038	0.5325	0.4948	0.6535
65	0.4219	0.5309	0.579	0.6641	0.7218	0.7468	0.7355	0.6843	0.5968	0.5431	0.4681	0.4284	0.5934
70	0.3517	0.4682	0.5149	0.603	0.6633	0.6893	0.6775	0.6218	0.5298	0.4797	0.4016	0.3602	0.5301
75	0.28	0.4036	0.4481	0.5385	0.6011	0.6278	0.6156	0.5555	0.4596	0.4142	0.3335	0.2907	0.464
80	0.2074	0.3377	0.3792	0.471	0.5356	0.5628	0.5502	0.4859	0.3866	0.3471	0.2644	0.2204	0.3957
85	0.1639	0.2708	0.3086	0.4012	0.4673	0.4947	0.482	0.4134	0.3114	0.2788	0.2025	0.1981	0.3327
90	0.1603	0.2205	0.2369	0.3295	0.3966	0.4242	0.4113	0.3388	0.2346	0.21	0.1949	0.1908	0.279

Tabla 27: Azimut de 120°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9911	0.9913	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9777	0.9865	0.9957	1.0054	1.0111	1.0137	1.0126	1.0097	1.0011	0.9892	0.9809	0.9766	0.9967
10	0.9582	0.976	0.9935	1.0127	1.0244	1.0298	1.0275	1.0211	1.0038	0.9811	0.9647	0.9561	0.9957
15	0.9326	0.9597	0.985	1.0135	1.0313	1.0396	1.036	1.0258	0.9998	0.967	0.9426	0.9298	0.9886
20	0.901	0.9378	0.9702	1.008	1.0317	1.0427	1.038	1.0237	0.989	0.9472	0.9148	0.8979	0.9752
25	0.8639	0.9105	0.9493	0.996	1.0256	1.0393	1.0334	1.0149	0.9716	0.9216	0.8816	0.8606	0.9557
30	0.8214	0.8779	0.9225	0.9778	1.0131	1.0293	1.0223	0.9994	0.9477	0.8906	0.8431	0.8182	0.9303
35	0.7739	0.8403	0.8899	0.9534	0.9942	1.0129	1.0047	0.9772	0.9174	0.8543	0.7997	0.771	0.8991
40	0.7216	0.798	0.8518	0.923	0.969	0.99	0.9808	0.9486	0.8809	0.8131	0.7517	0.7194	0.8623
45	0.6652	0.7513	0.8084	0.8869	0.9379	0.961	0.9508	0.9138	0.8385	0.7672	0.6995	0.6638	0.8204
50	0.6049	0.7006	0.7603	0.8452	0.9009	0.9259	0.9148	0.8731	0.7905	0.717	0.6434	0.6046	0.7734
55	0.5412	0.6462	0.7077	0.7984	0.8583	0.8852	0.8732	0.8266	0.7373	0.6629	0.5839	0.5422	0.7219
60	0.4746	0.5885	0.651	0.7468	0.8106	0.8389	0.8263	0.7749	0.6793	0.6052	0.5215	0.4772	0.6662
65	0.4056	0.5281	0.5906	0.6906	0.758	0.7876	0.7743	0.7181	0.6169	0.5445	0.4565	0.41	0.6067
70	0.3347	0.4653	0.5269	0.6305	0.7009	0.7316	0.7177	0.6569	0.5507	0.4812	0.3896	0.3411	0.5439
75	0.2625	0.4007	0.4605	0.5667	0.6397	0.6713	0.657	0.5916	0.481	0.4157	0.3212	0.271	0.4782
80	0.1896	0.3346	0.3918	0.4999	0.5749	0.6072	0.5925	0.5227	0.4084	0.3486	0.2518	0.2054	0.4106
85	0.1639	0.2678	0.3214	0.4304	0.5071	0.5396	0.5247	0.4507	0.3335	0.2804	0.2025	0.1981	0.3517
90	0.1603	0.2205	0.2497	0.3588	0.4366	0.4693	0.4542	0.3762	0.2568	0.2116	0.1949	0.1908	0.2983



Tabla 28: Azimut de 125°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9911	0.9913	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9762	0.9862	0.9967	1.0079	1.0145	1.0174	1.0162	1.0128	1.003	0.9893	0.9798	0.9749	0.9979
10	0.9552	0.9755	0.9956	1.0176	1.0311	1.0373	1.0347	1.0273	1.0075	0.9813	0.9625	0.9528	0.9982
15	0.9281	0.959	0.9881	1.0208	1.0412	1.0507	1.0466	1.0351	1.0053	0.9674	0.9394	0.9248	0.9922
20	0.8952	0.9368	0.9744	1.0176	1.0448	1.0575	1.052	1.036	0.9962	0.9477	0.9107	0.8913	0.98
25	0.8566	0.9093	0.9545	1.0078	1.0417	1.0575	1.0507	1.03	0.9805	0.9223	0.8765	0.8524	0.9617
30	0.8128	0.8764	0.9286	0.9917	1.0321	1.0508	1.0427	1.0172	0.9582	0.8914	0.8371	0.8085	0.9373
35	0.764	0.8386	0.8969	0.9694	1.016	1.0375	1.0281	0.9976	0.9294	0.8552	0.7928	0.7599	0.9071
40	0.7106	0.7961	0.8597	0.9409	0.9935	1.0176	1.0071	0.9715	0.8945	0.8141	0.7439	0.707	0.8714
45	0.653	0.7492	0.8171	0.9065	0.9647	0.9913	0.9796	0.939	0.8534	0.7683	0.6909	0.6501	0.8303
50	0.5917	0.6983	0.7696	0.8665	0.9299	0.9588	0.9461	0.9003	0.8066	0.7182	0.6341	0.5898	0.7842
55	0.5271	0.6437	0.7177	0.8212	0.8894	0.9203	0.9066	0.8557	0.7545	0.6641	0.574	0.5264	0.7334
60	0.4597	0.586	0.6615	0.7708	0.8434	0.876	0.8616	0.8056	0.6975	0.6066	0.511	0.4604	0.6783
65	0.39	0.5254	0.6016	0.7158	0.7923	0.8264	0.8112	0.7503	0.636	0.5459	0.4455	0.3924	0.6194
70	0.3186	0.4625	0.5383	0.6566	0.7365	0.7718	0.756	0.6902	0.5704	0.4826	0.3782	0.3229	0.557
75	0.2459	0.3978	0.4722	0.5935	0.6763	0.7126	0.6963	0.6258	0.5013	0.4172	0.3095	0.2524	0.4917
80	0.1726	0.3317	0.4038	0.5272	0.6123	0.6493	0.6325	0.5576	0.4291	0.3501	0.2398	0.2054	0.426
85	0.1639	0.2648	0.3335	0.458	0.5448	0.5823	0.5652	0.486	0.3544	0.2819	0.2025	0.1981	0.3696
90	0.1603	0.2205	0.2619	0.3866	0.4745	0.5121	0.4949	0.4117	0.2779	0.2131	0.1949	0.1908	0.3166

Tabla 29: Azimut de 130°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9911	0.9913	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9748	0.986	0.9977	1.0102	1.0176	1.021	1.0195	1.0158	1.0048	0.9894	0.9788	0.9733	0.9991
10	0.9524	0.975	0.9976	1.0222	1.0373	1.0444	1.0414	1.0332	1.011	0.9816	0.9606	0.9496	1.0005
15	0.9239	0.9582	0.9911	1.0276	1.0505	1.0612	1.0566	1.0438	1.0104	0.9678	0.9365	0.9201	0.9957
20	0.8896	0.9359	0.9784	1.0265	1.057	1.0713	1.0652	1.0475	1.003	0.9482	0.9068	0.8851	0.9845
25	0.8498	0.9081	0.9594	1.0189	1.0569	1.0746	1.0669	1.0442	0.9889	0.9229	0.8716	0.8447	0.9672
30	0.8047	0.8751	0.9344	1.0049	1.05	1.0711	1.0619	1.0339	0.968	0.8921	0.8313	0.7994	0.9439
35	0.7547	0.837	0.9035	0.9844	1.0365	1.0607	1.0502	1.0168	0.9407	0.856	0.7862	0.7495	0.9147
40	0.7002	0.7943	0.8671	0.9577	1.0164	1.0436	1.0317	0.993	0.9071	0.815	0.7366	0.6953	0.8798
45	0.6416	0.7473	0.8253	0.925	0.99	1.0198	1.0068	0.9626	0.8673	0.7693	0.6828	0.6373	0.8396
50	0.5793	0.6962	0.7784	0.8865	0.9573	0.9897	0.9754	0.9258	0.8217	0.7193	0.6254	0.5759	0.7942
55	0.5138	0.6415	0.727	0.8425	0.9186	0.9533	0.938	0.883	0.7706	0.6653	0.5646	0.5115	0.7441
60	0.4457	0.5836	0.6714	0.7933	0.8743	0.9109	0.8947	0.8344	0.7145	0.6078	0.5011	0.4447	0.6897
65	0.3753	0.5229	0.6119	0.7394	0.8246	0.8629	0.8459	0.7804	0.6538	0.5472	0.4352	0.376	0.6313
70	0.3034	0.4599	0.5491	0.681	0.7699	0.8096	0.7919	0.7215	0.5889	0.484	0.3674	0.3058	0.5694
75	0.2303	0.3951	0.4833	0.6187	0.7107	0.7515	0.7332	0.658	0.5203	0.4186	0.2984	0.2348	0.5044
80	0.1675	0.329	0.415	0.5528	0.6473	0.6889	0.6702	0.5904	0.4485	0.3516	0.2286	0.2054	0.4413
85	0.1639	0.2621	0.3449	0.484	0.5803	0.6223	0.6033	0.5192	0.3741	0.2834	0.2025	0.1981	0.3865
90	0.1603	0.2205	0.2733	0.4126	0.5101	0.5522	0.5331	0.445	0.2976	0.2146	0.1949	0.1908	0.3337



Tabla 30: Azimut de 135°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9911	0.9913	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9735	0.9858	0.9987	1.0124	1.0205	1.0242	1.0227	1.0185	1.0064	0.9895	0.9779	0.9719	1.0002
10	0.9498	0.9745	0.9995	1.0264	1.0431	1.0509	1.0476	1.0386	1.0142	0.9818	0.9587	0.9467	1.0027
15	0.92	0.9576	0.9939	1.034	1.0591	1.071	1.0659	1.0519	1.0152	0.9681	0.9337	0.9157	0.9988
20	0.8845	0.935	0.982	1.0349	1.0684	1.0842	1.0774	1.0581	1.0093	0.9486	0.9031	0.8793	0.9887
25	0.8434	0.907	0.9639	1.0292	1.0709	1.0905	1.082	1.0573	0.9966	0.9234	0.8671	0.8376	0.9724
30	0.7972	0.8738	0.9398	1.017	1.0666	1.0898	1.0798	1.0495	0.9772	0.8928	0.826	0.791	0.95
35	0.7461	0.8356	0.9097	0.9983	1.0555	1.0822	1.0706	1.0346	0.9512	0.8568	0.7801	0.7398	0.9217
40	0.6906	0.7927	0.874	0.9733	1.0377	1.0677	1.0546	1.0129	0.9188	0.8159	0.7298	0.6844	0.8877
45	0.631	0.7454	0.8328	0.9421	1.0134	1.0463	1.0319	0.9844	0.8802	0.7702	0.6753	0.6253	0.8482
50	0.5678	0.6942	0.7866	0.905	0.9826	1.0183	1.0027	0.9495	0.8357	0.7203	0.6172	0.5629	0.8036
55	0.5015	0.6394	0.7357	0.8623	0.9457	0.9839	0.9671	0.9083	0.7856	0.6664	0.5559	0.4976	0.7541
60	0.4327	0.5813	0.6806	0.8142	0.9029	0.9433	0.9255	0.8611	0.7303	0.609	0.4919	0.4301	0.7002
65	0.3617	0.5206	0.6215	0.7612	0.8545	0.8968	0.8781	0.8084	0.6703	0.5484	0.4255	0.3606	0.6423
70	0.2892	0.4575	0.559	0.7036	0.8009	0.8447	0.8253	0.7504	0.606	0.4852	0.3575	0.2899	0.5808
75	0.2158	0.3926	0.4935	0.6419	0.7426	0.7875	0.7675	0.6877	0.5378	0.4199	0.2882	0.2185	0.5161
80	0.1675	0.3265	0.4255	0.5766	0.6798	0.7256	0.7051	0.6207	0.4664	0.3529	0.2181	0.2054	0.4558
85	0.1639	0.2595	0.3555	0.508	0.6131	0.6594	0.6386	0.5499	0.3922	0.2847	0.2025	0.1981	0.4021
90	0.1603	0.2205	0.284	0.4367	0.5431	0.5895	0.5685	0.4758	0.3158	0.2159	0.1949	0.1908	0.3496

Tabla 31: Azimut de 140°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9911	0.9913	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9723	0.9856	0.9995	1.0143	1.0232	1.0273	1.0255	1.021	1.0079	0.9896	0.977	0.9705	1.0011
10	0.9474	0.9741	1.0012	1.0303	1.0484	1.0569	1.0533	1.0436	1.0172	0.982	0.957	0.944	1.0046
15	0.9165	0.957	0.9964	1.0398	1.067	1.0799	1.0744	1.0593	1.0196	0.9685	0.9312	0.9117	1.0018
20	0.8798	0.9342	0.9854	1.0426	1.0789	1.096	1.0886	1.0679	1.0151	0.9491	0.8998	0.874	0.9926
25	0.8376	0.906	0.9681	1.0387	1.0838	1.105	1.0959	1.0694	1.0037	0.924	0.863	0.8311	0.9772
30	0.7903	0.8726	0.9447	1.0281	1.0818	1.107	1.0961	1.0637	0.9856	0.8934	0.8212	0.7832	0.9556
35	0.7382	0.8342	0.9153	1.0111	1.073	1.1019	1.0894	1.0509	0.9607	0.8575	0.7745	0.7309	0.9281
40	0.6817	0.7912	0.8803	0.9875	1.0573	1.0897	1.0756	1.0311	0.9295	0.8166	0.7235	0.6745	0.8949
45	0.6212	0.7438	0.8398	0.9577	1.0348	1.0706	1.055	1.0045	0.892	0.7711	0.6684	0.6144	0.8561
50	0.5572	0.6924	0.7942	0.9219	1.0058	1.0446	1.0276	0.9711	0.8484	0.7212	0.6098	0.551	0.8121
55	0.4902	0.6374	0.7437	0.8803	0.9705	1.0119	0.9938	0.9314	0.7992	0.6674	0.5479	0.485	0.7632
60	0.4207	0.5793	0.689	0.8333	0.9291	0.9729	0.9536	0.8855	0.7447	0.61	0.4834	0.4166	0.7099
65	0.3492	0.5184	0.6303	0.7812	0.8819	0.9278	0.9075	0.8339	0.6853	0.5495	0.4167	0.3466	0.6524
70	0.2763	0.4553	0.5681	0.7243	0.8293	0.8768	0.8558	0.7769	0.6216	0.4864	0.3483	0.2754	0.5912
75	0.2025	0.3904	0.5029	0.6632	0.7717	0.8205	0.7988	0.7149	0.5539	0.4211	0.2788	0.2126	0.5276
80	0.1675	0.3242	0.435	0.5982	0.7095	0.7592	0.7371	0.6485	0.4827	0.3541	0.21	0.2054	0.4693
85	0.1639	0.2572	0.3651	0.5299	0.6432	0.6934	0.6709	0.578	0.4087	0.2859	0.2025	0.1981	0.4164
90	0.1603	0.2205	0.2937	0.4588	0.5732	0.6236	0.6009	0.504	0.3324	0.2171	0.1949	0.1908	0.3642



Tabla 32: Azimut de 145°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9911	0.9913	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9712	0.9854	1.0003	1.0161	1.0256	1.03	1.0281	1.0233	1.0092	0.9897	0.9763	0.9693	1.002
10	0.9452	0.9738	1.0027	1.0338	1.0532	1.0623	1.0584	1.0481	1.0198	0.9822	0.9555	0.9416	1.0064
15	0.9133	0.9564	0.9987	1.045	1.0742	1.0879	1.082	1.066	1.0235	0.9687	0.929	0.9081	1.0044
20	0.8755	0.9335	0.9884	1.0494	1.0883	1.1066	1.0987	1.0767	1.0203	0.9494	0.8968	0.8692	0.9961
25	0.8324	0.9051	0.9718	1.0472	1.0954	1.1181	1.1083	1.0802	1.0101	0.9244	0.8593	0.8252	0.9815
30	0.7841	0.8715	0.9491	1.0382	1.0955	1.1225	1.1109	1.0765	0.9931	0.8939	0.8168	0.7763	0.9607
35	0.7311	0.833	0.9204	1.0225	1.0887	1.1197	1.1062	1.0656	0.9693	0.8581	0.7695	0.7229	0.9339
40	0.6737	0.7898	0.886	1.0003	1.0748	1.1096	1.0945	1.0475	0.9391	0.8174	0.7179	0.6655	0.9013
45	0.6125	0.7423	0.846	0.9718	1.0541	1.0924	1.0757	1.0225	0.9025	0.7719	0.6622	0.6045	0.8632
50	0.5477	0.6908	0.8009	0.9371	1.0267	1.0682	1.0501	0.9906	0.8598	0.7221	0.603	0.5404	0.8198
55	0.4801	0.6357	0.751	0.8966	0.9928	1.0372	1.0178	0.9522	0.8114	0.6683	0.5408	0.4735	0.7714
60	0.41	0.5775	0.6966	0.8504	0.9527	0.9996	0.979	0.9075	0.7576	0.611	0.4758	0.4046	0.7185
65	0.338	0.5165	0.6382	0.7991	0.9066	0.9557	0.934	0.8569	0.6988	0.5505	0.4088	0.334	0.6614
70	0.2646	0.4533	0.5763	0.7429	0.8549	0.9058	0.8833	0.8007	0.6355	0.4874	0.3401	0.2623	0.6006
75	0.1905	0.3883	0.5113	0.6822	0.798	0.8502	0.827	0.7394	0.5682	0.4221	0.2703	0.2126	0.5383
80	0.1675	0.3221	0.4436	0.6177	0.7362	0.7895	0.7658	0.6733	0.4974	0.3552	0.21	0.2054	0.482
85	0.1639	0.255	0.3738	0.5496	0.6702	0.724	0.7	0.6031	0.4235	0.287	0.2025	0.1981	0.4292
90	0.1603	0.2205	0.3024	0.4785	0.6003	0.6542	0.6301	0.5292	0.3473	0.2182	0.1949	0.1908	0.3772

Tabla 33: Azimut de 150°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9911	0.9913	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9703	0.9852	1.001	1.0176	1.0277	1.0324	1.0304	1.0253	1.0104	0.9898	0.9756	0.9682	1.0028
10	0.9433	0.9734	1.0041	1.0369	1.0574	1.0671	1.063	1.0521	1.0222	0.9824	0.9542	0.9394	1.008
15	0.9104	0.9559	1.0007	1.0496	1.0805	1.095	1.0888	1.0719	1.027	0.969	0.9269	0.9049	1.0067
20	0.8718	0.9328	0.9911	1.0555	1.0966	1.116	1.1076	1.0845	1.0249	0.9498	0.8942	0.865	0.9991
25	0.8278	0.9043	0.9751	1.0546	1.1056	1.1297	1.1193	1.0898	1.0157	0.9248	0.8561	0.82	0.9852
30	0.7786	0.8706	0.953	1.047	1.1076	1.1362	1.1238	1.0878	0.9997	0.8944	0.8129	0.7701	0.9652
35	0.7248	0.8319	0.9249	1.0326	1.1025	1.1353	1.1211	1.0785	0.9769	0.8587	0.7651	0.7159	0.939
40	0.6667	0.7886	0.891	1.0116	1.0903	1.1271	1.1111	1.062	0.9475	0.818	0.7129	0.6576	0.907
45	0.6047	0.7409	0.8516	0.9842	1.0711	1.1117	1.094	1.0383	0.9117	0.7726	0.6568	0.5958	0.8695
50	0.5394	0.6893	0.8069	0.9505	1.0451	1.0891	1.0699	1.0078	0.8698	0.7228	0.5971	0.5309	0.8266
55	0.4711	0.6342	0.7574	0.9109	1.0125	1.0595	1.0389	0.9705	0.8221	0.6691	0.5344	0.4634	0.7787
60	0.4005	0.5758	0.7033	0.8655	0.9734	1.0231	1.0013	0.9268	0.7689	0.6118	0.4691	0.3939	0.7261
65	0.3281	0.5148	0.6452	0.8148	0.9283	0.9803	0.9574	0.8771	0.7106	0.5514	0.4018	0.3228	0.6694
70	0.2544	0.4515	0.5835	0.7592	0.8774	0.9313	0.9075	0.8216	0.6478	0.4883	0.3328	0.2507	0.6088
75	0.1799	0.3865	0.5187	0.699	0.8211	0.8764	0.8519	0.7608	0.5808	0.4231	0.2628	0.2126	0.5478
80	0.1675	0.3202	0.4511	0.6347	0.7598	0.8162	0.7911	0.6952	0.5102	0.3561	0.21	0.2054	0.4931
85	0.1639	0.2532	0.3815	0.5668	0.694	0.7509	0.7256	0.6253	0.4365	0.288	0.2025	0.1981	0.4405
90	0.1603	0.2205	0.3101	0.4958	0.6242	0.6812	0.6557	0.5514	0.3603	0.2192	0.1949	0.1908	0.3887



Tabla 34: Azimut de 150°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9911	0.9913	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9695	0.9851	1.0016	1.019	1.0295	1.0344	1.0324	1.027	1.0114	0.9899	0.975	0.9673	1.0035
10	0.9417	0.9732	1.0052	1.0396	1.0611	1.0712	1.0669	1.0555	1.0242	0.9825	0.953	0.9376	1.0093
15	0.908	0.9555	1.0025	1.0536	1.0859	1.1011	1.0946	1.0769	1.03	0.9692	0.9252	0.9022	1.0087
20	0.8686	0.9323	0.9934	1.0607	1.1037	1.124	1.1153	1.0911	1.0288	0.95	0.8919	0.8614	1.0018
25	0.8238	0.9036	0.978	1.0611	1.1144	1.1396	1.1288	1.098	1.0206	0.9252	0.8532	0.8155	0.9885
30	0.7739	0.8698	0.9564	1.0546	1.118	1.1479	1.135	1.0975	1.0054	0.8948	0.8096	0.7648	0.969
35	0.7194	0.831	0.9287	1.0413	1.1144	1.1488	1.1339	1.0896	0.9834	0.8592	0.7613	0.7098	0.9434
40	0.6606	0.7876	0.8953	1.0213	1.1036	1.1422	1.1254	1.0744	0.9547	0.8185	0.7086	0.6508	0.9119
45	0.5981	0.7398	0.8563	0.9948	1.0858	1.1282	1.1098	1.052	0.9196	0.7732	0.6521	0.5883	0.8748
50	0.5321	0.6881	0.8121	0.962	1.0609	1.107	1.0869	1.0225	0.8783	0.7235	0.592	0.5228	0.8324
55	0.4634	0.6328	0.7629	0.9231	1.0294	1.0786	1.0571	0.9862	0.8312	0.6698	0.529	0.4548	0.7849
60	0.3924	0.5744	0.7092	0.8784	0.9913	1.0434	1.0205	0.9434	0.7785	0.6125	0.4634	0.3847	0.7327
65	0.3195	0.5133	0.6513	0.8283	0.9469	1.0015	0.9775	0.8944	0.7207	0.5522	0.3957	0.3132	0.6762
70	0.2455	0.45	0.5897	0.7731	0.8967	0.9532	0.9283	0.8395	0.6582	0.4891	0.3266	0.2408	0.6159
75	0.171	0.3849	0.525	0.7133	0.8409	0.899	0.8733	0.7792	0.5915	0.4239	0.2564	0.2126	0.5559
80	0.1675	0.3186	0.4576	0.6493	0.78	0.8391	0.8129	0.714	0.5211	0.3569	0.21	0.2054	0.5027
85	0.1639	0.2516	0.388	0.5815	0.7144	0.7741	0.7476	0.6442	0.4475	0.2888	0.2025	0.1981	0.4502
90	0.1603	0.2205	0.3167	0.5106	0.6446	0.7044	0.6777	0.5704	0.3713	0.22	0.1949	0.1908	0.3985

Tabla 35: Azimut de 160°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9911	0.9913	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9688	0.985	1.0021	1.0201	1.0311	1.0361	1.034	1.0284	1.0123	0.9899	0.9745	0.9665	1.0041
10	0.9403	0.9729	1.0062	1.0418	1.0641	1.0746	1.0701	1.0583	1.0259	0.9826	0.9521	0.9361	1.0104
15	0.906	0.9552	1.0039	1.0568	1.0903	1.1062	1.0994	1.0811	1.0325	0.9694	0.9238	0.8999	1.0104
20	0.8659	0.9318	0.9953	1.0651	1.1096	1.1307	1.1216	1.0967	1.032	0.9503	0.89	0.8584	1.0039
25	0.8205	0.9031	0.9803	1.0664	1.1217	1.1479	1.1366	1.1048	1.0246	0.9255	0.8509	0.8118	0.9912
30	0.77	0.8691	0.9591	1.0609	1.1266	1.1576	1.1442	1.1055	1.0101	0.8952	0.8068	0.7604	0.9721
35	0.7149	0.8302	0.9319	1.0485	1.1243	1.1599	1.1445	1.0988	0.9887	0.8596	0.7581	0.7048	0.947
40	0.6556	0.7867	0.8989	1.0294	1.1146	1.1547	1.1373	1.0847	0.9607	0.819	0.7051	0.6452	0.916
45	0.5925	0.7389	0.8602	1.0036	1.0979	1.1419	1.1228	1.0632	0.9261	0.7737	0.6482	0.5821	0.8793
50	0.5262	0.6871	0.8163	0.9715	1.074	1.1218	1.101	1.0347	0.8853	0.724	0.5878	0.5161	0.8372
55	0.457	0.6317	0.7674	0.9332	1.0434	1.0945	1.0722	0.9992	0.8386	0.6704	0.5245	0.4476	0.79
60	0.3856	0.5733	0.714	0.8891	1.006	1.0601	1.0364	0.9571	0.7864	0.6131	0.4586	0.3771	0.7381
65	0.3125	0.5121	0.6563	0.8394	0.9624	1.019	0.9941	0.9087	0.7289	0.5528	0.3907	0.3053	0.6819
70	0.2382	0.4488	0.595	0.7846	0.9127	0.9714	0.9456	0.8543	0.6668	0.4898	0.3214	0.2325	0.6217
75	0.171	0.3837	0.5303	0.7251	0.8574	0.9177	0.891	0.7944	0.6003	0.4245	0.2511	0.2126	0.5632
80	0.1675	0.3173	0.4629	0.6613	0.7968	0.8582	0.831	0.7294	0.53	0.3576	0.21	0.2054	0.5106
85	0.1639	0.2502	0.3934	0.5936	0.7313	0.7934	0.7658	0.6598	0.4565	0.2895	0.2025	0.1981	0.4582
90	0.1603	0.2205	0.3221	0.5227	0.6616	0.7236	0.6959	0.5861	0.3803	0.2207	0.1949	0.1908	0.4066



Tabla 36: Azimut de 165°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9911	0.9913	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9683	0.9849	1.0024	1.021	1.0322	1.0375	1.0353	1.0295	1.0129	0.99	0.9742	0.9659	1.0045
10	0.9393	0.9727	1.007	1.0436	1.0665	1.0773	1.0726	1.0605	1.0272	0.9827	0.9513	0.9349	1.0113
15	0.9044	0.9549	1.0051	1.0594	1.0938	1.1102	1.1032	1.0844	1.0344	0.9695	0.9227	0.8982	1.0117
20	0.8638	0.9315	0.9968	1.0684	1.1142	1.1359	1.1266	1.101	1.0346	0.9505	0.8885	0.856	1.0057
25	0.8179	0.9026	0.9822	1.0706	1.1274	1.1543	1.1427	1.1102	1.0277	0.9257	0.8491	0.8089	0.9933
30	0.767	0.8686	0.9613	1.0658	1.1334	1.1653	1.1515	1.1118	1.0138	0.8954	0.8047	0.757	0.9746
35	0.7114	0.8296	0.9344	1.0541	1.132	1.1687	1.1528	1.106	0.993	0.8599	0.7556	0.7008	0.9499
40	0.6517	0.786	0.9017	1.0357	1.1233	1.1645	1.1466	1.0927	0.9654	0.8193	0.7023	0.6407	0.9192
45	0.5882	0.7381	0.8633	1.0105	1.1074	1.1527	1.133	1.0721	0.9313	0.774	0.6451	0.5772	0.8828
50	0.5215	0.6863	0.8197	0.979	1.0843	1.1335	1.1121	1.0442	0.8908	0.7244	0.5845	0.5108	0.8409
55	0.452	0.6309	0.771	0.9412	1.0543	1.107	1.084	1.0094	0.8445	0.6708	0.5209	0.4419	0.794
60	0.3803	0.5724	0.7178	0.8974	1.0176	1.0733	1.0489	0.9679	0.7925	0.6136	0.4548	0.3712	0.7423
65	0.3069	0.5112	0.6603	0.8481	0.9745	1.0328	1.0072	0.9199	0.7353	0.5533	0.3868	0.299	0.6863
70	0.2324	0.4478	0.5991	0.7936	0.9253	0.9858	0.9591	0.8659	0.6733	0.4903	0.3173	0.226	0.6263
75	0.171	0.3826	0.5345	0.7343	0.8703	0.9325	0.905	0.8063	0.607	0.4251	0.2469	0.2126	0.569
80	0.1675	0.3163	0.4672	0.6706	0.81	0.8733	0.8453	0.7415	0.5369	0.3582	0.21	0.2054	0.5168
85	0.1639	0.2492	0.3976	0.6031	0.7447	0.8087	0.7803	0.672	0.4634	0.2901	0.2025	0.1981	0.4645
90	0.1603	0.2205	0.3263	0.5322	0.6749	0.7546	0.7102	0.5983	0.3873	0.2213	0.1949	0.1908	0.4143

Tabla 37: Azimut de 170°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9911	0.9913	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9679	0.9848	1.0027	1.0216	1.0331	1.0385	1.0362	1.0303	1.0134	0.99	0.9739	0.9655	1.0048
10	0.9385	0.9726	1.0075	1.0448	1.0682	1.0792	1.0745	1.0621	1.0281	0.9828	0.9508	0.934	1.0119
15	0.9032	0.9547	1.0059	1.0613	1.0964	1.113	1.1059	1.0868	1.0358	0.9696	0.9219	0.8969	1.0126
20	0.8623	0.9312	0.9979	1.0709	1.1176	1.1397	1.1302	1.1041	1.0364	0.9506	0.8875	0.8543	1.0069
25	0.816	0.9023	0.9835	1.0736	1.1316	1.159	1.1472	1.114	1.03	0.9259	0.8478	0.8068	0.9948
30	0.7648	0.8682	0.9629	1.0693	1.1382	1.1708	1.1567	1.1164	1.0164	0.8956	0.8031	0.7545	0.9764
35	0.7089	0.8292	0.9362	1.0582	1.1376	1.175	1.1588	1.1112	0.996	0.8601	0.7538	0.698	0.9519
40	0.6489	0.7855	0.9037	1.0402	1.1295	1.1715	1.1533	1.0985	0.9687	0.8196	0.7003	0.6376	0.9214
45	0.5851	0.7376	0.8656	1.0155	1.1142	1.1605	1.1404	1.0784	0.9349	0.7743	0.6429	0.5737	0.8853
50	0.5181	0.6857	0.8221	0.9843	1.0917	1.1419	1.12	1.0511	0.8948	0.7247	0.5821	0.507	0.8436
55	0.4484	0.6303	0.7736	0.9469	1.0622	1.1159	1.0925	1.0167	0.8487	0.6711	0.5184	0.4379	0.7969
60	0.3765	0.5717	0.7205	0.9034	1.026	1.0828	1.0579	0.9756	0.7969	0.614	0.4521	0.3669	0.7454
65	0.3029	0.5105	0.6632	0.8544	0.9832	1.0428	1.0166	0.928	0.7398	0.5536	0.384	0.2945	0.6895
70	0.2283	0.4471	0.602	0.8	0.9343	0.9961	0.9689	0.8742	0.6779	0.4906	0.3144	0.2214	0.6296
75	0.171	0.3819	0.5376	0.7409	0.8796	0.9432	0.9151	0.8148	0.6117	0.4255	0.2439	0.2126	0.5731
80	0.1675	0.3155	0.4703	0.6773	0.8195	0.8844	0.8557	0.7502	0.5416	0.3586	0.21	0.2054	0.5213
85	0.1639	0.2484	0.4007	0.6098	0.7545	0.8355	0.7909	0.6808	0.4683	0.2905	0.2025	0.1981	0.4703
90	0.1603	0.2205	0.3293	0.5389	0.6946	0.766	0.734	0.6072	0.3921	0.2217	0.1949	0.1908	0.4209



Tabla 38: Azimut de 175°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9911	0.9913	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9676	0.9848	1.0029	1.022	1.0336	1.039	1.0367	1.0308	1.0137	0.9901	0.9737	0.9652	1.005
10	0.9381	0.9725	1.0078	1.0456	1.0692	1.0803	1.0756	1.0631	1.0287	0.9828	0.9504	0.9335	1.0123
15	0.9026	0.9546	1.0064	1.0624	1.0979	1.1147	1.1075	1.0882	1.0367	0.9697	0.9214	0.8961	1.0132
20	0.8614	0.9311	0.9985	1.0724	1.1196	1.142	1.1323	1.106	1.0375	0.9507	0.8868	0.8533	1.0076
25	0.8149	0.9021	0.9843	1.0754	1.134	1.1618	1.1498	1.1163	1.0313	0.926	0.847	0.8055	0.9957
30	0.7634	0.868	0.9639	1.0715	1.1412	1.1741	1.1599	1.1191	1.018	0.8958	0.8022	0.753	0.9775
35	0.7074	0.8289	0.9373	1.0606	1.1409	1.1788	1.1624	1.1143	0.9978	0.8602	0.7527	0.6962	0.9531
40	0.6471	0.7852	0.9049	1.0429	1.1333	1.1758	1.1574	1.102	0.9708	0.8197	0.6991	0.6356	0.9228
45	0.5832	0.7373	0.8669	1.0185	1.1183	1.1651	1.1448	1.0823	0.9371	0.7745	0.6416	0.5716	0.8868
50	0.5161	0.6853	0.8235	0.9875	1.0962	1.147	1.1248	1.0553	0.8972	0.7249	0.5807	0.5047	0.8453
55	0.4462	0.6299	0.7752	0.9503	1.067	1.1214	1.0976	1.0212	0.8512	0.6713	0.5168	0.4354	0.7986
60	0.3742	0.5713	0.7221	0.9071	1.031	1.0886	1.0634	0.9802	0.7995	0.6142	0.4505	0.3643	0.7472
65	0.3005	0.5101	0.6649	0.8581	0.9885	1.0488	1.0223	0.9328	0.7425	0.5539	0.3823	0.2918	0.6914
70	0.2258	0.4466	0.6038	0.8039	0.9398	1.0024	0.9748	0.8793	0.6807	0.4909	0.3126	0.2196	0.6317
75	0.171	0.3815	0.5394	0.7448	0.8853	0.9497	0.9213	0.82	0.6145	0.4257	0.242	0.2126	0.5756
80	0.1675	0.3151	0.4722	0.6813	0.8254	0.8911	0.862	0.7554	0.5444	0.3588	0.21	0.2054	0.5241
85	0.1639	0.248	0.4026	0.6138	0.7605	0.8424	0.8103	0.6862	0.471	0.2907	0.2025	0.1981	0.4742
90	0.1603	0.2205	0.3312	0.5429	0.7007	0.7729	0.7405	0.6127	0.3948	0.2219	0.1949	0.1908	0.4237

Tabla 39: Azimut de 180°

β°	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9911	0.9913	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9676	0.9847	1.0029	1.0221	1.0338	1.0392	1.0369	1.031	1.0138	0.9901	0.9737	0.9652	1.0051
10	0.9379	0.9725	1.0079	1.0458	1.0695	1.0807	1.0759	1.0634	1.0289	0.9829	0.9503	0.9333	1.0124
15	0.9023	0.9545	1.0065	1.0628	1.0984	1.1153	1.1081	1.0887	1.0369	0.9697	0.9212	0.8958	1.0134
20	0.8611	0.931	0.9987	1.0729	1.1203	1.1427	1.1331	1.1066	1.0379	0.9507	0.8866	0.853	1.0079
25	0.8145	0.9021	0.9846	1.076	1.1349	1.1627	1.1507	1.1171	1.0318	0.926	0.8467	0.8051	0.996
30	0.763	0.8679	0.9642	1.0722	1.1421	1.1752	1.1609	1.12	1.0186	0.8958	0.8019	0.7525	0.9779
35	0.7069	0.8288	0.9377	1.0614	1.142	1.18	1.1636	1.1154	0.9984	0.8603	0.7524	0.6957	0.9536
40	0.6466	0.7851	0.9053	1.0438	1.1345	1.1772	1.1587	1.1032	0.9714	0.8198	0.6987	0.635	0.9233
45	0.5826	0.7372	0.8674	1.0195	1.1197	1.1667	1.1463	1.0836	0.9379	0.7745	0.6411	0.5709	0.8873
50	0.5154	0.6852	0.824	0.9886	1.0977	1.1487	1.1265	1.0566	0.898	0.725	0.5802	0.504	0.8458
55	0.4455	0.6298	0.7757	0.9514	1.0686	1.1232	1.0993	1.0226	0.852	0.6714	0.5163	0.4346	0.7992
60	0.3734	0.5712	0.7227	0.9083	1.0327	1.0905	1.0652	0.9818	0.8004	0.6142	0.45	0.3634	0.7478
65	0.2997	0.5099	0.6654	0.8594	0.9903	1.0508	1.0242	0.9344	0.7434	0.5539	0.3817	0.2909	0.692
70	0.2249	0.4465	0.6044	0.8052	0.9416	1.0045	0.9768	0.8809	0.6816	0.4909	0.312	0.2196	0.6324
75	0.171	0.3813	0.54	0.7461	0.8872	0.9519	0.9233	0.8217	0.6154	0.4258	0.2414	0.2126	0.5765
80	0.1675	0.3149	0.4728	0.6826	0.8273	0.8935	0.8642	0.7572	0.5453	0.3589	0.21	0.2054	0.525
85	0.1639	0.2478	0.4032	0.6152	0.7626	0.8447	0.8124	0.688	0.4719	0.2908	0.2025	0.1981	0.4751
90	0.1603	0.2205	0.3318	0.5443	0.7027	0.7752	0.7427	0.6146	0.3957	0.222	0.1949	0.1908	0.4246