

Gracias a Dios, Honduras

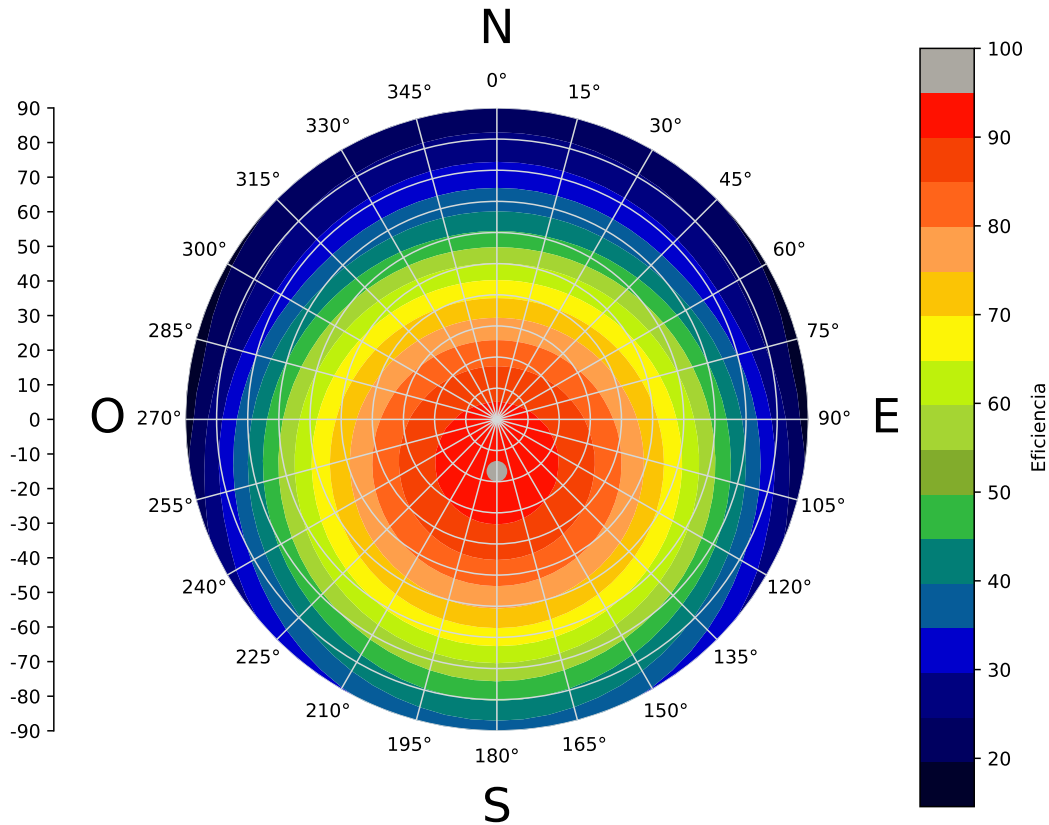


Tabla 1: Generalidades

Latitud	15.262264025420977
Longitud	-83.78162562847139
Modelo de declinación solar	Modelo de Cooper (1961)
Modelo de radiación promedio en superficies inclinadas	Modelo de Klein - Theilacker



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



Tabla 2: Promedios mensuales y anuales de irradiancia de onda corta ( $\Gamma$ ), irradiancia UVA ( $\beta$ ), índice de claridad de insolación del cielo ( $\alpha$ ), albedo ( $\rho$ ), ángulo de declinación solar ( $\delta$ ) y ángulo de puesta del sol ( $\theta$ ).

	$\Gamma$	$\beta$	$\alpha$	$\rho$	$\delta$	$\theta$
Enero	5.0176	11.6474	0.5416	0.0499	-20.8472	84.0304
Febrero	5.2697	11.1075	0.539	0.0476	-13.3253	86.2858
Marzo	5.7976	9.8398	0.5602	0.0495	-2.3892	89.3451
Abril	6.122	10.1945	0.5746	0.0511	9.4932	92.6237
Mayo	5.642	9.6125	0.5446	0.0472	18.8058	95.3399
Junio	5.1931	9.2702	0.5193	0.0492	23.0771	96.6765
Julio	5.3182	9.4537	0.5285	0.0474	21.1015	96.0492
Agosto	5.3845	9.5763	0.5362	0.0505	13.296	93.7077
Septiembre	5.241	9.4237	0.5491	0.0518	1.9936	90.5462
Octubre	5.051	9.5294	0.5238	0.049	-9.8485	87.2756
Noviembre	4.4607	8.0535	0.5125	0.0467	-19.0505	84.5859
Diciembre	4.4796	8.018	0.5416	0.0533	-23.0956	83.3175
Promedio	5.1916	9.099	0.5386	0.0492	—	89.982

Tabla 3: Azimut de 0°

$\beta^\circ$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9913	0.9914	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	1.0076	0.9913	0.9739	0.955	0.9433	0.9388	0.9414	0.9464	0.9629	0.9862	1.0018	1.0104	0.9716
10	1.0175	0.9855	0.9498	0.9118	0.8889	0.8804	0.8854	0.8947	0.9272	0.9751	1.0063	1.0234	0.9455
15	1.0206	0.9738	0.9196	0.8626	0.8288	0.8164	0.8238	0.8369	0.8849	0.9579	1.0043	1.0298	0.9133
20	1.017	0.9561	0.8835	0.8079	0.7635	0.7474	0.757	0.7735	0.8364	0.9348	0.9961	1.0296	0.8752
25	1.0067	0.9328	0.8417	0.7479	0.6934	0.6739	0.6856	0.705	0.7821	0.906	0.9816	1.0229	0.8316
30	0.9896	0.9039	0.7945	0.6831	0.6192	0.5964	0.6102	0.6318	0.7223	0.8717	0.9609	1.0097	0.7828
35	0.9661	0.8697	0.7423	0.6141	0.5413	0.5156	0.5313	0.5546	0.6575	0.8322	0.9342	0.9901	0.7291
40	0.9362	0.8304	0.6856	0.5414	0.4603	0.4321	0.4495	0.4739	0.5882	0.7877	0.9017	0.9642	0.6709
45	0.9002	0.7863	0.6246	0.4655	0.377	0.3464	0.3655	0.3904	0.5149	0.7386	0.8637	0.9323	0.6088
50	0.8583	0.7378	0.56	0.3871	0.2919	0.2594	0.28	0.3047	0.4383	0.6853	0.8204	0.8945	0.5431
55	0.8109	0.6852	0.4922	0.3066	0.2058	0.2085	0.2061	0.2175	0.3588	0.6281	0.7721	0.8512	0.4786
60	0.7584	0.6289	0.4217	0.2249	0.1833	0.2011	0.1987	0.1295	0.277	0.5676	0.7193	0.8027	0.4261
65	0.7011	0.5695	0.349	0.1543	0.1763	0.1932	0.1909	0.1159	0.1937	0.5041	0.6623	0.7494	0.38
70	0.6394	0.5072	0.2747	0.1484	0.169	0.1851	0.1827	0.1122	0.1095	0.4382	0.6016	0.6917	0.3383
75	0.5739	0.4426	0.1994	0.1424	0.1615	0.1767	0.1743	0.1084	0.07	0.3703	0.5377	0.6299	0.2989
80	0.505	0.3762	0.1539	0.1362	0.1537	0.168	0.1657	0.1045	0.0687	0.301	0.4709	0.5647	0.2641
85	0.4333	0.3085	0.1462	0.1299	0.1459	0.1593	0.157	0.1005	0.0675	0.1943	0.4019	0.4964	0.2284
90	0.3593	0.2035	0.1384	0.1236	0.138	0.1504	0.1482	0.0965	0.0662	0.1826	0.3311	0.4256	0.197



Tabla 4: Azimut de 5°

$\beta^\circ$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9913	0.9914	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	1.0076	0.9913	0.9739	0.9551	0.9434	0.939	0.9416	0.9466	0.963	0.9862	1.0018	1.0104	0.9717
10	1.0174	0.9855	0.95	0.9121	0.8892	0.8808	0.8857	0.895	0.9274	0.9751	1.0062	1.0232	0.9456
15	1.0204	0.9737	0.9198	0.863	0.8293	0.817	0.8243	0.8374	0.8852	0.9579	1.0042	1.0295	0.9135
20	1.0167	0.9561	0.8837	0.8084	0.7642	0.7482	0.7577	0.7742	0.8368	0.9349	0.9959	1.0293	0.8755
25	1.0063	0.9327	0.8419	0.7485	0.6943	0.6748	0.6865	0.7058	0.7826	0.9061	0.9813	1.0225	0.8319
30	0.9892	0.9038	0.7948	0.6839	0.6202	0.5975	0.6113	0.6328	0.7229	0.8718	0.9606	1.0092	0.7832
35	0.9656	0.8696	0.7427	0.615	0.5424	0.5169	0.5325	0.5557	0.6582	0.8322	0.9338	0.9895	0.7295
40	0.9356	0.8303	0.686	0.5424	0.4616	0.4335	0.4509	0.4751	0.589	0.7878	0.9013	0.9636	0.6714
45	0.8996	0.7862	0.6251	0.4666	0.3784	0.348	0.367	0.3918	0.5158	0.7387	0.8632	0.9316	0.6093
50	0.8577	0.7377	0.5605	0.3883	0.2935	0.2611	0.2816	0.3062	0.4392	0.6853	0.8199	0.8938	0.5437
55	0.8102	0.6851	0.4927	0.3079	0.2075	0.2085	0.2061	0.2191	0.3598	0.6282	0.7716	0.8504	0.4789
60	0.7576	0.6288	0.4222	0.2263	0.1833	0.2011	0.1987	0.1311	0.2782	0.5677	0.7188	0.8019	0.4263
65	0.7003	0.5693	0.3495	0.1543	0.1763	0.1932	0.1909	0.1159	0.1951	0.5042	0.6618	0.7485	0.3799
70	0.6386	0.5071	0.2753	0.1484	0.169	0.1851	0.1827	0.1122	0.111	0.4383	0.6011	0.6907	0.3383
75	0.5731	0.4425	0.2	0.1424	0.1615	0.1767	0.1743	0.1084	0.0704	0.3704	0.5371	0.629	0.2988
80	0.5042	0.3761	0.154	0.1362	0.1537	0.168	0.1657	0.1045	0.069	0.3011	0.4703	0.5637	0.2639
85	0.4325	0.3084	0.1462	0.1299	0.1459	0.1593	0.157	0.1005	0.0677	0.1943	0.4013	0.4954	0.2282
90	0.3585	0.2035	0.1384	0.1236	0.138	0.1504	0.1482	0.0965	0.0664	0.1826	0.3305	0.4246	0.1968

Tabla 5: Azimut de 10°

$\beta^\circ$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9913	0.9914	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	1.0073	0.9913	0.9741	0.9555	0.9439	0.9396	0.9421	0.947	0.9633	0.9863	1.0016	1.0101	0.9718
10	1.0169	0.9854	0.9503	0.9128	0.8903	0.8819	0.8868	0.896	0.928	0.9751	1.0058	1.0227	0.946
15	1.0197	0.9736	0.9203	0.8642	0.8309	0.8187	0.8259	0.8388	0.8861	0.958	1.0037	1.0288	0.9141
20	1.0158	0.956	0.8844	0.8099	0.7662	0.7504	0.7598	0.7761	0.838	0.935	0.9953	1.0283	0.8763
25	1.0052	0.9326	0.8427	0.7504	0.6968	0.6776	0.6891	0.7081	0.784	0.9062	0.9805	1.0213	0.8329
30	0.9879	0.9036	0.7958	0.6861	0.6232	0.6008	0.6144	0.6356	0.7246	0.8719	0.9597	1.0078	0.7843
35	0.9641	0.8693	0.7438	0.6176	0.5459	0.5206	0.5361	0.5589	0.6602	0.8324	0.9328	0.9879	0.7308
40	0.934	0.83	0.6872	0.5453	0.4655	0.4377	0.4549	0.4788	0.5913	0.7879	0.9002	0.9617	0.6729
45	0.8977	0.7859	0.6264	0.4699	0.3827	0.3526	0.3714	0.3958	0.5184	0.7388	0.862	0.9295	0.6109
50	0.8557	0.7373	0.5619	0.3918	0.2981	0.2661	0.2864	0.3106	0.4421	0.6855	0.8185	0.8915	0.5455
55	0.8081	0.6847	0.4942	0.3118	0.2124	0.2085	0.2061	0.2238	0.363	0.6284	0.7701	0.848	0.4799
60	0.7554	0.6285	0.4238	0.2304	0.1833	0.2011	0.1987	0.1361	0.2816	0.5679	0.7172	0.7993	0.4269
65	0.6979	0.569	0.3513	0.1543	0.1763	0.1932	0.1909	0.1159	0.1988	0.5044	0.6602	0.7459	0.3798
70	0.6362	0.5067	0.2771	0.1484	0.169	0.1851	0.1827	0.1122	0.1148	0.4385	0.5994	0.688	0.3382
75	0.5706	0.4421	0.202	0.1424	0.1615	0.1767	0.1743	0.1084	0.0711	0.3707	0.5353	0.6261	0.2984
80	0.5016	0.3757	0.1541	0.1362	0.1537	0.168	0.1657	0.1045	0.0697	0.3014	0.4685	0.5608	0.2633
85	0.4299	0.308	0.1463	0.1299	0.1459	0.1593	0.157	0.1005	0.0683	0.1943	0.3995	0.4925	0.2276
90	0.3559	0.2035	0.1384	0.1236	0.138	0.1504	0.1482	0.0965	0.067	0.1826	0.3287	0.4217	0.1962



Tabla 6: Azimut de 15°

$\beta^\circ$	01	02	03	04	05	06	07	08	09	10	11	12	Annual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9913	0.9914	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	1.007	0.9912	0.9744	0.9561	0.9448	0.9405	0.943	0.9478	0.9637	0.9863	1.0014	1.0097	0.9722
10	1.0162	0.9853	0.9508	0.9141	0.892	0.8838	0.8886	0.8976	0.9289	0.9752	1.0053	1.0218	0.9466
15	1.0186	0.9735	0.9211	0.8661	0.8334	0.8215	0.8285	0.8412	0.8875	0.9581	1.0029	1.0275	0.915
20	1.0144	0.9557	0.8854	0.8124	0.7696	0.7541	0.7633	0.7792	0.8399	0.9351	0.9942	1.0266	0.8775
25	1.0034	0.9323	0.8441	0.7535	0.701	0.6821	0.6935	0.712	0.7864	0.9064	0.9793	1.0192	0.8344
30	0.9858	0.9033	0.7973	0.6899	0.6281	0.6062	0.6195	0.6402	0.7275	0.8721	0.9582	1.0053	0.7861
35	0.9616	0.8689	0.7456	0.6219	0.5516	0.5268	0.542	0.5643	0.6635	0.8326	0.9311	0.9851	0.7329
40	0.9312	0.8296	0.6892	0.5502	0.4719	0.4447	0.4615	0.4848	0.5951	0.7882	0.8982	0.9586	0.6753
45	0.8947	0.7854	0.6286	0.4753	0.3898	0.3603	0.3788	0.4025	0.5226	0.7391	0.8598	0.9261	0.6136
50	0.8524	0.7368	0.5643	0.3977	0.3058	0.2744	0.2943	0.3178	0.4467	0.6859	0.8162	0.8878	0.5484
55	0.8046	0.6842	0.4968	0.3182	0.2206	0.2085	0.2087	0.2316	0.368	0.6287	0.7677	0.844	0.4818
60	0.7517	0.6279	0.4265	0.2371	0.1833	0.2011	0.1987	0.1443	0.2871	0.5682	0.7146	0.7951	0.428
65	0.6941	0.5683	0.3541	0.1553	0.1763	0.1932	0.1909	0.1159	0.2044	0.5048	0.6574	0.7414	0.3797
70	0.6321	0.506	0.2802	0.1484	0.169	0.1851	0.1827	0.1122	0.1207	0.4389	0.5966	0.6834	0.3379
75	0.5664	0.4414	0.2051	0.1424	0.1615	0.1767	0.1743	0.1084	0.07	0.3711	0.5324	0.6214	0.2976
80	0.4974	0.375	0.1543	0.1362	0.1537	0.168	0.1657	0.1045	0.0704	0.3018	0.4656	0.556	0.2624
85	0.4256	0.3073	0.1465	0.1299	0.1459	0.1593	0.157	0.1005	0.069	0.1943	0.3965	0.4876	0.2266
90	0.3516	0.2035	0.1386	0.1236	0.138	0.1504	0.1482	0.0965	0.0676	0.1826	0.3257	0.4168	0.1953

Tabla 7: Azimut de 20°

$\beta^\circ$	01	02	03	04	05	06	07	08	09	10	11	12	Annual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9913	0.9914	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	1.0064	0.9912	0.9747	0.957	0.946	0.9418	0.9442	0.9489	0.9644	0.9863	1.001	1.0091	0.9726
10	1.0151	0.9852	0.9516	0.9159	0.8943	0.8863	0.891	0.8998	0.9303	0.9753	1.0046	1.0207	0.9475
15	1.0171	0.9732	0.9222	0.8687	0.8369	0.8253	0.8322	0.8445	0.8895	0.9583	1.0019	1.0258	0.9163
20	1.0123	0.9554	0.8869	0.8159	0.7743	0.7592	0.7682	0.7836	0.8426	0.9353	0.9928	1.0243	0.8792
25	1.0009	0.9319	0.8459	0.7579	0.7068	0.6885	0.6995	0.7174	0.7898	0.9066	0.9775	1.0164	0.8366
30	0.9828	0.9028	0.7995	0.695	0.635	0.6137	0.6266	0.6466	0.7315	0.8724	0.9561	1.0019	0.7887
35	0.9582	0.8684	0.7481	0.6279	0.5595	0.5355	0.5502	0.5717	0.6681	0.833	0.9287	0.9812	0.7359
40	0.9274	0.8289	0.692	0.5569	0.4808	0.4543	0.4708	0.4932	0.6003	0.7886	0.8955	0.9542	0.6786
45	0.8905	0.7847	0.6317	0.4827	0.3996	0.371	0.3889	0.4117	0.5284	0.7396	0.8569	0.9213	0.6173
50	0.8478	0.7361	0.5677	0.4059	0.3165	0.286	0.3053	0.3279	0.4531	0.6863	0.813	0.8826	0.5523
55	0.7997	0.6834	0.5004	0.3269	0.232	0.2085	0.2205	0.2424	0.3749	0.6292	0.7643	0.8385	0.485
60	0.7465	0.627	0.4303	0.2464	0.1833	0.2011	0.1987	0.1558	0.2943	0.5687	0.711	0.7893	0.4294
65	0.6887	0.5675	0.3582	0.165	0.1763	0.1932	0.1909	0.1159	0.2119	0.5053	0.6537	0.7353	0.3802
70	0.6265	0.5051	0.2844	0.1484	0.169	0.1851	0.1827	0.1122	0.1285	0.4395	0.5926	0.677	0.3376
75	0.5607	0.4405	0.2094	0.1424	0.1615	0.1767	0.1743	0.1084	0.07	0.3716	0.5284	0.6149	0.2966
80	0.4915	0.3741	0.1544	0.1362	0.1537	0.168	0.1657	0.1045	0.0711	0.3024	0.4615	0.5493	0.261
85	0.4197	0.3063	0.1466	0.1299	0.1459	0.1593	0.157	0.1005	0.0698	0.1943	0.3923	0.4809	0.2252
90	0.3456	0.2035	0.1387	0.1236	0.138	0.1504	0.1482	0.0965	0.0683	0.1826	0.3215	0.4101	0.1939



Tabla 8: Azimut de 25°

$\beta^\circ$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9913	0.9914	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	1.0058	0.991	0.9752	0.9582	0.9475	0.9434	0.9458	0.9503	0.9653	0.9864	1.0005	1.0083	0.9732
10	1.0138	0.9849	0.9525	0.9181	0.8973	0.8896	0.8942	0.9026	0.932	0.9754	1.0037	1.0192	0.9486
15	1.0151	0.9729	0.9237	0.8721	0.8414	0.8302	0.8369	0.8487	0.8921	0.9585	1.0005	1.0235	0.918
20	1.0097	0.955	0.8888	0.8204	0.7802	0.7657	0.7744	0.7891	0.846	0.9356	0.991	1.0214	0.8814
25	0.9977	0.9313	0.8482	0.7634	0.7141	0.6965	0.7071	0.7243	0.794	0.9069	0.9753	1.0127	0.8393
30	0.979	0.9022	0.8023	0.7016	0.6437	0.6232	0.6357	0.6548	0.7365	0.8728	0.9534	0.9976	0.7919
35	0.9539	0.8677	0.7512	0.6355	0.5696	0.5464	0.5607	0.5811	0.674	0.8334	0.9256	0.9762	0.7396
40	0.9225	0.8282	0.6955	0.5655	0.4921	0.4667	0.4825	0.5038	0.6069	0.789	0.8921	0.9487	0.6828
45	0.8851	0.7839	0.6356	0.4922	0.4121	0.3845	0.4019	0.4234	0.5358	0.7401	0.8531	0.9152	0.6219
50	0.842	0.7351	0.5719	0.4161	0.33	0.3007	0.3193	0.3406	0.4611	0.6869	0.8089	0.876	0.5574
55	0.7935	0.6824	0.5049	0.3379	0.2464	0.2157	0.2355	0.256	0.3834	0.6298	0.7599	0.8314	0.4897
60	0.74	0.626	0.4352	0.2581	0.1833	0.2011	0.1987	0.1702	0.3033	0.5694	0.7064	0.7818	0.4311
65	0.6818	0.5664	0.3633	0.1772	0.1763	0.1932	0.1909	0.1159	0.2213	0.506	0.6488	0.7275	0.3807
70	0.6194	0.504	0.2897	0.1484	0.169	0.1851	0.1827	0.1122	0.1382	0.4402	0.5876	0.669	0.3371
75	0.5533	0.4393	0.2149	0.1424	0.1615	0.1767	0.1743	0.1084	0.07	0.3723	0.5233	0.6066	0.2952
80	0.4841	0.3729	0.1545	0.1366	0.1537	0.168	0.1657	0.1045	0.0718	0.3031	0.4562	0.5409	0.2593
85	0.4121	0.3051	0.1468	0.1302	0.1459	0.1593	0.157	0.1005	0.0705	0.1943	0.3871	0.4723	0.2234
90	0.338	0.2035	0.1389	0.1237	0.138	0.1504	0.1482	0.0965	0.0691	0.1826	0.3162	0.4014	0.1922

Tabla 9: Azimut de 30°

$\beta^\circ$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9913	0.9914	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	1.005	0.9909	0.9758	0.9595	0.9493	0.9454	0.9477	0.952	0.9663	0.9865	1	1.0074	0.9738
10	1.0122	0.9847	0.9537	0.9208	0.901	0.8936	0.8979	0.9059	0.934	0.9756	1.0026	1.0174	0.95
15	1.0128	0.9725	0.9254	0.8761	0.8468	0.8361	0.8425	0.8537	0.8952	0.9587	0.9988	1.0208	0.92
20	1.0066	0.9545	0.8911	0.8258	0.7874	0.7735	0.7818	0.7958	0.8501	0.9359	0.9888	1.0178	0.8841
25	0.9938	0.9307	0.851	0.7701	0.723	0.7062	0.7164	0.7326	0.7991	0.9073	0.9726	1.0083	0.8426
30	0.9744	0.9014	0.8056	0.7095	0.6543	0.6347	0.6467	0.6647	0.7426	0.8732	0.9502	0.9924	0.7958
35	0.9486	0.8668	0.755	0.6446	0.5817	0.5596	0.5732	0.5925	0.681	0.8339	0.922	0.9703	0.7441
40	0.9166	0.8272	0.6998	0.5757	0.5057	0.4815	0.4966	0.5165	0.6148	0.7896	0.888	0.942	0.6879
45	0.8787	0.7828	0.6403	0.5035	0.4271	0.4009	0.4174	0.4375	0.5446	0.7407	0.8486	0.9078	0.6275
50	0.835	0.734	0.577	0.4285	0.3462	0.3184	0.3362	0.3559	0.4705	0.6876	0.804	0.8681	0.5635
55	0.786	0.6812	0.5104	0.3511	0.2639	0.2346	0.2535	0.2724	0.3935	0.6306	0.7547	0.8229	0.4962
60	0.732	0.6247	0.4411	0.2721	0.1833	0.2011	0.1987	0.1875	0.314	0.5702	0.7009	0.7728	0.4332
65	0.6735	0.565	0.3695	0.1919	0.1763	0.1932	0.1909	0.1159	0.2325	0.5068	0.643	0.7181	0.3814
70	0.6108	0.5026	0.2961	0.1484	0.169	0.1851	0.1827	0.1122	0.1498	0.441	0.5816	0.6592	0.3365
75	0.5445	0.4379	0.2214	0.1424	0.1615	0.1767	0.1743	0.1084	0.07	0.3732	0.5171	0.5965	0.2937
80	0.4751	0.3714	0.1546	0.1374	0.1537	0.168	0.1657	0.1045	0.0725	0.304	0.4499	0.5306	0.2573
85	0.403	0.3036	0.1469	0.131	0.1459	0.1593	0.157	0.1005	0.0711	0.1943	0.3807	0.462	0.2213
90	0.3289	0.2035	0.139	0.1245	0.138	0.1504	0.1482	0.0965	0.0697	0.1826	0.3098	0.3911	0.1902



Tabla 10: Azimut de 35°

$\beta^\circ$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9913	0.9914	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	1.004	0.9908	0.9765	0.9611	0.9514	0.9477	0.9499	0.954	0.9675	0.9866	0.9993	1.0064	0.9746
10	1.0104	0.9844	0.955	0.924	0.9052	0.8982	0.9023	0.9099	0.9364	0.9758	1.0013	1.0153	0.9515
15	1.01	0.9721	0.9274	0.8809	0.8531	0.843	0.849	0.8596	0.8988	0.959	0.9969	1.0177	0.9223
20	1.003	0.9539	0.8937	0.832	0.7957	0.7826	0.7905	0.8036	0.8549	0.9362	0.9863	1.0137	0.8872
25	0.9893	0.93	0.8543	0.7778	0.7334	0.7175	0.7271	0.7423	0.8051	0.9078	0.9694	1.0032	0.8464
30	0.9691	0.9006	0.8095	0.7188	0.6665	0.6481	0.6594	0.6761	0.7497	0.8738	0.9465	0.9864	0.8004
35	0.9425	0.8659	0.7595	0.6552	0.5958	0.575	0.5879	0.6056	0.6892	0.8345	0.9177	0.9634	0.7493
40	0.9098	0.8261	0.7048	0.5877	0.5216	0.4987	0.513	0.5313	0.624	0.7903	0.8832	0.9342	0.6937
45	0.8711	0.7816	0.6458	0.5167	0.4445	0.4199	0.4355	0.4538	0.5546	0.7415	0.8433	0.8993	0.634
50	0.8268	0.7327	0.583	0.4427	0.3651	0.339	0.3558	0.3736	0.4814	0.6884	0.7983	0.8588	0.5705
55	0.7773	0.6798	0.5169	0.3664	0.2841	0.2566	0.2745	0.2913	0.4052	0.6314	0.7486	0.813	0.5037
60	0.7228	0.6232	0.4479	0.2882	0.2018	0.2011	0.1987	0.2075	0.3263	0.5711	0.6944	0.7623	0.4371
65	0.6638	0.5635	0.3766	0.2087	0.1763	0.1932	0.1909	0.1229	0.2454	0.5078	0.6363	0.7071	0.3827
70	0.6008	0.501	0.3034	0.1484	0.169	0.1851	0.1827	0.1122	0.1632	0.442	0.5746	0.6478	0.3359
75	0.5342	0.4362	0.229	0.1424	0.1615	0.1767	0.1743	0.1084	0.0801	0.3742	0.5099	0.5849	0.2926
80	0.4646	0.3697	0.1547	0.1382	0.1537	0.168	0.1657	0.1045	0.0731	0.305	0.4426	0.5187	0.2549
85	0.3924	0.3019	0.147	0.1318	0.1459	0.1593	0.157	0.1005	0.0718	0.2349	0.3732	0.4499	0.2221
90	0.3182	0.2035	0.1392	0.1253	0.138	0.1504	0.1482	0.0965	0.0704	0.1826	0.3024	0.379	0.1878

Tabla 11: Azimut de 40°

$\beta^\circ$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9913	0.9914	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	1.003	0.9906	0.9773	0.9629	0.9538	0.9504	0.9524	0.9562	0.9688	0.9867	0.9986	1.0052	0.9755
10	1.0083	0.9841	0.9566	0.9276	0.91	0.9034	0.9073	0.9143	0.9391	0.976	0.9998	1.0129	0.9533
15	1.0069	0.9716	0.9297	0.8862	0.8603	0.8508	0.8565	0.8663	0.9029	0.9593	0.9947	1.0142	0.9249
20	0.9988	0.9532	0.8967	0.8391	0.8052	0.793	0.8003	0.8124	0.8603	0.9366	0.9834	1.009	0.8907
25	0.9842	0.9292	0.858	0.7866	0.7451	0.7303	0.7393	0.7532	0.8118	0.9083	0.9658	0.9974	0.8508
30	0.963	0.8996	0.8139	0.7292	0.6804	0.6633	0.6738	0.6891	0.7576	0.8744	0.9423	0.9796	0.8055
35	0.9356	0.8648	0.7645	0.6672	0.6117	0.5924	0.6044	0.6205	0.6984	0.8352	0.9129	0.9555	0.7552
40	0.902	0.8249	0.7105	0.6011	0.5394	0.5182	0.5316	0.548	0.6343	0.7911	0.8778	0.9254	0.7004
45	0.8626	0.7802	0.652	0.5315	0.4642	0.4413	0.4559	0.4722	0.5659	0.7423	0.8374	0.8896	0.6413
50	0.8176	0.7312	0.5898	0.4588	0.3865	0.3622	0.3779	0.3935	0.4937	0.6893	0.7919	0.8483	0.5784
55	0.7674	0.6782	0.5242	0.3836	0.3069	0.2815	0.2982	0.3126	0.4183	0.6324	0.7416	0.8018	0.5122
60	0.7123	0.6215	0.4556	0.3064	0.226	0.2011	0.2173	0.2301	0.3401	0.5721	0.6871	0.7505	0.4434
65	0.6529	0.5617	0.3847	0.2278	0.1763	0.1932	0.1909	0.1465	0.2599	0.5088	0.6286	0.6947	0.3855
70	0.5895	0.4992	0.3118	0.1484	0.169	0.1851	0.1827	0.1122	0.1782	0.4431	0.5667	0.635	0.3351
75	0.5226	0.4344	0.2376	0.1424	0.1615	0.1767	0.1743	0.1084	0.0955	0.3754	0.5017	0.5716	0.2918
80	0.4527	0.3678	0.1548	0.1389	0.1537	0.168	0.1657	0.1048	0.0736	0.3062	0.4343	0.5053	0.2522
85	0.3804	0.3	0.1471	0.1326	0.1459	0.1593	0.157	0.1007	0.0724	0.236	0.3648	0.4363	0.2194
90	0.3062	0.2035	0.1393	0.1261	0.138	0.1504	0.1482	0.0965	0.071	0.1826	0.2939	0.3653	0.1851



Tabla 12: Azimut de 45°

$\beta^\circ$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9913	0.9914	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	1.0018	0.9904	0.9781	0.9649	0.9565	0.9533	0.9551	0.9587	0.9703	0.9868	0.9978	1.0039	0.9765
10	1.0059	0.9837	0.9583	0.9315	0.9153	0.9092	0.9128	0.9193	0.9421	0.9762	0.9982	1.0103	0.9552
15	1.0034	0.971	0.9322	0.8921	0.8682	0.8595	0.8647	0.8736	0.9074	0.9596	0.9923	1.0102	0.9279
20	0.9942	0.9525	0.9001	0.8469	0.8157	0.8044	0.8112	0.8222	0.8663	0.9371	0.9802	1.0038	0.8945
25	0.9785	0.9283	0.8622	0.7963	0.7581	0.7445	0.7528	0.7653	0.8192	0.9088	0.9619	0.991	0.8556
30	0.9564	0.8985	0.8187	0.7407	0.6958	0.68	0.6898	0.7034	0.7665	0.875	0.9376	0.972	0.8112
35	0.9279	0.8635	0.7701	0.6804	0.6294	0.6117	0.6227	0.637	0.7085	0.8359	0.9075	0.9468	0.7618
40	0.8934	0.8235	0.7167	0.616	0.5592	0.5398	0.5522	0.5665	0.6457	0.7919	0.8718	0.9157	0.7077
45	0.8531	0.7787	0.6589	0.5479	0.486	0.4651	0.4785	0.4926	0.5784	0.7432	0.8307	0.8789	0.6493
50	0.8073	0.7296	0.5973	0.4765	0.4101	0.388	0.4025	0.4156	0.5072	0.6903	0.7847	0.8367	0.5872
55	0.7564	0.6764	0.5322	0.4026	0.3322	0.3091	0.3244	0.3363	0.4327	0.6335	0.734	0.7894	0.5216
60	0.7007	0.6197	0.4641	0.3265	0.2527	0.229	0.2451	0.2551	0.3554	0.5733	0.679	0.7373	0.4532
65	0.6407	0.5598	0.3936	0.2488	0.1763	0.1932	0.1909	0.1726	0.2759	0.51	0.6201	0.681	0.3886
70	0.5769	0.4971	0.321	0.1701	0.169	0.1851	0.1827	0.1122	0.1948	0.4443	0.5579	0.6207	0.336
75	0.5096	0.4323	0.2471	0.1424	0.1615	0.1767	0.1743	0.1084	0.1126	0.3766	0.4927	0.557	0.2909
80	0.4395	0.3657	0.1722	0.1396	0.1537	0.168	0.1657	0.1058	0.0742	0.3075	0.425	0.4903	0.2506
85	0.367	0.2979	0.1472	0.1333	0.1459	0.1593	0.157	0.1017	0.0729	0.2374	0.3555	0.4212	0.2163
90	0.2928	0.2035	0.1394	0.1268	0.138	0.1504	0.1482	0.0975	0.0716	0.1826	0.2845	0.3501	0.1821

Tabla 13: Azimut de 50°

$\beta^\circ$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9913	0.9914	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	1.0006	0.9902	0.979	0.967	0.9594	0.9564	0.9582	0.9614	0.972	0.9869	0.9969	1.0024	0.9775
10	1.0034	0.9833	0.9601	0.9358	0.921	0.9156	0.9188	0.9246	0.9454	0.9765	0.9964	1.0074	0.9574
15	0.9996	0.9704	0.9349	0.8986	0.8768	0.8689	0.8737	0.8817	0.9123	0.96	0.9896	1.0059	0.931
20	0.9892	0.9517	0.9037	0.8555	0.8271	0.8169	0.8231	0.8328	0.8728	0.9376	0.9767	0.9981	0.8988
25	0.9723	0.9273	0.8667	0.8069	0.7722	0.7599	0.7674	0.7785	0.8273	0.9094	0.9576	0.984	0.8608
30	0.949	0.8974	0.8241	0.7532	0.7125	0.6983	0.7072	0.719	0.776	0.8757	0.9325	0.9637	0.8174
35	0.9195	0.8622	0.7762	0.6948	0.6486	0.6327	0.6427	0.6549	0.7195	0.8368	0.9016	0.9373	0.7689
40	0.884	0.822	0.7236	0.6322	0.5808	0.5634	0.5746	0.5867	0.658	0.7928	0.8652	0.905	0.7157
45	0.8428	0.7771	0.6665	0.5657	0.5097	0.491	0.5032	0.5147	0.5919	0.7443	0.8235	0.8671	0.6581
50	0.7961	0.7278	0.6055	0.4959	0.4358	0.4161	0.4292	0.4396	0.5219	0.6914	0.7768	0.824	0.5967
55	0.7444	0.6745	0.541	0.4232	0.3597	0.3391	0.353	0.362	0.4484	0.6347	0.7256	0.7758	0.5318
60	0.6881	0.6176	0.4734	0.3483	0.2818	0.2607	0.2753	0.2822	0.372	0.5745	0.6701	0.723	0.4639
65	0.6275	0.5576	0.4033	0.2716	0.2028	0.1932	0.1965	0.2011	0.2933	0.5113	0.6109	0.6659	0.3946
70	0.5631	0.4949	0.3311	0.1938	0.169	0.1851	0.1827	0.119	0.2128	0.4457	0.5483	0.6051	0.3376
75	0.4955	0.43	0.2574	0.1424	0.1615	0.1767	0.1743	0.1084	0.1311	0.378	0.4828	0.541	0.2899
80	0.4251	0.3634	0.1828	0.1362	0.1537	0.168	0.1657	0.1045	0.0687	0.3089	0.415	0.474	0.2472
85	0.3525	0.2955	0.1473	0.134	0.1459	0.1593	0.157	0.1027	0.0734	0.2388	0.3453	0.4046	0.213
90	0.2781	0.2035	0.1395	0.1276	0.138	0.1504	0.1482	0.0985	0.0721	0.1826	0.2743	0.3335	0.1789



Tabla 14: Azimut de 55°

$\beta^\circ$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9913	0.9914	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9992	0.99	0.98	0.9693	0.9625	0.9599	0.9614	0.9643	0.9737	0.9871	0.9959	1.0009	0.9787
10	1.0007	0.9828	0.9621	0.9405	0.9273	0.9224	0.9253	0.9304	0.9489	0.9767	0.9945	1.0043	0.9597
15	0.9956	0.9697	0.9379	0.9055	0.8861	0.8791	0.8833	0.8903	0.9175	0.9604	0.9868	1.0013	0.9345
20	0.9839	0.9508	0.9076	0.8647	0.8394	0.8303	0.8359	0.8443	0.8798	0.9381	0.9729	0.992	0.9033
25	0.9657	0.9262	0.8715	0.8183	0.7874	0.7765	0.7832	0.7926	0.8359	0.9101	0.9529	0.9765	0.8664
30	0.9412	0.8961	0.8298	0.7667	0.7305	0.718	0.7259	0.7358	0.7863	0.8765	0.927	0.9547	0.824
35	0.9105	0.8607	0.7828	0.7103	0.6693	0.6552	0.6642	0.6742	0.7313	0.8377	0.8953	0.927	0.7765
40	0.8739	0.8203	0.7309	0.6495	0.604	0.5887	0.5986	0.6083	0.6712	0.7938	0.8581	0.8935	0.7242
45	0.8317	0.7753	0.6747	0.5848	0.5352	0.5189	0.5297	0.5385	0.6065	0.7453	0.8157	0.8545	0.6676
50	0.7841	0.7258	0.6144	0.5166	0.4635	0.4463	0.4579	0.4654	0.5376	0.6926	0.7684	0.8103	0.6069
55	0.7316	0.6724	0.5505	0.4454	0.3892	0.3714	0.3837	0.3895	0.4653	0.6359	0.7166	0.7612	0.5427
60	0.6745	0.6155	0.4834	0.3717	0.3131	0.2949	0.3077	0.3114	0.3898	0.5758	0.6606	0.7075	0.4755
65	0.6132	0.5554	0.4137	0.2962	0.2356	0.2172	0.2305	0.2316	0.3119	0.5127	0.6009	0.6498	0.4057
70	0.5484	0.4926	0.3419	0.2192	0.169	0.1851	0.1827	0.1507	0.2321	0.4471	0.5379	0.5883	0.3413
75	0.4803	0.4276	0.2686	0.1424	0.1615	0.1767	0.1743	0.1084	0.151	0.3795	0.4722	0.5237	0.2888
80	0.4096	0.3609	0.1942	0.1362	0.1537	0.168	0.1657	0.1045	0.0691	0.3104	0.4041	0.4564	0.2444
85	0.3368	0.293	0.1473	0.1347	0.1459	0.1593	0.157	0.1037	0.0739	0.2403	0.3343	0.3869	0.2094
90	0.2624	0.2035	0.1396	0.1283	0.138	0.1504	0.1482	0.0996	0.0726	0.1826	0.2633	0.3157	0.1753

Tabla 15: Azimut de 60°

$\beta^\circ$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9913	0.9914	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9977	0.9898	0.9811	0.9718	0.9658	0.9635	0.9649	0.9674	0.9756	0.9872	0.9949	0.9992	0.9799
10	0.9978	0.9824	0.9642	0.9454	0.9339	0.9296	0.9322	0.9366	0.9527	0.977	0.9925	1.001	0.9621
15	0.9912	0.969	0.9411	0.9129	0.896	0.8899	0.8936	0.8995	0.9231	0.9608	0.9838	0.9964	0.9381
20	0.9781	0.9499	0.9118	0.8744	0.8524	0.8446	0.8494	0.8564	0.8872	0.9387	0.9689	0.9855	0.9081
25	0.9586	0.9251	0.8766	0.8304	0.8035	0.7942	0.8	0.8077	0.8451	0.9108	0.948	0.9684	0.8724
30	0.9328	0.8948	0.8359	0.781	0.7497	0.7389	0.7457	0.7536	0.7972	0.8773	0.9211	0.9453	0.8311
35	0.9009	0.8592	0.7898	0.7267	0.6912	0.6792	0.687	0.6946	0.7438	0.8386	0.8886	0.9162	0.7847
40	0.8632	0.8186	0.7388	0.6679	0.6286	0.6156	0.6242	0.6312	0.6852	0.7949	0.8506	0.8813	0.7333
45	0.8198	0.7734	0.6833	0.6051	0.5623	0.5484	0.5578	0.5637	0.6218	0.7465	0.8074	0.8411	0.6776
50	0.7713	0.7238	0.6237	0.5385	0.4928	0.4783	0.4883	0.4927	0.5543	0.6938	0.7594	0.7958	0.6177
55	0.7179	0.6702	0.5605	0.4689	0.4206	0.4057	0.4163	0.4188	0.4831	0.6373	0.707	0.7456	0.5543
60	0.66	0.6131	0.494	0.3966	0.3462	0.3311	0.3422	0.3423	0.4087	0.5773	0.6505	0.6911	0.4877
65	0.5981	0.5529	0.4248	0.3221	0.2703	0.2551	0.2666	0.2639	0.3316	0.5142	0.5903	0.6326	0.4185
70	0.5326	0.49	0.3534	0.2462	0.1932	0.1851	0.19	0.1842	0.2525	0.4487	0.5269	0.5705	0.3478
75	0.4641	0.425	0.2804	0.1692	0.1615	0.1767	0.1743	0.1084	0.172	0.3811	0.4609	0.5054	0.2899
80	0.3931	0.3582	0.2062	0.1362	0.1537	0.168	0.1657	0.1045	0.0906	0.312	0.3926	0.4377	0.2432
85	0.3201	0.2903	0.1474	0.1354	0.1463	0.1593	0.157	0.1047	0.0743	0.242	0.3227	0.368	0.2056
90	0.2457	0.2035	0.1396	0.1289	0.1382	0.1504	0.1482	0.1005	0.073	0.1826	0.2516	0.2967	0.1716





Tabla 16: Azimut de 65°

$\beta^\circ$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9913	0.9914	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9962	0.9895	0.9822	0.9744	0.9693	0.9673	0.9685	0.9706	0.9776	0.9874	0.9938	0.9975	0.9812
10	0.9947	0.9819	0.9664	0.9506	0.9408	0.9372	0.9394	0.9431	0.9566	0.9773	0.9903	0.9975	0.9647
15	0.9867	0.9683	0.9444	0.9206	0.9064	0.9012	0.9044	0.9092	0.929	0.9613	0.9806	0.9913	0.9419
20	0.9721	0.9489	0.9162	0.8847	0.8662	0.8596	0.8637	0.8692	0.895	0.9393	0.9647	0.9787	0.9132
25	0.9512	0.9239	0.8821	0.8431	0.8205	0.8127	0.8176	0.8235	0.8547	0.9115	0.9428	0.96	0.8786
30	0.924	0.8933	0.8423	0.796	0.7697	0.7608	0.7666	0.7723	0.8086	0.8782	0.915	0.9353	0.8385
35	0.8908	0.8576	0.7971	0.744	0.7142	0.7044	0.7109	0.7161	0.7569	0.8396	0.8815	0.9047	0.7932
40	0.8519	0.8168	0.747	0.6873	0.6544	0.6438	0.651	0.6553	0.6998	0.796	0.8427	0.8685	0.7429
45	0.8074	0.7714	0.6924	0.6263	0.5907	0.5795	0.5873	0.5902	0.638	0.7477	0.7987	0.827	0.6881
50	0.7578	0.7216	0.6336	0.5616	0.5236	0.5119	0.5203	0.5214	0.5718	0.6952	0.75	0.7805	0.6291
55	0.7035	0.6679	0.571	0.4935	0.4535	0.4416	0.4505	0.4494	0.5018	0.6387	0.6969	0.7293	0.5665
60	0.6448	0.6107	0.5051	0.4226	0.381	0.3691	0.3784	0.3747	0.4284	0.5788	0.6398	0.6738	0.5006
65	0.5821	0.5504	0.4365	0.3494	0.3067	0.2949	0.3044	0.2979	0.3523	0.5158	0.5791	0.6145	0.432
70	0.5161	0.4874	0.3655	0.2744	0.231	0.2195	0.2293	0.2194	0.274	0.4503	0.5154	0.5518	0.3612
75	0.4472	0.4223	0.2928	0.1983	0.1615	0.1767	0.1743	0.14	0.194	0.3828	0.449	0.4861	0.2937
80	0.3758	0.3555	0.2189	0.1362	0.1537	0.168	0.1657	0.1045	0.1131	0.3137	0.3805	0.418	0.242
85	0.3026	0.2875	0.1475	0.1359	0.1476	0.1593	0.1573	0.1056	0.0747	0.2437	0.3104	0.3481	0.2017
90	0.2281	0.2035	0.1397	0.1296	0.1395	0.1504	0.1483	0.1015	0.0734	0.1826	0.2393	0.2767	0.1677

Tabla 17: Azimut de 70°

$\beta^\circ$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9913	0.9914	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9946	0.9893	0.9834	0.9771	0.9729	0.9713	0.9723	0.974	0.9796	0.9875	0.9927	0.9957	0.9825
10	0.9915	0.9814	0.9688	0.956	0.9481	0.9451	0.9469	0.9498	0.9607	0.9776	0.9881	0.9939	0.9673
15	0.9819	0.9676	0.9478	0.9287	0.9172	0.913	0.9156	0.9192	0.9351	0.9617	0.9773	0.9859	0.9459
20	0.9659	0.9479	0.9207	0.8954	0.8804	0.8752	0.8785	0.8825	0.903	0.9399	0.9603	0.9716	0.9185
25	0.9435	0.9226	0.8877	0.8562	0.8382	0.832	0.836	0.8399	0.8647	0.9123	0.9373	0.9512	0.8851
30	0.9149	0.8919	0.8489	0.8116	0.7906	0.7837	0.7883	0.7918	0.8205	0.8791	0.9086	0.9249	0.8462
35	0.8803	0.8559	0.8048	0.7619	0.7382	0.7306	0.7358	0.7384	0.7705	0.8406	0.8742	0.8928	0.802
40	0.8401	0.8149	0.7556	0.7074	0.6813	0.6732	0.6789	0.6803	0.715	0.7972	0.8344	0.8552	0.7528
45	0.7944	0.7693	0.7018	0.6484	0.6203	0.6118	0.618	0.6177	0.6547	0.749	0.7897	0.8123	0.699
50	0.7438	0.7194	0.6438	0.5855	0.5556	0.5469	0.5536	0.5512	0.5899	0.6965	0.7402	0.7646	0.6409
55	0.6884	0.6655	0.582	0.5191	0.4877	0.4791	0.4861	0.4813	0.5212	0.6402	0.6864	0.7123	0.5791
60	0.6289	0.6081	0.5167	0.4497	0.4172	0.4087	0.416	0.4084	0.4489	0.5803	0.6287	0.6558	0.514
65	0.5655	0.5477	0.4486	0.3777	0.3446	0.3363	0.3438	0.3331	0.3738	0.5174	0.5675	0.5956	0.446
70	0.4989	0.4846	0.3781	0.3038	0.2703	0.2625	0.2701	0.256	0.2962	0.452	0.5033	0.5322	0.3757
75	0.4295	0.4194	0.3057	0.2285	0.195	0.1878	0.1954	0.1776	0.2169	0.3845	0.4366	0.466	0.3036
80	0.3578	0.3526	0.2321	0.1523	0.1537	0.168	0.1657	0.1045	0.1364	0.3155	0.3679	0.3976	0.242
85	0.2844	0.2846	0.1577	0.1365	0.1488	0.16	0.1588	0.1065	0.0749	0.2455	0.2976	0.3274	0.1986
90	0.2098	0.2035	0.1397	0.1301	0.1407	0.1509	0.1498	0.1024	0.0737	0.1826	0.2265	0.256	0.1638



Tabla 18: Azimut de 75°

$\beta^\circ$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9913	0.9914	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9929	0.989	0.9846	0.9799	0.9767	0.9754	0.9762	0.9775	0.9817	0.9877	0.9916	0.9938	0.9839
10	0.9883	0.9808	0.9711	0.9616	0.9556	0.9533	0.9547	0.9567	0.9649	0.978	0.9858	0.9902	0.9701
15	0.977	0.9668	0.9514	0.937	0.9283	0.9252	0.9272	0.9296	0.9414	0.9622	0.9738	0.9803	0.95
20	0.9594	0.9469	0.9254	0.9064	0.8952	0.8913	0.8938	0.8962	0.9114	0.9405	0.9558	0.9643	0.9239
25	0.9355	0.9214	0.8935	0.8698	0.8564	0.8519	0.8549	0.8568	0.875	0.913	0.9318	0.9422	0.8919
30	0.9054	0.8904	0.8558	0.8277	0.8122	0.8072	0.8107	0.8118	0.8327	0.88	0.9019	0.9142	0.8542
35	0.8695	0.8541	0.8127	0.7804	0.7629	0.7576	0.7615	0.7614	0.7844	0.8417	0.8666	0.8805	0.8111
40	0.8279	0.813	0.7645	0.728	0.709	0.7034	0.7077	0.706	0.7307	0.7984	0.8259	0.8414	0.763
45	0.7811	0.7671	0.7116	0.6712	0.6507	0.6451	0.6497	0.6461	0.672	0.7503	0.7803	0.7971	0.7102
50	0.7293	0.717	0.6544	0.6102	0.5886	0.583	0.5879	0.582	0.6086	0.698	0.7301	0.7481	0.6531
55	0.673	0.663	0.5933	0.5455	0.523	0.5176	0.5228	0.5141	0.5411	0.6417	0.6756	0.6947	0.5921
60	0.6125	0.6055	0.5287	0.4775	0.4545	0.4495	0.4548	0.4432	0.47	0.5819	0.6172	0.6372	0.5277
65	0.5484	0.5449	0.4611	0.4069	0.3836	0.379	0.3844	0.3695	0.3959	0.5191	0.5555	0.5762	0.4604
70	0.4811	0.4818	0.391	0.3341	0.3108	0.3068	0.3122	0.2937	0.3191	0.4538	0.4909	0.5121	0.3906
75	0.4112	0.4165	0.3191	0.2596	0.2366	0.2333	0.2387	0.2164	0.2405	0.3863	0.4238	0.4453	0.3189
80	0.3391	0.3496	0.2457	0.184	0.1616	0.168	0.1657	0.1381	0.1604	0.3173	0.3548	0.3765	0.2467
85	0.2655	0.2816	0.1714	0.1299	0.1459	0.1593	0.157	0.1005	0.0797	0.2473	0.2845	0.306	0.194
90	0.1909	0.2035	0.1398	0.1306	0.142	0.1526	0.1512	0.1033	0.0739	0.1826	0.2132	0.2345	0.1598

Tabla 19: Azimut de 80°

$\beta^\circ$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9913	0.9914	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9913	0.9887	0.9858	0.9828	0.9805	0.9796	0.9801	0.981	0.9839	0.9878	0.9904	0.9919	0.9853
10	0.9849	0.9803	0.9736	0.9673	0.9632	0.9617	0.9626	0.9638	0.9692	0.9783	0.9834	0.9864	0.9729
15	0.972	0.966	0.955	0.9455	0.9397	0.9377	0.939	0.9402	0.9478	0.9627	0.9703	0.9746	0.9542
20	0.9528	0.9458	0.9303	0.9176	0.9102	0.9078	0.9095	0.9102	0.9199	0.9412	0.9511	0.9568	0.9294
25	0.9273	0.92	0.8995	0.8837	0.875	0.8723	0.8743	0.8742	0.8856	0.9138	0.926	0.9329	0.8987
30	0.8957	0.8888	0.8629	0.8442	0.8342	0.8313	0.8336	0.8323	0.8451	0.881	0.8952	0.9032	0.8623
35	0.8584	0.8523	0.8208	0.7992	0.7882	0.7852	0.7878	0.7849	0.7987	0.8428	0.8588	0.8679	0.8204
40	0.8155	0.811	0.7735	0.7492	0.7373	0.7344	0.7372	0.7324	0.7467	0.7996	0.8172	0.8273	0.7734
45	0.7674	0.7649	0.7216	0.6944	0.6819	0.6791	0.6821	0.675	0.6895	0.7517	0.7707	0.7816	0.7217
50	0.7145	0.7147	0.6652	0.6353	0.6223	0.6199	0.623	0.6133	0.6277	0.6994	0.7197	0.7313	0.6655
55	0.6571	0.6605	0.6048	0.5724	0.5591	0.5571	0.5603	0.5477	0.5615	0.6433	0.6645	0.6767	0.6054
60	0.5957	0.6028	0.5409	0.506	0.4927	0.4912	0.4944	0.4786	0.4916	0.5836	0.6055	0.6182	0.5418
65	0.5309	0.5421	0.4739	0.4367	0.4235	0.4226	0.4259	0.4066	0.4184	0.5208	0.5432	0.5563	0.4751
70	0.4629	0.4788	0.4043	0.365	0.3522	0.352	0.3552	0.3322	0.3425	0.4555	0.4781	0.4914	0.4059
75	0.3925	0.4135	0.3327	0.2914	0.2792	0.2798	0.283	0.256	0.2645	0.3882	0.4107	0.4241	0.3346
80	0.3201	0.3465	0.2596	0.2164	0.205	0.2066	0.2096	0.1785	0.185	0.3192	0.3415	0.3548	0.2619
85	0.2462	0.2785	0.1855	0.1407	0.1459	0.1593	0.157	0.1005	0.1045	0.2492	0.271	0.2841	0.1935
90	0.1715	0.2035	0.1398	0.1311	0.1431	0.1542	0.1526	0.104	0.0741	0.1826	0.1997	0.2125	0.1557



Tabla 20: Azimut de 85°

$\beta^\circ$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9913	0.9914	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9895	0.9884	0.987	0.9857	0.9844	0.9838	0.9842	0.9847	0.9861	0.988	0.9892	0.9899	0.9868
10	0.9815	0.9797	0.9761	0.9731	0.971	0.9701	0.9707	0.9711	0.9736	0.9786	0.9811	0.9825	0.9758
15	0.9669	0.9651	0.9587	0.9541	0.9513	0.9503	0.9511	0.9509	0.9544	0.9632	0.9668	0.9689	0.9585
20	0.9461	0.9447	0.9352	0.929	0.9255	0.9245	0.9254	0.9244	0.9285	0.9418	0.9464	0.9491	0.9351
25	0.919	0.9187	0.9055	0.8978	0.8939	0.8929	0.8939	0.8917	0.8962	0.9147	0.9202	0.9235	0.9057
30	0.8859	0.8872	0.87	0.8608	0.8565	0.8557	0.8568	0.8531	0.8577	0.8819	0.8883	0.892	0.8705
35	0.8471	0.8505	0.829	0.8183	0.8138	0.8133	0.8144	0.8088	0.8132	0.8439	0.8509	0.8551	0.8299
40	0.8028	0.8089	0.7827	0.7706	0.766	0.7658	0.767	0.7591	0.7629	0.8008	0.8084	0.8129	0.784
45	0.7535	0.7627	0.7317	0.718	0.7134	0.7137	0.7149	0.7044	0.7074	0.753	0.761	0.7658	0.7333
50	0.6994	0.7122	0.6762	0.6609	0.6565	0.6573	0.6585	0.6452	0.647	0.7009	0.7091	0.7142	0.6781
55	0.641	0.6579	0.6165	0.5997	0.5957	0.5971	0.5983	0.5817	0.5822	0.6448	0.6532	0.6584	0.6189
60	0.5787	0.6001	0.5533	0.5349	0.5314	0.5335	0.5346	0.5146	0.5134	0.5853	0.5936	0.5989	0.556
65	0.513	0.5393	0.4869	0.4669	0.464	0.4669	0.468	0.4443	0.4413	0.5226	0.5308	0.5361	0.49
70	0.4445	0.4759	0.4178	0.3963	0.3942	0.3979	0.3989	0.3713	0.3662	0.4574	0.4652	0.4705	0.4213
75	0.3735	0.4104	0.3465	0.3236	0.3223	0.327	0.3278	0.2961	0.2889	0.39	0.3974	0.4026	0.3505
80	0.3007	0.3434	0.2737	0.2493	0.2491	0.2547	0.2554	0.2194	0.2098	0.3211	0.3279	0.3329	0.2781
85	0.2267	0.2753	0.1998	0.174	0.1749	0.1816	0.1821	0.1417	0.1296	0.2512	0.2573	0.2619	0.2047
90	0.1519	0.2035	0.1398	0.1315	0.1443	0.1558	0.1539	0.1048	0.0742	0.1826	0.1859	0.1902	0.1515

Tabla 21: Azimut de 90°

$\beta^\circ$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9913	0.9914	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9878	0.9882	0.9883	0.9886	0.9883	0.9881	0.9883	0.9883	0.9883	0.9882	0.988	0.988	0.9882
10	0.978	0.9792	0.9786	0.9789	0.9788	0.9787	0.9788	0.9783	0.978	0.979	0.9786	0.9786	0.9786
15	0.9618	0.9643	0.9625	0.9628	0.9629	0.9631	0.9632	0.9618	0.9609	0.9637	0.9632	0.963	0.9628
20	0.9393	0.9437	0.9401	0.9405	0.9409	0.9414	0.9414	0.9387	0.9372	0.9425	0.9417	0.9415	0.9407
25	0.9106	0.9174	0.9116	0.912	0.9129	0.9137	0.9137	0.9094	0.9069	0.9155	0.9144	0.914	0.9127
30	0.876	0.8856	0.8773	0.8776	0.879	0.8804	0.8802	0.874	0.8704	0.8829	0.8814	0.8808	0.8788
35	0.8357	0.8487	0.8373	0.8376	0.8396	0.8415	0.8413	0.8327	0.8277	0.845	0.843	0.8422	0.8394
40	0.7901	0.8069	0.792	0.7921	0.7949	0.7974	0.7971	0.7859	0.7792	0.8021	0.7995	0.7985	0.7946
45	0.7395	0.7605	0.7419	0.7417	0.7452	0.7485	0.748	0.734	0.7253	0.7544	0.7512	0.75	0.745
50	0.6842	0.7098	0.6872	0.6865	0.691	0.695	0.6943	0.6772	0.6664	0.7024	0.6985	0.697	0.6908
55	0.6248	0.6553	0.6283	0.6271	0.6325	0.6374	0.6366	0.616	0.6029	0.6464	0.6418	0.64	0.6324
60	0.5616	0.5973	0.5658	0.5639	0.5703	0.576	0.5751	0.5508	0.5354	0.5869	0.5816	0.5794	0.5703
65	0.4951	0.5364	0.4999	0.4973	0.5048	0.5115	0.5103	0.4821	0.4642	0.5244	0.5182	0.5157	0.505
70	0.4259	0.4729	0.4313	0.4278	0.4364	0.4441	0.4428	0.4105	0.39	0.4592	0.4522	0.4494	0.4369
75	0.3544	0.4074	0.3604	0.3559	0.3658	0.3745	0.373	0.3365	0.3134	0.3919	0.3841	0.3809	0.3665
80	0.2812	0.3403	0.2879	0.2823	0.2933	0.3032	0.3014	0.2606	0.2348	0.323	0.3143	0.3107	0.2944
85	0.2069	0.2721	0.2141	0.2074	0.2197	0.2306	0.2287	0.1834	0.1549	0.2531	0.2435	0.2395	0.2212
90	0.1321	0.2035	0.1398	0.1318	0.1454	0.1574	0.1553	0.1054	0.0743	0.1826	0.1721	0.1678	0.1473



Tabla 22: Azimut de 95°

$\beta^\circ$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9913	0.9914	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9861	0.9879	0.9896	0.9915	0.9922	0.9924	0.9923	0.992	0.9905	0.9883	0.9868	0.986	0.9896
10	0.9746	0.9786	0.9811	0.9847	0.9866	0.9872	0.987	0.9856	0.9824	0.9793	0.9762	0.9747	0.9815
15	0.9567	0.9635	0.9662	0.9715	0.9746	0.9758	0.9753	0.9726	0.9675	0.9642	0.9596	0.9572	0.9671
20	0.9325	0.9426	0.945	0.9519	0.9563	0.9582	0.9574	0.953	0.9458	0.9432	0.937	0.9338	0.9464
25	0.9022	0.916	0.9177	0.9261	0.9319	0.9345	0.9334	0.9271	0.9176	0.9163	0.9085	0.9045	0.9197
30	0.8661	0.884	0.8845	0.8943	0.9015	0.9049	0.9036	0.8949	0.883	0.8839	0.8744	0.8696	0.8871
35	0.8244	0.8469	0.8455	0.8568	0.8654	0.8697	0.868	0.8567	0.8422	0.8461	0.835	0.8293	0.8488
40	0.7774	0.8048	0.8012	0.8136	0.8238	0.829	0.8271	0.8128	0.7954	0.8033	0.7906	0.784	0.8053
45	0.7255	0.7582	0.7521	0.7653	0.777	0.7832	0.781	0.7635	0.7432	0.7558	0.7414	0.7341	0.7567
50	0.6691	0.7074	0.6982	0.7121	0.7254	0.7326	0.7301	0.7091	0.6857	0.7039	0.6879	0.6798	0.7034
55	0.6085	0.6527	0.6401	0.6545	0.6693	0.6776	0.6748	0.6501	0.6236	0.648	0.6305	0.6216	0.6459
60	0.5444	0.5946	0.5782	0.5928	0.6092	0.6186	0.6155	0.5869	0.5572	0.5886	0.5696	0.56	0.5846
65	0.4771	0.5335	0.513	0.5276	0.5454	0.556	0.5526	0.5199	0.4871	0.5261	0.5056	0.4954	0.52
70	0.4072	0.4699	0.4448	0.4592	0.4786	0.4903	0.4867	0.4497	0.4138	0.461	0.4392	0.4282	0.4524
75	0.3353	0.4043	0.3744	0.3883	0.4091	0.422	0.4181	0.3768	0.3378	0.3938	0.3707	0.3592	0.3825
80	0.2617	0.3371	0.3021	0.3153	0.3376	0.3516	0.3474	0.3017	0.2597	0.325	0.3006	0.2886	0.3107
85	0.1872	0.269	0.2285	0.2407	0.2644	0.2796	0.2752	0.225	0.1801	0.255	0.2297	0.2171	0.2376
90	0.1321	0.2035	0.1542	0.1653	0.1903	0.2066	0.202	0.1472	0.0996	0.1846	0.1721	0.1678	0.1688

Tabla 23: Azimut de 100°

$\beta^\circ$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9913	0.9914	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9844	0.9876	0.9908	0.9944	0.9961	0.9967	0.9964	0.9956	0.9927	0.9885	0.9856	0.9841	0.9911
10	0.9712	0.9781	0.9836	0.9905	0.9943	0.9957	0.995	0.9928	0.9868	0.9796	0.9739	0.9708	0.9844
15	0.9516	0.9627	0.9699	0.9801	0.9861	0.9885	0.9873	0.9833	0.974	0.9647	0.956	0.9515	0.9713
20	0.9258	0.9415	0.9499	0.9633	0.9715	0.9749	0.9733	0.9672	0.9544	0.9438	0.9323	0.9261	0.952
25	0.8939	0.9147	0.9238	0.9402	0.9507	0.9551	0.953	0.9446	0.9282	0.9171	0.9027	0.895	0.9266
30	0.8563	0.8825	0.8916	0.9109	0.9238	0.9293	0.9268	0.9156	0.8956	0.8849	0.8676	0.8584	0.8953
35	0.8131	0.8451	0.8537	0.8758	0.8909	0.8976	0.8946	0.8804	0.8566	0.8472	0.8271	0.8165	0.8582
40	0.7647	0.8028	0.8104	0.8349	0.8524	0.8603	0.8568	0.8393	0.8115	0.8046	0.7817	0.7697	0.8158
45	0.7116	0.756	0.7621	0.7887	0.8084	0.8176	0.8137	0.7927	0.7609	0.7572	0.7317	0.7183	0.7682
50	0.654	0.7049	0.7091	0.7375	0.7594	0.7699	0.7656	0.7408	0.7049	0.7054	0.6774	0.6627	0.716
55	0.5924	0.6501	0.6518	0.6816	0.7057	0.7175	0.7127	0.684	0.6441	0.6496	0.6192	0.6033	0.6593
60	0.5274	0.5918	0.5906	0.6215	0.6477	0.6607	0.6556	0.6227	0.5789	0.5903	0.5577	0.5407	0.5988
65	0.4593	0.5306	0.5259	0.5576	0.5858	0.6001	0.5946	0.5574	0.5098	0.5279	0.4932	0.4751	0.5348
70	0.3888	0.4669	0.4583	0.4903	0.5204	0.536	0.5301	0.4886	0.4373	0.4628	0.4262	0.4073	0.4678
75	0.3163	0.4012	0.3882	0.4203	0.4521	0.469	0.4628	0.4167	0.362	0.3957	0.3574	0.3376	0.3983
80	0.2424	0.334	0.3161	0.3479	0.3814	0.3995	0.393	0.3424	0.2844	0.3269	0.2871	0.2666	0.3268
85	0.1676	0.2658	0.2428	0.2738	0.3088	0.3281	0.3213	0.2662	0.2051	0.257	0.2159	0.1949	0.2539
90	0.1321	0.2035	0.1685	0.1985	0.2348	0.2553	0.2483	0.1886	0.1247	0.1865	0.1721	0.1678	0.19



Tabla 24: Azimut de 105°

$\beta^\circ$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9913	0.9914	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9827	0.9873	0.992	0.9973	1	1.0009	1.0004	0.9991	0.9949	0.9887	0.9844	0.9822	0.9925
10	0.9678	0.9776	0.986	0.9962	1.002	1.0041	1.0029	0.9999	0.9911	0.98	0.9715	0.967	0.9872
15	0.9466	0.9619	0.9736	0.9886	0.9975	1.0009	0.9991	0.9939	0.9804	0.9652	0.9525	0.9458	0.9755
20	0.9192	0.9404	0.9547	0.9745	0.9866	0.9913	0.9889	0.9811	0.9628	0.9445	0.9276	0.9186	0.9575
25	0.8857	0.9134	0.9297	0.954	0.9692	0.9754	0.9723	0.9618	0.9386	0.9179	0.897	0.8858	0.9334
30	0.8466	0.8809	0.8987	0.9272	0.9457	0.9533	0.9496	0.9359	0.9078	0.8858	0.8608	0.8474	0.9033
35	0.802	0.8433	0.8618	0.8945	0.916	0.9251	0.9208	0.9037	0.8707	0.8483	0.8194	0.8039	0.8675
40	0.7523	0.8008	0.8195	0.8559	0.8805	0.8911	0.8861	0.8655	0.8273	0.8058	0.773	0.7556	0.8261
45	0.6979	0.7538	0.7721	0.8118	0.8394	0.8515	0.8459	0.8214	0.7782	0.7585	0.7221	0.7028	0.7796
50	0.6392	0.7026	0.7199	0.7624	0.793	0.8066	0.8004	0.7719	0.7237	0.7068	0.667	0.6459	0.7283
55	0.5766	0.6475	0.6633	0.7083	0.7416	0.7567	0.75	0.7172	0.6642	0.6512	0.6081	0.5853	0.6725
60	0.5106	0.5891	0.6027	0.6497	0.6856	0.7022	0.695	0.6579	0.6002	0.5919	0.5459	0.5216	0.6127
65	0.4418	0.5278	0.5386	0.5871	0.6254	0.6435	0.6358	0.5942	0.5321	0.5296	0.4809	0.4552	0.5493
70	0.3706	0.464	0.4715	0.5209	0.5615	0.581	0.5729	0.5267	0.4604	0.4646	0.4135	0.3867	0.4829
75	0.2976	0.3982	0.4017	0.4517	0.4944	0.5153	0.5067	0.456	0.3857	0.3975	0.3443	0.3164	0.4138
80	0.2233	0.331	0.33	0.38	0.4245	0.4467	0.4378	0.3825	0.3086	0.3287	0.2738	0.245	0.3427
85	0.1483	0.2627	0.2568	0.3063	0.3524	0.3758	0.3667	0.3067	0.2296	0.2589	0.2025	0.1777	0.2704
90	0.1321	0.2035	0.1826	0.2311	0.2786	0.3032	0.2938	0.2293	0.1493	0.1884	0.1721	0.1678	0.211

Tabla 25: Azimut de 110°

$\beta^\circ$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9913	0.9914	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.981	0.9871	0.9932	1.0001	1.0037	1.005	1.0043	1.0026	0.997	0.9888	0.9832	0.9803	0.9939
10	0.9645	0.977	0.9884	1.0017	1.0094	1.0122	1.0107	1.0068	0.9953	0.9803	0.9692	0.9633	0.9899
15	0.9417	0.9611	0.9771	0.9968	1.0086	1.013	1.0106	1.0042	0.9866	0.9657	0.9491	0.9402	0.9796
20	0.9127	0.9394	0.9595	0.9854	1.0012	1.0074	1.0041	0.9947	0.9711	0.9451	0.9231	0.9113	0.9629
25	0.8778	0.9121	0.9355	0.9674	0.9873	0.9952	0.9911	0.9786	0.9487	0.9187	0.8914	0.8767	0.94
30	0.8371	0.8794	0.9056	0.9431	0.9671	0.9767	0.9718	0.9558	0.9198	0.8867	0.8542	0.8367	0.9112
35	0.7911	0.8416	0.8697	0.9127	0.9406	0.952	0.9463	0.9265	0.8844	0.8494	0.8118	0.7916	0.8765
40	0.7401	0.7989	0.8283	0.8763	0.908	0.9212	0.9147	0.891	0.8427	0.807	0.7645	0.7418	0.8362
45	0.6845	0.7516	0.7818	0.8342	0.8696	0.8846	0.8773	0.8494	0.7952	0.7598	0.7127	0.6876	0.7907
50	0.6247	0.7002	0.7304	0.7868	0.8257	0.8424	0.8345	0.8022	0.7421	0.7083	0.6569	0.6294	0.7403
55	0.5611	0.6451	0.6745	0.7343	0.7765	0.795	0.7864	0.7497	0.6838	0.6527	0.5973	0.5678	0.6853
60	0.4943	0.5865	0.6146	0.6772	0.7225	0.7427	0.7334	0.6921	0.6209	0.5936	0.5345	0.5031	0.6263
65	0.4246	0.5251	0.551	0.6158	0.6641	0.6858	0.676	0.6301	0.5538	0.5313	0.4689	0.4358	0.5635
70	0.3528	0.4612	0.4843	0.5507	0.6016	0.6249	0.6146	0.564	0.4829	0.4664	0.4011	0.3665	0.4976
75	0.2793	0.3953	0.415	0.4824	0.5356	0.5604	0.5496	0.4943	0.4088	0.3993	0.3315	0.2957	0.4289
80	0.2047	0.328	0.3435	0.4113	0.4665	0.4927	0.4816	0.4215	0.3322	0.3306	0.2607	0.2239	0.3581
85	0.1392	0.2597	0.2704	0.3379	0.3949	0.4224	0.4109	0.3462	0.2534	0.2607	0.1893	0.1777	0.2886
90	0.1321	0.2035	0.1963	0.2629	0.3213	0.3499	0.3382	0.2689	0.1733	0.1903	0.1721	0.1678	0.2314

Tabla 26: Azimut de 115°

$\beta^\circ$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9913	0.9914	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9794	0.9868	0.9944	1.0028	1.0073	1.0089	1.008	1.006	0.999	0.989	0.9821	0.9785	0.9952
10	0.9614	0.9765	0.9907	1.0071	1.0166	1.0201	1.0182	1.0135	0.9993	0.9806	0.967	0.9597	0.9926
15	0.937	0.9603	0.9806	1.0048	1.0193	1.0248	1.0218	1.0141	0.9926	0.9661	0.9458	0.9348	0.9835
20	0.9064	0.9384	0.964	0.9959	1.0154	1.0229	1.0189	1.0079	0.979	0.9457	0.9187	0.9042	0.9681
25	0.87	0.9108	0.9412	0.9804	1.0049	1.0144	1.0094	0.9948	0.9585	0.9195	0.8859	0.8679	0.9465
30	0.828	0.8779	0.9122	0.9585	0.9878	0.9994	0.9933	0.975	0.9314	0.8876	0.8478	0.8263	0.9188
35	0.7806	0.8399	0.8774	0.9303	0.9643	0.978	0.971	0.9485	0.8977	0.8504	0.8044	0.7797	0.8852
40	0.7284	0.797	0.8369	0.896	0.9346	0.9503	0.9424	0.9156	0.8576	0.8081	0.7563	0.7284	0.846
45	0.6716	0.7495	0.7911	0.8559	0.8988	0.9166	0.9077	0.8765	0.8115	0.7611	0.7037	0.6729	0.8014
50	0.6107	0.698	0.7406	0.8103	0.8573	0.8771	0.8674	0.8316	0.7598	0.7096	0.647	0.6135	0.7519
55	0.5461	0.6426	0.6854	0.7594	0.8103	0.832	0.8216	0.781	0.7028	0.6542	0.5868	0.5507	0.6977
60	0.4784	0.584	0.6261	0.7037	0.7583	0.7818	0.7706	0.7253	0.6409	0.5951	0.5234	0.4851	0.6394
65	0.408	0.5224	0.5631	0.6436	0.7015	0.7268	0.715	0.6648	0.5747	0.5329	0.4573	0.417	0.5773
70	0.3356	0.4584	0.4968	0.5796	0.6404	0.6674	0.655	0.5999	0.5046	0.4681	0.389	0.347	0.5118
75	0.2616	0.3924	0.4278	0.512	0.5755	0.604	0.5911	0.5312	0.4312	0.401	0.3191	0.2756	0.4436
80	0.1866	0.3251	0.3566	0.4415	0.5072	0.5372	0.5239	0.4592	0.355	0.3323	0.2481	0.2034	0.373
85	0.1392	0.2568	0.2837	0.3685	0.4361	0.4674	0.4537	0.3844	0.2765	0.2625	0.183	0.1777	0.3075
90	0.1321	0.2035	0.2096	0.2936	0.3626	0.3951	0.3812	0.3073	0.1964	0.1921	0.1721	0.1678	0.2511

Tabla 27: Azimut de 120°

$\beta^\circ$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9913	0.9914	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9779	0.9866	0.9955	1.0054	1.0108	1.0127	1.0117	1.0092	1.001	0.9891	0.981	0.9767	0.9965
10	0.9583	0.976	0.993	1.0123	1.0236	1.0277	1.0254	1.0199	1.0032	0.9809	0.9648	0.9562	0.9951
15	0.9324	0.9596	0.9839	1.0125	1.0296	1.0361	1.0325	1.0237	0.9984	0.9666	0.9426	0.9297	0.9873
20	0.9004	0.9374	0.9684	1.006	1.029	1.0378	1.033	1.0205	0.9866	0.9463	0.9145	0.8974	0.9731
25	0.8626	0.9096	0.9466	0.9929	1.0217	1.0328	1.0268	1.0104	0.9679	0.9202	0.8807	0.8595	0.9527
30	0.8192	0.8765	0.9186	0.9733	1.0076	1.0212	1.014	0.9934	0.9424	0.8885	0.8416	0.8163	0.9261
35	0.7706	0.8382	0.8847	0.9472	0.9871	1.0029	0.9947	0.9696	0.9104	0.8514	0.7974	0.7683	0.8935
40	0.7171	0.7951	0.8452	0.915	0.9601	0.9783	0.9689	0.9393	0.8719	0.8093	0.7484	0.7156	0.8553
45	0.6591	0.7475	0.8002	0.8767	0.9268	0.9473	0.9369	0.9025	0.8272	0.7623	0.695	0.6588	0.8117
50	0.5972	0.6958	0.7503	0.8328	0.8877	0.9103	0.899	0.8597	0.7767	0.711	0.6376	0.5982	0.763
55	0.5317	0.6403	0.6958	0.7835	0.8428	0.8676	0.8553	0.8111	0.7209	0.6556	0.5767	0.5344	0.7096
60	0.4632	0.5815	0.6371	0.7292	0.7926	0.8194	0.8063	0.7571	0.6601	0.5966	0.5127	0.4678	0.652
65	0.3921	0.5198	0.5746	0.6702	0.7374	0.7661	0.7523	0.698	0.5948	0.5345	0.4461	0.3989	0.5904
70	0.3191	0.4557	0.5087	0.6072	0.6776	0.7081	0.6937	0.6344	0.5254	0.4697	0.3775	0.3282	0.5254
75	0.2446	0.3897	0.4401	0.5404	0.6137	0.6459	0.6309	0.5667	0.4526	0.4027	0.3072	0.2563	0.4576
80	0.1693	0.3223	0.3691	0.4704	0.5462	0.5799	0.5644	0.4953	0.3768	0.334	0.236	0.1876	0.3876
85	0.1392	0.254	0.2964	0.3978	0.4755	0.5106	0.4947	0.4209	0.2986	0.2642	0.183	0.1777	0.3261
90	0.1321	0.2035	0.2224	0.323	0.4022	0.4385	0.4224	0.344	0.2186	0.1938	0.1721	0.1678	0.27



Tabla 28: Azimut de 125°

$\beta^\circ$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9913	0.9914	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9765	0.9863	0.9966	1.0078	1.0141	1.0163	1.0151	1.0123	1.0028	0.9893	0.98	0.9751	0.9977
10	0.9554	0.9756	0.9951	1.0172	1.0301	1.0349	1.0323	1.026	1.0069	0.9812	0.9628	0.9529	0.9975
15	0.9281	0.9589	0.987	1.0198	1.0394	1.0468	1.0427	1.0328	1.0039	0.967	0.9396	0.9248	0.9909
20	0.8947	0.9365	0.9726	1.0157	1.0419	1.052	1.0465	1.0325	0.9938	0.9469	0.9105	0.8909	0.9779
25	0.8555	0.9085	0.9517	1.0048	1.0376	1.0503	1.0434	1.0252	0.9768	0.9209	0.8758	0.8515	0.9585
30	0.8108	0.8752	0.9247	0.9873	1.0265	1.0418	1.0337	1.0109	0.9529	0.8893	0.8358	0.8069	0.933
35	0.761	0.8367	0.8917	0.9633	1.0087	1.0266	1.0172	0.9897	0.9224	0.8524	0.7907	0.7574	0.9015
40	0.7063	0.7934	0.853	0.9329	0.9843	1.0048	0.9941	0.9617	0.8854	0.8103	0.7408	0.7034	0.8642
45	0.6473	0.7457	0.8088	0.8965	0.9535	0.9765	0.9646	0.9272	0.842	0.7635	0.6867	0.6454	0.8215
50	0.5844	0.6938	0.7596	0.8541	0.9165	0.9419	0.929	0.8864	0.7928	0.7122	0.6286	0.5837	0.7736
55	0.518	0.6381	0.7057	0.8063	0.8736	0.9013	0.8874	0.8396	0.7381	0.6569	0.5671	0.5189	0.7209
60	0.4487	0.5792	0.6476	0.7533	0.8251	0.8551	0.8402	0.7872	0.6782	0.598	0.5026	0.4514	0.6639
65	0.377	0.5174	0.5855	0.6955	0.7714	0.8034	0.7877	0.7296	0.6137	0.536	0.4355	0.3817	0.6029
70	0.3034	0.4532	0.5201	0.6333	0.7129	0.7468	0.7304	0.6671	0.5451	0.4712	0.3665	0.3104	0.5384
75	0.2285	0.3871	0.4518	0.5673	0.65	0.6857	0.6687	0.6003	0.4728	0.4043	0.2959	0.238	0.4709
80	0.1528	0.3196	0.381	0.4979	0.5832	0.6204	0.6029	0.5296	0.3974	0.3357	0.2245	0.1876	0.4027
85	0.1392	0.2513	0.3084	0.4256	0.5129	0.5516	0.5337	0.4556	0.3195	0.2659	0.183	0.1777	0.3437
90	0.1321	0.2035	0.2345	0.3509	0.4398	0.4796	0.4615	0.3788	0.2396	0.1954	0.1721	0.1678	0.288

Tabla 29: Azimut de 130°

$\beta^\circ$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9913	0.9914	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9751	0.9861	0.9976	1.0102	1.0172	1.0198	1.0183	1.0152	1.0046	0.9894	0.9791	0.9735	0.9988
10	0.9527	0.9751	0.9971	1.0218	1.0363	1.0417	1.0387	1.0318	1.0104	0.9815	0.9609	0.9498	0.9998
15	0.924	0.9582	0.99	1.0266	1.0487	1.0569	1.0523	1.0414	1.009	0.9674	0.9367	0.9202	0.9943
20	0.8893	0.9356	0.9765	1.0247	1.0541	1.0653	1.0591	1.0438	1.0006	0.9474	0.9067	0.8848	0.9823
25	0.8489	0.9074	0.9566	1.0159	1.0526	1.0667	1.0591	1.0391	0.9852	0.9216	0.8712	0.8439	0.964
30	0.803	0.8739	0.9304	1.0005	1.0442	1.0613	1.0521	1.0273	0.9628	0.8901	0.8302	0.7979	0.9395
35	0.7519	0.8353	0.8983	0.9783	1.029	1.0489	1.0383	1.0085	0.9337	0.8533	0.7843	0.7471	0.9089
40	0.6962	0.7918	0.8603	0.9498	1.007	1.0297	1.0178	0.9828	0.898	0.8113	0.7338	0.6919	0.8725
45	0.6362	0.7439	0.8169	0.915	0.9785	1.0039	0.9907	0.9503	0.856	0.7646	0.6789	0.6328	0.8306
50	0.5723	0.6918	0.7683	0.8742	0.9435	0.9716	0.9572	0.9115	0.8079	0.7134	0.6202	0.57	0.7835
55	0.5051	0.6361	0.715	0.8277	0.9025	0.9331	0.9175	0.8664	0.7542	0.6582	0.5581	0.5042	0.7315
60	0.4351	0.577	0.6574	0.7759	0.8557	0.8886	0.872	0.8155	0.6952	0.5994	0.4931	0.4359	0.6751
65	0.3627	0.5151	0.5958	0.7192	0.8034	0.8385	0.821	0.7592	0.6316	0.5374	0.4256	0.3655	0.6146
70	0.2886	0.4508	0.5308	0.6579	0.746	0.7832	0.7649	0.6978	0.5636	0.4727	0.3561	0.2936	0.5505
75	0.2133	0.3847	0.4627	0.5925	0.6841	0.723	0.7041	0.6318	0.4918	0.4058	0.2853	0.2208	0.4833
80	0.1463	0.3172	0.3922	0.5236	0.6179	0.6585	0.6391	0.5618	0.4168	0.3372	0.2136	0.1876	0.4176
85	0.1392	0.2488	0.3197	0.4516	0.5481	0.5901	0.5703	0.4882	0.3391	0.2674	0.183	0.1777	0.3603
90	0.1321	0.2035	0.2459	0.3771	0.4751	0.5183	0.4982	0.4115	0.2593	0.197	0.1721	0.1678	0.3048



Tabla 30: Azimut de 135°

$\beta^\circ$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9913	0.9914	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9738	0.9859	0.9985	1.0123	1.0201	1.0229	1.0213	1.0179	1.0062	0.9896	0.9782	0.9721	0.9999
10	0.9501	0.9747	0.9989	1.0261	1.0421	1.048	1.0447	1.0371	1.0136	0.9817	0.9591	0.9469	1.0019
15	0.9202	0.9576	0.9928	1.033	1.0572	1.0663	1.0612	1.0493	1.0138	0.9678	0.9341	0.9159	0.9974
20	0.8843	0.9348	0.9801	1.0331	1.0654	1.0777	1.0709	1.0543	1.0069	0.9479	0.9032	0.8791	0.9865
25	0.8427	0.9065	0.9611	1.0263	1.0666	1.082	1.0736	1.052	0.9929	0.9222	0.8668	0.8369	0.9691
30	0.7956	0.8727	0.9358	1.0127	1.0607	1.0793	1.0693	1.0426	0.9719	0.8908	0.8251	0.7896	0.9455
35	0.7436	0.8339	0.9044	0.9923	1.0479	1.0696	1.058	1.026	0.9441	0.8541	0.7785	0.7376	0.9158
40	0.6868	0.7903	0.8672	0.9654	1.0282	1.0529	1.0398	1.0023	0.9097	0.8122	0.7272	0.6813	0.8803
45	0.6258	0.7422	0.8244	0.9322	1.0017	1.0294	1.0148	0.9718	0.8689	0.7656	0.6717	0.621	0.8391
50	0.5611	0.69	0.7765	0.8928	0.9687	0.9992	0.9833	0.9347	0.8218	0.7145	0.6124	0.5573	0.7927
55	0.4931	0.6341	0.7236	0.8476	0.9294	0.9625	0.9455	0.8912	0.7691	0.6594	0.5497	0.4907	0.7413
60	0.4224	0.575	0.6665	0.7969	0.8841	0.9197	0.9016	0.8418	0.711	0.6006	0.4842	0.4215	0.6854
65	0.3494	0.513	0.6053	0.7411	0.8331	0.8711	0.852	0.7866	0.648	0.5387	0.4163	0.3505	0.6254
70	0.2748	0.4486	0.5406	0.6806	0.7768	0.8169	0.797	0.7262	0.5806	0.474	0.3465	0.278	0.5617
75	0.1992	0.3824	0.4729	0.6159	0.7157	0.7577	0.737	0.6611	0.5093	0.4072	0.2754	0.2047	0.4949
80	0.1463	0.3148	0.4026	0.5474	0.6501	0.6938	0.6726	0.5916	0.4347	0.3386	0.2035	0.1876	0.432
85	0.1392	0.2464	0.3302	0.4757	0.5807	0.6258	0.6042	0.5183	0.3572	0.2688	0.183	0.1777	0.3756
90	0.1321	0.2035	0.2564	0.4013	0.5078	0.5541	0.5322	0.4418	0.2775	0.1984	0.1721	0.1678	0.3204

Tabla 31: Azimut de 140°

$\beta^\circ$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9913	0.9914	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9726	0.9857	0.9994	1.0143	1.0228	1.0258	1.0241	1.0203	1.0077	0.9897	0.9774	0.9708	1.0009
10	0.9478	0.9743	1.0006	1.03	1.0474	1.0538	1.0502	1.042	1.0165	0.9819	0.9575	0.9443	1.0039
15	0.9168	0.9571	0.9953	1.0388	1.0651	1.0749	1.0694	1.0566	1.0182	0.9681	0.9317	0.9119	1.0003
20	0.8797	0.9341	0.9835	1.0408	1.0757	1.089	1.0817	1.0639	1.0127	0.9483	0.9	0.8739	0.9903
25	0.837	0.9055	0.9652	1.0357	1.0793	1.096	1.0869	1.0639	1	0.9227	0.8629	0.8305	0.9738
30	0.7889	0.8716	0.9406	1.0238	1.0758	1.0958	1.085	1.0565	0.9803	0.8915	0.8204	0.782	0.951
35	0.7359	0.8327	0.91	1.0051	1.0652	1.0885	1.076	1.042	0.9537	0.8548	0.7731	0.7289	0.9221
40	0.6782	0.7889	0.8735	0.9797	1.0475	1.0741	1.0599	1.0202	0.9203	0.8131	0.7212	0.6715	0.8873
45	0.6164	0.7407	0.8313	0.9479	1.0229	1.0527	1.037	0.9915	0.8805	0.7665	0.6651	0.6103	0.8469
50	0.5509	0.6884	0.7839	0.9098	0.9917	1.0244	1.0073	0.956	0.8346	0.7155	0.6052	0.5457	0.8011
55	0.4822	0.6324	0.7316	0.8657	0.9539	0.9895	0.9711	0.914	0.7827	0.6605	0.542	0.4782	0.7503
60	0.4108	0.5731	0.6748	0.816	0.91	0.9482	0.9286	0.8657	0.7254	0.6018	0.4761	0.4084	0.6949
65	0.3373	0.511	0.6141	0.7611	0.8602	0.9009	0.8802	0.8117	0.6631	0.5399	0.4078	0.3367	0.6353
70	0.2623	0.4466	0.5497	0.7014	0.8049	0.8478	0.8263	0.7522	0.5962	0.4753	0.3377	0.2638	0.572
75	0.1862	0.3803	0.4822	0.6372	0.7446	0.7894	0.7672	0.6878	0.5253	0.4085	0.2664	0.1974	0.506
80	0.1463	0.3127	0.4121	0.5692	0.6796	0.7261	0.7033	0.6188	0.451	0.3399	0.1943	0.1876	0.4451
85	0.1392	0.2443	0.3398	0.4977	0.6104	0.6585	0.6352	0.5459	0.3737	0.2702	0.183	0.1777	0.3896
90	0.1321	0.2035	0.2661	0.4234	0.5377	0.5869	0.5634	0.4694	0.294	0.1997	0.1721	0.1678	0.3347





Tabla 32: Azimut de 145°

$\beta^\circ$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9913	0.9914	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9716	0.9856	1.0001	1.0161	1.0252	1.0284	1.0266	1.0225	1.009	0.9898	0.9766	0.9696	1.0018
10	0.9457	0.974	1.0021	1.0335	1.0521	1.059	1.0551	1.0464	1.0192	0.9821	0.956	0.9419	1.0056
15	0.9136	0.9566	0.9976	1.0441	1.0721	1.0826	1.0767	1.0631	1.0221	0.9684	0.9295	0.9084	1.0029
20	0.8756	0.9334	0.9865	1.0477	1.0851	1.0992	1.0914	1.0725	1.0179	0.9487	0.8971	0.8692	0.9937
25	0.8319	0.9047	0.9689	1.0443	1.0908	1.1086	1.0988	1.0745	1.0064	0.9232	0.8593	0.8247	0.978
30	0.7829	0.8707	0.945	1.0339	1.0894	1.1107	1.0991	1.0691	0.9878	0.8921	0.8162	0.7752	0.956
35	0.729	0.8316	0.915	1.0166	1.0807	1.1056	1.0922	1.0564	0.9622	0.8555	0.7682	0.7211	0.9278
40	0.6704	0.7877	0.8791	0.9926	1.0649	1.0932	1.0781	1.0363	0.9299	0.8138	0.7157	0.6627	0.8937
45	0.6078	0.7393	0.8375	0.962	1.0421	1.0737	1.0569	1.0092	0.891	0.7674	0.6591	0.6006	0.8539
50	0.5416	0.6869	0.7907	0.925	1.0124	1.0471	1.0289	0.9751	0.8459	0.7164	0.5987	0.5352	0.8087
55	0.4723	0.6308	0.7388	0.882	0.9761	1.0138	0.9941	0.9344	0.7949	0.6614	0.5351	0.467	0.7584
60	0.4003	0.5714	0.6824	0.8333	0.9334	0.9739	0.953	0.8873	0.7383	0.6028	0.4688	0.3965	0.7034
65	0.3264	0.5093	0.6219	0.7791	0.8847	0.9277	0.9057	0.8342	0.6765	0.541	0.4001	0.3243	0.6442
70	0.2509	0.4448	0.5578	0.72	0.8303	0.8756	0.8527	0.7756	0.6102	0.4764	0.3298	0.2509	0.5812
75	0.1746	0.3785	0.4905	0.6564	0.7706	0.818	0.7943	0.7118	0.5397	0.4096	0.2582	0.1974	0.5166
80	0.1463	0.3108	0.4206	0.5887	0.7061	0.7552	0.7309	0.6433	0.4656	0.3411	0.1939	0.1876	0.4575
85	0.1392	0.2423	0.3485	0.5175	0.6372	0.6879	0.6631	0.5706	0.3885	0.2713	0.183	0.1777	0.4022
90	0.1321	0.2035	0.2747	0.4432	0.5645	0.6164	0.5914	0.4943	0.3089	0.2009	0.1721	0.1678	0.3475

Tabla 33: Azimut de 150°

$\beta^\circ$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9913	0.9914	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9707	0.9854	1.0008	1.0176	1.0273	1.0307	1.0288	1.0245	1.0102	0.9899	0.976	0.9685	1.0025
10	0.9439	0.9737	1.0035	1.0366	1.0563	1.0635	1.0594	1.0503	1.0215	0.9823	0.9547	0.9398	1.0071
15	0.9109	0.9561	0.9996	1.0487	1.0783	1.0894	1.0832	1.0689	1.0256	0.9687	0.9275	0.9053	1.0052
20	0.872	0.9328	0.9891	1.0538	1.0933	1.1082	1.0999	1.0801	1.0224	0.9491	0.8946	0.8651	0.9967
25	0.8274	0.904	0.9722	1.0518	1.101	1.1197	1.1094	1.0839	1.012	0.9237	0.8561	0.8196	0.9817
30	0.7776	0.8698	0.9489	1.0428	1.1014	1.1239	1.1116	1.0802	0.9944	0.8926	0.8125	0.7691	0.9604
35	0.7228	0.8306	0.9195	1.0268	1.0944	1.1207	1.1065	1.069	0.9698	0.8561	0.764	0.7141	0.9329
40	0.6636	0.7866	0.8841	1.0039	1.0803	1.1101	1.0941	1.0505	0.9383	0.8145	0.7109	0.6549	0.8993
45	0.6003	0.7381	0.843	0.9744	1.059	1.0922	1.0745	1.0247	0.9003	0.7681	0.6538	0.5921	0.86
50	0.5335	0.6856	0.7966	0.9385	1.0306	1.0672	1.0479	0.9919	0.8559	0.7172	0.593	0.5259	0.8153
55	0.4635	0.6294	0.7452	0.8964	0.9956	1.0352	1.0145	0.9524	0.8056	0.6623	0.529	0.4571	0.7655
60	0.3911	0.5699	0.6891	0.8484	0.954	0.9965	0.9745	0.9063	0.7496	0.6037	0.4623	0.3861	0.711
65	0.3167	0.5077	0.6289	0.7949	0.9062	0.9514	0.9282	0.8541	0.6883	0.5419	0.3934	0.3133	0.6521
70	0.2409	0.4432	0.565	0.7364	0.8526	0.9001	0.8759	0.7961	0.6224	0.4774	0.3228	0.2395	0.5894
75	0.1643	0.3768	0.4979	0.6732	0.7935	0.8432	0.8182	0.7329	0.5522	0.4106	0.251	0.1974	0.5259
80	0.1463	0.3091	0.4281	0.6058	0.7294	0.7809	0.7553	0.6647	0.4784	0.3421	0.1939	0.1876	0.4685
85	0.1392	0.2406	0.3561	0.5348	0.6608	0.7138	0.6877	0.5923	0.4014	0.2724	0.183	0.1777	0.4133
90	0.1321	0.2035	0.2824	0.4606	0.5882	0.6423	0.616	0.5161	0.3219	0.202	0.1721	0.1678	0.3587



Tabla 34: Azimut de 150°

$\beta^\circ$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9913	0.9914	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9699	0.9853	1.0014	1.019	1.0291	1.0327	1.0307	1.0262	1.0112	0.9899	0.9754	0.9676	1.0032
10	0.9423	0.9735	1.0046	1.0393	1.0599	1.0675	1.0632	1.0537	1.0235	0.9825	0.9536	0.938	1.0085
15	0.9085	0.9558	1.0013	1.0527	1.0837	1.0953	1.0888	1.0739	1.0286	0.9689	0.9259	0.9026	1.0072
20	0.8688	0.9323	0.9914	1.059	1.1003	1.1159	1.1073	1.0867	1.0264	0.9494	0.8924	0.8615	0.9993
25	0.8236	0.9034	0.975	1.0582	1.1097	1.1293	1.1185	1.092	1.0168	0.9241	0.8534	0.8152	0.9849
30	0.773	0.8691	0.9523	1.0504	1.1117	1.1352	1.1223	1.0897	1.0001	0.893	0.8093	0.764	0.9642
35	0.7176	0.8297	0.9233	1.0355	1.1062	1.1336	1.1187	1.0799	0.9763	0.8566	0.7603	0.7082	0.9372
40	0.6577	0.7856	0.8884	1.0137	1.0935	1.1246	1.1078	1.0627	0.9455	0.8151	0.7068	0.6483	0.9041
45	0.5938	0.7371	0.8477	0.9851	1.0734	1.1081	1.0896	1.0381	0.9082	0.7687	0.6493	0.5847	0.8653
50	0.5264	0.6844	0.8017	0.95	1.0463	1.0844	1.0642	1.0064	0.8644	0.7179	0.5881	0.518	0.821
55	0.456	0.6282	0.7506	0.9087	1.0123	1.0536	1.0319	0.9678	0.8146	0.663	0.5238	0.4486	0.7716
60	0.3832	0.5687	0.6949	0.8614	0.9717	1.016	0.9929	0.9226	0.7591	0.6045	0.4568	0.3771	0.7174
65	0.3084	0.5064	0.6349	0.8085	0.9247	0.9717	0.9475	0.8711	0.6984	0.5427	0.3876	0.3039	0.6588
70	0.2323	0.4418	0.5712	0.7504	0.8717	0.9212	0.8959	0.8137	0.6328	0.4782	0.3167	0.2298	0.5963
75	0.1554	0.3754	0.5042	0.6875	0.8132	0.8649	0.8387	0.7509	0.5629	0.4115	0.2448	0.1974	0.5339
80	0.1463	0.3077	0.4345	0.6204	0.7495	0.803	0.7762	0.6831	0.4893	0.343	0.1939	0.1876	0.4779
85	0.1392	0.2392	0.3625	0.5496	0.6811	0.7361	0.7088	0.6109	0.4124	0.2733	0.183	0.1777	0.4228
90	0.1321	0.2035	0.2889	0.4754	0.6085	0.6646	0.6371	0.5347	0.3329	0.2029	0.1721	0.1678	0.3684

Tabla 35: Azimut de 160°

$\beta^\circ$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9913	0.9914	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9692	0.9852	1.0019	1.0201	1.0306	1.0344	1.0322	1.0276	1.0121	0.99	0.9749	0.9669	1.0037
10	0.941	0.9732	1.0056	1.0415	1.0629	1.0707	1.0663	1.0564	1.0252	0.9826	0.9527	0.9365	1.0096
15	0.9065	0.9554	1.0027	1.056	1.0881	1.1002	1.0934	1.078	1.0311	0.9691	0.9245	0.9003	1.0088
20	0.8662	0.9319	0.9933	1.0633	1.1062	1.1224	1.1134	1.0921	1.0296	0.9497	0.8906	0.8586	1.0014
25	0.8203	0.9029	0.9773	1.0636	1.1169	1.1372	1.126	1.0987	1.0208	0.9244	0.8512	0.8116	0.9876
30	0.7692	0.8685	0.955	1.0567	1.1202	1.1445	1.1312	1.0976	1.0048	0.8934	0.8066	0.7597	0.9673
35	0.7132	0.829	0.9265	1.0427	1.116	1.1443	1.1289	1.089	0.9816	0.8571	0.7573	0.7032	0.9407
40	0.6528	0.7848	0.8919	1.0217	1.1044	1.1366	1.1192	1.0728	0.9515	0.8156	0.7034	0.6427	0.9081
45	0.5885	0.7362	0.8517	0.994	1.0854	1.1213	1.1021	1.0492	0.9147	0.7693	0.6455	0.5786	0.8697
50	0.5206	0.6835	0.8059	0.9596	1.0593	1.0987	1.0778	1.0184	0.8714	0.7185	0.584	0.5114	0.8258
55	0.4498	0.6272	0.7552	0.9188	1.0262	1.0689	1.0464	0.9805	0.8221	0.6636	0.5194	0.4415	0.7766
60	0.3766	0.5676	0.6997	0.8721	0.9863	1.0321	1.0082	0.936	0.767	0.6051	0.4522	0.3696	0.7227
65	0.3015	0.5053	0.6399	0.8196	0.94	0.9886	0.9634	0.8851	0.7066	0.5434	0.3828	0.2961	0.6644
70	0.2252	0.4406	0.5764	0.7619	0.8876	0.9387	0.9125	0.8282	0.6414	0.4789	0.3118	0.2217	0.6021
75	0.1533	0.3742	0.5095	0.6994	0.8295	0.8829	0.8557	0.7658	0.5717	0.4122	0.2397	0.1974	0.5409
80	0.1463	0.3065	0.4398	0.6325	0.7661	0.8213	0.7936	0.6983	0.4982	0.3437	0.1939	0.1876	0.4856
85	0.1392	0.238	0.3679	0.5617	0.6978	0.7546	0.7264	0.6262	0.4214	0.274	0.183	0.1777	0.4307
90	0.1321	0.2035	0.2943	0.4876	0.6252	0.683	0.6547	0.5501	0.3419	0.2036	0.1721	0.1678	0.3763



Tabla 36: Azimut de 165°

$\beta^\circ$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9913	0.9914	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9687	0.9851	1.0022	1.021	1.0318	1.0356	1.0334	1.0287	1.0127	0.9901	0.9746	0.9663	1.0042
10	0.9399	0.9731	1.0063	1.0433	1.0652	1.0733	1.0687	1.0586	1.0265	0.9827	0.952	0.9353	1.0104
15	0.905	0.9552	1.0039	1.0586	1.0916	1.104	1.097	1.0812	1.033	0.9693	0.9234	0.8986	1.0101
20	0.8642	0.9316	0.9948	1.0668	1.1108	1.1274	1.1181	1.0964	1.0321	0.9499	0.8892	0.8563	1.0031
25	0.8178	0.9025	0.9792	1.0678	1.1226	1.1434	1.1319	1.1039	1.0239	0.9246	0.8494	0.8087	0.9896
30	0.7662	0.868	0.9572	1.0616	1.1269	1.1519	1.1381	1.1038	1.0085	0.8937	0.8046	0.7563	0.9697
35	0.7098	0.8285	0.929	1.0484	1.1237	1.1527	1.1369	1.0961	0.9858	0.8574	0.7549	0.6994	0.9435
40	0.649	0.7842	0.8947	1.0281	1.113	1.146	1.1281	1.0807	0.9562	0.8159	0.7007	0.6384	0.9113
45	0.5843	0.7355	0.8547	1.0009	1.0949	1.1317	1.1119	1.0579	0.9198	0.7697	0.6426	0.5738	0.8731
50	0.5161	0.6828	0.8093	0.967	1.0695	1.1099	1.0884	1.0277	0.8769	0.7189	0.5808	0.5062	0.8295
55	0.4449	0.6264	0.7587	0.9268	1.0371	1.0809	1.0578	0.9905	0.8279	0.6641	0.516	0.436	0.7806
60	0.3715	0.5668	0.7034	0.8805	0.9978	1.0448	1.0202	0.9466	0.7731	0.6056	0.4485	0.3637	0.7269
65	0.2961	0.5044	0.6439	0.8284	0.952	1.0019	0.976	0.8961	0.7129	0.5439	0.379	0.29	0.6687
70	0.2196	0.4397	0.5804	0.7709	0.9	0.9525	0.9256	0.8396	0.6479	0.4795	0.3078	0.2153	0.6066
75	0.1533	0.3733	0.5137	0.7086	0.8423	0.8971	0.8692	0.7775	0.5784	0.4128	0.2357	0.1974	0.5466
80	0.1463	0.3055	0.444	0.6419	0.7792	0.8359	0.8073	0.7102	0.5051	0.3443	0.1939	0.1876	0.4918
85	0.1392	0.237	0.3721	0.5712	0.7111	0.7693	0.7403	0.6382	0.4283	0.2746	0.183	0.1777	0.4368
90	0.1321	0.2035	0.2985	0.4971	0.6385	0.7126	0.6684	0.5621	0.3489	0.2042	0.1721	0.1678	0.3838

Tabla 37: Azimut de 170°

$\beta^\circ$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9913	0.9914	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9683	0.985	1.0025	1.0216	1.0326	1.0366	1.0343	1.0294	1.0132	0.9901	0.9743	0.9658	1.0045
10	0.9392	0.973	1.0069	1.0445	1.0669	1.0752	1.0705	1.0602	1.0275	0.9828	0.9515	0.9345	1.011
15	0.9039	0.955	1.0047	1.0604	1.0941	1.1067	1.0996	1.0835	1.0344	0.9694	0.9226	0.8973	1.011
20	0.8627	0.9314	0.9958	1.0692	1.1141	1.131	1.1216	1.0994	1.034	0.95	0.8881	0.8546	1.0043
25	0.816	0.9022	0.9805	1.0708	1.1267	1.1479	1.1361	1.1077	1.0262	0.9248	0.8482	0.8066	0.9911
30	0.7641	0.8677	0.9587	1.0652	1.1317	1.1572	1.1432	1.1083	1.0111	0.8939	0.8031	0.7538	0.9715
35	0.7074	0.8281	0.9308	1.0524	1.1292	1.1588	1.1426	1.1012	0.9888	0.8576	0.7531	0.6966	0.9455
40	0.6462	0.7838	0.8967	1.0326	1.1191	1.1528	1.1346	1.0864	0.9596	0.8162	0.6988	0.6353	0.9135
45	0.5812	0.735	0.8569	1.0059	1.1017	1.1391	1.119	1.0641	0.9235	0.77	0.6405	0.5704	0.8756
50	0.5128	0.6823	0.8117	0.9724	1.0768	1.118	1.0961	1.0345	0.8809	0.7193	0.5785	0.5025	0.8321
55	0.4414	0.6258	0.7613	0.9325	1.0449	1.0895	1.0659	0.9977	0.8321	0.6645	0.5135	0.432	0.7834
60	0.3677	0.5662	0.7062	0.8865	1.0061	1.0539	1.0288	0.9541	0.7775	0.606	0.4459	0.3595	0.7299
65	0.2922	0.5038	0.6467	0.8346	0.9607	1.0115	0.9851	0.904	0.7175	0.5443	0.3763	0.2856	0.6719
70	0.2155	0.4391	0.5834	0.7774	0.909	0.9625	0.935	0.8478	0.6525	0.4799	0.305	0.2108	0.6098
75	0.1533	0.3726	0.5167	0.7152	0.8515	0.9074	0.8789	0.7859	0.5831	0.4132	0.2328	0.1974	0.5507
80	0.1463	0.3049	0.4471	0.6486	0.7886	0.8465	0.8173	0.7187	0.5098	0.3447	0.1939	0.1876	0.4962
85	0.1392	0.2363	0.3752	0.5779	0.7208	0.7949	0.7505	0.6469	0.4332	0.275	0.183	0.1777	0.4425
90	0.1321	0.2035	0.3014	0.5038	0.658	0.7235	0.691	0.5708	0.3537	0.2046	0.1721	0.1678	0.3902



Tabla 38: Azimut de 175°

$\beta^\circ$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9913	0.9914	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.9681	0.985	1.0027	1.022	1.0331	1.0371	1.0349	1.0299	1.0135	0.9901	0.9742	0.9656	1.0047
10	0.9387	0.9729	1.0072	1.0453	1.0679	1.0763	1.0715	1.0611	1.028	0.9828	0.9511	0.934	1.0114
15	0.9032	0.9549	1.0052	1.0615	1.0956	1.1084	1.1012	1.085	1.0352	0.9695	0.9222	0.8966	1.0115
20	0.8618	0.9312	0.9965	1.0707	1.1161	1.1332	1.1237	1.1013	1.0351	0.9501	0.8875	0.8536	1.0051
25	0.8149	0.902	0.9813	1.0726	1.1291	1.1506	1.1387	1.11	1.0276	0.9249	0.8474	0.8054	0.992
30	0.7628	0.8674	0.9597	1.0673	1.1346	1.1603	1.1462	1.111	1.0127	0.894	0.8021	0.7524	0.9726
35	0.7059	0.8279	0.9318	1.0549	1.1325	1.1624	1.1461	1.1042	0.9907	0.8578	0.7521	0.6949	0.9468
40	0.6446	0.7835	0.8979	1.0353	1.1229	1.1569	1.1384	1.0898	0.9616	0.8164	0.6976	0.6334	0.9149
45	0.5794	0.7347	0.8583	1.0089	1.1057	1.1436	1.1233	1.0679	0.9257	0.7702	0.6392	0.5683	0.8771
50	0.5108	0.6819	0.8131	0.9757	1.0813	1.1229	1.1007	1.0386	0.8833	0.7195	0.5772	0.5002	0.8337
55	0.4393	0.6255	0.7628	0.936	1.0496	1.0947	1.0709	1.0021	0.8346	0.6647	0.5121	0.4296	0.7852
60	0.3655	0.5658	0.7078	0.8901	1.0111	1.0594	1.0341	0.9587	0.7801	0.6062	0.4444	0.357	0.7317
65	0.2899	0.5034	0.6484	0.8384	0.9659	1.0172	0.9905	0.9088	0.7202	0.5445	0.3746	0.2829	0.6737
70	0.2131	0.4387	0.5852	0.7813	0.9144	0.9685	0.9406	0.8527	0.6553	0.4801	0.3033	0.208	0.6118
75	0.1533	0.3722	0.5185	0.7192	0.8571	0.9136	0.8848	0.7909	0.5859	0.4134	0.231	0.1974	0.5531
80	0.1463	0.3044	0.449	0.6526	0.7944	0.853	0.8234	0.7239	0.5126	0.345	0.1939	0.1876	0.4988
85	0.1392	0.2359	0.377	0.582	0.7267	0.8015	0.7688	0.6521	0.4359	0.2753	0.183	0.1777	0.4463
90	0.1321	0.2035	0.3033	0.5079	0.664	0.7302	0.6972	0.5762	0.3564	0.2049	0.1721	0.1678	0.393

Tabla 39: Azimut de 180°

$\beta^\circ$	01	02	03	04	05	06	07	08	09	10	11	12	Anual
0	0.9911	0.9912	0.9915	0.9919	0.9915	0.9913	0.9914	0.9916	0.9918	0.9913	0.9911	0.9911	0.9914
5	0.968	0.985	1.0027	1.0221	1.0333	1.0373	1.035	1.0301	1.0136	0.9901	0.9741	0.9655	1.0047
10	0.9386	0.9729	1.0073	1.0455	1.0683	1.0766	1.0719	1.0614	1.0282	0.9828	0.951	0.9338	1.0115
15	0.903	0.9549	1.0053	1.0619	1.0961	1.1089	1.1017	1.0854	1.0355	0.9695	0.922	0.8963	1.0117
20	0.8616	0.9312	0.9967	1.0712	1.1168	1.1339	1.1244	1.1019	1.0355	0.9501	0.8873	0.8533	1.0053
25	0.8146	0.9019	0.9816	1.0732	1.1299	1.1515	1.1395	1.1107	1.028	0.9249	0.8471	0.805	0.9923
30	0.7624	0.8674	0.96	1.0681	1.1356	1.1614	1.1472	1.1119	1.0132	0.8941	0.8018	0.7519	0.9729
35	0.7054	0.8278	0.9322	1.0557	1.1336	1.1637	1.1473	1.1053	0.9913	0.8578	0.7518	0.6943	0.9472
40	0.644	0.7834	0.8983	1.0363	1.1241	1.1582	1.1397	1.091	0.9623	0.8164	0.6972	0.6327	0.9153
45	0.5788	0.7346	0.8587	1.0099	1.1071	1.1451	1.1247	1.0691	0.9264	0.7702	0.6387	0.5676	0.8776
50	0.5101	0.6818	0.8136	0.9767	1.0827	1.1245	1.1022	1.0399	0.884	0.7195	0.5767	0.4995	0.8343
55	0.4386	0.6254	0.7633	0.9371	1.0512	1.0965	1.0725	1.0035	0.8354	0.6647	0.5116	0.4288	0.7857
60	0.3647	0.5657	0.7083	0.8913	1.0127	1.0613	1.0358	0.9602	0.781	0.6063	0.4439	0.3561	0.7323
65	0.2891	0.5033	0.649	0.8397	0.9676	1.0192	0.9924	0.9104	0.7211	0.5446	0.3741	0.282	0.6744
70	0.2123	0.4386	0.5857	0.7826	0.9163	0.9705	0.9425	0.8544	0.6562	0.4802	0.3027	0.2071	0.6124
75	0.1533	0.3721	0.5191	0.7205	0.859	0.9157	0.8867	0.7926	0.5868	0.4135	0.2304	0.1974	0.5539
80	0.1463	0.3043	0.4496	0.6539	0.7963	0.8552	0.8254	0.7256	0.5135	0.3451	0.1939	0.1876	0.4997
85	0.1392	0.2358	0.3777	0.5833	0.7288	0.8037	0.7709	0.6539	0.4368	0.2754	0.183	0.1777	0.4472
90	0.1321	0.2035	0.3039	0.5093	0.666	0.7324	0.6993	0.5781	0.3572	0.205	0.1721	0.1678	0.3939