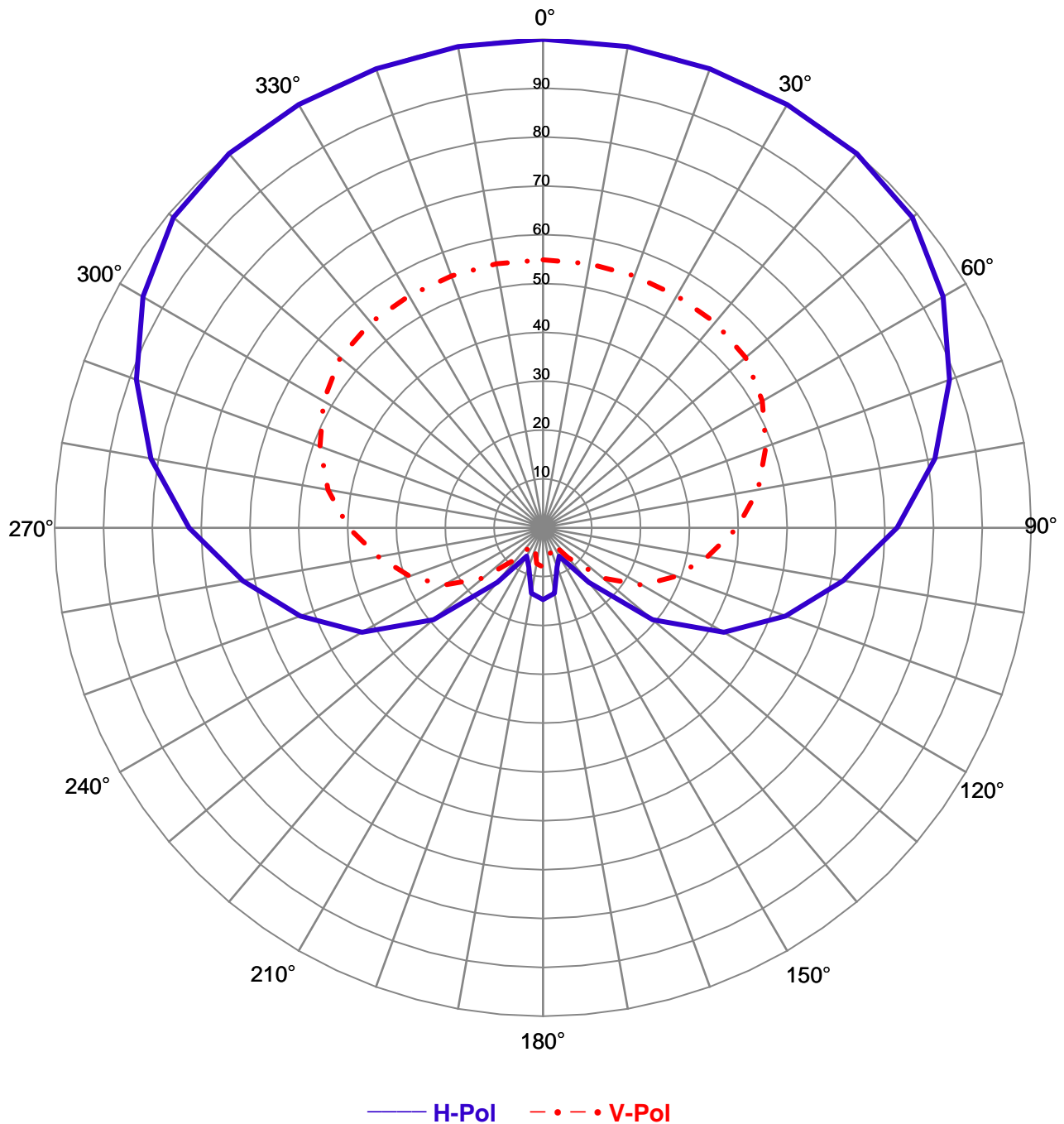




Relative Field Azimuth Plane Pattern



Pattern Type:	Relative Field	Type:	8-Bay UHF Slot
Antenna Model:	PSILP8AER-21-EP	Pattern:	AER
Polarization:	Elliptical	Channel:	21
Gain (h-pol):	13.43 (11.28 dB)	Reference:	K21PI-D
Gain (v-pol):	4.04 (6.06 dB)	Date:	8/23/2023



PROPAGATION SYSTEMS INC.

Relative Field Tabulation

Antenna Model: PSILP8AER-21-EP

Peak Gain (h-pol): 13.43 (11.28 dBd)

Angle	Relative Field	Power Gain	Gain dB
0	1.000	13.43	11.28
10	1.000	13.43	11.28
20	1.000	13.43	11.28
30	1.000	13.43	11.28
40	1.000	13.43	11.28
50	0.988	13.11	11.18
60	0.946	12.02	10.80
70	0.886	10.54	10.23
80	0.815	8.92	9.50
90	0.725	7.06	8.49
100	0.624	5.23	7.18
110	0.529	3.76	5.75
120	0.428	2.46	3.91
130	0.293	1.15	0.62
140	0.146	0.29	-5.43
150	0.067	0.06	-12.20
160	0.085	0.10	-10.13
170	0.136	0.25	-6.05
180	0.147	0.29	-5.37
190	0.136	0.25	-6.05
200	0.085	0.10	-10.13
210	0.067	0.06	-12.20
220	0.146	0.29	-5.43
230	0.293	1.15	0.62
240	0.428	2.46	3.91
250	0.529	3.76	5.75
260	0.624	5.23	7.18
270	0.725	7.06	8.49
280	0.815	8.92	9.50
290	0.886	10.54	10.23
300	0.946	12.02	10.80
310	0.988	13.11	11.18
320	1.000	13.43	11.28
330	1.000	13.43	11.28
340	1.000	13.43	11.28
350	1.000	13.43	11.28



PROPAGATION SYSTEMS INC.

Relative Field Tabulation

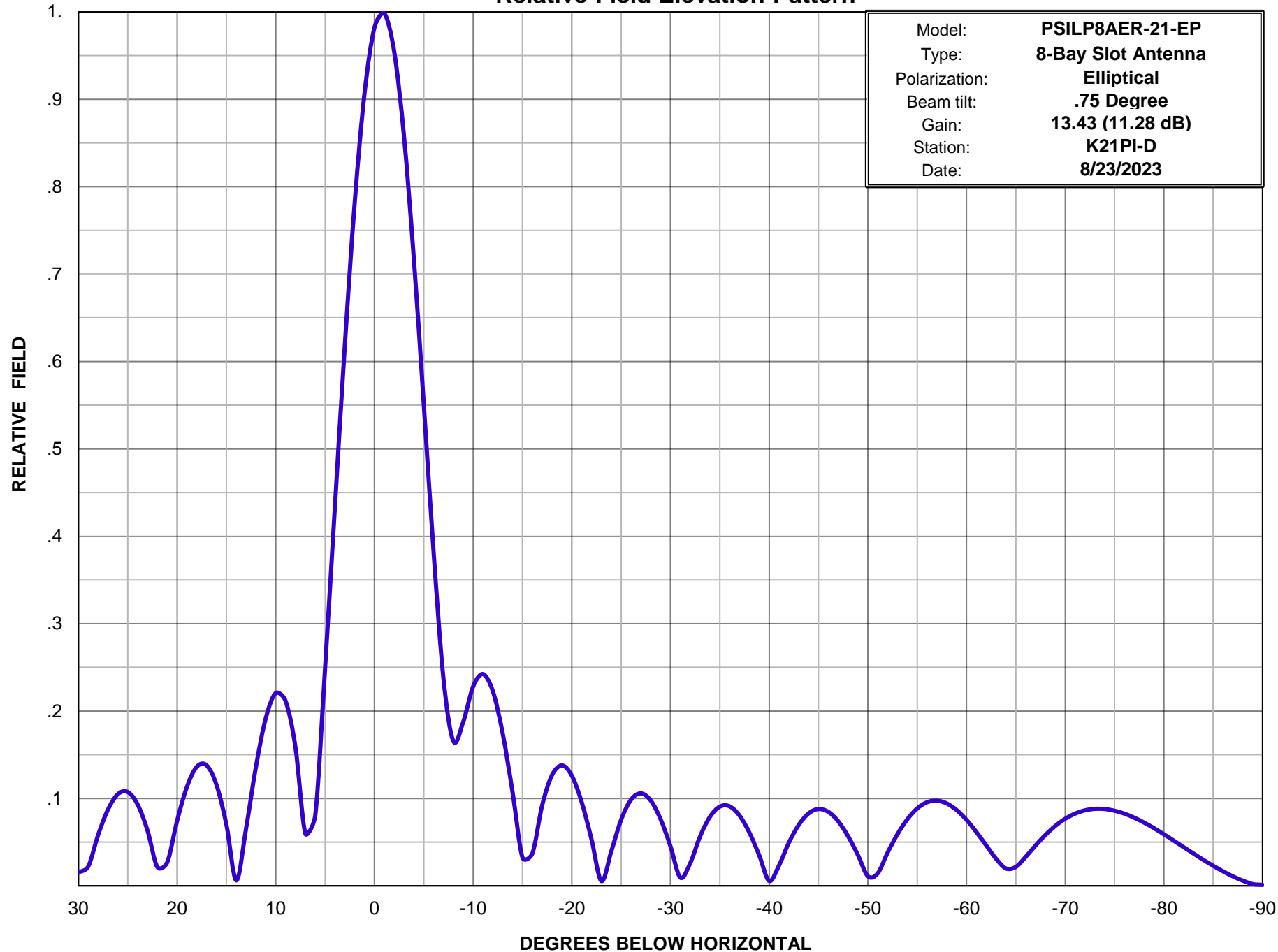
Antenna Model: PSILP8AER-21-EP

Peak Gain (v-pol): 4.04 (6.06 dBd)

Angle	Relative Field	Power Gain	Gain dB
0	0.549	4.04	6.06
10	0.549	4.04	6.06
20	0.549	4.04	6.06
30	0.549	4.04	6.06
40	0.549	4.04	6.06
50	0.542	3.94	5.96
60	0.519	3.62	5.58
70	0.486	3.17	5.01
80	0.447	2.68	4.29
90	0.398	2.12	3.27
100	0.342	1.57	1.97
110	0.290	1.13	0.53
120	0.235	0.74	-1.31
130	0.161	0.35	-4.60
140	0.080	0.09	-10.65
150	0.037	0.02	-17.41
160	0.047	0.03	-15.35
170	0.075	0.07	-11.26
180	0.081	0.09	-10.59
190	0.075	0.07	-11.26
200	0.047	0.03	-15.35
210	0.037	0.02	-17.41
220	0.080	0.09	-10.65
230	0.161	0.35	-4.60
240	0.235	0.74	-1.31
250	0.290	1.13	0.53
260	0.342	1.57	1.97
270	0.398	2.12	3.27
280	0.447	2.68	4.29
290	0.486	3.17	5.01
300	0.519	3.62	5.58
310	0.542	3.94	5.96
320	0.549	4.04	6.06
330	0.549	4.04	6.06
340	0.549	4.04	6.06
350	0.549	4.04	6.06



Relative Field Elevation Pattern





Propagation Systems Inc.

Elevation Pattern Tabulation

Antenna: PSILP8AER-21-EP

Gain: 13.13 (11.28 dB)

Beam tilt: -.75 Degree

Angle	Field	dB	Angle	Field	dB	Angle	Field	dB
-90.0	0.001	-60.000	-50.0	0.011	-39.124	-10.0	0.228	-12.840
-89.0	0.002	-54.112	-49.0	0.035	-29.081	-9.0	0.188	-14.529
-88.0	0.006	-44.570	-48.0	0.057	-24.933	-8.0	0.165	-15.626
-87.0	0.011	-39.366	-47.0	0.074	-22.640	-7.0	0.236	-12.528
-86.0	0.017	-35.642	-46.0	0.085	-21.458	-6.0	0.381	-8.384
-85.0	0.023	-32.811	-45.0	0.088	-21.122	-5.0	0.551	-5.183
-84.0	0.030	-30.546	-44.0	0.083	-21.631	-4.0	0.716	-2.897
-83.0	0.037	-28.643	-43.0	0.070	-23.136	-3.0	0.857	-1.342
-82.0	0.044	-27.083	-42.0	0.049	-26.127	-2.0	0.955	-0.403
-81.0	0.052	-25.736	-41.0	0.023	-32.640	-1.0	0.998	-0.014
-80.0	0.059	-24.592	-40.0	0.006	-45.027	0.0	0.982	-0.157
-79.0	0.066	-23.621	-39.0	0.035	-29.194	1.0	0.907	-0.844
-78.0	0.072	-22.821	-38.0	0.061	-24.328	2.0	0.782	-2.136
-77.0	0.078	-22.172	-37.0	0.080	-21.905	3.0	0.619	-4.167
-76.0	0.083	-21.663	-36.0	0.091	-20.828	4.0	0.435	-7.221
-75.0	0.086	-21.319	-35.0	0.091	-20.857	5.0	0.250	-12.041
-74.0	0.088	-21.122	-34.0	0.079	-22.054	6.0	0.081	-21.873
-73.0	0.088	-21.107	-33.0	0.057	-24.957	7.0	0.060	-24.503
-72.0	0.086	-21.273	-32.0	0.026	-31.731	8.0	0.158	-16.034
-71.0	0.083	-21.663	-31.0	0.009	-40.543	9.0	0.211	-13.506
-70.0	0.077	-22.308	-30.0	0.045	-26.907	10.0	0.221	-13.128
-69.0	0.068	-23.288	-29.0	0.076	-22.377	11.0	0.192	-14.315
-68.0	0.058	-24.704	-28.0	0.098	-20.213	12.0	0.137	-17.268
-67.0	0.046	-26.705	-27.0	0.106	-19.514	13.0	0.066	-23.561
-66.0	0.033	-29.582	-26.0	0.098	-20.133	14.0	0.006	-44.135
-65.0	0.022	-33.284	-25.0	0.076	-22.429	15.0	0.070	-23.136
-64.0	0.020	-34.045	-24.0	0.039	-28.091	16.0	0.115	-18.775
-63.0	0.031	-30.198	-23.0	0.005	-45.265	17.0	0.138	-17.220
-62.0	0.046	-26.705	-22.0	0.053	-25.510	18.0	0.136	-17.316
-61.0	0.062	-24.220	-21.0	0.096	-20.377	19.0	0.113	-18.913
-60.0	0.075	-22.446	-20.0	0.126	-17.988	20.0	0.074	-22.569
-59.0	0.087	-21.243	-19.0	0.138	-17.220	21.0	0.027	-31.382
-58.0	0.094	-20.515	-18.0	0.127	-17.936	22.0	0.021	-33.406
-57.0	0.097	-20.227	-17.0	0.092	-20.699	23.0	0.063	-23.988
-56.0	0.096	-20.390	-16.0	0.037	-28.643	24.0	0.093	-20.628
-55.0	0.088	-21.063	-15.0	0.032	-29.783	25.0	0.107	-19.390
-54.0	0.076	-22.377	-14.0	0.107	-19.427	26.0	0.105	-19.589
-53.0	0.059	-24.592	-13.0	0.174	-15.184	27.0	0.087	-21.167
-52.0	0.038	-28.432	-12.0	0.223	-13.050	28.0	0.058	-24.682
-51.0	0.014	-36.928	-11.0	0.242	-12.314	29.0	0.022	-33.045