

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: LUMARK

Report Number: P966283

Luminaire Tested: **NAV-SB4B-827-U-T4FT**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966283
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-24)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4B-827-U-T4FT
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 2700K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS
Light Source: -
Ballast/Driver: -

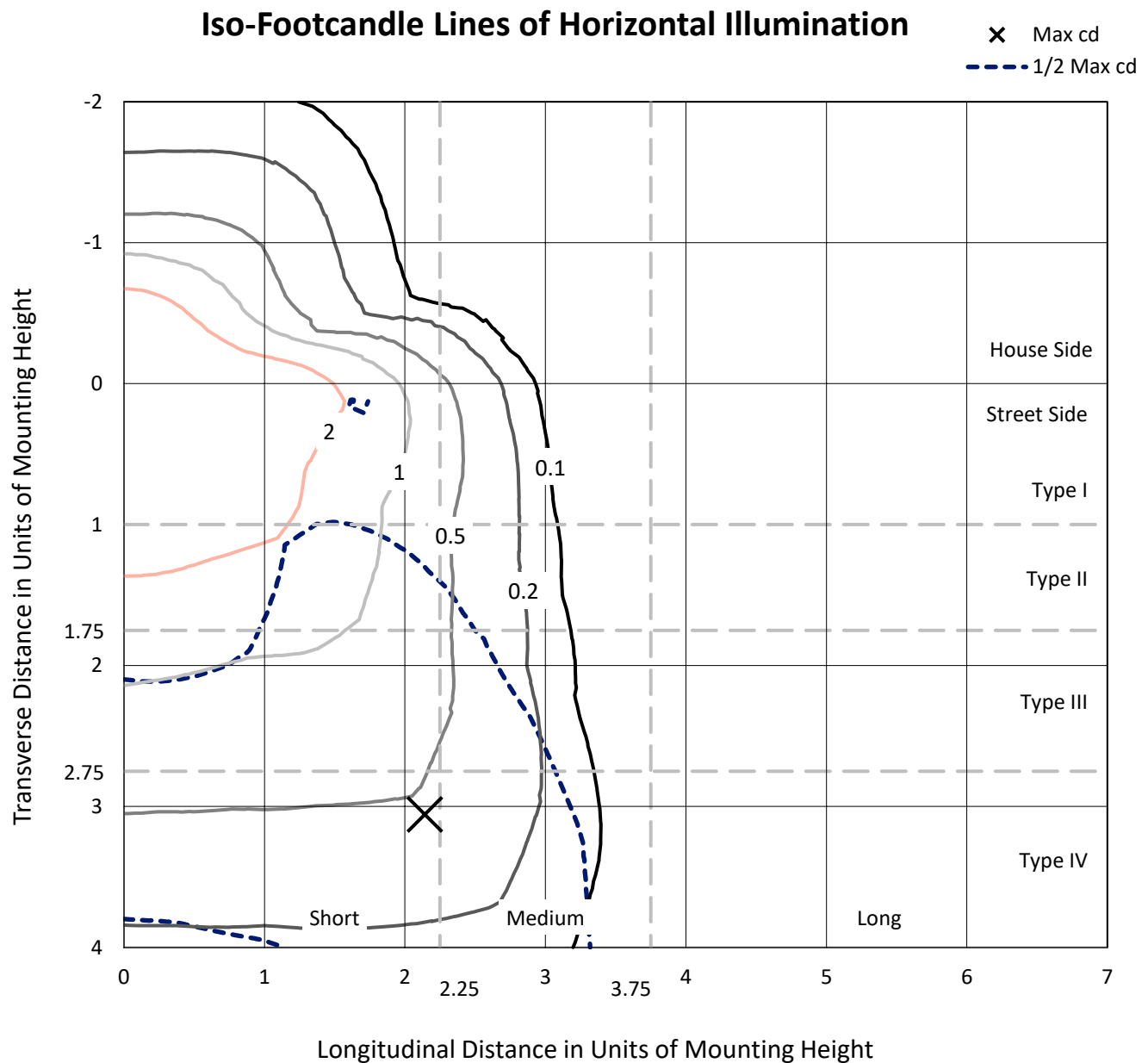
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19880.9 lumens
Efficiency: N/A
Efficacy: 135.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G4

Input Watts (W): 147
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



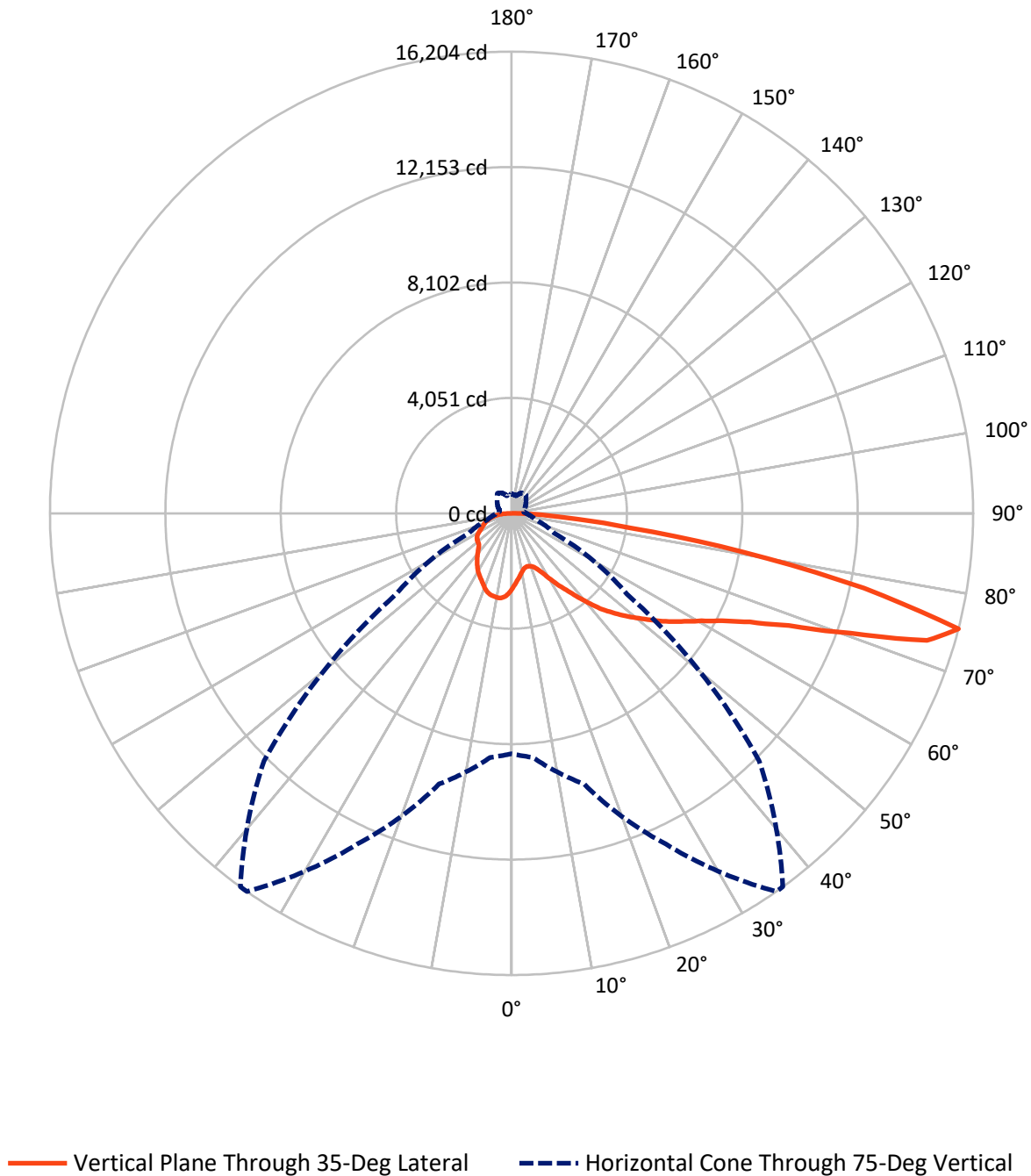
REPORT NUMBER: P966283
CATALOG NUMBER: NAV-SB4B-827-U-T4FT



Based on 25 foot mounting height. Maximum calculated value = 4.7 fc
Type IV - Short - N/A

REPORT NUMBER: P966283
CATALOG NUMBER: NAV-SB4B-827-U-T4FT

Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4731.2	0.0	4731.2
	% Fixture	23.8	0.0	23.8
Street Side	Lumens	15149.7	0.0	15149.7
	% Fixture	76.2	0.0	76.2
Total	Lumens	19880.9	0.0	19880.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	250.8	1.3
10°-20°	723.5	3.6
20°-30°	1215.0	6.1
30°-40°	1888.2	9.5
40°-50°	2802.6	14.1
50°-60°	3869.2	19.5
60°-70°	4694.2	23.6
70°-80°	3879.4	19.5
80°-90°	558.0	2.8
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	19880.9	100.0
0°-180°	19880.9	100.0

Coefficient of Utilization



REPORT NUMBER: P966283

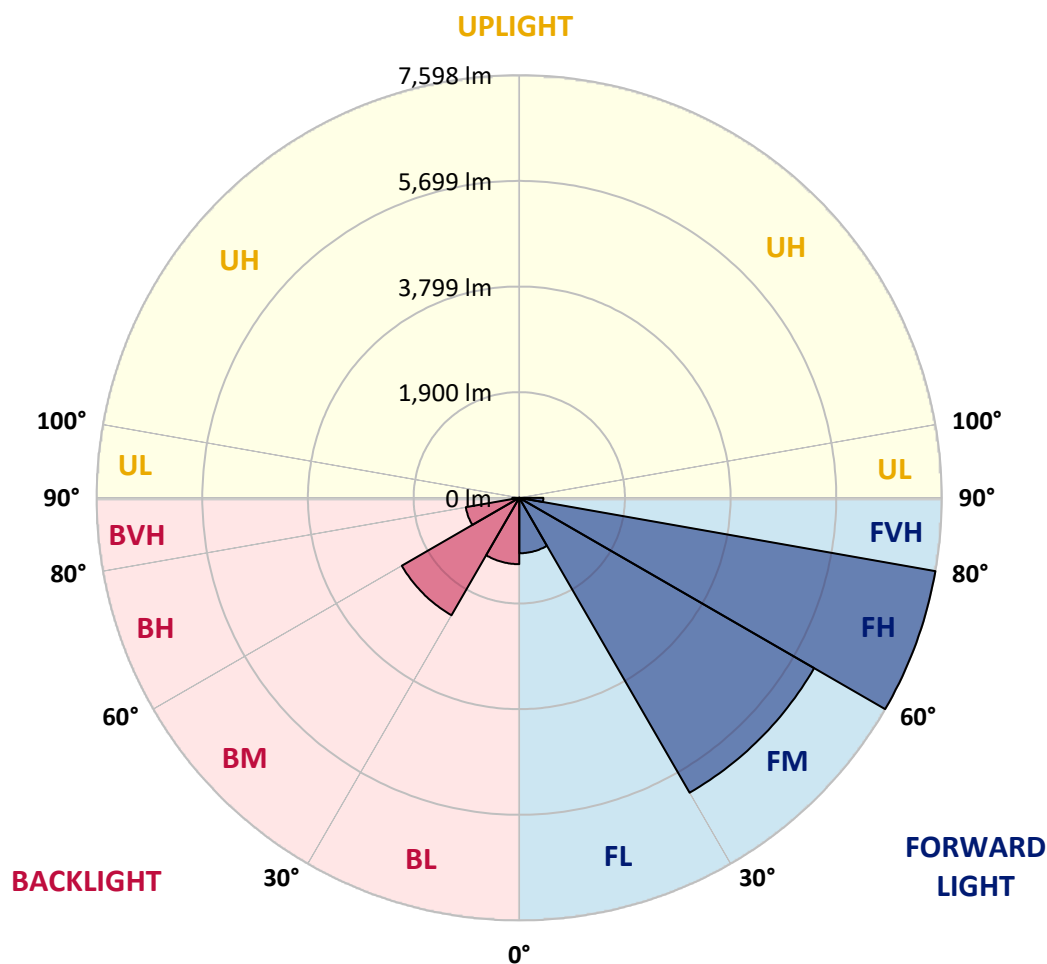
CATALOG NUMBER: NAV-SB4B-827-U-T4FT

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	997.0	5.0			
FM	(30°-60°)	6122.2	30.8			
FH	(60°-80°)	7598.2	38.2			G4/12000
FVH	(80°-90°)	432.3	2.2			G3/500
BL	(0°-30°)	1192.3	6.0	B3/2500		
BM	(30°-60°)	2437.8	12.3	B2/2500		
BH	(60°-80°)	975.4	4.9	B2/1000		G2/1000
BVH	(80°-90°)	125.6	0.6			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type IV Short



REPORT NUMBER: P966283

CATALOG NUMBER: NAV-SB4B-827-U-T4FT

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	2649.2	2649.2	2649.2	2649.2	2649.2	2649.2	2649.2	2649.2	2649.2	2649.2	2649.2
2.5°	2442.9	2458.0	2464.4	2461.2	2477.3	2475.2	2497.7	2525.7	2564.3	2602.0	2656.8
5°	2254.8	2271.0	2284.9	2297.8	2329.0	2338.6	2374.1	2427.8	2498.8	2570.8	2661.1
7.5°	2079.6	2093.7	2115.1	2138.8	2191.4	2201.1	2260.2	2344.1	2442.9	2548.3	2672.9
10°	1936.7	1950.7	1973.2	2000.1	2065.7	2077.5	2152.7	2264.5	2393.5	2526.7	2685.8
12.5°	1875.4	1879.7	1892.7	1919.5	1976.5	1984.0	2066.7	2194.6	2345.1	2510.6	2705.2
15°	1872.3	1880.8	1881.9	1895.8	1943.2	1946.4	2022.7	2149.5	2315.1	2507.4	2734.2
17.5°	1904.4	1910.9	1901.3	1909.9	1949.5	1955.0	2015.2	2128.0	2305.3	2521.4	2783.6
20°	1990.4	1995.8	1966.8	1955.0	1984.0	1988.3	2047.4	2141.9	2315.1	2550.4	2851.3
22.5°	2173.1	2176.4	2105.5	2057.1	2059.2	2061.4	2112.9	2198.9	2352.7	2603.1	2937.3
25°	2458.0	2455.8	2342.9	2249.5	2195.8	2183.9	2218.3	2291.4	2416.0	2672.9	3048.0
27.5°	2791.2	2775.0	2662.1	2522.4	2405.3	2388.1	2380.6	2411.7	2506.3	2765.3	3183.4
30°	3167.2	3152.3	3030.8	2848.1	2685.8	2657.8	2586.9	2570.8	2640.7	2891.1	3371.5
32.5°	3580.0	3570.3	3425.2	3203.8	2986.7	2954.5	2835.1	2792.2	2847.0	3081.4	3633.7
35°	3926.1	3917.4	3797.1	3569.3	3303.8	3264.0	3142.5	3094.2	3122.1	3325.3	3976.6
37.5°	4238.8	4234.5	4131.4	3951.9	3677.8	3629.4	3493.0	3476.8	3471.5	3646.6	4392.5
40°	4529.0	4518.3	4410.8	4316.2	4113.1	4069.0	3948.6	3934.7	3893.9	4042.2	4863.2
42.5°	4850.4	4822.4	4666.6	4622.5	4567.7	4531.1	4459.2	4461.3	4371.0	4488.2	5362.0
45°	5112.6	5096.5	4936.3	4910.6	4969.6	4954.6	5017.0	5033.1	4857.9	4955.7	5880.0
47.5°	5394.2	5379.1	5243.7	5225.4	5385.6	5389.9	5610.2	5615.6	5332.9	5441.5	6399.1
50°	5741.3	5719.8	5585.5	5608.1	5787.6	5803.7	6206.7	6170.2	5770.3	5934.7	6913.9
52.5°	5970.2	5983.1	5954.1	5990.7	6235.7	6250.8	6793.5	6700.0	6203.5	6421.6	7419.1
55°	6139.0	6164.8	6255.1	6338.9	6708.6	6723.7	7347.0	7204.1	6562.5	6873.0	7894.0
57.5°	6356.1	6319.5	6488.2	6651.6	7157.9	7197.7	7885.4	7689.9	6880.5	7262.1	8219.7
60°	6667.7	6642.0	6773.1	7014.9	7660.8	7724.2	8455.1	8127.3	7113.8	7570.5	8283.1
62.5°	7299.7	7235.3	7255.7	7469.5	8294.9	8378.8	9097.8	8508.8	7229.8	7690.9	7943.5
65°	8244.4	8133.7	8030.6	8178.9	9188.1	9270.8	9823.2	8808.6	7186.9	7457.7	7041.7
67.5°	9434.2	9324.5	9197.7	9337.4	10503.6	10569.1	10718.5	8977.4	6848.3	6559.2	5447.9
70°	10415.4	10374.5	10526.1	11101.2	12604.7	12606.9	11866.3	8837.7	5920.8	4650.4	3152.3
72.5°	10285.4	10260.7	11059.2	12836.8	15252.9	15195.9	12952.9	7780.2	3988.4	2097.9	1181.1
75°	8437.9	8598.0	9835.1	12805.6	16204.0	16196.5	12287.6	4946.0	1649.7	869.5	610.5
77.5°	4524.7	4778.3	6385.1	9454.6	12649.8	12840.1	8638.9	1730.3	708.3	556.7	422.4
80°	1475.6	1697.0	2545.0	4813.8	8219.7	8184.2	3702.5	679.3	484.7	394.4	292.3
82.5°	626.6	652.4	1137.1	2273.1	4218.4	4152.9	1179.0	390.1	340.7	269.8	180.6
85°	245.1	274.1	501.9	1051.1	1827.1	1787.3	425.6	193.4	218.2	176.3	107.5
87.5°	80.6	97.8	179.5	360.1	568.6	548.2	104.2	66.6	94.6	80.6	38.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

REPORT NUMBER: P966283

CATALOG NUMBER: NAV-SB4B-827-U-T4FT

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2649.2	2649.2	2649.2	2649.2	2649.2	2649.2	2649.2	2649.2	2649.2	2649.2	2649.2
2.5°	2671.9	2689.0	2709.5	2739.5	2765.3	2786.9	2809.4	2823.4	2828.8	2844.9	2843.8
5°	2691.1	2728.8	2779.3	2828.8	2877.1	2906.1	2931.9	2944.8	2956.6	2965.2	2967.4
7.5°	2723.4	2771.8	2851.3	2915.8	2956.6	2980.3	2997.5	2993.2	2997.5	2999.7	3002.8
10°	2751.4	2819.1	2913.7	2975.0	3006.1	3007.1	3002.8	2987.8	2980.3	2981.3	2983.5
12.5°	2784.7	2860.0	2962.0	3013.6	3022.2	2998.5	2980.3	2954.5	2944.8	2940.5	2938.4
15°	2829.8	2915.8	3014.7	3034.0	3012.6	2982.4	2951.3	2909.4	2887.8	2870.6	2876.0
17.5°	2884.7	2979.2	3055.5	3041.6	2995.4	2945.8	2895.4	2832.0	2787.9	2769.7	2770.7
20°	2960.9	3045.9	3086.7	3025.4	2955.6	2880.4	2794.4	2717.0	2676.2	2657.8	2655.7
22.5°	3053.4	3135.1	3116.8	2997.5	2898.6	2778.3	2670.7	2613.8	2593.4	2580.4	2582.6
25°	3164.1	3234.0	3138.2	2956.6	2805.1	2642.9	2560.0	2541.8	2532.2	2522.4	2522.4
27.5°	3308.1	3345.7	3154.4	2896.4	2659.0	2498.8	2468.7	2471.9	2468.7	2452.6	2455.8
30°	3498.3	3490.8	3169.4	2798.7	2491.3	2368.8	2370.9	2384.9	2387.0	2376.3	2381.7
32.5°	3748.7	3672.5	3177.0	2671.9	2331.2	2254.8	2256.9	2272.0	2282.8	2264.5	2273.1
35°	4051.8	3884.1	3165.1	2512.8	2207.5	2146.2	2130.2	2134.5	2137.6	2120.5	2132.3
37.5°	4405.4	4121.6	3112.5	2336.5	2105.5	2039.9	2005.5	1976.5	1959.3	1943.2	1953.9
40°	4793.4	4380.6	3015.8	2164.6	1991.5	1927.0	1875.4	1820.6	1762.6	1741.1	1750.8
42.5°	5199.6	4647.2	2898.6	2000.1	1860.4	1807.7	1753.0	1673.4	1586.3	1542.3	1547.6
45°	5621.0	4920.2	2783.6	1837.8	1726.1	1703.4	1640.1	1544.5	1449.9	1394.0	1389.7
47.5°	6033.7	5178.2	2614.9	1674.4	1600.3	1625.0	1575.6	1487.5	1382.1	1294.0	1284.3
50°	6428.1	5420.0	2338.6	1508.9	1498.2	1601.4	1554.1	1427.3	1306.9	1194.0	1184.4
52.5°	6819.3	5615.6	1985.1	1358.5	1443.4	1594.9	1526.1	1386.4	1239.2	1120.9	1108.0
55°	7151.4	5716.6	1644.4	1229.5	1363.9	1540.2	1492.8	1338.0	1143.5	1017.8	1007.1
57.5°	7340.5	5634.9	1360.7	1102.7	1254.2	1449.9	1435.8	1234.9	1029.6	932.9	919.9
60°	7258.8	5303.9	1128.5	992.0	1149.9	1352.1	1337.0	1132.8	942.6	851.2	838.3
62.5°	6808.6	4673.0	944.7	895.2	1055.4	1252.0	1238.1	1054.3	876.0	787.8	773.8
65°	5901.4	3801.4	801.8	814.7	959.7	1131.7	1152.1	988.8	823.3	737.3	723.3
67.5°	4501.1	2753.6	690.0	744.8	866.2	1013.5	1072.6	941.5	779.2	697.5	684.6
70°	2565.5	1563.7	595.4	677.1	783.5	903.8	1011.4	903.8	732.0	664.2	655.6
72.5°	972.6	717.9	514.9	609.4	704.0	811.4	943.6	844.8	677.1	626.6	618.0
75°	519.1	437.5	433.2	529.8	612.6	721.2	858.7	786.7	636.2	662.0	683.6
77.5°	353.6	309.5	362.2	453.6	512.7	621.3	768.4	698.6	551.3	549.2	506.2
80°	245.1	219.2	294.5	365.4	396.6	522.3	670.7	599.7	449.3	419.1	400.9
82.5°	147.2	143.0	220.4	273.0	280.5	403.0	555.7	503.0	367.6	320.3	322.5
85°	80.6	84.9	140.8	160.1	163.4	281.6	435.3	389.1	282.7	237.5	239.6
87.5°	22.5	29.0	51.6	63.4	78.4	146.2	259.0	231.0	141.9	98.9	98.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)