

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: P965801

Luminaire Tested: **NAV-SB4A-835-U-SL4**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965801
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-9)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4A-835-U-SL4
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3500K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16943.2 lumens
Efficiency: N/A
Efficacy: 148.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B3 - U0 - G3

Input Watts (W): 114
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



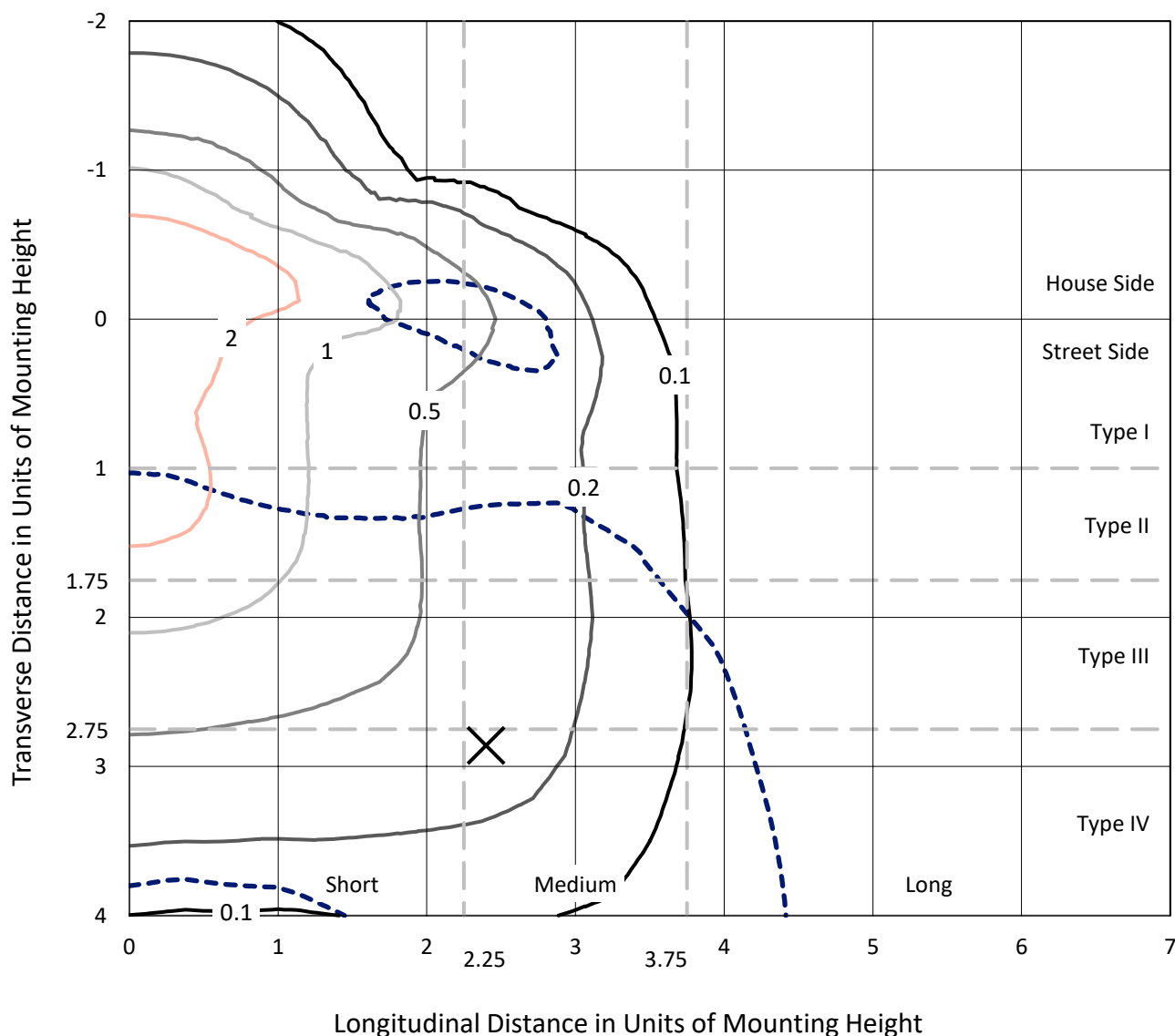
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

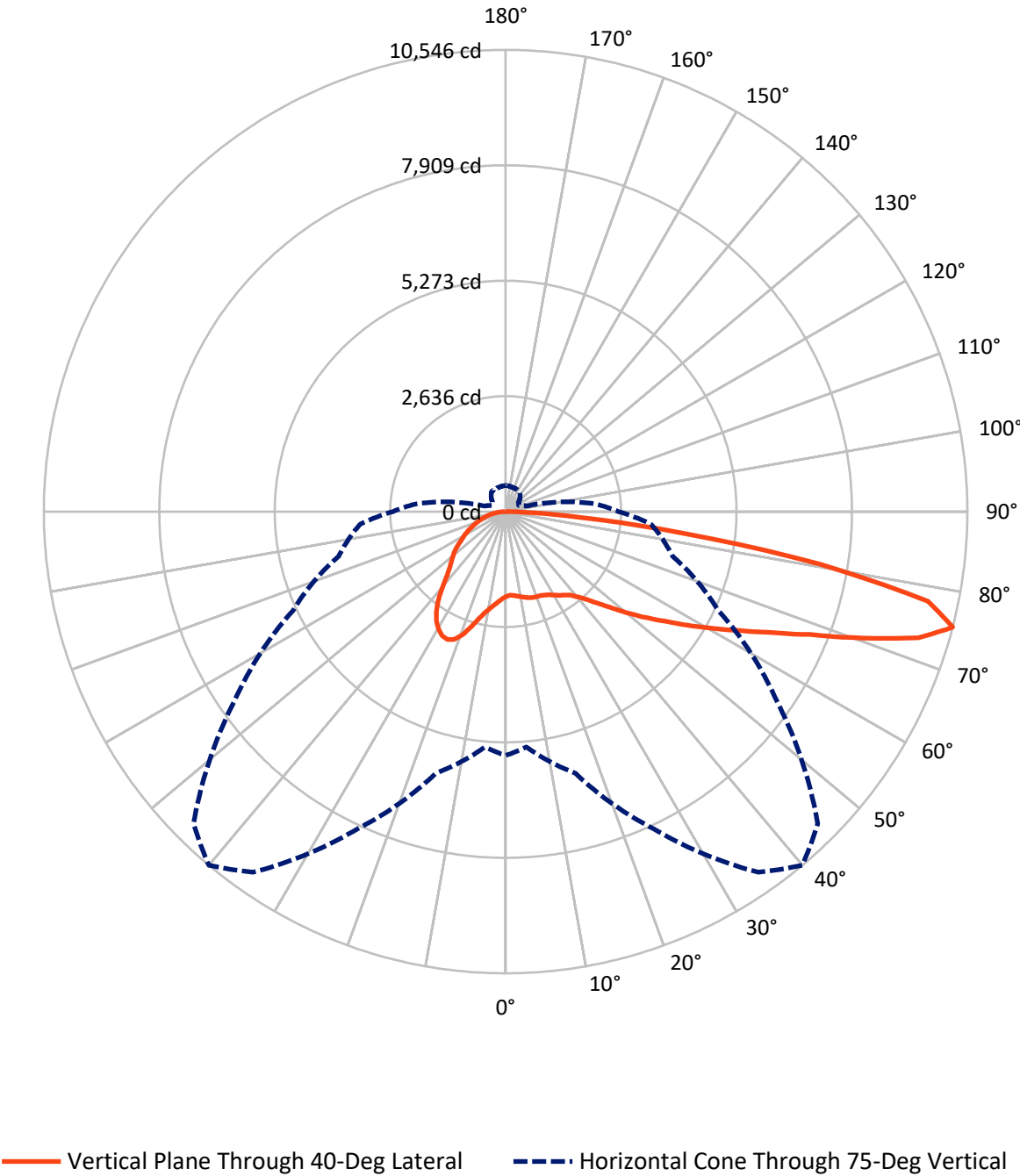
--- 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4 fc
Type IV - Medium - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5249.6	0.0	5249.6
	% Fixture	31.0	0.0	31.0
Street Side	Lumens	11693.7	0.0	11693.7
	% Fixture	69.0	0.0	69.0
Total	Lumens	16943.2	0.0	16943.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	193.4	1.1
10°-20°	649.3	3.8
20°-30°	1185.6	7.0
30°-40°	1681.5	9.9
40°-50°	2270.6	13.4
50°-60°	3054.5	18.0
60°-70°	3876.9	22.9
70°-80°	3518.5	20.8
80°-90°	512.9	3.0
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°	16943.2	100.0
0°-180°	16943.2	100.0

Coefficient of Utilization



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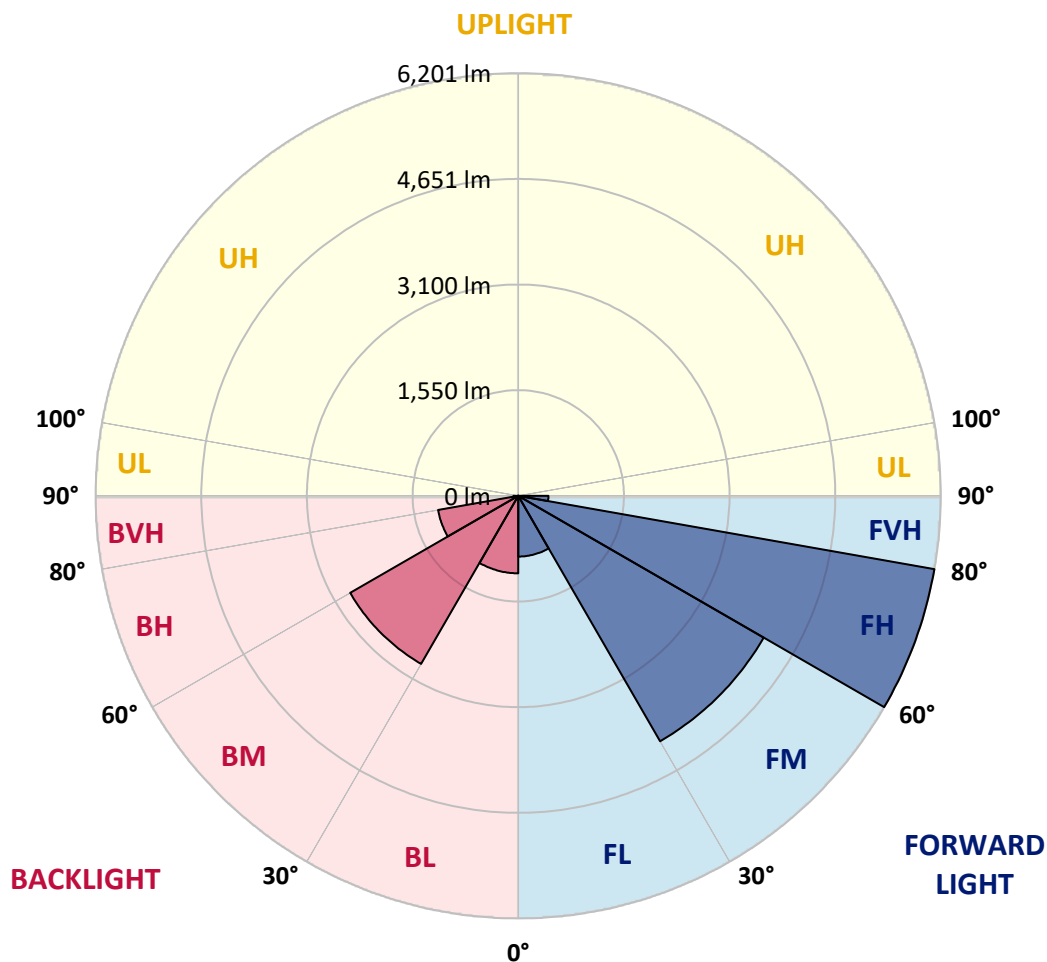
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	891.2	5.3			
FM	(30°-60°)	4159.2	24.5			
FH	(60°-80°)	6201.0	36.6			G3/7500
FVH	(80°-90°)	442.3	2.6			G3/500
BL	(0°-30°)	1137.1	6.7	B3/2500		
BM	(30°-60°)	2847.4	16.8	B3/5000		
BH	(60°-80°)	1194.4	7.0	B3/2500		G3/2500
BVH	(80°-90°)	70.6	0.4			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type IV Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	1937.5	1937.5	1937.5	1937.5	1937.5	1937.5	1937.5	1937.5	1937.5	1937.5	1937.5
2.5°	1907.8	1918.6	1915.9	1912.3	1912.3	1913.3	1912.3	1918.6	1925.0	1931.2	1941.0
5°	1927.6	1938.4	1932.9	1928.5	1925.0	1924.0	1921.3	1920.4	1924.0	1932.1	1945.6
7.5°	1966.3	1977.0	1968.9	1960.8	1953.6	1950.1	1946.5	1941.0	1938.4	1942.9	1961.7
10°	2009.4	2020.2	2010.2	1995.9	1984.2	1979.7	1976.1	1970.8	1967.2	1969.8	1990.5
12.5°	2052.5	2063.3	2049.8	2030.0	2014.7	2012.1	2007.6	2005.8	2004.9	2004.0	2024.7
15°	2092.9	2102.0	2084.8	2061.5	2045.3	2040.9	2036.4	2039.0	2043.5	2048.9	2072.2
17.5°	2124.4	2133.4	2108.2	2077.7	2062.4	2060.6	2057.9	2066.9	2079.5	2092.9	2121.8
20°	2153.1	2162.1	2129.7	2088.4	2070.5	2070.5	2071.4	2090.3	2108.2	2128.0	2167.6
22.5°	2193.6	2200.8	2161.2	2104.6	2078.6	2080.3	2087.5	2106.5	2128.9	2155.9	2210.7
25°	2253.8	2259.2	2210.7	2135.2	2105.6	2110.9	2117.2	2126.2	2147.8	2179.3	2253.0
27.5°	2350.8	2355.3	2291.6	2189.1	2144.2	2153.1	2162.1	2155.9	2165.7	2192.7	2287.1
30°	2487.5	2490.1	2409.3	2273.6	2209.8	2214.3	2216.0	2190.0	2171.2	2192.7	2311.3
32.5°	2649.2	2648.3	2552.1	2376.1	2284.3	2279.9	2264.6	2213.4	2169.3	2188.2	2332.9
35°	2899.9	2890.1	2766.1	2519.8	2368.9	2341.0	2305.0	2239.4	2178.3	2183.8	2351.8
37.5°	3315.2	3284.5	3112.9	2755.3	2494.6	2423.6	2370.6	2281.6	2198.1	2181.9	2374.2
40°	3783.3	3744.6	3555.9	3077.9	2683.3	2569.3	2483.9	2341.9	2230.4	2190.0	2407.5
42.5°	4338.6	4283.9	4080.7	3458.0	2922.4	2757.0	2628.5	2418.3	2278.1	2216.0	2452.4
45°	5020.8	4948.0	4660.4	3886.7	3223.4	3003.2	2831.7	2534.2	2350.8	2266.4	2519.8
47.5°	5710.0	5728.0	5319.1	4377.3	3584.7	3307.1	3086.0	2708.6	2456.9	2347.2	2628.5
50°	6442.4	6454.9	5974.2	4921.0	3994.5	3650.3	3371.7	2903.5	2604.3	2462.3	2791.2
52.5°	7014.0	7015.7	6569.1	5489.8	4421.3	4027.7	3680.0	3126.4	2775.0	2615.1	3007.8
55°	7371.6	7367.1	6986.1	6028.1	4912.0	4424.0	4021.5	3379.8	2983.5	2794.8	3280.1
57.5°	7631.3	7617.8	7273.6	6490.9	5435.1	4892.2	4407.9	3667.3	3229.8	3008.7	3638.6
60°	7730.1	7722.0	7468.7	6890.9	5985.0	5409.8	4853.6	3989.1	3509.2	3261.1	4099.6
62.5°	7767.9	7783.1	7660.0	7278.1	6573.6	5983.2	5343.3	4373.7	3823.8	3546.9	4585.7
65°	7900.9	7928.8	7903.6	7785.0	7238.7	6654.5	5993.1	4831.1	4167.0	3853.4	5093.5
67.5°	8164.2	8192.1	8202.9	8391.6	8051.0	7491.1	6803.6	5400.8	4568.7	4171.5	5475.4
70°	8157.9	8149.9	8340.3	8874.1	9068.3	8649.5	7896.4	6101.8	5047.7	4435.7	5524.0
72.5°	7425.5	7360.8	7811.0	8868.7	9914.8	9859.1	9230.9	7005.9	5461.1	4468.1	4793.4
75°	5570.7	5398.2	6193.5	7992.5	10055.9	10545.6	10079.2	7566.7	5363.1	3947.8	3335.8
77.5°	2382.3	2208.9	3146.1	5916.7	8999.9	9858.1	9301.0	6601.5	4281.1	2610.6	1638.3
80°	623.6	622.8	950.8	2682.4	6120.7	7280.0	6386.7	4263.2	2446.2	932.7	452.0
82.5°	257.9	251.6	349.5	1043.3	2990.7	4085.2	3334.0	1901.6	883.3	252.6	150.1
85°	96.1	95.2	169.8	360.4	1055.0	1685.0	1219.4	486.2	220.2	123.1	67.4
87.5°	27.0	26.0	36.8	124.9	257.0	390.0	208.5	79.9	62.0	48.5	19.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1937.5	1937.5	1937.5	1937.5	1937.5	1937.5	1937.5	1937.5	1937.5	1937.5	1937.5
2.5°	1943.8	1948.2	1956.3	1962.7	1970.8	1979.7	1992.3	2000.4	2008.5	2013.8	2010.2
5°	1951.9	1961.7	1982.5	2003.1	2027.3	2049.8	2075.8	2094.8	2110.1	2114.5	2116.3
7.5°	1969.8	1986.0	2021.1	2056.1	2094.8	2131.6	2169.3	2201.7	2227.7	2237.7	2238.5
10°	2001.3	2022.8	2072.2	2121.8	2172.9	2229.6	2278.1	2324.8	2361.6	2376.9	2377.8
12.5°	2040.9	2067.8	2132.5	2200.8	2271.8	2349.9	2412.8	2470.4	2516.2	2536.9	2536.9
15°	2092.0	2127.1	2209.8	2301.4	2405.7	2514.4	2594.4	2658.2	2709.4	2734.6	2732.8
17.5°	2147.8	2194.5	2298.8	2437.1	2586.3	2729.2	2822.6	2869.4	2922.4	2946.7	2945.7
20°	2201.7	2259.2	2408.3	2609.6	2808.3	2960.1	3035.6	3048.2	3051.8	3054.5	3061.7
22.5°	2257.4	2334.6	2545.9	2827.2	3040.1	3145.3	3156.1	3102.2	3026.6	2991.6	3001.5
25°	2318.5	2420.9	2725.6	3067.1	3239.6	3252.2	3169.5	3038.3	2895.4	2829.8	2839.8
27.5°	2377.8	2520.7	2941.2	3296.2	3383.4	3272.8	3095.0	2909.0	2736.3	2667.2	2675.2
30°	2437.1	2634.9	3179.4	3496.7	3449.0	3221.7	2977.2	2769.7	2596.2	2523.4	2531.4
32.5°	2497.3	2767.8	3453.5	3641.3	3437.3	3112.9	2830.7	2613.2	2460.5	2384.1	2394.0
35°	2565.7	2931.4	3713.2	3720.4	3359.1	2952.9	2637.5	2426.4	2293.3	2232.2	2245.7
37.5°	2654.6	3139.0	3942.4	3740.1	3222.5	2718.4	2397.6	2205.3	2095.6	2067.8	2087.5
40°	2765.1	3388.8	4117.6	3708.8	3020.4	2433.6	2135.2	1981.5	1919.5	1925.8	1947.4
42.5°	2909.0	3668.3	4240.7	3627.9	2739.1	2139.7	1905.2	1836.8	1866.5	1891.6	1915.0
45°	3095.8	3958.6	4317.1	3490.3	2420.9	1890.7	1769.5	1785.7	1808.1	1810.8	1828.7
47.5°	3334.8	4252.4	4367.4	3282.8	2096.5	1715.5	1683.2	1686.7	1682.2	1663.4	1677.8
50°	3633.2	4538.2	4412.3	3007.8	1820.7	1605.9	1562.7	1550.2	1488.2	1427.0	1435.1
52.5°	3972.9	4800.6	4431.3	2666.3	1605.9	1514.2	1444.1	1365.1	1249.2	1230.2	1236.6
55°	4350.3	5043.2	4382.7	2246.6	1425.3	1396.5	1290.5	1195.1	1182.6	1166.4	1169.1
57.5°	4801.5	5304.7	4283.9	1778.4	1240.1	1259.0	1155.7	1166.4	1144.0	1118.8	1114.3
60°	5294.8	5575.2	4110.5	1351.6	1048.7	1087.3	1120.6	1119.7	1113.5	1092.8	1085.6
62.5°	5738.8	5753.1	3768.9	1035.2	880.7	954.4	1045.1	1044.3	1038.8	1027.2	1022.6
65°	6002.9	5726.2	3199.2	815.1	742.3	844.7	942.7	949.9	950.8	949.9	949.9
67.5°	5956.3	5410.8	2417.4	648.8	628.1	733.3	841.1	851.1	858.2	860.0	861.8
70°	5427.8	4717.9	1576.2	517.6	526.6	635.3	745.0	754.9	761.2	768.3	771.9
72.5°	4230.8	3468.8	902.2	418.8	437.7	550.8	649.7	661.4	665.0	678.4	683.9
75°	2578.2	2040.0	487.1	329.8	359.5	470.9	555.3	568.9	575.1	591.3	593.1
77.5°	1225.8	883.3	277.7	257.0	289.4	384.6	469.1	484.4	467.3	476.3	469.1
80°	414.3	328.0	175.3	195.9	221.1	300.1	375.7	390.9	355.0	353.2	349.5
82.5°	144.7	133.0	111.4	130.3	142.9	214.7	283.9	303.7	264.2	263.3	250.7
85°	56.6	53.9	62.0	71.0	85.4	132.1	187.0	196.8	162.7	131.2	129.4
87.5°	11.7	12.6	15.3	16.2	26.0	45.8	67.4	82.7	65.6	55.8	51.2
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)