

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: P965739

Luminaire Tested: **NAV-SB4A-827-U-SL4**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965739
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-827-U-SL4
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 2700K, 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: 15883.4 lumens
Efficiency: N/A
Efficacy: 139.3 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



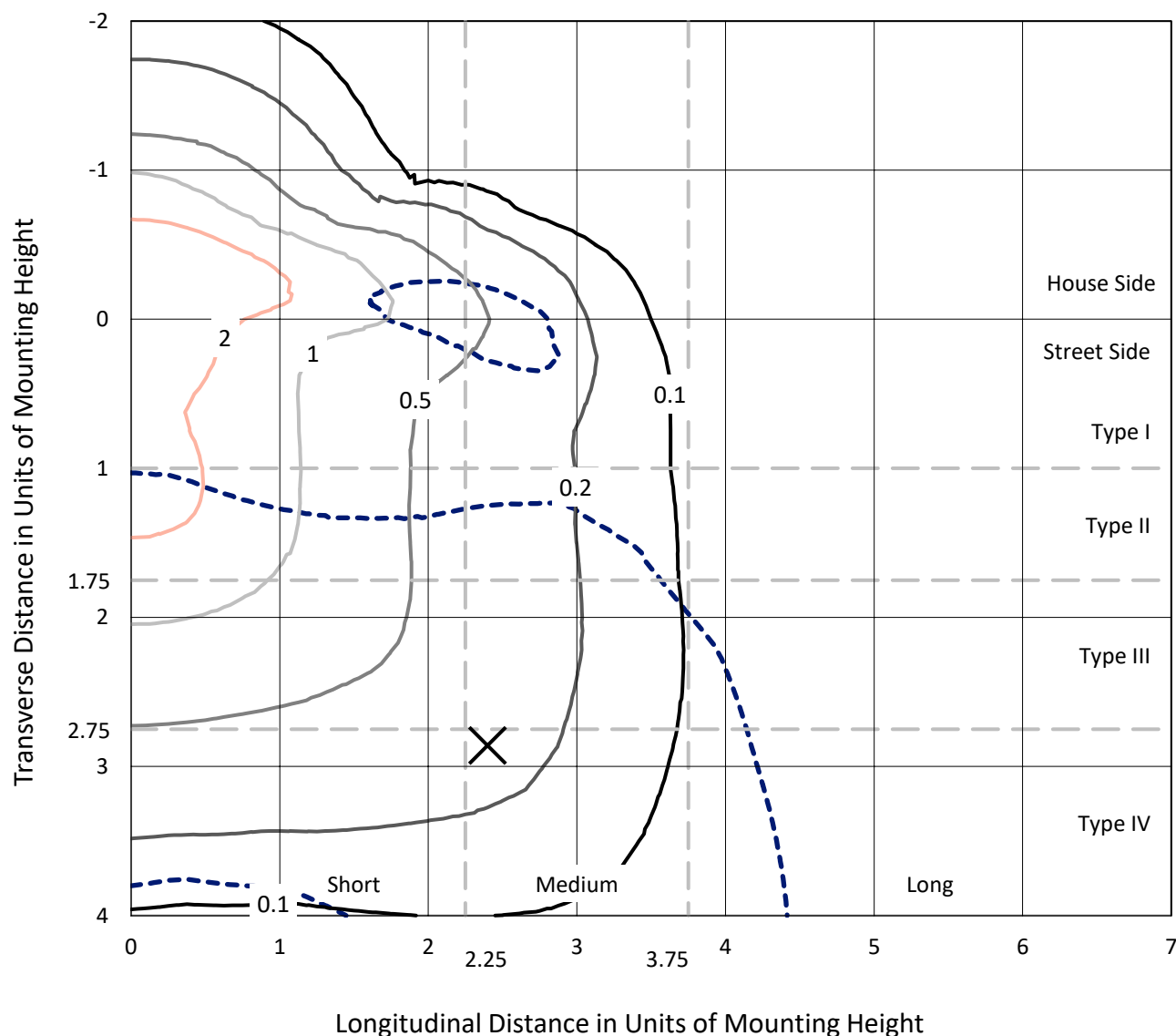
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

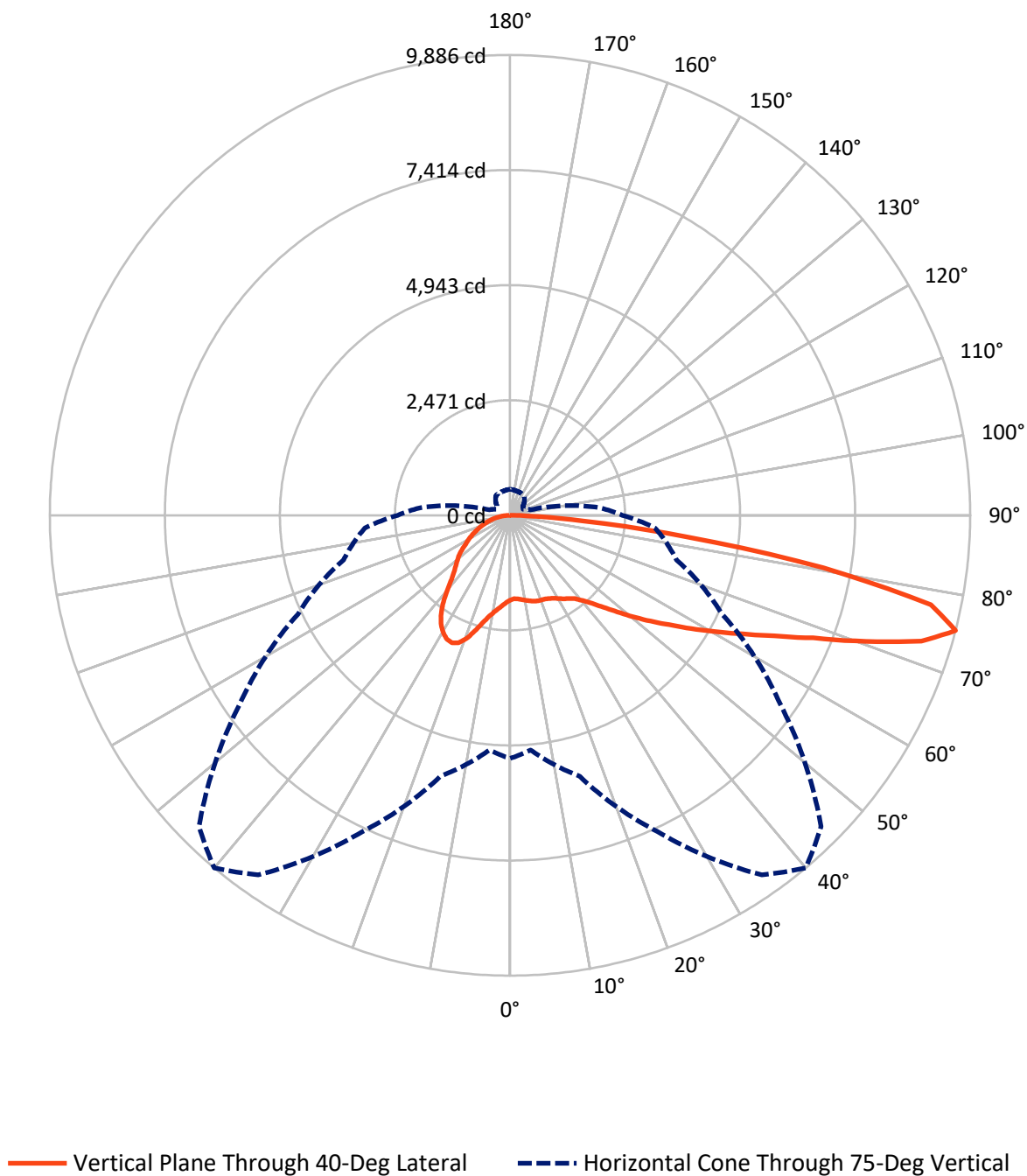


Based on 25 foot mounting height. Maximum calculated value = 3.8 fc
 Type IV - Medium - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4921.2	0.0	4921.2
	% Fixture	31.0	0.0	31.0
Street Side	Lumens	10962.2	0.0	10962.2
	% Fixture	69.0	0.0	69.0
Total	Lumens	15883.4	0.0	15883.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	181.3	1.1
10°-20°	608.7	3.8
20°-30°	1111.5	7.0
30°-40°	1576.3	9.9
40°-50°	2128.5	13.4
50°-60°	2863.4	18.0
60°-70°	3634.4	22.9
70°-80°	3298.4	20.8
80°-90°	480.8	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°	15883.4	100.0
0°-180°	15883.4	100.0

Coefficient of Utilization



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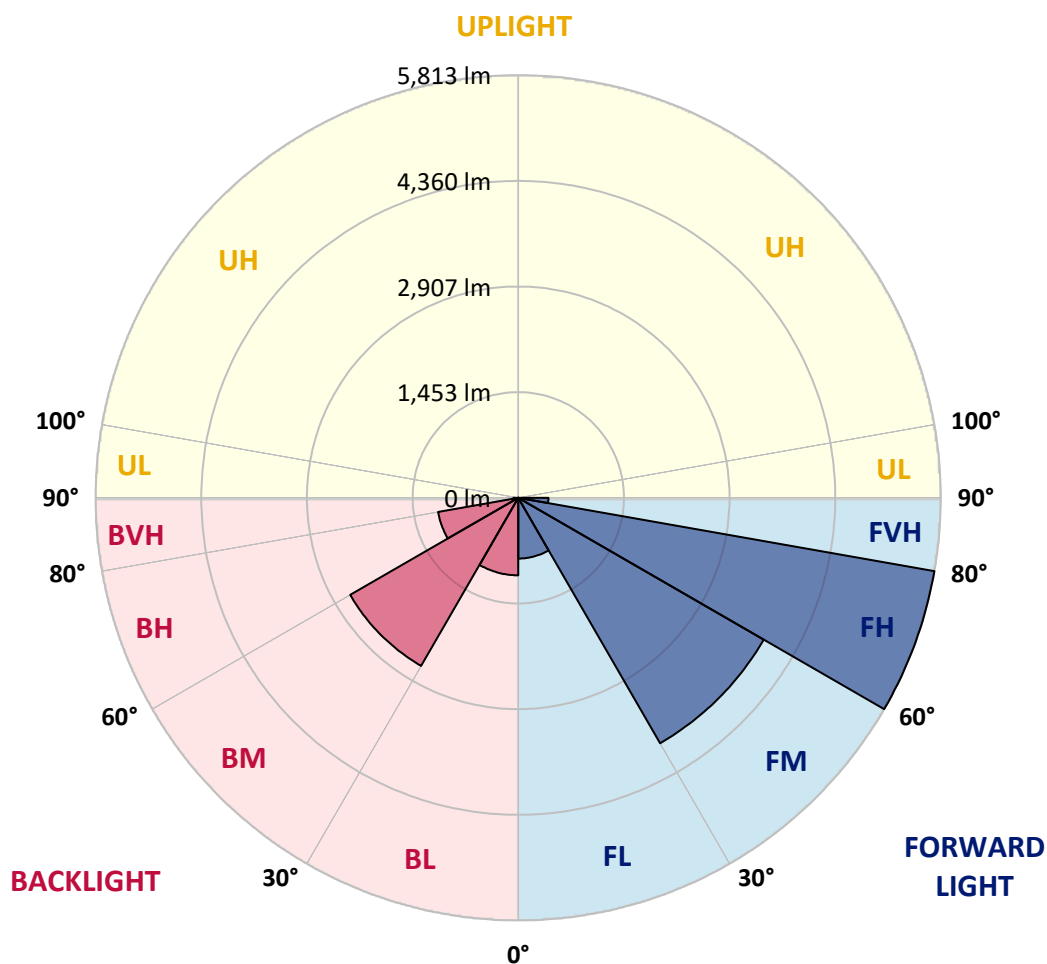
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	835.5	5.3			
FM	(30°-60°)	3899.0	24.5			
FH	(60°-80°)	5813.1	36.6			G3/7500
FVH	(80°-90°)	414.6	2.6			G3/500
BL	(0°-30°)	1066.0	6.7	B3/2500		
BM	(30°-60°)	2669.3	16.8	B3/5000		
BH	(60°-80°)	1119.7	7.0	B3/2500		G3/2500
BVH	(80°-90°)	66.2	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°	1816.3	1816.3	1816.3	1816.3	1816.3	1816.3	1816.3	1816.3	1816.3	1816.3	1816.3
2.5°	1788.5	1798.6	1796.1	1792.7	1792.7	1793.5	1792.7	1798.6	1804.5	1810.4	1819.7
5°	1807.0	1817.1	1812.1	1807.9	1804.5	1803.7	1801.1	1800.3	1803.7	1811.3	1823.9
7.5°	1843.3	1853.4	1845.8	1838.2	1831.5	1828.1	1824.7	1819.7	1817.1	1821.3	1839.1
10°	1883.6	1893.8	1884.6	1871.0	1860.1	1855.9	1852.5	1847.5	1844.1	1846.6	1866.0
12.5°	1924.1	1934.3	1921.6	1903.0	1888.8	1886.2	1882.0	1880.4	1879.4	1878.6	1898.0
15°	1962.1	1970.5	1954.5	1932.5	1917.4	1913.2	1909.0	1911.5	1915.7	1920.7	1942.7
17.5°	1991.5	2000.0	1976.3	1947.7	1933.4	1931.7	1929.2	1937.6	1949.3	1962.1	1989.0
20°	2018.4	2026.9	1996.6	1957.9	1940.9	1940.9	1941.8	1959.5	1976.3	1994.9	2032.0
22.5°	2056.4	2063.1	2026.0	1973.0	1948.5	1950.3	1956.9	1974.7	1995.8	2021.0	2072.3
25°	2112.8	2117.9	2072.3	2001.6	1973.8	1978.9	1984.8	1993.2	2013.4	2042.9	2112.0
27.5°	2203.9	2208.1	2148.2	2052.2	2010.0	2018.4	2026.9	2021.0	2030.2	2055.5	2144.0
30°	2331.9	2334.3	2258.6	2131.4	2071.5	2075.7	2077.5	2053.0	2035.3	2055.5	2166.7
32.5°	2483.5	2482.7	2392.6	2227.4	2141.4	2137.2	2123.0	2074.9	2033.6	2051.3	2186.9
35°	2718.5	2709.3	2593.0	2362.2	2220.7	2194.5	2160.8	2099.3	2042.1	2047.1	2204.7
37.5°	3107.7	3079.1	2918.2	2582.9	2338.6	2272.0	2222.3	2139.0	2060.6	2045.4	2225.7
40°	3546.6	3510.4	3333.5	2885.4	2515.6	2408.5	2328.5	2195.3	2090.9	2053.0	2256.8
42.5°	4067.3	4015.8	3825.5	3241.7	2739.6	2584.5	2464.1	2267.0	2135.6	2077.5	2299.0
45°	4706.7	4638.4	4368.9	3643.6	3021.8	2815.4	2654.5	2375.6	2203.9	2124.6	2362.2
47.5°	5352.9	5369.7	4986.3	4103.5	3360.5	3100.1	2893.0	2539.1	2303.2	2200.5	2464.1
50°	6039.4	6051.2	5600.5	4613.2	3744.6	3422.0	3160.8	2721.9	2441.3	2308.3	2616.6
52.5°	6575.2	6576.9	6158.2	5146.4	4144.8	3775.8	3449.7	2930.8	2601.4	2451.5	2819.7
55°	6910.4	6906.2	6549.0	5651.0	4604.7	4147.3	3769.8	3168.4	2796.9	2620.0	3074.9
57.5°	7154.0	7141.3	6818.7	6084.9	5095.1	4586.3	4132.2	3438.0	3027.7	2820.5	3411.0
60°	7246.6	7239.1	7001.5	6459.8	5610.6	5071.5	4550.0	3739.6	3289.7	3057.2	3843.1
62.5°	7282.0	7296.4	7180.9	6822.9	6162.4	5608.9	5009.1	4100.1	3584.5	3325.1	4299.0
65°	7406.6	7432.8	7409.2	7298.0	6785.8	6238.3	5618.2	4529.0	3906.4	3612.4	4775.0
67.5°	7653.5	7679.6	7689.8	7866.7	7547.4	7022.5	6378.1	5063.0	4283.0	3910.6	5133.0
70°	7647.6	7640.0	7818.6	8319.0	8501.0	8108.5	7402.4	5720.1	4731.9	4158.2	5178.4
72.5°	6961.1	6900.4	7322.4	8314.0	9294.6	9242.3	8653.5	6567.6	5119.5	4188.6	4493.5
75°	5222.3	5060.5	5806.0	7492.6	9426.8	9885.9	9448.8	7093.3	5027.6	3700.8	3127.1
77.5°	2233.3	2070.7	2949.3	5546.6	8437.0	9241.5	8719.2	6188.5	4013.4	2447.3	1535.8
80°	584.7	583.8	891.3	2514.6	5737.8	6824.6	5987.2	3996.5	2293.1	874.4	423.7
82.5°	241.8	235.9	327.7	978.1	2803.6	3829.7	3125.4	1782.6	828.1	236.8	140.7
85°	90.1	89.3	159.2	337.8	989.0	1579.5	1143.2	455.7	206.4	115.4	63.1
87.5°	25.3	24.4	34.5	117.1	241.0	365.6	195.5	74.9	58.1	45.5	18.6
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°	1816.3	1816.3	1816.3	1816.3	1816.3	1816.3	1816.3	1816.3	1816.3	1816.3	1816.3
2.5°	1822.1	1826.4	1833.9	1839.9	1847.5	1855.9	1867.7	1875.2	1882.8	1887.8	1884.6
5°	1829.7	1839.1	1858.4	1877.8	1900.6	1921.6	1946.1	1963.7	1978.0	1982.2	1983.9
7.5°	1846.6	1861.8	1894.6	1927.5	1963.7	1998.2	2033.6	2063.9	2088.4	2097.7	2098.5
10°	1876.1	1896.4	1942.7	1989.0	2037.0	2090.1	2135.6	2179.4	2213.9	2228.2	2229.1
12.5°	1913.2	1938.5	1999.1	2063.1	2129.6	2202.9	2262.0	2315.9	2358.8	2378.2	2378.2
15°	1961.2	1994.0	2071.5	2157.5	2255.2	2357.1	2432.1	2491.9	2540.0	2563.5	2561.9
17.5°	2013.4	2057.2	2155.0	2284.7	2424.5	2558.5	2646.0	2689.9	2739.6	2762.4	2761.5
20°	2063.9	2117.9	2257.8	2446.5	2632.6	2775.0	2845.7	2857.5	2860.9	2863.4	2870.2
22.5°	2116.2	2188.7	2386.6	2650.3	2849.9	2948.5	2958.7	2908.1	2837.3	2804.5	2813.7
25°	2173.5	2269.6	2555.1	2875.2	3037.0	3048.8	2971.3	2848.3	2714.3	2652.8	2662.1
27.5°	2229.1	2363.0	2757.2	3090.1	3171.8	3068.1	2901.4	2726.9	2565.2	2500.4	2508.0
30°	2284.7	2470.0	2980.5	3278.0	3233.3	3020.2	2791.0	2596.4	2433.8	2365.6	2373.2
32.5°	2341.1	2594.7	3237.5	3413.6	3222.3	2918.2	2653.6	2449.8	2306.6	2235.0	2244.2
35°	2405.2	2748.0	3480.9	3487.7	3149.0	2768.2	2472.5	2274.6	2149.9	2092.6	2105.2
37.5°	2488.6	2942.7	3695.7	3506.2	3021.0	2548.4	2247.6	2067.3	1964.5	1938.5	1956.9
40°	2592.1	3176.8	3860.0	3476.7	2831.5	2281.3	2001.6	1857.6	1799.5	1805.3	1825.5
42.5°	2726.9	3438.8	3975.5	3401.0	2567.7	2005.8	1786.0	1721.9	1749.8	1773.4	1795.2
45°	2902.2	3710.9	4047.0	3272.0	2269.6	1772.5	1658.8	1673.9	1694.9	1697.5	1714.3
47.5°	3126.2	3986.4	4094.3	3077.5	1965.4	1608.2	1577.9	1581.3	1577.1	1559.3	1572.9
50°	3406.0	4254.3	4136.4	2819.7	1706.7	1505.4	1465.0	1453.2	1395.0	1337.8	1345.4
52.5°	3724.4	4500.3	4154.0	2499.5	1505.4	1419.5	1353.8	1279.6	1171.0	1153.3	1159.2
55°	4078.3	4727.7	4108.5	2106.1	1336.1	1309.1	1209.7	1120.4	1108.6	1093.5	1096.0
57.5°	4501.1	4972.9	4015.8	1667.2	1162.6	1180.3	1083.3	1093.5	1072.5	1048.8	1044.6
60°	4963.7	5226.5	3853.3	1267.0	983.1	1019.4	1050.5	1049.7	1043.8	1024.4	1017.6
62.5°	5379.8	5393.2	3533.2	970.5	825.5	894.6	979.8	978.9	973.9	962.9	958.7
65°	5627.5	5368.0	2999.0	764.1	695.9	791.9	883.8	890.4	891.3	890.4	890.4
67.5°	5583.7	5072.3	2266.2	608.2	588.9	687.5	788.5	797.8	804.5	806.2	807.9
70°	5088.3	4422.8	1477.6	485.2	493.6	595.6	698.3	707.7	713.5	720.3	723.6
72.5°	3966.1	3251.8	845.8	392.6	410.3	516.4	609.1	620.0	623.4	636.0	641.1
75°	2417.0	1912.3	456.6	309.1	337.0	441.5	520.6	533.3	539.2	554.3	556.0
77.5°	1149.1	828.1	260.3	241.0	271.2	360.6	439.7	454.1	438.1	446.5	439.7
80°	388.4	307.5	164.3	183.7	207.3	281.4	352.1	366.4	332.7	331.1	327.7
82.5°	135.6	124.6	104.4	122.2	134.0	201.3	266.2	284.7	247.6	246.8	235.0
85°	53.1	50.5	58.1	66.5	80.1	123.8	175.3	184.5	152.5	123.0	121.4
87.5°	11.0	11.8	14.3	15.2	24.4	42.9	63.1	77.5	61.5	52.3	48.0
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)