

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: P883734

Luminaire Tested: **NAV-SB4B-722-U-SL4**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883734
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-9)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4B-722-U-SL4
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 2200K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18026 lumens
Efficiency: N/A
Efficacy: 122.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B3 - U0 - G3

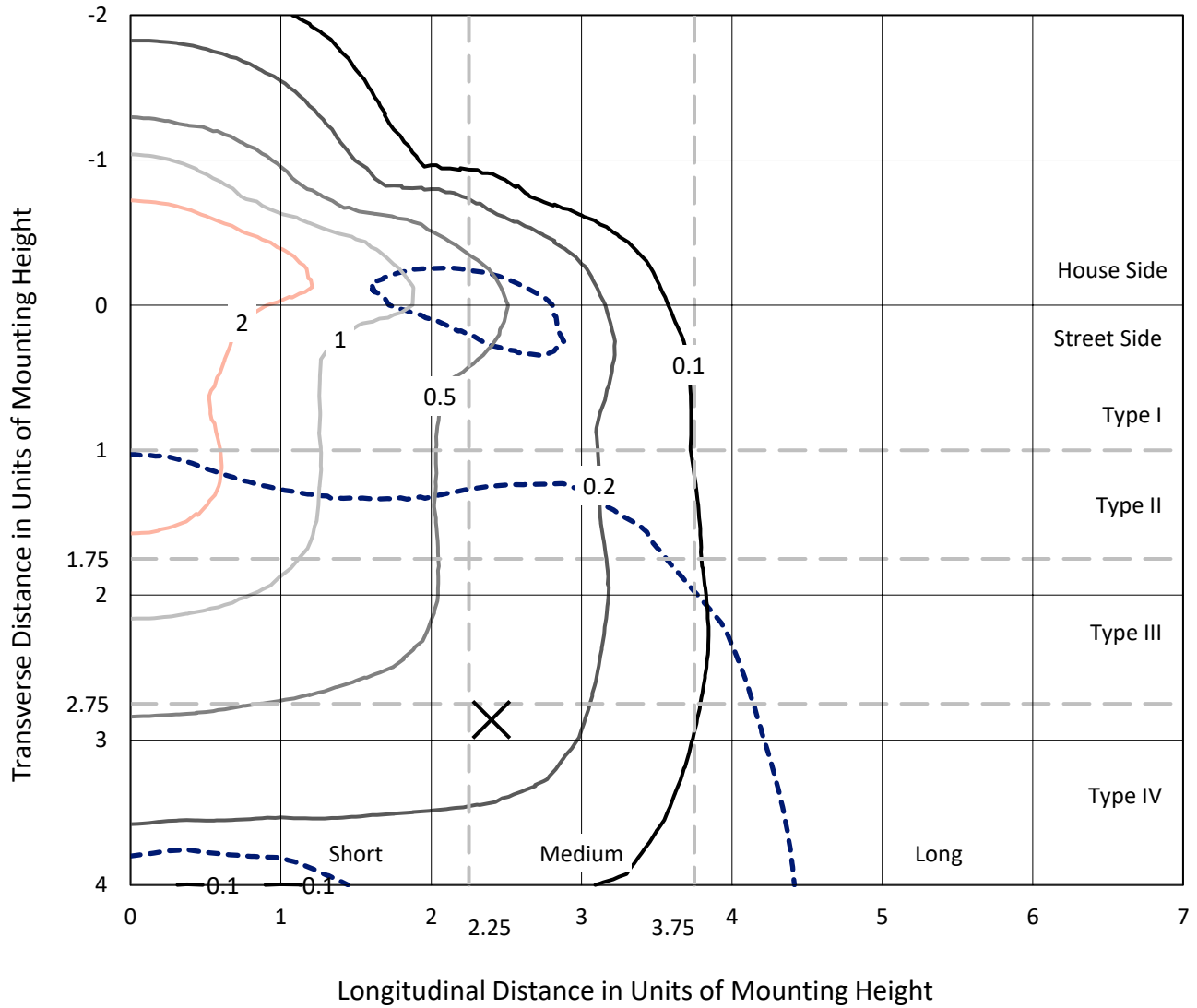
Input Watts (W): 147
Input Voltage (V): 120.0
Input Current (Ain): 1.255
Voltage Rise (V): NR
Power Factor: 0.988
Total Harmonic Distortion (THDi): 13.593
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

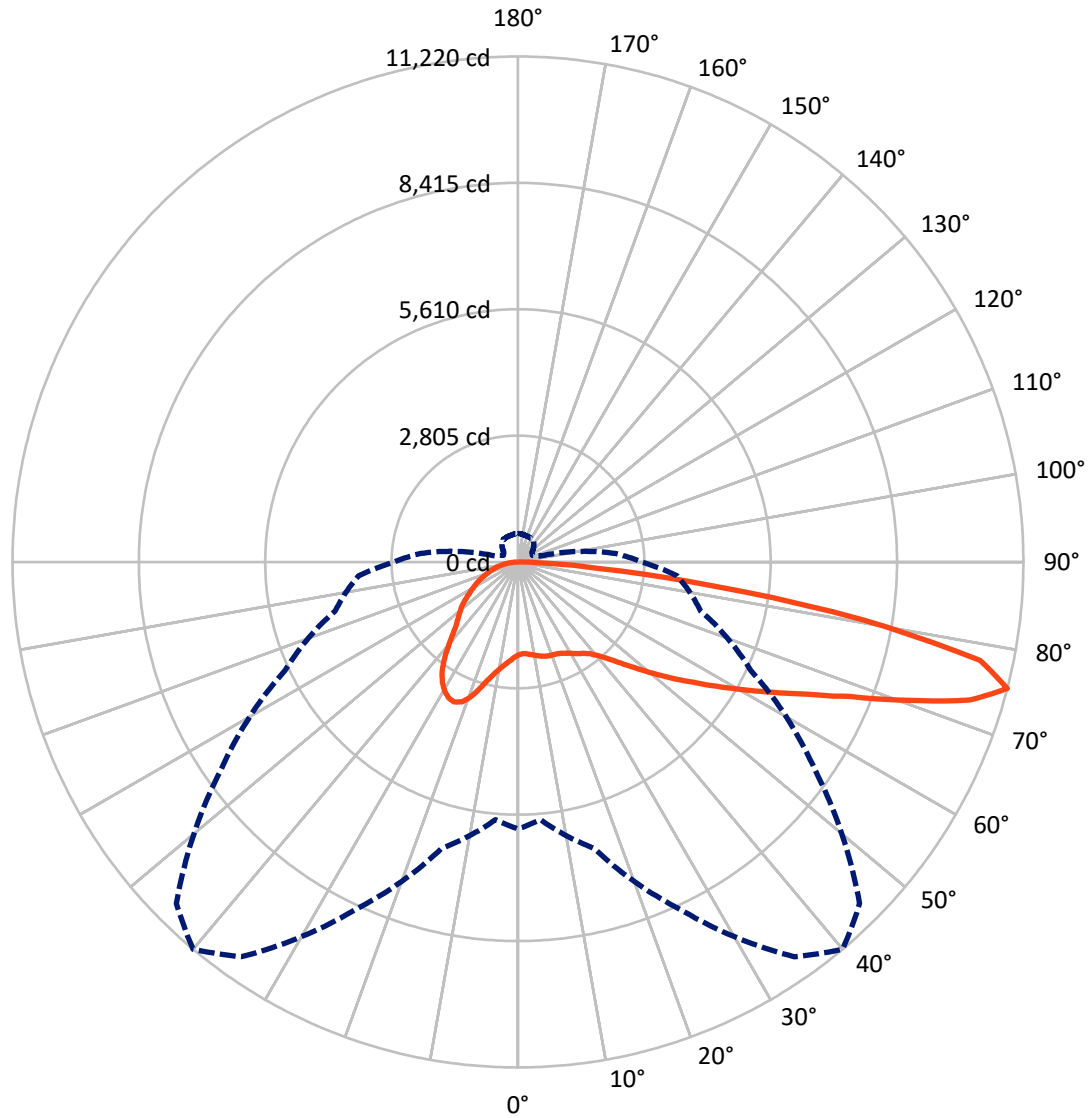
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.3 fc
 Type IV - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5585.1	0.0	5585.1
	% Fixture	31.0	0.0	31.0
Street Side	Lumens	12440.9	0.0	12440.9
	% Fixture	69.0	0.0	69.0
Total	Lumens	18026.0	0.0	18026.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	205.8	1.1
10°-20°	690.8	3.8
20°-30°	1261.4	7.0
30°-40°	1789.0	9.9
40°-50°	2415.7	13.4
50°-60°	3249.7	18.0
60°-70°	4124.6	22.9
70°-80°	3743.4	20.8
80°-90°	545.7	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°	18026.0	100.0
0°-180°	18026.0	100.0

Coefficient of Utilization



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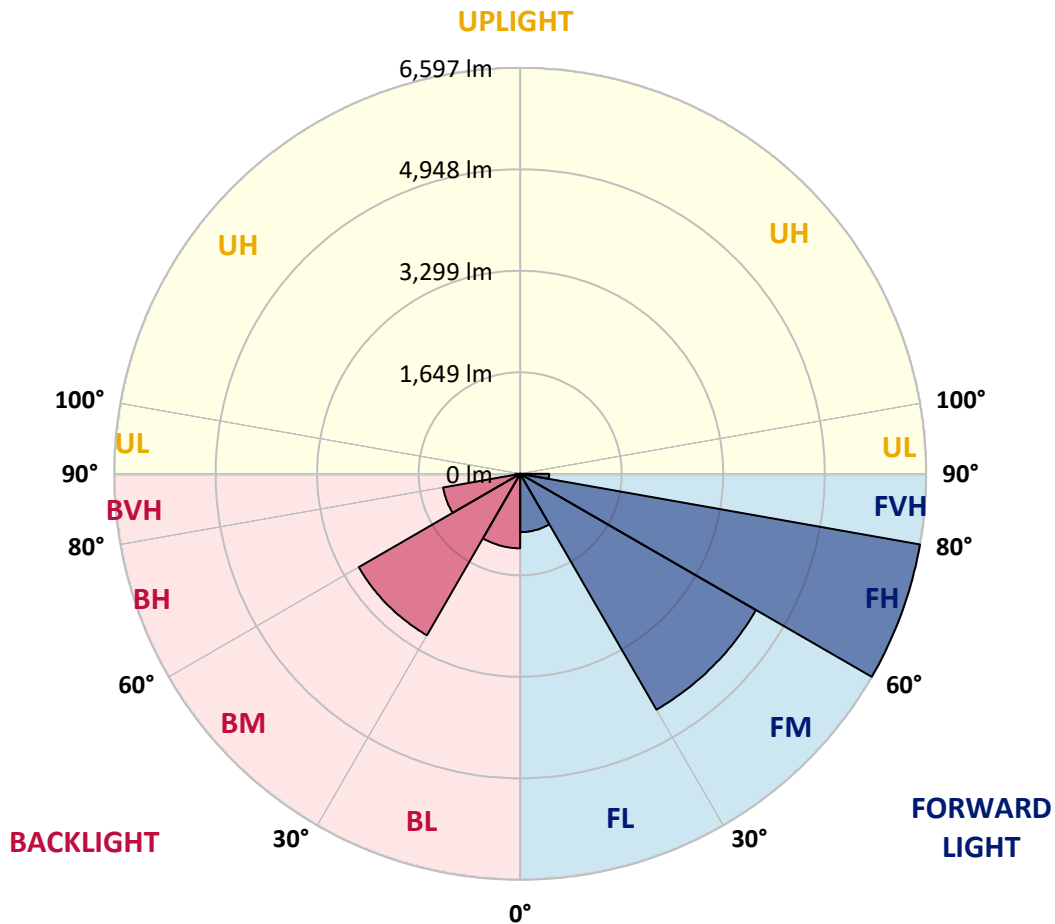
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	948.2	5.3			
FM (30°-60°)	4425.0	24.5			
FH (60°-80°)	6597.2	36.6			G3/7500
FVH (80°-90°)	470.5	2.6			G3/500
BL (0°-30°)	1209.8	6.7	B3/2500		
BM (30°-60°)	3029.4	16.8	B3/5000		
BH (60°-80°)	1270.8	7.0	B3/2500		G3/2500
BVH (80°-90°)	75.1	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°	2061.3	2061.3	2061.3	2061.3	2061.3	2061.3	2061.3	2061.3	2061.3	2061.3	2061.3
2.5°	2029.7	2041.2	2038.4	2034.5	2034.5	2035.5	2034.5	2041.2	2047.9	2054.6	2065.1
5°	2050.8	2062.3	2056.5	2051.7	2047.9	2047.0	2044.1	2043.1	2047.0	2055.6	2069.9
7.5°	2091.9	2103.4	2094.8	2086.2	2078.5	2074.7	2070.9	2065.1	2062.3	2067.0	2087.1
10°	2137.8	2149.3	2138.7	2123.4	2111.0	2106.2	2102.4	2096.7	2092.8	2095.7	2117.7
12.5°	2183.7	2195.1	2180.8	2159.8	2143.5	2140.7	2135.9	2134.0	2133.0	2132.0	2154.0
15°	2226.7	2236.3	2218.1	2193.2	2176.0	2171.2	2166.5	2169.3	2174.1	2179.9	2204.7
17.5°	2260.2	2269.7	2243.0	2210.4	2194.2	2192.3	2189.4	2199.0	2212.4	2226.7	2257.3
20°	2290.8	2300.3	2265.9	2221.9	2202.8	2202.8	2203.8	2223.8	2243.0	2264.0	2306.1
22.5°	2333.8	2341.4	2299.4	2239.1	2211.4	2213.3	2221.0	2241.0	2264.9	2293.6	2351.9
25°	2397.8	2403.6	2351.9	2271.6	2240.1	2245.8	2252.5	2262.1	2285.0	2318.5	2396.9
27.5°	2501.1	2505.9	2438.0	2329.0	2281.2	2290.8	2300.3	2293.6	2304.1	2332.8	2433.2
30°	2646.4	2649.3	2563.2	2418.9	2351.0	2355.8	2357.7	2330.0	2309.9	2332.8	2459.0
32.5°	2818.5	2817.6	2715.3	2527.9	2430.3	2425.6	2409.3	2354.8	2308.0	2328.0	2482.0
35°	3085.3	3074.7	2942.8	2680.8	2520.2	2490.6	2452.3	2382.5	2317.5	2323.3	2502.0
37.5°	3527.0	3494.5	3311.8	2931.3	2654.1	2578.5	2522.1	2427.5	2338.6	2321.3	2525.9
40°	4025.1	3984.0	3783.2	3274.6	2854.8	2733.4	2642.6	2491.5	2373.0	2330.0	2561.3
42.5°	4615.9	4557.6	4341.5	3679.0	3109.2	2933.2	2796.5	2572.8	2423.6	2357.7	2609.1
45°	5341.6	5264.1	4958.2	4135.0	3429.4	3195.2	3012.6	2696.1	2501.1	2411.2	2680.8
47.5°	6074.9	6094.0	5659.0	4657.0	3813.8	3518.4	3283.2	2881.6	2613.9	2497.3	2796.5
50°	6854.1	6867.5	6356.0	5235.5	4249.8	3883.6	3587.2	3089.1	2770.7	2619.6	2969.6
52.5°	7462.2	7464.1	6988.9	5840.7	4703.9	4285.1	3915.1	3326.2	2952.4	2782.2	3200.0
55°	7842.7	7837.9	7432.5	6413.3	5225.9	4706.8	4278.4	3595.8	3174.2	2973.4	3489.7
57.5°	8119.0	8104.6	7738.5	6905.7	5782.3	5204.9	4689.5	3901.7	3436.1	3200.9	3871.1
60°	8224.2	8215.6	7945.9	7331.2	6367.5	5755.6	5163.8	4244.0	3733.5	3469.6	4361.6
62.5°	8264.3	8280.6	8149.6	7743.2	6993.7	6365.5	5684.8	4653.2	4068.1	3773.6	4878.8
65°	8405.8	8435.4	8408.7	8282.5	7701.2	7079.7	6376.1	5139.9	4433.3	4099.6	5419.0
67.5°	8685.9	8715.6	8727.1	8927.8	8565.5	7969.8	7238.4	5746.0	4860.7	4438.1	5825.4
70°	8679.2	8670.6	8873.3	9441.2	9647.8	9202.2	8401.0	6491.7	5370.3	4719.2	5877.0
72.5°	7900.0	7831.2	8310.2	9435.5	10548.4	10489.1	9820.8	7453.6	5810.1	4753.6	5099.7
75°	5926.7	5743.1	6589.3	8503.3	10698.5	11219.5	10723.3	8050.1	5705.9	4200.0	3548.9
77.5°	2534.6	2350.0	3347.2	6294.8	9575.1	10488.1	9895.4	7023.3	4554.7	2777.4	1742.9
80°	663.5	662.6	1011.5	2853.9	6511.8	7745.2	6794.8	4535.6	2602.4	992.4	480.9
82.5°	274.4	267.7	371.9	1110.0	3181.8	4346.3	3547.0	2023.1	939.8	268.7	159.7
85°	102.3	101.3	180.7	383.4	1122.4	1792.6	1297.4	517.2	234.2	131.0	71.7
87.5°	28.7	27.7	39.2	132.9	273.4	414.9	221.8	85.1	66.0	51.6	21.0
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°	2061.3	2061.3	2061.3	2061.3	2061.3	2061.3	2061.3	2061.3	2061.3	2061.3	2061.3
2.5°	2068.0	2072.8	2081.4	2088.1	2096.7	2106.2	2119.6	2128.2	2136.8	2142.6	2138.7
5°	2076.6	2087.1	2109.1	2131.1	2156.9	2180.8	2208.5	2228.6	2244.9	2249.6	2251.6
7.5°	2095.7	2112.9	2150.2	2187.5	2228.6	2267.8	2308.0	2342.4	2370.1	2380.6	2381.6
10°	2129.2	2152.1	2204.7	2257.3	2311.8	2372.0	2423.6	2473.4	2512.6	2528.8	2529.8
12.5°	2171.2	2199.9	2268.8	2341.4	2417.0	2500.1	2567.1	2628.2	2677.0	2699.0	2699.0
15°	2225.7	2263.0	2351.0	2448.5	2559.4	2675.1	2760.2	2828.1	2882.6	2909.3	2907.4
17.5°	2285.0	2334.7	2445.6	2592.9	2751.6	2903.6	3003.0	3052.7	3109.2	3135.0	3134.0
20°	2342.4	2403.6	2562.3	2776.4	2987.7	3149.3	3229.6	3243.0	3246.8	3249.7	3257.3
22.5°	2401.7	2483.9	2708.6	3007.8	3234.4	3346.3	3357.7	3300.4	3220.1	3182.8	3193.3
25°	2466.7	2575.7	2899.8	3263.1	3446.6	3460.0	3372.1	3232.5	3080.5	3010.7	3021.2
27.5°	2529.8	2681.8	3129.2	3506.9	3599.6	3482.0	3292.7	3094.8	2911.2	2837.6	2846.2
30°	2592.9	2803.2	3382.6	3720.1	3669.4	3427.5	3167.5	2946.6	2762.1	2684.7	2693.3
32.5°	2656.9	2944.7	3674.2	3874.0	3657.0	3311.8	3011.6	2780.3	2617.7	2536.5	2547.0
35°	2729.6	3118.7	3950.5	3958.1	3573.8	3141.7	2806.1	2581.4	2439.9	2374.9	2389.2
37.5°	2824.2	3339.6	4194.3	3979.2	3428.5	2892.1	2550.8	2346.2	2229.6	2199.9	2221.0
40°	2941.8	3605.4	4380.7	3945.7	3213.4	2589.1	2271.6	2108.1	2042.2	2048.9	2071.8
42.5°	3094.8	3902.7	4511.7	3859.7	2914.1	2276.4	2026.9	1954.2	1985.8	2012.5	2037.4
45°	3293.7	4211.5	4593.0	3713.4	2575.7	2011.6	1882.5	1899.7	1923.6	1926.5	1945.6
47.5°	3548.0	4524.1	4646.5	3492.5	2230.5	1825.1	1790.7	1794.6	1789.8	1769.7	1785.0
50°	3865.4	4828.2	4694.3	3200.0	1937.0	1708.5	1662.6	1649.2	1583.3	1518.2	1526.9
52.5°	4226.8	5107.4	4714.4	2836.7	1708.5	1611.0	1536.4	1452.3	1328.9	1308.9	1315.6
55°	4628.4	5365.5	4662.8	2390.2	1516.3	1485.7	1372.9	1271.6	1258.2	1241.0	1243.9
57.5°	5108.3	5643.7	4557.6	1892.1	1319.4	1339.5	1229.5	1241.0	1217.1	1190.3	1185.5
60°	5633.2	5931.5	4373.1	1437.9	1115.7	1156.9	1192.2	1191.3	1184.6	1162.6	1154.9
62.5°	6105.5	6120.8	4009.8	1101.4	937.0	1015.4	1111.9	1111.0	1105.2	1092.8	1088.0
65°	6386.6	6092.1	3403.6	867.2	789.7	898.7	1002.9	1010.6	1011.5	1010.6	1010.6
67.5°	6336.9	5756.5	2571.8	690.3	668.3	780.2	894.9	905.4	913.1	915.0	916.9
70°	5774.7	5019.4	1677.0	550.7	560.3	675.9	792.6	803.1	809.8	817.4	821.3
72.5°	4501.2	3690.4	959.9	445.5	465.6	586.1	691.2	703.7	707.5	721.8	727.6
75°	2743.0	2170.3	518.2	350.9	382.4	501.0	590.9	605.2	611.9	629.1	631.0
77.5°	1304.1	939.8	295.4	273.4	307.9	409.2	499.1	515.3	497.2	506.7	499.1
80°	440.8	349.0	186.4	208.4	235.2	319.3	399.6	415.9	377.6	375.7	371.9
82.5°	153.9	141.5	118.6	138.6	152.0	228.5	302.1	323.2	281.1	280.1	266.7
85°	60.2	57.4	66.0	75.5	90.8	140.5	198.9	209.4	173.0	139.6	137.7
87.5°	12.4	13.4	16.3	17.2	27.7	48.8	71.7	88.0	69.8	59.3	54.5
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)