

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: P883741

Luminaire Tested: **NAV-SB4B-722-U-T4FT**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883741
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-24)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4B-722-U-T4FT
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 2200K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17974 lumens
Efficiency: N/A
Efficacy: 122.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G3

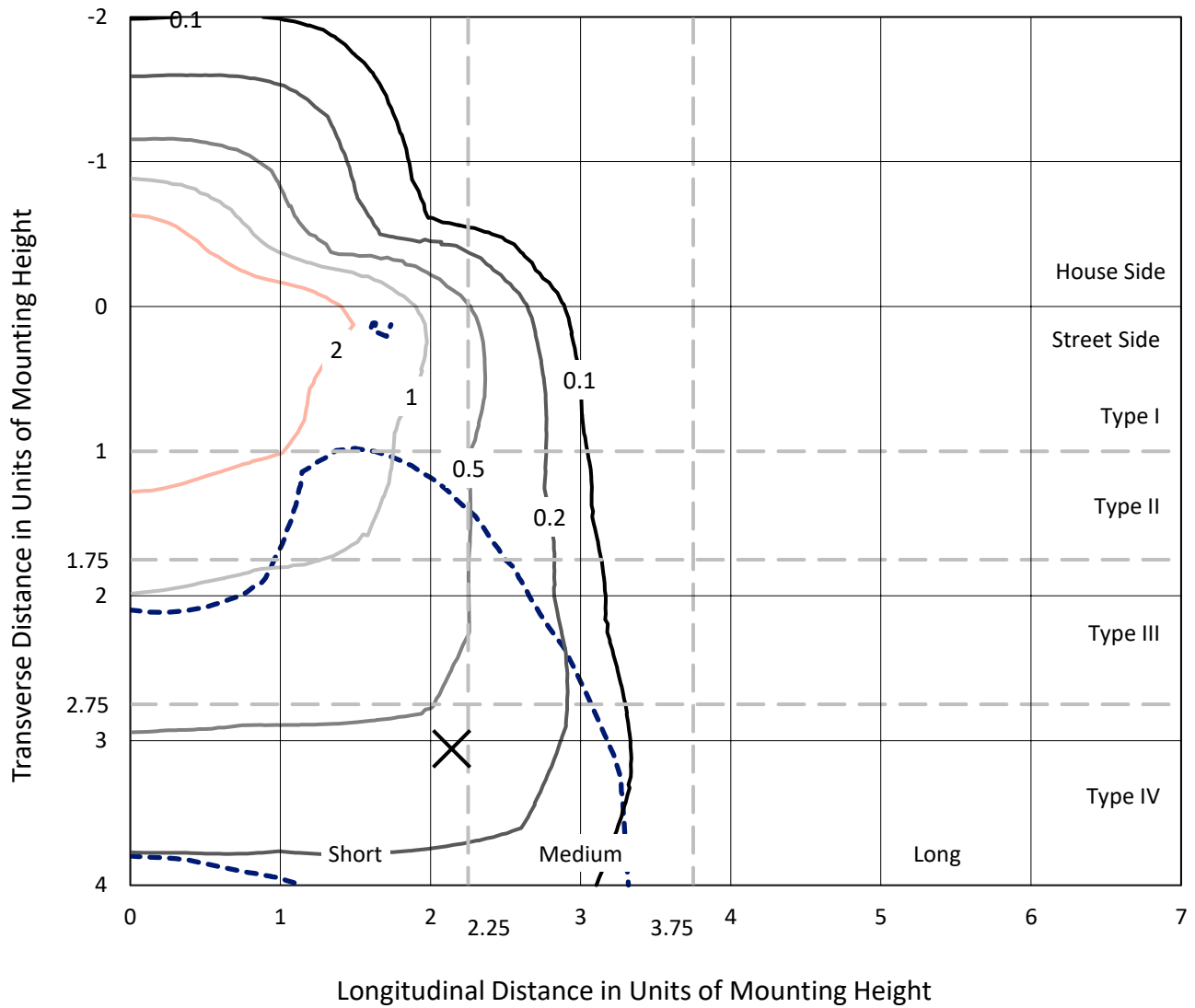
Input Watts (W): 147
Input Voltage (V): 120.0
Input Current (Ain): 1.255
Voltage Rise (V): NR
Power Factor: 0.988
Total Harmonic Distortion (THDi): 13.593
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

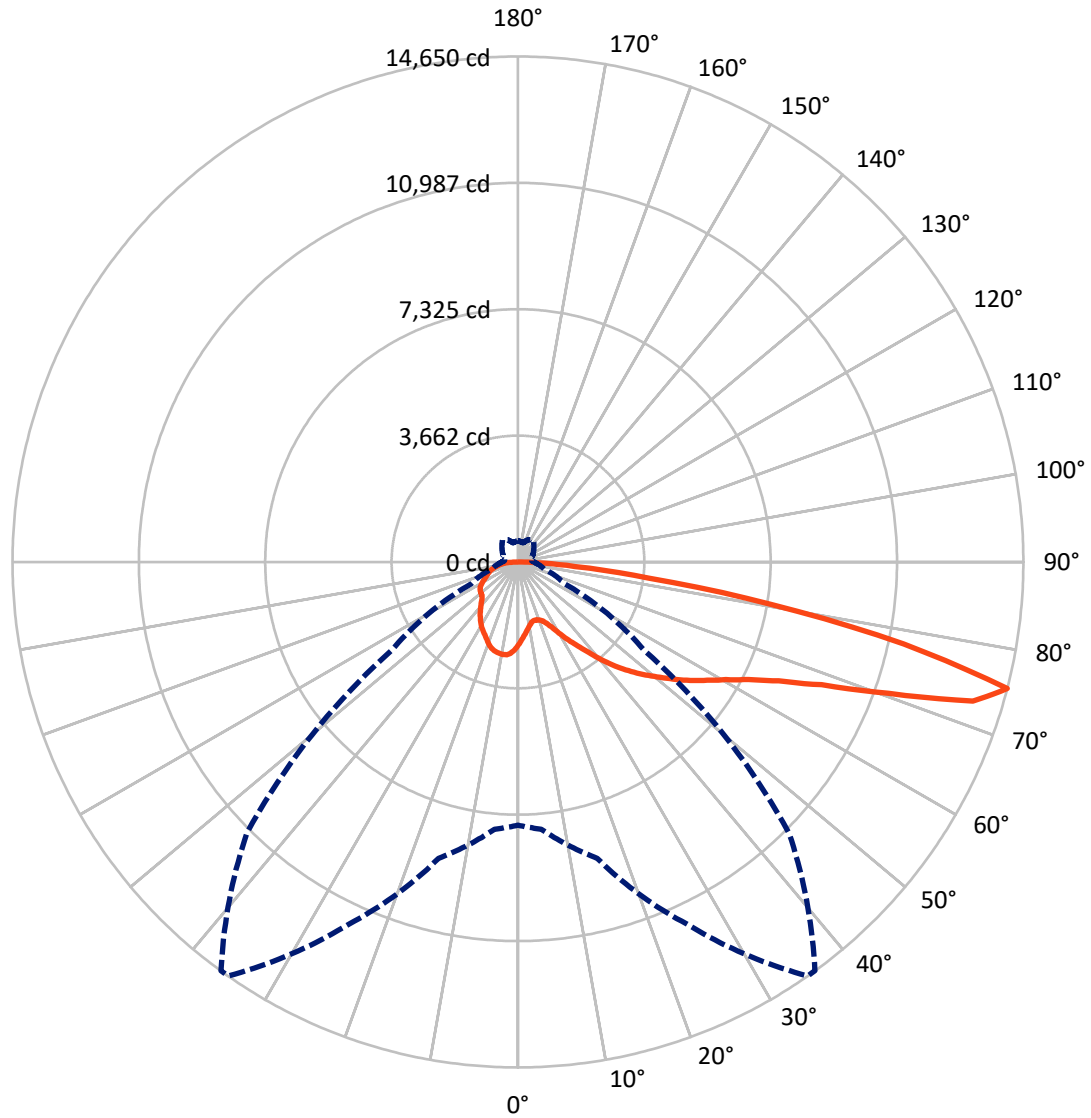
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.2 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4277.4	0.0	4277.4
	% Fixture	23.8	0.0	23.8
Street Side	Lumens	13696.6	0.0	13696.6
	% Fixture	76.2	0.0	76.2
Total	Lumens	17974.0	0.0	17974.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	226.8	1.3
10°-20°	654.1	3.6
20°-30°	1098.4	6.1
30°-40°	1707.1	9.5
40°-50°	2533.8	14.1
50°-60°	3498.1	19.5
60°-70°	4244.0	23.6
70°-80°	3507.3	19.5
80°-90°	504.5	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°	17974.0	100.0
0°-180°	17974.0	100.0

Coefficient of Utilization



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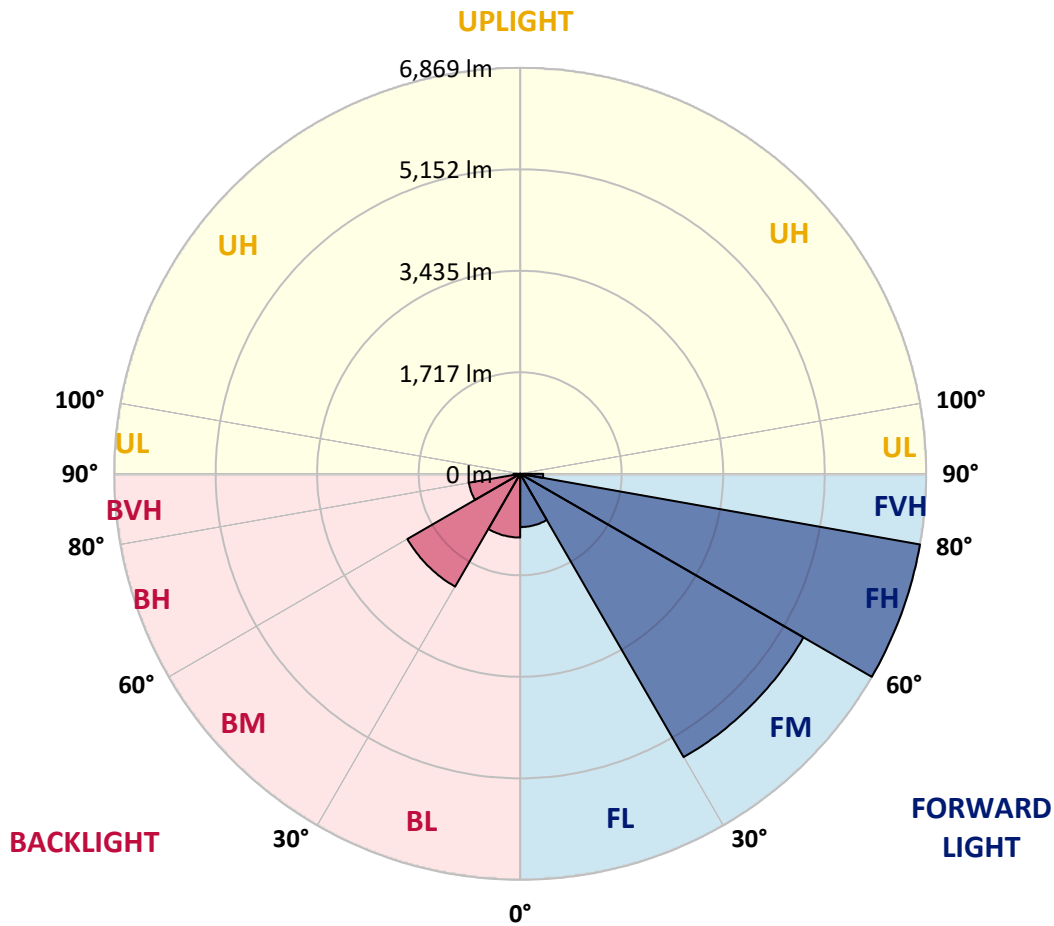
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	901.4	5.0			
FM (30°-60°)	5535.0	30.8			
FH (60°-80°)	6869.4	38.2			G3/7500
FVH (80°-90°)	390.9	2.2			G3/500
BL (0°-30°)	1078.0	6.0	B3/2500		
BM (30°-60°)	2204.0	12.3	B2/2500		
BH (60°-80°)	881.9	4.9	B2/1000		G2/1000
BVH (80°-90°)	113.6	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-G3

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	2395.2	2395.2	2395.2	2395.2	2395.2	2395.2	2395.2	2395.2	2395.2	2395.2	2395.2
2.5°	2208.6	2222.2	2228.0	2225.1	2239.7	2237.7	2258.2	2283.4	2318.4	2352.4	2402.0
5°	2038.6	2053.1	2065.8	2077.4	2105.6	2114.3	2146.4	2195.0	2259.1	2324.2	2405.8
7.5°	1880.2	1892.8	1912.2	1933.6	1981.2	1990.0	2043.4	2119.2	2208.6	2303.8	2416.5
10°	1750.9	1763.6	1784.0	1808.3	1867.5	1878.2	1946.2	2047.3	2163.9	2284.4	2428.2
12.5°	1695.6	1699.4	1711.1	1735.4	1786.9	1793.7	1868.5	1984.1	2120.2	2269.8	2445.7
15°	1692.6	1700.4	1701.4	1714.0	1756.8	1759.7	1828.7	1943.3	2093.0	2266.9	2471.9
17.5°	1721.8	1727.6	1718.9	1726.7	1762.6	1767.5	1821.9	1923.9	2084.2	2279.5	2516.6
20°	1799.5	1804.4	1778.1	1767.5	1793.7	1797.6	1851.0	1936.5	2093.0	2305.8	2577.8
22.5°	1964.7	1967.6	1903.5	1859.8	1861.7	1863.7	1910.3	1988.0	2127.0	2353.4	2655.6
25°	2222.2	2220.3	2118.2	2033.7	1985.1	1974.4	2005.5	2071.6	2184.3	2416.5	2755.6
27.5°	2523.4	2508.8	2406.8	2280.5	2174.6	2159.0	2152.2	2180.4	2265.9	2500.1	2878.1
30°	2863.5	2849.9	2740.1	2574.9	2428.2	2402.9	2338.8	2324.2	2387.4	2613.8	3048.1
32.5°	3236.6	3227.9	3096.7	2896.5	2700.3	2671.1	2563.3	2524.4	2573.9	2785.8	3285.2
35°	3549.5	3541.7	3432.9	3226.9	2986.9	2951.0	2841.2	2797.4	2822.7	3006.3	3595.2
37.5°	3832.3	3828.4	3735.1	3572.8	3325.0	3281.3	3157.9	3143.3	3138.5	3296.9	3971.2
40°	4094.6	4084.9	3987.7	3902.2	3718.6	3678.7	3569.9	3557.3	3520.3	3654.4	4396.8
42.5°	4385.1	4359.9	4219.0	4179.1	4129.6	4096.5	4031.4	4033.4	3951.8	4057.7	4847.6
45°	4622.2	4607.6	4462.9	4439.5	4493.0	4479.4	4535.7	4550.3	4391.9	4480.4	5316.0
47.5°	4876.8	4863.2	4740.8	4724.2	4869.0	4872.9	5072.1	5077.0	4821.4	4919.5	5785.3
50°	5190.6	5171.2	5049.7	5070.2	5232.4	5247.0	5611.4	5578.3	5216.9	5365.5	6250.7
52.5°	5397.6	5409.3	5383.0	5416.1	5637.6	5651.2	6141.9	6057.4	5608.5	5805.7	6707.4
55°	5550.2	5573.5	5655.1	5730.9	6065.1	6078.7	6642.3	6513.1	5933.0	6213.8	7136.9
57.5°	5746.4	5713.4	5865.9	6013.6	6471.3	6507.2	7129.1	6952.3	6220.6	6565.5	7431.3
60°	6028.2	6004.9	6123.4	6342.1	6926.0	6983.4	7644.1	7347.7	6431.5	6844.4	7488.6
62.5°	6599.6	6541.3	6559.7	6753.1	7499.3	7575.1	8225.2	7692.7	6536.4	6953.2	7181.6
65°	7453.7	7353.6	7260.3	7394.4	8306.8	8381.6	8881.0	7963.8	6497.5	6742.4	6366.4
67.5°	8529.3	8430.2	8315.5	8441.8	9496.1	9555.4	9690.4	8116.3	6191.5	5930.1	4925.4
70°	9416.4	9379.5	9516.5	10036.3	11395.7	11397.6	10728.2	7990.0	5352.9	4204.4	2849.9
72.5°	9298.8	9276.5	9998.4	11605.6	13789.9	13738.4	11710.5	7033.9	3605.9	1896.7	1067.9
75°	7628.6	7773.3	8891.7	11577.4	14649.8	14643.0	11109.1	4471.6	1491.5	786.1	551.9
77.5°	4090.7	4320.0	5772.7	8547.7	11436.5	11608.5	7810.3	1564.4	640.3	503.3	381.9
80°	1334.1	1534.3	2300.9	4352.1	7431.3	7399.2	3347.4	614.1	438.2	356.6	264.3
82.5°	566.5	589.8	1028.0	2055.1	3813.8	3754.5	1065.9	352.7	308.0	243.9	163.2
85°	221.5	247.8	453.8	950.3	1651.8	1615.9	384.8	174.9	197.2	159.4	97.2
87.5°	72.9	88.4	162.3	325.5	514.0	495.5	94.3	60.2	85.5	72.9	35.0
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°	2395.2	2395.2	2395.2	2395.2	2395.2	2395.2	2395.2	2395.2	2395.2	2395.2	2395.2
2.5°	2415.6	2431.1	2449.6	2476.8	2500.1	2519.5	2539.9	2552.6	2557.4	2572.0	2571.0
5°	2433.1	2467.1	2512.7	2557.4	2601.2	2627.4	2650.7	2662.4	2673.1	2680.8	2682.8
7.5°	2462.2	2505.9	2577.8	2636.1	2673.1	2694.4	2710.0	2706.1	2710.0	2711.9	2714.8
10°	2487.5	2548.7	2634.2	2689.6	2717.8	2718.7	2714.8	2701.2	2694.4	2695.4	2697.3
12.5°	2517.6	2585.6	2677.9	2724.6	2732.3	2710.9	2694.4	2671.1	2662.4	2658.5	2656.5
15°	2558.4	2636.1	2725.5	2743.0	2723.6	2696.4	2668.2	2630.3	2610.9	2595.3	2600.2
17.5°	2608.0	2693.5	2762.4	2749.8	2708.0	2663.3	2617.7	2560.3	2520.5	2504.0	2505.0
20°	2676.9	2753.7	2790.6	2735.2	2672.1	2604.1	2526.3	2456.4	2419.4	2402.9	2401.0
22.5°	2760.5	2834.4	2817.8	2710.0	2620.6	2511.8	2414.6	2363.1	2344.6	2333.0	2334.9
25°	2860.6	2923.7	2837.3	2673.1	2536.0	2389.3	2314.5	2298.0	2289.2	2280.5	2280.5
27.5°	2990.8	3024.8	2851.8	2618.6	2403.9	2259.1	2231.9	2234.8	2231.9	2217.3	2220.3
30°	3162.8	3156.0	2865.4	2530.2	2252.3	2141.6	2143.5	2156.1	2158.1	2148.4	2153.2
32.5°	3389.2	3320.2	2872.2	2415.6	2107.5	2038.6	2040.5	2054.1	2063.8	2047.3	2055.1
35°	3663.2	3511.6	2861.6	2271.8	1995.8	1940.4	1925.8	1929.7	1932.6	1917.1	1927.8
37.5°	3982.9	3726.3	2813.9	2112.4	1903.5	1844.2	1813.1	1786.9	1771.3	1756.8	1766.5
40°	4333.6	3960.5	2726.5	1956.9	1800.5	1742.2	1695.6	1646.0	1593.5	1574.1	1582.8
42.5°	4700.9	4201.5	2620.6	1808.3	1682.0	1634.3	1584.8	1512.9	1434.2	1394.3	1399.2
45°	5081.8	4448.3	2516.6	1661.5	1560.5	1540.1	1482.8	1396.3	1310.8	1260.3	1256.4
47.5°	5454.9	4681.5	2364.1	1513.9	1446.8	1469.2	1424.5	1344.8	1249.6	1169.9	1161.1
50°	5811.5	4900.1	2114.3	1364.2	1354.5	1447.8	1405.0	1290.4	1181.5	1079.5	1070.8
52.5°	6165.2	5077.0	1794.7	1228.2	1304.9	1442.0	1379.8	1253.4	1120.3	1013.4	1001.8
55°	6465.5	5168.3	1486.6	1111.6	1233.0	1392.4	1349.6	1209.7	1033.9	920.2	910.5
57.5°	6636.5	5094.4	1230.1	996.9	1133.9	1310.8	1298.1	1116.4	930.9	843.4	831.7
60°	6562.6	4795.2	1020.2	896.8	1039.7	1222.4	1208.8	1024.1	852.2	769.6	757.9
62.5°	6155.5	4224.8	854.1	809.4	954.2	1132.0	1119.4	953.2	791.9	712.2	699.6
65°	5335.4	3436.8	724.9	736.5	867.7	1023.2	1041.6	893.9	744.3	666.6	653.9
67.5°	4069.3	2489.4	623.8	673.4	783.2	916.3	969.7	851.2	704.5	630.6	619.0
70°	2319.4	1413.8	538.3	612.1	708.3	817.2	914.3	817.2	661.7	600.5	592.7
72.5°	879.4	649.1	465.4	550.9	636.4	733.6	853.1	763.7	612.1	566.5	558.7
75°	469.3	395.5	391.6	479.0	553.8	652.0	776.4	711.3	575.2	598.5	618.0
77.5°	319.7	279.8	327.5	410.0	463.5	561.6	694.7	631.6	498.5	496.5	457.7
80°	221.5	198.2	266.2	330.4	358.5	472.2	606.3	542.2	406.2	378.9	362.4
82.5°	133.1	129.2	199.2	246.8	253.6	364.4	502.4	454.7	332.3	289.6	291.5
85°	72.9	76.8	127.3	144.8	147.7	254.6	393.5	351.7	255.5	214.7	216.7
87.5°	20.4	26.2	46.6	57.3	70.9	132.1	234.2	208.9	128.3	89.4	89.4
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)