

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: P884251

Luminaire Tested: **NAV-SB5A-722-U-T4FT**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884251
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-SB5A-722-U-T4FT
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 2200K, 350mA 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: 17928 lumens
Efficiency: N/A
Efficacy: 126.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G3

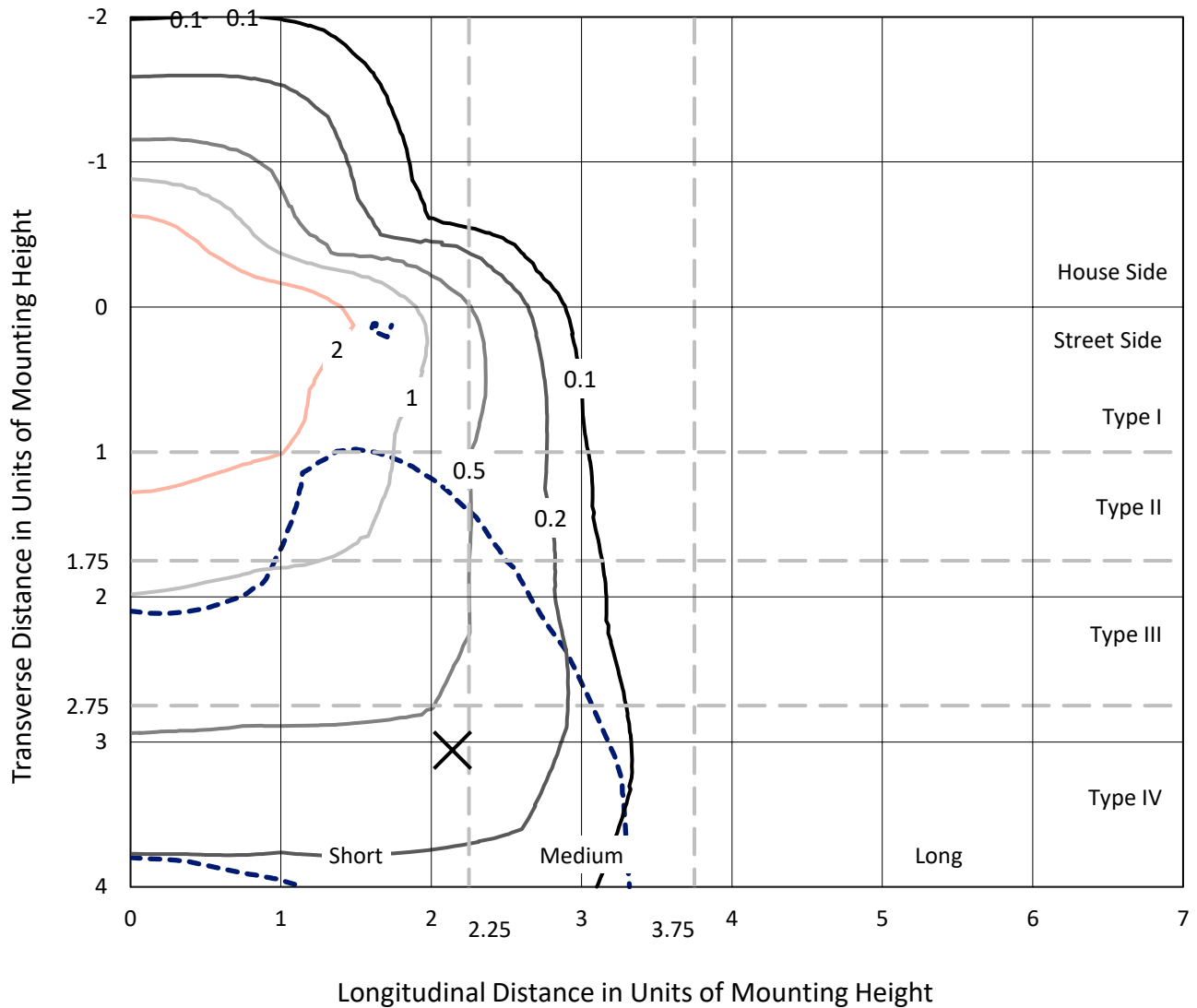
Input Watts (W): 141.7
Input Voltage (V): 120.0
Input Current (Ain): 1.201
Voltage Rise (V): NR
Power Factor: 0.992
Total Harmonic Distortion (THDi): 10.503
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

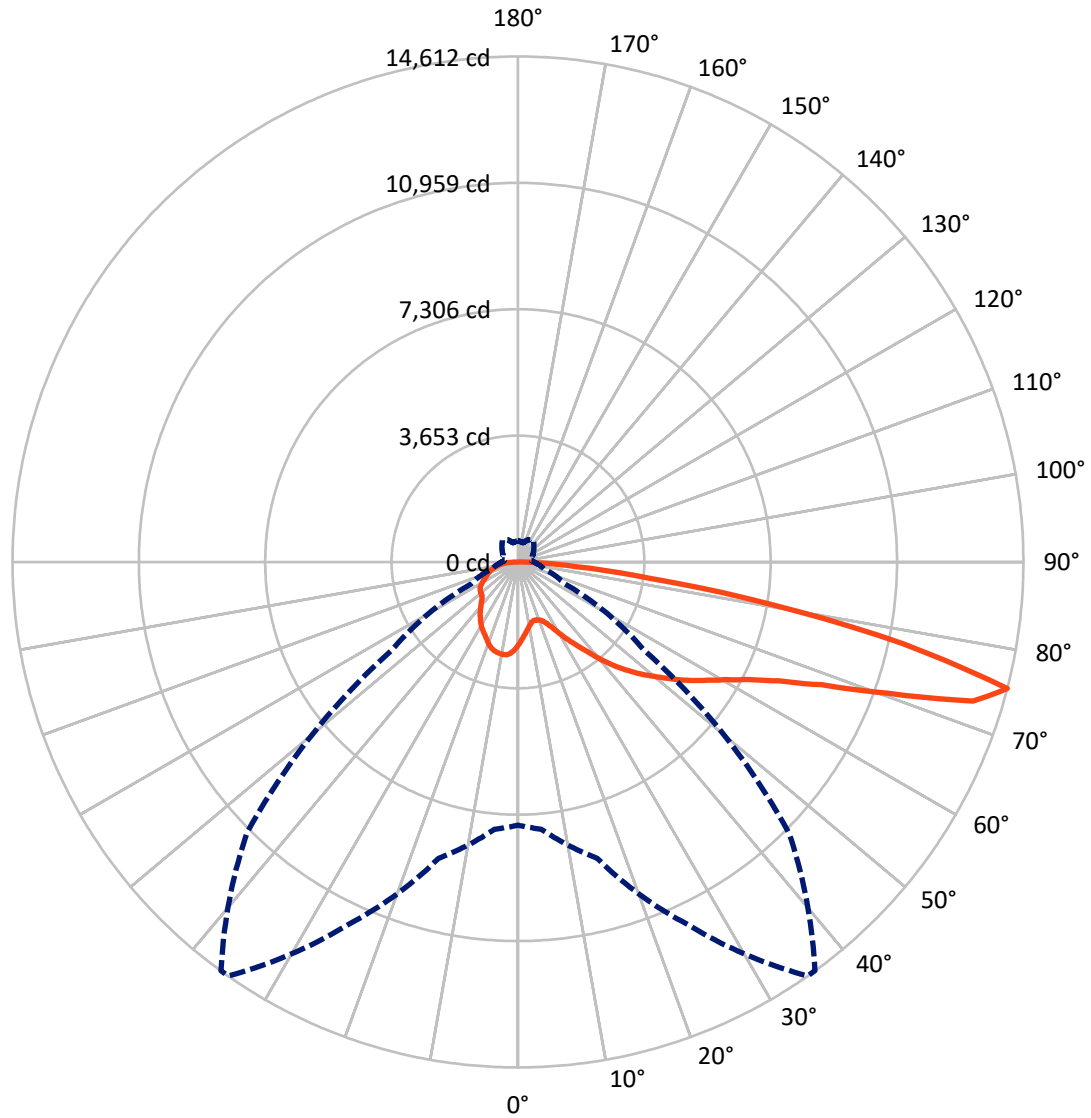
✕ Max cd
 - - - 1/2 Max cd



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	4266.4	0.0	4266.4
	% Fixture	23.8	0.0	23.8
Street Side	Lumens	13661.6	0.0	13661.6
	% Fixture	76.2	0.0	76.2
Total	Lumens	17928.0	0.0	17928.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	226.2	1.3
10°-20°	652.4	3.6
20°-30°	1095.6	6.1
30°-40°	1702.7	9.5
40°-50°	2527.3	14.1
50°-60°	3489.1	19.5
60°-70°	4233.1	23.6
70°-80°	3498.3	19.5
80°-90°	503.2	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°	17928.0	100.0
0°-180°	17928.0	100.0



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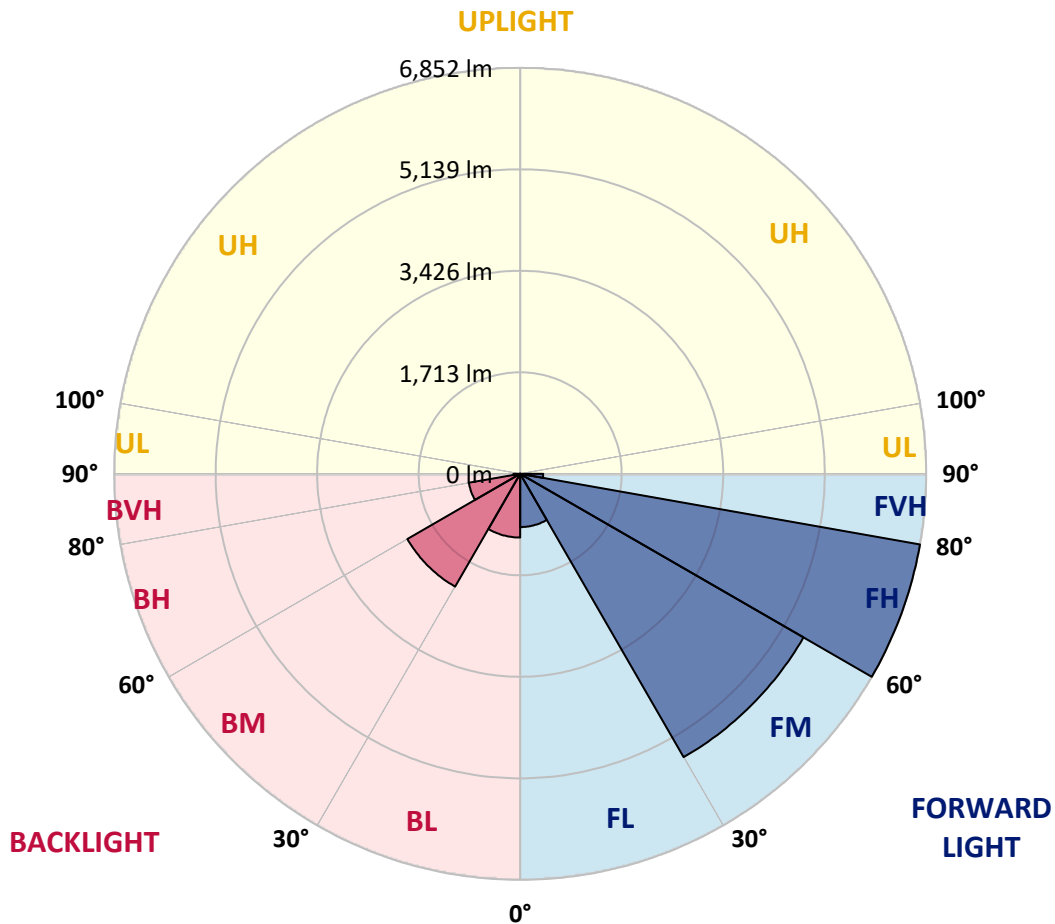
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	899.1	5.0			
FM (30°-60°)	5520.9	30.8			
FH (60°-80°)	6851.8	38.2			G3/7500
FVH (80°-90°)	389.9	2.2			G3/500
BL (0°-30°)	1075.2	6.0	B3/2500		
BM (30°-60°)	2198.3	12.3	B2/2500		
BH (60°-80°)	879.6	4.9	B2/1000		G2/1000
BVH (80°-90°)	113.3	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°	2389.0	2389.0	2389.0	2389.0	2389.0	2389.0	2389.0	2389.0	2389.0	2389.0	2389.0
2.5°	2202.9	2216.5	2222.3	2219.4	2234.0	2232.0	2252.4	2277.6	2312.5	2346.4	2395.8
5°	2033.3	2047.9	2060.5	2072.1	2100.2	2108.9	2140.9	2189.4	2253.3	2318.3	2399.7
7.5°	1875.4	1888.0	1907.3	1928.7	1976.2	1984.9	2038.2	2113.8	2202.9	2297.9	2410.3
10°	1746.5	1759.1	1779.4	1803.6	1862.8	1873.4	1941.3	2042.1	2158.4	2278.5	2422.0
12.5°	1691.2	1695.1	1706.7	1731.0	1782.3	1789.1	1863.7	1979.1	2114.7	2264.0	2439.4
15°	1688.3	1696.1	1697.0	1709.6	1752.3	1755.2	1824.0	1938.4	2087.6	2261.1	2465.6
17.5°	1717.4	1723.2	1714.5	1722.2	1758.1	1762.9	1817.2	1919.0	2078.9	2273.7	2510.2
20°	1794.9	1799.8	1773.6	1762.9	1789.1	1793.0	1846.3	1931.6	2087.6	2299.9	2571.2
22.5°	1959.7	1962.6	1898.6	1855.0	1856.9	1858.9	1905.4	1982.9	2121.5	2347.4	2648.8
25°	2216.5	2214.6	2112.8	2028.5	1980.0	1969.4	2000.4	2066.3	2178.7	2410.3	2748.6
27.5°	2517.0	2502.4	2400.7	2274.7	2169.0	2153.5	2146.7	2174.8	2260.1	2493.7	2870.7
30°	2856.2	2842.6	2733.1	2568.3	2422.0	2396.8	2332.8	2318.3	2381.3	2607.1	3040.3
32.5°	3228.3	3219.6	3088.8	2889.1	2693.3	2664.3	2556.7	2517.9	2567.4	2778.6	3276.8
35°	3540.4	3532.7	3424.1	3218.6	2979.3	2943.4	2833.9	2790.3	2815.5	2998.6	3586.0
37.5°	3822.4	3818.6	3725.5	3563.7	3316.5	3272.9	3149.8	3135.3	3130.4	3288.4	3961.0
40°	4084.1	4074.4	3977.5	3892.2	3709.0	3669.3	3560.8	3548.2	3511.3	3645.1	4385.5
42.5°	4373.9	4348.7	4208.2	4168.4	4119.0	4086.1	4021.1	4023.1	3941.7	4047.3	4835.2
45°	4610.4	4595.8	4451.4	4428.2	4481.5	4467.9	4524.1	4538.7	4380.7	4468.9	5302.4
47.5°	4864.3	4850.7	4728.6	4712.2	4856.6	4860.4	5059.1	5064.0	4809.1	4907.0	5770.5
50°	5177.4	5158.0	5036.8	5057.2	5219.0	5233.6	5597.0	5564.1	5203.5	5351.8	6234.7
52.5°	5383.8	5395.4	5369.3	5402.2	5623.2	5636.7	6126.2	6041.9	5594.1	5790.8	6690.2
55°	5536.0	5559.2	5640.6	5716.2	6049.6	6063.2	6625.3	6496.4	5917.8	6197.9	7118.6
57.5°	5731.7	5698.8	5850.9	5998.3	6454.7	6490.6	7110.9	6934.5	6204.7	6548.7	7412.3
60°	6012.8	5989.5	6107.8	6325.8	6908.3	6965.5	7624.5	7328.9	6415.0	6826.9	7469.5
62.5°	6582.7	6524.5	6542.9	6735.8	7480.1	7555.7	8204.1	7673.0	6519.7	6935.4	7163.2
65°	7434.6	7334.7	7241.7	7375.5	8285.5	8360.1	8858.3	7943.4	6480.9	6725.1	6350.1
67.5°	8507.5	8408.6	8294.2	8420.2	9471.8	9530.9	9665.6	8095.6	6175.6	5914.9	4912.8
70°	9392.3	9355.5	9492.1	10010.7	11366.5	11368.5	10700.7	7969.6	5339.2	4193.6	2842.6
72.5°	9275.0	9252.8	9972.9	11575.9	13754.6	13703.2	11680.6	7015.9	3596.6	1891.8	1065.1
75°	7609.0	7753.4	8869.0	11547.8	14612.3	14605.5	11080.6	4460.2	1487.7	784.1	550.5
77.5°	4080.2	4309.0	5757.9	8525.9	11407.2	11578.8	7790.3	1560.4	638.7	502.0	380.9
80°	1330.7	1530.3	2295.0	4341.0	7412.3	7380.3	3338.8	612.5	437.1	355.7	263.6
82.5°	565.0	588.3	1025.4	2049.8	3804.0	3744.9	1063.2	351.8	307.2	243.3	162.8
85°	221.0	247.1	452.6	947.9	1647.6	1611.7	383.8	174.5	196.7	158.9	96.9
87.5°	72.7	88.2	161.9	324.7	512.7	494.3	94.0	60.1	85.3	72.7	34.9
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°	2389.0	2389.0	2389.0	2389.0	2389.0	2389.0	2389.0	2389.0	2389.0	2389.0	2389.0
2.5°	2409.4	2424.9	2443.3	2470.4	2493.7	2513.1	2533.4	2546.0	2550.9	2565.4	2564.4
5°	2426.8	2460.7	2506.3	2550.9	2594.5	2620.7	2643.9	2655.6	2666.2	2674.0	2675.9
7.5°	2455.9	2499.5	2571.2	2629.4	2666.2	2687.5	2703.0	2699.2	2703.0	2705.0	2707.9
10°	2481.1	2542.2	2627.4	2682.7	2710.8	2711.8	2707.9	2694.3	2687.5	2688.5	2690.4
12.5°	2511.1	2579.0	2671.1	2717.6	2725.3	2704.0	2687.5	2664.3	2655.6	2651.7	2649.7
15°	2551.8	2629.4	2718.5	2736.0	2716.6	2689.5	2661.4	2623.6	2604.2	2588.7	2593.5
17.5°	2601.3	2686.6	2755.4	2742.8	2701.1	2656.5	2611.0	2553.8	2514.1	2497.6	2498.5
20°	2670.1	2746.7	2783.5	2728.2	2665.2	2597.4	2519.9	2450.1	2413.3	2396.8	2394.8
22.5°	2753.4	2827.1	2810.6	2703.0	2613.9	2505.3	2408.4	2357.0	2338.6	2327.0	2328.9
25°	2853.3	2916.3	2830.0	2666.2	2529.6	2383.2	2308.6	2292.1	2283.4	2274.7	2274.7
27.5°	2983.1	3017.1	2844.5	2611.9	2397.7	2253.3	2226.2	2229.1	2226.2	2211.7	2214.6
30°	3154.7	3147.9	2858.1	2523.7	2246.6	2136.1	2138.0	2150.6	2152.5	2142.9	2147.7
32.5°	3380.5	3311.7	2864.9	2409.4	2102.2	2033.3	2035.3	2048.8	2058.5	2042.1	2049.8
35°	3653.8	3502.6	2854.2	2265.9	1990.7	1935.5	1920.9	1924.8	1927.7	1912.2	1922.9
37.5°	3972.7	3716.8	2806.7	2107.0	1898.6	1839.5	1808.5	1782.3	1766.8	1752.3	1762.0
40°	4322.5	3950.4	2719.5	1951.9	1795.9	1737.7	1691.2	1641.8	1589.5	1570.1	1578.8
42.5°	4688.9	4190.7	2613.9	1803.6	1677.6	1630.2	1580.7	1509.0	1430.5	1390.8	1395.6
45°	5068.8	4436.9	2510.2	1657.3	1556.5	1536.1	1479.0	1392.7	1307.4	1257.0	1253.1
47.5°	5441.0	4669.5	2358.0	1510.0	1443.1	1465.4	1420.8	1341.3	1246.4	1166.9	1158.2
50°	5796.7	4887.6	2108.9	1360.7	1351.0	1444.1	1401.4	1287.1	1178.5	1076.8	1068.0
52.5°	6149.4	5064.0	1790.1	1225.0	1301.6	1438.3	1376.2	1250.2	1117.5	1010.9	999.2
55°	6448.9	5155.1	1482.8	1108.7	1229.9	1388.8	1346.2	1206.6	1031.2	917.8	908.1
57.5°	6619.5	5081.4	1227.0	994.4	1131.0	1307.4	1294.8	1113.6	928.5	841.2	829.6
60°	6545.8	4782.9	1017.6	894.6	1037.0	1219.2	1205.7	1021.5	850.0	767.6	756.0
62.5°	6139.8	4214.0	851.9	807.3	951.7	1129.1	1116.5	950.8	789.9	710.4	697.8
65°	5321.8	3428.0	723.0	734.6	865.5	1020.5	1039.0	891.6	742.4	664.9	652.3
67.5°	4058.9	2483.0	622.2	671.6	781.2	913.9	967.2	849.0	702.7	629.0	617.4
70°	2313.4	1410.2	536.9	610.6	706.5	815.1	912.0	815.1	660.0	599.0	591.2
72.5°	877.1	647.4	464.2	549.5	634.8	731.7	850.9	761.8	610.6	565.0	557.3
75°	468.1	394.5	390.6	477.8	552.4	650.3	774.4	709.4	573.8	597.0	616.4
77.5°	318.9	279.1	326.6	409.0	462.3	560.2	693.0	630.0	497.2	495.3	456.5
80°	221.0	197.7	265.6	329.5	357.6	471.0	604.8	540.8	405.1	378.0	361.5
82.5°	132.8	128.9	198.7	246.2	253.0	363.4	501.1	453.6	331.5	288.8	290.8
85°	72.7	76.6	127.0	144.4	147.3	253.9	392.5	350.8	254.9	214.2	216.1
87.5°	20.4	26.2	46.5	57.2	70.8	131.8	233.6	208.4	127.9	89.2	89.2
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)