

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: P882731

Luminaire Tested: **NAV-SB2D-727-U-T4FT**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882731
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-SB2D-727-U-T4FT
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 CRI, 2700K, 900mA 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: 18577 lumens
Efficiency: N/A
Efficacy: 125.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G3

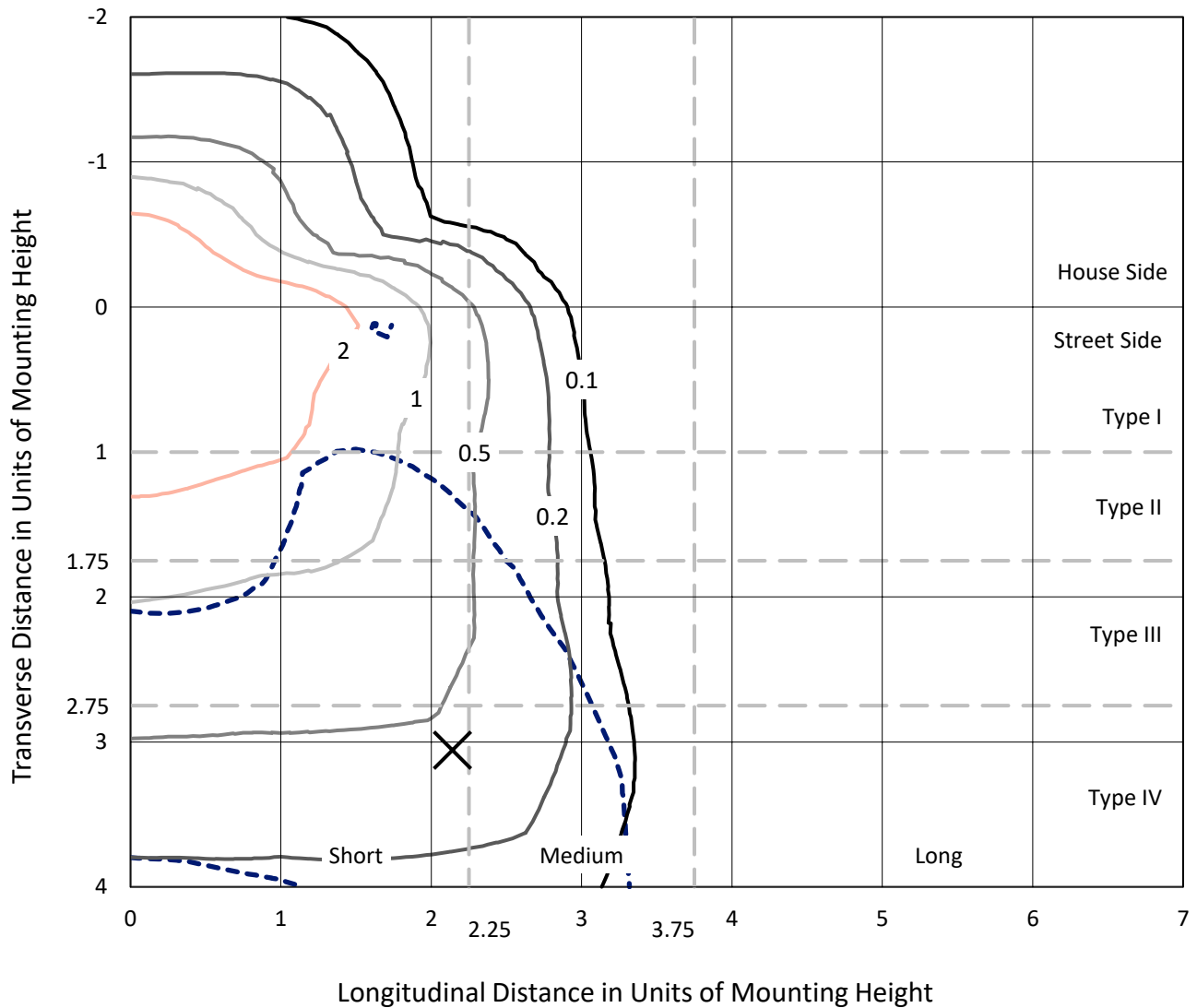
Input Watts (W): 147.6
Input Voltage (V): 120.0
Input Current (Ain): 1.234
Voltage Rise (V): NR
Power Factor: 0.999
Total Harmonic Distortion (THDi): 3.108
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

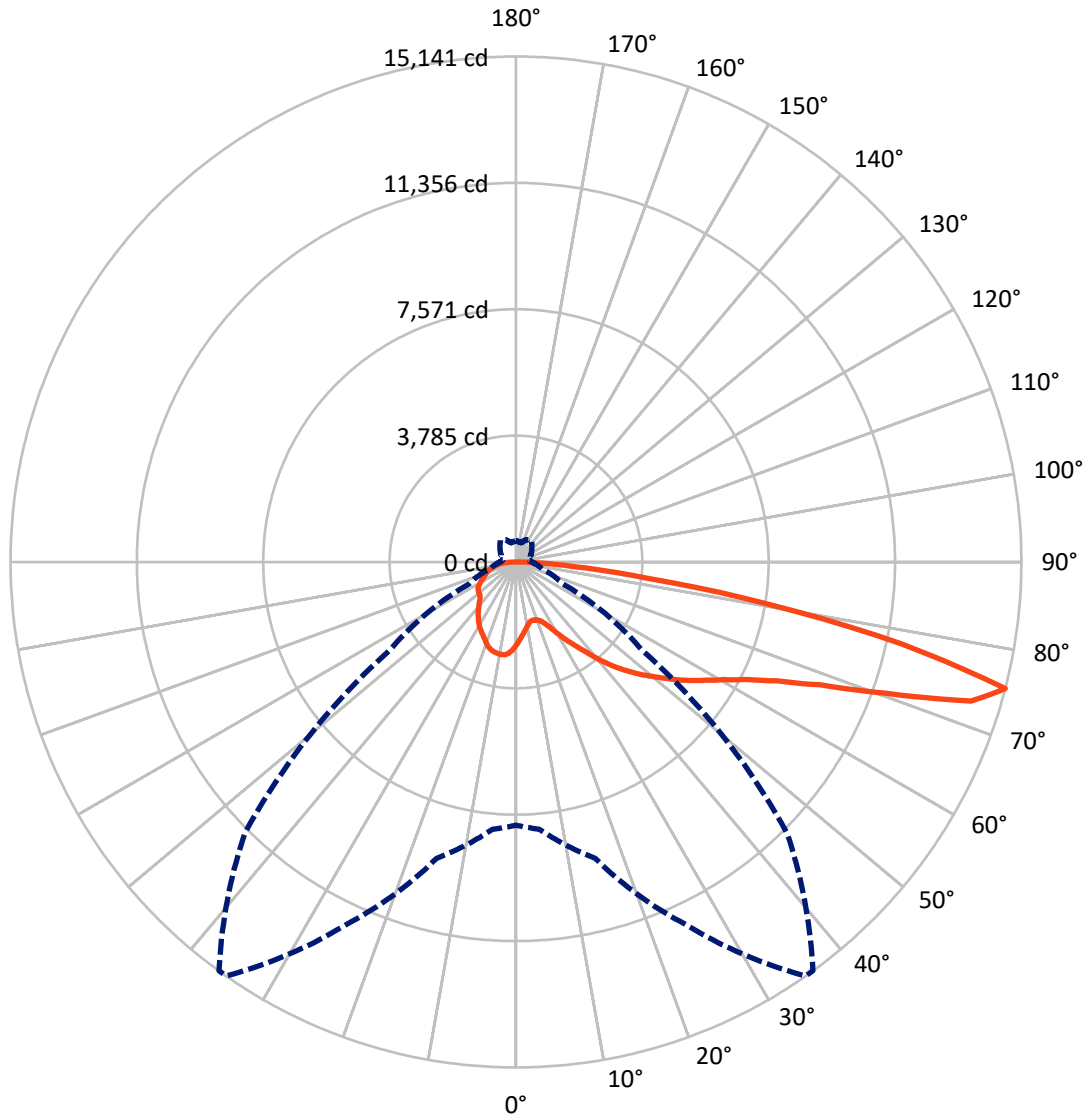
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.4 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	4420.9	0.0	4420.9
	% Fixture	23.8	0.0	23.8
Street Side	Lumens	14156.1	0.0	14156.1
	% Fixture	76.2	0.0	76.2
Total	Lumens	18577.0	0.0	18577.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	234.4	1.3
10°-20°	676.1	3.6
20°-30°	1135.3	6.1
30°-40°	1764.4	9.5
40°-50°	2618.8	14.1
50°-60°	3615.4	19.5
60°-70°	4386.3	23.6
70°-80°	3625.0	19.5
80°-90°	521.4	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°	18577.0	100.0
0°-180°	18577.0	100.0

Coefficient of Utilization



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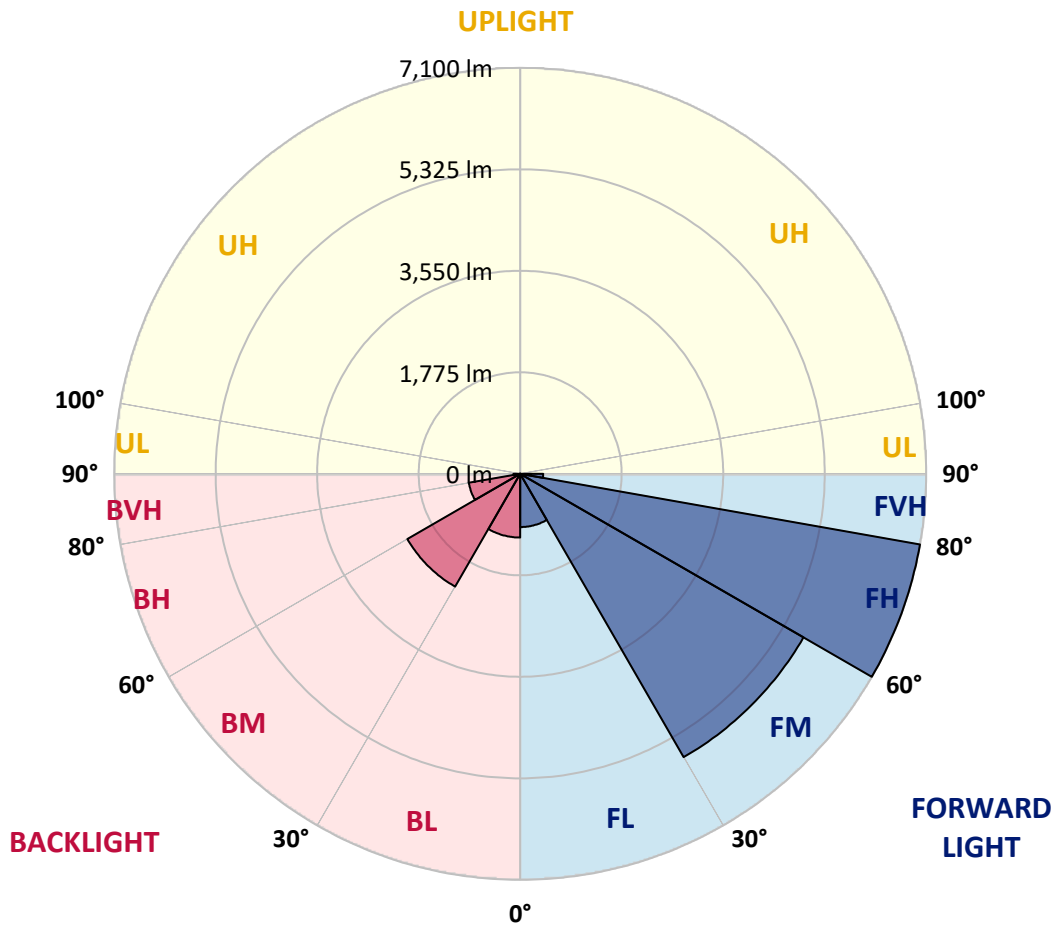
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	931.6	5.0			
FM (30°-60°)	5720.7	30.8			
FH (60°-80°)	7099.9	38.2			G3/7500
FVH (80°-90°)	404.0	2.2			G3/500
BL (0°-30°)	1114.1	6.0	B3/2500		
BM (30°-60°)	2277.9	12.3	B2/2500		
BH (60°-80°)	911.4	4.9	B2/1000		G2/1000
BVH (80°-90°)	117.4	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°	2475.5	2475.5	2475.5	2475.5	2475.5	2475.5	2475.5	2475.5	2475.5	2475.5	2475.5
2.5°	2282.7	2296.8	2302.8	2299.8	2314.8	2312.8	2333.9	2360.0	2396.2	2431.3	2482.5
5°	2106.9	2122.0	2135.1	2147.1	2176.2	2185.3	2218.4	2268.6	2334.9	2402.2	2486.6
7.5°	1943.3	1956.3	1976.4	1998.5	2047.7	2056.7	2112.0	2190.3	2282.7	2381.1	2497.6
10°	1809.7	1822.7	1843.8	1868.9	1930.2	1941.2	2011.5	2116.0	2236.5	2361.0	2509.7
12.5°	1752.4	1756.5	1768.5	1793.6	1846.8	1853.9	1931.2	2050.7	2191.3	2346.0	2527.7
15°	1749.4	1757.5	1758.5	1771.5	1815.7	1818.7	1890.0	2008.5	2163.2	2342.9	2554.8
17.5°	1779.6	1785.6	1776.5	1784.6	1821.7	1826.8	1883.0	1988.4	2154.1	2356.0	2601.0
20°	1859.9	1864.9	1837.8	1826.8	1853.9	1857.9	1913.1	2001.5	2163.2	2383.1	2664.3
22.5°	2030.6	2033.6	1967.4	1922.2	1924.2	1926.2	1974.4	2054.7	2198.3	2432.3	2744.7
25°	2296.8	2294.7	2189.3	2101.9	2051.7	2040.7	2072.8	2141.1	2257.6	2497.6	2848.1
27.5°	2608.1	2593.0	2487.6	2357.0	2247.5	2231.5	2224.4	2253.6	2341.9	2584.0	2974.6
30°	2959.6	2945.5	2832.0	2661.3	2509.7	2483.5	2417.3	2402.2	2467.5	2701.5	3150.4
32.5°	3345.2	3336.2	3200.6	2993.7	2790.8	2760.7	2649.2	2609.1	2660.3	2879.2	3395.4
35°	3668.6	3660.5	3548.1	3335.2	3087.1	3049.9	2936.5	2891.3	2917.4	3107.2	3715.8
37.5°	3960.8	3956.8	3860.4	3692.7	3436.6	3391.4	3263.9	3248.8	3243.8	3407.5	4104.4
40°	4232.0	4221.9	4121.5	4033.1	3843.3	3802.1	3689.7	3676.6	3638.4	3777.0	4544.3
42.5°	4532.2	4506.1	4360.5	4319.3	4268.1	4234.0	4166.7	4168.7	4084.3	4193.8	5010.3
45°	4777.3	4762.2	4612.6	4588.5	4643.7	4629.7	4687.9	4703.0	4539.3	4630.7	5494.3
47.5°	5040.4	5026.3	4899.8	4882.7	5032.4	5036.4	5242.3	5247.3	4983.2	5084.6	5979.4
50°	5364.8	5344.7	5219.2	5240.2	5408.0	5423.0	5799.6	5765.5	5391.9	5545.5	6460.4
52.5°	5578.7	5590.7	5563.6	5597.8	5826.7	5840.8	6348.0	6260.6	5796.6	6000.5	6932.4
55°	5736.4	5760.5	5844.8	5923.1	6268.6	6282.7	6865.1	6731.6	6132.0	6422.3	7376.3
57.5°	5939.2	5905.1	6062.7	6215.4	6688.4	6725.6	7368.3	7185.5	6429.3	6785.8	7680.6
60°	6230.5	6206.4	6328.9	6554.8	7158.4	7217.6	7900.5	7594.2	6647.2	7074.0	7739.9
62.5°	6821.0	6760.7	6779.8	6979.6	7750.9	7829.2	8501.1	7950.8	6755.7	7186.5	7422.5
65°	7703.7	7600.3	7503.9	7642.4	8585.5	8662.8	9179.0	8230.9	6715.5	6968.6	6579.9
67.5°	8815.4	8713.0	8594.5	8725.0	9814.7	9875.9	10015.5	8388.6	6399.2	6129.0	5090.6
70°	9732.3	9694.2	9835.8	10373.0	11778.0	11780.0	11088.1	8258.1	5532.5	4345.5	2945.5
72.5°	9610.8	9587.7	10333.9	11994.9	14252.5	14199.3	12103.4	7269.9	3726.8	1960.3	1103.7
75°	7884.5	8034.1	9190.0	11965.8	15141.3	15134.3	11481.8	4621.6	1541.5	812.4	570.4
77.5°	4228.0	4465.0	5966.3	8834.5	11820.2	11997.9	8072.3	1616.9	661.8	520.2	394.7
80°	1378.9	1585.7	2378.1	4498.1	7680.6	7647.5	3459.7	634.7	452.9	368.6	273.2
82.5°	585.5	609.6	1062.5	2124.0	3941.7	3880.5	1101.7	364.5	318.4	252.1	168.7
85°	229.0	256.1	469.0	982.2	1707.2	1670.1	397.7	180.8	203.9	164.7	100.4
87.5°	75.3	91.4	167.7	336.4	531.3	512.2	97.4	62.3	88.4	75.3	36.2
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°	2475.5	2475.5	2475.5	2475.5	2475.5	2475.5	2475.5	2475.5	2475.5	2475.5	2475.5
2.5°	2496.6	2512.7	2531.7	2559.9	2584.0	2604.1	2625.1	2638.2	2643.2	2658.3	2657.3
5°	2514.7	2549.8	2597.0	2643.2	2688.4	2715.5	2739.6	2751.7	2762.7	2770.8	2772.8
7.5°	2544.8	2590.0	2664.3	2724.6	2762.7	2784.8	2800.9	2796.9	2800.9	2802.9	2805.9
10°	2570.9	2634.2	2722.6	2779.8	2808.9	2809.9	2805.9	2791.9	2784.8	2785.8	2787.8
12.5°	2602.0	2672.3	2767.8	2816.0	2824.0	2801.9	2784.8	2760.7	2751.7	2747.7	2745.7
15°	2644.2	2724.6	2817.0	2835.0	2815.0	2786.8	2757.7	2718.5	2698.5	2682.4	2687.4
17.5°	2695.4	2783.8	2855.1	2842.1	2798.9	2752.7	2705.5	2646.2	2605.1	2588.0	2589.0
20°	2766.7	2846.1	2884.2	2827.0	2761.7	2691.4	2611.1	2538.8	2500.6	2483.5	2481.5
22.5°	2853.1	2929.4	2912.4	2800.9	2708.5	2596.0	2495.6	2442.4	2423.3	2411.2	2413.2
25°	2956.6	3021.8	2932.5	2762.7	2621.1	2469.5	2392.2	2375.1	2366.0	2357.0	2357.0
27.5°	3091.1	3126.3	2947.5	2706.5	2484.5	2334.9	2306.8	2309.8	2306.8	2291.7	2294.7
30°	3268.9	3261.8	2961.6	2615.1	2327.9	2213.4	2215.4	2228.5	2230.5	2220.4	2225.4
32.5°	3502.9	3431.6	2968.6	2496.6	2178.2	2106.9	2109.0	2123.0	2133.1	2116.0	2124.0
35°	3786.1	3629.4	2957.6	2348.0	2062.8	2005.5	1990.5	1994.5	1997.5	1981.4	1992.5
37.5°	4116.5	3851.4	2908.3	2183.3	1967.4	1906.1	1874.0	1846.8	1830.8	1815.7	1825.8
40°	4479.0	4093.4	2818.0	2022.6	1860.9	1800.6	1752.4	1701.2	1647.0	1626.9	1635.9
42.5°	4858.6	4342.4	2708.5	1868.9	1738.4	1689.2	1638.0	1563.6	1482.3	1441.1	1446.1
45°	5252.3	4597.5	2601.0	1717.3	1612.8	1591.8	1532.5	1443.1	1354.8	1302.5	1298.5
47.5°	5637.9	4838.5	2443.4	1564.6	1495.3	1518.4	1472.3	1389.9	1291.5	1209.1	1200.1
50°	6006.5	5064.5	2185.3	1410.0	1399.9	1496.4	1452.2	1333.7	1221.2	1115.7	1106.7
52.5°	6372.1	5247.3	1854.9	1269.4	1348.7	1490.3	1426.1	1295.5	1157.9	1047.4	1035.4
55°	6682.4	5341.7	1536.5	1148.9	1274.4	1439.1	1394.9	1250.3	1068.5	951.0	941.0
57.5°	6859.1	5265.4	1271.4	1030.4	1172.0	1354.8	1341.7	1153.9	962.1	871.7	859.7
60°	6782.8	4956.0	1054.5	926.9	1074.6	1263.4	1249.3	1058.5	880.7	795.4	783.3
62.5°	6362.0	4366.5	882.7	836.6	986.2	1170.0	1156.9	985.2	818.5	736.1	723.1
65°	5514.4	3552.1	749.2	761.2	896.8	1057.5	1076.6	923.9	769.3	688.9	675.9
67.5°	4205.9	2572.9	644.7	696.0	809.4	947.0	1002.3	879.7	728.1	651.8	639.7
70°	2397.2	1461.2	556.4	632.7	732.1	844.6	945.0	844.6	683.9	620.6	612.6
72.5°	908.9	670.8	481.0	569.4	657.8	758.2	881.7	789.4	632.7	585.5	577.5
75°	485.1	408.7	404.7	495.1	572.4	673.9	802.4	735.1	594.5	618.6	638.7
77.5°	330.4	289.2	338.4	423.8	479.0	580.5	718.0	652.8	515.2	513.2	473.0
80°	229.0	204.9	275.2	341.4	370.6	488.1	626.7	560.4	419.8	391.7	374.6
82.5°	137.6	133.6	205.9	255.1	262.1	376.6	519.2	470.0	343.5	299.3	301.3
85°	75.3	79.3	131.6	149.6	152.6	263.1	406.7	363.5	264.1	221.9	224.0
87.5°	21.1	27.1	48.2	59.3	73.3	136.6	242.0	215.9	132.6	92.4	92.4
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)