

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: P883611

Luminaire Tested: **NAV-SB4A-740-U-T4FT**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883611
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-SB4A-740-U-T4FT
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 4000K, 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: 19372 lumens
Efficiency: N/A
Efficacy: 169.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G3

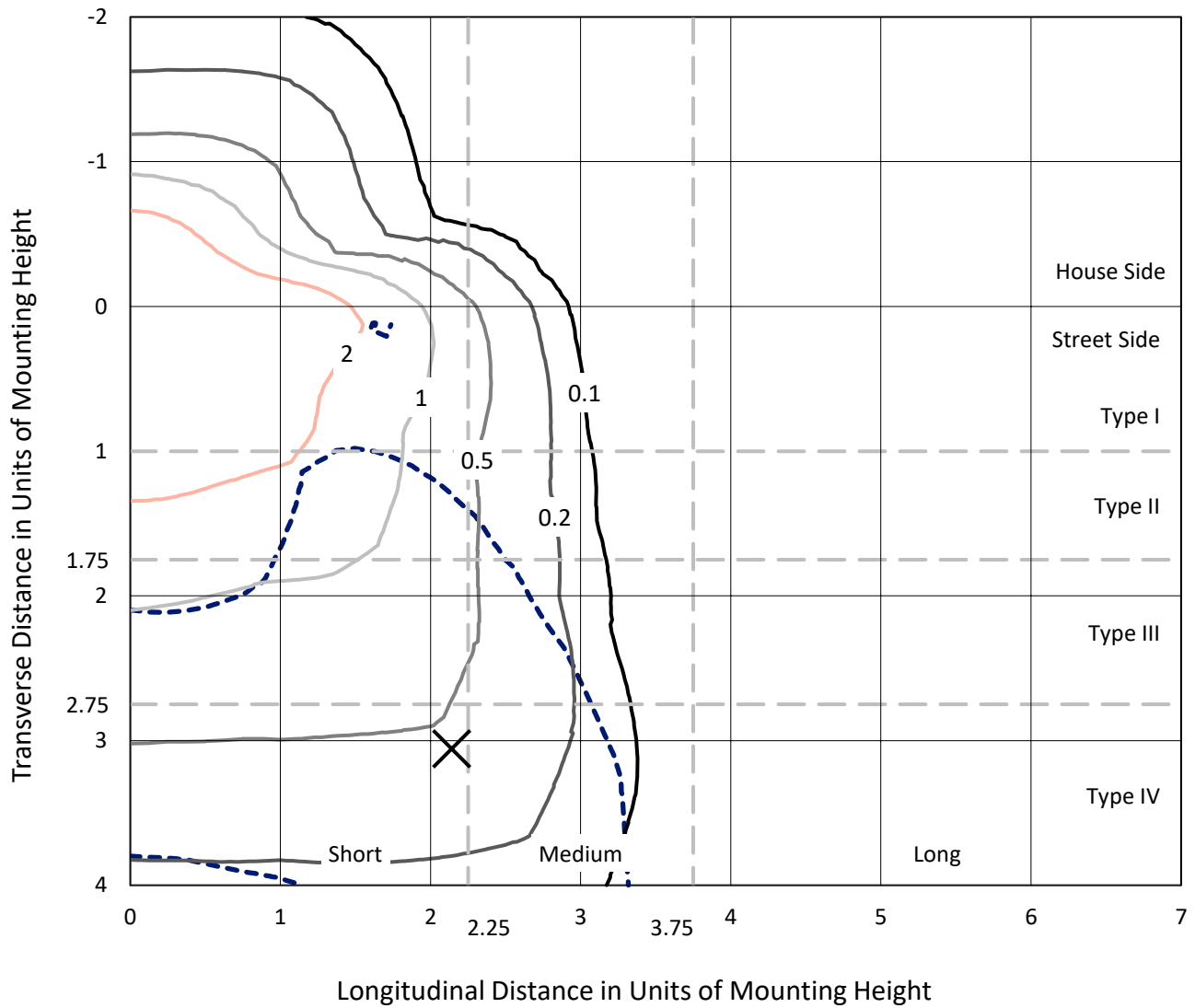
Input Watts (W): 114
Input Voltage (V): 120.0
Input Current (Ain): 0.952
Voltage Rise (V): NR
Power Factor: 0.995
Total Harmonic Distortion (THDi): 8.206
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

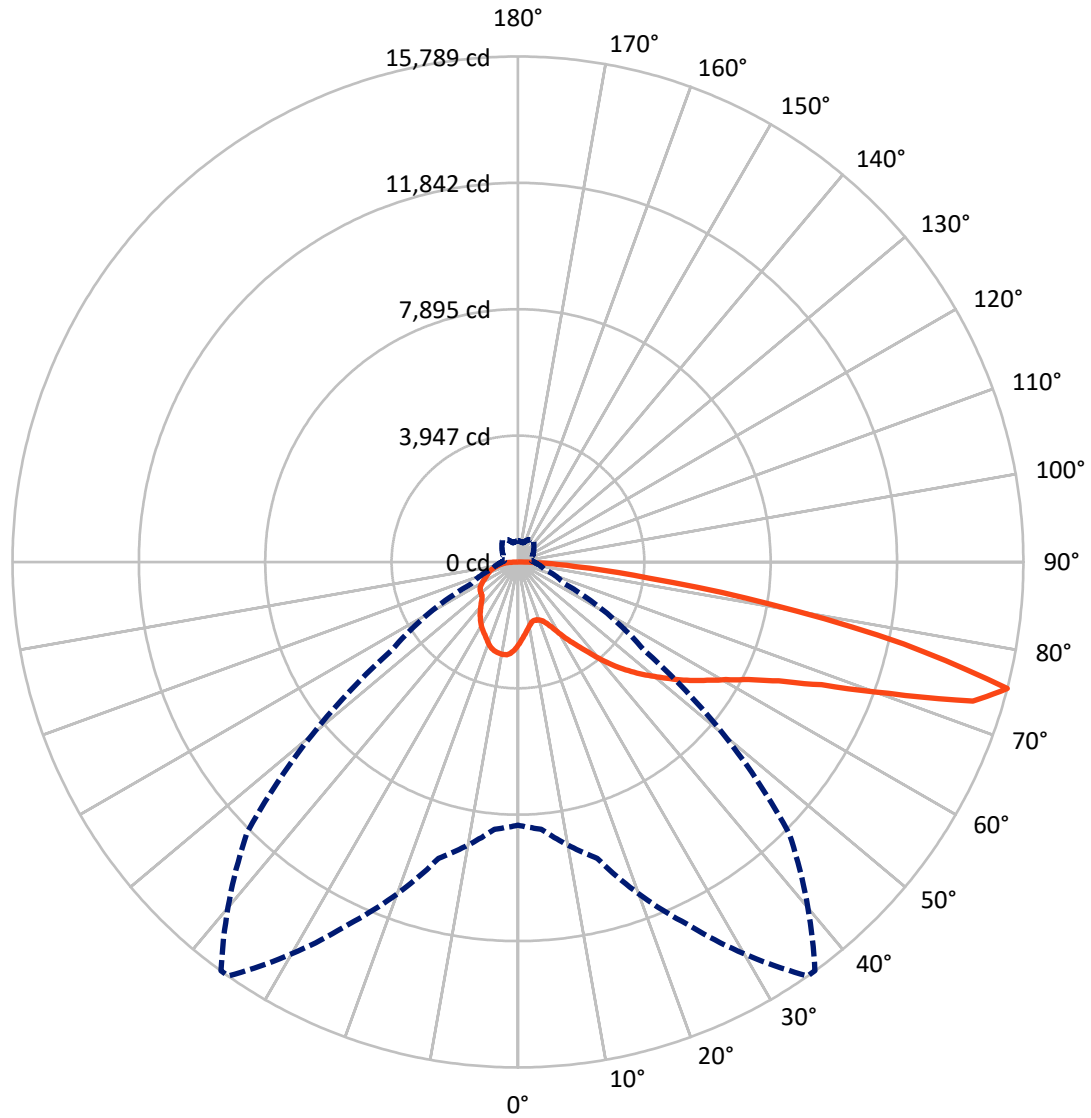
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.6 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	4610.0	0.0	4610.0
	% Fixture	23.8	0.0	23.8
Street Side	Lumens	14761.9	0.0	14761.9
	% Fixture	76.2	0.0	76.2
Total	Lumens	19372.0	0.0	19372.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	244.4	1.3
10°-20°	705.0	3.6
20°-30°	1183.9	6.1
30°-40°	1839.9	9.5
40°-50°	2730.9	14.1
50°-60°	3770.1	19.5
60°-70°	4574.0	23.6
70°-80°	3780.1	19.5
80°-90°	543.7	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°	19372.0	100.0
0°-180°	19372.0	100.0



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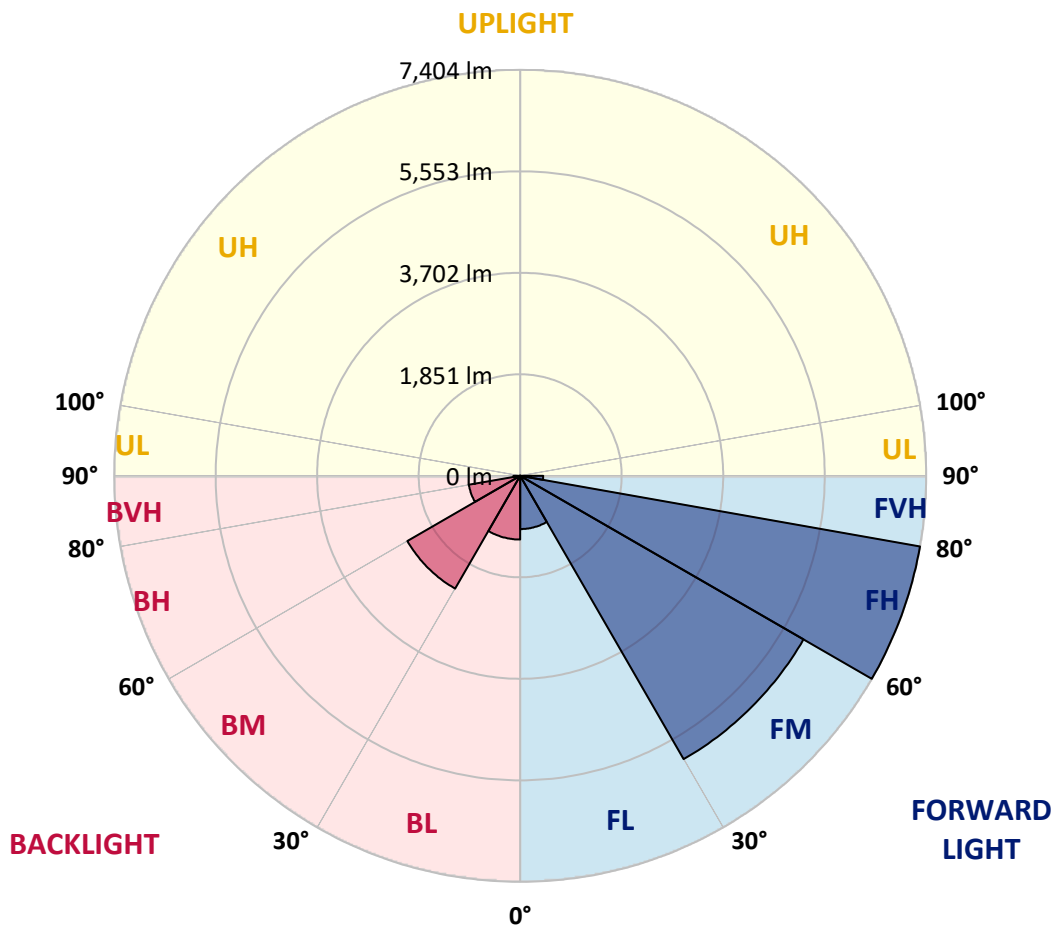
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	971.5	5.0			
FM (30°-60°)	5965.5	30.8			
FH (60°-80°)	7403.7	38.2			G3/7500
FVH (80°-90°)	421.3	2.2			G3/500
BL (0°-30°)	1161.8	6.0	B3/2500		
BM (30°-60°)	2375.4	12.3	B2/2500		
BH (60°-80°)	950.4	4.9	B2/1000		G2/1000
BVH (80°-90°)	122.4	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°	2581.5	2581.5	2581.5	2581.5	2581.5	2581.5	2581.5	2581.5	2581.5	2581.5	2581.5
2.5°	2380.4	2395.0	2401.3	2398.2	2413.9	2411.8	2433.8	2461.0	2498.7	2535.4	2588.8
5°	2197.1	2212.8	2226.4	2239.0	2269.4	2278.8	2313.4	2365.7	2434.8	2505.0	2593.0
7.5°	2026.4	2040.0	2061.0	2084.0	2135.3	2144.8	2202.3	2284.0	2380.4	2483.0	2604.5
10°	1887.1	1900.7	1922.7	1948.9	2012.8	2024.3	2097.6	2206.5	2332.2	2462.1	2617.1
12.5°	1827.4	1831.6	1844.2	1870.4	1925.9	1933.2	2013.8	2138.5	2285.1	2446.4	2635.9
15°	1824.3	1832.7	1833.7	1847.3	1893.4	1896.6	1970.9	2094.5	2255.8	2443.2	2664.2
17.5°	1855.7	1862.0	1852.6	1860.9	1899.7	1904.9	1963.6	2073.5	2246.3	2456.8	2712.4
20°	1939.5	1944.7	1916.5	1904.9	1933.2	1937.4	1995.0	2087.2	2255.8	2485.1	2778.3
22.5°	2117.5	2120.7	2051.5	2004.4	2006.5	2008.6	2058.9	2142.7	2292.4	2536.4	2862.1
25°	2395.0	2392.9	2283.0	2191.9	2139.5	2128.0	2161.5	2232.7	2354.2	2604.5	2970.0
27.5°	2719.7	2704.0	2594.0	2457.9	2343.7	2327.0	2319.6	2350.0	2442.2	2694.6	3101.9
30°	3086.2	3071.6	2953.2	2775.2	2617.1	2589.8	2520.7	2505.0	2573.1	2817.1	3285.2
32.5°	3488.4	3478.9	3337.6	3121.8	2910.3	2878.9	2762.6	2720.7	2774.1	3002.4	3540.7
35°	3825.6	3817.2	3699.9	3477.9	3219.2	3180.5	3062.1	3015.0	3042.2	3240.2	3874.8
37.5°	4130.3	4126.1	4025.6	3850.7	3583.7	3536.5	3403.5	3387.8	3382.6	3553.3	4280.1
40°	4413.1	4402.6	4297.9	4205.7	4007.8	3964.9	3847.6	3834.0	3794.2	3938.7	4738.8
42.5°	4726.2	4699.0	4547.1	4504.2	4450.8	4415.2	4345.0	4347.1	4259.1	4373.3	5224.7
45°	4981.7	4966.0	4810.0	4784.8	4842.4	4827.8	4888.5	4904.2	4733.5	4828.8	5729.5
47.5°	5256.1	5241.4	5109.5	5091.7	5247.7	5251.9	5466.6	5471.8	5196.4	5302.2	6235.3
50°	5594.4	5573.4	5442.5	5464.5	5639.4	5655.1	6047.8	6012.2	5622.6	5782.9	6736.9
52.5°	5817.4	5830.0	5801.7	5837.3	6076.1	6090.8	6619.6	6528.5	6044.7	6257.3	7229.1
55°	5981.8	6007.0	6094.9	6176.6	6536.9	6551.5	7158.9	7019.7	6394.5	6697.1	7692.0
57.5°	6193.4	6157.8	6322.2	6481.4	6974.6	7013.4	7683.6	7493.0	6704.4	7076.2	8009.3
60°	6497.1	6472.0	6599.7	6835.3	7464.7	7526.5	8238.6	7919.2	6931.7	7376.8	8071.1
62.5°	7112.9	7050.0	7069.9	7278.3	8082.6	8164.3	8864.9	8291.0	7044.8	7494.1	7740.2
65°	8033.4	7925.5	7825.0	7969.5	8952.9	9033.5	9571.8	8583.2	7002.9	7266.8	6861.5
67.5°	9192.7	9085.9	8962.3	9098.4	10234.7	10298.6	10444.1	8747.6	6673.0	6391.3	5308.5
70°	10148.8	10109.0	10256.7	10817.0	12282.0	12284.1	11562.6	8611.5	5769.3	4531.4	3071.6
72.5°	10022.1	9998.0	10776.1	12508.3	14862.4	14806.9	12621.4	7581.0	3886.3	2044.2	1150.9
75°	8221.9	8377.9	9583.3	12477.9	15789.3	15781.9	11973.1	4819.4	1607.5	847.2	594.8
77.5°	4408.9	4656.0	6221.7	9212.6	12326.0	12511.4	8417.7	1686.1	690.1	542.5	411.6
80°	1437.9	1653.6	2479.9	4690.6	8009.3	7974.7	3607.7	661.9	472.3	384.3	284.8
82.5°	610.5	635.7	1108.0	2214.9	4110.4	4046.5	1148.8	380.1	332.0	262.9	175.9
85°	238.8	267.0	489.1	1024.2	1780.3	1741.6	414.7	188.5	212.6	171.7	104.7
87.5°	78.5	95.3	174.9	350.8	554.0	534.1	101.6	64.9	92.2	78.5	37.7
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°	2581.5	2581.5	2581.5	2581.5	2581.5	2581.5	2581.5	2581.5	2581.5	2581.5	2581.5
2.5°	2603.4	2620.2	2640.1	2669.4	2694.6	2715.5	2737.5	2751.1	2756.3	2772.0	2771.0
5°	2622.3	2658.9	2708.2	2756.3	2803.5	2831.7	2856.9	2869.4	2881.0	2889.3	2891.4
7.5°	2653.7	2700.8	2778.3	2841.2	2881.0	2904.0	2920.8	2916.6	2920.8	2922.9	2926.0
10°	2680.9	2746.9	2839.1	2898.8	2929.1	2930.2	2926.0	2911.3	2904.0	2905.0	2907.1
12.5°	2713.4	2786.7	2886.2	2936.5	2944.8	2921.8	2904.0	2878.9	2869.4	2865.3	2863.2
15°	2757.4	2841.2	2937.5	2956.4	2935.4	2906.1	2875.7	2834.9	2813.9	2797.2	2802.4
17.5°	2810.8	2903.0	2977.3	2963.7	2918.7	2870.5	2821.3	2759.5	2716.5	2698.7	2699.8
20°	2885.2	2967.9	3007.7	2948.0	2879.9	2806.6	2722.8	2647.4	2607.6	2589.8	2587.7
22.5°	2975.2	3054.8	3037.0	2920.8	2824.4	2707.1	2602.4	2546.9	2527.0	2514.4	2516.5
25°	3083.1	3151.1	3057.9	2881.0	2733.3	2575.2	2494.5	2476.7	2467.3	2457.9	2457.9
27.5°	3223.4	3260.1	3073.7	2822.3	2590.9	2434.8	2405.5	2408.7	2405.5	2389.8	2392.9
30°	3408.8	3401.4	3088.3	2727.0	2427.5	2308.1	2310.2	2323.8	2325.9	2315.5	2320.7
32.5°	3652.8	3578.4	3095.6	2603.4	2271.5	2197.1	2199.2	2213.9	2224.3	2206.5	2214.9
35°	3948.1	3784.7	3084.1	2448.5	2151.0	2091.3	2075.6	2079.8	2083.0	2066.2	2077.7
37.5°	4292.6	4016.2	3032.8	2276.7	2051.5	1987.7	1954.2	1925.9	1909.1	1893.4	1903.9
40°	4670.7	4268.6	2938.6	2109.1	1940.5	1877.7	1827.4	1774.0	1717.5	1696.5	1706.0
42.5°	5066.6	4528.3	2824.4	1948.9	1812.8	1761.5	1708.1	1630.6	1545.7	1502.8	1508.0
45°	5477.1	4794.3	2712.4	1790.8	1681.9	1659.9	1598.1	1504.9	1412.7	1358.3	1354.1
47.5°	5879.2	5045.6	2547.9	1631.6	1559.3	1583.4	1535.3	1449.4	1346.8	1260.9	1251.5
50°	6263.6	5281.2	2278.8	1470.3	1459.9	1560.4	1514.3	1390.7	1273.4	1163.5	1154.1
52.5°	6644.7	5471.8	1934.3	1323.7	1406.4	1554.1	1487.1	1350.9	1207.5	1092.3	1079.7
55°	6968.3	5570.3	1602.3	1198.0	1328.9	1500.7	1454.6	1303.8	1114.3	991.7	981.3
57.5°	7152.7	5490.7	1325.8	1074.5	1222.1	1412.7	1399.1	1203.3	1003.3	909.0	896.4
60°	7073.1	5168.1	1099.6	966.6	1120.5	1317.4	1302.8	1103.8	918.4	829.4	816.8
62.5°	6634.3	4553.4	920.5	872.4	1028.4	1220.0	1206.4	1027.3	853.5	767.6	754.0
65°	5750.4	3704.1	781.2	793.8	935.2	1102.7	1122.6	963.5	802.2	718.4	704.8
67.5°	4385.8	2683.0	672.3	725.7	844.1	987.5	1045.1	917.4	759.3	679.7	667.1
70°	2499.8	1523.7	580.2	659.8	763.4	880.7	985.5	880.7	713.2	647.2	638.8
72.5°	947.8	699.6	501.6	593.8	685.9	790.7	919.5	823.1	659.8	610.5	602.2
75°	505.8	426.2	422.0	516.3	596.9	702.7	836.7	766.6	620.0	645.1	666.0
77.5°	344.5	301.6	352.9	441.9	499.5	605.3	748.8	680.7	537.2	535.1	493.3
80°	238.8	213.6	286.9	356.1	386.4	509.0	653.5	584.4	437.7	408.4	390.6
82.5°	143.5	139.3	214.7	266.0	273.3	392.7	541.4	490.1	358.2	312.1	314.2
85°	78.5	82.7	137.2	156.0	159.2	274.4	424.1	379.1	275.4	231.4	233.5
87.5°	22.0	28.3	50.3	61.8	76.4	142.4	252.4	225.2	138.2	96.3	96.3
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)