

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: P884271

Luminaire Tested: **NAV-SB5A-730-U-T4FT**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P884271  
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-730-U-T4FT  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(5) 70 CRI, 3000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV  
FORWARD THROW OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

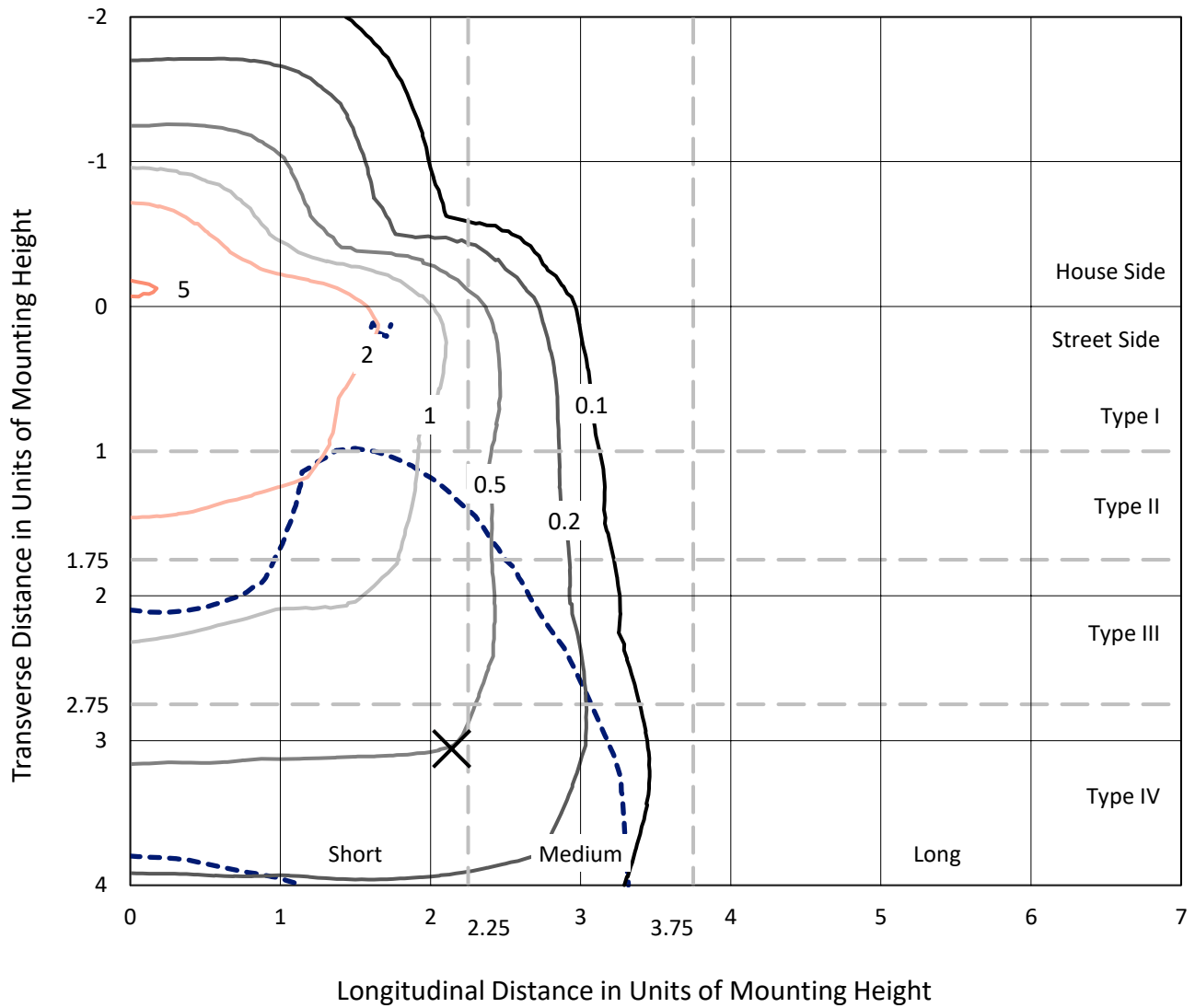
Lumens per Lamp: N/A  
Luminaire Lumens: 22146 lumens  
Efficiency: N/A  
Efficacy: 156.3 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B3 - U0 - G4  
  
Input Watts (W): 141.7  
Input Voltage (V): 120.0  
Input Current (Ain): 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

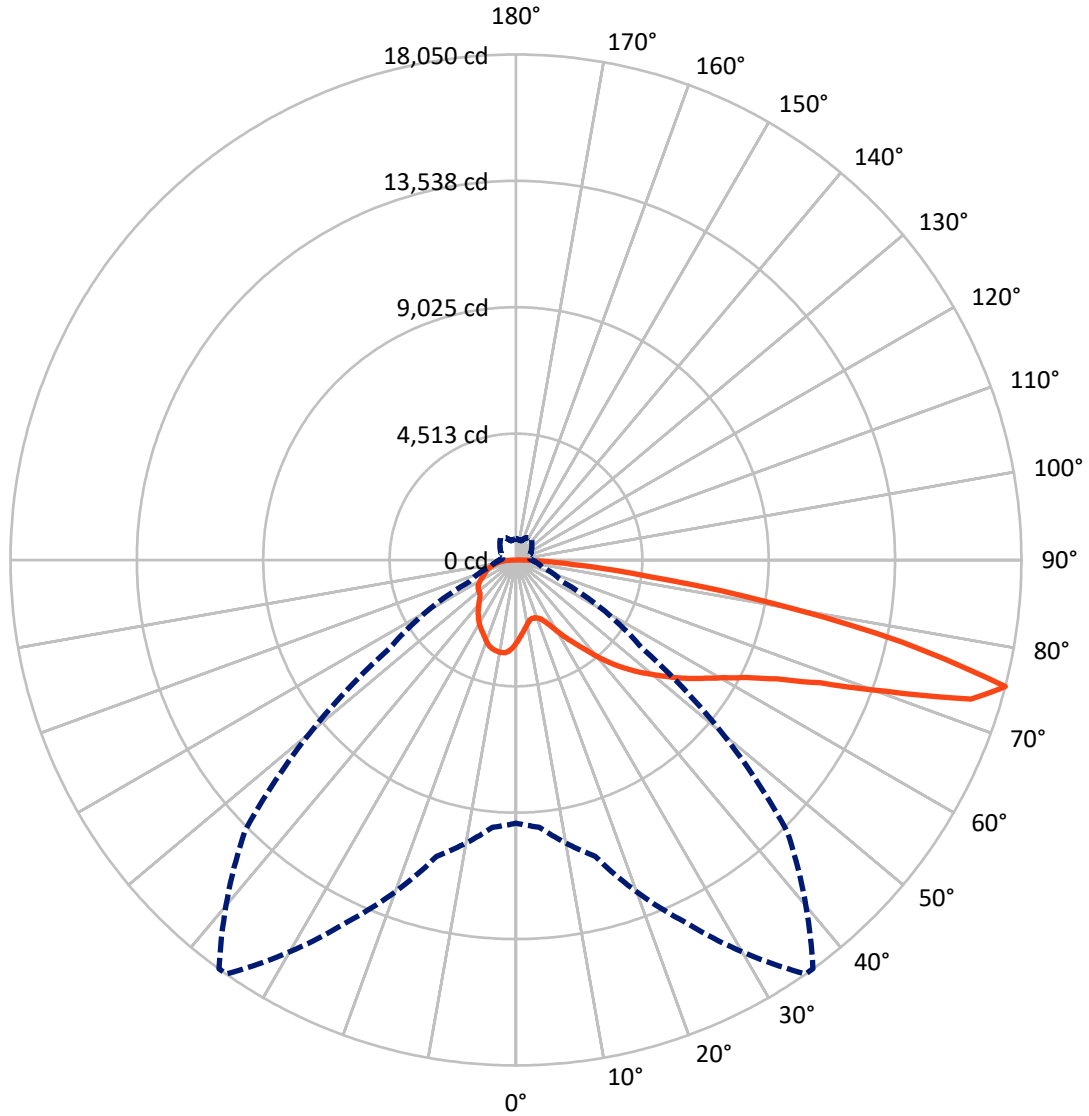
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.2 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
<b>House Side</b>	Lumens	5270.2	0.0	5270.2
	% Fixture	23.8	0.0	23.8
<b>Street Side</b>	Lumens	16875.8	0.0	16875.8
	% Fixture	76.2	0.0	76.2
<b>Total</b>	Lumens	22146.0	0.0	22146.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	279.4	1.3
10°-20°	805.9	3.6
20°-30°	1353.4	6.1
30°-40°	2103.3	9.5
40°-50°	3121.9	14.1
50°-60°	4310.0	19.5
60°-70°	5229.0	23.6
70°-80°	4321.4	19.5
80°-90°	621.5	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°	22146.0	100.0
0°-180°	22146.0	100.0

**Coefficient of Utilization**



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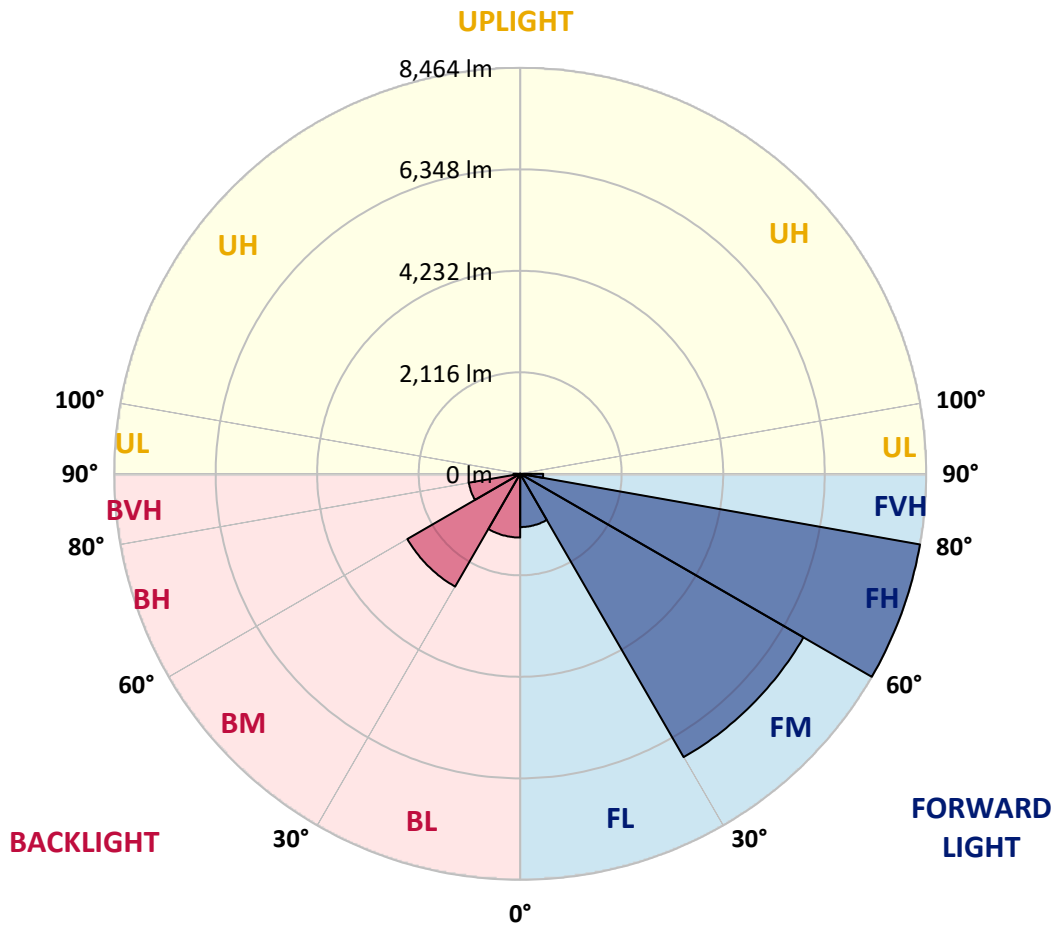
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1110.6	5.0			
FM (30°-60°)	6819.8	30.8			
FH (60°-80°)	8463.9	38.2			G4/12000
FVH (80°-90°)	481.6	2.2			G3/500
BL (0°-30°)	1328.2	6.0	B3/2500		
BM (30°-60°)	2715.5	12.3	B3/5000		
BH (60°-80°)	1086.6	4.9	B3/2500		G3/2500
BVH (80°-90°)	140.0	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-G4**

Type IV Short



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	2951.1	2951.1	2951.1	2951.1	2951.1	2951.1	2951.1	2951.1	2951.1	2951.1	2951.1
2.5°	2721.2	2738.0	2745.2	2741.6	2759.6	2757.2	2782.3	2813.4	2856.5	2898.4	2959.5
5°	2511.7	2529.7	2545.3	2559.6	2594.3	2605.1	2644.6	2704.5	2783.5	2863.7	2964.3
7.5°	2316.6	2332.2	2356.1	2382.4	2441.1	2451.9	2517.7	2611.1	2721.2	2838.6	2977.4
10°	2157.4	2172.9	2198.1	2228.0	2301.0	2314.2	2398.0	2522.5	2666.2	2814.6	2991.8
12.5°	2089.1	2093.9	2108.3	2138.2	2201.7	2210.0	2302.2	2444.7	2612.3	2796.7	3013.4
15°	2085.5	2095.1	2096.3	2111.9	2164.5	2168.1	2253.1	2394.4	2578.8	2793.1	3045.7
17.5°	2121.4	2128.6	2117.9	2127.4	2171.7	2177.7	2244.8	2370.5	2568.0	2808.6	3100.8
20°	2217.2	2223.2	2190.9	2177.7	2210.0	2214.8	2280.7	2386.0	2578.8	2841.0	3176.2
22.5°	2420.7	2424.3	2345.3	2291.4	2293.8	2296.2	2353.7	2449.5	2620.7	2899.6	3272.0
25°	2738.0	2735.6	2609.9	2505.7	2445.9	2432.7	2471.0	2552.4	2691.3	2977.4	3395.3
27.5°	3109.1	3091.2	2965.5	2809.8	2679.3	2660.2	2651.8	2686.5	2791.9	3080.4	3546.1
30°	3528.2	3511.4	3376.1	3172.6	2991.8	2960.7	2881.7	2863.7	2941.5	3220.5	3755.6
32.5°	3987.9	3977.1	3815.5	3568.9	3327.0	3291.1	3158.2	3110.3	3171.4	3432.4	4047.7
35°	4373.4	4363.8	4229.7	3975.9	3680.2	3635.9	3500.6	3446.7	3477.9	3704.1	4429.6
37.5°	4721.8	4717.0	4602.0	4402.1	4096.8	4043.0	3890.9	3873.0	3867.0	4062.1	4893.0
40°	5045.0	5033.0	4913.3	4808.0	4581.7	4532.6	4398.5	4383.0	4337.5	4502.7	5417.3
42.5°	5403.0	5371.8	5198.3	5149.2	5088.1	5047.4	4967.2	4969.6	4869.0	4999.5	5972.8
45°	5695.1	5677.1	5498.8	5470.0	5535.9	5519.1	5588.5	5606.5	5411.4	5520.3	6549.9
47.5°	6008.8	5992.0	5841.2	5820.8	5999.2	6004.0	6249.4	6255.4	5940.5	6061.4	7128.1
50°	6395.5	6371.5	6221.9	6247.0	6446.9	6464.9	6913.8	6873.1	6427.8	6611.0	7701.6
52.5°	6650.5	6664.8	6632.5	6673.2	6946.2	6962.9	7567.5	7463.4	6910.3	7153.3	8264.3
55°	6838.4	6867.2	6967.7	7061.1	7472.9	7489.7	8184.1	8024.8	7310.1	7656.1	8793.5
57.5°	7080.3	7039.6	7227.5	7409.5	7973.4	8017.7	8783.9	8566.0	7664.5	8089.5	9156.2
60°	7427.4	7398.7	7544.8	7814.1	8533.7	8604.3	9418.4	9053.2	7924.3	8433.1	9226.8
62.5°	8131.4	8059.6	8082.3	8320.6	9240.0	9333.4	10134.3	9478.3	8053.6	8567.2	8848.5
65°	9183.7	9060.4	8945.5	9110.7	10234.9	10327.1	10942.4	9812.3	8005.7	8307.4	7844.1
67.5°	10509.0	10386.9	10245.7	10401.3	11700.3	11773.3	11939.7	10000.2	7628.6	7306.5	6068.6
70°	11602.1	11556.6	11725.4	12365.9	14040.8	14043.2	13218.3	9844.6	6595.4	5180.3	3511.4
72.5°	11457.2	11429.7	12319.2	14299.4	16990.7	16927.2	14428.7	8666.5	4442.8	2336.9	1315.7
75°	9399.2	9577.6	10955.6	14264.7	18050.2	18041.8	13687.6	5509.5	1837.7	968.5	680.0
77.5°	5040.2	5322.8	7112.6	10531.8	14091.1	14303.0	9623.1	1927.5	789.0	620.2	470.5
80°	1643.8	1890.4	2835.0	5362.3	9156.2	9116.7	4124.4	756.6	539.9	439.4	325.6
82.5°	698.0	726.7	1266.6	2532.1	4699.0	4626.0	1313.3	434.6	379.5	300.5	201.1
85°	273.0	305.3	559.1	1170.9	2035.2	1990.9	474.1	215.5	243.0	196.3	119.7
87.5°	89.8	108.9	199.9	401.1	633.3	610.6	116.1	74.2	105.4	89.8	43.1
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°	2951.1	2951.1	2951.1	2951.1	2951.1	2951.1	2951.1	2951.1	2951.1	2951.1	2951.1
2.5°	2976.2	2995.4	3018.1	3051.7	3080.4	3104.3	3129.5	3145.1	3151.0	3169.0	3167.8
5°	2997.8	3039.7	3096.0	3151.0	3204.9	3237.2	3266.0	3280.3	3293.5	3303.1	3305.5
7.5°	3033.7	3087.6	3176.2	3248.0	3293.5	3319.8	3339.0	3334.2	3339.0	3341.4	3345.0
10°	3064.8	3140.3	3245.6	3313.9	3348.6	3349.8	3345.0	3328.2	3319.8	3321.0	3323.4
12.5°	3102.0	3185.8	3299.5	3357.0	3366.5	3340.2	3319.8	3291.1	3280.3	3275.5	3273.2
15°	3152.2	3248.0	3358.2	3379.7	3355.8	3322.2	3287.5	3240.8	3216.9	3197.7	3203.7
17.5°	3213.3	3318.6	3403.6	3388.1	3336.6	3281.5	3225.3	3154.6	3105.5	3085.2	3086.4
20°	3298.3	3392.9	3438.4	3370.1	3292.3	3208.5	3112.7	3026.5	2981.0	2960.7	2958.3
22.5°	3401.3	3492.2	3471.9	3339.0	3228.9	3094.8	2975.0	2911.6	2888.8	2874.5	2876.9
25°	3524.6	3602.4	3495.8	3293.5	3124.7	2943.9	2851.7	2831.4	2820.6	2809.8	2809.8
27.5°	3685.0	3726.9	3513.8	3226.5	2961.9	2783.5	2750.0	2753.6	2750.0	2732.0	2735.6
30°	3896.9	3888.5	3530.6	3117.5	2775.1	2638.6	2641.0	2656.6	2659.0	2647.0	2653.0
32.5°	4175.8	4090.8	3538.9	2976.2	2596.7	2511.7	2514.1	2530.9	2542.9	2522.5	2532.1
35°	4513.5	4326.7	3525.8	2799.1	2459.1	2390.8	2372.9	2377.6	2381.2	2362.1	2375.2
37.5°	4907.3	4591.3	3467.1	2602.7	2345.3	2272.3	2234.0	2201.7	2182.5	2164.5	2176.5
40°	5339.5	4879.8	3359.4	2411.2	2218.4	2146.6	2089.1	2028.1	1963.4	1939.5	1950.2
42.5°	5792.1	5176.7	3228.9	2228.0	2072.4	2013.7	1952.6	1864.0	1767.1	1718.0	1724.0
45°	6261.4	5480.8	3100.8	2047.2	1922.7	1897.6	1826.9	1720.4	1615.0	1552.8	1548.0
47.5°	6721.1	5768.1	2912.8	1865.2	1782.6	1810.2	1755.1	1656.9	1539.6	1441.4	1430.7
50°	7160.5	6037.5	2605.1	1680.9	1668.9	1783.8	1731.2	1589.9	1455.8	1330.1	1319.3
52.5°	7596.3	6255.4	2211.2	1513.3	1607.8	1776.6	1700.0	1544.4	1380.4	1248.7	1234.3
55°	7966.2	6367.9	1831.7	1369.6	1519.3	1715.6	1662.9	1490.5	1273.8	1133.8	1121.8
57.5°	8176.9	6276.9	1515.7	1228.3	1397.1	1615.0	1599.5	1375.6	1146.9	1039.2	1024.8
60°	8085.9	5908.2	1257.1	1105.0	1281.0	1506.1	1489.3	1261.9	1049.9	948.2	933.8
62.5°	7584.3	5205.4	1052.3	997.3	1175.7	1394.7	1379.2	1174.5	975.7	877.5	862.0
65°	6573.8	4234.5	893.1	907.5	1069.1	1260.7	1283.4	1101.4	917.1	821.3	805.7
67.5°	5013.9	3067.2	768.6	829.7	964.9	1129.0	1194.8	1048.7	868.0	777.0	762.6
70°	2857.7	1741.9	663.3	754.2	872.8	1006.8	1126.6	1006.8	815.3	739.9	730.3
72.5°	1083.5	799.7	573.5	678.8	784.2	903.9	1051.1	941.0	754.2	698.0	688.4
75°	578.2	487.3	482.5	590.2	682.4	803.3	956.6	876.4	708.7	737.5	761.4
77.5°	393.9	344.8	403.5	505.2	571.1	692.0	856.0	778.2	614.2	611.8	563.9
80°	273.0	244.2	328.0	407.0	441.8	581.8	747.1	668.0	500.4	466.9	446.6
82.5°	164.0	159.2	245.4	304.1	312.5	449.0	619.0	560.3	409.4	356.8	359.2
85°	89.8	94.6	156.8	178.4	182.0	313.7	484.9	433.4	314.9	264.6	267.0
87.5°	25.1	32.3	57.5	70.6	87.4	162.8	288.5	257.4	158.0	110.1	110.1
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)