

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: P967928

Luminaire Tested: **NAV-SB5A-835-U-T4W**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967928
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-1)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5A-835-U-T4W
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 3500K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21501.4 lumens
Efficiency: N/A
Efficacy: 151.7 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G4

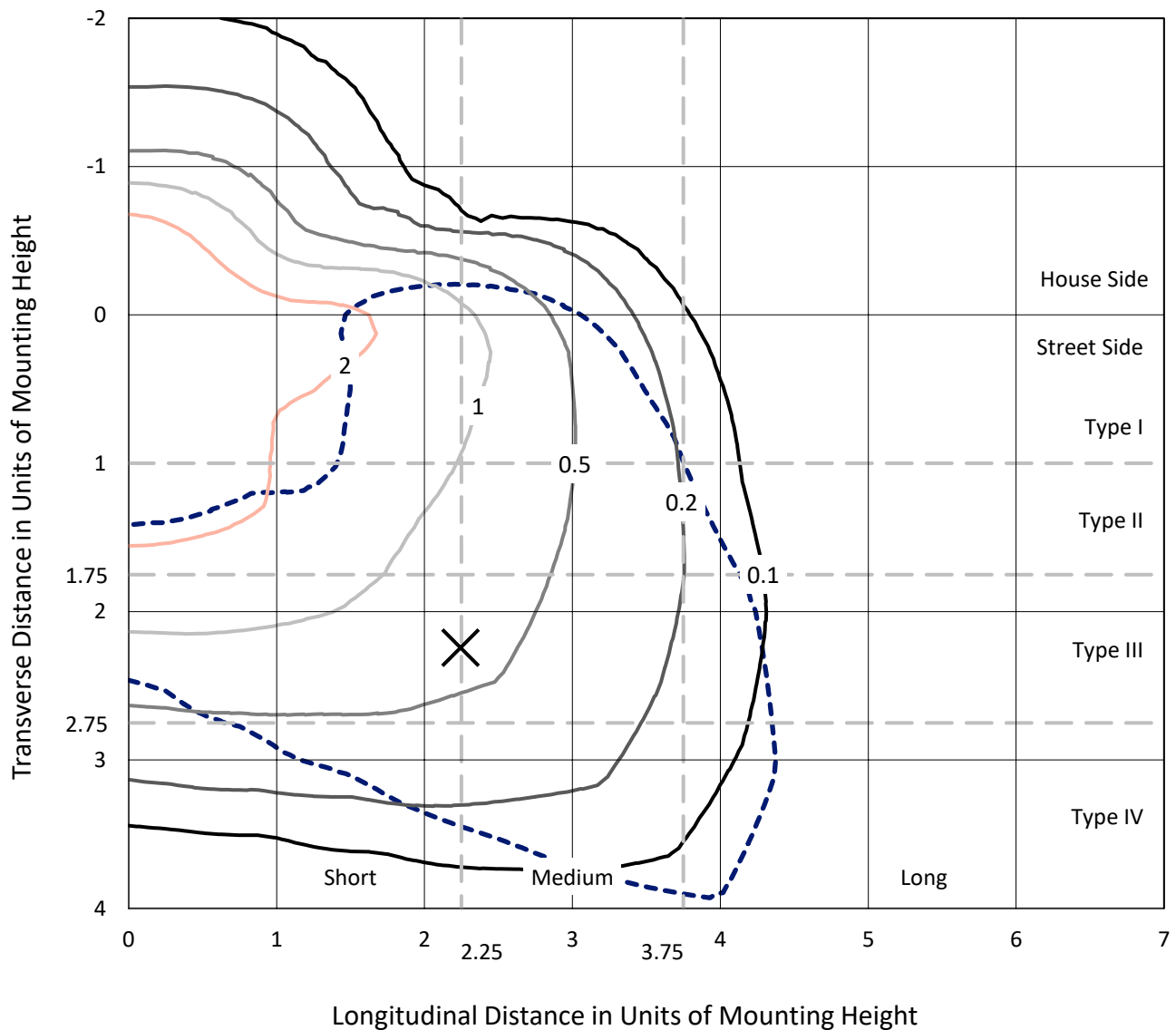
Input Watts (W): 141.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

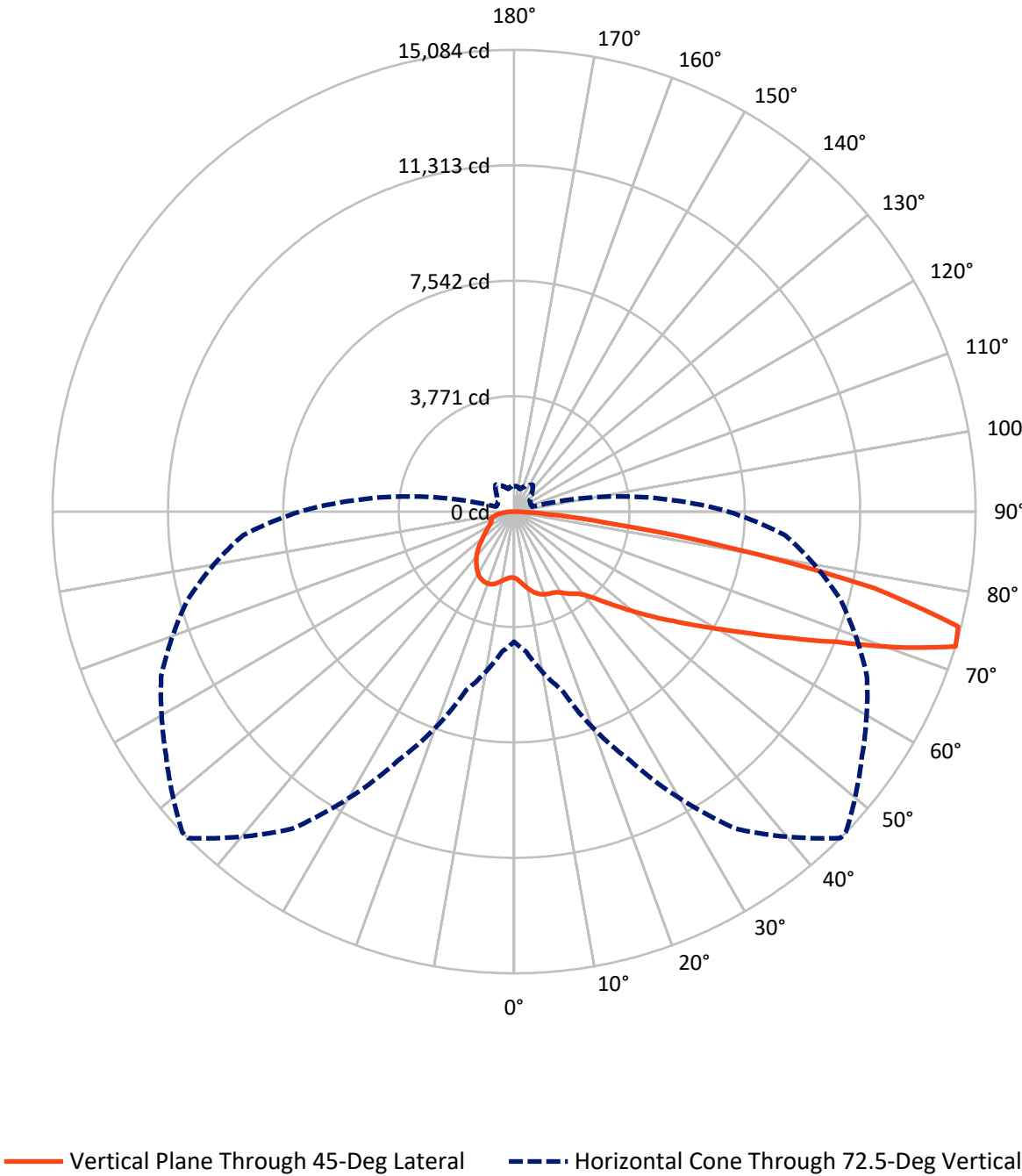
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.3 fc
Type IV - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4860.7	0.0	4860.7
	% Fixture	22.6	0.0	22.6
Street Side	Lumens	16640.7	0.0	16640.7
	% Fixture	77.4	0.0	77.4
Total	Lumens	21501.4	0.0	21501.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	220.8	1.0
10°-20°	736.1	3.4
20°-30°	1280.4	6.0
30°-40°	1835.6	8.5
40°-50°	2584.6	12.0
50°-60°	3958.9	18.4
60°-70°	5735.0	26.7
70°-80°	4579.7	21.3
80°-90°	570.4	2.7
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°	21501.4	100.0
0°-180°	21501.4	100.0

Coefficient of Utilization



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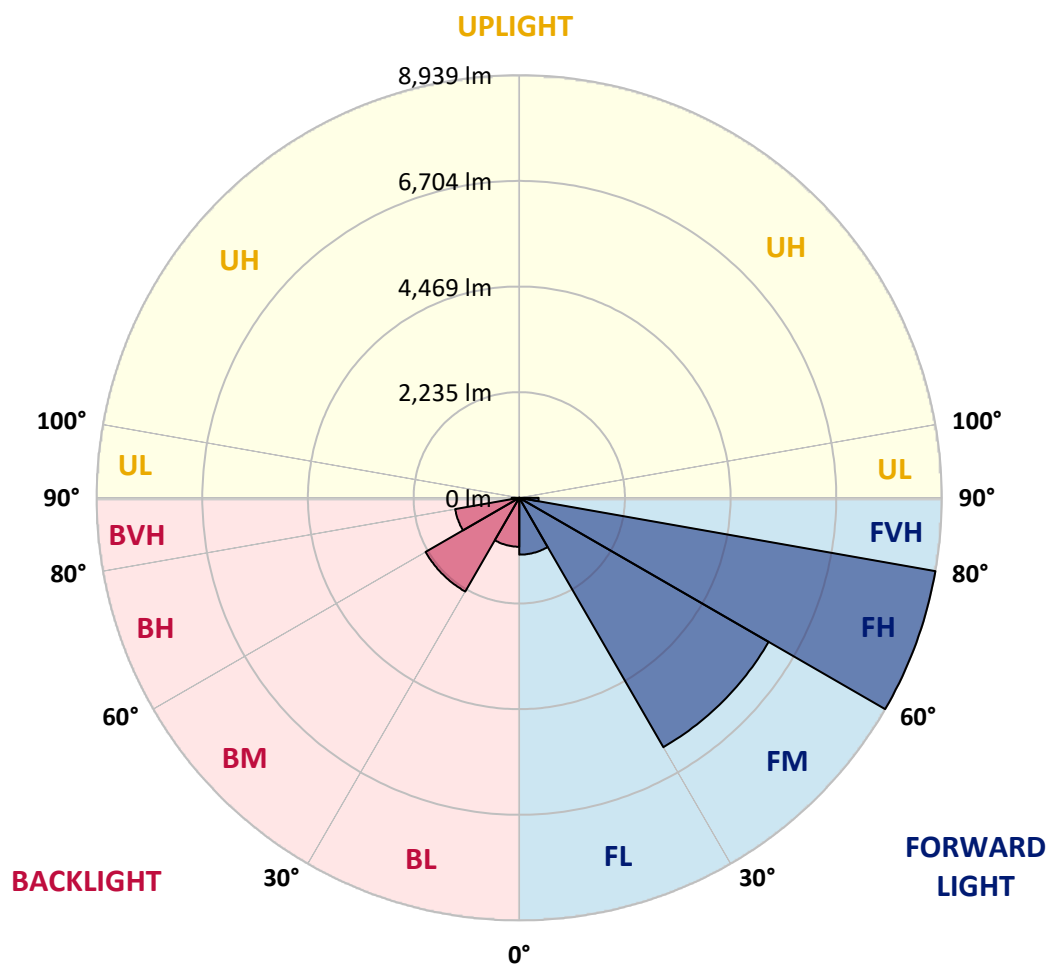
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1202.4	5.6			
FM	(30°-60°)	6090.3	28.3			
FH	(60°-80°)	8938.8	41.6			G4/12000
FVH	(80°-90°)	409.2	1.9			G3/500
BL	(0°-30°)	1034.9	4.8	B3/2500		
BM	(30°-60°)	2288.7	10.6	B2/2500		
BH	(60°-80°)	1375.9	6.4	B3/2500		G3/2500
BVH	(80°-90°)	161.2	0.7			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°	45°	46°	55°	65°	75°	85°
0°	2169.1	2169.1	2169.1	2169.1	2169.1	2169.1	2169.1	2169.1	2169.1	2169.1	2169.1
2.5°	2254.0	2268.7	2255.2	2242.7	2237.1	2222.3	2221.2	2212.2	2206.4	2190.6	2186.0
5°	2411.5	2430.7	2408.0	2383.1	2360.5	2324.3	2319.7	2293.6	2264.2	2230.2	2211.0
7.5°	2589.3	2606.3	2580.2	2542.8	2503.3	2443.2	2442.1	2394.5	2348.1	2290.3	2257.5
10°	2744.4	2767.1	2732.0	2681.1	2631.2	2563.2	2555.3	2501.0	2442.1	2367.3	2317.4
12.5°	2881.5	2897.4	2863.4	2801.1	2743.3	2675.4	2665.2	2605.1	2539.4	2454.5	2391.1
15°	2990.2	3010.6	2965.3	2898.5	2837.4	2770.6	2761.5	2707.1	2641.4	2551.9	2470.4
17.5°	3061.7	3078.6	3032.2	2957.4	2898.5	2843.0	2836.2	2790.9	2733.2	2642.6	2555.3
20°	3088.8	3107.0	3058.2	2982.3	2928.0	2885.0	2881.5	2848.7	2809.0	2726.4	2638.0
22.5°	3116.0	3133.0	3069.6	2990.2	2942.7	2915.5	2914.4	2892.9	2877.0	2809.0	2722.9
25°	3225.9	3230.4	3145.4	3031.0	2963.1	2939.3	2938.2	2937.0	2943.8	2890.6	2814.6
27.5°	3321.0	3319.9	3247.4	3139.8	3034.4	2984.6	2983.5	2994.8	3016.3	2972.2	2909.9
30°	3460.3	3447.9	3361.8	3249.7	3153.4	3076.3	3069.6	3059.3	3076.3	3041.3	3005.0
32.5°	3755.9	3716.3	3576.9	3377.7	3251.9	3193.0	3184.0	3120.5	3127.3	3105.7	3087.7
35°	4179.5	4127.5	3941.7	3620.0	3374.2	3290.5	3285.9	3205.5	3191.8	3172.6	3179.4
37.5°	4683.6	4619.1	4402.7	3971.2	3584.9	3403.7	3396.8	3324.4	3268.9	3248.5	3287.1
40°	5189.9	5108.4	4929.4	4399.3	3895.3	3592.8	3571.3	3461.4	3398.1	3364.0	3445.6
42.5°	5681.5	5613.5	5460.6	4879.6	4278.1	3869.3	3821.6	3633.6	3586.1	3554.3	3701.6
45°	6116.5	6055.3	5943.2	5392.6	4726.7	4245.2	4198.8	3891.9	3877.2	3877.2	4090.1
47.5°	6469.8	6456.3	6337.4	5916.0	5255.6	4673.4	4593.0	4251.0	4290.5	4351.7	4641.7
50°	6861.8	6824.3	6697.6	6431.4	5877.5	5163.8	5098.1	4691.5	4839.9	5007.5	5439.2
52.5°	7221.9	7242.3	7100.8	6968.3	6579.7	5711.0	5595.4	5211.4	5532.0	5809.5	6373.6
55°	7592.4	7593.5	7553.8	7535.7	7315.9	6315.8	6189.0	5836.7	6346.4	6690.7	7463.2
57.5°	7940.1	7942.3	8001.3	8160.9	8170.0	7013.6	6869.7	6604.6	7251.4	7602.5	8586.8
60°	8250.4	8266.3	8427.1	8800.9	8921.0	7813.2	7677.2	7511.9	8187.0	8540.4	9768.2
62.5°	8354.6	8412.4	8770.3	9301.6	9662.9	8794.1	8660.4	8561.9	9170.2	9498.7	10755.9
65°	8178.0	8310.5	9002.5	9714.9	10426.3	9959.6	9827.1	9719.5	10191.8	10501.0	11566.9
67.5°	7744.1	7915.2	8988.9	10148.7	11352.8	11361.9	11238.4	10985.8	11287.1	11406.1	11830.8
70°	6601.2	6857.2	8197.1	10310.8	12416.4	13279.5	13160.6	12510.4	12380.2	11804.7	11087.7
72.5°	4253.2	4597.5	6036.0	8977.6	12653.1	15083.9	15077.0	13886.6	12725.6	11030.0	8892.6
75°	1551.7	1762.5	2804.5	5635.0	10621.2	14992.1	15036.2	13651.1	11616.7	8520.0	5539.9
77.5°	565.2	618.5	915.2	2165.7	6532.1	12029.0	12120.7	10913.4	8268.6	4275.9	2195.1
80°	296.7	326.3	468.9	840.4	2798.9	7143.8	7287.6	6485.7	3886.2	1287.8	658.0
82.5°	164.2	177.8	262.8	456.4	1260.6	3054.8	3140.9	2562.1	1367.1	545.9	271.8
85°	88.4	94.0	123.5	249.2	616.1	1059.0	1082.8	765.7	544.8	320.5	131.4
87.5°	26.0	31.7	40.8	79.3	241.3	237.9	243.5	151.8	215.2	162.0	43.0
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°	2169.1	2169.1	2169.1	2169.1	2169.1	2169.1	2169.1	2169.1	2169.1	2169.1	2169.1
2.5°	2179.3	2175.9	2163.4	2157.7	2151.0	2149.8	2155.5	2156.6	2157.7	2158.9	2163.4
5°	2199.6	2188.4	2177.0	2170.2	2172.5	2173.6	2184.9	2192.9	2198.5	2203.0	2205.3
7.5°	2239.3	2230.2	2211.0	2209.9	2213.3	2223.4	2238.2	2256.3	2266.5	2274.4	2276.7
10°	2298.2	2281.2	2258.6	2262.0	2268.7	2283.5	2314.0	2328.8	2345.8	2360.5	2357.1
12.5°	2358.2	2343.5	2317.4	2319.7	2331.1	2357.1	2386.5	2404.6	2416.0	2427.3	2431.8
15°	2436.4	2410.3	2382.0	2382.0	2402.4	2430.7	2444.3	2459.1	2465.8	2478.2	2482.9
17.5°	2516.8	2482.9	2445.4	2443.2	2468.1	2481.7	2489.6	2491.9	2494.1	2507.8	2512.3
20°	2597.2	2559.8	2506.6	2502.1	2507.8	2505.5	2504.4	2502.1	2505.5	2522.4	2529.3
22.5°	2676.5	2633.4	2559.8	2539.4	2523.7	2502.1	2501.0	2499.8	2502.1	2519.0	2530.4
25°	2769.3	2717.3	2618.8	2557.6	2504.4	2474.9	2478.2	2479.5	2481.7	2495.3	2513.4
27.5°	2870.2	2812.4	2673.1	2551.9	2455.6	2435.3	2429.6	2432.9	2440.9	2462.5	2484.0
30°	2971.0	2903.0	2722.9	2529.3	2394.5	2366.1	2348.1	2356.0	2380.9	2402.4	2426.2
32.5°	3062.8	2994.8	2762.6	2479.5	2316.3	2272.1	2248.3	2258.6	2283.5	2291.4	2319.7
35°	3170.3	3093.3	2779.6	2400.1	2231.3	2163.4	2131.7	2116.9	2129.4	2121.5	2146.5
37.5°	3290.5	3210.0	2777.3	2295.9	2131.7	2053.6	2009.4	1953.9	1927.8	1900.7	1917.6
40°	3468.3	3352.7	2750.2	2170.2	2008.3	1936.8	1857.6	1763.6	1704.7	1651.5	1654.9
42.5°	3710.6	3550.9	2700.3	2032.1	1868.9	1802.1	1694.5	1584.6	1491.8	1403.4	1395.4
45°	4072.0	3810.3	2638.0	1884.8	1718.3	1652.6	1535.9	1412.4	1307.1	1193.8	1180.3
47.5°	4593.0	4159.1	2579.1	1717.2	1559.7	1499.7	1394.3	1279.9	1155.4	1045.5	1033.0
50°	5308.9	4659.9	2524.8	1554.0	1403.4	1358.1	1274.3	1157.6	1031.9	943.5	937.9
52.5°	6219.5	5340.6	2502.1	1396.6	1257.3	1240.2	1173.4	1064.7	945.8	871.0	865.4
55°	7265.0	6154.9	2502.1	1246.0	1129.2	1135.0	1088.6	987.7	884.6	817.7	811.0
57.5°	8331.9	6979.5	2456.8	1106.6	1020.6	1044.4	1014.9	926.5	833.6	764.5	753.3
60°	9315.1	7670.5	2273.2	979.8	924.2	961.7	942.4	866.5	753.3	695.5	686.4
62.5°	10070.6	8060.1	1919.9	878.9	845.0	888.1	877.8	787.2	738.5	714.7	706.8
65°	10449.0	7996.7	1467.9	789.5	778.2	845.0	823.5	820.1	781.6	754.4	745.3
67.5°	10216.8	7450.7	1064.7	723.8	739.6	805.3	888.1	901.6	830.2	777.1	767.9
70°	9198.5	6463.0	792.8	661.4	691.0	806.5	1012.6	943.5	814.4	752.1	741.9
72.5°	6997.7	4819.5	615.0	595.8	627.5	812.1	1068.2	924.2	769.1	831.4	824.6
75°	4001.7	2645.9	493.8	515.4	548.2	758.9	1039.8	874.4	734.0	763.4	763.4
77.5°	1525.7	1017.1	407.7	436.0	440.6	662.7	994.5	871.0	698.8	681.8	621.9
80°	529.0	397.6	337.5	346.6	340.9	589.0	953.8	757.8	572.1	512.0	495.0
82.5°	216.4	198.2	267.3	255.9	242.4	457.6	770.2	619.6	467.8	413.4	408.9
85°	94.0	125.8	176.7	155.2	140.4	317.1	617.4	524.4	395.3	340.9	339.8
87.5°	19.3	47.6	74.7	70.2	72.5	211.8	438.4	372.7	279.7	209.5	164.2
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)