

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: P967897

Luminaire Tested: **NAV-SB5A-830-U-T4W**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967897
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-830-U-T4W
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 3000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20829 lumens
Efficiency: N/A
Efficacy: 147.0 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

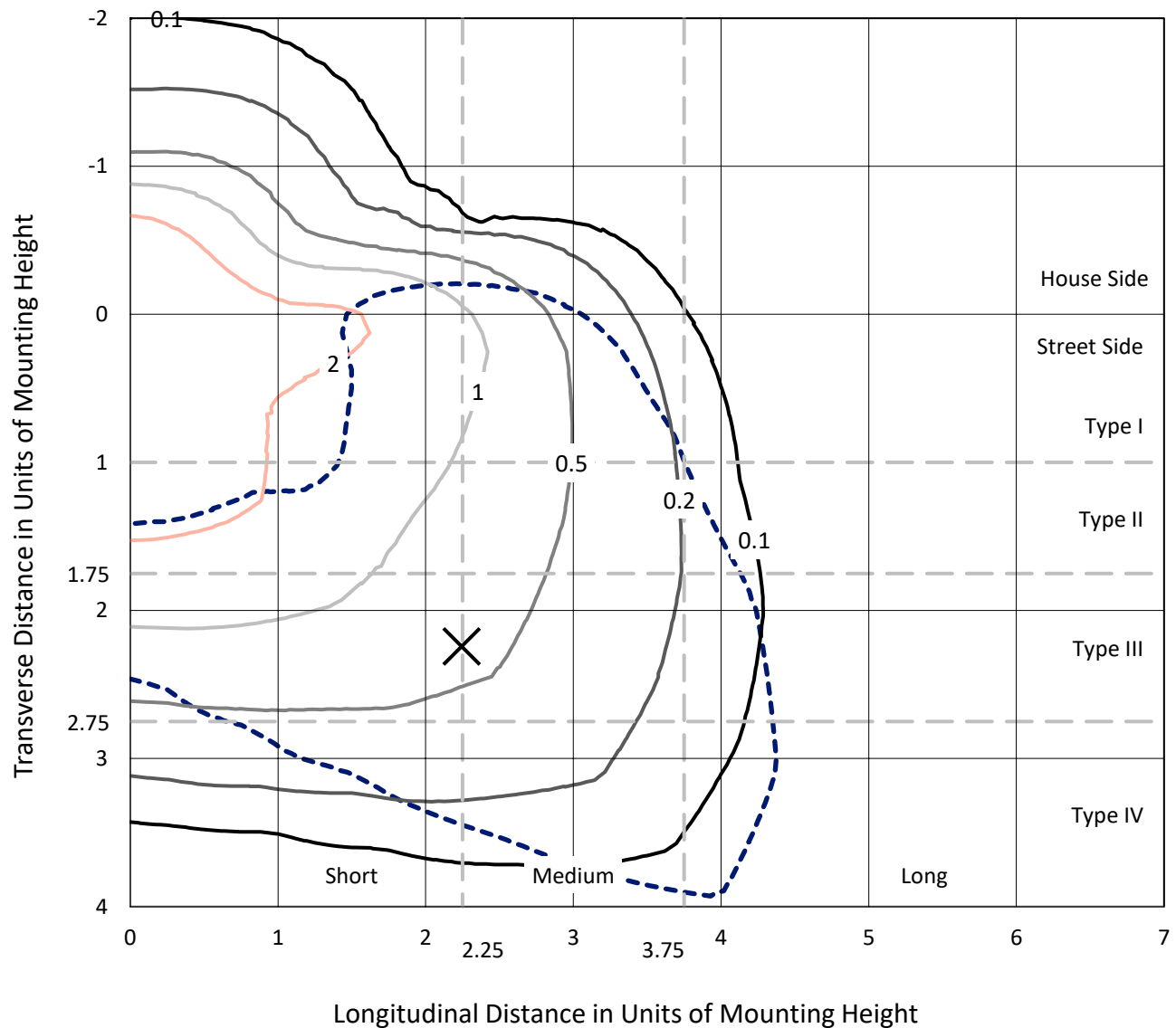


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Iso-Footcandle Lines of Horizontal Illumination

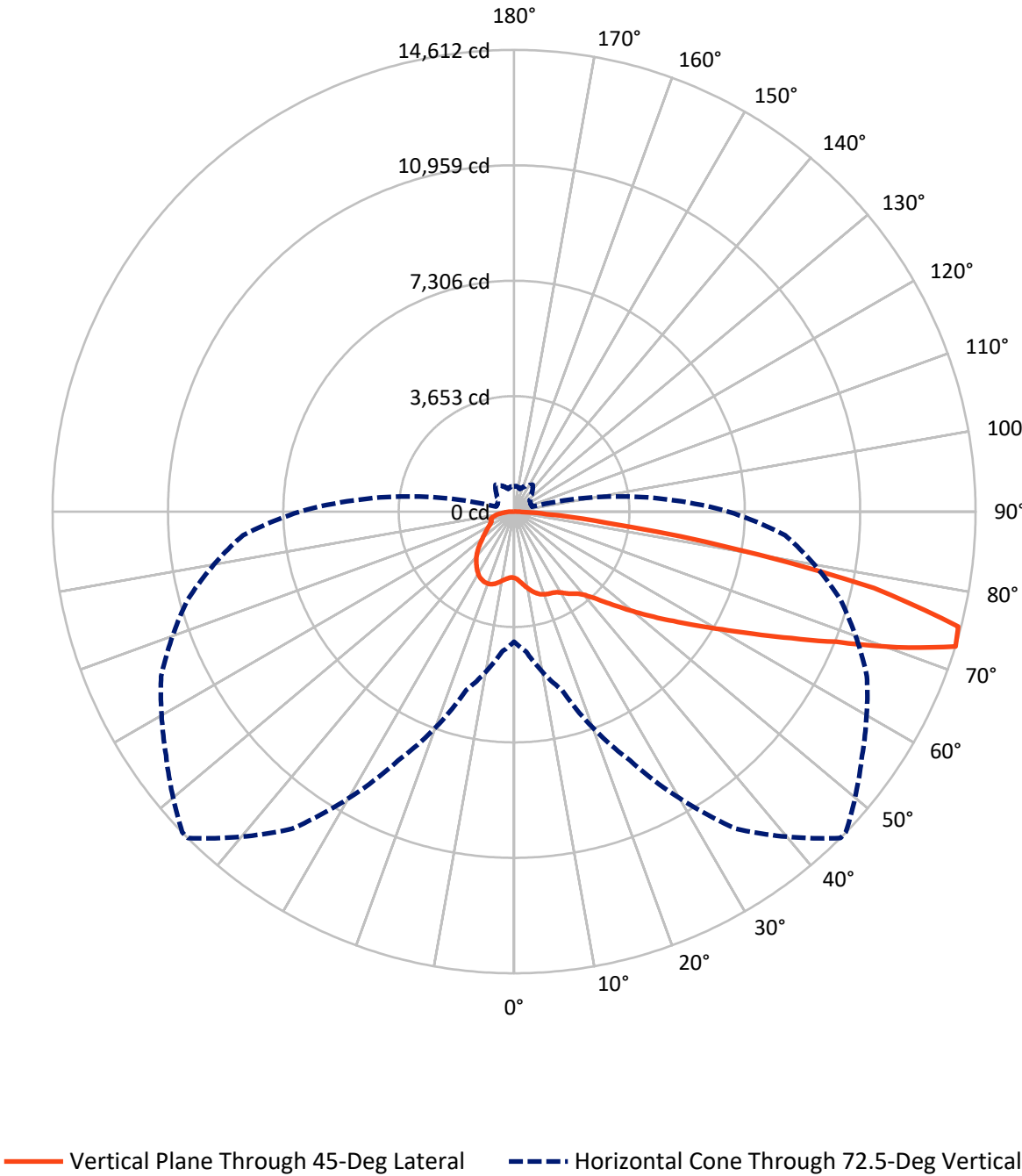
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.2 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	4708.7	0.0	4708.7
	% Fixture	22.6	0.0	22.6
Street Side	Lumens	16120.3	0.0	16120.3
	% Fixture	77.4	0.0	77.4
Total	Lumens	20829.0	0.0	20829.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	213.9	1.0
10°-20°	713.1	3.4
20°-30°	1240.4	6.0
30°-40°	1778.2	8.5
40°-50°	2503.8	12.0
50°-60°	3835.0	18.4
60°-70°	5555.6	26.7
70°-80°	4436.5	21.3
80°-90°	552.6	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°	20829.0	100.0
0°-180°	20829.0	100.0

Coefficient of Utilization



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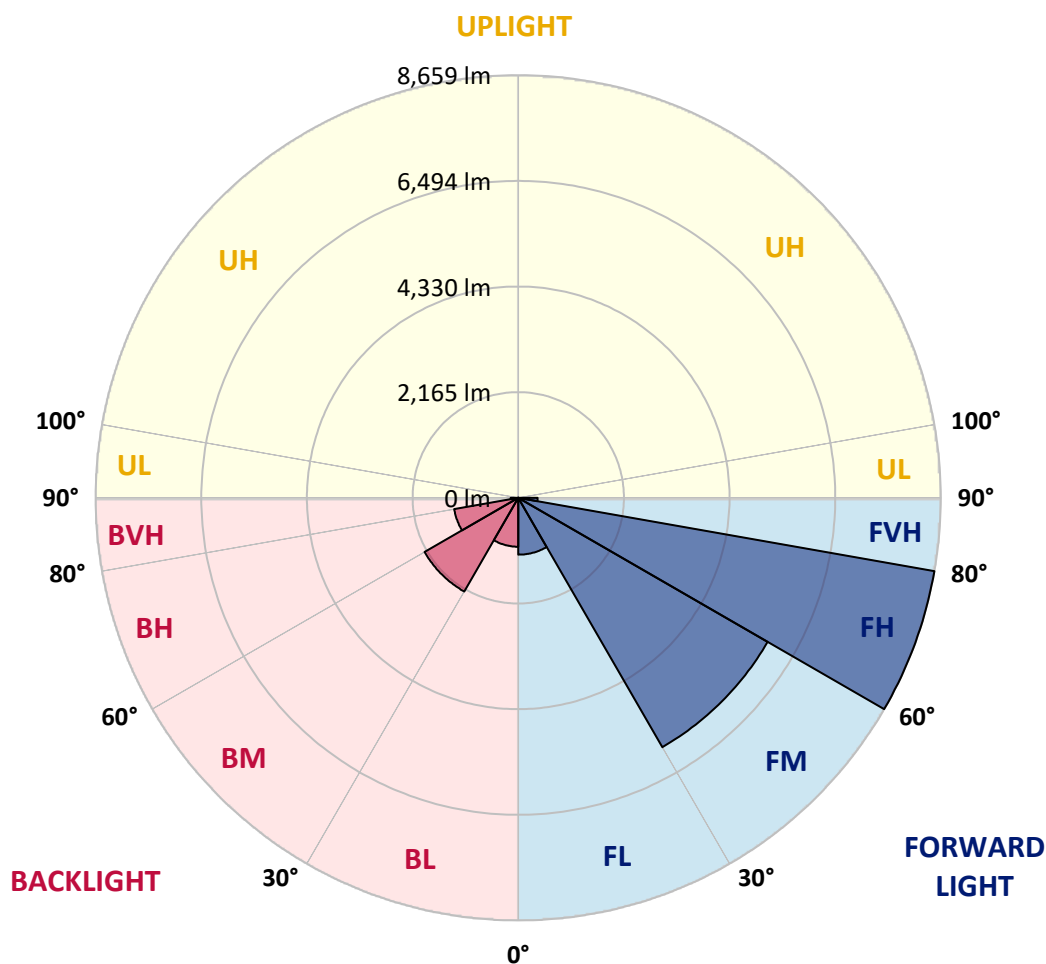
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1164.8	5.6			
FM	(30°-60°)	5899.9	28.3			
FH	(60°-80°)	8659.2	41.6			G4/12000
FVH	(80°-90°)	396.4	1.9			G3/500
BL	(0°-30°)	1002.5	4.8	B3/2500		
BM	(30°-60°)	2217.1	10.6	B2/2500		
BH	(60°-80°)	1332.9	6.4	B3/2500		G3/2500
BVH	(80°-90°)	156.1	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°	2101.2	2101.2	2101.2	2101.2	2101.2	2101.2	2101.2	2101.2	2101.2	2101.2	2101.2
2.5°	2183.6	2197.8	2184.7	2172.6	2167.1	2152.8	2151.7	2143.0	2137.4	2122.1	2117.8
5°	2336.1	2354.7	2332.8	2308.6	2286.7	2251.6	2247.2	2221.9	2193.4	2160.5	2141.8
7.5°	2508.3	2524.8	2499.6	2463.4	2424.9	2366.8	2365.7	2319.6	2274.6	2218.6	2186.8
10°	2658.6	2680.6	2646.5	2597.2	2549.0	2483.1	2475.4	2422.7	2365.7	2293.2	2245.0
12.5°	2791.4	2806.8	2773.9	2713.5	2657.5	2591.7	2581.9	2523.7	2460.0	2377.8	2316.3
15°	2896.8	2916.5	2872.6	2807.9	2748.6	2683.9	2675.1	2622.5	2558.8	2472.1	2393.1
17.5°	2965.8	2982.3	2937.3	2865.0	2807.9	2754.1	2747.5	2703.6	2647.7	2559.9	2475.4
20°	2992.2	3009.8	2962.6	2889.1	2836.4	2794.7	2791.4	2759.6	2721.2	2641.1	2555.5
22.5°	3018.5	3035.0	2973.5	2896.8	2850.6	2824.3	2823.3	2802.4	2787.1	2721.2	2637.8
25°	3125.0	3129.3	3047.1	2936.2	2870.4	2847.3	2846.3	2845.2	2851.8	2800.2	2726.7
27.5°	3217.2	3216.0	3145.8	3041.6	2939.5	2891.2	2890.2	2901.2	2922.0	2879.2	2818.9
30°	3352.2	3340.1	3256.6	3148.0	3054.8	2980.2	2973.5	2963.7	2980.2	2946.2	2911.0
32.5°	3638.5	3600.1	3465.1	3272.0	3150.2	3093.1	3084.4	3022.9	3029.5	3008.7	2991.2
35°	4048.9	3998.4	3818.4	3506.8	3268.7	3187.5	3183.1	3105.2	3092.0	3073.4	3080.0
37.5°	4537.2	4474.6	4265.0	3846.9	3472.8	3297.2	3290.7	3220.4	3166.6	3147.0	3184.3
40°	5027.6	4948.6	4775.3	4261.7	3773.4	3480.5	3459.7	3353.2	3291.8	3258.9	3337.8
42.5°	5503.8	5438.0	5289.8	4727.0	4144.4	3748.2	3702.1	3520.0	3473.9	3443.2	3585.9
45°	5925.2	5866.0	5757.3	5224.0	4578.9	4112.5	4067.5	3770.2	3755.9	3755.9	3962.1
47.5°	6267.6	6254.3	6139.1	5731.0	5091.3	4527.3	4449.3	4118.0	4156.4	4215.6	4496.6
50°	6647.1	6610.9	6488.0	6230.3	5693.7	5002.4	4938.8	4544.8	4688.6	4850.9	5269.0
52.5°	6996.1	7015.8	6878.7	6750.3	6374.0	5532.3	5420.4	5048.4	5359.0	5627.9	6174.3
55°	7354.9	7356.0	7317.6	7300.0	7087.2	6118.3	5995.4	5654.1	6148.0	6481.5	7229.8
57.5°	7691.8	7694.0	7751.0	7905.7	7914.5	6794.2	6654.8	6398.0	7024.6	7364.7	8318.3
60°	7992.4	8007.8	8163.6	8525.6	8642.0	7568.9	7437.2	7277.0	7930.9	8273.3	9462.7
62.5°	8093.4	8149.3	8496.0	9010.7	9360.7	8519.1	8389.6	8294.2	8883.4	9201.6	10419.5
65°	7922.2	8050.6	8721.0	9411.1	10100.2	9648.1	9519.8	9415.5	9873.1	10172.6	11205.2
67.5°	7502.0	7667.6	8707.8	9831.4	10997.7	11006.6	10886.9	10642.3	10934.2	11049.4	11460.8
70°	6394.8	6642.8	7940.9	9988.3	12028.1	12864.3	12749.1	12119.2	11993.0	11435.6	10741.1
72.5°	4120.2	4453.7	5847.3	8696.8	12257.5	14612.2	14605.5	13452.3	12327.7	10685.1	8614.5
75°	1503.3	1707.3	2716.8	5458.8	10288.9	14523.2	14566.1	13224.1	11253.5	8253.5	5366.7
77.5°	547.6	599.1	886.6	2098.0	6327.8	11652.8	11741.7	10572.1	8010.0	4142.1	2126.5
80°	287.5	316.0	454.3	814.2	2711.3	6920.4	7059.7	6282.8	3764.7	1247.6	637.6
82.5°	159.1	172.3	254.6	442.2	1221.3	2959.3	3042.7	2482.0	1324.4	528.9	263.3
85°	85.6	91.1	119.6	241.4	596.9	1025.9	1049.0	741.8	527.8	310.5	127.3
87.5°	25.2	30.7	39.5	76.8	233.7	230.4	236.0	147.0	208.5	156.9	41.7
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°	2101.2	2101.2	2101.2	2101.2	2101.2	2101.2	2101.2	2101.2	2101.2	2101.2	2101.2
2.5°	2111.1	2107.8	2095.7	2090.3	2083.7	2082.6	2088.0	2089.2	2090.3	2091.4	2095.7
5°	2130.9	2119.9	2108.9	2102.4	2104.5	2105.7	2116.6	2124.3	2129.7	2134.2	2136.3
7.5°	2169.3	2160.5	2141.8	2140.7	2144.0	2153.9	2168.2	2185.7	2195.7	2203.2	2205.5
10°	2226.3	2209.9	2188.0	2191.2	2197.8	2212.1	2241.7	2255.9	2272.4	2286.7	2283.4
12.5°	2284.5	2270.2	2245.0	2247.2	2258.2	2283.4	2311.9	2329.5	2340.5	2351.5	2355.8
15°	2360.2	2335.0	2307.5	2307.5	2327.3	2354.7	2367.9	2382.1	2388.8	2400.8	2405.2
17.5°	2438.1	2405.2	2369.0	2366.8	2390.9	2404.0	2411.7	2414.0	2416.1	2429.4	2433.8
20°	2516.0	2479.8	2428.2	2423.8	2429.4	2427.1	2426.1	2423.8	2427.1	2443.6	2450.2
22.5°	2592.8	2551.1	2479.8	2460.0	2444.7	2423.8	2422.7	2421.7	2423.8	2440.3	2451.3
25°	2682.8	2632.3	2536.9	2477.6	2426.1	2397.5	2400.8	2401.9	2404.0	2417.3	2434.8
27.5°	2780.4	2724.4	2589.6	2472.1	2378.8	2359.1	2353.6	2356.9	2364.6	2385.5	2406.3
30°	2878.1	2812.3	2637.8	2450.2	2319.6	2292.2	2274.6	2282.3	2306.5	2327.3	2350.3
32.5°	2967.0	2901.2	2676.2	2401.9	2243.9	2201.1	2178.0	2188.0	2212.1	2219.7	2247.2
35°	3071.2	2996.6	2692.7	2325.1	2161.6	2095.7	2065.1	2050.8	2062.8	2055.1	2079.3
37.5°	3187.5	3109.6	2690.4	2224.1	2065.1	1989.3	1946.6	1892.8	1867.5	1841.2	1857.6
40°	3359.7	3247.9	2664.2	2102.4	1945.4	1876.3	1799.5	1708.5	1651.4	1599.8	1603.1
42.5°	3594.6	3439.9	2615.9	1968.5	1810.5	1745.8	1641.5	1535.0	1445.0	1359.5	1351.8
45°	3944.6	3691.1	2555.5	1825.8	1664.5	1600.8	1487.9	1368.3	1266.2	1156.5	1143.4
47.5°	4449.3	4029.1	2498.4	1663.5	1511.0	1452.7	1350.7	1239.9	1119.2	1012.8	1000.7
50°	5142.8	4514.1	2445.8	1505.4	1359.5	1315.6	1234.4	1121.4	999.6	914.0	908.6
52.5°	6025.1	5173.6	2423.8	1352.9	1217.9	1201.5	1136.7	1031.5	916.2	843.8	838.3
55°	7037.8	5962.5	2423.8	1206.9	1094.0	1099.4	1054.4	956.8	857.0	792.2	785.7
57.5°	8071.4	6761.3	2379.9	1072.0	988.6	1011.7	983.2	897.6	807.6	740.7	729.7
60°	9023.8	7430.6	2202.2	949.1	895.3	931.5	912.9	839.4	729.7	673.7	664.9
62.5°	9755.6	7808.0	1859.9	851.5	818.6	860.3	850.3	762.6	715.4	692.4	684.7
65°	10122.2	7746.6	1422.1	764.8	753.8	818.6	797.7	794.4	757.1	730.7	722.0
67.5°	9897.2	7217.7	1031.5	701.1	716.5	780.1	860.3	873.4	804.3	752.8	743.9
70°	8910.8	6260.9	768.0	640.8	669.3	781.3	980.9	914.0	788.9	728.6	718.7
72.5°	6778.8	4668.8	595.8	577.2	607.9	786.7	1034.7	895.3	745.1	805.3	798.8
75°	3876.7	2563.2	478.4	499.3	531.1	735.1	1007.3	847.1	711.0	739.5	739.5
77.5°	1478.0	985.3	395.0	422.4	426.8	641.9	963.4	843.8	677.0	660.5	602.4
80°	512.4	385.1	327.0	335.8	330.3	570.6	923.9	734.1	554.1	496.0	479.5
82.5°	209.6	192.0	258.9	247.9	234.8	443.3	746.1	600.2	453.2	400.5	396.1
85°	91.1	121.8	171.2	150.4	136.0	307.2	598.0	508.0	382.9	330.3	329.1
87.5°	18.7	46.1	72.5	68.1	70.2	205.2	424.7	361.0	271.0	203.0	159.1
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)