

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: P966338

Luminaire Tested: **NAV-SB4B-835-U-T2U**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966338
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-16)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4B-835-U-T2U
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3500K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II U OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21743.3 lumens
Efficiency: N/A
Efficacy: 147.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G3

Input Watts (W): 147
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

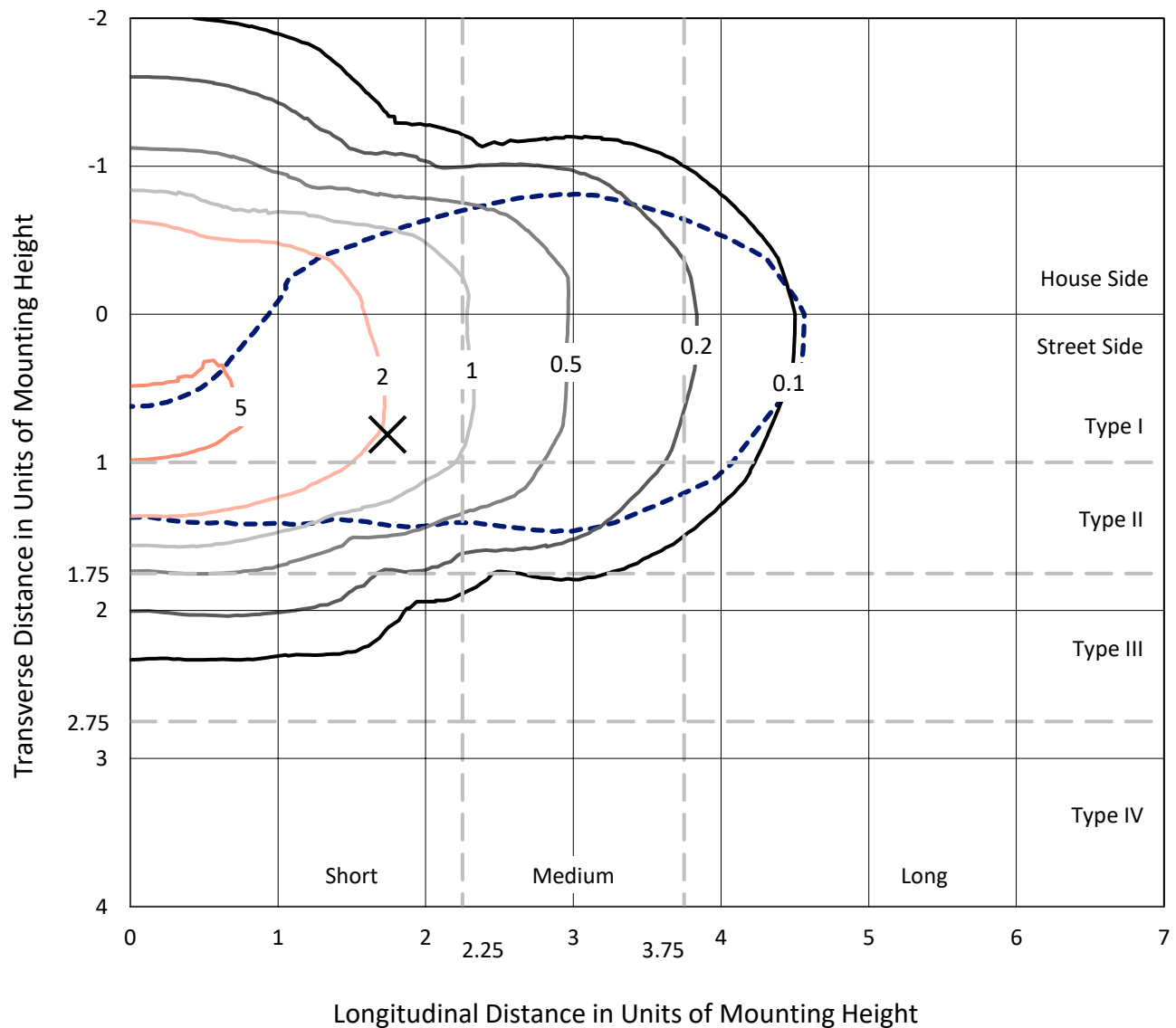


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Iso-Footcandle Lines of Horizontal Illumination

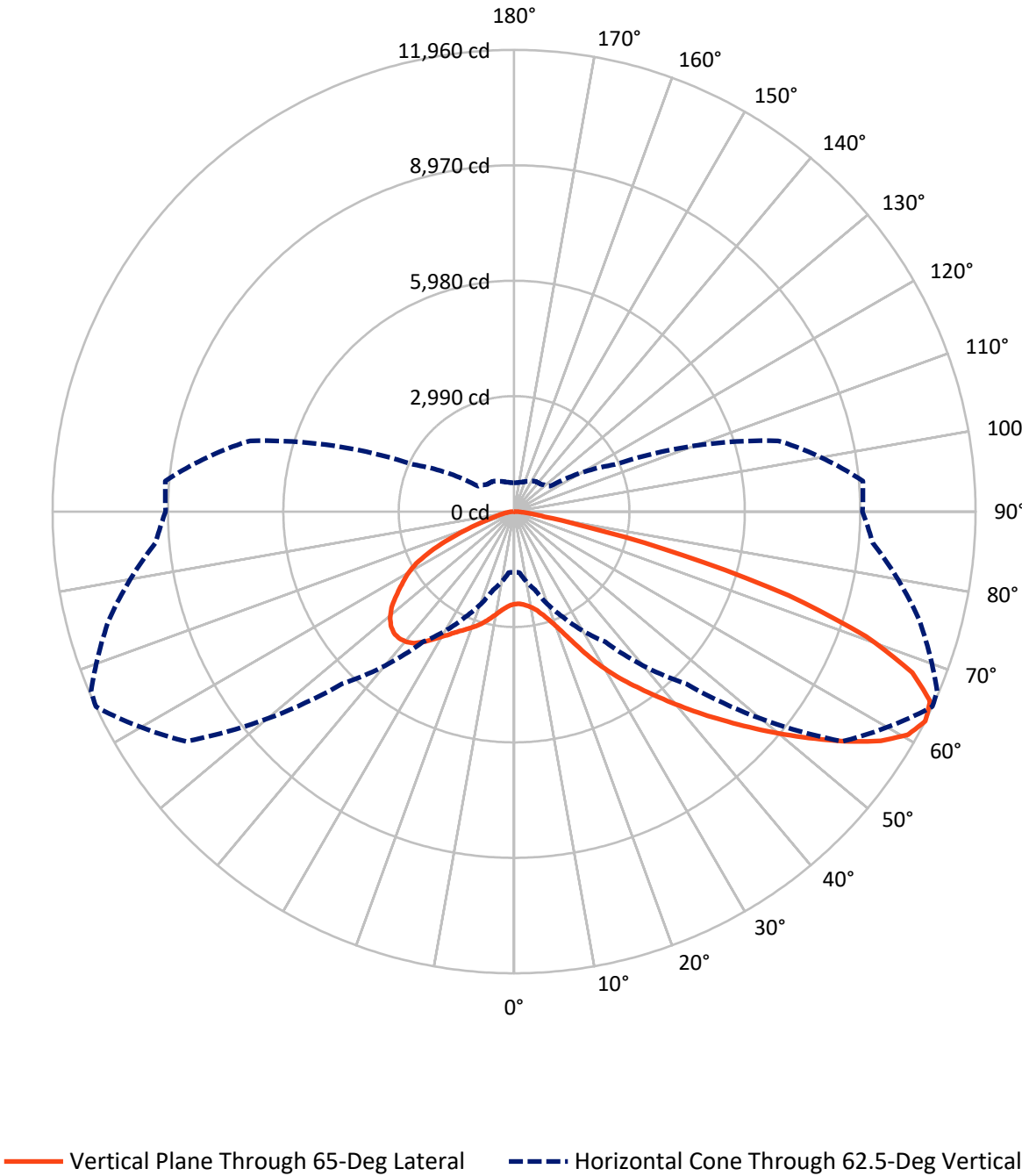
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.1 fc
Type II - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6861.2	0.0	6861.2
	% Fixture	31.6	0.0	31.6
Street Side	Lumens	14882.1	0.0	14882.1
	% Fixture	68.4	0.0	68.4
Total	Lumens	21743.3	0.0	21743.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	238.9	1.1
10°-20°	810.1	3.7
20°-30°	1642.5	7.6
30°-40°	2842.3	13.1
40°-50°	4301.3	19.8
50°-60°	5043.0	23.2
60°-70°	4227.9	19.4
70°-80°	2334.2	10.7
80°-90°	303.2	1.4
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°	21743.3	100.0
0°-180°	21743.3	100.0

Coefficient of Utilization



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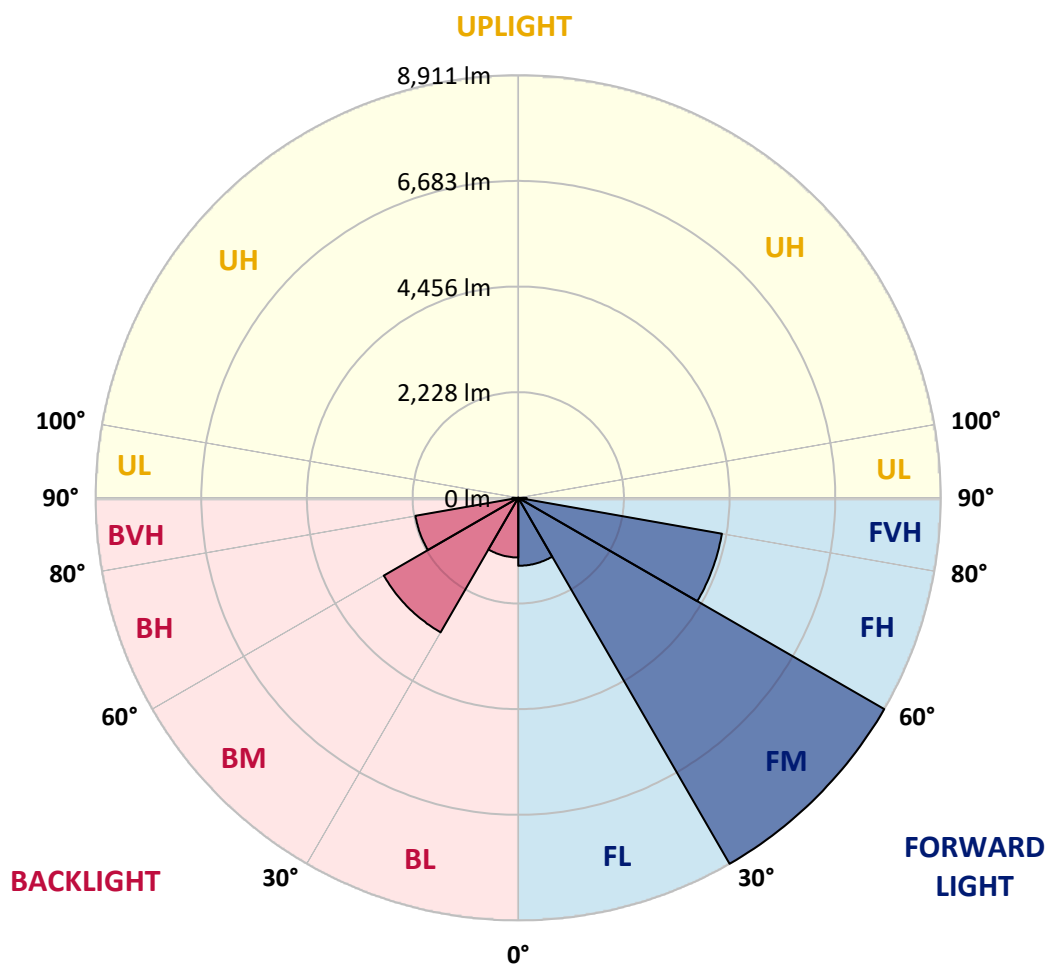
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1433.2	6.6			
FM	(30°-60°)	8911.1	41.0			
FH	(60°-80°)	4361.1	20.1			G2/5000
FVH	(80°-90°)	176.7	0.8			G2/225
BL	(0°-30°)	1258.3	5.8	B3/2500		
BM	(30°-60°)	3275.5	15.1	B3/5000		
BH	(60°-80°)	2201.0	10.1	B3/2500		G3/2500
BVH	(80°-90°)	126.5	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 II Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	2396.0	2396.0	2396.0	2396.0	2396.0	2396.0	2396.0	2396.0	2396.0	2396.0	2396.0
2.5°	2380.3	2373.5	2379.1	2379.1	2381.4	2380.3	2388.1	2390.4	2393.8	2400.5	2400.5
5°	2356.6	2355.4	2365.6	2374.6	2383.6	2391.5	2401.7	2416.3	2418.6	2426.5	2436.6
7.5°	2348.7	2341.9	2357.7	2369.0	2390.4	2409.6	2436.6	2461.4	2471.6	2475.0	2494.1
10°	2409.6	2398.3	2413.0	2419.7	2437.8	2456.9	2488.5	2528.0	2539.3	2552.9	2574.3
12.5°	2513.3	2500.9	2522.3	2532.5	2549.5	2566.4	2587.8	2626.2	2631.8	2656.6	2676.9
15°	2655.5	2640.8	2654.3	2666.7	2694.9	2710.7	2732.1	2769.4	2769.4	2788.6	2803.3
17.5°	2848.4	2829.2	2839.4	2843.9	2861.9	2885.6	2921.7	2954.5	2971.4	2964.6	2944.3
20°	3136.0	3112.3	3112.3	3089.8	3083.0	3102.2	3149.6	3194.7	3212.8	3177.8	3128.1
22.5°	3568.1	3534.2	3515.0	3438.4	3407.9	3410.2	3457.5	3512.8	3527.4	3465.4	3353.8
25°	4117.4	4064.4	4038.5	3925.6	3856.9	3797.1	3834.3	3905.4	3925.6	3849.0	3668.5
27.5°	4666.8	4670.2	4645.4	4510.0	4396.1	4286.7	4267.5	4341.9	4363.4	4276.5	4053.2
30°	5437.3	5357.2	5309.8	5147.3	4985.0	4831.5	4752.5	4783.1	4788.7	4684.9	4425.4
32.5°	6101.7	6081.4	5979.8	5837.8	5629.1	5388.8	5256.8	5208.3	5199.3	5051.5	4743.5
35°	6858.7	6847.4	6740.2	6571.0	6345.4	6011.5	5773.4	5634.7	5623.5	5415.9	5058.3
37.5°	7628.0	7628.0	7523.1	7338.1	7104.6	6687.2	6325.1	6105.1	6069.0	5798.3	5378.7
40°	8241.7	8204.4	8223.7	8145.8	7878.5	7435.1	6937.6	6618.4	6569.8	6245.0	5719.3
42.5°	8590.2	8577.8	8692.9	8779.7	8670.4	8316.1	7612.3	7174.5	7106.8	6736.8	6111.9
45°	8668.1	8654.6	8859.9	9178.0	9331.4	9185.8	8345.4	7760.0	7677.7	7251.3	6532.6
47.5°	8488.7	8461.7	8762.8	9264.9	9756.7	10012.7	9139.6	8395.1	8275.5	7752.1	6964.7
50°	7949.5	7923.6	8379.3	9046.0	9900.0	10574.5	10001.4	9068.6	8885.8	8289.1	7401.2
52.5°	6777.4	6789.8	7503.9	8419.9	9711.6	10924.2	10743.7	9778.1	9558.1	8838.5	7810.7
55°	5279.4	5306.4	6184.0	7192.5	8958.0	10871.3	11250.2	10509.1	10290.3	9355.1	8233.8
57.5°	3780.2	3899.7	4722.1	5720.4	7510.7	10030.8	11360.8	11204.0	10991.9	9919.1	8647.8
60°	2450.2	2471.6	3317.6	4323.9	5719.3	8537.2	11136.3	11730.8	11565.0	10494.5	8994.1
62.5°	1570.3	1585.0	2100.4	3024.4	4116.3	6316.0	10380.5	11959.8	11909.1	10874.6	9326.9
65°	1154.0	1142.8	1411.2	1999.0	2772.8	3895.2	8912.9	11849.2	11949.7	11112.6	9602.1
67.5°	963.4	947.6	1079.5	1384.2	2042.9	2212.2	6594.6	11130.7	11498.4	11085.6	9804.0
70°	877.6	864.1	944.2	1027.7	1594.0	1481.1	3324.4	9676.6	10242.8	10777.6	9771.3
72.5°	743.4	719.8	829.1	912.6	1239.7	1136.0	1374.0	7432.9	8123.2	9790.5	9311.1
75°	576.5	560.7	654.3	803.2	931.8	886.6	868.6	4513.4	5267.0	7571.6	8145.8
77.5°	456.8	435.4	521.2	626.1	838.1	668.9	632.8	1943.7	2690.4	4833.8	6095.0
80°	344.1	324.9	396.0	495.2	644.1	504.2	409.5	793.0	1014.1	2449.0	3065.0
82.5°	244.8	227.9	276.3	363.3	433.2	452.3	251.5	444.4	499.7	944.2	684.7
85°	156.8	146.7	185.0	227.9	275.2	291.0	153.4	232.4	254.9	389.2	285.4
87.5°	85.7	69.9	99.2	106.1	127.5	116.2	73.3	84.6	91.3	141.0	120.7
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°	2396.0	2396.0	2396.0	2396.0	2396.0	2396.0	2396.0	2396.0	2396.0	2396.0	2396.0
2.5°	2405.1	2408.4	2419.7	2423.1	2431.0	2441.1	2447.9	2454.7	2454.7	2461.4	2461.4
5°	2437.8	2445.6	2469.3	2481.7	2502.0	2522.3	2534.7	2549.5	2558.5	2563.0	2565.3
7.5°	2500.9	2513.3	2547.2	2568.6	2603.6	2631.8	2651.0	2671.3	2675.8	2688.2	2683.7
10°	2586.7	2601.3	2639.7	2680.3	2722.0	2757.0	2775.1	2789.7	2795.4	2797.6	2792.0
12.5°	2684.8	2706.2	2755.9	2805.5	2849.5	2879.9	2884.5	2881.1	2865.3	2851.8	2851.8
15°	2805.5	2824.7	2879.9	2934.1	2977.0	2982.6	2954.5	2936.3	2917.1	2913.8	2913.8
17.5°	2950.0	2960.1	3010.8	3063.8	3067.2	3048.0	3006.3	2989.4	2971.4	2959.0	2960.1
20°	3117.9	3114.6	3150.7	3173.3	3149.6	3090.9	3027.7	2999.6	2981.5	2966.9	2968.0
22.5°	3318.7	3292.8	3288.3	3282.7	3219.5	3096.5	3010.8	2974.8	2946.6	2926.2	2932.9
25°	3611.0	3511.6	3442.9	3404.5	3262.4	3066.1	2956.7	2876.6	2823.6	2788.6	2802.1
27.5°	3976.5	3809.5	3635.8	3542.1	3262.4	3004.1	2825.8	2696.1	2609.2	2573.2	2591.2
30°	4325.0	4150.1	3894.1	3707.9	3254.5	2902.5	2614.9	2434.4	2332.8	2296.7	2318.1
32.5°	4622.9	4432.2	4168.3	3889.6	3235.3	2737.8	2353.2	2153.5	2055.3	2012.5	2033.9
35°	4899.2	4696.1	4443.5	4089.2	3184.6	2496.4	2065.5	1913.2	1803.8	1735.0	1757.6
37.5°	5182.4	4940.9	4704.0	4269.7	3093.1	2214.4	1844.4	1714.6	1586.1	1493.5	1518.3
40°	5490.3	5201.6	4982.7	4377.0	2943.2	1946.0	1672.9	1554.5	1418.0	1319.9	1339.1
42.5°	5850.2	5514.0	5292.9	4432.2	2737.8	1755.3	1561.3	1445.0	1316.4	1236.4	1252.1
45°	6225.8	5858.1	5576.0	4431.1	2508.8	1666.1	1525.2	1410.1	1267.9	1184.5	1198.0
47.5°	6619.6	6218.0	5820.9	4358.8	2310.2	1678.5	1504.8	1334.6	1177.7	1096.4	1107.7
50°	7014.4	6611.7	6057.7	4223.5	2225.7	1651.5	1429.3	1228.5	1043.4	970.2	974.7
52.5°	7405.7	7030.2	6261.9	4030.6	2140.0	1551.1	1332.3	1090.8	988.2	937.5	937.5
55°	7799.4	7444.2	6484.2	3749.7	1925.6	1433.8	1169.8	1038.9	944.2	897.9	893.4
57.5°	8194.3	7922.4	6695.1	3468.8	1656.0	1289.3	1080.7	975.8	900.2	860.7	853.9
60°	8604.9	8469.6	6912.8	3210.5	1389.8	1104.3	1015.3	925.1	848.3	804.3	800.9
62.5°	9027.9	9072.0	7083.2	2877.7	1145.0	991.6	956.6	864.1	789.7	747.9	746.8
65°	9454.4	9652.9	7194.8	2416.3	928.4	884.4	893.4	797.6	722.0	685.8	684.7
67.5°	9775.8	10071.4	7163.2	1828.6	761.5	782.9	814.5	727.6	656.5	628.3	629.5
70°	9811.9	10021.7	6851.9	1252.1	637.3	683.6	726.5	658.8	585.5	565.2	566.3
72.5°	9331.4	9344.9	5984.4	817.8	539.3	600.1	634.0	588.9	517.8	497.4	496.3
75°	8071.4	7728.4	4393.9	539.3	451.2	515.6	547.1	515.6	446.7	451.2	435.4
77.5°	6115.3	5473.4	2667.9	383.6	376.8	433.2	476.0	453.5	394.8	443.3	390.3
80°	3150.7	2961.2	1190.1	286.5	297.8	346.3	391.4	362.1	312.5	297.8	271.8
82.5°	722.0	839.3	469.2	205.3	215.5	249.3	298.9	271.8	224.5	189.5	187.3
85°	252.7	276.3	207.6	128.6	126.4	155.7	203.1	181.6	152.3	121.9	128.6
87.5°	80.1	105.0	77.8	51.9	54.1	69.9	93.6	85.7	71.0	46.2	48.5
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)