

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: P966307

Luminaire Tested: **NAV-SB4B-830-U-T2U**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966307
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-830-U-T2U
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3000K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II U OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21063.8 lumens
Efficiency: N/A
Efficacy: 143.3 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

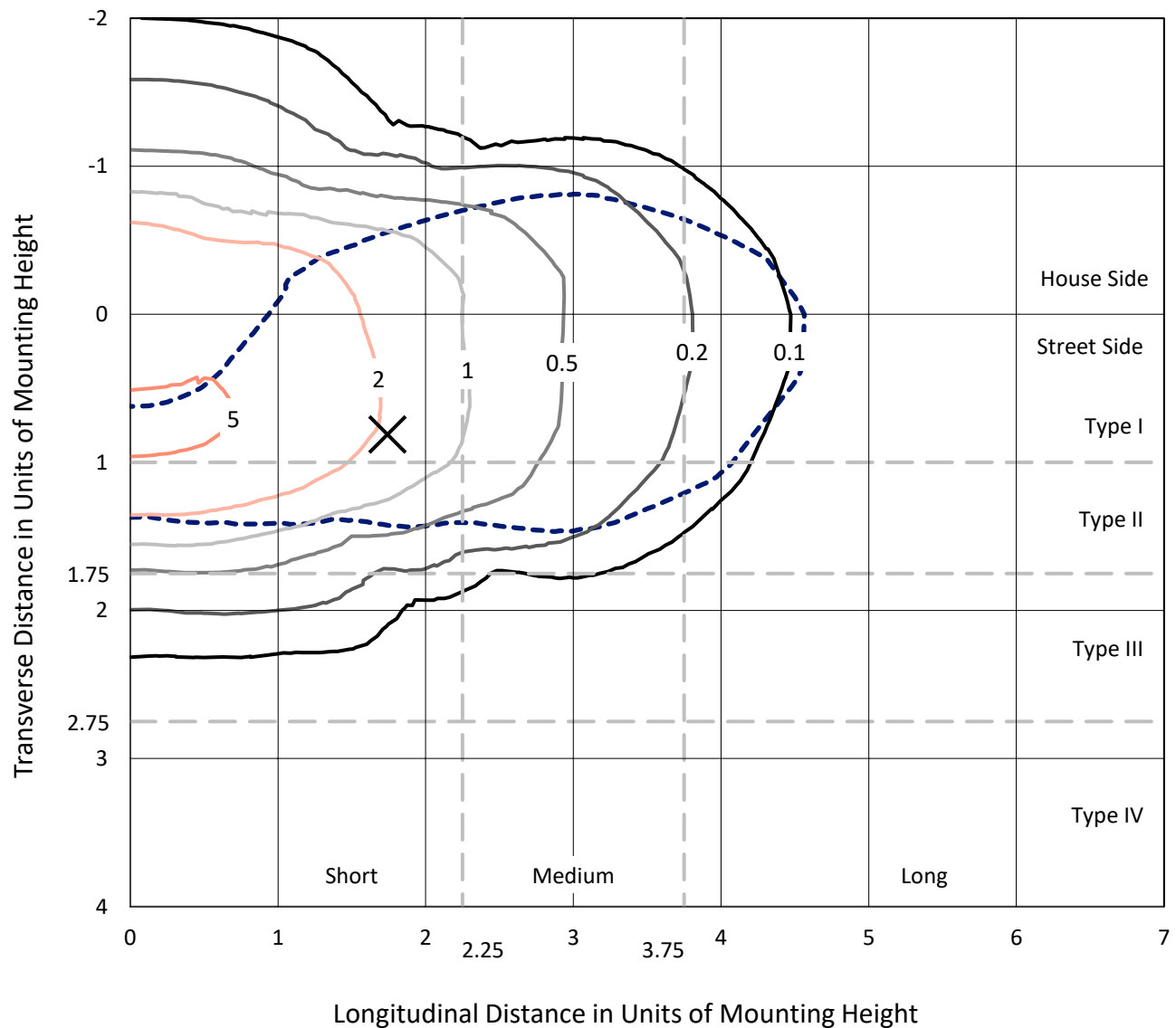


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Iso-Footcandle Lines of Horizontal Illumination

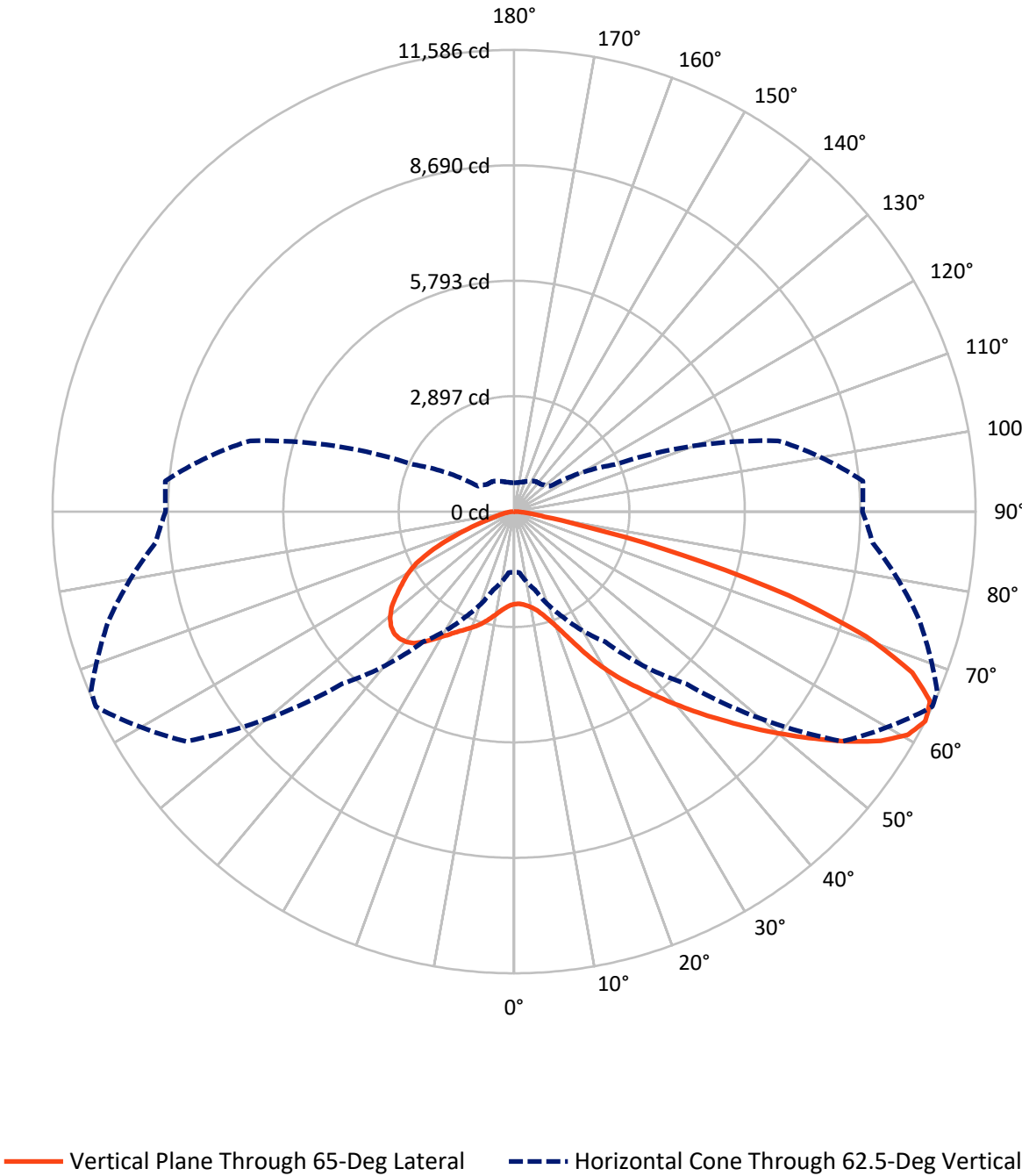
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.9 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	6646.8	0.0	6646.8
	% Fixture	31.6	0.0	31.6
Street Side	Lumens	14417.0	0.0	14417.0
	% Fixture	68.4	0.0	68.4
Total	Lumens	21063.8	0.0	21063.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	231.4	1.1
10°-20°	784.7	3.7
20°-30°	1591.2	7.6
30°-40°	2753.5	13.1
40°-50°	4166.9	19.8
50°-60°	4885.4	23.2
60°-70°	4095.8	19.4
70°-80°	2261.2	10.7
80°-90°	293.7	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°	21063.8	100.0
0°-180°	21063.8	100.0

Coefficient of Utilization



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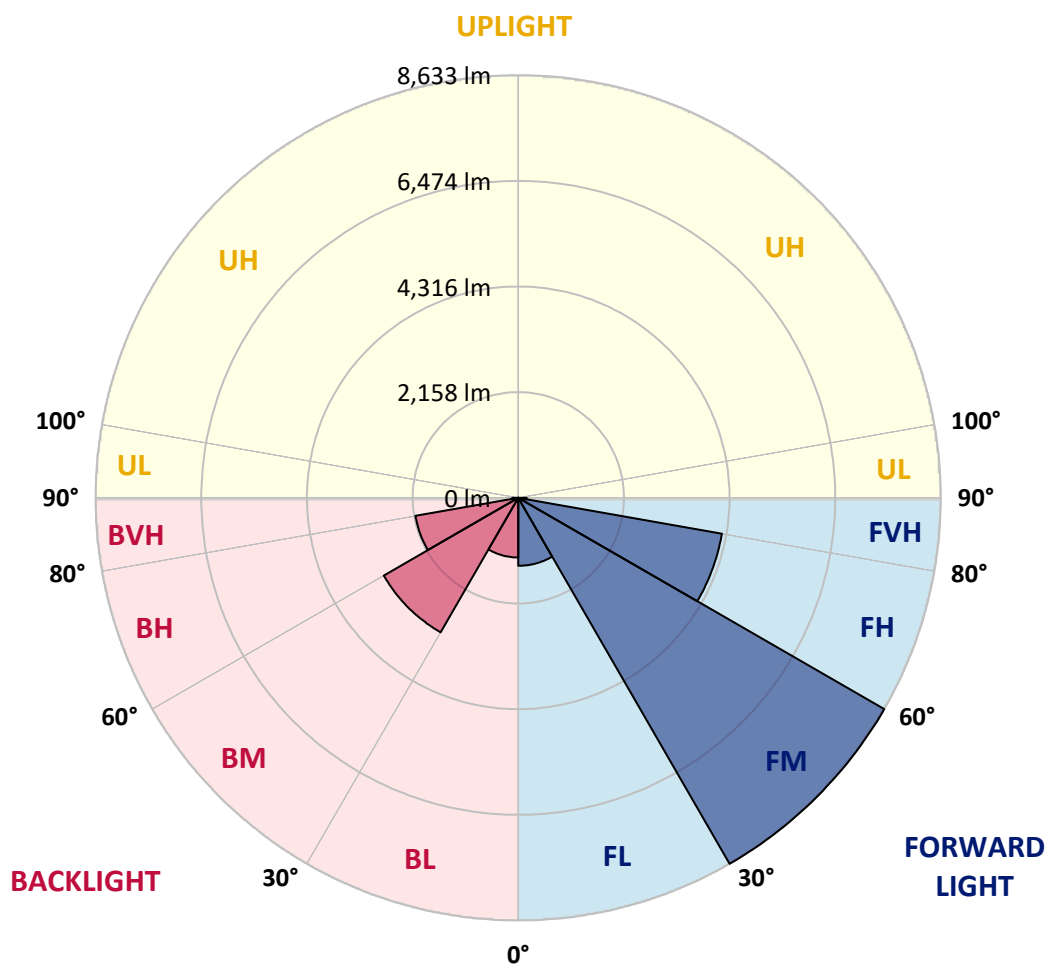
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1388.4	6.6			
FM	(30°-60°)	8632.6	41.0			
FH	(60°-80°)	4224.8	20.1			G2/5000
FVH	(80°-90°)	171.2	0.8			G2/225
BL	(0°-30°)	1218.9	5.8	B3/2500		
BM	(30°-60°)	3173.1	15.1	B3/5000		
BH	(60°-80°)	2132.2	10.1	B3/2500		G3/2500
BVH	(80°-90°)	122.5	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°	2321.1	2321.1	2321.1	2321.1	2321.1	2321.1	2321.1	2321.1	2321.1	2321.1	2321.1
2.5°	2305.8	2299.3	2304.7	2304.7	2307.0	2305.8	2313.5	2315.7	2319.0	2325.5	2325.5
5°	2282.9	2281.8	2291.6	2300.4	2309.1	2316.8	2326.6	2340.8	2342.9	2350.6	2360.5
7.5°	2275.2	2268.6	2284.0	2294.9	2315.7	2334.2	2360.5	2384.6	2394.4	2397.7	2416.2
10°	2334.2	2323.4	2337.5	2344.1	2361.6	2380.2	2410.7	2449.0	2459.9	2473.0	2493.8
12.5°	2434.8	2422.8	2443.5	2453.3	2469.7	2486.1	2506.9	2544.0	2549.5	2573.6	2593.2
15°	2572.4	2558.3	2571.4	2583.4	2610.8	2626.0	2646.8	2682.8	2682.8	2701.4	2715.6
17.5°	2759.4	2740.7	2750.6	2755.0	2772.4	2795.4	2830.4	2862.1	2878.5	2871.9	2852.3
20°	3038.0	3015.0	3015.0	2993.2	2986.6	3005.2	3051.1	3094.9	3112.3	3078.5	3030.4
22.5°	3456.6	3423.8	3405.3	3330.9	3301.4	3303.6	3349.5	3403.0	3417.2	3357.1	3248.9
25°	3988.8	3937.4	3912.2	3803.0	3736.3	3678.4	3714.5	3783.3	3803.0	3728.6	3553.8
27.5°	4521.0	4524.2	4500.2	4369.1	4258.7	4152.7	4134.1	4206.2	4227.0	4142.8	3926.5
30°	5267.4	5189.8	5143.9	4986.5	4829.2	4680.6	4604.0	4633.5	4638.9	4538.5	4287.1
32.5°	5911.1	5891.4	5793.0	5655.3	5453.1	5220.3	5092.5	5045.6	5036.7	4893.7	4595.3
35°	6644.3	6633.4	6529.6	6365.7	6147.0	5823.6	5593.0	5458.6	5447.7	5246.6	4900.2
37.5°	7389.6	7389.6	7288.0	7108.8	6882.6	6478.2	6127.4	5914.4	5879.3	5617.1	5210.5
40°	7984.1	7948.1	7966.6	7891.2	7632.3	7202.8	6720.8	6411.6	6364.5	6049.9	5540.5
42.5°	8321.8	8309.8	8421.2	8505.3	8399.4	8056.2	7374.3	6950.3	6884.7	6526.3	5920.8
45°	8397.2	8384.1	8582.9	8891.2	9039.8	8898.7	8084.6	7517.5	7437.7	7024.6	6328.5
47.5°	8223.4	8197.2	8488.9	8975.3	9451.7	9699.8	8853.9	8132.8	8016.8	7509.8	6747.1
50°	7701.0	7675.9	8117.4	8763.2	9590.5	10244.1	9688.9	8785.1	8608.1	8030.0	7170.0
52.5°	6565.6	6577.6	7269.4	8156.7	9408.1	10582.8	10408.0	9472.5	9259.4	8562.2	7566.7
55°	5114.3	5140.6	5990.8	6967.7	8678.1	10531.5	10898.6	10180.6	9968.6	9062.7	7976.4
57.5°	3662.0	3777.8	4574.5	5541.7	7276.0	9717.3	11005.7	10853.8	10648.3	9609.1	8377.5
60°	2373.6	2394.4	3214.0	4188.8	5540.5	8270.4	10788.2	11364.2	11203.6	10166.5	8713.0
62.5°	1521.2	1535.4	2034.8	2929.9	3987.7	6118.6	10056.1	11586.0	11536.8	10534.7	9035.4
65°	1118.0	1107.0	1367.1	1936.4	2686.1	3773.4	8634.3	11478.9	11576.1	10765.3	9302.0
67.5°	933.3	918.0	1045.8	1340.9	1979.1	2143.0	6388.6	10782.8	11139.1	10739.0	9497.6
70°	850.2	837.1	914.7	995.6	1544.2	1434.9	3220.5	9374.1	9922.7	10440.8	9466.0
72.5°	720.2	697.2	803.2	884.1	1201.0	1100.4	1331.1	7200.5	7869.3	9484.5	9020.1
75°	558.4	543.1	633.9	778.1	902.6	859.0	841.4	4372.3	5102.3	7335.0	7891.2
77.5°	442.6	421.8	504.9	606.5	812.0	648.0	613.1	1882.9	2606.4	4682.7	5904.5
80°	333.3	314.8	383.6	479.7	624.0	488.5	396.7	768.2	982.5	2372.5	2969.2
82.5°	237.2	220.8	267.7	351.9	419.6	438.2	243.7	430.6	484.1	914.7	663.4
85°	151.9	142.1	179.3	220.8	266.6	282.0	148.6	225.1	247.0	377.0	276.4
87.5°	83.0	67.8	96.1	102.7	123.5	112.5	71.0	82.0	88.6	136.6	117.0
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°	2321.1	2321.1	2321.1	2321.1	2321.1	2321.1	2321.1	2321.1	2321.1	2321.1	2321.1
2.5°	2329.9	2333.1	2344.1	2347.4	2355.0	2364.9	2371.4	2378.0	2378.0	2384.6	2384.6
5°	2361.6	2369.2	2392.1	2404.1	2423.8	2443.5	2455.6	2469.7	2478.4	2482.9	2485.0
7.5°	2422.8	2434.8	2467.6	2488.3	2522.2	2549.5	2568.1	2587.8	2592.1	2604.2	2599.8
10°	2505.8	2520.1	2557.2	2596.5	2636.9	2670.8	2688.4	2702.5	2707.9	2710.2	2704.7
12.5°	2600.9	2621.6	2669.7	2717.8	2760.4	2789.9	2794.4	2791.1	2775.7	2762.6	2762.6
15°	2717.8	2736.4	2789.9	2842.4	2883.9	2889.4	2862.1	2844.6	2826.0	2822.7	2822.7
17.5°	2857.7	2867.5	2916.7	2968.1	2971.4	2952.8	2912.3	2895.9	2878.5	2866.4	2867.5
20°	3020.6	3017.3	3052.2	3074.1	3051.1	2994.3	2933.1	2905.8	2888.3	2874.1	2875.2
22.5°	3215.0	3189.9	3185.6	3180.1	3118.9	2999.8	2916.7	2881.8	2854.4	2834.7	2841.3
25°	3498.1	3402.0	3335.2	3298.1	3160.4	2970.2	2864.3	2786.7	2735.3	2701.4	2714.5
27.5°	3852.2	3690.4	3522.1	3431.4	3160.4	2910.2	2737.5	2611.8	2527.6	2492.7	2510.2
30°	4189.9	4020.5	3772.4	3592.1	3152.8	2811.8	2533.2	2358.3	2259.9	2225.0	2245.8
32.5°	4478.3	4293.6	4038.0	3768.0	3134.1	2652.3	2279.6	2086.2	1991.1	1949.5	1970.4
35°	4746.1	4549.4	4304.6	3961.4	3085.0	2418.4	2000.9	1853.4	1747.4	1680.8	1702.6
37.5°	5020.3	4786.5	4557.0	4136.3	2996.5	2145.2	1786.8	1661.1	1536.5	1446.9	1470.9
40°	5318.7	5039.0	4826.9	4240.1	2851.1	1885.1	1620.6	1505.9	1373.7	1278.6	1297.1
42.5°	5667.3	5341.7	5127.5	4293.6	2652.3	1700.4	1512.5	1399.8	1275.3	1197.7	1213.0
45°	6031.2	5675.0	5401.7	4292.6	2430.4	1614.1	1477.4	1366.0	1228.4	1147.5	1160.6
47.5°	6412.6	6023.6	5638.9	4222.6	2238.1	1626.1	1457.9	1292.8	1140.9	1062.2	1073.2
50°	6795.1	6405.0	5868.4	4091.5	2156.1	1599.9	1384.6	1190.0	1010.9	939.8	944.2
52.5°	7174.3	6810.4	6066.2	3904.6	2073.1	1502.6	1290.6	1056.8	957.4	908.2	908.2
55°	7555.7	7211.5	6281.5	3632.5	1865.4	1389.0	1133.2	1006.4	914.7	869.9	865.5
57.5°	7938.2	7674.8	6485.9	3360.4	1604.2	1249.1	1046.9	945.3	872.1	833.8	827.3
60°	8336.0	8204.8	6696.7	3110.2	1346.3	1069.9	983.5	896.2	821.8	779.2	775.9
62.5°	8745.8	8788.3	6861.8	2787.8	1109.3	960.6	926.7	837.1	765.0	724.6	723.4
65°	9158.9	9351.2	6970.0	2340.8	899.3	856.8	865.5	772.6	699.4	664.4	663.4
67.5°	9470.3	9756.7	6939.4	1771.4	737.7	758.4	789.0	704.9	636.0	608.7	609.8
70°	9505.2	9708.6	6637.7	1213.0	617.5	662.3	703.8	638.2	567.1	547.5	548.6
72.5°	9039.8	9052.9	5797.4	792.3	522.3	581.4	614.2	570.4	501.6	482.0	480.8
75°	7819.1	7486.9	4256.5	522.3	437.2	499.4	530.0	499.4	432.8	437.2	421.8
77.5°	5924.1	5302.3	2584.5	371.6	365.0	419.6	461.1	439.3	382.5	429.5	378.1
80°	3052.2	2868.7	1152.9	277.6	288.5	335.5	379.2	350.8	302.7	288.5	263.3
82.5°	699.4	813.0	454.6	198.8	208.7	241.5	289.6	263.3	217.5	183.6	181.4
85°	244.8	267.7	201.1	124.5	122.4	150.8	196.7	176.0	147.5	118.0	124.5
87.5°	77.6	101.7	75.4	50.2	52.5	67.8	90.7	83.0	68.9	44.8	46.9
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)