

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: P966157

Luminaire Tested: **NAV-SB4B-735-U-T3**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966157
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-5)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4B-735-U-T3
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 3500K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 23147.6 lumens
Efficiency: N/A
Efficacy: 157.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - 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



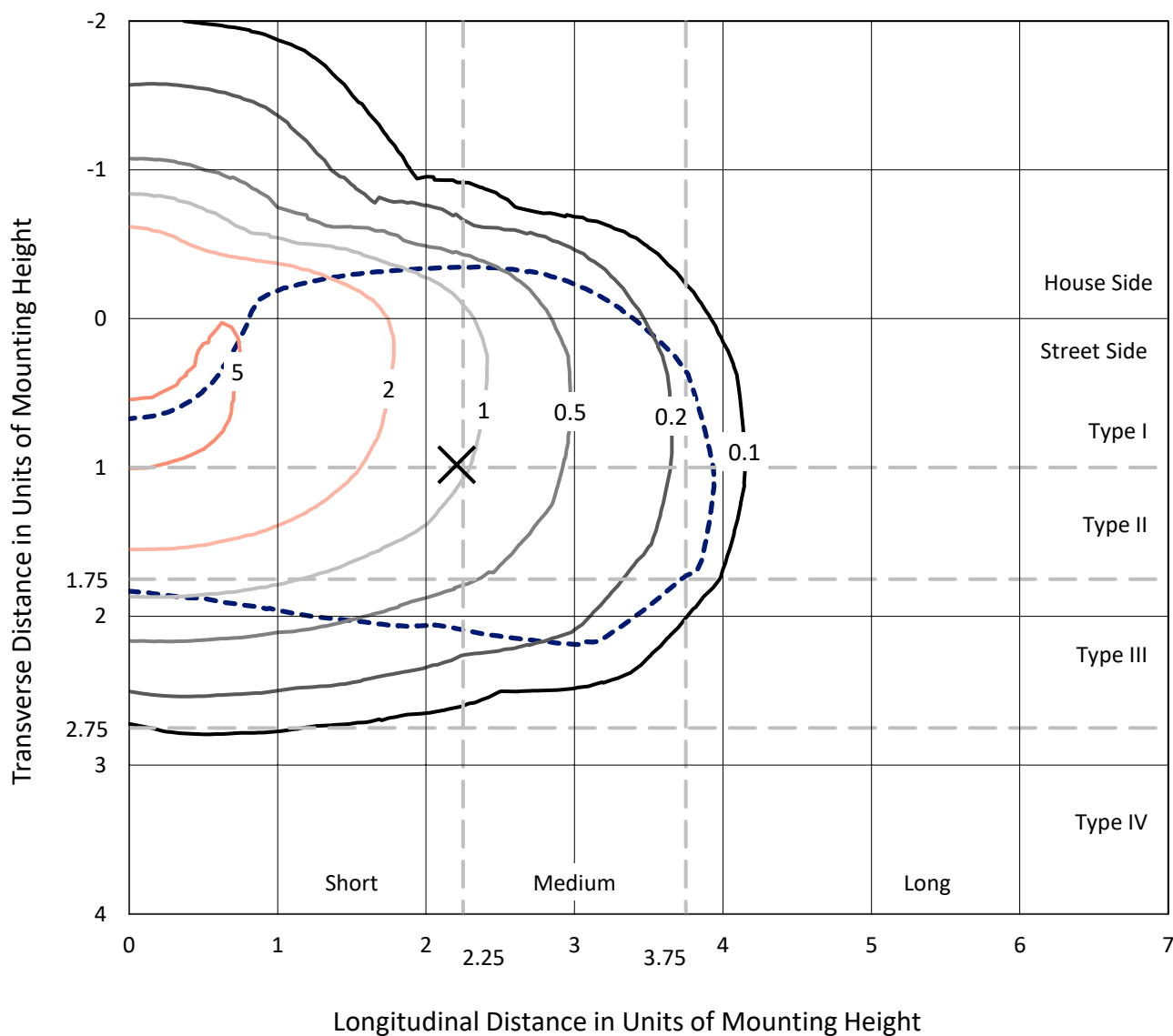
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

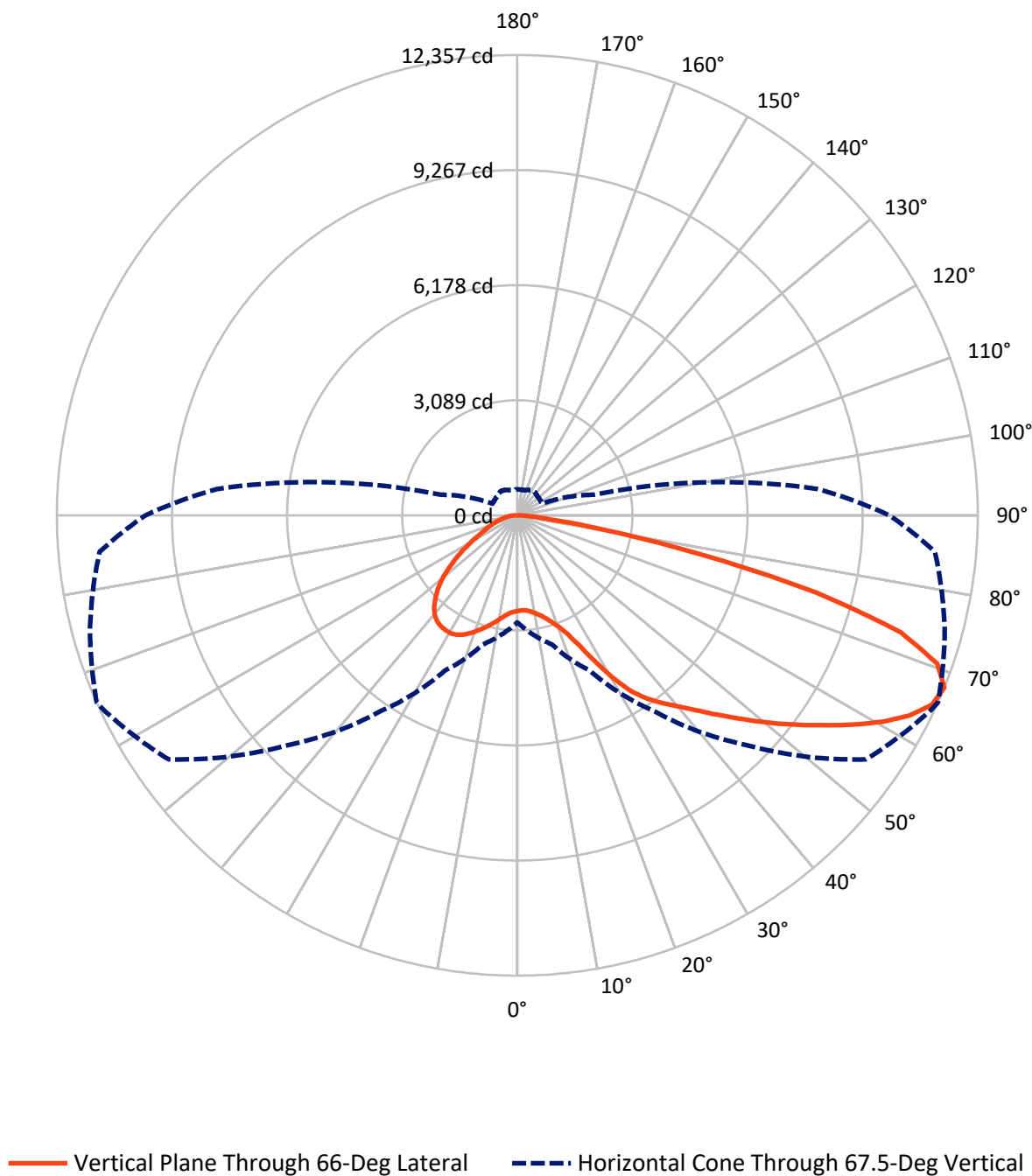


Based on 25 foot mounting height. Maximum calculated value = 5.8 fc

Type III - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5755.6	0.0	5755.6
	% Fixture	24.9	0.0	24.9
Street Side	Lumens	17392.0	0.0	17392.0
	% Fixture	75.1	0.0	75.1
Total	Lumens	23147.6	0.0	23147.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	254.5	1.1
10°-20°	841.0	3.6
20°-30°	1620.9	7.0
30°-40°	2842.1	12.3
40°-50°	4225.3	18.3
50°-60°	5356.0	23.1
60°-70°	5240.7	22.6
70°-80°	2499.9	10.8
80°-90°	267.2	1.2
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°	23147.6	100.0
0°-180°	23147.6	100.0

Coefficient of Utilization



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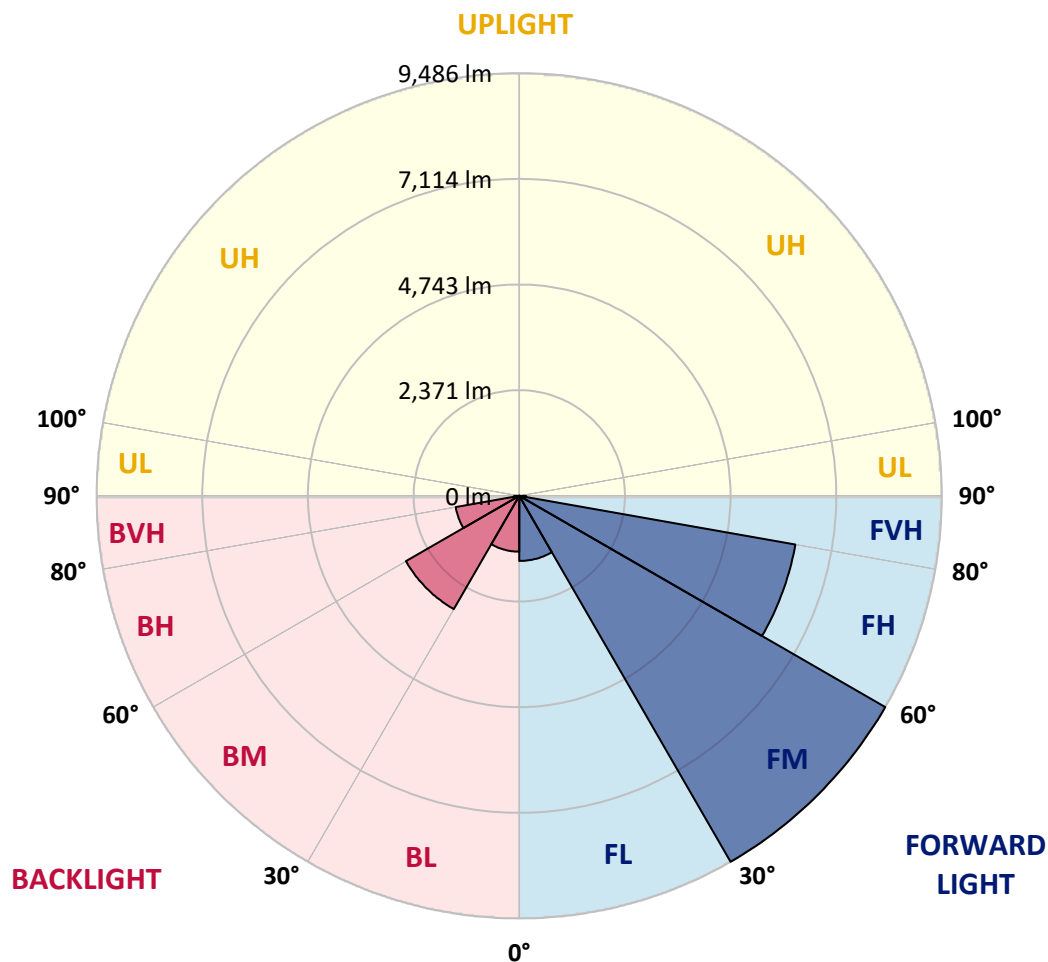
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1462.7	6.3			
FM	(30°-60°)	9485.7	41.0			
FH	(60°-80°)	6292.1	27.2			G3/7500
FVH	(80°-90°)	151.5	0.7			G2/225
BL	(0°-30°)	1253.8	5.4	B3/2500		
BM	(30°-60°)	2937.7	12.7	B3/5000		
BH	(60°-80°)	1448.4	6.3	B3/2500		G3/2500
BVH	(80°-90°)	115.7	0.5			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 III Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	2567.4	2567.4	2567.4	2567.4	2567.4	2567.4	2567.4	2567.4	2567.4	2567.4	2567.4
2.5°	2540.6	2555.2	2551.5	2545.5	2544.3	2546.7	2550.3	2554.0	2552.8	2558.8	2568.5
5°	2533.3	2547.9	2546.7	2546.7	2551.5	2561.3	2567.4	2573.5	2567.4	2574.7	2588.0
7.5°	2538.2	2549.2	2554.0	2558.8	2571.0	2589.3	2603.8	2617.2	2610.0	2618.5	2635.5
10°	2600.2	2608.7	2613.5	2613.5	2622.1	2642.8	2657.4	2681.7	2675.7	2689.0	2710.9
12.5°	2713.3	2721.8	2721.8	2717.0	2723.0	2736.4	2741.3	2768.0	2757.1	2779.0	2800.9
15°	2852.0	2869.0	2855.6	2847.1	2849.5	2862.9	2861.7	2882.4	2871.4	2889.7	2909.2
17.5°	3005.2	3027.1	3005.2	3004.0	2999.1	3013.7	3014.9	3033.2	3013.7	3027.1	3040.5
20°	3186.4	3216.9	3198.6	3204.7	3193.7	3199.7	3205.9	3232.6	3202.2	3211.9	3208.4
22.5°	3441.8	3478.3	3458.9	3481.9	3474.6	3469.8	3468.6	3516.0	3468.6	3472.2	3436.9
25°	3813.9	3857.8	3823.7	3855.3	3855.3	3871.1	3889.4	3950.1	3871.1	3848.1	3756.8
27.5°	4363.6	4407.5	4340.6	4360.0	4354.0	4392.8	4373.4	4524.2	4439.1	4401.3	4217.8
30°	5025.3	5103.2	4976.7	4971.8	4965.7	5027.7	5055.7	5155.4	5069.0	5031.4	4810.0
32.5°	5740.4	5821.9	5671.1	5627.2	5604.2	5641.9	5618.7	5699.1	5639.4	5581.1	5307.4
35°	6496.9	6577.1	6433.6	6348.5	6256.1	6177.1	6094.3	6114.9	6059.1	5970.2	5686.9
37.5°	7212.0	7359.2	7207.1	7116.0	6945.6	6791.2	6560.1	6464.1	6411.8	6330.3	6044.4
40°	7940.5	8024.4	7908.9	7831.0	7646.2	7404.2	7034.5	6831.3	6760.8	6681.8	6439.7
42.5°	8476.9	8557.1	8495.1	8441.6	8296.9	8015.9	7538.0	7283.8	7181.6	7092.8	6887.3
45°	8902.5	8962.1	8923.1	8942.6	8880.6	8608.2	8059.7	7769.0	7663.2	7555.0	7393.2
47.5°	9074.0	9137.3	9199.3	9314.8	9420.6	9219.9	8620.4	8294.4	8182.5	8071.9	7912.5
50°	9054.5	9119.0	9299.0	9544.6	9873.0	9806.1	9211.4	8853.8	8750.4	8623.9	8476.9
52.5°	8898.8	8971.8	9202.9	9611.5	10134.5	10245.2	9813.5	9431.5	9334.3	9183.4	9036.3
55°	8490.2	8533.9	8880.6	9459.5	10196.5	10551.7	10403.2	10046.9	9949.7	9739.2	9578.7
57.5°	7732.5	7795.7	8300.4	9049.6	10040.8	10759.6	10921.4	10693.9	10600.2	10297.5	10129.7
60°	6743.8	6844.7	7422.4	8361.3	9644.3	10758.4	11392.1	11330.0	11252.1	10847.2	10672.1
62.5°	5624.9	5741.6	6297.4	7388.3	8951.1	10453.2	11686.3	11862.7	11822.6	11354.3	11130.6
65°	4319.9	4400.1	4953.5	6129.6	7872.4	9797.6	11720.4	12226.3	12233.6	11739.8	11370.1
67.5°	2876.3	3107.4	3587.7	4599.6	6427.6	8726.1	11421.3	12286.0	12356.5	11872.5	11249.8
70°	1403.4	1707.5	2178.2	2989.4	4599.6	7083.1	10639.2	11797.0	11953.9	11485.6	10532.2
72.5°	582.5	681.1	937.7	1475.3	2640.3	4779.6	9067.9	10471.4	10762.1	10177.0	8855.1
75°	392.8	425.7	536.4	756.4	1202.8	2357.0	6539.4	7807.9	8276.2	7686.3	6282.8
77.5°	302.8	323.5	390.4	529.0	715.1	891.4	3500.2	4705.5	4947.5	4580.2	3269.1
80°	238.4	254.2	291.9	385.5	507.2	476.7	1193.1	2132.0	2271.8	1905.8	1050.8
82.5°	206.7	212.8	209.2	261.5	336.9	278.5	391.7	786.9	868.4	630.0	343.0
85°	149.5	166.7	173.9	161.7	178.8	141.0	160.5	278.5	306.5	273.7	193.4
87.5°	60.8	90.0	110.7	104.6	65.7	40.2	49.8	81.5	93.7	102.2	63.2
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°	2567.4	2567.4	2567.4	2567.4	2567.4	2567.4	2567.4	2567.4	2567.4	2567.4	2567.4
2.5°	2569.8	2578.3	2584.4	2591.7	2596.5	2603.8	2618.5	2627.0	2628.2	2634.2	2633.0
5°	2592.9	2605.0	2618.5	2637.9	2659.8	2678.0	2706.0	2725.5	2732.8	2738.9	2737.7
7.5°	2642.8	2659.8	2684.2	2718.2	2749.8	2774.2	2808.2	2831.3	2854.4	2862.9	2864.2
10°	2717.0	2741.3	2776.5	2822.7	2856.8	2888.4	2923.7	2943.2	2966.2	2976.0	2980.9
12.5°	2809.4	2834.9	2881.2	2945.6	2977.2	2999.1	3011.2	3006.4	3011.2	3019.8	3022.2
15°	2915.2	2943.2	2995.5	3064.7	3086.7	3067.2	3040.5	3016.2	3012.5	3014.9	3023.4
17.5°	3040.5	3061.2	3121.9	3180.4	3164.5	3084.2	3025.9	2987.0	2967.5	2961.4	2969.9
20°	3215.6	3215.6	3265.4	3301.9	3196.2	3059.9	2968.7	2905.5	2865.4	2848.3	2844.7
22.5°	3428.4	3408.9	3440.6	3415.1	3190.1	2991.9	2865.4	2755.9	2695.0	2670.7	2667.0
25°	3698.4	3675.3	3666.8	3508.7	3146.2	2883.5	2678.0	2545.5	2492.0	2478.6	2481.0
27.5°	4105.8	4047.5	3936.8	3559.8	3066.0	2713.3	2459.2	2336.3	2305.9	2307.1	2310.8
30°	4648.3	4531.5	4260.3	3568.3	2934.7	2472.5	2235.3	2147.8	2133.2	2139.3	2160.0
32.5°	5150.5	5039.9	4591.1	3529.4	2732.8	2236.5	2034.7	1976.3	1954.4	1961.7	1971.5
35°	5544.6	5514.2	4897.6	3474.6	2484.7	2015.3	1854.6	1804.8	1762.3	1752.5	1759.8
37.5°	5916.7	5904.6	5127.5	3398.0	2239.0	1858.3	1710.0	1644.3	1582.3	1548.2	1549.4
40°	6325.4	6313.2	5278.2	3280.1	2021.3	1722.1	1579.8	1493.5	1416.9	1354.8	1360.9
42.5°	6785.1	6713.3	5350.0	3111.0	1836.5	1606.6	1474.1	1357.3	1256.3	1199.1	1202.8
45°	7287.4	7125.6	5348.8	2895.7	1680.8	1500.8	1360.9	1195.6	1101.9	1048.4	1045.9
47.5°	7820.1	7519.7	5283.2	2657.4	1529.9	1384.1	1185.8	1059.3	997.3	964.4	957.1
50°	8369.8	7888.2	5171.2	2383.7	1375.6	1251.4	1076.4	989.9	942.6	912.1	901.2
52.5°	8886.6	8222.7	5036.2	2073.6	1218.6	1122.6	1027.7	960.8	910.9	876.9	862.2
55°	9367.1	8510.9	4845.3	1756.1	1090.9	1036.2	1004.6	948.6	891.4	851.4	835.5
57.5°	9794.0	8698.2	4515.7	1458.2	999.7	976.6	980.2	927.9	862.2	828.2	806.4
60°	10149.0	8835.6	4028.0	1182.1	925.5	918.2	942.6	889.0	812.4	773.5	756.4
62.5°	10361.9	8833.1	3429.6	968.1	862.2	864.7	892.7	840.4	762.6	726.1	715.1
65°	10343.7	8616.7	2772.9	828.2	801.4	803.9	840.4	786.9	721.2	699.4	698.1
67.5°	9977.6	8088.9	2127.1	737.0	734.6	745.5	788.1	750.4	695.7	693.2	696.9
70°	8986.4	6993.1	1532.4	664.0	665.2	681.1	737.0	727.2	682.2	687.2	685.9
72.5°	7206.0	5331.7	1028.9	587.4	588.7	614.2	688.4	709.0	668.9	733.4	743.1
75°	4799.0	3325.1	661.6	505.9	507.2	540.0	645.8	673.7	632.4	730.9	737.0
77.5°	2305.9	1494.7	479.2	425.7	425.7	456.0	558.2	603.2	538.7	568.0	520.5
80°	796.6	561.9	377.0	343.0	335.7	356.4	470.7	523.0	464.6	428.1	401.4
82.5°	313.8	291.9	302.8	266.3	242.0	255.4	366.0	431.7	341.7	308.9	307.7
85°	180.0	189.7	214.0	176.3	139.9	156.9	268.8	310.2	257.8	227.4	232.3
87.5°	48.7	66.9	98.5	91.2	63.2	66.9	127.7	171.5	148.4	114.3	118.0
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)