

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: P966152

Luminaire Tested: **NAV-SB4B-735-U-T2U**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966152
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-735-U-T2U
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 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: 23441.7 lumens
Efficiency: N/A
Efficacy: 159.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G3

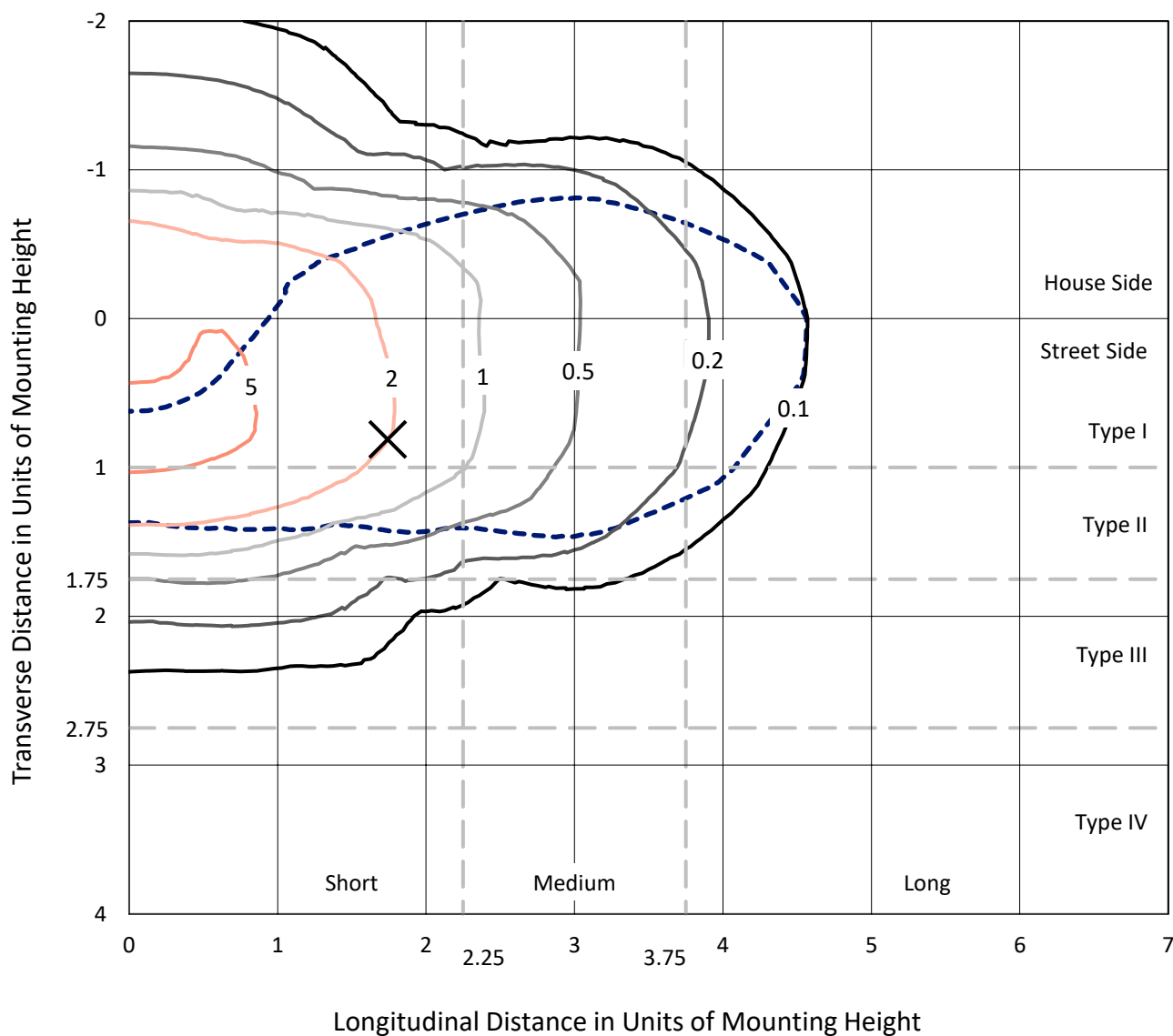
Input Watts (W): 147
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P966152
 CATALOG NUMBER: NAV-SB4B-735-U-T2U

Iso-Footcandle Lines of Horizontal Illumination

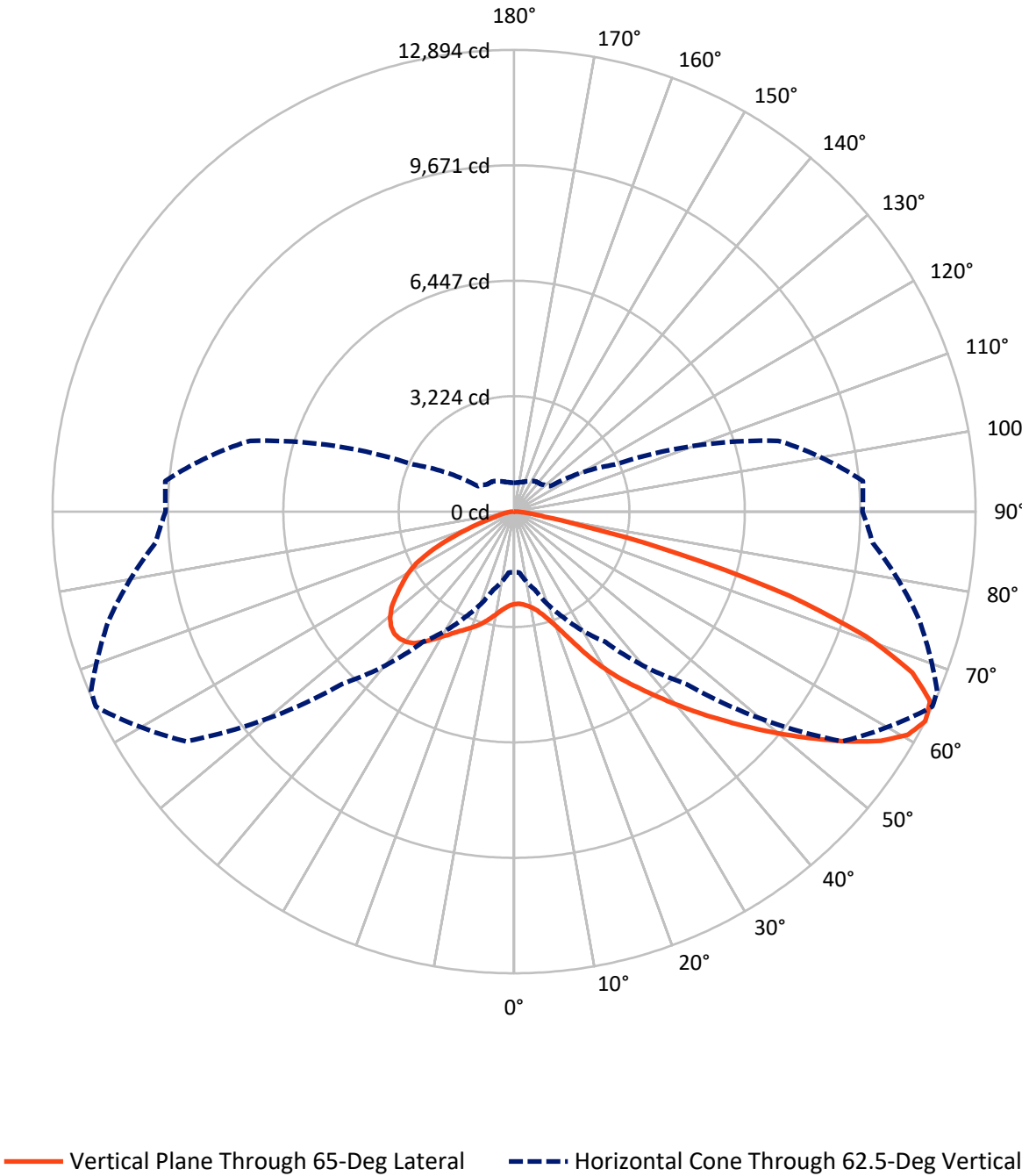
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.6 fc
 Type II - Short - N/A

REPORT NUMBER: P966152
CATALOG NUMBER: NAV-SB4B-735-U-T2U

Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7397.2	0.0	7397.2
	% Fixture	31.6	0.0	31.6
Street Side	Lumens	16044.6	0.0	16044.6
	% Fixture	68.4	0.0	68.4
Total	Lumens	23441.7	0.0	23441.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	257.5	1.1
10°-20°	873.3	3.7
20°-30°	1770.8	7.6
30°-40°	3064.3	13.1
40°-50°	4637.3	19.8
50°-60°	5436.9	23.2
60°-70°	4558.2	19.4
70°-80°	2516.5	10.7
80°-90°	326.9	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°	23441.7	100.0
0°-180°	23441.7	100.0

Coefficient of Utilization



REPORT NUMBER: P966152

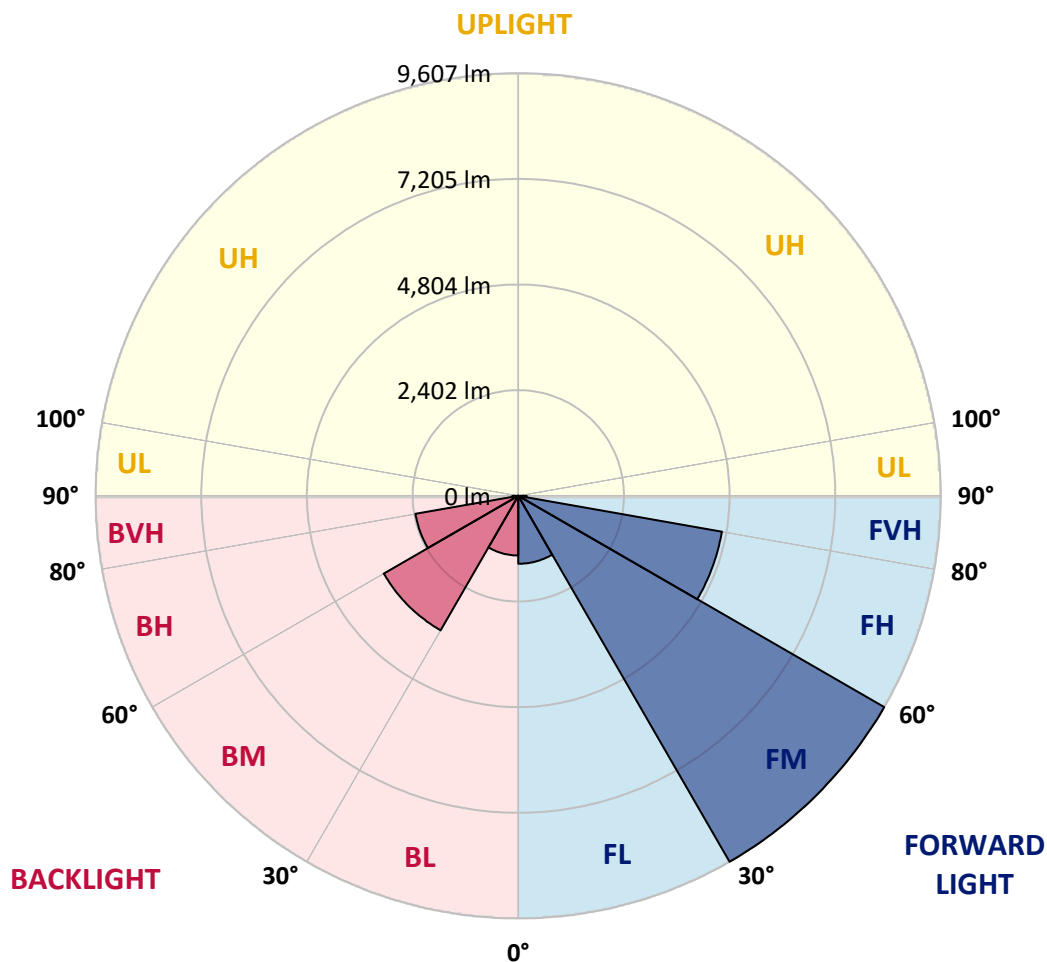
CATALOG NUMBER: NAV-SB4B-735-U-T2U

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1545.1	6.6			
FM	(30°-60°)	9607.2	41.0			
FH	(60°-80°)	4701.7	20.1			G2/5000
FVH	(80°-90°)	190.5	0.8			G2/225
BL	(0°-30°)	1356.6	5.8	B3/2500		
BM	(30°-60°)	3531.3	15.1	B3/5000		
BH	(60°-80°)	2373.0	10.1	B3/2500		G3/2500
BVH	(80°-90°)	136.4	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



REPORT NUMBER: P966152

CATALOG NUMBER: NAV-SB4B-735-U-T2U

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	2583.2	2583.2	2583.2	2583.2	2583.2	2583.2	2583.2	2583.2	2583.2	2583.2	2583.2
2.5°	2566.2	2558.8	2565.0	2565.0	2567.4	2566.2	2574.7	2577.1	2580.7	2588.0	2588.0
5°	2540.6	2539.4	2550.3	2560.0	2569.8	2578.3	2589.3	2605.0	2607.5	2616.0	2627.0
7.5°	2532.1	2524.8	2541.8	2554.0	2577.1	2597.8	2627.0	2653.7	2664.7	2668.3	2689.0
10°	2597.8	2585.6	2601.4	2608.7	2628.2	2648.8	2682.9	2725.5	2737.7	2752.2	2775.3
12.5°	2709.7	2696.3	2719.4	2730.3	2748.5	2766.8	2789.9	2831.3	2837.4	2864.2	2886.0
15°	2862.9	2847.1	2861.7	2875.0	2905.5	2922.5	2945.6	2985.7	2985.7	3006.4	3022.2
17.5°	3070.9	3050.2	3061.2	3066.0	3085.5	3111.0	3149.9	3185.2	3203.4	3196.2	3174.2
20°	3381.0	3355.4	3355.4	3331.1	3323.9	3344.5	3395.6	3444.2	3463.7	3426.0	3372.5
22.5°	3846.8	3810.3	3789.6	3706.9	3674.1	3676.6	3727.6	3787.2	3803.1	3736.1	3615.7
25°	4439.1	4381.9	4354.0	4232.3	4158.1	4093.6	4133.8	4210.4	4232.3	4149.6	3955.1
27.5°	5031.3	5035.0	5008.3	4862.3	4739.5	4621.5	4600.8	4681.1	4704.2	4610.6	4369.8
30°	5862.0	5775.7	5724.6	5549.5	5374.3	5208.9	5123.8	5156.7	5162.7	5050.8	4771.1
32.5°	6578.3	6556.4	6447.0	6293.8	6068.7	5809.7	5667.4	5615.2	5605.4	5446.0	5114.0
35°	7394.5	7382.3	7266.7	7084.3	6841.1	6481.1	6224.4	6074.9	6062.7	5838.9	5453.4
37.5°	8223.9	8223.9	8110.7	7911.3	7659.5	7209.5	6819.1	6582.0	6543.1	6251.2	5798.7
40°	8885.4	8845.3	8866.0	8782.1	8493.9	8015.9	7479.5	7135.3	7083.1	6732.8	6166.1
42.5°	9261.3	9247.9	9371.9	9465.6	9347.6	8965.7	8206.9	7735.0	7662.0	7263.0	6589.3
45°	9345.1	9330.6	9552.0	9894.9	10060.3	9903.4	8997.3	8366.2	8277.4	7817.7	7043.0
47.5°	9151.8	9122.6	9447.3	9988.5	10518.8	10794.9	9853.5	9050.9	8921.9	8357.6	7508.7
50°	8570.4	8542.5	9033.8	9752.6	10673.2	11400.6	10782.7	9777.0	9579.9	8936.6	7979.4
52.5°	7306.8	7320.2	8090.1	9077.6	10470.2	11777.6	11582.9	10541.9	10304.7	9528.8	8420.9
55°	5691.7	5720.9	6667.1	7754.4	9657.8	11720.4	12129.0	11329.9	11094.1	10085.8	8876.9
57.5°	4075.4	4204.3	5091.0	6167.3	8097.4	10814.4	12248.2	12079.1	11850.5	10693.9	9323.3
60°	2641.5	2664.7	3576.8	4661.6	6166.1	9204.1	12006.2	12647.2	12468.3	11314.2	9696.6
62.5°	1692.9	1708.8	2264.5	3260.6	4437.8	6809.4	11191.4	12894.0	12839.3	11724.1	10055.5
65°	1244.1	1231.9	1521.4	2155.1	2989.4	4199.5	9609.1	12774.8	12883.0	11980.6	10352.2
67.5°	1038.6	1021.6	1163.9	1492.3	2202.5	2385.0	7109.8	12000.1	12396.6	11951.5	10569.9
70°	946.2	931.6	1017.9	1107.9	1718.5	1596.8	3584.1	10432.4	11042.9	11619.4	10534.6
72.5°	801.4	775.9	893.9	983.9	1336.6	1224.7	1481.3	8013.4	8757.8	10555.2	10038.4
75°	621.5	604.4	705.4	865.9	1004.6	955.9	936.4	4866.0	5678.4	8163.0	8782.1
77.5°	492.5	469.4	561.9	675.0	903.6	721.2	682.2	2095.5	2900.6	5211.4	6571.1
80°	370.9	350.2	426.9	533.9	694.4	543.7	441.5	855.0	1093.4	2640.3	3304.4
82.5°	263.9	245.7	298.0	391.7	467.0	487.7	271.2	479.2	538.7	1017.9	738.2
85°	169.0	158.1	199.5	245.7	296.7	313.8	165.4	250.5	274.9	419.6	307.7
87.5°	92.5	75.4	107.0	114.3	137.5	125.3	79.0	91.2	98.5	152.0	130.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

REPORT NUMBER: P966152

CATALOG NUMBER: NAV-SB4B-735-U-T2U

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2583.2	2583.2	2583.2	2583.2	2583.2	2583.2	2583.2	2583.2	2583.2	2583.2	2583.2
2.5°	2592.9	2596.5	2608.7	2612.4	2620.9	2631.8	2639.2	2646.4	2646.4	2653.7	2653.7
5°	2628.2	2636.7	2662.2	2675.7	2697.5	2719.4	2732.8	2748.5	2758.3	2763.2	2765.7
7.5°	2696.3	2709.7	2746.2	2769.2	2807.0	2837.4	2858.0	2879.9	2884.8	2898.2	2893.3
10°	2788.7	2804.5	2845.9	2889.7	2934.7	2972.4	2991.8	3007.7	3013.7	3016.2	3010.0
12.5°	2894.5	2917.7	2971.2	3024.7	3072.1	3104.9	3109.7	3106.2	3089.1	3074.5	3074.5
15°	3024.7	3045.4	3104.9	3163.3	3209.5	3215.6	3185.2	3165.7	3145.0	3141.4	3141.4
17.5°	3180.4	3191.2	3246.0	3303.2	3306.9	3286.2	3241.2	3222.9	3203.4	3190.0	3191.2
20°	3361.5	3357.9	3396.8	3421.1	3395.6	3332.4	3264.2	3233.9	3214.4	3198.6	3199.7
22.5°	3578.1	3550.1	3545.2	3539.1	3471.0	3338.4	3246.0	3207.1	3176.7	3154.7	3162.1
25°	3893.1	3785.9	3711.8	3670.4	3517.2	3305.6	3187.6	3101.2	3044.1	3006.4	3021.0
27.5°	4287.1	4107.1	3919.8	3818.8	3517.2	3238.7	3046.5	2906.7	2813.0	2774.2	2793.5
30°	4662.8	4474.3	4198.3	3997.6	3508.7	3129.2	2819.2	2624.5	2515.0	2476.2	2499.3
32.5°	4984.0	4778.3	4493.8	4193.4	3488.0	2951.7	2537.0	2321.7	2215.8	2169.7	2192.8
35°	5281.9	5063.0	4790.5	4408.6	3433.3	2691.4	2226.8	2062.6	1944.7	1870.5	1894.8
37.5°	5587.2	5326.9	5071.5	4603.3	3334.7	2387.3	1988.5	1848.6	1710.0	1610.3	1637.0
40°	5919.2	5607.9	5371.9	4718.8	3173.0	2098.0	1803.6	1675.9	1528.8	1422.9	1443.6
42.5°	6307.1	5944.7	5706.4	4778.3	2951.7	1892.4	1683.2	1557.9	1419.3	1332.9	1349.9
45°	6712.1	6315.6	6011.6	4777.2	2704.8	1796.3	1644.3	1520.3	1367.0	1276.9	1291.6
47.5°	7136.6	6703.6	6275.6	4699.3	2490.8	1809.6	1622.4	1438.8	1269.7	1182.1	1194.3
50°	7562.2	7128.1	6530.9	4553.4	2399.5	1780.5	1540.9	1324.4	1124.9	1045.9	1050.8
52.5°	7984.2	7579.3	6751.1	4345.4	2307.1	1672.3	1436.3	1176.1	1065.4	1010.6	1010.6
55°	8408.7	8025.6	6990.6	4042.6	2076.0	1545.8	1261.2	1120.1	1017.9	968.1	963.2
57.5°	8834.4	8541.3	7218.0	3739.8	1785.3	1390.1	1165.1	1052.0	970.5	927.9	920.7
60°	9277.1	9131.1	7452.8	3461.2	1498.3	1190.6	1094.6	997.2	914.6	867.2	863.5
62.5°	9733.1	9780.6	7636.5	3102.5	1234.4	1069.1	1031.4	931.6	851.4	806.4	805.1
65°	10192.8	10406.9	7756.8	2605.0	1000.9	953.5	963.2	859.9	778.4	739.4	738.2
67.5°	10539.5	10858.1	7722.8	1971.5	820.9	844.0	878.1	784.4	707.9	677.4	678.7
70°	10578.4	10804.6	7387.1	1349.9	687.2	737.0	783.2	710.2	631.2	609.3	610.5
72.5°	10060.3	10074.9	6451.9	881.7	581.4	647.0	683.5	634.9	558.2	536.4	535.2
75°	8701.8	8332.1	4737.0	581.4	486.5	555.8	589.9	555.8	481.6	486.5	469.4
77.5°	6592.9	5900.9	2876.3	413.5	406.2	467.0	513.2	488.9	425.7	478.0	420.8
80°	3396.8	3192.5	1283.1	308.9	321.0	373.4	422.0	390.4	336.9	321.0	293.2
82.5°	778.4	904.9	505.9	221.3	232.3	268.8	322.3	293.2	242.0	204.3	201.9
85°	272.4	298.0	223.8	138.7	136.2	167.8	218.9	195.8	164.2	131.3	138.7
87.5°	86.3	113.1	83.9	56.0	58.4	75.4	101.0	92.5	76.7	49.8	52.3
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)