

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: P967857

Luminaire Tested: **NAV-SB5A-827-U-T2U**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967857
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-SB5A-827-U-T2U
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 2700K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II U OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20467.2 lumens
Efficiency: N/A
Efficacy: 144.4 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G3

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

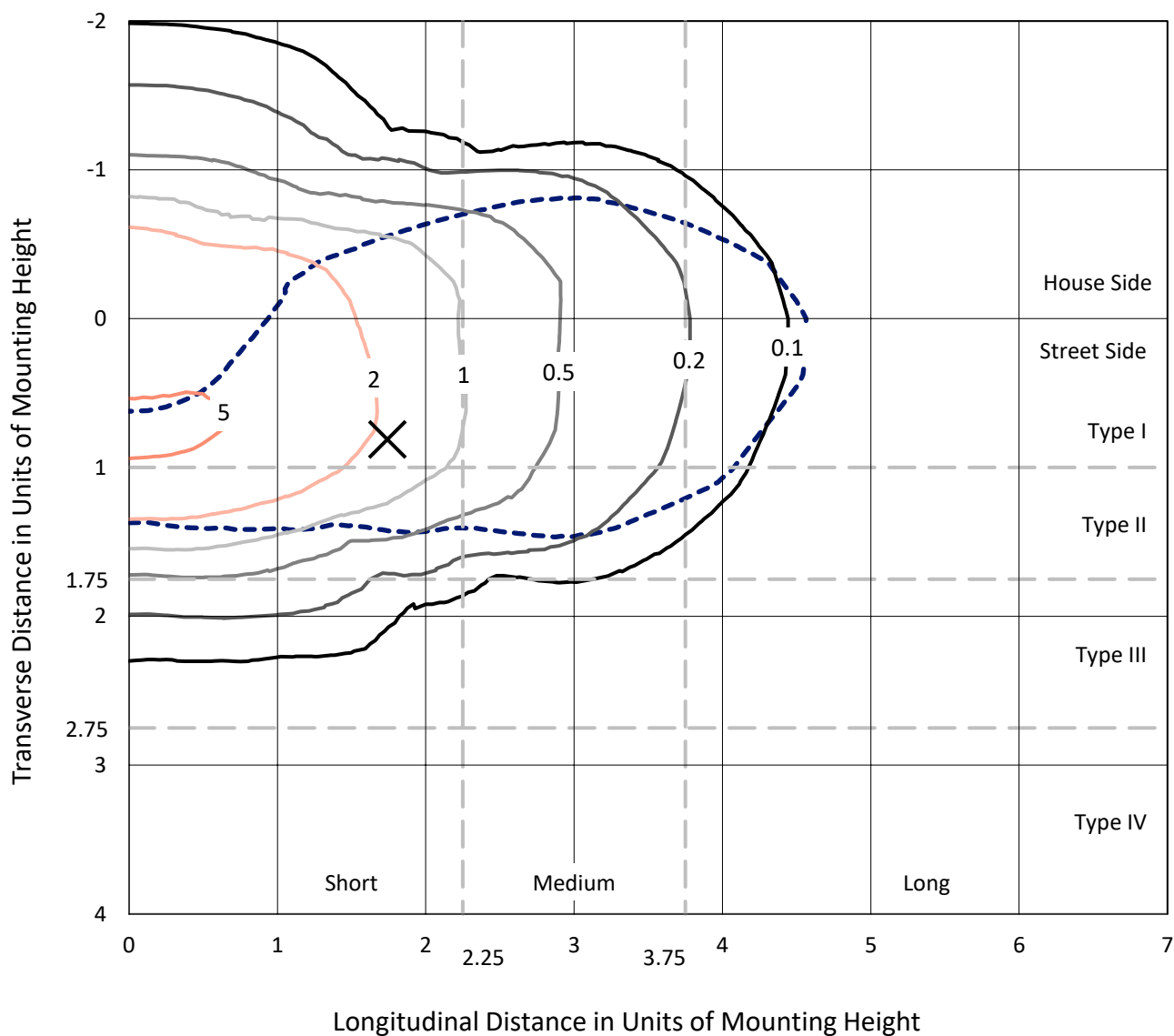


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Iso-Footcandle Lines of Horizontal Illumination

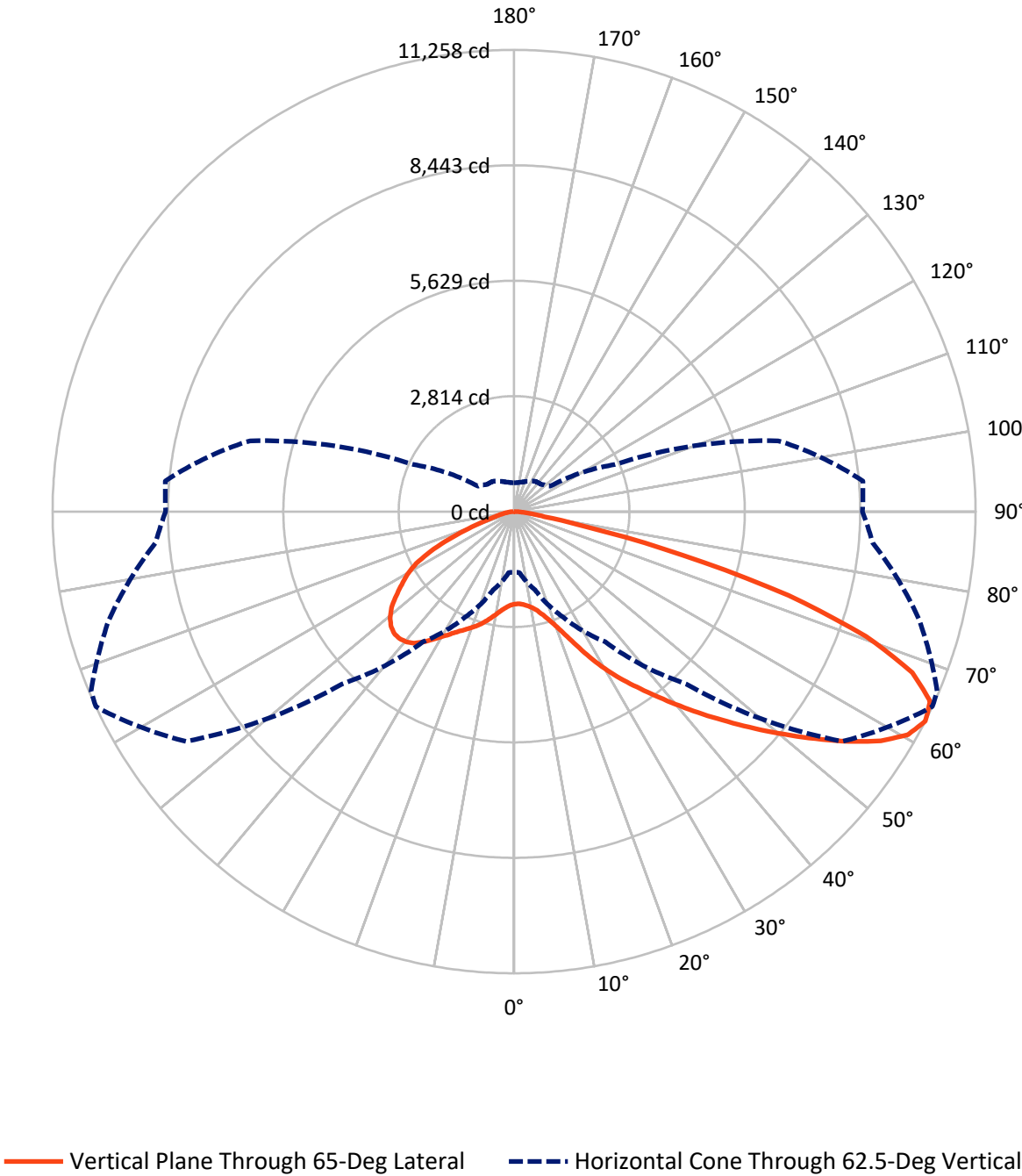
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.7 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	6458.6	0.0	6458.6
	% Fixture	31.6	0.0	31.6
Street Side	Lumens	14008.6	0.0	14008.6
	% Fixture	68.4	0.0	68.4
Total	Lumens	20467.2	0.0	20467.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	224.9	1.1
10°-20°	762.5	3.7
20°-30°	1546.1	7.6
30°-40°	2675.5	13.1
40°-50°	4048.9	19.8
50°-60°	4747.0	23.2
60°-70°	3979.8	19.4
70°-80°	2197.2	10.7
80°-90°	285.4	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°	20467.2	100.0
0°-180°	20467.2	100.0

Coefficient of Utilization



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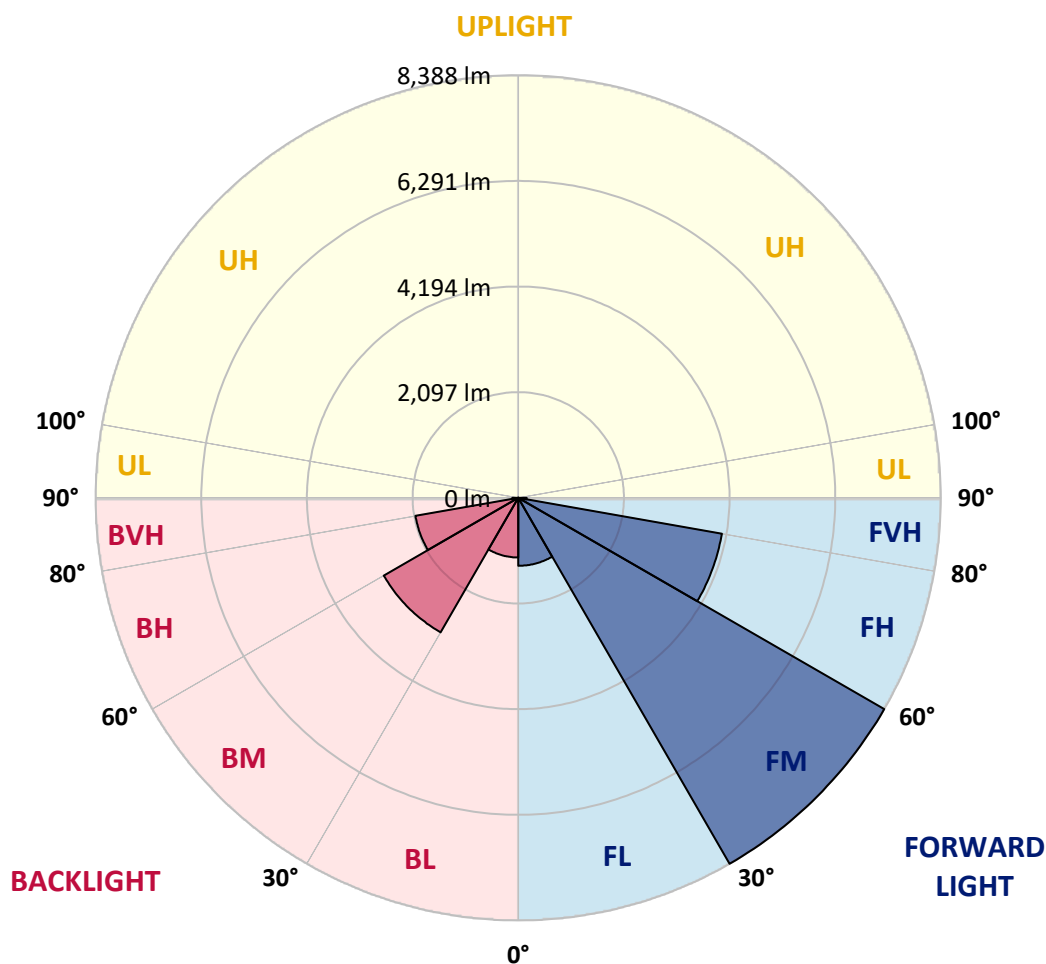
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1349.1	6.6			
FM	(30°-60°)	8388.1	41.0			
FH	(60°-80°)	4105.1	20.1			G2/5000
FVH	(80°-90°)	166.3	0.8			G2/225
BL	(0°-30°)	1184.4	5.8	B3/2500		
BM	(30°-60°)	3083.2	15.1	B3/5000		
BH	(60°-80°)	2071.9	10.1	B3/2500		G3/2500
BVH	(80°-90°)	119.1	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°	2255.4	2255.4	2255.4	2255.4	2255.4	2255.4	2255.4	2255.4	2255.4	2255.4	2255.4
2.5°	2240.5	2234.2	2239.4	2239.4	2241.6	2240.5	2247.9	2250.1	2253.3	2259.6	2259.6
5°	2218.2	2217.2	2226.7	2235.2	2243.7	2251.1	2260.7	2274.5	2276.6	2284.1	2293.6
7.5°	2210.8	2204.5	2219.3	2229.9	2250.1	2268.1	2293.6	2317.0	2326.5	2329.7	2347.8
10°	2268.1	2257.6	2271.3	2277.7	2294.7	2312.7	2342.4	2379.6	2390.3	2403.0	2423.2
12.5°	2365.8	2354.1	2374.3	2383.8	2399.8	2415.7	2435.9	2472.0	2477.3	2500.7	2519.8
15°	2499.7	2485.8	2498.5	2510.2	2536.8	2551.6	2571.8	2606.9	2606.9	2624.9	2638.8
17.5°	2681.2	2663.2	2672.7	2677.0	2693.9	2716.2	2750.2	2781.0	2796.9	2790.6	2771.5
20°	2952.0	2929.7	2929.7	2908.4	2902.1	2920.1	2964.7	3007.1	3024.2	2991.3	2944.5
22.5°	3358.7	3326.8	3308.8	3236.5	3207.8	3210.0	3254.6	3306.6	3320.5	3262.1	3156.9
25°	3875.8	3825.9	3801.5	3695.3	3630.6	3574.3	3609.2	3676.2	3695.3	3623.1	3453.2
27.5°	4392.9	4396.1	4372.8	4245.3	4138.1	4035.1	4017.1	4087.1	4107.3	4025.5	3815.3
30°	5118.1	5042.8	4998.2	4845.3	4692.3	4547.9	4473.6	4502.3	4507.6	4410.0	4165.7
32.5°	5743.6	5724.5	5628.9	5495.1	5298.7	5072.5	4948.3	4902.6	4894.2	4755.0	4465.1
35°	6456.2	6445.5	6344.6	6185.4	5973.0	5658.7	5434.7	5304.0	5293.4	5098.0	4761.4
37.5°	7180.3	7180.3	7081.5	6907.4	6687.6	6294.7	5953.8	5746.8	5712.8	5458.0	5063.0
40°	7758.0	7723.0	7741.0	7667.7	7416.1	6998.7	6530.5	6230.0	6184.3	5878.5	5383.6
42.5°	8086.1	8074.4	8182.7	8264.5	8161.5	7828.0	7165.5	6753.4	6689.8	6341.5	5753.2
45°	8159.3	8146.6	8339.9	8639.3	8783.7	8646.8	7855.7	7304.6	7227.1	6825.7	6149.3
47.5°	7990.5	7965.1	8248.6	8721.1	9184.1	9425.1	8603.2	7902.3	7789.8	7297.1	6555.9
50°	7482.9	7458.5	7887.5	8515.1	9318.9	9953.9	9414.5	8536.3	8364.3	7802.6	6966.9
52.5°	6379.7	6391.4	7063.5	7925.7	9141.6	10283.1	10113.2	9204.2	8997.1	8319.7	7352.3
55°	4969.5	4995.0	5821.2	6770.4	8432.3	10233.2	10590.0	9892.3	9686.4	8806.0	7750.5
57.5°	3558.3	3670.8	4444.9	5384.7	7069.8	9442.1	10694.0	10546.4	10346.8	9336.9	8140.2
60°	2306.4	2326.5	3123.0	4070.1	5383.6	8036.2	10482.7	11042.3	10886.2	9878.5	8466.2
62.5°	1478.2	1491.9	1977.2	2846.8	3874.7	5945.4	9771.2	11257.9	11210.1	10236.4	8779.4
65°	1086.3	1075.6	1328.4	1881.6	2610.1	3666.6	8389.7	11153.8	11248.3	10460.4	9038.6
67.5°	906.8	892.0	1016.2	1302.9	1923.0	2082.3	6207.6	10477.4	10823.6	10434.9	9228.7
70°	826.2	813.3	888.8	967.4	1500.4	1394.2	3129.3	9108.7	9641.8	10145.0	9197.8
72.5°	699.8	677.4	780.4	859.1	1167.0	1069.3	1293.3	6996.6	7646.5	9215.9	8764.6
75°	542.6	527.8	615.9	756.0	877.1	834.7	817.6	4248.5	4957.8	7127.2	7667.7
77.5°	430.1	409.9	490.6	589.4	788.9	629.7	595.7	1829.6	2532.6	4550.1	5737.2
80°	323.9	305.9	372.7	466.2	606.3	474.7	385.5	746.5	954.6	2305.3	2885.1
82.5°	230.4	214.5	260.1	341.9	407.7	425.8	236.8	418.4	470.4	888.8	644.5
85°	147.6	138.1	174.1	214.5	259.1	274.0	144.4	218.7	240.0	366.3	268.7
87.5°	80.7	65.8	93.5	99.8	120.0	109.4	69.0	79.6	86.0	132.7	113.6
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°	2255.4	2255.4	2255.4	2255.4	2255.4	2255.4	2255.4	2255.4	2255.4	2255.4	2255.4
2.5°	2263.9	2267.1	2277.7	2280.9	2288.3	2297.8	2304.2	2310.7	2310.7	2317.0	2317.0
5°	2294.7	2302.1	2324.4	2336.1	2355.2	2374.3	2386.0	2399.8	2408.3	2412.5	2414.7
7.5°	2354.1	2365.8	2397.7	2417.9	2450.8	2477.3	2495.4	2514.5	2518.7	2530.4	2526.2
10°	2434.9	2448.6	2484.8	2522.9	2562.3	2595.2	2612.2	2625.9	2631.3	2633.4	2628.1
12.5°	2527.2	2547.4	2594.2	2640.8	2682.2	2710.9	2715.2	2712.0	2697.1	2684.4	2684.4
15°	2640.8	2659.0	2710.9	2761.9	2802.2	2807.6	2781.0	2764.0	2746.0	2742.8	2742.8
17.5°	2776.7	2786.4	2834.1	2884.0	2887.2	2869.2	2829.8	2813.9	2796.9	2785.2	2786.4
20°	2935.0	2931.8	2965.7	2987.1	2964.7	2909.5	2850.0	2823.5	2806.6	2792.7	2793.7
22.5°	3124.0	3099.6	3095.3	3090.1	3030.5	2914.8	2834.1	2800.1	2773.5	2754.5	2760.8
25°	3399.0	3305.6	3240.8	3204.7	3070.9	2886.1	2783.2	2707.7	2657.8	2624.9	2637.6
27.5°	3743.1	3585.9	3422.4	3334.2	3070.9	2827.8	2660.0	2537.9	2456.1	2422.1	2439.1
30°	4071.2	3906.6	3665.5	3490.3	3063.5	2732.1	2461.4	2291.5	2196.0	2161.9	2182.1
32.5°	4351.5	4172.1	3923.6	3661.3	3045.4	2577.2	2215.0	2027.1	1934.7	1894.4	1914.5
35°	4611.7	4420.5	4182.7	3849.3	2997.6	2349.9	1944.2	1800.9	1697.9	1633.1	1654.4
37.5°	4878.2	4650.9	4428.0	4019.1	2911.6	2084.4	1736.1	1614.1	1493.0	1405.9	1429.3
40°	5168.0	4896.2	4690.3	4120.0	2770.4	1831.7	1574.7	1463.3	1334.8	1242.4	1260.4
42.5°	5506.8	5190.4	4982.2	4172.1	2577.2	1652.3	1469.6	1360.3	1239.2	1163.8	1178.6
45°	5860.4	5514.3	5248.8	4171.0	2361.6	1568.4	1435.6	1327.4	1193.5	1115.0	1127.7
47.5°	6231.0	5853.0	5479.2	4103.1	2174.7	1580.0	1416.6	1256.1	1108.5	1032.2	1042.7
50°	6602.6	6223.6	5702.2	3975.6	2095.1	1554.6	1345.4	1156.4	982.3	913.2	917.5
52.5°	6971.1	6617.5	5894.4	3794.0	2014.3	1460.1	1254.1	1026.8	930.2	882.4	882.4
55°	7341.8	7007.2	6103.6	3529.6	1812.6	1349.6	1101.2	978.0	888.8	845.2	841.0
57.5°	7713.3	7457.5	6302.1	3265.2	1558.8	1213.7	1017.3	918.5	847.4	810.2	803.8
60°	8099.9	7972.4	6507.1	3022.1	1308.2	1039.6	955.7	870.7	798.5	757.1	753.9
62.5°	8498.1	8539.5	6667.4	2708.8	1077.8	933.4	900.5	813.3	743.3	704.0	702.9
65°	8899.5	9086.3	6772.6	2274.5	873.9	832.5	841.0	750.7	679.6	645.6	644.5
67.5°	9202.1	9480.3	6742.9	1721.3	716.8	737.0	766.7	684.9	618.0	591.4	592.6
70°	9236.1	9433.6	6449.7	1178.6	599.9	643.5	683.9	620.1	551.1	532.0	533.1
72.5°	8783.7	8796.4	5633.2	769.9	507.6	564.9	596.8	554.3	487.4	468.3	467.2
75°	7597.6	7274.8	4136.0	507.6	424.8	485.2	515.0	485.2	420.5	424.8	409.9
77.5°	5756.4	5152.2	2511.4	361.0	354.6	407.7	448.1	426.9	371.7	417.3	367.4
80°	2965.7	2787.4	1120.2	269.7	280.3	326.0	368.5	340.8	294.2	280.3	255.9
82.5°	679.6	790.1	441.8	193.2	202.8	234.6	281.4	255.9	211.4	178.4	176.3
85°	237.9	260.1	195.4	121.1	118.9	146.6	191.2	171.0	143.4	114.7	121.1
87.5°	75.4	98.7	73.3	48.9	50.9	65.8	88.1	80.7	66.9	43.6	45.6
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)