

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: P884494

Luminaire Tested: **NAV-SB5B-830-U-SL4**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884494
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-9)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5B-830-U-SL4
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 3000K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24784 lumens
Efficiency: N/A
Efficacy: 135.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B3 - U0 - G4

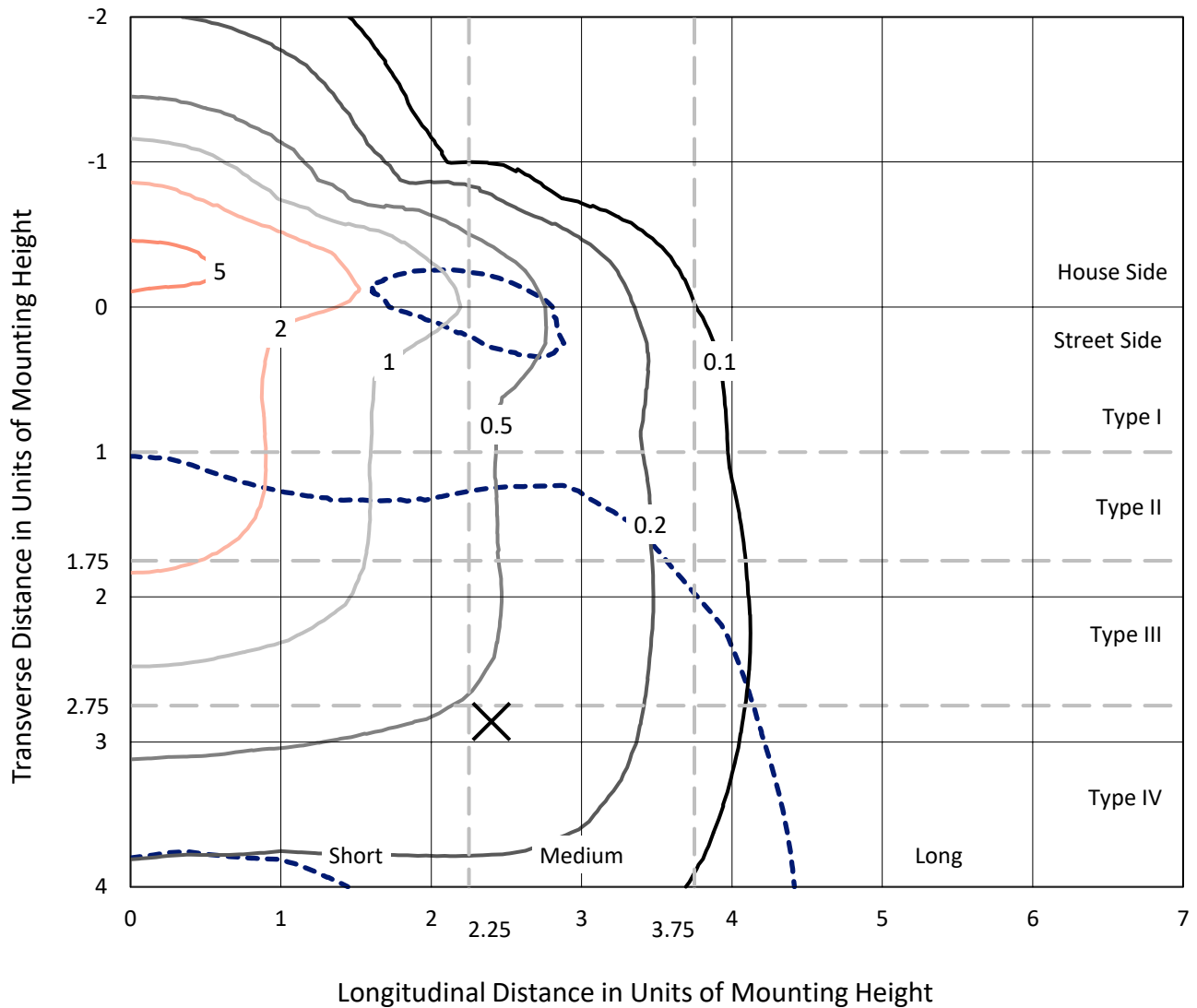
Input Watts (W): 182.7
Input Voltage (V): 120.0
Input Current (Ain): 1.547
Voltage Rise (V): NR
Power Factor: 0.992
Total Harmonic Distortion (THDi): 11.125
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

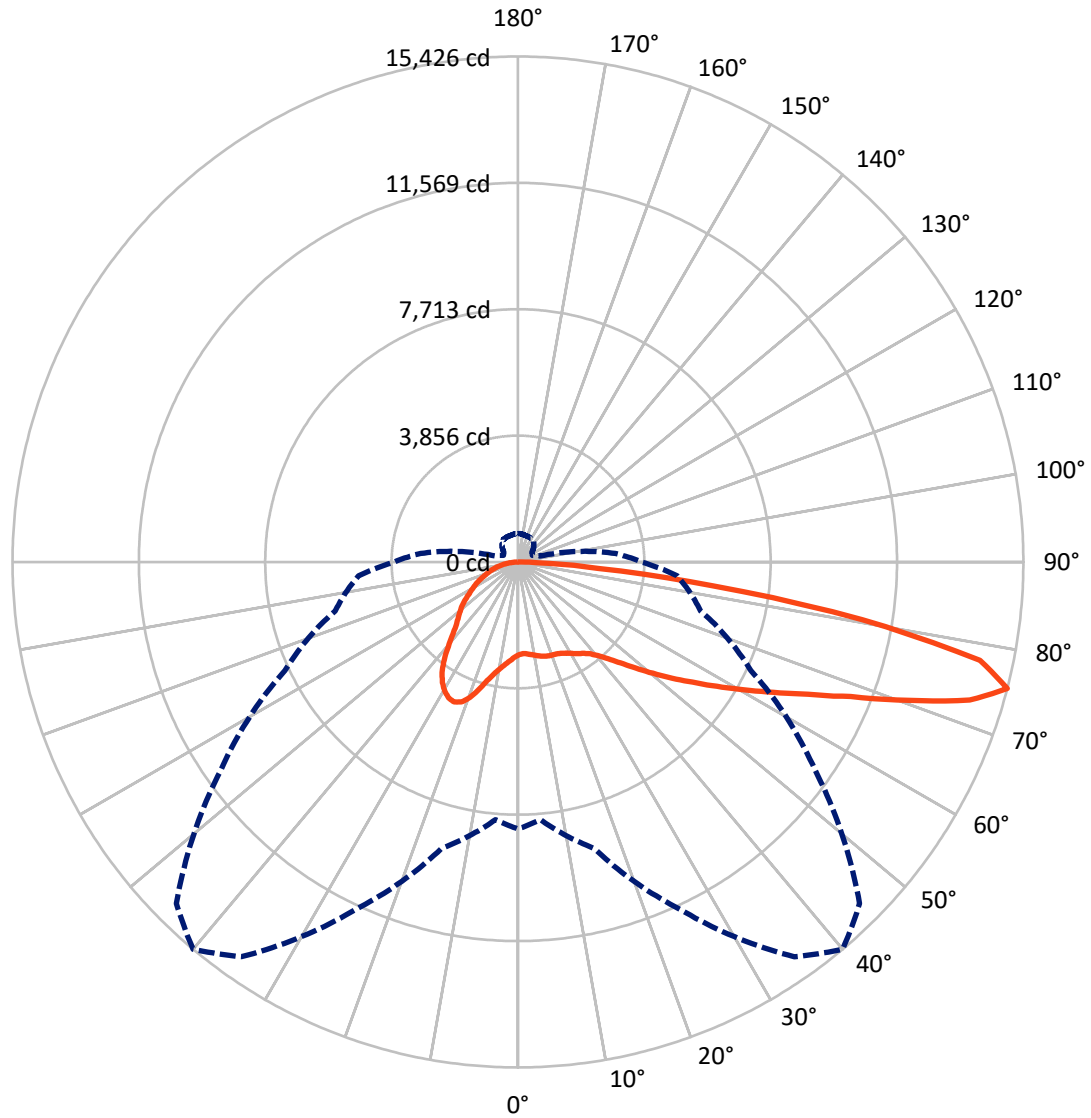
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.9 fc
 Type IV - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7678.9	0.0	7678.9
	% Fixture	31.0	0.0	31.0
Street Side	Lumens	17105.1	0.0	17105.1
	% Fixture	69.0	0.0	69.0
Total	Lumens	24784.0	0.0	24784.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	282.9	1.1
10°-20°	949.8	3.8
20°-30°	1734.3	7.0
30°-40°	2459.7	9.9
40°-50°	3321.3	13.4
50°-60°	4468.0	18.0
60°-70°	5671.0	22.9
70°-80°	5146.8	20.8
80°-90°	750.2	3.0
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°	24784.0	100.0
0°-180°	24784.0	100.0

Coefficient of Utilization



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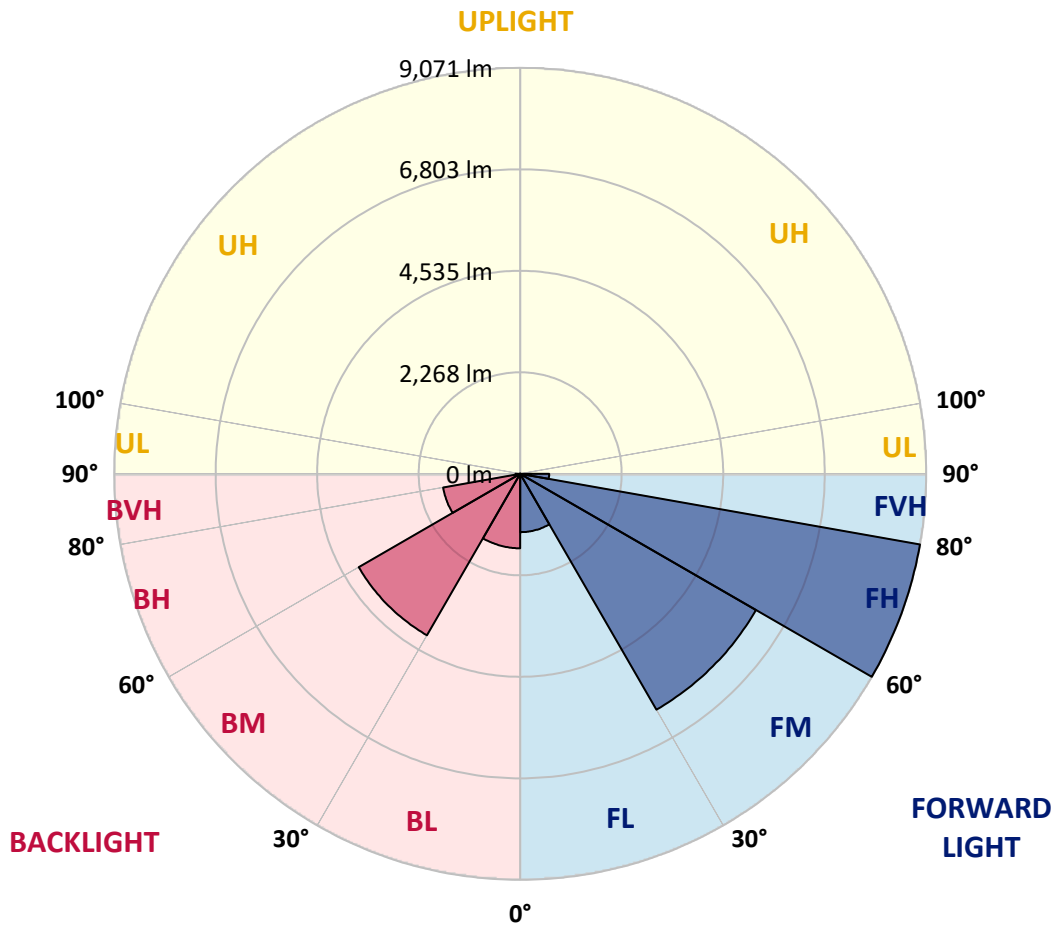
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1303.7	5.3			
FM (30°-60°)	6083.9	24.5			
FH (60°-80°)	9070.6	36.6			G4/12000
FVH (80°-90°)	646.9	2.6			G4/750
BL (0°-30°)	1663.3	6.7	B3/2500		
BM (30°-60°)	4165.1	16.8	B3/5000		
BH (60°-80°)	1747.2	7.0	B3/2500		G3/2500
BVH (80°-90°)	103.3	0.4			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type IV Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	2834.1	2834.1	2834.1	2834.1	2834.1	2834.1	2834.1	2834.1	2834.1	2834.1	2834.1
2.5°	2790.7	2806.5	2802.5	2797.3	2797.3	2798.6	2797.3	2806.5	2815.7	2824.9	2839.3
5°	2819.6	2835.4	2827.5	2820.9	2815.7	2814.4	2810.4	2809.1	2814.4	2826.2	2845.9
7.5°	2876.1	2891.9	2880.1	2868.3	2857.7	2852.5	2847.2	2839.3	2835.4	2842.0	2869.6
10°	2939.2	2955.0	2940.6	2919.5	2902.4	2895.9	2890.6	2882.7	2877.5	2881.4	2911.6
12.5°	3002.3	3018.1	2998.4	2969.5	2947.1	2943.2	2936.6	2934.0	2932.7	2931.4	2961.6
15°	3061.5	3074.6	3049.7	3015.5	2991.8	2985.3	2978.7	2982.6	2989.2	2997.1	3031.3
17.5°	3107.5	3120.6	3083.8	3039.1	3016.8	3014.2	3010.2	3023.4	3041.8	3061.5	3103.6
20°	3149.6	3162.7	3115.4	3054.9	3028.6	3028.6	3029.9	3057.6	3083.8	3112.8	3170.6
22.5°	3208.7	3219.2	3161.4	3078.6	3040.5	3043.1	3053.6	3081.2	3114.1	3153.5	3233.7
25°	3296.8	3304.7	3233.7	3123.3	3079.9	3087.8	3097.0	3110.1	3141.7	3187.7	3295.5
27.5°	3438.8	3445.3	3352.0	3202.1	3136.4	3149.6	3162.7	3153.5	3168.0	3207.4	3345.4
30°	3638.6	3642.5	3524.2	3325.7	3232.4	3239.0	3241.6	3203.5	3175.9	3207.4	3380.9
32.5°	3875.2	3873.9	3733.2	3475.6	3341.5	3334.9	3312.6	3237.6	3173.2	3200.8	3412.5
35°	4241.9	4227.5	4046.1	3685.9	3465.0	3424.3	3371.7	3275.8	3186.4	3194.3	3440.1
37.5°	4849.2	4804.5	4553.5	4030.3	3649.1	3545.2	3467.7	3337.5	3215.3	3191.6	3472.9
40°	5534.1	5477.6	5201.5	4502.2	3925.1	3758.2	3633.3	3425.6	3262.6	3203.5	3521.6
42.5°	6346.5	6266.3	5969.2	5058.2	4274.8	4032.9	3844.9	3537.3	3332.3	3241.6	3587.3
45°	7344.2	7237.7	6817.0	5685.3	4715.1	4393.1	4142.0	3706.9	3438.8	3315.2	3685.9
47.5°	8352.4	8378.7	7780.6	6403.0	5243.6	4837.4	4514.0	3961.9	3593.9	3433.5	3844.9
50°	9423.7	9442.1	8738.9	7198.3	5843.0	5339.5	4932.0	4247.2	3809.4	3601.8	4082.9
52.5°	10259.8	10262.4	9609.1	8030.3	6467.4	5891.6	5382.9	4573.2	4059.2	3825.2	4399.7
55°	10782.9	10776.4	10219.0	8817.7	7185.1	6471.3	5882.4	4943.9	4364.2	4088.1	4798.0
57.5°	11162.8	11143.1	10639.6	9494.7	7950.2	7156.2	6447.7	5364.5	4724.3	4401.0	5322.5
60°	11307.4	11295.6	10924.9	10079.7	8754.6	7913.3	7099.7	5835.1	5133.2	4770.4	5996.8
62.5°	11362.6	11385.0	11204.9	10646.2	9615.6	8752.0	7816.1	6397.7	5593.2	5188.4	6707.9
65°	11557.2	11597.9	11561.1	11387.6	10588.4	9733.9	8766.5	7066.8	6095.4	5636.6	7450.6
67.5°	11942.3	11983.1	11998.8	12274.9	11776.7	10957.8	9952.2	7900.2	6683.0	6102.0	8009.3
70°	11933.1	11921.3	12200.0	12980.8	13264.7	12652.2	11550.6	8925.5	7383.6	6488.4	8080.3
72.5°	10861.8	10767.2	11425.7	12972.9	14503.0	14421.5	13502.6	10247.9	7988.3	6535.7	7011.6
75°	8148.6	7896.3	9059.6	11691.3	14709.4	15425.8	14743.5	11068.2	7845.0	5774.6	4879.5
77.5°	3484.8	3231.1	4602.1	8654.7	13164.8	14420.2	13605.2	9656.4	6262.3	3818.7	2396.4
80°	912.3	911.0	1390.8	3923.8	8953.1	10648.8	9342.2	6236.0	3578.1	1364.5	661.2
82.5°	377.3	368.1	511.3	1526.1	4374.7	5975.8	4876.8	2781.5	1292.2	369.4	219.5
85°	140.7	139.3	248.4	527.1	1543.2	2464.7	1783.8	711.1	322.1	180.1	98.6
87.5°	39.4	38.1	53.9	182.7	375.9	570.5	305.0	117.0	90.7	71.0	28.9
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°	2834.1	2834.1	2834.1	2834.1	2834.1	2834.1	2834.1	2834.1	2834.1	2834.1	2834.1
2.5°	2843.3	2849.9	2861.7	2870.9	2882.7	2895.9	2914.3	2926.1	2937.9	2945.8	2940.6
5°	2855.1	2869.6	2899.8	2930.0	2965.5	2998.4	3036.5	3064.1	3086.5	3093.0	3095.7
7.5°	2881.4	2905.1	2956.3	3007.6	3064.1	3118.0	3173.2	3220.5	3258.7	3273.1	3274.4
10°	2927.4	2959.0	3031.3	3103.6	3178.5	3261.3	3332.3	3400.6	3454.5	3476.9	3478.2
12.5°	2985.3	3024.7	3119.3	3219.2	3323.1	3437.4	3529.5	3613.6	3680.6	3710.9	3710.9
15°	3060.2	3111.4	3232.4	3366.5	3518.9	3678.0	3795.0	3888.3	3963.2	4000.1	3997.4
17.5°	3141.7	3210.0	3362.5	3565.0	3783.2	3992.2	4128.9	4197.2	4274.8	4310.3	4309.0
20°	3220.5	3304.7	3522.9	3817.3	4107.8	4330.0	4440.4	4458.8	4464.1	4468.0	4478.5
22.5°	3302.0	3415.1	3724.0	4135.4	4447.0	4600.8	4616.6	4537.7	4427.3	4376.0	4390.5
25°	3391.4	3541.3	3986.9	4486.4	4738.8	4757.2	4636.3	4444.4	4235.4	4139.4	4153.9
27.5°	3478.2	3687.2	4302.4	4821.6	4949.1	4787.4	4527.2	4255.1	4002.7	3901.5	3913.3
30°	3565.0	3854.1	4650.7	5114.8	5045.1	4712.5	4355.0	4051.3	3797.6	3691.1	3703.0
32.5°	3653.0	4048.7	5051.7	5326.4	5028.0	4553.5	4140.7	3822.6	3599.1	3487.4	3501.9
35°	3752.9	4287.9	5431.6	5442.1	4913.6	4319.5	3858.1	3549.2	3354.6	3265.2	3285.0
37.5°	3883.1	4591.6	5766.8	5471.0	4713.8	3976.4	3507.1	3225.8	3065.4	3024.7	3053.6
40°	4044.7	4957.0	6023.1	5425.0	4418.1	3559.7	3123.3	2898.5	2807.8	2817.0	2848.5
42.5°	4255.1	5365.8	6203.2	5306.7	4006.6	3129.8	2786.8	2686.9	2730.2	2767.0	2801.2
45°	4528.5	5790.4	6314.9	5105.6	3541.3	2765.7	2588.3	2611.9	2644.8	2648.7	2675.0
47.5°	4878.1	6220.3	6388.5	4801.9	3066.8	2509.4	2462.1	2467.3	2460.8	2433.2	2454.2
50°	5314.6	6638.3	6454.2	4399.7	2663.2	2349.0	2285.9	2267.5	2176.8	2087.4	2099.3
52.5°	5811.4	7022.1	6481.8	3900.2	2349.0	2214.9	2112.4	1996.7	1827.2	1799.6	1808.8
55°	6363.5	7377.0	6410.9	3286.3	2084.8	2042.7	1887.6	1748.3	1729.9	1706.2	1710.2
57.5°	7023.4	7759.6	6266.3	2601.4	1814.0	1841.6	1690.5	1706.2	1673.4	1636.6	1630.0
60°	7745.1	8155.2	6012.6	1977.0	1534.0	1590.6	1639.2	1637.9	1628.7	1598.4	1587.9
62.5°	8394.5	8415.5	5513.1	1514.3	1288.2	1396.0	1528.8	1527.5	1519.6	1502.5	1495.9
65°	8780.9	8376.1	4679.7	1192.3	1085.8	1235.6	1378.9	1389.4	1390.8	1389.4	1389.4
67.5°	8712.6	7914.7	3536.0	949.1	918.8	1072.6	1230.4	1244.8	1255.4	1258.0	1260.6
70°	7939.6	6901.2	2305.7	757.2	770.3	929.4	1089.7	1104.2	1113.4	1123.9	1129.2
72.5°	6188.7	5074.0	1319.8	612.6	640.2	805.8	950.4	967.5	972.7	992.5	1000.3
75°	3771.3	2983.9	712.5	482.4	525.8	688.8	812.4	832.1	841.3	864.9	867.6
77.5°	1793.0	1292.2	406.2	375.9	423.3	562.6	686.2	708.5	683.5	696.7	686.2
80°	606.0	479.8	256.3	286.6	323.4	439.0	549.5	571.8	519.2	516.6	511.3
82.5°	211.6	194.5	163.0	190.6	209.0	314.2	415.4	444.3	386.5	385.2	366.7
85°	82.8	78.9	90.7	103.8	124.9	193.2	273.4	287.9	237.9	191.9	189.3
87.5°	17.1	18.4	22.3	23.7	38.1	67.0	98.6	120.9	96.0	81.5	74.9
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)