

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: P884284

Luminaire Tested: **NAV-SB5A-740-U-SL4**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884284
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-SB5A-740-U-SL4
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 4000K, 350mA 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: 24326 lumens
Efficiency: N/A
Efficacy: 171.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B3 - U0 - G4

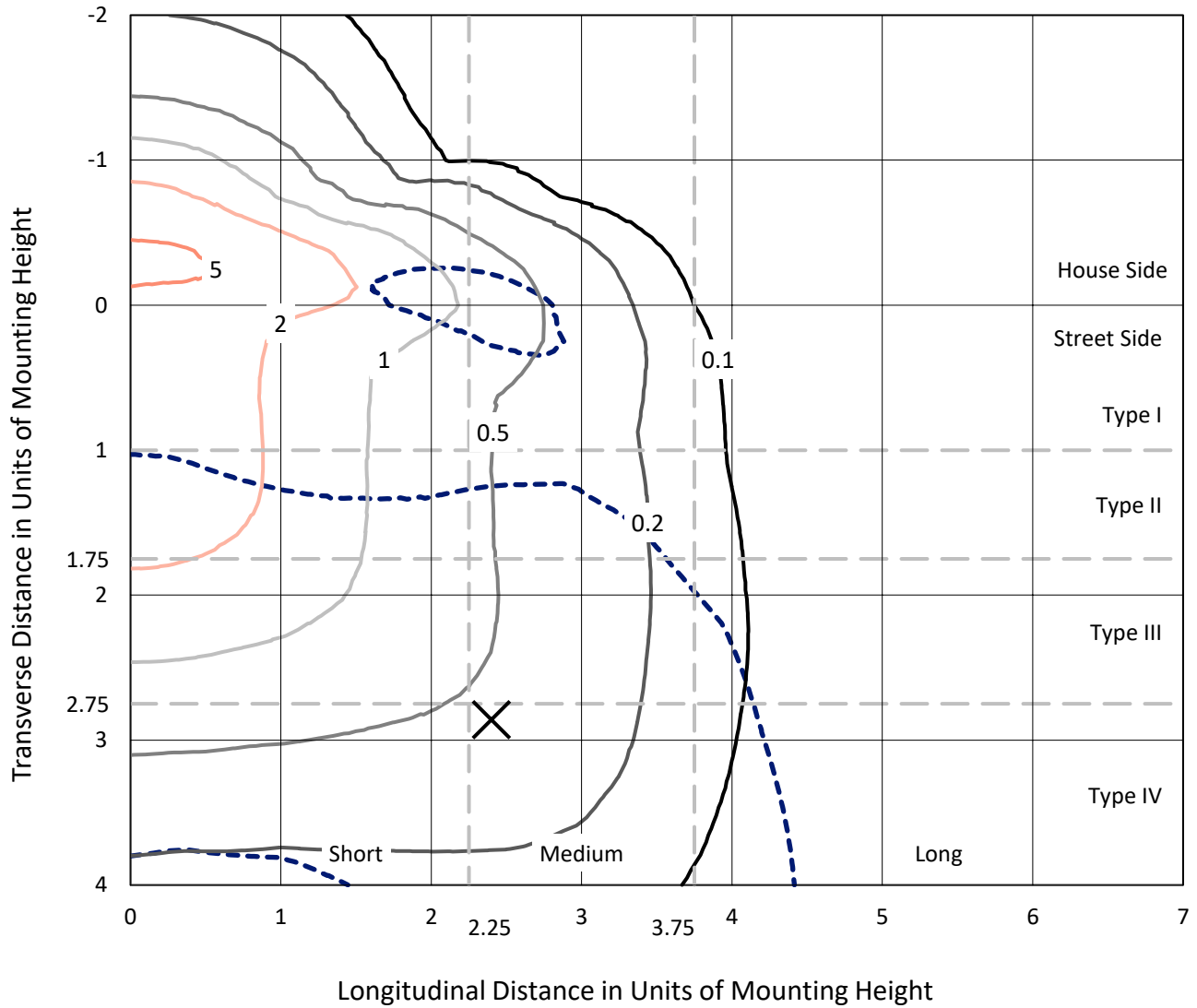
Input Watts (W): 141.7
Input Voltage (V): 120.0
Input Current (Ain): 1.201
Voltage Rise (V): NR
Power Factor: 0.992
Total Harmonic Distortion (THDi): 10.503
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

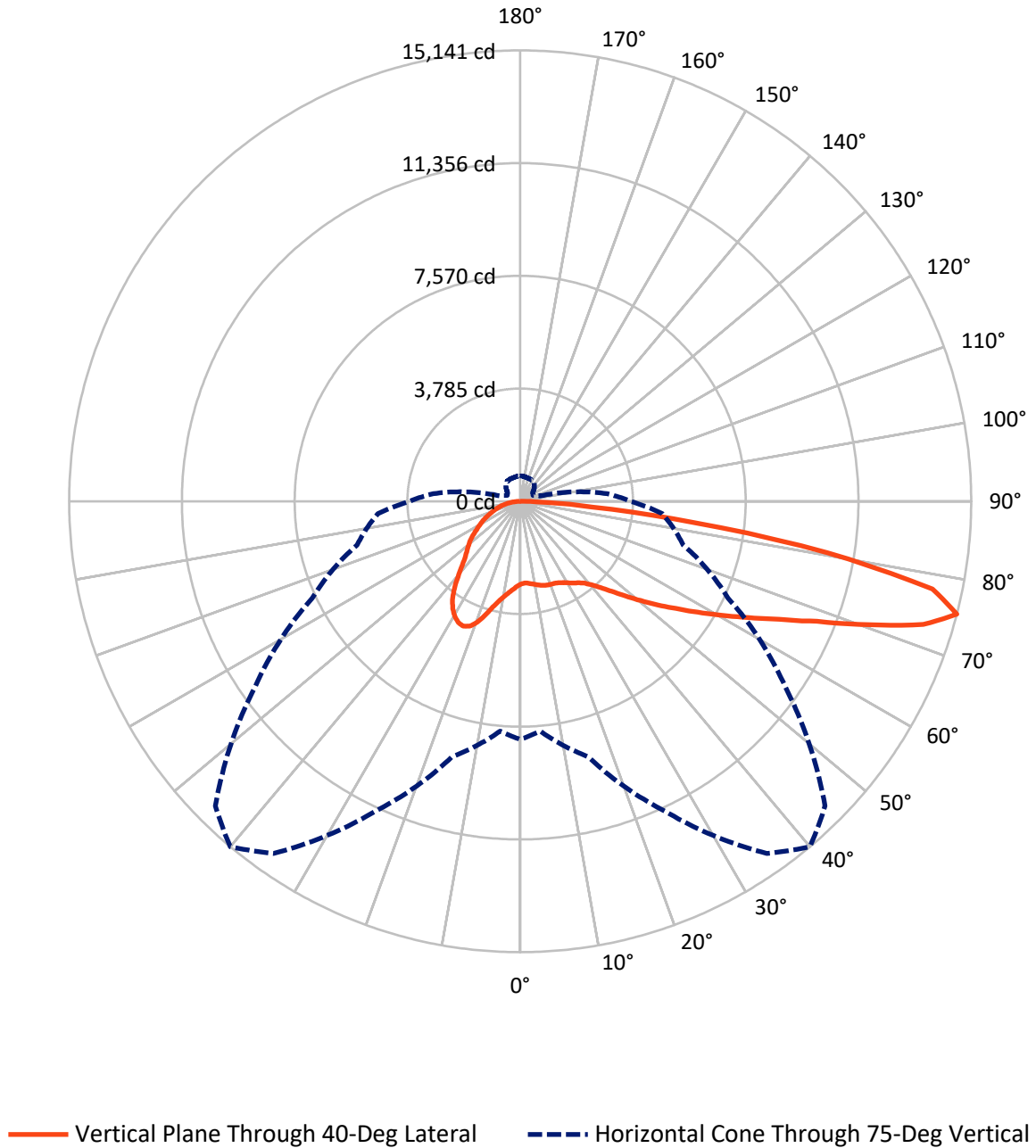
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.7 fc
 Type IV - Medium - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7537.0	0.0	7537.0
	% Fixture	31.0	0.0	31.0
Street Side	Lumens	16789.0	0.0	16789.0
	% Fixture	69.0	0.0	69.0
Total	Lumens	24326.0	0.0	24326.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	277.7	1.1
10°-20°	932.3	3.8
20°-30°	1702.2	7.0
30°-40°	2414.2	9.9
40°-50°	3259.9	13.4
50°-60°	4385.5	18.0
60°-70°	5566.2	22.9
70°-80°	5051.7	20.8
80°-90°	736.4	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°	24326.0	100.0
0°-180°	24326.0	100.0

Coefficient of Utilization



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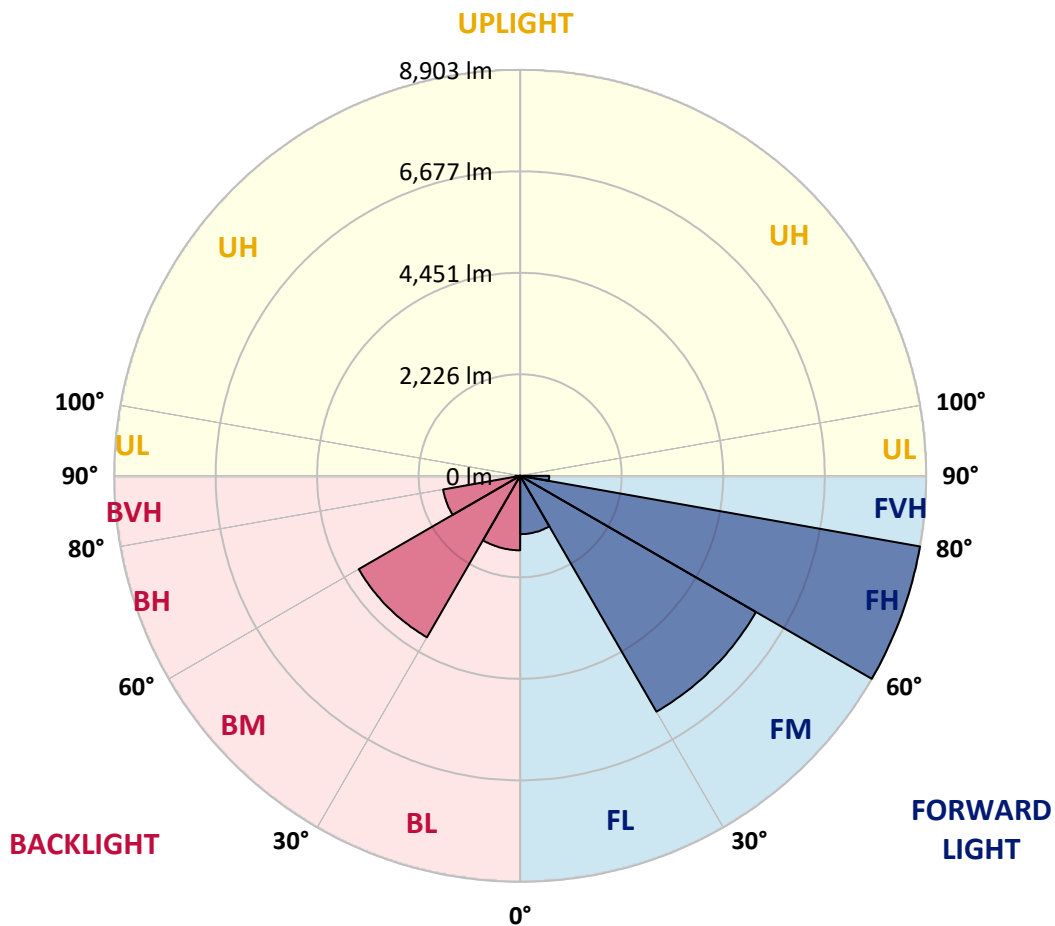
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1279.6	5.3			
FM (30°-60°)	5971.5	24.5			
FH (60°-80°)	8902.9	36.6			G4/12000
FVH (80°-90°)	635.0	2.6			G4/750
BL (0°-30°)	1632.6	6.7	B3/2500		
BM (30°-60°)	4088.1	16.8	B3/5000		
BH (60°-80°)	1714.9	7.0	B3/2500		G3/2500
BVH (80°-90°)	101.4	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°	2781.7	2781.7	2781.7	2781.7	2781.7	2781.7	2781.7	2781.7	2781.7	2781.7	2781.7
2.5°	2739.1	2754.6	2750.7	2745.6	2745.6	2746.9	2745.6	2754.6	2763.6	2772.7	2786.9
5°	2767.5	2783.0	2775.3	2768.8	2763.6	2762.4	2758.5	2757.2	2762.4	2774.0	2793.3
7.5°	2823.0	2838.5	2826.9	2815.3	2804.9	2799.8	2794.6	2786.9	2783.0	2789.5	2816.5
10°	2884.9	2900.4	2886.2	2865.6	2848.8	2842.4	2837.2	2829.4	2824.3	2828.2	2857.8
12.5°	2946.9	2962.3	2943.0	2914.6	2892.7	2888.8	2882.3	2879.8	2878.5	2877.2	2906.9
15°	3004.9	3017.8	2993.3	2959.8	2936.5	2930.1	2923.6	2927.5	2934.0	2941.7	2975.2
17.5°	3050.1	3063.0	3026.9	2983.0	2961.1	2958.5	2954.6	2967.5	2985.6	3004.9	3046.2
20°	3091.4	3104.3	3057.8	2998.5	2972.7	2972.7	2974.0	3001.0	3026.9	3055.2	3112.0
22.5°	3149.4	3159.7	3103.0	3021.7	2984.3	2986.9	2997.2	3024.3	3056.5	3095.2	3173.9
25°	3235.9	3243.6	3173.9	3065.6	3023.0	3030.7	3039.8	3052.7	3083.6	3128.8	3234.6
27.5°	3375.2	3381.7	3290.1	3143.0	3078.5	3091.4	3104.3	3095.2	3109.4	3148.1	3283.6
30°	3571.3	3575.2	3459.1	3264.3	3172.6	3179.1	3181.7	3144.3	3117.2	3148.1	3318.4
32.5°	3803.6	3802.3	3664.2	3411.3	3279.7	3273.3	3251.3	3177.8	3114.6	3141.7	3349.4
35°	4163.5	4149.3	3971.3	3617.8	3401.0	3361.0	3309.4	3215.2	3127.5	3135.2	3376.5
37.5°	4759.6	4715.7	4469.3	3955.8	3581.6	3479.7	3403.6	3275.9	3155.9	3132.6	3408.8
40°	5431.8	5376.3	5105.4	4419.0	3852.6	3688.7	3566.2	3362.3	3202.3	3144.3	3456.5
42.5°	6229.2	6150.5	5858.9	4964.8	4195.8	3958.4	3773.9	3472.0	3270.7	3181.7	3521.0
45°	7208.4	7103.9	6691.1	5580.2	4628.0	4311.9	4065.5	3638.4	3375.2	3253.9	3617.8
47.5°	8198.0	8223.9	7636.8	6284.7	5146.7	4748.0	4430.6	3888.7	3527.5	3370.1	3773.9
50°	9249.6	9267.6	8577.4	7065.2	5735.0	5240.9	4840.9	4168.7	3739.1	3535.2	4007.4
52.5°	10070.2	10072.7	9431.5	7881.9	6347.9	5782.8	5283.4	4488.7	3984.2	3754.5	4318.4
55°	10583.7	10577.2	10030.2	8654.8	7052.3	6351.7	5773.7	4852.5	4283.5	4012.6	4709.3
57.5°	10956.5	10937.2	10443.0	9319.2	7803.2	7023.9	6328.5	5265.4	4637.0	4319.7	5224.1
60°	11098.5	11086.8	10723.0	9893.4	8592.9	7767.1	6968.5	5727.3	5038.3	4682.2	5886.0
62.5°	11152.6	11174.6	10997.8	10449.5	9437.9	8590.3	7671.6	6279.5	5489.9	5092.5	6584.0
65°	11343.6	11383.6	11347.5	11177.2	10392.7	9554.1	8604.5	6936.2	5982.7	5532.5	7313.0
67.5°	11721.6	11761.6	11777.1	12048.1	11559.1	10755.3	9768.2	7754.2	6559.5	5989.2	7861.3
70°	11712.6	11701.0	11974.5	12740.9	13019.6	12418.4	11337.1	8760.6	7247.2	6368.5	7931.0
72.5°	10661.1	10568.2	11214.6	12733.2	14235.0	14155.0	13253.1	10058.5	7840.7	6415.0	6882.0
75°	7998.1	7750.3	8892.2	11475.2	14437.5	15140.7	14471.1	10863.6	7700.0	5667.9	4789.3
77.5°	3420.4	3171.4	4517.1	8494.8	12921.5	14153.7	13353.8	9477.9	6146.6	3748.1	2352.1
80°	895.4	894.1	1365.1	3851.3	8787.7	10452.1	9169.6	6120.8	3512.0	1339.2	649.0
82.5°	370.3	361.3	501.9	1497.9	4293.8	5865.3	4786.7	2730.1	1268.3	362.6	215.5
85°	138.1	136.8	243.9	517.4	1514.7	2419.2	1750.8	698.0	316.1	176.8	96.8
87.5°	38.7	37.4	52.9	179.3	369.0	560.0	299.3	114.8	89.0	69.7	28.4
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°	2781.7	2781.7	2781.7	2781.7	2781.7	2781.7	2781.7	2781.7	2781.7	2781.7	2781.7
2.5°	2790.7	2797.2	2808.8	2817.8	2829.4	2842.4	2860.4	2872.0	2883.6	2891.4	2886.2
5°	2802.4	2816.5	2846.2	2875.9	2910.7	2943.0	2980.4	3007.5	3029.4	3035.9	3038.5
7.5°	2828.2	2851.4	2901.7	2952.0	3007.5	3060.4	3114.6	3161.0	3198.5	3212.6	3213.9
10°	2873.3	2904.3	2975.2	3046.2	3119.7	3201.0	3270.7	3337.8	3390.7	3412.6	3413.9
12.5°	2930.1	2968.8	3061.7	3159.7	3261.7	3373.9	3464.2	3546.8	3612.6	3642.3	3642.3
15°	3003.6	3053.9	3172.6	3304.2	3453.9	3610.0	3724.9	3816.5	3890.0	3926.1	3923.6
17.5°	3083.6	3150.7	3300.4	3499.1	3713.2	3918.4	4052.6	4119.7	4195.8	4230.6	4229.3
20°	3161.0	3243.6	3457.8	3746.8	4031.9	4250.0	4358.4	4376.4	4381.6	4385.5	4395.8
22.5°	3241.0	3352.0	3655.2	4059.0	4364.8	4515.8	4531.2	4453.8	4345.5	4295.1	4309.3
25°	3328.8	3475.8	3913.2	4403.5	4651.2	4669.3	4550.6	4362.2	4157.1	4062.9	4077.1
27.5°	3413.9	3619.1	4222.9	4732.5	4857.7	4699.0	4443.5	4176.4	3928.7	3829.4	3841.0
30°	3499.1	3782.9	4564.8	5020.2	4951.9	4625.4	4274.5	3976.5	3727.4	3622.9	3634.5
32.5°	3585.5	3973.9	4958.3	5228.0	4935.1	4469.3	4064.2	3752.0	3532.6	3422.9	3437.1
35°	3683.6	4208.7	5331.2	5341.5	4822.8	4239.7	3786.8	3483.6	3292.6	3204.9	3224.3
37.5°	3811.3	4506.7	5660.2	5369.9	4626.7	3902.9	3442.3	3166.2	3008.8	2968.8	2997.2
40°	3970.0	4865.4	5911.8	5324.7	4336.4	3493.9	3065.6	2844.9	2755.9	2764.9	2795.9
42.5°	4176.4	5266.7	6088.5	5208.6	3932.6	3072.0	2735.3	2637.2	2679.8	2715.9	2749.5
45°	4444.8	5683.4	6198.2	5011.2	3475.8	2714.6	2540.4	2563.7	2595.9	2599.8	2625.6
47.5°	4788.0	6105.3	6270.5	4713.2	3010.1	2463.0	2416.6	2421.7	2415.3	2388.2	2408.8
50°	5216.4	6515.6	6335.0	4318.4	2614.0	2305.6	2243.7	2225.6	2136.6	2048.9	2060.5
52.5°	5704.1	6892.3	6362.1	3828.1	2305.6	2174.0	2073.4	1959.8	1793.4	1766.3	1775.3
55°	6245.9	7240.7	6292.4	3225.5	2046.3	2005.0	1852.8	1716.0	1697.9	1674.7	1678.6
57.5°	6893.6	7616.2	6150.5	2553.3	1780.5	1807.6	1659.2	1674.7	1642.4	1606.3	1599.9
60°	7602.0	8004.5	5901.5	1940.5	1505.7	1561.2	1608.9	1607.6	1598.6	1568.9	1558.6
62.5°	8239.3	8260.0	5411.2	1486.3	1264.4	1370.2	1500.5	1499.2	1491.5	1474.7	1468.3
65°	8618.7	8221.3	4593.2	1170.2	1065.7	1212.8	1353.4	1363.8	1365.1	1363.8	1363.8
67.5°	8551.6	7768.4	3470.7	931.5	901.9	1052.8	1207.6	1221.8	1232.2	1234.7	1237.3
70°	7792.9	6773.6	2263.0	743.2	756.1	912.2	1069.6	1083.8	1092.8	1103.1	1108.3
72.5°	6074.3	4980.2	1295.4	601.2	628.3	790.9	932.8	949.6	954.8	974.1	981.9
75°	3701.6	2928.8	699.3	473.5	516.1	676.1	797.4	816.7	825.7	849.0	851.5
77.5°	1759.9	1268.3	398.7	369.0	415.5	552.2	673.5	695.4	670.9	683.8	673.5
80°	594.8	470.9	251.6	281.3	317.4	430.9	539.3	561.2	509.6	507.1	501.9
82.5°	207.7	191.0	160.0	187.1	205.1	308.4	407.7	436.1	379.3	378.0	360.0
85°	81.3	77.4	89.0	101.9	122.6	189.7	268.4	282.6	233.5	188.4	185.8
87.5°	16.8	18.1	21.9	23.2	37.4	65.8	96.8	118.7	94.2	80.0	73.5
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)