

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: P883974

Luminaire Tested: **NAV-SB4C-827-U-SL4**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883974
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-SB4C-827-U-SL4
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 2700K, 615mA 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: 24445 lumens
Efficiency: N/A
Efficacy: 121.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B3 - U0 - G4

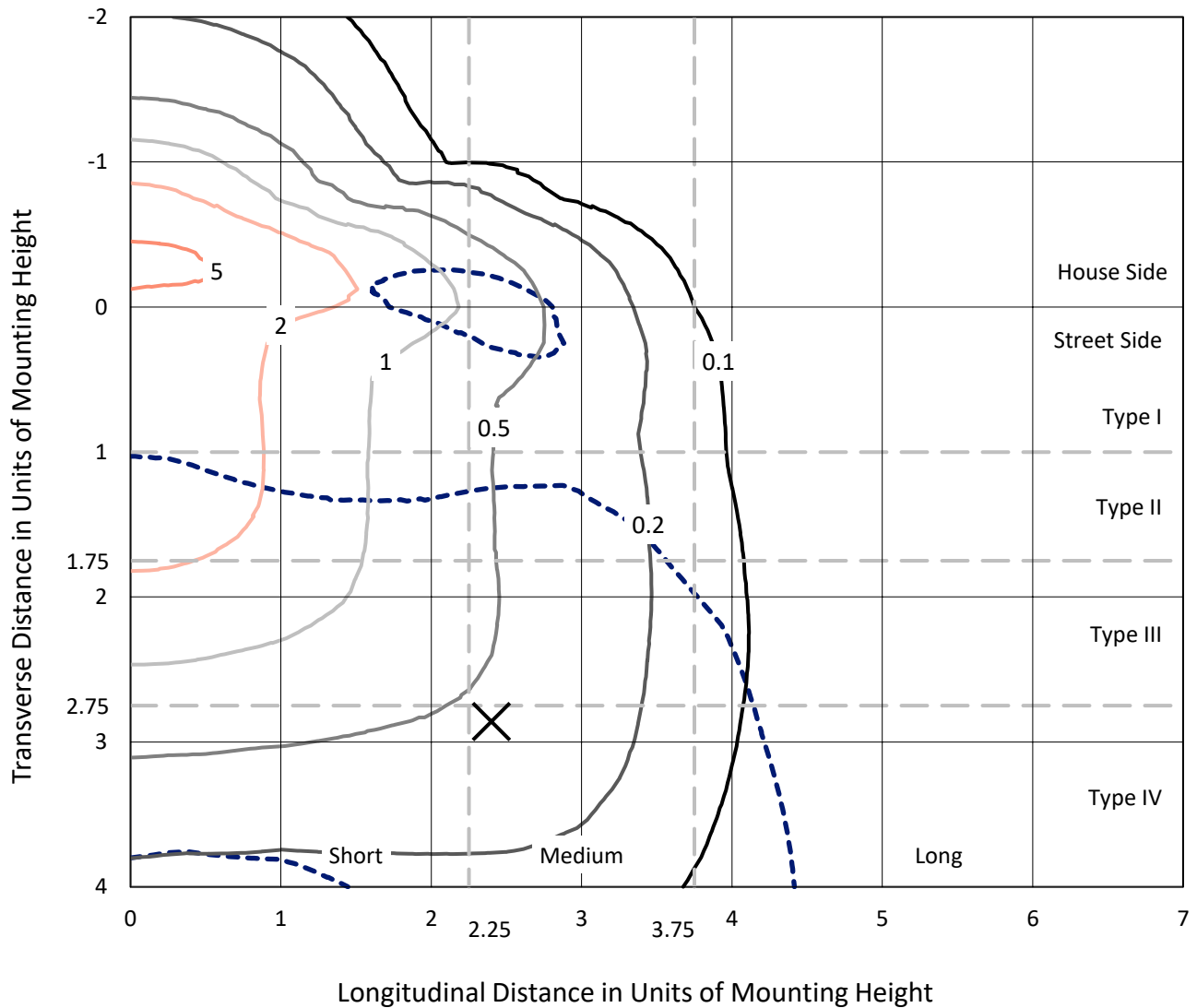
Input Watts (W): 200.7
Input Voltage (V): 120.0
Input Current (Ain): 1.714
Voltage Rise (V): NR
Power Factor: 0.994
Total Harmonic Distortion (THDi): 9.472
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

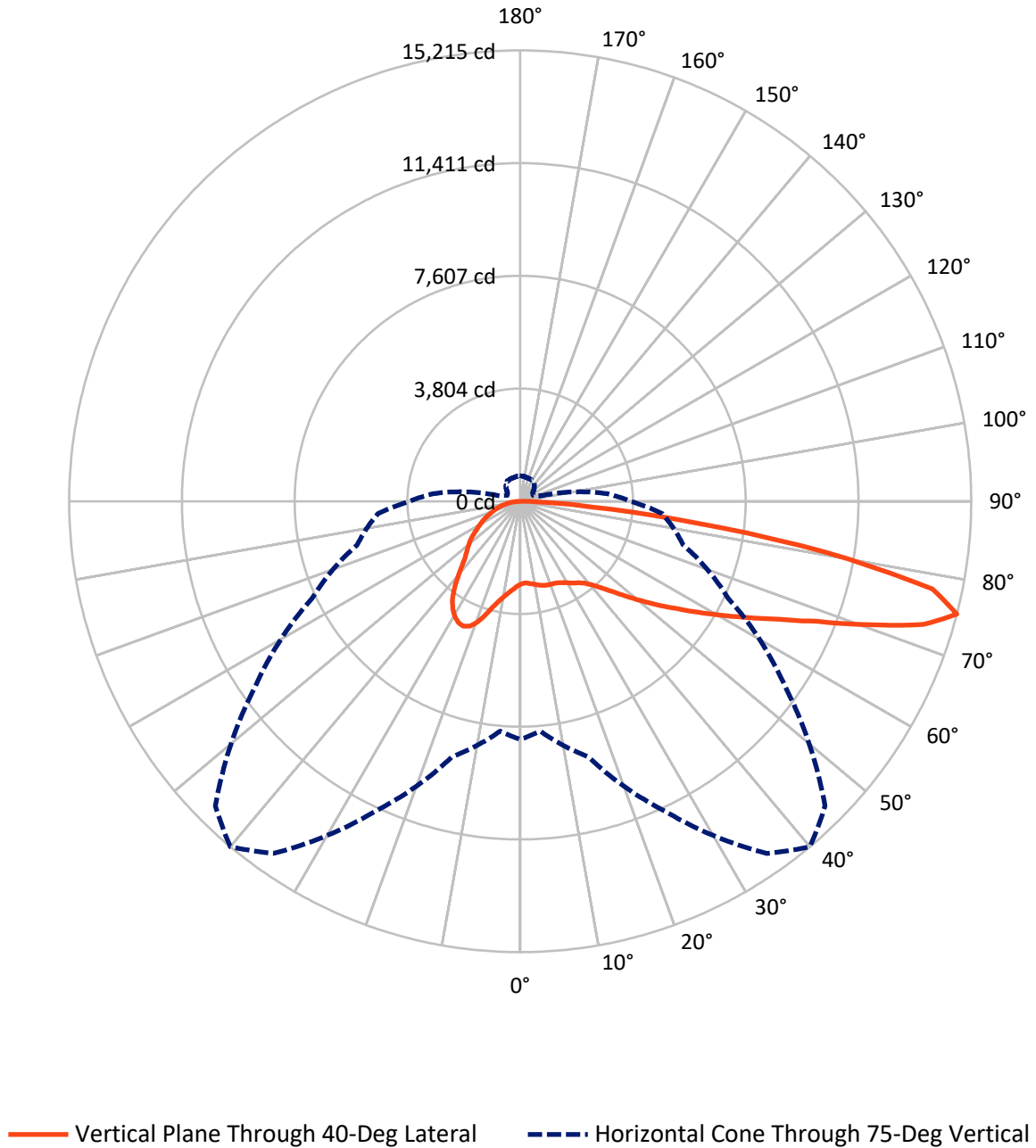
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.8 fc
 Type IV - Medium - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7573.9	0.0	7573.9
	% Fixture	31.0	0.0	31.0
Street Side	Lumens	16871.1	0.0	16871.1
	% Fixture	69.0	0.0	69.0
Total	Lumens	24445.0	0.0	24445.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	279.0	1.1
10°-20°	936.8	3.8
20°-30°	1710.6	7.0
30°-40°	2426.0	9.9
40°-50°	3275.9	13.4
50°-60°	4406.9	18.0
60°-70°	5593.4	22.9
70°-80°	5076.4	20.8
80°-90°	740.0	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°	24445.0	100.0
0°-180°	24445.0	100.0

Coefficient of Utilization



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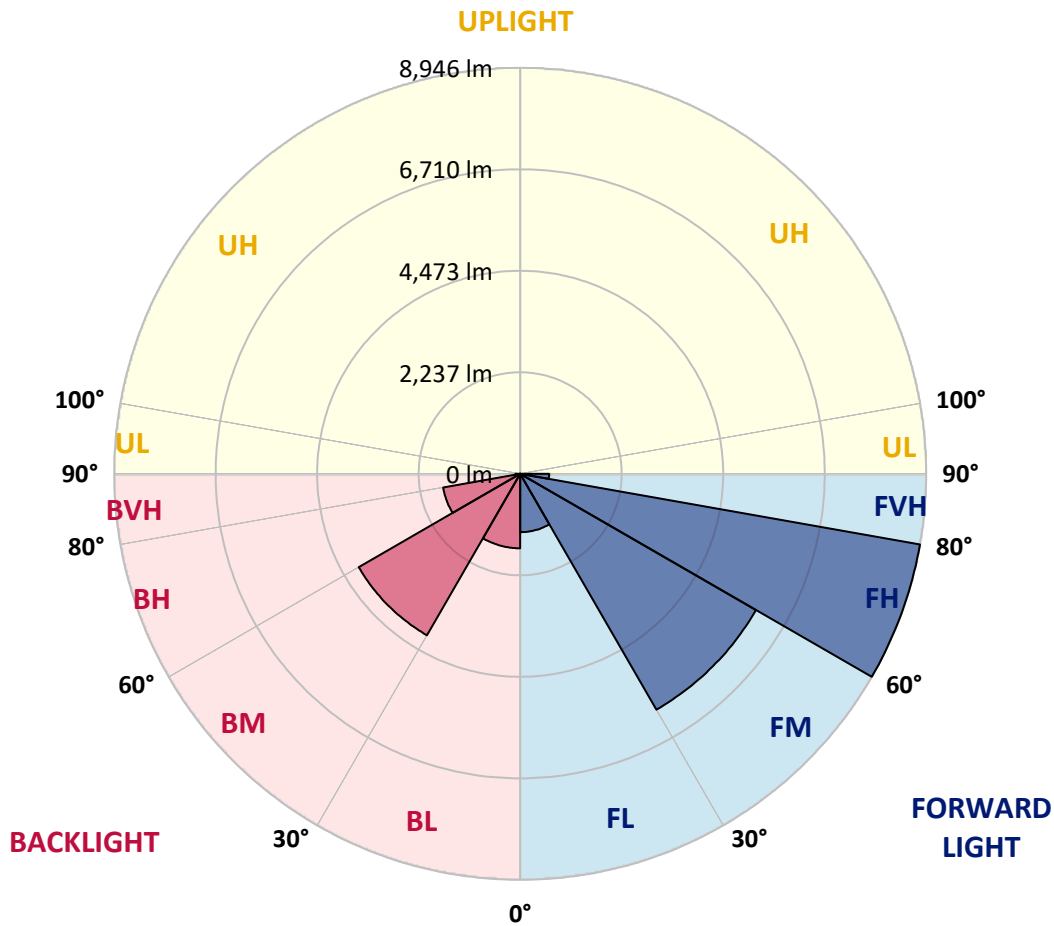
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1285.8	5.3			
FM (30°-60°)	6000.7	24.5			
FH (60°-80°)	8946.5	36.6			G4/12000
FVH (80°-90°)	638.1	2.6			G4/750
BL (0°-30°)	1640.6	6.7	B3/2500		
BM (30°-60°)	4108.1	16.8	B3/5000		
BH (60°-80°)	1723.3	7.0	B3/2500		G3/2500
BVH (80°-90°)	101.9	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°	2795.3	2795.3	2795.3	2795.3	2795.3	2795.3	2795.3	2795.3	2795.3	2795.3	2795.3
2.5°	2752.5	2768.1	2764.2	2759.0	2759.0	2760.3	2759.0	2768.1	2777.2	2786.2	2800.5
5°	2781.1	2796.6	2788.8	2782.4	2777.2	2775.9	2772.0	2770.7	2775.9	2787.5	2807.0
7.5°	2836.8	2852.4	2840.7	2829.0	2818.7	2813.5	2808.3	2800.5	2796.6	2803.1	2830.3
10°	2899.0	2914.6	2900.3	2879.6	2862.7	2856.3	2851.1	2843.3	2838.1	2842.0	2871.8
12.5°	2961.3	2976.8	2957.4	2928.9	2906.8	2902.9	2896.4	2893.9	2892.6	2891.3	2921.1
15°	3019.6	3032.6	3007.9	2974.2	2950.9	2944.4	2937.9	2941.8	2948.3	2956.1	2989.8
17.5°	3065.0	3078.0	3041.7	2997.6	2975.5	2972.9	2969.1	2982.0	3000.2	3019.6	3061.1
20°	3106.5	3119.5	3072.8	3013.1	2987.2	2987.2	2988.5	3015.7	3041.7	3070.2	3127.2
22.5°	3164.8	3175.2	3118.2	3036.5	2998.9	3001.5	3011.8	3039.1	3071.5	3110.4	3189.5
25°	3251.7	3259.5	3189.5	3080.6	3037.8	3045.5	3054.6	3067.6	3098.7	3144.1	3250.4
27.5°	3391.7	3398.2	3306.2	3158.3	3093.5	3106.5	3119.5	3110.4	3124.6	3163.5	3299.7
30°	3588.8	3592.7	3476.0	3280.2	3188.2	3194.6	3197.2	3159.6	3132.4	3163.5	3334.7
32.5°	3822.2	3820.9	3682.1	3428.0	3295.8	3289.3	3267.3	3193.4	3129.8	3157.1	3365.8
35°	4183.9	4169.6	3990.7	3635.5	3417.7	3377.5	3325.6	3231.0	3142.8	3150.6	3393.0
37.5°	4782.9	4738.8	4491.2	3975.2	3599.2	3496.7	3420.2	3291.9	3171.3	3148.0	3425.4
40°	5458.4	5402.6	5130.4	4440.6	3871.4	3706.8	3583.6	3378.8	3218.0	3159.6	3473.4
42.5°	6259.6	6180.6	5887.5	4989.0	4216.3	3977.8	3792.3	3489.0	3286.7	3197.2	3538.2
45°	7243.7	7138.7	6723.8	5607.5	4650.7	4333.0	4085.4	3656.2	3391.7	3269.8	3635.5
47.5°	8238.2	8264.1	7674.2	6315.4	5171.9	4771.2	4452.3	3907.7	3544.7	3386.5	3792.3
50°	9294.8	9313.0	8619.3	7099.8	5763.1	5266.5	4864.6	4189.1	3757.3	3552.5	4027.0
52.5°	10119.4	10122.0	9477.6	7920.5	6378.9	5811.0	5309.3	4510.6	4003.7	3772.9	4339.5
55°	10635.4	10629.0	10079.2	8697.1	7086.8	6382.8	5802.0	4876.2	4304.5	4032.2	4732.3
57.5°	11010.1	10990.7	10494.1	9364.8	7841.4	7058.3	6359.5	5291.1	4659.7	4340.8	5249.6
60°	11152.7	11141.1	10775.5	9941.8	8634.9	7805.1	7002.6	5755.3	5062.9	4705.1	5914.8
62.5°	11207.2	11229.2	11051.6	10500.6	9484.1	8632.3	7709.2	6310.2	5516.7	5117.4	6616.2
65°	11399.1	11439.3	11403.0	11231.8	10443.5	9600.8	8646.6	6970.1	6012.0	5559.5	7348.7
67.5°	11779.0	11819.2	11834.7	12107.0	11615.6	10807.9	9816.0	7792.1	6591.6	6018.5	7899.8
70°	11769.9	11758.2	12033.1	12803.2	13083.3	12479.1	11392.6	8803.4	7282.6	6399.7	7969.8
72.5°	10713.2	10619.9	11269.4	12795.5	14304.6	14224.2	13318.0	10107.7	7879.0	6446.3	6915.7
75°	8037.2	7788.3	8935.7	11531.3	14508.2	15214.8	14541.9	10916.8	7737.7	5695.7	4812.7
77.5°	3437.1	3186.9	4539.2	8536.4	12984.7	14222.9	13419.1	9524.3	6176.7	3766.4	2363.6
80°	899.8	898.5	1371.7	3870.1	8830.7	10503.2	9214.4	6150.7	3529.2	1345.8	652.2
82.5°	372.1	363.0	504.4	1505.3	4314.9	5894.0	4810.1	2743.5	1274.5	364.3	216.5
85°	138.7	137.4	245.0	519.9	1522.1	2431.0	1759.4	701.4	317.6	177.6	97.2
87.5°	38.9	37.6	53.2	180.2	370.8	562.7	300.8	115.4	89.5	70.0	28.5
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°	2795.3	2795.3	2795.3	2795.3	2795.3	2795.3	2795.3	2795.3	2795.3	2795.3	2795.3
2.5°	2804.4	2810.9	2822.5	2831.6	2843.3	2856.3	2874.4	2886.1	2897.7	2905.5	2900.3
5°	2816.1	2830.3	2860.1	2890.0	2925.0	2957.4	2995.0	3022.2	3044.3	3050.7	3053.3
7.5°	2842.0	2865.3	2915.9	2966.5	3022.2	3075.4	3129.8	3176.5	3214.1	3228.4	3229.7
10°	2887.4	2918.5	2989.8	3061.1	3135.0	3216.7	3286.7	3354.1	3407.3	3429.3	3430.6
12.5°	2944.4	2983.3	3076.7	3175.2	3277.6	3390.4	3481.2	3564.2	3630.3	3660.1	3660.1
15°	3018.3	3068.9	3188.2	3320.4	3470.8	3627.7	3743.1	3835.1	3909.0	3945.3	3942.7
17.5°	3098.7	3166.1	3316.5	3516.2	3731.4	3937.6	4072.4	4139.8	4216.3	4251.3	4250.0
20°	3176.5	3259.5	3474.7	3765.1	4051.7	4270.8	4379.7	4397.8	4403.0	4406.9	4417.3
22.5°	3256.9	3368.4	3673.1	4078.9	4386.2	4537.9	4553.4	4475.6	4366.7	4316.1	4330.4
25°	3345.0	3492.9	3932.4	4425.1	4674.0	4692.1	4572.9	4383.6	4177.4	4082.8	4097.0
27.5°	3430.6	3636.8	4243.5	4755.7	4881.4	4722.0	4465.2	4196.9	3947.9	3848.1	3859.8
30°	3516.2	3801.4	4587.1	5044.8	4976.1	4648.1	4295.4	3995.9	3745.7	3640.7	3652.3
32.5°	3603.1	3993.3	4982.6	5253.5	4959.2	4491.2	4084.1	3770.3	3549.9	3439.7	3454.0
35°	3701.6	4229.3	5357.3	5367.6	4846.4	4260.4	3805.3	3500.6	3308.7	3220.6	3240.0
37.5°	3829.9	4528.8	5687.9	5396.2	4649.4	3922.0	3459.1	3181.7	3023.5	2983.3	3011.8
40°	3989.4	4889.2	5940.7	5350.8	4357.6	3511.0	3080.6	2858.8	2769.4	2778.5	2809.6
42.5°	4196.9	5292.4	6118.3	5234.1	3951.8	3087.0	2748.6	2650.1	2692.9	2729.2	2762.9
45°	4466.5	5711.2	6228.5	5035.7	3492.9	2727.9	2552.9	2576.2	2608.6	2612.5	2638.4
47.5°	4811.4	6135.2	6301.1	4736.2	3024.8	2475.1	2428.4	2433.6	2427.1	2399.9	2420.6
50°	5241.9	6547.5	6366.0	4339.5	2626.8	2316.9	2254.7	2236.5	2147.1	2058.9	2070.6
52.5°	5732.0	6926.1	6393.2	3846.8	2316.9	2184.7	2083.5	1969.4	1802.2	1774.9	1784.0
55°	6276.5	7276.1	6323.2	3241.3	2056.3	2014.8	1861.8	1724.4	1706.2	1682.9	1686.8
57.5°	6927.4	7653.4	6180.6	2565.8	1789.2	1816.4	1667.3	1682.9	1650.5	1614.2	1607.7
60°	7639.2	8043.7	5930.3	1950.0	1513.1	1568.8	1616.8	1615.5	1606.4	1576.6	1566.2
62.5°	8279.6	8300.4	5437.6	1493.6	1270.6	1376.9	1507.9	1506.6	1498.8	1481.9	1475.5
65°	8660.8	8261.5	4615.6	1176.0	1070.9	1218.7	1360.1	1370.4	1371.7	1370.4	1370.4
67.5°	8593.4	7806.4	3487.7	936.1	906.3	1058.0	1213.6	1227.8	1238.2	1240.8	1243.4
70°	7831.0	6806.8	2274.1	746.8	759.8	916.6	1074.8	1089.1	1098.2	1108.5	1113.7
72.5°	6104.1	5004.6	1301.7	604.2	631.4	794.8	937.4	954.2	959.4	978.9	986.7
75°	3719.7	2943.1	702.7	475.8	518.6	679.4	801.3	820.7	829.8	853.1	855.7
77.5°	1768.5	1274.5	400.6	370.8	417.5	554.9	676.8	698.8	674.2	687.2	676.8
80°	597.7	473.2	252.8	282.6	318.9	433.0	541.9	564.0	512.1	509.5	504.4
82.5°	208.7	191.9	160.8	188.0	206.1	309.9	409.7	438.2	381.2	379.9	361.7
85°	81.7	77.8	89.5	102.4	123.2	190.6	269.7	283.9	234.7	189.3	186.7
87.5°	16.9	18.2	22.0	23.3	37.6	66.1	97.2	119.3	94.6	80.4	73.9
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)