

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: P883394

Luminaire Tested: **NAV-SB3D-722-U-SL4**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883394
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-SB3D-722-U-SL4
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 70 CRI, 2200K, 900mA 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: 24110 lumens
Efficiency: N/A
Efficacy: 110.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B3 - U0 - G4

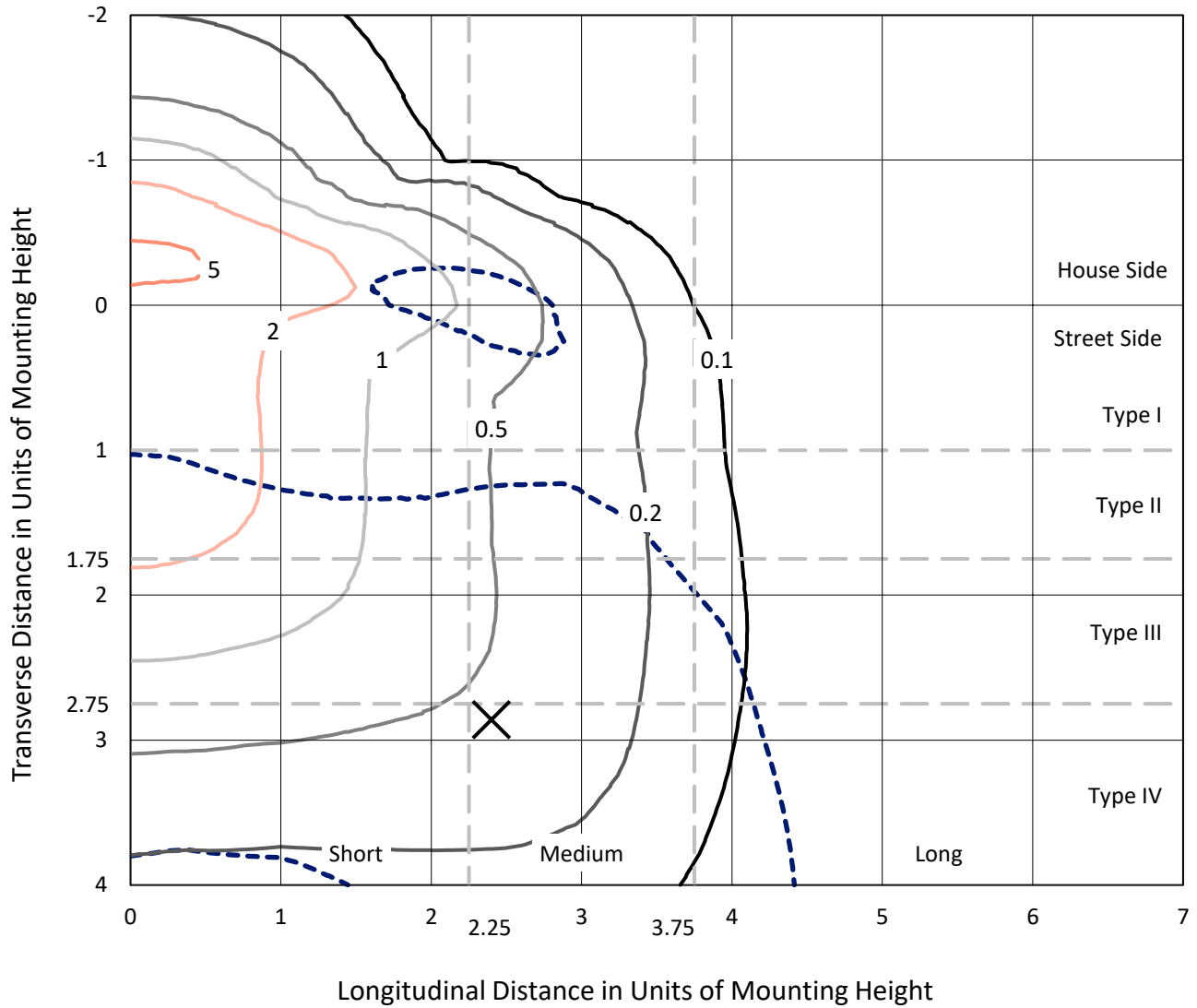
Input Watts (W): 218.1
Input Voltage (V): 120.0
Input Current (Ain): 1.84
Voltage Rise (V): NR
Power Factor: 0.998
Total Harmonic Distortion (THDi): 2.542
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

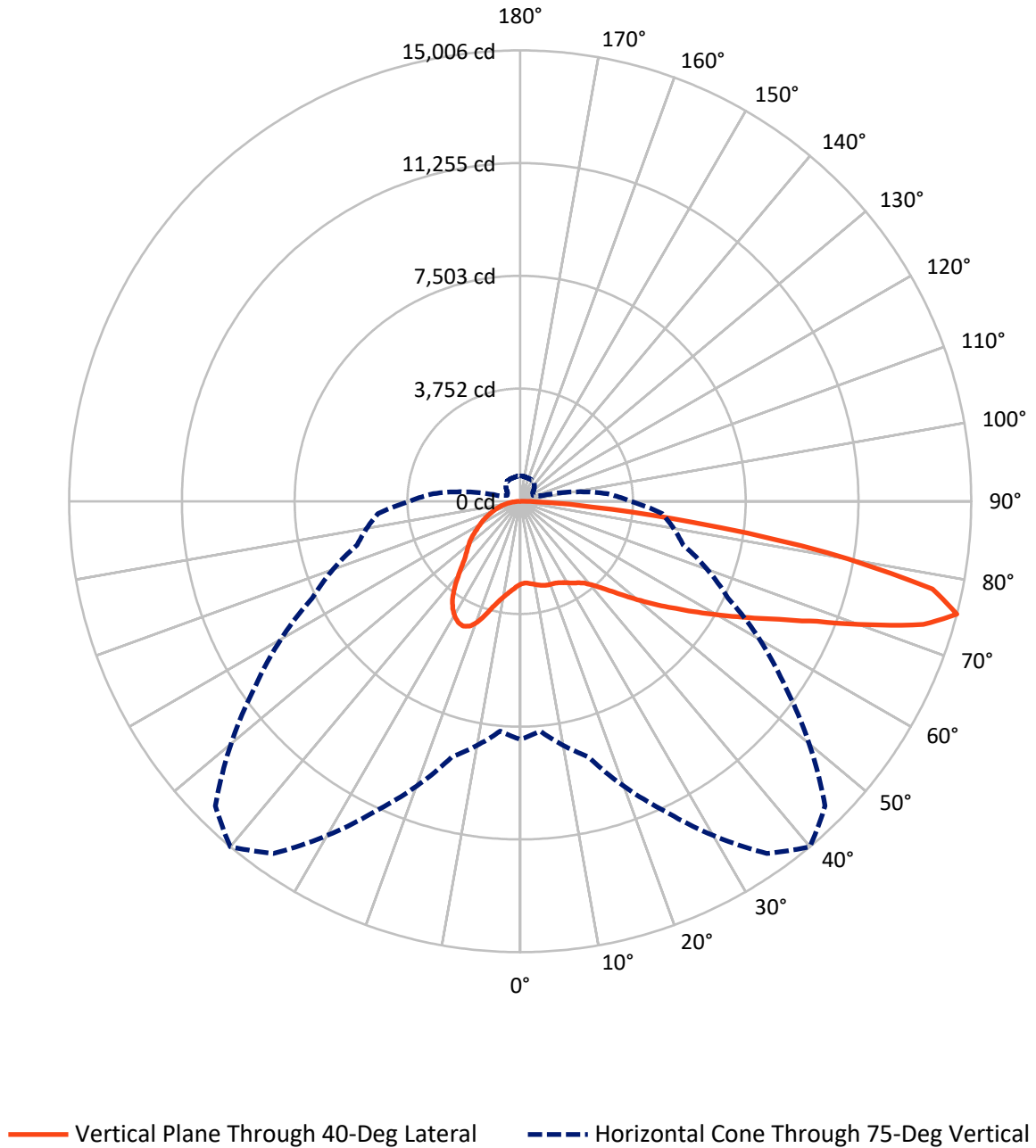
× Max cd
- - - 1/2 Max cd



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	7470.1	0.0	7470.1
	% Fixture	31.0	0.0	31.0
Street Side	Lumens	16639.9	0.0	16639.9
	% Fixture	69.0	0.0	69.0
Total	Lumens	24110.0	0.0	24110.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	275.2	1.1
10°-20°	924.0	3.8
20°-30°	1687.1	7.0
30°-40°	2392.8	9.9
40°-50°	3231.0	13.4
50°-60°	4346.5	18.0
60°-70°	5516.8	22.9
70°-80°	5006.8	20.8
80°-90°	729.8	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°	24110.0	100.0
0°-180°	24110.0	100.0

Coefficient of Utilization



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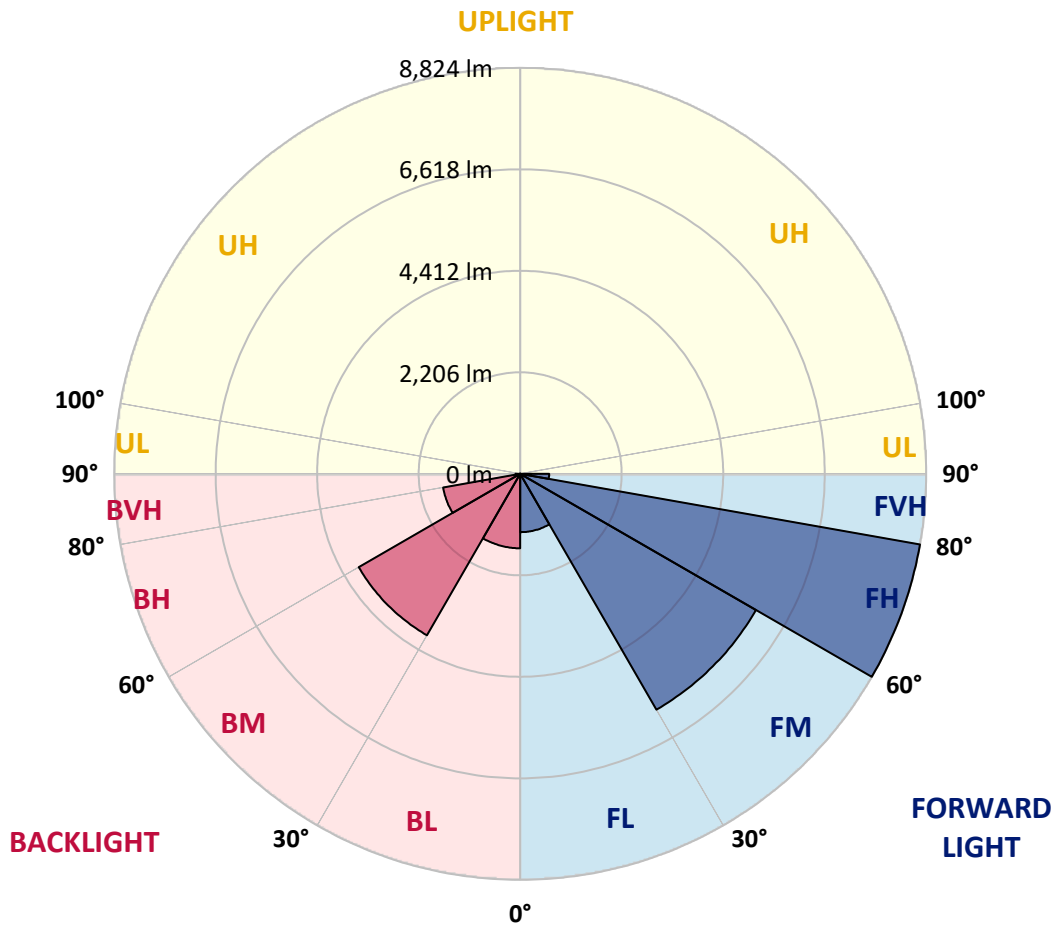
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1268.2	5.3			
FM (30°-60°)	5918.5	24.5			
FH (60°-80°)	8823.9	36.6			G4/12000
FVH (80°-90°)	629.4	2.6			G4/750
BL (0°-30°)	1618.1	6.7	B3/2500		
BM (30°-60°)	4051.8	16.8	B3/5000		
BH (60°-80°)	1699.7	7.0	B3/2500		G3/2500
BVH (80°-90°)	100.5	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°	2757.0	2757.0	2757.0	2757.0	2757.0	2757.0	2757.0	2757.0	2757.0	2757.0	2757.0
2.5°	2714.8	2730.2	2726.3	2721.2	2721.2	2722.5	2721.2	2730.2	2739.1	2748.1	2762.1
5°	2742.9	2758.3	2750.6	2744.2	2739.1	2737.8	2734.0	2732.7	2737.8	2749.3	2768.5
7.5°	2797.9	2813.3	2801.8	2790.3	2780.0	2774.9	2769.8	2762.1	2758.3	2764.7	2791.5
10°	2859.3	2874.7	2860.6	2840.1	2823.5	2817.1	2812.0	2804.3	2799.2	2803.0	2832.5
12.5°	2920.7	2936.0	2916.9	2888.7	2867.0	2863.1	2856.8	2854.2	2852.9	2851.6	2881.1
15°	2978.2	2991.0	2966.7	2933.5	2910.5	2904.1	2897.7	2901.5	2907.9	2915.6	2948.8
17.5°	3023.0	3035.8	3000.0	2956.5	2934.8	2932.2	2928.4	2941.2	2959.1	2978.2	3019.2
20°	3063.9	3076.7	3030.7	2971.8	2946.3	2946.3	2947.5	2974.4	3000.0	3028.1	3084.4
22.5°	3121.5	3131.7	3075.4	2994.9	2957.8	2960.3	2970.6	2997.4	3029.4	3067.7	3145.8
25°	3207.1	3214.8	3145.8	3038.3	2996.1	3003.8	3012.8	3025.6	3056.2	3101.0	3205.9
27.5°	3345.2	3351.6	3260.8	3115.1	3051.1	3063.9	3076.7	3067.7	3081.8	3120.2	3254.4
30°	3539.6	3543.4	3428.4	3235.3	3144.5	3150.9	3153.4	3116.3	3089.5	3120.2	3289.0
32.5°	3769.8	3768.5	3631.7	3381.0	3250.6	3244.2	3222.5	3149.6	3086.9	3113.8	3319.7
35°	4126.6	4112.5	3936.0	3585.6	3370.8	3331.2	3280.0	3186.7	3099.7	3107.4	3346.5
37.5°	4717.4	4673.9	4429.6	3920.7	3549.8	3448.8	3373.4	3246.8	3127.9	3104.8	3378.5
40°	5383.6	5328.6	5060.1	4379.8	3818.4	3656.0	3534.5	3332.5	3173.9	3116.3	3425.8
42.5°	6173.9	6095.9	5806.9	4920.7	4158.5	3923.2	3740.4	3441.1	3241.7	3153.4	3489.7
45°	7144.4	7040.9	6631.7	5530.6	4586.9	4273.6	4029.4	3606.1	3345.2	3225.0	3585.6
47.5°	8125.3	8150.8	7569.0	6228.8	5101.0	4705.8	4391.3	3854.2	3496.1	3340.1	3740.4
50°	9167.4	9185.3	8501.2	7002.5	5684.1	5194.3	4797.9	4131.7	3705.9	3503.8	3971.8
52.5°	9980.7	9983.3	9347.7	7812.0	6291.5	5731.4	5236.5	4448.8	3948.8	3721.2	4280.0
55°	10489.7	10483.3	9941.1	8577.9	6989.7	6295.3	5722.5	4809.4	4245.5	3976.9	4667.5
57.5°	10859.2	10840.1	10350.3	9236.5	7734.0	6961.6	6272.3	5218.6	4595.9	4281.3	5177.7
60°	10999.9	10988.4	10627.8	9805.5	8516.6	7698.1	6906.6	5676.4	4993.6	4640.6	5833.7
62.5°	11053.6	11075.4	10900.2	10356.7	9354.1	8514.0	7603.5	6223.7	5441.1	5047.3	6525.5
65°	11242.9	11282.5	11246.7	11077.9	10300.4	9469.2	8528.1	6874.6	5929.6	5483.3	7248.0
67.5°	11617.6	11657.2	11672.5	11941.1	11456.4	10659.8	9681.5	7685.4	6501.2	5936.0	7791.5
70°	11608.6	11597.1	11868.2	12627.8	12904.0	12308.1	11236.5	8682.8	7182.8	6312.0	7860.5
72.5°	10566.4	10474.3	11115.0	12620.1	14108.6	14029.3	13135.4	9969.2	7771.0	6358.0	6820.9
75°	7927.0	7681.5	8813.2	11373.3	14309.3	15006.3	14342.6	10767.2	7631.7	5617.6	4746.8
77.5°	3390.0	3143.2	4476.9	8419.4	12806.8	14028.0	13235.2	9393.8	6092.0	3714.8	2331.2
80°	887.5	886.2	1352.9	3817.1	8709.6	10359.3	9088.2	6066.4	3480.8	1327.4	643.2
82.5°	367.0	358.1	497.4	1484.6	4255.7	5813.3	4744.2	2705.9	1257.0	359.3	213.6
85°	136.8	135.5	241.7	512.8	1501.3	2397.7	1735.3	691.8	313.3	175.2	95.9
87.5°	38.4	37.1	52.4	177.7	365.7	555.0	296.7	113.8	88.2	69.1	28.1
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°	2757.0	2757.0	2757.0	2757.0	2757.0	2757.0	2757.0	2757.0	2757.0	2757.0	2757.0
2.5°	2766.0	2772.4	2783.9	2792.8	2804.3	2817.1	2835.0	2846.5	2858.0	2865.7	2860.6
5°	2777.5	2791.5	2820.9	2850.4	2884.9	2916.9	2953.9	2980.8	3002.5	3008.9	3011.5
7.5°	2803.0	2826.1	2875.9	2925.8	2980.8	3033.2	3086.9	3133.0	3170.1	3184.1	3185.4
10°	2847.8	2878.5	2948.8	3019.2	3092.0	3172.6	3241.7	3308.2	3360.6	3382.3	3383.6
12.5°	2904.1	2942.4	3034.5	3131.7	3232.7	3344.0	3433.5	3515.3	3580.5	3609.9	3609.9
15°	2977.0	3026.8	3144.5	3274.9	3423.2	3578.0	3691.8	3782.6	3855.5	3891.3	3888.7
17.5°	3056.2	3122.7	3271.1	3468.0	3680.3	3883.6	4016.6	4083.1	4158.5	4193.1	4191.8
20°	3133.0	3214.8	3427.1	3713.5	3996.1	4212.2	4319.7	4337.6	4342.7	4346.5	4356.7
22.5°	3212.2	3322.2	3622.7	4023.0	4326.1	4475.7	4491.0	4414.3	4306.9	4257.0	4271.1
25°	3299.2	3445.0	3878.5	4364.4	4609.9	4627.8	4510.2	4323.5	4120.2	4026.8	4040.9
27.5°	3383.6	3586.9	4185.4	4690.5	4814.5	4657.3	4404.1	4139.4	3893.8	3795.4	3806.9
30°	3468.0	3749.3	4524.3	4975.7	4907.9	4584.4	4236.5	3941.1	3694.3	3590.8	3602.3
32.5°	3553.7	3938.6	4914.3	5181.5	4891.3	4429.6	4028.1	3718.6	3501.3	3392.6	3406.6
35°	3650.9	4171.3	5283.8	5294.1	4780.0	4202.0	3753.2	3452.7	3263.4	3176.4	3195.6
37.5°	3777.5	4466.7	5609.9	5322.2	4585.6	3868.3	3411.7	3138.1	2982.1	2942.4	2970.6
40°	3934.8	4822.2	5859.3	5277.5	4297.9	3462.9	3038.3	2819.7	2731.4	2740.4	2771.1
42.5°	4139.4	5219.9	6034.5	5162.4	3897.7	3044.7	2711.0	2613.8	2656.0	2691.8	2725.0
45°	4405.3	5632.9	6143.2	4966.7	3445.0	2690.5	2517.9	2540.9	2572.9	2576.7	2602.3
47.5°	4745.5	6051.1	6214.8	4671.3	2983.4	2441.2	2395.1	2400.2	2393.8	2367.0	2387.4
50°	5170.0	6457.7	6278.7	4280.0	2590.8	2285.1	2223.8	2205.9	2117.6	2030.7	2042.2
52.5°	5653.4	6831.1	6305.6	3794.1	2285.1	2154.7	2055.0	1942.4	1777.5	1750.6	1759.6
55°	6190.5	7176.4	6236.5	3196.9	2028.1	1987.2	1836.3	1700.8	1682.9	1659.8	1663.7
57.5°	6832.4	7548.5	6095.9	2530.7	1764.7	1791.5	1644.5	1659.8	1627.9	1592.1	1585.7
60°	7534.5	7933.4	5849.1	1923.3	1492.3	1547.3	1594.6	1593.3	1584.4	1555.0	1544.7
62.5°	8166.2	8186.6	5363.1	1473.1	1253.2	1358.0	1487.2	1485.9	1478.2	1461.6	1455.2
65°	8542.1	8148.3	4552.4	1159.8	1056.3	1202.0	1341.4	1351.7	1352.9	1351.7	1351.7
67.5°	8475.6	7699.4	3439.9	923.3	893.9	1043.5	1196.9	1211.0	1221.2	1223.8	1226.3
70°	7723.7	6713.5	2242.9	736.6	749.4	904.1	1060.1	1074.2	1083.1	1093.3	1098.5
72.5°	6020.4	4936.0	1283.9	595.9	622.8	783.9	924.5	941.2	946.3	965.5	973.1
75°	3668.8	2902.8	693.1	469.3	511.5	670.1	790.3	809.5	818.4	841.4	844.0
77.5°	1744.2	1257.0	395.1	365.7	411.8	547.3	667.5	689.3	665.0	677.7	667.5
80°	589.5	466.7	249.4	278.8	314.6	427.1	534.5	556.3	505.1	502.6	497.4
82.5°	205.9	189.3	158.6	185.4	203.3	305.6	404.1	432.2	376.0	374.7	356.8
85°	80.6	76.7	88.2	101.0	121.5	188.0	266.0	280.0	231.5	186.7	184.1
87.5°	16.6	17.9	21.7	23.0	37.1	65.2	95.9	117.6	93.3	79.3	72.9
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)