

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: P883769

Luminaire Tested: **NAV-SB4B-735-U-T3**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883769
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-5)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4B-735-U-T3
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 3500K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 22836 lumens
Efficiency: N/A
Efficacy: 155.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G3

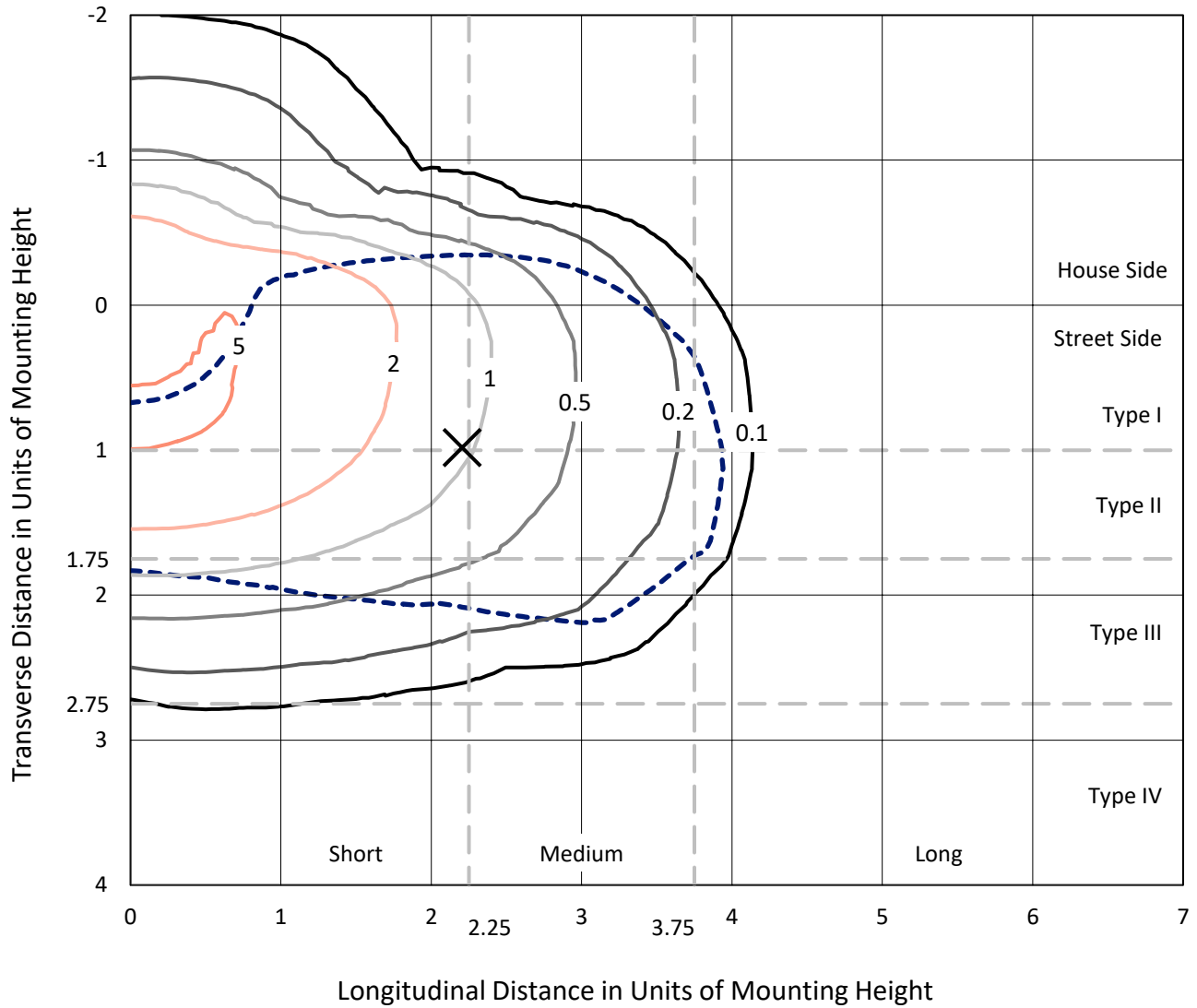
Input Watts (W): 147
Input Voltage (V): 120.0
Input Current (Ain): 1.255
Voltage Rise (V): NR
Power Factor: 0.988
Total Harmonic Distortion (THDi): 13.593
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

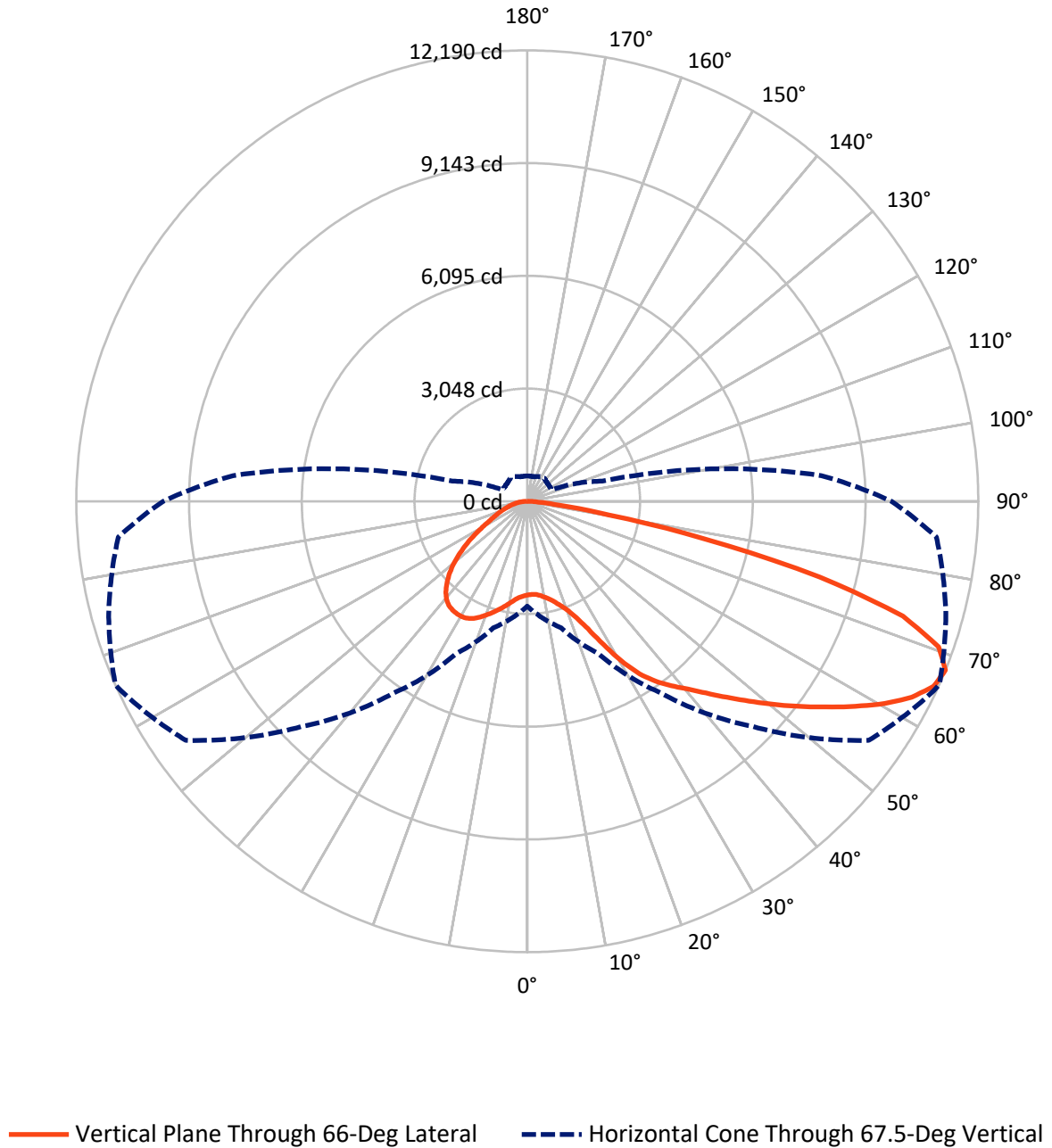
✕ Max cd
 - - - 1/2 Max cd



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

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5678.1	0.0	5678.1
	% Fixture	24.9	0.0	24.9
Street Side	Lumens	17157.9	0.0	17157.9
	% Fixture	75.1	0.0	75.1
Total	Lumens	22836.0	0.0	22836.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	251.1	1.1
10°-20°	829.7	3.6
20°-30°	1599.1	7.0
30°-40°	2803.9	12.3
40°-50°	4168.4	18.3
50°-60°	5283.9	23.1
60°-70°	5170.2	22.6
70°-80°	2466.2	10.8
80°-90°	263.6	1.2
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°	22836.0	100.0
0°-180°	22836.0	100.0

Coefficient of Utilization



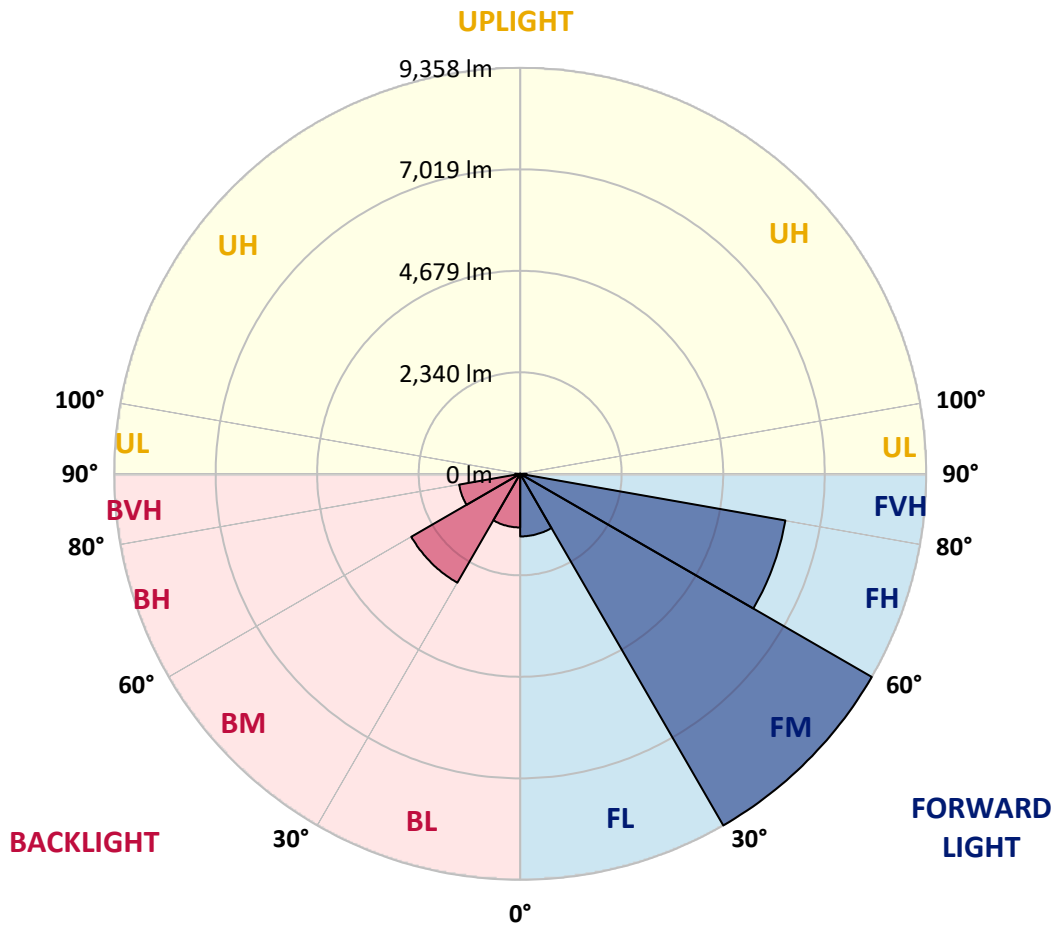
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1443.0	6.3			
FM (30°-60°)	9358.0	41.0			
FH (60°-80°)	6207.4	27.2			G3/7500
FVH (80°-90°)	149.4	0.7			G2/225
BL (0°-30°)	1236.9	5.4	B3/2500		
BM (30°-60°)	2898.2	12.7	B3/5000		
BH (60°-80°)	1428.9	6.3	B3/2500		G3/2500
BVH (80°-90°)	114.1	0.5			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 III Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	2532.8	2532.8	2532.8	2532.8	2532.8	2532.8	2532.8	2532.8	2532.8	2532.8	2532.8
2.5°	2506.4	2520.8	2517.2	2511.2	2510.0	2512.4	2516.0	2519.6	2518.4	2524.4	2534.0
5°	2499.2	2513.6	2512.4	2512.4	2517.2	2526.8	2532.8	2538.8	2532.8	2540.0	2553.2
7.5°	2504.0	2514.8	2519.6	2524.4	2536.4	2554.4	2568.8	2582.0	2574.8	2583.2	2600.0
10°	2565.2	2573.6	2578.4	2578.4	2586.8	2607.2	2621.6	2645.6	2639.6	2652.8	2674.4
12.5°	2676.8	2685.2	2685.2	2680.4	2686.4	2699.6	2704.4	2730.8	2720.0	2741.6	2763.2
15°	2813.6	2830.4	2817.2	2808.8	2811.2	2824.4	2823.2	2843.6	2832.8	2850.8	2870.0
17.5°	2964.7	2986.3	2964.7	2963.5	2958.7	2973.1	2974.3	2992.3	2973.1	2986.3	2999.5
20°	3143.5	3173.5	3155.5	3161.5	3150.7	3156.7	3162.7	3189.1	3159.1	3168.7	3165.1
22.5°	3395.5	3431.5	3412.3	3435.1	3427.9	3423.1	3421.9	3468.7	3421.9	3425.5	3390.7
25°	3762.6	3805.8	3772.2	3803.4	3803.4	3819.0	3837.0	3897.0	3819.0	3796.2	3706.2
27.5°	4304.9	4348.1	4282.1	4301.3	4295.3	4333.7	4314.5	4463.3	4379.3	4342.1	4161.0
30°	4957.6	5034.4	4909.7	4904.9	4898.9	4960.0	4987.6	5086.0	5000.8	4963.6	4745.3
32.5°	5663.1	5743.5	5594.7	5551.6	5528.8	5566.0	5543.2	5622.3	5563.6	5506.0	5236.0
35°	6409.4	6488.6	6347.0	6263.0	6171.9	6093.9	6012.3	6032.7	5977.5	5889.9	5610.3
37.5°	7114.9	7260.1	7110.1	7020.1	6852.2	6699.8	6471.8	6377.0	6325.4	6245.0	5963.1
40°	7833.6	7916.4	7802.4	7725.6	7543.3	7304.5	6939.7	6739.4	6669.8	6591.8	6353.0
42.5°	8362.7	8441.9	8380.7	8327.9	8185.2	7908.0	7436.5	7185.7	7084.9	6997.3	6794.6
45°	8782.7	8841.5	8803.1	8822.3	8761.1	8492.3	7951.2	7664.4	7560.0	7453.3	7293.7
47.5°	8951.8	9014.2	9075.4	9189.4	9293.8	9095.8	8504.3	8182.8	8072.4	7963.2	7806.0
50°	8932.6	8996.2	9173.8	9416.2	9740.1	9674.1	9087.4	8734.7	8632.7	8507.9	8362.7
52.5°	8779.1	8851.1	9079.0	9482.2	9998.1	10107.3	9681.3	9304.6	9208.6	9059.8	8914.6
55°	8375.9	8419.1	8761.1	9332.2	10059.3	10409.6	10263.2	9911.7	9815.7	9608.1	9449.8
57.5°	7628.4	7690.8	8188.8	8927.8	9905.7	10614.8	10774.4	10550.0	10457.6	10158.9	9993.3
60°	6653.0	6752.6	7322.5	8248.7	9514.6	10613.6	11238.7	11177.5	11100.7	10701.2	10528.4
62.5°	5549.2	5664.3	6212.7	7288.9	8830.7	10312.4	11529.0	11703.0	11663.4	11201.5	10980.7
65°	4261.8	4340.9	4886.9	6047.1	7766.4	9665.7	11562.6	12061.8	12069.0	11581.8	11217.1
67.5°	2837.6	3065.5	3539.5	4537.7	6341.0	8608.7	11267.5	12120.6	12190.1	11712.6	11098.3
70°	1384.6	1684.5	2148.9	2949.2	4537.7	6987.7	10496.0	11638.2	11793.0	11331.1	10390.4
72.5°	574.7	671.9	925.1	1455.4	2604.8	4715.3	8945.8	10330.4	10617.2	10040.1	8735.9
75°	387.5	419.9	529.1	746.3	1186.6	2325.2	6451.4	7702.8	8164.8	7582.8	6198.3
77.5°	298.8	319.2	385.1	521.9	705.5	879.5	3453.1	4642.1	4880.9	4518.5	3225.1
80°	235.2	250.8	288.0	380.3	500.3	470.3	1177.0	2103.3	2241.3	1880.1	1036.6
82.5°	204.0	210.0	206.4	258.0	332.3	274.8	386.3	776.3	856.7	621.5	338.3
85°	147.6	164.4	171.6	159.6	176.4	139.2	158.4	274.8	302.4	270.0	190.8
87.5°	60.0	88.8	109.2	103.2	64.8	39.6	49.2	80.4	92.4	100.8	62.4
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°	2532.8	2532.8	2532.8	2532.8	2532.8	2532.8	2532.8	2532.8	2532.8	2532.8	2532.8
2.5°	2535.2	2543.6	2549.6	2556.8	2561.6	2568.8	2583.2	2591.6	2592.8	2598.8	2597.6
5°	2558.0	2570.0	2583.2	2602.4	2624.0	2642.0	2669.6	2688.8	2696.0	2702.0	2700.8
7.5°	2607.2	2624.0	2648.0	2681.6	2712.8	2736.8	2770.4	2793.2	2816.0	2824.4	2825.6
10°	2680.4	2704.4	2739.2	2784.8	2818.4	2849.6	2884.4	2903.6	2926.4	2936.0	2940.8
12.5°	2771.6	2796.8	2842.4	2906.0	2937.2	2958.7	2970.7	2965.9	2970.7	2979.1	2981.5
15°	2876.0	2903.6	2955.1	3023.5	3045.1	3025.9	2999.5	2975.5	2971.9	2974.3	2982.7
17.5°	2999.5	3019.9	3079.9	3137.5	3121.9	3042.7	2985.1	2946.8	2927.6	2921.6	2930.0
20°	3172.3	3172.3	3221.5	3257.5	3153.1	3018.7	2928.8	2866.4	2826.8	2810.0	2806.4
22.5°	3382.3	3363.1	3394.3	3369.1	3147.1	2951.6	2826.8	2718.8	2658.8	2634.8	2631.2
25°	3648.6	3625.8	3617.4	3461.5	3103.9	2844.8	2642.0	2511.2	2458.4	2445.2	2447.6
27.5°	4050.6	3993.0	3883.8	3511.9	3024.7	2676.8	2426.0	2304.8	2274.9	2276.1	2279.7
30°	4585.7	4470.5	4203.0	3520.3	2895.2	2439.2	2205.3	2118.9	2104.5	2110.5	2130.9
32.5°	5081.2	4972.0	4529.3	3481.9	2696.0	2206.5	2007.3	1949.7	1928.1	1935.3	1944.9
35°	5470.0	5440.0	4831.7	3427.9	2451.2	1988.1	1829.7	1780.5	1738.5	1728.9	1736.1
37.5°	5837.1	5825.1	5058.4	3352.3	2208.9	1833.3	1686.9	1622.2	1561.0	1527.4	1528.6
40°	6240.2	6228.3	5207.2	3235.9	1994.1	1698.9	1558.6	1473.4	1397.8	1336.6	1342.6
42.5°	6693.8	6623.0	5278.0	3069.1	1811.7	1585.0	1454.2	1339.0	1239.4	1183.0	1186.6
45°	7189.3	7029.7	5276.8	2856.8	1658.1	1480.6	1342.6	1179.4	1087.0	1034.2	1031.8
47.5°	7714.8	7418.5	5212.0	2621.6	1509.4	1365.4	1169.8	1045.0	983.9	951.5	944.3
50°	8257.1	7782.0	5101.6	2351.6	1357.0	1234.6	1061.8	976.7	929.9	899.9	889.1
52.5°	8767.1	8112.0	4968.4	2045.7	1202.2	1107.4	1013.8	947.9	898.7	865.1	850.7
55°	9241.0	8396.3	4780.1	1732.5	1076.2	1022.2	991.0	935.9	879.5	839.9	824.3
57.5°	9662.1	8581.1	4454.9	1438.6	986.2	963.5	967.1	915.5	850.7	817.1	795.5
60°	10012.5	8716.7	3973.8	1166.2	913.1	905.9	929.9	877.1	801.5	763.1	746.3
62.5°	10222.4	8714.3	3383.5	955.1	850.7	853.1	880.7	829.1	752.3	716.3	705.5
65°	10204.4	8500.7	2735.6	817.1	790.7	793.1	829.1	776.3	711.5	689.9	688.7
67.5°	9843.3	7980.0	2098.5	727.1	724.7	735.5	777.5	740.3	686.3	683.9	687.5
70°	8865.4	6898.9	1511.8	655.1	656.3	671.9	727.1	717.5	673.1	677.9	676.7
72.5°	7108.9	5260.0	1015.0	579.5	580.7	605.9	679.1	699.5	659.9	723.5	733.1
75°	4734.5	3280.3	652.7	499.1	500.3	532.7	637.1	664.7	623.9	721.1	727.1
77.5°	2274.9	1474.6	472.7	419.9	419.9	449.9	550.7	595.1	531.5	560.3	513.5
80°	785.9	554.3	371.9	338.3	331.1	351.5	464.3	515.9	458.3	422.3	395.9
82.5°	309.6	288.0	298.8	262.8	238.8	252.0	361.1	425.9	337.1	304.8	303.6
85°	177.6	187.2	211.2	174.0	138.0	154.8	265.2	306.0	254.4	224.4	229.2
87.5°	48.0	66.0	97.2	90.0	62.4	66.0	126.0	169.2	146.4	112.8	116.4
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)