

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: P884504

Luminaire Tested: **NAV-SB5B-835-U-SL4**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884504
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-835-U-SL4
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 3500K, 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: 23899 lumens
Efficiency: N/A
Efficacy: 130.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B3 - U0 - G4

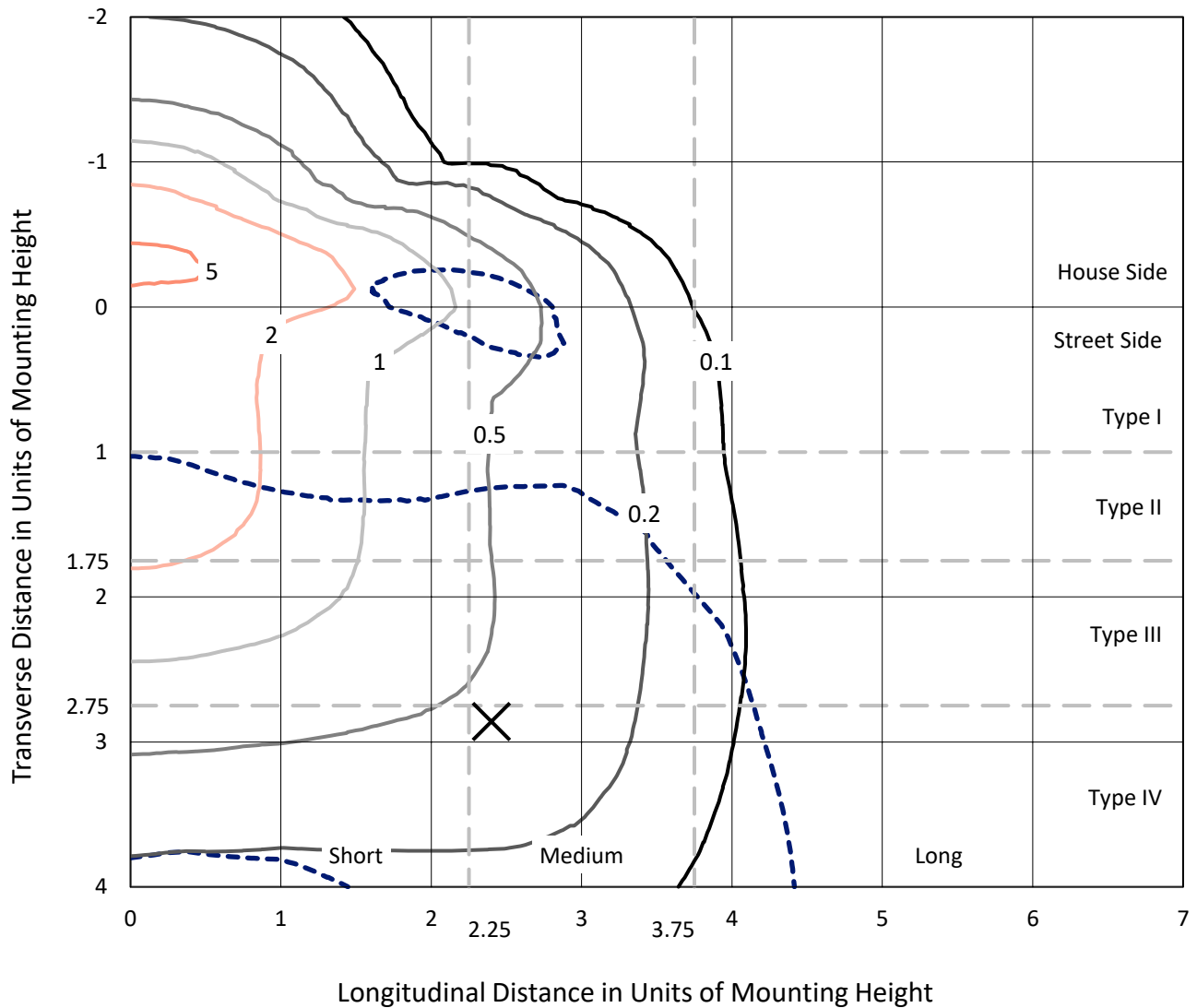
Input Watts (W): 182.7
Input Voltage (V): 120.0
Input Current (Ain): 1.547
Voltage Rise (V): NR
Power Factor: 0.992
Total Harmonic Distortion (THDi): 11.125
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

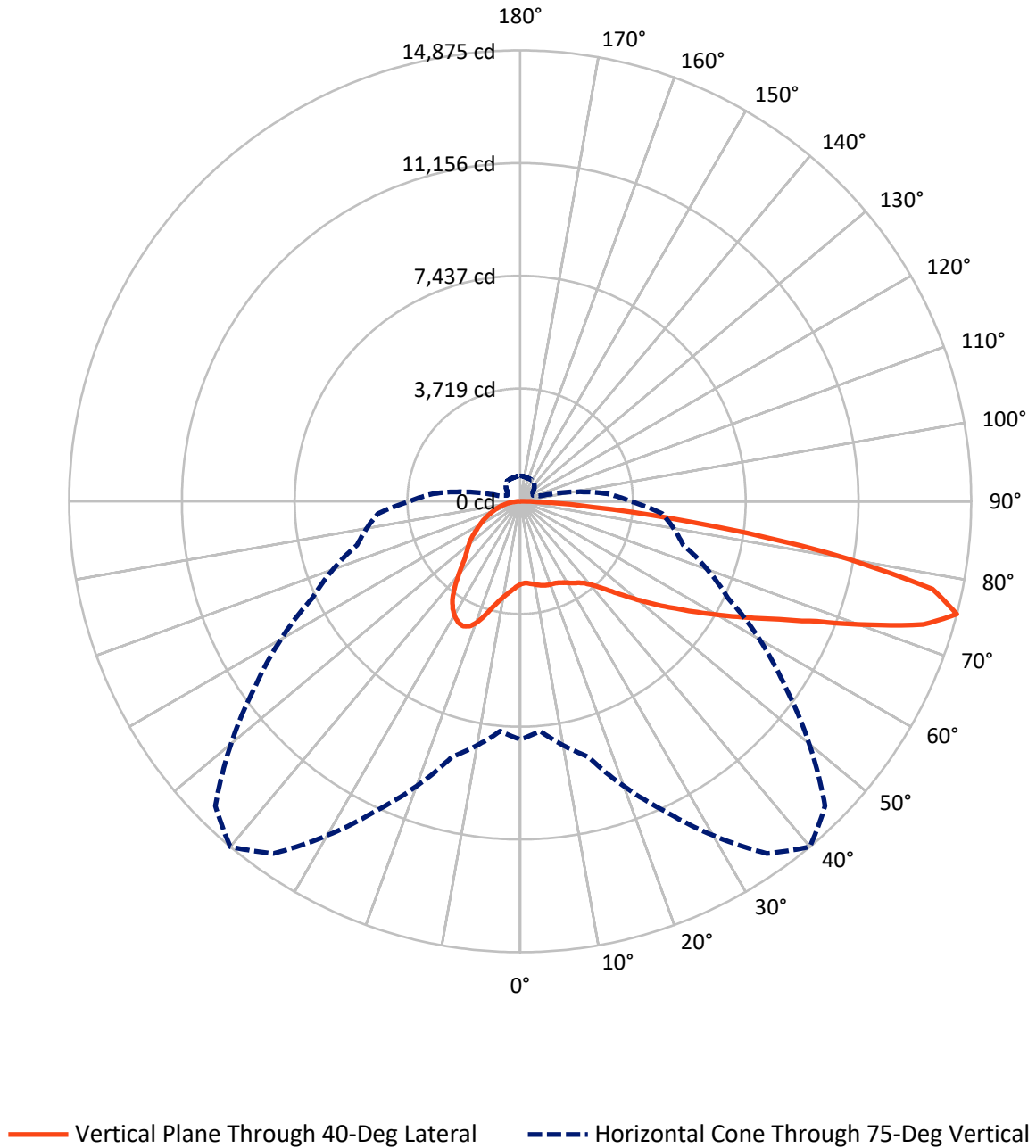
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.6 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	7404.7	0.0	7404.7
	% Fixture	31.0	0.0	31.0
Street Side	Lumens	16494.3	0.0	16494.3
	% Fixture	69.0	0.0	69.0
Total	Lumens	23899.0	0.0	23899.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	272.8	1.1
10°-20°	915.9	3.8
20°-30°	1672.3	7.0
30°-40°	2371.8	9.9
40°-50°	3202.7	13.4
50°-60°	4308.5	18.0
60°-70°	5468.5	22.9
70°-80°	4963.0	20.8
80°-90°	723.4	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°	23899.0	100.0
0°-180°	23899.0	100.0

Coefficient of Utilization



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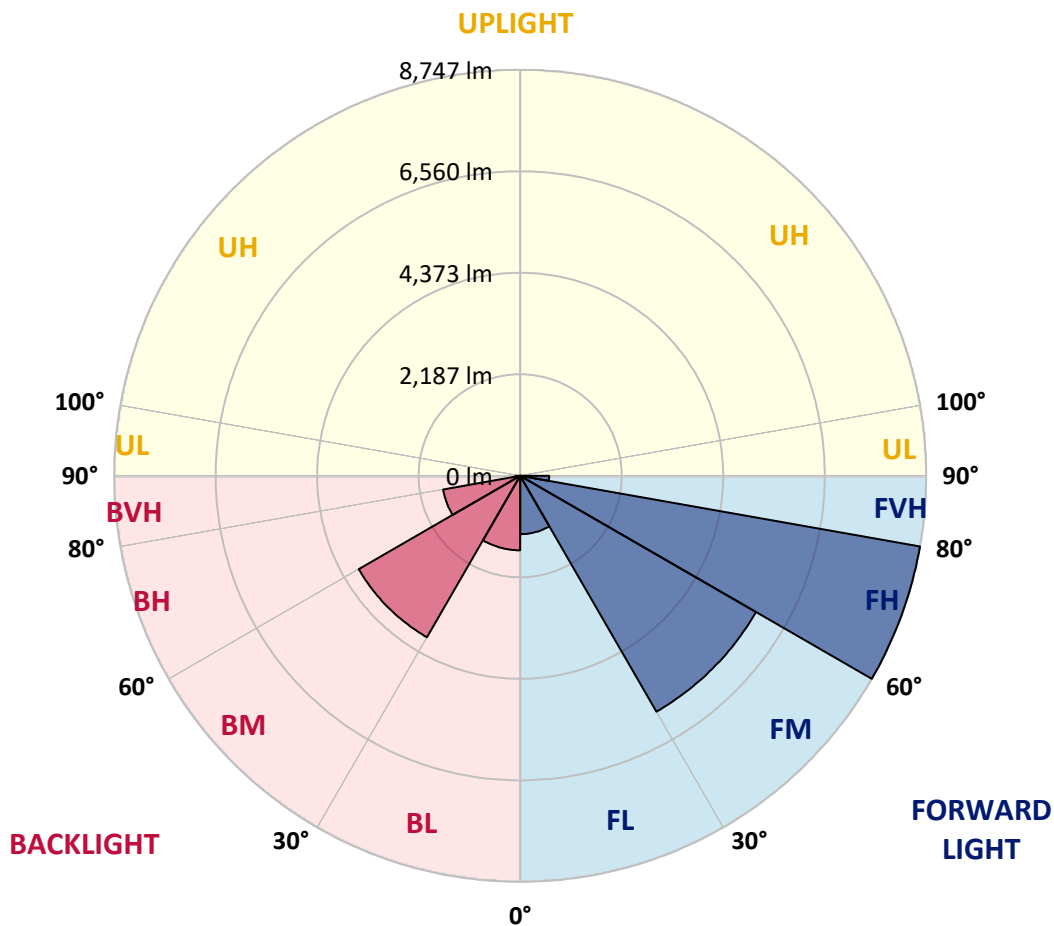
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1257.1	5.3			
FM (30°-60°)	5866.7	24.5			
FH (60°-80°)	8746.7	36.6			G4/12000
FVH (80°-90°)	623.8	2.6			G4/750
BL (0°-30°)	1603.9	6.7	B3/2500		
BM (30°-60°)	4016.4	16.8	B3/5000		
BH (60°-80°)	1684.8	7.0	B3/2500		G3/2500
BVH (80°-90°)	99.6	0.4			G1/100
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°	2732.9	2732.9	2732.9	2732.9	2732.9	2732.9	2732.9	2732.9	2732.9	2732.9	2732.9
2.5°	2691.1	2706.3	2702.5	2697.4	2697.4	2698.7	2697.4	2706.3	2715.1	2724.0	2738.0
5°	2718.9	2734.2	2726.5	2720.2	2715.1	2713.9	2710.1	2708.8	2713.9	2725.3	2744.3
7.5°	2773.4	2788.7	2777.2	2765.8	2755.7	2750.6	2745.6	2738.0	2734.2	2740.5	2767.1
10°	2834.3	2849.5	2835.6	2815.3	2798.8	2792.5	2787.4	2779.8	2774.7	2778.5	2807.7
12.5°	2895.1	2910.3	2891.3	2863.4	2841.9	2838.1	2831.8	2829.2	2828.0	2826.7	2855.8
15°	2952.2	2964.8	2940.8	2907.8	2885.0	2878.7	2872.3	2876.1	2882.5	2890.1	2923.0
17.5°	2996.5	3009.2	2973.7	2930.6	2909.1	2906.5	2902.7	2915.4	2933.2	2952.2	2992.7
20°	3037.1	3049.8	3004.1	2945.8	2920.5	2920.5	2921.8	2948.4	2973.7	3001.6	3057.4
22.5°	3094.1	3104.3	3048.5	2968.7	2931.9	2934.4	2944.6	2971.2	3002.9	3040.9	3118.2
25°	3179.1	3186.7	3118.2	3011.7	2969.9	2977.5	2986.4	2999.1	3029.5	3073.9	3177.8
27.5°	3316.0	3322.3	3232.3	3087.8	3024.4	3037.1	3049.8	3040.9	3054.8	3092.9	3226.0
30°	3508.6	3512.4	3398.4	3207.0	3117.0	3123.3	3125.8	3089.1	3062.5	3092.9	3260.2
32.5°	3736.8	3735.5	3599.9	3351.5	3222.2	3215.8	3194.3	3122.0	3059.9	3086.5	3290.6
35°	4090.5	4076.5	3901.6	3554.3	3341.3	3302.0	3251.3	3158.8	3072.6	3080.2	3317.2
37.5°	4676.1	4633.0	4390.9	3886.4	3518.8	3418.6	3343.9	3218.4	3100.5	3077.7	3348.9
40°	5336.5	5282.0	5015.8	4341.4	3785.0	3624.0	3503.6	3303.3	3146.1	3089.1	3395.8
42.5°	6119.8	6042.5	5756.0	4877.6	4122.1	3888.9	3707.6	3411.0	3213.3	3125.8	3459.2
45°	7081.9	6979.2	6573.6	5482.2	4546.8	4236.2	3994.1	3574.5	3316.0	3196.8	3554.3
47.5°	8054.1	8079.5	7502.8	6174.3	5056.3	4664.7	4352.8	3820.5	3465.5	3310.9	3707.6
50°	9087.2	9105.0	8426.8	6941.2	5634.4	5148.9	4755.9	4095.5	3673.4	3473.1	3937.1
52.5°	9893.4	9895.9	9265.9	7743.6	6236.4	5681.3	5190.7	4409.9	3914.3	3688.6	4242.6
55°	10397.9	10391.5	9854.1	8502.9	6928.5	6240.3	5672.4	4767.3	4208.3	3942.1	4626.6
57.5°	10764.2	10745.2	10259.7	9155.7	7666.3	6900.7	6217.4	5173.0	4555.6	4243.8	5132.4
60°	10903.6	10892.2	10534.8	9719.7	8442.0	7630.8	6846.1	5626.7	4949.9	4600.0	5782.7
62.5°	10956.9	10978.4	10804.8	10266.1	9272.3	8439.5	7537.0	6169.3	5393.5	5003.1	6468.4
65°	11144.5	11183.8	11148.3	10981.0	10210.3	9386.4	8453.4	6814.5	5877.7	5435.3	7184.6
67.5°	11515.9	11555.2	11570.4	11836.6	11356.2	10566.5	9596.8	7618.1	6444.3	5884.1	7723.3
70°	11507.0	11495.6	11764.3	12517.3	12791.1	12200.4	11138.1	8606.8	7119.9	6256.7	7791.8
72.5°	10473.9	10382.7	11017.7	12509.7	13985.1	13906.5	13020.5	9882.0	7703.0	6302.4	6761.2
75°	7857.7	7614.3	8736.1	11273.8	14184.1	14874.9	14217.1	10672.9	7564.9	5568.4	4705.2
77.5°	3360.3	3115.7	4437.8	8345.7	12694.7	13905.3	13119.4	9311.6	6038.7	3682.3	2310.8
80°	879.7	878.4	1341.1	3783.7	8633.4	10268.6	9008.6	6013.4	3450.3	1315.7	637.6
82.5°	363.8	354.9	493.1	1471.6	4218.5	5762.4	4702.7	2682.2	1246.0	356.2	211.7
85°	135.6	134.4	239.6	508.3	1488.1	2376.7	1720.1	685.8	310.6	173.7	95.1
87.5°	38.0	36.8	52.0	176.2	362.5	550.1	294.1	112.8	87.5	68.4	27.9
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°	2732.9	2732.9	2732.9	2732.9	2732.9	2732.9	2732.9	2732.9	2732.9	2732.9	2732.9
2.5°	2741.8	2748.1	2759.5	2768.4	2779.8	2792.5	2810.2	2821.6	2833.0	2840.6	2835.6
5°	2753.2	2767.1	2796.3	2825.4	2859.6	2891.3	2928.1	2954.7	2976.3	2982.6	2985.1
7.5°	2778.5	2801.3	2850.8	2900.2	2954.7	3006.7	3059.9	3105.5	3142.3	3156.3	3157.5
10°	2822.9	2853.3	2923.0	2992.7	3065.0	3144.8	3213.3	3279.2	3331.2	3352.7	3354.0
12.5°	2878.7	2916.7	3007.9	3104.3	3204.4	3314.7	3403.4	3484.6	3549.2	3578.4	3578.4
15°	2950.9	3000.3	3117.0	3246.2	3393.3	3546.7	3659.5	3749.5	3821.7	3857.2	3854.7
17.5°	3029.5	3095.4	3242.4	3437.7	3648.1	3849.6	3981.4	4047.4	4122.1	4156.4	4155.1
20°	3105.5	3186.7	3397.1	3681.0	3961.2	4175.4	4281.9	4299.6	4304.7	4308.5	4318.6
22.5°	3184.1	3293.1	3591.0	3987.8	4288.2	4436.5	4451.7	4375.7	4269.2	4219.7	4233.7
25°	3270.3	3414.8	3844.5	4326.2	4569.6	4587.3	4470.7	4285.7	4084.1	3991.6	4005.5
27.5°	3354.0	3555.5	4148.8	4649.4	4772.4	4616.5	4365.5	4103.1	3859.8	3762.1	3773.6
30°	3437.7	3716.5	4484.7	4932.1	4864.9	4544.2	4199.5	3906.7	3662.0	3559.3	3570.7
32.5°	3522.6	3904.1	4871.3	5136.2	4848.5	4390.9	3992.8	3686.1	3470.6	3362.9	3376.8
35°	3618.9	4134.8	5237.6	5247.7	4738.2	4165.2	3720.3	3422.4	3234.8	3148.6	3167.7
37.5°	3744.4	4427.6	5560.8	5275.6	4545.5	3834.4	3381.9	3110.6	2956.0	2916.7	2944.6
40°	3900.3	4780.0	5808.0	5231.3	4260.3	3432.6	3011.7	2795.0	2707.5	2716.4	2746.8
42.5°	4103.1	5174.2	5981.7	5117.2	3863.6	3018.1	2687.2	2590.9	2632.7	2668.2	2701.2
45°	4366.8	5583.6	6089.4	4923.2	3414.8	2667.0	2495.8	2518.7	2550.4	2554.2	2579.5
47.5°	4704.0	5998.1	6160.4	4630.4	2957.2	2419.8	2374.2	2379.2	2372.9	2346.3	2366.6
50°	5124.8	6401.2	6223.8	4242.6	2568.1	2265.1	2204.3	2186.6	2099.1	2012.9	2024.3
52.5°	5603.9	6771.4	6250.4	3760.9	2265.1	2135.9	2037.0	1925.4	1761.9	1735.3	1744.2
55°	6136.3	7113.6	6181.9	3168.9	2010.4	1969.8	1820.2	1685.9	1668.1	1645.3	1649.1
57.5°	6772.6	7482.5	6042.5	2508.5	1749.2	1775.9	1630.1	1645.3	1613.6	1578.1	1571.8
60°	7468.5	7864.0	5797.9	1906.4	1479.3	1533.8	1580.7	1579.4	1570.5	1541.4	1531.2
62.5°	8094.7	8115.0	5316.2	1460.2	1242.2	1346.2	1474.2	1472.9	1465.3	1448.8	1442.5
65°	8467.4	8077.0	4512.6	1149.7	1047.0	1191.5	1329.7	1339.8	1341.1	1339.8	1339.8
67.5°	8401.5	7632.0	3409.8	915.2	886.0	1034.3	1186.4	1200.4	1210.5	1213.1	1215.6
70°	7656.1	6654.7	2223.3	730.1	742.8	896.2	1050.8	1064.8	1073.6	1083.8	1088.8
72.5°	5967.7	4892.8	1272.6	590.7	617.3	777.0	916.5	932.9	938.0	957.0	964.6
75°	3636.7	2877.4	687.0	465.2	507.0	664.2	783.4	802.4	811.2	834.1	836.6
77.5°	1729.0	1246.0	391.7	362.5	408.2	542.5	661.7	683.2	659.1	671.8	661.7
80°	584.4	462.7	247.2	276.3	311.8	423.4	529.8	551.4	500.7	498.2	493.1
82.5°	204.1	187.6	157.2	183.8	201.5	302.9	400.6	428.4	372.7	371.4	353.7
85°	79.9	76.1	87.5	100.1	120.4	186.3	263.7	277.6	229.4	185.1	182.5
87.5°	16.5	17.7	21.5	22.8	36.8	64.6	95.1	116.6	92.5	78.6	72.3
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)