

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: P968393

Luminaire Tested: **NAV-SB5B-827-U-T4W**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P968393
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-1)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5B-827-U-T4W
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 2700K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 25303.1 lumens
Efficiency: N/A
Efficacy: 138.5 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G4

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

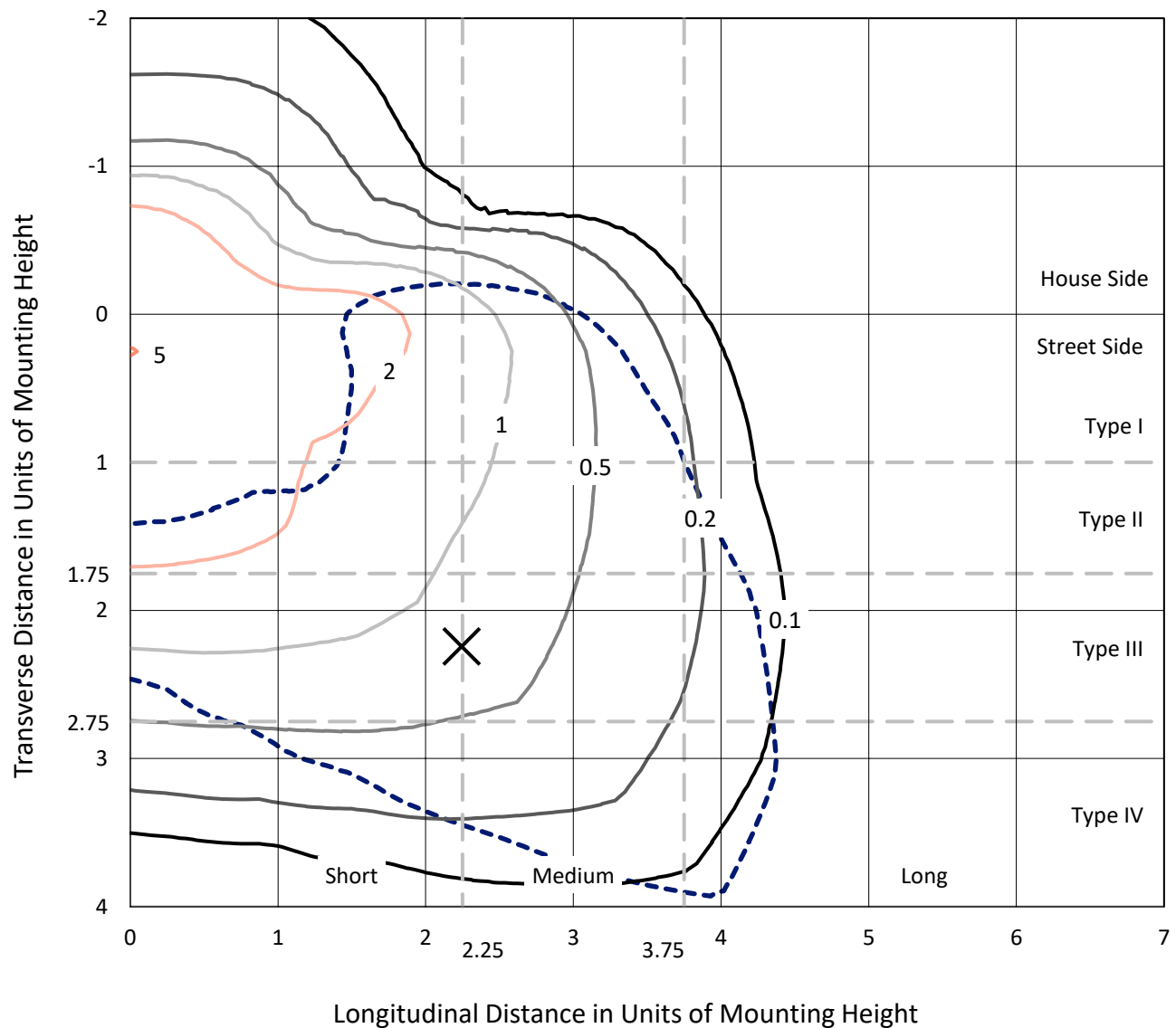


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Iso-Footcandle Lines of Horizontal Illumination

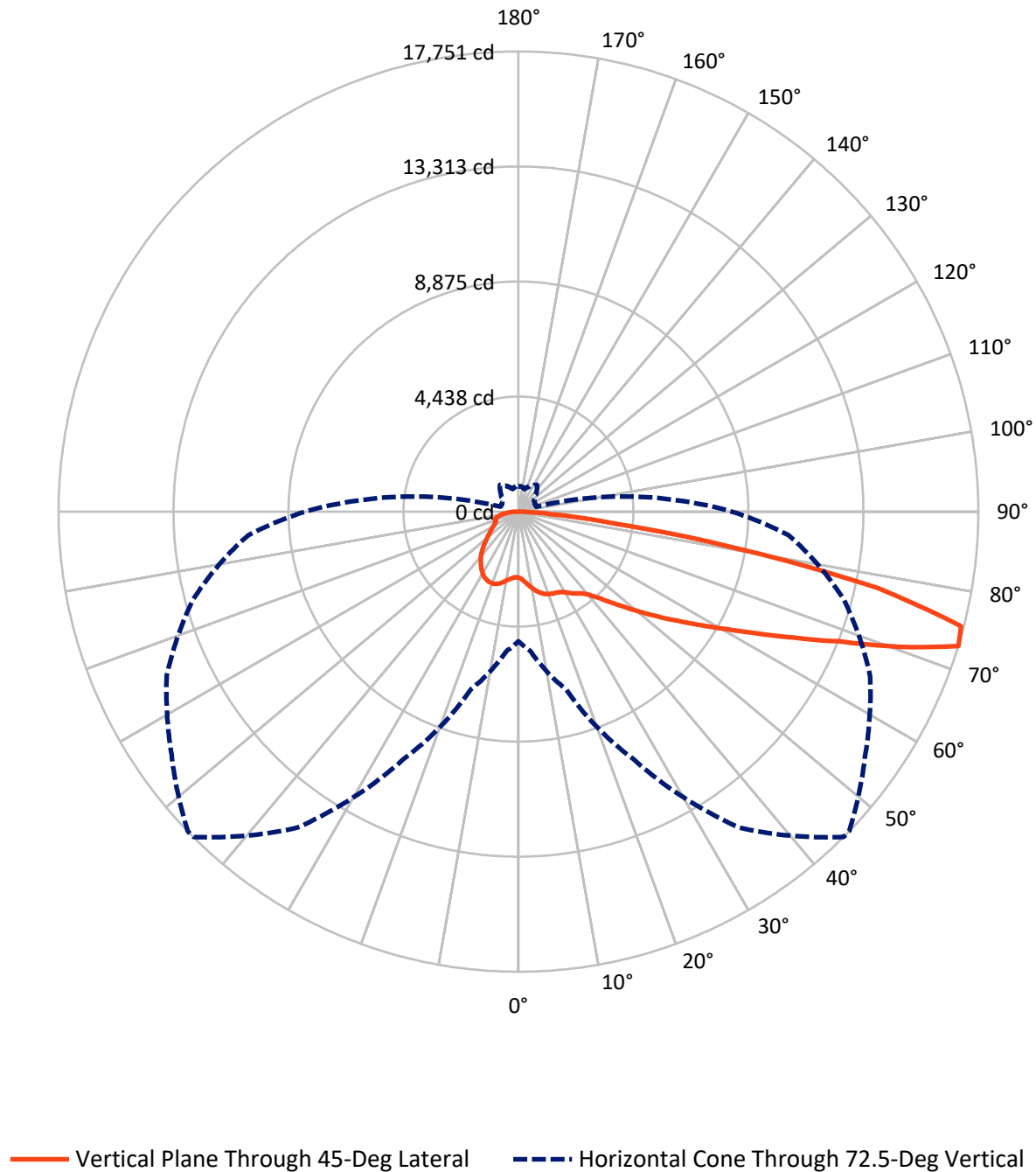
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.1 fc
Type IV - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5720.2	0.0	5720.2
	% Fixture	22.6	0.0	22.6
Street Side	Lumens	19583.0	0.0	19583.0
	% Fixture	77.4	0.0	77.4
Total	Lumens	25303.1	0.0	25303.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	259.8	1.0
10°-20°	866.2	3.4
20°-30°	1506.8	6.0
30°-40°	2160.1	8.5
40°-50°	3041.6	12.0
50°-60°	4658.8	18.4
60°-70°	6749.0	26.7
70°-80°	5389.5	21.3
80°-90°	671.2	2.7
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°	25303.1	100.0
0°-180°	25303.1	100.0

Coefficient of Utilization



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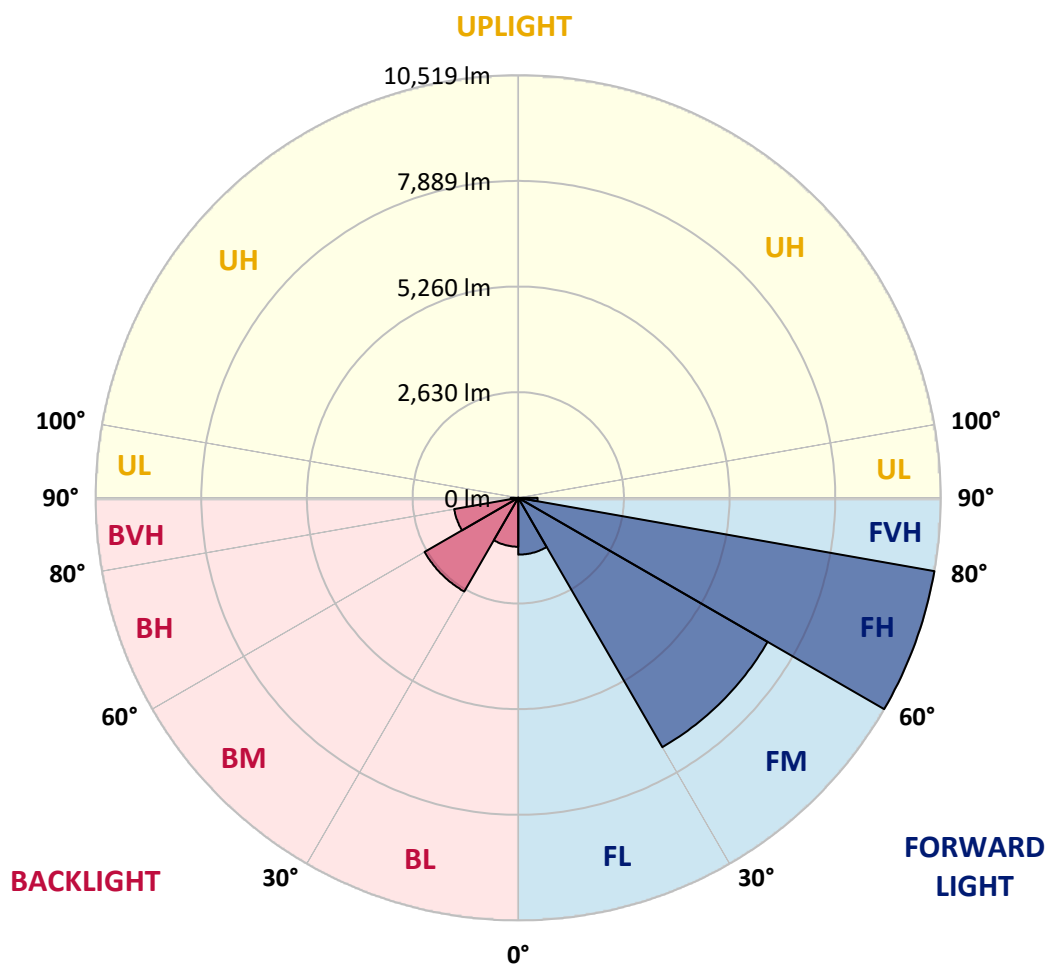
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1415.0	5.6			
FM	(30°-60°)	7167.2	28.3			
FH	(60°-80°)	10519.3	41.6			G4/12000
FVH	(80°-90°)	481.6	1.9			G3/500
BL	(0°-30°)	1217.9	4.8	B3/2500		
BM	(30°-60°)	2693.4	10.6	B3/5000		
BH	(60°-80°)	1619.2	6.4	B3/2500		G3/2500
BVH	(80°-90°)	189.7	0.7			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 Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	2552.6	2552.6	2552.6	2552.6	2552.6	2552.6	2552.6	2552.6	2552.6	2552.6	2552.6
2.5°	2652.6	2669.9	2653.9	2639.3	2632.6	2615.3	2614.0	2603.3	2596.6	2577.9	2572.5
5°	2837.8	2860.5	2833.8	2804.5	2777.9	2735.2	2729.9	2699.2	2664.6	2624.6	2602.0
7.5°	3047.1	3067.1	3036.5	2992.5	2945.8	2875.1	2873.8	2817.8	2763.2	2695.2	2656.6
10°	3229.8	3256.4	3215.1	3155.1	3096.4	3016.5	3007.1	2943.2	2873.8	2785.8	2727.2
12.5°	3391.0	3409.7	3369.7	3296.4	3228.4	3148.4	3136.4	3065.8	2988.5	2888.4	2813.8
15°	3519.0	3543.0	3489.6	3411.0	3339.0	3260.4	3249.8	3185.7	3108.4	3003.1	2907.2
17.5°	3603.0	3623.0	3568.3	3480.3	3411.0	3345.7	3337.7	3284.4	3216.4	3109.7	3007.1
20°	3635.0	3656.3	3599.0	3509.7	3445.6	3395.0	3391.0	3352.4	3305.7	3208.5	3104.4
22.5°	3666.9	3686.9	3612.3	3519.0	3463.0	3431.0	3429.6	3404.3	3385.7	3305.7	3204.5
25°	3796.2	3801.5	3701.6	3567.0	3486.9	3459.0	3457.6	3456.3	3464.3	3401.7	3312.4
27.5°	3908.2	3906.9	3821.6	3694.9	3571.0	3512.4	3511.0	3524.4	3549.7	3497.6	3424.3
30°	4072.1	4057.5	3956.2	3824.3	3710.9	3620.3	3612.3	3600.3	3620.3	3579.0	3536.4
32.5°	4420.0	4373.4	4209.5	3974.8	3826.9	3757.5	3746.9	3672.3	3680.3	3654.9	3633.6
35°	4918.6	4857.3	4638.6	4260.1	3970.8	3872.2	3866.9	3772.2	3756.2	3733.6	3741.6
37.5°	5511.7	5435.8	5181.2	4673.3	4218.8	4005.5	3997.5	3912.2	3846.9	3822.9	3868.2
40°	6107.6	6011.6	5801.0	5177.2	4584.0	4228.1	4202.8	4073.5	3998.8	3958.9	4054.8
42.5°	6686.1	6606.1	6426.1	5742.4	5034.6	4553.4	4497.4	4276.1	4220.1	4182.8	4356.0
45°	7198.0	7125.9	6994.0	6346.2	5562.4	4995.8	4941.2	4580.0	4562.7	4562.7	4813.3
47.5°	7613.8	7597.8	7457.8	6962.0	6184.8	5499.7	5405.1	5002.5	5049.3	5121.2	5462.4
50°	8074.9	8031.0	7881.7	7568.5	6916.7	6076.9	5999.6	5521.1	5695.7	5892.9	6400.8
52.5°	8498.9	8522.9	8356.2	8200.3	7743.1	6720.7	6584.8	6132.9	6510.1	6836.6	7500.5
55°	8934.7	8936.1	8889.4	8868.1	8609.5	7432.5	7283.2	6868.7	7468.5	7873.7	8782.8
57.5°	9344.0	9346.7	9416.0	9603.8	9614.6	8253.6	8084.4	7772.4	8533.5	8946.7	10105.1
60°	9709.2	9727.9	9917.2	10357.0	10498.3	9194.7	9034.8	8840.1	9634.6	10050.4	11495.4
62.5°	9831.8	9899.8	10321.0	10946.2	11371.3	10349.0	10191.7	10075.8	10791.5	11178.1	12657.7
65°	9623.9	9779.8	10594.3	11432.6	12269.8	11720.6	11564.7	11438.1	11993.8	12357.8	13612.1
67.5°	9113.4	9314.7	10578.3	11943.2	13360.2	13370.8	13225.5	12928.2	13282.9	13422.8	13922.7
70°	7768.4	8069.6	9646.6	12133.8	14611.8	15627.5	15487.5	14722.4	14569.1	13892.0	13048.2
72.5°	5005.2	5410.5	7103.2	10565.0	14890.4	17750.8	17742.9	16342.0	14975.7	12980.3	10464.9
75°	1826.1	2074.1	3300.4	6631.4	12499.1	17642.9	17694.9	16064.7	13670.7	10026.4	6519.4
77.5°	665.1	727.7	1077.1	2548.6	7687.1	14155.9	14263.9	12842.9	9730.5	5031.8	2583.2
80°	349.2	383.9	551.9	989.0	3293.7	8406.9	8576.2	7632.5	4573.3	1515.6	774.5
82.5°	193.3	209.3	309.2	537.2	1483.6	3595.0	3696.3	3015.1	1608.8	642.5	319.9
85°	103.9	110.6	145.2	293.3	725.1	1246.3	1274.3	901.1	641.1	377.2	154.7
87.5°	30.6	37.3	48.0	93.3	283.9	279.9	286.6	178.7	253.3	190.6	50.6
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°	2552.6	2552.6	2552.6	2552.6	2552.6	2552.6	2552.6	2552.6	2552.6	2552.6	2552.6
2.5°	2564.5	2560.6	2545.9	2539.2	2531.2	2529.9	2536.6	2537.9	2539.2	2540.6	2545.9
5°	2588.5	2575.2	2561.9	2553.9	2556.6	2557.9	2571.2	2580.5	2587.2	2592.6	2595.3
7.5°	2635.3	2624.6	2602.0	2600.6	2604.6	2616.6	2633.9	2655.3	2667.3	2676.6	2679.2
10°	2704.6	2684.6	2657.9	2661.9	2669.9	2687.2	2723.2	2740.5	2760.5	2777.9	2773.9
12.5°	2775.2	2757.9	2727.2	2729.9	2743.2	2773.9	2808.5	2829.8	2843.1	2856.5	2861.8
15°	2867.1	2836.5	2803.2	2803.2	2827.2	2860.5	2876.5	2893.8	2901.9	2916.5	2921.9
17.5°	2961.8	2921.9	2877.8	2875.1	2904.5	2920.5	2929.9	2932.5	2935.2	2951.2	2956.5
20°	3056.4	3012.5	2949.8	2944.5	2951.2	2948.5	2947.2	2944.5	2948.5	2968.5	2976.5
22.5°	3149.7	3099.1	3012.5	2988.5	2969.8	2944.5	2943.2	2941.9	2944.5	2964.5	2977.8
25°	3259.1	3197.7	3081.8	3009.8	2947.2	2912.5	2916.5	2917.9	2920.5	2936.5	2957.8
27.5°	3377.7	3309.7	3145.7	3003.1	2889.8	2865.8	2859.1	2863.1	2872.5	2897.9	2923.2
30°	3496.3	3416.3	3204.5	2976.5	2817.8	2784.5	2763.2	2772.5	2801.8	2827.2	2855.1
32.5°	3604.3	3524.4	3251.1	2917.9	2725.9	2673.9	2645.9	2657.9	2687.2	2696.6	2729.9
35°	3730.9	3640.3	3271.1	2824.5	2625.9	2545.9	2508.6	2491.3	2505.9	2496.6	2525.9
37.5°	3872.2	3777.5	3268.4	2701.9	2508.6	2416.6	2364.7	2299.4	2268.6	2236.7	2256.6
40°	4081.4	3945.5	3236.4	2553.9	2363.3	2279.3	2186.0	2075.4	2006.1	1943.4	1947.4
42.5°	4366.7	4178.8	3177.7	2391.3	2199.3	2120.7	1994.1	1864.8	1755.5	1651.5	1642.2
45°	4792.0	4484.1	3104.4	2218.0	2022.1	1944.7	1807.5	1662.1	1538.2	1405.0	1389.0
47.5°	5405.1	4894.6	3035.1	2020.8	1835.5	1764.8	1640.8	1506.2	1359.6	1230.3	1215.6
50°	6247.5	5483.7	2971.2	1828.8	1651.5	1598.2	1499.6	1362.2	1214.3	1110.4	1103.7
52.5°	7319.2	6284.9	2944.5	1643.5	1479.6	1459.6	1381.0	1253.0	1113.0	1025.0	1018.3
55°	8549.5	7243.3	2944.5	1466.3	1328.9	1335.6	1280.9	1162.4	1041.0	962.4	954.4
57.5°	9805.2	8213.6	2891.1	1302.3	1201.0	1229.0	1194.3	1090.4	981.0	899.7	886.4
60°	10962.2	9026.8	2675.2	1153.0	1087.7	1131.7	1109.0	1019.7	886.4	818.5	807.8
62.5°	11851.3	9485.2	2259.3	1034.3	994.4	1045.0	1033.0	926.4	869.1	841.1	831.8
65°	12296.4	9410.6	1727.5	929.1	915.7	994.4	969.0	965.0	919.7	887.8	877.1
67.5°	12023.1	8768.2	1253.0	851.8	870.4	947.7	1045.0	1061.0	977.0	914.4	903.7
70°	10824.8	7605.8	933.1	778.5	813.1	949.0	1191.7	1110.4	958.4	885.1	873.1
72.5°	8235.0	5671.7	723.8	701.1	738.4	955.7	1257.0	1087.7	905.1	978.4	970.4
75°	4709.3	3113.7	581.2	606.5	645.1	893.1	1223.6	1029.0	863.8	898.4	898.4
77.5°	1795.5	1197.0	479.9	513.2	518.5	779.8	1170.3	1025.0	822.5	802.5	731.7
80°	622.5	467.9	397.2	407.8	401.2	693.1	1122.4	891.7	673.1	602.5	582.5
82.5°	254.6	233.3	314.6	301.2	285.3	538.5	906.4	729.1	550.5	486.6	481.2
85°	110.6	147.9	208.0	182.7	165.3	373.2	726.4	617.2	465.2	401.2	399.9
87.5°	22.7	56.0	87.9	82.6	85.3	249.3	515.9	438.5	329.2	246.6	193.3
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)