

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: P963021

Luminaire Tested: **NAV-SB2D-740-U-T2U**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P963021
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-16)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2D-740-U-T2U
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 CRI, 4000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II U OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 22364.5 lumens
Efficiency: N/A
Efficacy: 151.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G3

Input Watts (W): 147.6
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



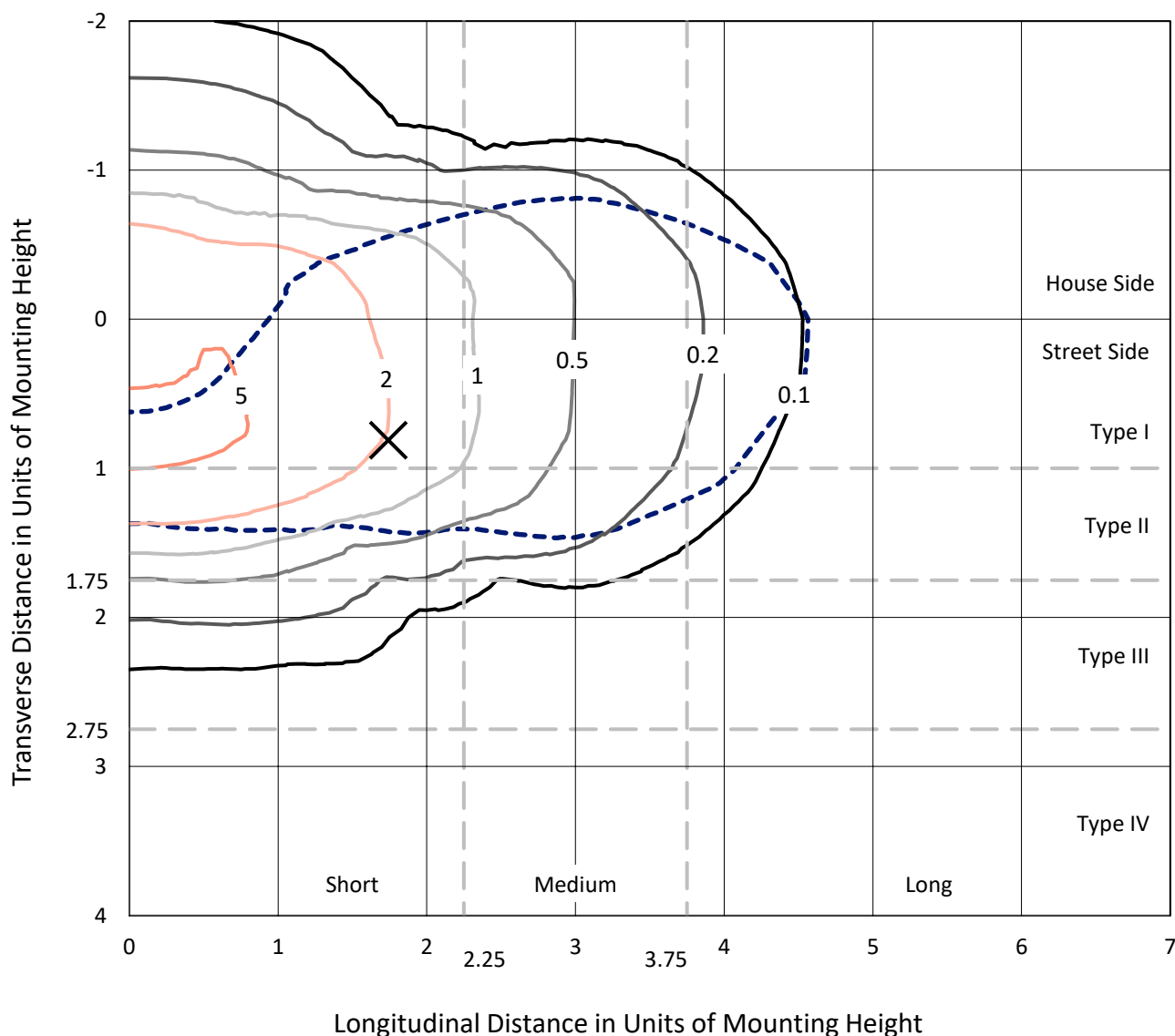
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

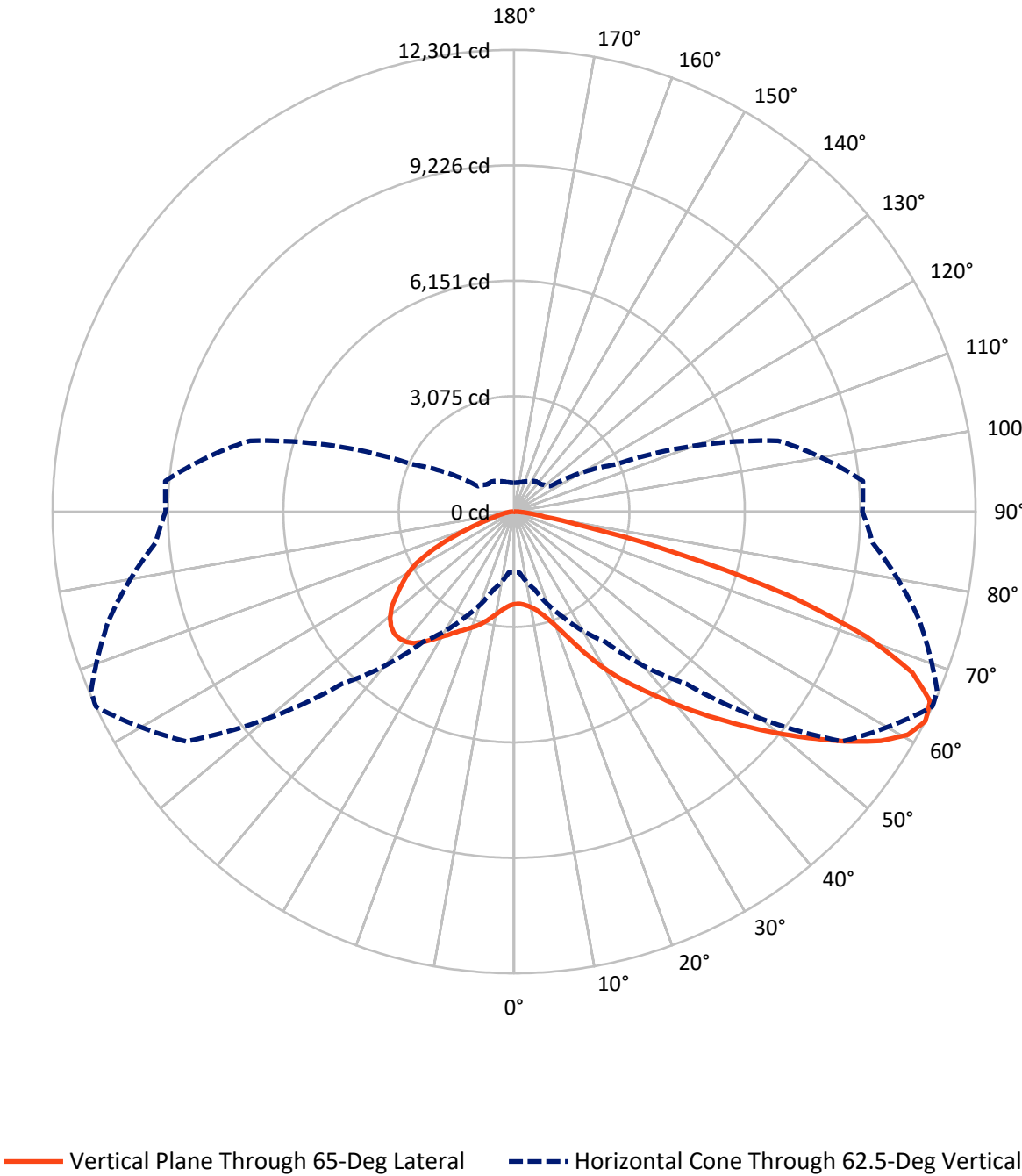


Based on 25 foot mounting height. Maximum calculated value = 6.3 fc

Type II - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7057.3	0.0	7057.3
	% Fixture	31.6	0.0	31.6
Street Side	Lumens	15307.2	0.0	15307.2
	% Fixture	68.4	0.0	68.4
Total	Lumens	22364.5	0.0	22364.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	245.7	1.1
10°-20°	833.2	3.7
20°-30°	1689.4	7.6
30°-40°	2923.5	13.1
40°-50°	4424.2	19.8
50°-60°	5187.0	23.2
60°-70°	4348.7	19.4
70°-80°	2400.8	10.7
80°-90°	311.9	1.4
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°	22364.5	100.0
0°-180°	22364.5	100.0

Coefficient of Utilization



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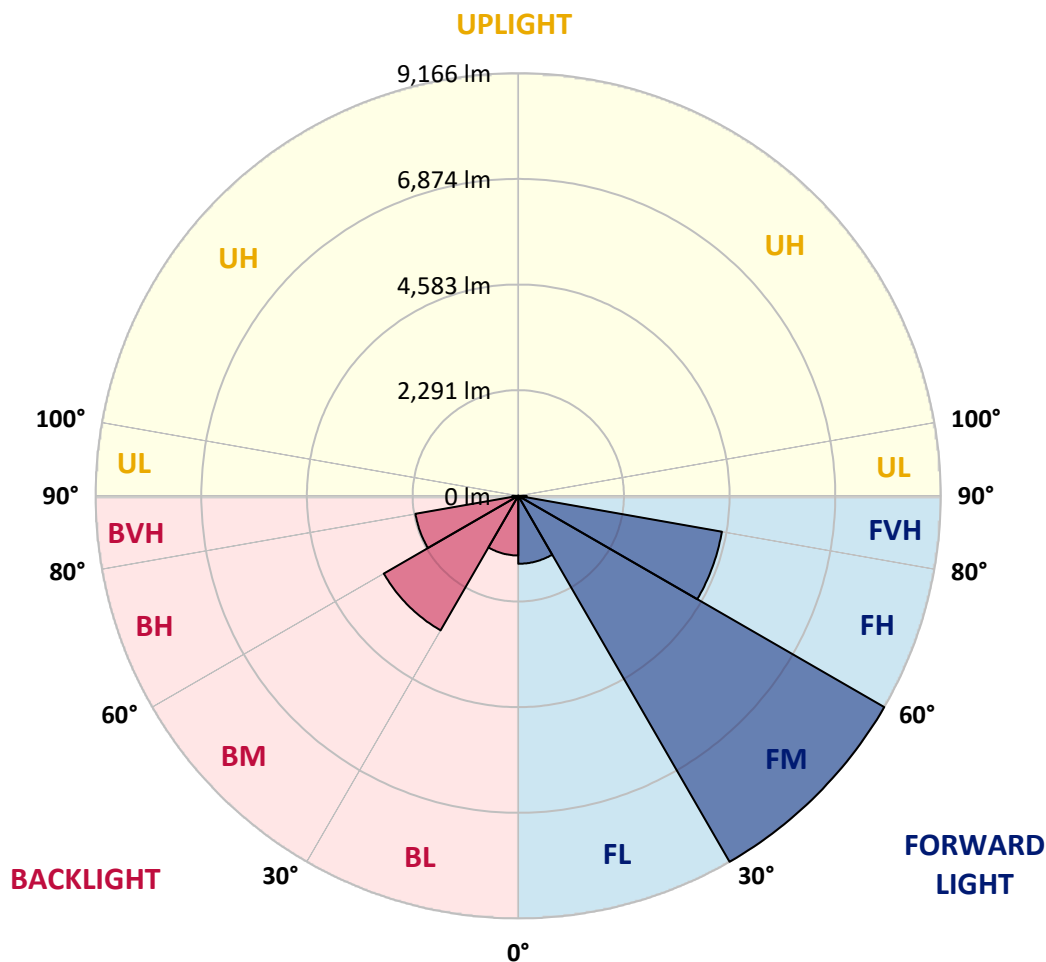
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1474.1	6.6			
FM	(30°-60°)	9165.7	41.0			
FH	(60°-80°)	4485.7	20.1			G2/5000
FVH	(80°-90°)	181.8	0.8			G2/225
BL	(0°-30°)	1294.2	5.8	B3/2500		
BM	(30°-60°)	3369.0	15.1	B3/5000		
BH	(60°-80°)	2263.9	10.1	B3/2500		G3/2500
BVH	(80°-90°)	130.1	0.6			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 II Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	2464.5	2464.5	2464.5	2464.5	2464.5	2464.5	2464.5	2464.5	2464.5	2464.5	2464.5
2.5°	2448.2	2441.2	2447.1	2447.1	2449.3	2448.2	2456.3	2458.7	2462.2	2469.1	2469.1
5°	2423.8	2422.7	2433.1	2442.5	2451.7	2459.8	2470.2	2485.3	2487.7	2495.8	2506.2
7.5°	2415.7	2408.8	2425.0	2436.6	2458.7	2478.3	2506.2	2531.8	2542.2	2545.7	2565.4
10°	2478.3	2466.8	2481.8	2488.8	2507.4	2527.1	2559.6	2600.2	2611.8	2625.7	2647.8
12.5°	2585.2	2572.3	2594.4	2604.8	2622.3	2639.7	2661.7	2701.2	2706.9	2732.5	2753.4
15°	2731.3	2716.2	2730.2	2742.9	2771.9	2788.2	2810.2	2848.5	2848.5	2868.3	2883.3
17.5°	2929.8	2910.0	2920.4	2925.1	2943.7	2968.0	3005.2	3038.8	3056.2	3049.3	3028.4
20°	3225.6	3201.3	3201.3	3178.0	3171.0	3190.8	3239.5	3285.9	3304.5	3268.5	3217.5
22.5°	3670.0	3635.2	3615.5	3536.6	3505.3	3507.6	3556.3	3613.1	3628.3	3564.4	3449.5
25°	4235.1	4180.6	4153.8	4037.8	3967.1	3905.6	3943.9	4017.0	4037.8	3959.0	3773.3
27.5°	4800.2	4803.7	4778.1	4638.8	4521.7	4409.1	4389.4	4466.0	4488.1	4398.7	4169.0
30°	5592.6	5510.2	5461.5	5294.4	5127.4	4969.5	4888.3	4919.7	4925.4	4818.7	4551.8
32.5°	6276.1	6255.2	6150.7	6004.6	5789.9	5542.7	5407.0	5357.1	5347.8	5195.8	4879.0
35°	7054.6	7043.0	6932.8	6758.7	6526.7	6183.2	5938.4	5795.7	5784.1	5570.6	5202.8
37.5°	7846.0	7846.0	7738.0	7547.7	7307.5	6878.3	6505.8	6279.6	6242.4	5964.0	5532.3
40°	8477.2	8438.8	8458.5	8378.5	8103.5	7647.5	7135.8	6807.4	6757.5	6423.4	5882.7
42.5°	8835.6	8822.9	8941.3	9030.6	8918.0	8553.7	7829.7	7379.5	7309.9	6929.3	6286.5
45°	8915.8	8901.8	9113.0	9440.1	9598.0	9448.2	8583.9	7981.7	7897.0	7458.4	6719.3
47.5°	8731.3	8703.4	9013.1	9529.5	10035.4	10298.8	9400.7	8634.9	8511.9	7973.6	7163.6
50°	8176.6	8149.9	8618.7	9304.4	10182.8	10876.6	10287.2	9327.6	9139.6	8525.8	7612.7
52.5°	6971.0	6983.8	7718.2	8660.4	9989.0	11236.3	11050.6	10057.4	9831.2	9090.9	8033.8
55°	5430.1	5458.0	6360.7	7398.0	9213.9	11181.7	11571.6	10809.3	10584.3	9622.3	8469.0
57.5°	3888.1	4011.1	4857.0	5883.9	7725.2	10317.3	11685.3	11524.1	11306.0	10202.4	8894.8
60°	2520.2	2542.2	3412.4	4447.4	5882.7	8781.1	11454.5	12065.9	11895.3	10794.3	9251.0
62.5°	1615.1	1630.3	2160.5	3110.8	4234.0	6496.4	10677.0	12301.4	12249.3	11185.2	9593.3
65°	1186.9	1175.4	1451.5	2056.0	2852.0	4006.5	9167.5	12187.8	12291.0	11430.1	9876.4
67.5°	990.9	974.7	1110.4	1423.7	2101.2	2275.3	6783.0	11448.6	11826.9	11402.2	10084.2
70°	902.7	888.8	971.2	1057.0	1639.5	1523.5	3419.4	9953.1	10535.5	11085.5	10050.4
72.5°	764.6	740.3	852.8	938.7	1275.2	1168.4	1413.3	7645.2	8355.3	10070.2	9577.1
75°	592.9	576.7	673.0	826.2	958.4	911.9	893.4	4642.3	5417.4	7787.9	8378.5
77.5°	470.0	447.9	536.1	644.0	862.1	688.1	650.9	1999.2	2767.3	4971.9	6269.1
80°	353.9	334.2	407.2	509.3	662.6	518.6	421.2	815.7	1043.1	2519.0	3152.5
82.5°	251.7	234.4	284.2	373.6	445.6	465.2	258.7	457.2	514.0	971.2	704.3
85°	161.2	150.9	190.2	234.4	283.1	299.4	157.8	239.0	262.2	400.3	293.6
87.5°	88.1	72.0	102.1	109.1	131.1	119.5	75.4	87.0	94.0	145.0	124.1
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°	2464.5	2464.5	2464.5	2464.5	2464.5	2464.5	2464.5	2464.5	2464.5	2464.5	2464.5
2.5°	2473.7	2477.2	2488.8	2492.3	2500.5	2510.8	2517.8	2524.8	2524.8	2531.8	2531.8
5°	2507.4	2515.6	2539.8	2552.7	2573.6	2594.4	2607.2	2622.3	2631.6	2636.2	2638.6
7.5°	2572.3	2585.2	2619.9	2642.0	2677.9	2706.9	2726.7	2747.6	2752.2	2764.9	2760.3
10°	2660.6	2675.7	2715.1	2756.8	2799.8	2835.8	2854.3	2869.4	2875.2	2877.5	2871.7
12.5°	2761.6	2783.6	2834.6	2885.7	2930.9	2962.2	2966.9	2963.4	2947.2	2933.2	2933.2
15°	2885.7	2905.4	2962.2	3017.9	3062.0	3067.8	3038.8	3020.3	3000.5	2997.0	2997.0
17.5°	3034.2	3044.7	3096.8	3151.4	3154.8	3135.2	3092.2	3074.8	3056.2	3043.4	3044.7
20°	3207.0	3203.5	3240.7	3263.9	3239.5	3179.2	3114.3	3085.2	3066.7	3051.5	3052.8
22.5°	3413.6	3386.9	3382.3	3376.5	3311.5	3185.0	3096.8	3059.7	3030.7	3009.8	3016.8
25°	3714.1	3612.0	3541.3	3501.8	3355.5	3153.7	3041.2	2958.8	2904.2	2868.3	2882.2
27.5°	4090.1	3918.3	3739.6	3643.4	3355.5	3089.9	2906.5	2773.1	2683.8	2646.7	2665.2
30°	4448.6	4268.7	4005.3	3813.9	3347.4	2985.4	2689.6	2503.9	2399.5	2362.3	2384.5
32.5°	4754.9	4558.8	4287.3	4000.7	3327.8	2816.1	2420.3	2215.0	2114.1	2070.0	2092.0
35°	5039.2	4830.3	4570.4	4206.1	3275.5	2567.7	2124.5	1967.9	1855.4	1784.5	1807.7
37.5°	5330.4	5082.1	4838.4	4391.7	3181.5	2277.7	1897.1	1763.6	1631.4	1536.3	1561.8
40°	5647.1	5350.1	5125.0	4501.9	3027.2	2001.5	1720.7	1598.9	1458.5	1357.5	1377.3
42.5°	6017.3	5671.5	5444.1	4558.8	2816.1	1805.4	1605.9	1486.4	1354.0	1271.7	1287.9
45°	6403.7	6025.5	5735.4	4557.7	2580.5	1713.8	1568.8	1450.4	1304.2	1218.3	1232.3
47.5°	6808.7	6395.6	5987.1	4483.3	2376.3	1726.5	1547.9	1372.7	1211.3	1127.8	1139.4
50°	7214.8	6800.5	6230.8	4344.2	2289.2	1698.6	1470.1	1263.5	1073.3	997.8	1002.4
52.5°	7617.4	7231.0	6440.8	4145.7	2201.1	1595.4	1370.3	1122.0	1016.4	964.2	964.2
55°	8022.3	7656.7	6669.4	3856.9	1980.6	1474.8	1203.2	1068.7	971.2	923.6	918.9
57.5°	8428.4	8148.7	6886.4	3567.9	1703.3	1326.2	1111.6	1003.7	925.9	885.3	878.3
60°	8850.8	8711.5	7110.3	3302.2	1429.5	1135.9	1044.3	951.4	872.6	827.3	823.8
62.5°	9285.9	9331.1	7285.5	2959.9	1177.7	1019.9	983.9	888.8	812.2	769.3	768.1
65°	9724.5	9928.7	7400.4	2485.3	954.9	909.7	918.9	820.3	742.6	705.5	704.3
67.5°	10055.1	10359.2	7367.9	1880.9	783.2	805.2	837.7	748.4	675.3	646.3	647.5
70°	10092.3	10308.1	7047.6	1287.9	655.6	703.2	747.2	677.6	602.2	581.3	582.5
72.5°	9598.0	9611.9	6155.3	841.2	554.6	617.3	652.1	605.7	532.6	511.7	510.6
75°	8301.9	7949.2	4519.3	554.6	464.1	530.2	562.7	530.2	459.5	464.1	447.9
77.5°	6289.9	5629.7	2744.1	394.5	387.6	445.6	489.6	466.5	406.1	456.0	401.5
80°	3240.7	3045.8	1224.2	294.7	306.3	356.2	402.6	372.5	321.4	306.3	279.6
82.5°	742.6	863.3	482.7	211.2	221.6	256.5	307.5	279.6	230.9	195.0	192.6
85°	259.9	284.2	213.5	132.2	130.0	160.1	208.9	186.9	156.6	125.4	132.2
87.5°	82.4	107.9	80.1	53.4	55.7	72.0	96.4	88.1	73.1	47.6	49.9
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)