

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: P963145

Luminaire Tested: **NAV-SB2D-830-U-T2U**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P963145
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-830-U-T2U
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 CRI, 3000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II U OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18994.3 lumens
Efficiency: N/A
Efficacy: 128.7 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



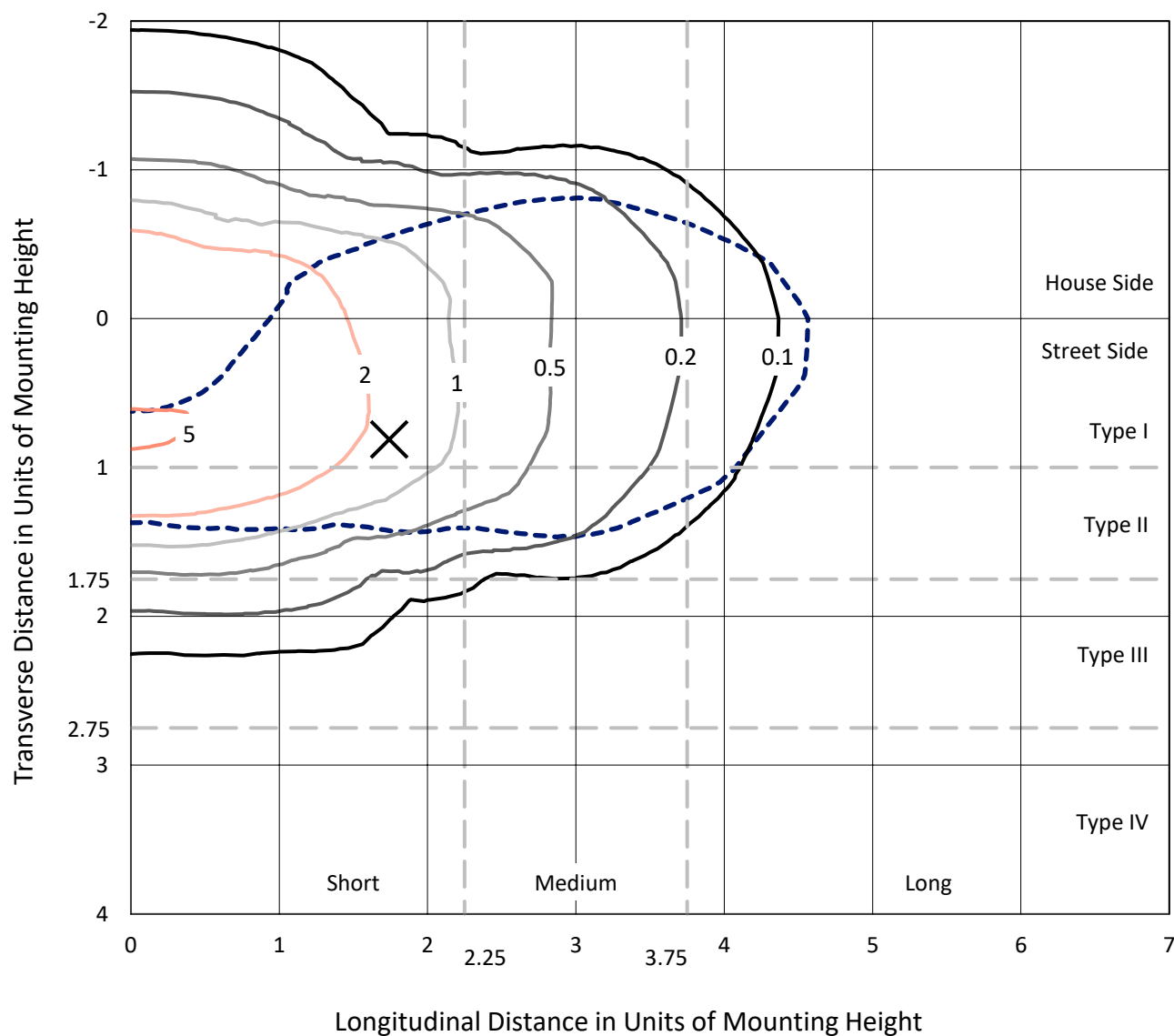
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

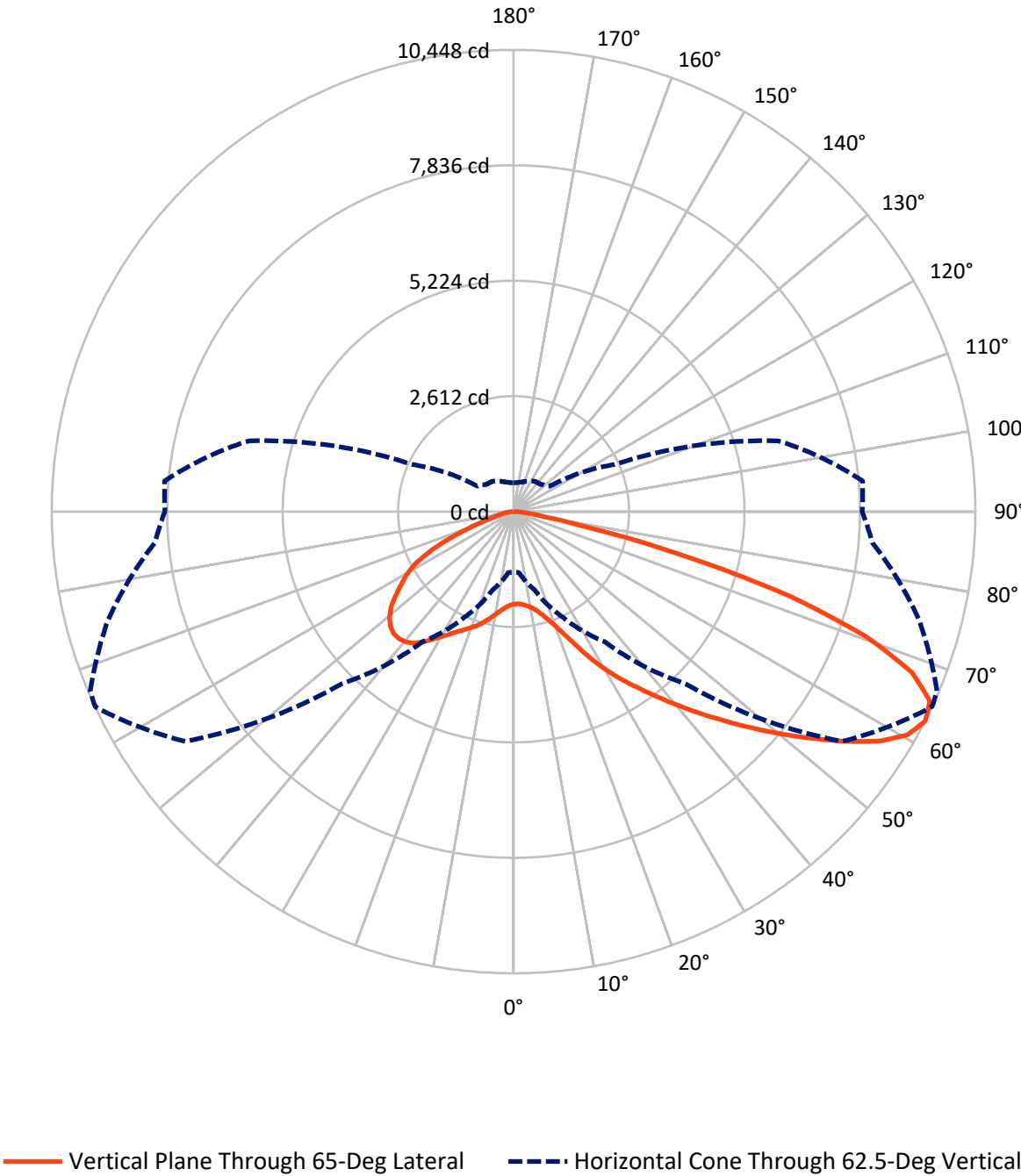


Based on 25 foot mounting height. Maximum calculated value = 5.3 fc

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	5993.8	0.0	5993.8
	% Fixture	31.6	0.0	31.6
Street Side	Lumens	13000.5	0.0	13000.5
	% Fixture	68.4	0.0	68.4
Total	Lumens	18994.3	0.0	18994.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	208.7	1.1
10°-20°	707.6	3.7
20°-30°	1434.8	7.6
30°-40°	2482.9	13.1
40°-50°	3757.5	19.8
50°-60°	4405.4	23.2
60°-70°	3693.4	19.4
70°-80°	2039.1	10.7
80°-90°	264.9	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°	18994.3	100.0
0°-180°	18994.3	100.0

Coefficient of Utilization



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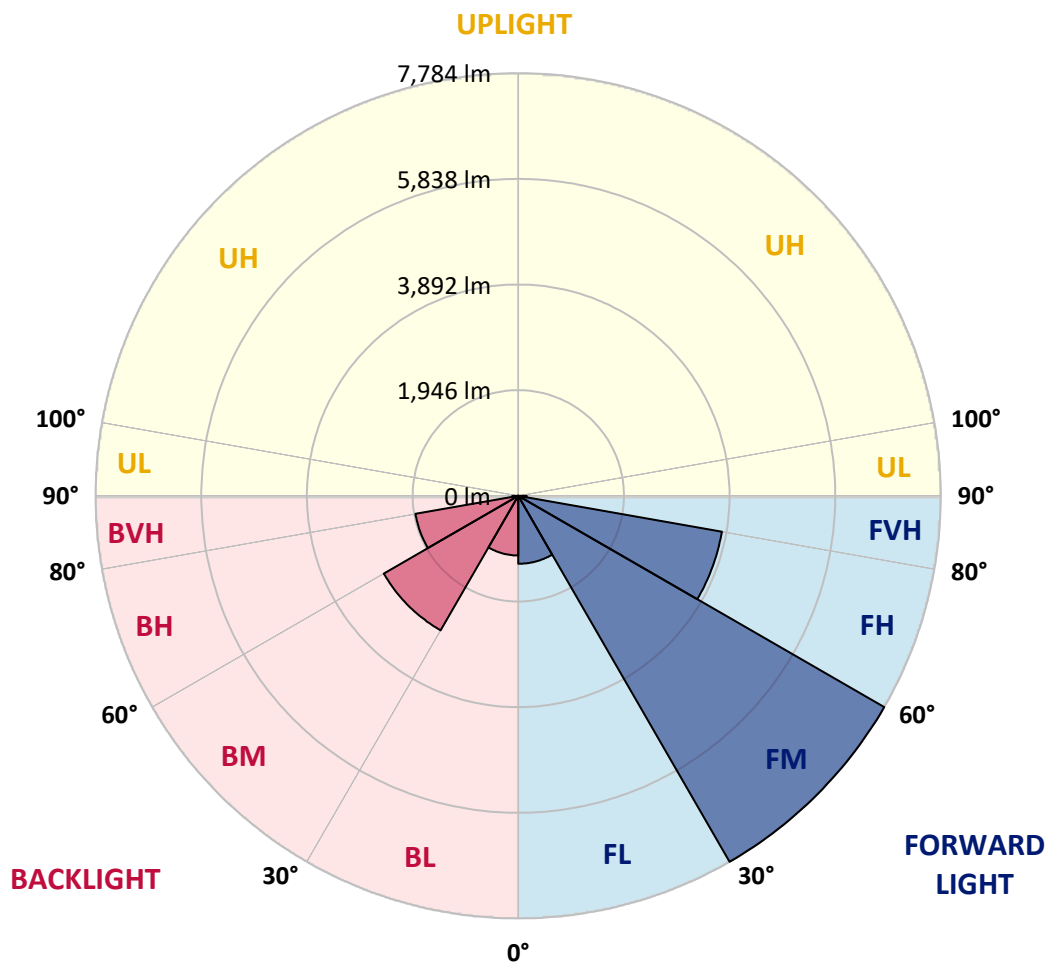
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1252.0	6.6			
FM	(30°-60°)	7784.5	41.0			
FH	(60°-80°)	3809.7	20.1			G2/5000
FVH	(80°-90°)	154.4	0.8			G2/225
BL	(0°-30°)	1099.2	5.8	B3/2500		
BM	(30°-60°)	2861.3	15.1	B3/5000		
BH	(60°-80°)	1922.8	10.1	B3/2500		G3/2500
BVH	(80°-90°)	110.5	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°	2093.0	2093.0	2093.0	2093.0	2093.0	2093.0	2093.0	2093.0	2093.0	2093.0	2093.0
2.5°	2079.3	2073.4	2078.3	2078.3	2080.2	2079.3	2086.2	2088.1	2091.1	2097.0	2097.0
5°	2058.6	2057.6	2066.5	2074.4	2082.3	2089.2	2098.0	2110.8	2112.8	2119.7	2128.5
7.5°	2051.7	2045.8	2059.5	2069.5	2088.1	2104.9	2128.5	2150.2	2159.2	2162.0	2178.8
10°	2104.9	2095.1	2107.9	2113.8	2129.5	2146.4	2173.9	2208.4	2218.2	2230.1	2248.7
12.5°	2195.5	2184.7	2203.4	2212.4	2227.1	2241.9	2260.6	2294.2	2299.1	2320.7	2338.4
15°	2319.8	2307.0	2318.8	2329.6	2354.2	2368.1	2386.7	2419.3	2419.3	2436.0	2448.8
17.5°	2488.3	2471.5	2480.4	2484.3	2500.1	2520.8	2552.4	2580.8	2595.7	2589.8	2572.0
20°	2739.5	2718.8	2718.8	2699.1	2693.2	2710.0	2751.4	2790.8	2806.6	2776.0	2732.6
22.5°	3116.9	3087.4	3070.7	3003.7	2977.0	2979.0	3020.4	3068.6	3081.5	3027.3	2929.8
25°	3596.8	3550.6	3527.8	3429.3	3369.3	3317.0	3349.5	3411.6	3429.3	3362.3	3204.7
27.5°	4076.8	4079.7	4058.1	3939.8	3840.3	3744.7	3727.9	3793.0	3811.7	3735.8	3540.7
30°	4749.8	4679.8	4638.5	4496.6	4354.7	4220.6	4151.7	4178.3	4183.2	4092.5	3865.9
32.5°	5330.3	5312.6	5223.8	5099.7	4917.3	4707.5	4592.2	4549.8	4541.9	4412.8	4143.8
35°	5991.5	5981.7	5888.0	5740.2	5543.1	5251.5	5043.5	4922.3	4912.4	4731.1	4418.8
37.5°	6663.6	6663.6	6571.9	6410.3	6206.4	5841.7	5525.4	5333.3	5301.7	5065.1	4698.6
40°	7199.7	7167.1	7183.9	7115.9	6882.4	6495.1	6060.5	5781.6	5739.3	5455.5	4996.3
42.5°	7504.1	7493.4	7593.8	7669.8	7574.1	7264.7	6649.8	6267.5	6208.3	5885.0	5339.1
45°	7572.2	7560.3	7739.7	8017.6	8151.6	8024.5	7290.3	6778.8	6707.0	6334.4	5706.7
47.5°	7415.5	7391.8	7654.9	8093.5	8523.1	8746.8	7984.0	7333.7	7229.2	6772.0	6084.1
50°	6944.5	6921.7	7319.9	7902.3	8648.2	9237.6	8737.0	7922.0	7762.3	7241.0	6465.5
52.5°	5920.6	5931.4	6555.2	7355.4	8483.7	9543.1	9385.4	8541.8	8349.6	7721.0	6823.2
55°	4611.9	4635.6	5402.3	6283.2	7825.5	9496.7	9827.8	9180.4	8989.2	8172.3	7192.7
57.5°	3302.2	3406.7	4125.1	4997.2	6561.1	8762.6	9924.5	9787.4	9602.2	8665.0	7554.5
60°	2140.4	2159.2	2898.2	3777.2	4996.3	7457.9	9728.3	10247.6	10102.8	9167.6	7856.9
62.5°	1371.8	1384.6	1834.9	2641.9	3595.9	5517.5	9068.1	10447.7	10403.3	9499.7	8147.6
65°	1008.1	998.2	1232.8	1746.2	2422.2	3402.8	7786.0	10351.2	10438.8	9707.7	8388.1
67.5°	841.5	827.8	943.1	1209.2	1784.6	1932.4	5760.9	9723.4	10044.7	9684.0	8564.5
70°	766.7	754.8	824.8	897.7	1392.5	1293.9	2904.1	8453.2	8947.8	9414.9	8535.9
72.5°	649.4	628.7	724.3	797.2	1083.0	992.3	1200.3	6493.1	7096.2	8552.7	8133.9
75°	503.6	489.7	571.5	701.6	814.0	774.6	758.8	3942.8	4601.0	6614.3	7115.9
77.5°	399.1	380.4	455.3	546.9	732.2	584.4	552.9	1697.9	2350.3	4222.6	5324.4
80°	300.5	283.8	345.9	432.7	562.7	440.5	357.7	692.8	885.9	2139.4	2677.5
82.5°	213.8	199.1	241.4	317.3	378.4	395.1	219.8	388.3	436.5	824.8	598.2
85°	136.9	128.1	161.6	199.1	240.5	254.2	134.1	203.1	222.7	340.0	249.3
87.5°	74.9	61.1	86.7	92.7	111.3	101.5	64.1	73.9	79.8	123.2	105.5
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°	2093.0	2093.0	2093.0	2093.0	2093.0	2093.0	2093.0	2093.0	2093.0	2093.0	2093.0
2.5°	2100.9	2103.9	2113.8	2116.7	2123.6	2132.5	2138.5	2144.3	2144.3	2150.2	2150.2
5°	2129.5	2136.4	2157.1	2168.0	2185.7	2203.4	2214.3	2227.1	2235.0	2238.9	2240.9
7.5°	2184.7	2195.5	2225.2	2243.8	2274.4	2299.1	2315.8	2333.5	2337.5	2348.3	2344.4
10°	2259.6	2272.4	2305.9	2341.4	2377.9	2408.4	2424.2	2437.0	2442.0	2443.9	2439.0
12.5°	2345.4	2364.1	2407.4	2450.8	2489.2	2515.9	2519.8	2516.8	2503.0	2491.2	2491.2
15°	2450.8	2467.6	2515.9	2563.1	2600.6	2605.5	2580.8	2565.2	2548.4	2545.4	2545.4
17.5°	2577.0	2585.8	2630.1	2676.5	2679.5	2662.6	2626.3	2611.4	2595.7	2584.8	2585.8
20°	2723.7	2720.9	2752.3	2772.0	2751.4	2700.2	2644.9	2620.3	2604.5	2591.7	2592.7
22.5°	2899.2	2876.6	2872.6	2867.6	2812.5	2705.1	2630.1	2598.6	2574.0	2556.2	2562.2
25°	3154.4	3067.7	3007.6	2974.0	2849.9	2678.4	2582.9	2512.9	2466.6	2436.0	2447.8
27.5°	3473.7	3327.9	3176.1	3094.3	2849.9	2624.2	2468.5	2355.2	2279.3	2247.8	2263.6
30°	3778.2	3625.4	3401.8	3239.2	2843.0	2535.5	2284.2	2126.6	2037.9	2006.3	2025.1
32.5°	4038.4	3871.8	3641.2	3397.8	2826.2	2391.6	2055.6	1881.2	1795.5	1758.1	1776.7
35°	4279.8	4102.5	3881.7	3572.2	2782.0	2180.8	1804.3	1671.4	1575.7	1515.6	1535.3
37.5°	4527.1	4316.3	4109.3	3729.9	2702.1	1934.4	1611.2	1497.8	1385.5	1304.7	1326.5
40°	4796.2	4543.9	4352.8	3823.6	2571.0	1699.9	1461.4	1357.9	1238.7	1153.0	1169.7
42.5°	5110.5	4816.9	4623.7	3871.8	2391.6	1533.4	1363.9	1262.4	1150.0	1080.0	1093.9
45°	5438.6	5117.4	4871.1	3870.8	2191.7	1455.5	1332.3	1231.8	1107.6	1034.7	1046.5
47.5°	5782.6	5431.8	5084.9	3807.8	2018.2	1466.4	1314.6	1165.7	1028.8	957.9	967.7
50°	6127.6	5775.7	5291.9	3689.5	1944.3	1442.7	1248.6	1073.2	911.5	847.5	851.5
52.5°	6469.5	6141.3	5470.2	3521.0	1869.4	1354.9	1163.8	952.9	863.3	818.9	818.9
55°	6813.4	6502.9	5664.4	3275.6	1682.1	1252.6	1021.9	907.6	824.8	784.4	780.4
57.5°	7158.3	6920.8	5848.6	3030.2	1446.7	1126.4	944.0	852.4	786.4	751.9	746.0
60°	7516.9	7398.8	6038.8	2804.6	1214.1	964.7	886.9	808.1	741.1	702.6	699.7
62.5°	7886.6	7925.0	6187.6	2513.9	1000.2	866.2	835.7	754.8	689.8	653.3	652.4
65°	8259.0	8432.5	6285.2	2110.8	811.0	772.5	780.4	696.7	630.7	599.1	598.2
67.5°	8539.9	8798.1	6257.6	1597.4	665.2	683.9	711.5	635.6	573.5	548.9	549.9
70°	8571.4	8754.7	5985.6	1093.9	556.8	597.2	634.6	575.5	511.5	493.7	494.7
72.5°	8151.6	8163.4	5227.8	714.4	471.1	524.3	553.8	514.4	452.3	434.6	433.6
75°	7050.9	6751.3	3838.3	471.1	394.2	450.4	478.0	450.4	390.2	394.2	380.4
77.5°	5342.1	4781.4	2330.5	335.1	329.1	378.4	415.8	396.2	344.9	387.2	340.9
80°	2752.3	2586.8	1039.7	250.3	260.1	302.6	341.9	316.3	273.0	260.1	237.5
82.5°	630.7	733.2	409.9	179.4	188.2	217.8	261.2	237.5	196.1	165.5	163.6
85°	220.8	241.4	181.3	112.3	110.4	136.0	177.4	158.7	133.0	106.4	112.3
87.5°	70.0	91.6	68.0	45.3	47.3	61.1	81.8	74.9	62.1	40.4	42.3
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)