

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: P883826

Luminaire Tested: **NAV-SB4B-835-U-T2-HSS**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P883826  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-4)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB4B-835-U-T2-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(4) 80 CRI, 3500K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

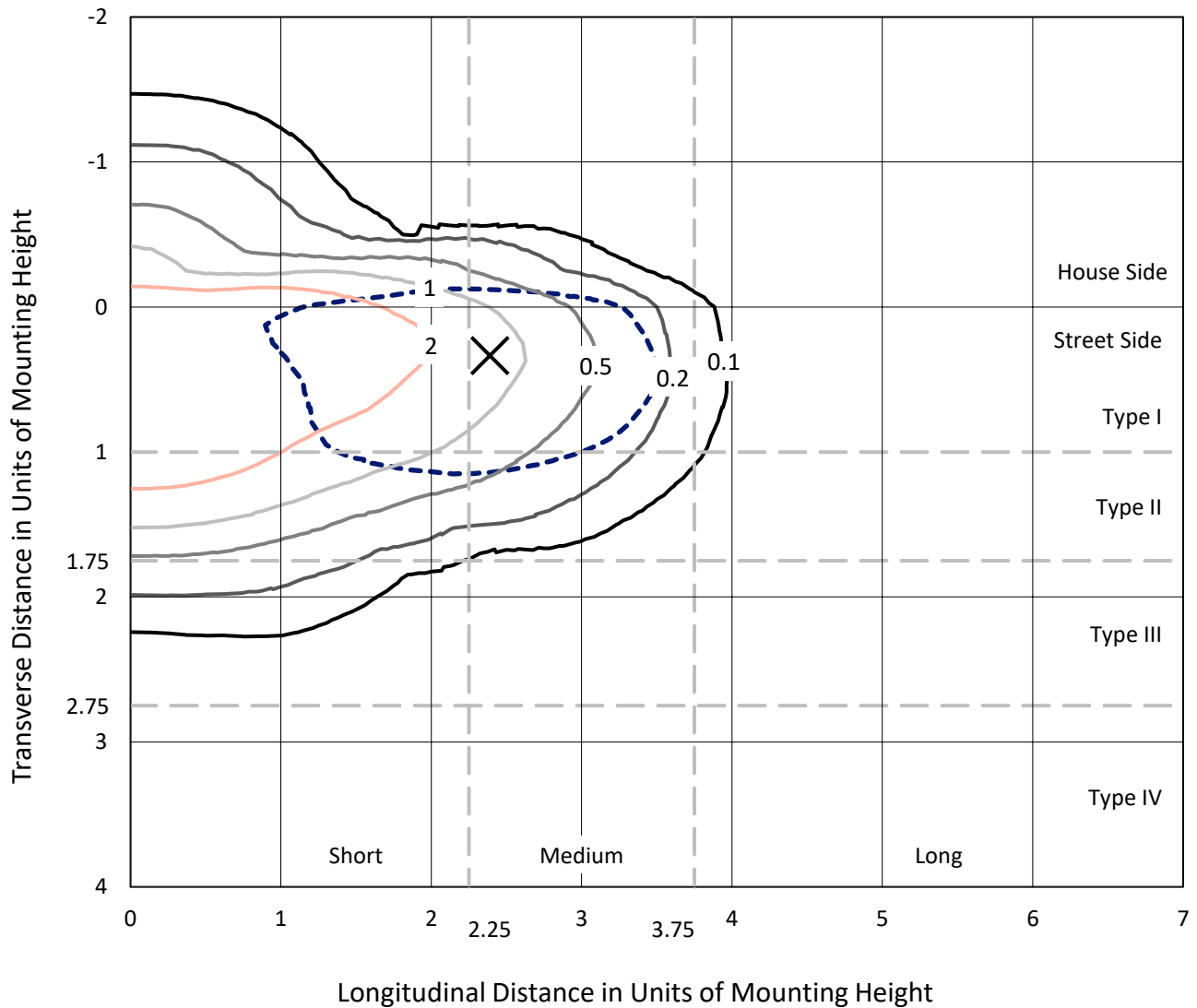
Lumens per Lamp: N/A  
Luminaire Lumens: 14060 lumens  
Efficiency: N/A  
Efficacy: 95.6 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B2 - U0 - G2  
  
Input Watts (W): 147  
Input Voltage (V): 120.0  
Input Current (Ain): 1.255  
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

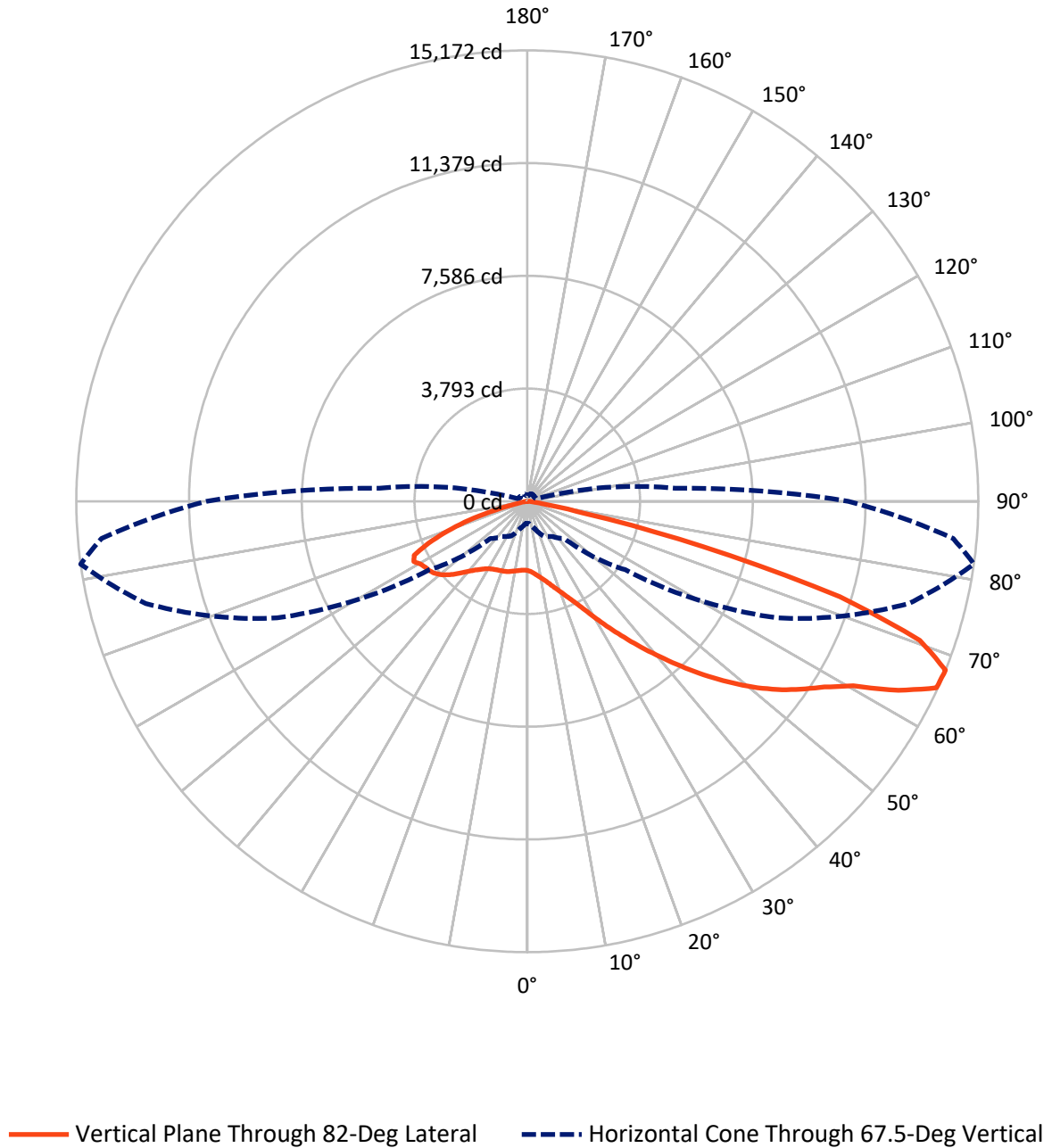
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.9 fc  
 Type II - Medium - N/A

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### Luminous Intensity Polar Plot



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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2546.8	0.0	2546.8
	% Fixture	18.1	0.0	18.1
<b>Street Side</b>	Lumens	11513.2	0.0	11513.2
	% Fixture	81.9	0.0	81.9
<b>Total</b>	Lumens	14060.0	0.0	14060.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	207.5	1.5
10°-20°	539.3	3.8
20°-30°	863.7	6.1
30°-40°	1527.3	10.9
40°-50°	2676.0	19.0
50°-60°	3569.1	25.4
60°-70°	3322.6	23.6
70°-80°	1275.2	9.1
80°-90°	79.2	0.6
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°	14060.0	100.0
0°-180°	14060.0	100.0

**Coefficient of Utilization**



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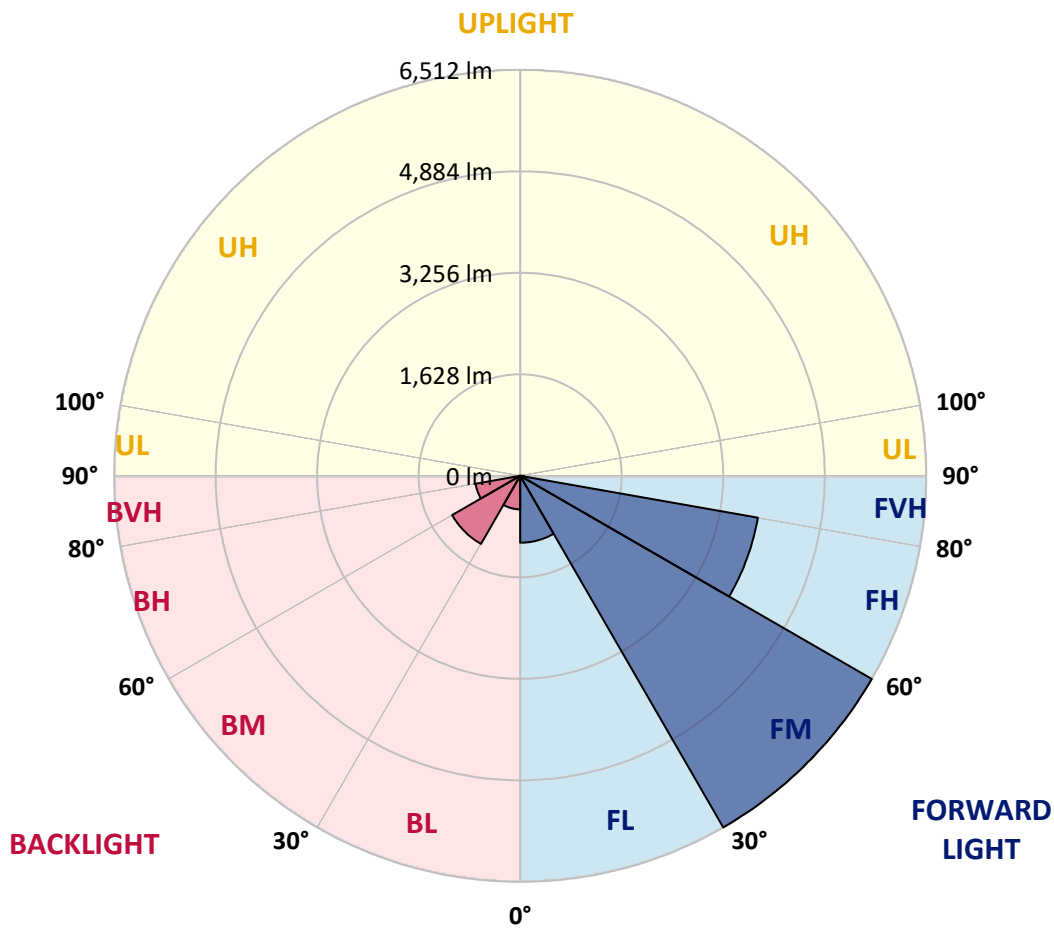
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1072.6	7.6			
FM (30°-60°)	6512.0	46.3			
FH (60°-80°)	3870.9	27.5			G2/5000
FVH (80°-90°)	57.6	0.4			G1/100
BL (0°-30°)	537.9	3.8	B2/1000		
BM (30°-60°)	1260.4	9.0	B2/2500		
BH (60°-80°)	726.9	5.2	B2/1000		G2/1000
BVH (80°-90°)	21.6	0.2			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G2**

Type II Medium



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	2329.3	2329.3	2329.3	2329.3	2329.3	2329.3	2329.3	2329.3	2329.3	2329.3	2329.3
2.5°	2461.9	2476.0	2467.9	2463.9	2456.8	2446.7	2438.6	2413.3	2387.0	2369.8	2363.7
5°	2511.5	2525.6	2524.6	2528.7	2533.7	2536.8	2534.8	2506.4	2469.0	2439.6	2422.4
7.5°	2469.0	2485.2	2498.3	2518.6	2554.0	2591.4	2609.7	2603.6	2565.1	2524.6	2503.4
10°	2348.5	2365.7	2397.1	2444.7	2519.6	2600.6	2668.4	2699.8	2675.5	2630.9	2601.6
12.5°	2127.8	2145.0	2206.8	2310.0	2435.6	2576.3	2705.8	2789.9	2795.9	2751.4	2717.0
15°	1879.8	1897.0	1962.8	2092.4	2283.7	2509.5	2726.1	2885.0	2938.7	2900.2	2858.7
17.5°	1725.9	1741.1	1790.7	1895.0	2094.4	2375.8	2719.0	2986.2	3108.7	3078.4	3028.8
20°	1679.4	1692.5	1715.8	1788.7	1954.7	2237.1	2672.4	3081.4	3291.9	3274.7	3219.1
22.5°	1729.0	1741.1	1748.2	1780.6	1884.9	2146.0	2613.7	3178.6	3504.5	3506.6	3438.7
25°	1843.4	1855.5	1847.4	1867.7	1913.2	2117.7	2591.4	3293.0	3771.8	3794.0	3717.1
27.5°	2031.7	2032.7	2013.4	2012.4	2019.5	2160.2	2614.7	3415.4	4108.9	4150.4	4055.2
30°	2409.2	2394.1	2320.2	2240.2	2203.7	2287.8	2679.5	3560.2	4506.7	4580.6	4461.1
32.5°	2991.3	2969.0	2833.4	2642.1	2449.7	2493.3	2795.9	3725.2	4939.9	5073.6	4927.8
35°	3623.0	3616.9	3475.2	3190.7	2854.6	2785.8	2985.2	3941.8	5412.7	5625.3	5452.2
37.5°	4210.1	4207.1	4126.1	3791.0	3382.0	3193.8	3288.9	4225.3	5918.8	6226.6	6022.1
40°	4746.6	4755.7	4674.7	4375.1	3963.1	3717.1	3701.9	4575.5	6481.7	6881.5	6638.6
42.5°	5210.2	5220.4	5138.4	4916.7	4537.1	4296.1	4209.1	5004.7	7031.3	7585.0	7297.6
45°	5525.0	5587.8	5575.7	5398.5	5126.2	4876.2	4818.5	5543.3	7657.9	8331.1	7994.0
47.5°	5614.1	5671.8	5762.9	5787.2	5621.2	5375.2	5444.1	6192.1	8291.6	9078.2	8694.5
50°	5394.5	5448.1	5637.4	5889.5	6004.9	5928.9	6052.4	6887.6	8940.5	9823.2	9381.9
52.5°	4961.2	5015.9	5254.8	5653.6	6124.3	6363.2	6662.9	7572.9	9569.1	10528.8	10032.7
55°	4334.6	4392.3	4699.0	5150.5	5896.6	6542.4	7172.0	8257.2	10145.1	11163.5	10619.9
57.5°	3482.3	3524.8	3843.6	4475.3	5323.6	6364.2	7547.6	9004.3	10687.7	11787.0	11201.9
60°	2269.5	2307.0	2677.5	3382.0	4374.1	5769.0	7622.5	9837.4	11408.4	12597.9	11986.5
62.5°	1509.3	1534.6	1754.3	2271.6	3080.4	4626.1	7184.2	10502.4	12465.3	14009.0	13331.8
65°	1035.6	1060.9	1280.5	1640.9	1990.2	3060.1	5923.9	10414.4	13422.9	15129.6	14328.9
67.5°	739.0	760.2	946.5	1286.6	1440.5	1777.6	4015.7	9288.7	13285.2	15172.1	14382.5
70°	529.4	541.6	695.4	1002.2	1144.9	1068.0	2233.1	7104.2	11632.2	14010.0	13287.2
72.5°	370.5	374.5	482.9	763.3	922.2	779.5	1062.9	4736.5	8797.8	10996.4	10301.0
75°	251.0	256.1	324.9	559.8	740.0	595.2	562.8	2539.8	5164.7	6086.9	5456.2
77.5°	153.9	155.9	209.5	382.6	553.7	453.5	362.4	1076.1	1998.2	1961.8	1672.3
80°	87.1	87.1	133.6	237.9	377.6	292.6	254.1	457.6	632.7	555.7	489.9
82.5°	48.6	49.6	97.2	147.8	250.0	173.1	139.7	211.6	273.3	241.9	210.6
85°	20.2	22.3	59.7	69.8	119.4	86.0	56.7	89.1	101.2	90.1	65.8
87.5°	2.0	3.0	18.2	13.2	14.2	17.2	8.1	17.2	14.2	14.2	10.1
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°	2329.3	2329.3	2329.3	2329.3	2329.3	2329.3	2329.3	2329.3	2329.3	2329.3	2329.3
2.5°	2344.5	2329.3	2290.8	2246.3	2187.5	2159.2	2120.7	2094.4	2072.1	2074.2	2053.9
5°	2390.0	2351.5	2265.5	2158.2	2024.6	1929.4	1828.2	1758.3	1701.6	1689.5	1662.2
7.5°	2452.8	2392.0	2241.2	2047.9	1822.1	1651.0	1498.2	1400.0	1330.1	1307.9	1285.6
10°	2533.7	2445.7	2209.8	1909.2	1584.2	1366.6	1202.6	1125.7	1078.1	1061.9	1049.7
12.5°	2627.9	2507.4	2168.3	1740.1	1339.3	1129.7	1025.4	987.0	971.8	966.7	963.7
15°	2746.3	2584.4	2105.6	1539.7	1131.7	985.0	940.4	935.4	937.4	935.4	934.3
17.5°	2887.0	2668.4	2003.3	1333.2	992.0	911.1	894.9	898.9	904.0	903.0	900.9
20°	3040.9	2751.4	1872.7	1150.0	896.9	858.4	849.3	853.4	857.4	855.4	854.4
22.5°	3216.0	2840.5	1728.0	1007.2	833.1	809.8	799.7	800.7	800.7	796.7	794.6
25°	3425.6	2938.7	1576.1	906.0	784.5	766.3	754.2	750.1	744.0	731.9	729.9
27.5°	3675.6	3042.9	1430.4	835.1	746.1	728.8	714.7	704.5	689.4	669.1	667.1
30°	3957.0	3169.5	1306.9	790.6	715.7	698.5	682.3	667.1	644.8	619.5	617.5
32.5°	4288.0	3305.1	1216.8	761.2	688.4	670.1	650.9	632.7	608.4	583.1	584.1
35°	4682.8	3469.1	1164.1	741.0	667.1	642.8	621.5	601.3	583.1	560.8	558.8
37.5°	5111.0	3643.2	1147.9	730.9	652.9	615.5	591.2	577.0	575.0	561.8	560.8
40°	5579.7	3849.7	1160.1	724.8	637.7	589.1	562.8	559.8	564.9	541.6	542.6
42.5°	6075.7	4094.7	1180.3	717.7	616.5	562.8	537.5	537.5	533.5	501.1	501.1
45°	6612.2	4377.1	1200.6	700.5	591.2	536.5	517.3	510.2	493.0	461.6	460.6
47.5°	7152.8	4664.6	1215.8	669.1	560.8	514.2	497.0	480.8	455.5	427.2	426.2
50°	7666.0	4922.7	1199.6	622.6	526.4	493.0	474.8	452.5	425.2	405.9	402.9
52.5°	8124.6	5146.5	1130.7	567.9	489.9	470.7	454.5	431.2	409.0	388.7	386.7
55°	8523.4	5327.7	1009.2	516.3	457.6	451.5	435.3	405.9	375.6	358.3	356.3
57.5°	8906.1	5465.3	857.4	473.7	428.2	430.2	405.9	379.6	351.3	333.0	331.0
60°	9415.3	5649.6	703.5	434.3	396.8	402.9	376.6	357.3	321.9	298.6	295.6
62.5°	10229.1	5936.0	558.8	385.7	360.4	362.4	351.3	328.0	285.5	258.1	256.1
65°	10875.0	5830.8	440.3	333.0	318.9	321.9	321.9	296.6	251.0	219.7	216.6
67.5°	10802.1	4992.6	351.3	281.4	279.4	281.4	288.5	267.2	222.7	197.4	193.3
70°	9950.8	3971.2	281.4	233.8	242.9	237.9	258.1	244.0	200.4	175.1	172.1
72.5°	8119.5	2860.7	214.6	193.3	186.3	194.4	232.8	219.7	167.0	138.7	135.6
75°	4744.6	1526.5	159.9	152.9	134.6	162.0	206.5	187.3	127.5	102.2	99.2
77.5°	1544.7	532.5	117.4	112.4	100.2	130.6	176.1	157.9	104.3	81.0	77.9
80°	414.0	161.0	80.0	73.9	64.8	97.2	139.7	125.5	74.9	52.6	51.6
82.5°	166.0	67.8	46.6	41.5	35.4	66.8	110.3	101.2	55.7	33.4	33.4
85°	53.7	22.3	17.2	13.2	16.2	41.5	65.8	68.8	39.5	17.2	13.2
87.5°	7.1	3.0	3.0	4.0	3.0	7.1	20.2	19.2	11.1	2.0	0.0
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)