

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: P882746

Luminaire Tested: **NAV-SB2D-735-U-T2-HSS**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P882746  
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-SB2D-735-U-T2-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(2) 70 CRI, 3500K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II  
OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

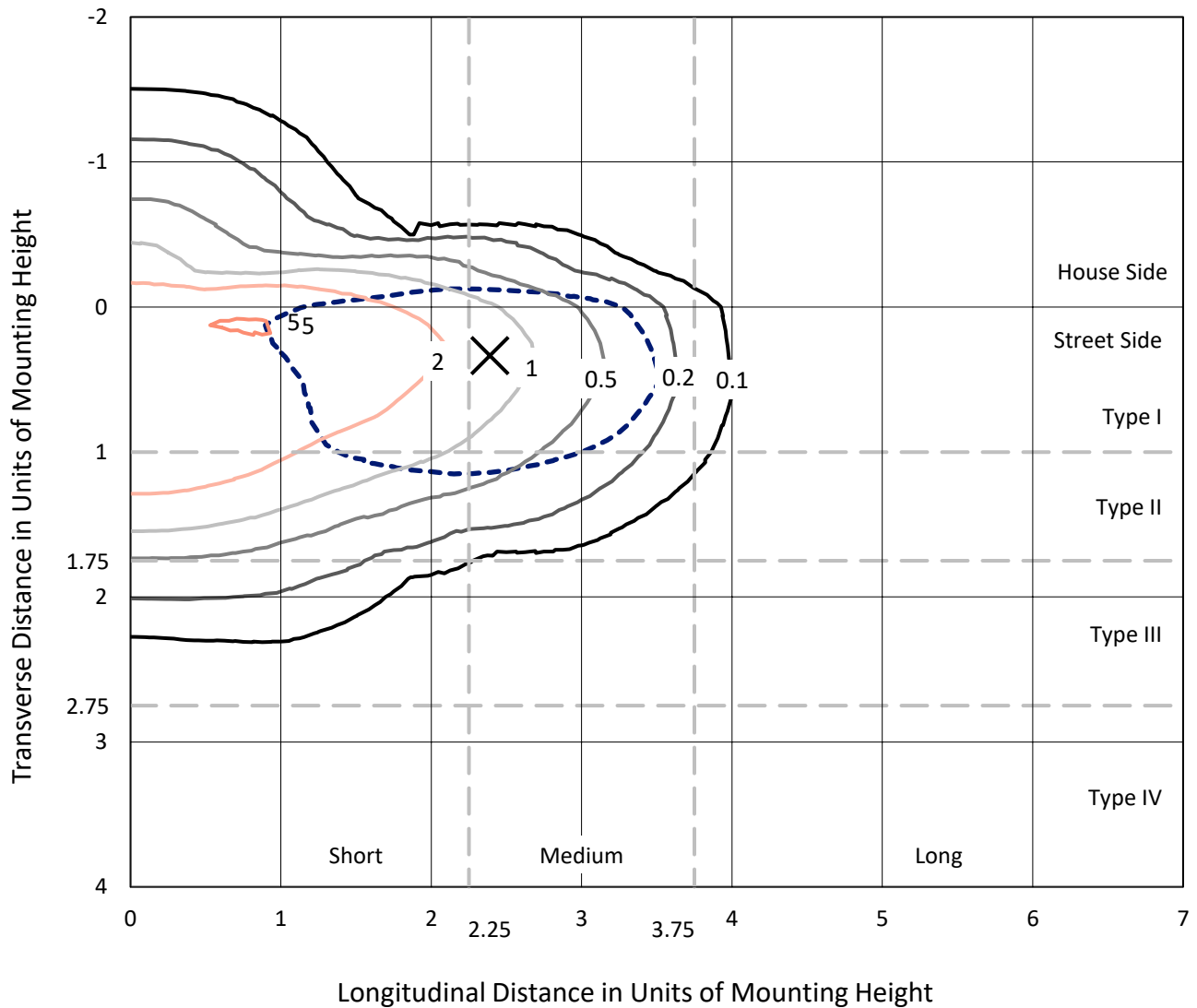
Lumens per Lamp: N/A  
Luminaire Lumens: 15145 lumens  
Efficiency: N/A  
Efficacy: 102.6 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B2 - U0 - G2  
  
Input Watts (W): 147.6  
Input Voltage (V): 120.0  
Input Current (Ain): 1.234  
Voltage Rise (V): NR  
Power Factor: 0.999  
Total Harmonic Distortion (THDi): 3.108  
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

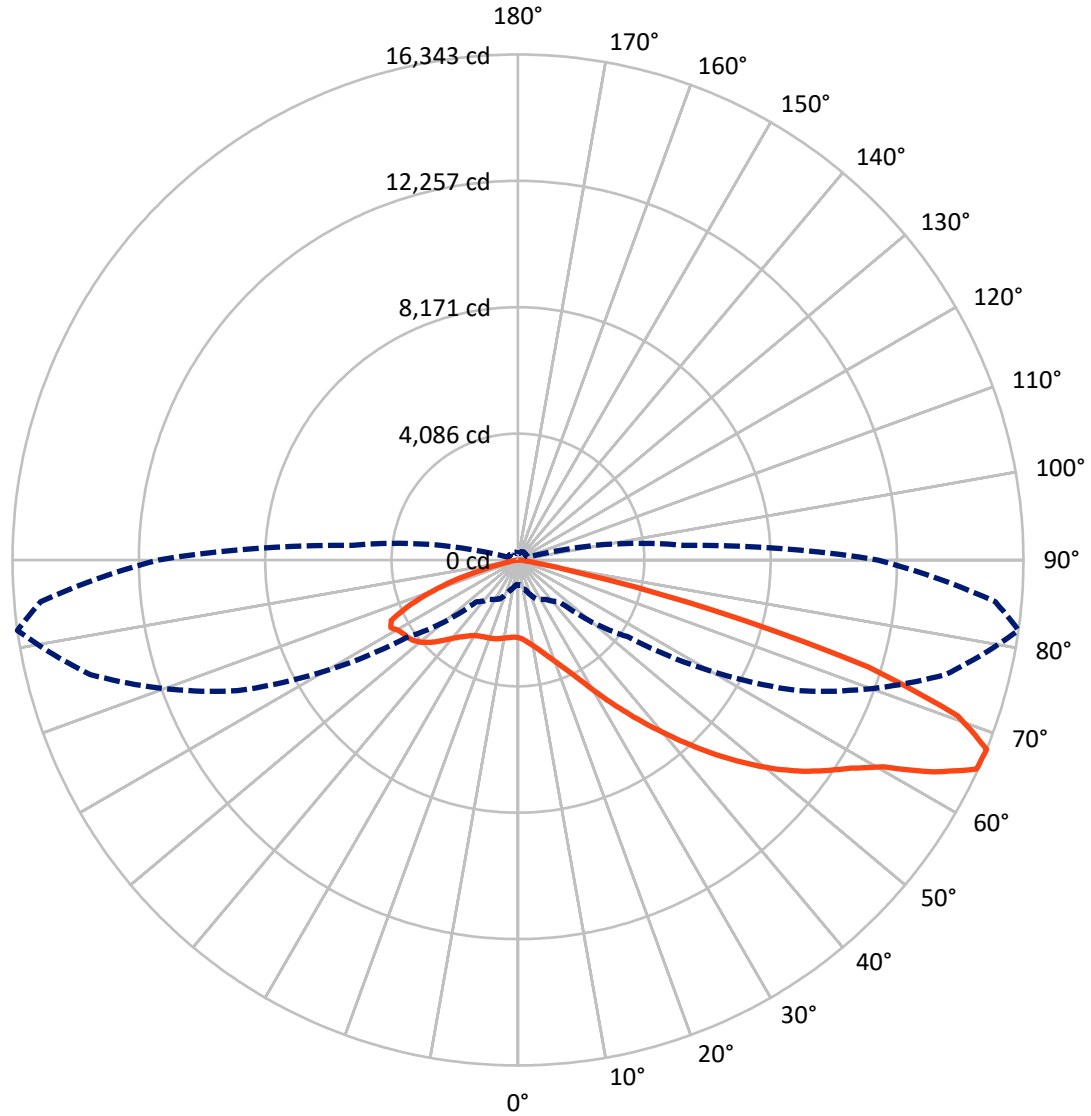
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.3 fc  
 Type II - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 82-Deg Lateral      - - - Horizontal Cone Through 67.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2743.4	0.0	2743.4
	% Fixture	18.1	0.0	18.1
<b>Street Side</b>	Lumens	12401.6	0.0	12401.6
	% Fixture	81.9	0.0	81.9
<b>Total</b>	Lumens	15145.0	0.0	15145.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	223.5	1.5
10°-20°	580.9	3.8
20°-30°	930.4	6.1
30°-40°	1645.2	10.9
40°-50°	2882.5	19.0
50°-60°	3844.5	25.4
60°-70°	3579.0	23.6
70°-80°	1373.6	9.1
80°-90°	85.3	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°	15145.0	100.0
0°-180°	15145.0	100.0

**Coefficient of Utilization**



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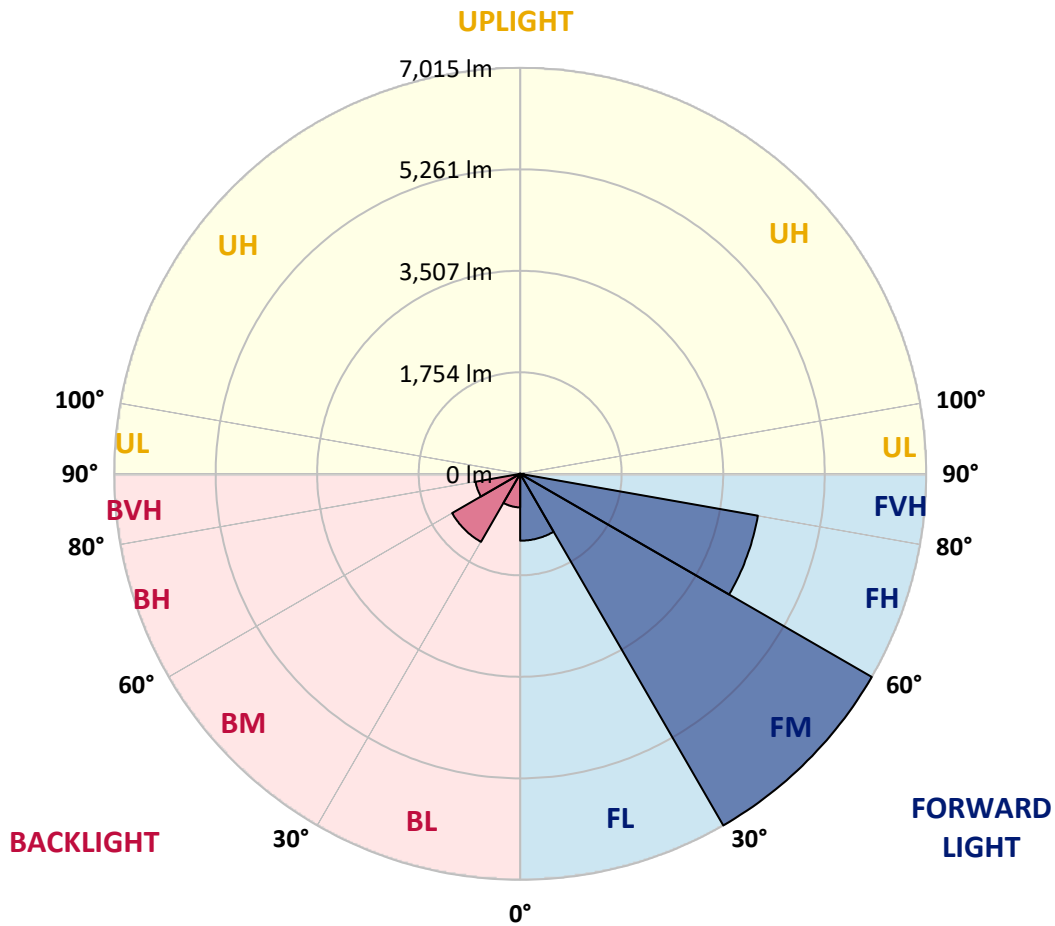
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1155.4	7.6			
FM (30°-60°)	7014.5	46.3			
FH (60°-80°)	4169.6	27.5			G2/5000
FVH (80°-90°)	62.0	0.4			G1/100
BL (0°-30°)	579.4	3.8	B2/1000		
BM (30°-60°)	1357.7	9.0	B2/2500		
BH (60°-80°)	783.0	5.2	B2/1000		G2/1000
BVH (80°-90°)	23.3	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°	2509.0	2509.0	2509.0	2509.0	2509.0	2509.0	2509.0	2509.0	2509.0	2509.0	2509.0
2.5°	2651.9	2667.1	2658.4	2654.0	2646.4	2635.5	2626.8	2599.5	2571.2	2552.6	2546.1
5°	2705.3	2720.6	2719.5	2723.8	2729.3	2732.5	2730.4	2699.8	2659.5	2627.9	2609.3
7.5°	2659.5	2676.9	2691.1	2712.9	2751.1	2791.4	2811.1	2804.5	2763.1	2719.5	2696.6
10°	2529.7	2548.3	2582.1	2633.3	2714.0	2801.2	2874.3	2908.1	2881.9	2834.0	2802.3
12.5°	2292.0	2310.6	2377.1	2488.3	2623.5	2775.1	2914.6	3005.1	3011.7	2963.7	2926.6
15°	2024.9	2043.4	2114.3	2253.9	2459.9	2703.1	2936.5	3107.6	3165.4	3124.0	3079.3
17.5°	1859.1	1875.5	1928.9	2041.2	2256.0	2559.2	2928.8	3216.7	3348.6	3315.9	3262.5
20°	1809.0	1823.2	1848.2	1926.7	2105.6	2409.8	2878.7	3319.2	3546.0	3527.4	3467.5
22.5°	1862.4	1875.5	1883.1	1918.0	2030.3	2311.7	2815.4	3423.9	3775.0	3777.2	3704.1
25°	1985.6	1998.7	1990.0	2011.8	2060.9	2281.1	2791.4	3547.1	4062.8	4086.8	4004.0
27.5°	2188.4	2189.5	2168.8	2167.7	2175.4	2326.9	2816.5	3679.0	4425.9	4470.6	4368.1
30°	2595.2	2578.8	2499.2	2413.1	2373.8	2464.3	2886.3	3834.9	4854.5	4934.1	4805.4
32.5°	3222.1	3198.1	3052.0	2845.9	2638.8	2685.7	3011.7	4012.7	5321.2	5465.1	5308.1
35°	3902.5	3896.0	3743.3	3436.9	3074.9	3000.8	3215.6	4246.0	5830.4	6059.4	5872.9
37.5°	4535.0	4531.7	4444.5	4083.6	3643.0	3440.2	3542.7	4551.3	6375.6	6707.1	6486.8
40°	5112.9	5122.7	5035.5	4712.7	4268.9	4004.0	3987.6	4928.6	6981.8	7412.5	7150.9
42.5°	5612.3	5623.2	5534.9	5296.1	4887.2	4627.7	4533.9	5390.9	7573.9	8170.4	7860.7
45°	5951.4	6019.0	6005.9	5815.1	5521.8	5252.5	5190.3	5971.0	8248.9	8974.0	8610.9
47.5°	6047.4	6109.5	6207.7	6233.8	6055.0	5790.0	5864.2	6670.0	8931.5	9778.7	9365.5
50°	5810.7	5868.5	6072.4	6344.0	6468.3	6386.5	6519.5	7419.1	9630.4	10581.3	10105.8
52.5°	5344.1	5402.9	5660.3	6089.9	6596.9	6854.3	7177.0	8157.3	10307.6	11341.3	10807.0
55°	4669.1	4731.3	5061.6	5548.0	6351.6	7047.3	7725.5	8894.4	10928.0	12024.9	11439.4
57.5°	3751.0	3796.8	4140.3	4820.7	5734.4	6855.4	8130.0	9699.1	11512.5	12696.6	12066.4
60°	2444.7	2485.0	2884.1	3643.0	4711.6	6214.2	8210.7	10596.5	12288.8	13570.0	12911.4
62.5°	1625.8	1653.0	1889.7	2446.9	3318.1	4983.1	7738.6	11312.9	13427.2	15090.1	14360.6
65°	1115.5	1142.7	1379.4	1767.5	2143.7	3296.3	6381.0	11218.1	14458.7	16297.1	15434.6
67.5°	796.0	818.9	1019.5	1385.9	1551.6	1914.7	4325.6	10005.5	14310.4	16342.9	15492.4
70°	570.3	583.4	749.1	1079.5	1233.2	1150.4	2405.4	7652.4	12529.8	15091.2	14312.6
72.5°	399.1	403.4	520.1	822.2	993.4	839.6	1144.9	5102.0	9476.7	11845.0	11095.9
75°	270.4	275.9	350.0	603.0	797.1	641.2	606.3	2735.8	5563.2	6556.6	5877.3
77.5°	165.7	167.9	225.7	412.2	596.4	488.5	390.4	1159.1	2152.5	2113.2	1801.3
80°	93.8	93.8	143.9	256.2	406.7	315.1	273.7	492.9	681.5	598.6	527.8
82.5°	52.3	53.4	104.7	159.2	269.3	186.5	150.5	227.9	294.4	260.6	226.8
85°	21.8	24.0	64.3	75.2	128.7	92.7	61.1	96.0	109.0	97.0	70.9
87.5°	2.2	3.3	19.6	14.2	15.3	18.5	8.7	18.5	15.3	15.3	10.9
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°	2509.0	2509.0	2509.0	2509.0	2509.0	2509.0	2509.0	2509.0	2509.0	2509.0	2509.0
2.5°	2525.4	2509.0	2467.6	2419.6	2356.4	2325.8	2284.4	2256.0	2232.1	2234.2	2212.4
5°	2574.4	2533.0	2440.3	2324.7	2180.8	2078.3	1969.3	1894.0	1833.0	1819.9	1790.4
7.5°	2642.0	2576.6	2414.1	2205.9	1962.7	1778.4	1613.8	1508.0	1432.8	1408.8	1384.8
10°	2729.3	2634.4	2380.3	2056.5	1706.5	1472.0	1295.4	1212.5	1161.3	1143.8	1130.7
12.5°	2830.7	2700.9	2335.6	1874.4	1442.6	1216.9	1104.6	1063.1	1046.8	1041.3	1038.1
15°	2958.3	2783.8	2268.0	1658.5	1219.1	1061.0	1013.0	1007.5	1009.7	1007.5	1006.4
17.5°	3109.8	2874.3	2157.9	1436.1	1068.6	981.4	963.9	968.3	973.7	972.6	970.5
20°	3275.6	2963.7	2017.2	1238.7	966.1	924.7	914.8	919.2	923.6	921.4	920.3
22.5°	3464.2	3059.7	1861.3	1084.9	897.4	872.3	861.4	862.5	862.5	858.1	856.0
25°	3689.9	3165.4	1697.8	975.9	845.1	825.4	812.3	808.0	801.4	788.4	786.2
27.5°	3959.2	3277.7	1540.7	899.6	803.6	785.1	769.8	758.9	742.6	720.8	718.6
30°	4262.4	3414.0	1407.7	851.6	770.9	752.4	734.9	718.6	694.6	667.3	665.1
32.5°	4618.9	3560.2	1310.7	820.0	741.5	721.8	701.1	681.5	655.3	628.1	629.2
35°	5044.2	3736.8	1254.0	798.2	718.6	692.4	669.5	647.7	628.1	604.1	601.9
37.5°	5505.4	3924.4	1236.5	787.3	703.3	663.0	636.8	621.5	619.3	605.2	604.1
40°	6010.3	4146.8	1249.6	780.7	687.0	634.6	606.3	603.0	608.4	583.4	584.5
42.5°	6544.6	4410.7	1271.4	773.1	664.1	606.3	579.0	579.0	574.6	539.7	539.7
45°	7122.5	4714.9	1293.2	754.6	636.8	577.9	557.2	549.6	531.0	497.2	496.1
47.5°	7704.8	5024.6	1309.6	720.8	604.1	553.9	535.4	517.9	490.7	460.1	459.1
50°	8257.6	5302.6	1292.1	670.6	567.0	531.0	511.4	487.4	458.0	437.3	434.0
52.5°	8751.6	5543.6	1218.0	611.7	527.8	507.0	489.6	464.5	440.5	418.7	416.5
55°	9181.2	5738.8	1087.1	556.1	492.9	486.3	468.9	437.3	404.5	386.0	383.8
57.5°	9593.4	5887.1	923.6	510.3	461.2	463.4	437.3	408.9	378.4	358.7	356.6
60°	10141.8	6085.5	757.8	467.8	427.4	434.0	405.6	384.9	346.7	321.7	318.4
62.5°	11018.5	6394.1	601.9	415.4	388.2	390.4	378.4	353.3	307.5	278.1	275.9
65°	11714.2	6280.7	474.3	358.7	343.5	346.7	346.7	319.5	270.4	236.6	233.3
67.5°	11635.7	5377.9	378.4	303.1	301.0	303.1	310.8	287.9	239.9	212.6	208.3
70°	10718.6	4277.6	303.1	251.9	261.7	256.2	278.1	262.8	215.9	188.6	185.4
72.5°	8746.1	3081.5	231.2	208.3	200.6	209.4	250.8	236.6	179.9	149.4	146.1
75°	5110.7	1644.3	172.3	164.7	145.0	174.5	222.4	201.7	137.4	110.1	106.9
77.5°	1664.0	573.6	126.5	121.0	107.9	140.7	189.7	170.1	112.3	87.2	84.0
80°	446.0	173.4	86.1	79.6	69.8	104.7	150.5	135.2	80.7	56.7	55.6
82.5°	178.8	73.1	50.2	44.7	38.2	72.0	118.9	109.0	60.0	36.0	36.0
85°	57.8	24.0	18.5	14.2	17.4	44.7	70.9	74.1	42.5	18.5	14.2
87.5°	7.6	3.3	3.3	4.4	3.3	7.6	21.8	20.7	12.0	2.2	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)