

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: P883988

Luminaire Tested: **NAV-SB4C-830-U-T3-HSS**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P883988  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-6)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB4C-830-U-T3-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(4) 80 CRI, 3000K, 615mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III  
OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

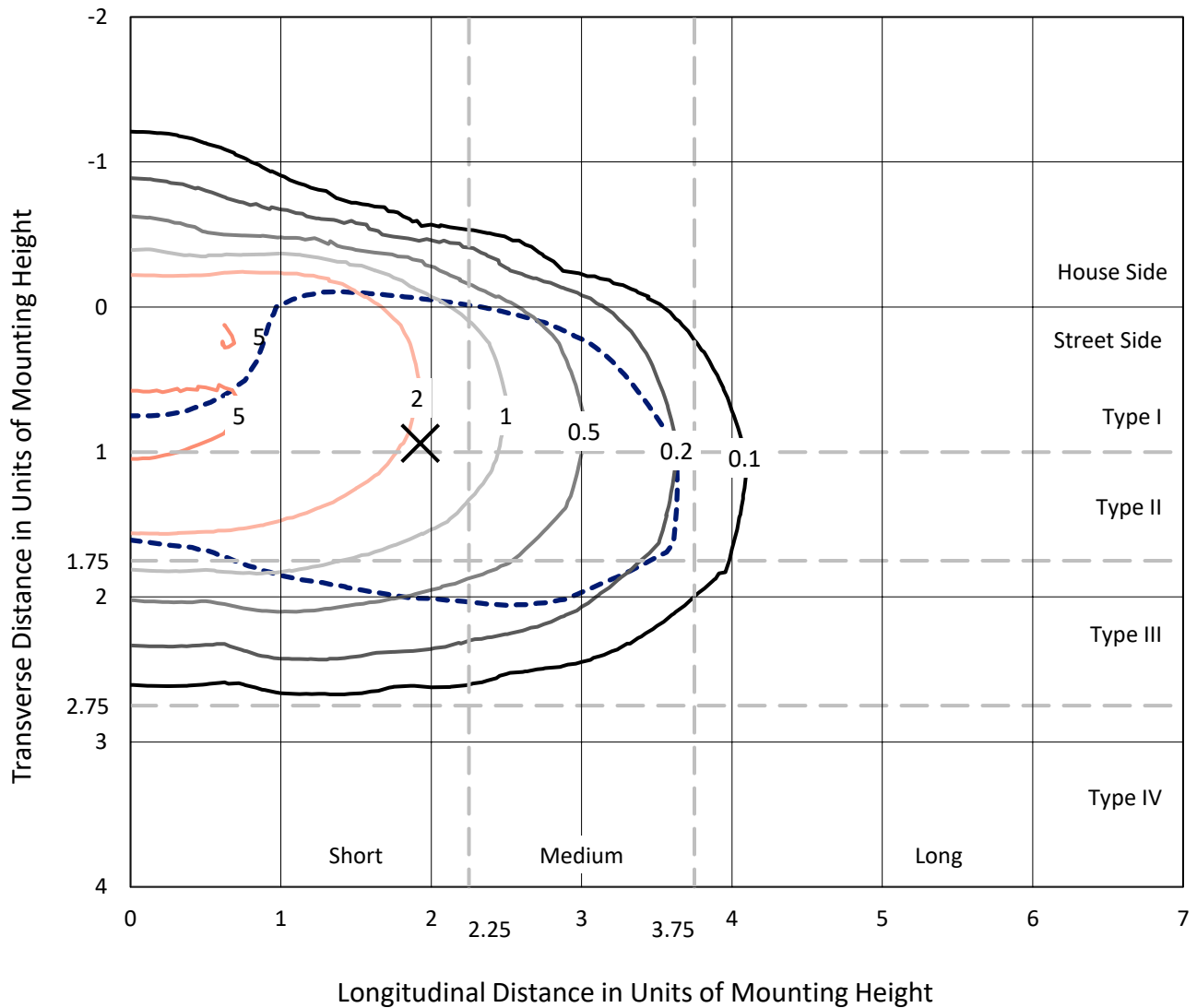
Lumens per Lamp: N/A  
Luminaire Lumens: 20828 lumens  
Efficiency: N/A  
Efficacy: 103.8 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B2 - U0 - G3  
  
Input Watts (W): 200.7  
Input Voltage (V): 120.0  
Input Current (Ain): 1.714  
Voltage Rise (V): NR  
Power Factor: 0.994  
Total Harmonic Distortion (THDi): 9.472  
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

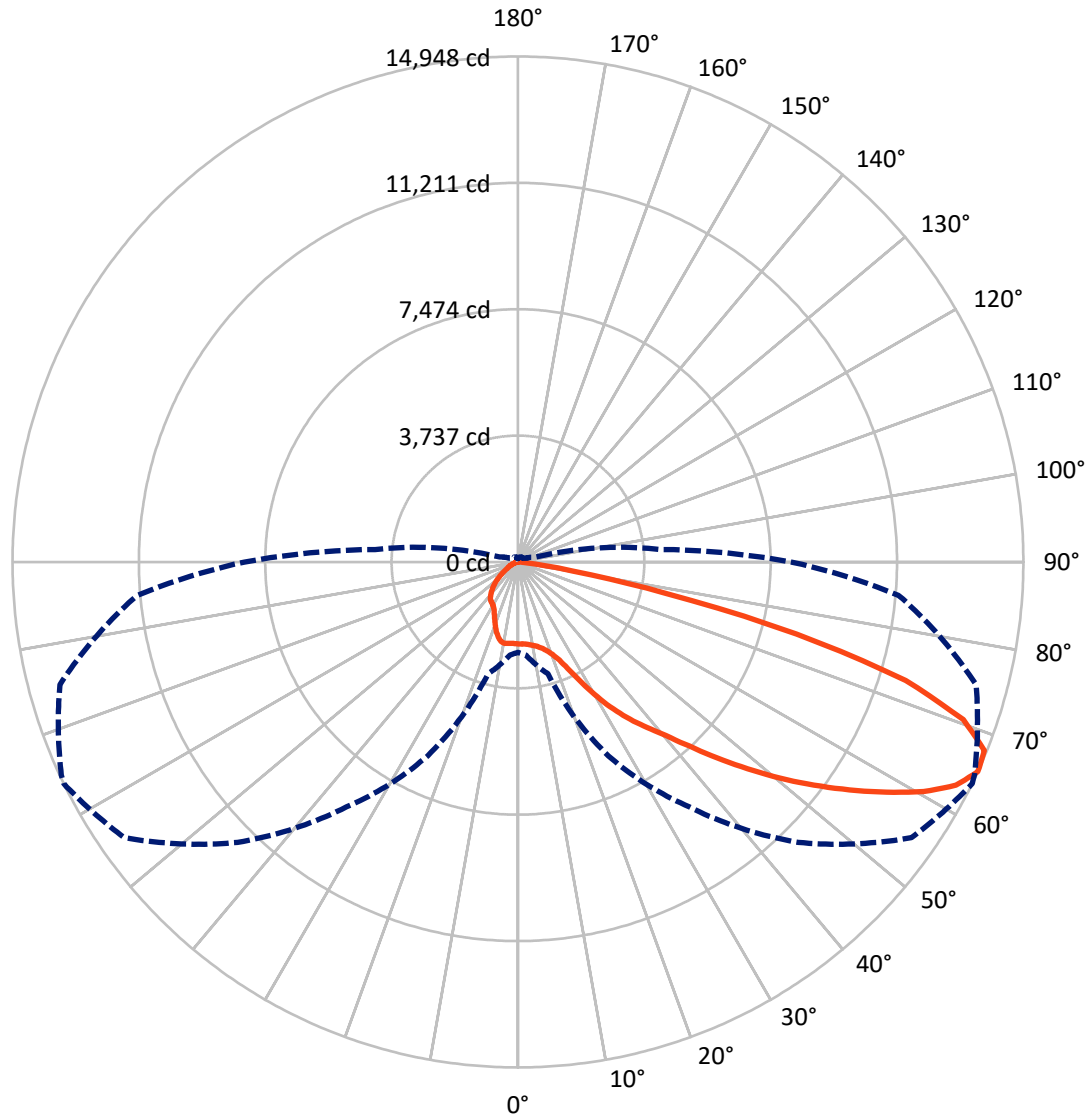
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.1 fc  
 Type III - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 64-Deg Lateral      - - - Horizontal Cone Through 65-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2785.3	0.0	2785.3
	% Fixture	13.4	0.0	13.4
<b>Street Side</b>	Lumens	18042.7	0.0	18042.7
	% Fixture	86.6	0.0	86.6
<b>Total</b>	Lumens	20828.0	0.0	20828.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	223.5	1.1
10°-20°	606.2	2.9
20°-30°	1148.7	5.5
30°-40°	2324.4	11.2
40°-50°	3959.7	19.0
50°-60°	5384.8	25.9
60°-70°	5056.6	24.3
70°-80°	2025.9	9.7
80°-90°	98.2	0.5
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°	20828.0	100.0
0°-180°	20828.0	100.0

**Coefficient of Utilization**



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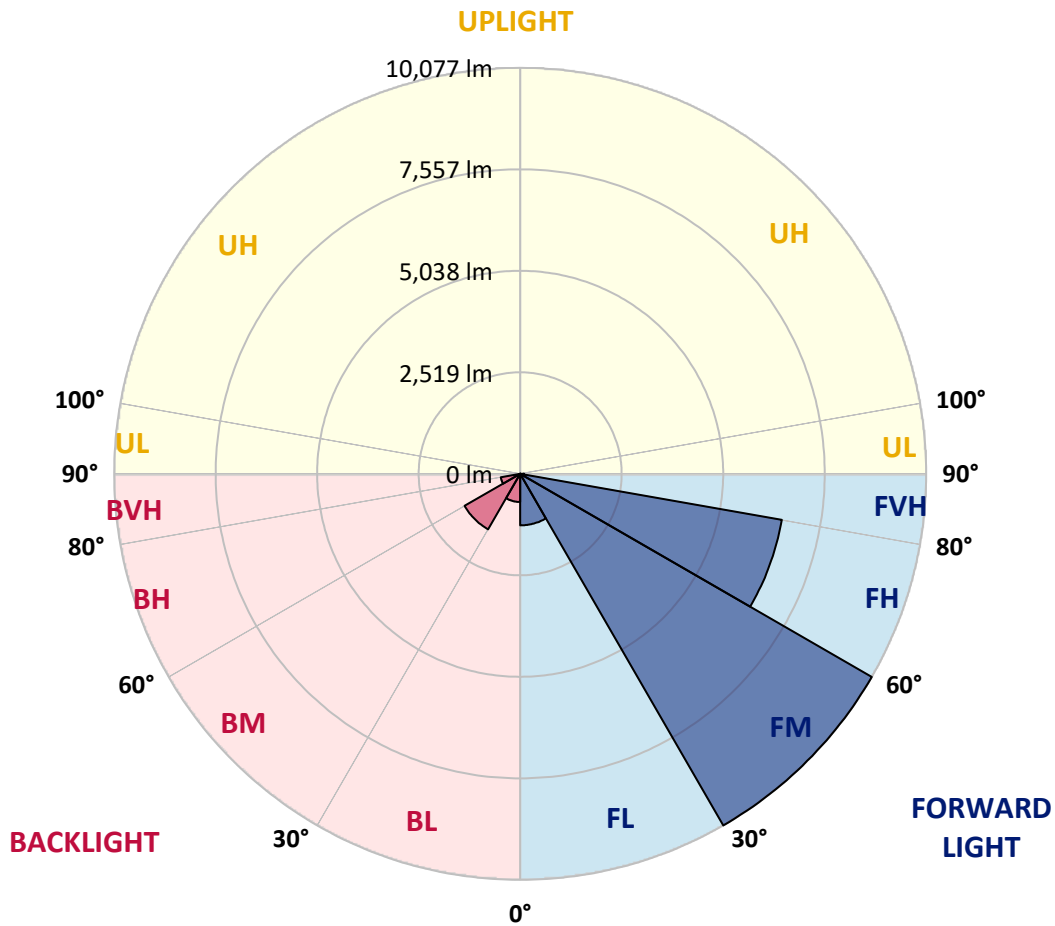
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1279.1	6.1			
FM (30°-60°)	10076.6	48.4			
FH (60°-80°)	6593.7	31.7			G3/7500
FVH (80°-90°)	93.4	0.4			G1/100
BL (0°-30°)	699.3	3.4	B2/1000		
BM (30°-60°)	1592.4	7.6	B2/2500		
BH (60°-80°)	488.9	2.3	B1/500		G1/500
BVH (80°-90°)	4.8	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G3**

Type III Short



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	2422.5	2422.5	2422.5	2422.5	2422.5	2422.5	2422.5	2422.5	2422.5	2422.5	2422.5
2.5°	2414.1	2430.9	2426.7	2422.5	2421.1	2423.9	2425.3	2423.9	2423.9	2423.9	2425.3
5°	2368.1	2382.0	2382.0	2391.8	2405.8	2422.5	2435.1	2437.9	2440.7	2444.9	2443.5
7.5°	2280.1	2291.3	2299.6	2331.8	2366.7	2411.3	2449.0	2468.6	2471.4	2486.7	2492.3
10°	2220.1	2234.0	2248.0	2281.5	2331.8	2398.8	2463.0	2510.5	2517.5	2553.8	2570.5
12.5°	2217.3	2231.2	2249.4	2285.7	2344.3	2415.5	2493.7	2562.1	2574.7	2627.8	2662.7
15°	2246.6	2263.3	2280.1	2324.8	2387.6	2474.2	2557.9	2643.1	2655.7	2731.1	2768.8
17.5°	2306.6	2329.0	2341.5	2386.2	2453.2	2549.6	2659.9	2757.6	2768.8	2856.7	2904.2
20°	2425.3	2451.8	2456.0	2492.3	2557.9	2661.3	2792.5	2914.0	2928.0	3028.5	3081.5
22.5°	2671.0	2708.7	2675.2	2693.4	2752.0	2855.4	2997.8	3151.4	3170.9	3285.4	3332.9
25°	3103.9	3156.9	3070.4	3039.7	3064.8	3172.3	3351.0	3545.1	3567.4	3659.6	3683.3
27.5°	3954.2	3885.8	3754.5	3626.1	3550.7	3612.1	3813.2	4053.3	4081.3	4170.6	4142.7
30°	4888.3	4828.3	4650.9	4366.1	4187.4	4177.6	4363.3	4631.4	4663.5	4748.7	4663.5
32.5°	5823.8	5766.6	5573.9	5223.4	4913.4	4759.9	4888.3	5185.7	5202.5	5256.9	5131.3
35°	6743.9	6685.3	6492.6	6133.8	5752.6	5403.5	5378.4	5713.5	5719.1	5776.3	5589.2
37.5°	7669.7	7620.8	7415.5	7063.7	6688.1	6206.4	5973.2	6213.4	6220.3	6276.2	6082.1
40°	8330.1	8351.0	8210.0	7937.7	7615.2	7088.8	6640.6	6745.3	6703.4	6797.0	6681.1
42.5°	8897.0	8938.9	8816.0	8679.2	8492.1	8028.5	7467.2	7449.1	7382.0	7432.3	7312.2
45°	9387.1	9422.0	9311.7	9279.5	9275.4	8950.0	8370.6	8261.7	8168.1	8158.4	8014.5
47.5°	9567.2	9634.2	9681.7	9789.2	9998.6	9861.8	9304.7	9135.7	9031.0	8954.2	8726.6
50°	9635.6	9706.8	9868.8	10181.5	10677.2	10735.9	10234.6	10044.7	9916.2	9776.6	9441.5
52.5°	9543.4	9670.5	9888.3	10414.7	11133.8	11436.8	11126.8	10960.6	10814.0	10586.5	10089.4
55°	9000.3	9127.4	9572.8	10411.9	11361.4	11928.3	11970.1	11896.1	11731.4	11372.5	10613.0
57.5°	7855.4	8043.9	8749.0	10057.3	11357.2	12351.3	12796.7	12849.8	12665.5	12151.7	11024.9
60°	6269.2	6524.7	7384.8	9271.2	11006.7	12580.3	13521.4	13786.7	13591.2	12919.6	11358.6
62.5°	4374.5	4670.5	5484.5	8039.7	10205.3	12415.6	14050.6	14540.7	14392.7	13606.6	11487.0
65°	2668.3	2763.2	3419.4	6326.5	8842.5	11725.8	14213.9	14948.4	14899.5	14026.8	11297.1
67.5°	1777.4	1857.0	2045.5	4338.2	6864.0	10347.7	13823.0	14877.2	14891.1	13958.4	10601.8
70°	1070.9	1139.3	1262.2	2523.0	4448.5	8190.5	12612.4	13969.6	14050.6	13043.9	9283.7
72.5°	441.2	487.3	599.0	1143.5	2303.8	5198.3	10043.3	11993.9	12182.4	10967.6	7125.1
75°	249.9	273.7	351.9	573.9	999.7	2422.5	6083.5	8514.4	8792.3	7559.4	4286.5
77.5°	166.2	177.3	227.6	371.4	562.7	826.6	2599.8	4435.9	4966.5	4128.7	1855.6
80°	111.7	121.5	156.4	248.5	365.8	354.7	828.0	1643.4	2021.8	1418.6	452.4
82.5°	75.4	76.8	111.7	163.4	231.8	171.7	244.3	511.0	642.3	410.5	171.7
85°	43.3	41.9	82.4	94.9	103.3	71.2	74.0	153.6	201.1	173.1	97.7
87.5°	5.6	8.4	32.1	25.1	14.0	15.4	15.4	26.5	39.1	41.9	20.9
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°	2422.5	2422.5	2422.5	2422.5	2422.5	2422.5	2422.5	2422.5	2422.5	2422.5	2422.5
2.5°	2425.3	2423.9	2419.7	2415.5	2405.8	2400.2	2403.0	2400.2	2398.8	2400.2	2405.8
5°	2443.5	2439.3	2428.1	2414.1	2394.6	2370.9	2355.5	2333.2	2312.2	2299.6	2302.4
7.5°	2492.3	2488.1	2472.8	2433.7	2370.9	2271.7	2181.0	2101.4	2041.3	2006.4	2007.8
10°	2570.5	2563.5	2539.8	2453.2	2288.5	2072.1	1891.9	1742.5	1644.8	1598.7	1594.5
12.5°	2662.7	2654.3	2612.4	2435.1	2132.1	1794.2	1545.7	1379.5	1288.7	1248.3	1244.1
15°	2771.6	2760.4	2678.0	2348.5	1904.5	1487.0	1259.4	1135.2	1076.5	1040.2	1041.6
17.5°	2907.0	2887.5	2726.9	2218.7	1657.4	1252.4	1083.5	989.9	938.3	903.4	900.6
20°	3082.9	3050.8	2766.0	2063.7	1429.8	1104.4	964.8	886.6	847.5	816.8	811.2
22.5°	3328.7	3282.6	2813.5	1896.1	1269.2	1002.5	876.9	819.6	787.5	752.6	747.0
25°	3633.1	3578.6	2872.1	1741.1	1158.9	914.6	812.6	765.2	727.5	687.0	682.8
27.5°	4058.9	3961.2	2941.9	1614.1	1064.0	839.2	754.0	700.9	657.6	624.1	617.1
30°	4533.7	4373.1	3003.4	1537.3	977.4	769.3	677.2	624.1	583.6	559.9	555.7
32.5°	4983.3	4765.4	3043.8	1503.8	899.2	689.8	593.4	536.2	505.4	498.5	502.7
35°	5407.7	5120.1	3039.7	1471.7	829.4	610.2	511.0	452.4	428.7	432.8	432.8
37.5°	5896.4	5498.5	3010.3	1421.4	772.1	537.6	439.8	388.2	367.2	368.6	374.2
40°	6464.7	5935.5	2992.2	1326.4	709.3	470.5	381.2	339.3	323.9	318.3	317.0
42.5°	7070.7	6358.6	2995.0	1218.9	631.1	410.5	340.7	305.8	291.8	287.6	286.2
45°	7679.4	6762.1	2999.2	1107.2	548.7	364.4	311.4	282.0	273.7	268.1	268.1
47.5°	8251.9	7105.6	2921.0	987.2	467.7	329.5	287.6	268.1	261.1	254.1	254.1
50°	8785.3	7334.6	2732.5	847.5	403.5	301.6	269.5	255.5	248.5	241.6	241.6
52.5°	9200.0	7370.9	2421.1	703.7	358.8	280.6	258.3	245.7	237.4	230.4	229.0
55°	9384.3	7143.3	1978.5	569.7	323.9	262.5	247.1	234.6	224.8	217.8	216.4
57.5°	9336.8	6664.4	1542.9	458.0	290.4	244.3	233.2	224.8	213.6	202.5	201.1
60°	9103.6	6023.5	1163.1	381.2	259.7	224.8	217.8	210.8	195.5	178.7	175.9
62.5°	8700.1	5217.8	829.4	315.6	226.2	202.5	199.7	194.1	171.7	141.0	138.2
65°	8083.0	4239.0	558.5	262.5	194.1	177.3	178.7	168.9	139.6	104.7	101.9
67.5°	7181.0	3099.7	357.4	215.0	162.0	148.0	149.4	143.8	118.7	89.4	85.2
70°	6031.8	2052.5	233.2	163.4	129.9	114.5	122.9	124.3	100.5	72.6	69.8
72.5°	4422.0	1212.0	163.4	121.5	94.9	79.6	100.5	103.3	81.0	54.5	51.7
75°	2520.3	575.3	122.9	88.0	58.6	55.9	78.2	78.2	55.9	36.3	33.5
77.5°	1058.4	240.2	86.6	57.2	33.5	32.1	53.1	48.9	27.9	16.8	16.8
80°	305.8	107.5	46.1	27.9	14.0	12.6	20.9	15.4	7.0	2.8	2.8
82.5°	120.1	47.5	18.2	11.2	5.6	5.6	2.8	0.0	0.0	0.0	0.0
85°	71.2	19.5	8.4	4.2	1.4	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	18.2	4.2	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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)