

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: P884440

Luminaire Tested: **NAV-SB5B-730-U-T4FT-HSS**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P884440  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-25)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB5B-730-U-T4FT-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(5) 70 CRI, 3000K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV  
FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

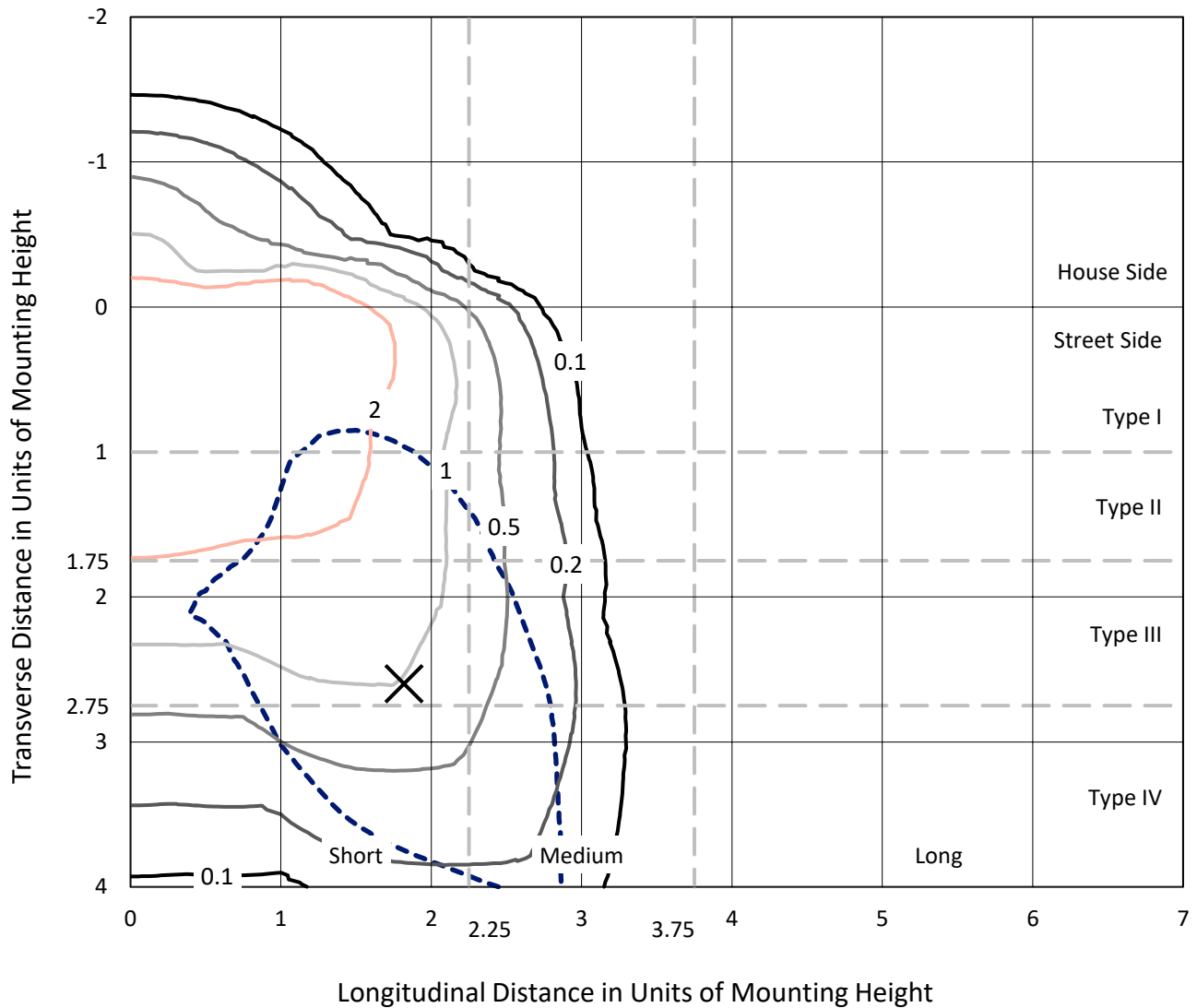
Lumens per Lamp: N/A  
Luminaire Lumens: 21297 lumens  
Efficiency: N/A  
Efficacy: 116.6 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B2 - U0 - G4  
  
Input Watts (W): 182.7  
Input Voltage (V): 120.0  
Input Current (Ain): 1.547  
Voltage Rise (V): NR  
Power Factor: 0.992  
Total Harmonic Distortion (THDi): 11.125  
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

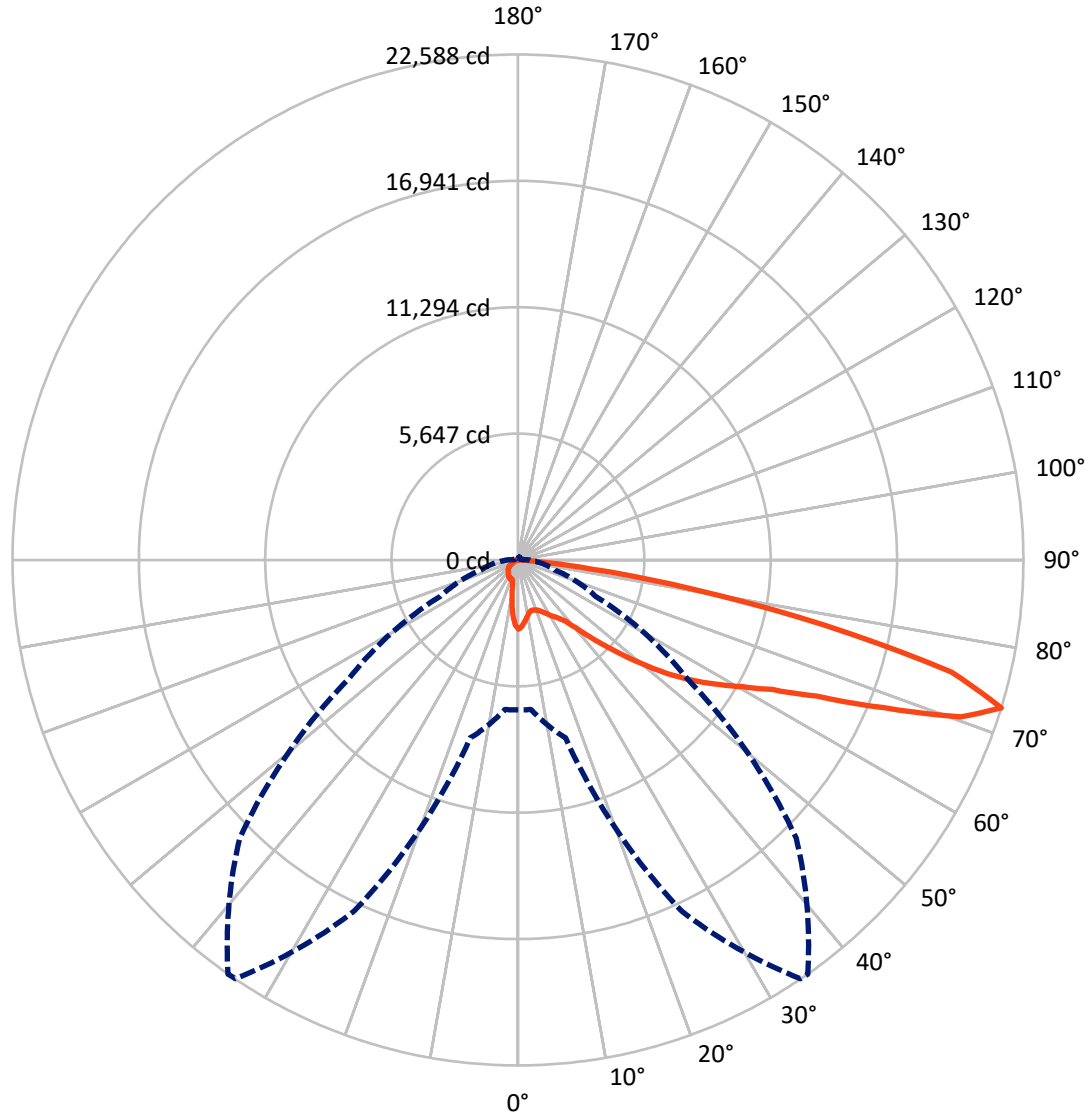
✕ Max cd  
 - - - 1/2 Max cd



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

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### Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral      - - - Horizontal Cone Through 72.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2396.9	0.0	2396.9
	% Fixture	11.3	0.0	11.3
<b>Street Side</b>	Lumens	18900.1	0.0	18900.1
	% Fixture	88.7	0.0	88.7
<b>Total</b>	Lumens	21297.0	0.0	21297.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	253.6	1.2
10°-20°	593.4	2.8
20°-30°	963.9	4.5
30°-40°	1608.3	7.6
40°-50°	3042.9	14.3
50°-60°	4835.1	22.7
60°-70°	5981.4	28.1
70°-80°	3718.1	17.5
80°-90°	300.5	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°	21297.0	100.0
0°-180°	21297.0	100.0

**Coefficient of Utilization**



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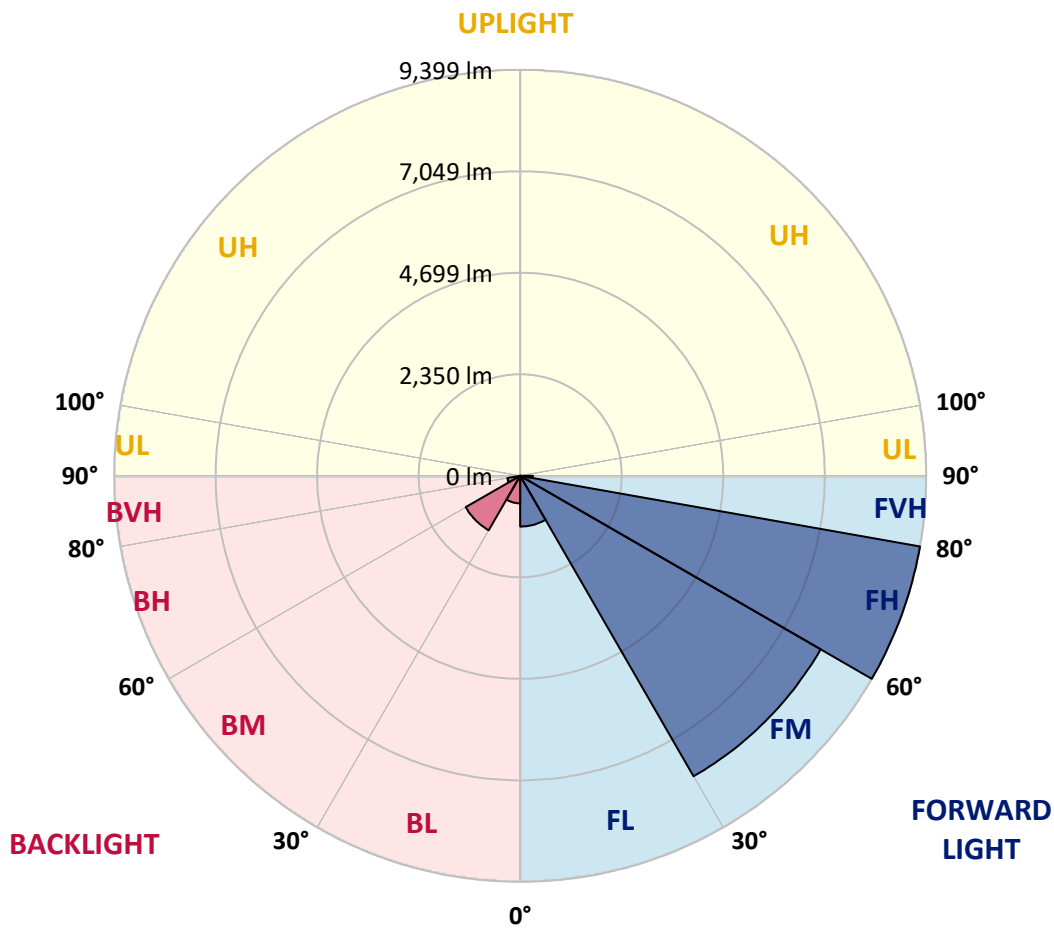
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1174.0	5.5			
FM (30°-60°)	8031.1	37.7			
FH (60°-80°)	9398.6	44.1			G4/12000
FVH (80°-90°)	296.4	1.4			G3/500
BL (0°-30°)	636.9	3.0	B2/1000		
BM (30°-60°)	1455.1	6.8	B2/2500		
BH (60°-80°)	300.8	1.4	B1/500		G1/500
BVH (80°-90°)	4.1	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-G4**

Type IV Short



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	3086.6	3086.6	3086.6	3086.6	3086.6	3086.6	3086.6	3086.6	3086.6	3086.6	3086.6
2.5°	2949.3	2974.3	2979.0	2986.8	2986.8	2996.1	3011.7	3033.6	3069.5	3088.2	3100.7
5°	2718.4	2737.1	2760.5	2779.2	2815.1	2819.8	2880.7	2940.0	3022.7	3085.1	3128.8
7.5°	2485.9	2507.7	2538.9	2584.2	2631.0	2645.0	2737.1	2837.0	2968.1	3085.1	3158.4
10°	2322.0	2323.6	2351.7	2396.9	2471.8	2489.0	2601.3	2743.3	2907.2	3066.4	3186.5
12.5°	2229.9	2240.9	2253.3	2287.7	2359.5	2370.4	2490.5	2657.5	2846.3	3055.4	3219.3
15°	2229.9	2237.7	2245.5	2262.7	2320.4	2329.8	2435.9	2602.9	2815.1	3060.1	3272.3
17.5°	2253.3	2265.8	2259.6	2279.9	2340.7	2347.0	2440.6	2587.3	2813.6	3089.8	3353.5
20°	2309.5	2318.9	2306.4	2318.9	2379.7	2392.2	2489.0	2616.9	2840.1	3141.3	3454.9
22.5°	2398.5	2403.2	2373.5	2382.9	2445.3	2460.9	2573.2	2701.2	2904.1	3224.0	3590.7
25°	2510.8	2520.2	2474.9	2485.9	2545.2	2563.9	2693.4	2827.6	3005.5	3337.9	3763.9
27.5°	2640.3	2645.0	2606.0	2604.5	2680.9	2707.5	2838.5	2983.7	3141.3	3481.5	3982.4
30°	2788.6	2802.6	2765.2	2758.9	2855.7	2877.5	3007.1	3175.6	3341.0	3696.8	4292.9
32.5°	2905.6	2916.6	2894.7	2910.3	3008.6	3025.8	3211.5	3447.1	3654.7	4002.7	4715.8
35°	3074.2	3080.4	3030.5	3058.6	3170.9	3214.6	3490.8	3827.9	4049.5	4386.5	5268.2
37.5°	3684.3	3684.3	3472.1	3333.2	3440.9	3479.9	3873.1	4307.0	4536.3	4901.5	5964.2
40°	4528.5	4514.5	4204.0	3920.0	3905.9	3982.4	4417.7	4910.9	5165.2	5519.5	6747.6
42.5°	5428.9	5407.1	4984.2	4703.3	4656.5	4683.0	5046.6	5655.2	5914.3	6273.2	7590.2
45°	6227.9	6221.7	5834.7	5457.0	5372.8	5457.0	5831.6	6526.0	6711.7	7089.3	8431.3
47.5°	6897.4	6897.4	6614.9	6368.4	6324.7	6374.6	6894.2	7491.9	7474.7	7958.5	9250.6
50°	7668.2	7662.0	7393.6	7287.5	7332.7	7403.0	8117.7	8509.4	8264.4	8812.1	9982.5
52.5°	8208.2	8245.6	8153.6	8136.4	8367.3	8489.1	9359.8	9504.9	8971.3	9622.0	10530.2
55°	8635.8	8679.4	8785.6	8905.7	9350.5	9509.6	10563.0	10449.0	9562.7	10324.2	10845.4
57.5°	9241.2	9178.8	9342.7	9579.8	10299.2	10491.2	11728.6	11340.1	10038.6	10893.8	10879.7
60°	9976.2	9985.6	10013.7	10313.3	11246.5	11493.0	12877.2	12182.7	10344.5	11243.3	10499.0
62.5°	10859.5	10873.5	10931.2	11391.6	12518.3	12750.8	14100.6	12872.5	10484.9	11145.0	9515.9
65°	10798.6	10857.9	11502.4	13076.9	14451.7	14681.1	15528.4	13356.2	10272.7	10246.2	7747.8
67.5°	9837.3	9934.1	11012.4	15089.9	17366.7	17622.6	17254.3	13451.4	9356.7	7967.9	5054.4
70°	8576.5	8610.8	9907.6	16900.1	20742.0	21001.1	18799.2	12404.3	7100.2	4444.3	2264.3
72.5°	6697.6	6705.4	8226.9	17319.9	22574.0	22588.1	17586.7	9208.5	3818.5	1707.2	786.5
75°	4784.5	4737.6	5510.1	14046.0	19860.4	20019.5	13184.6	4319.4	1459.1	806.8	391.7
77.5°	2565.4	2616.9	3117.9	8329.9	13719.8	13991.4	7193.9	1245.3	742.8	549.3	259.0
80°	792.7	836.4	1278.0	3813.8	7771.2	7935.1	2666.9	554.0	518.1	391.7	170.1
82.5°	249.7	259.0	596.1	1602.6	3225.5	3300.4	772.4	313.7	354.2	259.0	99.9
85°	71.8	73.3	265.3	597.7	797.4	813.0	216.9	121.7	202.9	160.7	51.5
87.5°	7.8	25.0	99.9	99.9	70.2	68.7	23.4	26.5	57.7	20.3	9.4
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°	3086.6	3086.6	3086.6	3086.6	3086.6	3086.6	3086.6	3086.6	3086.6	3086.6	3086.6
2.5°	3092.9	3094.5	3074.2	3039.8	3002.4	2971.2	2932.2	2901.0	2879.1	2872.9	2883.8
5°	3114.7	3103.8	3046.1	2941.5	2816.7	2709.0	2588.9	2493.7	2431.2	2404.7	2414.1
7.5°	3147.5	3116.3	2989.9	2783.9	2545.2	2332.9	2117.6	1950.6	1844.5	1791.4	1799.2
10°	3175.6	3113.2	2896.3	2556.1	2190.9	1869.5	1579.2	1377.9	1265.6	1212.5	1214.1
12.5°	3202.1	3111.6	2774.6	2286.1	1791.4	1398.2	1128.2	1028.4	997.2	986.2	983.1
15°	3252.1	3116.3	2621.6	1977.1	1393.5	1056.5	958.1	956.6	962.8	959.7	958.1
17.5°	3320.7	3121.0	2448.4	1649.4	1075.2	931.6	926.9	941.0	950.3	945.7	944.1
20°	3409.7	3139.7	2264.3	1324.9	923.8	900.4	911.3	923.8	931.6	923.8	922.2
22.5°	3534.5	3172.5	2063.0	1064.3	875.4	881.7	891.0	905.1	912.9	902.0	900.4
25°	3687.4	3224.0	1864.8	925.4	852.0	859.8	873.9	889.5	898.8	887.9	886.4
27.5°	3885.6	3306.7	1682.2	894.2	828.6	833.3	853.6	877.0	889.5	875.4	875.4
30°	4172.8	3442.4	1524.6	908.2	814.6	803.7	831.7	864.5	878.6	866.1	864.5
32.5°	4553.5	3634.4	1427.8	930.1	808.3	769.3	795.8	838.0	861.4	853.6	853.6
35°	5052.9	3926.2	1390.4	955.0	803.7	733.4	752.2	797.4	838.0	845.8	845.8
37.5°	5658.3	4331.9	1401.3	965.9	789.6	703.8	713.1	752.2	805.2	830.2	836.4
40°	6346.5	4804.7	1463.7	955.0	774.0	678.8	680.4	710.0	756.8	794.3	806.8
42.5°	7056.5	5357.2	1579.2	914.4	760.0	657.0	652.3	672.6	703.8	730.3	741.2
45°	7732.2	5925.2	1693.1	858.3	742.8	635.1	624.2	632.0	638.2	649.2	655.4
47.5°	8322.1	6324.7	1660.4	806.8	719.4	610.2	591.4	588.3	569.6	568.0	566.5
50°	8729.4	6412.1	1474.7	755.3	685.1	582.1	552.4	533.7	500.9	485.3	486.9
52.5°	8858.9	6067.2	1204.7	703.8	628.9	544.6	502.5	472.8	432.3	418.2	416.7
55°	8687.2	5391.5	962.8	641.4	550.9	494.7	447.9	408.8	376.1	358.9	358.9
57.5°	8267.5	4531.7	761.5	568.0	468.1	438.5	391.7	352.7	324.6	307.4	304.3
60°	7571.5	3598.5	602.3	480.6	399.5	377.6	329.3	304.3	279.3	259.0	254.4
62.5°	6515.0	2568.6	472.8	380.8	333.9	309.0	280.9	262.2	232.5	204.4	199.7
65°	5084.1	1571.4	365.2	279.3	268.4	255.9	238.8	221.6	185.7	157.6	152.9
67.5°	3206.8	744.4	260.6	210.7	212.2	206.0	198.2	184.1	157.6	132.6	129.5
70°	1412.2	360.5	171.7	160.7	157.6	157.6	163.9	159.2	134.2	110.8	106.1
72.5°	480.6	193.5	128.0	121.7	113.9	112.4	137.3	132.6	107.7	85.8	81.1
75°	251.2	129.5	93.6	87.4	68.7	82.7	109.2	103.0	76.5	56.2	51.5
77.5°	163.9	92.1	64.0	56.2	39.0	54.6	81.1	71.8	45.3	28.1	25.0
80°	103.0	60.9	37.5	26.5	18.7	29.6	43.7	31.2	17.2	6.2	4.7
82.5°	54.6	31.2	14.0	9.4	7.8	9.4	10.9	7.8	3.1	0.0	0.0
85°	21.8	10.9	4.7	3.1	1.6	0.0	3.1	1.6	0.0	0.0	0.0
87.5°	7.8	1.6	0.0	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)