

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: P884448

Luminaire Tested: **NAV-SB5B-735-U-T3-HSS**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P884448  
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-SB5B-735-U-T3-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(5) 70 CRI, 3500K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III  
OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

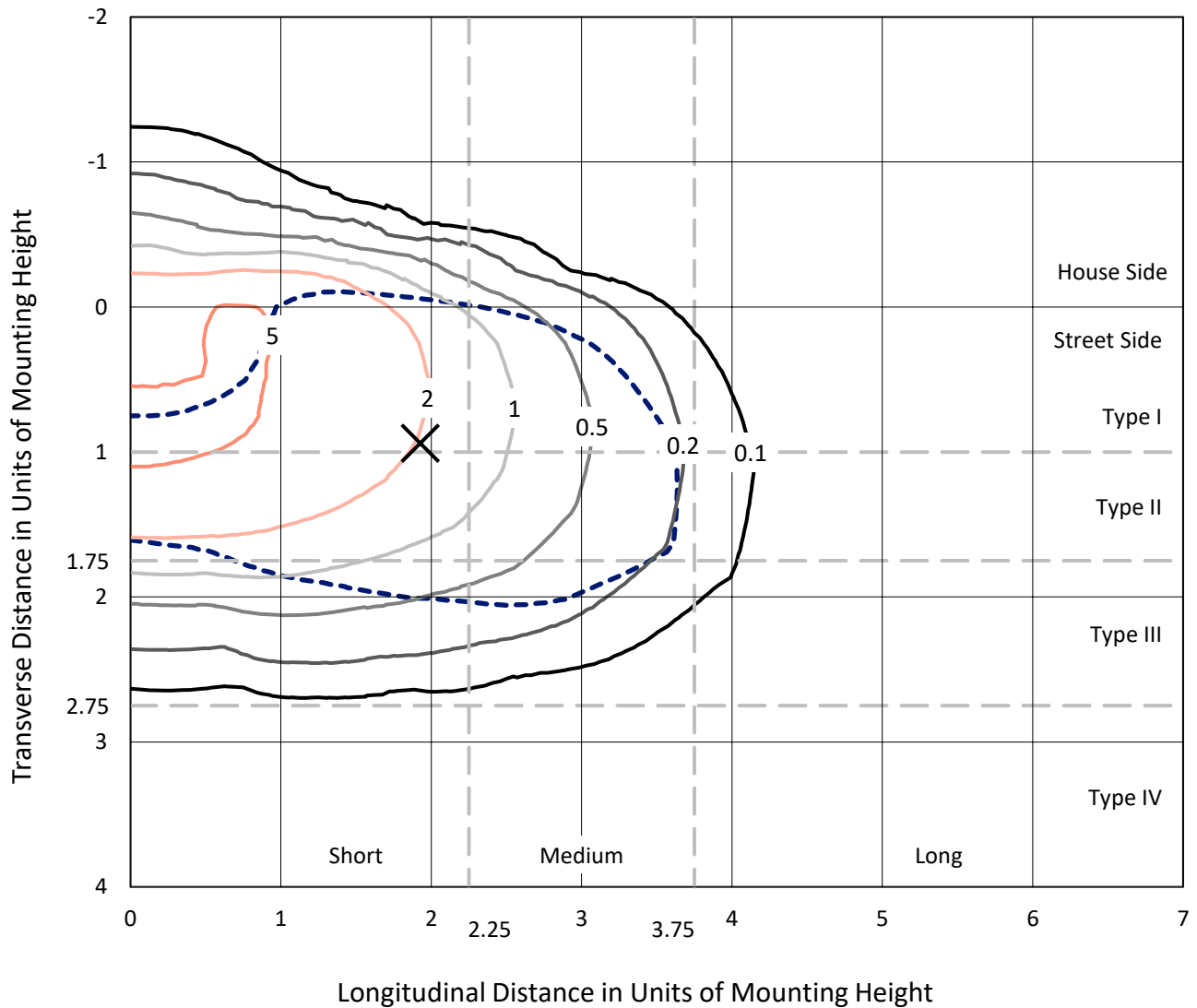
Lumens per Lamp: N/A  
Luminaire Lumens: 22410 lumens  
Efficiency: N/A  
Efficacy: 122.7 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B2 - U0 - G3  
  
Input Watts (W): 182.7  
Input Voltage (V): 120.0  
Input Current (Ain): 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

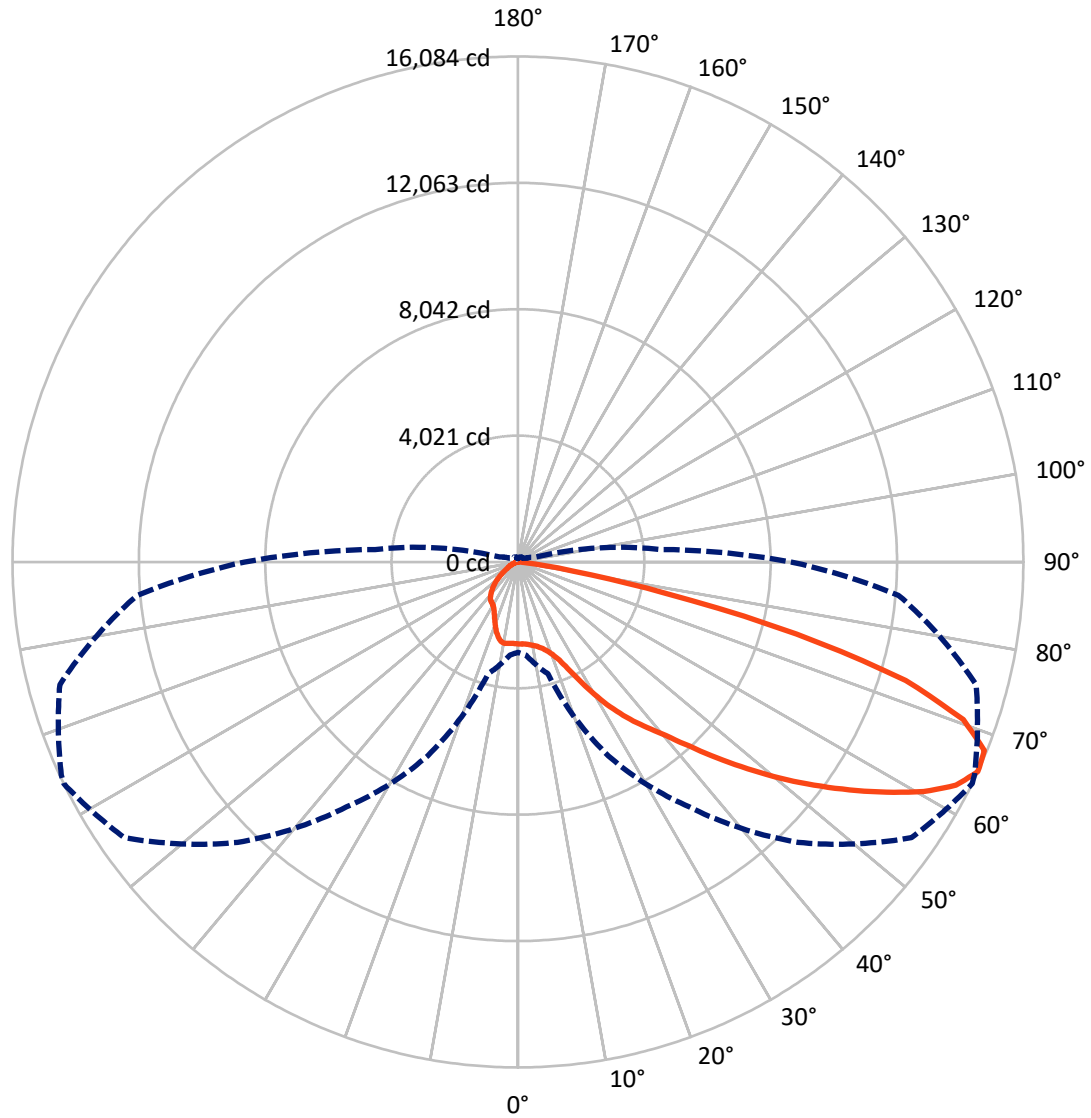
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.6 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	2996.9	0.0	2996.9
	% Fixture	13.4	0.0	13.4
<b>Street Side</b>	Lumens	19413.1	0.0	19413.1
	% Fixture	86.6	0.0	86.6
<b>Total</b>	Lumens	22410.0	0.0	22410.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	240.5	1.1
10°-20°	652.2	2.9
20°-30°	1235.9	5.5
30°-40°	2501.0	11.2
40°-50°	4260.4	19.0
50°-60°	5793.8	25.9
60°-70°	5440.7	24.3
70°-80°	2179.8	9.7
80°-90°	105.6	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°	22410.0	100.0
0°-180°	22410.0	100.0

**Coefficient of Utilization**



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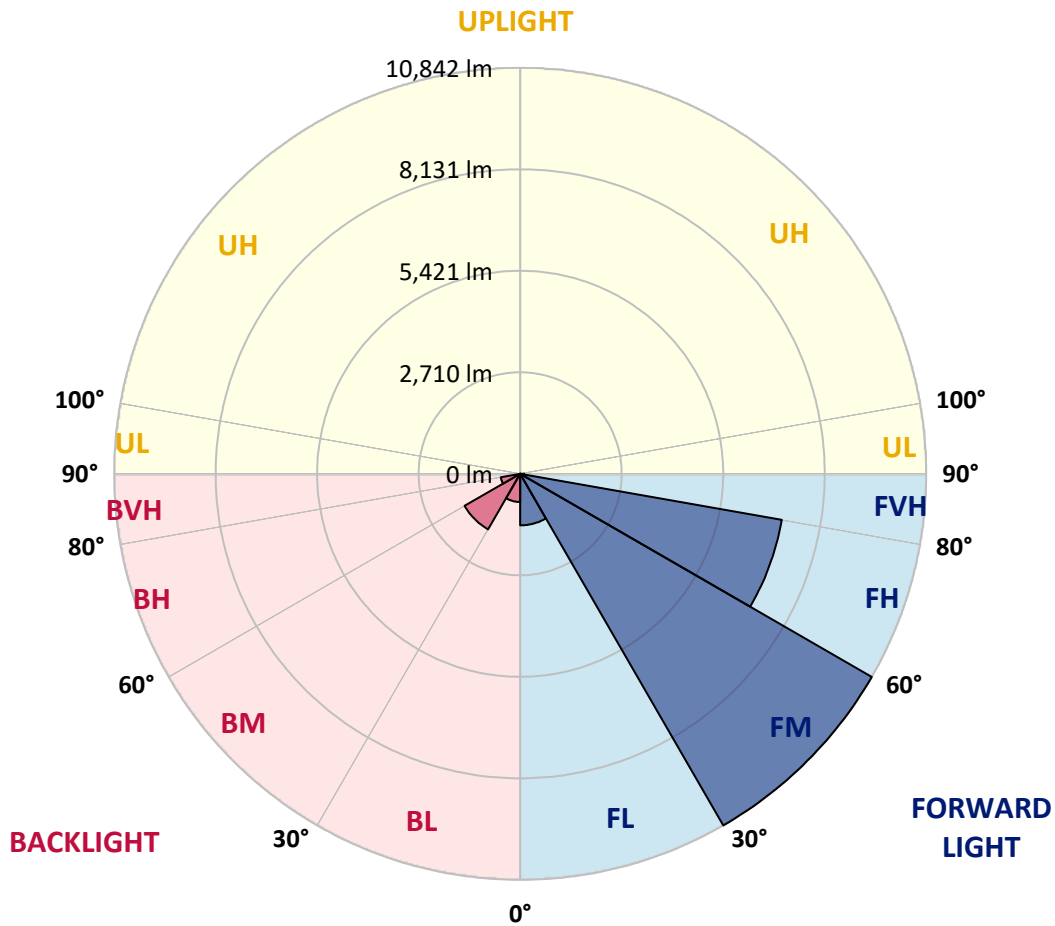
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1376.2	6.1			
FM (30°-60°)	10841.9	48.4			
FH (60°-80°)	7094.5	31.7			G3/7500
FVH (80°-90°)	100.4	0.4			G2/225
BL (0°-30°)	752.4	3.4	B2/1000		
BM (30°-60°)	1713.3	7.6	B2/2500		
BH (60°-80°)	526.0	2.3	B2/1000		G2/1000
BVH (80°-90°)	5.2	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°	2606.5	2606.5	2606.5	2606.5	2606.5	2606.5	2606.5	2606.5	2606.5	2606.5	2606.5
2.5°	2597.5	2615.5	2611.0	2606.5	2605.0	2608.0	2609.5	2608.0	2608.0	2608.0	2609.5
5°	2547.9	2562.9	2562.9	2573.5	2588.5	2606.5	2620.0	2623.0	2626.0	2630.6	2629.1
7.5°	2453.3	2465.3	2474.3	2508.9	2546.4	2594.5	2635.1	2656.1	2659.1	2675.6	2681.6
10°	2388.7	2403.7	2418.7	2454.8	2508.9	2581.0	2650.1	2701.2	2708.7	2747.7	2765.8
12.5°	2385.7	2400.7	2420.2	2459.3	2522.4	2599.0	2683.1	2756.7	2770.3	2827.4	2864.9
15°	2417.2	2435.3	2453.3	2501.4	2569.0	2662.1	2752.2	2843.9	2857.4	2938.5	2979.1
17.5°	2481.8	2505.9	2519.4	2567.5	2639.6	2743.2	2861.9	2967.1	2979.1	3073.7	3124.8
20°	2609.5	2638.1	2642.6	2681.6	2752.2	2863.4	3004.6	3135.3	3150.4	3258.5	3315.6
22.5°	2873.9	2914.5	2878.4	2898.0	2961.1	3072.2	3225.5	3390.7	3411.8	3534.9	3586.0
25°	3339.6	3396.7	3303.6	3270.5	3297.6	3413.3	3605.6	3814.4	3838.4	3937.6	3963.1
27.5°	4254.6	4180.9	4039.7	3901.5	3820.4	3886.5	4102.8	4361.2	4391.3	4487.4	4457.4
30°	5259.6	5195.0	5004.2	4697.7	4505.4	4494.9	4694.7	4983.2	5017.7	5109.4	5017.7
32.5°	6266.2	6204.6	5997.2	5620.2	5286.6	5121.4	5259.6	5579.6	5597.6	5656.2	5521.0
35°	7256.2	7193.1	6985.8	6599.7	6189.5	5814.0	5786.9	6147.5	6153.5	6215.1	6013.8
37.5°	8252.2	8199.6	7978.8	7600.2	7196.1	6677.8	6426.9	6685.3	6692.8	6752.9	6544.1
40°	8962.8	8985.3	8833.6	8540.7	8193.6	7627.3	7145.0	7257.7	7212.6	7313.3	7188.6
42.5°	9572.7	9617.8	9485.6	9338.4	9137.1	8638.3	8034.4	8014.8	7942.7	7996.8	7867.6
45°	10100.1	10137.6	10018.9	9984.4	9979.9	9629.8	9006.4	8889.2	8788.5	8778.0	8623.3
47.5°	10293.9	10366.0	10417.0	10532.7	10758.1	10610.8	10011.4	9829.6	9717.0	9634.3	9389.5
50°	10367.5	10444.1	10618.4	10954.9	11488.2	11551.3	11012.0	10807.7	10669.4	10519.2	10158.7
52.5°	10268.3	10405.0	10639.4	11205.8	11979.5	12305.5	11971.9	11793.2	11635.4	11390.5	10855.7
55°	9683.9	9820.6	10299.9	11202.8	12224.3	12834.3	12879.3	12799.7	12622.4	12236.4	11419.1
57.5°	8452.0	8654.8	9413.5	10821.2	12219.8	13289.5	13768.7	13825.8	13627.5	13074.6	11862.3
60°	6745.4	7020.3	7945.7	9975.4	11842.7	13535.9	14548.4	14833.9	14623.5	13900.9	12221.3
62.5°	4706.8	5025.2	5901.1	8650.3	10980.4	13358.6	15117.8	15645.1	15485.9	14640.1	12359.5
65°	2870.9	2973.1	3679.2	6807.0	9514.2	12616.4	15293.6	16083.8	16031.2	15092.3	12155.2
67.5°	1912.4	1998.1	2200.9	4667.7	7385.4	11133.7	14872.9	16007.2	16022.2	15018.6	11407.1
70°	1152.3	1225.9	1358.1	2714.7	4786.4	8812.6	13570.4	15030.7	15117.8	14034.6	9988.9
72.5°	474.7	524.3	644.5	1230.4	2478.8	5593.1	10806.1	12904.9	13107.7	11800.7	7666.3
75°	268.9	294.5	378.6	617.5	1075.7	2606.5	6545.6	9161.1	9460.1	8133.5	4612.1
77.5°	178.8	190.8	244.9	399.6	605.4	889.4	2797.3	4772.9	5343.7	4442.3	1996.6
80°	120.2	130.7	168.3	267.4	393.6	381.6	890.9	1768.2	2175.4	1526.4	486.7
82.5°	81.1	82.6	120.2	175.8	249.4	184.8	262.9	549.8	691.1	441.7	184.8
85°	46.6	45.1	88.6	102.2	111.2	76.6	79.6	165.3	216.3	186.3	105.2
87.5°	6.0	9.0	34.6	27.0	15.0	16.5	16.5	28.5	42.1	45.1	22.5
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°	2606.5	2606.5	2606.5	2606.5	2606.5	2606.5	2606.5	2606.5	2606.5	2606.5	2606.5
2.5°	2609.5	2608.0	2603.5	2599.0	2588.5	2582.5	2585.5	2582.5	2581.0	2582.5	2588.5
5°	2629.1	2624.5	2612.5	2597.5	2576.5	2550.9	2534.4	2510.4	2487.8	2474.3	2477.3
7.5°	2681.6	2677.1	2660.6	2618.5	2550.9	2444.3	2346.6	2261.0	2196.4	2158.8	2160.3
10°	2765.8	2758.2	2732.7	2639.6	2462.3	2229.4	2035.6	1874.9	1769.7	1720.2	1715.6
12.5°	2864.9	2855.9	2810.8	2620.0	2294.0	1930.5	1663.1	1484.3	1386.6	1343.1	1338.6
15°	2982.1	2970.1	2881.4	2526.9	2049.2	1600.0	1355.1	1221.4	1158.3	1119.2	1120.7
17.5°	3127.8	3106.8	2934.0	2387.2	1783.2	1347.6	1165.8	1065.1	1009.6	972.0	969.0
20°	3317.1	3282.6	2976.1	2220.4	1538.4	1188.3	1038.1	954.0	911.9	878.9	872.8
22.5°	3581.5	3531.9	3027.2	2040.1	1365.6	1078.7	943.5	881.9	847.3	809.7	803.7
25°	3909.0	3850.4	3090.3	1873.4	1246.9	984.0	874.3	823.3	782.7	739.1	734.6
27.5°	4367.2	4262.1	3165.4	1736.7	1144.8	902.9	811.2	754.2	707.6	671.5	664.0
30°	4878.0	4705.2	3231.5	1654.0	1051.6	827.8	728.6	671.5	628.0	602.4	597.9
32.5°	5361.8	5127.4	3275.0	1618.0	967.5	742.1	638.5	576.9	543.8	536.3	540.8
35°	5818.5	5509.0	3270.5	1583.4	892.4	656.5	549.8	486.7	461.2	465.7	465.7
37.5°	6344.3	5916.1	3239.0	1529.4	830.8	578.4	473.2	417.6	395.1	396.6	402.6
40°	6955.7	6386.3	3219.5	1427.2	763.2	506.3	410.1	365.1	348.5	342.5	341.0
42.5°	7607.7	6841.5	3222.5	1311.5	679.0	441.7	366.6	329.0	314.0	309.5	308.0
45°	8262.7	7275.7	3227.0	1191.3	590.4	392.1	335.0	303.5	294.5	288.4	288.4
47.5°	8878.7	7645.3	3142.8	1062.1	503.3	354.5	309.5	288.4	280.9	273.4	273.4
50°	9452.6	7891.7	2940.0	911.9	434.2	324.5	289.9	274.9	267.4	259.9	259.9
52.5°	9898.8	7930.7	2605.0	757.2	386.1	302.0	277.9	264.4	255.4	247.9	246.4
55°	10097.1	7685.8	2128.8	612.9	348.5	282.4	265.9	252.4	241.9	234.4	232.9
57.5°	10046.0	7170.5	1660.1	492.8	312.5	262.9	250.9	241.9	229.9	217.8	216.3
60°	9795.1	6481.0	1251.4	410.1	279.4	241.9	234.4	226.8	210.3	192.3	189.3
62.5°	9360.9	5614.1	892.4	339.5	243.4	217.8	214.8	208.8	184.8	151.7	148.7
65°	8696.9	4561.0	600.9	282.4	208.8	190.8	192.3	181.8	150.2	112.7	109.7
67.5°	7726.4	3335.1	384.6	231.4	174.3	159.2	160.7	154.7	127.7	96.1	91.6
70°	6490.0	2208.4	250.9	175.8	139.7	123.2	132.2	133.7	108.2	78.1	75.1
72.5°	4757.8	1304.0	175.8	130.7	102.2	85.6	108.2	111.2	87.1	58.6	55.6
75°	2711.7	619.0	132.2	94.6	63.1	60.1	84.1	84.1	60.1	39.1	36.1
77.5°	1138.8	258.4	93.1	61.6	36.1	34.6	57.1	52.6	30.0	18.0	18.0
80°	329.0	115.7	49.6	30.0	15.0	13.5	22.5	16.5	7.5	3.0	3.0
82.5°	129.2	51.1	19.5	12.0	6.0	6.0	3.0	0.0	0.0	0.0	0.0
85°	76.6	21.0	9.0	4.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	19.5	4.5	3.0	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)