

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: P884658

Luminaire Tested: **NAV-SB5C-827-U-T3-HSS**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P884658  
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-SB5C-827-U-T3-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(5) 80 CRI, 2700K, 615mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III  
OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

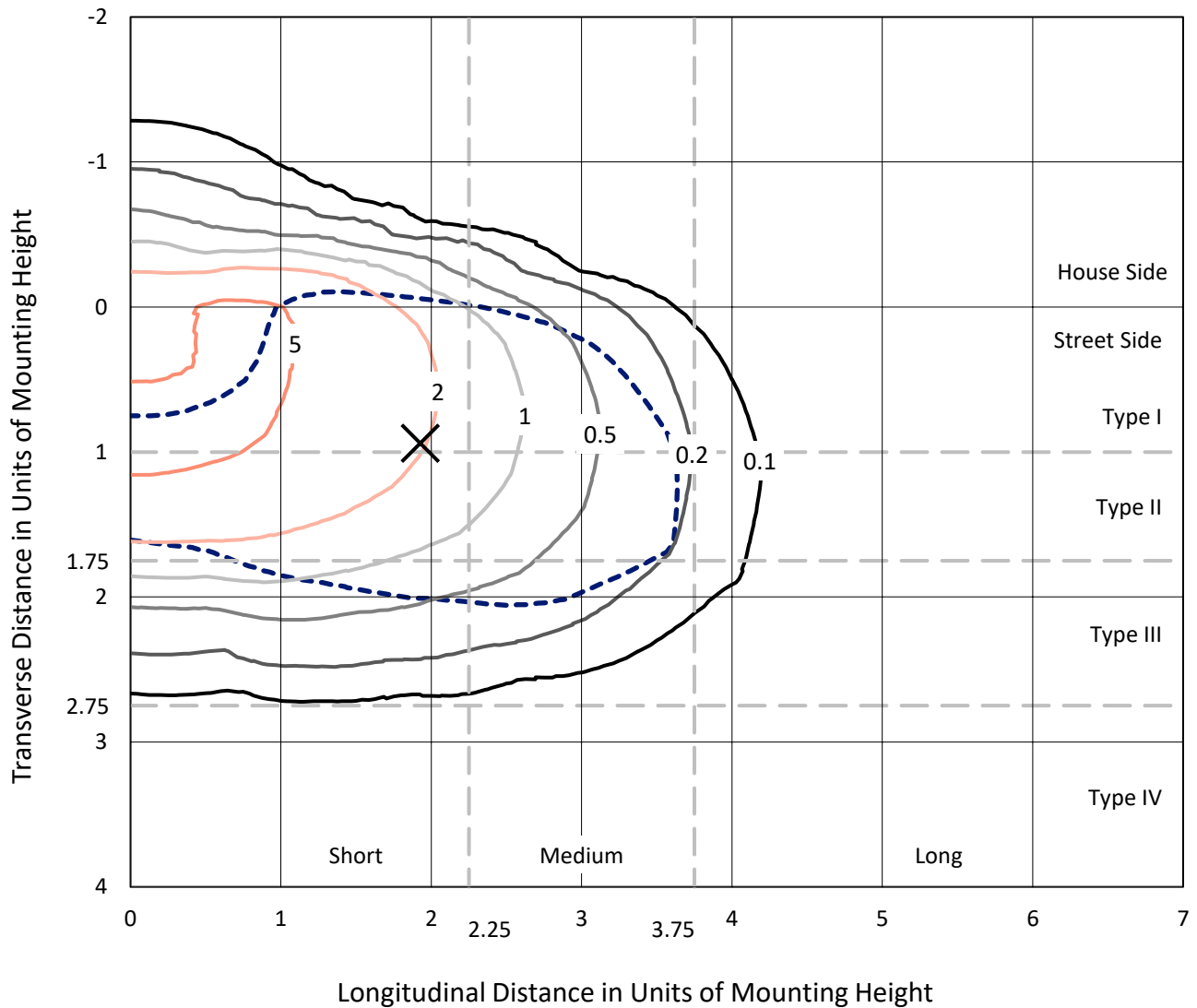
Lumens per Lamp: N/A  
Luminaire Lumens: 24216 lumens  
Efficiency: N/A  
Efficacy: 97.1 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B2 - U0 - G4  
  
Input Watts (W): 249.5  
Input Voltage (V): 120.0  
Input Current (Ain): 2.116  
Voltage Rise (V): NR  
Power Factor: 0.996  
Total Harmonic Distortion (THDi): 7.885  
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

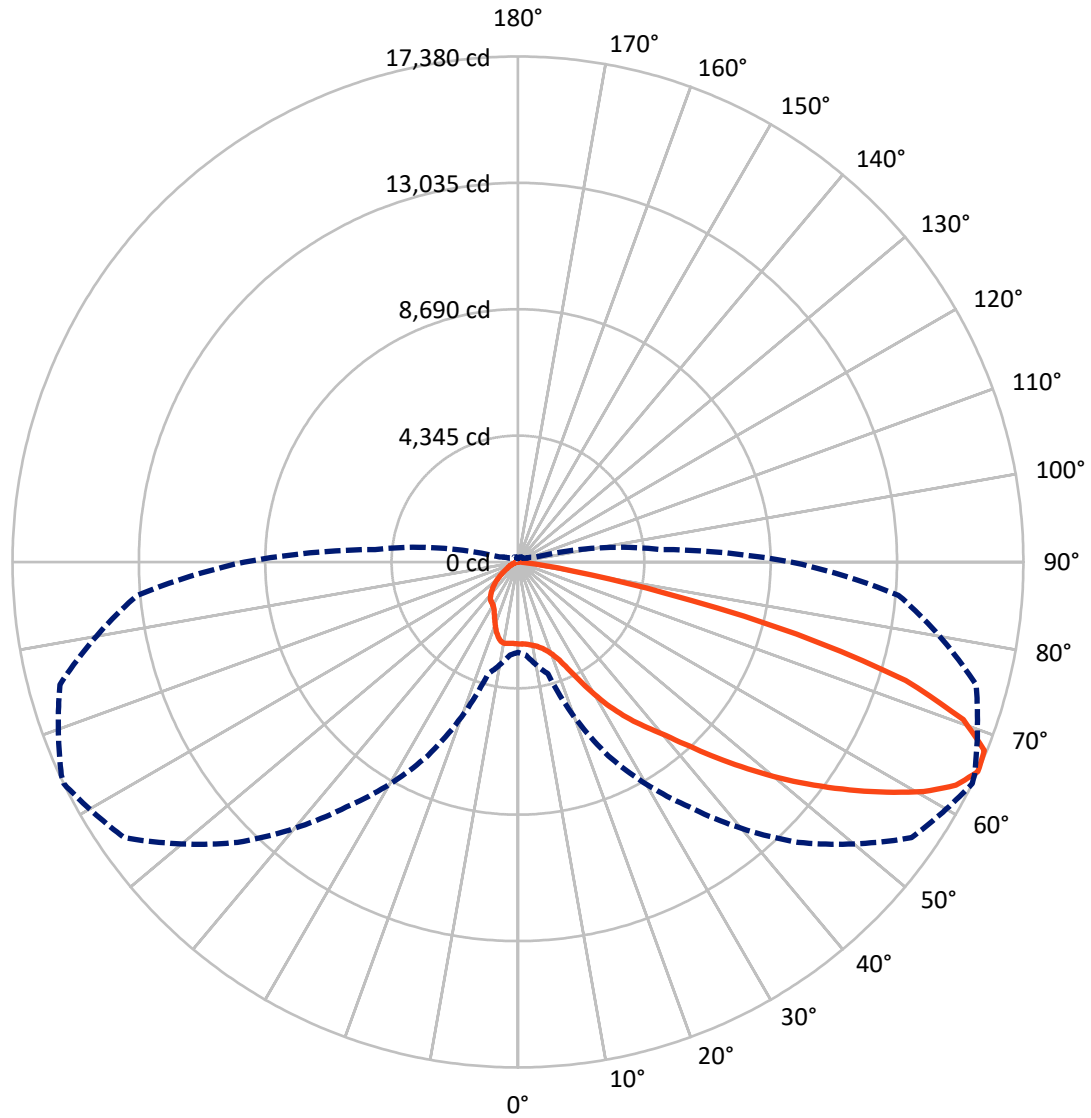
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.1 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	3238.4	0.0	3238.4
	% Fixture	13.4	0.0	13.4
<b>Street Side</b>	Lumens	20977.6	0.0	20977.6
	% Fixture	86.6	0.0	86.6
<b>Total</b>	Lumens	24216.0	0.0	24216.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	259.9	1.1
10°-20°	704.8	2.9
20°-30°	1335.5	5.5
30°-40°	2702.5	11.2
40°-50°	4603.8	19.0
50°-60°	6260.8	25.9
60°-70°	5879.2	24.3
70°-80°	2355.5	9.7
80°-90°	114.1	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°	24216.0	100.0
0°-180°	24216.0	100.0

**Coefficient of Utilization**



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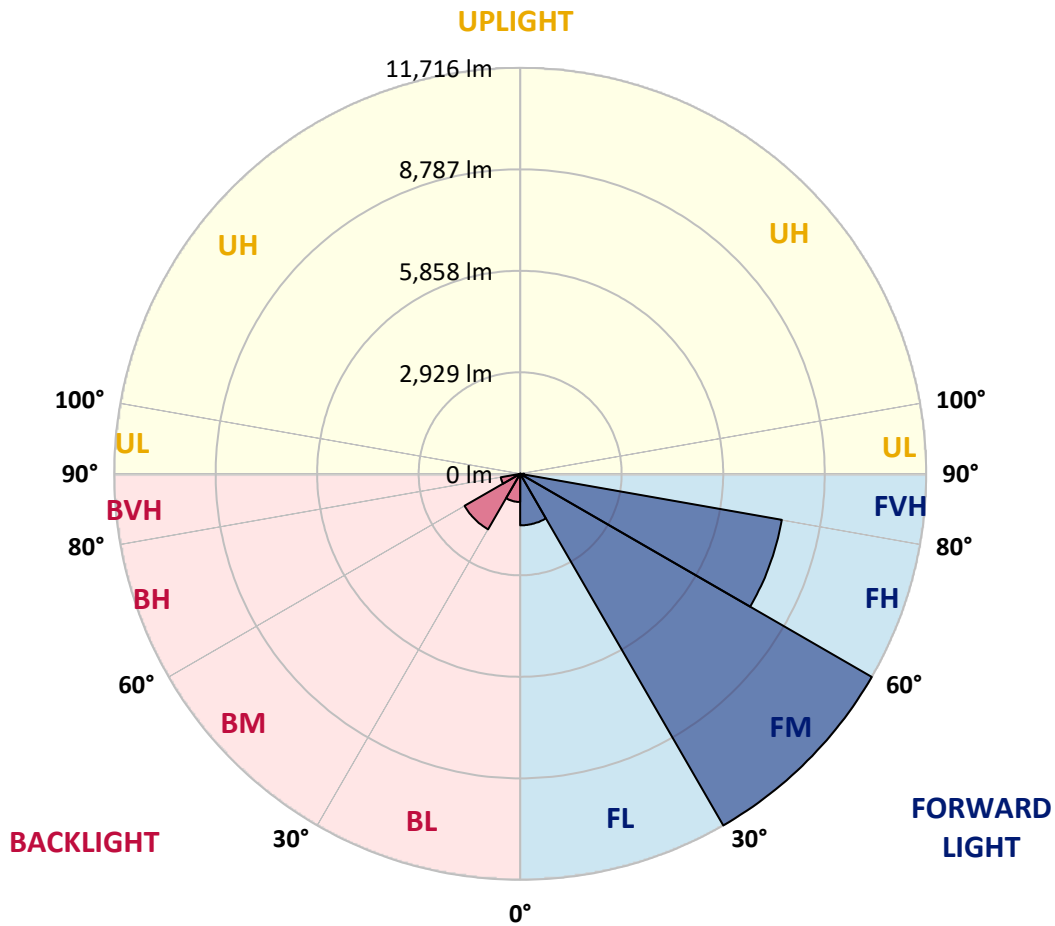
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1487.1	6.1			
FM (30°-60°)	11715.7	48.4			
FH (60°-80°)	7666.2	31.7			G4/12000
FVH (80°-90°)	108.5	0.4			G2/225
BL (0°-30°)	813.1	3.4	B2/1000		
BM (30°-60°)	1851.4	7.6	B2/2500		
BH (60°-80°)	568.4	2.3	B2/1000		G2/1000
BVH (80°-90°)	5.6	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 III Short



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	2816.6	2816.6	2816.6	2816.6	2816.6	2816.6	2816.6	2816.6	2816.6	2816.6	2816.6
2.5°	2806.8	2826.3	2821.4	2816.6	2814.9	2818.2	2819.8	2818.2	2818.2	2818.2	2819.8
5°	2753.3	2769.5	2769.5	2780.9	2797.1	2816.6	2831.2	2834.4	2837.7	2842.5	2840.9
7.5°	2651.0	2664.0	2673.7	2711.1	2751.6	2803.6	2847.4	2870.1	2873.4	2891.2	2897.7
10°	2581.2	2597.4	2613.6	2652.6	2711.1	2789.0	2863.7	2918.8	2927.0	2969.2	2988.7
12.5°	2577.9	2594.2	2615.3	2657.5	2725.7	2808.5	2899.4	2978.9	2993.5	3055.2	3095.8
15°	2612.0	2631.5	2651.0	2702.9	2776.0	2876.6	2974.0	3073.1	3087.7	3175.3	3219.2
17.5°	2681.8	2707.8	2722.4	2774.4	2852.3	2964.3	3092.5	3206.2	3219.2	3321.4	3376.6
20°	2819.8	2850.7	2855.5	2897.7	2974.0	3094.2	3246.8	3388.0	3404.2	3521.1	3582.8
22.5°	3105.5	3149.4	3110.4	3131.5	3199.7	3319.8	3485.4	3664.0	3686.7	3819.8	3875.0
25°	3608.8	3670.5	3569.8	3534.1	3563.3	3688.3	3896.1	4121.8	4147.7	4254.9	4282.5
27.5°	4597.4	4517.9	4365.3	4215.9	4128.3	4199.7	4433.5	4712.7	4745.2	4849.0	4816.6
30°	5683.5	5613.7	5407.5	5076.3	4868.5	4857.2	5073.1	5384.8	5422.1	5521.1	5422.1
32.5°	6771.1	6704.6	6480.6	6073.1	5712.7	5534.1	5683.5	6029.3	6048.7	6112.0	5965.9
35°	7840.9	7772.8	7548.7	7131.5	6688.3	6282.5	6253.3	6642.9	6649.4	6715.9	6498.4
37.5°	8917.3	8860.4	8621.8	8212.7	7776.0	7215.9	6944.8	7224.1	7232.2	7297.1	7071.5
40°	9685.1	9709.5	9545.5	9228.9	8853.9	8241.9	7720.8	7842.6	7793.9	7902.6	7767.9
42.5°	10344.2	10392.9	10250.1	10091.0	9873.4	9334.5	8681.9	8660.8	8582.8	8641.3	8501.7
45°	10914.0	10954.6	10826.4	10789.0	10784.1	10405.9	9732.2	9605.6	9496.8	9485.4	9318.2
47.5°	11123.4	11201.4	11256.5	11381.5	11625.1	11466.0	10818.2	10621.8	10500.1	10410.8	10146.2
50°	11203.0	11285.8	11474.1	11837.7	12414.0	12482.2	11899.4	11678.6	11529.3	11366.9	10977.3
52.5°	11095.8	11243.6	11496.8	12108.8	12944.9	13297.1	12936.8	12743.6	12573.1	12308.5	11730.6
55°	10464.3	10612.1	11129.9	12105.6	13209.5	13868.6	13917.3	13831.2	13639.7	13222.5	12339.3
57.5°	9133.2	9352.3	10172.1	11693.2	13204.6	14360.5	14878.3	14940.0	14725.7	14128.3	12818.2
60°	7289.0	7586.1	8586.1	10779.3	12797.1	14626.7	15720.9	16029.3	15802.0	15021.2	13206.2
62.5°	5086.1	5430.2	6376.7	9347.4	11865.3	14435.1	16336.1	16905.9	16733.8	15819.9	13355.6
65°	3102.3	3212.7	3975.7	7355.6	10280.9	13633.2	16526.1	17380.0	17323.1	16308.5	13134.8
67.5°	2066.6	2159.1	2378.3	5043.9	7980.6	12030.9	16071.5	17297.2	17313.4	16229.0	12326.4
70°	1245.1	1324.7	1467.5	2933.5	5172.1	9522.8	14664.0	16242.0	16336.1	15165.7	10793.9
72.5°	513.0	566.6	696.4	1329.6	2678.6	6043.9	11677.0	13944.9	14164.0	12751.7	8284.1
75°	290.6	318.2	409.1	667.2	1162.3	2816.6	7073.1	9899.4	10222.5	8789.0	4983.8
77.5°	193.2	206.2	264.6	431.8	654.2	961.0	3022.7	5157.5	5774.4	4800.3	2157.5
80°	129.9	141.2	181.8	289.0	425.3	412.3	962.7	1910.7	2350.7	1649.4	526.0
82.5°	87.7	89.3	129.9	189.9	269.5	199.7	284.1	594.2	746.8	477.3	199.7
85°	50.3	48.7	95.8	110.4	120.1	82.8	86.0	178.6	233.8	201.3	113.6
87.5°	6.5	9.7	37.3	29.2	16.2	17.9	17.9	30.8	45.5	48.7	24.4
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°	2816.6	2816.6	2816.6	2816.6	2816.6	2816.6	2816.6	2816.6	2816.6	2816.6	2816.6
2.5°	2819.8	2818.2	2813.3	2808.5	2797.1	2790.6	2793.8	2790.6	2789.0	2790.6	2797.1
5°	2840.9	2836.1	2823.1	2806.8	2784.1	2756.5	2738.6	2712.7	2688.3	2673.7	2677.0
7.5°	2897.7	2892.9	2875.0	2829.6	2756.5	2641.2	2535.7	2443.2	2373.4	2332.8	2334.4
10°	2988.7	2980.5	2952.9	2852.3	2660.7	2409.1	2199.7	2026.0	1912.3	1858.8	1853.9
12.5°	3095.8	3086.1	3037.4	2831.2	2478.9	2086.0	1797.1	1603.9	1498.4	1451.3	1446.4
15°	3222.4	3209.4	3113.7	2730.5	2214.3	1728.9	1464.3	1319.8	1251.6	1209.4	1211.0
17.5°	3379.9	3357.2	3170.5	2579.6	1927.0	1456.2	1259.7	1151.0	1090.9	1050.3	1047.1
20°	3584.4	3547.1	3215.9	2399.4	1662.3	1284.1	1121.8	1030.8	985.4	949.7	943.2
22.5°	3870.1	3816.6	3271.1	2204.6	1475.7	1165.6	1019.5	952.9	915.6	875.0	868.5
25°	4224.0	4160.7	3339.3	2024.4	1347.4	1063.3	944.8	889.6	845.8	798.7	793.8
27.5°	4719.2	4605.5	3420.5	1876.6	1237.0	975.7	876.6	814.9	764.6	725.7	717.5
30°	5271.1	5084.4	3491.9	1787.3	1136.4	894.5	787.3	725.7	678.6	651.0	646.1
32.5°	5793.9	5540.6	3539.0	1748.4	1045.5	802.0	689.9	623.4	587.7	579.5	584.4
35°	6287.4	5953.0	3534.1	1711.0	964.3	709.4	594.2	526.0	498.4	503.2	503.2
37.5°	6855.6	6392.9	3500.0	1652.6	897.7	625.0	511.4	451.3	427.0	428.6	435.1
40°	7516.3	6901.0	3478.9	1542.2	824.7	547.1	443.2	394.5	376.6	370.1	368.5
42.5°	8220.8	7392.9	3482.2	1417.2	733.8	477.3	396.1	355.5	339.3	334.4	332.8
45°	8928.6	7862.1	3487.0	1287.3	638.0	423.7	362.0	327.9	318.2	311.7	311.7
47.5°	9594.2	8261.4	3396.1	1147.7	543.8	383.1	334.4	311.7	303.6	295.5	295.5
50°	10214.3	8527.6	3177.0	985.4	469.2	350.7	313.3	297.1	289.0	280.8	280.8
52.5°	10696.5	8569.8	2814.9	818.2	417.2	326.3	300.3	285.7	276.0	267.9	266.2
55°	10910.8	8305.2	2300.3	662.3	376.6	305.2	287.3	272.7	261.4	253.2	251.6
57.5°	10855.6	7748.4	1793.8	532.5	337.7	284.1	271.1	261.4	248.4	235.4	233.8
60°	10584.5	7003.3	1352.3	443.2	301.9	261.4	253.2	245.1	227.3	207.8	204.5
62.5°	10115.3	6066.6	964.3	366.9	263.0	235.4	232.1	225.7	199.7	164.0	160.7
65°	9397.8	4928.6	649.4	305.2	225.7	206.2	207.8	196.4	162.3	121.8	118.5
67.5°	8349.1	3603.9	415.6	250.0	188.3	172.1	173.7	167.2	138.0	103.9	99.0
70°	7013.0	2386.4	271.1	189.9	151.0	133.1	142.9	144.5	116.9	84.4	81.2
72.5°	5141.3	1409.1	189.9	141.2	110.4	92.5	116.9	120.1	94.2	63.3	60.1
75°	2930.2	668.8	142.9	102.3	68.2	64.9	90.9	90.9	64.9	42.2	39.0
77.5°	1230.5	279.2	100.6	66.6	39.0	37.3	61.7	56.8	32.5	19.5	19.5
80°	355.5	125.0	53.6	32.5	16.2	14.6	24.4	17.9	8.1	3.2	3.2
82.5°	139.6	55.2	21.1	13.0	6.5	6.5	3.2	0.0	0.0	0.0	0.0
85°	82.8	22.7	9.7	4.9	1.6	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	21.1	4.9	3.2	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)