

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: P883488

Luminaire Tested: **NAV-SB3D-835-U-T3-HSS**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P883488  
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-SB3D-835-U-T3-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(3) 80 CRI, 3500K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III  
OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

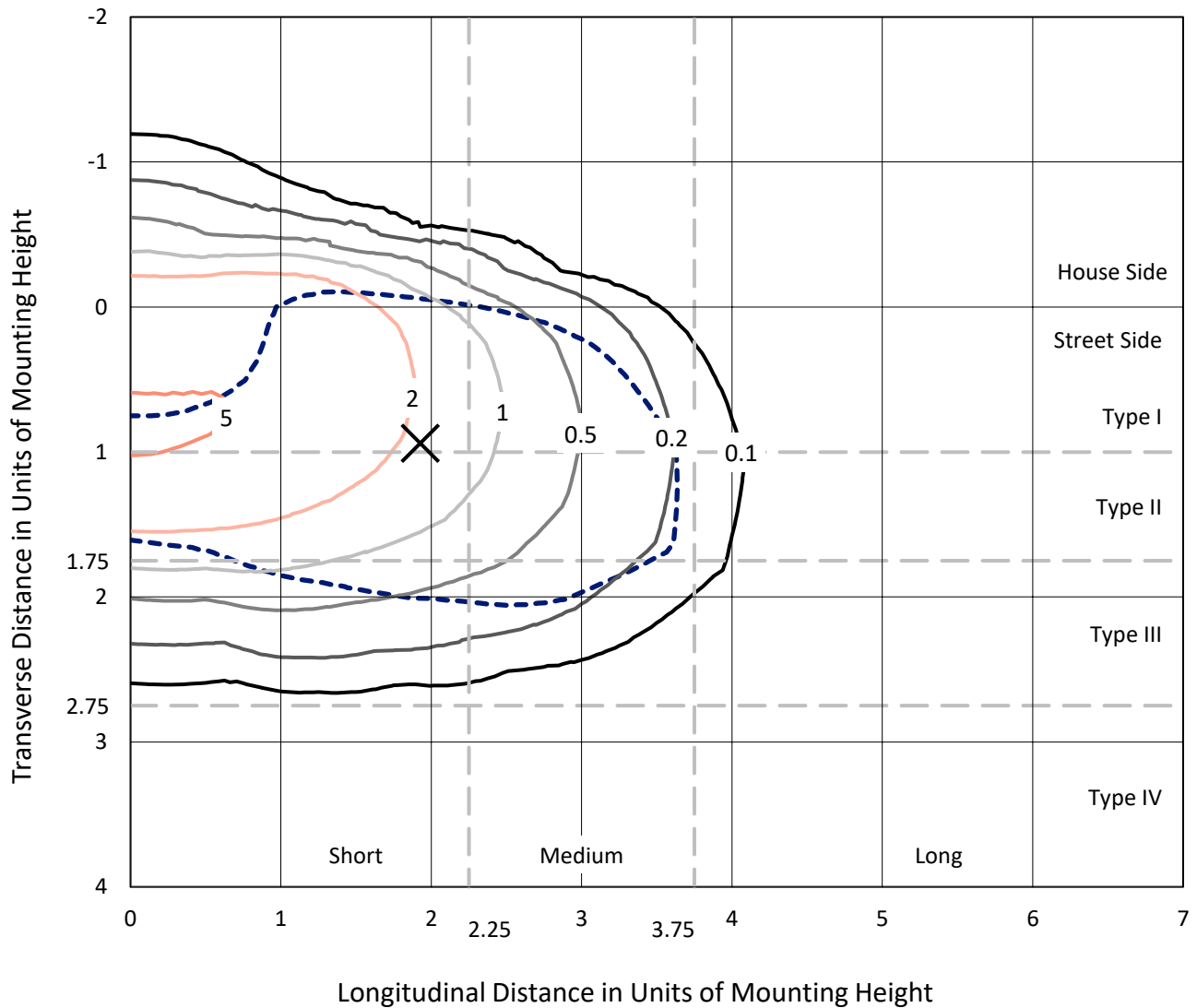
Lumens per Lamp: N/A  
Luminaire Lumens: 20198 lumens  
Efficiency: N/A  
Efficacy: 92.6 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B2 - U0 - G3  
  
Input Watts (W): 218.1  
Input Voltage (V): 120.0  
Input Current (Ain): 1.84  
Voltage Rise (V): NR  
Power Factor: 0.998  
Total Harmonic Distortion (THDi): 2.542  
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

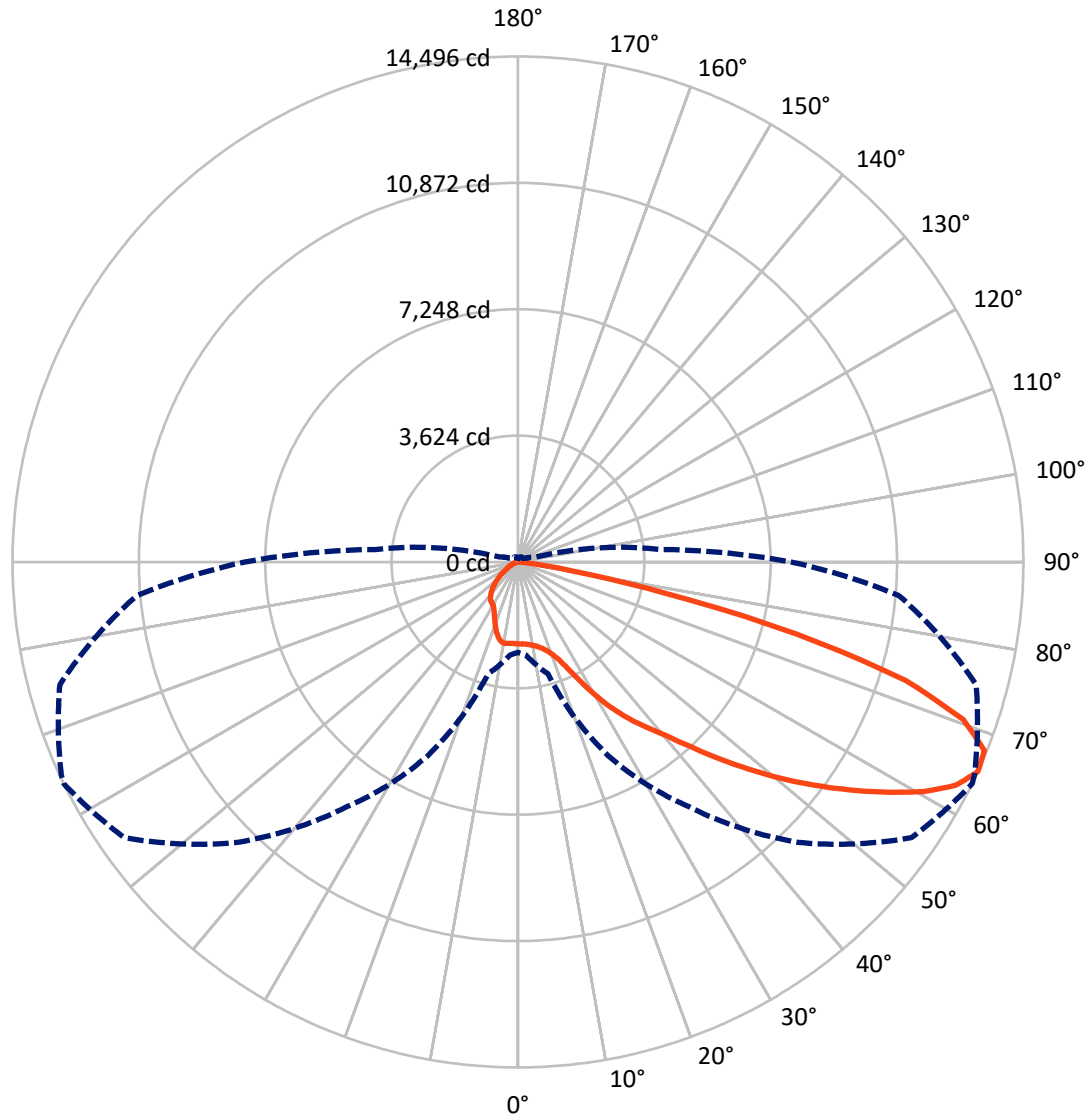
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.9 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	2701.1	0.0	2701.1
	% Fixture	13.4	0.0	13.4
<b>Street Side</b>	Lumens	17496.9	0.0	17496.9
	% Fixture	86.6	0.0	86.6
<b>Total</b>	Lumens	20198.0	0.0	20198.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	216.7	1.1
10°-20°	587.9	2.9
20°-30°	1113.9	5.5
30°-40°	2254.1	11.2
40°-50°	3839.9	19.0
50°-60°	5222.0	25.9
60°-70°	4903.7	24.3
70°-80°	1964.6	9.7
80°-90°	95.2	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°	20198.0	100.0
0°-180°	20198.0	100.0

**Coefficient of Utilization**



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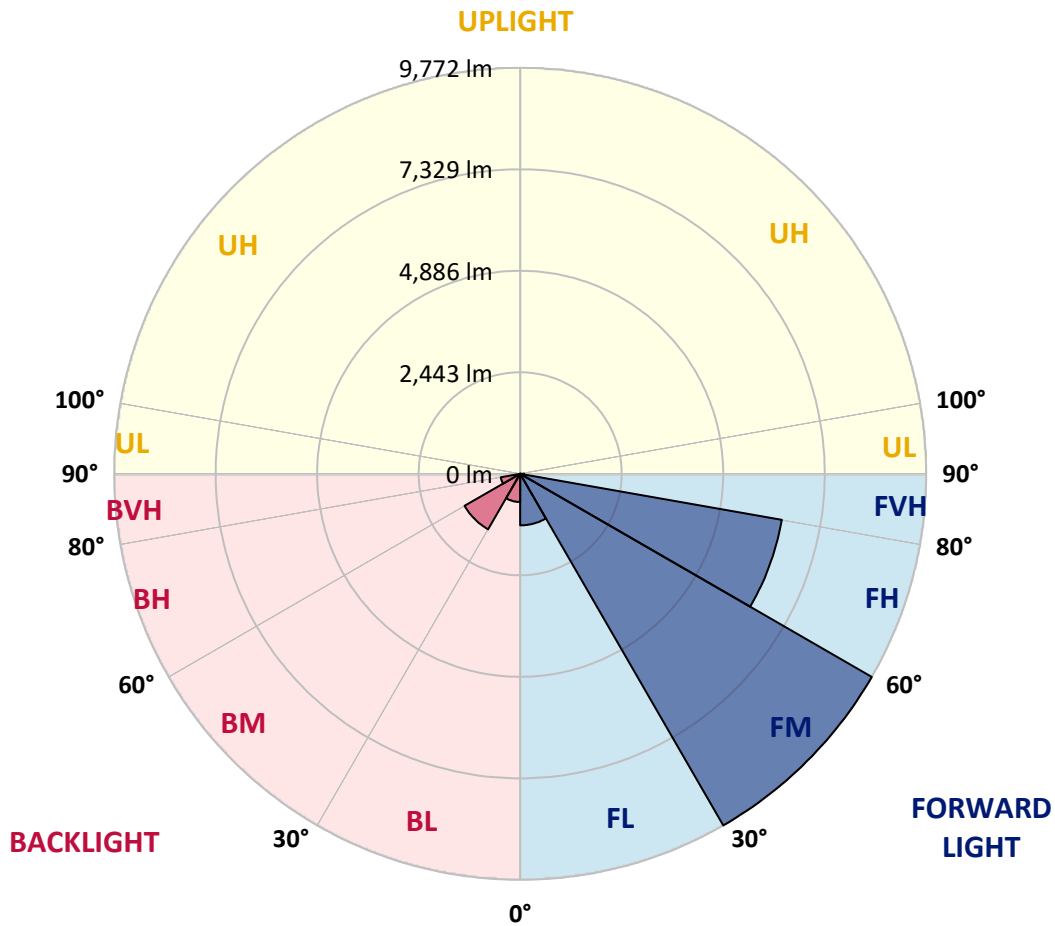
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1240.4	6.1			
FM (30°-60°)	9771.8	48.4			
FH (60°-80°)	6394.2	31.7			G3/7500
FVH (80°-90°)	90.5	0.4			G1/100
BL (0°-30°)	678.2	3.4	B2/1000		
BM (30°-60°)	1544.2	7.6	B2/2500		
BH (60°-80°)	474.1	2.3	B1/500		G1/500
BVH (80°-90°)	4.6	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-G3**

Type III Short



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	2349.2	2349.2	2349.2	2349.2	2349.2	2349.2	2349.2	2349.2	2349.2	2349.2	2349.2
2.5°	2341.1	2357.4	2353.3	2349.2	2347.9	2350.6	2351.9	2350.6	2350.6	2350.6	2351.9
5°	2296.4	2310.0	2310.0	2319.4	2333.0	2349.2	2361.4	2364.1	2366.8	2370.9	2369.5
7.5°	2211.1	2222.0	2230.1	2261.2	2295.1	2338.4	2375.0	2393.9	2396.6	2411.5	2416.9
10°	2152.9	2166.4	2180.0	2212.5	2261.2	2326.2	2388.5	2434.5	2441.3	2476.5	2492.8
12.5°	2150.2	2163.7	2181.3	2216.5	2273.4	2342.5	2418.3	2484.6	2496.8	2548.3	2582.1
15°	2178.6	2194.9	2211.1	2254.5	2315.4	2399.3	2480.6	2563.2	2575.4	2648.5	2685.0
17.5°	2236.9	2258.5	2270.7	2314.0	2379.0	2472.5	2579.4	2674.2	2685.0	2770.3	2816.4
20°	2351.9	2377.7	2381.7	2416.9	2480.6	2580.8	2708.1	2825.9	2839.4	2936.9	2988.3
22.5°	2590.3	2626.8	2594.3	2611.9	2668.8	2769.0	2907.1	3056.0	3075.0	3186.0	3232.1
25°	3010.0	3061.5	2977.5	2947.7	2972.1	3076.3	3249.7	3437.9	3459.5	3548.9	3571.9
27.5°	3834.6	3768.3	3641.0	3516.4	3443.3	3502.9	3697.8	3930.7	3957.8	4044.5	4017.4
30°	4740.4	4682.2	4510.3	4234.0	4060.7	4051.2	4231.3	4491.3	4522.5	4605.0	4522.5
32.5°	5647.6	5592.1	5405.3	5065.4	4764.8	4615.9	4740.4	5028.9	5045.1	5097.9	4976.0
35°	6540.0	6483.1	6296.2	5948.2	5578.6	5240.1	5215.7	5540.7	5546.1	5601.6	5420.2
37.5°	7437.7	7390.3	7191.2	6850.0	6485.8	6018.7	5792.5	6025.4	6032.2	6086.4	5898.1
40°	8078.1	8098.4	7961.7	7697.6	7384.9	6874.4	6439.8	6541.3	6500.7	6591.4	6479.0
42.5°	8627.9	8668.5	8549.3	8416.6	8235.2	7785.7	7241.3	7223.7	7158.7	7207.5	7091.0
45°	9103.1	9137.0	9030.0	8998.9	8994.8	8679.3	8117.4	8011.8	7921.1	7911.6	7772.1
47.5°	9277.8	9342.8	9388.8	9493.1	9696.2	9563.5	9023.2	8859.4	8757.8	8683.4	8462.7
50°	9344.1	9413.2	9570.3	9873.6	10354.2	10411.1	9925.0	9740.9	9616.3	9480.9	9155.9
52.5°	9254.8	9378.0	9589.2	10099.7	10797.0	11090.8	10790.2	10629.1	10486.9	10266.2	9784.2
55°	8728.1	8851.3	9283.2	10097.0	11017.7	11567.5	11608.1	11536.3	11376.5	11028.6	10292.0
57.5°	7617.8	7800.6	8484.3	9753.1	11013.7	11977.7	12409.7	12461.1	12282.4	11784.1	10691.4
60°	6079.6	6327.4	7161.4	8990.7	10673.8	12199.8	13112.4	13369.7	13180.1	12528.8	11015.0
62.5°	4242.2	4529.2	5318.6	7796.5	9896.6	12040.0	13625.6	14100.8	13957.3	13195.0	11139.6
65°	2587.5	2679.6	3316.0	6135.1	8575.1	11371.1	13784.0	14496.2	14448.8	13602.6	10955.4
67.5°	1723.7	1800.9	1983.6	4207.0	6656.4	10034.7	13404.9	14427.2	14440.7	13536.2	10281.1
70°	1038.5	1104.9	1224.0	2446.7	4313.9	7942.7	12230.9	13547.0	13625.6	12649.3	9002.9
72.5°	427.9	472.6	580.9	1108.9	2234.1	5041.0	9739.5	11631.1	11813.9	10635.9	6909.6
75°	242.4	265.4	341.2	556.5	969.5	2349.2	5899.5	8256.9	8526.3	7330.7	4156.9
77.5°	161.1	172.0	220.7	360.2	545.7	801.6	2521.2	4301.7	4816.3	4003.9	1799.5
80°	108.3	117.8	151.7	241.0	354.8	343.9	802.9	1593.7	1960.6	1375.7	438.7
82.5°	73.1	74.5	108.3	158.4	224.8	166.5	237.0	495.6	622.9	398.1	166.5
85°	42.0	40.6	79.9	92.1	100.2	69.1	71.8	148.9	195.0	167.9	94.8
87.5°	5.4	8.1	31.1	24.4	13.5	14.9	14.9	25.7	37.9	40.6	20.3
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°	2349.2	2349.2	2349.2	2349.2	2349.2	2349.2	2349.2	2349.2	2349.2	2349.2	2349.2
2.5°	2351.9	2350.6	2346.5	2342.5	2333.0	2327.6	2330.3	2327.6	2326.2	2327.6	2333.0
5°	2369.5	2365.5	2354.7	2341.1	2322.2	2299.1	2284.2	2262.6	2242.3	2230.1	2232.8
7.5°	2416.9	2412.9	2398.0	2360.1	2299.1	2203.0	2115.0	2037.8	1979.6	1945.7	1947.1
10°	2492.8	2486.0	2463.0	2379.0	2219.3	2009.4	1834.7	1689.8	1595.0	1550.4	1546.3
12.5°	2582.1	2574.0	2533.4	2361.4	2067.6	1739.9	1498.9	1337.8	1249.8	1210.5	1206.4
15°	2687.7	2676.9	2597.0	2277.5	1846.9	1442.0	1221.3	1100.8	1044.0	1008.8	1010.1
17.5°	2819.1	2800.1	2644.4	2151.5	1607.2	1214.6	1050.7	960.0	909.9	876.1	873.3
20°	2989.7	2958.5	2682.3	2001.3	1386.5	1071.0	935.6	859.8	821.9	792.1	786.7
22.5°	3228.0	3183.3	2728.4	1838.8	1230.8	972.2	850.3	794.8	763.7	729.8	724.4
25°	3523.2	3470.4	2785.2	1688.5	1123.8	886.9	788.0	742.0	705.4	666.2	662.1
27.5°	3936.2	3841.4	2852.9	1565.3	1031.8	813.8	731.2	679.7	637.7	605.3	598.5
30°	4396.5	4240.8	2912.5	1490.8	947.8	746.1	656.7	605.3	566.0	543.0	538.9
32.5°	4832.5	4621.3	2951.8	1458.3	872.0	668.9	575.5	519.9	490.2	483.4	487.4
35°	5244.1	4965.2	2947.7	1427.1	804.3	591.7	495.6	438.7	415.7	419.7	419.7
37.5°	5718.1	5332.2	2919.3	1378.4	748.8	521.3	426.5	376.4	356.1	357.5	362.9
40°	6269.1	5756.0	2901.7	1286.3	687.8	456.3	369.6	329.0	314.1	308.7	307.4
42.5°	6856.8	6166.2	2904.4	1182.1	612.0	398.1	330.4	296.5	283.0	278.9	277.6
45°	7447.1	6557.6	2908.5	1073.7	532.1	353.4	301.9	273.5	265.4	260.0	260.0
47.5°	8002.3	6890.6	2832.6	957.3	453.6	319.6	278.9	260.0	253.2	246.4	246.4
50°	8519.5	7112.7	2649.8	821.9	391.3	292.5	261.3	247.8	241.0	234.2	234.2
52.5°	8921.7	7147.9	2347.9	682.4	348.0	272.2	250.5	238.3	230.2	223.4	222.1
55°	9100.4	6927.2	1918.7	552.4	314.1	254.6	239.7	227.5	218.0	211.2	209.9
57.5°	9054.4	6462.8	1496.2	444.1	281.6	237.0	226.1	218.0	207.2	196.3	195.0
60°	8828.3	5841.3	1127.9	369.6	251.8	218.0	211.2	204.5	189.6	173.3	170.6
62.5°	8436.9	5060.0	804.3	306.0	219.4	196.3	193.6	188.2	166.5	136.8	134.0
65°	7838.5	4110.8	541.6	254.6	188.2	172.0	173.3	163.8	135.4	101.6	98.8
67.5°	6963.8	3005.9	346.6	208.5	157.1	143.5	144.9	139.5	115.1	86.7	82.6
70°	5849.4	1990.4	226.1	158.4	125.9	111.0	119.2	120.5	97.5	70.4	67.7
72.5°	4288.2	1175.3	158.4	117.8	92.1	77.2	97.5	100.2	78.5	52.8	50.1
75°	2444.0	557.9	119.2	85.3	56.9	54.2	75.8	75.8	54.2	35.2	32.5
77.5°	1026.4	232.9	83.9	55.5	32.5	31.1	51.5	47.4	27.1	16.2	16.2
80°	296.5	104.3	44.7	27.1	13.5	12.2	20.3	14.9	6.8	2.7	2.7
82.5°	116.4	46.0	17.6	10.8	5.4	5.4	2.7	0.0	0.0	0.0	0.0
85°	69.1	19.0	8.1	4.1	1.4	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	17.6	4.1	2.7	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)