

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: P884498

Luminaire Tested: **NAV-SB5B-830-U-T3-HSS**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P884498  
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-830-U-T3-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(5) 80 CRI, 3000K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III  
OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

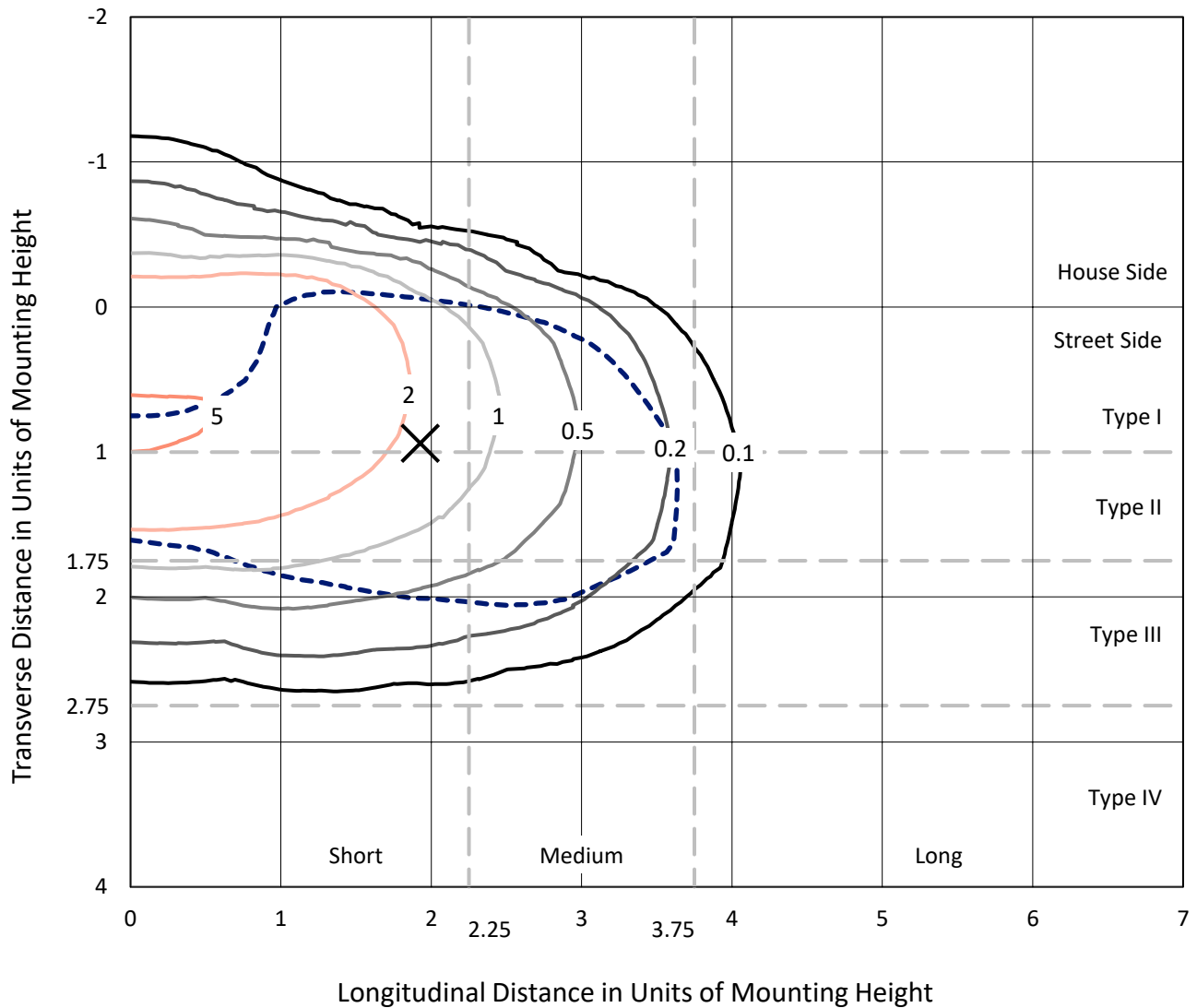
Lumens per Lamp: N/A  
Luminaire Lumens: 19609 lumens  
Efficiency: N/A  
Efficacy: 107.3 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B2 - U0 - G3  
  
Input Watts (W): 182.7  
Input Voltage (V): 120.0  
Input Current (Ain): 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

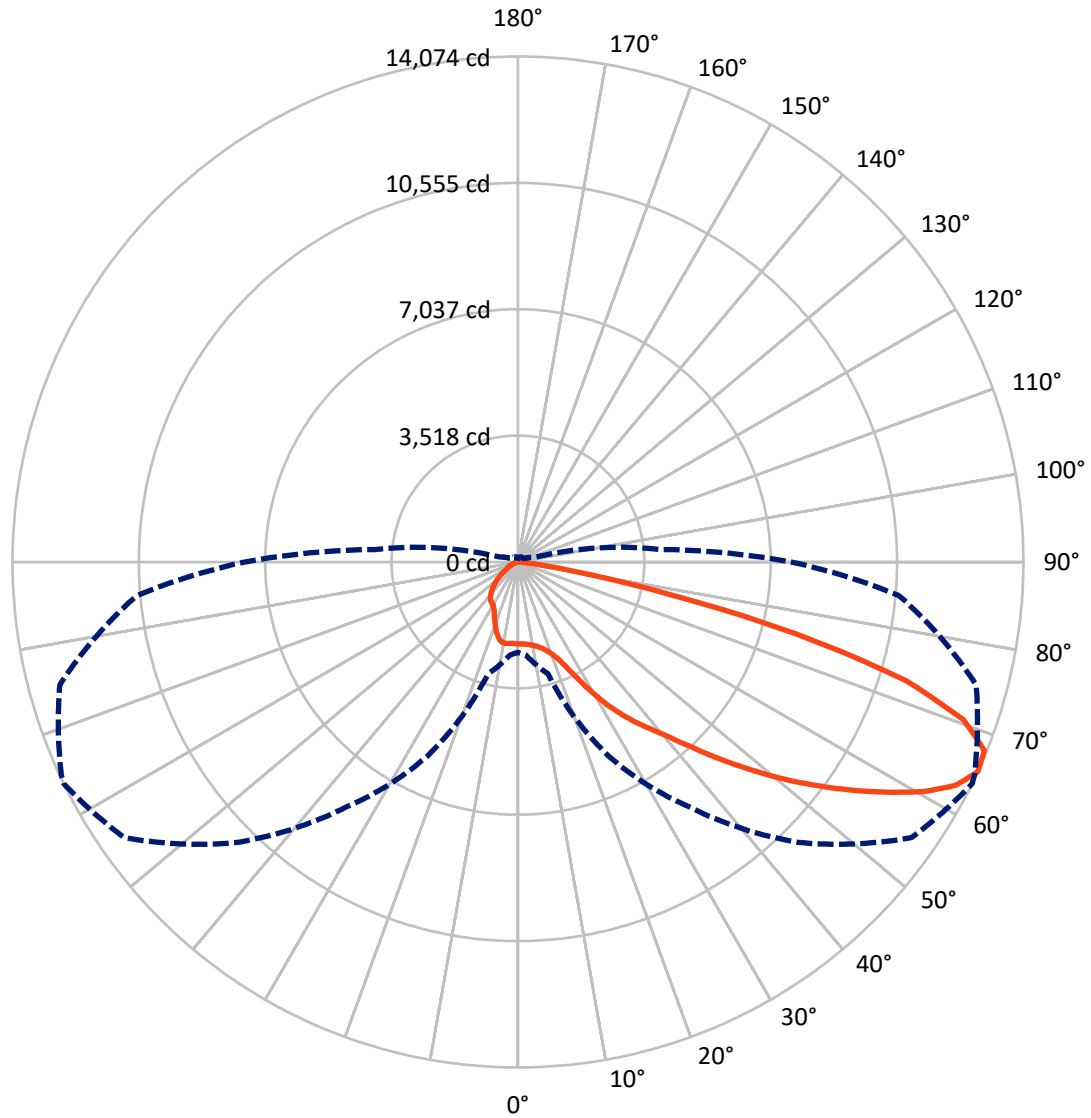
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.7 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	2622.3	0.0	2622.3
	% Fixture	13.4	0.0	13.4
<b>Street Side</b>	Lumens	16986.7	0.0	16986.7
	% Fixture	86.6	0.0	86.6
<b>Total</b>	Lumens	19609.0	0.0	19609.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	210.4	1.1
10°-20°	570.7	2.9
20°-30°	1081.5	5.5
30°-40°	2188.4	11.2
40°-50°	3727.9	19.0
50°-60°	5069.7	25.9
60°-70°	4760.7	24.3
70°-80°	1907.3	9.7
80°-90°	92.4	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°	19609.0	100.0
0°-180°	19609.0	100.0

**Coefficient of Utilization**



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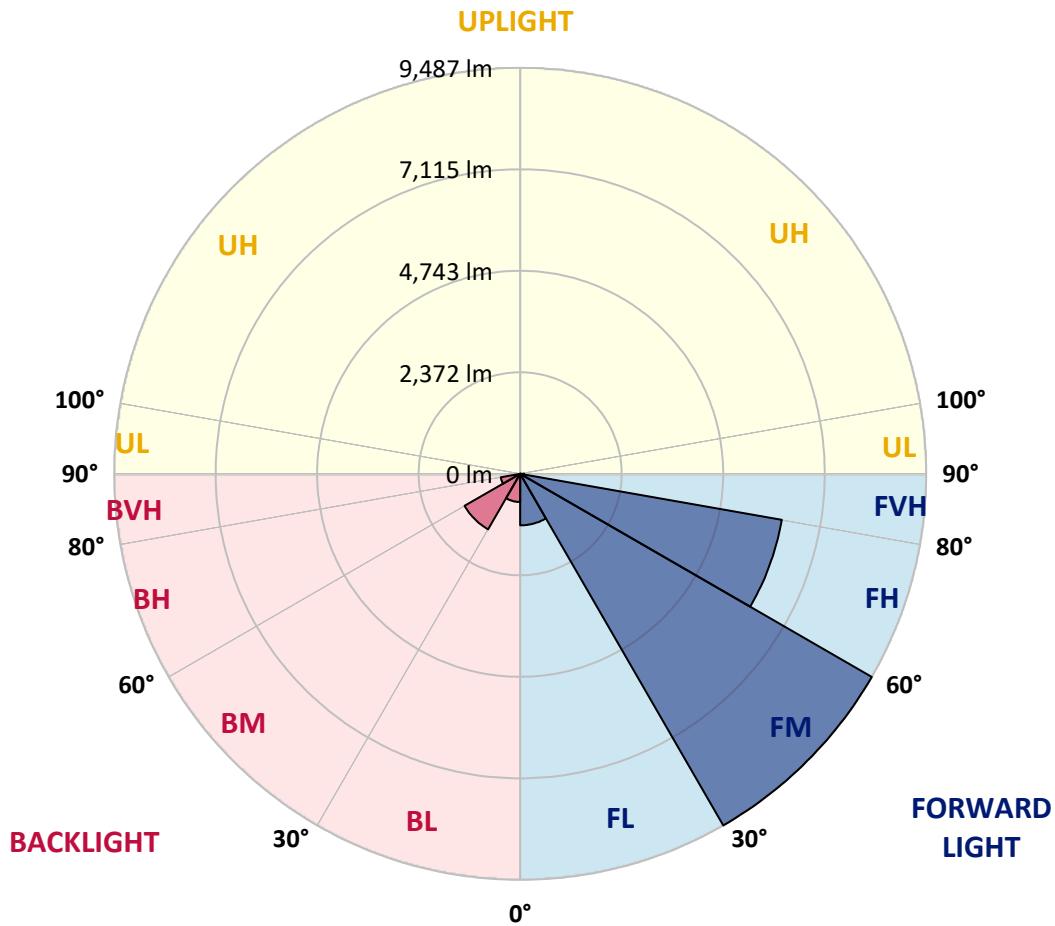
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1204.2	6.1			
FM (30°-60°)	9486.8	48.4			
FH (60°-80°)	6207.8	31.7			G3/7500
FVH (80°-90°)	87.9	0.4			G1/100
BL (0°-30°)	658.4	3.4	B2/1000		
BM (30°-60°)	1499.2	7.6	B2/2500		
BH (60°-80°)	460.3	2.3	B1/500		G1/500
BVH (80°-90°)	4.5	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°	2280.7	2280.7	2280.7	2280.7	2280.7	2280.7	2280.7	2280.7	2280.7	2280.7	2280.7
2.5°	2272.8	2288.6	2284.7	2280.7	2279.4	2282.0	2283.4	2282.0	2282.0	2282.0	2283.4
5°	2229.5	2242.6	2242.6	2251.8	2265.0	2280.7	2292.6	2295.2	2297.8	2301.8	2300.4
7.5°	2146.6	2157.2	2165.1	2195.3	2228.1	2270.2	2305.7	2324.1	2326.7	2341.2	2346.5
10°	2090.1	2103.3	2116.4	2148.0	2195.3	2258.4	2318.9	2363.5	2370.1	2404.3	2420.1
12.5°	2087.5	2100.6	2117.7	2151.9	2207.1	2274.2	2347.8	2412.2	2424.0	2474.0	2506.8
15°	2115.1	2130.9	2146.6	2188.7	2247.9	2329.4	2408.2	2488.4	2500.3	2571.2	2606.7
17.5°	2171.6	2192.7	2204.5	2246.6	2309.7	2400.4	2504.2	2596.2	2606.7	2689.6	2734.2
20°	2283.4	2308.3	2312.3	2346.5	2408.2	2505.5	2629.1	2743.4	2756.6	2851.2	2901.2
22.5°	2514.7	2550.2	2518.7	2535.8	2591.0	2688.2	2822.3	2966.9	2985.3	3093.1	3137.8
25°	2922.2	2972.2	2890.7	2861.8	2885.4	2986.6	3154.9	3337.6	3358.7	3445.4	3467.8
27.5°	3722.8	3658.4	3534.8	3413.9	3342.9	3400.7	3590.0	3816.1	3842.4	3926.5	3900.2
30°	4602.2	4545.7	4378.7	4110.6	3942.3	3933.1	4107.9	4360.3	4390.6	4470.8	4390.6
32.5°	5483.0	5429.1	5247.7	4917.7	4625.9	4481.3	4602.2	4882.2	4898.0	4949.3	4830.9
35°	6349.2	6294.0	6112.6	5774.8	5415.9	5087.3	5063.6	5379.1	5384.4	5438.3	5262.1
37.5°	7220.8	7174.8	6981.5	6650.3	6296.7	5843.1	5623.6	5849.7	5856.3	5908.9	5726.1
40°	7842.6	7862.3	7729.5	7473.2	7169.5	6673.9	6252.0	6350.6	6311.1	6399.2	6290.1
42.5°	8376.3	8415.7	8300.0	8171.2	7995.0	7558.6	7030.2	7013.1	6950.0	6997.3	6884.3
45°	8837.7	8870.5	8766.7	8736.4	8732.5	8426.2	7880.7	7778.1	7690.1	7680.9	7545.5
47.5°	9007.2	9070.3	9115.0	9216.3	9413.4	9284.6	8760.1	8601.0	8502.5	8430.2	8215.9
50°	9071.7	9138.7	9291.2	9585.6	10052.3	10107.5	9635.6	9456.8	9335.9	9204.4	8888.9
52.5°	8984.9	9104.5	9309.6	9805.2	10482.2	10767.4	10475.6	10319.2	10181.1	9966.9	9498.9
55°	8473.5	8593.2	9012.5	9802.5	10696.4	11230.1	11269.6	11199.9	11044.8	10706.9	9991.8
57.5°	7395.6	7573.1	8236.9	9468.6	10692.5	11628.4	12047.8	12097.7	11924.2	11440.5	10379.6
60°	5902.3	6142.9	6952.6	8728.6	10362.5	11844.0	12730.0	12979.8	12795.8	12163.5	10693.8
62.5°	4118.5	4397.1	5163.5	7569.1	9608.0	11688.9	13228.2	13689.6	13550.3	12810.2	10814.7
65°	2512.1	2601.5	3219.3	5956.2	8325.0	11039.5	13382.0	14073.5	14027.5	13205.9	10636.0
67.5°	1673.4	1748.3	1925.8	4084.3	6462.3	9742.1	13014.0	14006.4	14019.6	13141.5	9981.3
70°	1008.3	1072.7	1188.3	2375.4	4188.1	7711.1	11874.3	13152.0	13228.2	12280.5	8740.4
72.5°	415.4	458.8	563.9	1076.6	2169.0	4894.0	9455.5	11291.9	11469.4	10325.7	6708.1
75°	235.3	257.7	331.3	540.3	941.2	2280.7	5727.5	8016.1	8277.7	7116.9	4035.6
77.5°	156.4	166.9	214.3	349.7	529.8	778.2	2447.7	4176.3	4675.8	3887.1	1747.0
80°	105.2	114.4	147.2	234.0	344.4	333.9	779.5	1547.2	1903.5	1335.6	425.9
82.5°	71.0	72.3	105.2	153.8	218.2	161.7	230.0	481.1	604.7	386.5	161.7
85°	40.8	39.4	77.6	89.4	97.3	67.0	69.7	144.6	189.3	163.0	92.0
87.5°	5.3	7.9	30.2	23.7	13.1	14.5	14.5	25.0	36.8	39.4	19.7
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°	2280.7	2280.7	2280.7	2280.7	2280.7	2280.7	2280.7	2280.7	2280.7	2280.7	2280.7
2.5°	2283.4	2282.0	2278.1	2274.2	2265.0	2259.7	2262.3	2259.7	2258.4	2259.7	2265.0
5°	2300.4	2296.5	2286.0	2272.8	2254.4	2232.1	2217.6	2196.6	2176.9	2165.1	2167.7
7.5°	2346.5	2342.5	2328.1	2291.2	2232.1	2138.8	2053.3	1978.4	1921.9	1889.0	1890.3
10°	2420.1	2413.5	2391.2	2309.7	2154.5	1950.8	1781.2	1640.5	1548.5	1505.2	1501.2
12.5°	2506.8	2498.9	2459.5	2292.6	2007.3	1689.2	1455.2	1298.8	1213.3	1175.2	1171.3
15°	2609.4	2598.8	2521.3	2211.1	1793.0	1400.0	1185.7	1068.7	1013.5	979.3	980.6
17.5°	2736.9	2718.5	2567.3	2088.8	1560.4	1179.1	1020.1	932.0	883.4	850.5	847.9
20°	2902.5	2872.3	2604.1	1942.9	1346.1	1039.8	908.3	834.7	797.9	769.0	763.7
22.5°	3133.9	3090.5	2648.8	1785.1	1194.9	943.8	825.5	771.6	741.4	708.5	703.3
25°	3420.4	3369.2	2704.0	1639.2	1091.1	861.0	765.1	720.4	684.9	646.8	642.8
27.5°	3821.4	3729.4	2769.7	1519.6	1001.7	790.0	709.9	659.9	619.1	587.6	581.0
30°	4268.3	4117.1	2827.6	1447.3	920.2	724.3	637.6	587.6	549.5	527.1	523.2
32.5°	4691.6	4486.5	2865.7	1415.8	846.6	649.4	558.7	504.8	475.9	469.3	473.2
35°	5091.2	4820.4	2861.8	1385.5	780.8	574.5	481.1	425.9	403.6	407.5	407.5
37.5°	5551.3	5176.7	2834.2	1338.2	726.9	506.1	414.1	365.4	345.7	347.0	352.3
40°	6086.3	5588.1	2817.1	1248.8	667.8	443.0	358.9	319.4	305.0	299.7	298.4
42.5°	6656.8	5986.4	2819.7	1147.6	594.2	386.5	320.7	287.9	274.7	270.8	269.5
45°	7230.0	6366.3	2823.6	1042.4	516.6	343.1	293.1	265.5	257.7	252.4	252.4
47.5°	7768.9	6689.7	2750.0	929.4	440.4	310.2	270.8	252.4	245.8	239.2	239.2
50°	8271.1	6905.3	2572.6	797.9	379.9	283.9	253.7	240.6	234.0	227.4	227.4
52.5°	8661.5	6939.5	2279.4	662.5	337.8	264.2	243.2	231.4	223.5	216.9	215.6
55°	8835.0	6725.2	1862.7	536.3	305.0	247.1	232.7	220.8	211.6	205.1	203.8
57.5°	8790.3	6274.3	1452.6	431.2	273.4	230.0	219.5	211.6	201.1	190.6	189.3
60°	8570.8	5670.9	1095.0	358.9	244.5	211.6	205.1	198.5	184.0	168.3	165.6
62.5°	8190.9	4912.4	780.8	297.1	213.0	190.6	188.0	182.7	161.7	132.8	130.1
65°	7609.9	3990.9	525.8	247.1	182.7	166.9	168.3	159.1	131.5	98.6	96.0
67.5°	6760.7	2918.3	336.5	202.4	152.5	139.3	140.7	135.4	111.7	84.1	80.2
70°	5678.8	1932.4	219.5	153.8	122.3	107.8	115.7	117.0	94.6	68.4	65.7
72.5°	4163.2	1141.0	153.8	114.4	89.4	74.9	94.6	97.3	76.2	51.3	48.6
75°	2372.7	541.6	115.7	82.8	55.2	52.6	73.6	73.6	52.6	34.2	31.5
77.5°	996.4	226.1	81.5	53.9	31.5	30.2	50.0	46.0	26.3	15.8	15.8
80°	287.9	101.2	43.4	26.3	13.1	11.8	19.7	14.5	6.6	2.6	2.6
82.5°	113.1	44.7	17.1	10.5	5.3	5.3	2.6	0.0	0.0	0.0	0.0
85°	67.0	18.4	7.9	3.9	1.3	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	17.1	3.9	2.6	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)