

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: P882276

Luminaire Tested: **NAV-SB2A-827-U-T2-HSS**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P882276  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-4)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB2A-827-U-T2-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(2) 80 CRI, 2700K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

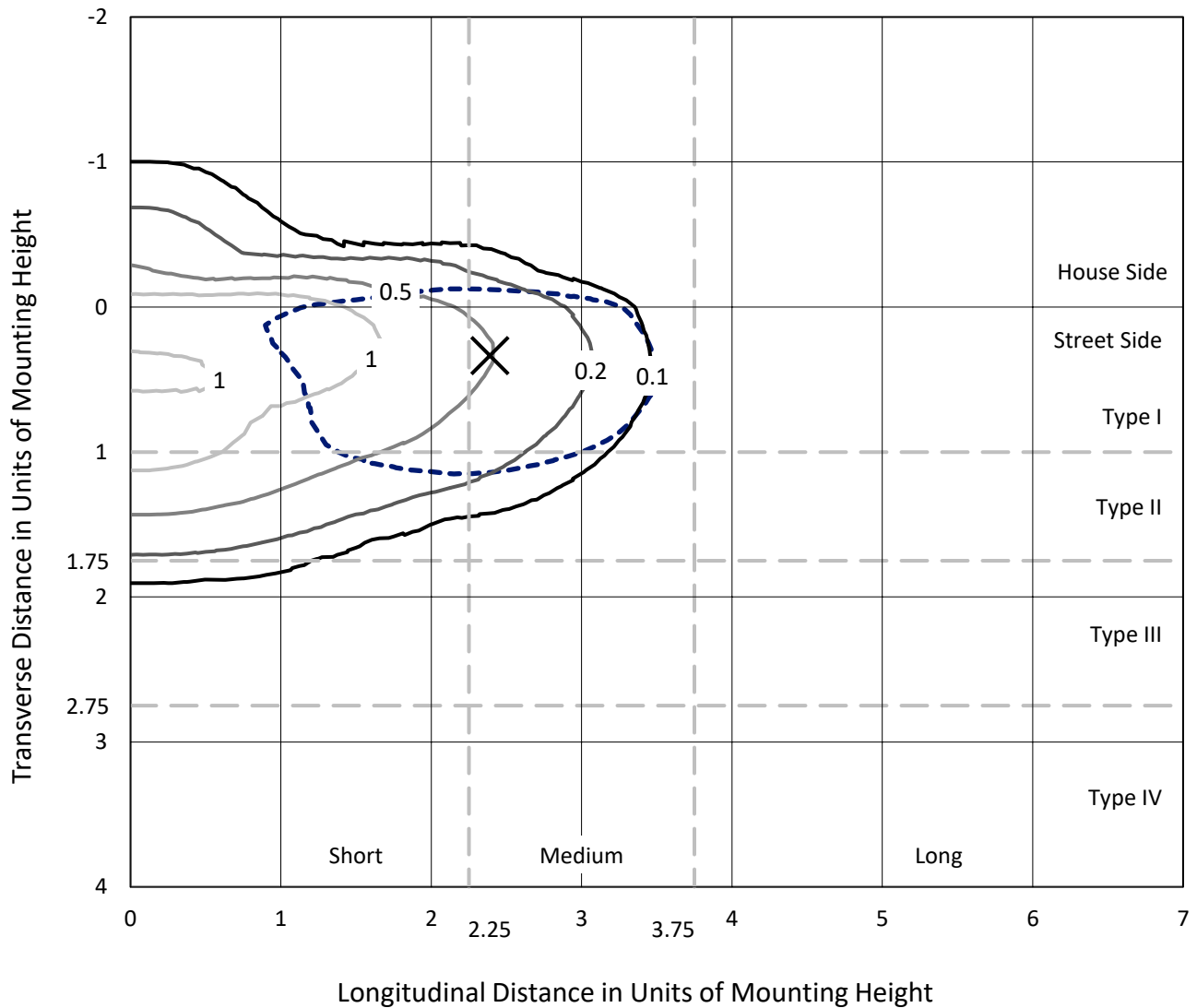
Lumens per Lamp: N/A  
Luminaire Lumens: 5424 lumens  
Efficiency: N/A  
Efficacy: 94.7 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B1 - U0 - G1  
  
Input Watts (W): 57.3  
Input Voltage (V): 120.0  
Input Current (Ain): 0.484  
Voltage Rise (V): NR  
Power Factor: 0.994  
Total Harmonic Distortion (THDi): 9.038  
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

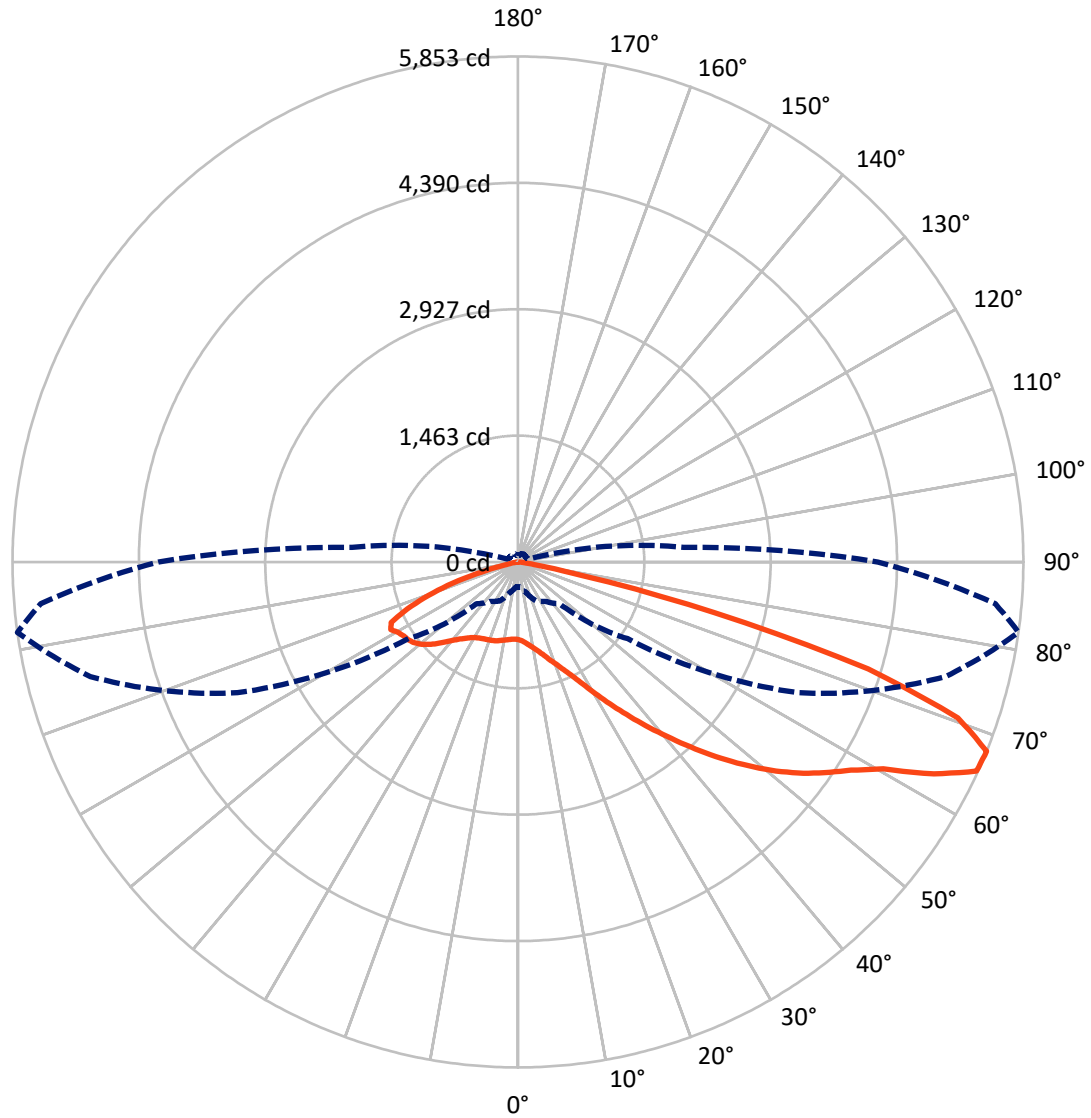
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.9 fc  
 Type II - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 82-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	982.5	0.0	982.5
	% Fixture	18.1	0.0	18.1
<b>Street Side</b>	Lumens	4441.5	0.0	4441.5
	% Fixture	81.9	0.0	81.9
<b>Total</b>	Lumens	5424.0	0.0	5424.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	80.1	1.5
10°-20°	208.0	3.8
20°-30°	333.2	6.1
30°-40°	589.2	10.9
40°-50°	1032.3	19.0
50°-60°	1376.9	25.4
60°-70°	1281.8	23.6
70°-80°	491.9	9.1
80°-90°	30.6	0.6
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°	5424.0	100.0
0°-180°	5424.0	100.0

**Coefficient of Utilization**



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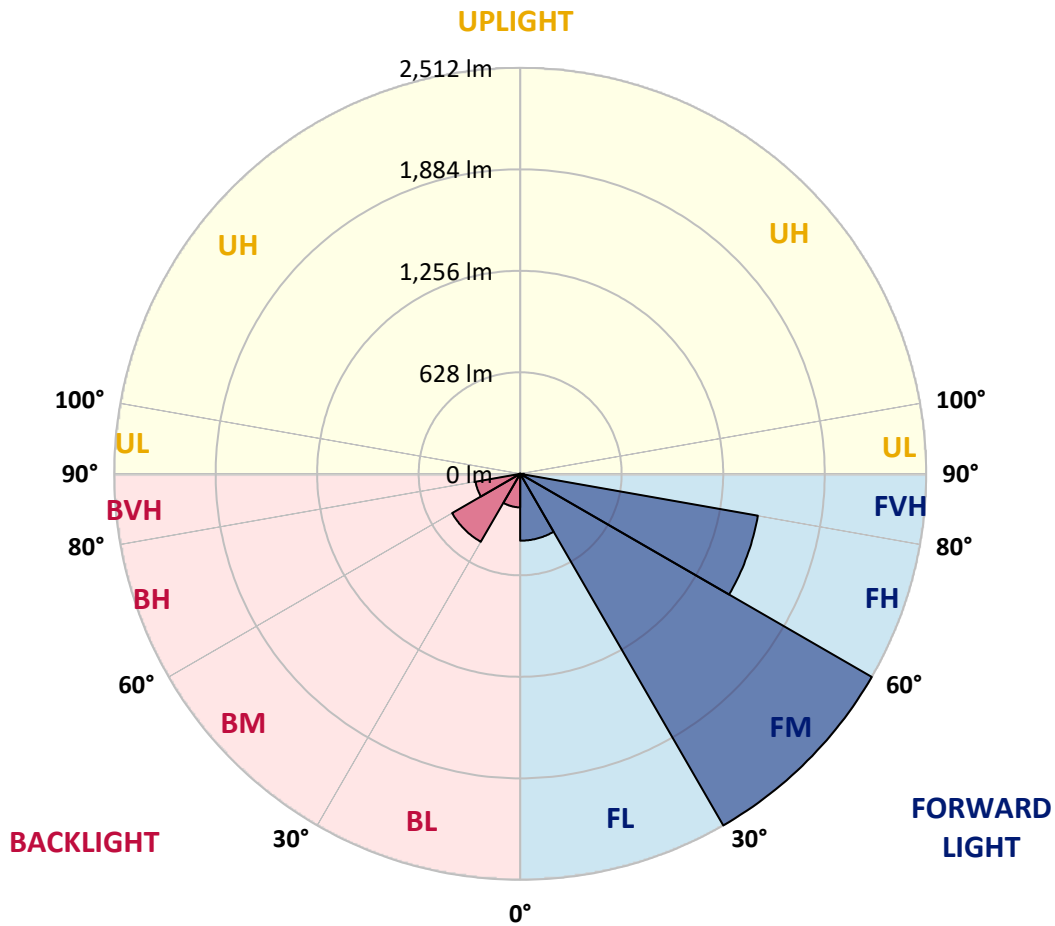
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	413.8	7.6			
FM (30°-60°)	2512.2	46.3			
FH (60°-80°)	1493.3	27.5			G1/1800
FVH (80°-90°)	22.2	0.4			G1/100
BL (0°-30°)	207.5	3.8	B1/500		
BM (30°-60°)	486.2	9.0	B1/1000		
BH (60°-80°)	280.4	5.2	B1/500		G1/500
BVH (80°-90°)	8.3	0.2			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G1**

Type II Medium



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	898.6	898.6	898.6	898.6	898.6	898.6	898.6	898.6	898.6	898.6	898.6
2.5°	949.7	955.2	952.1	950.5	947.8	943.9	940.7	931.0	920.8	914.2	911.9
5°	968.9	974.3	973.9	975.5	977.5	978.6	977.8	966.9	952.5	941.1	934.5
7.5°	952.5	958.7	963.8	971.6	985.3	999.7	1006.7	1004.4	989.6	973.9	965.7
10°	906.0	912.6	924.7	943.1	972.0	1003.2	1029.4	1041.5	1032.1	1014.9	1003.6
12.5°	820.9	827.5	851.3	891.2	939.6	993.9	1043.8	1076.3	1078.6	1061.4	1048.1
15°	725.2	731.8	757.2	807.2	881.0	968.1	1051.7	1113.0	1133.7	1118.8	1102.8
17.5°	665.8	671.7	690.8	731.0	808.0	916.5	1048.9	1152.0	1199.3	1187.6	1168.4
20°	647.9	652.9	661.9	690.0	754.1	863.0	1031.0	1188.7	1270.0	1263.3	1241.8
22.5°	667.0	671.7	674.4	686.9	727.1	827.9	1008.3	1226.2	1352.0	1352.7	1326.6
25°	711.1	715.8	712.7	720.5	738.1	817.0	999.7	1270.3	1455.1	1463.6	1434.0
27.5°	783.8	784.2	776.7	776.3	779.1	833.4	1008.7	1317.6	1585.1	1601.1	1564.4
30°	929.4	923.6	895.1	864.2	850.1	882.6	1033.7	1373.4	1738.6	1767.1	1721.0
32.5°	1154.0	1145.4	1093.0	1019.2	945.0	961.8	1078.6	1437.1	1905.7	1957.3	1901.0
35°	1397.7	1395.3	1340.6	1230.9	1101.3	1074.7	1151.6	1520.7	2088.1	2170.1	2103.3
37.5°	1624.1	1623.0	1591.7	1462.5	1304.7	1232.1	1268.8	1630.0	2283.3	2402.1	2323.2
40°	1831.1	1834.6	1803.4	1687.8	1528.9	1434.0	1428.1	1765.1	2500.5	2654.7	2561.0
42.5°	2010.0	2013.9	1982.3	1896.7	1750.3	1657.3	1623.8	1930.7	2712.5	2926.1	2815.2
45°	2131.4	2155.6	2151.0	2082.6	1977.6	1881.1	1858.8	2138.5	2954.2	3213.9	3083.9
47.5°	2165.8	2188.1	2223.2	2232.6	2168.5	2073.6	2100.2	2388.8	3198.7	3502.1	3354.1
50°	2081.1	2101.7	2174.8	2272.0	2316.5	2287.2	2334.9	2657.1	3449.0	3789.6	3619.3
52.5°	1913.9	1935.0	2027.2	2181.0	2362.6	2454.8	2570.4	2921.4	3691.5	4061.7	3870.4
55°	1672.2	1694.4	1812.8	1986.9	2274.7	2523.9	2766.8	3185.4	3913.7	4306.6	4096.9
57.5°	1343.4	1359.8	1482.8	1726.5	2053.7	2455.2	2911.7	3473.6	4123.0	4547.1	4321.4
60°	875.5	890.0	1032.9	1304.7	1687.4	2225.5	2940.6	3795.0	4401.1	4859.9	4624.1
62.5°	582.3	592.0	676.8	876.3	1188.3	1784.7	2771.5	4051.6	4808.8	5404.3	5143.1
65°	399.5	409.3	494.0	633.0	767.8	1180.5	2285.3	4017.6	5178.2	5836.6	5527.7
67.5°	285.1	293.3	365.1	496.3	555.7	685.7	1549.2	3583.4	5125.1	5853.0	5548.4
70°	204.2	208.9	268.3	386.6	441.7	412.0	861.5	2740.6	4487.4	5404.7	5125.9
72.5°	142.9	144.5	186.3	294.4	355.8	300.7	410.0	1827.2	3394.0	4242.2	3973.9
75°	96.8	98.8	125.4	216.0	285.5	229.6	217.1	979.8	1992.4	2348.2	2104.9
77.5°	59.4	60.1	80.8	147.6	213.6	175.0	139.8	415.1	770.9	756.8	645.1
80°	33.6	33.6	51.5	91.8	145.7	112.9	98.0	176.5	244.1	214.4	189.0
82.5°	18.7	19.1	37.5	57.0	96.5	66.8	53.9	81.6	105.4	93.3	81.2
85°	7.8	8.6	23.0	26.9	46.1	33.2	21.9	34.4	39.1	34.8	25.4
87.5°	0.8	1.2	7.0	5.1	5.5	6.6	3.1	6.6	5.5	5.5	3.9
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°	898.6	898.6	898.6	898.6	898.6	898.6	898.6	898.6	898.6	898.6	898.6
2.5°	904.4	898.6	883.7	866.6	843.9	833.0	818.1	808.0	799.4	800.2	792.4
5°	922.0	907.2	874.0	832.6	781.0	744.3	705.3	678.3	656.5	651.8	641.2
7.5°	946.2	922.8	864.6	790.0	702.9	636.9	578.0	540.1	513.1	504.5	496.0
10°	977.5	943.5	852.5	736.5	611.2	527.2	463.9	434.3	415.9	409.6	405.0
12.5°	1013.8	967.3	836.5	671.3	516.7	435.8	395.6	380.8	374.9	372.9	371.8
15°	1059.5	997.0	812.3	594.0	436.6	380.0	362.8	360.8	361.6	360.8	360.4
17.5°	1113.7	1029.4	772.8	514.3	382.7	351.5	345.2	346.8	348.7	348.3	347.6
20°	1173.1	1061.4	722.5	443.6	346.0	331.2	327.6	329.2	330.8	330.0	329.6
22.5°	1240.7	1095.8	666.6	388.6	321.4	312.4	308.5	308.9	308.9	307.3	306.6
25°	1321.5	1133.7	608.0	349.5	302.6	295.6	290.9	289.4	287.0	282.3	281.6
27.5°	1418.0	1173.9	551.8	322.2	287.8	281.2	275.7	271.8	265.9	258.1	257.3
30°	1526.5	1222.7	504.2	305.0	276.1	269.5	263.2	257.3	248.8	239.0	238.2
32.5°	1654.2	1275.0	469.4	293.7	265.5	258.5	251.1	244.1	234.7	224.9	225.3
35°	1806.5	1338.3	449.1	285.9	257.3	248.0	239.8	232.0	224.9	216.3	215.6
37.5°	1971.7	1405.5	442.8	282.0	251.9	237.4	228.1	222.6	221.8	216.7	216.3
40°	2152.5	1485.1	447.5	279.6	246.0	227.3	217.1	216.0	217.9	208.9	209.3
42.5°	2343.9	1579.6	455.3	276.9	237.8	217.1	207.4	207.4	205.8	193.3	193.3
45°	2550.8	1688.6	463.1	270.2	228.1	207.0	199.6	196.8	190.2	178.1	177.7
47.5°	2759.4	1799.5	469.0	258.1	216.3	198.4	191.7	185.5	175.7	164.8	164.4
50°	2957.4	1899.1	462.8	240.2	203.1	190.2	183.2	174.6	164.0	156.6	155.4
52.5°	3134.3	1985.4	436.2	219.1	189.0	181.6	175.3	166.4	157.8	150.0	149.2
55°	3288.1	2055.3	389.3	199.2	176.5	174.2	167.9	156.6	144.9	138.2	137.5
57.5°	3435.7	2108.4	330.8	182.8	165.2	166.0	156.6	146.4	135.5	128.5	127.7
60°	3632.2	2179.5	271.4	167.5	153.1	155.4	145.3	137.9	124.2	115.2	114.0
62.5°	3946.1	2290.0	215.6	148.8	139.0	139.8	135.5	126.5	110.1	99.6	98.8
65°	4195.3	2249.4	169.9	128.5	123.0	124.2	124.2	114.4	96.8	84.7	83.6
67.5°	4167.2	1926.0	135.5	108.6	107.8	108.6	111.3	103.1	85.9	76.2	74.6
70°	3838.8	1532.0	108.6	90.2	93.7	91.8	99.6	94.1	77.3	67.6	66.4
72.5°	3132.3	1103.6	82.8	74.6	71.9	75.0	89.8	84.7	64.4	53.5	52.3
75°	1830.3	588.9	61.7	59.0	51.9	62.5	79.7	72.2	49.2	39.4	38.3
77.5°	595.9	205.4	45.3	43.3	38.7	50.4	67.9	60.9	40.2	31.2	30.1
80°	159.7	62.1	30.9	28.5	25.0	37.5	53.9	48.4	28.9	20.3	19.9
82.5°	64.0	26.2	18.0	16.0	13.7	25.8	42.6	39.1	21.5	12.9	12.9
85°	20.7	8.6	6.6	5.1	6.2	16.0	25.4	26.6	15.2	6.6	5.1
87.5°	2.7	1.2	1.2	1.6	1.2	2.7	7.8	7.4	4.3	0.8	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)