

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: P881764

Luminaire Tested: **NAV-SB1B-827-U-SL4**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P881764
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-9)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB1B-827-U-SL4
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 80 CRI, 2700K, 450mA LIGHTSQUARE WITH 26 LEDS AND TYPE IV SPILL LIGHT
ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4539 lumens
Efficiency: N/A
Efficacy: 114.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B1 - U0 - G2

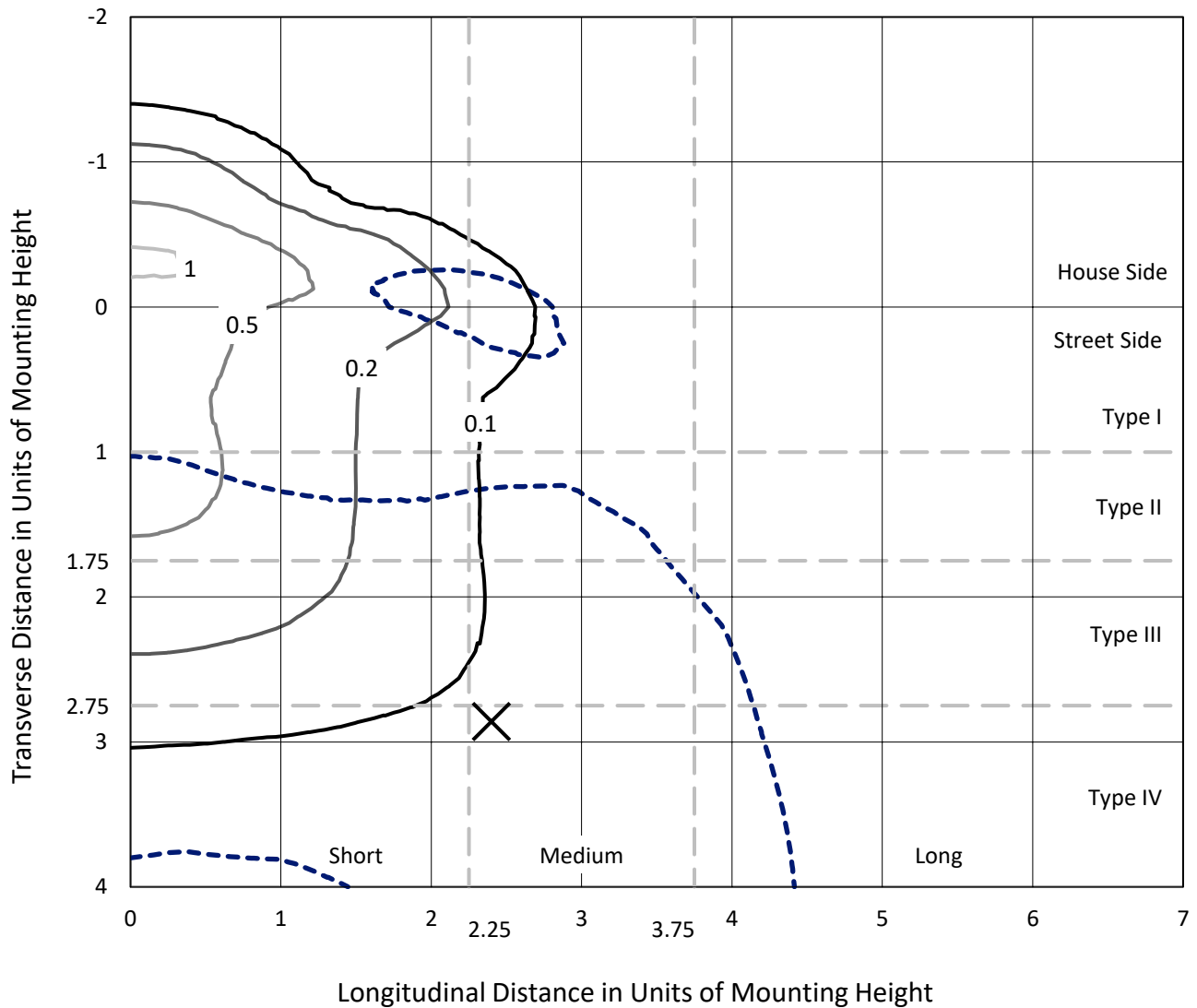
Input Watts (W): 39.8
Input Voltage (V): 120.0
Input Current (Ain): 0.33
Voltage Rise (V): NR
Power Factor: 0.996
Total Harmonic Distortion (THDi): 5.305
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

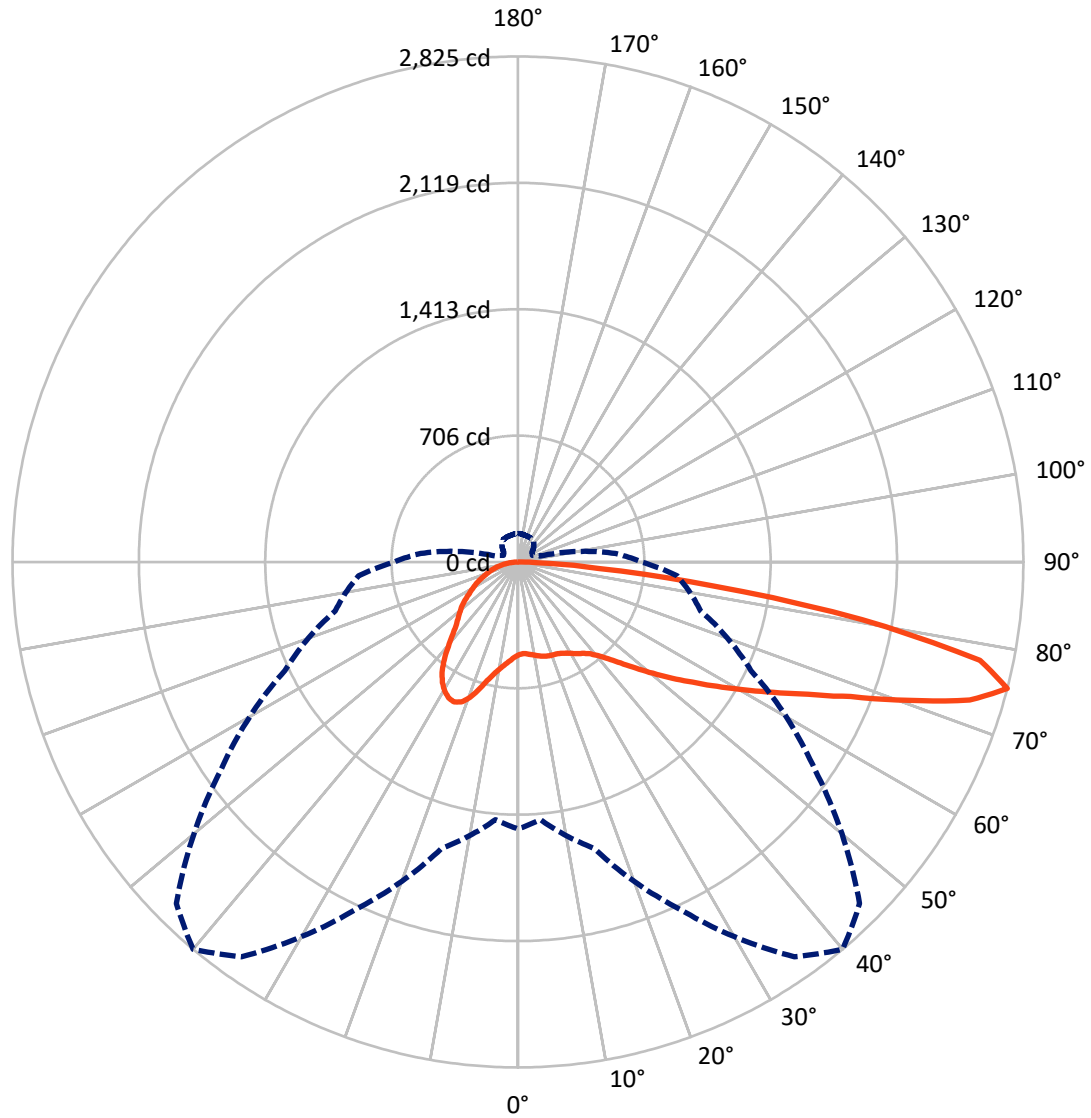
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.1 fc
 Type IV - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1406.3	0.0	1406.3
	% Fixture	31.0	0.0	31.0
Street Side	Lumens	3132.7	0.0	3132.7
	% Fixture	69.0	0.0	69.0
Total	Lumens	4539.0	0.0	4539.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	51.8	1.1
10°-20°	174.0	3.8
20°-30°	317.6	7.0
30°-40°	450.5	9.9
40°-50°	608.3	13.4
50°-60°	818.3	18.0
60°-70°	1038.6	22.9
70°-80°	942.6	20.8
80°-90°	137.4	3.0
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°	4539.0	100.0
0°-180°	4539.0	100.0

Coefficient of Utilization



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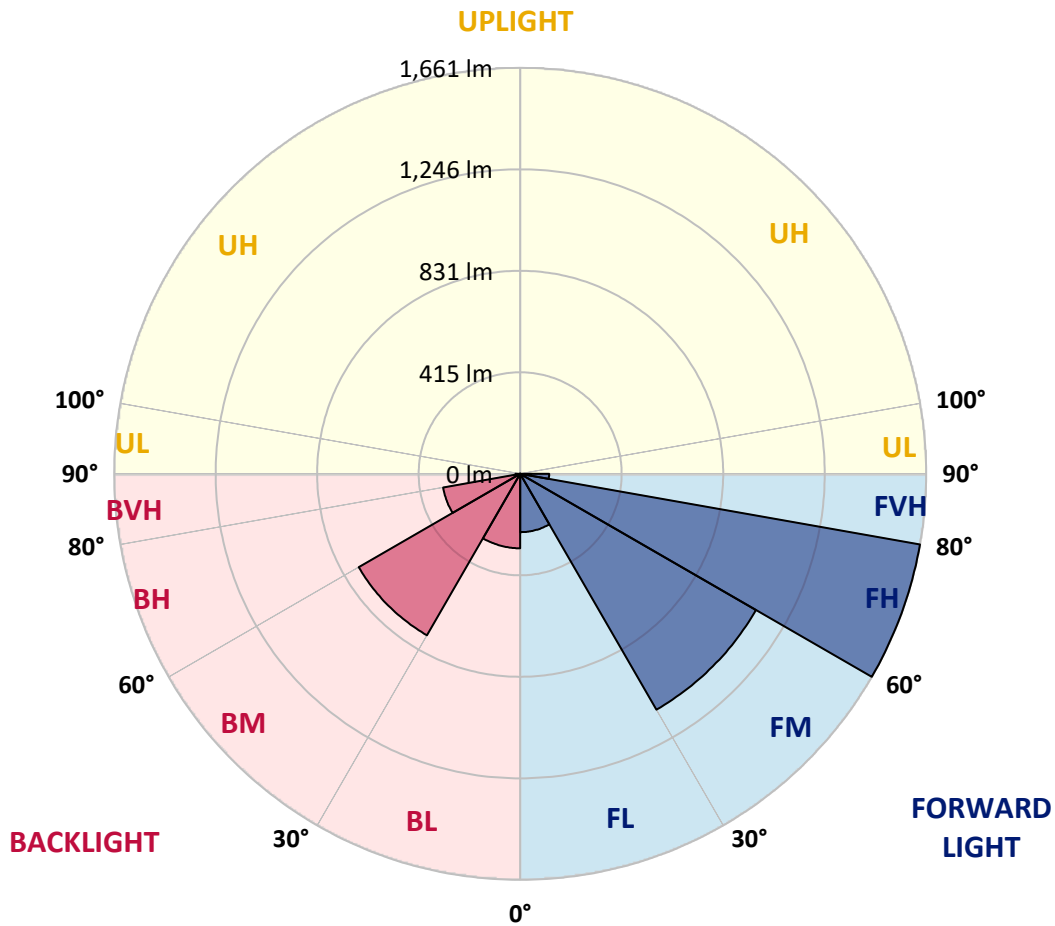
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	238.8	5.3			
FM (30°-60°)	1114.2	24.5			
FH (60°-80°)	1661.2	36.6			G1/1800
FVH (80°-90°)	118.5	2.6			G2/225
BL (0°-30°)	304.6	6.7	B1/500		
BM (30°-60°)	762.8	16.8	B1/1000		
BH (60°-80°)	320.0	7.0	B1/500		G1/500
BVH (80°-90°)	18.9	0.4			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type IV Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	519.0	519.0	519.0	519.0	519.0	519.0	519.0	519.0	519.0	519.0	519.0
2.5°	511.1	514.0	513.3	512.3	512.3	512.5	512.3	514.0	515.7	517.4	520.0
5°	516.4	519.3	517.8	516.6	515.7	515.4	514.7	514.5	515.4	517.6	521.2
7.5°	526.7	529.6	527.5	525.3	523.4	522.4	521.4	520.0	519.3	520.5	525.5
10°	538.3	541.2	538.5	534.7	531.6	530.4	529.4	527.9	527.0	527.7	533.2
12.5°	549.9	552.7	549.1	543.8	539.7	539.0	537.8	537.3	537.1	536.9	542.4
15°	560.7	563.1	558.5	552.3	547.9	546.7	545.5	546.2	547.4	548.9	555.2
17.5°	569.1	571.5	564.8	556.6	552.5	552.0	551.3	553.7	557.1	560.7	568.4
20°	576.8	579.2	570.6	559.5	554.7	554.7	554.9	560.0	564.8	570.1	580.7
22.5°	587.7	589.6	579.0	563.8	556.8	557.3	559.2	564.3	570.3	577.5	592.2
25°	603.8	605.2	592.2	572.0	564.1	565.5	567.2	569.6	575.4	583.8	603.5
27.5°	629.8	631.0	613.9	586.4	574.4	576.8	579.2	577.5	580.2	587.4	612.7
30°	666.4	667.1	645.4	609.1	592.0	593.2	593.7	586.7	581.6	587.4	619.2
32.5°	709.7	709.5	683.7	636.5	612.0	610.8	606.7	592.9	581.2	586.2	625.0
35°	776.9	774.2	741.0	675.0	634.6	627.1	617.5	599.9	583.6	585.0	630.0
37.5°	888.1	879.9	833.9	738.1	668.3	649.3	635.1	611.2	588.9	584.5	636.0
40°	1013.5	1003.2	952.6	824.5	718.9	688.3	665.4	627.4	597.5	586.7	644.9
42.5°	1162.3	1147.6	1093.2	926.4	782.9	738.6	704.2	647.8	610.3	593.7	657.0
45°	1345.0	1325.5	1248.5	1041.2	863.5	804.6	758.6	678.9	629.8	607.2	675.0
47.5°	1529.7	1534.5	1425.0	1172.7	960.3	885.9	826.7	725.6	658.2	628.8	704.2
50°	1725.9	1729.3	1600.5	1318.3	1070.1	977.9	903.3	777.8	697.7	659.6	747.7
52.5°	1879.0	1879.5	1759.8	1470.7	1184.5	1079.0	985.8	837.5	743.4	700.6	805.8
55°	1974.8	1973.6	1871.5	1614.9	1315.9	1185.2	1077.3	905.4	799.3	748.7	878.7
57.5°	2044.4	2040.8	1948.6	1738.9	1456.0	1310.6	1180.8	982.5	865.2	806.0	974.8
60°	2070.9	2068.7	2000.8	1846.0	1603.3	1449.3	1300.2	1068.7	940.1	873.7	1098.3
62.5°	2081.0	2085.1	2052.1	1949.8	1761.0	1602.9	1431.5	1171.7	1024.4	950.2	1228.5
65°	2116.6	2124.1	2117.3	2085.6	1939.2	1782.7	1605.5	1294.2	1116.3	1032.3	1364.5
67.5°	2187.1	2194.6	2197.5	2248.1	2156.8	2006.8	1822.7	1446.9	1223.9	1117.5	1466.8
70°	2185.5	2183.3	2234.3	2377.3	2429.3	2317.1	2115.4	1634.6	1352.3	1188.3	1479.8
72.5°	1989.3	1971.9	2092.5	2375.9	2656.1	2641.2	2472.9	1876.8	1463.0	1197.0	1284.1
75°	1492.4	1446.1	1659.2	2141.2	2693.9	2825.1	2700.2	2027.1	1436.8	1057.6	893.6
77.5°	638.2	591.7	842.8	1585.0	2411.0	2640.9	2491.7	1768.5	1146.9	699.4	438.9
80°	167.1	166.8	254.7	718.6	1639.7	1950.3	1711.0	1142.1	655.3	249.9	121.1
82.5°	69.1	67.4	93.6	279.5	801.2	1094.4	893.2	509.4	236.6	67.6	40.2
85°	25.8	25.5	45.5	96.5	282.6	451.4	326.7	130.2	59.0	33.0	18.1
87.5°	7.2	7.0	9.9	33.5	68.9	104.5	55.9	21.4	16.6	13.0	5.3
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°	519.0	519.0	519.0	519.0	519.0	519.0	519.0	519.0	519.0	519.0	519.0
2.5°	520.7	521.9	524.1	525.8	527.9	530.4	533.7	535.9	538.1	539.5	538.5
5°	522.9	525.5	531.1	536.6	543.1	549.1	556.1	561.2	565.3	566.5	566.9
7.5°	527.7	532.0	541.4	550.8	561.2	571.0	581.2	589.8	596.8	599.4	599.7
10°	536.1	541.9	555.2	568.4	582.1	597.3	610.3	622.8	632.7	636.8	637.0
12.5°	546.7	553.9	571.3	589.6	608.6	629.5	646.4	661.8	674.1	679.6	679.6
15°	560.4	569.8	592.0	616.5	644.5	673.6	695.0	712.1	725.8	732.6	732.1
17.5°	575.4	587.9	615.8	652.9	692.9	731.1	756.2	768.7	782.9	789.4	789.2
20°	589.8	605.2	645.2	699.1	752.3	793.0	813.2	816.6	817.6	818.3	820.2
22.5°	604.7	625.4	682.0	757.4	814.4	842.6	845.5	831.0	810.8	801.4	804.1
25°	621.1	648.6	730.2	821.7	867.9	871.2	849.1	814.0	775.7	758.1	760.7
27.5°	637.0	675.3	788.0	883.0	906.4	876.8	829.1	779.3	733.1	714.5	716.7
30°	652.9	705.9	851.7	936.7	924.0	863.1	797.6	742.0	695.5	676.0	678.2
32.5°	669.0	741.5	925.2	975.5	920.8	833.9	758.3	700.1	659.2	638.7	641.3
35°	687.3	785.3	994.7	996.7	899.9	791.1	706.6	650.0	614.4	598.0	601.6
37.5°	711.2	840.9	1056.1	1002.0	863.3	728.2	642.3	590.8	561.4	553.9	559.2
40°	740.8	907.8	1103.1	993.5	809.1	651.9	572.0	530.8	514.2	515.9	521.7
42.5°	779.3	982.7	1136.1	971.9	733.8	573.2	510.4	492.1	500.0	506.8	513.0
45°	829.4	1060.5	1156.5	935.0	648.6	506.5	474.0	478.4	484.4	485.1	489.9
47.5°	893.4	1139.2	1170.0	879.4	561.7	459.6	450.9	451.9	450.7	445.6	449.5
50°	973.3	1215.7	1182.0	805.8	487.7	430.2	418.7	415.3	398.7	382.3	384.5
52.5°	1064.3	1286.0	1187.1	714.3	430.2	405.7	386.9	365.7	334.6	329.6	331.3
55°	1165.4	1351.0	1174.1	601.9	381.8	374.1	345.7	320.2	316.8	312.5	313.2
57.5°	1286.3	1421.1	1147.6	476.4	332.2	337.3	309.6	312.5	306.5	299.7	298.5
60°	1418.5	1493.6	1101.2	362.1	280.9	291.3	300.2	300.0	298.3	292.7	290.8
62.5°	1537.4	1541.2	1009.7	277.3	235.9	255.7	280.0	279.7	278.3	275.2	274.0
65°	1608.2	1534.0	857.0	218.4	198.9	226.3	252.5	254.5	254.7	254.5	254.5
67.5°	1595.6	1449.5	647.6	173.8	168.3	196.4	225.3	228.0	229.9	230.4	230.9
70°	1454.1	1263.9	422.3	138.7	141.1	170.2	199.6	202.2	203.9	205.8	206.8
72.5°	1133.4	929.3	241.7	112.2	117.2	147.6	174.1	177.2	178.1	181.8	183.2
75°	690.7	546.5	130.5	88.4	96.3	126.1	148.8	152.4	154.1	158.4	158.9
77.5°	328.4	236.6	74.4	68.9	77.5	103.0	125.7	129.8	125.2	127.6	125.7
80°	111.0	87.9	46.9	52.5	59.2	80.4	100.6	104.7	95.1	94.6	93.6
82.5°	38.8	35.6	29.9	34.9	38.3	57.5	76.1	81.4	70.8	70.5	67.2
85°	15.2	14.4	16.6	19.0	22.9	35.4	50.1	52.7	43.6	35.1	34.7
87.5°	3.1	3.4	4.1	4.3	7.0	12.3	18.1	22.1	17.6	14.9	13.7
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)