

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: P881554

Luminaire Tested: **NAV-SB1A-735-U-SL4**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P881554
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-SB1A-735-U-SL4
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 70 CRI, 3500K, 350mA 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: 4450 lumens
Efficiency: N/A
Efficacy: 144.0 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

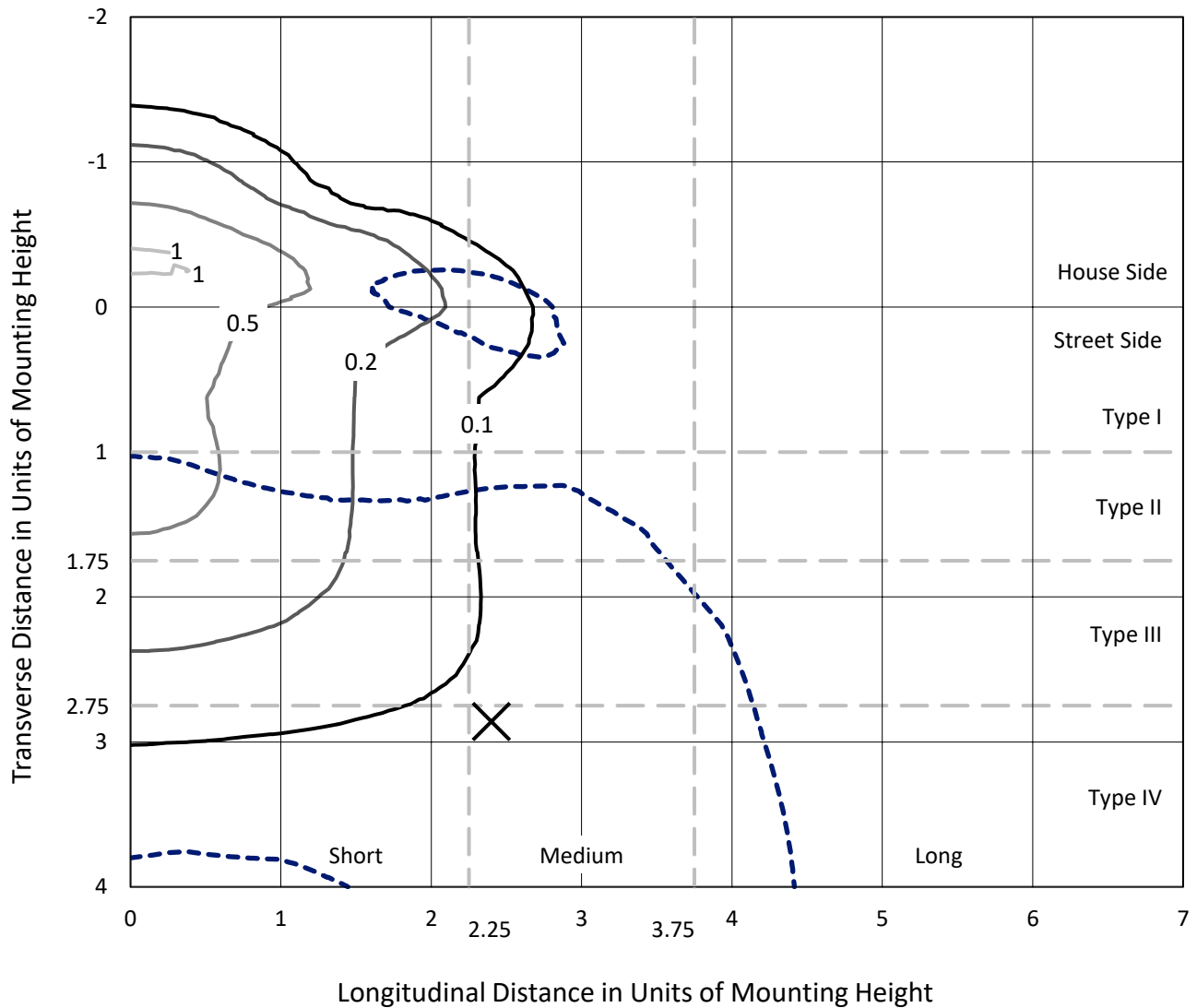
Input Watts (W): 30.9
Input Voltage (V): 120.0
Input Current (Ain): 0.263
Voltage Rise (V): NR
Power Factor: 0.995
Total Harmonic Distortion (THDi): 6.356
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

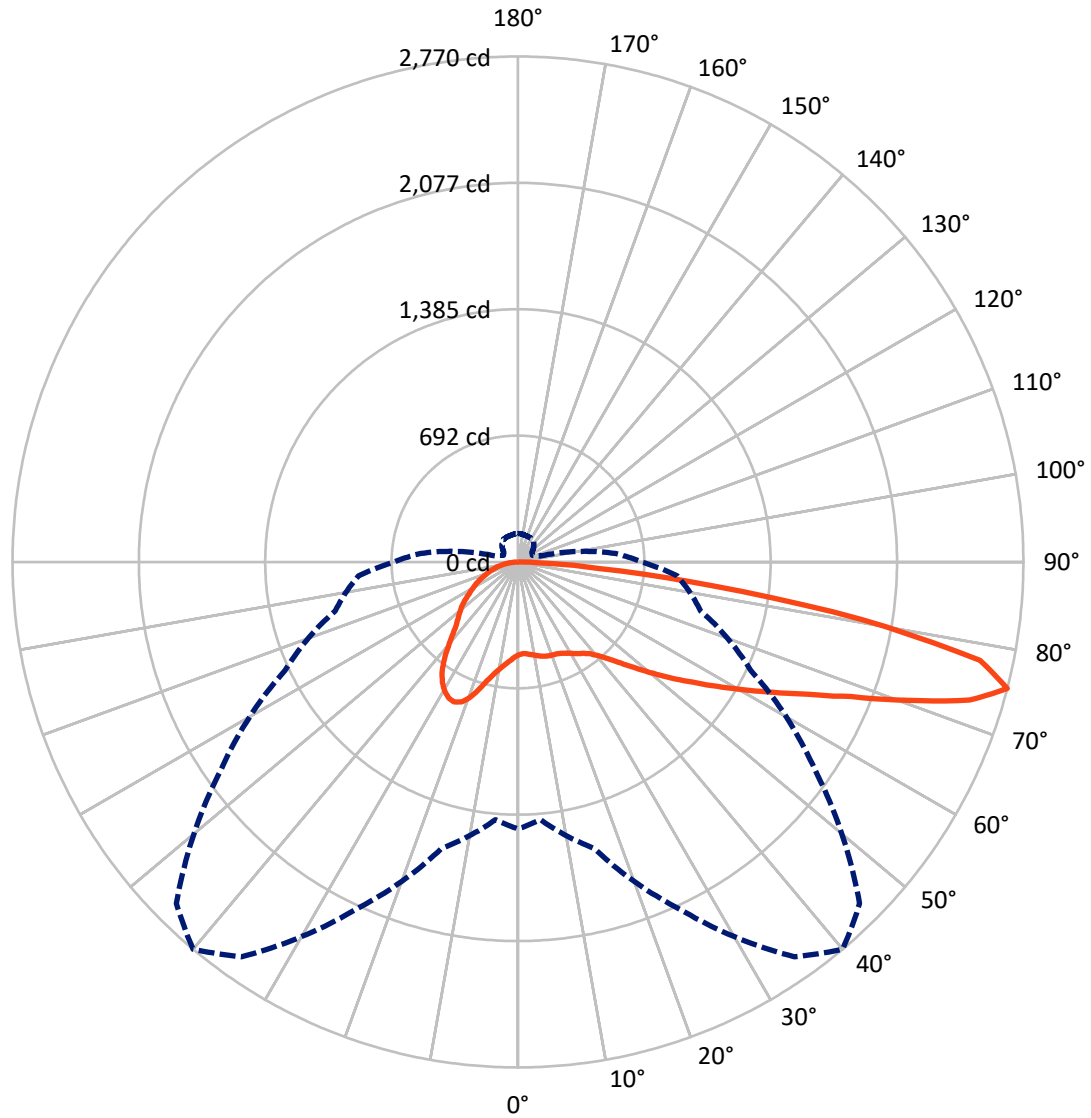
✕ Max cd
 - - - 1/2 Max cd



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	1378.8	0.0	1378.8
	% Fixture	31.0	0.0	31.0
Street Side	Lumens	3071.2	0.0	3071.2
	% Fixture	69.0	0.0	69.0
Total	Lumens	4450.0	0.0	4450.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	50.8	1.1
10°-20°	170.5	3.8
20°-30°	311.4	7.0
30°-40°	441.6	9.9
40°-50°	596.3	13.4
50°-60°	802.2	18.0
60°-70°	1018.2	22.9
70°-80°	924.1	20.8
80°-90°	134.7	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°	4450.0	100.0
0°-180°	4450.0	100.0

Coefficient of Utilization



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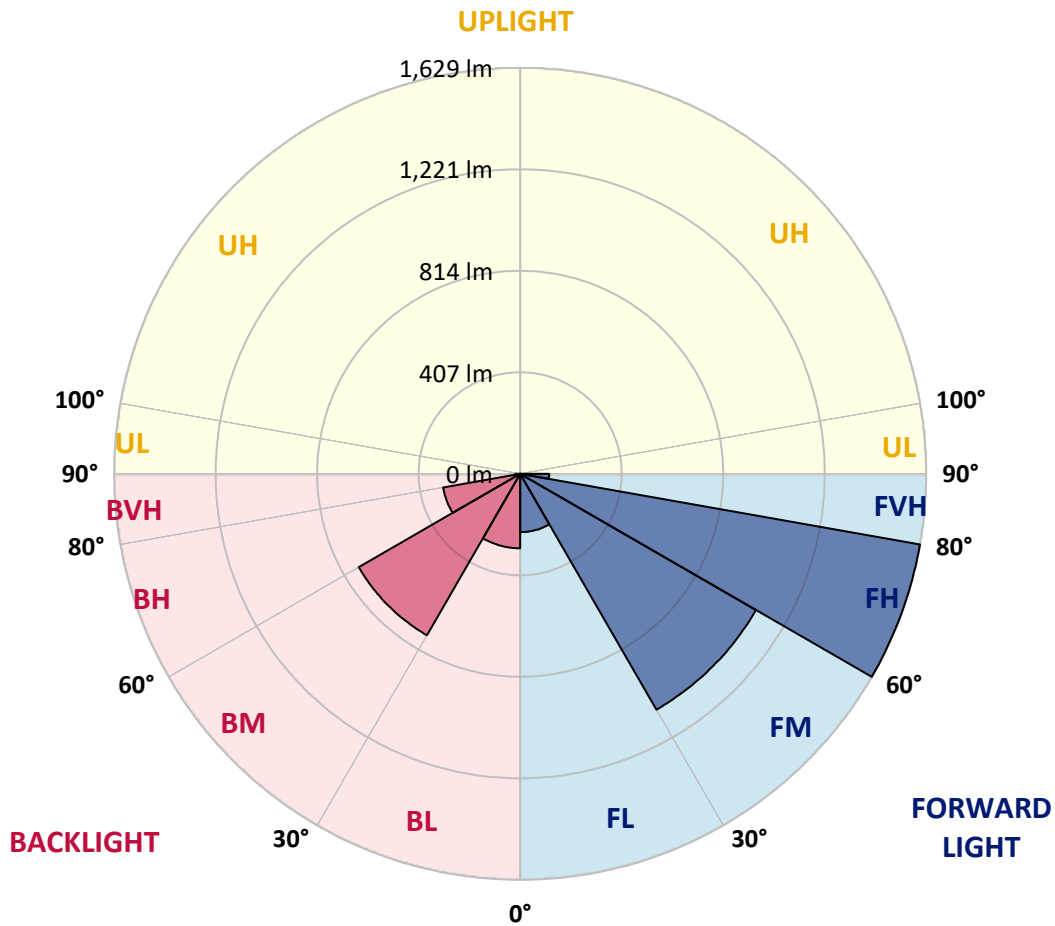
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	234.1	5.3			
FM (30°-60°)	1092.4	24.5			
FH (60°-80°)	1628.6	36.6			G1/1800
FVH (80°-90°)	116.2	2.6			G2/225
BL (0°-30°)	298.7	6.7	B1/500		
BM (30°-60°)	747.9	16.8	B1/1000		
BH (60°-80°)	313.7	7.0	B1/500		G1/500
BVH (80°-90°)	18.5	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°	508.9	508.9	508.9	508.9	508.9	508.9	508.9	508.9	508.9	508.9	508.9
2.5°	501.1	503.9	503.2	502.3	502.3	502.5	502.3	503.9	505.6	507.2	509.8
5°	506.3	509.1	507.7	506.5	505.6	505.3	504.6	504.4	505.3	507.4	511.0
7.5°	516.4	519.2	517.1	515.0	513.1	512.2	511.2	509.8	509.1	510.3	515.2
10°	527.7	530.6	528.0	524.2	521.1	520.0	519.0	517.6	516.7	517.4	522.8
12.5°	539.1	541.9	538.4	533.2	529.2	528.5	527.3	526.8	526.6	526.3	531.8
15°	549.7	552.1	547.6	541.4	537.2	536.0	534.8	535.5	536.7	538.1	544.3
17.5°	558.0	560.3	553.7	545.7	541.7	541.2	540.5	542.9	546.2	549.7	557.2
20°	565.5	567.9	559.4	548.5	543.8	543.8	544.0	549.0	553.7	558.9	569.3
22.5°	576.1	578.0	567.6	552.8	545.9	546.4	548.3	553.2	559.1	566.2	580.6
25°	591.9	593.4	580.6	560.8	553.0	554.4	556.1	558.4	564.1	572.4	591.7
27.5°	617.4	618.6	601.9	574.9	563.1	565.5	567.9	566.2	568.8	575.9	600.7
30°	653.3	654.0	632.8	597.1	580.4	581.6	582.0	575.2	570.2	575.9	607.0
32.5°	695.8	695.6	670.3	624.0	600.0	598.8	594.8	581.3	569.8	574.7	612.7
35°	761.6	759.0	726.5	661.8	622.2	614.8	605.4	588.2	572.1	573.5	617.7
37.5°	870.7	862.7	817.6	723.6	655.2	636.6	622.6	599.3	577.3	573.1	623.6
40°	993.7	983.5	933.9	808.4	704.8	674.8	652.4	615.1	585.8	575.2	632.3
42.5°	1139.5	1125.1	1071.8	908.2	767.5	724.1	690.4	635.1	598.3	582.0	644.1
45°	1318.7	1299.5	1224.0	1020.8	846.6	788.8	743.7	665.6	617.4	595.2	661.8
47.5°	1499.7	1504.4	1397.0	1149.7	941.5	868.6	810.5	711.4	645.3	616.5	690.4
50°	1692.0	1695.3	1569.1	1292.5	1049.1	958.7	885.6	762.6	684.0	646.7	733.1
52.5°	1842.2	1842.6	1725.3	1441.9	1161.2	1057.9	966.5	821.1	728.8	686.8	790.0
55°	1936.1	1934.9	1834.8	1583.2	1290.1	1161.9	1056.2	887.7	783.6	734.0	861.5
57.5°	2004.3	2000.8	1910.4	1704.8	1427.5	1284.9	1157.7	963.2	848.3	790.2	955.7
60°	2030.3	2028.1	1961.6	1809.8	1571.9	1420.9	1274.8	1047.7	921.7	856.5	1076.7
62.5°	2040.2	2044.2	2011.9	1911.5	1726.5	1571.4	1403.4	1148.7	1004.3	931.6	1204.4
65°	2075.1	2082.4	2075.8	2044.7	1901.2	1747.7	1574.0	1268.9	1094.4	1012.1	1337.8
67.5°	2144.3	2151.6	2154.4	2204.0	2114.5	1967.5	1786.9	1418.5	1199.9	1095.6	1438.1
70°	2142.6	2140.5	2190.5	2330.7	2381.7	2271.7	2073.9	1602.6	1325.7	1165.0	1450.8
72.5°	1950.2	1933.3	2051.5	2329.3	2604.0	2589.4	2424.4	1840.0	1434.3	1173.5	1258.9
75°	1463.1	1417.8	1626.7	2099.2	2641.1	2769.7	2647.2	1987.3	1408.6	1036.8	876.1
77.5°	625.7	580.1	826.3	1554.0	2363.8	2589.2	2442.8	1733.8	1124.4	685.6	430.3
80°	163.8	163.6	249.7	704.5	1607.5	1912.0	1677.4	1119.7	642.5	245.0	118.7
82.5°	67.7	66.1	91.8	274.0	785.5	1073.0	875.6	499.4	232.0	66.3	39.4
85°	25.3	25.0	44.6	94.6	277.1	442.5	320.3	127.7	57.8	32.3	17.7
87.5°	7.1	6.8	9.7	32.8	67.5	102.4	54.8	21.0	16.3	12.7	5.2
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°	508.9	508.9	508.9	508.9	508.9	508.9	508.9	508.9	508.9	508.9	508.9
2.5°	510.5	511.7	513.8	515.5	517.6	520.0	523.3	525.4	527.5	528.9	528.0
5°	512.6	515.2	520.7	526.1	532.5	538.4	545.2	550.2	554.2	555.4	555.8
7.5°	517.4	521.6	530.8	540.0	550.2	559.8	569.8	578.3	585.1	587.7	587.9
10°	525.6	531.3	544.3	557.2	570.7	585.6	598.3	610.6	620.3	624.3	624.5
12.5°	536.0	543.1	560.1	578.0	596.7	617.2	633.7	648.8	660.9	666.3	666.3
15°	549.5	558.7	580.4	604.5	631.8	660.4	681.4	698.2	711.6	718.2	717.7
17.5°	564.1	576.4	603.7	640.1	679.3	716.8	741.3	753.6	767.5	773.9	773.7
20°	578.3	593.4	632.5	685.4	737.6	777.5	797.3	800.6	801.5	802.2	804.1
22.5°	592.9	613.2	668.7	742.5	798.5	826.1	828.9	814.7	794.9	785.7	788.3
25°	608.9	635.8	715.9	805.5	850.9	854.2	832.4	798.0	760.5	743.2	745.8
27.5°	624.5	662.0	772.5	865.7	888.6	859.6	812.9	764.0	718.7	700.5	702.6
30°	640.1	692.0	835.0	918.4	905.9	846.1	781.9	727.4	681.9	662.7	664.9
32.5°	655.9	726.9	907.0	956.4	902.8	817.6	743.5	686.4	646.2	626.2	628.8
35°	673.8	769.9	975.2	977.1	882.3	775.6	692.7	637.3	602.3	586.3	589.8
37.5°	697.2	824.4	1035.4	982.3	846.4	714.0	629.7	579.2	550.4	543.1	548.3
40°	726.2	890.0	1081.5	974.1	793.3	639.1	560.8	520.4	504.1	505.8	511.5
42.5°	764.0	963.4	1113.8	952.8	719.4	562.0	500.4	482.4	490.2	496.8	503.0
45°	813.1	1039.7	1133.8	916.7	635.8	496.6	464.7	469.0	474.9	475.6	480.3
47.5°	875.9	1116.9	1147.1	862.2	550.6	450.6	442.1	443.0	441.8	436.9	440.7
50°	954.2	1191.9	1158.9	790.0	478.2	421.8	410.4	407.1	390.9	374.8	376.9
52.5°	1043.5	1260.8	1163.8	700.3	421.8	397.7	379.3	358.5	328.1	323.1	324.8
55°	1142.6	1324.6	1151.1	590.1	374.3	366.8	338.9	313.9	310.6	306.4	307.1
57.5°	1261.1	1393.2	1125.1	467.1	325.7	330.7	303.5	306.4	300.5	293.8	292.7
60°	1390.6	1464.3	1079.6	355.0	275.4	285.6	294.3	294.1	292.4	287.0	285.1
62.5°	1507.2	1511.0	989.9	271.9	231.3	250.7	274.5	274.3	272.8	269.8	268.6
65°	1576.6	1503.9	840.2	214.1	195.0	221.9	247.6	249.5	249.7	249.5	249.5
67.5°	1564.4	1421.1	634.9	170.4	165.0	192.6	220.9	223.5	225.4	225.9	226.3
70°	1425.6	1239.1	414.0	135.9	138.3	166.9	195.7	198.3	199.9	201.8	202.7
72.5°	1111.2	911.0	237.0	110.0	114.9	144.7	170.6	173.7	174.7	178.2	179.6
75°	677.1	535.8	127.9	86.6	94.4	123.7	145.9	149.4	151.1	155.3	155.8
77.5°	321.9	232.0	72.9	67.5	76.0	101.0	123.2	127.2	122.7	125.1	123.2
80°	108.8	86.1	46.0	51.5	58.1	78.8	98.7	102.7	93.2	92.8	91.8
82.5°	38.0	34.9	29.3	34.2	37.5	56.4	74.6	79.8	69.4	69.2	65.9
85°	14.9	14.2	16.3	18.6	22.4	34.7	49.1	51.7	42.7	34.5	34.0
87.5°	3.1	3.3	4.0	4.2	6.8	12.0	17.7	21.7	17.2	14.6	13.5
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)