

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: P881534

Luminaire Tested: **NAV-SB1A-727-U-SL4**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P881534  
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-727-U-SL4  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(1) 70 CRI, 2700K, 350mA LIGHTSQUARE WITH 26 LEDS AND TYPE IV SPILL LIGHT  
ELIMINATOR OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

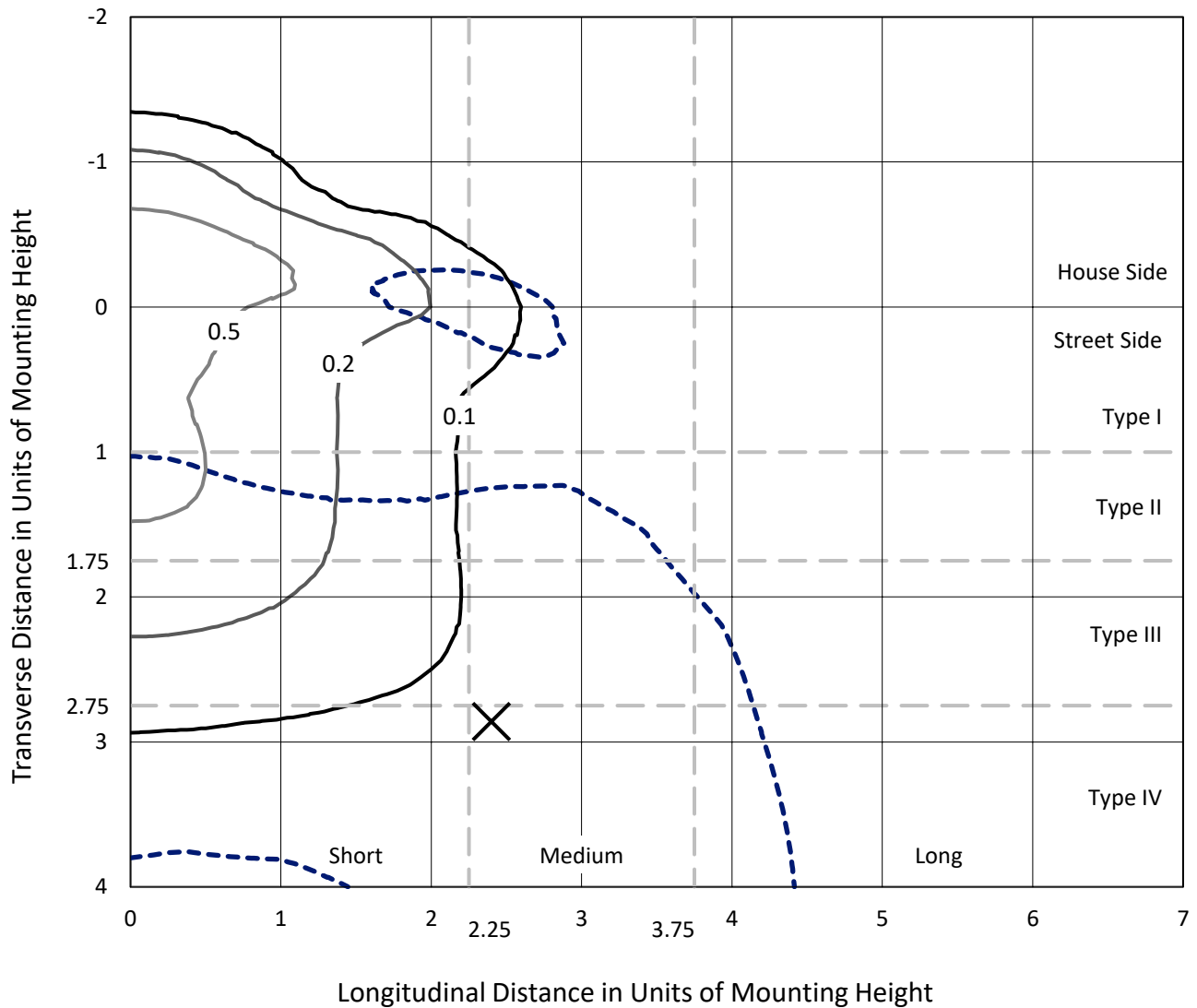
Lumens per Lamp: N/A  
Luminaire Lumens: 4033 lumens  
Efficiency: N/A  
Efficacy: 130.5 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type IV - Medium  
BUG Rating: B1 - U0 - G2  
  
Input Watts (W): 30.9  
Input Voltage (V): 120.0  
Input Current (Ain): 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



REPORT NUMBER: P881534  
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### Iso-Footcandle Lines of Horizontal Illumination

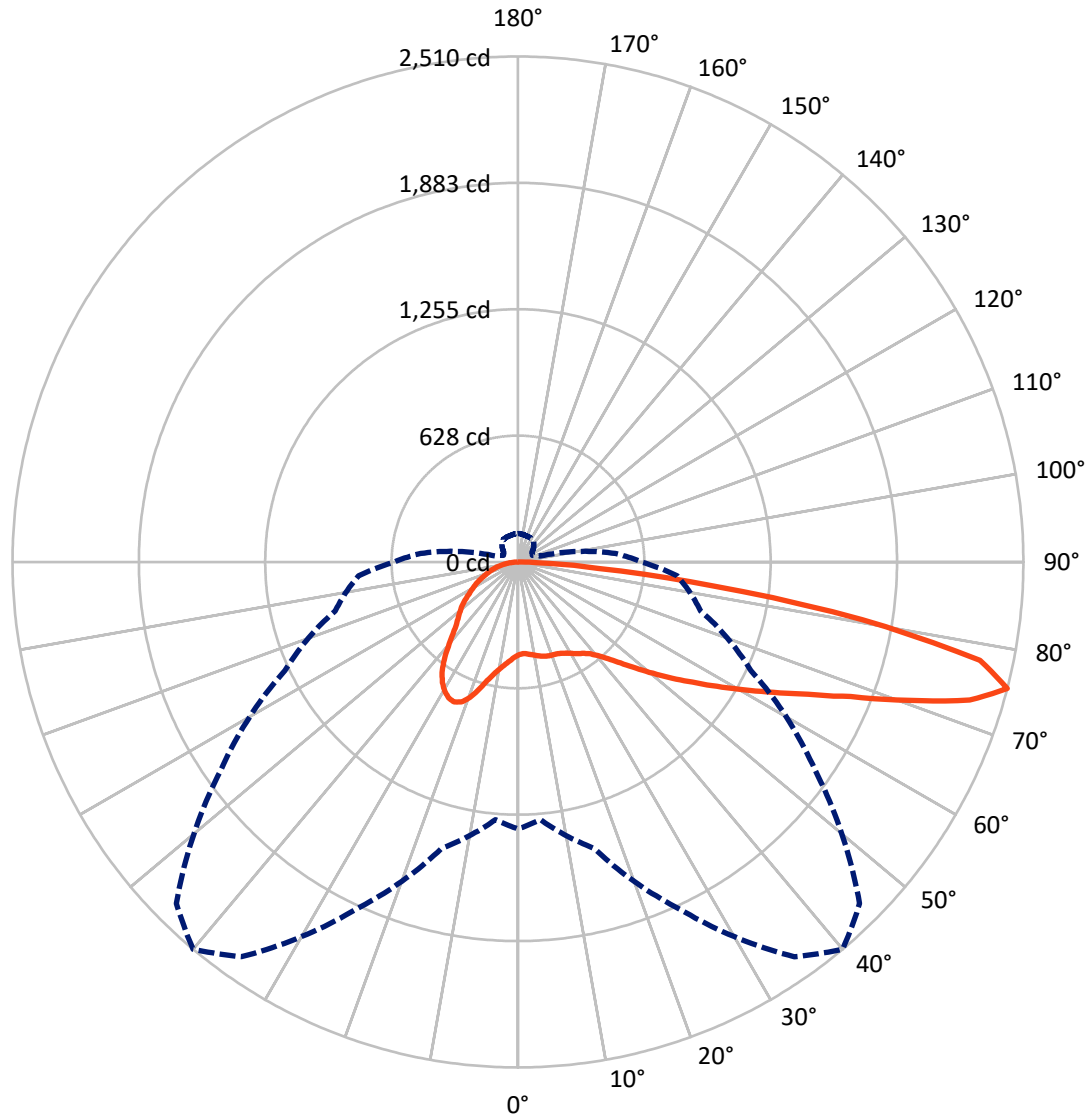
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1 fc  
 Type IV - Medium - N/A

REPORT NUMBER: P881534  
CATALOG NUMBER: NAV-SB1A-727-U-SL4

### Luminous Intensity Polar Plot



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

REPORT NUMBER: P881534  
 CATALOG NUMBER: NAV-SB1A-727-U-SL4

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1249.6	0.0	1249.6
	% Fixture	31.0	0.0	31.0
<b>Street Side</b>	Lumens	2783.4	0.0	2783.4
	% Fixture	69.0	0.0	69.0
<b>Total</b>	Lumens	4033.0	0.0	4033.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	46.0	1.1
10°-20°	154.6	3.8
20°-30°	282.2	7.0
30°-40°	400.3	9.9
40°-50°	540.5	13.4
50°-60°	727.1	18.0
60°-70°	922.8	22.9
70°-80°	837.5	20.8
80°-90°	122.1	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°	4033.0	100.0
0°-180°	4033.0	100.0

**Coefficient of Utilization**



REPORT NUMBER: P881534

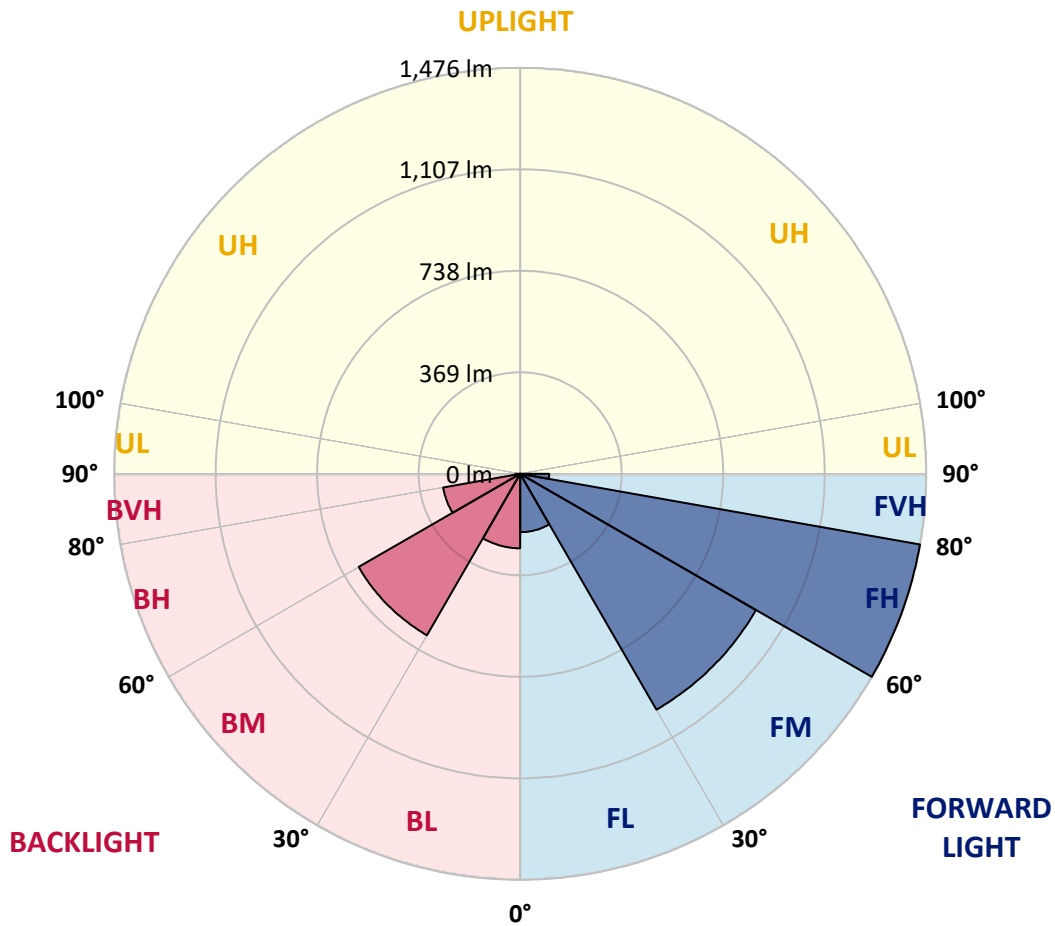
CATALOG NUMBER: NAV-SB1A-727-U-SL4

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	212.1	5.3			
FM (30°-60°)	990.0	24.5			
FH (60°-80°)	1476.0	36.6			G1/1800
FVH (80°-90°)	105.3	2.6			G2/225
BL (0°-30°)	270.7	6.7	B1/500		
BM (30°-60°)	677.8	16.8	B1/1000		
BH (60°-80°)	284.3	7.0	B1/500		G1/500
BVH (80°-90°)	16.8	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



REPORT NUMBER: P881534

CATALOG NUMBER: NAV-SB1A-727-U-SL4

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	461.2	461.2	461.2	461.2	461.2	461.2	461.2	461.2	461.2	461.2	461.2
2.5°	454.1	456.7	456.0	455.2	455.2	455.4	455.2	456.7	458.2	459.7	462.0
5°	458.8	461.4	460.1	459.0	458.2	458.0	457.3	457.1	458.0	459.9	463.1
7.5°	468.0	470.6	468.7	466.7	465.0	464.2	463.3	462.0	461.4	462.5	467.0
10°	478.3	480.9	478.5	475.1	472.3	471.2	470.4	469.1	468.2	468.9	473.8
12.5°	488.6	491.1	487.9	483.2	479.6	478.9	477.9	477.4	477.2	477.0	481.9
15°	498.2	500.3	496.3	490.7	486.8	485.8	484.7	485.4	486.4	487.7	493.3
17.5°	505.7	507.8	501.8	494.5	490.9	490.5	489.8	492.0	495.0	498.2	505.0
20°	512.5	514.7	507.0	497.1	492.8	492.8	493.1	497.5	501.8	506.5	515.9
22.5°	522.1	523.9	514.4	501.0	494.8	495.2	496.9	501.4	506.7	513.2	526.2
25°	536.5	537.8	526.2	508.2	501.2	502.5	504.0	506.1	511.2	518.7	536.3
27.5°	559.6	560.6	545.5	521.1	510.4	512.5	514.7	513.2	515.5	521.9	544.4
30°	592.1	592.7	573.5	541.2	526.0	527.1	527.5	521.3	516.8	521.9	550.2
32.5°	630.6	630.4	607.5	565.6	543.7	542.7	539.0	526.8	516.4	520.9	555.3
35°	690.3	687.9	658.4	599.8	563.9	557.2	548.7	533.1	518.5	519.8	559.8
37.5°	789.1	781.8	741.0	655.8	593.8	576.9	564.3	543.1	523.2	519.4	565.1
40°	900.5	891.3	846.4	732.6	638.7	611.6	591.2	557.4	530.9	521.3	573.1
42.5°	1032.7	1019.7	971.3	823.1	695.6	656.3	625.7	575.6	542.2	527.5	583.7
45°	1195.1	1177.8	1109.3	925.1	767.3	714.9	674.0	603.2	559.6	539.5	599.8
47.5°	1359.2	1363.4	1266.1	1041.9	853.3	787.2	734.5	644.7	584.8	558.7	625.7
50°	1533.5	1536.5	1422.0	1171.3	950.8	868.9	802.6	691.1	619.9	586.1	664.4
52.5°	1669.5	1670.0	1563.6	1306.7	1052.4	958.7	875.9	744.2	660.5	622.5	715.9
55°	1754.7	1753.6	1662.9	1434.9	1169.2	1053.1	957.2	804.5	710.2	665.2	780.8
57.5°	1816.5	1813.3	1731.3	1545.0	1293.7	1164.5	1049.2	872.9	768.8	716.2	866.1
60°	1840.0	1838.1	1777.8	1640.2	1424.6	1287.7	1155.3	949.5	835.3	776.3	975.8
62.5°	1849.0	1852.6	1823.3	1732.4	1564.7	1424.2	1271.9	1041.1	910.2	844.3	1091.6
65°	1880.7	1887.3	1881.3	1853.1	1723.0	1584.0	1426.5	1150.0	991.9	917.2	1212.4
67.5°	1943.3	1950.0	1952.5	1997.4	1916.4	1783.1	1619.5	1285.6	1087.5	992.9	1303.3
70°	1941.8	1939.9	1985.3	2112.3	2158.5	2058.8	1879.6	1452.4	1201.5	1055.8	1314.9
72.5°	1767.5	1752.1	1859.3	2111.0	2360.0	2346.8	2197.2	1667.6	1299.9	1063.5	1141.0
75°	1326.0	1284.9	1474.2	1902.5	2393.6	2510.2	2399.2	1801.1	1276.6	939.7	794.0
77.5°	567.1	525.8	748.9	1408.3	2142.3	2346.5	2213.9	1571.3	1019.0	621.4	389.9
80°	148.4	148.2	226.3	638.5	1456.9	1732.8	1520.2	1014.8	582.2	222.0	107.6
82.5°	61.4	59.9	83.2	248.3	711.9	972.4	793.6	452.6	210.3	60.1	35.7
85°	22.9	22.7	40.4	85.8	251.1	401.1	290.3	115.7	52.4	29.3	16.0
87.5°	6.4	6.2	8.8	29.7	61.2	92.8	49.6	19.0	14.8	11.6	4.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

REPORT NUMBER: P881534

CATALOG NUMBER: NAV-SB1A-727-U-SL4

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	461.2	461.2	461.2	461.2	461.2	461.2	461.2	461.2	461.2	461.2	461.2
2.5°	462.7	463.7	465.7	467.2	469.1	471.2	474.2	476.2	478.1	479.4	478.5
5°	464.6	467.0	471.9	476.8	482.6	487.9	494.1	498.6	502.2	503.3	503.7
7.5°	468.9	472.7	481.1	489.4	498.6	507.4	516.4	524.1	530.3	532.6	532.8
10°	476.4	481.5	493.3	505.0	517.2	530.7	542.2	553.4	562.1	565.8	566.0
12.5°	485.8	492.2	507.6	523.9	540.8	559.4	574.3	588.0	598.9	603.9	603.9
15°	498.0	506.3	526.0	547.8	572.6	598.5	617.5	632.7	644.9	650.9	650.5
17.5°	511.2	522.4	547.2	580.1	615.6	649.6	671.9	683.0	695.6	701.4	701.2
20°	524.1	537.8	573.3	621.2	668.5	704.6	722.6	725.6	726.4	727.1	728.8
22.5°	537.3	555.7	606.0	672.9	723.6	748.7	751.2	738.4	720.4	712.1	714.4
25°	551.9	576.3	648.8	730.1	771.1	774.1	754.4	723.2	689.2	673.6	675.9
27.5°	566.0	600.0	700.1	784.6	805.4	779.0	736.7	692.4	651.3	634.9	636.8
30°	580.1	627.2	756.8	832.3	821.0	766.8	708.7	659.3	618.0	600.6	602.6
32.5°	594.4	658.8	822.0	866.7	818.2	741.0	673.8	622.0	585.7	567.5	569.8
35°	610.7	697.8	883.9	885.6	799.6	702.9	627.8	577.5	545.9	531.3	534.5
37.5°	631.9	747.2	938.4	890.3	767.1	647.1	570.7	524.9	498.8	492.2	496.9
40°	658.2	806.6	980.1	882.8	718.9	579.3	508.2	471.7	456.9	458.4	463.5
42.5°	692.4	873.2	1009.4	863.5	652.0	509.3	453.5	437.2	444.3	450.3	455.8
45°	736.9	942.3	1027.6	830.8	576.3	450.1	421.2	425.0	430.4	431.0	435.3
47.5°	793.8	1012.2	1039.6	781.4	499.0	408.3	400.6	401.5	400.4	395.9	399.4
50°	864.8	1080.2	1050.3	715.9	433.4	382.2	372.0	369.0	354.2	339.7	341.6
52.5°	945.7	1142.7	1054.8	634.7	382.2	360.4	343.7	324.9	297.3	292.8	294.3
55°	1035.5	1200.4	1043.2	534.8	339.3	332.4	307.2	284.5	281.5	277.6	278.3
57.5°	1142.9	1262.7	1019.7	423.3	295.2	299.7	275.1	277.6	272.3	266.3	265.2
60°	1260.3	1327.1	978.4	321.7	249.6	258.8	266.7	266.5	265.0	260.1	258.4
62.5°	1366.0	1369.4	897.1	246.4	209.6	227.2	248.8	248.6	247.3	244.5	243.4
65°	1428.9	1363.0	761.5	194.0	176.7	201.1	224.4	226.1	226.3	226.1	226.1
67.5°	1417.8	1287.9	575.4	154.4	149.5	174.5	200.2	202.6	204.3	204.7	205.1
70°	1292.0	1123.0	375.2	123.2	125.3	151.2	177.3	179.7	181.2	182.9	183.7
72.5°	1007.1	825.7	214.8	99.7	104.2	131.1	154.7	157.4	158.3	161.5	162.8
75°	613.7	485.6	115.9	78.5	85.6	112.1	132.2	135.4	136.9	140.7	141.2
77.5°	291.8	210.3	66.1	61.2	68.9	91.6	111.7	115.3	111.2	113.4	111.7
80°	98.6	78.1	41.7	46.6	52.6	71.4	89.4	93.0	84.5	84.1	83.2
82.5°	34.4	31.7	26.5	31.0	34.0	51.1	67.6	72.3	62.9	62.7	59.7
85°	13.5	12.8	14.8	16.9	20.3	31.4	44.5	46.8	38.7	31.2	30.8
87.5°	2.8	3.0	3.6	3.9	6.2	10.9	16.0	19.7	15.6	13.3	12.2
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)