

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: P196447

Luminaire Tested: **NAV-AF-01-D-UNV-5WQ-7030-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P196447  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24131)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-AF-01-D-UNV-5WQ-7030-800  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 3000K, 800mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE V WIDE OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4966.9 lumens  
Efficiency: N/A  
Efficacy: 112.9 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type V - Short - Semi-Cutoff  
BUG Rating: B3 - U0 - G1

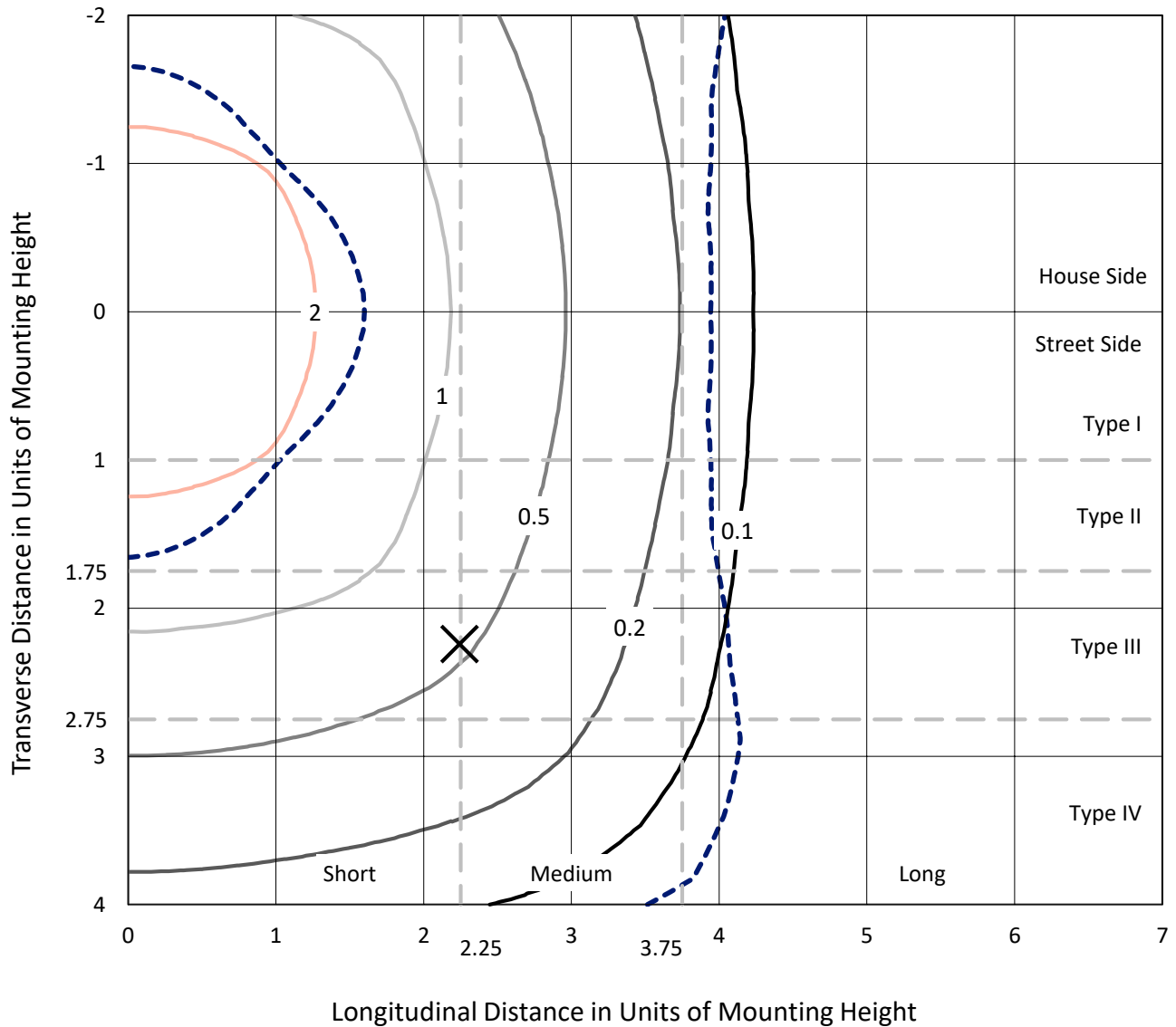
Input Watts (W): 44  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

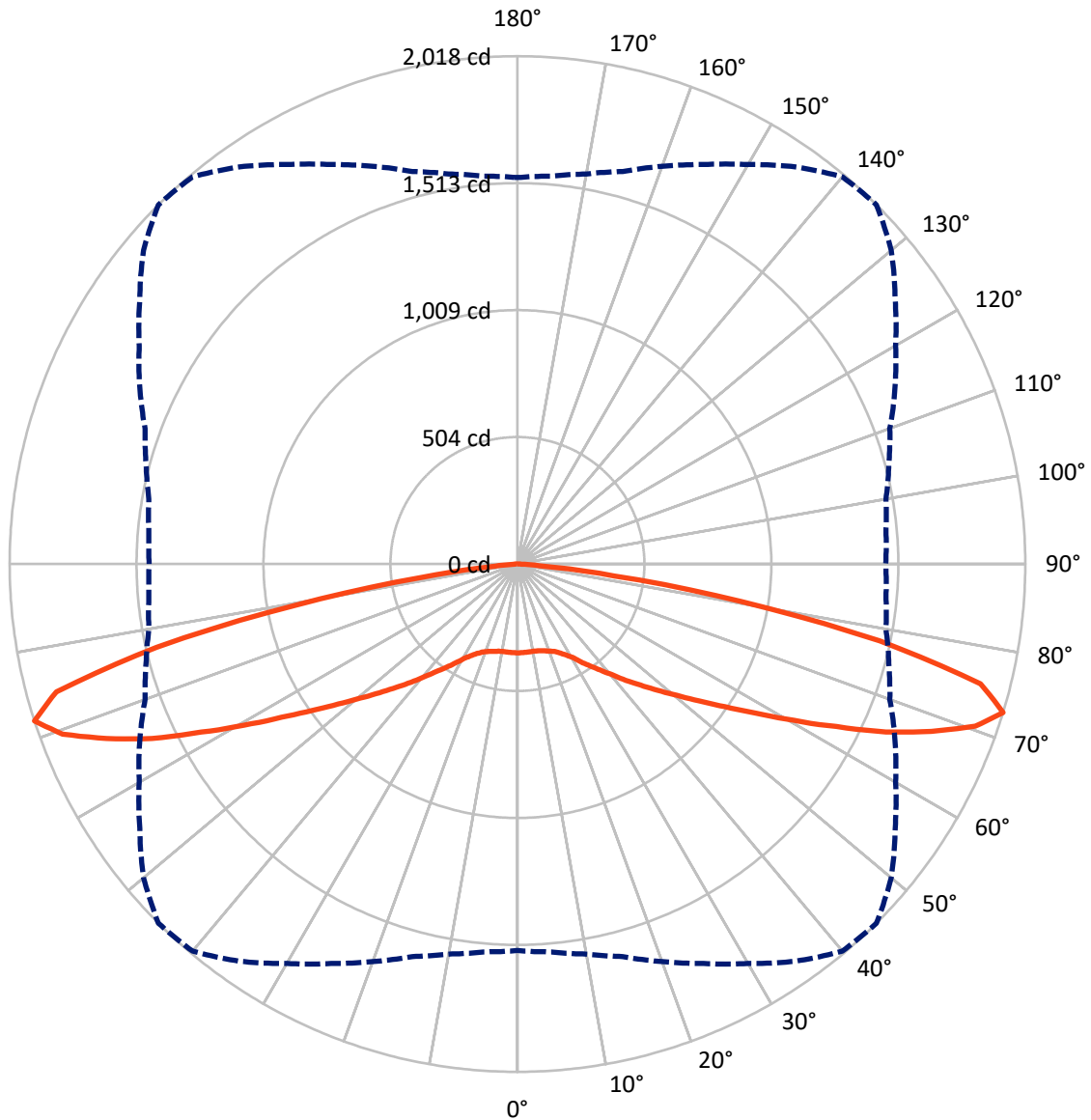
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3.5 fc  
 Type V - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral    - - - Horizontal Cone Through 72.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2483.5	0.0	2483.5
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	2483.5	0.0	2483.5
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	4966.9	0.0	4966.9
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	33.7	0.7
10°-20°	102.0	2.1
20°-30°	184.1	3.7
30°-40°	314.1	6.3
40°-50°	534.8	10.8
50°-60°	860.6	17.3
60°-70°	1431.2	28.8
70°-80°	1384.5	27.9
80°-90°	121.9	2.5
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°	4966.9	100.0
0°-180°	4966.9	100.0



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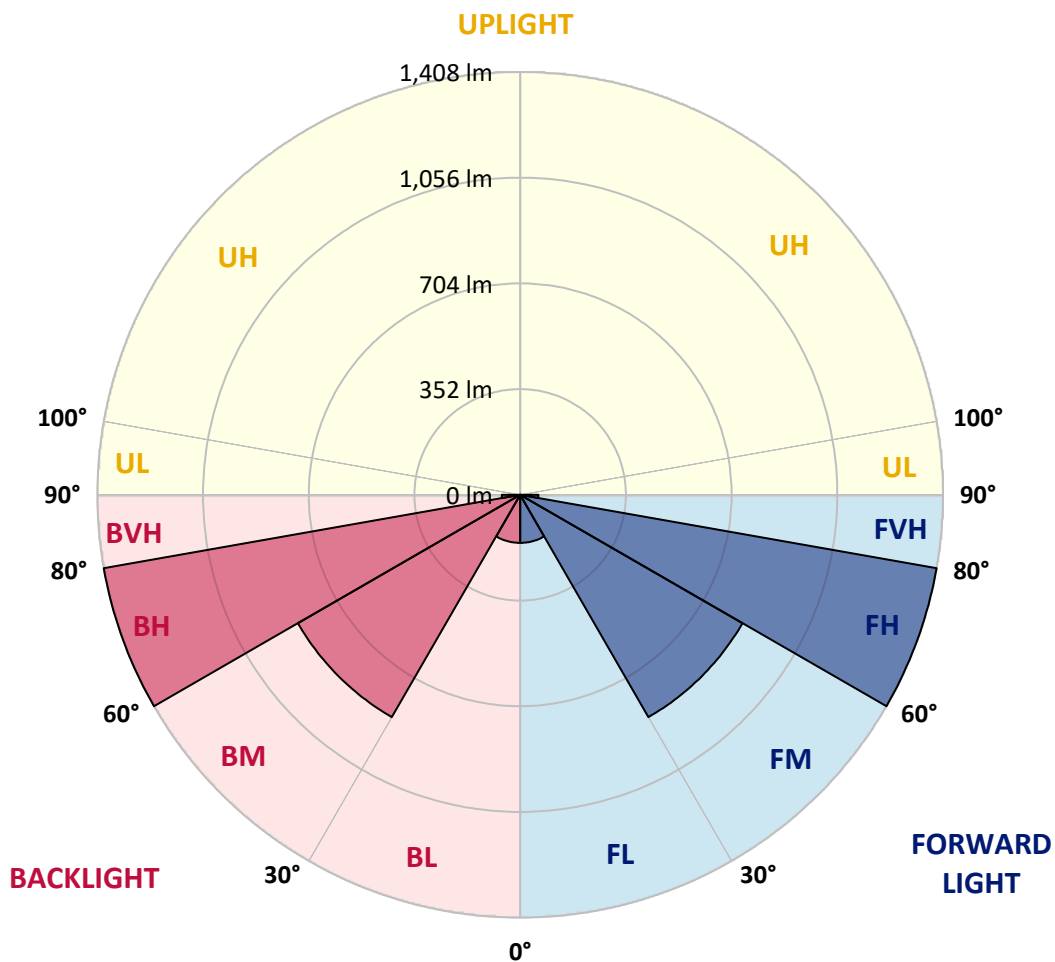
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	159.9	3.2			
FM (30°-60°)	854.7	17.2			
FH (60°-80°)	1407.9	28.3			G1/1800
FVH (80°-90°)	60.9	1.2			G1/100
BL (0°-30°)	159.9	3.2	B1/500		
BM (30°-60°)	854.7	17.2	B1/1000		
BH (60°-80°)	1407.9	28.3	B3/2500		G1/1800
BVH (80°-90°)	60.9	1.2			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G1**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	353.1	353.1	353.1	353.1	353.1	353.1	353.1	353.1	353.1	353.1	353.1
2.5°	355.8	355.8	356.1	355.8	355.2	355.0	354.0	353.5	352.8	352.5	352.0
5°	356.1	356.1	356.5	356.1	355.5	355.0	354.3	353.5	352.8	352.2	352.0
7.5°	357.4	357.8	358.1	357.8	356.5	355.8	355.0	354.0	352.8	352.2	351.6
10°	359.8	359.8	359.8	359.6	358.6	357.4	356.1	355.2	353.7	352.2	351.3
12.5°	361.6	361.9	361.9	361.3	360.1	358.6	357.4	356.5	355.2	354.0	353.1
15°	364.4	364.4	364.2	362.8	361.1	359.8	359.3	358.9	358.6	358.1	357.1
17.5°	370.0	369.7	368.8	366.9	364.7	363.9	363.2	363.2	363.2	362.8	362.3
20°	377.9	377.9	376.6	373.5	371.8	370.8	370.0	370.0	370.0	369.0	368.1
22.5°	390.7	391.0	389.2	385.4	383.1	381.2	380.0	379.1	378.1	377.6	376.1
25°	408.2	407.9	405.7	401.1	399.3	397.4	395.0	393.5	392.2	391.3	389.5
27.5°	426.4	426.2	423.7	419.8	418.6	415.7	414.0	411.8	410.3	408.7	406.9
30°	450.0	448.5	446.7	443.6	443.0	440.9	438.4	435.4	432.8	430.5	428.3
32.5°	471.1	471.1	468.4	466.9	468.0	467.2	467.4	465.7	464.2	463.2	461.1
35°	500.5	500.5	499.2	497.4	497.6	495.6	495.3	495.6	496.8	496.8	494.4
37.5°	539.6	540.2	536.3	535.6	534.1	531.0	529.5	530.1	532.8	534.4	531.0
40°	588.3	589.5	588.3	584.2	582.4	577.2	574.1	574.1	576.4	577.9	576.6
42.5°	636.2	638.4	636.2	633.1	631.6	627.7	626.2	627.3	630.1	631.9	630.1
45°	689.8	691.3	688.5	684.8	683.0	680.8	679.9	680.8	683.9	685.7	685.2
47.5°	742.3	744.4	741.1	739.5	739.5	737.4	739.9	742.3	745.0	749.3	747.5
50°	793.7	796.4	794.4	794.6	797.0	801.0	805.6	810.4	815.4	820.0	820.5
52.5°	839.5	843.8	844.1	849.6	857.2	863.3	876.3	886.8	898.5	902.5	900.7
55°	887.8	893.6	901.3	909.8	922.0	934.6	956.3	975.5	990.9	1000.4	998.8
57.5°	956.9	962.7	970.7	984.8	1003.1	1020.2	1049.9	1079.8	1103.1	1117.4	1110.4
60°	1046.4	1052.6	1063.0	1078.0	1101.9	1125.1	1165.7	1208.9	1244.9	1261.4	1248.7
62.5°	1165.1	1170.9	1177.6	1197.5	1224.1	1254.1	1305.1	1360.5	1406.2	1422.2	1404.2
65°	1334.2	1341.1	1343.4	1359.5	1385.5	1413.4	1468.5	1530.7	1583.0	1609.1	1572.9
67.5°	1524.6	1527.5	1535.9	1554.9	1581.5	1606.5	1650.1	1709.1	1759.2	1773.5	1735.0
70°	1636.2	1641.7	1656.7	1683.0	1714.9	1754.2	1801.6	1865.3	1922.1	1928.9	1880.0
72.5°	1535.3	1546.7	1573.3	1614.2	1680.9	1750.9	1832.5	1926.4	2007.9	2017.5	1939.0
75°	1231.5	1244.3	1276.0	1321.1	1399.9	1503.9	1621.9	1762.8	1885.0	1900.7	1796.8
77.5°	656.4	672.3	718.5	779.0	891.4	1029.1	1171.3	1332.1	1436.0	1471.1	1396.3
80°	165.4	173.9	196.2	231.7	307.9	418.8	541.5	714.4	843.5	898.2	843.5
82.5°	64.3	70.6	76.7	81.1	88.4	103.7	143.1	233.3	314.2	387.0	335.1
85°	24.8	26.3	37.9	43.1	43.1	47.4	54.4	64.3	79.5	86.9	72.7
87.5°	9.9	10.7	13.1	20.2	20.8	18.3	19.5	22.0	16.8	14.1	16.0
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):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	353.1	353.1	353.1	353.1	353.1	353.1	353.1	353.1
2.5°	351.6	351.3	350.6	350.9	350.6	350.6	350.6	350.6
5°	351.3	351.3	350.6	350.6	350.6	350.9	350.6	350.6
7.5°	350.9	350.6	350.0	349.7	349.7	349.4	349.4	349.4
10°	350.4	349.7	349.1	348.9	348.9	348.2	348.2	348.2
12.5°	352.0	350.9	350.4	350.0	350.0	350.0	350.4	350.4
15°	356.1	354.3	353.5	353.1	353.5	354.0	354.3	354.6
17.5°	360.8	358.9	357.4	356.7	357.1	358.1	358.9	359.6
20°	366.6	365.0	363.2	362.6	362.6	363.9	364.4	365.4
22.5°	374.9	373.5	372.0	371.2	370.5	372.0	373.0	373.5
25°	388.0	386.8	385.4	384.6	384.3	385.8	386.4	386.8
27.5°	405.4	404.2	403.6	403.2	402.3	402.9	403.8	403.6
30°	428.0	429.0	428.0	428.0	426.4	427.1	426.4	425.9
32.5°	458.3	457.4	454.6	452.8	450.5	450.5	449.7	448.8
35°	488.5	485.4	483.9	484.9	483.9	484.6	483.0	481.5
37.5°	524.3	522.5	522.1	524.9	524.3	524.9	524.9	522.8
40°	571.8	570.5	572.6	577.2	579.1	578.7	579.3	576.6
42.5°	626.2	624.0	624.9	628.9	631.0	631.6	631.3	628.9
45°	680.5	681.1	681.1	685.4	687.6	688.8	686.7	685.7
47.5°	742.0	743.0	740.8	743.5	744.2	746.2	744.4	743.0
50°	812.9	809.6	804.7	805.6	805.6	805.0	802.8	801.0
52.5°	892.1	884.5	875.2	872.2	868.8	865.6	861.2	857.9
55°	982.2	969.1	952.6	945.0	938.5	930.9	921.2	917.8
57.5°	1086.8	1064.1	1042.3	1028.4	1012.0	1001.9	989.4	988.7
60°	1210.9	1180.4	1141.5	1121.1	1104.6	1092.7	1083.2	1079.5
62.5°	1354.4	1301.9	1259.9	1237.9	1218.6	1211.2	1199.3	1200.9
65°	1501.4	1447.9	1407.3	1389.6	1371.5	1366.7	1355.6	1359.5
67.5°	1660.7	1616.7	1572.0	1555.6	1539.0	1534.1	1522.8	1526.2
70°	1803.5	1747.5	1696.8	1664.3	1636.2	1613.6	1599.2	1593.4
72.5°	1832.0	1735.0	1655.2	1574.2	1527.5	1486.5	1469.6	1463.2
75°	1646.0	1495.6	1381.9	1286.7	1234.2	1174.5	1168.2	1159.4
77.5°	1280.4	1109.2	971.7	849.3	778.7	706.0	680.8	661.9
80°	763.7	586.9	454.9	318.8	260.1	209.4	196.8	183.8
82.5°	273.3	175.2	118.0	92.0	82.3	75.8	70.9	64.5
85°	66.0	55.6	52.6	47.7	47.1	40.1	28.4	25.3
87.5°	21.1	19.2	19.5	18.7	19.5	14.6	11.9	10.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)