

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: P196933

Luminaire Tested: **NAV-AF-01-D-UNV-5WQ-8030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P196933  
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-8030  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(1) 80 CRI, 3000K, 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE V WIDE OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5186 lumens  
Efficiency: N/A  
Efficacy: 87.9 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): 59  
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

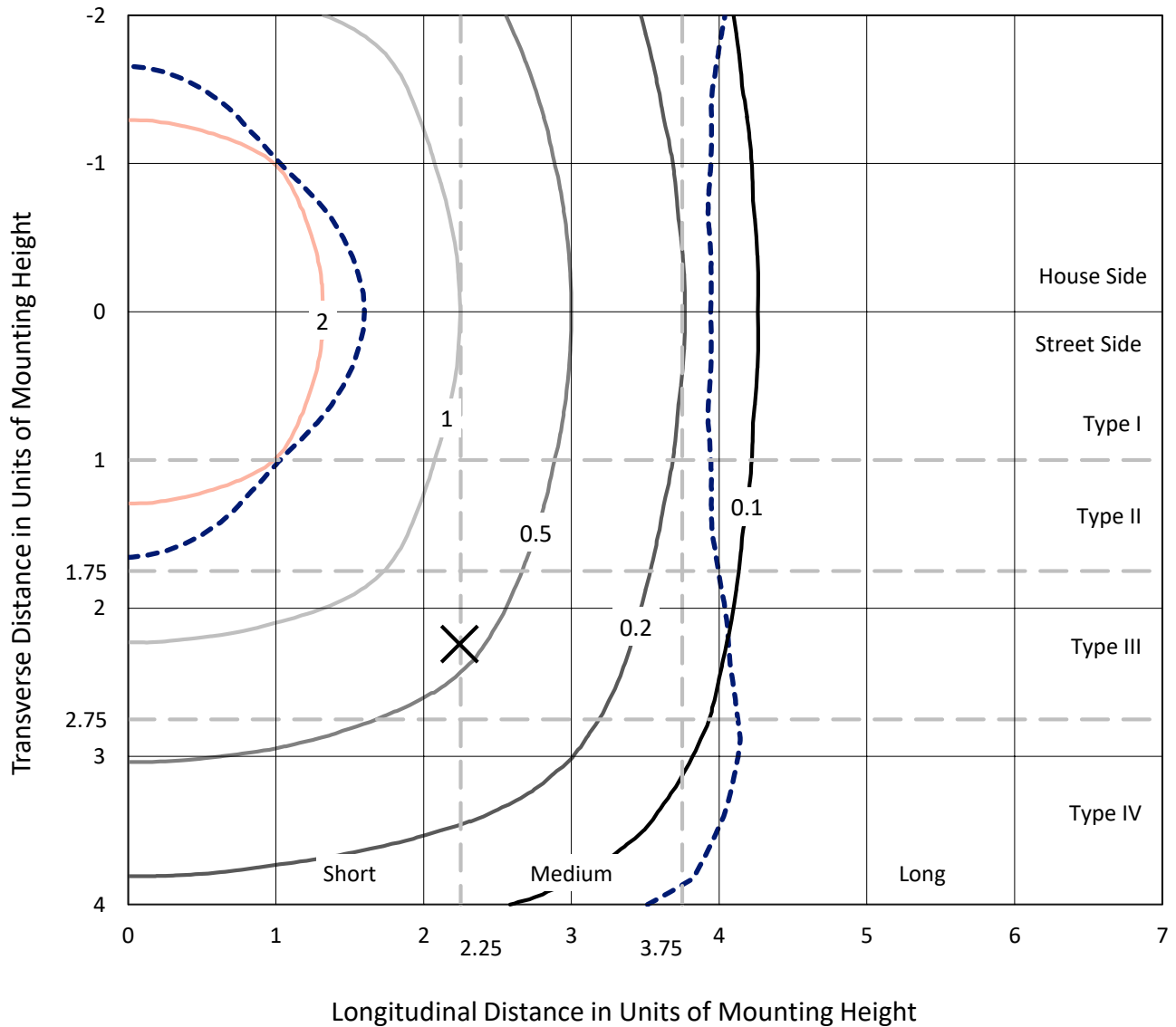


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

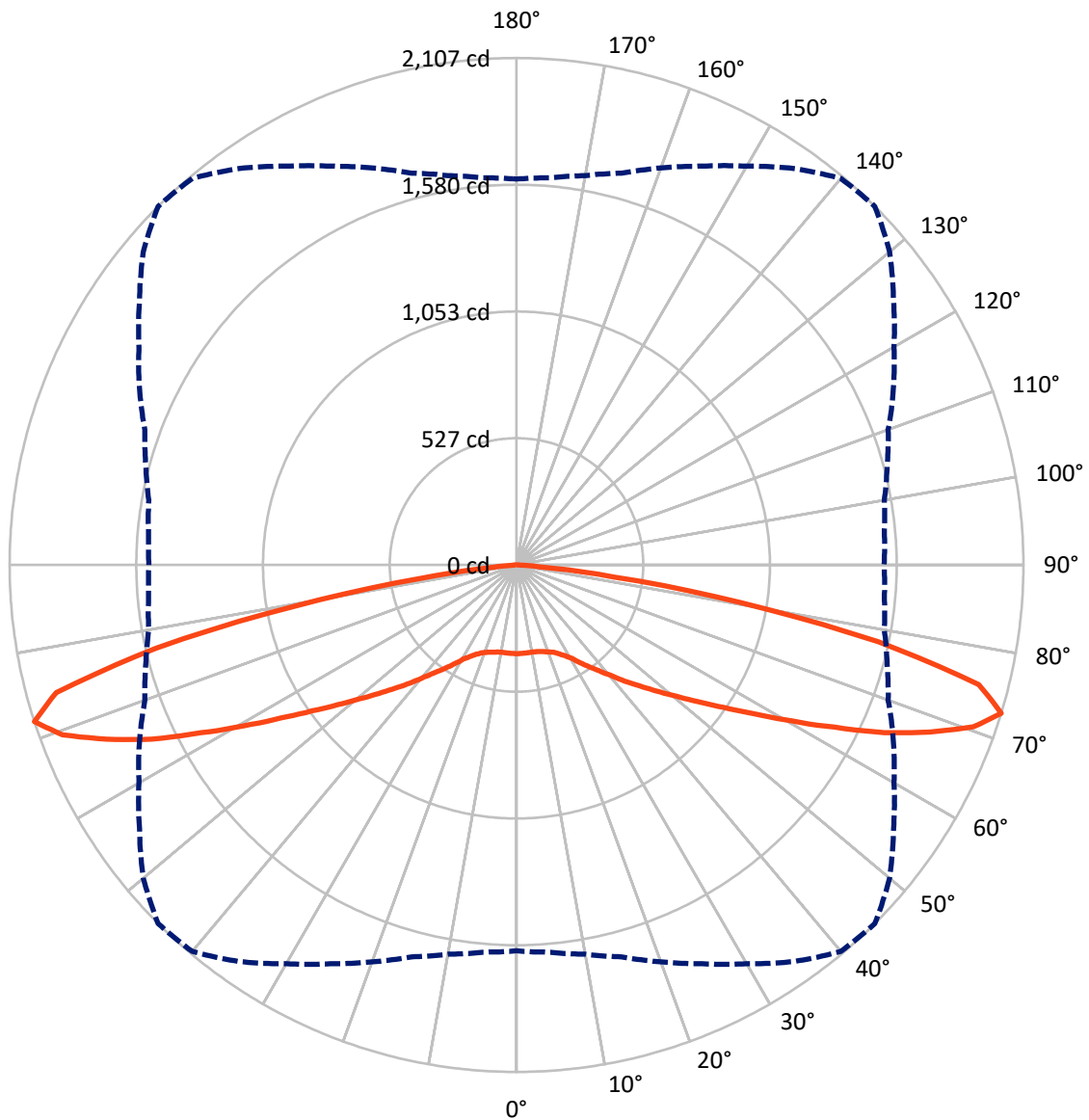


Based on 10 foot mounting height. Maximum calculated value = 3.7 fc  
 Type V - Short - Semi-Cutoff

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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	2593.0	0.0	2593.0
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	2593.0	0.0	2593.0
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	5186.0	0.0	5186.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	35.2	0.7
10°-20°	106.5	2.1
20°-30°	192.3	3.7
30°-40°	328.0	6.3
40°-50°	558.3	10.8
50°-60°	898.6	17.3
60°-70°	1494.3	28.8
70°-80°	1445.6	27.9
80°-90°	127.2	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°	5186.0	100.0
0°-180°	5186.0	100.0



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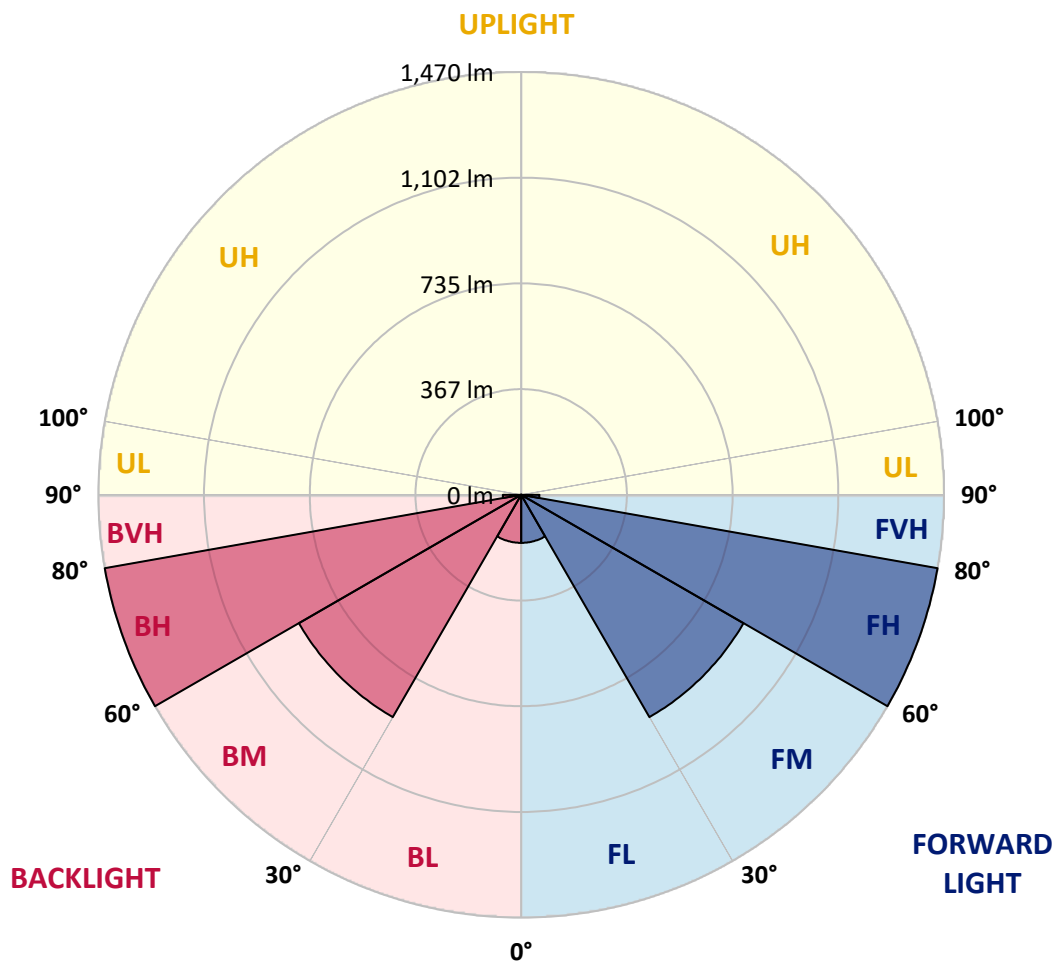
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	167.0	3.2			
FM (30°-60°)	892.4	17.2			
FH (60°-80°)	1470.0	28.3			G1/1800
FVH (80°-90°)	63.6	1.2			G1/100
BL (0°-30°)	167.0	3.2	B1/500		
BM (30°-60°)	892.4	17.2	B1/1000		
BH (60°-80°)	1470.0	28.3	B3/2500		G1/1800
BVH (80°-90°)	63.6	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°	368.7	368.7	368.7	368.7	368.7	368.7	368.7	368.7	368.7	368.7	368.7
2.5°	371.6	371.6	371.9	371.6	370.9	370.6	369.6	369.0	368.4	368.0	367.4
5°	371.9	371.9	372.2	371.9	371.2	370.6	370.0	369.0	368.4	367.7	367.4
7.5°	373.2	373.5	373.8	373.5	372.2	371.6	370.6	369.6	368.4	367.7	367.1
10°	375.7	375.7	375.7	375.4	374.4	373.2	371.9	370.9	369.3	367.7	366.8
12.5°	377.6	377.9	377.9	377.3	376.0	374.4	373.2	372.2	370.9	369.6	368.7
15°	380.5	380.5	380.2	378.9	377.0	375.7	375.1	374.8	374.4	373.8	372.8
17.5°	386.2	385.9	385.0	383.1	380.8	379.9	379.2	379.2	379.2	378.9	378.3
20°	394.5	394.5	393.3	390.1	388.2	387.2	386.2	386.2	386.2	385.3	384.3
22.5°	407.9	408.3	406.4	402.5	400.0	398.1	396.8	395.8	394.9	394.2	392.6
25°	426.1	425.8	423.6	418.8	416.9	415.0	412.4	410.8	409.5	408.6	406.7
27.5°	445.3	445.0	442.4	438.3	437.0	434.1	432.2	430.0	428.4	426.8	424.9
30°	469.9	468.3	466.4	463.2	462.5	460.3	457.7	454.6	452.0	449.4	447.2
32.5°	491.9	491.9	489.0	487.4	488.7	487.8	488.1	486.2	484.6	483.6	481.4
35°	522.5	522.5	521.3	519.4	519.7	517.4	517.1	517.4	518.7	518.7	516.2
37.5°	563.4	564.0	559.9	559.3	557.7	554.5	552.9	553.5	556.4	558.0	554.5
40°	614.2	615.4	614.2	610.0	608.1	602.7	599.5	599.5	601.7	603.3	602.0
42.5°	664.3	666.5	664.3	661.1	659.5	655.3	653.7	655.0	657.9	659.8	657.9
45°	720.1	721.7	718.9	715.0	713.1	710.9	709.9	710.9	714.1	716.0	715.3
47.5°	775.0	777.3	773.8	772.2	772.2	769.9	772.5	775.0	777.9	782.4	780.5
50°	828.7	831.5	829.3	829.6	832.2	836.3	841.1	846.2	851.3	856.1	856.8
52.5°	876.5	881.0	881.3	887.1	895.1	901.4	914.9	926.0	938.2	942.3	940.4
55°	927.0	933.0	941.0	950.0	962.7	975.8	998.5	1018.6	1034.6	1044.4	1042.9
57.5°	999.1	1005.2	1013.5	1028.2	1047.3	1065.2	1096.2	1127.4	1151.7	1166.7	1159.4
60°	1092.7	1099.0	1109.9	1125.5	1150.4	1174.7	1217.1	1262.1	1299.8	1317.1	1303.6
62.5°	1216.5	1222.6	1229.6	1250.3	1278.1	1309.4	1362.7	1420.5	1468.4	1485.0	1466.1
65°	1393.0	1400.4	1402.6	1419.5	1446.7	1475.7	1533.2	1598.3	1652.9	1680.0	1642.3
67.5°	1591.9	1594.8	1603.7	1623.5	1651.3	1677.4	1722.8	1784.4	1836.7	1851.7	1811.5
70°	1708.4	1714.1	1729.8	1757.2	1790.4	1831.6	1881.1	1947.5	2006.9	2013.9	1962.8
72.5°	1603.1	1614.9	1642.6	1685.4	1755.0	1828.1	1913.3	2011.3	2096.6	2106.5	2024.4
75°	1285.8	1299.2	1332.4	1379.3	1461.7	1570.2	1693.4	1840.6	1968.2	1984.5	1876.0
77.5°	685.3	701.9	750.1	813.3	930.8	1074.5	1222.9	1390.8	1499.3	1536.0	1457.8
80°	172.7	181.6	204.9	242.0	321.4	437.3	565.3	746.0	880.7	937.8	880.7
82.5°	67.0	73.7	80.1	84.6	92.3	108.2	149.4	243.6	328.1	404.1	349.9
85°	25.9	27.5	39.6	45.0	45.0	49.5	56.8	67.0	83.0	90.7	76.0
87.5°	10.2	11.2	13.7	21.1	21.7	19.2	20.4	23.0	17.6	14.7	16.6
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°	368.7	368.7	368.7	368.7	368.7	368.7	368.7	368.7
2.5°	367.1	366.8	366.1	366.5	366.1	366.1	366.1	366.1
5°	366.8	366.8	366.1	366.1	366.1	366.5	366.1	366.1
7.5°	366.5	366.1	365.5	365.2	365.2	364.9	364.9	364.9
10°	365.8	365.2	364.5	364.2	364.2	363.6	363.6	363.6
12.5°	367.4	366.5	365.8	365.5	365.5	365.5	365.8	365.8
15°	371.9	370.0	369.0	368.7	369.0	369.6	370.0	370.3
17.5°	376.7	374.8	373.2	372.5	372.8	373.8	374.8	375.4
20°	382.7	381.1	379.2	378.6	378.6	379.9	380.5	381.5
22.5°	391.3	390.1	388.5	387.5	386.9	388.5	389.4	390.1
25°	405.1	403.8	402.5	401.6	401.2	402.8	403.5	403.8
27.5°	423.3	422.0	421.4	421.0	420.1	420.7	421.7	421.4
30°	446.9	447.8	446.9	446.9	445.3	445.9	445.3	444.7
32.5°	478.5	477.5	474.7	472.7	470.5	470.5	469.6	468.6
35°	510.1	506.9	505.3	506.3	505.3	505.9	504.3	502.8
37.5°	547.4	545.5	545.2	548.1	547.4	548.1	548.1	545.8
40°	596.9	595.6	597.9	602.7	604.6	604.3	604.9	602.0
42.5°	653.7	651.5	652.5	656.6	658.8	659.5	659.2	656.6
45°	710.6	711.2	711.2	715.7	717.9	719.2	716.9	716.0
47.5°	774.7	775.7	773.4	776.3	777.0	779.2	777.3	775.7
50°	848.8	845.3	840.2	841.1	841.1	840.5	838.2	836.3
52.5°	931.5	923.5	913.9	910.7	907.2	903.7	899.2	895.7
55°	1025.6	1011.9	994.7	986.7	980.0	972.0	961.8	958.3
57.5°	1134.8	1111.2	1088.2	1073.8	1056.6	1046.0	1033.0	1032.3
60°	1264.4	1232.5	1191.9	1170.5	1153.3	1140.9	1131.0	1127.1
62.5°	1414.1	1359.2	1315.5	1292.5	1272.4	1264.7	1252.3	1253.9
65°	1567.6	1511.8	1469.3	1450.8	1432.0	1426.9	1415.4	1419.5
67.5°	1733.9	1688.0	1641.4	1624.1	1606.9	1601.8	1590.0	1593.5
70°	1883.0	1824.6	1771.6	1737.8	1708.4	1684.8	1669.8	1663.7
72.5°	1912.7	1811.5	1728.2	1643.6	1594.8	1552.0	1534.4	1527.7
75°	1718.6	1561.6	1442.8	1343.5	1288.6	1226.4	1219.7	1210.4
77.5°	1336.8	1158.1	1014.4	886.8	813.0	737.1	710.9	691.1
80°	797.4	612.9	475.0	332.9	271.6	218.7	205.6	191.8
82.5°	285.4	182.9	123.2	96.1	85.9	79.2	74.1	67.4
85°	68.9	58.1	54.9	49.8	49.2	41.8	29.7	26.5
87.5°	22.0	20.1	20.4	19.5	20.4	15.3	12.4	11.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)