

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: P270251

Luminaire Tested: **NAV-AF-01-D-UNV-5WQ-7027-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P270251  
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-7027-800  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 2700K, 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: 4461.8 lumens  
Efficiency: N/A  
Efficacy: 101.4 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

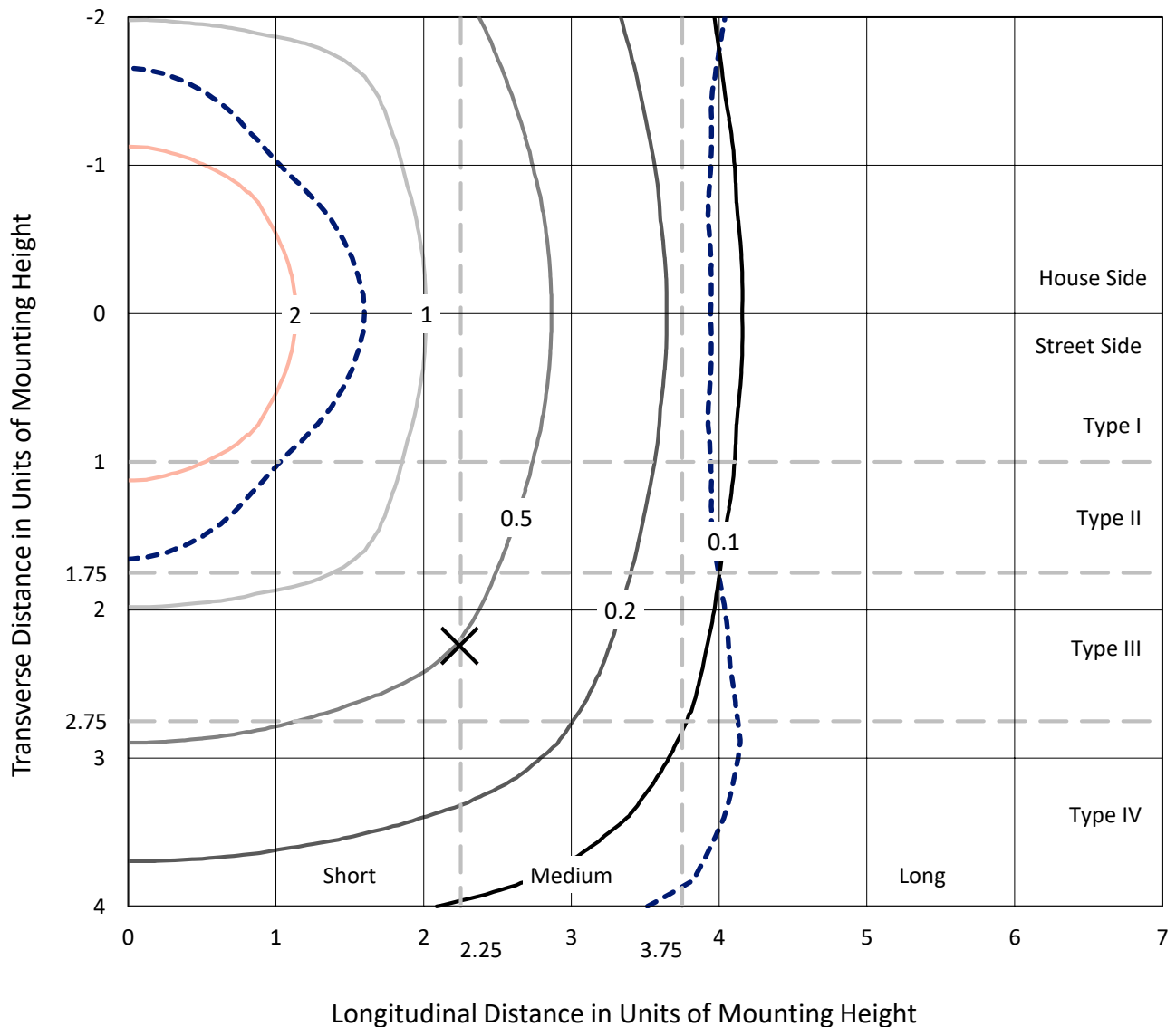
Input Watts (W): 44  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

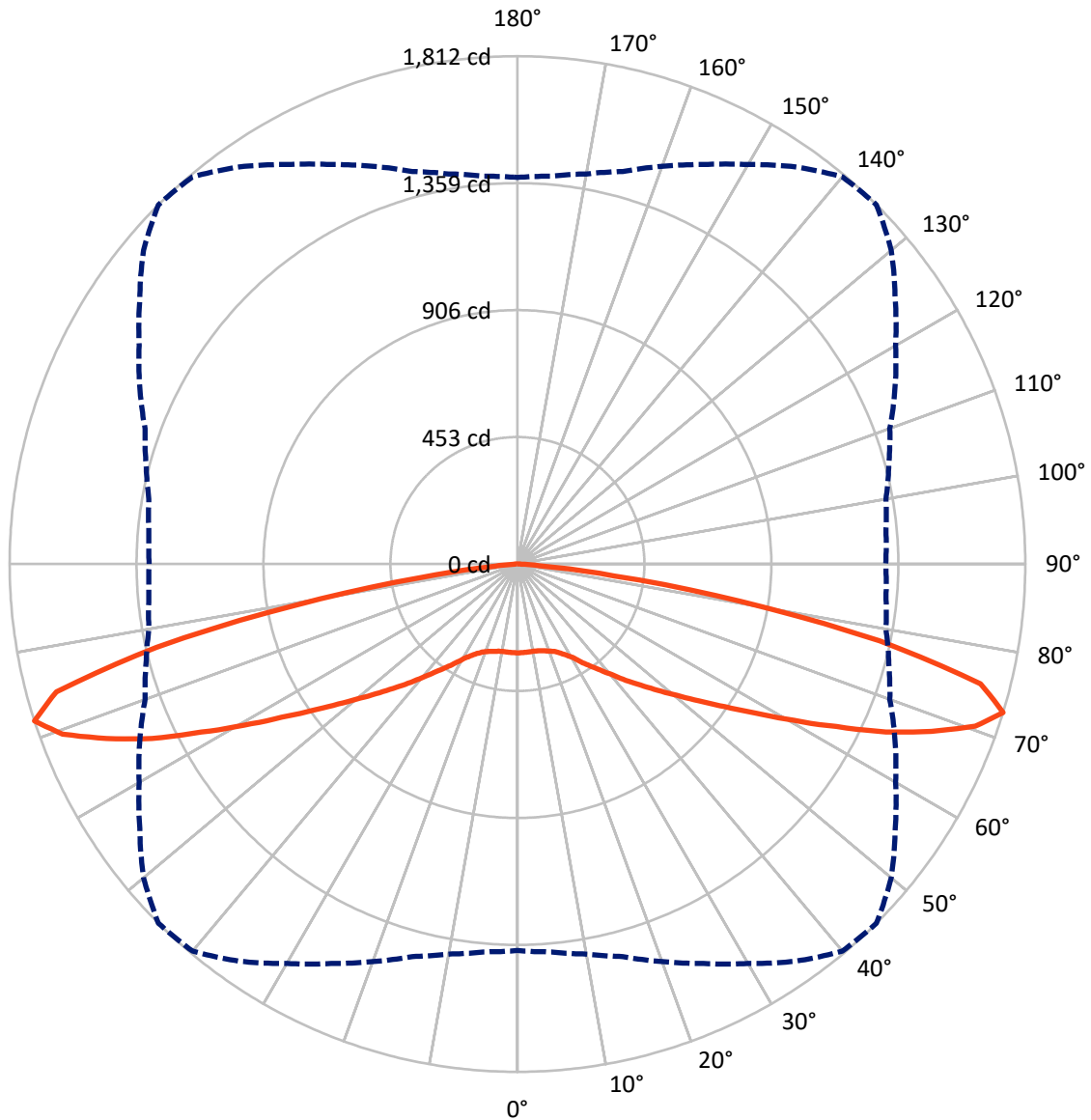
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3.2 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	2230.9	0.0	2230.9
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	2230.9	0.0	2230.9
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	4461.8	0.0	4461.8
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	30.3	0.7
10°-20°	91.6	2.1
20°-30°	165.4	3.7
30°-40°	282.2	6.3
40°-50°	480.4	10.8
50°-60°	773.1	17.3
60°-70°	1285.7	28.8
70°-80°	1243.7	27.9
80°-90°	109.5	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°	4461.8	100.0
0°-180°	4461.8	100.0



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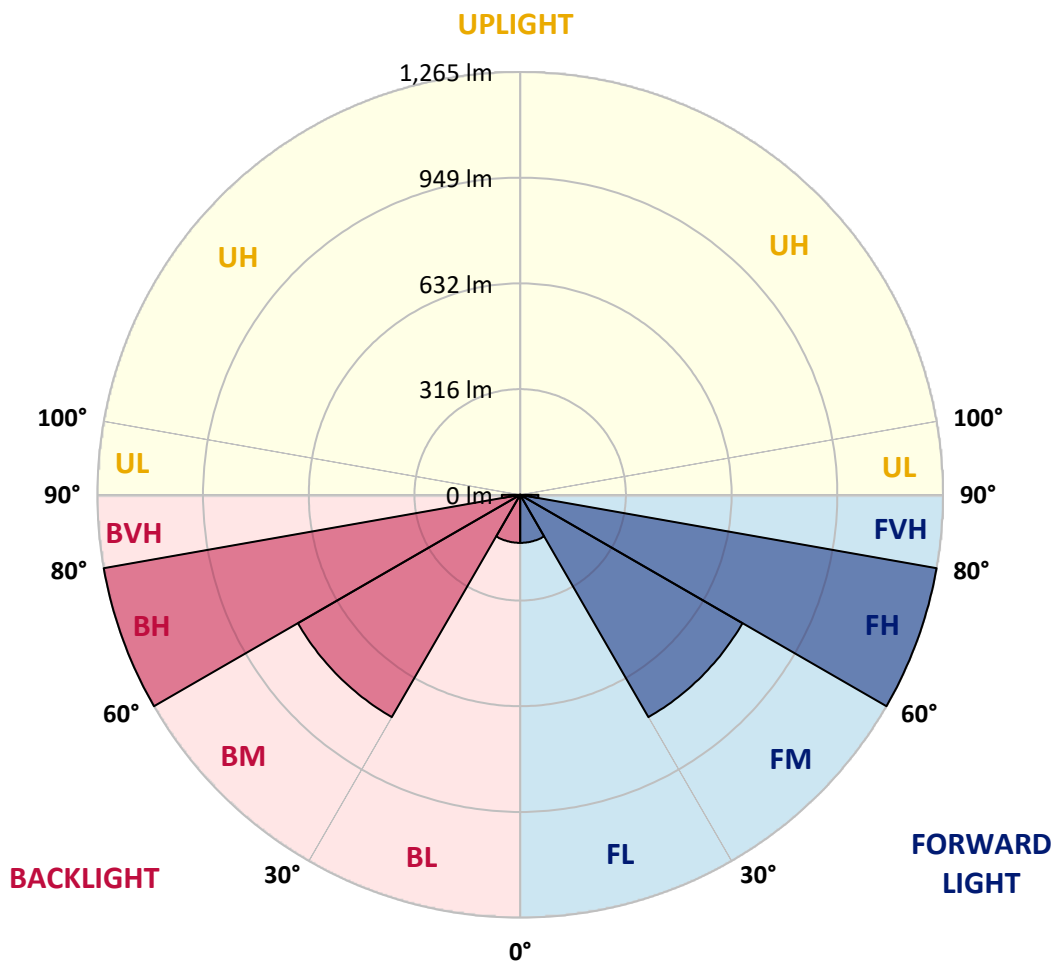
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	143.7	3.2			
FM	(30°-60°)	767.8	17.2			
FH	(60°-80°)	1264.7	28.3			G1/1800
FVH	(80°-90°)	54.7	1.2			G1/100
BL	(0°-30°)	143.7	3.2	B1/500		
BM	(30°-60°)	767.8	17.2	B1/1000		
BH	(60°-80°)	1264.7	28.3	B3/2500		G1/1800
BVH	(80°-90°)	54.7	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°	317.2	317.2	317.2	317.2	317.2	317.2	317.2	317.2	317.2	317.2	317.2
2.5°	319.6	319.6	319.9	319.6	319.1	318.9	318.0	317.6	316.9	316.7	316.2
5°	319.9	319.9	320.2	319.9	319.3	318.9	318.3	317.6	316.9	316.4	316.2
7.5°	321.1	321.4	321.7	321.4	320.2	319.6	318.9	318.0	316.9	316.4	315.8
10°	323.2	323.2	323.2	323.0	322.1	321.1	319.9	319.1	317.7	316.4	315.6
12.5°	324.8	325.1	325.1	324.6	323.5	322.1	321.1	320.2	319.1	318.0	317.2
15°	327.3	327.3	327.2	325.9	324.4	323.2	322.8	322.4	322.1	321.7	320.8
17.5°	332.4	332.1	331.3	329.6	327.6	326.9	326.3	326.3	326.3	325.9	325.5
20°	339.5	339.5	338.3	335.5	334.0	333.1	332.4	332.4	332.4	331.5	330.7
22.5°	351.0	351.2	349.6	346.2	344.1	342.4	341.4	340.5	339.6	339.2	337.9
25°	366.7	366.4	364.4	360.3	358.7	357.0	354.8	353.5	352.3	351.5	349.9
27.5°	383.0	382.9	380.6	377.1	376.0	373.4	371.9	369.9	368.6	367.1	365.5
30°	404.2	402.9	401.3	398.5	397.9	396.1	393.8	391.1	388.8	386.7	384.7
32.5°	423.2	423.2	420.8	419.4	420.4	419.7	419.9	418.3	417.0	416.1	414.2
35°	449.6	449.6	448.4	446.8	447.0	445.2	444.9	445.2	446.3	446.3	444.1
37.5°	484.7	485.3	481.8	481.1	479.8	477.0	475.7	476.2	478.6	480.1	477.0
40°	528.5	529.6	528.5	524.8	523.2	518.5	515.7	515.7	517.8	519.1	518.0
42.5°	571.5	573.5	571.5	568.7	567.4	563.9	562.5	563.5	566.0	567.6	566.0
45°	619.7	621.0	618.5	615.2	613.5	611.6	610.8	611.6	614.4	616.0	615.5
47.5°	666.8	668.7	665.7	664.3	664.3	662.4	664.7	666.8	669.2	673.1	671.5
50°	713.0	715.4	713.6	713.8	715.9	719.5	723.7	728.0	732.5	736.6	737.1
52.5°	754.1	758.0	758.3	763.2	770.0	775.5	787.2	796.6	807.1	810.7	809.1
55°	797.5	802.7	809.6	817.3	828.2	839.6	859.0	876.3	890.1	898.7	897.2
57.5°	859.6	864.8	872.0	884.7	901.1	916.5	943.1	970.0	990.9	1003.8	997.5
60°	940.0	945.6	954.9	968.4	989.8	1010.7	1047.2	1086.0	1118.3	1133.1	1121.7
62.5°	1046.6	1051.8	1057.8	1075.7	1099.6	1126.6	1172.4	1222.1	1263.2	1277.6	1261.4
65°	1198.5	1204.7	1206.8	1221.2	1244.6	1269.7	1319.2	1375.0	1422.0	1445.5	1412.9
67.5°	1369.6	1372.2	1379.7	1396.8	1420.7	1443.1	1482.3	1535.3	1580.3	1593.1	1558.6
70°	1469.8	1474.7	1488.2	1511.8	1540.5	1575.8	1618.4	1675.6	1726.6	1732.7	1688.8
72.5°	1379.2	1389.4	1413.3	1450.0	1510.0	1572.8	1646.1	1730.5	1803.7	1812.3	1741.8
75°	1106.3	1117.8	1146.2	1186.8	1257.5	1351.0	1457.0	1583.5	1693.3	1707.4	1614.1
77.5°	589.6	603.9	645.4	699.8	800.7	924.4	1052.2	1196.6	1290.0	1321.5	1254.3
80°	148.6	156.2	176.2	208.1	276.6	376.2	486.4	641.7	757.7	806.9	757.7
82.5°	57.8	63.4	68.9	72.9	79.4	93.2	128.5	209.6	282.2	347.6	301.0
85°	22.3	23.6	34.0	38.7	38.7	42.6	48.9	57.8	71.4	78.1	65.3
87.5°	8.9	9.6	11.8	18.1	18.7	16.4	17.5	19.8	15.1	12.7	14.4
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°	317.2	317.2	317.2	317.2	317.2	317.2	317.2	317.2
2.5°	315.8	315.6	314.9	315.2	314.9	314.9	314.9	314.9
5°	315.6	315.6	314.9	314.9	314.9	315.2	314.9	314.9
7.5°	315.2	314.9	314.4	314.1	314.1	313.9	313.9	313.9
10°	314.8	314.1	313.6	313.4	313.4	312.8	312.8	312.8
12.5°	316.2	315.2	314.8	314.4	314.4	314.4	314.8	314.8
15°	319.9	318.3	317.6	317.2	317.6	318.0	318.3	318.5
17.5°	324.1	322.4	321.1	320.4	320.8	321.7	322.4	323.0
20°	329.3	327.9	326.3	325.7	325.7	326.9	327.3	328.2
22.5°	336.8	335.5	334.2	333.5	332.8	334.2	335.1	335.5
25°	348.5	347.5	346.2	345.5	345.2	346.6	347.1	347.5
27.5°	364.2	363.1	362.6	362.2	361.4	361.9	362.7	362.6
30°	384.5	385.4	384.5	384.5	383.0	383.7	383.0	382.6
32.5°	411.7	410.9	408.4	406.8	404.7	404.7	404.0	403.2
35°	438.8	436.0	434.7	435.6	434.7	435.3	433.9	432.5
37.5°	471.0	469.4	469.0	471.5	471.0	471.5	471.5	469.6
40°	513.7	512.5	514.4	518.5	520.2	519.8	520.4	518.0
42.5°	562.5	560.5	561.4	564.9	566.8	567.4	567.1	564.9
45°	611.3	611.8	611.8	615.7	617.7	618.8	616.9	616.0
47.5°	666.5	667.4	665.5	667.9	668.5	670.3	668.7	667.4
50°	730.2	727.3	722.9	723.7	723.7	723.1	721.2	719.5
52.5°	801.4	794.6	786.2	783.5	780.4	777.6	773.6	770.7
55°	882.3	870.5	855.7	848.9	843.1	836.2	827.5	824.5
57.5°	976.3	955.9	936.3	923.8	909.1	900.0	888.8	888.2
60°	1087.8	1060.4	1025.4	1007.1	992.3	981.6	973.0	969.7
62.5°	1216.7	1169.5	1131.8	1112.0	1094.7	1088.0	1077.3	1078.8
65°	1348.7	1300.7	1264.2	1248.3	1232.0	1227.7	1217.7	1221.2
67.5°	1491.8	1452.3	1412.1	1397.4	1382.5	1378.1	1367.9	1371.0
70°	1620.1	1569.8	1524.2	1495.0	1469.8	1449.5	1436.6	1431.4
72.5°	1645.7	1558.6	1486.9	1414.1	1372.2	1335.3	1320.1	1314.4
75°	1478.6	1343.5	1241.4	1155.8	1108.7	1055.1	1049.4	1041.5
77.5°	1150.2	996.4	872.9	762.9	699.5	634.2	611.6	594.6
80°	686.0	527.2	408.6	286.4	233.6	188.1	176.8	165.1
82.5°	245.5	157.4	106.0	82.6	73.9	68.1	63.7	57.9
85°	59.3	49.9	47.3	42.8	42.3	36.0	25.5	22.7
87.5°	19.0	17.2	17.5	16.8	17.5	13.1	10.7	9.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)