

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: P270250

Luminaire Tested: **NAV-AF-01-D-UNV-5WQ-7027-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P270250  
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-7027-600  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 2700K, 615mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE V WIDE OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3638.3 lumens  
Efficiency: N/A  
Efficacy: 107.0 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

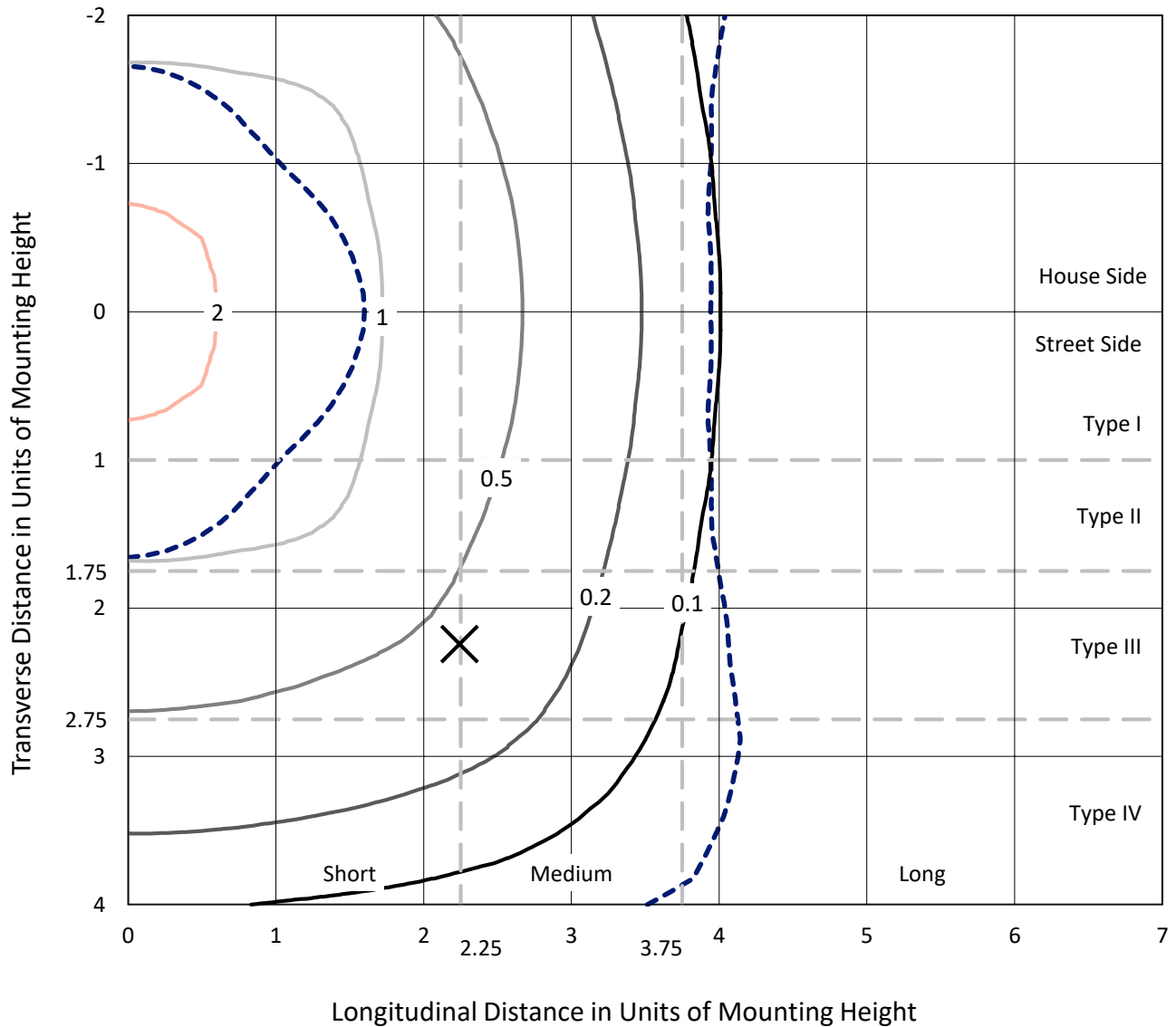
Input Watts (W): 34  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

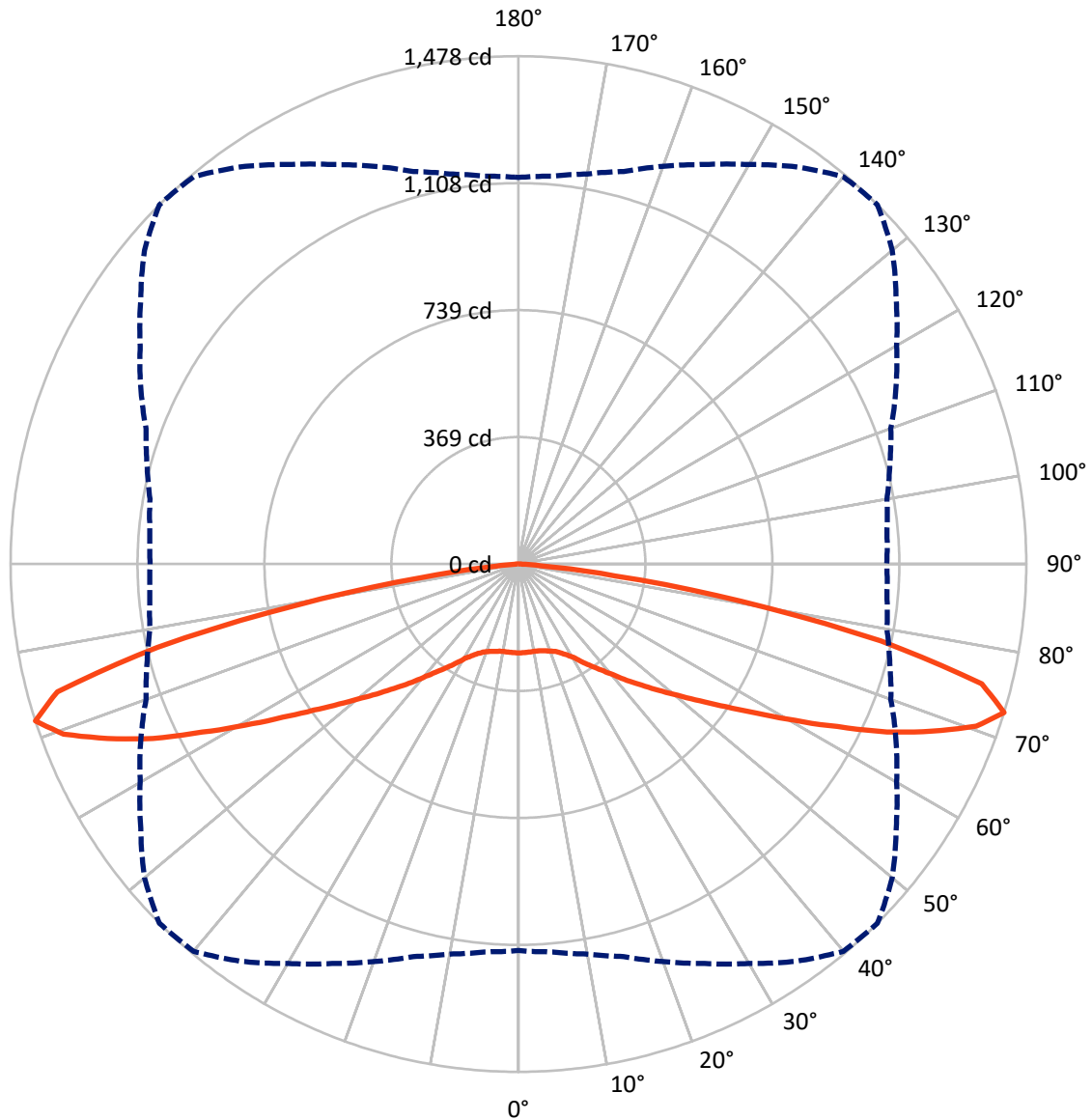


Based on 10 foot mounting height. Maximum calculated value = 2.6 fc  
 Type V - Short - Semi-Cutoff

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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	1819.2	0.0	1819.2
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	1819.2	0.0	1819.2
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	3638.3	0.0	3638.3
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	24.7	0.7
10°-20°	74.7	2.1
20°-30°	134.9	3.7
30°-40°	230.1	6.3
40°-50°	391.7	10.8
50°-60°	630.4	17.3
60°-70°	1048.4	28.8
70°-80°	1014.2	27.9
80°-90°	89.3	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°	3638.3	100.0
0°-180°	3638.3	100.0



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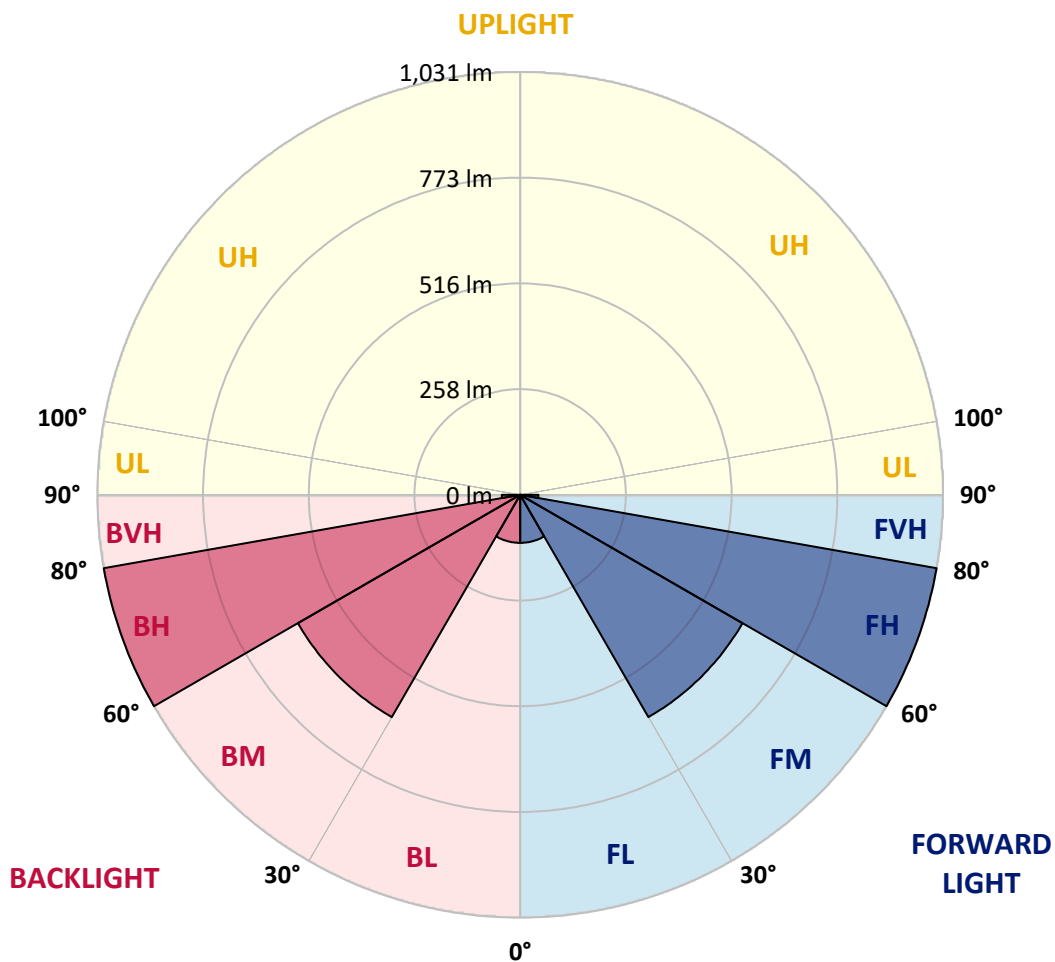
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	117.1	3.2			
FM (30°-60°)	626.1	17.2			
FH (60°-80°)	1031.3	28.3			G1/1800
FVH (80°-90°)	44.6	1.2			G1/100
BL (0°-30°)	117.1	3.2	B1/500		
BM (30°-60°)	626.1	17.2	B1/1000		
BH (60°-80°)	1031.3	28.3	B3/2500		G1/1800
BVH (80°-90°)	44.6	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°	258.6	258.6	258.6	258.6	258.6	258.6	258.6	258.6	258.6	258.6	258.6
2.5°	260.7	260.7	260.9	260.7	260.1	260.0	259.3	258.9	258.4	258.3	257.8
5°	260.9	260.9	261.0	260.9	260.5	260.0	259.6	258.9	258.4	258.1	257.8
7.5°	261.8	262.0	262.2	262.0	261.0	260.7	260.0	259.3	258.4	258.1	257.5
10°	263.7	263.7	263.7	263.4	262.7	261.8	260.9	260.1	259.2	258.1	257.4
12.5°	264.9	265.2	265.2	264.7	263.8	262.7	261.8	261.0	260.1	259.3	258.6
15°	266.9	266.9	266.7	265.8	264.6	263.7	263.2	262.9	262.7	262.2	261.5
17.5°	271.0	270.7	270.1	268.8	267.2	266.4	266.1	266.1	266.1	265.8	265.4
20°	276.8	276.8	275.9	273.7	272.4	271.6	271.0	271.0	271.0	270.3	269.6
22.5°	286.2	286.4	285.1	282.3	280.6	279.3	278.4	277.7	277.0	276.6	275.5
25°	299.0	298.7	297.2	293.8	292.5	291.1	289.3	288.3	287.3	286.6	285.3
27.5°	312.4	312.3	310.4	307.5	306.6	304.5	303.2	301.7	300.6	299.4	298.1
30°	329.7	328.5	327.3	324.9	324.5	322.9	321.1	318.9	317.1	315.3	313.8
32.5°	345.0	345.0	343.2	342.0	342.9	342.2	342.4	341.0	340.0	339.3	337.8
35°	366.6	366.6	365.7	364.4	364.6	363.1	362.7	363.1	364.0	364.0	362.1
37.5°	395.3	395.8	392.7	392.4	391.2	389.0	387.9	388.3	390.4	391.4	389.0
40°	430.8	431.7	430.8	428.0	426.6	422.8	420.5	420.5	422.2	423.2	422.4
42.5°	466.0	467.6	466.0	463.7	462.6	459.8	458.7	459.6	461.5	462.8	461.5
45°	505.2	506.4	504.3	501.7	500.3	498.6	498.1	498.6	501.0	502.3	501.9
47.5°	543.7	545.4	542.8	541.8	541.8	540.2	541.9	543.7	545.8	549.0	547.5
50°	581.4	583.4	581.8	582.0	583.8	586.8	590.0	593.7	597.3	600.6	601.1
52.5°	615.0	618.2	618.4	622.3	627.9	632.4	641.7	649.7	658.2	661.2	659.7
55°	650.4	654.5	660.3	666.5	675.4	684.6	700.5	714.6	725.8	732.7	731.6
57.5°	700.9	705.2	711.0	721.2	734.8	747.3	768.9	791.0	807.9	818.5	813.3
60°	766.6	771.0	778.7	789.6	807.0	824.1	853.8	885.5	911.9	923.9	914.7
62.5°	853.5	857.7	862.6	877.3	896.7	918.6	956.1	996.6	1030.1	1041.9	1028.6
65°	977.3	982.4	984.1	996.0	1014.9	1035.2	1075.6	1121.4	1159.6	1178.7	1152.3
67.5°	1116.9	1118.8	1125.0	1139.1	1158.5	1176.8	1208.6	1251.9	1288.6	1299.0	1270.9
70°	1198.6	1202.7	1213.6	1232.8	1256.1	1285.0	1319.7	1366.3	1408.0	1412.9	1377.0
72.5°	1124.7	1132.9	1152.4	1182.4	1231.2	1282.5	1342.3	1411.1	1470.9	1477.8	1420.3
75°	902.1	911.5	934.7	967.7	1025.4	1101.6	1188.1	1291.3	1380.9	1392.4	1316.1
77.5°	480.9	492.5	526.2	570.7	653.1	753.8	857.9	975.6	1051.8	1077.6	1022.8
80°	121.1	127.4	143.8	169.8	225.6	306.9	396.6	523.4	617.9	658.0	617.9
82.5°	47.0	51.7	56.2	59.4	64.7	75.9	104.8	170.9	230.2	283.5	245.4
85°	18.1	19.3	27.8	31.6	31.6	34.8	39.9	47.0	58.2	63.6	53.3
87.5°	7.1	7.8	9.6	14.8	15.2	13.5	14.4	16.1	12.2	10.3	11.7
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°	258.6	258.6	258.6	258.6	258.6	258.6	258.6	258.6
2.5°	257.5	257.4	256.8	257.1	256.8	256.8	256.8	256.8
5°	257.4	257.4	256.8	256.8	256.8	257.1	256.8	256.8
7.5°	257.1	256.8	256.5	256.1	256.1	255.9	255.9	255.9
10°	256.6	256.1	255.7	255.5	255.5	255.1	255.1	255.1
12.5°	257.8	257.1	256.6	256.5	256.5	256.5	256.6	256.6
15°	260.9	259.6	258.9	258.6	258.9	259.3	259.6	259.8
17.5°	264.2	262.9	261.8	261.3	261.5	262.2	262.9	263.4
20°	268.6	267.3	266.1	265.5	265.5	266.4	266.9	267.6
22.5°	274.5	273.7	272.5	271.8	271.4	272.5	273.3	273.7
25°	284.3	283.2	282.3	281.7	281.4	282.6	283.1	283.2
27.5°	297.0	296.0	295.6	295.5	294.7	295.2	295.8	295.6
30°	313.5	314.1	313.5	313.5	312.4	312.9	312.4	311.9
32.5°	335.6	335.0	333.0	331.7	330.0	330.0	329.4	328.8
35°	357.9	355.5	354.6	355.2	354.6	355.0	353.8	352.8
37.5°	384.0	382.7	382.5	384.6	384.0	384.6	384.6	382.9
40°	418.8	417.9	419.5	422.8	424.2	423.9	424.4	422.4
42.5°	458.7	457.1	457.7	460.7	462.2	462.6	462.4	460.7
45°	498.5	499.0	499.0	502.2	503.7	504.6	503.1	502.3
47.5°	543.6	544.3	542.7	544.6	545.1	546.7	545.4	544.3
50°	595.4	593.1	589.5	590.0	590.0	589.6	588.1	586.8
52.5°	653.4	647.9	641.2	639.0	636.4	634.1	630.9	628.5
55°	719.5	709.9	697.9	692.2	687.6	682.0	674.7	672.3
57.5°	796.2	779.5	763.4	753.4	741.3	733.8	724.8	724.3
60°	887.0	864.7	836.2	821.2	809.2	800.4	793.5	790.8
62.5°	992.1	953.6	922.9	906.7	892.6	887.3	878.5	879.7
65°	1099.9	1060.5	1030.8	1017.8	1004.7	1001.0	992.9	996.0
67.5°	1216.5	1184.2	1151.5	1139.4	1127.4	1123.8	1115.4	1117.9
70°	1321.0	1280.1	1243.0	1219.2	1198.6	1182.0	1171.5	1167.2
72.5°	1341.9	1270.9	1212.4	1153.2	1118.8	1088.8	1076.4	1071.8
75°	1205.7	1095.6	1012.2	942.6	904.1	860.3	855.6	849.2
77.5°	937.9	812.4	711.6	622.2	570.5	517.2	498.6	484.8
80°	559.5	430.0	333.2	233.6	190.6	153.4	144.2	134.6
82.5°	200.2	128.3	86.4	67.5	60.2	55.5	51.9	47.3
85°	48.4	40.8	38.4	34.9	34.5	29.4	20.8	18.5
87.5°	15.5	14.2	14.4	13.7	14.4	10.8	8.8	7.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)