

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: P196441

Luminaire Tested: **NAV-AF-01-D-UNV-5WQ-7030-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P196441  
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-7030-600  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 3000K, 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: 4050.2 lumens  
Efficiency: N/A  
Efficacy: 119.1 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

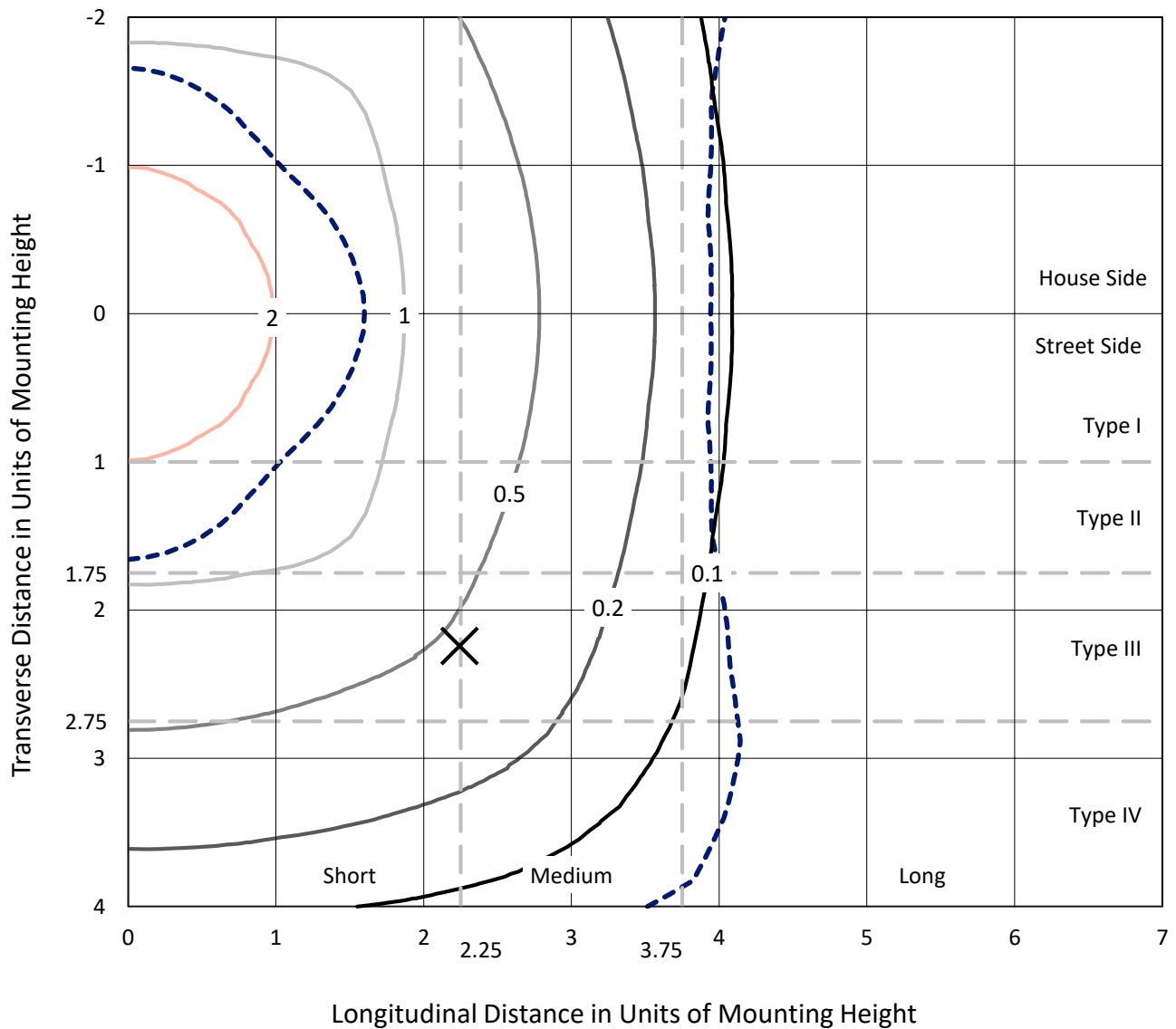
Input Watts (W): 34  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

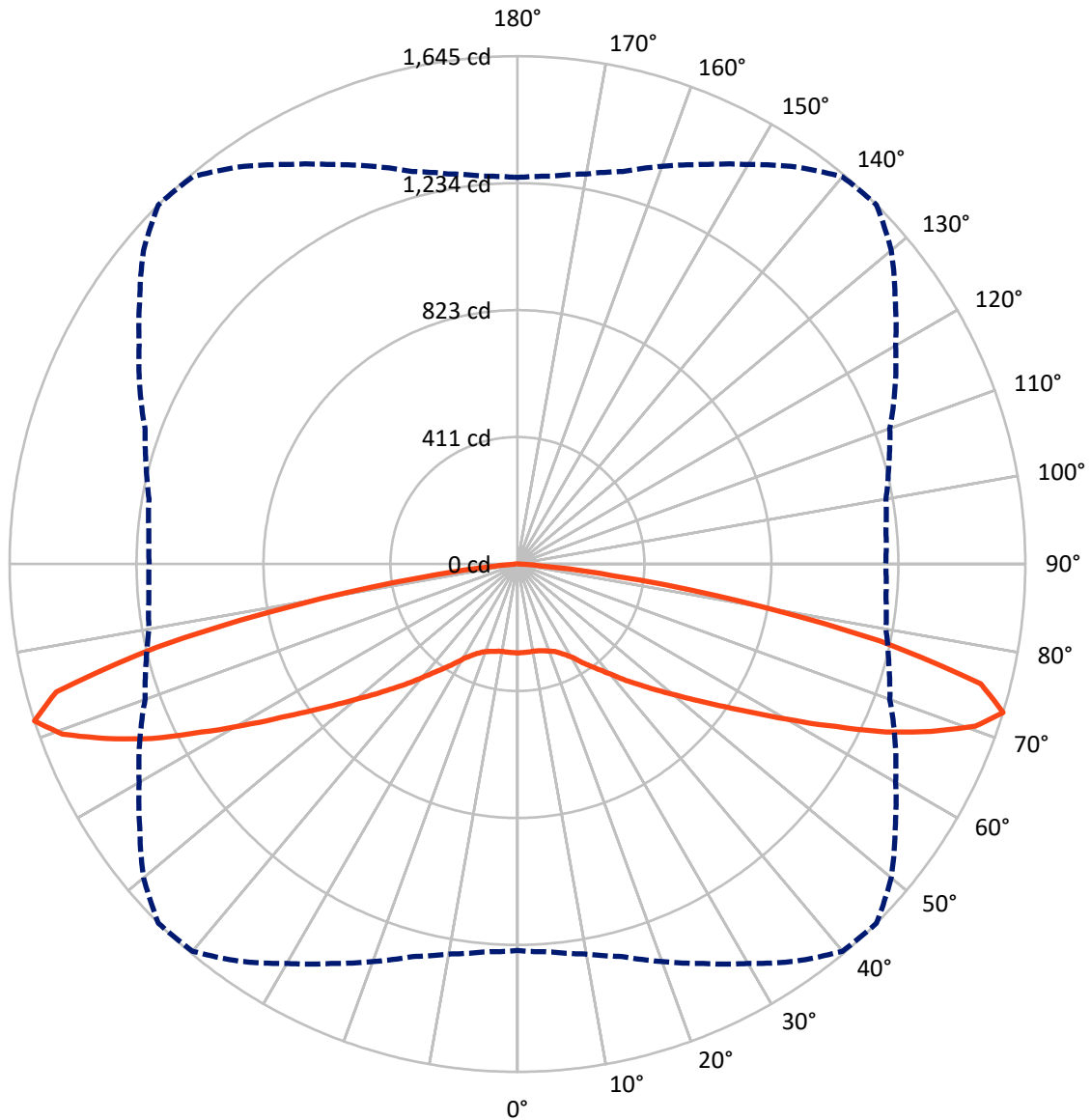
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 2.9 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	2025.1	0.0	2025.1
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	2025.1	0.0	2025.1
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	4050.2	0.0	4050.2
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	27.5	0.7
10°-20°	83.2	2.1
20°-30°	150.2	3.7
30°-40°	256.1	6.3
40°-50°	436.1	10.8
50°-60°	701.8	17.3
60°-70°	1167.1	28.8
70°-80°	1129.0	27.9
80°-90°	99.4	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°	4050.2	100.0
0°-180°	4050.2	100.0



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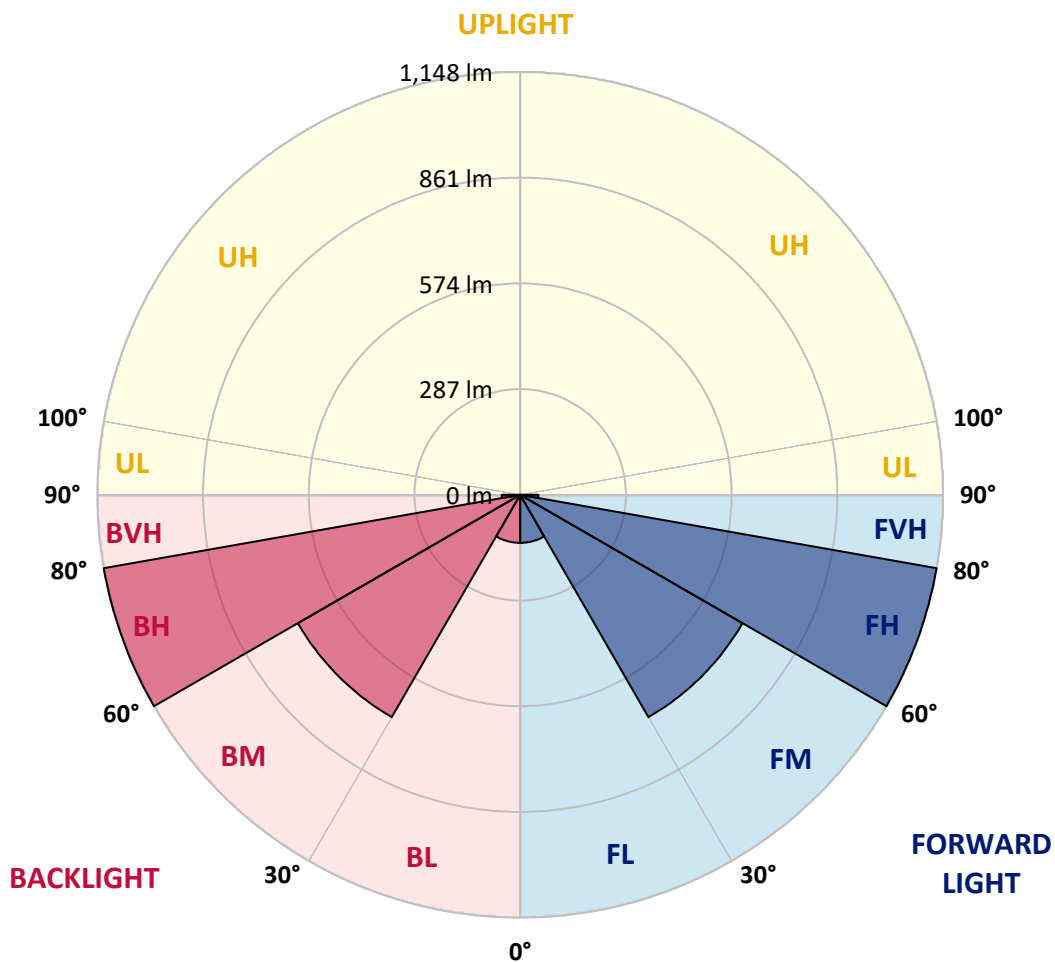
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	130.4	3.2			
FM (30°-60°)	697.0	17.2			
FH (60°-80°)	1148.0	28.3			G1/1800
FVH (80°-90°)	49.7	1.2			G1/100
BL (0°-30°)	130.4	3.2	B1/500		
BM (30°-60°)	697.0	17.2	B1/1000		
BH (60°-80°)	1148.0	28.3	B3/2500		G1/1800
BVH (80°-90°)	49.7	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°	287.9	287.9	287.9	287.9	287.9	287.9	287.9	287.9	287.9	287.9	287.9
2.5°	290.2	290.2	290.4	290.2	289.6	289.4	288.7	288.2	287.7	287.5	287.0
5°	290.4	290.4	290.6	290.4	290.0	289.4	289.0	288.2	287.7	287.3	287.0
7.5°	291.4	291.7	291.9	291.7	290.6	290.2	289.4	288.7	287.7	287.3	286.7
10°	293.5	293.5	293.5	293.2	292.4	291.4	290.4	289.6	288.5	287.3	286.5
12.5°	294.9	295.2	295.2	294.7	293.7	292.4	291.4	290.6	289.6	288.7	287.9
15°	297.1	297.1	296.9	295.9	294.5	293.5	293.0	292.7	292.4	291.9	291.1
17.5°	301.7	301.4	300.7	299.2	297.4	296.6	296.2	296.2	296.2	295.9	295.4
20°	308.1	308.1	307.1	304.7	303.2	302.4	301.7	301.7	301.7	300.9	300.1
22.5°	318.6	318.8	317.4	314.3	312.4	310.9	309.9	309.1	308.4	307.9	306.7
25°	332.8	332.5	330.8	327.1	325.6	324.1	322.1	320.9	319.8	319.1	317.6
27.5°	347.8	347.6	345.5	342.3	341.3	339.0	337.5	335.8	334.6	333.3	331.8
30°	367.0	365.7	364.3	361.7	361.2	359.5	357.5	355.0	353.0	351.0	349.3
32.5°	384.1	384.1	382.0	380.7	381.7	380.9	381.2	379.6	378.5	377.7	376.0
35°	408.1	408.1	407.1	405.6	405.9	404.2	403.8	404.2	405.2	405.2	403.1
37.5°	440.0	440.6	437.2	436.8	435.5	433.0	431.8	432.3	434.6	435.7	433.0
40°	479.6	480.6	479.6	476.4	474.9	470.7	468.1	468.1	470.0	471.1	470.2
42.5°	518.8	520.5	518.8	516.2	515.0	511.8	510.6	511.6	513.8	515.2	513.8
45°	562.4	563.7	561.4	558.5	556.9	555.1	554.5	555.1	557.7	559.2	558.7
47.5°	605.3	607.1	604.3	603.1	603.1	601.4	603.3	605.3	607.6	611.1	609.5
50°	647.2	649.4	647.7	647.9	649.9	653.2	656.8	660.9	664.9	668.6	669.1
52.5°	684.6	688.2	688.4	692.8	699.0	704.0	714.4	723.2	732.7	736.0	734.4
55°	724.0	728.6	735.0	741.9	751.9	762.1	779.8	795.5	808.0	815.7	814.4
57.5°	780.3	785.0	791.5	802.9	818.0	831.9	856.0	880.5	899.4	911.2	905.4
60°	853.4	858.3	866.9	879.0	898.4	917.4	950.5	985.7	1015.1	1028.5	1018.2
62.5°	950.1	954.8	960.3	976.6	998.2	1022.6	1064.3	1109.4	1146.7	1159.8	1145.0
65°	1087.9	1093.6	1095.5	1108.7	1129.8	1152.4	1197.4	1248.3	1290.9	1312.1	1282.7
67.5°	1243.3	1245.5	1252.4	1268.0	1289.6	1310.0	1345.4	1393.6	1434.5	1446.1	1414.8
70°	1334.3	1338.8	1351.0	1372.4	1398.3	1430.5	1469.1	1521.0	1567.4	1572.8	1532.9
72.5°	1252.0	1261.2	1282.9	1316.3	1370.6	1427.7	1494.3	1570.8	1637.4	1645.1	1581.1
75°	1004.2	1014.7	1040.5	1077.2	1141.5	1226.3	1322.6	1437.5	1537.2	1550.0	1465.1
77.5°	535.3	548.3	585.8	635.3	727.0	839.1	955.0	1086.1	1170.9	1199.6	1138.6
80°	134.8	141.8	160.1	189.0	251.1	341.6	441.5	582.6	687.8	732.5	687.8
82.5°	52.3	57.6	62.6	66.1	72.0	84.5	116.7	190.2	256.3	315.6	273.2
85°	20.2	21.5	30.9	35.2	35.2	38.7	44.4	52.3	64.8	70.8	59.3
87.5°	7.9	8.7	10.7	16.5	16.9	15.0	16.0	17.9	13.6	11.5	13.0
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°	287.9	287.9	287.9	287.9	287.9	287.9	287.9	287.9
2.5°	286.7	286.5	285.9	286.2	285.9	285.9	285.9	285.9
5°	286.5	286.5	285.9	285.9	285.9	286.2	285.9	285.9
7.5°	286.2	285.9	285.5	285.1	285.1	284.9	284.9	284.9
10°	285.7	285.1	284.7	284.4	284.4	284.0	284.0	284.0
12.5°	287.0	286.2	285.7	285.5	285.5	285.5	285.7	285.7
15°	290.4	289.0	288.2	287.9	288.2	288.7	289.0	289.2
17.5°	294.1	292.7	291.4	290.9	291.1	291.9	292.7	293.2
20°	299.0	297.6	296.2	295.6	295.6	296.6	297.1	297.9
22.5°	305.6	304.7	303.4	302.6	302.1	303.4	304.2	304.7
25°	316.5	315.3	314.3	313.6	313.3	314.6	315.1	315.3
27.5°	330.6	329.5	329.1	328.9	328.1	328.6	329.3	329.1
30°	349.0	349.7	349.0	349.0	347.8	348.3	347.8	347.2
32.5°	373.6	372.9	370.7	369.2	367.4	367.4	366.7	366.0
35°	398.4	395.8	394.7	395.4	394.7	395.2	393.9	392.7
37.5°	427.5	426.0	425.8	428.1	427.5	428.1	428.1	426.3
40°	466.2	465.2	467.0	470.7	472.2	471.9	472.4	470.2
42.5°	510.6	508.8	509.5	512.9	514.5	515.0	514.8	512.9
45°	554.9	555.5	555.5	559.0	560.7	561.7	560.0	559.2
47.5°	605.1	605.9	604.1	606.3	606.8	608.6	607.1	605.9
50°	662.8	660.2	656.2	656.8	656.8	656.4	654.7	653.2
52.5°	727.4	721.2	713.8	711.3	708.5	705.9	702.3	699.6
55°	801.0	790.3	776.9	770.6	765.4	759.2	751.1	748.4
57.5°	886.3	867.8	849.8	838.7	825.2	816.9	806.8	806.3
60°	987.4	962.6	930.9	914.2	900.8	891.0	883.3	880.3
62.5°	1104.4	1061.6	1027.4	1009.4	993.7	987.7	978.0	979.3
65°	1224.4	1180.6	1147.5	1133.0	1118.4	1114.3	1105.3	1108.7
67.5°	1354.2	1318.3	1281.9	1268.4	1255.0	1251.0	1241.7	1244.5
70°	1470.6	1425.0	1383.7	1357.2	1334.3	1315.8	1304.1	1299.3
72.5°	1493.8	1414.8	1349.7	1283.7	1245.5	1212.1	1198.3	1193.1
75°	1342.2	1219.6	1126.8	1049.3	1006.4	957.7	952.5	945.3
77.5°	1044.1	904.4	792.2	692.6	635.1	575.7	555.1	539.7
80°	622.8	478.7	370.9	260.0	212.2	170.8	160.5	149.8
82.5°	222.9	142.8	96.2	75.1	67.0	61.8	57.8	52.6
85°	53.9	45.4	42.8	38.9	38.4	32.7	23.2	20.6
87.5°	17.2	15.8	16.0	15.2	16.0	12.0	9.8	8.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)