

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: P196417

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

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P196417  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24130)  
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-5NQ-7030-600  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 3000K, 615mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE V NARROW OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4002.2 lumens  
Efficiency: N/A  
Efficacy: 117.7 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type V - Short - Full Cutoff  
BUG Rating: B2 - U0 - G1

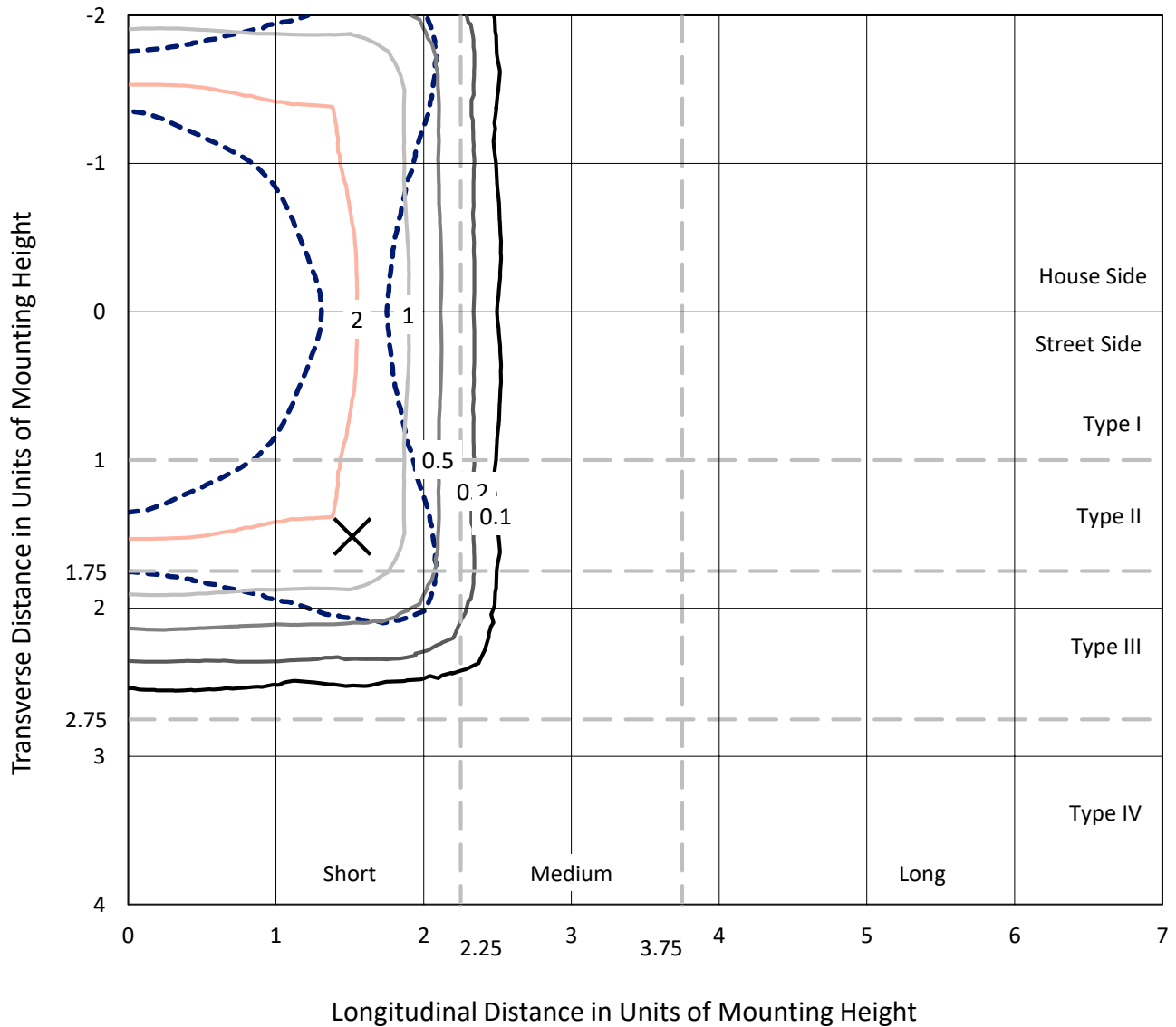
Input Watts (W): 34  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

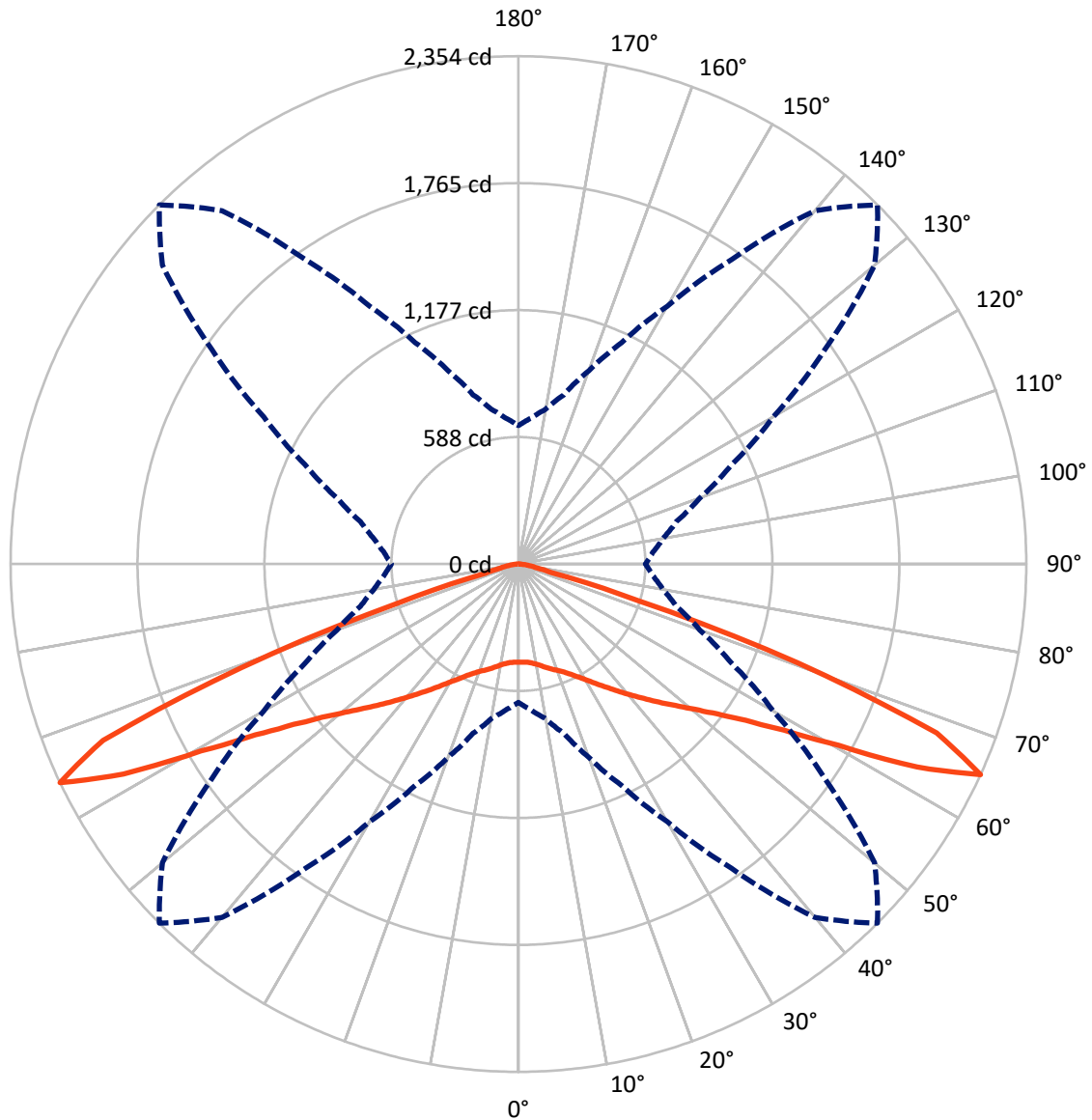
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 4.6 fc  
 Type V - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral      - - - Horizontal Cone Through 65-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2001.1	0.0	2001.1
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	2001.1	0.0	2001.1
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	4002.2	0.0	4002.2
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	44.3	1.1
10°-20°	142.1	3.6
20°-30°	265.1	6.6
30°-40°	446.9	11.2
40°-50°	725.9	18.1
50°-60°	1137.4	28.4
60°-70°	1073.7	26.8
70°-80°	144.7	3.6
80°-90°	22.0	0.6
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°	4002.2	100.0
0°-180°	4002.2	100.0



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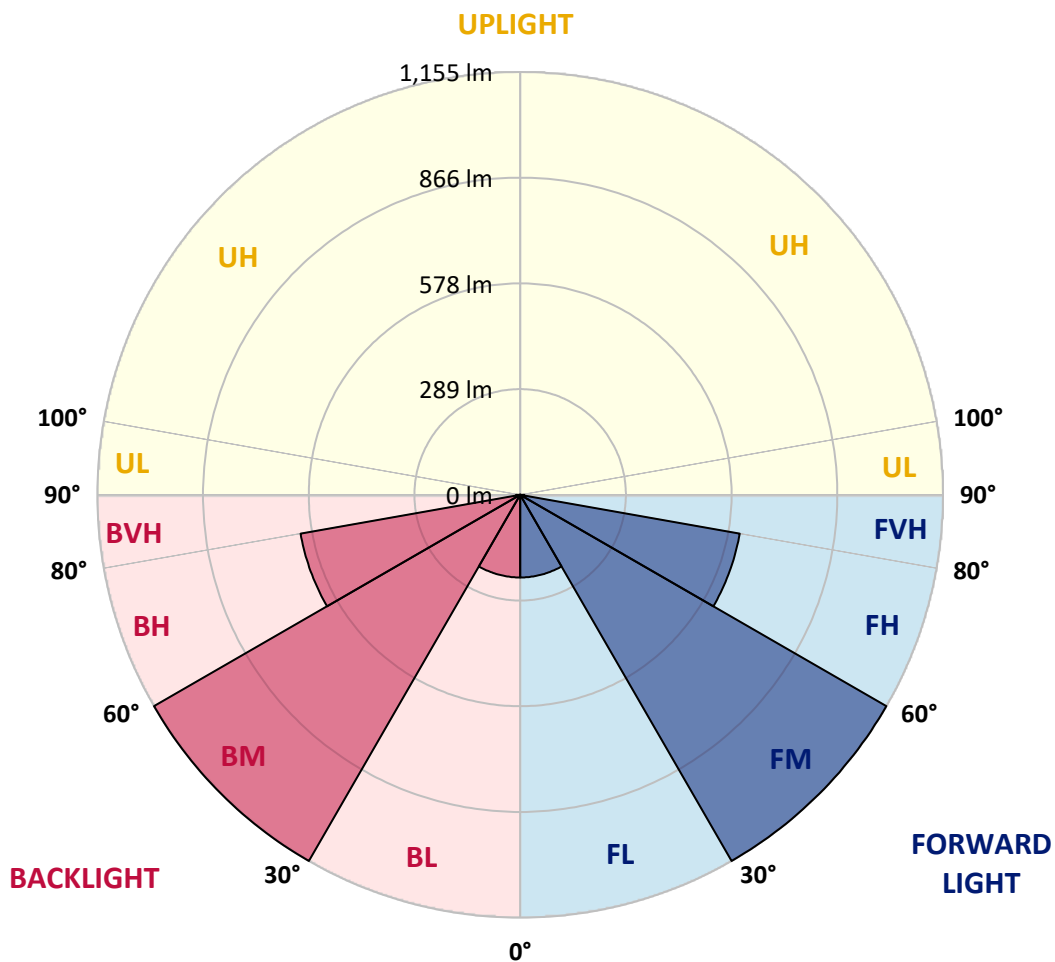
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	225.7	5.6			
FM	(30°-60°)	1155.1	28.9			
FH	(60°-80°)	609.2	15.2			G0/660
FVH	(80°-90°)	11.0	0.3			G1/100
BL	(0°-30°)	225.7	5.6	B1/500		
BM	(30°-60°)	1155.1	28.9	B2/2500		
BH	(60°-80°)	609.2	15.2	B2/1000		G0/660
BVH	(80°-90°)	11.0	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G1**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	455.3	455.3	455.3	455.3	455.3	455.3	455.3	455.3	455.3	455.3	455.3
2.5°	459.0	459.0	459.8	459.4	458.5	457.7	457.0	455.9	455.5	454.9	454.7
5°	461.5	461.5	462.2	461.9	461.2	460.2	459.8	459.0	458.3	457.7	458.1
7.5°	467.7	467.9	468.1	467.9	467.2	466.4	465.5	465.2	464.3	463.5	464.0
10°	477.1	477.1	477.5	477.7	477.1	475.4	475.4	474.9	473.9	473.0	473.2
12.5°	487.7	487.7	488.0	488.0	488.0	486.9	487.2	486.9	485.6	485.1	485.6
15°	497.9	498.1	498.1	498.7	498.7	498.9	499.9	499.9	499.5	499.1	499.1
17.5°	509.8	510.4	510.6	511.4	511.6	512.1	513.1	513.3	513.6	512.9	513.1
20°	525.7	526.1	526.8	527.0	528.0	528.0	528.5	528.3	527.8	526.8	526.8
22.5°	543.8	544.2	545.8	545.8	547.0	546.2	546.6	545.8	544.5	544.0	543.4
25°	567.2	567.9	569.1	568.7	569.1	567.9	567.9	567.9	567.2	566.4	566.2
27.5°	596.9	595.6	596.9	595.9	595.6	594.6	594.8	594.4	593.6	593.4	592.4
30°	627.8	626.3	627.0	627.2	626.8	626.5	625.5	624.8	623.6	623.8	623.0
32.5°	663.2	661.7	662.4	662.6	662.2	662.6	662.4	660.7	659.2	660.2	660.2
35°	705.3	704.2	706.3	707.0	705.6	704.8	703.8	701.8	699.6	701.1	701.3
37.5°	756.0	754.7	756.2	758.1	755.4	753.9	749.9	746.9	745.4	746.2	747.3
40°	808.5	808.7	813.0	813.6	810.4	808.7	804.8	800.4	796.1	796.1	797.3
42.5°	863.9	864.6	869.6	871.4	870.4	867.1	861.6	856.1	850.7	851.6	853.1
45°	926.4	925.4	930.7	934.9	934.1	933.2	927.9	918.0	913.0	912.8	915.3
47.5°	992.3	994.3	999.7	1007.0	1006.8	1004.2	997.5	988.2	979.1	979.8	982.8
50°	1069.0	1071.9	1081.0	1088.2	1089.2	1088.4	1080.5	1069.7	1056.9	1057.6	1061.6
52.5°	1137.8	1141.9	1152.5	1167.6	1176.7	1181.0	1175.7	1165.8	1152.5	1153.3	1157.6
55°	1200.2	1206.4	1222.4	1242.9	1261.3	1278.5	1286.2	1286.0	1276.2	1278.5	1283.9
57.5°	1239.3	1248.1	1272.3	1305.1	1341.8	1376.4	1406.3	1434.6	1440.8	1452.5	1452.5
60°	1186.8	1207.2	1239.3	1295.7	1367.7	1445.5	1529.7	1611.8	1664.7	1706.3	1683.8
62.5°	991.0	1021.1	1066.3	1140.5	1252.7	1391.6	1561.0	1751.7	1950.6	2072.3	1983.0
65°	641.3	679.1	728.2	811.8	953.1	1131.9	1378.5	1721.3	2137.5	2353.5	2154.0
67.5°	254.0	279.7	309.6	369.0	491.6	667.1	943.9	1366.8	1887.6	2091.2	1867.6
70°	121.4	125.6	131.4	144.1	174.9	235.9	379.2	673.4	1157.6	1372.2	1129.8
72.5°	87.7	88.5	91.2	95.5	104.5	116.9	142.1	206.0	399.2	580.3	399.7
75°	66.5	67.5	69.1	71.3	76.1	82.1	91.4	109.7	136.6	157.6	136.3
77.5°	50.6	51.6	52.9	55.0	57.6	61.8	65.3	72.5	84.0	88.5	88.0
80°	36.9	38.7	40.7	42.6	44.4	46.3	46.7	50.1	56.6	60.8	59.5
82.5°	23.4	24.9	30.1	32.4	32.7	33.1	32.9	33.1	36.6	39.7	38.7
85°	15.0	16.0	18.7	21.2	20.6	21.8	21.8	21.2	19.6	16.9	20.2
87.5°	7.4	7.7	9.0	11.3	10.7	9.5	9.2	9.2	6.8	5.7	6.2
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°	455.3	455.3	455.3	455.3	455.3	455.3	455.3	455.3
2.5°	454.0	454.5	453.8	453.8	453.5	454.0	453.2	453.2
5°	457.5	458.3	458.1	458.1	458.5	459.0	458.8	458.5
7.5°	463.7	464.3	464.7	465.0	465.5	465.2	465.7	465.5
10°	473.2	472.6	473.4	472.6	473.0	472.4	472.6	472.6
12.5°	485.1	484.4	483.9	483.4	483.4	482.4	482.4	482.7
15°	498.9	497.6	496.6	496.1	495.6	495.6	494.8	495.4
17.5°	512.3	511.2	509.3	509.3	508.6	508.0	507.6	508.8
20°	526.5	525.3	524.3	524.0	522.6	522.0	522.3	523.8
22.5°	543.0	542.3	542.3	541.7	540.8	540.0	540.0	541.7
25°	565.2	563.7	563.9	564.3	563.7	563.7	563.2	564.5
27.5°	592.4	591.1	591.8	592.4	591.8	592.6	591.8	592.8
30°	624.3	623.6	624.3	625.1	623.8	623.8	623.4	624.0
32.5°	662.4	661.4	661.9	661.9	660.2	658.8	656.6	658.2
35°	704.2	703.1	704.0	704.8	702.7	701.3	698.2	699.6
37.5°	750.4	750.9	752.1	755.4	754.9	752.5	750.2	751.1
40°	802.1	804.4	810.0	812.3	811.8	809.3	806.3	806.8
42.5°	860.4	863.5	869.3	873.1	871.4	867.8	864.1	865.7
45°	923.9	928.9	936.5	940.1	937.9	934.1	928.9	931.7
47.5°	991.3	1001.3	1011.2	1016.2	1015.4	1010.2	1003.4	1004.2
50°	1071.9	1085.1	1097.7	1102.8	1098.9	1091.0	1081.5	1081.2
52.5°	1172.1	1186.2	1196.7	1195.4	1186.2	1173.8	1163.1	1162.5
55°	1297.1	1302.0	1300.4	1289.7	1273.5	1254.1	1240.3	1238.1
57.5°	1448.4	1432.5	1409.1	1376.6	1340.3	1303.4	1278.5	1269.3
60°	1633.5	1561.5	1477.6	1389.4	1308.9	1248.5	1210.4	1187.2
62.5°	1786.3	1577.6	1390.5	1237.1	1111.7	1037.1	985.1	952.8
65°	1734.0	1363.0	1091.7	894.1	757.1	680.1	625.1	588.4
67.5°	1339.5	910.7	633.7	439.3	333.1	282.0	246.3	223.1
70°	675.3	349.3	211.6	149.3	127.7	118.6	112.6	109.2
72.5°	198.2	132.4	110.0	97.2	89.5	84.0	80.6	78.7
75°	109.7	89.5	79.0	71.8	66.8	63.1	60.8	59.3
77.5°	75.5	65.1	59.9	55.0	51.2	48.4	46.7	45.2
80°	52.9	47.6	45.4	42.8	39.9	37.7	35.2	34.2
82.5°	35.2	32.9	32.4	30.4	28.6	26.2	21.8	20.2
85°	20.6	20.4	20.4	19.6	18.5	16.2	13.0	13.0
87.5°	7.2	7.4	7.7	8.2	7.9	6.8	5.5	5.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)