

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: P196993

Luminaire Tested: **NAV-AF-01-D-UNV-RW-8030-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P196993  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24161)  
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-RW-8030-600  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(1) 80 CRI, 3000K, 615mA LIGHTSQUARE WITH 16 LEDS EACH AND RECTANGULAR WIDE OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3356 lumens  
Efficiency: N/A  
Efficacy: 98.7 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type II - Medium - Full Cutoff  
BUG Rating: B2 - U0 - G2

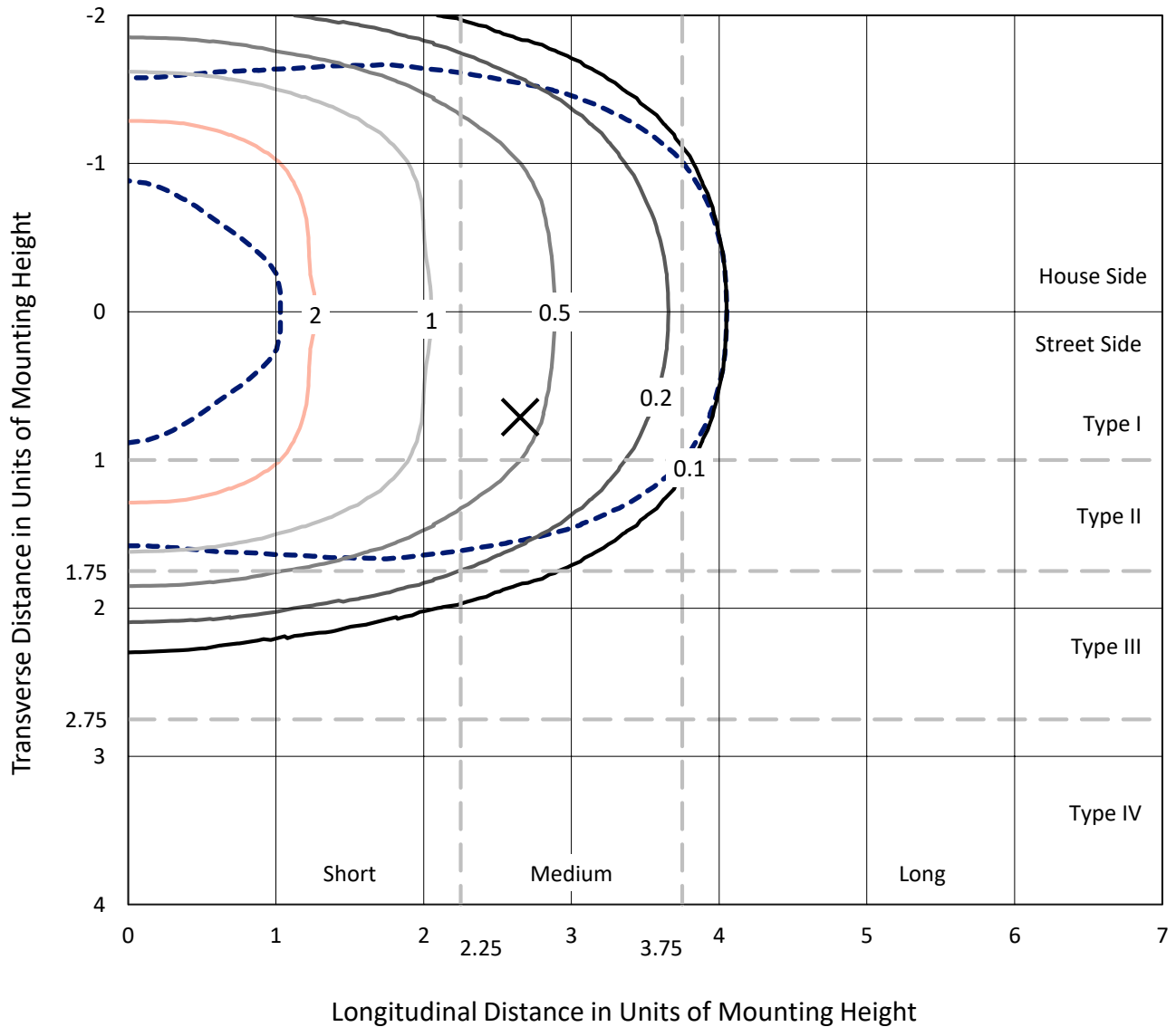
Input Watts (W): 34  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

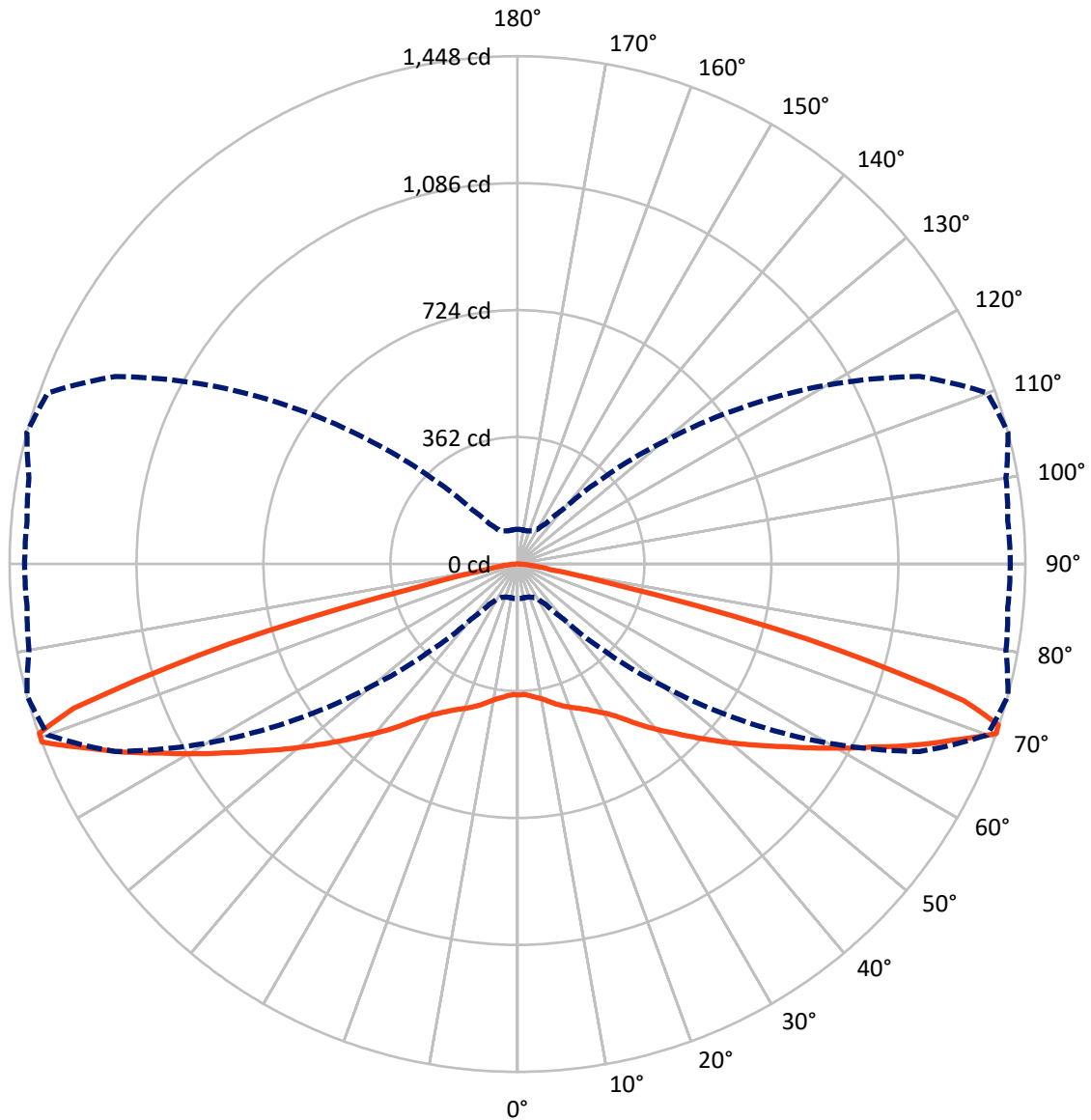
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3.8 fc  
 Type II - Medium - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral      - - - Horizontal Cone Through 70-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1678.0	0.0	1678.0
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	1678.0	0.0	1678.0
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	3356.0	0.0	3356.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	35.8	1.1
10°-20°	111.2	3.3
20°-30°	208.8	6.2
30°-40°	367.8	11.0
40°-50°	609.6	18.2
50°-60°	848.0	25.3
60°-70°	800.5	23.9
70°-80°	341.9	10.2
80°-90°	32.3	1.0
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°	3356.0	100.0
0°-180°	3356.0	100.0



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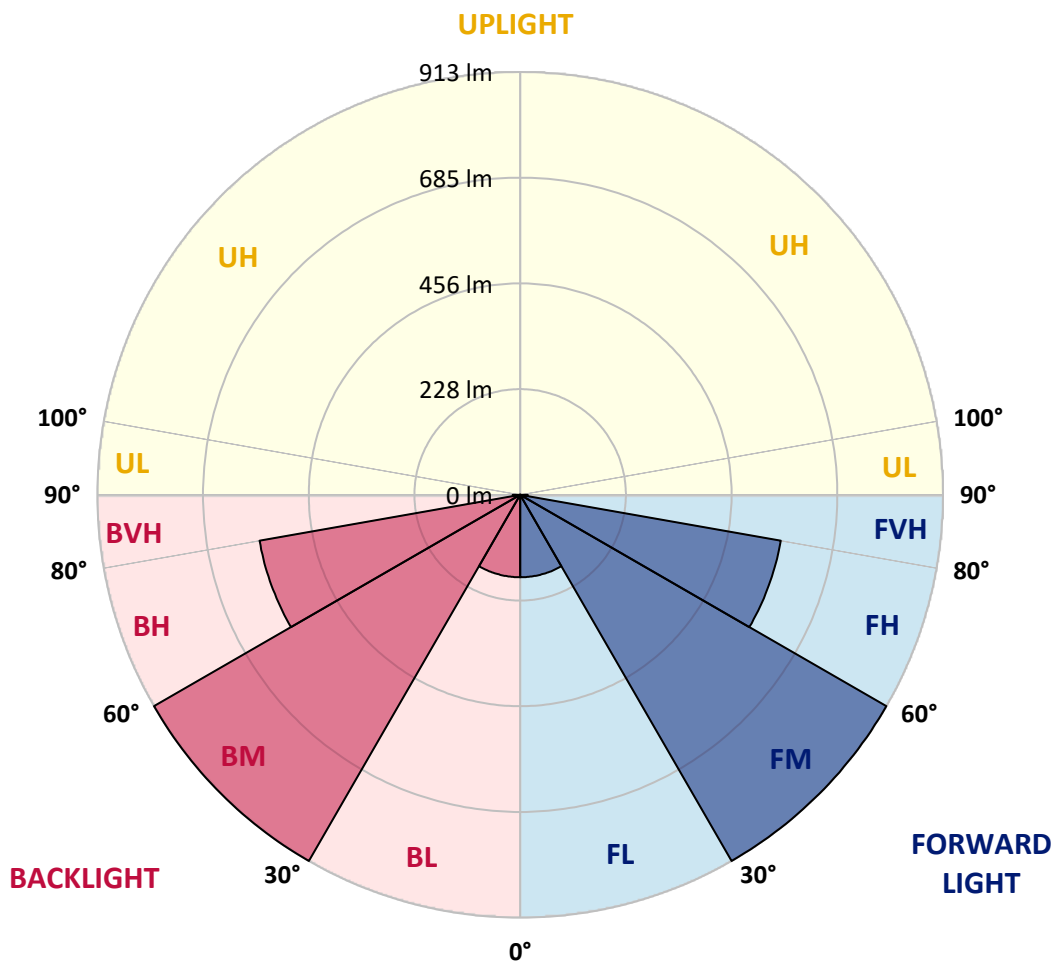
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	177.9	5.3			
FM	(30°-60°)	912.7	27.2			
FH	(60°-80°)	571.2	17.0			G0/660
FVH	(80°-90°)	16.2	0.5			G1/100
BL	(0°-30°)	177.9	5.3	B1/500		
BM	(30°-60°)	912.7	27.2	B1/1000		
BH	(60°-80°)	571.2	17.0	B2/1000		G2/1000
BVH	(80°-90°)	16.2	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G2**

Type II Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	373.7	373.7	373.7	373.7	373.7	373.7	373.7	373.7	373.7	373.7	373.7
2.5°	376.0	375.8	376.0	375.4	375.6	375.4	375.4	374.6	374.6	374.1	373.5
5°	371.8	372.3	372.3	372.3	372.9	372.9	373.7	373.9	374.6	375.2	375.6
7.5°	364.9	365.1	365.7	366.2	367.4	369.1	370.8	372.7	374.4	376.5	378.8
10°	359.0	359.4	360.5	361.5	363.8	365.9	368.9	371.8	374.8	378.4	381.9
12.5°	355.8	356.5	358.2	359.8	363.4	366.2	370.1	374.8	378.8	382.1	386.1
15°	356.3	356.5	358.8	361.1	366.2	369.9	375.6	381.1	385.9	389.7	394.3
17.5°	362.4	362.8	365.1	368.5	373.3	378.1	384.2	389.9	396.4	400.9	406.3
20°	374.4	375.0	377.5	381.1	386.3	391.4	397.7	403.6	410.3	415.6	421.0
22.5°	389.9	391.0	393.7	398.1	403.4	409.5	416.0	422.1	428.4	433.7	438.3
25°	410.7	412.0	414.9	419.4	424.6	431.1	437.9	444.2	450.7	454.7	458.5
27.5°	438.7	440.8	444.0	447.5	452.2	459.1	465.4	470.7	477.0	481.4	483.9
30°	476.4	479.3	481.8	485.6	489.0	496.3	501.4	505.6	510.4	512.9	513.6
32.5°	522.4	525.1	527.7	530.4	535.0	541.8	546.6	548.9	551.4	551.0	548.7
35°	574.4	576.5	577.9	582.8	590.3	594.8	598.3	599.2	599.6	595.2	590.8
37.5°	629.0	631.6	632.8	640.4	647.5	652.6	654.3	656.2	654.9	647.5	639.6
40°	688.1	690.9	694.7	701.2	709.6	714.4	716.5	716.3	715.3	706.6	693.6
42.5°	746.2	749.5	752.7	764.1	771.0	779.2	780.3	780.0	777.7	767.8	752.7
45°	795.4	799.4	805.9	818.5	829.7	839.6	843.6	845.0	842.7	832.2	815.0
47.5°	836.0	838.7	846.9	862.3	876.6	891.1	899.1	904.8	904.5	897.0	878.7
50°	863.7	866.9	877.0	894.2	912.1	929.2	944.9	957.8	963.9	958.4	941.4
52.5°	871.7	875.7	889.0	909.6	930.4	953.3	976.9	999.6	1013.3	1016.6	1003.4
55°	838.1	842.5	861.9	890.5	924.7	958.6	994.4	1026.7	1054.9	1068.0	1062.7
57.5°	740.1	743.2	767.8	804.9	853.9	913.4	973.5	1032.8	1081.2	1115.1	1121.0
60°	585.3	589.3	616.2	655.3	711.1	786.4	870.5	967.6	1062.5	1140.1	1178.6
62.5°	395.0	397.7	423.6	459.3	520.3	592.9	686.7	809.7	944.9	1083.5	1192.0
65°	207.4	207.4	224.8	249.8	298.4	363.4	459.5	585.7	746.6	919.7	1101.2
67.5°	120.3	120.1	124.1	129.8	145.1	171.4	224.4	317.1	469.4	670.9	877.4
70°	99.3	98.6	98.0	98.0	100.3	104.3	114.4	139.9	204.6	346.0	539.9
71°	94.9	94.4	92.7	92.1	93.2	95.3	99.7	111.5	145.3	236.0	403.2
72.5°	89.6	88.5	86.0	85.0	85.2	86.0	87.3	91.9	102.2	134.2	229.9
75°	81.6	79.1	75.9	74.5	73.8	73.6	73.6	74.9	77.2	81.0	94.2
77.5°	72.3	68.8	65.4	63.9	62.9	62.3	61.8	61.0	60.6	62.3	67.1
80°	61.2	57.4	54.7	53.8	53.2	51.9	50.3	48.6	47.5	48.4	51.3
82.5°	47.3	43.5	44.0	44.2	43.1	41.0	39.3	37.4	35.5	35.1	36.6
85°	37.6	35.8	34.5	37.2	34.9	32.4	30.1	26.9	22.5	18.5	20.2
87.5°	16.2	16.4	23.6	35.5	31.1	25.0	20.8	16.8	10.7	8.0	8.2
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°	373.7	373.7	373.7	373.7	373.7	373.7	373.7	373.7
2.5°	373.3	373.3	372.7	372.3	372.3	372.3	371.8	372.0
5°	375.8	376.2	376.7	376.5	377.1	377.7	377.5	377.3
7.5°	380.0	381.3	382.6	383.2	384.0	384.9	385.1	384.4
10°	384.2	386.8	388.7	390.3	391.4	392.2	392.9	392.7
12.5°	389.5	393.1	396.4	399.8	402.1	403.4	404.6	404.2
15°	398.1	402.1	406.3	410.7	414.3	416.2	418.1	417.7
17.5°	409.9	413.5	416.8	421.3	425.7	427.8	429.9	429.7
20°	424.6	427.4	429.2	431.8	436.0	438.3	440.2	439.6
22.5°	441.4	442.3	442.5	443.3	446.7	449.4	452.0	452.6
25°	459.7	459.1	457.8	457.2	459.5	462.5	465.6	466.5
27.5°	482.5	480.4	477.2	474.7	475.3	479.1	482.7	483.5
30°	511.1	506.2	499.5	494.7	493.8	497.8	501.6	502.9
32.5°	543.7	537.1	527.9	520.5	517.4	520.9	524.3	526.2
35°	582.4	575.2	564.1	554.6	549.5	551.9	557.7	559.8
37.5°	628.2	618.3	605.9	593.9	585.5	585.9	592.2	594.8
40°	678.9	664.6	648.8	633.9	621.7	620.8	626.5	628.4
42.5°	731.7	713.4	694.9	675.3	660.2	657.4	664.8	665.0
45°	788.5	764.9	742.0	719.3	703.5	698.7	705.8	706.6
47.5°	849.0	819.6	792.5	767.8	750.8	743.2	750.2	751.4
50°	912.1	881.6	850.1	822.7	802.8	793.5	801.7	802.5
52.5°	974.6	945.8	914.4	883.1	858.9	848.4	858.1	861.0
55°	1037.5	1009.7	980.3	948.9	918.4	909.2	919.7	922.8
57.5°	1102.9	1076.2	1049.5	1017.9	988.3	974.2	985.5	989.9
60°	1175.0	1151.5	1126.2	1094.5	1065.2	1048.8	1058.5	1063.5
62.5°	1245.9	1241.0	1218.1	1185.1	1148.1	1131.7	1139.9	1143.5
65°	1251.8	1330.2	1329.2	1296.4	1244.6	1217.1	1219.4	1221.1
67.5°	1092.6	1272.6	1387.6	1397.9	1340.3	1297.2	1292.2	1293.2
70°	773.5	1020.6	1264.8	1425.1	1447.8	1414.3	1403.4	1405.1
71°	619.8	875.7	1144.5	1360.1	1446.1	1436.4	1430.3	1434.7
72.5°	395.6	645.2	906.9	1164.7	1329.8	1377.1	1384.1	1386.8
75°	143.6	277.6	469.8	673.2	853.2	977.1	1045.2	1050.7
77.5°	77.2	99.5	153.7	229.7	288.5	320.1	323.9	325.4
80°	56.8	65.8	75.3	86.0	92.7	94.0	91.7	86.9
82.5°	40.2	45.4	49.2	53.0	55.7	53.4	44.4	33.9
85°	23.3	25.7	27.8	29.7	30.1	28.4	18.7	15.4
87.5°	9.3	10.1	9.9	11.1	10.7	9.9	7.4	6.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)