

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: P196999

Luminaire Tested: **NAV-AF-01-D-UNV-RW-8030-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196999
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-8030-800
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 80 CRI, 3000K, 800mA LIGHTSQUARE WITH 16 LEDS EACH AND RECTANGULAR WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4116 lumens
Efficiency: N/A
Efficacy: 93.5 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): 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

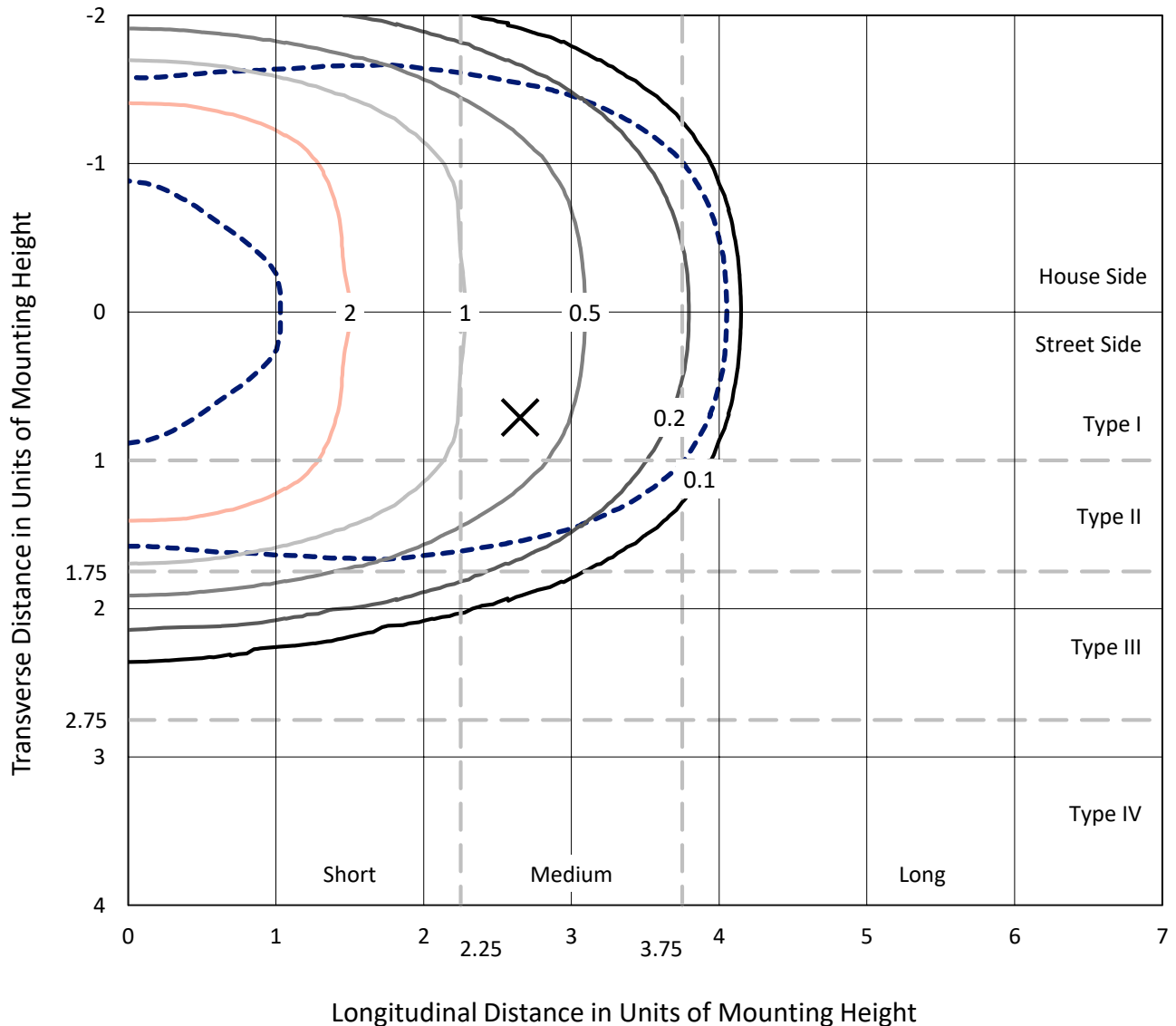


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Iso-Footcandle Lines of Horizontal Illumination

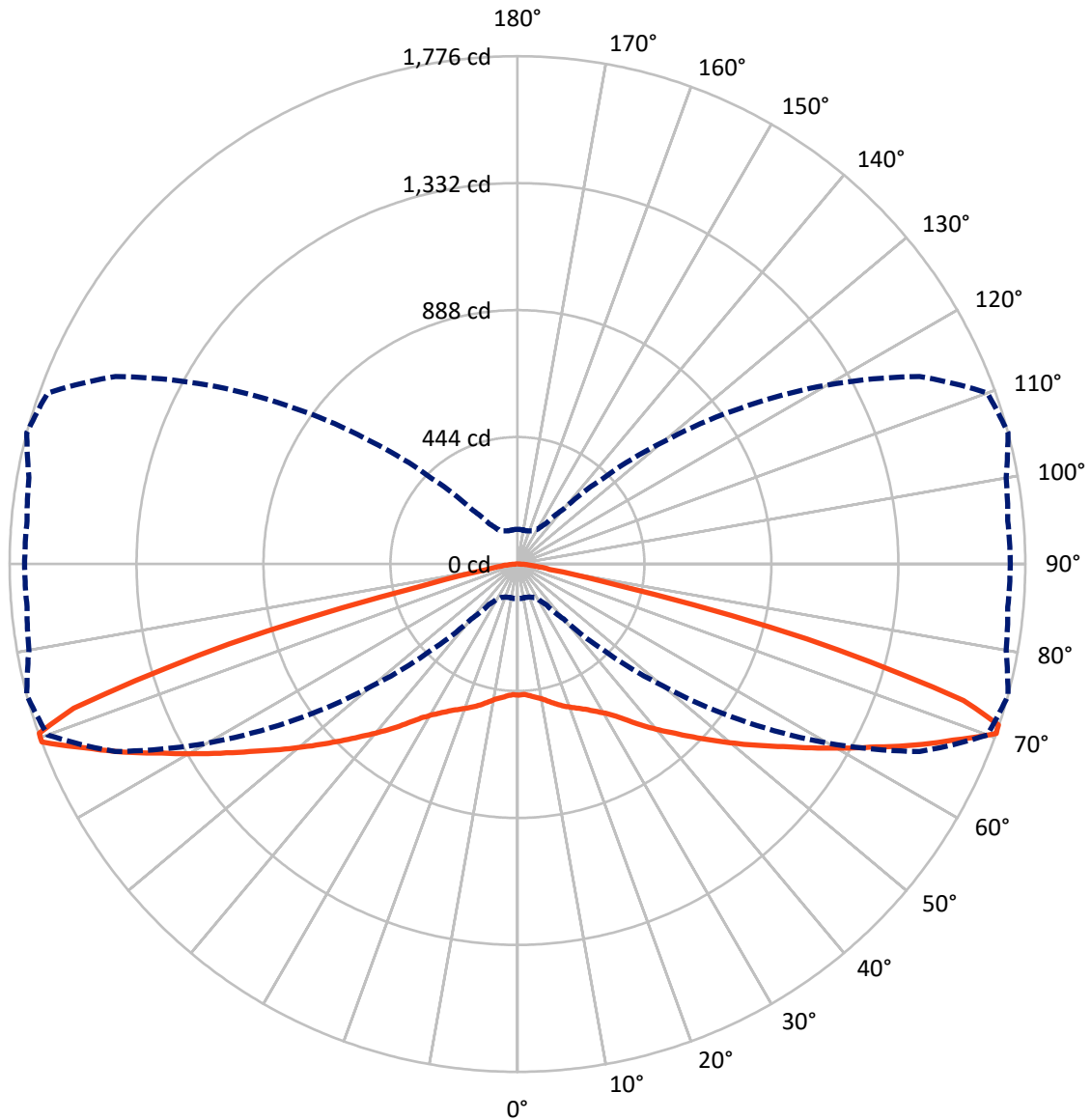
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 4.6 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
House Side	Lumens	2058.0	0.0	2058.0
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	2058.0	0.0	2058.0
	% Fixture	50.0	0.0	50.0
Total	Lumens	4116.0	0.0	4116.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	44.0	1.1
10°-20°	136.3	3.3
20°-30°	256.1	6.2
30°-40°	451.1	11.0
40°-50°	747.6	18.2
50°-60°	1040.1	25.3
60°-70°	981.8	23.9
70°-80°	419.4	10.2
80°-90°	39.6	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°	4116.0	100.0
0°-180°	4116.0	100.0



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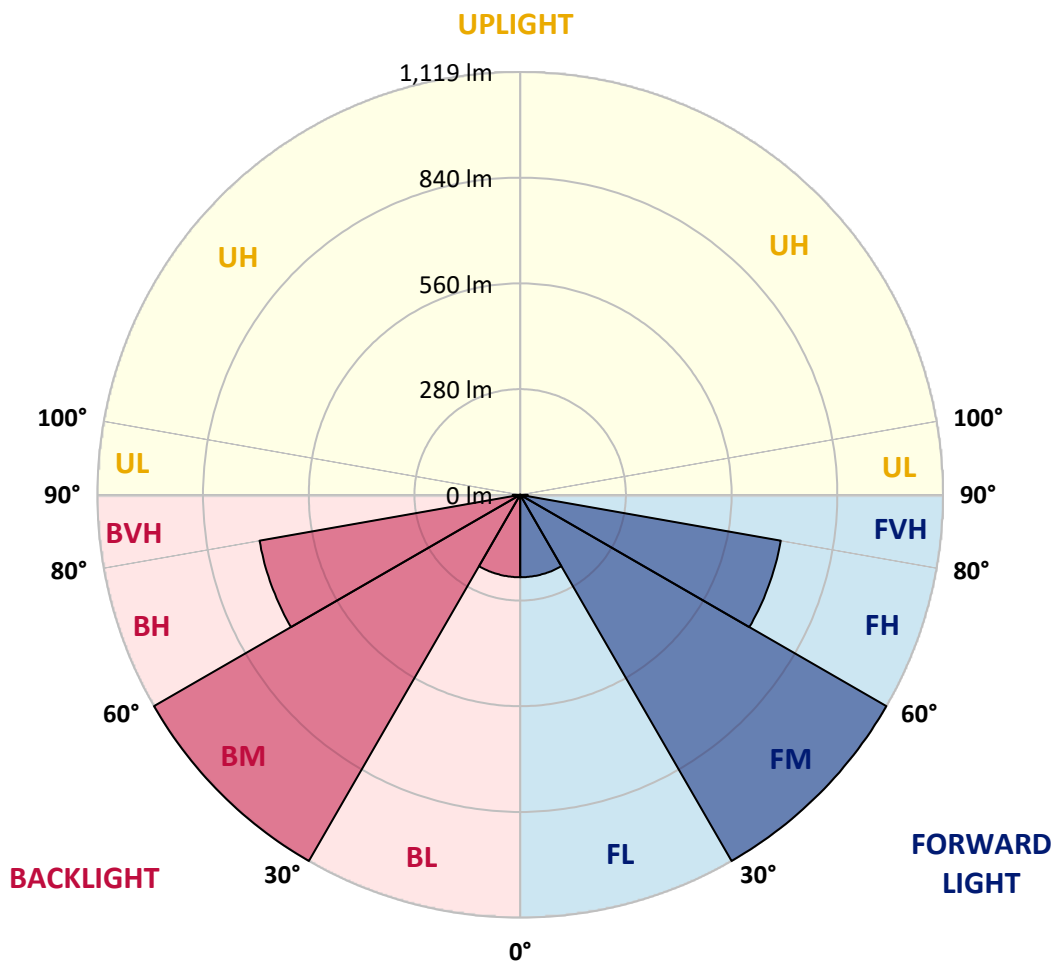
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	218.2	5.3			
FM	(30°-60°)	1119.4	27.2			
FH	(60°-80°)	700.6	17.0			G1/1800
FVH	(80°-90°)	19.8	0.5			G1/100
BL	(0°-30°)	218.2	5.3	B1/500		
BM	(30°-60°)	1119.4	27.2	B2/2500		
BH	(60°-80°)	700.6	17.0	B2/1000		G2/1000
BVH	(80°-90°)	19.8	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°	458.4	458.4	458.4	458.4	458.4	458.4	458.4	458.4	458.4	458.4	458.4
2.5°	461.2	460.9	461.2	460.4	460.7	460.4	460.4	459.4	459.4	458.9	458.1
5°	456.0	456.6	456.6	456.6	457.3	457.3	458.4	458.6	459.4	460.2	460.7
7.5°	447.5	447.8	448.6	449.1	450.6	452.7	454.7	457.1	459.1	461.7	464.5
10°	440.3	440.8	442.1	443.4	446.2	448.8	452.4	456.0	459.6	464.0	468.4
12.5°	436.4	437.2	439.3	441.3	445.7	449.1	454.0	459.6	464.5	468.7	473.6
15°	436.9	437.2	440.0	442.9	449.1	453.7	460.7	467.4	473.3	478.0	483.6
17.5°	444.4	444.9	447.8	451.9	457.8	463.8	471.3	478.2	486.2	491.6	498.3
20°	459.1	459.9	463.0	467.4	473.8	480.0	487.8	495.0	503.2	509.7	516.4
22.5°	478.2	479.5	482.9	488.3	494.7	502.2	510.2	517.7	525.4	531.9	537.5
25°	503.8	505.3	508.9	514.3	520.8	528.8	537.0	544.8	552.8	557.7	562.3
27.5°	538.1	540.6	544.5	548.9	554.6	563.1	570.8	577.3	585.0	590.4	593.5
30°	584.2	587.8	590.9	595.6	599.7	608.7	614.9	620.1	626.0	629.1	629.9
32.5°	640.7	644.1	647.2	650.5	656.2	664.4	670.4	673.2	676.3	675.8	673.0
35°	704.4	707.0	708.8	714.7	724.0	729.5	733.8	734.9	735.4	730.0	724.5
37.5°	771.5	774.6	776.1	785.4	794.2	800.4	802.4	804.8	803.2	794.2	784.4
40°	844.0	847.3	852.0	860.0	870.3	876.2	878.8	878.5	877.2	866.7	850.7
42.5°	915.2	919.3	923.2	937.1	945.6	955.7	957.0	956.7	953.9	941.7	923.2
45°	975.5	980.4	988.4	1003.9	1017.6	1029.7	1034.6	1036.4	1033.6	1020.7	999.5
47.5°	1025.3	1028.7	1038.7	1057.5	1075.1	1092.9	1102.7	1109.7	1109.4	1100.1	1077.7
50°	1059.4	1063.2	1075.6	1096.8	1118.7	1139.6	1158.9	1174.7	1182.1	1175.4	1154.5
52.5°	1069.2	1074.1	1090.3	1115.6	1141.1	1169.2	1198.1	1226.0	1242.7	1246.9	1230.6
55°	1027.9	1033.3	1057.0	1092.1	1134.2	1175.7	1219.5	1259.3	1293.8	1309.8	1303.4
57.5°	907.7	911.6	941.7	987.1	1047.2	1120.2	1194.0	1266.7	1326.1	1367.6	1374.8
60°	717.8	722.7	755.8	803.7	872.1	964.4	1067.6	1186.8	1303.1	1398.3	1445.5
62.5°	484.4	487.8	519.5	563.3	638.1	727.1	842.2	993.1	1158.9	1328.9	1462.0
65°	254.3	254.3	275.7	306.4	366.0	445.7	563.6	718.4	915.7	1128.0	1350.6
67.5°	147.5	147.3	152.2	159.1	178.0	210.2	275.2	389.0	575.7	822.8	1076.1
70°	121.7	121.0	120.2	120.2	123.0	127.9	140.3	171.5	251.0	424.3	662.1
71°	116.3	115.8	113.8	113.0	114.3	116.8	122.3	136.7	178.2	289.4	494.5
72.5°	109.9	108.6	105.5	104.2	104.5	105.5	107.0	112.7	125.4	164.6	281.9
75°	100.1	97.0	93.1	91.3	90.5	90.3	90.3	91.8	94.7	99.3	115.6
77.5°	88.7	84.3	80.2	78.4	77.1	76.3	75.8	74.8	74.3	76.3	82.3
80°	75.1	70.4	67.1	66.0	65.3	63.7	61.6	59.6	58.3	59.3	62.9
82.5°	58.0	53.4	53.9	54.2	52.9	50.3	48.2	45.9	43.6	43.1	44.9
85°	46.2	43.8	42.3	45.7	42.8	39.7	36.9	33.0	27.6	22.7	24.8
87.5°	19.9	20.1	28.9	43.6	38.2	30.7	25.5	20.6	13.2	9.8	10.1
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°	458.4	458.4	458.4	458.4	458.4	458.4	458.4	458.4
2.5°	457.8	457.8	457.1	456.6	456.6	456.6	456.0	456.3
5°	460.9	461.5	462.0	461.7	462.5	463.3	463.0	462.7
7.5°	466.1	467.6	469.2	470.0	471.0	472.0	472.3	471.5
10°	471.3	474.3	476.7	478.7	480.0	481.1	481.8	481.6
12.5°	477.7	482.1	486.2	490.3	493.2	494.7	496.3	495.8
15°	488.3	493.2	498.3	503.8	508.1	510.5	512.8	512.3
17.5°	502.7	507.1	511.2	516.7	522.1	524.6	527.2	527.0
20°	520.8	524.1	526.5	529.5	534.7	537.5	539.9	539.1
22.5°	541.4	542.4	542.7	543.7	547.9	551.2	554.3	555.1
25°	563.9	563.1	561.5	560.8	563.6	567.2	571.1	572.1
27.5°	591.7	589.1	585.3	582.2	582.9	587.6	592.0	593.0
30°	626.8	620.9	612.6	606.7	605.6	610.5	615.2	616.7
32.5°	666.8	658.8	647.4	638.4	634.5	638.9	643.0	645.4
35°	714.2	705.5	691.8	680.2	674.0	676.8	684.1	686.6
37.5°	770.5	758.3	743.1	728.4	718.1	718.6	726.4	729.5
40°	832.6	815.1	795.7	777.4	762.5	761.4	768.4	770.7
42.5°	897.4	874.9	852.2	828.2	809.7	806.3	815.3	815.6
45°	967.0	938.1	910.0	882.1	862.8	856.9	865.6	866.7
47.5°	1041.3	1005.2	971.9	941.7	920.8	911.6	920.1	921.6
50°	1118.7	1081.3	1042.6	1009.1	984.6	973.2	983.3	984.3
52.5°	1195.3	1159.9	1121.5	1083.1	1053.4	1040.5	1052.4	1056.0
55°	1272.4	1238.4	1202.3	1163.8	1126.4	1115.1	1128.0	1131.8
57.5°	1352.6	1319.9	1287.1	1248.4	1212.1	1194.8	1208.7	1214.1
60°	1441.1	1412.2	1381.3	1342.3	1306.5	1286.3	1298.2	1304.4
62.5°	1528.0	1522.1	1494.0	1453.5	1408.1	1388.0	1398.0	1402.4
65°	1535.3	1631.5	1630.2	1589.9	1526.5	1492.7	1495.5	1497.6
67.5°	1340.0	1560.8	1701.9	1714.5	1643.8	1591.0	1584.8	1586.1
70°	948.7	1251.8	1551.2	1747.8	1775.6	1734.6	1721.2	1723.3
71°	760.1	1074.1	1403.7	1668.1	1773.6	1761.7	1754.2	1759.7
72.5°	485.2	791.4	1112.2	1428.5	1630.9	1689.0	1697.5	1700.8
75°	176.2	340.5	576.2	825.7	1046.5	1198.4	1282.0	1288.7
77.5°	94.7	122.0	188.6	281.7	353.9	392.6	397.2	399.0
80°	69.6	80.7	92.3	105.5	113.8	115.3	112.5	106.5
82.5°	49.3	55.7	60.4	65.0	68.4	65.5	54.4	41.5
85°	28.6	31.5	34.0	36.4	36.9	34.8	23.0	18.8
87.5°	11.3	12.4	12.1	13.7	13.2	12.1	9.0	7.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)