

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: P195553

Luminaire Tested: **NAV-AF-01-D-UNV-RW-7050-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P195553
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-7050-600
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 5000K, 615mA LIGHTSQUARE WITH 16 LEDS EACH AND RECTANGULAR WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4113 lumens
Efficiency: N/A
Efficacy: 121.0 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

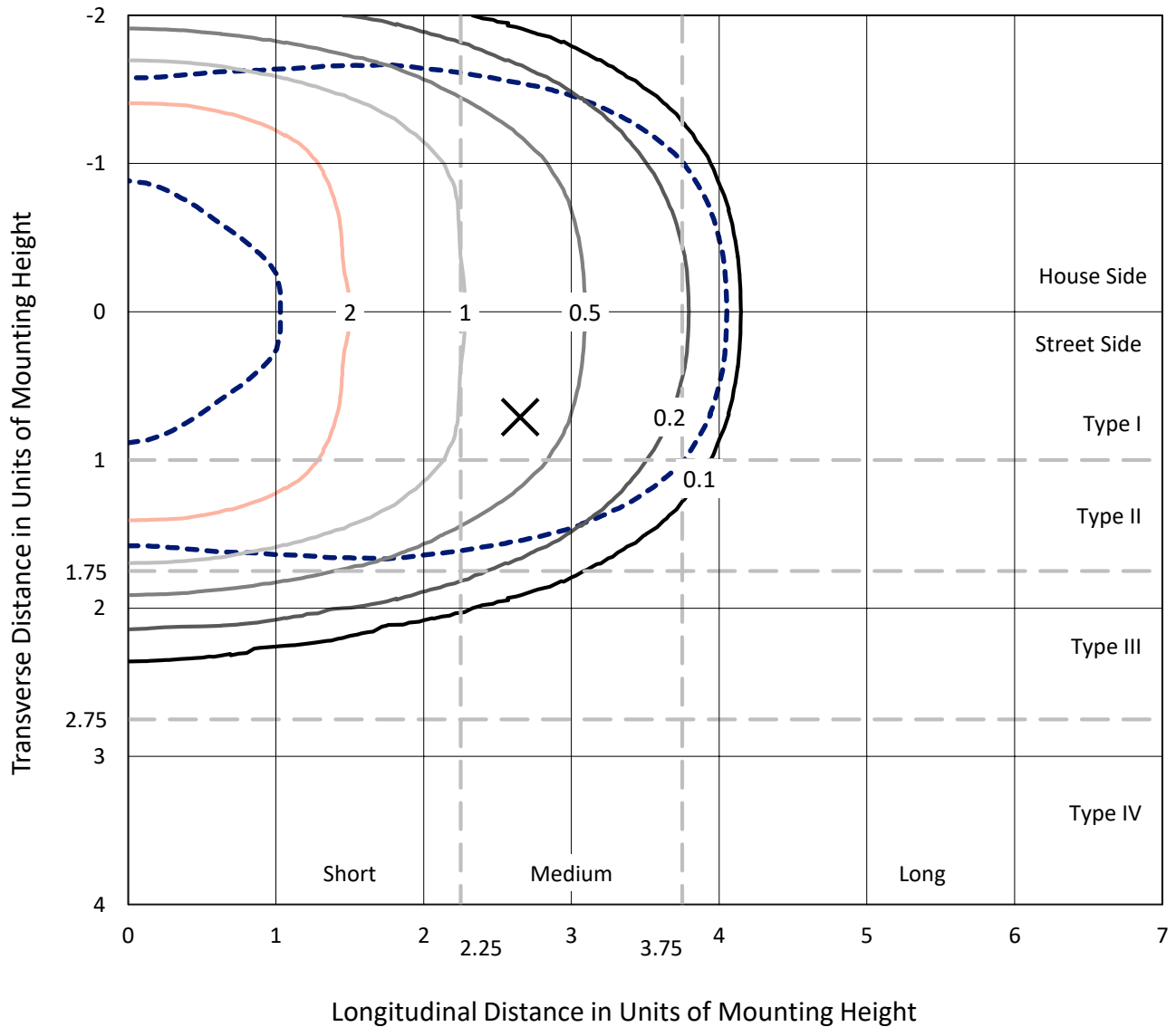


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Iso-Footcandle Lines of Horizontal Illumination

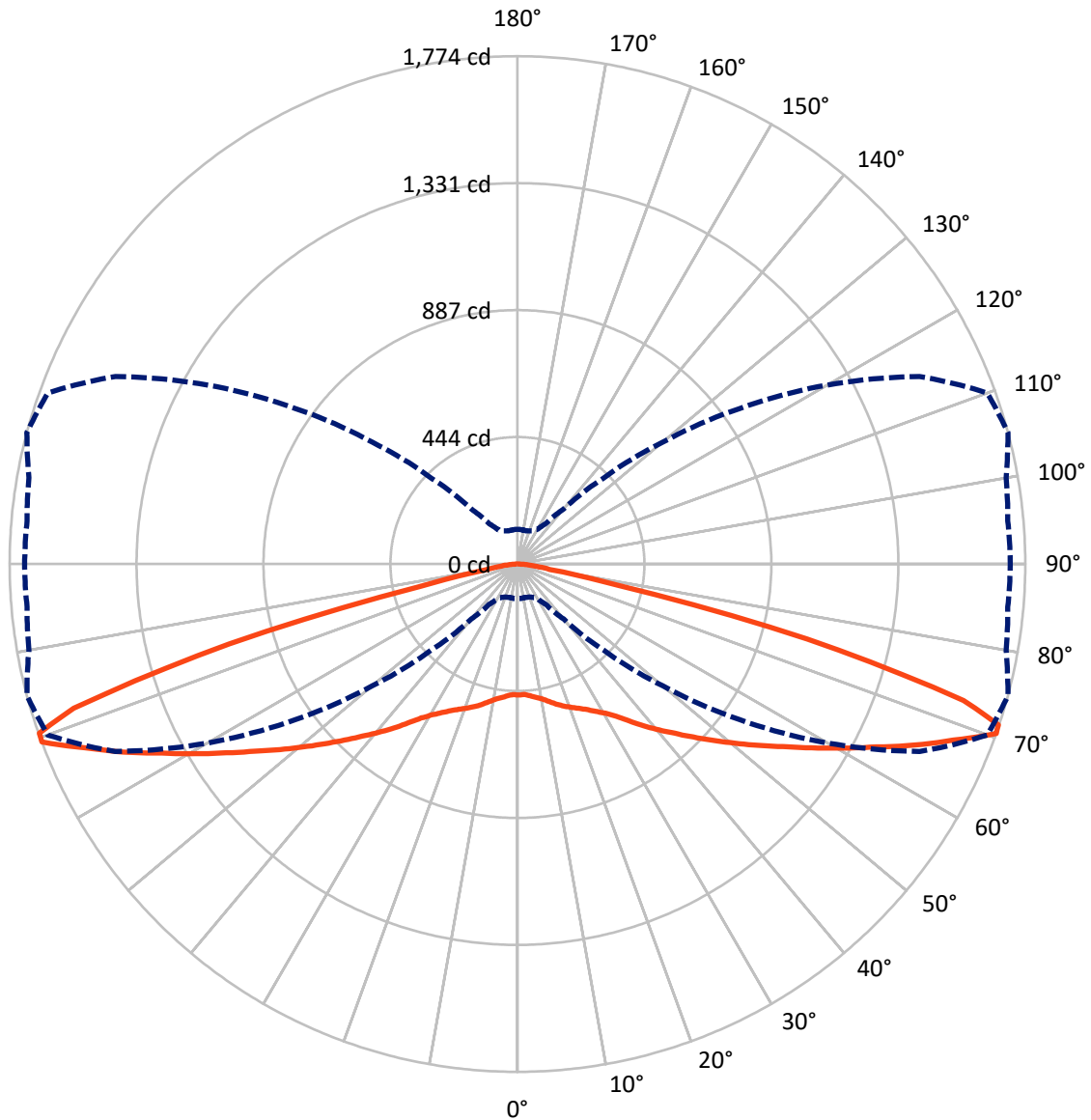
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 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	2056.5	0.0	2056.5
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	2056.5	0.0	2056.5
	% Fixture	50.0	0.0	50.0
Total	Lumens	4113.0	0.0	4113.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	43.9	1.1
10°-20°	136.3	3.3
20°-30°	255.9	6.2
30°-40°	450.8	11.0
40°-50°	747.1	18.2
50°-60°	1039.3	25.3
60°-70°	981.1	23.9
70°-80°	419.0	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°	4113.0	100.0
0°-180°	4113.0	100.0



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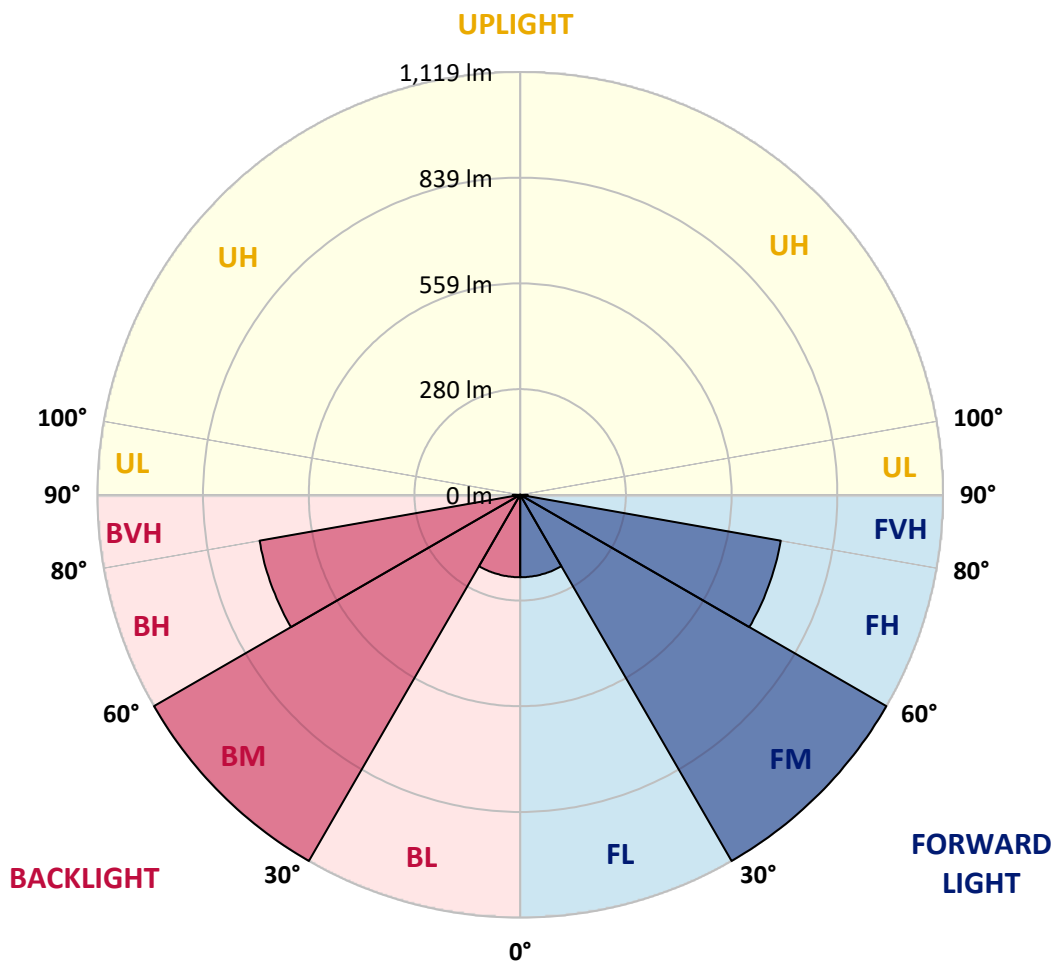
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	218.0	5.3			
FM	(30°-60°)	1118.6	27.2			
FH	(60°-80°)	700.1	17.0			G1/1800
FVH	(80°-90°)	19.8	0.5			G1/100
BL	(0°-30°)	218.0	5.3	B1/500		
BM	(30°-60°)	1118.6	27.2	B2/2500		
BH	(60°-80°)	700.1	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°	458.0	458.0	458.0	458.0	458.0	458.0	458.0	458.0	458.0	458.0	458.0
2.5°	460.9	460.6	460.9	460.1	460.3	460.1	460.1	459.1	459.1	458.5	457.8
5°	455.7	456.2	456.2	456.2	457.0	457.0	458.0	458.3	459.1	459.8	460.3
7.5°	447.2	447.5	448.2	448.7	450.3	452.4	454.4	456.7	458.8	461.4	464.2
10°	440.0	440.5	441.8	443.1	445.9	448.5	452.1	455.7	459.3	463.7	468.1
12.5°	436.1	436.9	438.9	441.0	445.4	448.7	453.6	459.3	464.2	468.3	473.2
15°	436.6	436.9	439.7	442.6	448.7	453.4	460.3	467.0	473.0	477.6	483.3
17.5°	444.1	444.6	447.5	451.6	457.5	463.4	470.9	477.9	485.9	491.3	498.0
20°	458.8	459.6	462.7	467.0	473.5	479.7	487.4	494.6	502.9	509.3	516.0
22.5°	477.9	479.2	482.5	487.9	494.4	501.8	509.8	517.3	525.0	531.5	537.2
25°	503.4	504.9	508.5	514.0	520.4	528.4	536.6	544.4	552.4	557.3	561.9
27.5°	537.7	540.2	544.1	548.5	554.2	562.7	570.4	576.8	584.6	590.0	593.1
30°	583.8	587.4	590.5	595.1	599.3	608.3	614.5	619.6	625.6	628.7	629.4
32.5°	640.3	643.6	646.7	650.0	655.7	664.0	669.9	672.7	675.8	675.3	672.5
35°	703.9	706.5	708.3	714.2	723.5	728.9	733.3	734.3	734.8	729.4	724.0
37.5°	770.9	774.0	775.6	784.9	793.6	799.8	801.9	804.2	802.6	793.6	783.8
40°	843.4	846.7	851.3	859.3	869.7	875.6	878.2	877.9	876.6	866.0	850.1
42.5°	914.5	918.6	922.5	936.4	944.9	955.0	956.3	956.0	953.2	941.0	922.5
45°	974.8	979.7	987.7	1003.2	1016.8	1028.9	1033.8	1035.6	1032.8	1019.9	998.8
47.5°	1024.6	1027.9	1038.0	1056.8	1074.3	1092.1	1101.9	1108.8	1108.6	1099.3	1076.9
50°	1058.6	1062.4	1074.8	1096.0	1117.9	1138.7	1158.1	1173.8	1181.3	1174.6	1153.7
52.5°	1068.4	1073.3	1089.5	1114.8	1140.3	1168.4	1197.3	1225.1	1241.8	1246.0	1229.7
55°	1027.1	1032.5	1056.3	1091.3	1133.3	1174.8	1218.6	1258.3	1292.9	1308.9	1302.4
57.5°	907.0	910.9	941.0	986.4	1046.5	1119.4	1193.1	1265.8	1325.1	1366.6	1373.8
60°	717.3	722.2	755.2	803.2	871.5	963.7	1066.8	1185.9	1302.2	1397.3	1444.4
62.5°	484.1	487.4	519.1	562.9	637.7	726.6	841.6	992.3	1158.1	1327.9	1460.9
65°	254.1	254.1	275.5	306.2	365.7	445.4	563.2	717.8	915.0	1127.1	1349.6
67.5°	147.4	147.2	152.1	159.0	177.8	210.1	275.0	388.7	575.3	822.2	1075.3
70°	121.7	120.9	120.1	120.1	122.9	127.8	140.2	171.4	250.8	424.0	661.6
71°	116.2	115.7	113.7	112.9	114.2	116.8	122.2	136.6	178.1	289.2	494.1
72.5°	109.8	108.5	105.4	104.1	104.4	105.4	107.0	112.6	125.3	164.4	281.7
75°	100.0	96.9	93.0	91.2	90.5	90.2	90.2	91.8	94.6	99.2	115.5
77.5°	88.7	84.3	80.2	78.4	77.1	76.3	75.8	74.7	74.2	76.3	82.2
80°	75.0	70.4	67.0	66.0	65.2	63.7	61.6	59.5	58.3	59.3	62.9
82.5°	58.0	53.4	53.9	54.1	52.8	50.3	48.2	45.9	43.6	43.0	44.8
85°	46.1	43.8	42.3	45.6	42.8	39.7	36.9	33.0	27.6	22.7	24.7
87.5°	19.8	20.1	28.9	43.6	38.1	30.7	25.5	20.6	13.1	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°	458.0	458.0	458.0	458.0	458.0	458.0	458.0	458.0
2.5°	457.5	457.5	456.7	456.2	456.2	456.2	455.7	456.0
5°	460.6	461.1	461.6	461.4	462.1	462.9	462.7	462.4
7.5°	465.8	467.3	468.8	469.6	470.7	471.7	471.9	471.2
10°	470.9	474.0	476.3	478.4	479.7	480.7	481.5	481.2
12.5°	477.4	481.7	485.9	490.0	492.8	494.4	495.9	495.4
15°	487.9	492.8	498.0	503.4	507.8	510.1	512.4	511.9
17.5°	502.4	506.7	510.9	516.3	521.7	524.3	526.8	526.6
20°	520.4	523.7	526.1	529.2	534.3	537.2	539.5	538.7
22.5°	541.0	542.0	542.3	543.3	547.5	550.8	553.9	554.7
25°	563.4	562.7	561.1	560.3	563.2	566.8	570.7	571.7
27.5°	591.3	588.7	584.8	581.7	582.5	587.2	591.5	592.6
30°	626.3	620.4	612.2	606.2	605.2	610.1	614.7	616.3
32.5°	666.3	658.3	647.0	637.9	634.1	638.4	642.6	644.9
35°	713.7	704.9	691.3	679.7	673.5	676.3	683.6	686.1
37.5°	769.9	757.8	742.6	727.9	717.6	718.1	725.8	728.9
40°	832.0	814.5	795.2	776.9	761.9	760.9	767.8	770.2
42.5°	896.7	874.3	851.6	827.6	809.1	805.7	814.7	815.0
45°	966.3	937.4	909.3	881.5	862.2	856.2	865.0	866.0
47.5°	1040.5	1004.5	971.2	941.0	920.2	910.9	919.4	920.9
50°	1117.9	1080.5	1041.8	1008.3	983.8	972.5	982.5	983.6
52.5°	1194.4	1159.1	1120.7	1082.3	1052.7	1039.8	1051.6	1055.2
55°	1271.5	1237.5	1201.4	1163.0	1125.6	1114.3	1127.1	1131.0
57.5°	1351.6	1318.9	1286.2	1247.5	1211.2	1193.9	1207.8	1213.2
60°	1440.1	1411.2	1380.3	1341.3	1305.5	1285.4	1297.3	1303.4
62.5°	1526.9	1521.0	1492.9	1452.4	1407.1	1387.0	1397.0	1401.4
65°	1534.1	1630.3	1629.0	1588.8	1525.4	1491.6	1494.4	1496.5
67.5°	1339.0	1559.6	1700.6	1713.3	1642.6	1589.8	1583.6	1584.9
70°	948.0	1250.9	1550.1	1746.5	1774.4	1733.4	1720.0	1722.0
71°	759.6	1073.3	1402.7	1666.9	1772.3	1760.4	1753.0	1758.4
72.5°	484.8	790.8	1111.4	1427.4	1629.8	1687.8	1696.3	1699.6
75°	176.0	340.2	575.8	825.1	1045.7	1197.5	1281.0	1287.7
77.5°	94.6	121.9	188.4	281.5	353.6	392.3	396.9	398.7
80°	69.6	80.7	92.3	105.4	113.7	115.2	112.4	106.5
82.5°	49.2	55.7	60.3	65.0	68.3	65.5	54.4	41.5
85°	28.6	31.4	34.0	36.3	36.9	34.8	22.9	18.8
87.5°	11.3	12.4	12.1	13.7	13.1	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)