

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: P194977

Luminaire Tested: **NAV-AF-01-D-UNV-5NQ-7060-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P194977
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-7060-600
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 5700K, 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: 4138 lumens
Efficiency: N/A
Efficacy: 121.7 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

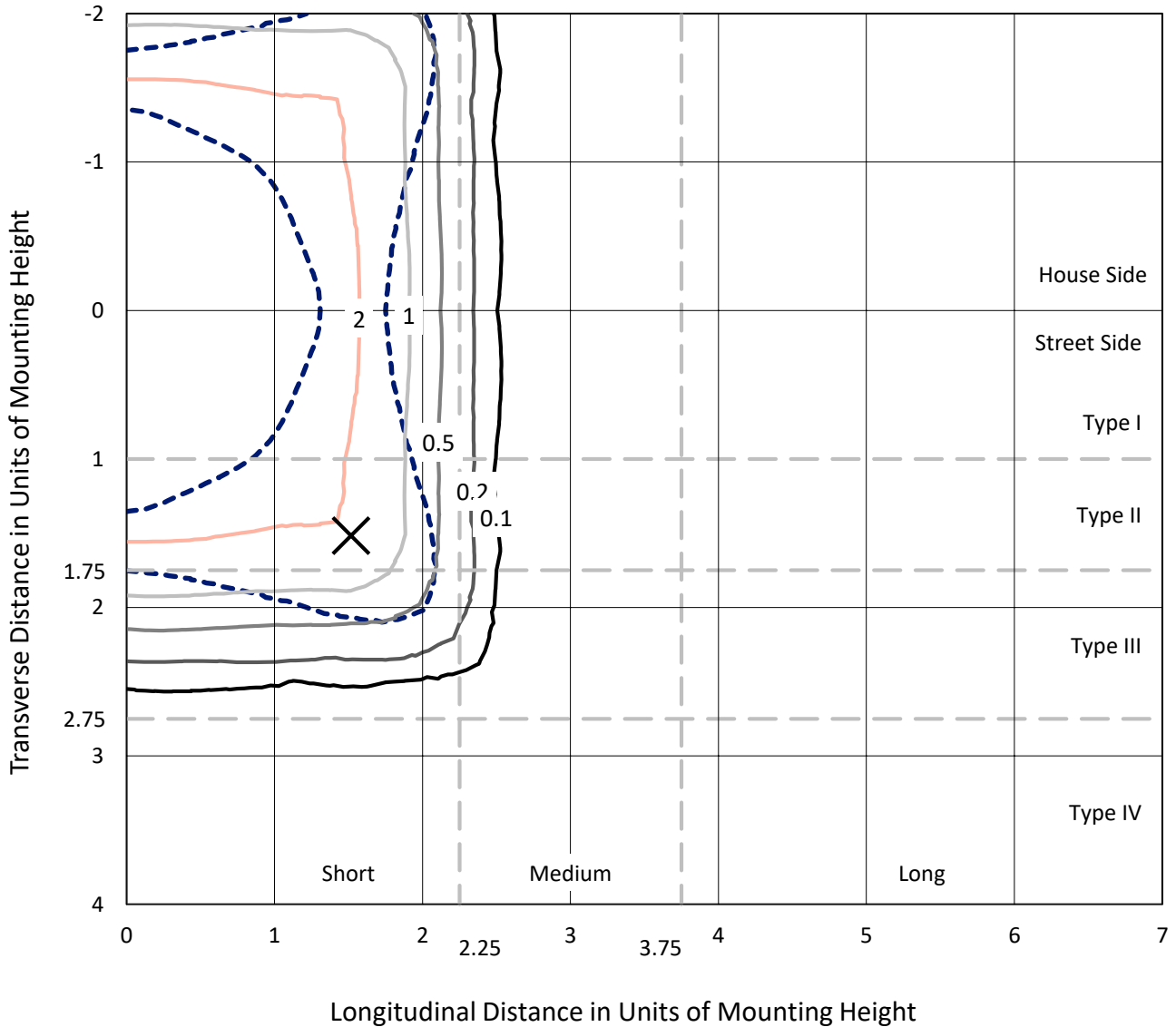


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Iso-Footcandle Lines of Horizontal Illumination

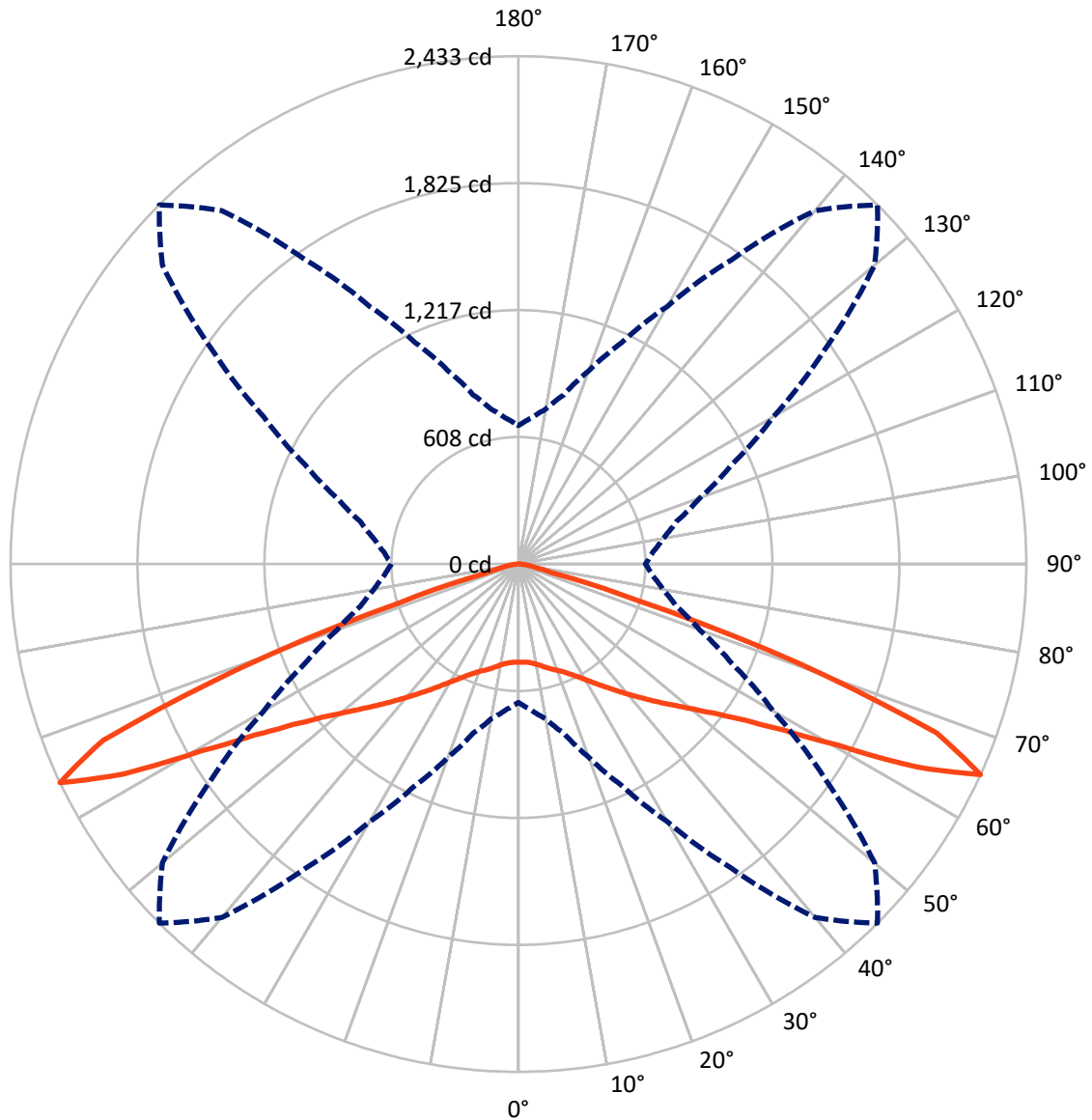
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 4.7 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
House Side	Lumens	2069.0	0.0	2069.0
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	2069.0	0.0	2069.0
	% Fixture	50.0	0.0	50.0
Total	Lumens	4138.0	0.0	4138.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.8	1.1
10°-20°	146.9	3.6
20°-30°	274.1	6.6
30°-40°	462.1	11.2
40°-50°	750.6	18.1
50°-60°	1176.0	28.4
60°-70°	1110.1	26.8
70°-80°	149.6	3.6
80°-90°	22.8	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°	4138.0	100.0
0°-180°	4138.0	100.0



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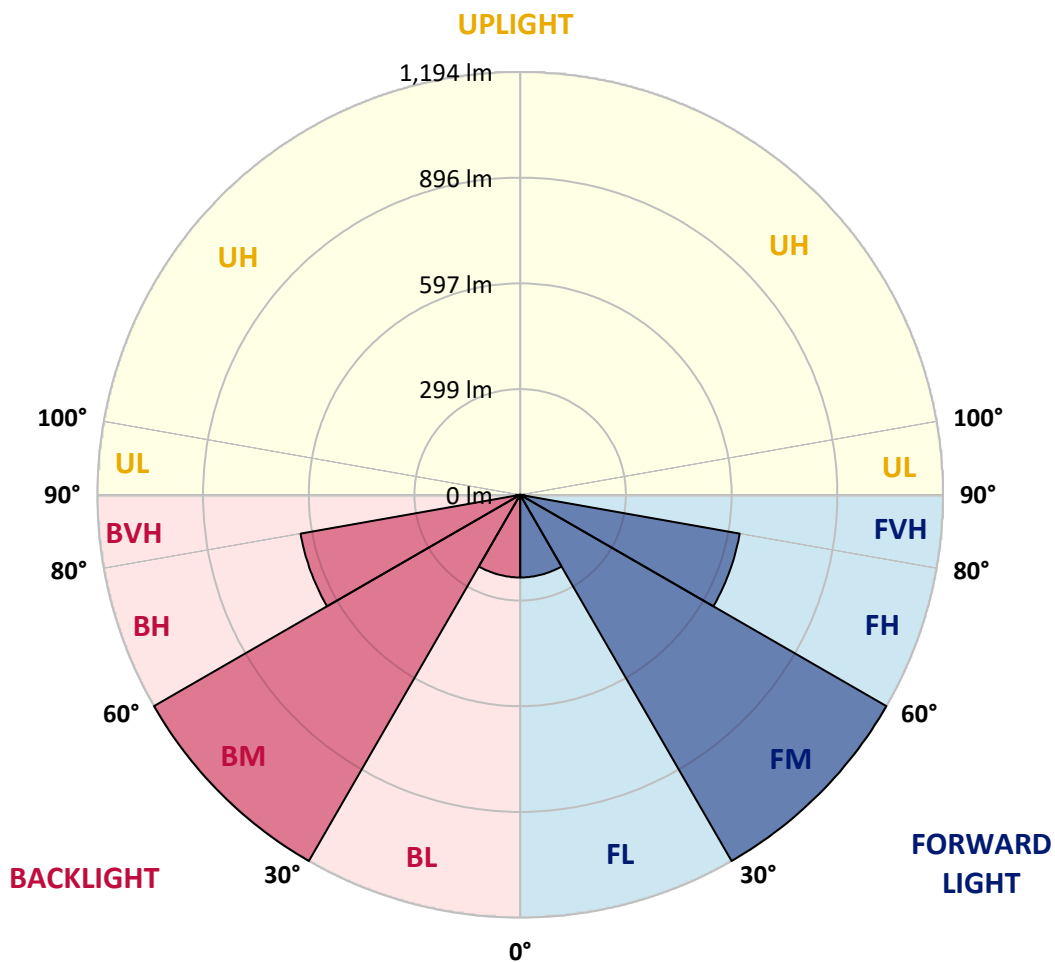
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	233.4	5.6			
FM (30°-60°)	1194.3	28.9			
FH (60°-80°)	629.9	15.2			G0/660
FVH (80°-90°)	11.4	0.3			G1/100
BL (0°-30°)	233.4	5.6	B1/500		
BM (30°-60°)	1194.3	28.9	B2/2500		
BH (60°-80°)	629.9	15.2	B2/1000		G0/660
BVH (80°-90°)	11.4	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°	470.7	470.7	470.7	470.7	470.7	470.7	470.7	470.7	470.7	470.7	470.7
2.5°	474.6	474.6	475.3	475.1	474.0	473.3	472.5	471.5	471.0	470.4	470.2
5°	477.1	477.1	477.9	477.7	476.9	475.8	475.3	474.6	473.8	473.3	473.5
7.5°	483.6	483.8	484.1	483.8	483.1	482.3	481.3	481.0	480.0	479.2	479.7
10°	493.4	493.4	493.6	493.9	493.4	491.6	491.6	491.1	490.0	489.0	489.3
12.5°	504.2	504.2	504.5	504.5	504.5	503.4	503.7	503.4	502.1	501.6	502.1
15°	514.8	515.0	515.0	515.5	515.5	515.8	516.8	516.8	516.3	516.1	516.1
17.5°	527.1	527.7	527.9	528.7	528.9	529.5	530.5	530.8	531.0	530.2	530.5
20°	543.6	543.9	544.7	544.9	546.0	546.0	546.5	546.2	545.7	544.7	544.7
22.5°	562.2	562.7	564.3	564.3	565.6	564.8	565.0	564.3	563.0	562.5	561.9
25°	586.4	587.2	588.5	588.0	588.5	587.2	587.2	587.2	586.4	585.7	585.4
27.5°	617.1	615.8	617.1	616.1	615.8	614.8	615.0	614.5	613.8	613.5	612.5
30°	649.1	647.5	648.3	648.6	648.0	647.8	646.8	646.0	644.7	644.9	644.2
32.5°	685.7	684.1	684.9	685.2	684.6	685.2	684.9	683.1	681.6	682.6	682.6
35°	729.2	728.2	730.3	731.0	729.5	728.7	727.7	725.6	723.3	724.9	725.1
37.5°	781.6	780.3	781.8	783.9	781.1	779.5	775.4	772.3	770.7	771.5	772.5
40°	836.0	836.2	840.6	841.1	838.0	836.2	832.1	827.4	823.1	823.1	824.4
42.5°	893.2	894.0	899.1	900.9	899.9	896.5	890.9	885.2	879.5	880.6	882.1
45°	957.9	956.9	962.3	966.6	965.9	964.8	959.4	949.1	944.0	943.7	946.3
47.5°	1025.9	1028.0	1033.7	1041.1	1040.9	1038.3	1031.3	1021.8	1012.3	1013.0	1016.1
50°	1105.3	1108.2	1117.7	1125.2	1126.2	1125.4	1117.2	1106.1	1092.7	1093.5	1097.6
52.5°	1176.5	1180.6	1191.7	1207.1	1216.7	1221.1	1215.7	1205.3	1191.7	1192.5	1196.8
55°	1240.9	1247.4	1263.9	1285.0	1304.1	1321.9	1329.8	1329.6	1319.5	1321.9	1327.5
57.5°	1281.4	1290.4	1315.4	1349.4	1387.3	1423.2	1454.1	1483.2	1489.7	1501.8	1501.8
60°	1227.0	1248.1	1281.4	1339.6	1414.1	1494.6	1581.7	1666.5	1721.1	1764.2	1741.0
62.5°	1024.6	1055.8	1102.5	1179.3	1295.3	1438.9	1613.9	1811.1	2016.8	2142.6	2050.3
65°	663.0	702.2	753.0	839.3	985.5	1170.3	1425.2	1779.7	2210.1	2433.4	2227.2
67.5°	262.7	289.2	320.2	381.5	508.3	689.8	975.9	1413.1	1951.6	2162.2	1931.0
70°	125.5	129.9	135.8	149.0	180.7	243.9	392.1	696.2	1196.8	1418.8	1168.2
72.5°	90.7	91.5	94.3	98.7	108.0	120.9	146.9	212.9	412.7	600.1	413.2
75°	68.8	69.9	71.4	73.7	78.6	84.8	94.6	113.4	141.3	162.9	141.0
77.5°	52.3	53.4	54.6	57.0	59.5	63.9	67.5	75.0	86.9	91.5	91.0
80°	38.2	40.0	42.0	44.1	45.9	47.9	48.2	51.8	58.5	62.9	61.6
82.5°	24.2	25.8	31.2	33.5	33.8	34.3	34.0	34.3	37.9	41.0	40.0
85°	15.5	16.5	19.3	21.9	21.4	22.4	22.4	21.9	20.4	17.5	20.9
87.5°	7.7	8.0	9.3	11.6	11.1	9.8	9.5	9.5	7.0	5.9	6.4
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°	470.7	470.7	470.7	470.7	470.7	470.7	470.7	470.7
2.5°	469.4	469.9	469.1	469.1	468.9	469.4	468.6	468.6
5°	473.0	473.8	473.5	473.5	474.0	474.6	474.3	474.0
7.5°	479.5	480.0	480.5	480.7	481.3	481.0	481.5	481.3
10°	489.3	488.7	489.5	488.7	489.0	488.5	488.7	488.7
12.5°	501.6	500.9	500.3	499.8	499.8	498.8	498.8	499.0
15°	515.8	514.5	513.5	513.0	512.5	512.5	511.7	512.2
17.5°	529.7	528.4	526.6	526.6	525.9	525.3	524.8	526.1
20°	544.4	543.1	542.1	541.8	540.3	539.8	540.0	541.6
22.5°	561.4	560.7	560.7	560.1	559.1	558.3	558.3	560.1
25°	584.4	582.8	583.1	583.3	582.8	582.8	582.3	583.6
27.5°	612.5	611.2	612.0	612.5	612.0	612.7	612.0	613.0
30°	645.5	644.7	645.5	646.2	644.9	644.9	644.4	645.2
32.5°	684.9	683.9	684.4	684.4	682.6	681.0	679.0	680.5
35°	728.2	726.9	727.9	728.7	726.7	725.1	722.0	723.3
37.5°	775.9	776.4	777.7	781.1	780.5	778.0	775.6	776.7
40°	829.3	831.8	837.5	839.8	839.3	836.7	833.6	834.2
42.5°	889.6	892.9	898.9	902.7	900.9	897.3	893.4	895.0
45°	955.3	960.5	968.2	972.1	969.7	965.9	960.5	963.3
47.5°	1024.9	1035.2	1045.5	1050.7	1049.9	1044.5	1037.5	1038.3
50°	1108.2	1121.8	1135.0	1140.1	1136.3	1128.0	1118.2	1118.0
52.5°	1211.8	1226.5	1237.3	1236.0	1226.5	1213.6	1202.5	1202.0
55°	1341.2	1346.1	1344.5	1333.5	1316.7	1296.6	1282.4	1280.1
57.5°	1497.7	1481.2	1456.9	1423.4	1385.8	1347.6	1321.9	1312.3
60°	1688.9	1614.4	1527.8	1436.6	1353.3	1290.9	1251.5	1227.5
62.5°	1846.9	1631.2	1437.6	1279.1	1149.4	1072.3	1018.5	985.2
65°	1792.8	1409.2	1128.8	924.4	782.9	703.2	646.2	608.3
67.5°	1385.0	941.6	655.3	454.2	344.4	291.5	254.7	230.7
70°	698.3	361.1	218.8	154.4	132.0	122.7	116.5	112.9
72.5°	204.9	136.9	113.7	100.5	92.5	86.9	83.3	81.5
75°	113.4	92.5	81.7	74.2	69.1	65.2	62.9	61.3
77.5°	78.1	67.3	61.9	57.0	52.8	50.0	48.2	46.7
80°	54.6	49.2	46.9	44.3	41.2	38.9	36.3	35.3
82.5°	36.3	34.0	33.5	31.4	29.6	27.1	22.4	20.9
85°	21.4	21.1	21.1	20.4	19.1	16.8	13.4	13.4
87.5°	7.5	7.7	8.0	8.5	8.2	7.0	5.7	5.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)