

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: P196927

Luminaire Tested: **NAV-AF-01-D-UNV-5WQ-8030-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196927
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24131)
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-5WQ-8030-800
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 80 CRI, 3000K, 800mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE V WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4190 lumens
Efficiency: N/A
Efficacy: 95.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type V - Short - Semi-Cutoff
BUG Rating: B3 - U0 - G1

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

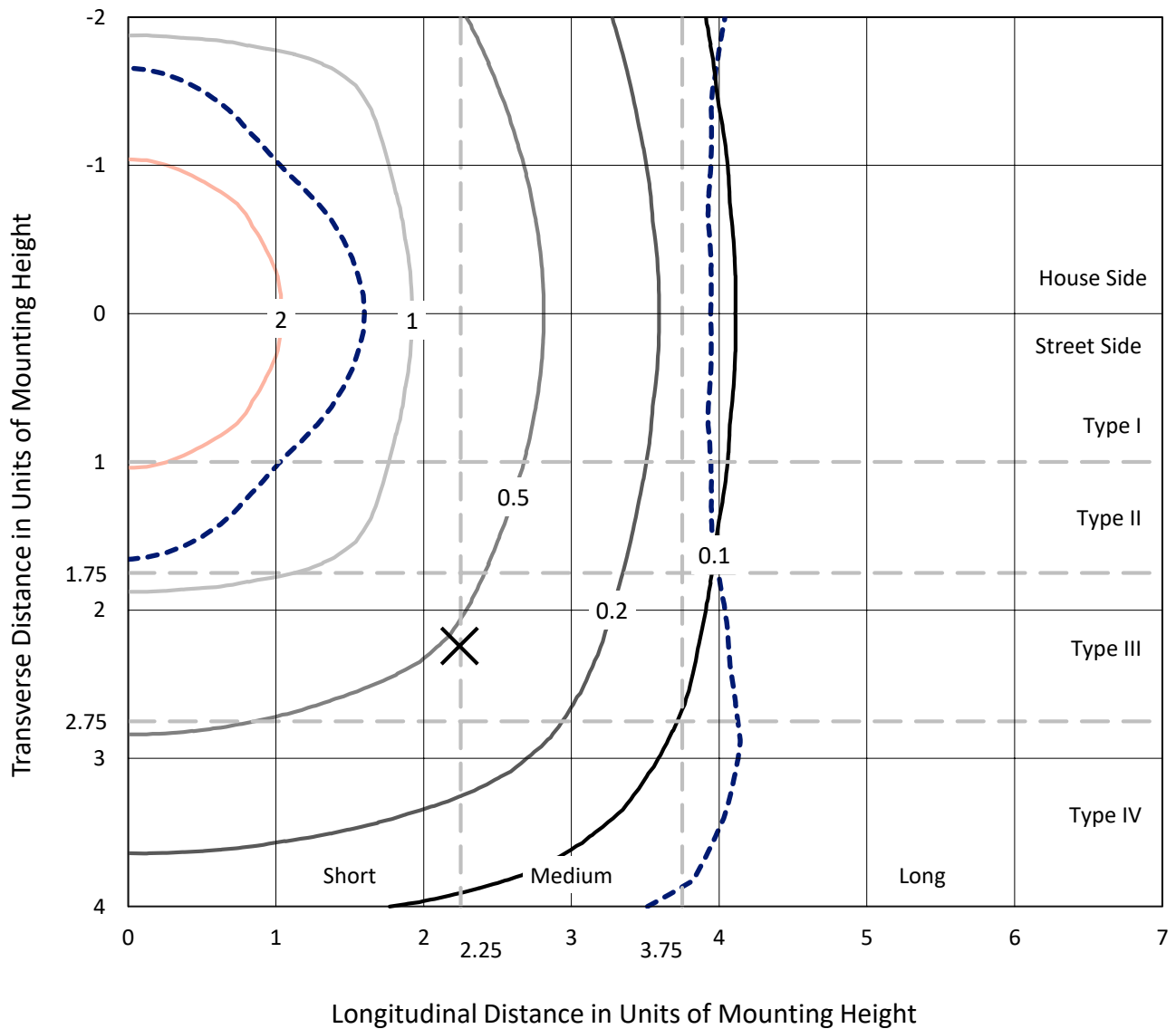


REPORT NUMBER: P196927

CATALOG NUMBER: NAV-AF-01-D-UNV-5WQ-8030-800

Iso-Footcandle Lines of Horizontal Illumination

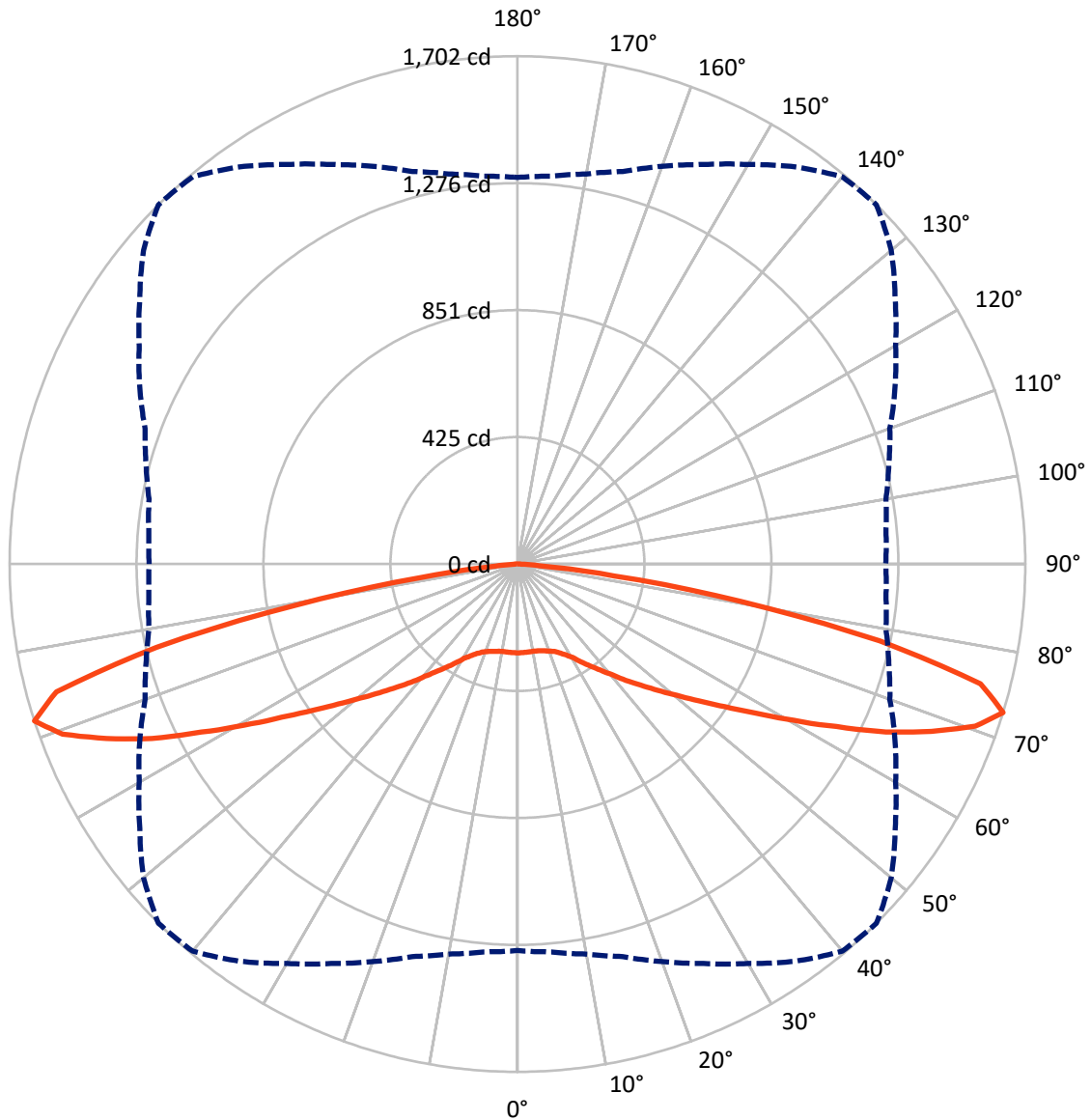
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3 fc
 Type V - Short - Semi-Cutoff

REPORT NUMBER: P196927
CATALOG NUMBER: NAV-AF-01-D-UNV-5WQ-8030-800

Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

REPORT NUMBER: P196927

CATALOG NUMBER: NAV-AF-01-D-UNV-5WQ-8030-800

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2095.0	0.0	2095.0
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	2095.0	0.0	2095.0
	% Fixture	50.0	0.0	50.0
Total	Lumens	4190.0	0.0	4190.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	28.4	0.7
10°-20°	86.0	2.1
20°-30°	155.3	3.7
30°-40°	265.0	6.3
40°-50°	451.1	10.8
50°-60°	726.0	17.3
60°-70°	1207.3	28.8
70°-80°	1168.0	27.9
80°-90°	102.8	2.5
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°	4190.0	100.0
0°-180°	4190.0	100.0



REPORT NUMBER: P196927

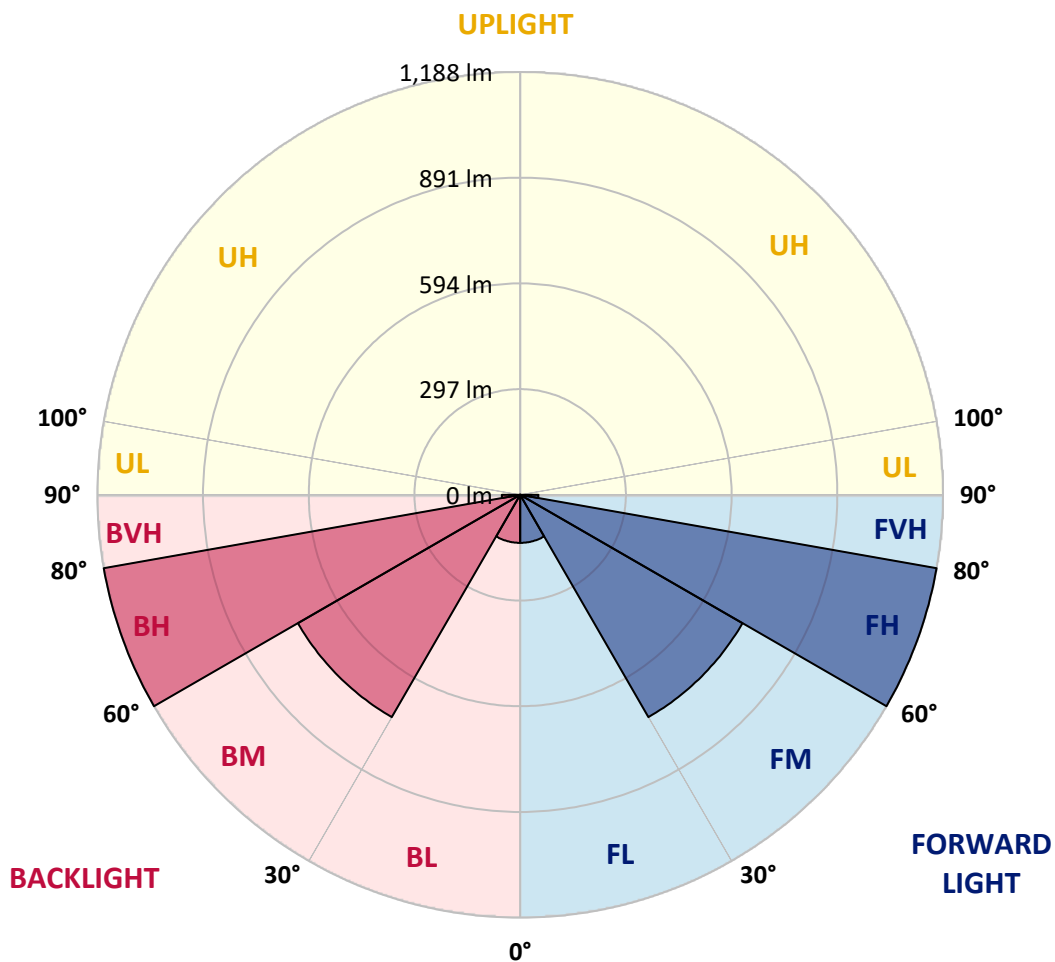
CATALOG NUMBER: NAV-AF-01-D-UNV-5WQ-8030-800

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	134.9	3.2			
FM	(30°-60°)	721.0	17.2			
FH	(60°-80°)	1187.7	28.3			G1/1800
FVH	(80°-90°)	51.4	1.2			G1/100
BL	(0°-30°)	134.9	3.2	B1/500		
BM	(30°-60°)	721.0	17.2	B1/1000		
BH	(60°-80°)	1187.7	28.3	B3/2500		G1/1800
BVH	(80°-90°)	51.4	1.2			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G1

Type V Short





REPORT NUMBER: P196927

CATALOG NUMBER: NAV-AF-01-D-UNV-5WQ-8030-800

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	297.9	297.9	297.9	297.9	297.9	297.9	297.9	297.9	297.9	297.9	297.9
2.5°	300.2	300.2	300.5	300.2	299.7	299.4	298.7	298.1	297.6	297.4	296.8
5°	300.5	300.5	300.7	300.5	299.9	299.4	298.9	298.1	297.6	297.1	296.8
7.5°	301.5	301.7	302.0	301.7	300.7	300.2	299.4	298.7	297.6	297.1	296.6
10°	303.6	303.6	303.6	303.3	302.5	301.5	300.5	299.7	298.4	297.1	296.3
12.5°	305.1	305.4	305.4	304.8	303.8	302.5	301.5	300.7	299.7	298.7	297.9
15°	307.4	307.4	307.2	306.1	304.6	303.6	303.0	302.8	302.5	302.0	301.2
17.5°	312.1	311.8	311.0	309.5	307.7	306.9	306.4	306.4	306.4	306.1	305.6
20°	318.8	318.8	317.7	315.2	313.6	312.8	312.1	312.1	312.1	311.3	310.5
22.5°	329.6	329.9	328.3	325.2	323.2	321.6	320.6	319.8	319.0	318.5	317.2
25°	344.3	344.0	342.2	338.4	336.8	335.3	333.2	331.9	330.9	330.1	328.6
27.5°	359.8	359.5	357.5	354.1	353.1	350.7	349.2	347.4	346.1	344.8	343.3
30°	379.6	378.3	376.8	374.2	373.7	371.9	369.8	367.3	365.2	363.1	361.3
32.5°	397.4	397.4	395.1	393.8	394.8	394.1	394.3	392.8	391.5	390.7	388.9
35°	422.2	422.2	421.2	419.6	419.9	418.1	417.8	418.1	419.1	419.1	417.0
37.5°	455.2	455.7	452.4	451.8	450.6	448.0	446.7	447.2	449.5	450.8	448.0
40°	496.2	497.2	496.2	492.9	491.3	486.9	484.3	484.3	486.1	487.4	486.4
42.5°	536.7	538.5	536.7	534.1	532.8	529.5	528.2	529.2	531.5	533.1	531.5
45°	581.8	583.1	580.8	577.7	576.2	574.3	573.6	574.3	576.9	578.5	578.0
47.5°	626.2	628.0	625.2	623.9	623.9	622.1	624.1	626.2	628.5	632.1	630.6
50°	669.5	671.8	670.0	670.3	672.4	675.7	679.6	683.7	687.8	691.7	692.2
52.5°	708.2	711.8	712.1	716.7	723.2	728.3	739.1	748.2	758.0	761.3	759.8
55°	748.9	753.8	760.3	767.5	777.8	788.4	806.7	823.0	835.9	843.9	842.6
57.5°	807.2	812.1	818.8	830.7	846.2	860.6	885.6	910.9	930.5	942.6	936.7
60°	882.8	888.0	896.7	909.4	929.5	949.1	983.4	1019.7	1050.2	1064.1	1053.3
62.5°	982.9	987.8	993.4	1010.2	1032.6	1057.9	1101.0	1147.7	1186.4	1199.8	1184.5
65°	1125.5	1131.4	1133.2	1146.9	1168.8	1192.3	1238.7	1291.3	1335.4	1357.3	1326.9
67.5°	1286.2	1288.5	1295.7	1311.7	1334.1	1355.3	1391.9	1441.7	1484.0	1496.1	1463.6
70°	1380.3	1384.9	1397.6	1419.8	1446.6	1479.8	1519.8	1573.5	1621.4	1627.1	1585.8
72.5°	1295.2	1304.7	1327.2	1361.7	1417.9	1477.0	1545.9	1625.0	1693.9	1701.9	1635.6
75°	1038.8	1049.7	1076.5	1114.4	1180.9	1268.6	1368.2	1487.1	1590.2	1603.4	1515.7
77.5°	553.7	567.1	606.1	657.1	752.0	868.1	988.0	1123.7	1211.4	1241.0	1177.8
80°	139.5	146.7	165.6	195.5	259.7	353.3	456.7	602.7	711.6	757.7	711.6
82.5°	54.2	59.6	64.7	68.3	74.5	87.4	120.7	196.8	265.1	326.5	282.7
85°	20.9	22.2	32.0	36.4	36.4	40.0	45.9	54.2	67.1	73.2	61.4
87.5°	8.3	9.0	11.1	17.0	17.5	15.5	16.5	18.6	14.2	11.9	13.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P196927

CATALOG NUMBER: NAV-AF-01-D-UNV-5WQ-8030-800

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	297.9	297.9	297.9	297.9	297.9	297.9	297.9	297.9
2.5°	296.6	296.3	295.8	296.1	295.8	295.8	295.8	295.8
5°	296.3	296.3	295.8	295.8	295.8	296.1	295.8	295.8
7.5°	296.1	295.8	295.3	295.0	295.0	294.8	294.8	294.8
10°	295.6	295.0	294.5	294.3	294.3	293.8	293.8	293.8
12.5°	296.8	296.1	295.6	295.3	295.3	295.3	295.6	295.6
15°	300.5	298.9	298.1	297.9	298.1	298.7	298.9	299.2
17.5°	304.3	302.8	301.5	301.0	301.2	302.0	302.8	303.3
20°	309.2	307.9	306.4	305.9	305.9	306.9	307.4	308.2
22.5°	316.2	315.2	313.9	313.1	312.6	313.9	314.6	315.2
25°	327.3	326.2	325.2	324.4	324.2	325.5	326.0	326.2
27.5°	342.0	340.9	340.4	340.2	339.4	339.9	340.7	340.4
30°	361.1	361.8	361.1	361.1	359.8	360.3	359.8	359.3
32.5°	386.6	385.8	383.5	382.0	380.1	380.1	379.4	378.6
35°	412.1	409.5	408.3	409.0	408.3	408.8	407.5	406.2
37.5°	442.3	440.8	440.5	442.8	442.3	442.8	442.8	441.0
40°	482.3	481.2	483.1	486.9	488.5	488.2	488.7	486.4
42.5°	528.2	526.4	527.2	530.5	532.3	532.8	532.6	530.5
45°	574.1	574.6	574.6	578.2	580.0	581.1	579.2	578.5
47.5°	625.9	626.7	624.9	627.2	627.7	629.5	628.0	626.7
50°	685.8	682.9	678.8	679.6	679.6	679.1	677.3	675.7
52.5°	752.6	746.1	738.4	735.8	733.0	730.1	726.5	723.7
55°	828.6	817.6	803.6	797.2	791.8	785.3	777.1	774.2
57.5°	916.8	897.8	879.2	867.6	853.7	845.1	834.6	834.1
60°	1021.6	995.8	963.0	945.7	931.8	921.7	913.7	910.7
62.5°	1142.5	1098.1	1062.8	1044.2	1028.0	1021.8	1011.8	1013.0
65°	1266.6	1221.4	1187.1	1172.2	1157.0	1152.8	1143.5	1146.9
67.5°	1400.9	1363.8	1326.1	1312.2	1298.3	1294.2	1284.6	1287.4
70°	1521.4	1474.2	1431.4	1404.0	1380.3	1361.2	1349.1	1344.2
72.5°	1545.4	1463.6	1396.3	1327.9	1288.5	1253.9	1239.7	1234.3
75°	1388.5	1261.7	1165.7	1085.5	1041.2	990.9	985.4	978.0
77.5°	1080.1	935.7	819.6	716.5	656.9	595.5	574.3	558.4
80°	644.2	495.2	383.8	269.0	219.5	176.7	166.1	155.0
82.5°	230.6	147.8	99.6	77.6	69.4	64.0	59.8	54.4
85°	55.7	46.9	44.4	40.2	39.7	33.8	24.0	21.4
87.5°	17.8	16.2	16.5	15.7	16.5	12.4	10.1	9.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)