

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: McGRAW-EDISON

Report Number: P299938

Luminaire Tested: **GLNA-AF-01-LED-E1-5WQ-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299938
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24143)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-01-LED-E1-5WQ-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(1) 70 CRI, 4000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV
w/Spill Control OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4309.4 lumens
Efficiency: N/A
Efficacy: 126.7 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): 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

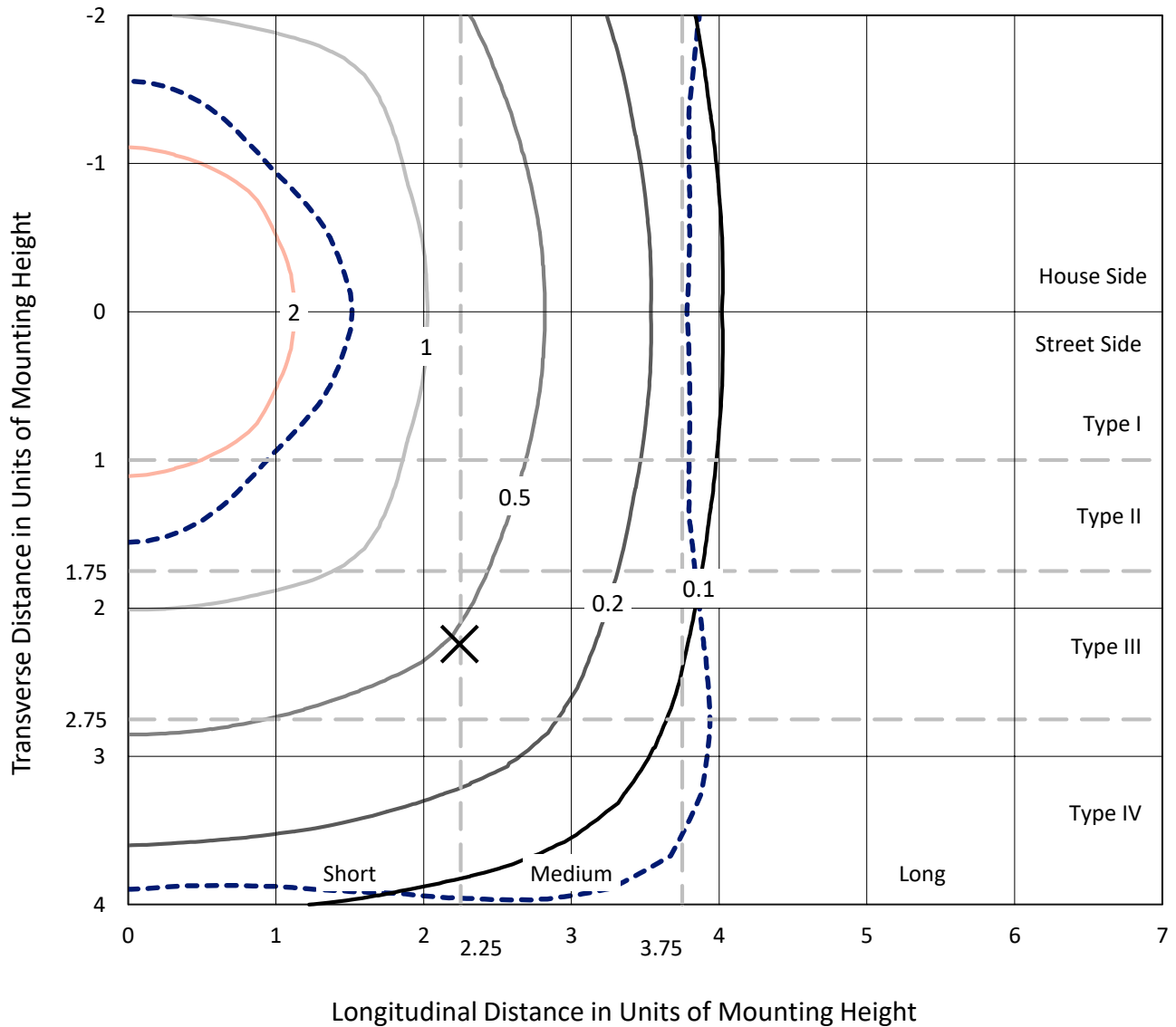


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

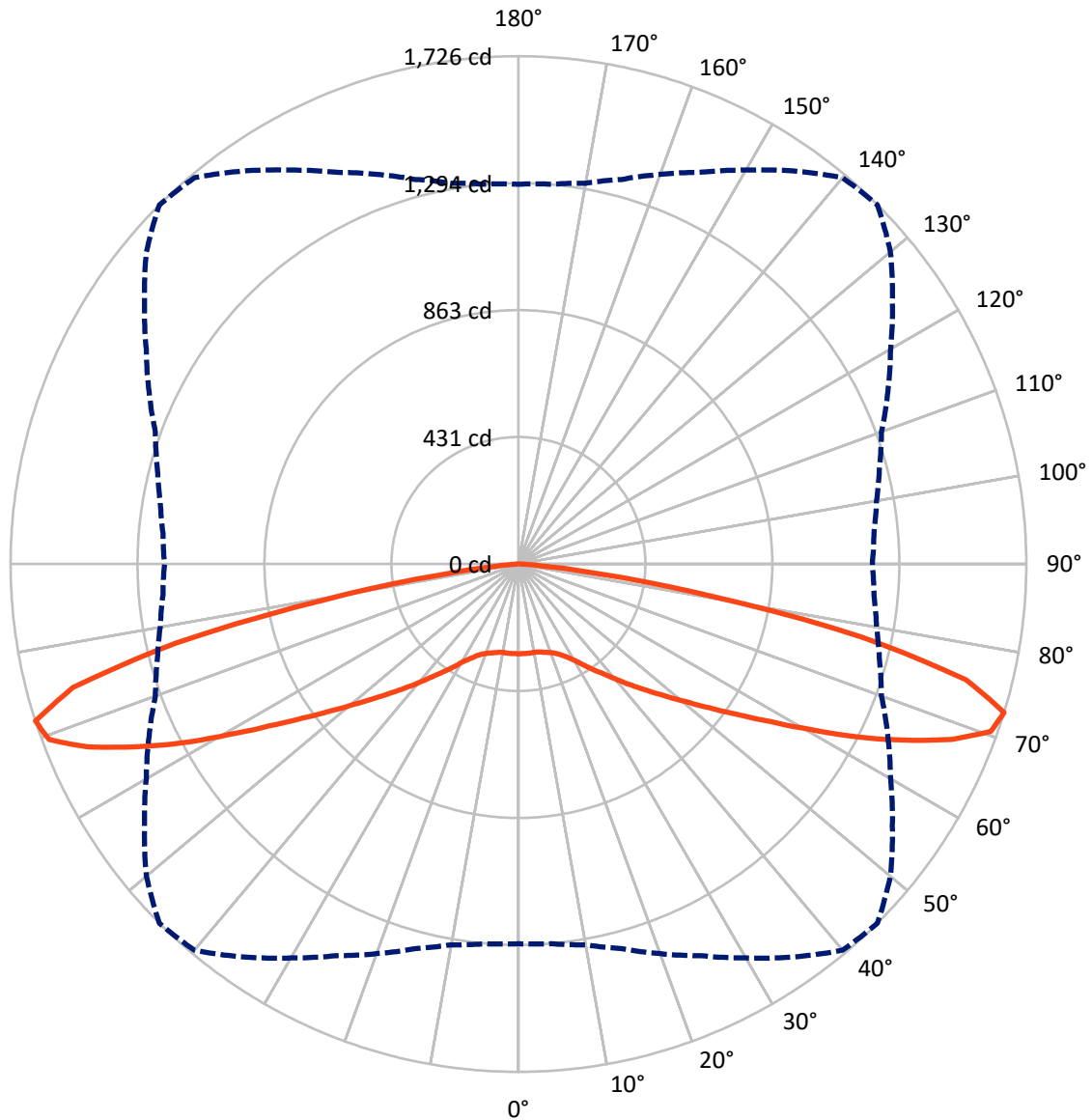


Based on 10 foot mounting height. Maximum calculated value = 3.1 fc
 Type V - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2154.7	0.0	2154.7
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	2154.7	0.0	2154.7
	% Fixture	50.0	0.0	50.0
Total	Lumens	4309.4	0.0	4309.4
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	29.1	0.7
10°-20°	88.5	2.1
20°-30°	161.7	3.8
30°-40°	278.9	6.5
40°-50°	476.7	11.1
50°-60°	772.7	17.9
60°-70°	1281.8	29.7
70°-80°	1129.0	26.2
80°-90°	91.0	2.1
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°	4309.4	100.0
0°-180°	4309.4	100.0



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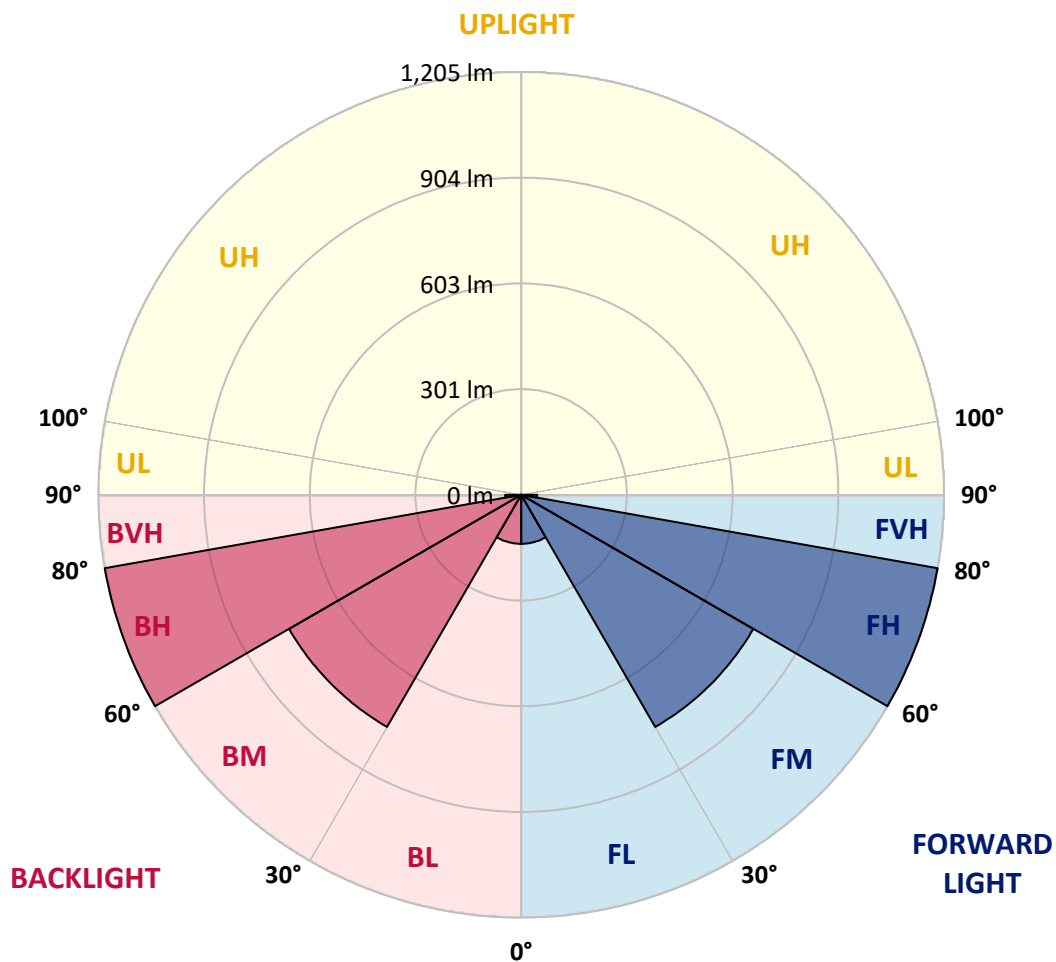
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	139.7	3.2			
FM	(30°-60°)	764.1	17.7			
FH	(60°-80°)	1205.4	28.0			G1/1800
FVH	(80°-90°)	45.5	1.1			G1/100
BL	(0°-30°)	139.7	3.2	B1/500		
BM	(30°-60°)	764.1	17.7	B1/1000		
BH	(60°-80°)	1205.4	28.0	B3/2500		G1/1800
BVH	(80°-90°)	45.5	1.1			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





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	305.2	305.2	305.2	305.2	305.2	305.2	305.2	305.2	305.2	305.2	305.2
2.5°	305.2	305.4	305.6	305.4	305.4	305.2	305.0	305.2	305.0	304.6	304.8
5°	306.2	306.6	306.6	306.2	306.4	306.2	305.8	306.0	305.6	305.0	305.0
7.5°	307.3	307.5	307.5	307.2	307.3	307.0	306.6	306.4	306.0	305.2	304.6
10°	309.1	309.3	309.1	308.7	308.7	308.1	307.2	306.8	306.0	304.8	304.2
12.5°	311.1	311.3	311.1	310.7	310.5	309.5	308.7	308.1	307.5	306.6	305.6
15°	313.9	314.3	313.9	313.1	312.5	311.7	311.3	311.5	311.7	310.9	309.9
17.5°	319.0	319.2	318.6	316.8	316.0	315.3	315.3	315.6	316.2	315.8	314.9
20°	328.5	327.9	326.5	324.3	323.4	322.0	321.8	322.0	322.0	321.8	321.0
22.5°	340.4	340.0	338.2	335.4	334.0	333.2	332.1	331.1	330.9	330.3	329.5
25°	354.6	354.4	352.2	349.8	348.9	347.9	346.9	345.5	344.3	342.9	342.1
27.5°	372.8	372.0	368.8	367.6	366.2	365.7	364.3	362.7	361.7	359.9	358.9
30°	392.7	392.7	390.2	389.8	389.8	388.4	386.8	384.0	382.3	380.5	379.9
32.5°	412.7	412.9	410.3	411.1	411.7	412.7	413.1	412.1	410.9	410.7	409.5
35°	441.6	440.8	438.2	438.8	438.6	438.4	438.4	440.6	441.0	441.4	439.0
37.5°	477.3	477.3	474.8	474.8	473.6	472.4	470.8	472.2	474.4	475.0	473.4
40°	518.2	519.6	516.5	516.3	516.7	512.9	511.1	513.3	514.7	517.1	515.3
42.5°	566.5	565.5	562.3	561.9	559.7	558.6	557.0	558.8	560.9	562.5	563.1
45°	612.7	611.9	608.4	608.4	606.2	605.2	606.0	609.0	610.0	612.1	614.3
47.5°	658.4	657.4	655.0	656.0	656.2	658.0	660.6	663.3	666.1	669.1	670.0
50°	705.0	705.2	702.7	705.0	708.0	712.9	719.8	724.4	730.1	733.9	735.1
52.5°	747.5	748.3	751.1	756.6	762.5	772.2	784.1	795.2	804.6	811.0	810.6
55°	798.5	799.7	806.4	815.9	825.6	840.2	857.8	877.4	893.2	902.3	896.5
57.5°	863.7	866.3	873.8	886.7	901.1	920.1	944.2	973.6	998.1	1010.4	1001.1
60°	953.3	954.9	963.9	978.2	995.6	1019.1	1051.3	1090.8	1125.4	1141.6	1131.0
62.5°	1071.3	1074.2	1081.6	1096.0	1113.8	1140.5	1179.8	1229.2	1272.3	1294.8	1270.7
65°	1212.2	1221.7	1227.8	1242.4	1259.0	1287.3	1328.4	1381.4	1427.6	1442.5	1414.6
67.5°	1351.7	1360.0	1370.7	1387.5	1404.3	1436.1	1474.3	1525.7	1576.5	1589.9	1546.6
70°	1412.8	1417.6	1434.2	1457.1	1489.3	1526.9	1570.9	1628.7	1691.5	1702.6	1647.6
72.5°	1290.5	1295.2	1313.8	1352.7	1408.9	1468.6	1545.4	1630.2	1713.2	1725.7	1650.0
75°	976.0	968.3	995.8	1047.4	1123.1	1206.3	1313.8	1435.3	1555.3	1570.9	1480.6
77.5°	504.4	503.4	524.2	588.2	678.5	773.2	891.6	1029.0	1146.4	1193.8	1120.3
80°	142.1	143.7	153.6	185.4	238.2	306.6	399.1	527.7	623.8	672.8	631.7
82.5°	55.7	60.1	63.8	69.8	76.7	86.8	115.8	172.4	231.3	276.3	226.3
85°	20.0	21.3	30.2	35.8	36.4	38.3	43.7	51.0	61.5	73.3	60.3
87.5°	7.5	8.3	9.7	16.0	15.8	14.4	17.6	18.4	13.8	12.6	15.6
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°	305.2	305.2	305.2	305.2	305.2	305.2	305.2	305.2
2.5°	304.4	304.6	304.6	304.8	305.0	305.0	305.4	305.4
5°	304.6	304.6	304.2	304.4	304.2	304.2	304.4	304.4
7.5°	304.2	304.0	303.6	303.4	303.0	303.0	303.0	303.0
10°	303.6	303.4	303.0	302.8	302.6	302.6	302.6	302.6
12.5°	305.2	304.6	304.2	304.0	304.0	304.0	304.0	304.0
15°	309.3	307.9	307.0	307.0	307.2	307.5	307.5	307.9
17.5°	314.5	312.9	311.9	311.1	311.5	312.1	312.5	312.9
20°	320.6	319.8	318.4	317.6	317.6	318.4	318.8	319.0
22.5°	329.1	328.5	327.9	326.9	326.9	327.3	328.1	328.1
25°	341.7	341.3	340.9	340.2	340.0	340.0	340.4	340.8
27.5°	357.6	357.7	357.4	357.2	356.6	356.4	357.0	356.8
30°	378.7	379.7	380.7	379.9	378.9	378.3	377.7	376.9
32.5°	407.4	406.2	405.4	404.0	402.2	400.6	399.5	398.1
35°	434.4	432.5	431.7	432.9	432.7	431.7	430.3	429.1
37.5°	467.6	467.2	467.6	469.8	469.4	470.4	467.6	467.4
40°	509.5	509.9	512.7	515.3	516.7	518.0	516.5	514.9
42.5°	558.2	558.0	559.0	562.5	564.9	566.5	563.1	562.7
45°	609.6	608.2	609.0	611.9	614.3	616.1	612.3	612.3
47.5°	666.1	663.7	661.1	664.5	665.9	667.1	664.1	663.1
50°	729.1	724.2	718.7	720.0	720.0	719.6	715.9	715.7
52.5°	801.5	792.4	782.3	778.6	776.4	774.0	767.5	764.3
55°	884.7	871.1	855.2	845.6	840.4	833.9	823.0	820.1
57.5°	981.9	960.6	933.3	921.5	910.0	899.3	887.3	883.9
60°	1097.2	1065.7	1029.6	1007.6	995.2	984.9	972.4	971.9
62.5°	1225.6	1176.0	1135.1	1115.3	1106.3	1097.2	1085.3	1086.9
65°	1356.3	1304.5	1266.2	1250.1	1241.6	1234.1	1222.3	1224.1
67.5°	1485.2	1437.5	1395.4	1379.0	1369.5	1360.0	1349.4	1351.1
70°	1577.7	1518.6	1471.1	1434.8	1412.0	1386.3	1369.7	1365.6
72.5°	1551.2	1460.1	1384.7	1312.6	1270.3	1235.9	1212.6	1202.5
75°	1342.5	1217.9	1121.1	1032.5	982.7	942.2	912.8	894.4
77.5°	997.0	857.0	742.6	640.6	559.9	505.8	467.6	442.9
80°	545.7	415.1	303.4	213.3	156.7	130.3	115.0	107.7
82.5°	170.0	109.7	80.8	69.8	64.8	62.1	57.5	50.2
85°	54.2	47.4	44.1	42.1	40.1	35.0	24.1	21.9
87.5°	21.0	21.5	21.3	20.2	20.6	14.8	11.9	10.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)