

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: INVUE

Report Number: P140435

Luminaire Tested: **ECM-F02-LED-E1-5WQ**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P140435
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33687)
Test Lab: INNOVATION CENTER-P3
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ECM-F02-LED-E1-5WQ
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE WIDE
Light Source: (14) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4932.3 lumens
Efficiency: N/A
Efficacy: 89.7 lumens/watt
Luminous Opening: Rectangular (W 0.33' x L: 1' x H: 0')
IES Classification: Type V - Short - Semi-Cutoff
BUG Rating: B3 - U0 - G1

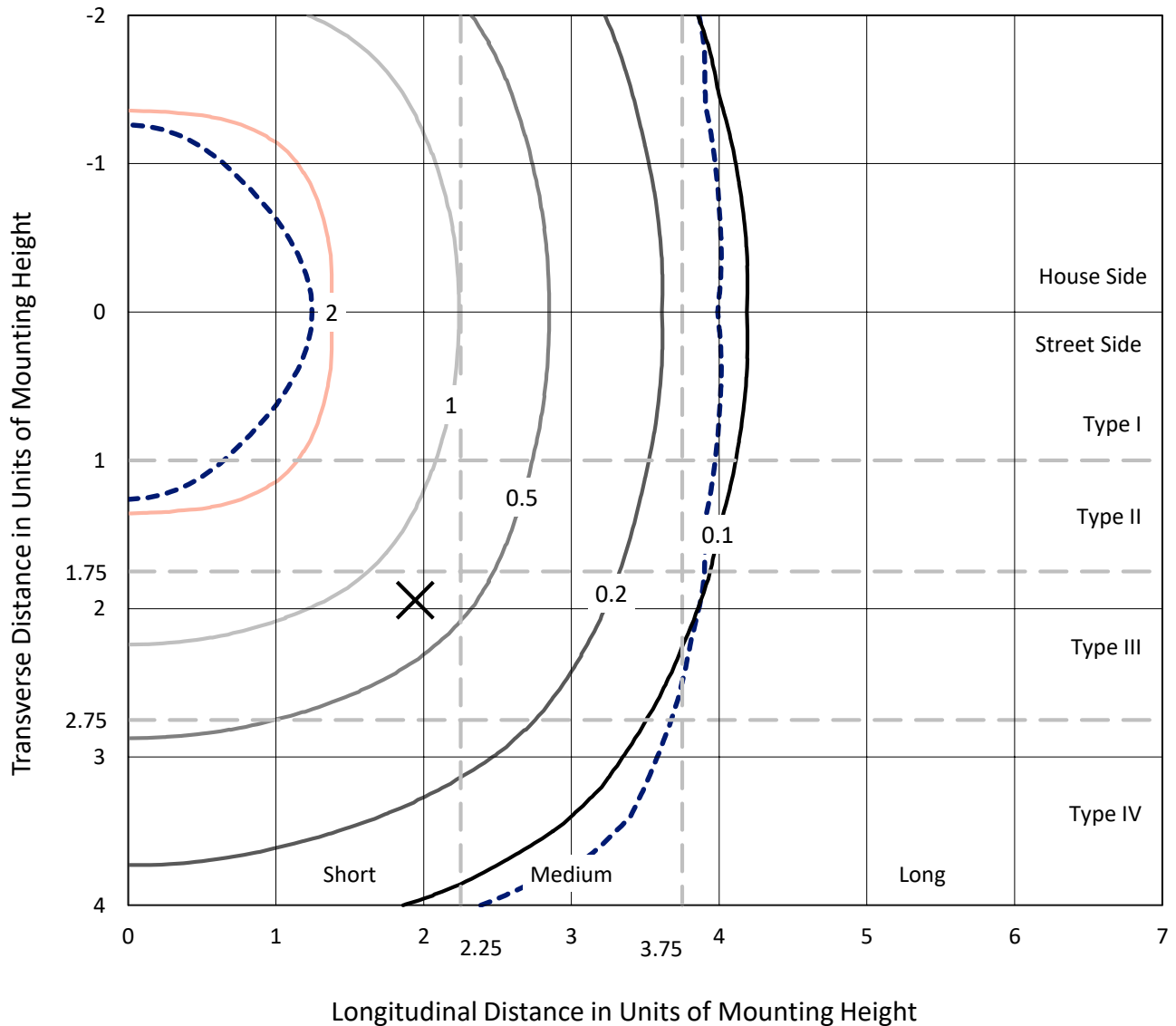
Input Watts (W): 55
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

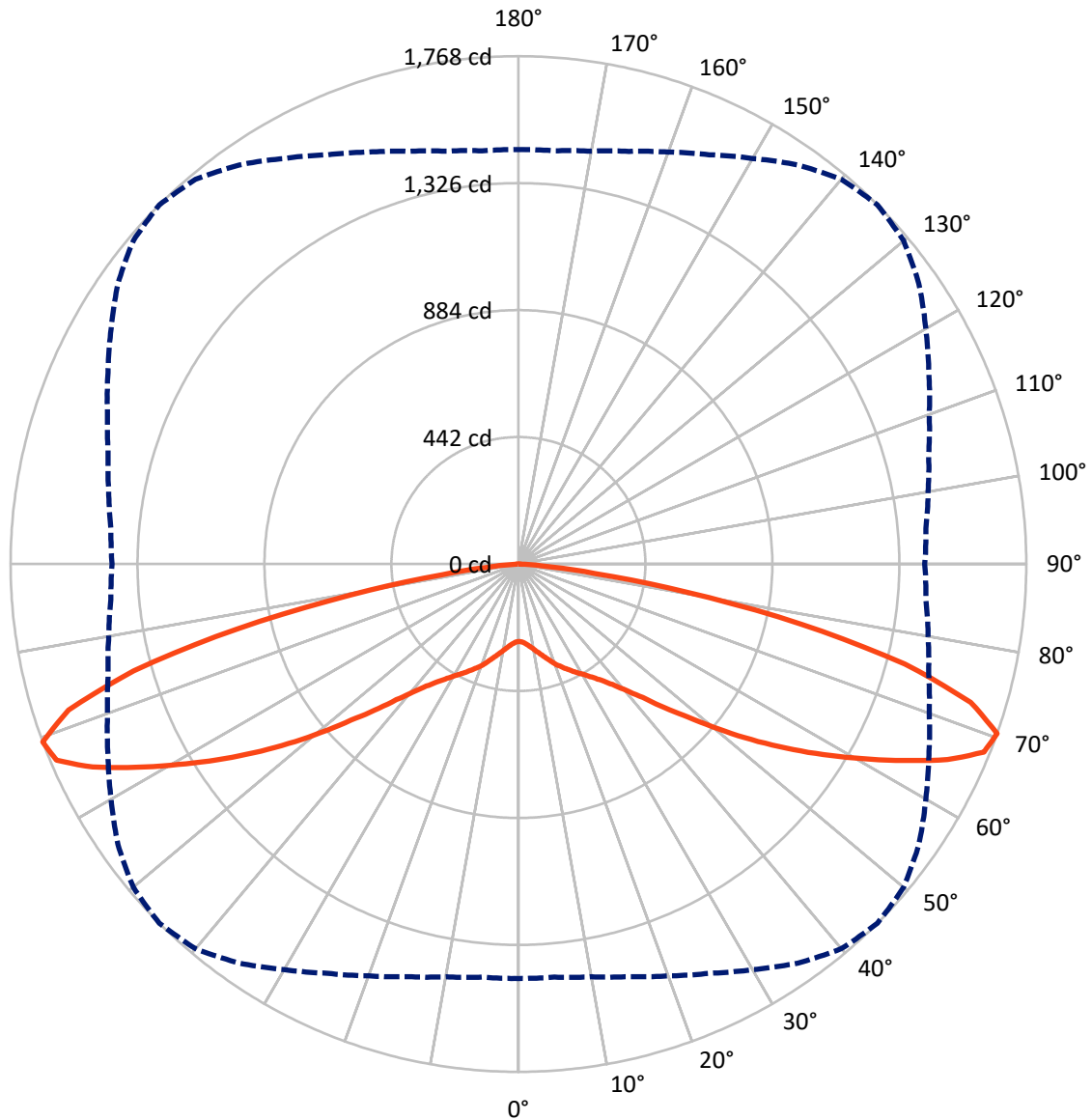
✕ Max cd
 - - - 1/2 Max cd



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 70-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2466.1	0.0	2466.1
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	2466.1	0.0	2466.1
	% Fixture	50.0	0.0	50.0
Total	Lumens	4932.3	0.0	4932.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	27.3	0.6
10°-20°	95.5	1.9
20°-30°	187.7	3.8
30°-40°	310.5	6.3
40°-50°	543.5	11.0
50°-60°	969.5	19.7
60°-70°	1496.8	30.3
70°-80°	1184.8	24.0
80°-90°	116.6	2.4
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°	4932.3	100.0
0°-180°	4932.3	100.0



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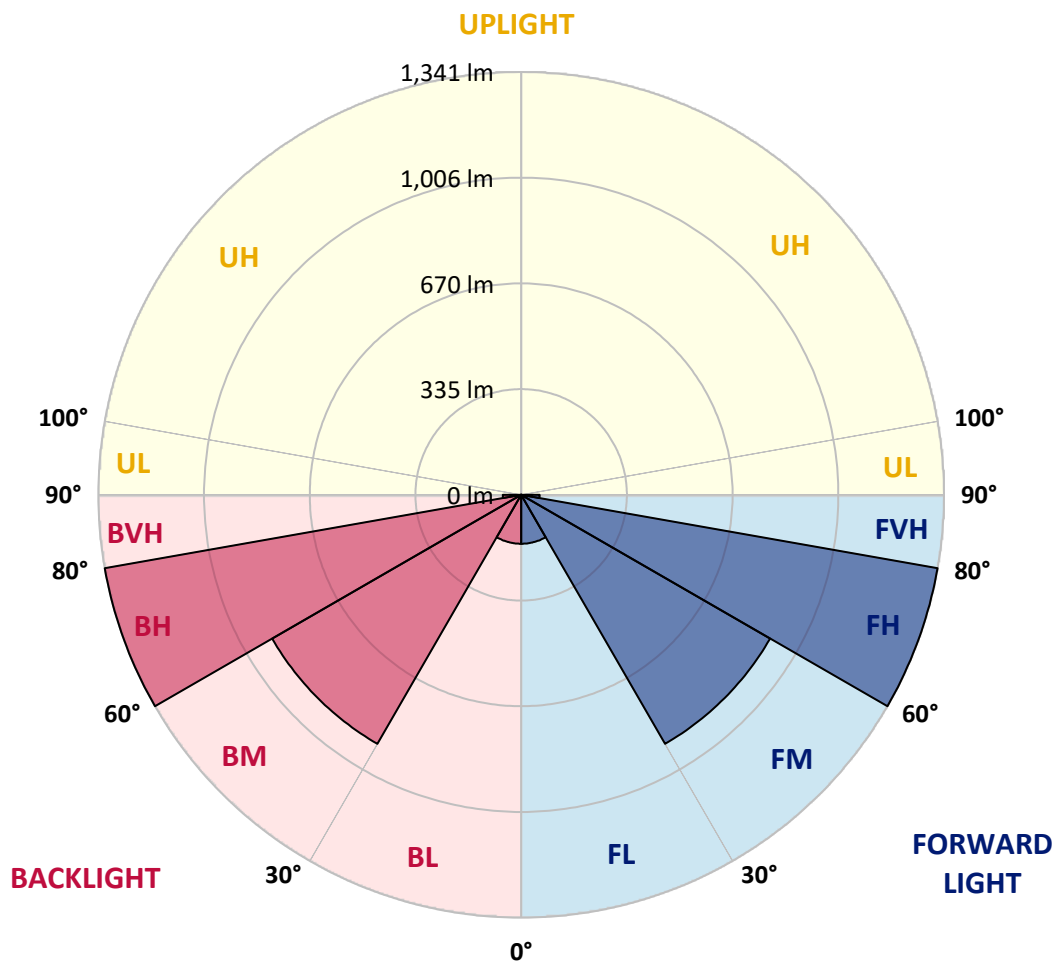
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	155.3	3.1			
FM	(30°-60°)	911.8	18.5			
FH	(60°-80°)	1340.8	27.2			G1/1800
FVH	(80°-90°)	58.3	1.2			G1/100
BL	(0°-30°)	155.3	3.1	B1/500		
BM	(30°-60°)	911.8	18.5	B1/1000		
BH	(60°-80°)	1340.8	27.2	B3/2500		G1/1800
BVH	(80°-90°)	58.3	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





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	269.7	269.7	269.7	269.7	269.7	269.7	269.7	269.7	269.7	269.7	269.7
2.5°	273.0	273.0	272.4	272.4	272.4	272.4	271.9	271.9	272.4	271.9	271.9
5°	279.6	280.1	280.1	279.6	279.6	279.6	279.6	279.6	280.1	279.6	279.6
7.5°	289.5	290.0	290.0	289.5	289.5	289.5	289.5	289.5	290.0	290.0	288.9
10°	301.6	302.1	302.1	301.6	301.6	302.1	302.1	302.1	302.7	302.7	302.1
12.5°	315.9	316.5	317.0	316.5	317.0	317.0	317.6	318.1	318.1	318.1	317.0
15°	332.4	334.1	333.0	333.0	333.5	334.1	334.1	335.7	335.2	334.6	334.1
17.5°	351.7	351.1	351.1	351.7	352.2	351.7	352.2	353.9	353.3	352.8	352.2
20°	369.8	369.8	369.8	369.3	370.4	370.4	370.9	371.5	371.5	372.6	370.9
22.5°	387.4	387.4	386.9	386.9	388.0	388.0	389.1	390.2	390.2	390.2	389.1
25°	404.0	404.0	404.5	404.0	404.5	405.1	406.2	407.3	407.8	407.8	407.8
27.5°	418.8	420.5	419.9	420.5	421.6	422.7	423.8	425.4	426.5	427.1	425.4
30°	437.5	437.5	437.0	437.5	438.6	440.3	442.5	445.2	445.2	445.8	445.8
32.5°	457.3	457.9	456.8	457.9	459.5	461.7	463.9	466.1	467.2	469.4	468.9
35°	483.2	481.6	482.1	483.8	484.9	487.1	489.8	493.7	495.9	497.0	495.9
37.5°	512.9	512.4	513.5	513.5	517.3	519.5	524.5	527.8	529.4	532.2	531.1
40°	550.3	552.6	553.1	554.8	557.0	561.4	566.9	572.4	575.7	577.9	578.4
42.5°	601.0	602.1	599.9	605.9	612.0	614.7	621.3	629.0	634.0	635.7	636.2
45°	663.2	663.2	666.5	670.3	678.0	683.5	690.7	703.3	707.8	713.8	713.8
47.5°	737.5	739.7	739.7	748.5	754.5	765.5	779.3	789.8	799.1	796.4	805.7
50°	823.3	825.0	831.0	836.0	846.4	859.1	871.8	887.2	900.9	902.6	904.2
52.5°	913.0	915.2	920.2	931.7	944.4	958.7	981.8	995.0	1008.2	1015.4	1014.3
55°	1015.9	1014.8	1023.1	1031.9	1050.6	1069.9	1089.1	1107.9	1121.6	1131.5	1131.0
57.5°	1123.8	1127.7	1137.0	1148.0	1164.0	1181.1	1204.2	1222.9	1245.4	1251.5	1242.7
60°	1249.3	1245.4	1254.8	1271.9	1286.2	1308.2	1328.5	1352.8	1368.7	1375.9	1373.1
62.5°	1377.5	1374.2	1381.4	1403.4	1420.5	1436.4	1464.5	1490.9	1504.1	1506.9	1501.9
65°	1471.6	1472.7	1484.3	1503.6	1530.5	1554.7	1586.1	1618.0	1638.9	1642.2	1631.2
67.5°	1493.6	1495.9	1511.8	1536.6	1570.1	1610.3	1657.1	1704.4	1740.2	1747.9	1732.0
70°	1443.0	1444.1	1459.5	1487.6	1526.1	1572.3	1630.7	1696.2	1748.5	1768.3	1750.7
72.5°	1339.0	1343.4	1356.1	1379.7	1410.0	1455.7	1511.8	1570.1	1621.9	1647.2	1647.2
75°	1151.3	1161.2	1167.3	1175.0	1201.4	1238.3	1284.0	1330.2	1375.9	1390.2	1350.0
77.5°	821.7	805.2	809.0	851.9	845.9	887.7	938.3	971.4	1012.1	1006.0	948.3
80°	377.0	367.6	389.1	417.7	454.0	482.1	536.6	542.1	588.9	591.6	549.8
82.5°	75.4	79.3	94.7	116.7	145.3	176.7	205.3	229.5	261.4	267.5	248.2
85°	23.7	25.9	32.5	35.8	37.4	42.9	49.0	66.0	75.9	78.7	73.7
87.5°	5.0	7.7	12.7	14.3	14.9	14.3	14.3	13.8	11.0	8.8	10.5
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°	269.7	269.7	269.7	269.7	269.7	269.7	269.7	269.7
2.5°	271.3	271.3	271.9	271.9	271.9	271.3	270.8	271.3
5°	279.0	279.0	279.0	279.0	277.9	277.9	277.4	277.4
7.5°	288.9	288.4	288.4	287.8	287.3	287.3	286.7	287.3
10°	302.1	301.0	300.5	299.9	299.4	299.4	298.8	298.3
12.5°	316.5	315.9	315.4	314.2	313.7	312.6	312.6	312.6
15°	333.0	332.4	331.9	330.2	330.2	328.6	329.1	329.1
17.5°	351.1	350.0	348.4	347.8	347.3	345.6	345.6	345.6
20°	369.8	367.6	366.5	365.4	365.4	363.8	363.2	363.2
22.5°	388.0	385.8	383.6	382.5	381.4	380.8	379.7	379.2
25°	406.2	404.0	401.8	400.1	397.9	396.8	395.7	395.7
27.5°	424.3	422.1	418.8	416.6	414.4	412.2	411.1	411.7
30°	443.0	440.8	437.5	434.8	432.0	429.8	428.7	428.2
32.5°	466.7	463.9	460.1	457.3	452.4	450.2	449.1	449.6
35°	494.2	490.4	487.6	483.2	479.4	476.6	475.0	475.0
37.5°	529.4	526.1	523.4	519.0	513.5	510.2	508.0	509.6
40°	575.1	572.4	566.9	560.3	555.9	553.1	550.9	551.5
42.5°	633.5	627.9	623.0	619.1	612.5	608.7	602.6	604.8
45°	707.2	701.1	696.2	690.1	684.1	676.4	674.2	669.8
47.5°	796.4	792.0	780.9	775.4	767.7	756.7	751.2	746.8
50°	894.9	886.6	878.9	865.2	856.3	843.7	838.7	837.1
52.5°	1006.0	992.3	979.6	967.0	949.4	937.2	927.3	929.5
55°	1116.1	1100.1	1082.0	1068.2	1054.5	1039.6	1029.2	1023.1
57.5°	1232.2	1214.6	1195.4	1175.5	1164.0	1146.4	1139.8	1136.5
60°	1351.7	1335.7	1316.4	1298.3	1282.3	1262.0	1250.9	1246.5
62.5°	1483.7	1461.7	1438.6	1416.1	1398.4	1383.6	1372.0	1364.3
65°	1605.4	1575.1	1551.4	1522.8	1503.6	1482.1	1467.8	1465.0
67.5°	1696.2	1649.4	1608.1	1571.2	1541.5	1515.1	1497.0	1489.8
70°	1702.2	1637.8	1576.8	1522.3	1478.8	1448.5	1424.3	1414.9
72.5°	1584.5	1504.7	1422.1	1368.7	1322.5	1280.7	1263.6	1259.8
75°	1288.9	1222.3	1153.5	1093.0	1061.1	1040.2	1025.9	1004.9
77.5°	895.4	834.3	797.5	729.8	717.7	700.6	686.3	672.5
80°	501.4	448.0	406.7	364.3	338.5	324.2	309.3	301.0
82.5°	225.1	184.9	146.9	113.9	94.1	74.3	55.6	58.9
85°	56.1	47.3	36.3	30.3	27.5	25.3	20.4	18.2
87.5°	10.5	9.9	8.8	8.8	9.4	7.7	4.4	3.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)