

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: P140275

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

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P140275
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33686)
Test Lab: INNOVATION CENTER-P3
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ECM-F02-LED-E1-5MQ
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE MEDIUM
Light Source: (14) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5041.9 lumens
Efficiency: N/A
Efficacy: 91.7 lumens/watt
Luminous Opening: Rectangular (W 0.33' x L: 1' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B3 - U0 - G1

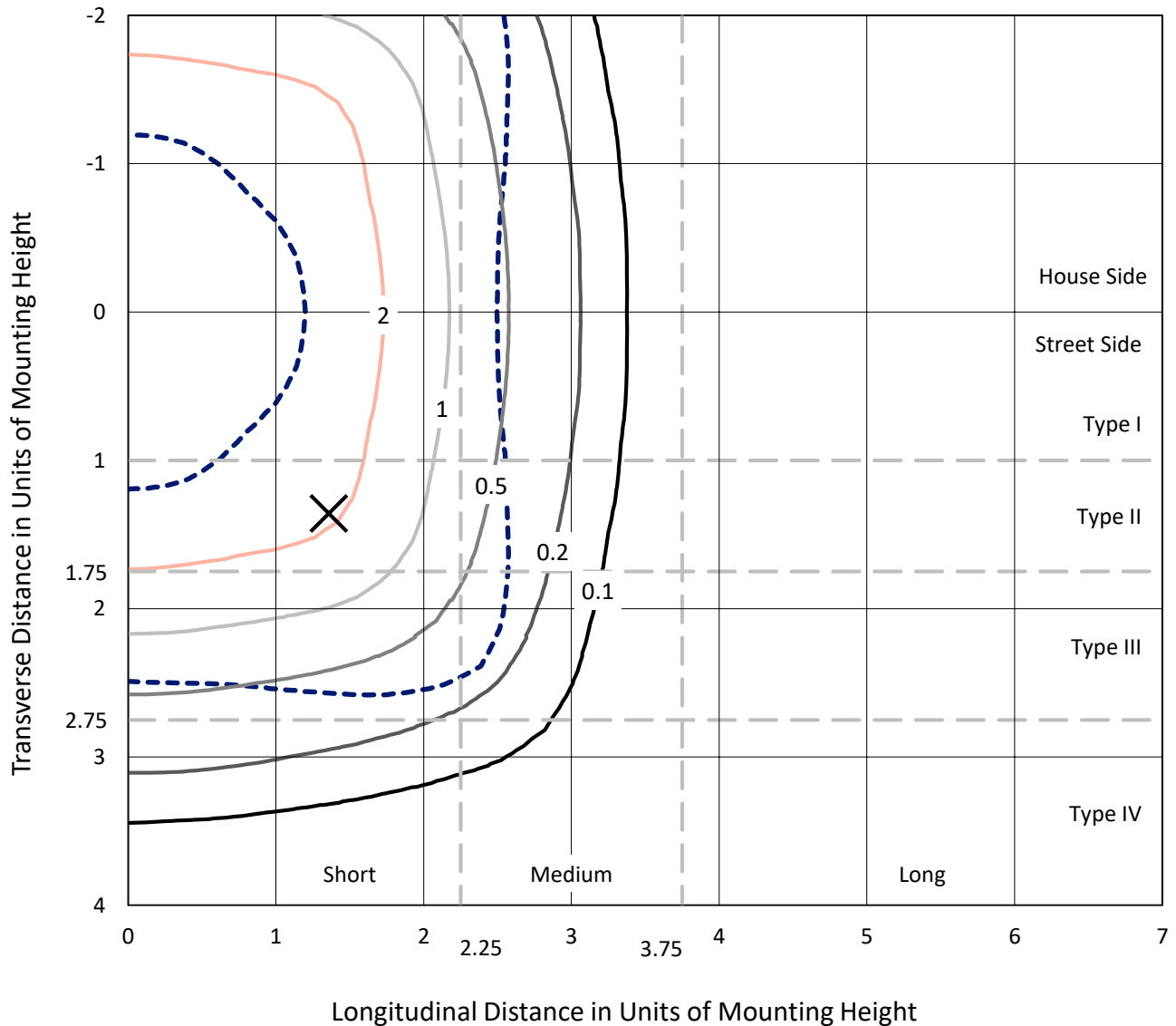
Input Watts (W): 55
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

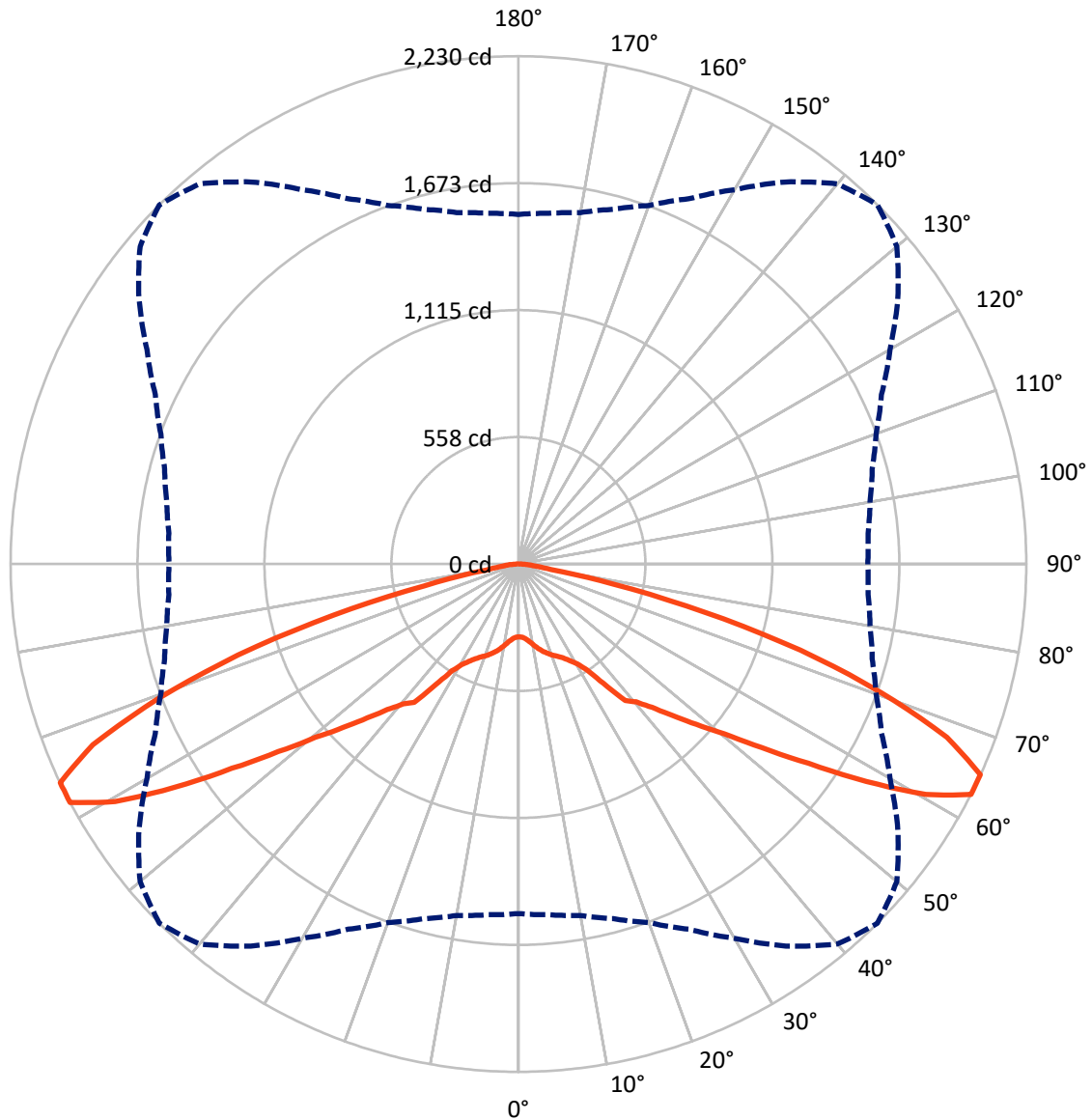
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3.7 fc
 Type V - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 62.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2521.0	0.0	2521.0
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	2521.0	0.0	2521.0
	% Fixture	50.0	0.0	50.0
Total	Lumens	5041.9	0.0	5041.9
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	32.5	0.6
10°-20°	113.3	2.2
20°-30°	217.6	4.3
30°-40°	418.6	8.3
40°-50°	728.6	14.5
50°-60°	1308.8	26.0
60°-70°	1604.3	31.8
70°-80°	565.8	11.2
80°-90°	52.3	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°	5041.9	100.0
0°-180°	5041.9	100.0



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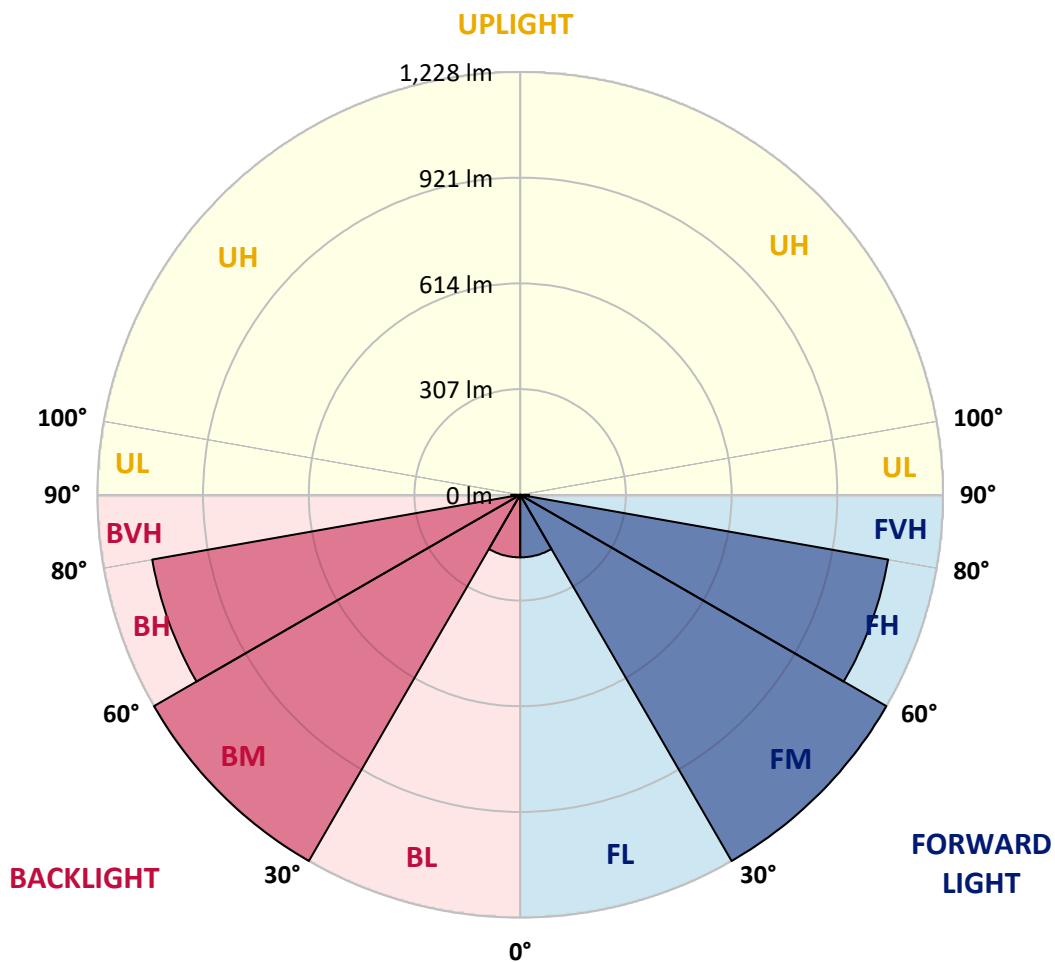
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	181.7	3.6			
FM	(30°-60°)	1228.0	24.4			
FH	(60°-80°)	1085.1	21.5			G1/1800
FVH	(80°-90°)	26.2	0.5			G1/100
BL	(0°-30°)	181.7	3.6	B1/500		
BM	(30°-60°)	1228.0	24.4	B2/2500		
BH	(60°-80°)	1085.1	21.5	B3/2500		G1/1800
BVH	(80°-90°)	26.2	0.5			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°	319.8	319.8	319.8	319.8	319.8	319.8	319.8	319.8	319.8	319.8	319.8
2.5°	323.6	323.6	323.1	322.5	322.5	322.5	322.0	322.0	322.5	321.4	321.4
5°	331.9	332.4	331.9	331.3	330.8	330.8	330.2	330.2	330.8	329.7	329.1
7.5°	347.3	347.8	346.7	346.2	345.6	345.1	344.5	344.0	344.5	342.9	342.9
10°	367.1	367.1	367.1	364.9	364.9	363.2	362.7	361.6	362.1	360.5	360.5
12.5°	386.9	386.9	386.3	385.2	384.7	383.6	382.5	382.5	381.4	379.2	378.1
15°	404.5	405.1	404.5	402.9	402.3	400.7	400.7	399.6	397.9	396.8	395.7
17.5°	421.0	421.6	419.9	419.4	417.7	416.6	415.5	415.0	413.9	412.2	411.7
20°	437.0	436.4	434.8	432.6	431.5	430.4	429.3	428.7	428.2	427.1	427.1
22.5°	452.4	452.4	450.7	447.4	445.2	444.1	442.5	441.4	440.3	439.7	440.8
25°	475.5	475.0	471.6	468.3	464.5	461.2	459.0	458.4	457.3	457.3	457.9
27.5°	505.2	504.1	499.2	494.8	490.4	486.0	483.2	481.0	480.5	479.9	479.9
30°	542.6	541.0	536.6	531.1	526.1	520.6	515.1	513.5	510.7	508.5	512.4
32.5°	614.2	615.3	606.5	595.5	584.5	574.0	564.7	557.5	553.1	553.7	553.7
35°	692.9	693.4	689.6	685.2	681.9	675.8	665.4	656.6	650.0	642.8	646.1
37.5°	727.0	727.6	724.3	723.7	725.9	729.8	740.2	747.9	759.5	761.1	757.8
40°	787.0	784.2	779.8	778.7	777.1	782.6	787.0	790.9	792.5	795.8	792.5
42.5°	849.7	848.6	845.3	841.5	841.5	842.6	849.7	855.8	859.6	860.2	859.6
45°	920.2	918.5	915.8	915.2	916.9	921.8	926.8	934.5	946.6	947.2	946.6
47.5°	997.8	998.9	994.5	996.1	998.9	1007.1	1020.9	1033.6	1046.8	1051.7	1045.7
50°	1104.0	1100.1	1100.1	1098.5	1105.7	1117.8	1134.3	1149.1	1167.8	1172.2	1162.9
52.5°	1248.2	1239.9	1241.6	1237.2	1241.0	1252.0	1279.0	1302.1	1325.8	1337.4	1319.2
55°	1421.6	1407.8	1409.4	1413.8	1417.2	1435.9	1470.0	1496.4	1541.0	1544.8	1523.9
57.5°	1563.5	1559.7	1561.9	1572.3	1593.3	1625.7	1668.7	1732.5	1787.5	1800.7	1778.2
60°	1615.3	1618.0	1633.4	1661.0	1700.6	1758.4	1842.0	1941.6	2029.1	2055.6	2021.4
62.5°	1534.9	1545.9	1566.8	1612.5	1675.3	1769.4	1897.6	2047.9	2178.8	2230.0	2168.9
65°	1378.1	1385.2	1419.4	1458.4	1539.3	1647.2	1804.6	2000.0	2161.2	2228.9	2160.7
67.5°	1172.2	1186.0	1215.7	1264.2	1334.0	1443.6	1608.7	1808.4	1970.3	2029.7	1969.7
70°	941.1	947.2	965.9	1003.8	1076.5	1173.3	1314.8	1493.6	1651.0	1688.5	1640.6
72.5°	652.7	664.8	680.8	715.5	761.1	843.1	959.8	1091.3	1217.9	1295.5	1225.1
75°	281.2	265.3	300.5	335.2	391.3	467.2	558.6	666.5	792.0	843.7	774.3
77.5°	84.2	83.7	89.2	99.1	118.9	157.4	220.7	293.3	390.2	423.8	363.8
80°	68.8	71.0	73.2	75.4	77.6	80.4	85.3	99.6	122.2	144.2	117.2
82.5°	58.3	61.1	67.1	70.4	72.1	72.6	72.6	72.1	69.3	68.2	67.7
85°	44.0	48.4	56.7	61.6	61.6	61.6	61.6	60.0	56.1	49.5	55.0
87.5°	14.9	19.8	33.0	35.2	36.3	33.6	35.2	35.8	29.7	22.6	28.6
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°	319.8	319.8	319.8	319.8	319.8	319.8	319.8	319.8
2.5°	321.4	321.4	321.4	322.0	321.4	321.4	321.4	321.4
5°	329.7	329.1	329.7	329.1	329.7	329.7	329.1	329.7
7.5°	342.3	342.3	342.9	342.9	342.3	342.3	342.3	342.3
10°	359.4	358.3	358.8	358.8	358.8	358.3	358.3	357.7
12.5°	377.0	375.9	375.9	375.9	375.9	375.3	375.9	375.9
15°	393.5	392.4	391.3	391.3	391.8	392.4	392.4	391.8
17.5°	409.5	408.4	406.7	406.7	406.2	407.3	408.4	407.8
20°	425.4	424.9	422.1	422.1	422.1	423.2	423.8	425.4
22.5°	441.4	440.8	438.6	438.1	438.6	440.8	442.5	442.5
25°	458.4	459.5	459.0	459.0	460.1	463.4	465.0	467.2
27.5°	482.7	484.9	485.4	487.6	488.2	492.0	494.8	498.1
30°	514.0	517.9	520.1	523.9	526.7	528.9	532.7	535.5
32.5°	557.5	566.9	577.9	590.5	596.0	605.9	610.3	611.4
35°	657.7	667.6	676.9	682.4	680.2	683.0	683.0	685.2
37.5°	747.9	738.0	729.8	728.1	723.7	722.1	722.6	724.3
40°	789.8	784.8	781.5	783.1	780.9	779.3	780.4	780.9
42.5°	857.4	849.7	847.0	846.4	845.3	846.4	849.2	848.1
45°	936.7	926.8	922.9	922.4	920.7	920.2	921.3	923.5
47.5°	1031.9	1019.8	1007.7	1003.8	1003.8	1000.5	1002.7	999.4
50°	1148.6	1128.8	1116.1	1109.0	1104.6	1099.6	1104.0	1096.8
52.5°	1302.1	1274.1	1260.3	1250.9	1238.3	1238.8	1239.9	1237.2
55°	1495.9	1465.0	1438.1	1419.9	1412.2	1407.8	1406.7	1415.5
57.5°	1718.7	1664.3	1621.3	1589.4	1577.3	1560.8	1553.1	1553.1
60°	1930.6	1831.6	1746.3	1692.9	1653.3	1625.2	1606.5	1601.0
62.5°	2034.1	1883.8	1758.9	1670.9	1608.1	1567.9	1541.0	1533.8
65°	1989.5	1798.5	1651.6	1552.5	1479.9	1428.2	1396.8	1388.0
67.5°	1810.1	1610.3	1455.7	1356.1	1277.9	1221.8	1198.1	1188.2
70°	1503.0	1319.7	1185.5	1088.0	1006.6	959.3	926.8	913.6
72.5°	1080.3	941.1	817.8	734.2	661.0	636.2	592.2	587.8
75°	638.4	517.3	415.5	351.7	286.2	250.4	230.0	208.0
77.5°	259.8	185.5	139.2	105.1	90.3	82.0	78.1	77.0
80°	88.6	79.3	74.8	73.2	71.0	69.9	67.1	64.9
82.5°	69.9	69.3	67.1	66.6	64.4	61.1	55.6	52.3
85°	58.3	57.2	54.5	53.9	52.3	47.9	41.8	38.0
87.5°	33.0	30.3	27.5	28.1	26.4	23.1	17.1	12.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)