

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: P195967

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P195967
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-800
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 4000K, 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: 5252.9 lumens
Efficiency: N/A
Efficacy: 119.4 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

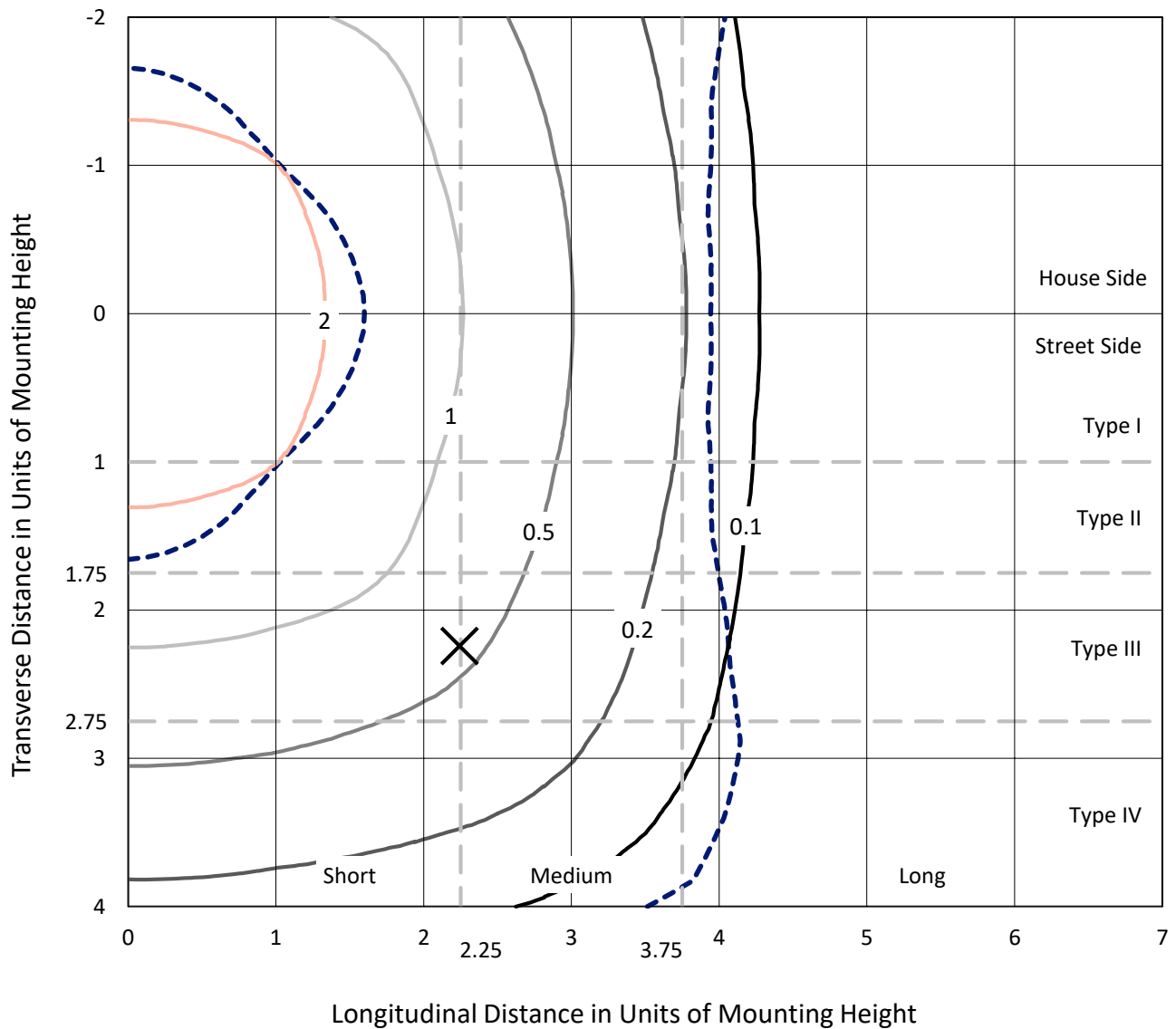
Input Watts (W): 44
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

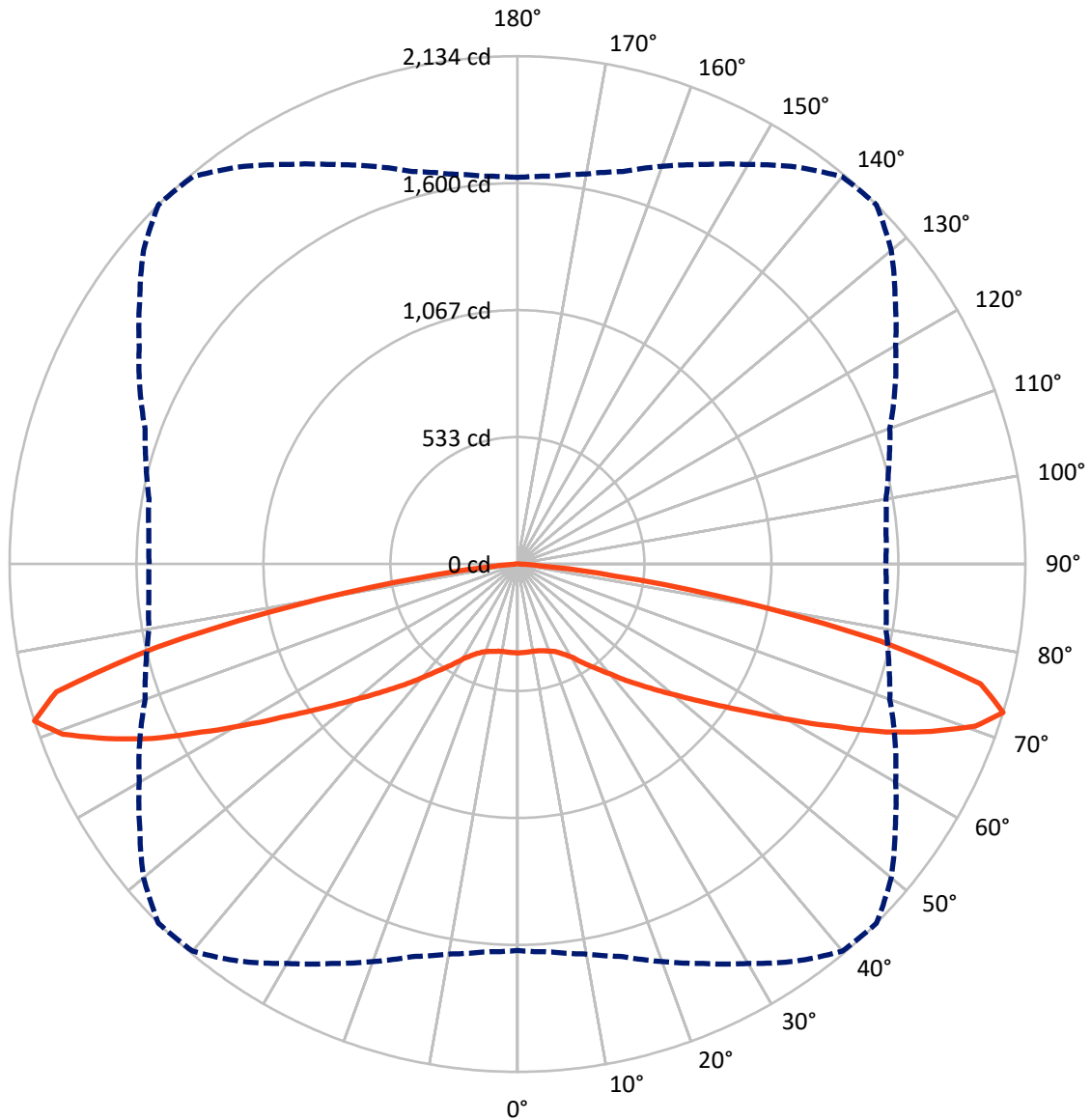
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3.7 fc
 Type V - Short - 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	2626.4	0.0	2626.4
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	2626.4	0.0	2626.4
	% Fixture	50.0	0.0	50.0
Total	Lumens	5252.9	0.0	5252.9
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	35.6	0.7
10°-20°	107.9	2.1
20°-30°	194.7	3.7
30°-40°	332.2	6.3
40°-50°	565.5	10.8
50°-60°	910.2	17.3
60°-70°	1513.6	28.8
70°-80°	1464.2	27.9
80°-90°	128.9	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°	5252.9	100.0
0°-180°	5252.9	100.0



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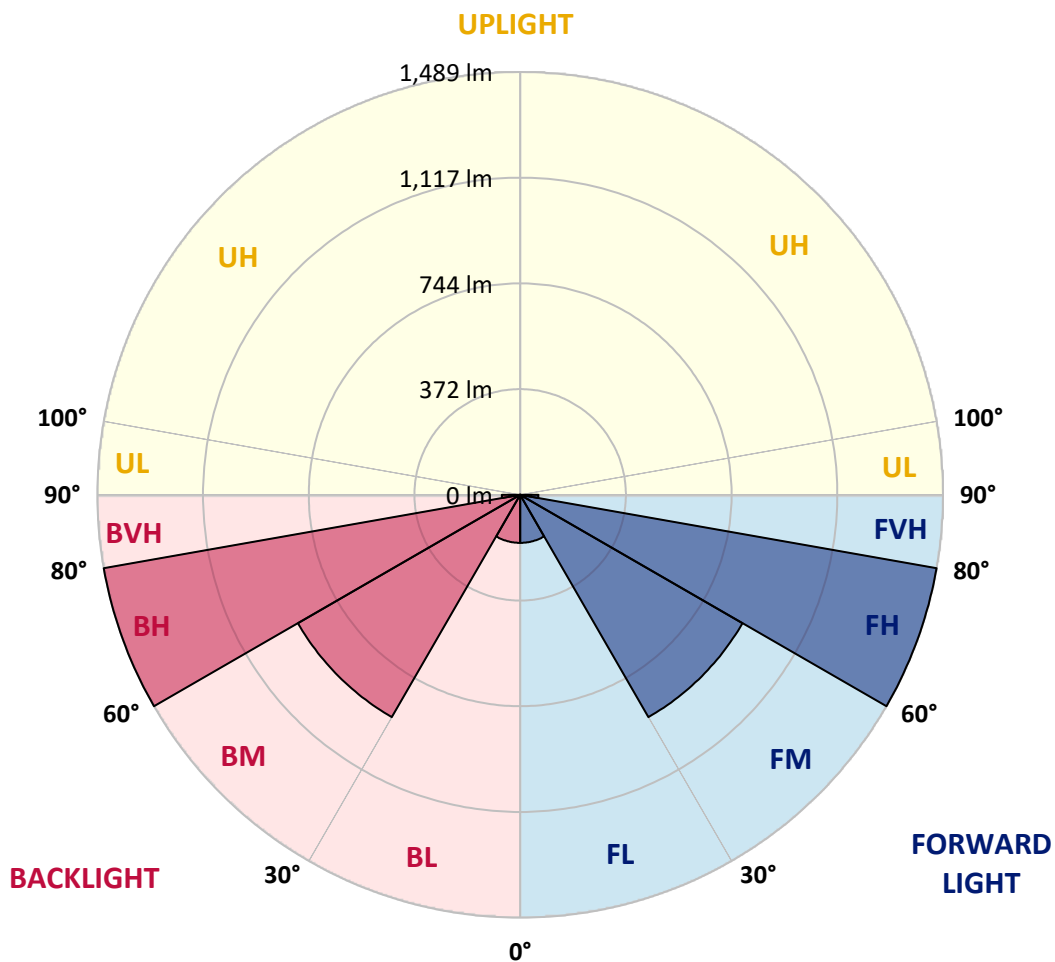
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	169.1	3.2			
FM	(30°-60°)	903.9	17.2			
FH	(60°-80°)	1488.9	28.3			G1/1800
FVH	(80°-90°)	64.4	1.2			G1/100
BL	(0°-30°)	169.1	3.2	B1/500		
BM	(30°-60°)	903.9	17.2	B1/1000		
BH	(60°-80°)	1488.9	28.3	B3/2500		G1/1800
BVH	(80°-90°)	64.4	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





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	373.5	373.5	373.5	373.5	373.5	373.5	373.5	373.5	373.5	373.5	373.5
2.5°	376.3	376.3	376.7	376.3	375.7	375.4	374.4	373.8	373.1	372.8	372.1
5°	376.7	376.7	377.0	376.7	376.0	375.4	374.7	373.8	373.1	372.5	372.1
7.5°	378.0	378.3	378.6	378.3	377.0	376.3	375.4	374.4	373.1	372.5	371.8
10°	380.5	380.5	380.5	380.2	379.2	378.0	376.7	375.7	374.1	372.5	371.5
12.5°	382.5	382.8	382.8	382.2	380.8	379.2	378.0	377.0	375.7	374.4	373.5
15°	385.4	385.4	385.0	383.8	381.9	380.5	379.9	379.6	379.2	378.6	377.7
17.5°	391.2	390.9	389.9	388.0	385.8	384.7	384.1	384.1	384.1	383.8	383.1
20°	399.7	399.7	398.3	395.1	393.1	392.2	391.2	391.2	391.2	390.3	389.2
22.5°	413.2	413.6	411.6	407.7	405.1	403.1	401.9	400.9	400.0	399.3	397.7
25°	431.7	431.3	429.0	424.2	422.3	420.3	417.8	416.1	414.8	413.9	411.9
27.5°	451.0	450.7	448.2	444.0	442.6	439.8	437.8	435.5	433.9	432.3	430.4
30°	476.0	474.3	472.4	469.1	468.5	466.3	463.6	460.4	457.9	455.2	453.0
32.5°	498.3	498.3	495.3	493.7	495.0	494.1	494.4	492.4	490.8	489.8	487.5
35°	529.3	529.3	527.9	526.0	526.4	524.1	523.8	524.1	525.4	525.4	522.8
37.5°	570.7	571.3	567.1	566.5	564.9	561.6	560.0	560.7	563.5	565.2	561.6
40°	622.1	623.4	622.1	617.9	615.9	610.4	607.2	607.2	609.5	611.1	609.8
42.5°	672.8	675.1	672.8	669.6	668.0	663.8	662.2	663.5	666.4	668.3	666.4
45°	729.5	731.0	728.1	724.2	722.3	720.1	719.0	720.1	723.2	725.2	724.6
47.5°	785.0	787.3	783.8	782.1	782.1	779.9	782.5	785.0	788.0	792.5	790.5
50°	839.3	842.3	839.9	840.4	842.9	847.1	851.9	857.1	862.3	867.2	867.8
52.5°	887.8	892.4	892.7	898.6	906.6	913.1	926.7	937.9	950.2	954.4	952.5
55°	939.0	945.1	953.2	962.2	975.2	988.4	1011.4	1031.7	1047.9	1057.9	1056.3
57.5°	1012.0	1018.1	1026.5	1041.5	1060.8	1078.9	1110.3	1142.0	1166.6	1181.7	1174.3
60°	1106.7	1113.2	1124.2	1140.1	1165.2	1189.8	1232.9	1278.4	1316.5	1334.0	1320.4
62.5°	1232.1	1238.3	1245.4	1266.4	1294.5	1326.3	1380.3	1438.8	1487.3	1504.1	1485.0
65°	1411.0	1418.4	1420.7	1437.9	1465.3	1494.7	1552.9	1618.9	1674.2	1701.7	1663.5
67.5°	1612.4	1615.3	1624.3	1644.4	1672.5	1699.0	1744.9	1807.3	1860.4	1875.6	1834.9
70°	1730.4	1736.3	1752.1	1779.9	1813.5	1855.2	1905.3	1972.6	2032.7	2039.9	1988.1
72.5°	1623.7	1635.7	1663.8	1707.1	1777.6	1851.6	1938.0	2037.3	2123.5	2133.6	2050.5
75°	1302.3	1315.9	1349.6	1397.0	1480.5	1590.4	1715.2	1864.3	1993.6	2010.1	1900.1
77.5°	694.2	711.0	759.8	823.8	942.9	1088.3	1238.7	1408.7	1518.7	1555.8	1476.6
80°	174.9	183.9	207.6	245.1	325.6	442.9	572.6	755.7	892.0	949.9	892.0
82.5°	67.9	74.7	81.1	85.7	93.4	109.6	151.3	246.7	332.4	409.3	354.4
85°	26.2	27.8	40.1	45.6	45.6	50.1	57.6	67.9	84.1	91.9	76.9
87.5°	10.3	11.4	13.9	21.4	22.0	19.4	20.7	23.3	17.8	14.8	16.8
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°	373.5	373.5	373.5	373.5	373.5	373.5	373.5	373.5
2.5°	371.8	371.5	370.8	371.1	370.8	370.8	370.8	370.8
5°	371.5	371.5	370.8	370.8	370.8	371.1	370.8	370.8
7.5°	371.1	370.8	370.2	369.9	369.9	369.6	369.6	369.6
10°	370.5	369.9	369.3	368.9	368.9	368.3	368.3	368.3
12.5°	372.1	371.1	370.5	370.2	370.2	370.2	370.5	370.5
15°	376.7	374.7	373.8	373.5	373.8	374.4	374.7	375.0
17.5°	381.6	379.6	378.0	377.4	377.7	378.6	379.6	380.2
20°	387.7	386.1	384.1	383.5	383.5	384.7	385.4	386.4
22.5°	396.4	395.1	393.5	392.5	391.9	393.5	394.4	395.1
25°	410.3	409.0	407.7	406.7	406.4	408.1	408.7	409.0
27.5°	428.7	427.4	426.8	426.5	425.4	426.2	427.1	426.8
30°	452.7	453.6	452.7	452.7	451.0	451.6	451.0	450.4
32.5°	484.7	483.7	480.8	478.8	476.6	476.6	475.6	474.6
35°	516.7	513.4	511.8	512.8	511.8	512.5	510.9	509.2
37.5°	554.5	552.6	552.2	555.2	554.5	555.2	555.2	552.9
40°	604.6	603.3	605.6	610.4	612.3	612.0	612.7	609.8
42.5°	662.2	659.9	660.8	665.1	667.4	668.0	667.7	665.1
45°	719.7	720.4	720.4	724.9	727.1	728.4	726.2	725.2
47.5°	784.7	785.6	783.4	786.3	787.0	789.2	787.3	785.6
50°	859.7	856.2	851.0	851.9	851.9	851.3	849.0	847.1
52.5°	943.5	935.4	925.7	922.4	918.9	915.3	910.8	907.3
55°	1038.8	1024.9	1007.5	999.4	992.6	984.5	974.2	970.6
57.5°	1149.4	1125.5	1102.2	1087.7	1070.2	1059.6	1046.3	1045.7
60°	1280.7	1248.3	1207.3	1185.6	1168.2	1155.5	1145.5	1141.6
62.5°	1432.3	1376.7	1332.4	1309.2	1288.8	1281.0	1268.4	1270.0
65°	1587.8	1531.3	1488.3	1469.5	1450.4	1445.2	1433.7	1437.9
67.5°	1756.3	1709.8	1662.5	1645.1	1627.6	1622.4	1610.4	1614.0
70°	1907.3	1848.2	1794.5	1760.2	1730.4	1706.5	1691.3	1685.2
72.5°	1937.4	1834.9	1750.5	1664.8	1615.3	1572.0	1554.2	1547.4
75°	1740.8	1581.7	1461.4	1360.8	1305.3	1242.2	1235.4	1226.0
77.5°	1354.1	1173.0	1027.6	898.2	823.5	746.5	720.1	700.0
80°	807.6	620.8	481.1	337.3	275.2	221.5	208.2	194.4
82.5°	289.1	185.3	124.8	97.3	87.0	80.2	75.0	68.2
85°	69.9	58.8	55.6	50.4	49.8	42.4	30.1	26.8
87.5°	22.3	20.4	20.7	19.7	20.7	15.5	12.6	11.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)