

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: P195463

Luminaire Tested: **NAV-AF-01-D-UNV-5NQ-7050-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P195463
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24130)
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-5NQ-7050-800
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 5000K, 800mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE V NARROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5074 lumens
Efficiency: N/A
Efficacy: 115.3 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B2 - U0 - G1

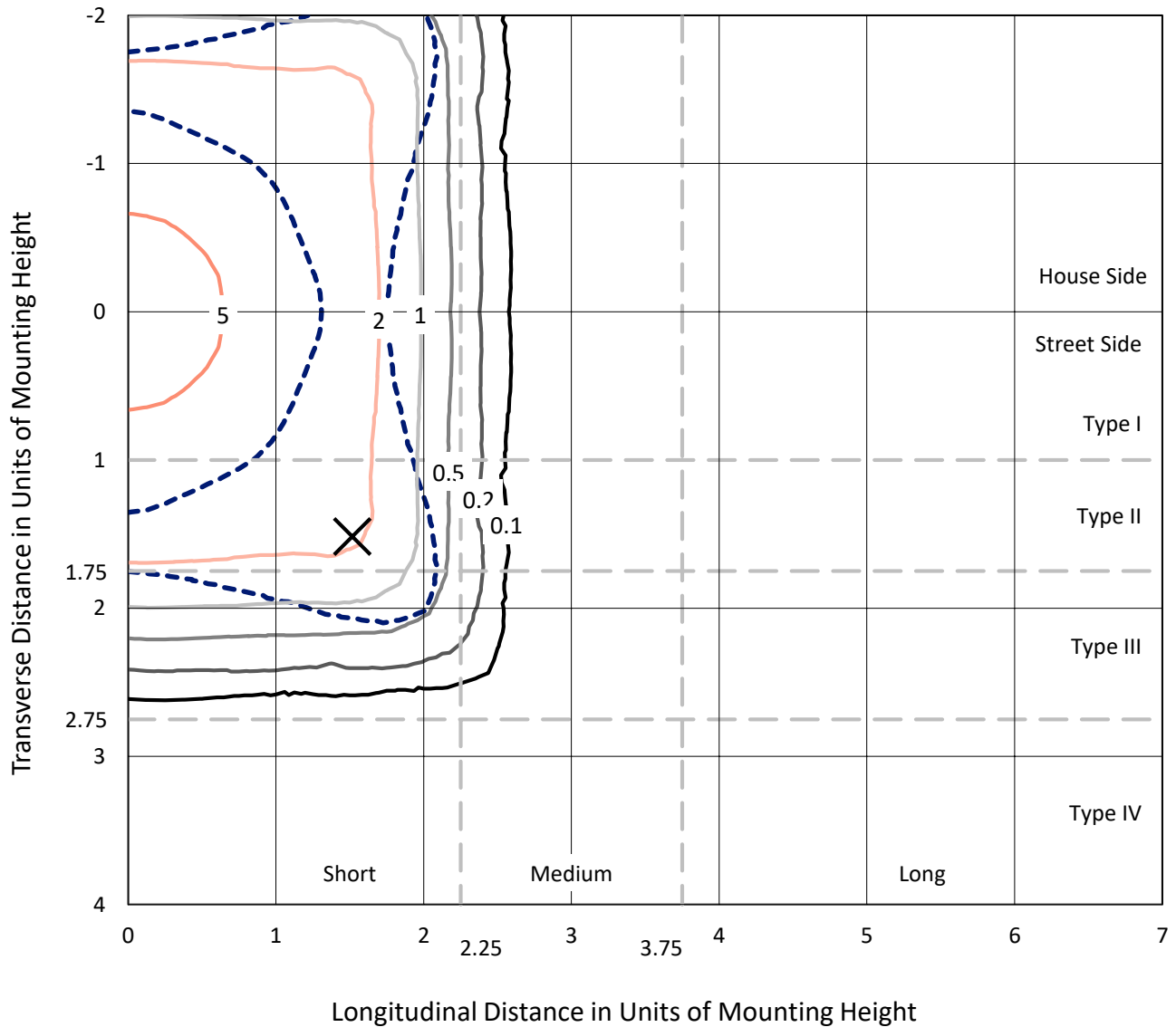
Input Watts (W): 44
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

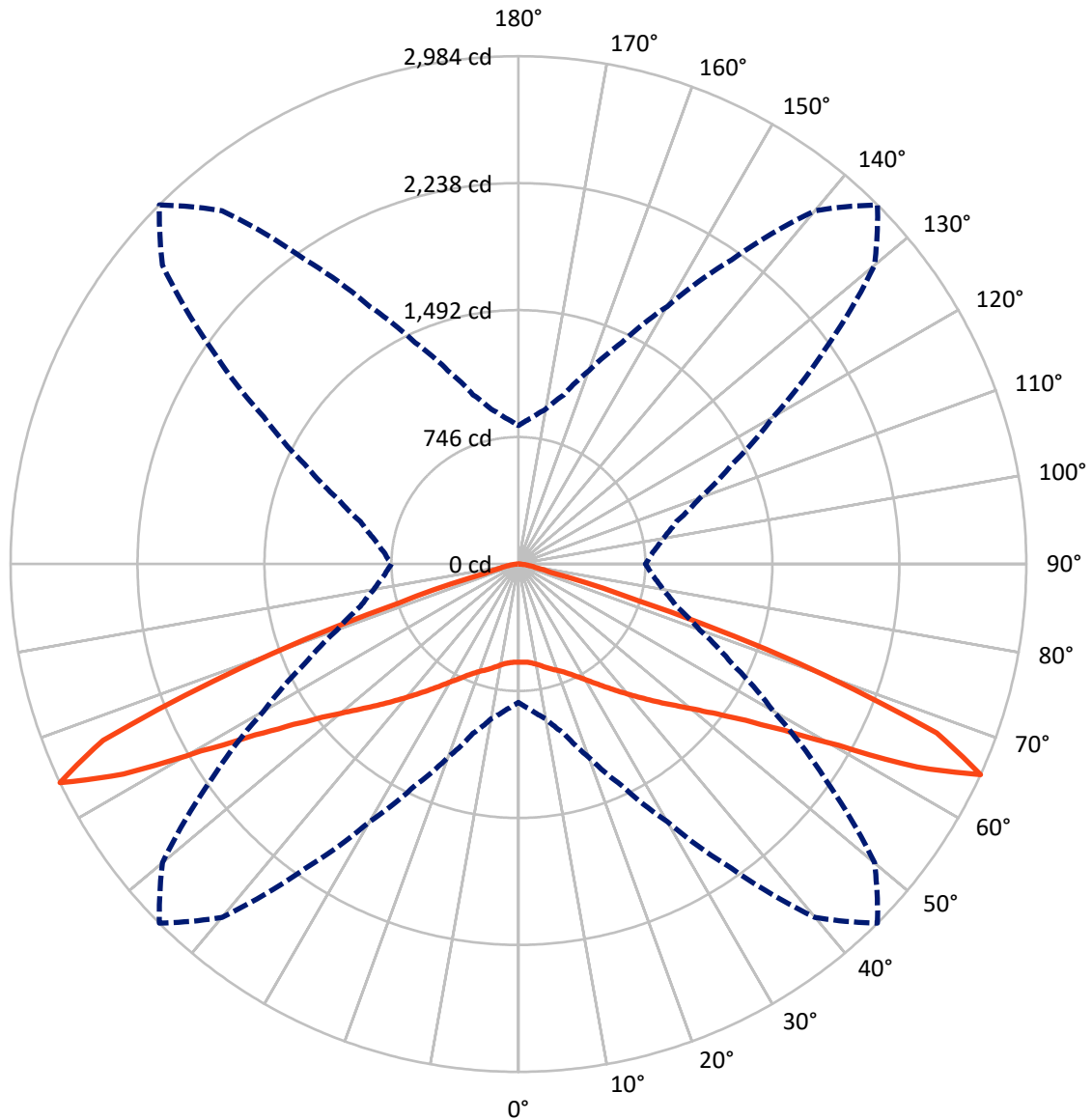
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 5.8 fc
 Type V - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2537.0	0.0	2537.0
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	2537.0	0.0	2537.0
	% Fixture	50.0	0.0	50.0
Total	Lumens	5074.0	0.0	5074.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	56.2	1.1
10°-20°	180.1	3.6
20°-30°	336.0	6.6
30°-40°	566.6	11.2
40°-50°	920.4	18.1
50°-60°	1442.0	28.4
60°-70°	1361.2	26.8
70°-80°	183.5	3.6
80°-90°	27.9	0.6
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°	5074.0	100.0
0°-180°	5074.0	100.0



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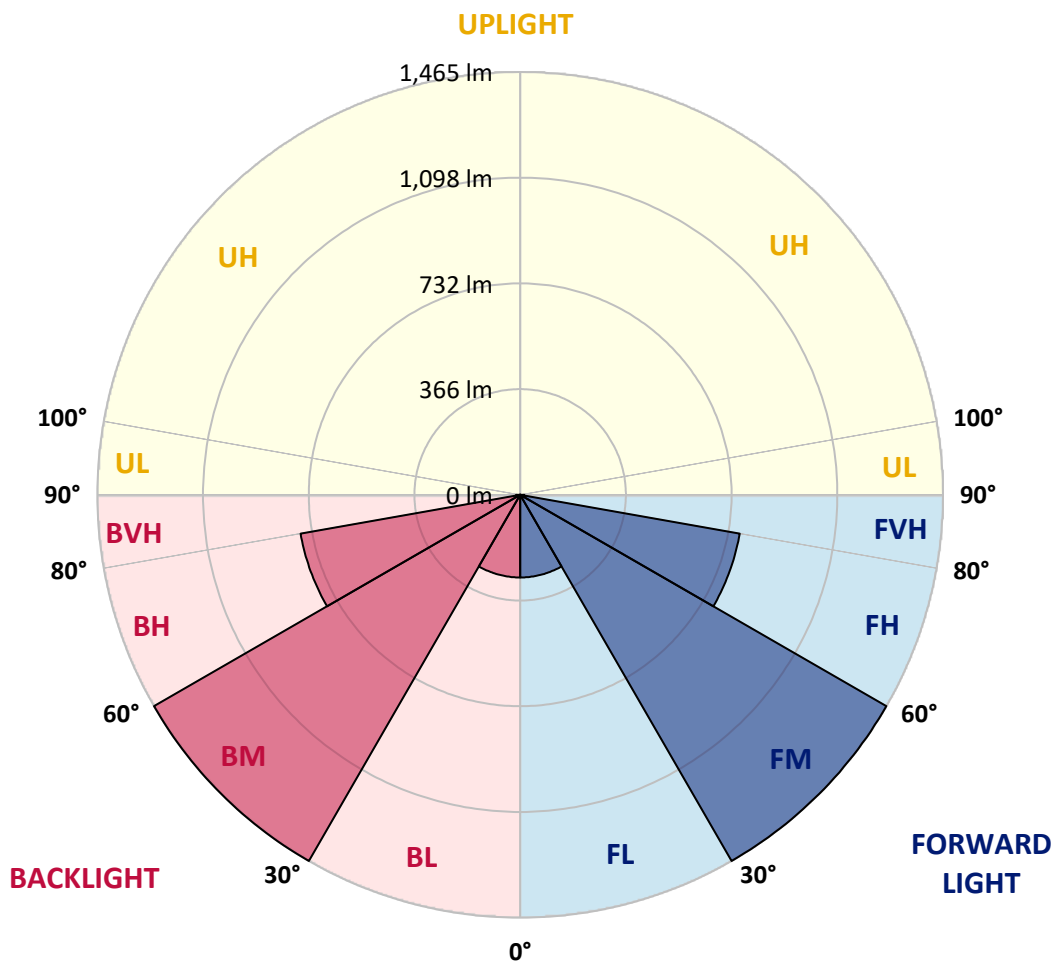
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	286.2	5.6			
FM (30°-60°)	1464.5	28.9			
FH (60°-80°)	772.3	15.2			G1/1800
FVH (80°-90°)	14.0	0.3			G1/100
BL (0°-30°)	286.2	5.6	B1/500		
BM (30°-60°)	1464.5	28.9	B2/2500		
BH (60°-80°)	772.3	15.2	B2/1000		G1/1800
BVH (80°-90°)	14.0	0.3			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G1

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	577.2	577.2	577.2	577.2	577.2	577.2	577.2	577.2	577.2	577.2	577.2
2.5°	581.9	581.9	582.9	582.5	581.3	580.3	579.4	578.1	577.5	576.8	576.5
5°	585.1	585.1	586.0	585.7	584.7	583.5	582.9	581.9	581.0	580.3	580.6
7.5°	593.0	593.3	593.6	593.3	592.3	591.4	590.1	589.8	588.5	587.6	588.2
10°	605.0	605.0	605.3	605.6	605.0	602.8	602.8	602.1	600.9	599.6	599.9
12.5°	618.3	618.3	618.6	618.6	618.6	617.3	617.6	617.3	615.7	615.1	615.7
15°	631.2	631.5	631.5	632.2	632.2	632.5	633.7	633.7	633.1	632.8	632.8
17.5°	646.4	647.0	647.3	648.3	648.6	649.2	650.5	650.8	651.1	650.2	650.5
20°	666.6	666.9	667.9	668.2	669.5	669.5	670.1	669.8	669.1	667.9	667.9
22.5°	689.4	690.0	691.9	691.9	693.5	692.5	692.8	691.9	690.3	689.7	689.1
25°	719.1	720.0	721.6	721.0	721.6	720.0	720.0	720.0	719.1	718.1	717.8
27.5°	756.7	755.1	756.7	755.4	755.1	753.8	754.2	753.5	752.6	752.3	751.0
30°	795.9	794.0	794.9	795.3	794.6	794.3	793.0	792.1	790.5	790.8	789.9
32.5°	840.8	838.9	839.8	840.1	839.5	840.1	839.8	837.6	835.7	837.0	837.0
35°	894.2	892.9	895.5	896.4	894.5	893.6	892.3	889.8	886.9	888.8	889.1
37.5°	958.4	956.8	958.7	961.2	957.7	955.8	950.8	947.0	945.1	946.0	947.3
40°	1025.0	1025.4	1030.7	1031.4	1027.6	1025.4	1020.3	1014.6	1009.2	1009.2	1010.8
42.5°	1095.2	1096.2	1102.5	1104.7	1103.4	1099.3	1092.4	1085.4	1078.5	1079.7	1081.6
45°	1174.6	1173.3	1179.9	1185.3	1184.4	1183.1	1176.4	1163.8	1157.5	1157.2	1160.3
47.5°	1258.0	1260.5	1267.5	1276.6	1276.3	1273.2	1264.6	1252.9	1241.2	1242.2	1246.0
50°	1355.3	1358.8	1370.5	1379.7	1381.0	1380.0	1369.9	1356.3	1339.9	1340.8	1345.9
52.5°	1442.6	1447.6	1461.2	1480.2	1491.9	1497.3	1490.6	1478.0	1461.2	1462.2	1467.6
55°	1521.6	1529.5	1549.7	1575.7	1599.0	1620.9	1630.7	1630.3	1618.0	1620.9	1627.8
57.5°	1571.2	1582.3	1613.0	1654.7	1701.1	1745.1	1783.0	1818.7	1826.6	1841.5	1841.5
60°	1504.5	1530.5	1571.2	1642.7	1734.0	1832.6	1939.5	2043.5	2110.5	2163.2	2134.8
62.5°	1256.4	1294.7	1351.9	1446.1	1588.3	1764.4	1979.0	2220.8	2473.0	2627.3	2514.1
65°	813.0	861.0	923.3	1029.2	1208.4	1435.0	1747.6	2182.2	2710.1	2983.8	2730.9
67.5°	322.1	354.6	392.6	467.8	623.3	845.8	1196.7	1732.7	2393.0	2651.3	2367.8
70°	153.9	159.3	166.6	182.7	221.6	299.0	480.8	853.7	1467.6	1739.7	1432.5
72.5°	111.3	112.2	115.7	121.1	132.4	148.2	180.2	261.1	506.0	735.8	506.7
75°	84.4	85.7	87.6	90.4	96.4	104.0	116.0	139.1	173.2	199.8	172.9
77.5°	64.2	65.4	67.0	69.9	73.0	78.4	82.8	92.0	106.5	112.2	111.6
80°	46.8	49.0	51.5	54.0	56.3	58.8	59.1	63.5	71.8	77.1	75.5
82.5°	29.7	31.6	38.2	41.1	41.4	42.0	41.7	42.0	46.5	50.3	49.0
85°	19.0	20.2	23.7	26.9	26.2	27.5	27.5	26.9	25.0	21.5	25.6
87.5°	9.5	9.8	11.4	14.2	13.6	12.0	11.7	11.7	8.5	7.3	7.9
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°	577.2	577.2	577.2	577.2	577.2	577.2	577.2	577.2
2.5°	575.6	576.2	575.3	575.3	574.9	575.6	574.6	574.6
5°	580.0	581.0	580.6	580.6	581.3	581.9	581.6	581.3
7.5°	587.9	588.5	589.2	589.5	590.1	589.8	590.4	590.1
10°	599.9	599.3	600.2	599.3	599.6	599.0	599.3	599.3
12.5°	615.1	614.1	613.5	612.9	612.9	611.6	611.6	611.9
15°	632.5	630.9	629.6	629.0	628.4	628.4	627.4	628.1
17.5°	649.5	648.0	645.8	645.8	644.8	644.2	643.5	645.1
20°	667.6	666.0	664.7	664.4	662.5	661.9	662.2	664.1
22.5°	688.4	687.5	687.5	686.8	685.6	684.6	684.6	686.8
25°	716.6	714.7	715.0	715.3	714.7	714.7	714.0	715.6
27.5°	751.0	749.4	750.4	751.0	750.4	751.3	750.4	751.6
30°	791.5	790.5	791.5	792.4	790.8	790.8	790.2	791.1
32.5°	839.8	838.6	839.2	839.2	837.0	835.1	832.6	834.5
35°	892.9	891.3	892.6	893.6	891.0	889.1	885.3	886.9
37.5°	951.4	952.0	953.6	957.7	957.1	953.9	951.1	952.3
40°	1016.8	1020.0	1026.9	1029.8	1029.2	1026.0	1022.2	1022.8
42.5°	1090.8	1094.9	1102.2	1106.9	1104.7	1100.3	1095.5	1097.4
45°	1171.4	1177.7	1187.2	1191.9	1189.1	1184.4	1177.7	1181.2
47.5°	1256.7	1269.4	1282.0	1288.3	1287.4	1280.8	1272.2	1273.2
50°	1358.8	1375.6	1391.7	1398.0	1393.3	1383.2	1371.2	1370.8
52.5°	1485.9	1503.9	1517.2	1515.6	1503.9	1488.1	1474.5	1473.9
55°	1644.6	1650.6	1648.7	1635.1	1614.5	1589.9	1572.5	1569.7
57.5°	1836.4	1816.2	1786.5	1745.4	1699.2	1652.5	1620.9	1609.2
60°	2071.0	1979.6	1873.4	1761.5	1659.4	1582.9	1534.6	1505.2
62.5°	2264.7	2000.2	1762.8	1568.4	1409.4	1314.9	1248.8	1208.1
65°	2198.3	1728.0	1384.1	1133.5	959.9	862.3	792.4	745.9
67.5°	1698.3	1154.6	803.5	556.9	422.3	357.5	312.3	282.9
70°	856.3	442.8	268.4	189.3	161.8	150.5	142.9	138.4
72.5°	251.3	167.8	139.4	123.3	113.5	106.5	102.1	99.9
75°	139.1	113.5	100.2	91.0	84.7	80.0	77.1	75.2
77.5°	95.8	82.5	75.9	69.9	64.8	61.3	59.1	57.2
80°	67.0	60.4	57.5	54.4	50.6	47.7	44.6	43.3
82.5°	44.6	41.7	41.1	38.6	36.3	33.2	27.5	25.6
85°	26.2	25.9	25.9	25.0	23.4	20.5	16.4	16.4
87.5°	9.2	9.5	9.8	10.4	10.1	8.5	7.0	6.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)