

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: P196915

Luminaire Tested: **NAV-AF-01-D-UNV-5NQ-8030-1200**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196915
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-8030-1200
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 80 CRI, 3000K, 1200mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE V NARROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5621 lumens
Efficiency: N/A
Efficacy: 83.9 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

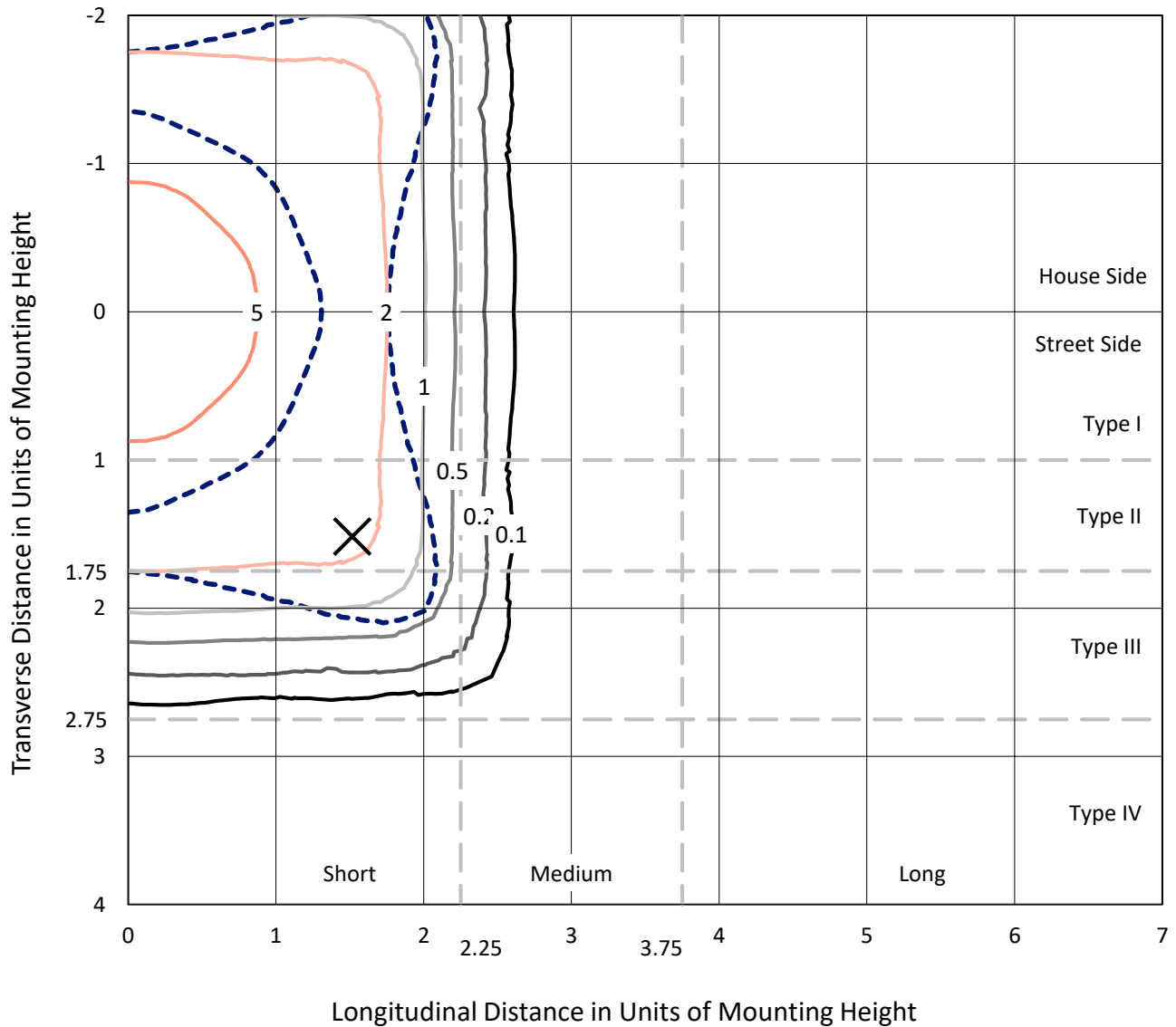
Input Watts (W): 67
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

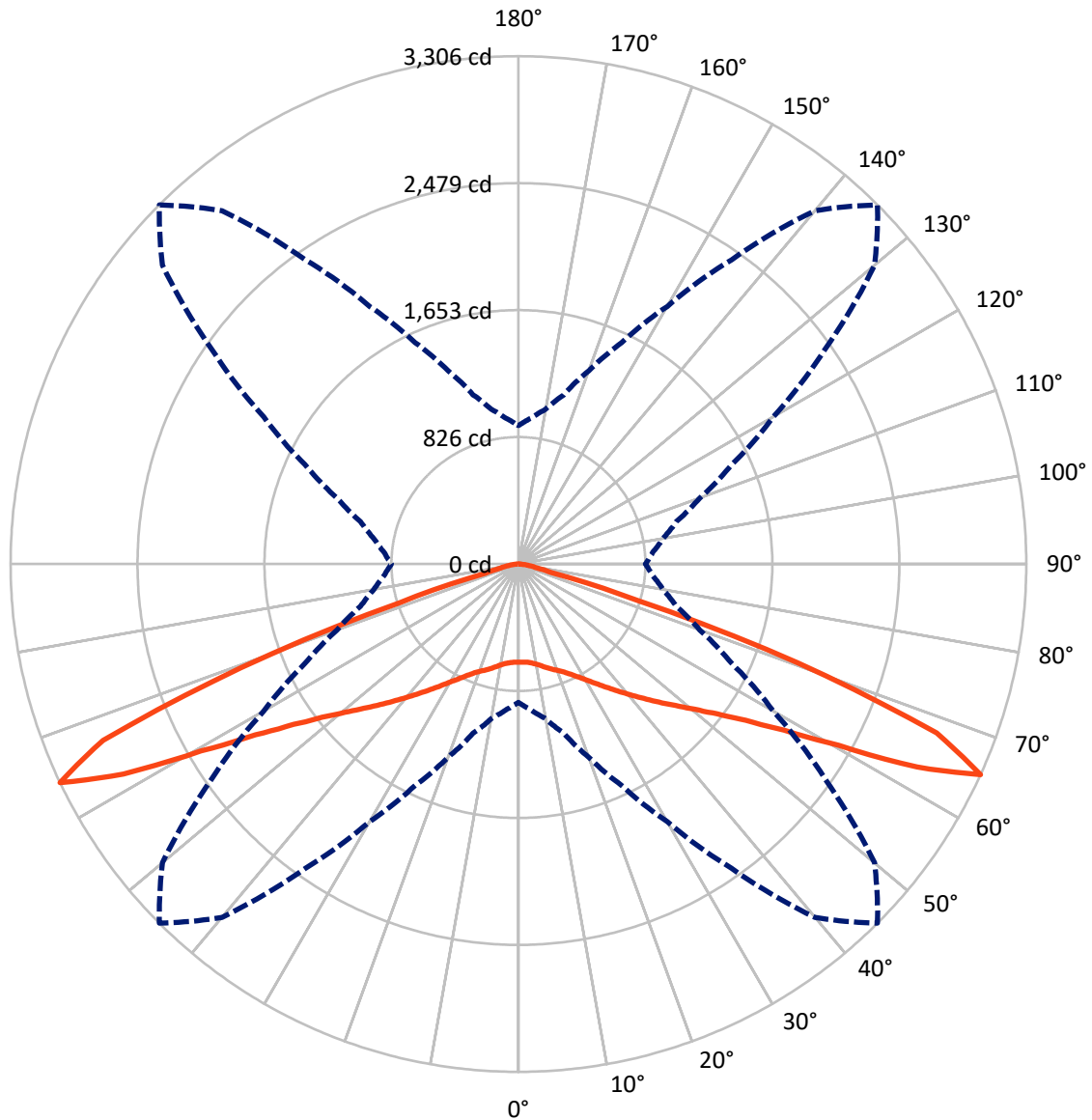
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 6.4 fc
 Type V - Short - Full Cutoff

REPORT NUMBER: P196915
CATALOG NUMBER: NAV-AF-01-D-UNV-5NQ-8030-1200

Luminous Intensity Polar Plot



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

REPORT NUMBER: P196915

CATALOG NUMBER: NAV-AF-01-D-UNV-5NQ-8030-1200

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2810.5	0.0	2810.5
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	2810.5	0.0	2810.5
	% Fixture	50.0	0.0	50.0
Total	Lumens	5621.0	0.0	5621.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	62.3	1.1
10°-20°	199.6	3.6
20°-30°	372.3	6.6
30°-40°	627.7	11.2
40°-50°	1019.6	18.1
50°-60°	1597.5	28.4
60°-70°	1508.0	26.8
70°-80°	203.2	3.6
80°-90°	31.0	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°	5621.0	100.0
0°-180°	5621.0	100.0

Coefficient of Utilization



REPORT NUMBER: P196915

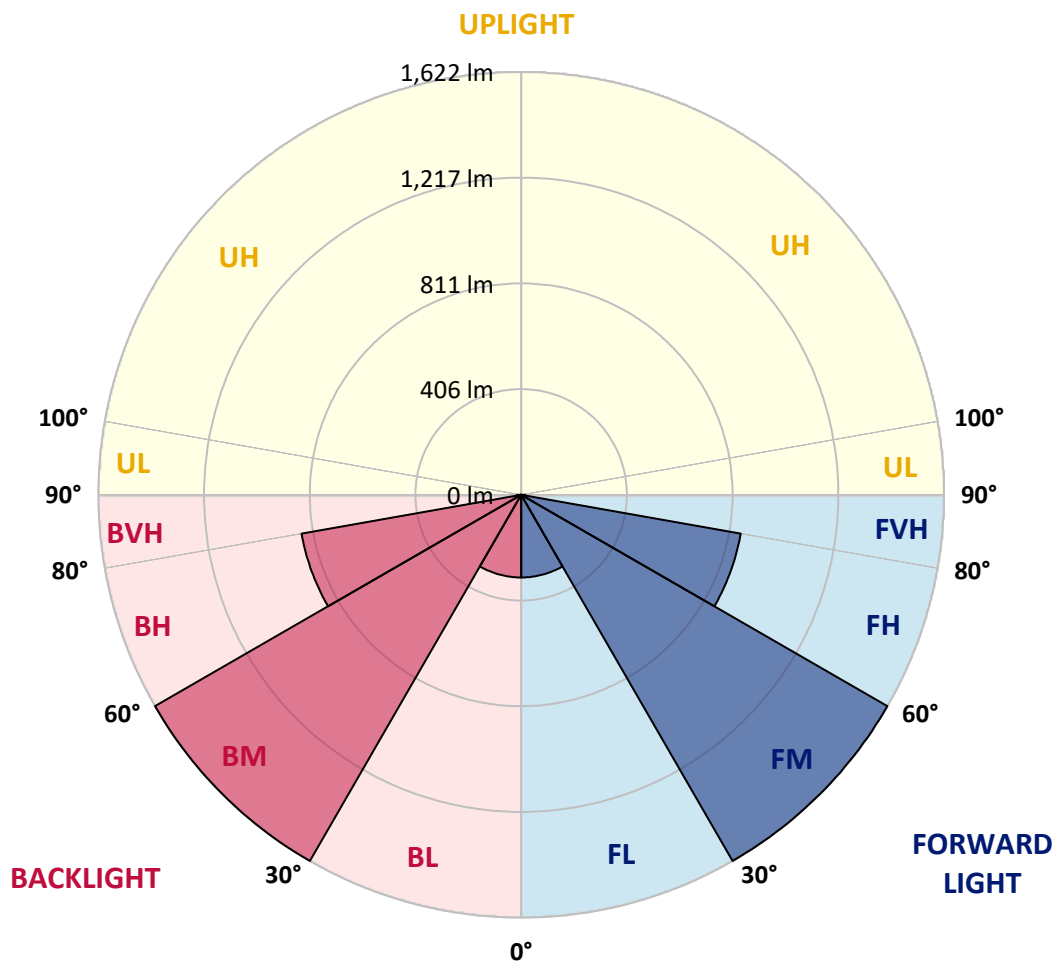
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	317.0	5.6			
FM (30°-60°)	1622.4	28.9			
FH (60°-80°)	855.6	15.2			G1/1800
FVH (80°-90°)	15.5	0.3			G1/100
BL (0°-30°)	317.0	5.6	B1/500		
BM (30°-60°)	1622.4	28.9	B2/2500		
BH (60°-80°)	855.6	15.2	B2/1000		G1/1800
BVH (80°-90°)	15.5	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





REPORT NUMBER: P196915

CATALOG NUMBER: NAV-AF-01-D-UNV-5NQ-8030-1200

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	639.4	639.4	639.4	639.4	639.4	639.4	639.4	639.4	639.4	639.4	639.4
2.5°	644.6	644.6	645.7	645.3	643.9	642.9	641.8	640.4	639.7	639.0	638.7
5°	648.1	648.1	649.2	648.8	647.8	646.4	645.7	644.6	643.6	642.9	643.2
7.5°	656.9	657.2	657.6	657.2	656.2	655.1	653.7	653.4	652.0	650.9	651.6
10°	670.2	670.2	670.5	670.9	670.2	667.7	667.7	667.0	665.6	664.2	664.6
12.5°	684.9	684.9	685.3	685.3	685.3	683.9	684.2	683.9	682.1	681.4	682.1
15°	699.3	699.6	699.6	700.3	700.3	700.7	702.1	702.1	701.4	701.0	701.0
17.5°	716.1	716.8	717.1	718.2	718.5	719.2	720.6	721.0	721.3	720.3	720.6
20°	738.5	738.8	739.9	740.2	741.6	741.6	742.3	742.0	741.3	739.9	739.9
22.5°	763.7	764.4	766.5	766.5	768.2	767.2	767.5	766.5	764.7	764.0	763.3
25°	796.6	797.7	799.4	798.7	799.4	797.7	797.7	797.7	796.6	795.6	795.2
27.5°	838.3	836.5	838.3	836.9	836.5	835.1	835.5	834.8	833.7	833.4	832.0
30°	881.7	879.6	880.6	881.0	880.3	879.9	878.5	877.5	875.7	876.1	875.0
32.5°	931.4	929.3	930.4	930.7	930.0	930.7	930.4	927.9	925.8	927.2	927.2
35°	990.6	989.2	992.0	993.0	990.9	989.9	988.5	985.7	982.5	984.6	985.0
37.5°	1061.7	1059.9	1062.0	1064.8	1061.0	1058.9	1053.3	1049.1	1047.0	1048.0	1049.4
40°	1135.6	1135.9	1141.9	1142.6	1138.4	1135.9	1130.3	1124.0	1118.0	1118.0	1119.8
42.5°	1213.3	1214.3	1221.3	1223.8	1222.4	1217.8	1210.1	1202.4	1194.7	1196.1	1198.2
45°	1301.2	1299.8	1307.1	1313.1	1312.0	1310.6	1303.3	1289.3	1282.3	1281.9	1285.4
47.5°	1393.6	1396.4	1404.1	1414.3	1413.9	1410.4	1401.0	1388.0	1375.1	1376.1	1380.3
50°	1501.5	1505.3	1518.3	1528.4	1529.8	1528.8	1517.6	1502.5	1484.3	1485.4	1491.0
52.5°	1598.1	1603.7	1618.8	1639.8	1652.7	1658.7	1651.3	1637.3	1618.8	1619.8	1625.8
55°	1685.6	1694.4	1716.8	1745.5	1771.4	1795.6	1806.4	1806.1	1792.4	1795.6	1803.3
57.5°	1740.6	1752.9	1786.8	1833.1	1884.5	1933.2	1975.2	2014.8	2023.5	2040.0	2040.0
60°	1666.7	1695.4	1740.6	1819.8	1920.9	2030.2	2148.5	2263.7	2338.0	2396.5	2364.9
62.5°	1391.9	1434.2	1497.6	1602.0	1759.5	1954.6	2192.3	2460.2	2739.6	2910.5	2785.1
65°	900.6	953.8	1022.8	1140.1	1338.6	1589.7	1936.0	2417.5	3002.2	3305.5	3025.3
67.5°	356.8	392.9	434.9	518.2	690.5	937.0	1325.7	1919.5	2651.0	2937.1	2623.0
70°	170.5	176.5	184.5	202.4	245.5	331.2	532.6	945.8	1625.8	1927.3	1586.9
72.5°	123.3	124.3	128.2	134.1	146.7	164.2	199.6	289.2	560.6	815.2	561.3
75°	93.5	94.9	97.0	100.1	106.8	115.2	128.5	154.1	191.9	221.3	191.5
77.5°	71.1	72.5	74.2	77.4	80.9	86.8	91.7	101.9	118.0	124.3	123.6
80°	51.8	54.3	57.1	59.9	62.3	65.1	65.5	70.4	79.5	85.4	83.7
82.5°	32.9	35.0	42.4	45.5	45.9	46.6	46.2	46.6	51.5	55.7	54.3
85°	21.0	22.4	26.3	29.8	29.1	30.5	30.5	29.8	27.7	23.8	28.4
87.5°	10.5	10.9	12.6	15.8	15.1	13.3	13.0	13.0	9.5	8.1	8.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P196915

CATALOG NUMBER: NAV-AF-01-D-UNV-5NQ-8030-1200

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	639.4	639.4	639.4	639.4	639.4	639.4	639.4	639.4
2.5°	637.6	638.3	637.3	637.3	636.9	637.6	636.6	636.6
5°	642.5	643.6	643.2	643.2	643.9	644.6	644.3	643.9
7.5°	651.3	652.0	652.7	653.0	653.7	653.4	654.1	653.7
10°	664.6	663.9	664.9	663.9	664.2	663.5	663.9	663.9
12.5°	681.4	680.4	679.6	678.9	678.9	677.5	677.5	677.9
15°	700.7	698.9	697.5	696.8	696.1	696.1	695.1	695.8
17.5°	719.6	717.8	715.4	715.4	714.3	713.6	712.9	714.7
20°	739.5	737.8	736.4	736.0	733.9	733.2	733.6	735.7
22.5°	762.6	761.6	761.6	760.9	759.5	758.4	758.4	760.9
25°	793.8	791.7	792.0	792.4	791.7	791.7	791.0	792.7
27.5°	832.0	830.2	831.3	832.0	831.3	832.3	831.3	832.7
30°	876.8	875.7	876.8	877.8	876.1	876.1	875.4	876.4
32.5°	930.4	929.0	929.7	929.7	927.2	925.1	922.3	924.4
35°	989.2	987.4	988.8	989.9	987.1	985.0	980.8	982.5
37.5°	1054.0	1054.7	1056.4	1061.0	1060.3	1056.8	1053.6	1055.0
40°	1126.4	1129.9	1137.7	1140.8	1140.1	1136.6	1132.4	1133.1
42.5°	1208.4	1212.9	1221.0	1226.2	1223.8	1218.9	1213.6	1215.7
45°	1297.7	1304.7	1315.2	1320.4	1317.3	1312.0	1304.7	1308.5
47.5°	1392.2	1406.2	1420.2	1427.2	1426.2	1418.8	1409.4	1410.4
50°	1505.3	1523.9	1541.7	1548.7	1543.5	1532.3	1519.0	1518.6
52.5°	1646.1	1666.0	1680.7	1679.0	1666.0	1648.5	1633.5	1632.8
55°	1821.9	1828.5	1826.4	1811.3	1788.6	1761.3	1742.0	1738.9
57.5°	2034.4	2012.0	1979.1	1933.6	1882.4	1830.6	1795.6	1782.6
60°	2294.2	2193.0	2075.4	1951.4	1838.3	1753.6	1700.0	1667.4
62.5°	2508.9	2215.8	1952.8	1737.5	1561.3	1456.6	1383.5	1338.3
65°	2435.3	1914.3	1533.3	1255.7	1063.4	955.2	877.8	826.4
67.5°	1881.4	1279.1	890.1	617.0	467.8	396.0	346.0	313.4
70°	948.6	490.6	297.3	209.7	179.3	166.7	158.3	153.4
72.5°	278.4	185.9	154.4	136.6	125.7	118.0	113.1	110.6
75°	154.1	125.7	111.0	100.8	93.8	88.6	85.4	83.3
77.5°	106.1	91.4	84.0	77.4	71.8	67.9	65.5	63.4
80°	74.2	66.9	63.7	60.2	56.0	52.9	49.4	48.0
82.5°	49.4	46.2	45.5	42.7	40.3	36.8	30.5	28.4
85°	29.1	28.7	28.7	27.7	25.9	22.8	18.2	18.2
87.5°	10.2	10.5	10.9	11.6	11.2	9.5	7.7	7.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)