

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: P196435

Luminaire Tested: **NAV-AF-01-D-UNV-5NQ-7030-1200**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196435
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-7030-1200
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 70 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: 6662.6 lumens
Efficiency: N/A
Efficacy: 99.4 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B3 - U0 - G1

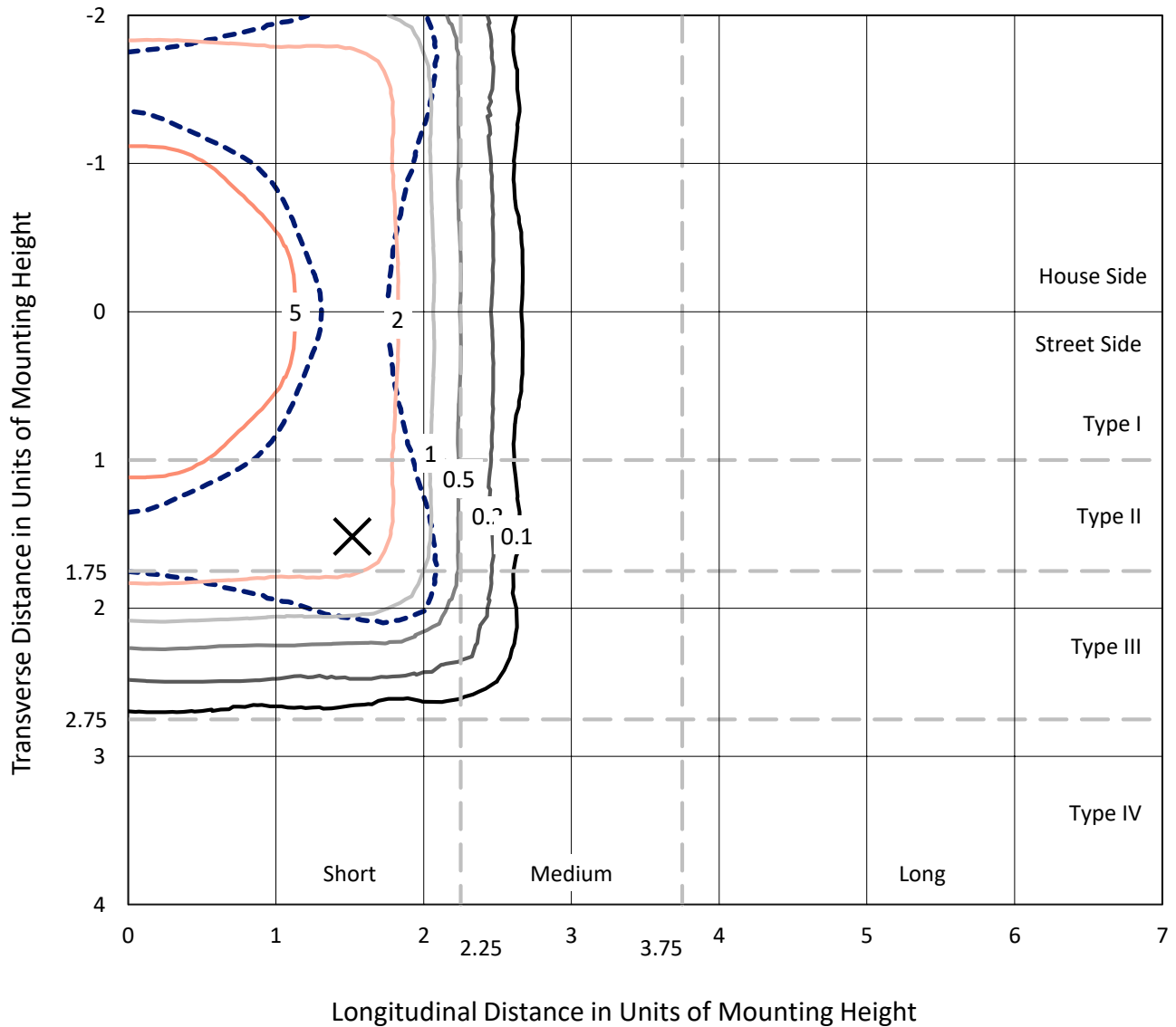
Input Watts (W): 67
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P196435
 CATALOG NUMBER: NAV-AF-01-D-UNV-5NQ-7030-1200

Iso-Footcandle Lines of Horizontal Illumination

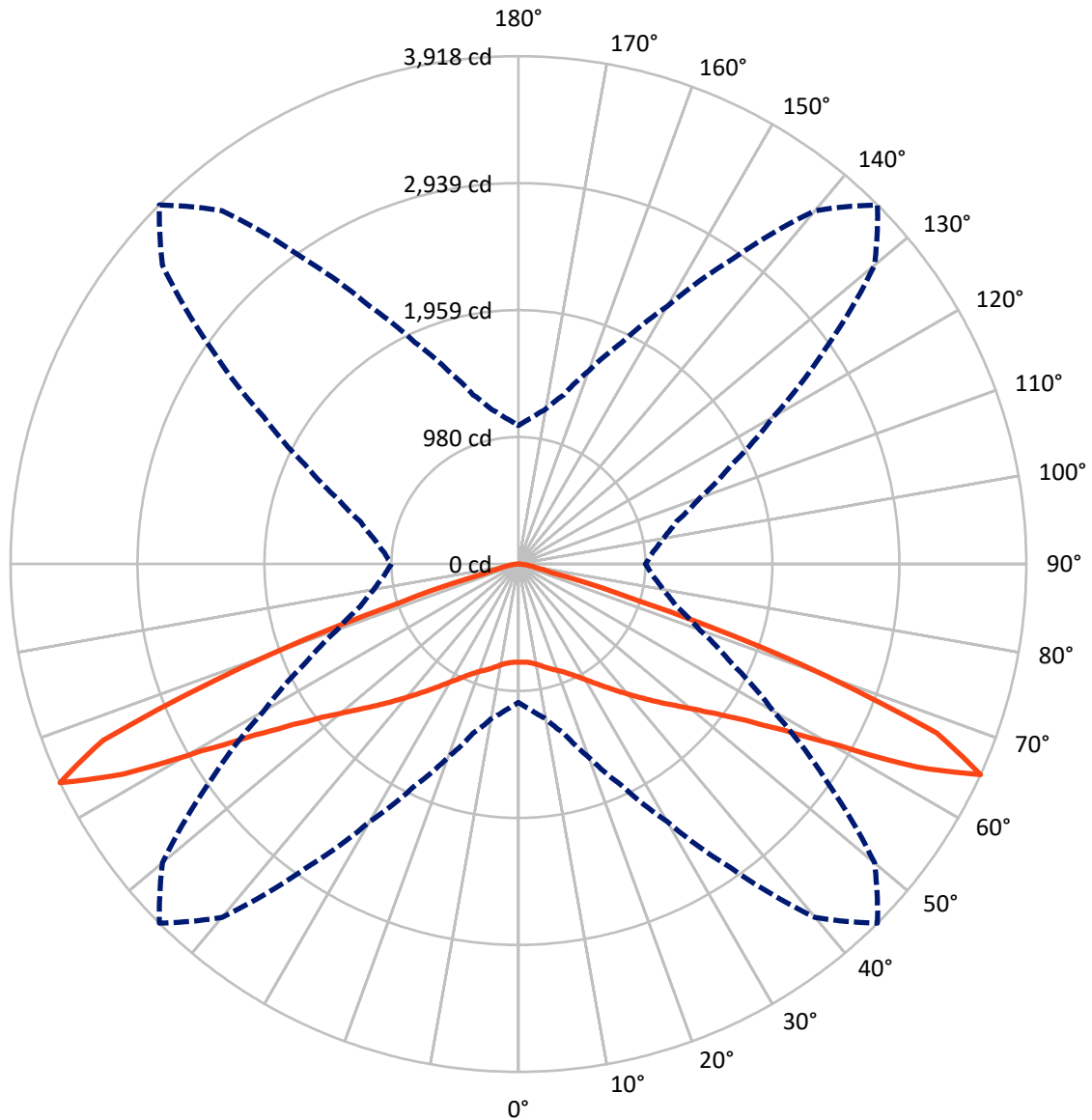
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 7.6 fc
 Type V - Short - Full Cutoff

REPORT NUMBER: P196435
CATALOG NUMBER: NAV-AF-01-D-UNV-5NQ-7030-1200

Luminous Intensity Polar Plot



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

REPORT NUMBER: P196435

CATALOG NUMBER: NAV-AF-01-D-UNV-5NQ-7030-1200

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3331.3	0.0	3331.3
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	3331.3	0.0	3331.3
	% Fixture	50.0	0.0	50.0
Total	Lumens	6662.6	0.0	6662.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.8	1.1
10°-20°	236.5	3.6
20°-30°	441.3	6.6
30°-40°	744.0	11.2
40°-50°	1208.5	18.1
50°-60°	1893.5	28.4
60°-70°	1787.4	26.8
70°-80°	240.9	3.6
80°-90°	36.7	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°	6662.6	100.0
0°-180°	6662.6	100.0

Coefficient of Utilization



REPORT NUMBER: P196435

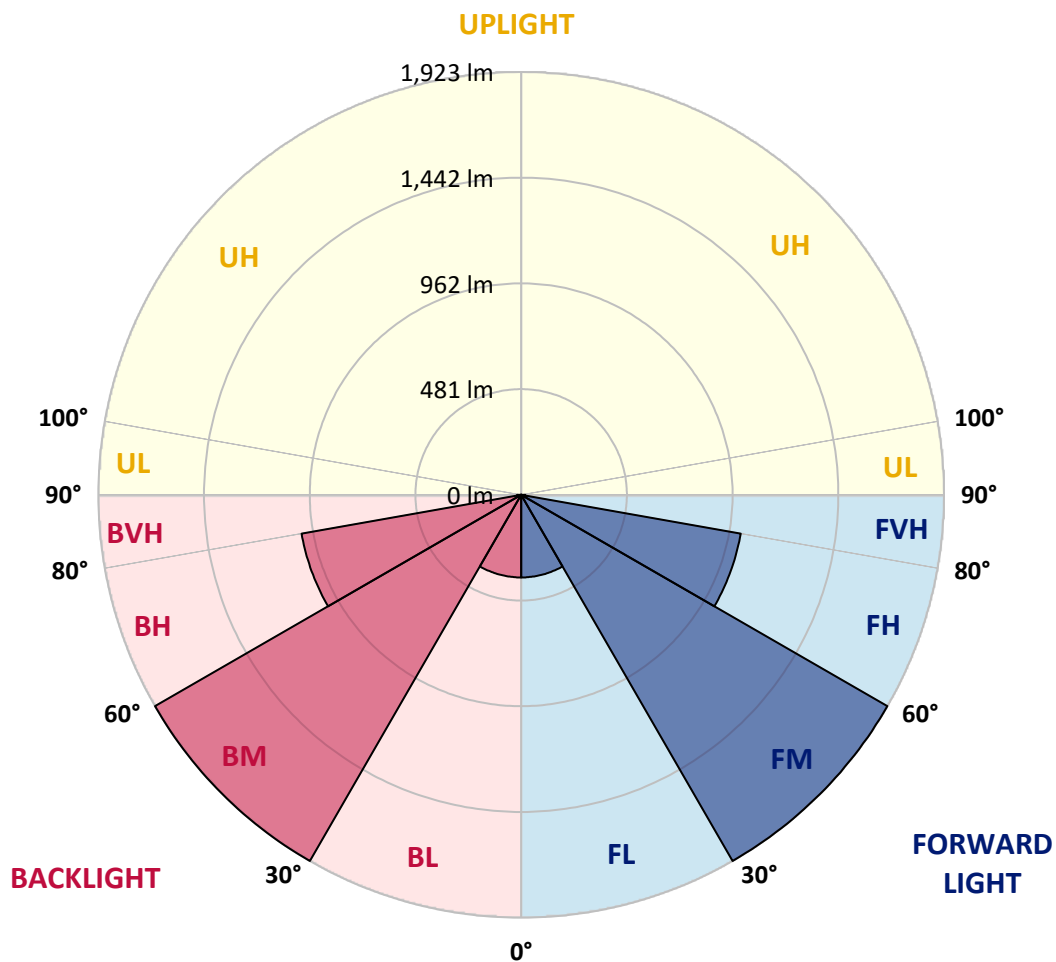
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	375.8	5.6			
FM	(30°-60°)	1923.0	28.9			
FH	(60°-80°)	1014.1	15.2			G1/1800
FVH	(80°-90°)	18.3	0.3			G1/100
BL	(0°-30°)	375.8	5.6	B1/500		
BM	(30°-60°)	1923.0	28.9	B2/2500		
BH	(60°-80°)	1014.1	15.2	B3/2500		G1/1800
BVH	(80°-90°)	18.3	0.3			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





REPORT NUMBER: P196435

CATALOG NUMBER: NAV-AF-01-D-UNV-5NQ-7030-1200

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	757.8	757.8	757.8	757.8	757.8	757.8	757.8	757.8	757.8	757.8	757.8
2.5°	764.0	764.0	765.4	765.0	763.2	762.0	760.8	759.2	758.3	757.5	757.0
5°	768.2	768.2	769.5	769.0	767.9	766.1	765.4	764.0	762.8	762.0	762.4
7.5°	778.6	779.0	779.4	779.0	777.8	776.5	774.8	774.4	772.8	771.6	772.4
10°	794.5	794.5	794.8	795.2	794.5	791.5	791.5	790.6	789.0	787.3	787.8
12.5°	811.8	811.8	812.3	812.3	812.3	810.6	811.0	810.6	808.5	807.7	808.5
15°	828.8	829.3	829.3	830.1	830.1	830.5	832.1	832.1	831.4	830.9	830.9
17.5°	848.7	849.6	850.0	851.2	851.6	852.6	854.2	854.5	855.0	853.8	854.2
20°	875.2	875.7	877.1	877.4	879.1	879.1	879.9	879.4	878.7	877.1	877.1
22.5°	905.2	906.1	908.5	908.5	910.5	909.4	909.8	908.5	906.5	905.6	904.7
25°	944.2	945.4	947.5	946.7	947.5	945.4	945.4	945.4	944.2	943.0	942.6
27.5°	993.6	991.5	993.6	992.0	991.5	989.9	990.3	989.5	988.2	987.8	986.2
30°	1045.1	1042.6	1043.9	1044.2	1043.4	1043.0	1041.4	1040.1	1038.1	1038.4	1037.2
32.5°	1104.1	1101.6	1102.8	1103.2	1102.3	1103.2	1102.8	1099.9	1097.4	1099.0	1099.0
35°	1174.1	1172.5	1175.8	1177.0	1174.5	1173.3	1171.7	1168.3	1164.6	1167.1	1167.6
37.5°	1258.4	1256.4	1258.7	1262.2	1257.6	1255.1	1248.4	1243.5	1240.9	1242.2	1243.9
40°	1346.0	1346.4	1353.5	1354.3	1349.4	1346.4	1339.7	1332.3	1325.2	1325.2	1327.3
42.5°	1438.1	1439.4	1447.6	1450.5	1448.9	1443.6	1434.3	1425.3	1416.1	1417.7	1420.3
45°	1542.3	1540.7	1549.3	1556.4	1555.2	1553.4	1544.8	1528.2	1519.9	1519.5	1523.6
47.5°	1651.9	1655.2	1664.3	1676.4	1675.9	1671.7	1660.6	1645.2	1629.8	1631.1	1636.0
50°	1779.8	1784.3	1799.6	1811.6	1813.2	1812.1	1798.9	1780.9	1759.4	1760.6	1767.3
52.5°	1894.2	1900.9	1918.7	1943.6	1959.0	1966.0	1957.4	1940.8	1918.7	1920.0	1927.0
55°	1998.1	2008.4	2035.0	2069.0	2099.8	2128.4	2141.2	2140.8	2124.5	2128.4	2137.4
57.5°	2063.2	2077.7	2118.0	2172.7	2233.8	2291.5	2341.2	2388.2	2398.6	2418.0	2418.0
60°	1975.6	2009.6	2063.2	2157.0	2277.0	2406.4	2546.8	2683.3	2771.3	2840.5	2803.1
62.5°	1649.9	1700.0	1775.1	1898.8	2085.5	2316.8	2598.6	2916.1	3247.3	3449.9	3301.3
65°	1067.5	1130.7	1212.3	1351.4	1586.7	1884.2	2294.8	2865.5	3558.6	3918.0	3586.0
67.5°	423.0	465.7	515.4	614.2	818.5	1110.6	1571.3	2275.3	3142.3	3481.3	3109.1
70°	202.1	209.2	218.7	240.0	290.9	392.7	631.3	1121.0	1927.0	2284.4	1881.0
72.5°	146.1	147.4	151.9	159.0	173.9	194.7	236.5	342.8	664.6	966.2	665.3
75°	110.8	112.4	114.9	118.6	126.6	136.6	152.3	182.6	227.5	262.3	227.0
77.5°	84.2	85.9	88.0	91.8	95.8	102.9	108.7	120.7	139.9	147.4	146.5
80°	61.4	64.4	67.6	71.0	73.9	77.2	77.6	83.5	94.2	101.3	99.2
82.5°	39.0	41.5	50.3	54.0	54.4	55.1	54.7	55.1	60.9	66.0	64.4
85°	24.9	26.6	31.1	35.3	34.4	36.0	36.0	35.3	32.8	28.2	33.7
87.5°	12.4	12.9	15.0	18.7	17.8	15.8	15.4	15.4	11.3	9.5	10.4
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: P196435

CATALOG NUMBER: NAV-AF-01-D-UNV-5NQ-7030-1200

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	757.8	757.8	757.8	757.8	757.8	757.8	757.8	757.8
2.5°	755.7	756.6	755.4	755.4	755.0	755.7	754.6	754.6
5°	761.6	762.8	762.4	762.4	763.2	764.0	763.7	763.2
7.5°	772.0	772.8	773.7	774.1	774.8	774.4	775.3	774.8
10°	787.8	786.8	788.2	786.8	787.3	786.5	786.8	786.8
12.5°	807.7	806.5	805.6	804.8	804.8	803.0	803.0	803.5
15°	830.5	828.4	826.8	825.9	825.1	825.1	823.9	824.7
17.5°	852.9	850.8	848.0	848.0	846.6	845.8	845.0	847.1
20°	876.6	874.5	872.9	872.4	869.9	869.0	869.4	872.0
22.5°	904.0	902.7	902.7	901.9	900.2	898.9	898.9	901.9
25°	940.9	938.4	938.9	939.2	938.4	938.4	937.6	939.6
27.5°	986.2	984.1	985.3	986.2	985.3	986.5	985.3	986.9
30°	1039.3	1038.1	1039.3	1040.4	1038.4	1038.4	1037.6	1038.8
32.5°	1102.8	1101.2	1102.0	1102.0	1099.0	1096.5	1093.2	1095.8
35°	1172.5	1170.3	1172.1	1173.3	1169.9	1167.6	1162.5	1164.6
37.5°	1249.3	1250.2	1252.2	1257.6	1256.7	1252.5	1248.9	1250.5
40°	1335.1	1339.3	1348.5	1352.2	1351.4	1347.2	1342.2	1343.2
42.5°	1432.3	1437.8	1447.2	1453.4	1450.5	1444.7	1438.5	1441.0
45°	1538.2	1546.4	1558.9	1565.1	1561.5	1555.2	1546.4	1551.1
47.5°	1650.3	1666.9	1683.3	1691.7	1690.5	1681.7	1670.6	1671.7
50°	1784.3	1806.3	1827.5	1835.8	1829.5	1816.2	1800.5	1800.0
52.5°	1951.2	1974.8	1992.3	1990.1	1974.8	1954.0	1936.2	1935.3
55°	2159.5	2167.3	2164.9	2147.1	2120.0	2087.6	2064.8	2061.0
57.5°	2411.4	2384.8	2345.8	2291.8	2231.3	2169.9	2128.4	2113.0
60°	2719.4	2599.4	2460.0	2313.0	2178.9	2078.5	2015.1	1976.4
62.5°	2973.8	2626.4	2314.6	2059.4	1850.7	1726.7	1639.9	1586.3
65°	2886.6	2269.0	1817.4	1488.3	1260.6	1132.3	1040.4	979.5
67.5°	2230.0	1516.2	1055.0	731.3	554.5	469.4	410.0	371.5
70°	1124.4	581.5	352.4	248.6	212.5	197.5	187.6	181.8
72.5°	330.0	220.3	183.0	161.8	149.0	139.9	134.1	131.1
75°	182.6	149.0	131.5	119.5	111.2	105.0	101.3	98.8
77.5°	125.7	108.2	99.7	91.8	85.1	80.6	77.6	75.2
80°	88.0	79.3	75.5	71.3	66.4	62.8	58.6	56.9
82.5°	58.6	54.7	54.0	50.6	47.7	43.6	36.0	33.7
85°	34.4	34.0	34.0	32.8	30.7	27.0	21.7	21.7
87.5°	12.0	12.4	12.9	13.6	13.3	11.3	9.2	8.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)