

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: P196922

Luminaire Tested: **NAV-AF-02-D-UNV-5WQ-8030-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196922
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-02-D-UNV-5WQ-8030-600
Description: NAVION ROADWAY AND AREA LUMINAIRE
(2) 80 CRI, 3000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6813 lumens
Efficiency: N/A
Efficacy: 103.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type V - Short - Semi-Cutoff
BUG Rating: B3 - U0 - G2

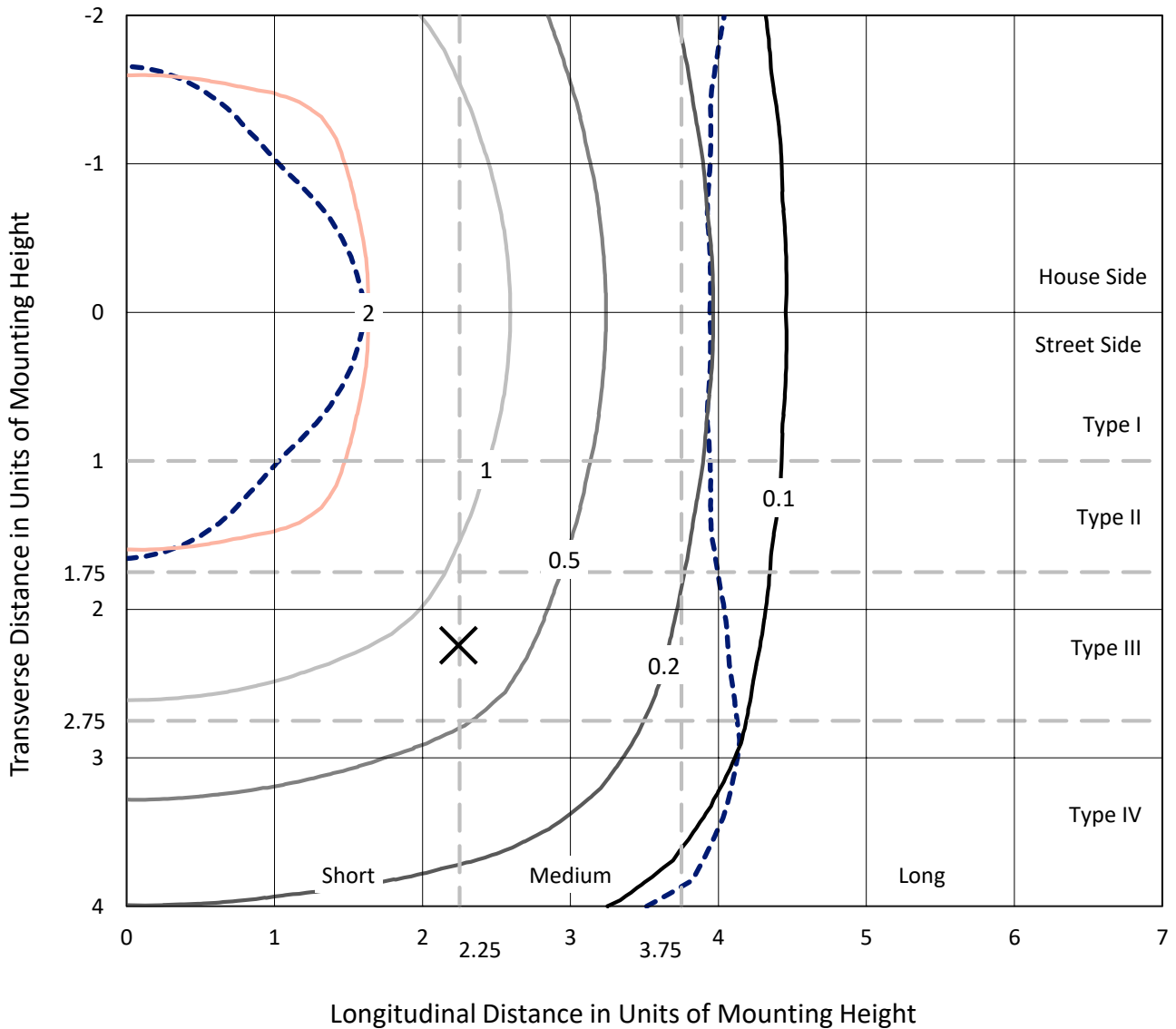
Input Watts (W): 66
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P196922
 CATALOG NUMBER: NAV-AF-02-D-UNV-5WQ-8030-600

Iso-Footcandle Lines of Horizontal Illumination

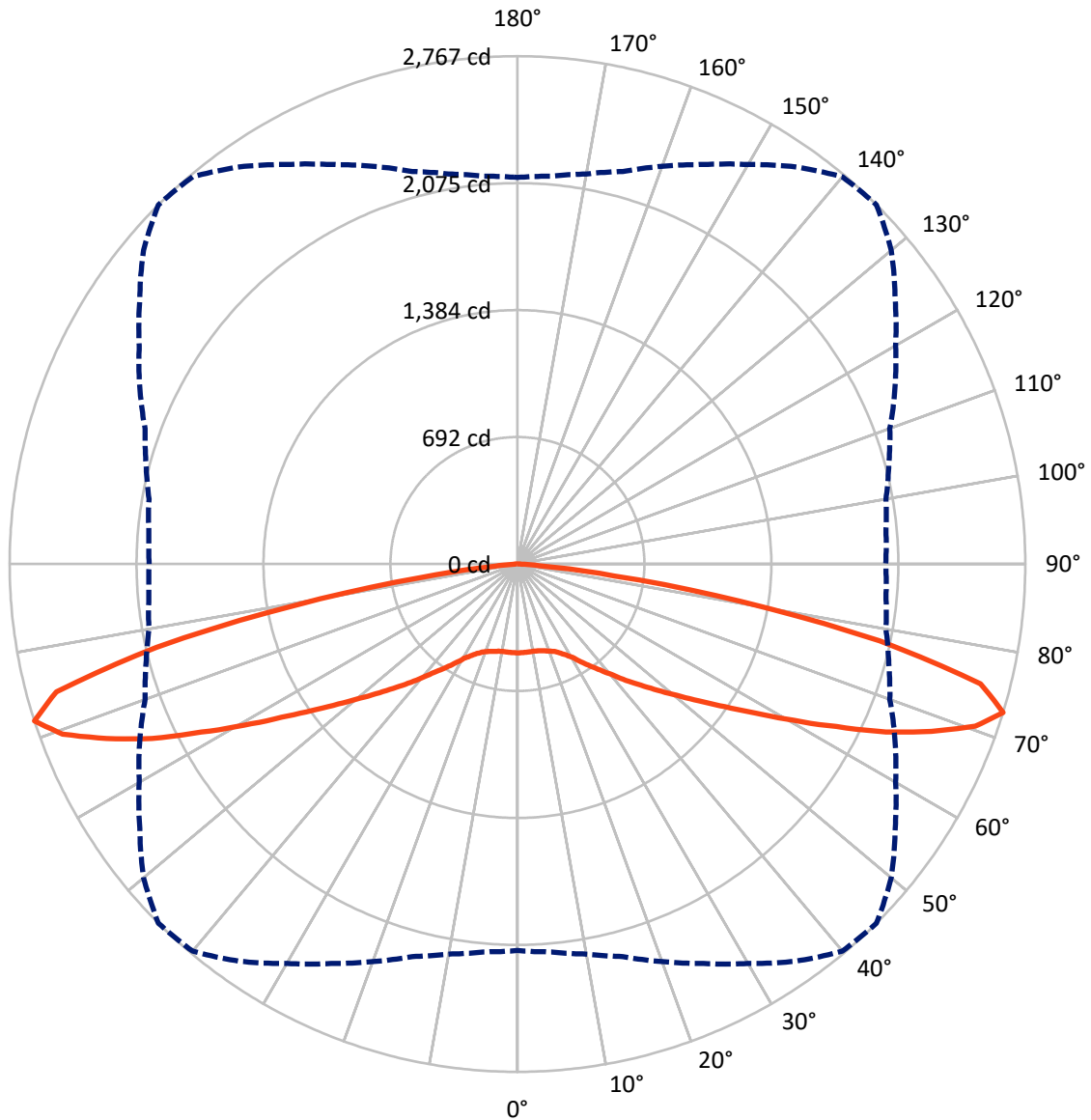
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 4.8 fc
 Type V - Short - Semi-Cutoff

REPORT NUMBER: P196922
CATALOG NUMBER: NAV-AF-02-D-UNV-5WQ-8030-600

Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

REPORT NUMBER: P196922

CATALOG NUMBER: NAV-AF-02-D-UNV-5WQ-8030-600

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3406.5	0.0	3406.5
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	3406.5	0.0	3406.5
	% Fixture	50.0	0.0	50.0
Total	Lumens	6813.0	0.0	6813.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	46.2	0.7
10°-20°	139.9	2.1
20°-30°	252.6	3.7
30°-40°	430.8	6.3
40°-50°	733.5	10.8
50°-60°	1180.5	17.3
60°-70°	1963.2	28.8
70°-80°	1899.1	27.9
80°-90°	167.2	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°	6813.0	100.0
0°-180°	6813.0	100.0



REPORT NUMBER: P196922

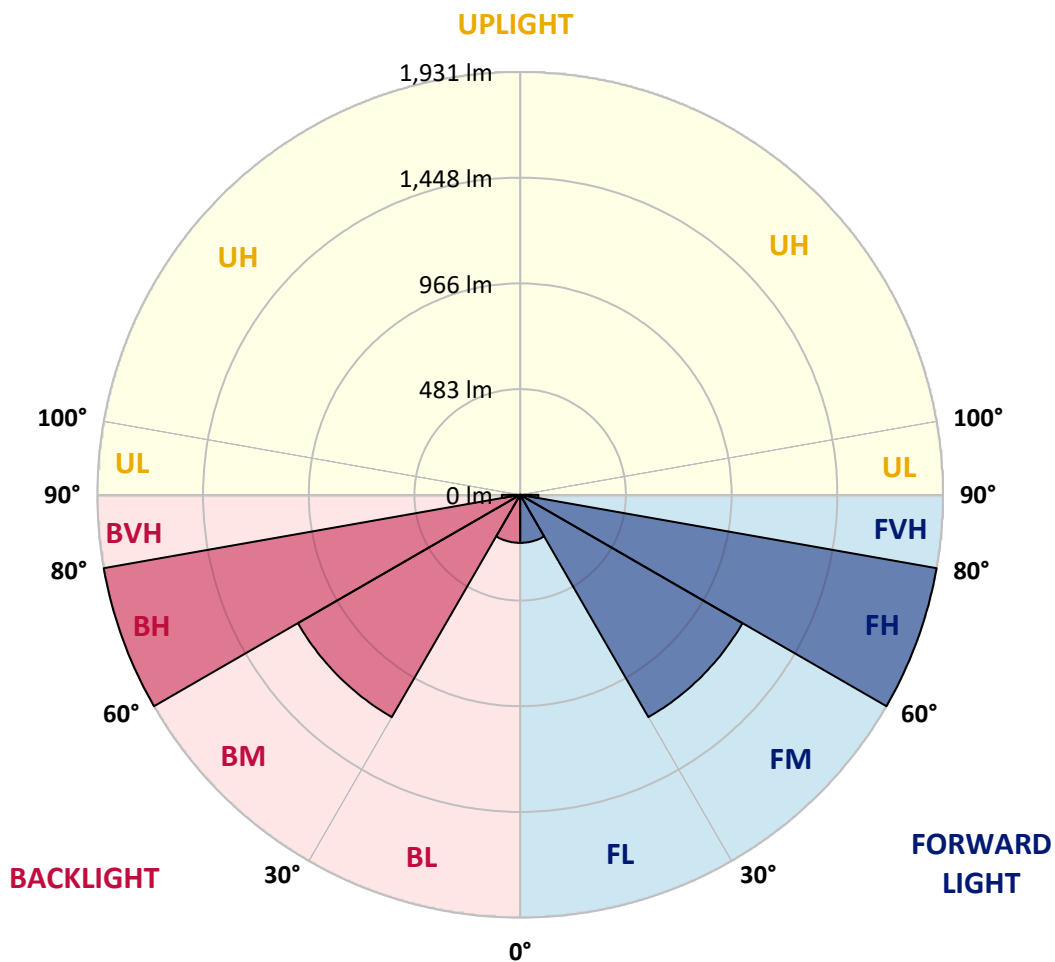
CATALOG NUMBER: NAV-AF-02-D-UNV-5WQ-8030-600

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	219.4	3.2			
FM (30°-60°)	1172.4	17.2			
FH (60°-80°)	1931.1	28.3			G2/5000
FVH (80°-90°)	83.6	1.2			G1/100
BL (0°-30°)	219.4	3.2	B1/500		
BM (30°-60°)	1172.4	17.2	B2/2500		
BH (60°-80°)	1931.1	28.3	B3/2500		G2/5000
BVH (80°-90°)	83.6	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-G2

Type V Short





REPORT NUMBER: P196922

CATALOG NUMBER: NAV-AF-02-D-UNV-5WQ-8030-600

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	484.4	484.4	484.4	484.4	484.4	484.4	484.4	484.4	484.4	484.4	484.4
2.5°	488.1	488.1	488.5	488.1	487.3	486.9	485.6	484.8	483.9	483.5	482.7
5°	488.5	488.5	489.0	488.5	487.7	486.9	486.0	484.8	483.9	483.1	482.7
7.5°	490.2	490.6	491.1	490.6	489.0	488.1	486.9	485.6	483.9	483.1	482.3
10°	493.6	493.6	493.6	493.2	491.9	490.2	488.5	487.3	485.2	483.1	481.8
12.5°	496.1	496.5	496.5	495.7	494.0	491.9	490.2	489.0	487.3	485.6	484.4
15°	499.9	499.9	499.4	497.8	495.3	493.6	492.7	492.3	491.9	491.1	489.8
17.5°	507.4	507.0	505.7	503.2	500.3	499.0	498.2	498.2	498.2	497.8	496.9
20°	518.3	518.3	516.6	512.4	509.9	508.7	507.4	507.4	507.4	506.2	504.9
22.5°	535.9	536.4	533.8	528.8	525.4	522.9	521.3	520.0	518.7	517.9	515.8
25°	559.8	559.4	556.5	550.2	547.7	545.2	541.8	539.7	538.0	536.8	534.3
27.5°	585.0	584.6	581.2	575.8	574.1	570.3	567.8	564.9	562.8	560.7	558.2
30°	617.3	615.2	612.7	608.5	607.6	604.7	601.4	597.2	593.8	590.4	587.5
32.5°	646.2	646.2	642.4	640.4	642.0	640.8	641.2	638.7	636.6	635.3	632.4
35°	686.5	686.5	684.8	682.3	682.7	679.8	679.4	679.8	681.4	681.4	678.1
37.5°	740.2	741.0	735.5	734.7	732.6	728.4	726.3	727.2	730.9	733.0	728.4
40°	806.8	808.5	806.8	801.4	798.9	791.7	787.5	787.5	790.5	792.6	790.9
42.5°	872.7	875.6	872.7	868.5	866.4	860.9	858.8	860.5	864.3	866.8	864.3
45°	946.1	948.2	944.4	939.4	936.8	933.9	932.6	933.9	938.1	940.6	939.8
47.5°	1018.2	1021.1	1016.5	1014.4	1014.4	1011.5	1014.8	1018.2	1022.0	1027.8	1025.3
50°	1088.6	1092.4	1089.5	1089.9	1093.3	1098.7	1105.0	1111.7	1118.4	1124.7	1125.5
52.5°	1151.5	1157.4	1157.8	1165.4	1175.9	1184.3	1201.9	1216.5	1232.5	1237.9	1235.4
55°	1217.8	1225.8	1236.3	1248.0	1264.8	1282.0	1311.7	1338.2	1359.1	1372.1	1370.0
57.5°	1312.6	1320.5	1331.4	1350.7	1375.9	1399.4	1440.1	1481.2	1513.0	1532.7	1523.1
60°	1435.4	1443.8	1458.1	1478.6	1511.3	1543.2	1599.0	1658.1	1707.6	1730.3	1712.6
62.5°	1598.2	1606.1	1615.3	1642.6	1679.1	1720.2	1790.2	1866.1	1929.0	1950.8	1926.1
65°	1830.1	1839.7	1842.6	1864.9	1900.5	1938.7	2014.2	2099.7	2171.4	2207.1	2157.6
67.5°	2091.3	2095.1	2106.8	2132.8	2169.3	2203.7	2263.3	2344.2	2413.0	2432.7	2379.8
70°	2244.4	2251.9	2272.5	2308.5	2352.2	2406.2	2471.2	2558.5	2636.5	2645.7	2578.6
72.5°	2106.0	2121.5	2158.0	2214.2	2305.6	2401.6	2513.6	2642.3	2754.3	2767.3	2659.5
75°	1689.2	1706.8	1750.4	1812.0	1920.2	2062.8	2224.7	2418.0	2585.7	2607.1	2464.5
77.5°	900.4	922.2	985.5	1068.5	1222.8	1411.5	1606.5	1827.1	1969.7	2017.9	1915.2
80°	226.9	238.6	269.2	317.9	422.3	574.5	742.7	980.0	1157.0	1232.1	1157.0
82.5°	88.1	96.9	105.3	111.1	121.2	142.2	196.3	320.0	431.1	530.9	459.6
85°	34.0	36.1	52.0	59.1	59.1	65.0	74.6	88.1	109.0	119.1	99.8
87.5°	13.4	14.7	18.0	27.7	28.5	25.2	26.8	30.2	23.1	19.3	21.8
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: P196922

CATALOG NUMBER: NAV-AF-02-D-UNV-5WQ-8030-600

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	484.4	484.4	484.4	484.4	484.4	484.4	484.4	484.4
2.5°	482.3	481.8	481.0	481.4	481.0	481.0	481.0	481.0
5°	481.8	481.8	481.0	481.0	481.0	481.4	481.0	481.0
7.5°	481.4	481.0	480.2	479.7	479.7	479.3	479.3	479.3
10°	480.6	479.7	478.9	478.5	478.5	477.6	477.6	477.6
12.5°	482.7	481.4	480.6	480.2	480.2	480.2	480.6	480.6
15°	488.5	486.0	484.8	484.4	484.8	485.6	486.0	486.4
17.5°	494.8	492.3	490.2	489.4	489.8	491.1	492.3	493.2
20°	502.8	500.7	498.2	497.4	497.4	499.0	499.9	501.1
22.5°	514.1	512.4	510.4	509.1	508.3	510.4	511.6	512.4
25°	532.2	530.5	528.8	527.5	527.1	529.2	530.1	530.5
27.5°	556.1	554.4	553.5	553.1	551.9	552.7	554.0	553.5
30°	587.1	588.4	587.1	587.1	585.0	585.8	585.0	584.2
32.5°	628.6	627.4	623.6	621.1	618.1	618.1	616.9	615.6
35°	670.1	665.9	663.8	665.1	663.8	664.7	662.6	660.5
37.5°	719.2	716.7	716.3	720.0	719.2	720.0	720.0	717.1
40°	784.2	782.5	785.4	791.7	794.3	793.8	794.7	790.9
42.5°	858.8	855.9	857.2	862.6	865.5	866.4	866.0	862.6
45°	933.5	934.3	934.3	940.2	943.1	944.8	941.9	940.6
47.5°	1017.8	1019.0	1016.1	1019.9	1020.7	1023.6	1021.1	1019.0
50°	1115.1	1110.4	1103.7	1105.0	1105.0	1104.2	1101.2	1098.7
52.5°	1223.7	1213.2	1200.6	1196.4	1191.8	1187.2	1181.3	1176.7
55°	1347.4	1329.4	1306.7	1296.2	1287.4	1276.9	1263.5	1258.9
57.5°	1490.8	1459.8	1429.6	1410.7	1388.1	1374.2	1357.0	1356.2
60°	1661.1	1619.1	1565.9	1537.8	1515.1	1498.8	1485.8	1480.7
62.5°	1857.7	1785.6	1728.2	1698.0	1671.5	1661.5	1645.1	1647.2
65°	2059.4	1986.1	1930.3	1906.0	1881.2	1874.5	1859.4	1864.9
67.5°	2277.9	2217.5	2156.3	2133.7	2111.0	2104.3	2088.8	2093.4
70°	2473.8	2397.0	2327.4	2283.0	2244.4	2213.3	2193.6	2185.7
72.5°	2512.8	2379.8	2270.4	2159.3	2095.1	2038.9	2015.8	2007.0
75°	2257.8	2051.5	1895.5	1765.1	1692.9	1611.2	1602.3	1590.2
77.5°	1756.3	1521.4	1332.7	1165.0	1068.1	968.3	933.9	907.9
80°	1047.5	805.2	624.0	437.4	356.9	287.3	270.1	252.0
82.5°	374.9	240.3	161.9	126.2	112.8	104.0	97.3	88.5
85°	90.6	76.3	72.1	65.4	64.6	54.9	39.0	34.8
87.5°	28.9	26.4	26.8	25.6	26.8	20.1	16.4	14.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)