

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: P270342

Luminaire Tested: **NAV-AF-02-D-UNV-RW-7027-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P270342
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24161)
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-RW-7027-600
Description: NAVION ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 2700K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND RECTANGULAR WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7125.5 lumens
Efficiency: N/A
Efficacy: 108.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B3 - U0 - G3

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

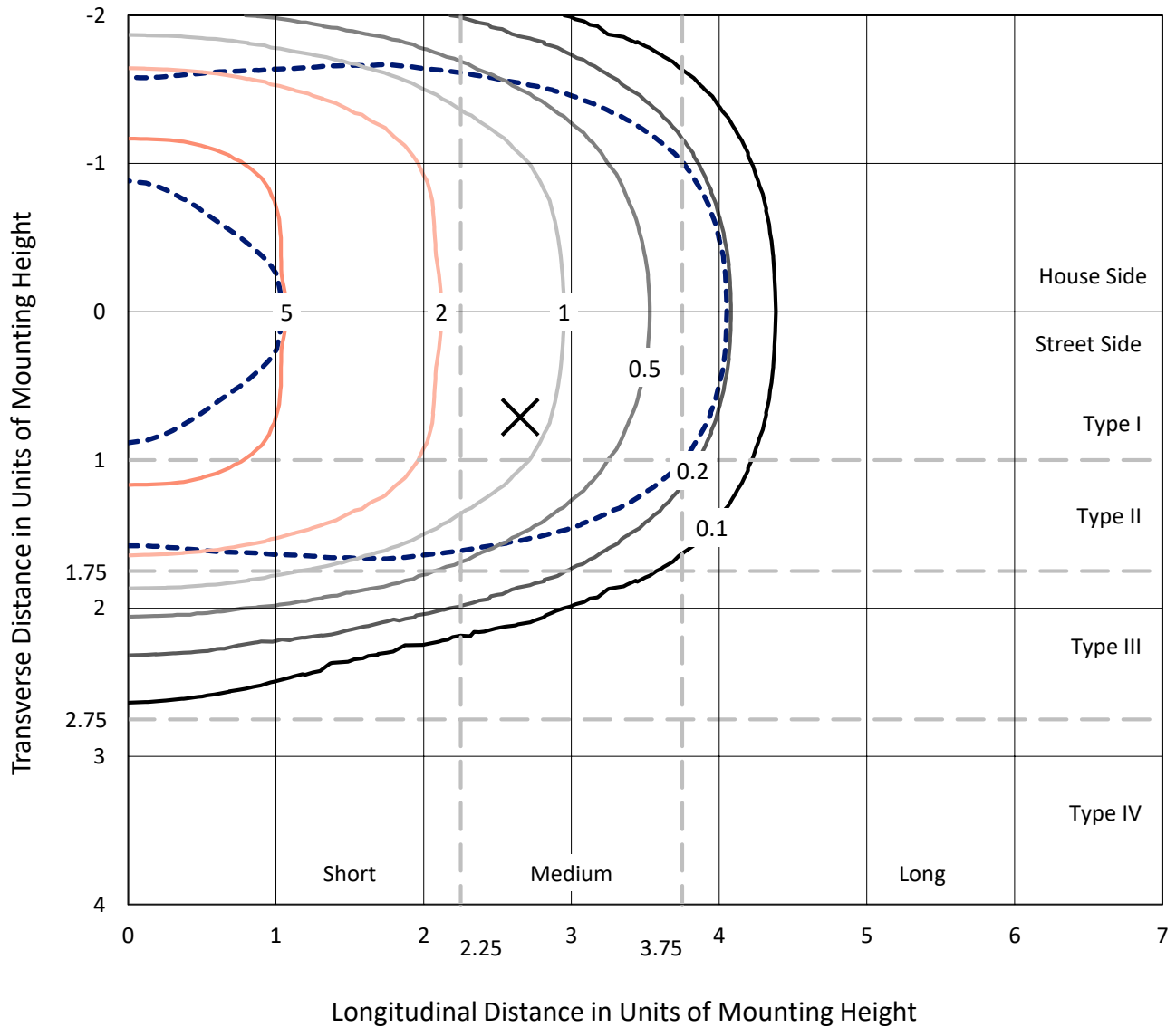


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Iso-Footcandle Lines of Horizontal Illumination

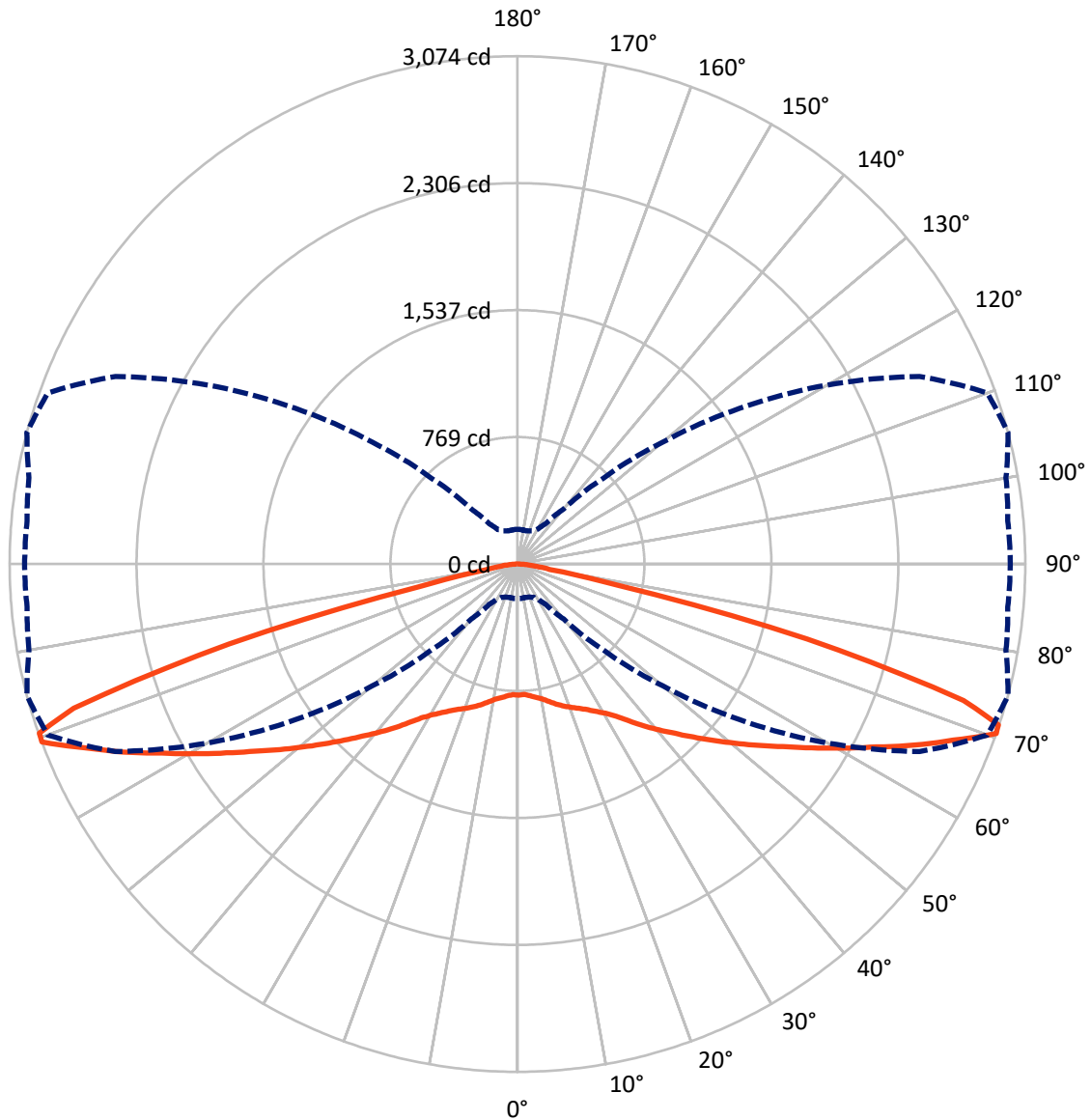
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 8 fc
 Type II - Medium - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3562.8	0.0	3562.8
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	3562.8	0.0	3562.8
	% Fixture	50.0	0.0	50.0
Total	Lumens	7125.5	0.0	7125.5
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	76.1	1.1
10°-20°	236.0	3.3
20°-30°	443.3	6.2
30°-40°	780.9	11.0
40°-50°	1294.3	18.2
50°-60°	1800.5	25.3
60°-70°	1699.7	23.9
70°-80°	726.0	10.2
80°-90°	68.6	1.0
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°	7125.5	100.0
0°-180°	7125.5	100.0



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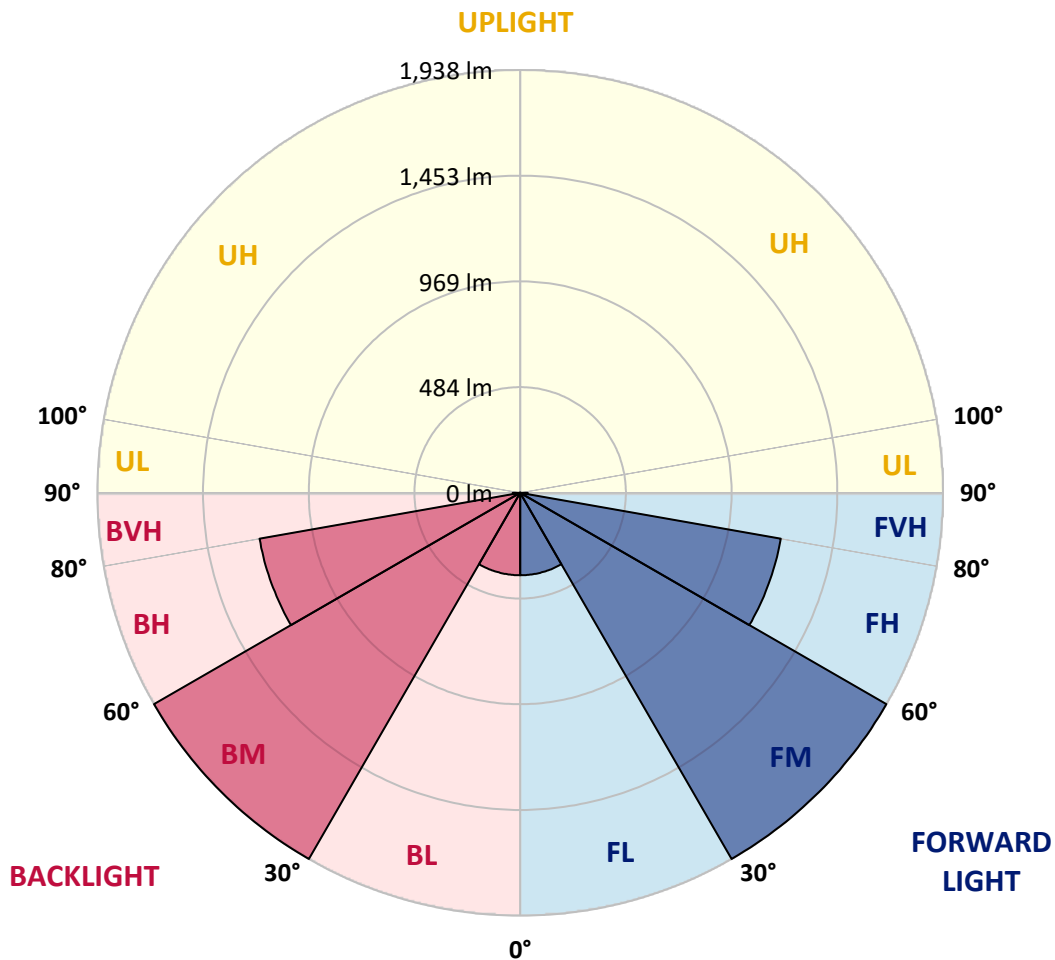
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	377.7	5.3			
FM	(30°-60°)	1937.9	27.2			
FH	(60°-80°)	1212.9	17.0			G1/1800
FVH	(80°-90°)	34.3	0.5			G1/100
BL	(0°-30°)	377.7	5.3	B1/500		
BM	(30°-60°)	1937.9	27.2	B2/2500		
BH	(60°-80°)	1212.9	17.0	B3/2500		G3/2500
BVH	(80°-90°)	34.3	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	793.6	793.6	793.6	793.6	793.6	793.6	793.6	793.6	793.6	793.6	793.6
2.5°	798.5	798.0	798.5	797.1	797.5	797.1	797.1	795.3	795.3	794.5	793.1
5°	789.5	790.4	790.4	790.4	791.8	791.8	793.6	793.9	795.3	796.6	797.5
7.5°	774.8	775.1	776.6	777.5	780.1	783.7	787.3	791.2	794.8	799.3	804.3
10°	762.2	763.1	765.4	767.6	772.5	776.9	783.2	789.5	795.7	803.4	810.9
12.5°	755.6	756.9	760.4	764.0	771.6	777.5	785.8	795.7	804.3	811.3	819.9
15°	756.5	756.9	761.9	766.8	777.5	785.5	797.5	809.2	819.4	827.3	837.3
17.5°	769.4	770.2	775.1	782.3	792.7	802.8	815.8	827.9	841.7	851.1	862.7
20°	794.8	796.2	801.6	809.2	820.3	831.0	844.3	857.0	871.1	882.3	894.0
22.5°	827.9	830.2	836.0	845.2	856.4	869.4	883.3	896.1	909.7	920.8	930.6
25°	872.1	874.8	881.0	890.4	901.5	915.5	929.7	943.1	957.0	965.4	973.5
27.5°	931.5	935.9	942.6	950.2	960.1	974.8	988.1	999.4	1012.7	1022.1	1027.5
30°	1011.4	1017.7	1023.0	1031.1	1038.3	1053.8	1064.5	1073.5	1083.7	1089.1	1090.5
32.5°	1109.1	1114.9	1120.4	1126.1	1135.9	1150.3	1160.6	1165.6	1170.9	1170.0	1165.0
35°	1219.4	1224.0	1227.1	1237.3	1253.5	1262.7	1270.5	1272.2	1273.1	1263.6	1254.4
37.5°	1335.6	1341.0	1343.7	1359.8	1374.9	1385.6	1389.1	1393.2	1390.5	1374.9	1357.9
40°	1461.1	1466.9	1474.8	1488.9	1506.6	1516.9	1521.4	1520.9	1518.7	1500.3	1472.7
42.5°	1584.3	1591.4	1598.2	1622.2	1637.0	1654.4	1656.7	1656.2	1651.4	1630.3	1598.2
45°	1688.9	1697.3	1711.1	1738.0	1761.5	1782.5	1791.1	1794.2	1789.2	1767.0	1730.3
47.5°	1775.1	1780.8	1798.1	1830.8	1861.2	1892.0	1909.0	1921.0	1920.5	1904.4	1865.6
50°	1833.9	1840.6	1862.0	1898.7	1936.7	1972.8	2006.4	2033.6	2046.5	2034.9	1998.6
52.5°	1850.9	1859.4	1887.5	1931.3	1975.6	2024.2	2074.1	2122.3	2151.4	2158.5	2130.4
55°	1779.5	1788.9	1829.8	1890.7	1963.4	2035.3	2111.2	2179.9	2239.8	2267.5	2256.4
57.5°	1571.3	1578.1	1630.3	1708.8	1813.0	1939.4	2067.0	2192.9	2295.7	2367.6	2380.1
60°	1242.7	1251.2	1308.3	1391.5	1509.7	1669.6	1848.3	2054.6	2256.0	2420.8	2502.4
62.5°	838.6	844.3	899.4	975.2	1104.7	1258.7	1457.9	1719.1	2006.4	2300.6	2531.0
65°	440.3	440.3	477.4	530.4	633.7	771.6	975.6	1243.7	1585.1	1952.7	2338.1
67.5°	255.4	254.9	263.5	275.5	308.1	364.0	476.5	673.4	996.7	1424.4	1862.9
70°	210.7	209.5	208.0	208.0	213.0	221.5	242.9	297.0	434.5	734.5	1146.2
71°	201.4	200.5	196.9	195.7	197.7	202.3	211.7	236.7	308.6	501.1	856.1
72.5°	190.3	187.9	182.6	180.4	180.9	182.6	185.3	195.1	217.0	284.9	488.0
75°	173.3	168.0	161.2	158.1	156.8	156.2	156.2	159.0	163.9	171.9	200.1
77.5°	153.6	146.1	138.9	135.7	133.5	132.2	131.3	129.4	128.5	132.2	142.4
80°	130.0	121.9	116.2	114.4	112.9	110.3	106.7	103.1	100.9	102.6	109.0
82.5°	100.5	92.4	93.3	93.8	91.5	87.0	83.5	79.5	75.5	74.6	77.8
85°	79.9	75.8	73.2	79.1	74.1	68.8	63.9	57.1	47.8	39.3	42.8
87.5°	34.3	34.9	50.0	75.5	66.0	53.1	44.1	35.8	22.7	17.0	17.3
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°	793.6	793.6	793.6	793.6	793.6	793.6	793.6	793.6
2.5°	792.7	792.7	791.2	790.4	790.4	790.4	789.5	789.9
5°	798.0	798.9	799.8	799.3	800.7	801.9	801.6	801.1
7.5°	806.9	809.6	812.2	813.5	815.4	817.2	817.5	816.3
10°	815.8	821.2	825.3	828.7	831.0	832.8	834.2	833.6
12.5°	827.0	834.5	841.7	848.9	853.7	856.4	859.1	858.2
15°	845.2	853.7	862.7	872.1	879.7	883.8	887.7	886.8
17.5°	870.3	878.0	885.0	894.4	903.8	908.2	912.7	912.3
20°	901.5	907.4	911.4	916.7	925.7	930.6	934.5	933.2
22.5°	937.3	939.1	939.4	941.3	948.4	954.3	959.6	960.9
25°	976.2	974.8	972.1	970.8	975.6	981.9	988.7	990.4
27.5°	1024.3	1019.8	1013.2	1007.9	1009.2	1017.2	1024.7	1026.7
30°	1085.2	1074.8	1060.4	1050.3	1048.5	1056.9	1065.0	1067.6
32.5°	1154.3	1140.5	1120.8	1105.2	1098.4	1106.1	1113.2	1117.2
35°	1236.4	1221.2	1197.6	1177.5	1166.8	1171.7	1184.2	1188.6
37.5°	1333.9	1312.9	1286.6	1261.0	1243.2	1244.1	1257.4	1262.7
40°	1441.4	1411.1	1377.6	1345.9	1320.0	1318.3	1330.2	1334.3
42.5°	1553.4	1514.6	1475.3	1433.9	1401.6	1395.8	1411.4	1412.0
45°	1674.1	1624.0	1575.4	1527.2	1493.7	1483.5	1498.6	1500.3
47.5°	1802.7	1740.1	1682.5	1630.3	1594.1	1578.1	1592.9	1595.5
50°	1936.7	1871.9	1805.0	1746.8	1704.4	1684.9	1702.2	1703.9
52.5°	2069.2	2008.2	1941.5	1875.0	1823.6	1801.3	1821.9	1828.1
55°	2202.7	2143.8	2081.4	2014.8	1950.0	1930.4	1952.7	1959.5
57.5°	2341.6	2285.0	2228.2	2161.2	2098.4	2068.3	2092.5	2101.9
60°	2494.9	2444.7	2391.2	2323.7	2261.8	2226.9	2247.4	2258.2
62.5°	2645.2	2635.0	2586.4	2516.2	2437.7	2402.8	2420.3	2427.8
65°	2657.7	2824.5	2822.1	2752.4	2642.6	2584.2	2589.1	2592.6
67.5°	2319.8	2702.0	2946.4	2968.1	2845.8	2754.3	2743.6	2745.8
70°	1642.5	2167.0	2685.6	3025.8	3074.0	3002.9	2979.8	2983.4
71°	1315.9	1859.4	2430.1	2887.8	3070.3	3049.8	3036.9	3046.3
72.5°	839.9	1369.9	1925.4	2472.9	2823.5	2924.0	2938.6	2944.5
75°	305.0	589.5	997.6	1429.4	1811.6	2074.6	2219.4	2230.9
77.5°	163.9	211.2	326.4	487.6	612.6	679.7	687.7	690.7
80°	120.6	139.7	159.9	182.6	196.9	199.7	194.8	184.4
82.5°	85.2	96.5	104.6	112.6	118.3	113.5	94.2	71.9
85°	49.5	54.4	59.0	62.9	63.9	60.2	39.7	32.6
87.5°	19.7	21.4	21.0	23.6	22.7	21.0	15.6	13.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)