

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: P882214

Luminaire Tested: **NAV-SB2A-727-U-SL4**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P882214  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-9)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB2A-727-U-SL4  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(2) 70 CRI, 2700K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV SPILL  
LIGHT ELIMINATOR OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

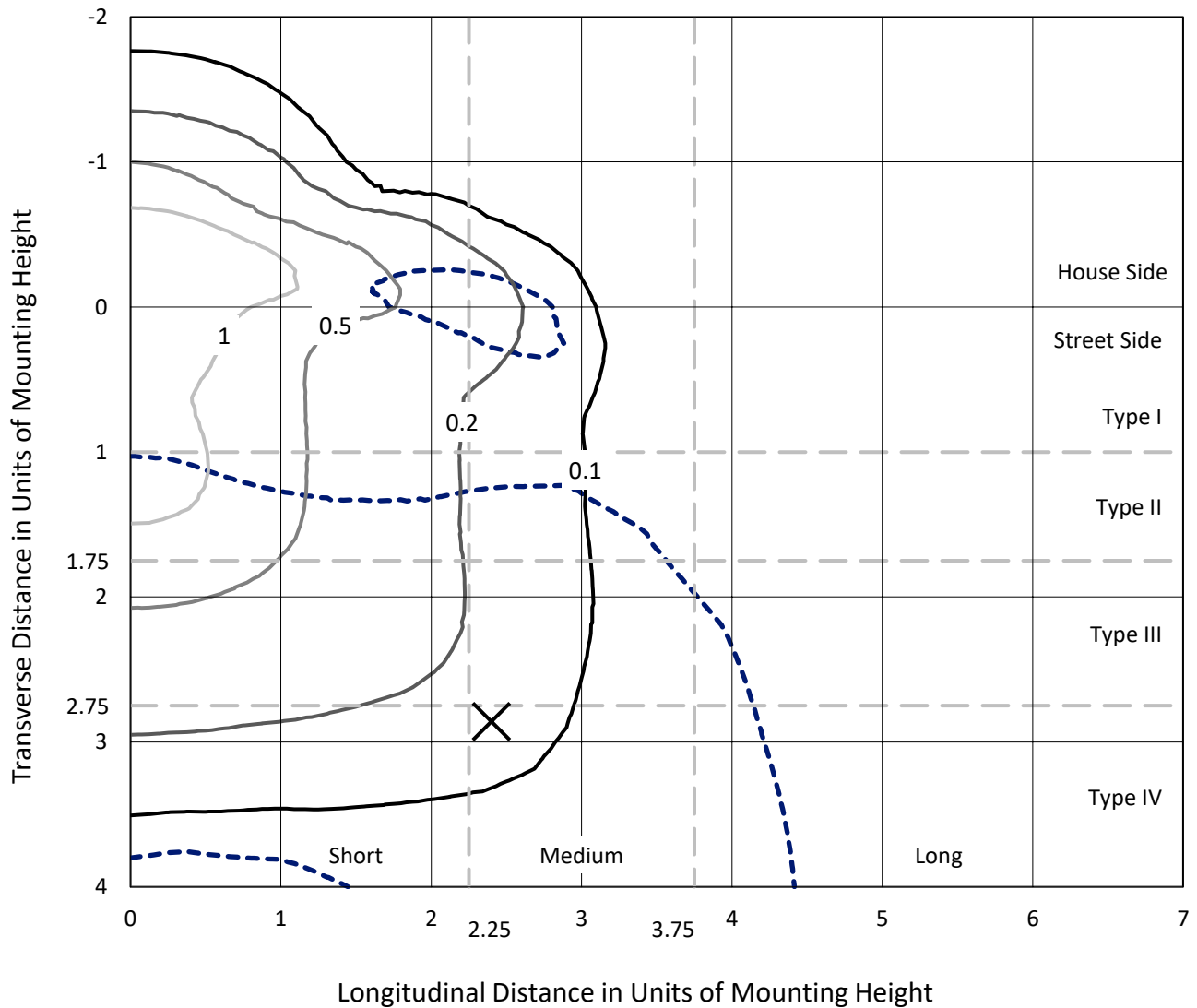
Lumens per Lamp: N/A  
Luminaire Lumens: 8213 lumens  
Efficiency: N/A  
Efficacy: 143.3 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type IV - Medium  
BUG Rating: B2 - U0 - G2  
  
Input Watts (W): 57.3  
Input Voltage (V): 120.0  
Input Current (Ain): 0.484  
Voltage Rise (V): NR  
Power Factor: 0.994  
Total Harmonic Distortion (THDi): 9.038  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

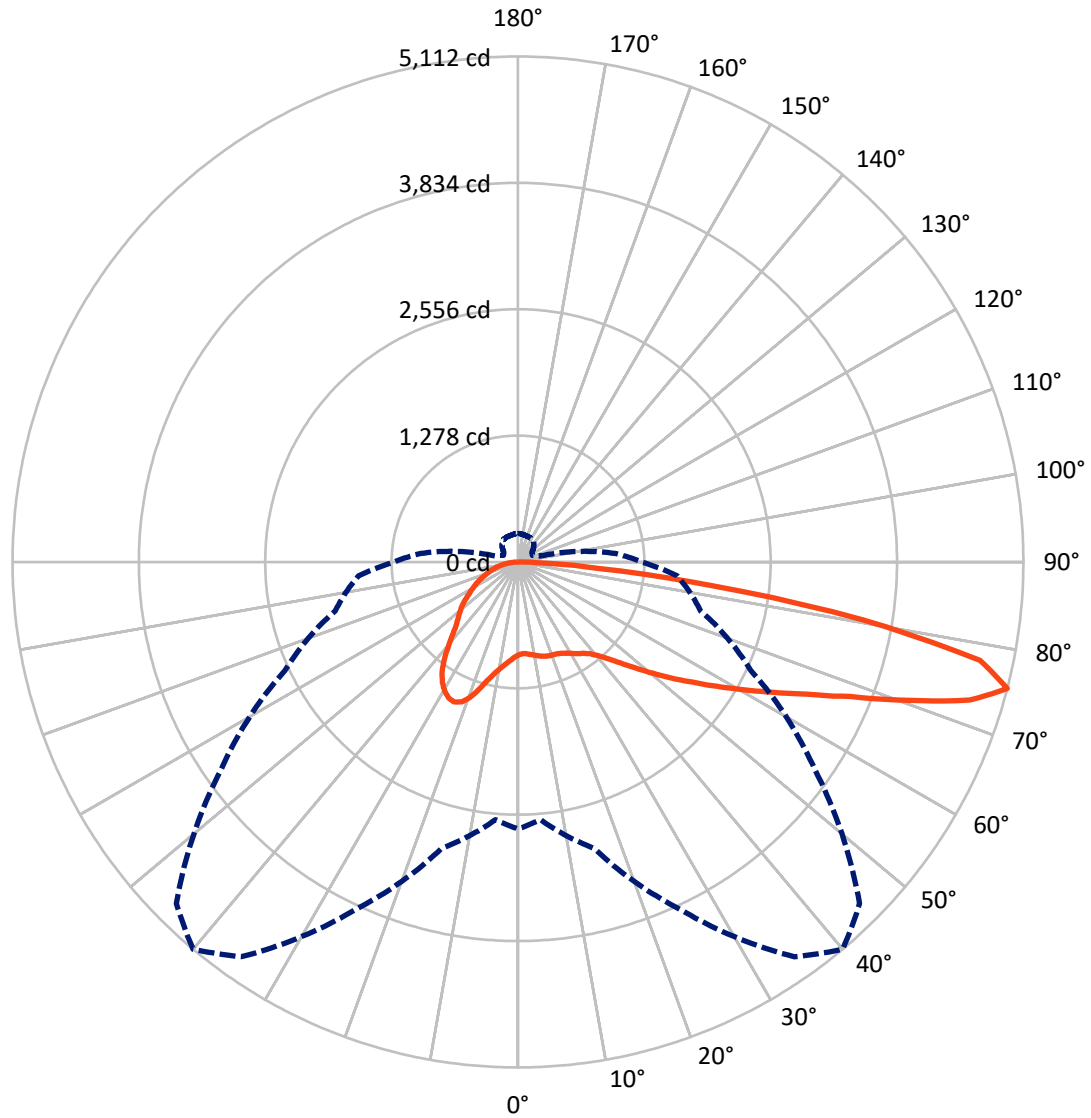
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.9 fc  
 Type IV - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral      - - - Horizontal Cone Through 75-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2544.7	0.0	2544.7
	% Fixture	31.0	0.0	31.0
<b>Street Side</b>	Lumens	5668.3	0.0	5668.3
	% Fixture	69.0	0.0	69.0
<b>Total</b>	Lumens	8213.0	0.0	8213.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	93.7	1.1
10°-20°	314.8	3.8
20°-30°	574.7	7.0
30°-40°	815.1	9.9
40°-50°	1100.6	13.4
50°-60°	1480.6	18.0
60°-70°	1879.3	22.9
70°-80°	1705.5	20.8
80°-90°	248.6	3.0
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°	8213.0	100.0
0°-180°	8213.0	100.0

**Coefficient of Utilization**



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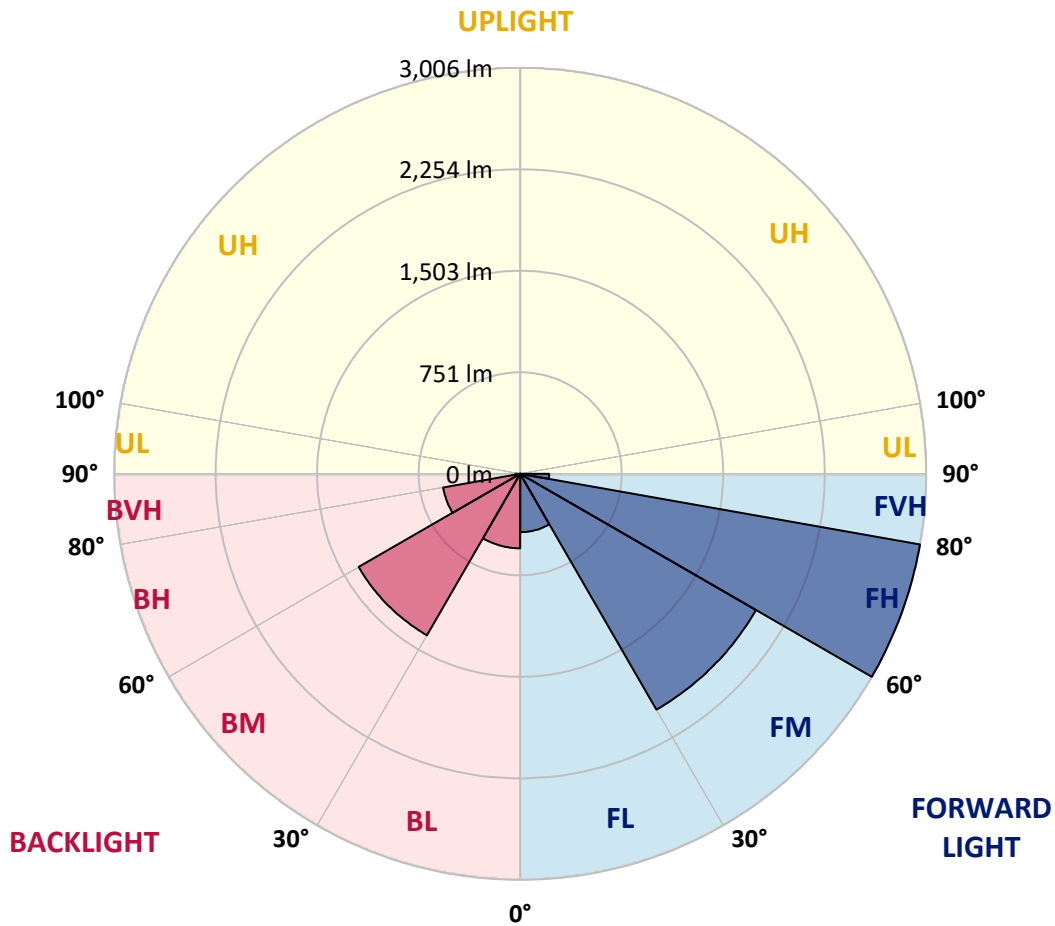
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	432.0	5.3			
FM (30°-60°)	2016.1	24.5			
FH (60°-80°)	3005.8	36.6			G2/5000
FVH (80°-90°)	214.4	2.6			G2/225
BL (0°-30°)	551.2	6.7	B2/1000		
BM (30°-60°)	1380.2	16.8	B2/2500		
BH (60°-80°)	579.0	7.0	B2/1000		G2/1000
BVH (80°-90°)	34.2	0.4			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G2**

Type IV Medium



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	939.2	939.2	939.2	939.2	939.2	939.2	939.2	939.2	939.2	939.2	939.2
2.5°	924.8	930.0	928.7	927.0	927.0	927.4	927.0	930.0	933.1	936.1	940.9
5°	934.4	939.6	937.0	934.8	933.1	932.6	931.3	930.9	932.6	936.6	943.1
7.5°	953.1	958.3	954.4	950.5	947.0	945.3	943.5	940.9	939.6	941.8	950.9
10°	974.0	979.2	974.5	967.5	961.8	959.6	957.9	955.3	953.5	954.8	964.9
12.5°	994.9	1000.2	993.6	984.0	976.6	975.3	973.1	972.3	971.8	971.4	981.4
15°	1014.5	1018.9	1010.6	999.3	991.4	989.3	987.1	988.4	990.6	993.2	1004.5
17.5°	1029.8	1034.1	1021.9	1007.1	999.7	998.8	997.5	1001.9	1008.0	1014.5	1028.5
20°	1043.7	1048.1	1032.4	1012.3	1003.6	1003.6	1004.1	1013.2	1021.9	1031.5	1050.7
22.5°	1063.3	1066.8	1047.6	1020.2	1007.6	1008.4	1011.9	1021.1	1032.0	1045.0	1071.6
25°	1092.5	1095.1	1071.6	1035.0	1020.6	1023.2	1026.3	1030.6	1041.1	1056.3	1092.1
27.5°	1139.5	1141.7	1110.8	1061.1	1039.4	1043.7	1048.1	1045.0	1049.8	1062.9	1108.6
30°	1205.8	1207.1	1167.9	1102.1	1071.2	1073.3	1074.2	1061.6	1052.4	1062.9	1120.4
32.5°	1284.2	1283.7	1237.1	1151.7	1107.3	1105.1	1097.7	1072.9	1051.6	1060.7	1130.8
35°	1405.7	1400.9	1340.8	1221.4	1148.3	1134.8	1117.3	1085.5	1055.9	1058.5	1140.0
37.5°	1607.0	1592.1	1508.9	1335.6	1209.2	1174.8	1149.1	1106.0	1065.5	1057.7	1150.9
40°	1833.9	1815.2	1723.7	1492.0	1300.7	1245.4	1204.0	1135.2	1081.2	1061.6	1167.0
42.5°	2103.1	2076.5	1978.1	1676.2	1416.6	1336.4	1274.1	1172.2	1104.3	1074.2	1188.8
45°	2433.7	2398.4	2259.1	1884.0	1562.5	1455.8	1372.6	1228.4	1139.5	1098.6	1221.4
47.5°	2767.8	2776.6	2578.4	2121.8	1737.6	1603.0	1495.9	1312.9	1190.9	1137.8	1274.1
50°	3122.9	3129.0	2895.9	2385.4	1936.3	1769.4	1634.4	1407.4	1262.4	1193.6	1353.0
52.5°	3399.9	3400.8	3184.3	2661.1	2143.2	1952.4	1783.8	1515.5	1345.2	1267.6	1458.0
55°	3573.3	3571.1	3386.4	2922.0	2381.0	2144.5	1949.3	1638.3	1446.2	1354.7	1590.0
57.5°	3699.2	3692.6	3525.8	3146.4	2634.5	2371.4	2136.6	1777.7	1565.6	1458.4	1763.8
60°	3747.1	3743.2	3620.3	3340.2	2901.1	2622.4	2352.7	1933.7	1701.0	1580.8	1987.2
62.5°	3765.4	3772.8	3713.1	3528.0	3186.5	2900.3	2590.1	2120.1	1853.5	1719.3	2222.9
65°	3829.9	3843.4	3831.2	3773.7	3508.8	3225.7	2905.1	2341.8	2019.9	1867.9	2469.0
67.5°	3957.5	3971.0	3976.2	4067.7	3902.6	3631.2	3298.0	2618.0	2214.6	2022.1	2654.2
70°	3954.4	3950.5	4042.9	4301.6	4395.7	4192.7	3827.7	2957.8	2446.8	2150.2	2677.7
72.5°	3599.4	3568.1	3786.3	4299.0	4806.0	4779.0	4474.5	3396.0	2647.2	2165.8	2323.5
75°	2700.3	2616.7	3002.2	3874.3	4874.4	5111.8	4885.8	3667.8	2599.7	1913.6	1617.0
77.5°	1154.8	1070.7	1525.1	2868.0	4362.6	4778.6	4508.5	3200.0	2075.2	1265.4	794.1
80°	302.3	301.9	460.9	1300.3	2966.9	3528.8	3095.9	2066.5	1185.7	452.2	219.1
82.5°	125.0	122.0	169.5	505.7	1449.7	1980.3	1616.1	921.7	428.2	122.4	72.7
85°	46.6	46.2	82.3	174.7	511.4	816.8	591.1	235.7	106.7	59.7	32.7
87.5°	13.1	12.6	17.9	60.5	124.6	189.1	101.1	38.8	30.1	23.5	9.6
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):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	939.2	939.2	939.2	939.2	939.2	939.2	939.2	939.2	939.2	939.2	939.2
2.5°	942.2	944.4	948.3	951.4	955.3	959.6	965.7	969.7	973.6	976.2	974.5
5°	946.1	950.9	960.9	971.0	982.7	993.6	1006.3	1015.4	1022.8	1025.0	1025.9
7.5°	954.8	962.7	979.7	996.7	1015.4	1033.3	1051.6	1067.2	1079.9	1084.7	1085.1
10°	970.1	980.6	1004.5	1028.5	1053.3	1080.7	1104.3	1126.9	1144.8	1152.2	1152.6
12.5°	989.3	1002.3	1033.7	1066.8	1101.2	1139.1	1169.6	1197.5	1219.7	1229.7	1229.7
15°	1014.1	1031.1	1071.2	1115.6	1166.1	1218.8	1257.6	1288.5	1313.4	1325.6	1324.7
17.5°	1041.1	1063.8	1114.3	1181.4	1253.7	1322.9	1368.2	1390.9	1416.6	1428.4	1427.9
20°	1067.2	1095.1	1167.4	1265.0	1361.3	1434.9	1471.5	1477.6	1479.3	1480.6	1484.1
22.5°	1094.2	1131.7	1234.1	1370.4	1473.7	1524.6	1529.8	1503.7	1467.1	1450.1	1454.9
25°	1123.9	1173.5	1321.2	1486.7	1570.4	1576.5	1536.4	1472.8	1403.5	1371.7	1376.5
27.5°	1152.6	1221.9	1425.7	1597.8	1640.1	1586.5	1500.2	1410.1	1326.4	1292.9	1296.8
30°	1181.4	1277.2	1541.2	1694.9	1671.9	1561.6	1443.2	1342.5	1258.5	1223.2	1227.1
32.5°	1210.6	1341.7	1674.0	1765.1	1666.2	1508.9	1372.2	1266.7	1192.7	1155.7	1160.5
35°	1243.7	1420.9	1799.9	1803.4	1628.3	1431.4	1278.5	1176.1	1111.7	1082.0	1088.6
37.5°	1286.8	1521.6	1911.0	1813.0	1562.1	1317.7	1162.2	1069.0	1015.8	1002.3	1011.9
40°	1340.4	1642.7	1995.9	1797.7	1464.1	1179.6	1035.0	960.5	930.5	933.5	944.0
42.5°	1410.1	1778.1	2055.6	1758.5	1327.7	1037.2	923.5	890.4	904.8	917.0	928.3
45°	1500.7	1918.8	2092.7	1691.9	1173.5	916.5	857.7	865.6	876.4	877.7	886.5
47.5°	1616.5	2061.3	2117.0	1591.3	1016.3	831.6	815.9	817.6	815.5	806.3	813.3
50°	1761.2	2199.8	2138.8	1458.0	882.5	778.4	757.5	751.4	721.4	691.7	695.7
52.5°	1925.8	2327.0	2148.0	1292.4	778.4	734.0	700.0	661.7	605.5	596.3	599.4
55°	2108.8	2444.6	2124.5	1089.0	690.9	676.9	625.5	579.4	573.3	565.4	566.7
57.5°	2327.4	2571.4	2076.5	862.1	601.1	610.3	560.2	565.4	554.5	542.3	540.2
60°	2566.6	2702.5	1992.5	655.2	508.4	527.1	543.2	542.8	539.7	529.7	526.2
62.5°	2781.8	2788.8	1826.9	501.8	426.9	462.6	506.6	506.2	503.6	497.9	495.7
65°	2909.9	2775.7	1550.8	395.1	359.8	409.5	457.0	460.4	460.9	460.4	460.4
67.5°	2887.2	2622.8	1171.8	314.5	304.5	355.5	407.7	412.5	416.0	416.9	417.7
70°	2631.1	2286.9	764.1	250.9	255.3	308.0	361.1	365.9	369.0	372.4	374.2
72.5°	2050.8	1681.4	437.3	203.0	212.1	267.0	314.9	320.6	322.3	328.9	331.5
75°	1249.8	988.8	236.1	159.9	174.2	228.3	269.2	275.7	278.8	286.6	287.5
77.5°	594.2	428.2	134.6	124.6	140.3	186.4	227.4	234.8	226.5	230.9	227.4
80°	200.8	159.0	84.9	95.0	107.2	145.5	182.1	189.5	172.1	171.2	169.5
82.5°	70.1	64.5	54.0	63.2	69.3	104.1	137.7	147.2	128.1	127.6	121.5
85°	27.4	26.1	30.1	34.4	41.4	64.0	90.6	95.4	78.8	63.6	62.7
87.5°	5.7	6.1	7.4	7.8	12.6	22.2	32.7	40.1	31.8	27.0	24.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)