

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: P882234

Luminaire Tested: **NAV-SB2A-735-U-SL4**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P882234  
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-735-U-SL4  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(2) 70 CRI, 3500K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV SPILL  
LIGHT ELIMINATOR OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

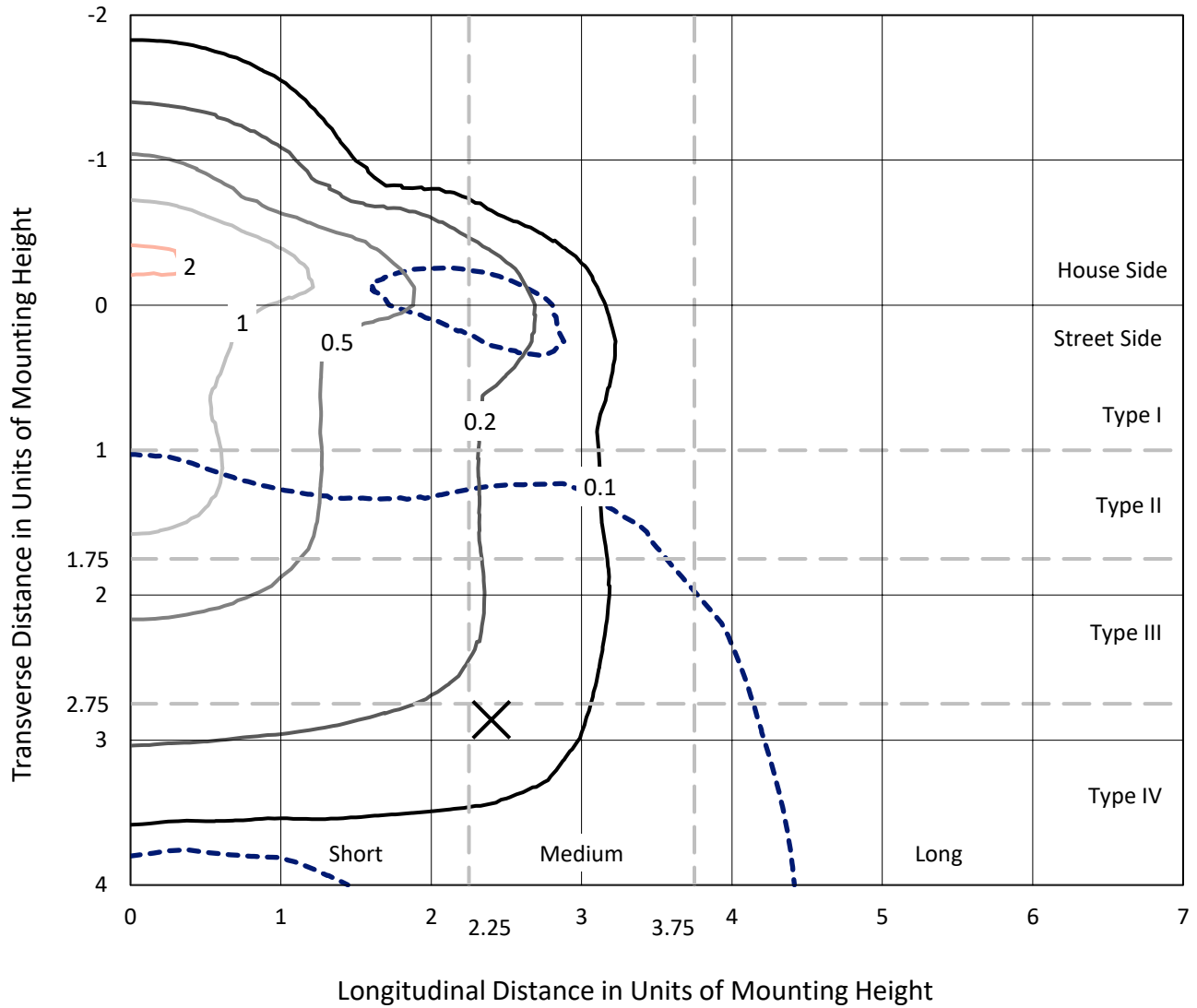
Lumens per Lamp: N/A  
Luminaire Lumens: 9062 lumens  
Efficiency: N/A  
Efficacy: 158.2 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type IV - Medium  
BUG Rating: B2 - U0 - G3  
  
Input Watts (W): 57.3  
Input Voltage (V): 120.0  
Input Current (Ain): 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

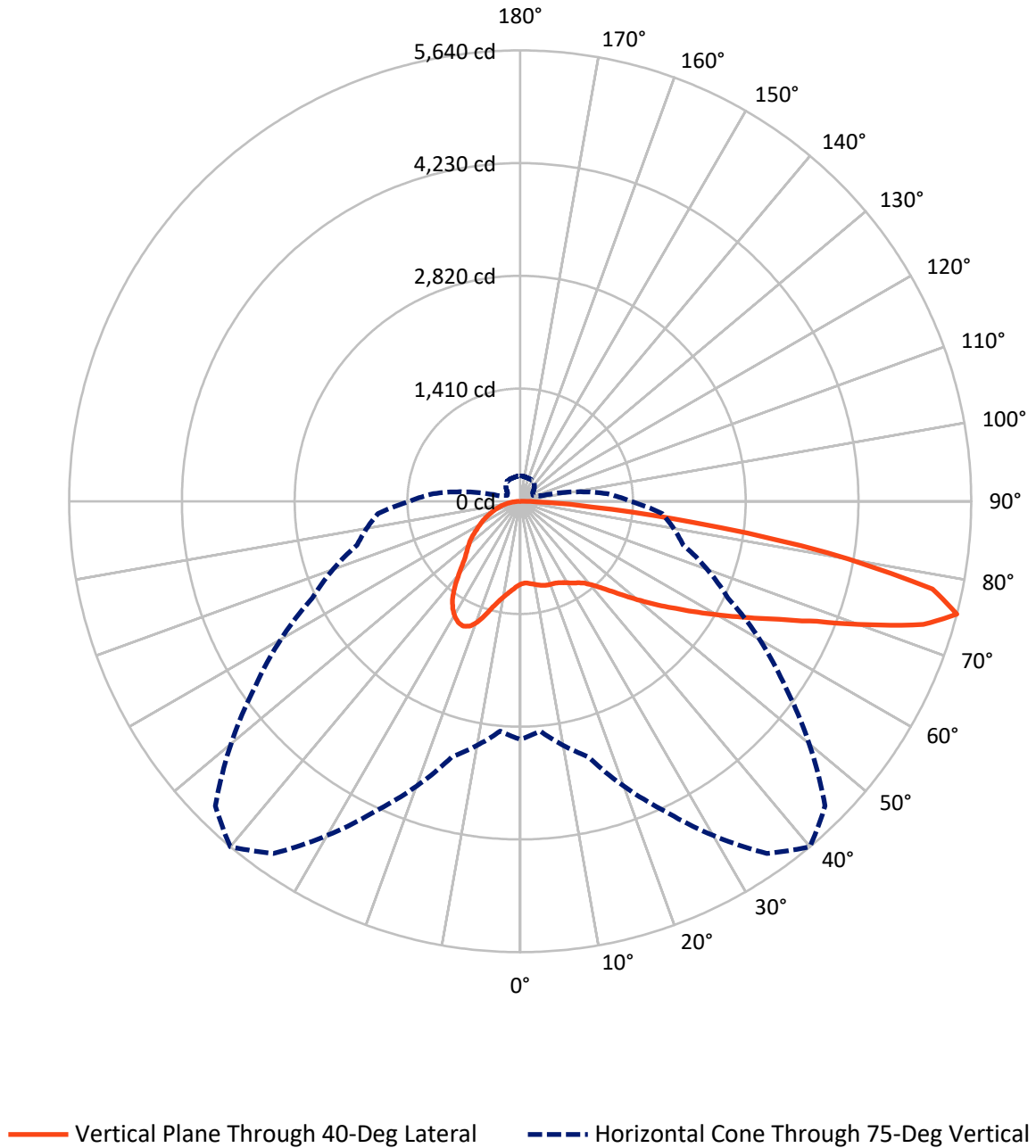
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.1 fc  
 Type IV - Medium - N/A

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### Luminous Intensity Polar Plot



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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2807.7	0.0	2807.7
	% Fixture	31.0	0.0	31.0
<b>Street Side</b>	Lumens	6254.3	0.0	6254.3
	% Fixture	69.0	0.0	69.0
<b>Total</b>	Lumens	9062.0	0.0	9062.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	103.4	1.1
10°-20°	347.3	3.8
20°-30°	634.1	7.0
30°-40°	899.4	9.9
40°-50°	1214.4	13.4
50°-60°	1633.7	18.0
60°-70°	2073.5	22.9
70°-80°	1881.9	20.8
80°-90°	274.3	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°	9062.0	100.0
0°-180°	9062.0	100.0

**Coefficient of Utilization**



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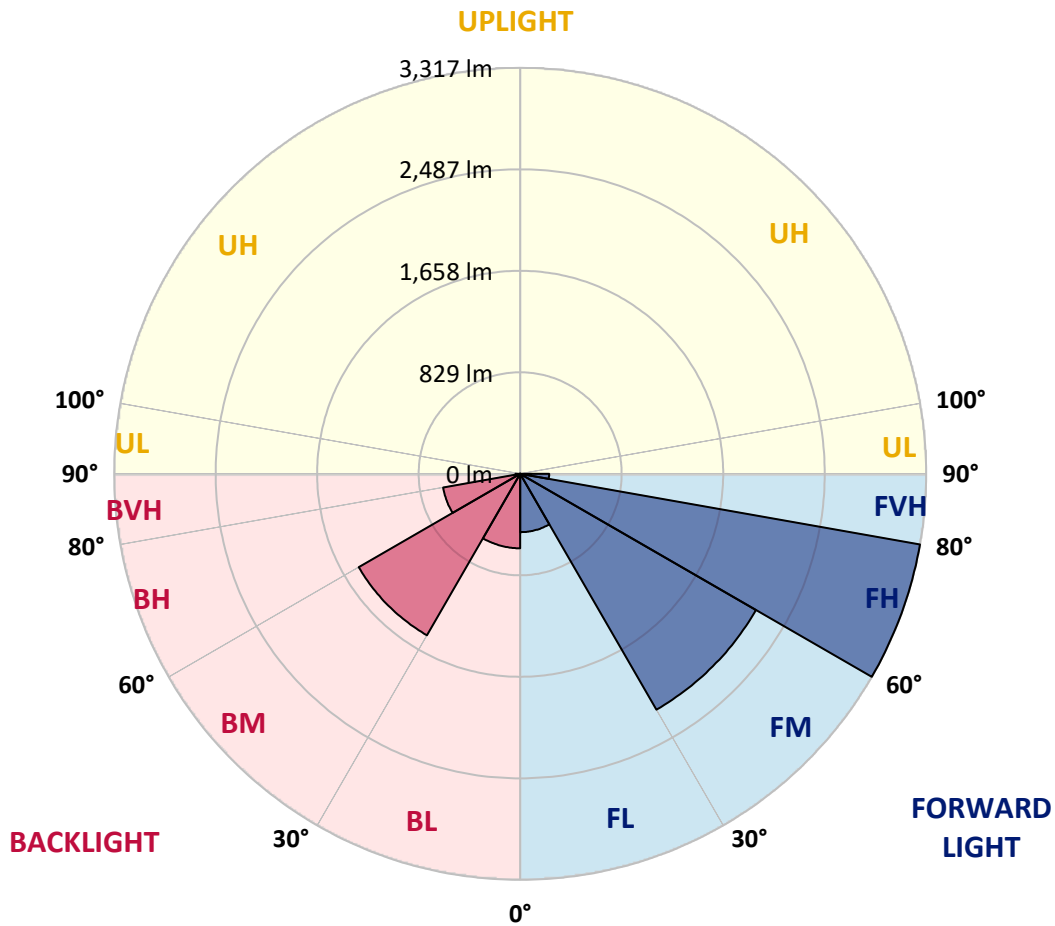
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	476.7	5.3			
FM (30°-60°)	2224.5	24.5			
FH (60°-80°)	3316.6	36.6			G2/5000
FVH (80°-90°)	236.6	2.6			G3/500
BL (0°-30°)	608.2	6.7	B2/1000		
BM (30°-60°)	1522.9	16.8	B2/2500		
BH (60°-80°)	638.8	7.0	B2/1000		G2/1000
BVH (80°-90°)	37.8	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-G3**

Type IV Medium



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	1036.3	1036.3	1036.3	1036.3	1036.3	1036.3	1036.3	1036.3	1036.3	1036.3	1036.3
2.5°	1020.4	1026.2	1024.7	1022.8	1022.8	1023.3	1022.8	1026.2	1029.5	1032.9	1038.2
5°	1031.0	1036.7	1033.8	1031.4	1029.5	1029.0	1027.6	1027.1	1029.0	1033.4	1040.6
7.5°	1051.6	1057.4	1053.1	1048.7	1044.9	1043.0	1041.1	1038.2	1036.7	1039.1	1049.2
10°	1074.7	1080.5	1075.2	1067.5	1061.2	1058.8	1056.9	1054.0	1052.1	1053.6	1064.6
12.5°	1097.8	1103.5	1096.3	1085.8	1077.6	1076.1	1073.7	1072.8	1072.3	1071.8	1082.9
15°	1119.4	1124.2	1115.1	1102.6	1093.9	1091.5	1089.1	1090.6	1093.0	1095.9	1108.3
17.5°	1136.2	1141.0	1127.6	1111.2	1103.1	1102.1	1100.7	1105.5	1112.2	1119.4	1134.8
20°	1151.6	1156.4	1139.1	1117.0	1107.4	1107.4	1107.9	1118.0	1127.6	1138.1	1159.3
22.5°	1173.2	1177.1	1155.9	1125.7	1111.7	1112.7	1116.5	1126.6	1138.6	1153.0	1182.4
25°	1205.4	1208.3	1182.4	1142.0	1126.1	1129.0	1132.4	1137.2	1148.7	1165.5	1205.0
27.5°	1257.3	1259.7	1225.6	1170.8	1146.8	1151.6	1156.4	1153.0	1158.3	1172.8	1223.2
30°	1330.4	1331.8	1288.6	1216.0	1181.9	1184.3	1185.2	1171.3	1161.2	1172.8	1236.2
32.5°	1416.9	1416.4	1365.0	1270.8	1221.8	1219.4	1211.2	1183.8	1160.3	1170.3	1247.7
35°	1551.0	1545.7	1479.4	1347.7	1267.0	1252.1	1232.8	1197.7	1165.1	1167.9	1257.8
37.5°	1773.1	1756.7	1664.9	1473.6	1334.2	1296.3	1267.9	1220.3	1175.6	1167.0	1269.8
40°	2023.5	2002.8	1901.9	1646.2	1435.2	1374.1	1328.5	1252.5	1192.9	1171.3	1287.6
42.5°	2320.5	2291.2	2182.6	1849.5	1563.0	1474.6	1405.9	1293.4	1218.4	1185.2	1311.7
45°	2685.3	2646.4	2492.6	2078.8	1724.0	1606.3	1514.5	1355.4	1257.3	1212.2	1347.7
47.5°	3054.0	3063.6	2844.9	2341.2	1917.3	1768.7	1650.5	1448.6	1314.1	1255.4	1405.9
50°	3445.7	3452.4	3195.3	2632.0	2136.4	1952.3	1803.3	1552.9	1392.9	1316.9	1492.9
52.5°	3751.4	3752.3	3513.5	2936.2	2364.7	2154.2	1968.2	1672.1	1484.2	1398.7	1608.7
55°	3942.7	3940.3	3736.5	3224.1	2627.2	2366.2	2150.8	1807.7	1595.7	1494.8	1754.3
57.5°	4081.6	4074.4	3890.3	3471.6	2906.9	2616.6	2357.5	1961.5	1727.4	1609.2	1946.1
60°	4134.4	4130.1	3994.6	3685.5	3201.0	2893.4	2595.9	2133.5	1876.9	1744.2	2192.7
62.5°	4154.6	4162.8	4096.9	3892.7	3515.9	3200.1	2857.9	2339.3	2045.1	1897.1	2452.7
65°	4225.8	4240.7	4227.2	4163.8	3871.5	3559.1	3205.4	2583.9	2228.7	2061.0	2724.2
67.5°	4366.6	4381.5	4387.2	4488.2	4306.0	4006.6	3638.9	2888.6	2443.6	2231.1	2928.5
70°	4363.2	4358.9	4460.8	4746.3	4850.1	4626.1	4223.4	3263.5	2699.7	2372.4	2954.5
72.5°	3971.5	3936.9	4177.7	4743.4	5302.9	5273.1	4937.1	3747.0	2920.8	2389.7	2563.7
75°	2979.5	2887.2	3312.5	4274.8	5378.3	5640.3	5390.8	4047.0	2868.4	2111.4	1784.1
77.5°	1274.2	1181.4	1682.7	3164.5	4813.6	5272.6	4974.6	3530.8	2289.8	1396.2	876.2
80°	333.6	333.1	508.5	1434.7	3273.6	3893.6	3415.9	2280.1	1308.3	498.9	241.8
82.5°	137.9	134.6	187.0	558.0	1599.6	2185.0	1783.2	1017.0	472.5	135.1	80.3
85°	51.4	50.9	90.8	192.7	564.3	901.2	652.2	260.0	117.8	65.8	36.0
87.5°	14.4	13.9	19.7	66.8	137.5	208.6	111.5	42.8	33.2	26.0	10.6
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°	1036.3	1036.3	1036.3	1036.3	1036.3	1036.3	1036.3	1036.3	1036.3	1036.3	1036.3
2.5°	1039.6	1042.0	1046.3	1049.7	1054.0	1058.8	1065.6	1069.9	1074.2	1077.1	1075.2
5°	1043.9	1049.2	1060.3	1071.3	1084.3	1096.3	1110.3	1120.4	1128.5	1130.9	1131.9
7.5°	1053.6	1062.2	1081.0	1099.7	1120.4	1140.1	1160.3	1177.6	1191.5	1196.8	1197.3
10°	1070.4	1081.9	1108.3	1134.8	1162.2	1192.5	1218.4	1243.4	1263.1	1271.3	1271.8
12.5°	1091.5	1105.9	1140.5	1177.1	1215.0	1256.9	1290.5	1321.3	1345.8	1356.8	1356.8
15°	1118.9	1137.7	1181.9	1230.9	1286.7	1344.8	1387.6	1421.7	1449.1	1462.6	1461.6
17.5°	1148.7	1173.7	1229.5	1303.5	1383.3	1459.7	1509.7	1534.7	1563.0	1576.0	1575.5
20°	1177.6	1208.3	1288.1	1395.8	1502.0	1583.2	1623.6	1630.3	1632.2	1633.7	1637.5
22.5°	1207.4	1248.7	1361.6	1512.1	1626.0	1682.2	1688.0	1659.2	1618.8	1600.0	1605.3
25°	1240.0	1294.8	1457.8	1640.4	1732.7	1739.4	1695.2	1625.0	1548.6	1513.5	1518.8
27.5°	1271.8	1348.2	1573.1	1763.0	1809.6	1750.5	1655.3	1555.8	1463.5	1426.5	1430.9
30°	1303.5	1409.2	1700.5	1870.2	1844.7	1723.1	1592.3	1481.3	1388.6	1349.6	1354.0
32.5°	1335.7	1480.4	1847.1	1947.5	1838.4	1664.9	1514.0	1397.7	1316.0	1275.1	1280.4
35°	1372.2	1567.8	1986.0	1989.8	1796.6	1579.4	1410.7	1297.7	1226.6	1193.9	1201.1
37.5°	1419.8	1678.9	2108.6	2000.4	1723.6	1453.9	1282.3	1179.5	1120.8	1105.9	1116.5
40°	1478.9	1812.5	2202.3	1983.6	1615.4	1301.6	1142.0	1059.8	1026.6	1030.0	1041.5
42.5°	1555.8	1962.0	2268.1	1940.3	1465.0	1144.4	1018.9	982.4	998.3	1011.7	1024.2
45°	1655.8	2117.2	2309.0	1866.8	1294.8	1011.3	946.4	955.0	967.0	968.5	978.1
47.5°	1783.6	2274.4	2335.9	1755.8	1121.3	917.5	900.2	902.2	899.8	889.7	897.3
50°	1943.2	2427.2	2359.9	1608.7	973.8	858.9	835.8	829.1	795.9	763.3	767.6
52.5°	2124.9	2567.6	2370.0	1426.0	858.9	809.9	772.4	730.1	668.1	658.0	661.4
55°	2326.8	2697.3	2344.1	1201.6	762.3	746.9	690.2	639.2	632.5	623.9	625.3
57.5°	2568.0	2837.2	2291.2	951.2	663.3	673.4	618.1	623.9	611.8	598.4	596.0
60°	2831.9	2981.9	2198.4	722.9	560.9	581.6	599.4	598.9	595.5	584.5	580.6
62.5°	3069.3	3077.0	2015.8	553.7	471.0	510.4	559.0	558.5	555.6	549.4	547.0
65°	3210.7	3062.6	1711.1	435.9	397.0	451.8	504.2	508.0	508.5	508.0	508.0
67.5°	3185.7	2893.9	1292.9	347.0	336.0	392.2	449.9	455.2	459.0	460.0	460.9
70°	2903.0	2523.3	843.0	276.8	281.7	339.8	398.4	403.7	407.1	410.9	412.9
72.5°	2262.8	1855.3	482.6	224.0	234.1	294.6	347.5	353.7	355.7	362.9	365.8
75°	1378.9	1091.0	260.5	176.4	192.3	251.9	297.0	304.2	307.6	316.3	317.2
77.5°	655.6	472.5	148.5	137.5	154.8	205.7	250.9	259.1	249.9	254.7	250.9
80°	221.6	175.4	93.7	104.8	118.2	160.5	200.9	209.1	189.9	188.9	187.0
82.5°	77.4	71.1	59.6	69.7	76.4	114.9	151.9	162.5	141.3	140.8	134.1
85°	30.3	28.8	33.2	38.0	45.7	70.7	100.0	105.3	87.0	70.2	69.2
87.5°	6.2	6.7	8.2	8.7	13.9	24.5	36.0	44.2	35.1	29.8	27.4
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)