

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: P882244

Luminaire Tested: **NAV-SB2A-740-U-SL4**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P882244  
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-740-U-SL4  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(2) 70 CRI, 4000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV SPILL  
LIGHT ELIMINATOR OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

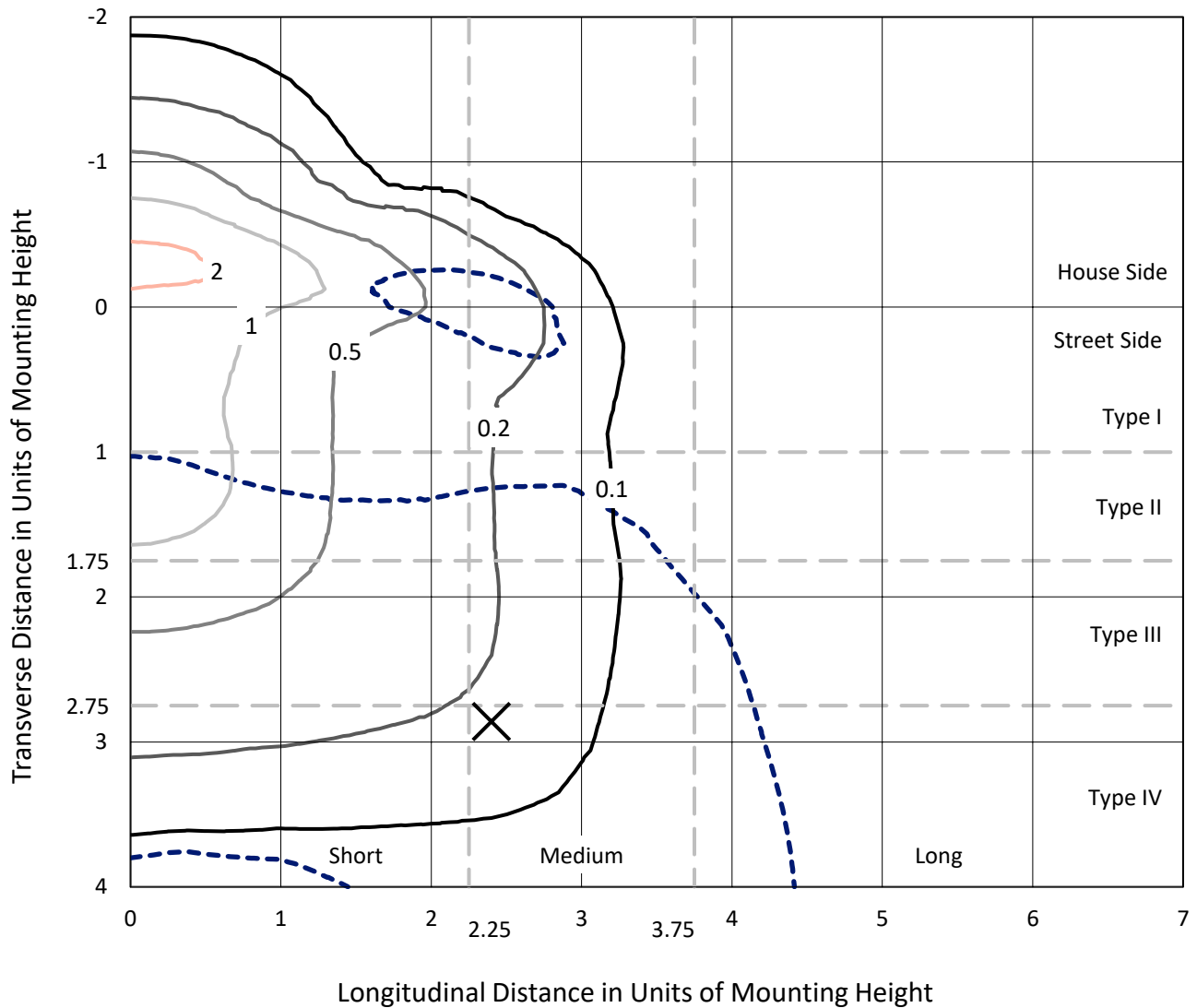
Lumens per Lamp: N/A  
Luminaire Lumens: 9770 lumens  
Efficiency: N/A  
Efficacy: 170.5 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type IV - Medium  
BUG Rating: B2 - U0 - G3  
  
Input Watts (W): 57.3  
Input Voltage (V): 120.0  
Input Current (Ain): 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

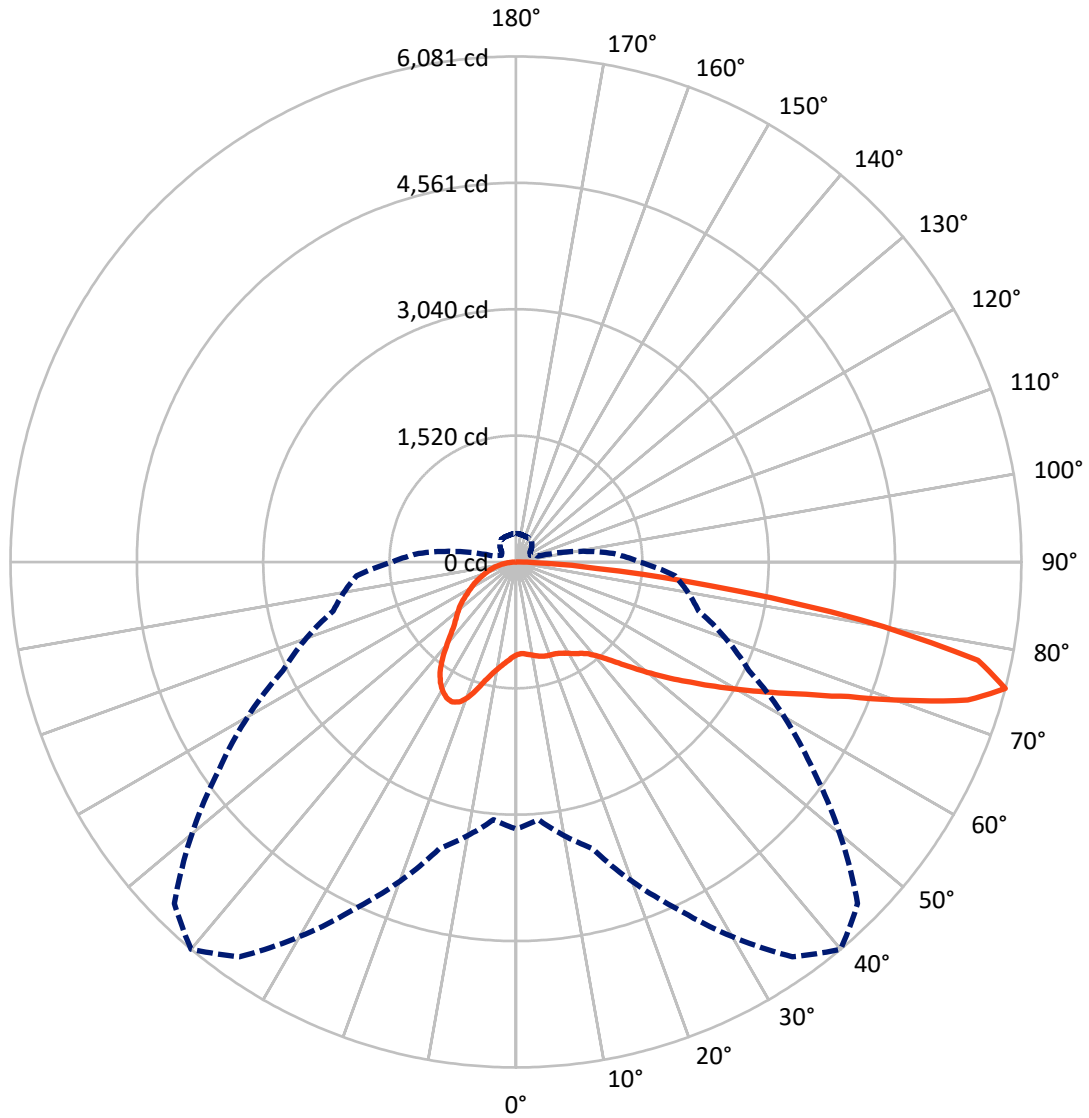
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.3 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	3027.1	0.0	3027.1
	% Fixture	31.0	0.0	31.0
<b>Street Side</b>	Lumens	6742.9	0.0	6742.9
	% Fixture	69.0	0.0	69.0
<b>Total</b>	Lumens	9770.0	0.0	9770.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	111.5	1.1
10°-20°	374.4	3.8
20°-30°	683.7	7.0
30°-40°	969.6	9.9
40°-50°	1309.3	13.4
50°-60°	1761.3	18.0
60°-70°	2235.5	22.9
70°-80°	2028.9	20.8
80°-90°	295.7	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°	9770.0	100.0
0°-180°	9770.0	100.0

**Coefficient of Utilization**



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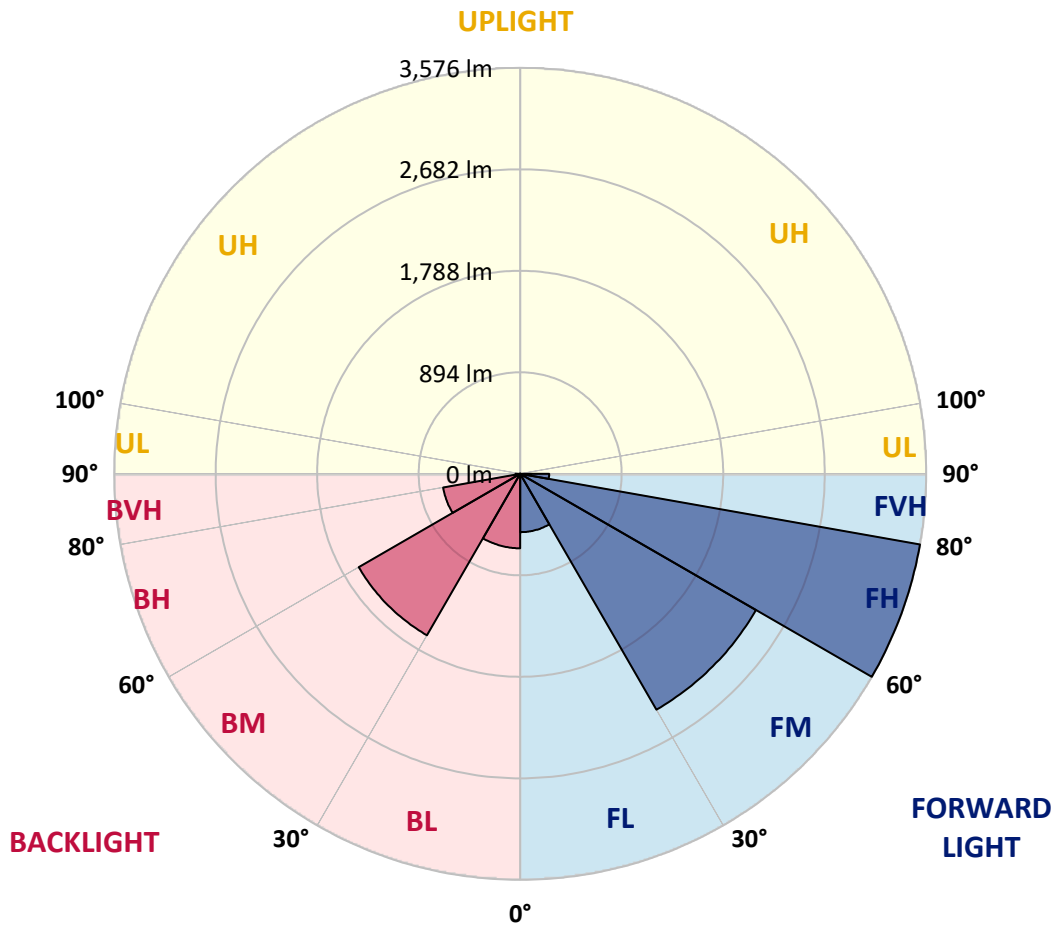
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	513.9	5.3			
FM (30°-60°)	2398.3	24.5			
FH (60°-80°)	3575.7	36.6			G2/5000
FVH (80°-90°)	255.0	2.6			G3/500
BL (0°-30°)	655.7	6.7	B2/1000		
BM (30°-60°)	1641.9	16.8	B2/2500		
BH (60°-80°)	688.7	7.0	B2/1000		G2/1000
BVH (80°-90°)	40.7	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°	1117.2	1117.2	1117.2	1117.2	1117.2	1117.2	1117.2	1117.2	1117.2	1117.2	1117.2
2.5°	1100.1	1106.3	1104.8	1102.7	1102.7	1103.2	1102.7	1106.3	1110.0	1113.6	1119.3
5°	1111.5	1117.7	1114.6	1112.0	1110.0	1109.4	1107.9	1107.4	1109.4	1114.1	1121.9
7.5°	1133.8	1140.0	1135.3	1130.7	1126.5	1124.5	1122.4	1119.3	1117.7	1120.3	1131.2
10°	1158.7	1164.9	1159.2	1150.9	1144.2	1141.6	1139.5	1136.4	1134.3	1135.9	1147.8
12.5°	1183.5	1189.8	1182.0	1170.6	1161.8	1160.2	1157.6	1156.6	1156.1	1155.6	1167.5
15°	1206.9	1212.0	1202.2	1188.7	1179.4	1176.8	1174.2	1175.8	1178.4	1181.5	1194.9
17.5°	1225.0	1230.2	1215.7	1198.0	1189.2	1188.2	1186.6	1191.8	1199.1	1206.9	1223.4
20°	1241.6	1246.8	1228.1	1204.3	1193.9	1193.9	1194.4	1205.3	1215.7	1227.1	1249.9
22.5°	1264.9	1269.0	1246.2	1213.6	1198.6	1199.6	1203.7	1214.6	1227.6	1243.1	1274.7
25°	1299.6	1302.7	1274.7	1231.2	1214.1	1217.2	1220.9	1226.0	1238.5	1256.6	1299.1
27.5°	1355.6	1358.2	1321.4	1262.3	1236.4	1241.6	1246.8	1243.1	1248.8	1264.4	1318.8
30°	1434.3	1435.9	1389.3	1311.0	1274.2	1276.8	1277.9	1262.8	1251.9	1264.4	1332.8
32.5°	1527.6	1527.1	1471.7	1370.1	1317.2	1314.6	1305.8	1276.3	1250.9	1261.8	1345.2
35°	1672.2	1666.5	1595.0	1453.0	1365.9	1349.9	1329.2	1291.3	1256.1	1259.2	1356.1
37.5°	1911.6	1894.0	1795.0	1588.8	1438.5	1397.6	1367.0	1315.7	1267.5	1258.2	1369.1
40°	2181.6	2159.3	2050.5	1774.8	1547.3	1481.5	1432.3	1350.4	1286.1	1262.8	1388.2
42.5°	2501.8	2470.2	2353.1	1994.0	1685.1	1589.8	1515.7	1394.4	1313.6	1277.9	1414.1
45°	2895.1	2853.1	2687.3	2241.2	1858.7	1731.8	1632.8	1461.3	1355.6	1306.9	1453.0
47.5°	3292.6	3302.9	3067.2	2524.1	2067.1	1906.9	1779.5	1561.8	1416.7	1353.5	1515.7
50°	3714.9	3722.1	3444.9	2837.6	2303.3	2104.9	1944.2	1674.3	1501.7	1419.8	1609.5
52.5°	4044.5	4045.5	3788.0	3165.6	2549.5	2322.5	2122.0	1802.8	1600.2	1507.9	1734.4
55°	4250.7	4248.1	4028.4	3476.0	2832.4	2551.0	2318.9	1948.9	1720.4	1611.6	1891.4
57.5°	4400.4	4392.7	4194.2	3742.9	3134.0	2821.0	2541.7	2114.7	1862.4	1734.9	2098.1
60°	4457.4	4452.8	4306.7	3973.5	3451.1	3119.5	2798.7	2300.2	2023.5	1880.5	2364.0
62.5°	4479.2	4488.0	4417.0	4196.8	3790.5	3450.1	3081.1	2522.0	2204.9	2045.3	2644.3
65°	4555.9	4572.0	4557.5	4489.1	4174.0	3837.2	3455.8	2785.8	2402.8	2222.0	2937.1
67.5°	4707.7	4723.8	4730.0	4838.8	4642.4	4319.6	3923.2	3114.3	2634.5	2405.4	3157.3
70°	4704.1	4699.4	4809.3	5117.1	5229.0	4987.6	4553.3	3518.5	2910.7	2557.8	3185.3
72.5°	4281.8	4244.5	4504.1	5114.0	5717.2	5685.0	5322.8	4039.8	3149.0	2576.4	2764.0
75°	3212.2	3112.8	3571.3	4608.8	5798.5	6080.9	5812.0	4363.1	3092.5	2276.4	1923.5
77.5°	1373.7	1273.7	1814.2	3411.7	5189.6	5684.5	5363.2	3806.6	2468.6	1505.3	944.7
80°	359.6	359.1	548.2	1546.8	3529.4	4197.8	3682.8	2458.3	1410.5	537.9	260.6
82.5°	148.7	145.1	201.6	601.6	1724.5	2355.7	1922.5	1096.5	509.4	145.6	86.5
85°	55.4	54.9	97.9	207.8	608.4	971.6	703.2	280.3	127.0	71.0	38.9
87.5°	15.5	15.0	21.2	72.0	148.2	224.9	120.2	46.1	35.8	28.0	11.4
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°	1117.2	1117.2	1117.2	1117.2	1117.2	1117.2	1117.2	1117.2	1117.2	1117.2	1117.2
2.5°	1120.8	1123.4	1128.1	1131.7	1136.4	1141.6	1148.8	1153.5	1158.1	1161.3	1159.2
5°	1125.5	1131.2	1143.1	1155.0	1169.0	1182.0	1197.0	1207.9	1216.7	1219.3	1220.3
7.5°	1135.9	1145.2	1165.4	1185.6	1207.9	1229.1	1250.9	1269.6	1284.6	1290.3	1290.8
10°	1154.0	1166.4	1194.9	1223.4	1253.0	1285.6	1313.6	1340.6	1361.8	1370.6	1371.1
12.5°	1176.8	1192.3	1229.7	1269.0	1310.0	1355.1	1391.3	1424.5	1450.9	1462.8	1462.8
15°	1206.3	1226.6	1274.2	1327.1	1387.2	1449.9	1496.0	1532.8	1562.3	1576.8	1575.8
17.5°	1238.5	1265.4	1325.5	1405.3	1491.3	1573.7	1627.6	1654.6	1685.1	1699.1	1698.6
20°	1269.6	1302.7	1388.7	1504.8	1619.3	1706.9	1750.4	1757.7	1759.8	1761.3	1765.5
22.5°	1301.7	1346.3	1468.0	1630.2	1753.0	1813.7	1819.9	1788.8	1745.3	1725.0	1730.7
25°	1336.9	1396.0	1571.7	1768.6	1868.1	1875.3	1827.6	1752.0	1669.6	1631.8	1637.5
27.5°	1371.1	1453.5	1696.0	1900.7	1951.0	1887.2	1784.6	1677.4	1577.9	1538.0	1542.6
30°	1405.3	1519.3	1833.3	2016.3	1988.8	1857.7	1716.8	1597.1	1497.0	1455.1	1459.7
32.5°	1440.0	1596.0	1991.4	2099.7	1982.1	1795.0	1632.3	1506.9	1418.8	1374.8	1380.5
35°	1479.4	1690.3	2141.2	2145.3	1937.0	1702.8	1520.9	1399.1	1322.4	1287.2	1295.0
37.5°	1530.7	1810.0	2273.3	2156.7	1858.2	1567.5	1382.5	1271.6	1208.4	1192.3	1203.7
40°	1594.5	1954.1	2374.3	2138.6	1741.6	1403.3	1231.2	1142.6	1106.8	1110.5	1122.9
42.5°	1677.4	2115.2	2445.3	2091.9	1579.4	1233.8	1098.6	1059.2	1076.3	1090.8	1104.3
45°	1785.2	2282.6	2489.4	2012.6	1396.0	1090.3	1020.3	1029.6	1042.6	1044.1	1054.5
47.5°	1923.0	2452.1	2518.4	1892.9	1208.9	989.2	970.6	972.6	970.0	959.2	967.5
50°	2095.0	2616.8	2544.3	1734.4	1049.8	926.0	901.1	893.9	858.1	822.9	827.5
52.5°	2290.9	2768.2	2555.2	1537.5	926.0	873.1	832.7	787.1	720.3	709.4	713.0
55°	2508.5	2908.1	2527.2	1295.5	821.8	805.3	744.1	689.2	681.9	672.6	674.2
57.5°	2768.7	3058.9	2470.2	1025.5	715.1	726.0	666.4	672.6	659.7	645.1	642.6
60°	3053.2	3214.8	2370.2	779.4	604.7	627.0	646.2	645.7	642.0	630.1	626.0
62.5°	3309.1	3317.4	2173.3	597.0	507.8	550.3	602.7	602.1	599.0	592.3	589.7
65°	3461.5	3301.9	1844.7	470.0	428.0	487.1	543.6	547.7	548.2	547.7	547.7
67.5°	3434.5	3120.0	1393.9	374.1	362.2	422.8	485.0	490.7	494.9	495.9	496.9
70°	3129.9	2720.5	908.9	298.5	303.7	366.4	429.6	435.3	438.9	443.1	445.1
72.5°	2439.6	2000.2	520.3	241.5	252.4	317.6	374.6	381.4	383.5	391.2	394.3
75°	1486.7	1176.3	280.9	190.2	207.3	271.5	320.2	328.0	331.6	341.0	342.0
77.5°	706.8	509.4	160.1	148.2	166.9	221.8	270.5	279.3	269.5	274.6	270.5
80°	238.9	189.1	101.0	113.0	127.5	173.1	216.6	225.4	204.7	203.6	201.6
82.5°	83.4	76.7	64.3	75.1	82.4	123.8	163.7	175.1	152.3	151.8	144.6
85°	32.6	31.1	35.8	40.9	49.2	76.2	107.8	113.5	93.8	75.7	74.6
87.5°	6.7	7.3	8.8	9.3	15.0	26.4	38.9	47.7	37.8	32.1	29.5
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)