

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: P882384

Luminaire Tested: **NAV-SB2B-727-U-SL4**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P882384  
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-SB2B-727-U-SL4  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(2) 70 CRI, 2700K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV SPILL  
LIGHT ELIMINATOR OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

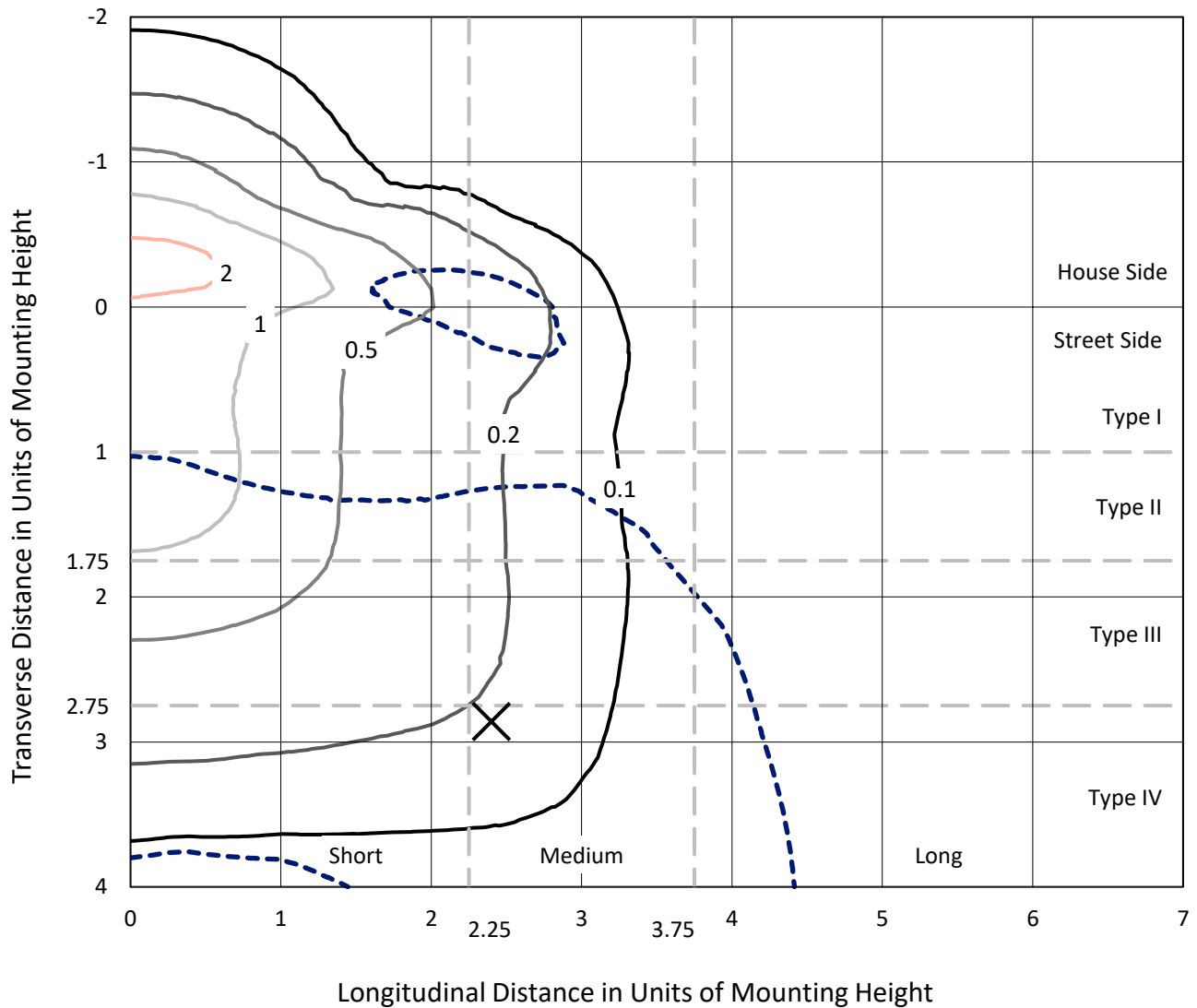
Lumens per Lamp: N/A  
Luminaire Lumens: 10310 lumens  
Efficiency: N/A  
Efficacy: 139.5 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type IV - Medium  
BUG Rating: B2 - U0 - G3  
  
Input Watts (W): 73.9  
Input Voltage (V): 120.0  
Input Current (Ain): 0.627  
Voltage Rise (V): NR  
Power Factor: 0.988  
Total Harmonic Distortion (THDi): 13.593  
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

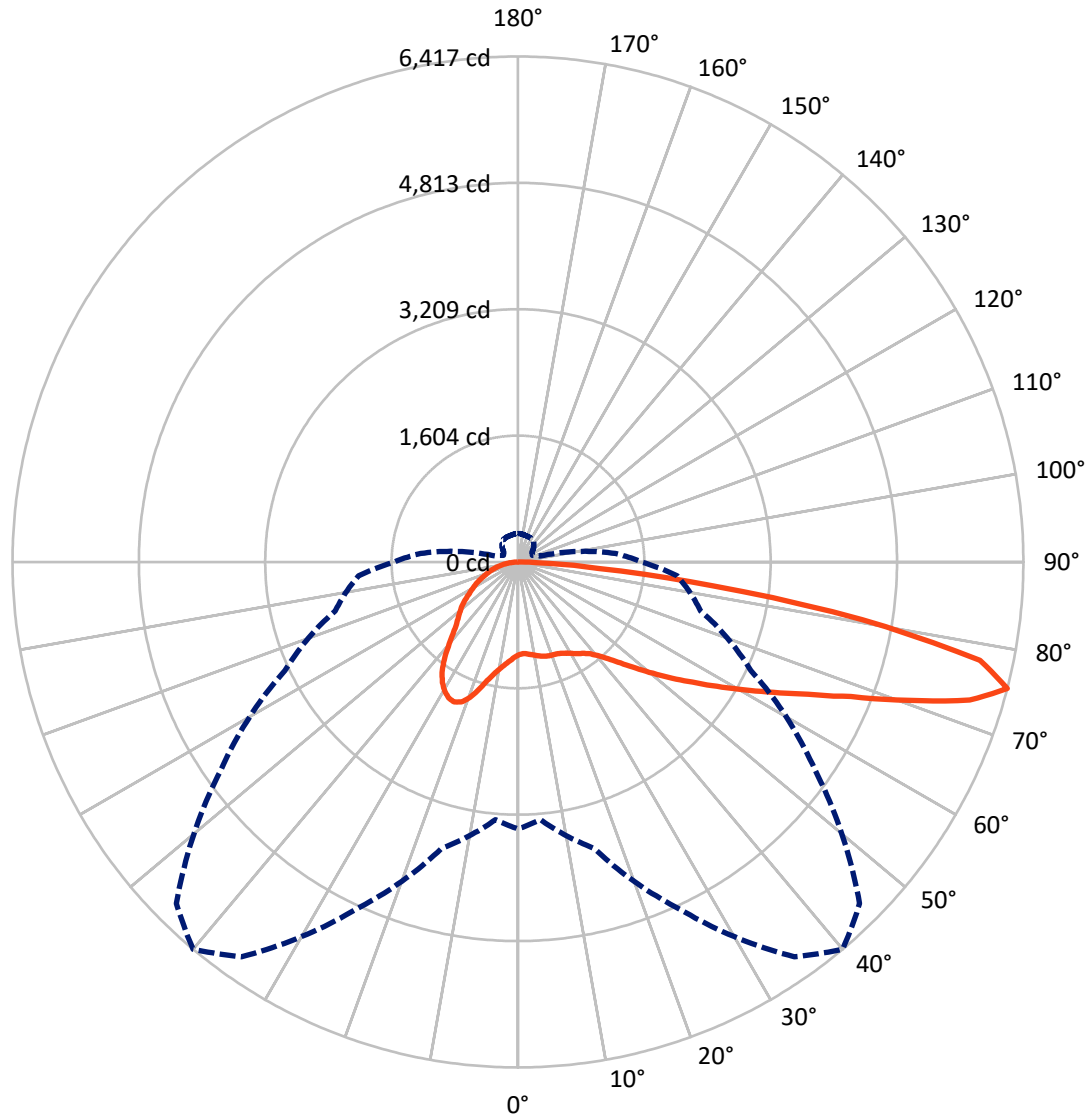
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.4 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	3194.4	0.0	3194.4
	% Fixture	31.0	0.0	31.0
<b>Street Side</b>	Lumens	7115.6	0.0	7115.6
	% Fixture	69.0	0.0	69.0
<b>Total</b>	Lumens	10310.0	0.0	10310.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	117.7	1.1
10°-20°	395.1	3.8
20°-30°	721.5	7.0
30°-40°	1023.2	9.9
40°-50°	1381.6	13.4
50°-60°	1858.7	18.0
60°-70°	2359.1	22.9
70°-80°	2141.0	20.8
80°-90°	312.1	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°	10310.0	100.0
0°-180°	10310.0	100.0

**Coefficient of Utilization**



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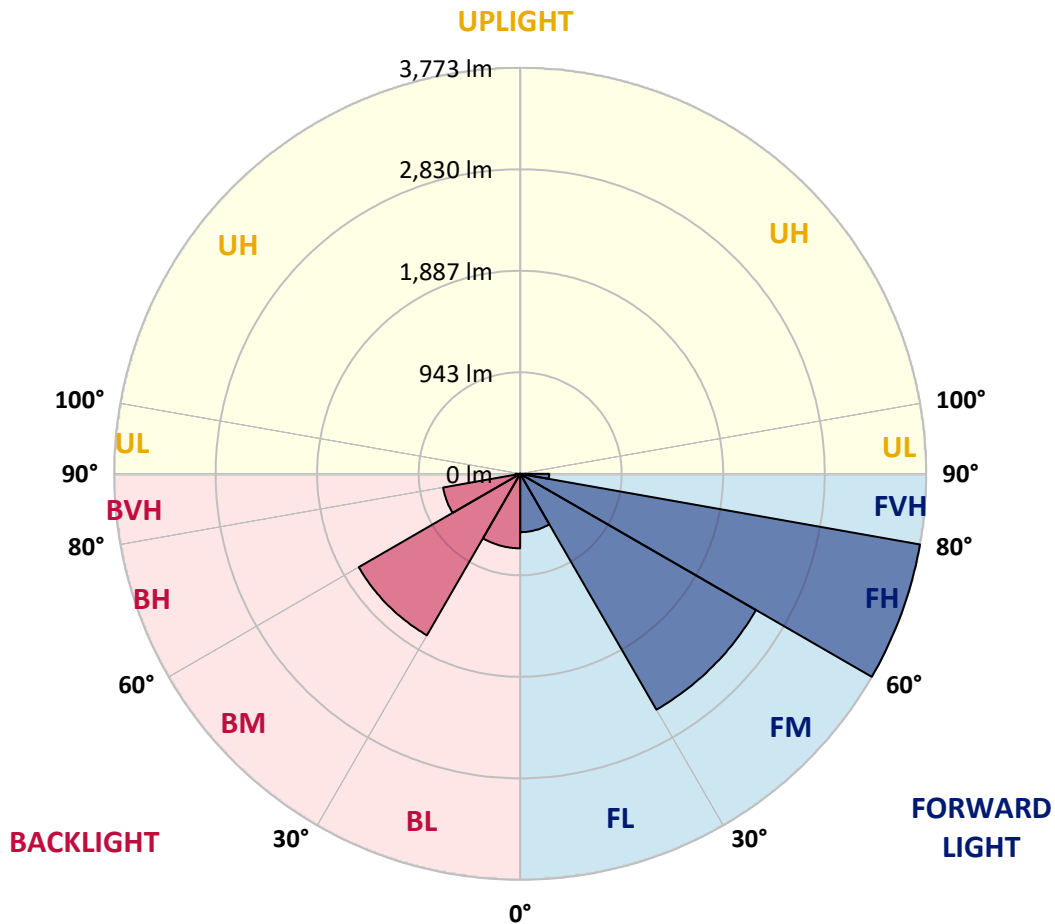
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	542.3	5.3			
FM (30°-60°)	2530.9	24.5			
FH (60°-80°)	3773.3	36.6			G2/5000
FVH (80°-90°)	269.1	2.6			G3/500
BL (0°-30°)	691.9	6.7	B2/1000		
BM (30°-60°)	1732.7	16.8	B2/2500		
BH (60°-80°)	726.8	7.0	B2/1000		G2/1000
BVH (80°-90°)	43.0	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°	1179.0	1179.0	1179.0	1179.0	1179.0	1179.0	1179.0	1179.0	1179.0	1179.0	1179.0
2.5°	1160.9	1167.5	1165.8	1163.7	1163.7	1164.2	1163.7	1167.5	1171.3	1175.1	1181.1
5°	1172.9	1179.5	1176.2	1173.5	1171.3	1170.8	1169.1	1168.6	1170.8	1175.7	1183.9
7.5°	1196.5	1203.0	1198.1	1193.2	1188.8	1186.6	1184.4	1181.1	1179.5	1182.2	1193.7
10°	1222.7	1229.3	1223.3	1214.5	1207.4	1204.7	1202.5	1199.2	1197.0	1198.6	1211.2
12.5°	1249.0	1255.5	1247.3	1235.3	1226.0	1224.3	1221.6	1220.5	1220.0	1219.4	1232.0
15°	1273.6	1279.0	1268.6	1254.4	1244.6	1241.8	1239.1	1240.8	1243.5	1246.8	1261.0
17.5°	1292.7	1298.2	1282.9	1264.3	1255.0	1253.9	1252.2	1257.7	1265.4	1273.6	1291.1
20°	1310.2	1315.7	1296.0	1270.8	1259.9	1259.9	1260.4	1271.9	1282.9	1294.9	1319.0
22.5°	1334.8	1339.2	1315.1	1280.7	1264.8	1265.9	1270.3	1281.8	1295.4	1311.8	1345.2
25°	1371.4	1374.7	1345.2	1299.3	1281.2	1284.5	1288.3	1293.8	1306.9	1326.1	1370.9
27.5°	1430.5	1433.2	1394.4	1332.1	1304.7	1310.2	1315.7	1311.8	1317.9	1334.3	1391.7
30°	1513.6	1515.3	1466.0	1383.5	1344.7	1347.4	1348.5	1332.6	1321.1	1334.3	1406.4
32.5°	1612.1	1611.5	1553.0	1445.8	1390.0	1387.3	1378.0	1346.8	1320.0	1331.5	1419.6
35°	1764.6	1758.6	1683.1	1533.3	1441.4	1424.5	1402.6	1362.7	1325.5	1328.8	1431.1
37.5°	2017.3	1998.7	1894.2	1676.6	1518.0	1474.8	1442.5	1388.4	1337.5	1327.7	1444.7
40°	2302.1	2278.6	2163.8	1872.9	1632.8	1563.4	1511.4	1425.0	1357.2	1332.6	1465.0
42.5°	2640.1	2606.7	2483.1	2104.2	1778.3	1677.7	1599.5	1471.5	1386.2	1348.5	1492.3
45°	3055.1	3010.8	2835.9	2365.0	1961.5	1827.5	1723.1	1542.1	1430.5	1379.1	1533.3
47.5°	3474.5	3485.5	3236.7	2663.6	2181.3	2012.3	1877.8	1648.1	1495.0	1428.3	1599.5
50°	3920.2	3927.9	3635.3	2994.4	2430.7	2221.2	2051.7	1766.8	1584.7	1498.3	1698.4
52.5°	4268.0	4269.1	3997.3	3340.6	2690.4	2450.9	2239.3	1902.4	1688.6	1591.3	1830.2
55°	4485.6	4482.9	4251.0	3668.1	2989.0	2692.0	2447.1	2056.6	1815.5	1700.6	1995.9
57.5°	4643.7	4635.5	4426.0	3949.7	3307.2	2976.9	2682.2	2231.6	1965.3	1830.8	2214.1
60°	4703.8	4698.9	4544.7	4193.1	3641.9	3291.9	2953.4	2427.4	2135.4	1984.4	2494.6
62.5°	4726.8	4736.1	4661.2	4428.8	4000.1	3640.8	3251.4	2661.4	2326.8	2158.3	2790.5
65°	4807.7	4824.7	4809.4	4737.2	4404.7	4049.3	3646.8	2939.7	2535.6	2344.8	3099.4
67.5°	4967.9	4984.9	4991.5	5106.3	4899.0	4558.4	4140.0	3286.4	2780.1	2538.4	3331.8
70°	4964.1	4959.2	5075.1	5399.9	5518.0	5263.2	4805.0	3713.0	3071.5	2699.1	3361.4
72.5°	4518.4	4479.1	4753.0	5396.7	6033.2	5999.3	5617.0	4263.1	3323.1	2718.8	2916.8
75°	3389.8	3284.8	3768.7	4863.5	6119.0	6417.0	6133.2	4604.3	3263.5	2402.2	2029.8
77.5°	1449.6	1344.1	1914.4	3600.3	5476.5	5998.7	5659.7	4017.0	2605.1	1588.5	996.9
80°	379.5	379.0	578.5	1632.3	3724.4	4429.9	3886.3	2594.2	1488.5	567.6	275.1
82.5°	156.9	153.1	212.7	634.9	1819.8	2485.9	2028.7	1157.1	537.5	153.7	91.3
85°	58.5	58.0	103.4	219.3	642.0	1025.3	742.0	295.8	134.0	74.9	41.0
87.5°	16.4	15.9	22.4	76.0	156.4	237.3	126.9	48.7	37.7	29.5	12.0
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°	1179.0	1179.0	1179.0	1179.0	1179.0	1179.0	1179.0	1179.0	1179.0	1179.0	1179.0
2.5°	1182.8	1185.5	1190.4	1194.3	1199.2	1204.7	1212.3	1217.2	1222.2	1225.4	1223.3
5°	1187.7	1193.7	1206.3	1218.9	1233.6	1247.3	1263.2	1274.7	1284.0	1286.7	1287.8
7.5°	1198.6	1208.5	1229.8	1251.1	1274.7	1297.1	1320.0	1339.7	1355.6	1361.6	1362.1
10°	1217.8	1230.9	1261.0	1291.1	1322.2	1356.7	1386.2	1414.6	1437.1	1446.4	1446.9
12.5°	1241.8	1258.3	1297.6	1339.2	1382.4	1430.0	1468.2	1503.2	1531.1	1543.7	1543.7
15°	1273.0	1294.3	1344.7	1400.4	1463.9	1530.0	1578.7	1617.5	1648.7	1664.0	1662.9
17.5°	1306.9	1335.4	1398.8	1483.0	1573.8	1660.7	1717.6	1746.0	1778.3	1793.1	1792.5
20°	1339.7	1374.7	1465.5	1588.0	1708.8	1801.3	1847.2	1854.8	1857.0	1858.7	1863.0
22.5°	1373.6	1420.7	1549.2	1720.3	1849.9	1913.9	1920.5	1887.7	1841.7	1820.4	1826.4
25°	1410.8	1473.2	1658.5	1866.3	1971.3	1979.0	1928.7	1848.8	1761.9	1722.0	1728.0
27.5°	1446.9	1533.9	1789.8	2005.8	2058.8	1991.5	1883.3	1770.1	1665.1	1623.0	1627.9
30°	1483.0	1603.3	1934.7	2127.7	2098.7	1960.4	1811.6	1685.3	1579.8	1535.5	1540.4
32.5°	1519.6	1684.2	2101.5	2215.7	2091.6	1894.2	1722.5	1590.2	1497.2	1450.7	1456.8
35°	1561.2	1783.8	2259.5	2263.9	2044.0	1796.9	1604.9	1476.4	1395.5	1358.3	1366.5
37.5°	1615.3	1910.1	2398.9	2275.9	1960.9	1654.2	1458.9	1341.9	1275.2	1258.3	1270.3
40°	1682.6	2062.1	2505.6	2256.8	1837.9	1480.8	1299.3	1205.8	1168.0	1171.9	1185.0
42.5°	1770.1	2232.2	2580.5	2207.5	1666.7	1302.0	1159.3	1117.7	1135.8	1151.1	1165.3
45°	1883.8	2408.8	2627.0	2123.9	1473.2	1150.5	1076.7	1086.5	1100.2	1101.9	1112.8
47.5°	2029.3	2587.6	2657.6	1997.6	1275.8	1043.9	1024.2	1026.4	1023.7	1012.2	1020.9
50°	2210.8	2761.5	2684.9	1830.2	1107.9	977.2	950.9	943.3	905.5	868.4	873.3
52.5°	2417.5	2921.2	2696.4	1622.4	977.2	921.4	878.8	830.6	760.1	748.6	752.4
55°	2647.2	3068.8	2666.9	1367.1	867.3	849.8	785.2	727.3	719.6	709.8	711.4
57.5°	2921.7	3227.9	2606.7	1082.2	754.6	766.1	703.2	709.8	696.1	680.8	678.1
60°	3221.9	3392.5	2501.2	822.4	638.1	661.7	681.9	681.3	677.5	664.9	660.6
62.5°	3492.0	3500.8	2293.4	629.9	535.9	580.7	636.0	635.4	632.1	625.0	622.3
65°	3652.8	3484.4	1946.7	496.0	451.7	514.0	573.6	578.0	578.5	578.0	578.0
67.5°	3624.4	3292.5	1471.0	394.8	382.2	446.2	511.8	517.8	522.2	523.3	524.4
70°	3302.8	2870.8	959.1	315.0	320.4	386.6	453.3	459.3	463.2	467.5	469.7
72.5°	2574.5	2110.8	549.0	254.8	266.3	335.2	395.4	402.5	404.7	412.9	416.1
75°	1568.9	1241.3	296.4	200.7	218.7	286.5	337.9	346.1	350.0	359.8	360.9
77.5°	745.9	537.5	169.0	156.4	176.1	234.0	285.4	294.7	284.4	289.8	285.4
80°	252.1	199.6	106.6	119.2	134.5	182.6	228.6	237.9	216.0	214.9	212.7
82.5°	88.0	80.9	67.8	79.3	86.9	130.7	172.8	184.8	160.8	160.2	152.6
85°	34.5	32.8	37.7	43.2	51.9	80.4	113.7	119.8	99.0	79.8	78.7
87.5°	7.1	7.7	9.3	9.8	15.9	27.9	41.0	50.3	39.9	33.9	31.2
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)