

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: P882454

Luminaire Tested: **NAV-SB2B-830-U-SL4**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882454
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-830-U-SL4
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 CRI, 3000K, 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: 9954 lumens
Efficiency: N/A
Efficacy: 134.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B2 - U0 - G3

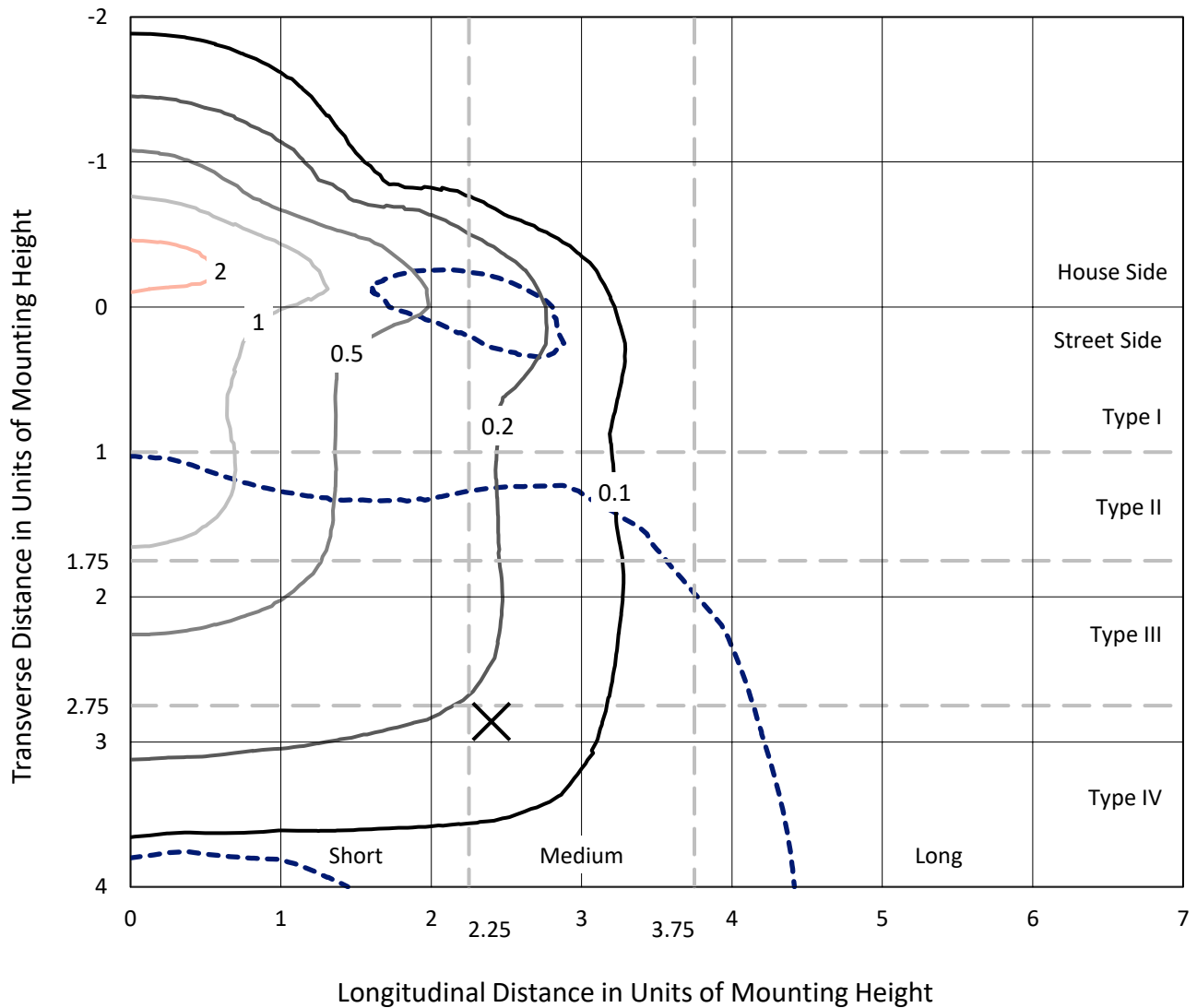
Input Watts (W): 73.9
Input Voltage (V): 120.0
Input Current (Ain): 0.627
Voltage Rise (V): NR
Power Factor: 0.988
Total Harmonic Distortion (THDi): 13.593
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

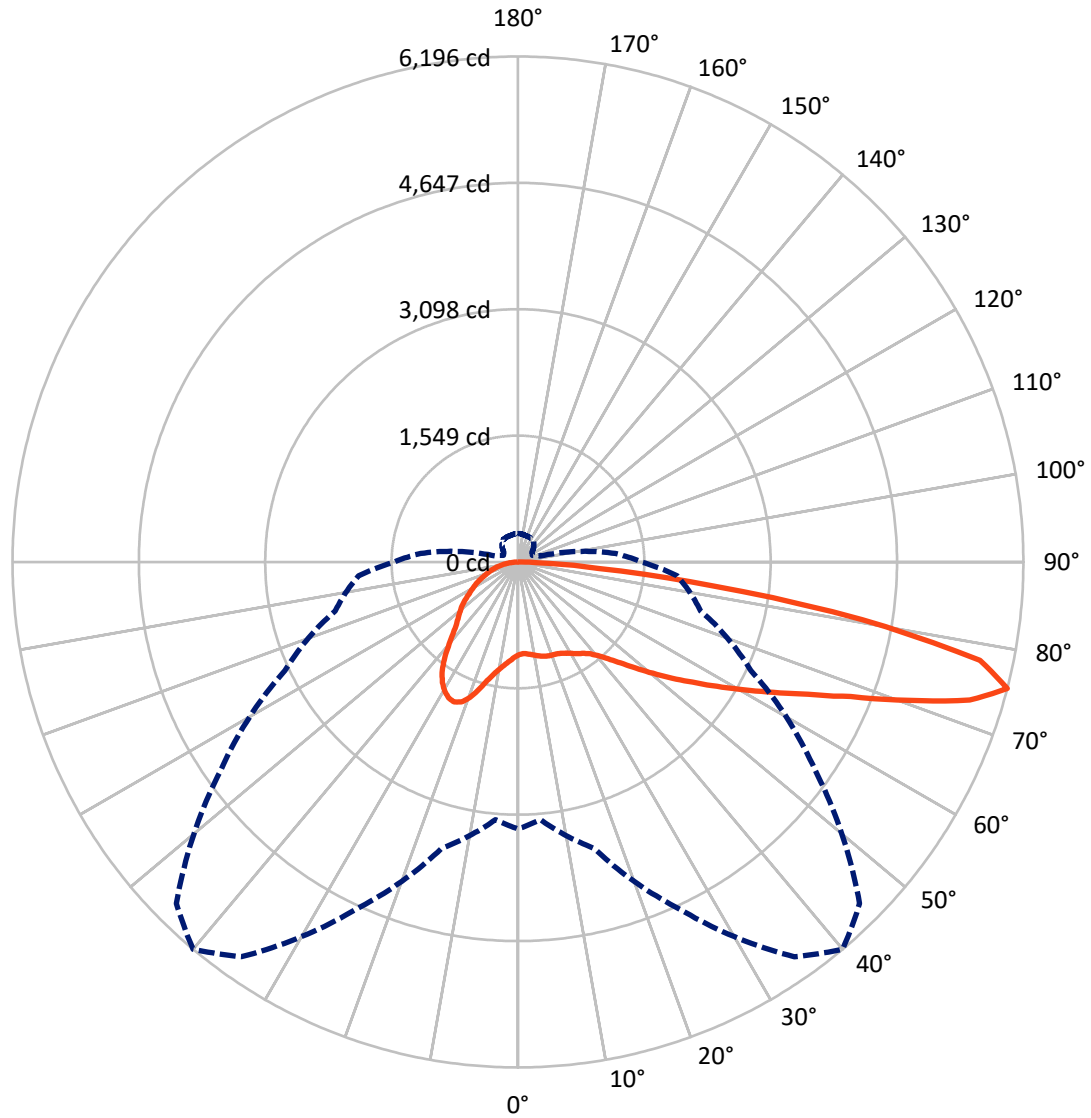
✕ Max cd
 - - - 1/2 Max cd



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
House Side	Lumens	3084.1	0.0	3084.1
	% Fixture	31.0	0.0	31.0
Street Side	Lumens	6869.9	0.0	6869.9
	% Fixture	69.0	0.0	69.0
Total	Lumens	9954.0	0.0	9954.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	113.6	1.1
10°-20°	381.5	3.8
20°-30°	696.5	7.0
30°-40°	987.9	9.9
40°-50°	1333.9	13.4
50°-60°	1794.5	18.0
60°-70°	2277.6	22.9
70°-80°	2067.1	20.8
80°-90°	301.3	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°	9954.0	100.0
0°-180°	9954.0	100.0

Coefficient of Utilization



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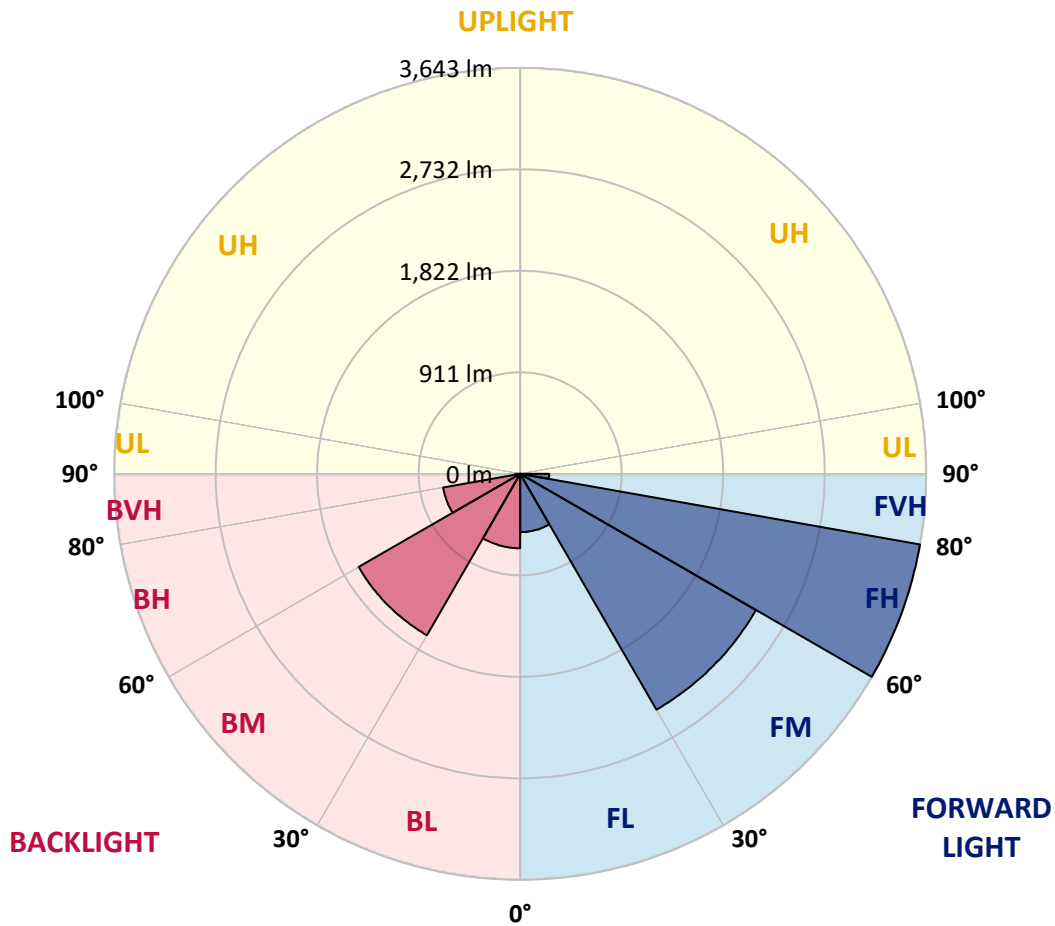
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	523.6	5.3			
FM (30°-60°)	2443.5	24.5			
FH (60°-80°)	3643.0	36.6			G2/5000
FVH (80°-90°)	259.8	2.6			G3/500
BL (0°-30°)	668.0	6.7	B2/1000		
BM (30°-60°)	1672.8	16.8	B2/2500		
BH (60°-80°)	701.7	7.0	B2/1000		G2/1000
BVH (80°-90°)	41.5	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°	1138.3	1138.3	1138.3	1138.3	1138.3	1138.3	1138.3	1138.3	1138.3	1138.3	1138.3
2.5°	1120.8	1127.2	1125.6	1123.5	1123.5	1124.0	1123.5	1127.2	1130.9	1134.6	1140.4
5°	1132.4	1138.8	1135.6	1133.0	1130.9	1130.3	1128.8	1128.2	1130.3	1135.1	1143.0
7.5°	1155.1	1161.5	1156.7	1152.0	1147.8	1145.6	1143.5	1140.4	1138.8	1141.4	1152.5
10°	1180.5	1186.8	1181.0	1172.6	1165.7	1163.1	1161.0	1157.8	1155.7	1157.3	1169.4
12.5°	1205.8	1212.2	1204.2	1192.6	1183.7	1182.1	1179.4	1178.4	1177.8	1177.3	1189.5
15°	1229.6	1234.9	1224.8	1211.1	1201.6	1199.0	1196.3	1197.9	1200.6	1203.7	1217.4
17.5°	1248.1	1253.3	1238.6	1220.6	1211.6	1210.6	1209.0	1214.3	1221.7	1229.6	1246.5
20°	1265.0	1270.2	1251.2	1226.9	1216.4	1216.4	1216.9	1228.0	1238.6	1250.2	1273.4
22.5°	1288.7	1292.9	1269.7	1236.5	1221.1	1222.2	1226.4	1237.5	1250.7	1266.5	1298.7
25°	1324.1	1327.3	1298.7	1254.4	1237.0	1240.1	1243.8	1249.1	1261.8	1280.3	1323.6
27.5°	1381.1	1383.7	1346.3	1286.1	1259.7	1265.0	1270.2	1266.5	1272.4	1288.2	1343.6
30°	1461.4	1462.9	1415.4	1335.7	1298.2	1300.9	1301.9	1286.6	1275.5	1288.2	1357.9
32.5°	1556.4	1555.9	1499.4	1395.9	1342.0	1339.4	1330.4	1300.3	1274.5	1285.6	1370.5
35°	1703.7	1697.9	1625.0	1480.4	1391.7	1375.3	1354.2	1315.6	1279.7	1282.9	1381.6
37.5°	1947.6	1929.6	1828.8	1618.7	1465.6	1423.9	1392.7	1340.5	1291.4	1281.9	1394.8
40°	2222.7	2200.0	2089.1	1808.2	1576.4	1509.4	1459.2	1375.8	1310.4	1286.6	1414.4
42.5°	2548.9	2516.7	2397.4	2031.5	1716.9	1619.7	1544.2	1420.7	1338.3	1301.9	1440.8
45°	2949.6	2906.9	2737.9	2283.4	1893.7	1764.4	1663.6	1488.8	1381.1	1331.5	1480.4
47.5°	3354.6	3365.1	3124.9	2571.6	2106.0	1942.8	1813.0	1591.2	1443.4	1379.0	1544.2
50°	3784.9	3792.2	3509.8	2891.0	2346.7	2144.5	1980.9	1705.8	1530.0	1446.6	1639.8
52.5°	4120.6	4121.7	3859.3	3225.2	2597.5	2366.3	2161.9	1836.7	1630.3	1536.3	1767.0
55°	4330.7	4328.1	4104.3	3541.5	2885.8	2599.1	2362.6	1985.6	1752.8	1641.9	1927.0
57.5°	4483.3	4475.4	4273.2	3813.4	3193.0	2874.1	2589.6	2154.6	1897.4	1767.6	2137.7
60°	4541.4	4536.6	4387.8	4048.3	3516.1	3178.2	2851.4	2343.6	2061.6	1915.9	2408.5
62.5°	4563.6	4572.5	4500.2	4275.8	3861.9	3515.1	3139.2	2569.5	2246.4	2083.8	2694.1
65°	4641.7	4658.1	4643.3	4573.6	4252.6	3909.4	3520.9	2838.2	2448.1	2263.8	2992.4
67.5°	4796.4	4812.8	4819.1	4930.0	4729.9	4401.0	3997.1	3173.0	2684.1	2450.7	3216.8
70°	4792.7	4787.9	4899.9	5213.5	5327.5	5081.5	4639.1	3584.8	2965.5	2605.9	3245.3
72.5°	4362.4	4324.4	4588.9	5210.3	5824.8	5792.1	5423.1	4115.9	3208.3	2625.0	2816.1
75°	3272.7	3171.4	3638.6	4695.6	5907.7	6195.5	5921.5	4445.3	3150.8	2319.3	1959.7
77.5°	1399.6	1297.7	1848.3	3476.0	5287.4	5791.6	5464.2	3878.3	2515.1	1533.7	962.4
80°	366.4	365.9	558.6	1575.9	3595.8	4276.9	3752.1	2504.6	1437.1	548.0	265.6
82.5°	151.5	147.8	205.4	612.9	1757.0	2400.0	1958.7	1117.1	519.0	148.4	88.2
85°	56.5	56.0	99.8	211.7	619.8	989.9	716.4	285.6	129.3	72.3	39.6
87.5°	15.8	15.3	21.6	73.4	151.0	229.1	122.5	47.0	36.4	28.5	11.6
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°	1138.3	1138.3	1138.3	1138.3	1138.3	1138.3	1138.3	1138.3	1138.3	1138.3	1138.3
2.5°	1141.9	1144.6	1149.3	1153.0	1157.8	1163.1	1170.5	1175.2	1180.0	1183.1	1181.0
5°	1146.7	1152.5	1164.7	1176.8	1191.0	1204.2	1219.6	1230.6	1239.6	1242.3	1243.3
7.5°	1157.3	1166.8	1187.4	1207.9	1230.6	1252.3	1274.5	1293.5	1308.8	1314.6	1315.1
10°	1175.7	1188.4	1217.4	1246.5	1276.6	1309.8	1338.3	1365.8	1387.4	1396.4	1396.9
12.5°	1199.0	1214.8	1252.8	1292.9	1334.6	1380.6	1417.5	1451.3	1478.3	1490.4	1490.4
15°	1229.1	1249.6	1298.2	1352.1	1413.3	1477.2	1524.2	1561.7	1591.8	1606.5	1605.5
17.5°	1261.8	1289.2	1350.5	1431.8	1519.4	1603.4	1658.3	1685.7	1716.9	1731.1	1730.6
20°	1293.5	1327.3	1414.9	1533.2	1649.8	1739.1	1783.4	1790.8	1792.9	1794.5	1798.7
22.5°	1326.2	1371.6	1495.7	1660.9	1786.0	1847.8	1854.1	1822.5	1778.1	1757.5	1763.3
25°	1362.1	1422.3	1601.3	1801.9	1903.2	1910.6	1862.1	1785.0	1701.0	1662.5	1668.3
27.5°	1396.9	1480.9	1728.0	1936.5	1987.7	1922.8	1818.2	1709.0	1607.6	1566.9	1571.7
30°	1431.8	1547.9	1867.9	2054.2	2026.3	1892.7	1749.1	1627.1	1525.2	1482.5	1487.2
32.5°	1467.2	1626.1	2028.9	2139.2	2019.4	1828.8	1663.0	1535.3	1445.5	1400.6	1406.5
35°	1507.3	1722.2	2181.5	2185.7	1973.5	1734.8	1549.5	1425.5	1347.3	1311.4	1319.3
37.5°	1559.6	1844.1	2316.1	2197.3	1893.2	1597.0	1408.6	1295.6	1231.2	1214.8	1226.4
40°	1624.5	1990.9	2419.1	2178.8	1774.4	1429.7	1254.4	1164.1	1127.7	1131.4	1144.1
42.5°	1709.0	2155.1	2491.4	2131.3	1609.2	1257.0	1119.2	1079.1	1096.5	1111.3	1125.1
45°	1818.8	2325.6	2536.3	2050.5	1422.3	1110.8	1039.5	1049.0	1062.2	1063.8	1074.4
47.5°	1959.2	2498.2	2565.8	1928.6	1231.7	1007.9	988.8	991.0	988.3	977.2	985.7
50°	2134.5	2666.1	2592.2	1767.0	1069.6	943.4	918.1	910.7	874.3	838.4	843.1
52.5°	2334.1	2820.3	2603.3	1566.4	943.4	889.6	848.4	802.0	733.8	722.8	726.5
55°	2555.8	2962.8	2574.8	1319.9	837.3	820.4	758.1	702.2	694.8	685.3	686.9
57.5°	2820.8	3116.5	2516.7	1044.8	728.6	739.7	678.9	685.3	672.1	657.3	654.7
60°	3110.7	3275.4	2414.8	794.0	616.1	638.8	658.3	657.8	654.1	642.0	637.8
62.5°	3371.5	3379.9	2214.2	608.2	517.4	560.7	614.0	613.5	610.3	603.4	600.8
65°	3526.7	3364.1	1879.5	478.8	436.1	496.3	553.8	558.0	558.6	558.0	558.0
67.5°	3499.2	3178.8	1420.2	381.2	369.0	430.8	494.2	500.0	504.2	505.2	506.3
70°	3188.8	2771.7	926.0	304.1	309.4	373.3	437.7	443.5	447.2	451.4	453.5
72.5°	2485.6	2037.9	530.1	246.0	257.1	323.6	381.7	388.6	390.7	398.6	401.8
75°	1514.7	1198.4	286.1	193.8	211.2	276.6	326.3	334.2	337.9	347.4	348.4
77.5°	720.1	519.0	163.1	151.0	170.0	226.0	275.6	284.6	274.5	279.8	275.6
80°	243.4	192.7	102.9	115.1	129.9	176.3	220.7	229.7	208.5	207.5	205.4
82.5°	85.0	78.1	65.5	76.6	83.9	126.2	166.8	178.4	155.2	154.7	147.3
85°	33.3	31.7	36.4	41.7	50.2	77.6	109.8	115.6	95.6	77.1	76.0
87.5°	6.9	7.4	9.0	9.5	15.3	26.9	39.6	48.6	38.5	32.7	30.1
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)