

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: P882064

Luminaire Tested: **NAV-SB1D-735-U-SL4**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882064
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-SB1D-735-U-SL4
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 70 CRI, 3500K, 900mA LIGHTSQUARE WITH 26 LEDS AND TYPE IV SPILL LIGHT
ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10096 lumens
Efficiency: N/A
Efficacy: 126.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B2 - U0 - G3

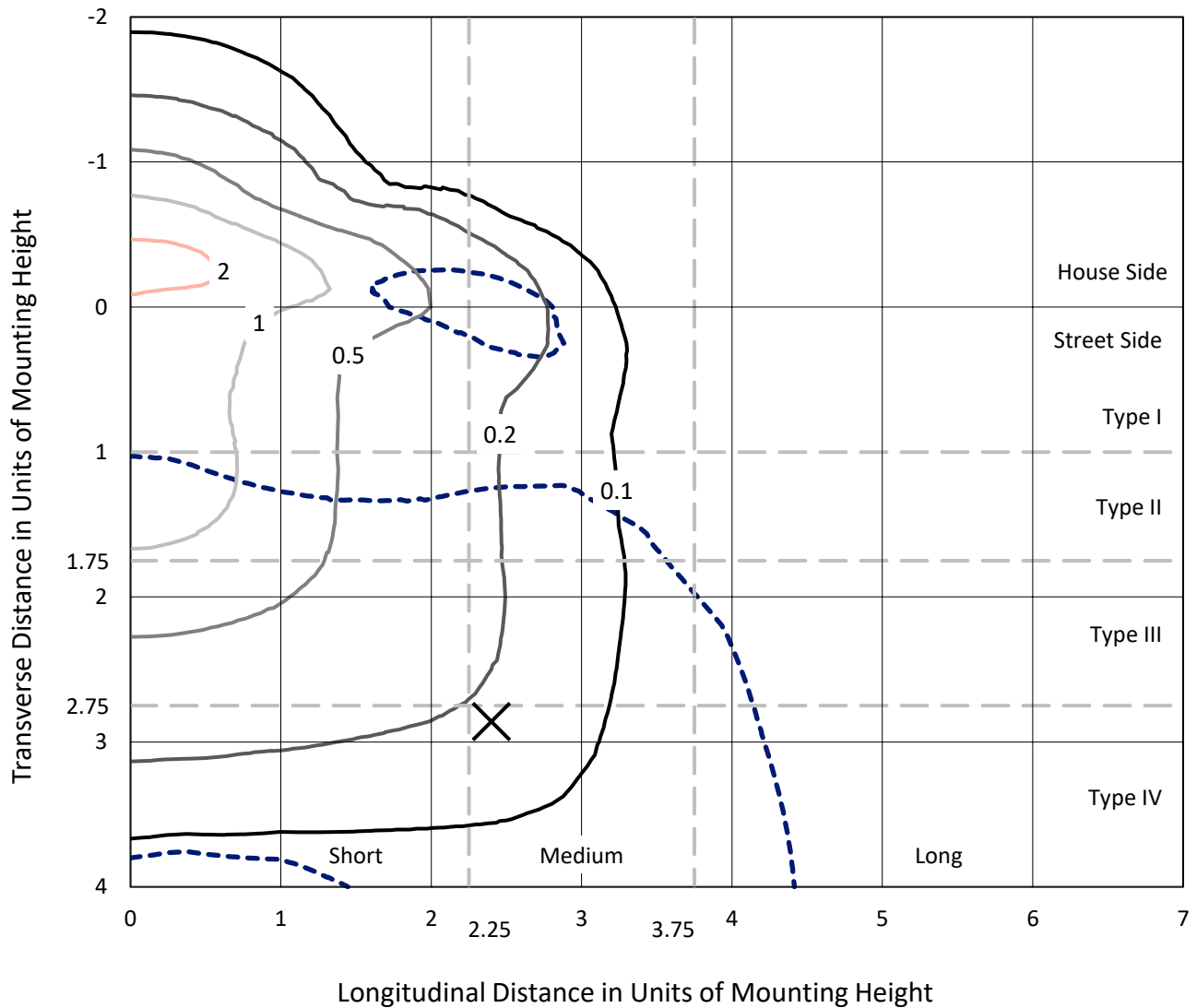
Input Watts (W): 79.6
Input Voltage (V): 120.0
Input Current (Ain): 0.638
Voltage Rise (V): NR
Power Factor: 0.997
Total Harmonic Distortion (THDi): 6.673
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

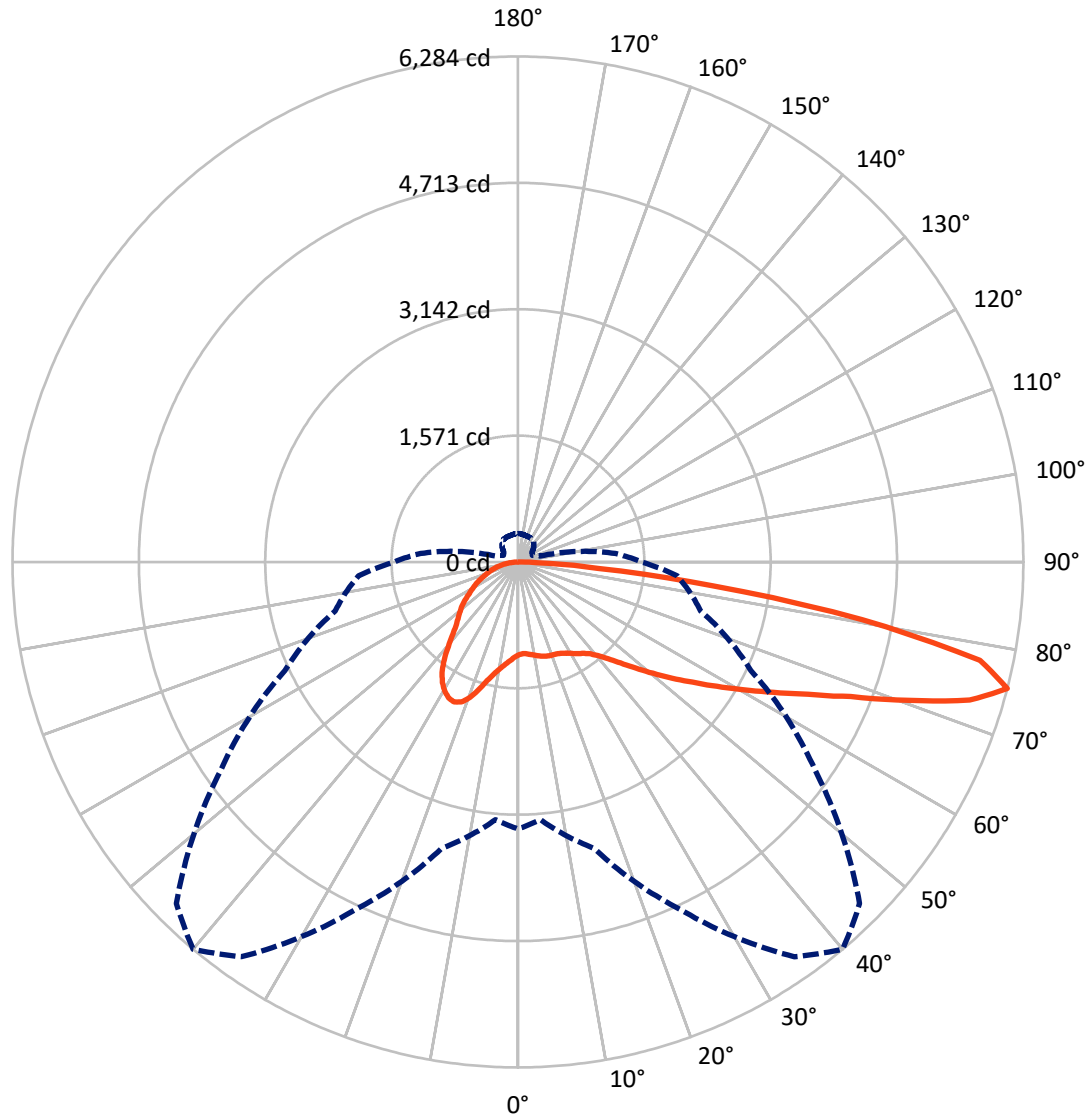
✕ Max cd
 - - - 1/2 Max cd



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	3128.1	0.0	3128.1
	% Fixture	31.0	0.0	31.0
Street Side	Lumens	6967.9	0.0	6967.9
	% Fixture	69.0	0.0	69.0
Total	Lumens	10096.0	0.0	10096.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	115.2	1.1
10°-20°	386.9	3.8
20°-30°	706.5	7.0
30°-40°	1002.0	9.9
40°-50°	1353.0	13.4
50°-60°	1820.1	18.0
60°-70°	2310.1	22.9
70°-80°	2096.6	20.8
80°-90°	305.6	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°	10096.0	100.0
0°-180°	10096.0	100.0

Coefficient of Utilization



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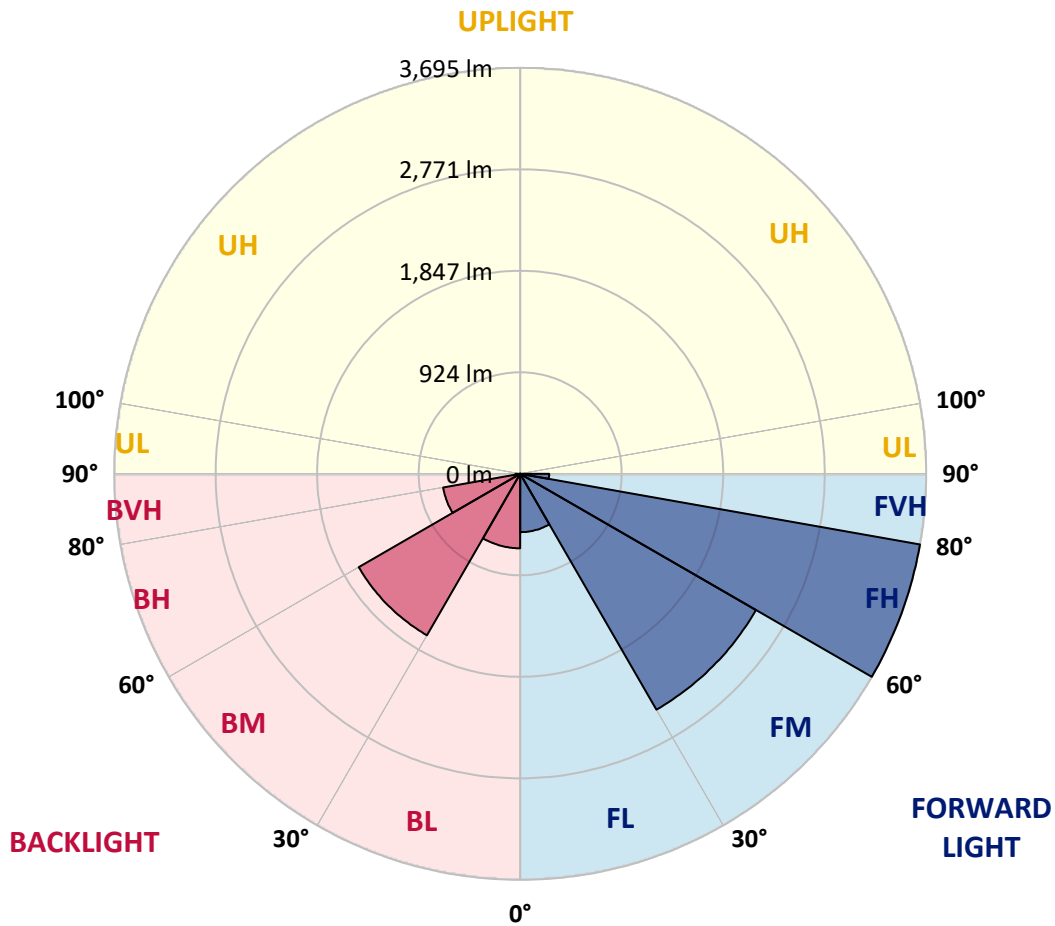
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	531.1	5.3			
FM (30°-60°)	2478.3	24.5			
FH (60°-80°)	3695.0	36.6			G2/5000
FVH (80°-90°)	263.5	2.6			G3/500
BL (0°-30°)	677.6	6.7	B2/1000		
BM (30°-60°)	1696.7	16.8	B2/2500		
BH (60°-80°)	711.7	7.0	B2/1000		G2/1000
BVH (80°-90°)	42.1	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°	1154.5	1154.5	1154.5	1154.5	1154.5	1154.5	1154.5	1154.5	1154.5	1154.5	1154.5
2.5°	1136.8	1143.2	1141.6	1139.5	1139.5	1140.0	1139.5	1143.2	1147.0	1150.7	1156.6
5°	1148.6	1155.0	1151.8	1149.1	1147.0	1146.5	1144.9	1144.3	1146.5	1151.3	1159.3
7.5°	1171.6	1178.1	1173.2	1168.4	1164.1	1162.0	1159.8	1156.6	1155.0	1157.7	1168.9
10°	1197.3	1203.8	1197.9	1189.3	1182.3	1179.7	1177.5	1174.3	1172.2	1173.8	1186.1
12.5°	1223.0	1229.5	1221.4	1209.6	1200.5	1198.9	1196.3	1195.2	1194.7	1194.1	1206.4
15°	1247.1	1252.5	1242.3	1228.4	1218.7	1216.1	1213.4	1215.0	1217.7	1220.9	1234.8
17.5°	1265.9	1271.2	1256.2	1238.0	1228.9	1227.9	1226.2	1231.6	1239.1	1247.1	1264.3
20°	1283.0	1288.4	1269.1	1244.5	1233.7	1233.7	1234.3	1245.5	1256.2	1268.0	1291.6
22.5°	1307.1	1311.4	1287.8	1254.1	1238.6	1239.6	1243.9	1255.2	1268.5	1284.6	1317.3
25°	1343.0	1346.2	1317.3	1272.3	1254.6	1257.8	1261.6	1266.9	1279.8	1298.5	1342.4
27.5°	1400.8	1403.5	1365.5	1304.4	1277.7	1283.0	1288.4	1284.6	1290.5	1306.6	1362.8
30°	1482.2	1483.8	1435.6	1354.8	1316.7	1319.4	1320.5	1305.0	1293.7	1306.6	1377.2
32.5°	1578.6	1578.1	1520.8	1415.8	1361.2	1358.5	1349.4	1318.9	1292.6	1303.9	1390.1
35°	1728.0	1722.1	1648.2	1501.5	1411.5	1394.9	1373.5	1334.4	1298.0	1301.2	1401.3
37.5°	1975.4	1957.2	1854.9	1641.8	1486.5	1444.2	1412.6	1359.6	1309.8	1300.1	1414.7
40°	2254.4	2231.3	2118.9	1834.0	1598.9	1530.9	1480.1	1395.5	1329.1	1305.0	1434.5
42.5°	2585.3	2552.6	2431.6	2060.5	1741.4	1642.8	1566.3	1441.0	1357.4	1320.5	1461.3
45°	2991.7	2948.3	2777.0	2315.9	1920.8	1789.6	1687.3	1510.0	1400.8	1350.5	1501.5
47.5°	3402.4	3413.1	3169.5	2608.3	2136.0	1970.6	1838.8	1613.9	1464.0	1398.7	1566.3
50°	3838.8	3846.3	3559.9	2932.3	2380.2	2175.1	2009.1	1730.1	1551.8	1467.2	1663.2
52.5°	4179.4	4180.5	3914.3	3271.2	2634.6	2400.0	2192.8	1862.9	1653.6	1558.2	1792.2
55°	4392.5	4389.9	4162.8	3592.0	2926.9	2636.2	2396.3	2013.9	1777.8	1665.3	1954.5
57.5°	4547.3	4539.2	4334.2	3867.8	3238.6	2915.1	2626.5	2185.3	1924.5	1792.8	2168.2
60°	4606.2	4601.4	4450.4	4106.0	3566.3	3223.6	2892.1	2377.0	2091.0	1943.3	2442.9
62.5°	4628.7	4637.8	4564.4	4336.8	3917.0	3565.2	3184.0	2606.2	2278.5	2113.5	2732.5
65°	4707.9	4724.5	4709.5	4638.8	4313.3	3965.2	3571.1	2878.7	2483.0	2296.1	3035.1
67.5°	4864.8	4881.4	4887.8	5000.3	4797.3	4463.7	4054.1	3218.2	2722.4	2485.7	3262.7
70°	4861.1	4856.3	4969.8	5287.8	5403.5	5154.0	4705.2	3635.9	3007.8	2643.1	3291.6
72.5°	4424.7	4386.1	4654.4	5284.6	5907.9	5874.7	5500.4	4174.6	3254.1	2662.4	2856.2
75°	3319.4	3216.6	3690.5	4762.5	5992.0	6283.8	6005.9	4508.7	3195.7	2352.4	1987.7
77.5°	1419.6	1316.2	1874.7	3525.6	5362.8	5874.2	5542.2	3933.6	2551.0	1555.6	976.2
80°	371.6	371.1	566.5	1598.4	3647.1	4337.9	3805.6	2540.3	1457.6	555.8	269.3
82.5°	153.7	149.9	208.3	621.7	1782.1	2434.3	1986.6	1133.1	526.4	150.5	89.4
85°	57.3	56.8	101.2	214.7	628.7	1004.0	726.6	289.7	131.2	73.4	40.2
87.5°	16.1	15.5	22.0	74.4	153.1	232.4	124.2	47.7	36.9	28.9	11.8
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°	1154.5	1154.5	1154.5	1154.5	1154.5	1154.5	1154.5	1154.5	1154.5	1154.5	1154.5
2.5°	1158.2	1160.9	1165.7	1169.5	1174.3	1179.7	1187.2	1192.0	1196.8	1200.0	1197.9
5°	1163.1	1168.9	1181.3	1193.6	1208.0	1221.4	1237.0	1248.2	1257.3	1260.0	1261.1
7.5°	1173.8	1183.4	1204.3	1225.2	1248.2	1270.2	1292.6	1311.9	1327.5	1333.3	1333.9
10°	1192.5	1205.4	1234.8	1264.3	1294.8	1328.5	1357.4	1385.3	1407.2	1416.3	1416.9
12.5°	1216.1	1232.1	1270.7	1311.4	1353.7	1400.3	1437.8	1472.0	1499.3	1511.7	1511.7
15°	1246.6	1267.5	1316.7	1371.4	1433.5	1498.3	1545.9	1583.9	1614.5	1629.5	1628.4
17.5°	1279.8	1307.6	1369.8	1452.2	1541.1	1626.2	1681.9	1709.8	1741.4	1755.8	1755.3
20°	1311.9	1346.2	1435.1	1555.0	1673.4	1763.9	1808.8	1816.3	1818.5	1820.1	1824.4
22.5°	1345.1	1391.2	1517.0	1684.6	1811.5	1874.2	1880.6	1848.5	1803.5	1782.6	1788.5
25°	1381.5	1442.6	1624.1	1827.6	1930.4	1937.9	1888.6	1810.5	1725.3	1686.2	1692.1
27.5°	1416.9	1502.0	1752.6	1964.1	2016.1	1950.2	1844.2	1733.3	1630.5	1589.3	1594.1
30°	1452.2	1570.0	1894.5	2083.5	2055.2	1919.7	1774.0	1650.3	1547.0	1503.6	1508.4
32.5°	1488.1	1649.3	2057.8	2169.8	2048.2	1854.9	1686.8	1557.2	1466.1	1420.6	1426.5
35°	1528.8	1746.7	2212.6	2216.9	2001.6	1759.6	1571.6	1445.8	1366.5	1330.1	1338.2
37.5°	1581.8	1870.4	2349.1	2228.7	1920.2	1619.8	1428.7	1314.1	1248.7	1232.1	1243.9
40°	1647.7	2019.3	2453.6	2209.9	1799.7	1450.1	1272.3	1180.7	1143.8	1147.5	1160.4
42.5°	1733.3	2185.8	2526.9	2161.7	1632.1	1275.0	1135.2	1094.5	1112.2	1127.2	1141.1
45°	1844.7	2358.8	2572.4	2079.8	1442.6	1126.6	1054.4	1064.0	1077.4	1079.0	1089.7
47.5°	1987.2	2533.9	2602.4	1956.1	1249.3	1022.2	1003.0	1005.1	1002.4	991.2	999.7
50°	2164.9	2704.2	2629.2	1792.2	1084.9	956.9	931.2	923.7	886.8	850.3	855.2
52.5°	2367.3	2860.5	2640.4	1588.8	956.9	902.3	860.5	813.4	744.3	733.1	736.8
55°	2592.3	3005.1	2611.5	1338.7	849.3	832.1	768.9	712.2	704.7	695.1	696.7
57.5°	2861.1	3160.9	2552.6	1059.7	739.0	750.2	688.6	695.1	681.7	666.7	664.0
60°	3155.0	3322.1	2449.3	805.4	624.9	647.9	667.7	667.2	663.5	651.1	646.9
62.5°	3419.6	3428.1	2245.8	616.9	524.8	568.7	622.8	622.2	619.0	612.1	609.4
65°	3577.0	3412.1	1906.3	485.7	442.3	503.3	561.7	566.0	566.5	566.0	566.0
67.5°	3549.1	3224.1	1440.4	386.6	374.3	437.0	501.2	507.1	511.4	512.5	513.5
70°	3234.3	2811.3	939.2	308.4	313.8	378.6	443.9	449.8	453.6	457.8	460.0
72.5°	2521.0	2066.9	537.6	249.5	260.8	328.2	387.2	394.1	396.3	404.3	407.5
75°	1536.3	1215.5	290.2	196.5	214.2	280.6	330.9	339.0	342.7	352.3	353.4
77.5°	730.4	526.4	165.5	153.1	172.4	229.2	279.5	288.6	278.4	283.8	279.5
80°	246.9	195.4	104.4	116.7	131.7	178.8	223.8	232.9	211.5	210.4	208.3
82.5°	86.2	79.3	66.4	77.6	85.1	128.0	169.2	181.0	157.4	156.9	149.4
85°	33.7	32.1	36.9	42.3	50.9	78.7	111.4	117.3	96.9	78.2	77.1
87.5°	7.0	7.5	9.1	9.6	15.5	27.3	40.2	49.3	39.1	33.2	30.5
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)