

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: P960903

Luminaire Tested: **NAV-SB1D-740-U-SL4**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P960903
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-9)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB1D-740-U-SL4
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 70 CRI, 4000K, 900mA LIGHTSQUARE WITH 26 LEDS AND TYPE IV SPILL LIGHT
ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10941.9 lumens
Efficiency: N/A
Efficacy: 137.5 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): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



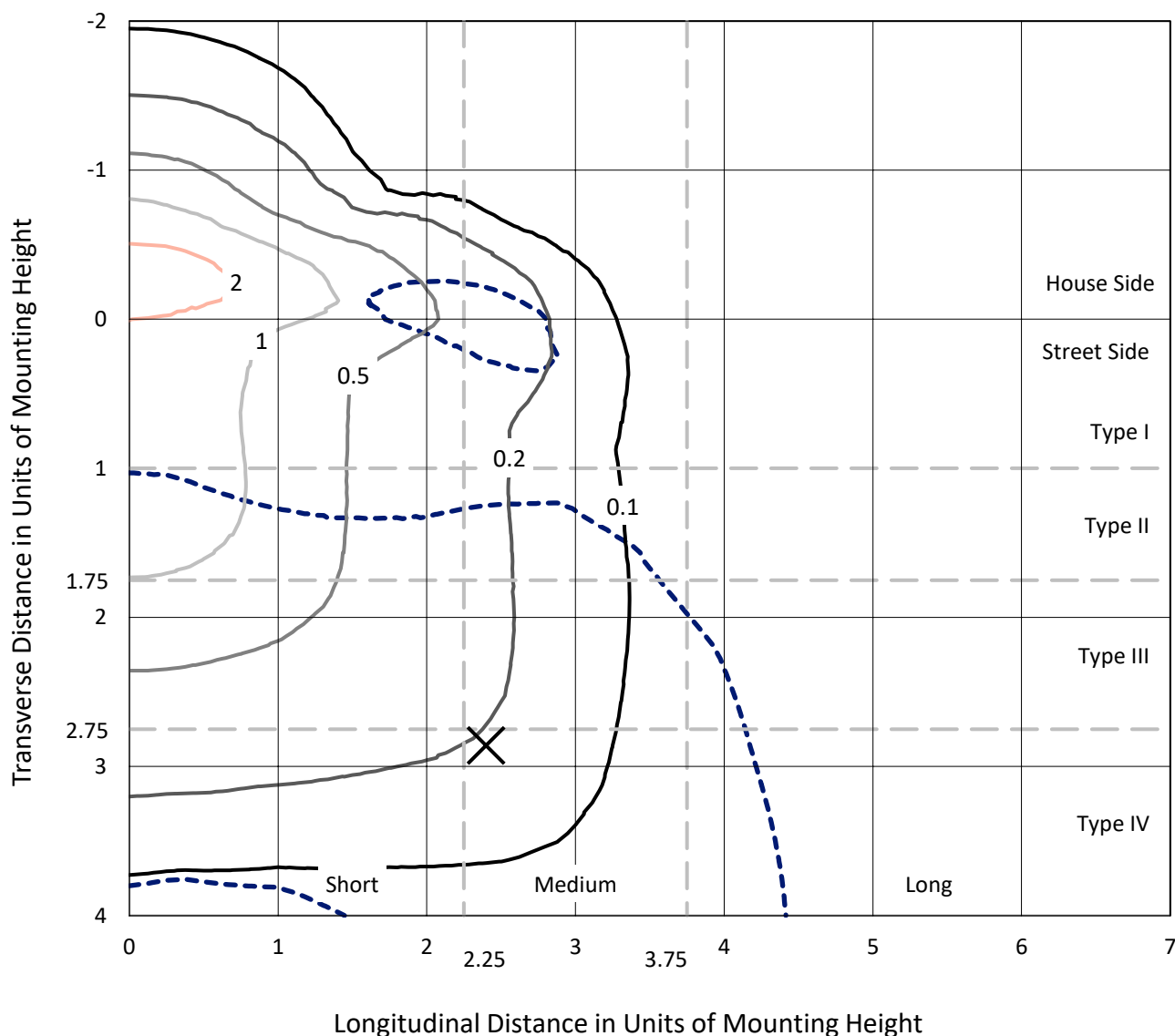
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

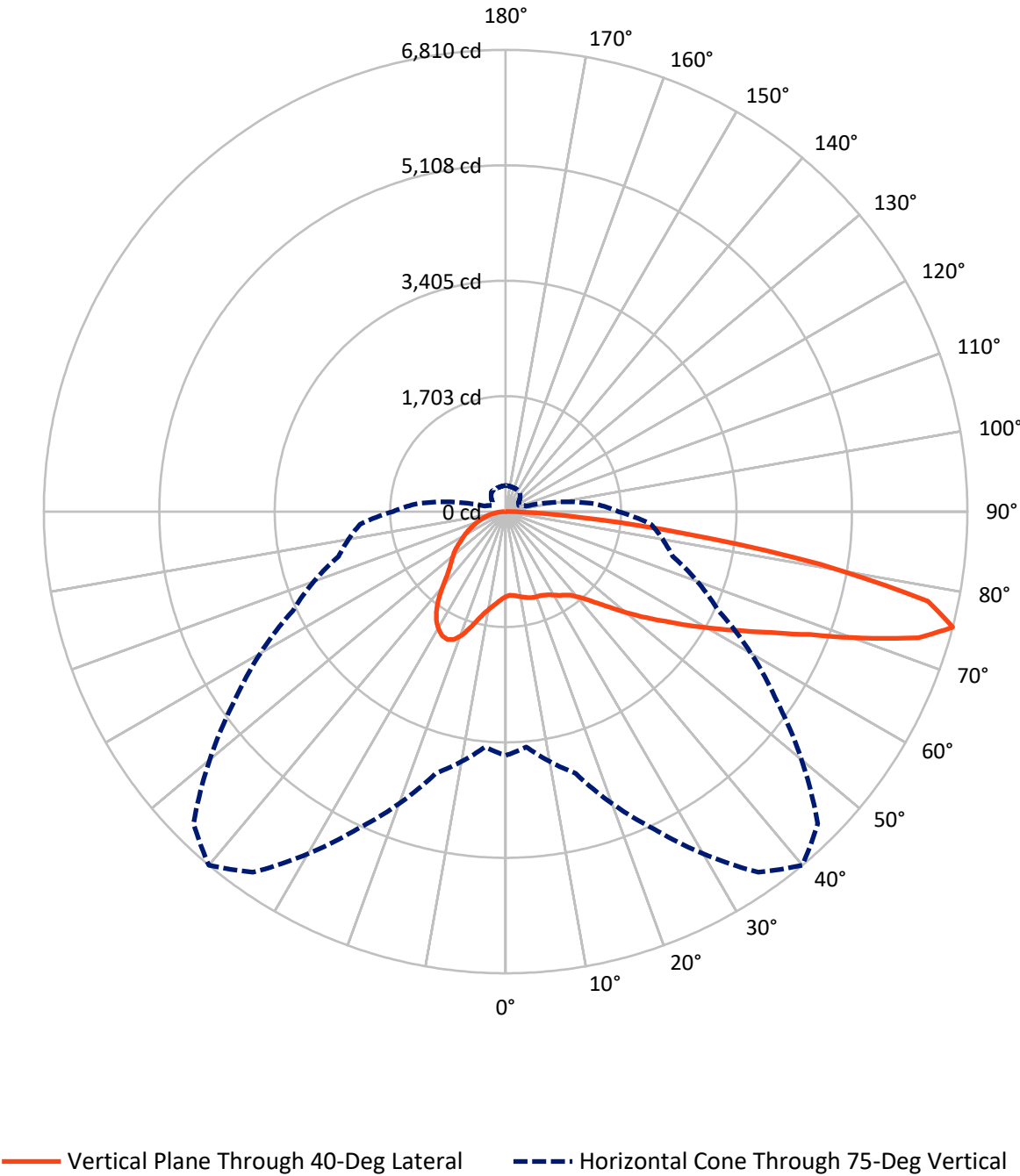
--- 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.6 fc
Type IV - Medium - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3390.2	0.0	3390.2
	% Fixture	31.0	0.0	31.0
Street Side	Lumens	7551.7	0.0	7551.7
	% Fixture	69.0	0.0	69.0
Total	Lumens	10941.9	0.0	10941.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	124.9	1.1
10°-20°	419.3	3.8
20°-30°	765.7	7.0
30°-40°	1085.9	9.9
40°-50°	1466.3	13.4
50°-60°	1972.6	18.0
60°-70°	2503.7	22.9
70°-80°	2272.3	20.8
80°-90°	331.2	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°	10941.9	100.0
0°-180°	10941.9	100.0

Coefficient of Utilization



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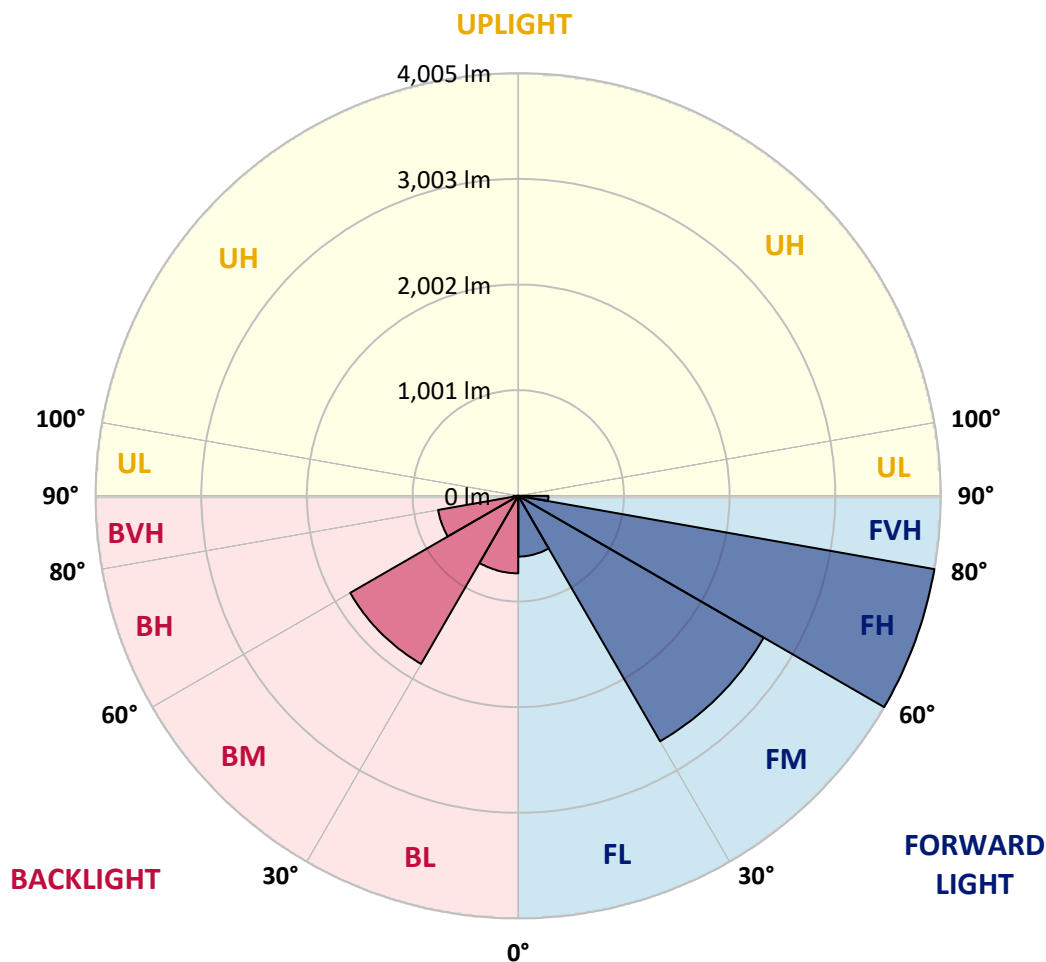
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	575.6	5.3			
FM	(30°-60°)	2686.0	24.5			
FH	(60°-80°)	4004.6	36.6			G2/5000
FVH	(80°-90°)	285.6	2.6			G3/500
BL	(0°-30°)	734.3	6.7	B2/1000		
BM	(30°-60°)	1838.9	16.8	B2/2500		
BH	(60°-80°)	771.4	7.0	B2/1000		G2/1000
BVH	(80°-90°)	45.6	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°	1251.2	1251.2	1251.2	1251.2	1251.2	1251.2	1251.2	1251.2	1251.2	1251.2	1251.2
2.5°	1232.0	1239.0	1237.3	1234.9	1234.9	1235.5	1234.9	1239.0	1243.1	1247.1	1253.6
5°	1244.9	1251.8	1248.3	1245.4	1243.1	1242.5	1240.8	1240.1	1242.5	1247.7	1256.4
7.5°	1269.8	1276.7	1271.5	1266.3	1261.7	1259.3	1257.1	1253.6	1251.8	1254.7	1266.9
10°	1297.6	1304.6	1298.3	1288.9	1281.4	1278.5	1276.1	1272.6	1270.4	1272.1	1285.5
12.5°	1325.5	1332.5	1323.8	1311.0	1301.1	1299.4	1296.5	1295.3	1294.8	1294.2	1307.5
15°	1351.7	1357.4	1346.4	1331.3	1320.8	1317.9	1315.1	1316.8	1319.7	1323.2	1338.2
17.5°	1372.0	1377.7	1361.5	1341.7	1331.9	1330.8	1329.0	1334.8	1343.0	1351.7	1370.2
20°	1390.5	1396.3	1375.4	1348.7	1337.1	1337.1	1337.7	1349.9	1361.5	1374.2	1399.7
22.5°	1416.7	1421.3	1395.7	1359.1	1342.3	1343.5	1348.2	1360.3	1374.8	1392.3	1427.6
25°	1455.5	1459.0	1427.6	1378.9	1359.8	1363.2	1367.2	1373.1	1387.0	1407.3	1454.9
27.5°	1518.1	1521.1	1479.9	1413.7	1384.7	1390.5	1396.3	1392.3	1398.6	1416.0	1476.9
30°	1606.4	1608.1	1555.8	1468.3	1427.1	1430.0	1431.1	1414.3	1402.1	1416.0	1492.6
32.5°	1710.8	1710.3	1648.2	1534.4	1475.2	1472.3	1462.5	1429.4	1401.0	1413.2	1506.5
35°	1872.8	1866.4	1786.3	1627.3	1529.8	1511.8	1488.6	1446.2	1406.7	1410.2	1518.7
37.5°	2140.9	2121.1	2010.3	1779.3	1611.0	1565.2	1530.9	1473.5	1419.5	1409.1	1533.3
40°	2443.2	2418.3	2296.4	1987.7	1732.9	1659.2	1604.0	1512.4	1440.4	1414.3	1554.7
42.5°	2801.9	2766.5	2635.4	2233.2	1887.2	1780.5	1697.5	1561.7	1471.2	1431.1	1583.7
45°	3242.4	3195.3	3009.6	2510.0	2081.7	1939.5	1828.7	1636.5	1518.1	1463.6	1627.3
47.5°	3687.5	3699.1	3435.1	2826.8	2315.0	2135.7	1992.9	1749.2	1586.7	1515.9	1697.5
50°	4160.5	4168.6	3858.1	3177.9	2579.6	2357.4	2177.4	1875.1	1681.8	1590.2	1802.6
52.5°	4529.6	4530.7	4242.3	3545.3	2855.2	2601.1	2376.5	2019.0	1792.1	1688.8	1942.4
55°	4760.5	4757.6	4511.5	3893.0	3172.2	2857.0	2597.0	2182.6	1926.7	1804.8	2118.3
57.5°	4928.3	4919.6	4697.3	4191.8	3509.9	3159.4	2846.6	2368.4	2085.8	1943.0	2349.8
60°	4992.1	4986.9	4823.2	4450.0	3865.1	3493.6	3134.4	2576.1	2266.3	2106.1	2647.5
62.5°	5016.5	5026.4	4946.9	4700.2	4245.2	3863.9	3450.8	2824.5	2469.3	2290.6	2961.5
65°	5102.3	5120.4	5104.1	5027.5	4674.6	4297.4	3870.3	3119.9	2691.0	2488.5	3289.4
67.5°	5272.4	5290.4	5297.4	5419.3	5199.3	4837.7	4393.8	3487.9	2950.5	2693.9	3536.0
70°	5268.4	5263.2	5386.2	5730.9	5856.2	5585.8	5099.5	3940.5	3259.8	2864.6	3567.4
72.5°	4795.4	4753.5	5044.3	5727.4	6402.9	6366.9	5961.3	4524.3	3526.7	2885.5	3095.5
75°	3597.5	3486.1	3999.8	5161.6	6494.0	6810.3	6509.2	4886.5	3463.5	2549.5	2154.2
77.5°	1538.5	1426.5	2031.8	3821.0	5812.2	6366.4	6006.5	4263.2	2764.7	1685.9	1058.0
80°	402.7	402.2	614.0	1732.4	3952.7	4701.4	4124.5	2753.1	1579.7	602.4	291.9
82.5°	166.6	162.5	225.7	673.7	1931.4	2638.2	2153.1	1228.1	570.5	163.1	97.0
85°	62.1	61.5	109.7	232.7	681.3	1088.1	787.5	314.0	142.2	79.5	43.6
87.5°	17.4	16.8	23.8	80.7	165.9	251.8	134.7	51.7	40.1	31.4	12.8
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°	1251.2	1251.2	1251.2	1251.2	1251.2	1251.2	1251.2	1251.2	1251.2	1251.2	1251.2
2.5°	1255.3	1258.2	1263.4	1267.5	1272.6	1278.5	1286.6	1291.8	1297.0	1300.5	1298.3
5°	1260.5	1266.9	1280.2	1293.6	1309.2	1323.8	1340.6	1352.8	1362.6	1365.5	1366.7
7.5°	1272.1	1282.6	1305.2	1327.8	1352.8	1376.6	1401.0	1421.9	1438.7	1445.0	1445.7
10°	1292.4	1306.4	1338.2	1370.2	1403.2	1439.8	1471.2	1501.3	1525.1	1535.0	1535.6
12.5°	1317.9	1335.4	1377.2	1421.3	1467.1	1517.6	1558.2	1595.3	1624.9	1638.3	1638.3
15°	1351.1	1373.7	1427.1	1486.2	1553.6	1623.8	1675.5	1716.7	1749.8	1766.0	1764.8
17.5°	1387.0	1417.2	1484.5	1573.9	1670.2	1762.5	1822.9	1853.0	1887.2	1902.9	1902.4
20°	1421.9	1459.0	1555.3	1685.3	1813.5	1911.6	1960.4	1968.5	1970.9	1972.6	1977.2
22.5°	1457.9	1507.8	1644.1	1825.7	1963.3	2031.2	2038.2	2003.4	1954.6	1931.9	1938.4
25°	1497.3	1563.4	1760.1	1980.7	2092.1	2100.2	2046.8	1962.2	1869.9	1827.5	1833.9
27.5°	1535.6	1627.9	1899.4	2128.7	2185.0	2113.7	1998.7	1878.5	1767.1	1722.4	1727.6
30°	1573.9	1701.6	2053.3	2258.1	2227.3	2080.5	1922.7	1788.6	1676.6	1629.6	1634.9
32.5°	1612.7	1787.5	2230.3	2351.6	2219.8	2010.3	1828.1	1687.7	1589.0	1539.7	1546.0
35°	1656.9	1893.1	2398.0	2402.6	2169.3	1907.0	1703.3	1566.9	1481.0	1441.6	1450.3
37.5°	1714.3	2027.1	2546.0	2415.4	2081.1	1755.5	1548.4	1424.1	1353.3	1335.4	1348.2
40°	1785.8	2188.5	2659.2	2395.1	1950.6	1571.5	1378.9	1279.6	1239.6	1243.6	1257.6
42.5°	1878.5	2369.0	2738.6	2342.8	1768.8	1381.8	1230.3	1186.2	1205.4	1221.6	1236.7
45°	1999.3	2556.5	2788.0	2254.1	1563.4	1221.1	1142.7	1153.1	1167.7	1169.4	1181.0
47.5°	2153.6	2746.2	2820.5	2120.0	1353.9	1107.9	1087.0	1089.3	1086.4	1074.2	1083.5
50°	2346.3	2930.7	2849.5	1942.4	1175.8	1037.1	1009.2	1001.1	961.0	921.6	926.8
52.5°	2565.7	3100.2	2861.7	1721.9	1037.1	977.8	932.6	881.5	806.7	794.5	798.6
55°	2809.4	3256.8	2830.3	1450.9	920.4	901.9	833.3	771.8	763.7	753.3	755.0
57.5°	3100.7	3425.8	2766.5	1148.5	800.8	813.0	746.3	753.3	738.8	722.5	719.7
60°	3419.4	3600.4	2654.4	872.8	677.2	702.2	723.6	723.1	719.0	705.7	701.1
62.5°	3706.1	3715.3	2434.0	668.5	568.8	616.3	675.0	674.3	670.9	663.4	660.4
65°	3876.7	3697.9	2066.0	526.3	479.4	545.5	608.7	613.5	614.0	613.5	613.5
67.5°	3846.5	3494.2	1561.1	419.0	405.7	473.6	543.2	549.6	554.2	555.3	556.6
70°	3505.3	3046.8	1017.9	334.3	340.1	410.3	481.1	487.5	491.6	496.2	498.6
72.5°	2732.2	2240.1	582.7	270.4	282.6	355.8	419.6	427.1	429.5	438.2	441.7
75°	1665.0	1317.3	314.6	213.0	232.2	304.1	358.6	367.4	371.5	381.9	383.0
77.5°	791.6	570.5	179.4	165.9	186.9	248.4	302.9	312.8	301.8	307.6	302.9
80°	267.5	211.9	113.2	126.5	142.8	193.8	242.6	252.5	229.2	228.1	225.7
82.5°	93.5	85.9	72.0	84.2	92.2	138.7	183.4	196.2	170.7	170.0	162.0
85°	36.6	34.8	40.1	45.8	55.1	85.3	120.7	127.1	105.1	84.8	83.5
87.5°	7.6	8.1	9.8	10.5	16.8	29.6	43.6	53.4	42.3	36.0	33.1
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)