

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: P882974

Luminaire Tested: **NAV-SB3A-835-U-SL4**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882974
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-SB3A-835-U-SL4
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 80 CRI, 3500K, 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: 11253 lumens
Efficiency: N/A
Efficacy: 132.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B2 - U0 - G3

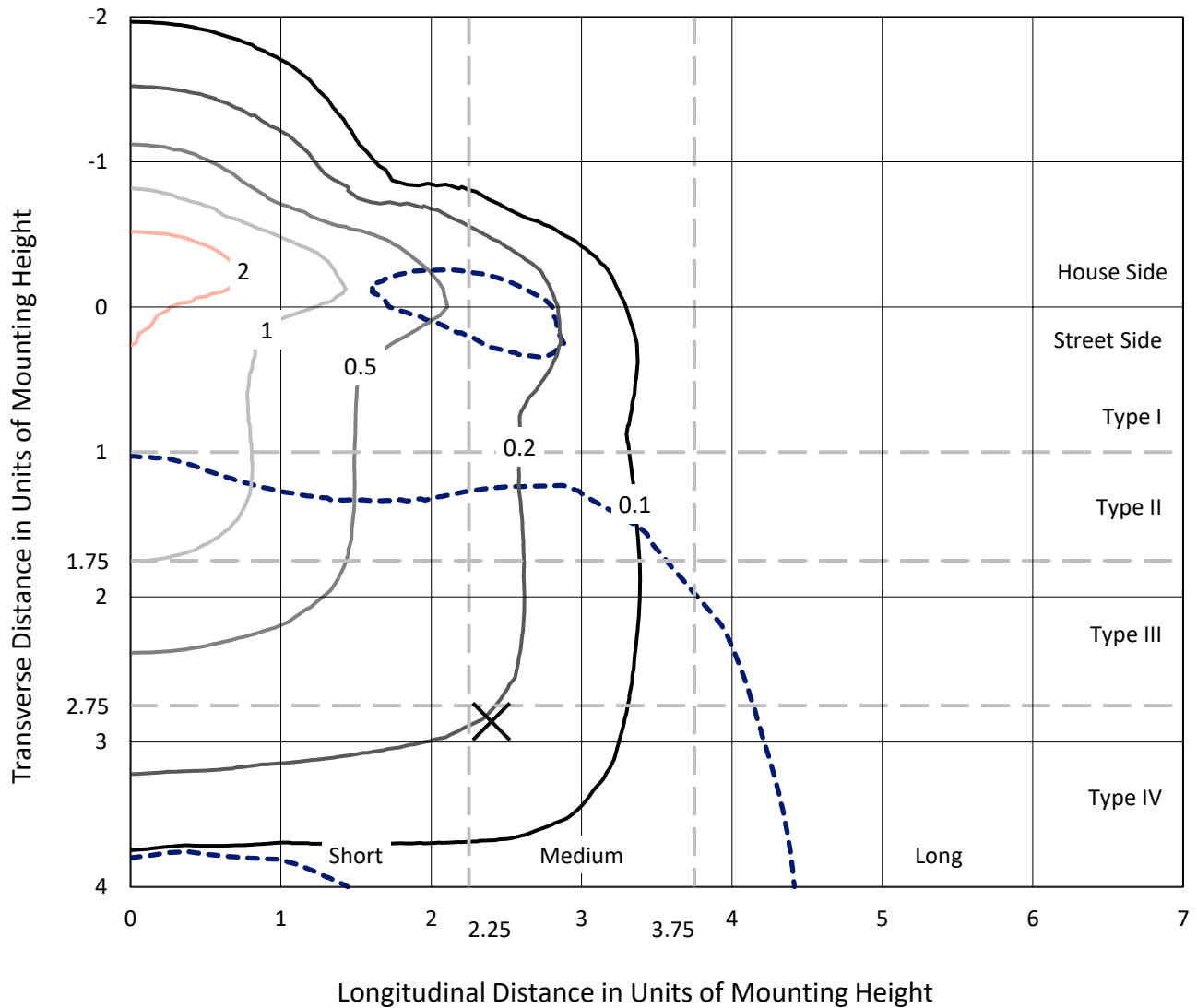
Input Watts (W): 84.7
Input Voltage (V): 120.0
Input Current (Ain): 0.717
Voltage Rise (V): NR
Power Factor: 0.99
Total Harmonic Distortion (THDi): 11.969
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

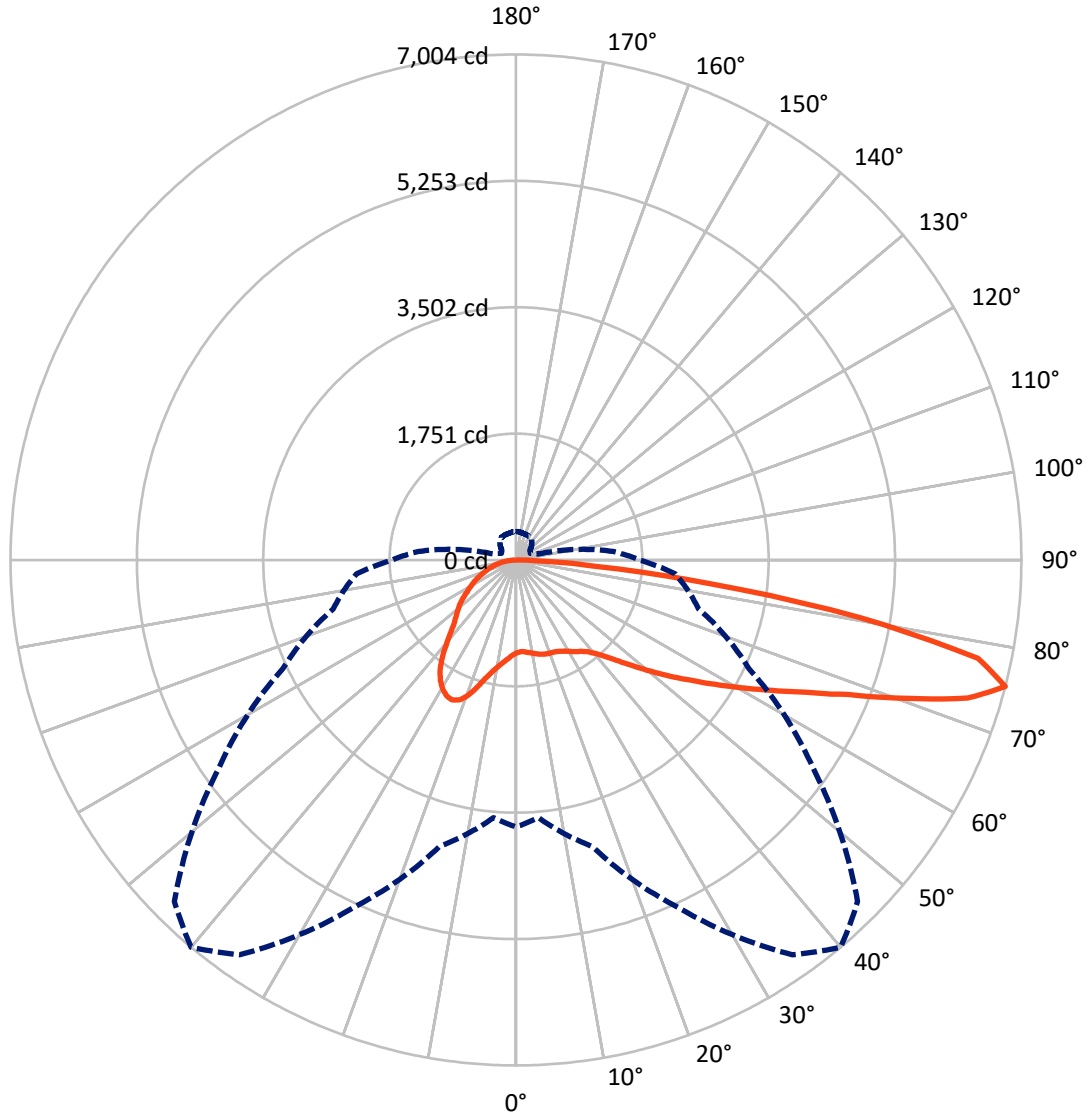
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.7 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	3486.6	0.0	3486.6
	% Fixture	31.0	0.0	31.0
Street Side	Lumens	7766.4	0.0	7766.4
	% Fixture	69.0	0.0	69.0
Total	Lumens	11253.0	0.0	11253.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	128.4	1.1
10°-20°	431.3	3.8
20°-30°	787.4	7.0
30°-40°	1116.8	9.9
40°-50°	1508.0	13.4
50°-60°	2028.7	18.0
60°-70°	2574.9	22.9
70°-80°	2336.8	20.8
80°-90°	340.6	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°	11253.0	100.0
0°-180°	11253.0	100.0

Coefficient of Utilization



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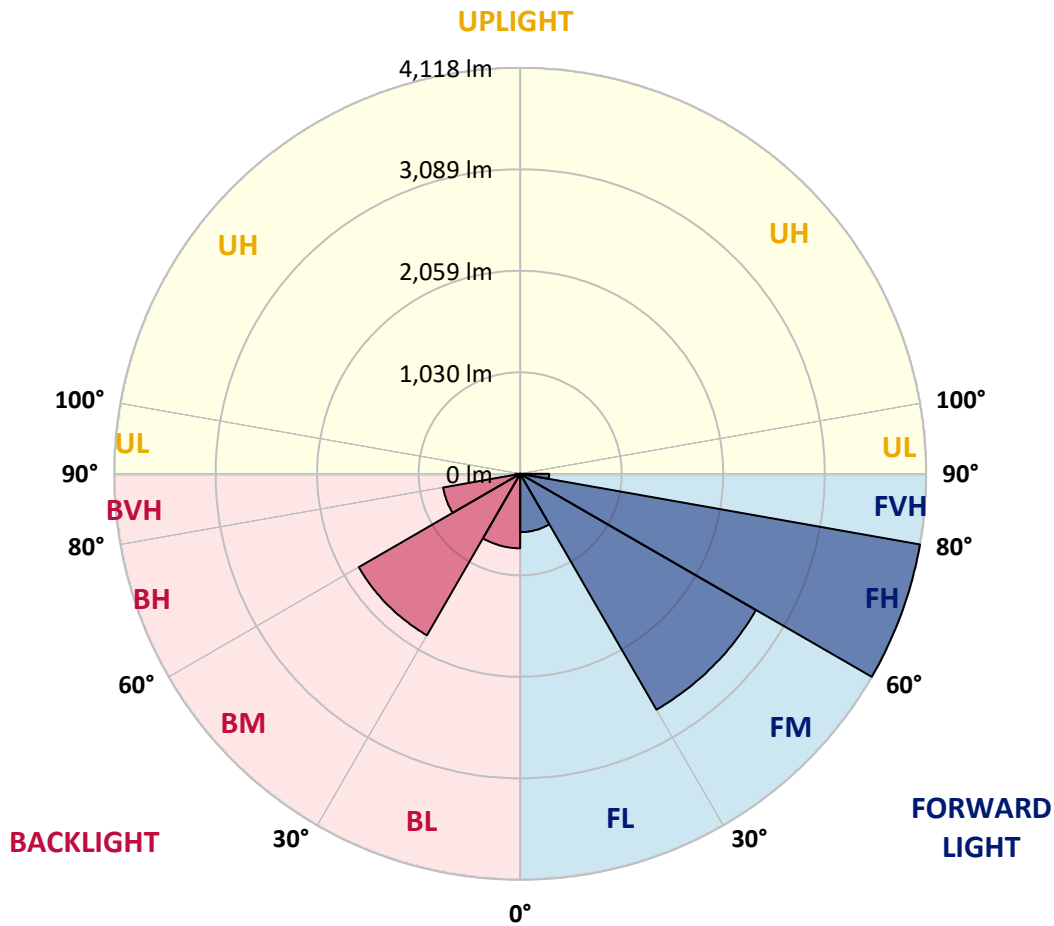
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	591.9	5.3			
FM (30°-60°)	2762.4	24.5			
FH (60°-80°)	4118.4	36.6			G2/5000
FVH (80°-90°)	293.7	2.6			G3/500
BL (0°-30°)	755.2	6.7	B2/1000		
BM (30°-60°)	1891.1	16.8	B2/2500		
BH (60°-80°)	793.3	7.0	B2/1000		G2/1000
BVH (80°-90°)	46.9	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°	1286.8	1286.8	1286.8	1286.8	1286.8	1286.8	1286.8	1286.8	1286.8	1286.8	1286.8
2.5°	1267.1	1274.3	1272.5	1270.1	1270.1	1270.7	1270.1	1274.3	1278.4	1282.6	1289.2
5°	1280.2	1287.4	1283.8	1280.8	1278.4	1277.8	1276.1	1275.5	1277.8	1283.2	1292.2
7.5°	1305.9	1313.1	1307.7	1302.3	1297.5	1295.2	1292.8	1289.2	1287.4	1290.4	1302.9
10°	1334.5	1341.7	1335.1	1325.6	1317.8	1314.8	1312.5	1308.9	1306.5	1308.3	1322.0
12.5°	1363.2	1370.4	1361.4	1348.3	1338.1	1336.3	1333.3	1332.2	1331.6	1331.0	1344.7
15°	1390.0	1396.0	1384.7	1369.2	1358.4	1355.4	1352.4	1354.2	1357.2	1360.8	1376.3
17.5°	1410.9	1416.9	1400.2	1379.9	1369.8	1368.6	1366.8	1372.7	1381.1	1390.0	1409.1
20°	1430.0	1436.0	1414.5	1387.1	1375.1	1375.1	1375.7	1388.3	1400.2	1413.3	1439.6
22.5°	1456.9	1461.7	1435.4	1397.8	1380.5	1381.7	1386.5	1399.0	1413.9	1431.8	1468.2
25°	1496.9	1500.5	1468.2	1418.1	1398.4	1402.0	1406.2	1412.1	1426.5	1447.3	1496.3
27.5°	1561.3	1564.3	1522.0	1453.9	1424.1	1430.0	1436.0	1431.8	1438.4	1456.3	1519.0
30°	1652.1	1653.9	1600.1	1510.0	1467.6	1470.6	1471.8	1454.5	1442.0	1456.3	1535.1
32.5°	1759.5	1758.9	1695.0	1578.1	1517.2	1514.2	1504.0	1470.0	1440.8	1453.3	1549.4
35°	1926.0	1919.5	1837.1	1673.6	1573.3	1554.8	1530.9	1487.3	1446.7	1450.3	1561.9
37.5°	2201.8	2181.5	2067.5	1829.9	1656.8	1609.7	1574.5	1515.4	1459.9	1449.1	1576.9
40°	2512.7	2487.0	2361.7	2044.2	1782.2	1706.4	1649.7	1555.4	1481.4	1454.5	1598.9
42.5°	2881.6	2845.2	2710.3	2296.7	1940.9	1831.1	1745.8	1606.1	1513.0	1471.8	1628.8
45°	3334.6	3286.2	3095.2	2581.4	2140.9	1994.7	1880.7	1683.1	1561.3	1505.2	1673.6
47.5°	3792.3	3804.3	3532.7	2907.2	2380.8	2196.4	2049.6	1798.9	1631.8	1559.0	1745.8
50°	4278.8	4287.1	3967.8	3268.3	2653.0	2424.4	2239.4	1928.4	1729.7	1635.4	1853.8
52.5°	4658.4	4659.6	4362.9	3646.1	2936.5	2675.1	2444.1	2076.4	1843.1	1736.8	1997.6
55°	4895.9	4892.9	4639.9	4003.6	3262.3	2938.3	2670.9	2244.7	1981.5	1856.2	2178.5
57.5°	5068.4	5059.4	4830.9	4311.0	3609.7	3249.2	2927.5	2435.7	2145.1	1998.2	2416.6
60°	5134.1	5128.7	4960.4	4576.6	3975.0	3593.0	3223.6	2649.4	2330.7	2165.9	2722.8
62.5°	5159.1	5169.3	5087.5	4833.8	4365.9	3973.8	3548.8	2904.8	2539.6	2355.7	3045.7
65°	5247.5	5266.0	5249.2	5170.5	4807.6	4419.6	3980.4	3208.6	2767.6	2559.3	3382.9
67.5°	5422.3	5440.8	5448.0	5573.3	5347.1	4975.3	4518.7	3587.0	3034.4	2770.5	3636.6
70°	5418.1	5412.8	5539.3	5893.8	6022.8	5744.6	5244.5	4052.6	3352.5	2946.0	3668.8
72.5°	4931.7	4888.7	5187.8	5890.3	6585.0	6548.0	6130.8	4653.0	3627.0	2967.5	3183.6
75°	3699.8	3585.2	4113.4	5308.3	6678.7	7004.0	6694.2	5025.4	3562.0	2621.9	2215.5
77.5°	1582.2	1467.0	2089.6	3929.6	5977.4	6547.4	6177.3	4384.4	2843.4	1733.8	1088.0
80°	414.2	413.6	631.5	1781.6	4065.1	4835.0	4241.8	2831.4	1624.6	619.5	300.2
82.5°	171.3	167.1	232.2	692.9	1986.3	2713.3	2214.3	1262.9	586.7	167.7	99.7
85°	63.9	63.3	112.8	239.3	700.7	1119.1	809.9	322.9	146.2	81.8	44.8
87.5°	17.9	17.3	24.5	83.0	170.7	259.0	138.5	53.1	41.2	32.2	13.1
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°	1286.8	1286.8	1286.8	1286.8	1286.8	1286.8	1286.8	1286.8	1286.8	1286.8	1286.8
2.5°	1291.0	1294.0	1299.3	1303.5	1308.9	1314.8	1323.2	1328.6	1333.9	1337.5	1335.1
5°	1296.3	1302.9	1316.6	1330.4	1346.5	1361.4	1378.7	1391.2	1401.4	1404.4	1405.6
7.5°	1308.3	1319.0	1342.3	1365.6	1391.2	1415.7	1440.8	1462.3	1479.6	1486.1	1486.7
10°	1329.2	1343.5	1376.3	1409.1	1443.2	1480.8	1513.0	1544.0	1568.5	1578.7	1579.2
12.5°	1355.4	1373.3	1416.3	1461.7	1508.8	1560.7	1602.5	1640.7	1671.2	1684.9	1684.9
15°	1389.5	1412.7	1467.6	1528.5	1597.8	1670.0	1723.1	1765.5	1799.5	1816.2	1815.0
17.5°	1426.5	1457.5	1526.7	1618.6	1717.7	1812.6	1874.7	1905.7	1940.9	1957.1	1956.5
20°	1462.3	1500.5	1599.5	1733.2	1865.1	1966.0	2016.1	2024.5	2026.9	2028.7	2033.4
22.5°	1499.3	1550.6	1690.9	1877.7	2019.1	2089.0	2096.1	2060.3	2010.2	1986.9	1993.5
25°	1539.9	1607.9	1810.2	2037.0	2151.6	2160.0	2105.1	2017.9	1923.0	1879.5	1886.0
27.5°	1579.2	1674.1	1953.5	2189.2	2247.1	2173.7	2055.5	1932.0	1817.4	1771.4	1776.8
30°	1618.6	1749.9	2111.6	2322.3	2290.7	2139.7	1977.3	1839.5	1724.3	1675.9	1681.3
32.5°	1658.6	1838.3	2293.7	2418.4	2282.9	2067.5	1880.1	1735.6	1634.2	1583.4	1590.0
35°	1704.0	1946.9	2466.2	2470.9	2231.0	1961.2	1751.7	1611.5	1523.1	1482.6	1491.5
37.5°	1763.1	2084.8	2618.4	2484.1	2140.3	1805.5	1592.4	1464.7	1391.8	1373.3	1386.5
40°	1836.5	2250.7	2734.7	2463.2	2006.0	1616.3	1418.1	1316.0	1274.9	1279.0	1293.4
42.5°	1932.0	2436.3	2816.5	2409.5	1819.2	1421.1	1265.3	1219.9	1239.6	1256.4	1271.9
45°	2056.1	2629.1	2867.2	2318.1	1607.9	1255.8	1175.2	1185.9	1200.9	1202.6	1214.6
47.5°	2214.9	2824.3	2900.7	2180.3	1392.4	1139.4	1117.9	1120.3	1117.3	1104.8	1114.3
50°	2413.0	3014.1	2930.5	1997.6	1209.2	1066.6	1037.9	1029.6	988.4	947.8	953.2
52.5°	2638.6	3188.3	2943.0	1770.8	1066.6	1005.7	959.1	906.6	829.6	817.1	821.3
55°	2889.3	3349.5	2910.8	1492.1	946.6	927.5	857.1	793.8	785.4	774.7	776.5
57.5°	3188.9	3523.2	2845.2	1181.2	823.6	836.2	767.5	774.7	759.8	743.1	740.1
60°	3516.6	3702.8	2730.0	897.7	696.5	722.2	744.3	743.7	739.5	725.8	721.0
62.5°	3811.4	3821.0	2503.2	687.6	584.9	633.8	694.1	693.5	690.0	682.2	679.2
65°	3986.9	3803.1	2124.8	541.3	493.0	561.0	626.1	630.9	631.5	630.9	630.9
67.5°	3955.9	3593.6	1605.5	430.9	417.2	487.0	558.6	565.2	570.0	571.2	572.4
70°	3604.9	3133.4	1046.9	343.8	349.8	422.0	494.8	501.3	505.5	510.3	512.7
72.5°	2809.9	2303.8	599.2	278.1	290.7	365.9	431.5	439.3	441.7	450.6	454.2
75°	1712.3	1354.8	323.5	219.0	238.7	312.7	368.8	377.8	382.0	392.7	393.9
77.5°	814.1	586.7	184.4	170.7	192.2	255.4	311.6	321.7	310.4	316.3	311.6
80°	275.1	217.8	116.4	130.1	146.8	199.3	249.5	259.6	235.8	234.6	232.2
82.5°	96.1	88.3	74.0	86.5	94.9	142.6	188.6	201.7	175.5	174.9	166.5
85°	37.6	35.8	41.2	47.2	56.7	87.7	124.1	130.7	108.0	87.1	85.9
87.5°	7.8	8.4	10.1	10.7	17.3	30.4	44.8	54.9	43.6	37.0	34.0
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)