

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: P882904

Luminaire Tested: **NAV-SB3A-730-U-SL4**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882904
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-730-U-SL4
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 70 CRI, 3000K, 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: 13129 lumens
Efficiency: N/A
Efficacy: 155.0 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

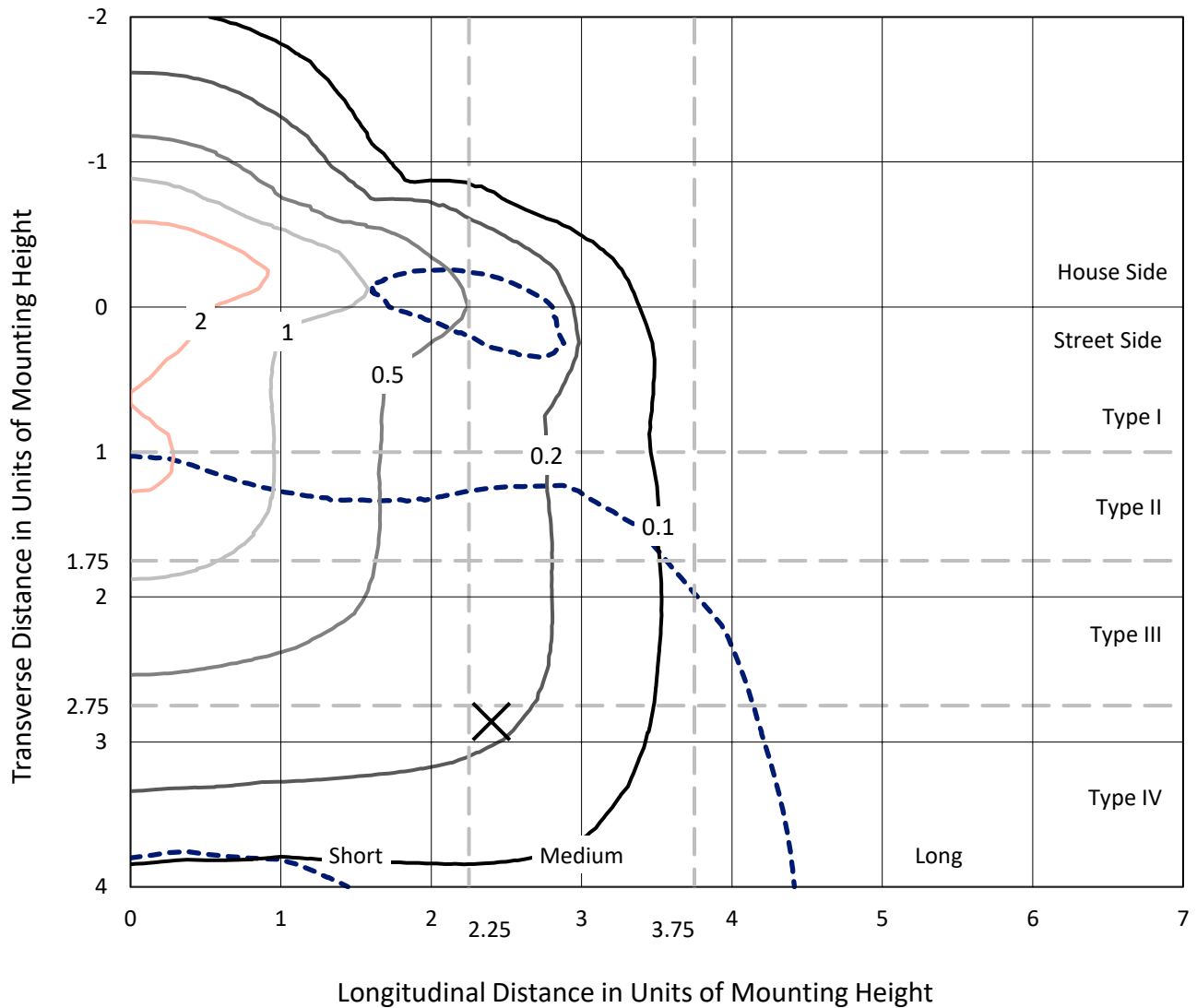
Input Watts (W): 84.7
Input Voltage (V): 120.0
Input Current (Ain): 0.717
Voltage Rise (V): NR
Power Factor: 0.99
Total Harmonic Distortion (THDi): 11.969
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

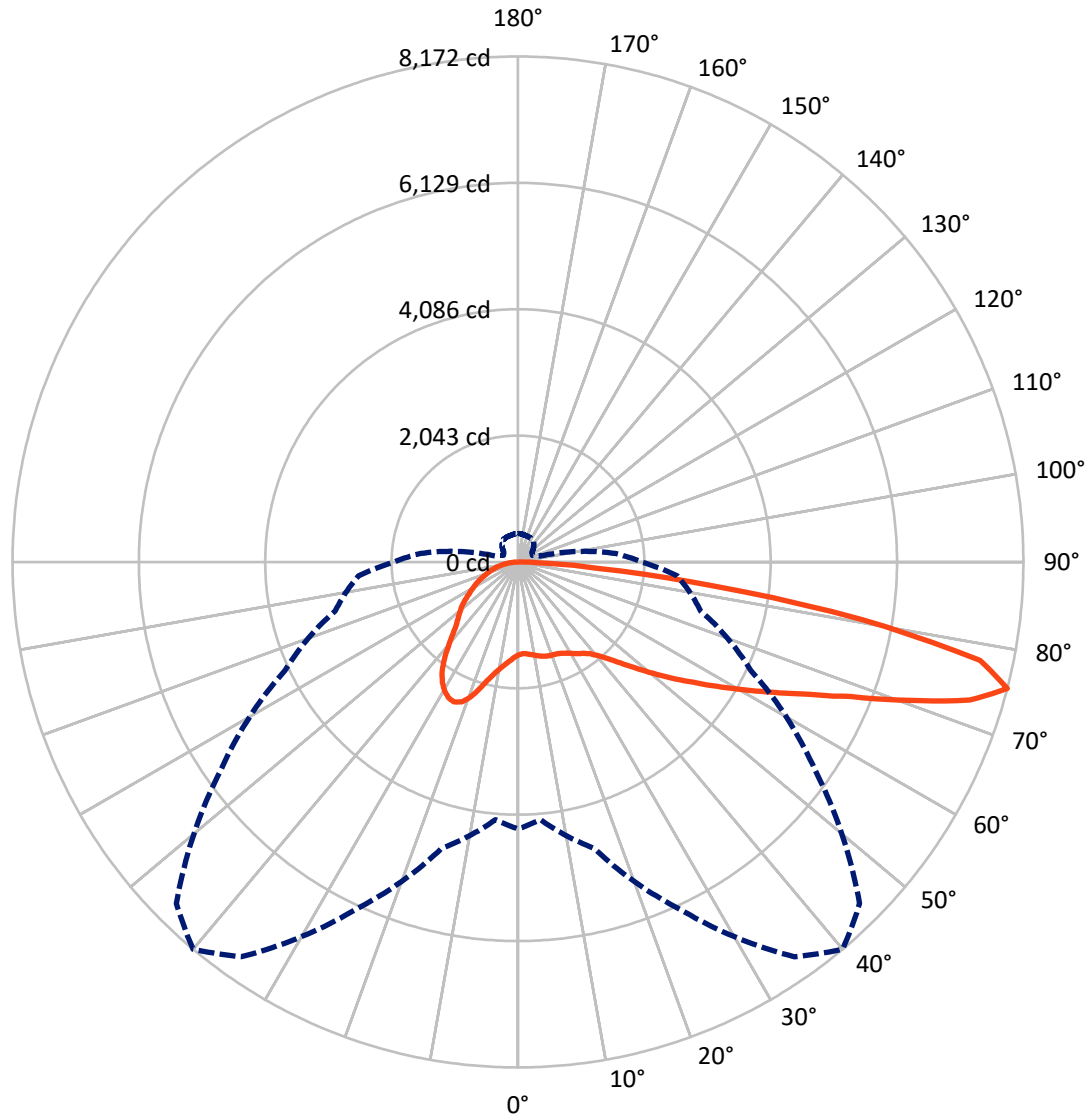
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.1 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	4067.8	0.0	4067.8
	% Fixture	31.0	0.0	31.0
Street Side	Lumens	9061.2	0.0	9061.2
	% Fixture	69.0	0.0	69.0
Total	Lumens	13129.0	0.0	13129.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	149.9	1.1
10°-20°	503.1	3.8
20°-30°	918.7	7.0
30°-40°	1303.0	9.9
40°-50°	1759.4	13.4
50°-60°	2366.9	18.0
60°-70°	3004.1	22.9
70°-80°	2726.4	20.8
80°-90°	397.4	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°	13129.0	100.0
0°-180°	13129.0	100.0

Coefficient of Utilization



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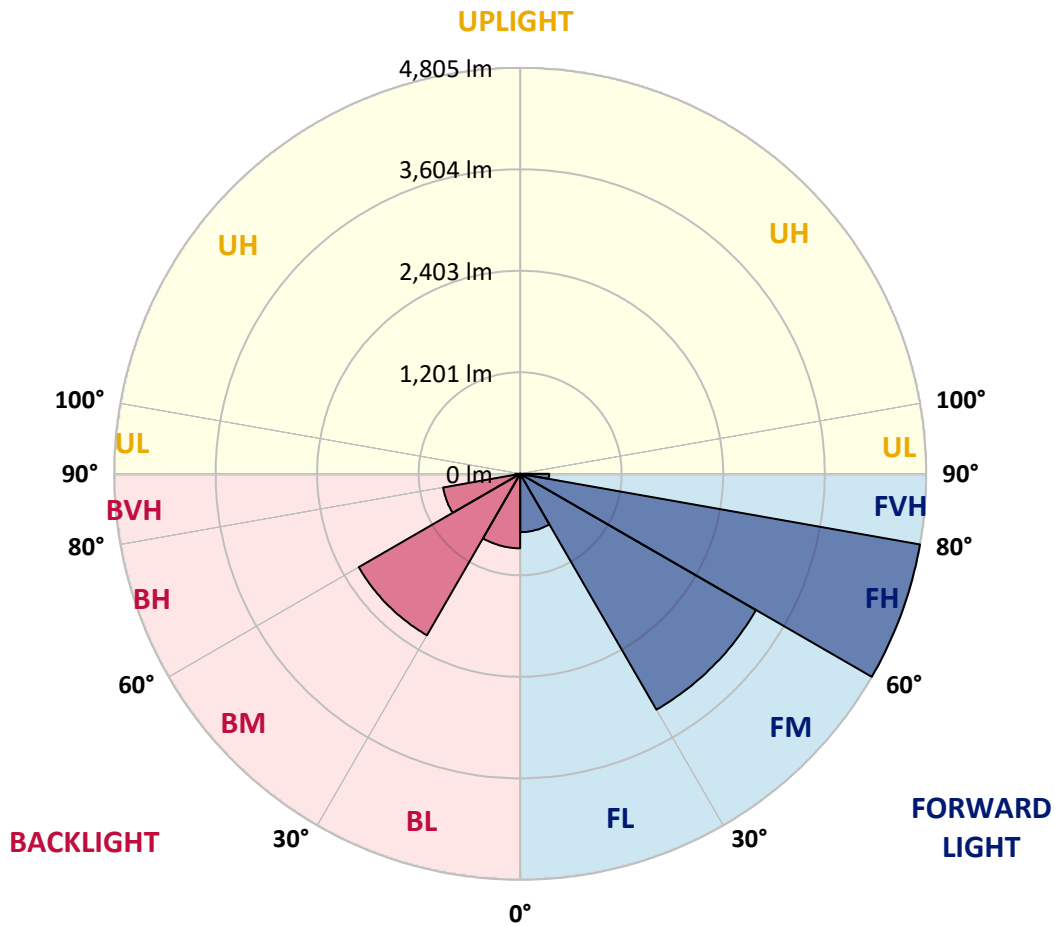
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	690.6	5.3			
FM (30°-60°)	3222.9	24.5			
FH (60°-80°)	4805.0	36.6			G2/5000
FVH (80°-90°)	342.7	2.6			G3/500
BL (0°-30°)	881.1	6.7	B2/1000		
BM (30°-60°)	2206.4	16.8	B2/2500		
BH (60°-80°)	925.5	7.0	B2/1000		G2/1000
BVH (80°-90°)	54.7	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°	1501.3	1501.3	1501.3	1501.3	1501.3	1501.3	1501.3	1501.3	1501.3	1501.3	1501.3
2.5°	1478.3	1486.7	1484.6	1481.8	1481.8	1481.8	1481.8	1486.7	1491.6	1496.4	1504.1
5°	1493.7	1502.0	1497.8	1494.4	1491.6	1491.6	1488.8	1488.1	1490.9	1497.1	1507.6
7.5°	1523.6	1532.0	1525.7	1519.4	1513.9	1511.1	1508.3	1504.1	1502.0	1505.5	1520.1
10°	1557.0	1565.4	1557.7	1546.6	1537.5	1534.0	1531.3	1527.1	1524.3	1526.4	1542.4
12.5°	1590.5	1598.8	1588.4	1573.0	1561.2	1559.1	1555.6	1554.2	1553.5	1552.8	1568.9
15°	1621.8	1628.7	1615.5	1597.4	1584.9	1581.4	1577.9	1580.0	1583.5	1587.7	1605.8
17.5°	1646.2	1653.1	1633.6	1609.9	1598.1	1596.7	1594.6	1601.6	1611.3	1621.8	1644.1
20°	1668.4	1675.4	1650.3	1618.3	1604.4	1604.4	1605.1	1619.7	1633.6	1648.9	1679.6
22.5°	1699.8	1705.3	1674.7	1630.8	1610.6	1612.0	1617.6	1632.2	1649.6	1670.5	1713.0
25°	1746.4	1750.6	1713.0	1654.5	1631.5	1635.7	1640.6	1647.6	1664.3	1688.6	1745.7
27.5°	1821.6	1825.1	1775.7	1696.3	1661.5	1668.4	1675.4	1670.5	1678.2	1699.1	1772.2
30°	1927.5	1929.6	1866.9	1761.8	1712.3	1715.8	1717.2	1697.0	1682.4	1699.1	1791.0
32.5°	2052.8	2052.1	1977.6	1841.1	1770.1	1766.6	1754.8	1715.1	1681.0	1695.6	1807.7
35°	2247.1	2239.4	2143.3	1952.5	1835.6	1814.0	1786.1	1735.3	1687.9	1692.1	1822.3
37.5°	2568.8	2545.1	2412.1	2135.0	1933.1	1878.0	1837.0	1768.0	1703.3	1690.7	1839.7
40°	2931.6	2901.7	2755.4	2385.0	2079.3	1990.8	1924.7	1814.7	1728.3	1697.0	1865.5
42.5°	3362.0	3319.5	3162.1	2679.5	2264.5	2136.4	2036.8	1873.9	1765.2	1717.2	1900.3
45°	3890.5	3834.1	3611.2	3011.7	2497.8	2327.2	2194.2	1963.7	1821.6	1756.2	1952.5
47.5°	4424.6	4438.5	4121.7	3391.9	2777.7	2562.5	2391.2	2098.8	1903.8	1818.9	2036.8
50°	4992.1	5001.8	4629.3	3813.2	3095.3	2828.6	2612.7	2249.9	2018.0	1908.0	2162.8
52.5°	5435.0	5436.4	5090.3	4254.0	3426.0	3121.0	2851.5	2422.6	2150.3	2026.4	2330.7
55°	5712.1	5708.6	5413.4	4671.1	3806.2	3428.1	3116.1	2619.0	2311.9	2165.6	2541.7
57.5°	5913.4	5902.9	5636.2	5029.7	4211.5	3790.9	3415.6	2841.8	2502.7	2331.4	2819.5
60°	5990.0	5983.7	5787.3	5339.6	4637.7	4192.0	3761.0	3091.1	2719.2	2527.0	3176.7
62.5°	6019.2	6031.0	5935.6	5639.7	5093.8	4636.3	4140.5	3389.1	2962.9	2748.5	3553.4
65°	6122.3	6143.8	6124.3	6032.4	5609.1	5156.4	4643.9	3743.5	3228.9	2985.9	3946.9
67.5°	6326.3	6347.9	6356.2	6502.5	6238.5	5804.7	5272.0	4185.0	3540.2	3232.4	4242.8
70°	6321.4	6315.1	6462.8	6876.4	7026.8	6702.3	6118.8	4728.2	3911.4	3437.2	4280.4
72.5°	5753.9	5703.8	6052.6	6872.2	7682.8	7639.6	7152.9	5428.7	4231.7	3462.2	3714.3
75°	4316.6	4182.9	4799.2	6193.3	7792.1	8171.6	7810.2	5863.2	4155.8	3059.0	2584.8
77.5°	1846.0	1711.6	2437.9	4584.7	6973.9	7638.9	7207.2	5115.3	3317.4	2022.9	1269.4
80°	483.3	482.6	736.7	2078.6	4742.8	5641.1	4948.9	3303.5	1895.4	722.8	350.3
82.5°	199.9	195.0	270.9	808.5	2317.4	3165.6	2583.4	1473.5	684.5	195.7	116.3
85°	74.5	73.8	131.6	279.2	817.5	1305.6	944.9	376.7	170.6	95.4	52.2
87.5°	20.9	20.2	28.6	96.8	199.2	302.2	161.6	62.0	48.0	37.6	15.3
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°	1501.3	1501.3	1501.3	1501.3	1501.3	1501.3	1501.3	1501.3	1501.3	1501.3	1501.3
2.5°	1506.2	1509.7	1515.9	1520.8	1527.1	1534.0	1543.8	1550.1	1556.3	1560.5	1557.7
5°	1512.5	1520.1	1536.1	1552.2	1571.0	1588.4	1608.6	1623.2	1635.0	1638.5	1639.9
7.5°	1526.4	1538.9	1566.1	1593.2	1623.2	1651.7	1681.0	1706.0	1726.2	1733.9	1734.6
10°	1550.8	1567.5	1605.8	1644.1	1683.8	1727.6	1765.2	1801.4	1830.0	1841.8	1842.5
12.5°	1581.4	1602.3	1652.4	1705.3	1760.4	1820.9	1869.7	1914.3	1949.8	1965.8	1965.8
15°	1621.1	1648.2	1712.3	1783.3	1864.1	1948.4	2010.3	2059.8	2099.5	2119.0	2117.6
17.5°	1664.3	1700.5	1781.2	1888.5	2004.1	2114.8	2187.2	2223.4	2264.5	2283.3	2282.6
20°	1706.0	1750.6	1866.2	2022.2	2176.1	2293.8	2352.3	2362.0	2364.8	2366.9	2372.4
22.5°	1749.2	1809.1	1972.7	2190.7	2355.7	2437.2	2445.6	2403.8	2345.3	2318.1	2325.8
25°	1796.6	1876.0	2112.0	2376.6	2510.3	2520.1	2456.0	2354.3	2243.6	2192.8	2200.4
27.5°	1842.5	1953.2	2279.1	2554.2	2621.7	2536.1	2398.2	2254.1	2120.4	2066.8	2073.0
30°	1888.5	2041.7	2463.7	2709.5	2672.6	2496.4	2307.0	2146.1	2011.7	1955.3	1961.6
32.5°	1935.1	2144.7	2676.1	2821.6	2663.5	2412.1	2193.5	2025.0	1906.6	1847.4	1855.1
35°	1988.1	2271.5	2877.3	2882.9	2602.9	2288.2	2043.8	1880.1	1777.1	1729.7	1740.2
37.5°	2057.0	2432.3	3054.9	2898.2	2497.1	2106.4	1857.8	1708.8	1623.9	1602.3	1617.6
40°	2142.7	2625.9	3190.7	2873.8	2340.4	1885.7	1654.5	1535.4	1487.4	1492.3	1509.0
42.5°	2254.1	2842.5	3286.0	2811.1	2122.5	1658.0	1476.3	1423.3	1446.3	1465.8	1483.9
45°	2398.9	3067.4	3345.2	2704.6	1876.0	1465.1	1371.1	1383.6	1401.0	1403.1	1417.1
47.5°	2584.1	3295.1	3384.2	2543.7	1624.6	1329.3	1304.3	1307.0	1303.6	1288.9	1300.1
50°	2815.3	3516.5	3419.1	2330.7	1410.8	1244.4	1210.9	1201.2	1153.1	1105.8	1112.1
52.5°	3078.5	3719.9	3433.7	2066.1	1244.4	1173.3	1119.0	1057.7	967.9	953.3	958.2
55°	3371.0	3907.9	3396.1	1740.9	1104.4	1082.1	1000.0	926.1	916.4	903.9	905.9
57.5°	3720.6	4110.5	3319.5	1378.1	961.0	975.6	895.5	903.9	886.4	866.9	863.5
60°	4102.9	4320.1	3185.1	1047.3	812.6	842.6	868.3	867.6	862.8	846.8	841.2
62.5°	4446.9	4458.0	2920.5	802.2	682.4	739.5	809.8	809.2	805.0	795.9	792.4
65°	4651.6	4437.1	2479.0	631.6	575.2	654.6	730.5	736.0	736.7	736.0	736.0
67.5°	4615.4	4192.7	1873.2	502.8	486.7	568.2	651.8	659.4	665.0	666.4	667.8
70°	4205.9	3655.8	1221.4	401.1	408.1	492.3	577.3	584.9	589.8	595.4	598.2
72.5°	3278.4	2687.9	699.1	324.5	339.1	426.9	503.5	512.5	515.3	525.7	529.9
75°	1997.8	1580.7	377.4	255.6	278.5	364.9	430.3	440.8	445.7	458.2	459.6
77.5°	949.8	684.5	215.2	199.2	224.2	298.0	363.5	375.3	362.1	369.1	363.5
80°	321.0	254.2	135.8	151.8	171.3	232.6	291.1	302.9	275.1	273.7	270.9
82.5°	112.1	103.1	86.3	101.0	110.7	166.4	220.0	235.4	204.7	204.0	194.3
85°	43.9	41.8	48.0	55.0	66.2	102.4	144.8	152.5	126.0	101.7	100.3
87.5°	9.1	9.7	11.8	12.5	20.2	35.5	52.2	64.1	50.8	43.2	39.7
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)