

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: P882624

Luminaire Tested: **NAV-SB2C-830-U-SL4**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882624
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-SB2C-830-U-SL4
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 CRI, 3000K, 615mA 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: 13239 lumens
Efficiency: N/A
Efficacy: 131.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B2 - U0 - G3

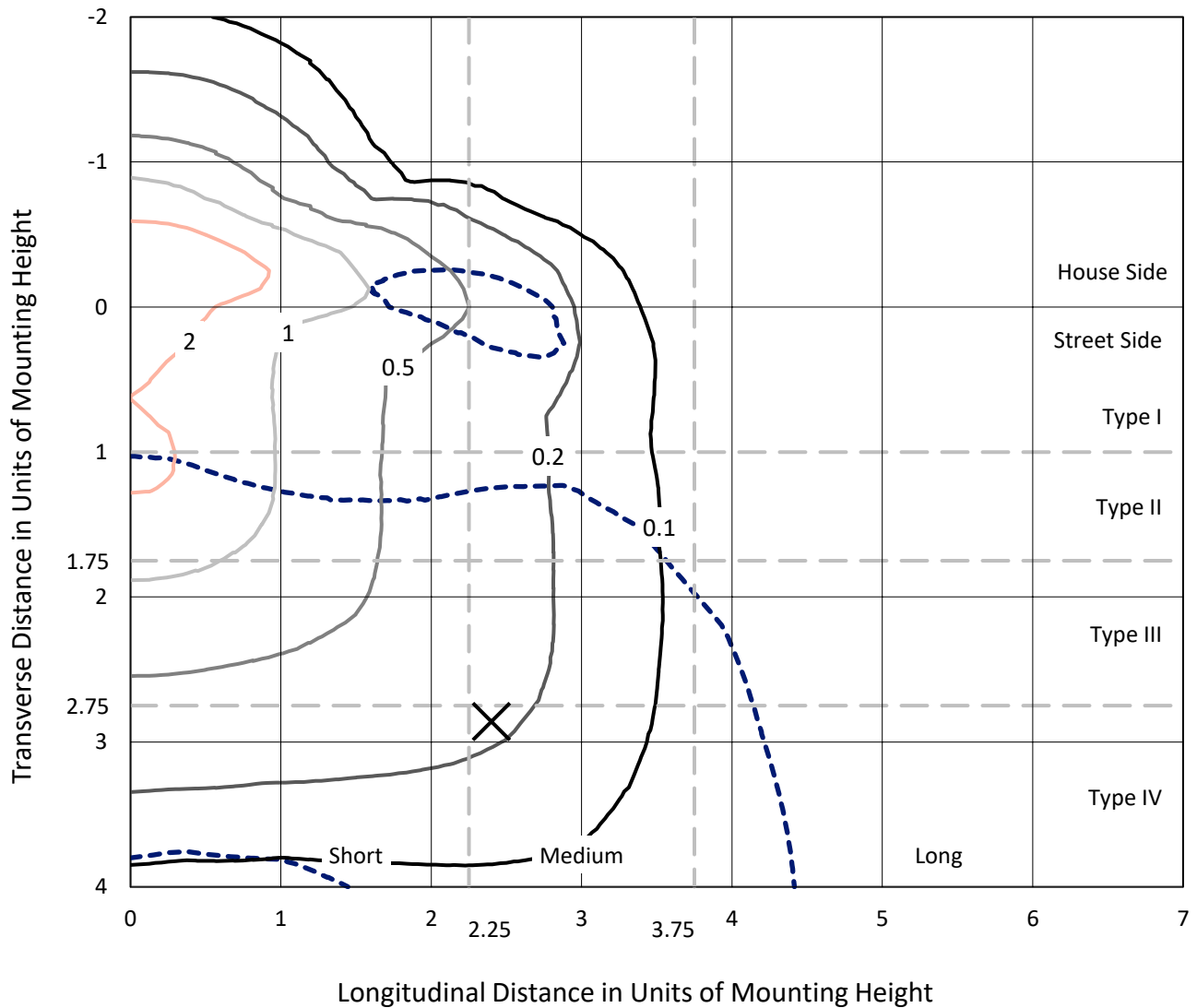
Input Watts (W): 100.9
Input Voltage (V): 120.0
Input Current (Ain): 0.857
Voltage Rise (V): NR
Power Factor: 0.994
Total Harmonic Distortion (THDi): 9.472
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

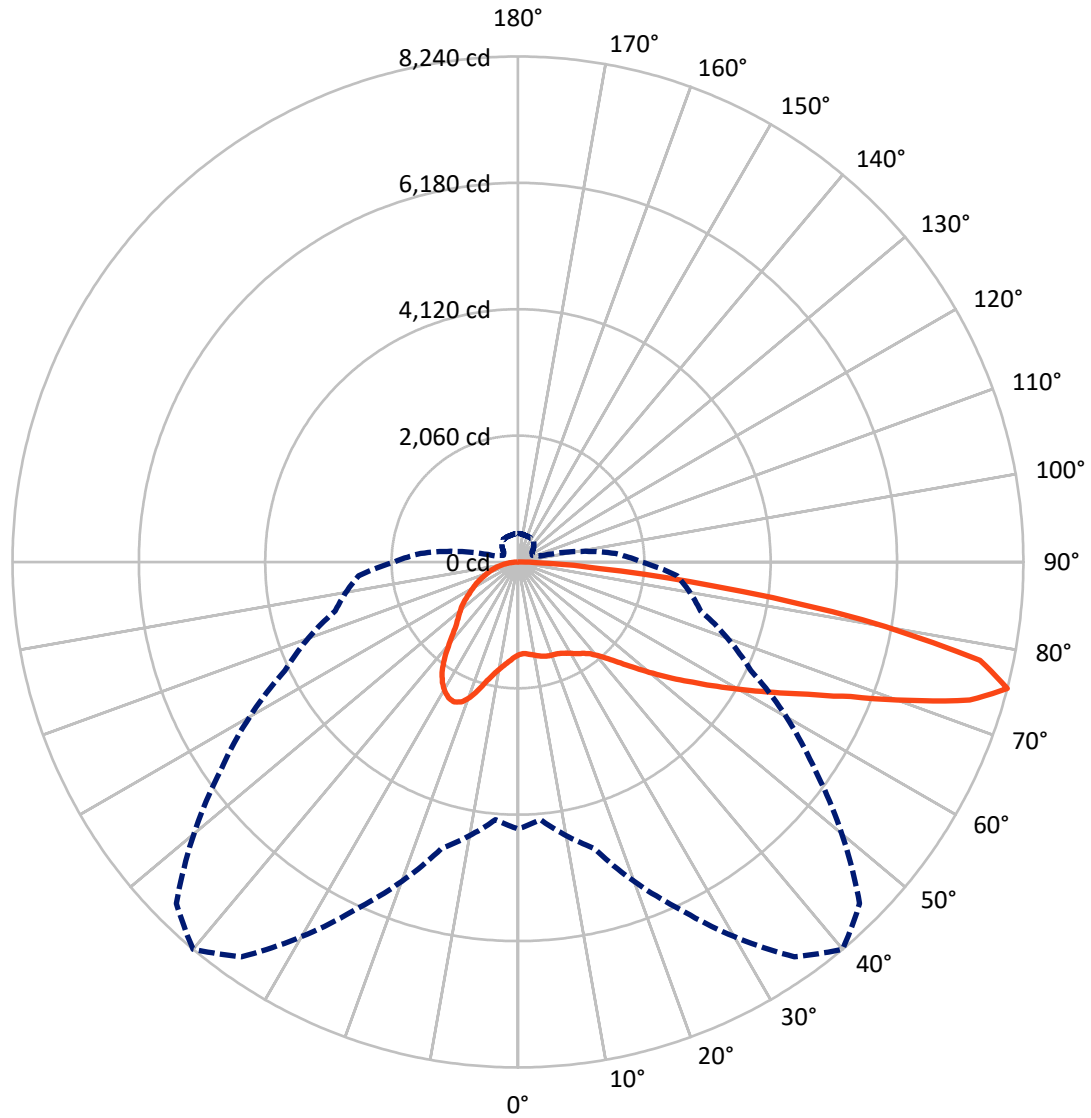
✕ Max cd
 - - - 1/2 Max cd



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	4101.9	0.0	4101.9
	% Fixture	31.0	0.0	31.0
Street Side	Lumens	9137.1	0.0	9137.1
	% Fixture	69.0	0.0	69.0
Total	Lumens	13239.0	0.0	13239.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	151.1	1.1
10°-20°	507.4	3.8
20°-30°	926.4	7.0
30°-40°	1313.9	9.9
40°-50°	1774.2	13.4
50°-60°	2386.7	18.0
60°-70°	3029.3	22.9
70°-80°	2749.3	20.8
80°-90°	400.8	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°	13239.0	100.0
0°-180°	13239.0	100.0

Coefficient of Utilization



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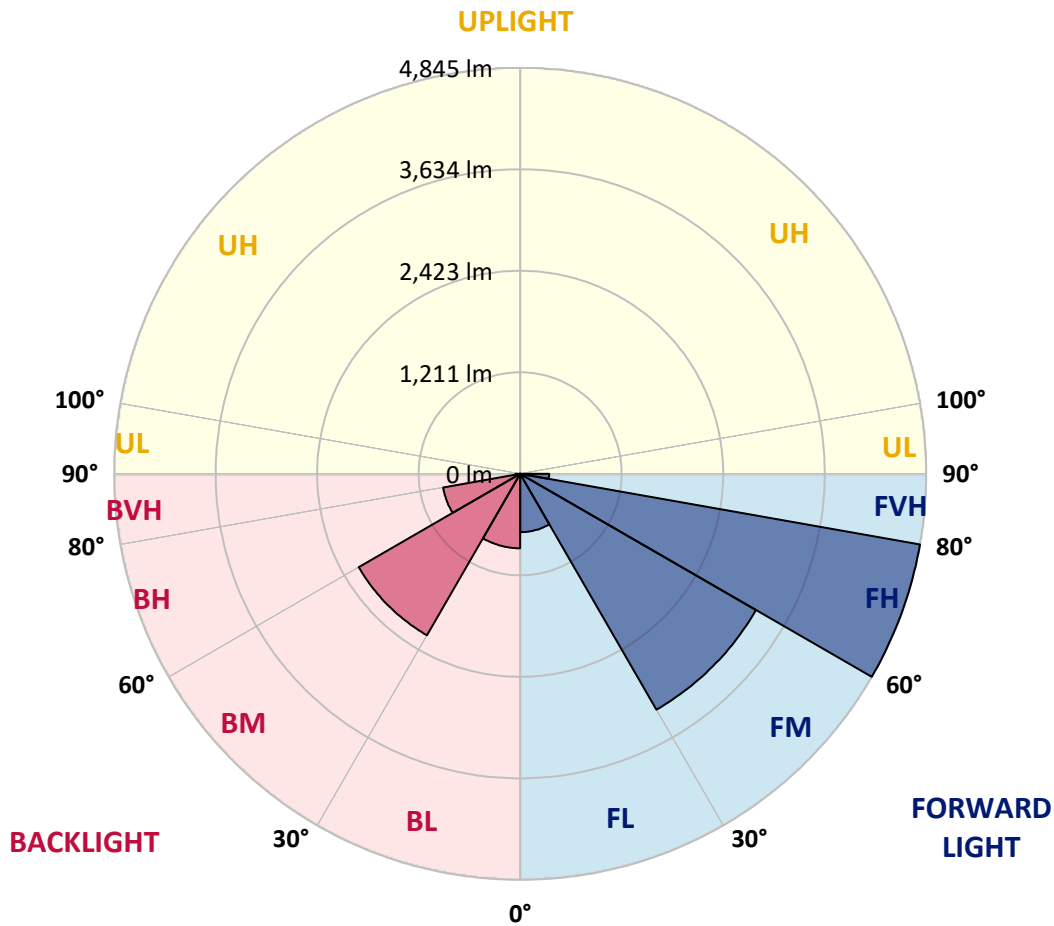
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	696.4	5.3			
FM (30°-60°)	3249.9	24.5			
FH (60°-80°)	4845.3	36.6			G2/5000
FVH (80°-90°)	345.6	2.6			G3/500
BL (0°-30°)	888.5	6.7	B2/1000		
BM (30°-60°)	2224.9	16.8	B2/2500		
BH (60°-80°)	933.3	7.0	B2/1000		G2/1000
BVH (80°-90°)	55.2	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°	1513.9	1513.9	1513.9	1513.9	1513.9	1513.9	1513.9	1513.9	1513.9	1513.9	1513.9
2.5°	1490.7	1499.2	1497.0	1494.2	1494.2	1494.9	1494.2	1499.2	1504.1	1509.0	1516.7
5°	1506.2	1514.6	1510.4	1506.9	1504.1	1503.4	1501.3	1500.6	1503.4	1509.7	1520.2
7.5°	1536.4	1544.8	1538.5	1532.2	1526.5	1523.7	1520.9	1516.7	1514.6	1518.1	1532.9
10°	1570.1	1578.5	1570.8	1559.5	1550.4	1546.9	1544.1	1539.9	1537.1	1539.2	1555.3
12.5°	1603.8	1612.2	1601.7	1586.2	1574.3	1572.2	1568.7	1567.3	1566.6	1565.9	1582.0
15°	1635.4	1642.4	1629.1	1610.8	1598.2	1594.6	1591.1	1593.2	1596.8	1601.0	1619.2
17.5°	1660.0	1667.0	1647.3	1623.4	1611.5	1610.1	1608.0	1615.0	1624.8	1635.4	1657.8
20°	1682.4	1689.4	1664.2	1631.9	1617.8	1617.8	1618.5	1633.3	1647.3	1662.8	1693.7
22.5°	1714.0	1719.6	1688.7	1644.5	1624.1	1625.5	1631.2	1645.9	1663.5	1684.5	1727.4
25°	1761.1	1765.3	1727.4	1668.4	1645.2	1649.4	1654.3	1661.4	1678.2	1702.8	1760.4
27.5°	1836.9	1840.4	1790.6	1710.5	1675.4	1682.4	1689.4	1684.5	1692.3	1713.3	1787.0
30°	1943.6	1945.7	1882.5	1776.5	1726.7	1730.2	1731.6	1711.2	1696.5	1713.3	1806.0
32.5°	2070.0	2069.3	1994.2	1856.6	1784.9	1781.4	1769.5	1729.5	1695.1	1709.8	1822.9
35°	2265.9	2258.2	2161.3	1968.9	1850.9	1829.2	1801.1	1749.8	1702.1	1706.3	1837.6
37.5°	2590.3	2566.5	2432.3	2152.9	1949.2	1893.8	1852.3	1782.8	1717.5	1704.9	1855.2
40°	2956.2	2926.0	2778.5	2405.0	2096.7	2007.5	1940.8	1829.9	1742.8	1711.2	1881.1
42.5°	3390.1	3347.3	3188.6	2702.0	2283.5	2154.3	2053.9	1889.6	1780.0	1731.6	1916.2
45°	3923.1	3866.2	3641.5	3036.9	2518.7	2346.7	2212.6	1980.1	1836.9	1770.9	1968.9
47.5°	4461.6	4475.7	4156.2	3420.3	2801.0	2584.0	2411.3	2116.4	1919.8	1834.1	2053.9
50°	5033.9	5043.7	4668.1	3845.1	3121.2	2852.2	2634.6	2268.7	2034.9	1924.0	2181.0
52.5°	5480.5	5481.9	5132.9	4289.6	3454.7	3147.2	2875.4	2442.9	2168.3	2043.3	2350.2
55°	5760.0	5756.5	5458.7	4710.2	3838.1	3456.8	3142.2	2640.9	2331.2	2183.8	2563.0
57.5°	5962.9	5952.4	5683.4	5071.8	4246.8	3822.7	3444.2	2865.6	2523.6	2350.9	2843.1
60°	6040.1	6033.8	5835.8	5384.3	4676.5	4227.1	3792.5	3117.0	2742.0	2548.2	3203.3
62.5°	6069.6	6081.6	5985.4	5686.9	5136.4	4675.1	4175.2	3417.5	2987.8	2771.5	3583.2
65°	6173.6	6195.3	6175.7	6083.0	5656.0	5199.6	4682.8	3774.9	3256.0	3010.9	3979.9
67.5°	6379.3	6401.1	6409.5	6556.9	6290.8	5853.4	5316.2	4220.1	3569.9	3259.5	4278.4
70°	6374.4	6368.1	6516.9	6934.0	7085.7	6758.5	6170.0	4767.8	3944.1	3466.0	4316.3
72.5°	5802.1	5751.5	6103.3	6929.8	7747.1	7703.6	7212.8	5474.2	4267.1	3491.2	3745.4
75°	4352.8	4218.0	4839.4	6245.2	7857.4	8240.1	7875.6	5912.3	4190.6	3084.7	2606.5
77.5°	1861.5	1726.0	2458.3	4623.1	7032.3	7702.9	7267.5	5158.2	3345.2	2039.8	1280.1
80°	487.3	486.6	742.9	2096.0	4782.5	5688.3	4990.4	3331.1	1911.3	728.9	353.2
82.5°	201.5	196.6	273.1	815.2	2336.9	3192.1	2605.1	1485.8	690.2	197.3	117.3
85°	75.1	74.4	132.7	281.6	824.4	1316.6	952.9	379.9	172.0	96.2	52.7
87.5°	21.1	20.4	28.8	97.6	200.8	304.7	162.9	62.5	48.5	37.9	15.4
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°	1513.9	1513.9	1513.9	1513.9	1513.9	1513.9	1513.9	1513.9	1513.9	1513.9	1513.9
2.5°	1518.8	1522.3	1528.6	1533.6	1539.9	1546.9	1556.7	1563.0	1569.4	1573.6	1570.8
5°	1525.1	1532.9	1549.0	1565.2	1584.1	1601.7	1622.0	1636.8	1648.7	1652.2	1653.6
7.5°	1539.2	1551.8	1579.2	1606.6	1636.8	1665.6	1695.1	1720.3	1740.7	1748.4	1749.1
10°	1563.8	1580.6	1619.2	1657.8	1697.9	1742.1	1780.0	1816.5	1845.3	1857.3	1858.0
12.5°	1594.6	1615.7	1666.3	1719.6	1775.1	1836.2	1885.3	1930.3	1966.1	1982.3	1982.3
15°	1634.7	1662.1	1726.7	1798.3	1879.7	1964.7	2027.2	2077.0	2117.1	2136.7	2135.3
17.5°	1678.2	1714.7	1796.2	1904.3	2020.9	2132.5	2205.5	2242.1	2283.5	2302.4	2301.7
20°	1720.3	1765.3	1881.8	2039.1	2194.3	2313.0	2372.0	2381.8	2384.6	2386.7	2392.3
22.5°	1763.9	1824.3	1989.3	2209.1	2375.5	2457.6	2466.1	2423.9	2364.9	2337.6	2345.3
25°	1811.6	1891.7	2129.7	2396.5	2531.4	2541.2	2476.6	2374.1	2262.4	2211.2	2218.9
27.5°	1858.0	1969.6	2298.2	2575.6	2643.7	2557.3	2418.3	2273.0	2138.1	2084.1	2090.4
30°	1904.3	2058.8	2484.3	2732.2	2695.0	2517.3	2326.3	2164.1	2028.6	1971.7	1978.0
32.5°	1951.4	2162.7	2698.5	2845.2	2685.8	2432.3	2211.9	2041.9	1922.6	1862.9	1870.6
35°	2004.7	2290.5	2901.4	2907.0	2624.7	2307.4	2060.9	1895.9	1792.0	1744.2	1754.7
37.5°	2074.2	2452.7	3080.5	2922.5	2518.0	2124.1	1873.4	1723.1	1637.5	1615.7	1631.2
40°	2160.6	2647.9	3217.4	2897.9	2360.0	1901.5	1668.4	1548.3	1499.9	1504.8	1521.6
42.5°	2273.0	2866.3	3313.6	2834.7	2140.2	1671.9	1488.6	1435.3	1458.4	1478.1	1496.3
45°	2419.0	3093.1	3373.3	2727.3	1891.7	1477.4	1382.6	1395.2	1412.8	1414.9	1428.9
47.5°	2605.8	3322.7	3412.6	2565.1	1638.2	1340.5	1315.2	1318.0	1314.5	1299.7	1311.0
50°	2838.9	3546.0	3447.7	2350.2	1422.6	1254.8	1221.1	1211.3	1162.8	1115.1	1121.4
52.5°	3104.3	3751.0	3462.4	2083.4	1254.8	1183.2	1128.4	1066.6	976.0	961.3	966.2
55°	3399.2	3940.6	3424.5	1755.4	1113.7	1091.2	1008.3	933.9	924.1	911.4	913.5
57.5°	3751.7	4145.0	3347.3	1389.6	969.0	983.8	903.0	911.4	893.9	874.2	870.7
60°	4137.2	4356.3	3211.8	1056.1	819.4	849.6	875.6	874.9	870.0	853.8	848.2
62.5°	4484.1	4495.3	2944.9	808.9	688.1	745.7	816.6	815.9	811.7	802.6	799.1
65°	4690.6	4474.3	2499.8	636.9	580.0	660.0	736.6	742.2	742.9	742.2	742.2
67.5°	4654.0	4227.8	1888.9	507.0	490.8	573.0	657.2	665.0	670.6	672.0	673.4
70°	4241.2	3686.4	1231.6	404.5	411.5	496.4	582.1	589.8	594.7	600.4	603.2
72.5°	3305.9	2710.4	705.0	327.2	342.0	430.4	507.7	516.8	519.6	530.1	534.4
75°	2014.6	1593.9	380.6	257.7	280.9	367.9	433.9	444.5	449.4	462.0	463.4
77.5°	957.8	690.2	217.0	200.8	226.1	300.5	366.5	378.5	365.1	372.2	366.5
80°	323.7	256.3	136.9	153.1	172.7	234.5	293.5	305.4	277.4	276.0	273.1
82.5°	113.1	103.9	87.1	101.8	111.6	167.8	221.9	237.3	206.4	205.7	195.9
85°	44.2	42.1	48.5	55.5	66.7	103.2	146.1	153.8	127.1	102.5	101.1
87.5°	9.1	9.8	11.9	12.6	20.4	35.8	52.7	64.6	51.3	43.5	40.0
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)