

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: P883634

Luminaire Tested: **NAV-SB4A-827-U-SL4**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P883634  
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-SB4A-827-U-SL4  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(4) 80 CRI, 2700K, 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: 14642 lumens  
Efficiency: N/A  
Efficacy: 128.4 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type IV - Medium  
BUG Rating: B3 - U0 - G3

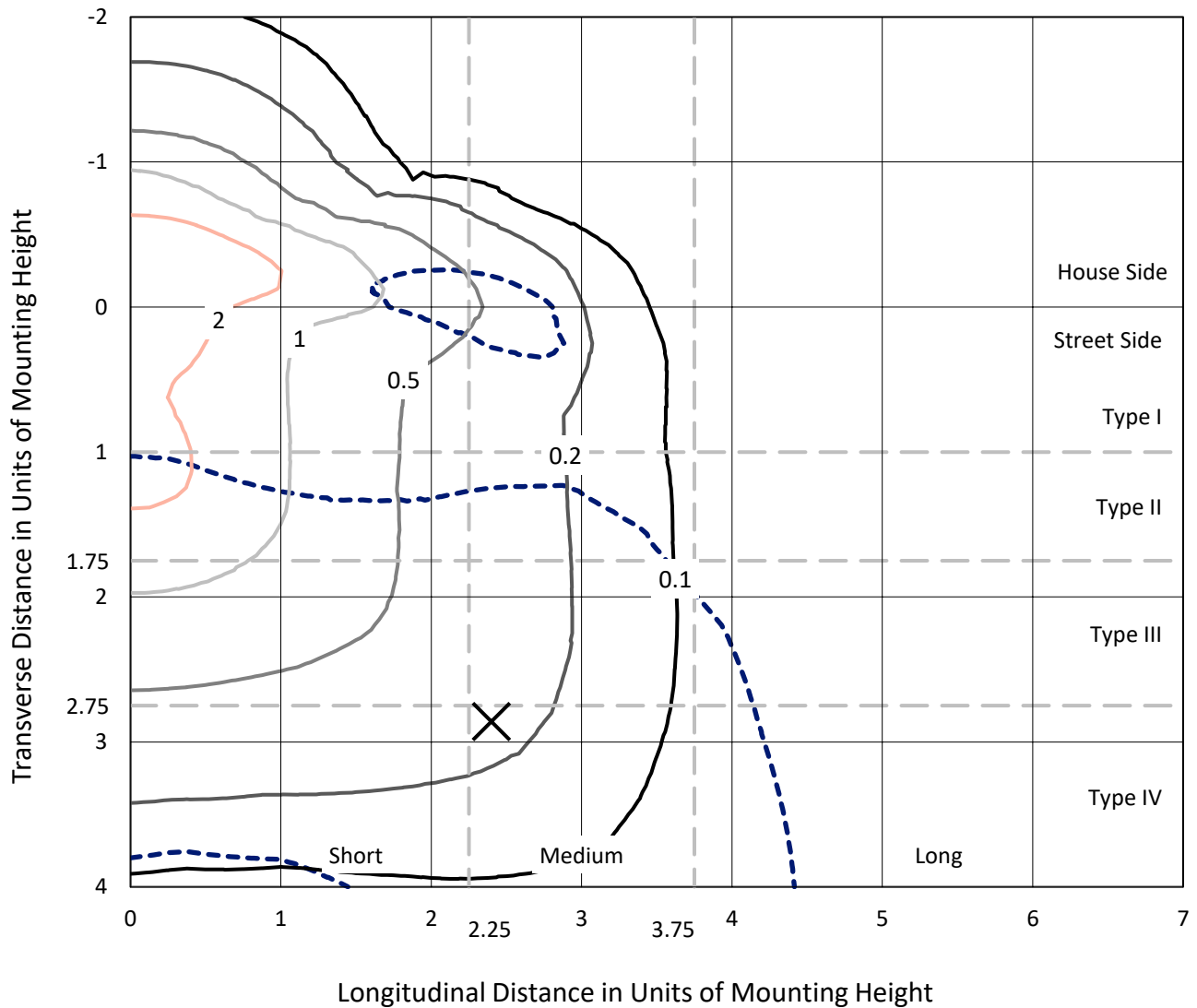
Input Watts (W): 114  
Input Voltage (V): 120.0  
Input Current (Ain): 0.952  
Voltage Rise (V): NR  
Power Factor: 0.995  
Total Harmonic Distortion (THDi): 8.206  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

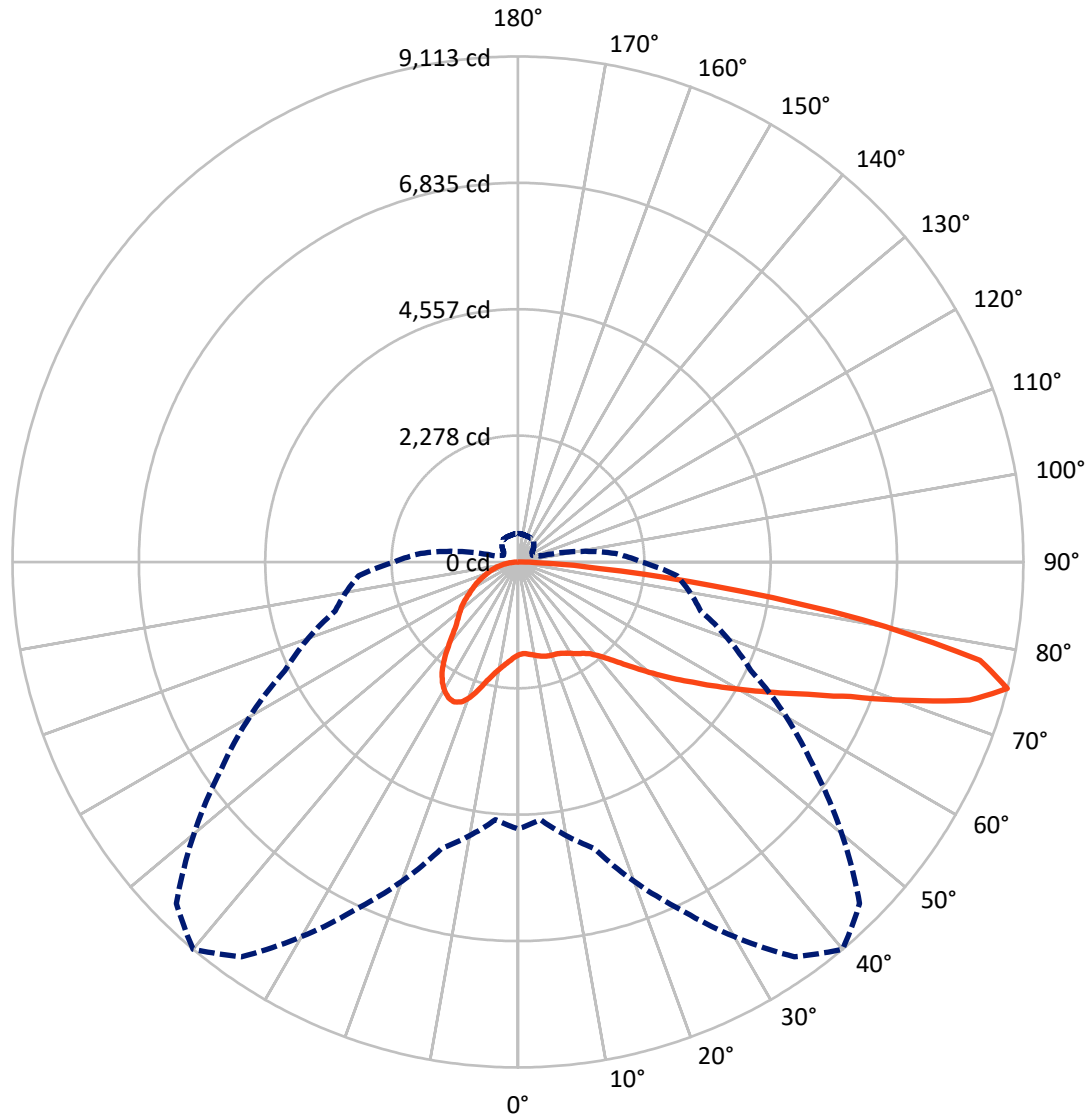
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.5 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
<b>House Side</b>	Lumens	4536.6	0.0	4536.6
	% Fixture	31.0	0.0	31.0
<b>Street Side</b>	Lumens	10105.4	0.0	10105.4
	% Fixture	69.0	0.0	69.0
<b>Total</b>	Lumens	14642.0	0.0	14642.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	167.1	1.1
10°-20°	561.1	3.8
20°-30°	1024.6	7.0
30°-40°	1453.1	9.9
40°-50°	1962.2	13.4
50°-60°	2639.7	18.0
60°-70°	3350.3	22.9
70°-80°	3040.6	20.8
80°-90°	443.2	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°	14642.0	100.0
0°-180°	14642.0	100.0

**Coefficient of Utilization**



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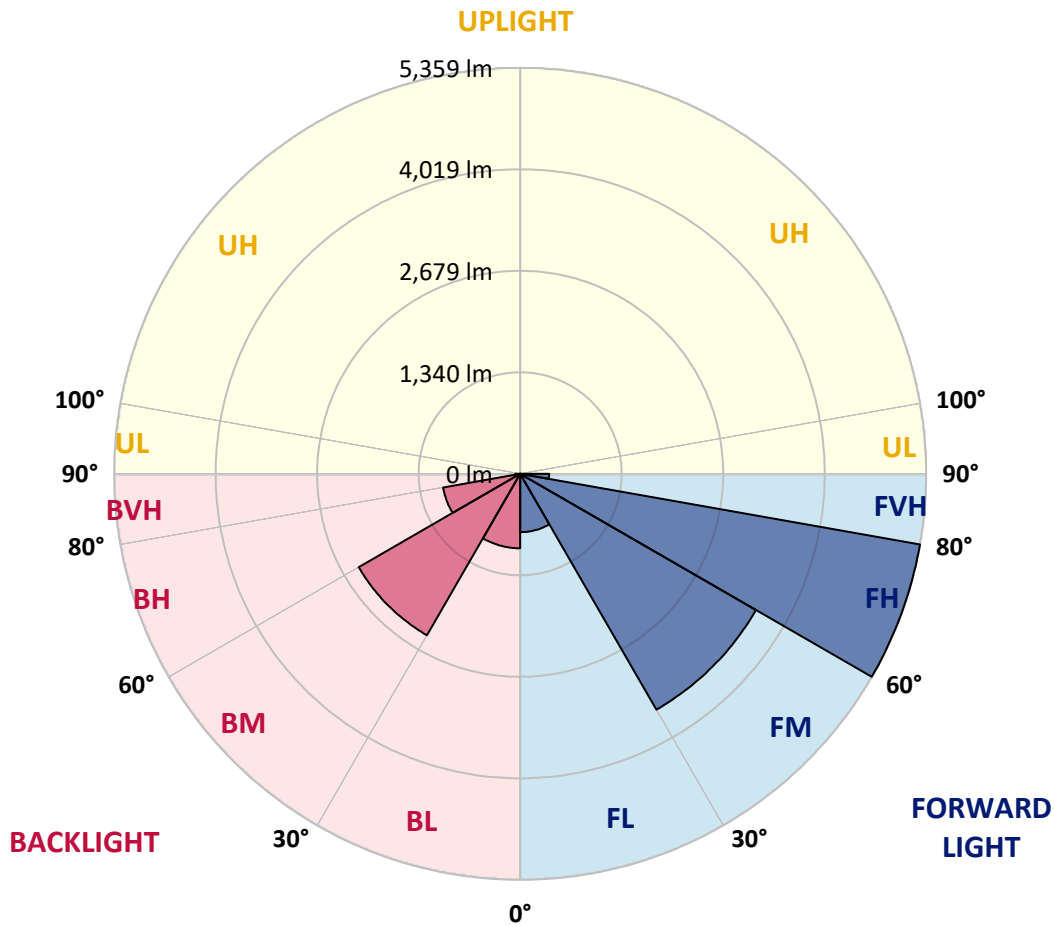
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	770.2	5.3			
FM (30°-60°)	3594.3	24.5			
FH (60°-80°)	5358.7	36.6			G3/7500
FVH (80°-90°)	382.2	2.6			G3/500
BL (0°-30°)	982.7	6.7	B2/1000		
BM (30°-60°)	2460.7	16.8	B2/2500		
BH (60°-80°)	1032.2	7.0	B3/2500		G3/2500
BVH (80°-90°)	61.0	0.4			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G3**

Type IV Medium



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	1674.3	1674.3	1674.3	1674.3	1674.3	1674.3	1674.3	1674.3	1674.3	1674.3	1674.3
2.5°	1648.7	1658.0	1655.7	1652.6	1652.6	1653.4	1652.6	1658.0	1663.5	1668.9	1677.4
5°	1665.8	1675.1	1670.4	1666.6	1663.5	1662.7	1660.4	1659.6	1662.7	1669.7	1681.3
7.5°	1699.2	1708.5	1701.5	1694.5	1688.3	1685.2	1682.1	1677.4	1675.1	1679.0	1695.3
10°	1736.5	1745.8	1737.2	1724.8	1714.7	1710.8	1707.7	1703.1	1700.0	1702.3	1720.2
12.5°	1773.7	1783.1	1771.4	1754.3	1741.1	1738.8	1734.9	1733.4	1732.6	1731.8	1749.7
15°	1808.7	1816.4	1801.7	1781.5	1767.5	1763.6	1759.8	1762.1	1766.0	1770.6	1790.8
17.5°	1835.9	1843.6	1821.9	1795.5	1782.3	1780.7	1778.4	1786.2	1797.0	1808.7	1833.5
20°	1860.7	1868.5	1840.5	1804.8	1789.3	1789.3	1790.0	1806.4	1821.9	1839.0	1873.1
22.5°	1895.7	1901.9	1867.7	1818.8	1796.3	1797.8	1804.0	1820.3	1839.7	1863.0	1910.4
25°	1947.7	1952.4	1910.4	1845.2	1819.6	1824.2	1829.7	1837.4	1856.1	1883.2	1946.9
27.5°	2031.6	2035.4	1980.3	1891.8	1852.9	1860.7	1868.5	1863.0	1871.6	1894.9	1976.4
30°	2149.6	2151.9	2082.0	1964.8	1909.6	1913.5	1915.1	1892.6	1876.2	1894.9	1997.4
32.5°	2289.4	2288.6	2205.5	2053.3	1974.1	1970.2	1957.0	1912.7	1874.7	1891.0	2016.0
35°	2506.1	2497.5	2390.3	2177.6	2047.1	2023.0	1992.0	1935.3	1882.5	1887.1	2032.3
37.5°	2864.8	2838.4	2690.1	2381.0	2155.8	2094.5	2048.6	1971.8	1899.5	1885.6	2051.8
40°	3269.5	3236.1	3073.0	2659.8	2318.9	2220.3	2146.5	2023.8	1927.5	1892.6	2080.5
42.5°	3749.4	3702.0	3526.5	2988.3	2525.5	2382.6	2271.5	2089.8	1968.7	1915.1	2119.3
45°	4338.8	4275.9	4027.4	3358.8	2785.6	2595.4	2447.0	2190.0	2031.6	1958.6	2177.6
47.5°	4934.5	4950.0	4596.6	3782.8	3097.8	2857.9	2666.8	2340.6	2123.2	2028.5	2271.5
50°	5567.4	5578.3	5162.8	4252.6	3452.0	3154.5	2913.8	2509.2	2250.6	2127.9	2412.1
52.5°	6061.3	6062.9	5676.9	4744.2	3820.8	3480.7	3180.1	2701.8	2398.1	2259.9	2599.3
55°	6370.4	6366.5	6037.2	5209.4	4244.9	3823.2	3475.2	2920.8	2578.3	2415.2	2834.6
57.5°	6594.8	6583.2	6285.7	5609.3	4696.8	4227.8	3809.2	3169.3	2791.1	2600.0	3144.4
60°	6680.2	6673.3	6454.3	5954.9	5172.1	4675.1	4194.4	3447.3	3032.6	2818.3	3542.8
62.5°	6712.9	6726.1	6619.7	6289.6	5680.8	5170.5	4617.6	3779.7	3304.4	3065.2	3962.9
65°	6827.8	6851.9	6830.1	6727.6	6255.4	5750.7	5179.1	4175.0	3601.1	3330.0	4401.7
67.5°	7055.3	7079.4	7088.7	7251.8	6957.5	6473.7	5879.6	4667.3	3948.2	3604.9	4731.8
70°	7049.9	7042.9	7207.5	7668.8	7836.6	7474.7	6823.9	5273.1	4362.1	3833.3	4773.7
72.5°	6417.0	6361.1	6750.1	7664.2	8568.1	8520.0	7977.2	6054.3	4719.3	3861.2	4142.3
75°	4814.1	4665.0	5352.3	6907.0	8690.1	9113.3	8710.3	6538.9	4634.7	3411.6	2882.7
77.5°	2058.7	1908.9	2718.8	5113.1	7777.6	8519.2	8037.7	5704.8	3699.7	2256.0	1415.7
80°	539.0	538.2	821.6	2318.1	5289.4	6291.2	5519.2	3684.2	2113.9	806.1	390.6
82.5°	222.9	217.4	302.1	901.6	2584.5	3530.4	2881.2	1643.3	763.4	218.2	129.7
85°	83.1	82.3	146.8	311.4	911.7	1456.1	1053.8	420.1	190.3	106.4	58.2
87.5°	23.3	22.5	31.8	107.9	222.1	337.0	180.2	69.1	53.6	41.9	17.1
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°	1674.3	1674.3	1674.3	1674.3	1674.3	1674.3	1674.3	1674.3	1674.3	1674.3	1674.3
2.5°	1679.8	1683.7	1690.6	1696.1	1703.1	1710.8	1721.7	1728.7	1735.7	1740.3	1737.2
5°	1686.8	1695.3	1713.2	1731.0	1752.0	1771.4	1793.9	1810.2	1823.4	1827.3	1828.9
7.5°	1702.3	1716.3	1746.6	1776.8	1810.2	1842.1	1874.7	1902.7	1925.2	1933.7	1934.5
10°	1729.5	1748.1	1790.8	1833.5	1877.8	1926.7	1968.7	2009.0	2040.9	2054.1	2054.9
12.5°	1763.6	1786.9	1842.9	1901.9	1963.2	2030.8	2085.1	2134.9	2174.5	2192.3	2192.3
15°	1807.9	1838.2	1909.6	1988.9	2078.9	2172.9	2242.0	2297.2	2341.4	2363.2	2361.6
17.5°	1856.1	1896.4	1986.5	2106.1	2235.0	2358.5	2439.3	2479.7	2525.5	2546.4	2545.7
20°	1902.7	1952.4	2081.3	2255.2	2426.8	2558.1	2623.3	2634.2	2637.3	2639.6	2645.8
22.5°	1950.8	2017.6	2200.1	2443.2	2627.2	2718.1	2727.4	2680.8	2615.6	2585.3	2593.8
25°	2003.6	2092.1	2355.4	2650.5	2799.6	2810.5	2739.0	2625.7	2502.2	2445.5	2454.0
27.5°	2054.9	2178.3	2541.8	2848.5	2923.9	2828.3	2674.6	2513.8	2364.7	2304.9	2311.9
30°	2106.1	2277.0	2747.6	3021.7	2980.6	2784.1	2572.8	2393.5	2243.6	2180.7	2187.7
32.5°	2158.1	2391.9	2984.4	3146.8	2970.5	2690.1	2446.3	2258.3	2126.3	2060.3	2068.8
35°	2217.2	2533.2	3208.9	3215.1	2902.9	2551.9	2279.3	2096.8	1981.9	1929.1	1940.7
37.5°	2294.1	2712.6	3406.9	3232.2	2784.9	2349.2	2071.9	1905.8	1811.0	1786.9	1804.0
40°	2389.6	2928.5	3558.3	3205.0	2610.1	2103.0	1845.2	1712.4	1658.8	1664.2	1682.9
42.5°	2513.8	3170.0	3664.7	3135.1	2367.1	1849.1	1646.4	1587.4	1613.0	1634.7	1654.9
45°	2675.4	3420.9	3730.7	3016.3	2092.1	1633.9	1529.1	1543.1	1562.5	1564.8	1580.4
47.5°	2881.9	3674.8	3774.2	2836.9	1811.8	1482.5	1454.6	1457.7	1453.8	1437.5	1449.9
50°	3139.8	3921.8	3813.1	2599.3	1573.4	1387.8	1350.5	1339.6	1286.0	1233.2	1240.2
52.5°	3433.3	4148.6	3829.4	2304.1	1387.8	1308.6	1248.0	1179.6	1079.5	1063.2	1068.6
55°	3759.5	4358.2	3787.4	1941.5	1231.7	1206.8	1115.2	1032.9	1022.0	1008.0	1010.3
57.5°	4149.3	4584.2	3702.0	1536.9	1071.7	1088.0	998.7	1008.0	988.6	966.9	963.0
60°	4575.7	4818.0	3552.1	1168.0	906.3	939.7	968.4	967.6	962.2	944.3	938.1
62.5°	4959.3	4971.7	3257.0	894.6	761.1	824.7	903.2	902.4	897.7	887.6	883.8
65°	5187.6	4948.4	2764.7	704.4	641.5	730.0	814.6	820.9	821.6	820.9	820.9
67.5°	5147.3	4675.9	2089.0	560.7	542.8	633.7	726.9	735.4	741.6	743.2	744.8
70°	4690.6	4077.1	1362.1	447.3	455.1	549.1	643.8	652.3	657.8	664.0	667.1
72.5°	3656.2	2997.6	779.7	361.9	378.2	476.1	561.5	571.6	574.7	586.3	591.0
75°	2228.0	1762.9	420.9	285.0	310.6	406.9	479.9	491.6	497.0	511.0	512.6
77.5°	1059.3	763.4	240.0	222.1	250.1	332.4	405.4	418.6	403.8	411.6	405.4
80°	358.0	283.5	151.4	169.3	191.0	259.4	324.6	337.8	306.8	305.2	302.1
82.5°	125.0	114.9	96.3	112.6	123.5	185.6	245.4	262.5	228.3	227.5	216.7
85°	48.9	46.6	53.6	61.4	73.8	114.2	161.5	170.1	140.6	113.4	111.8
87.5°	10.1	10.9	13.2	14.0	22.5	39.6	58.2	71.4	56.7	48.1	44.3
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)