

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: P883064

Luminaire Tested: **NAV-SB3B-727-U-SL4**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P883064  
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-SB3B-727-U-SL4  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(3) 70 CRI, 2700K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV SPILL  
LIGHT ELIMINATOR OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

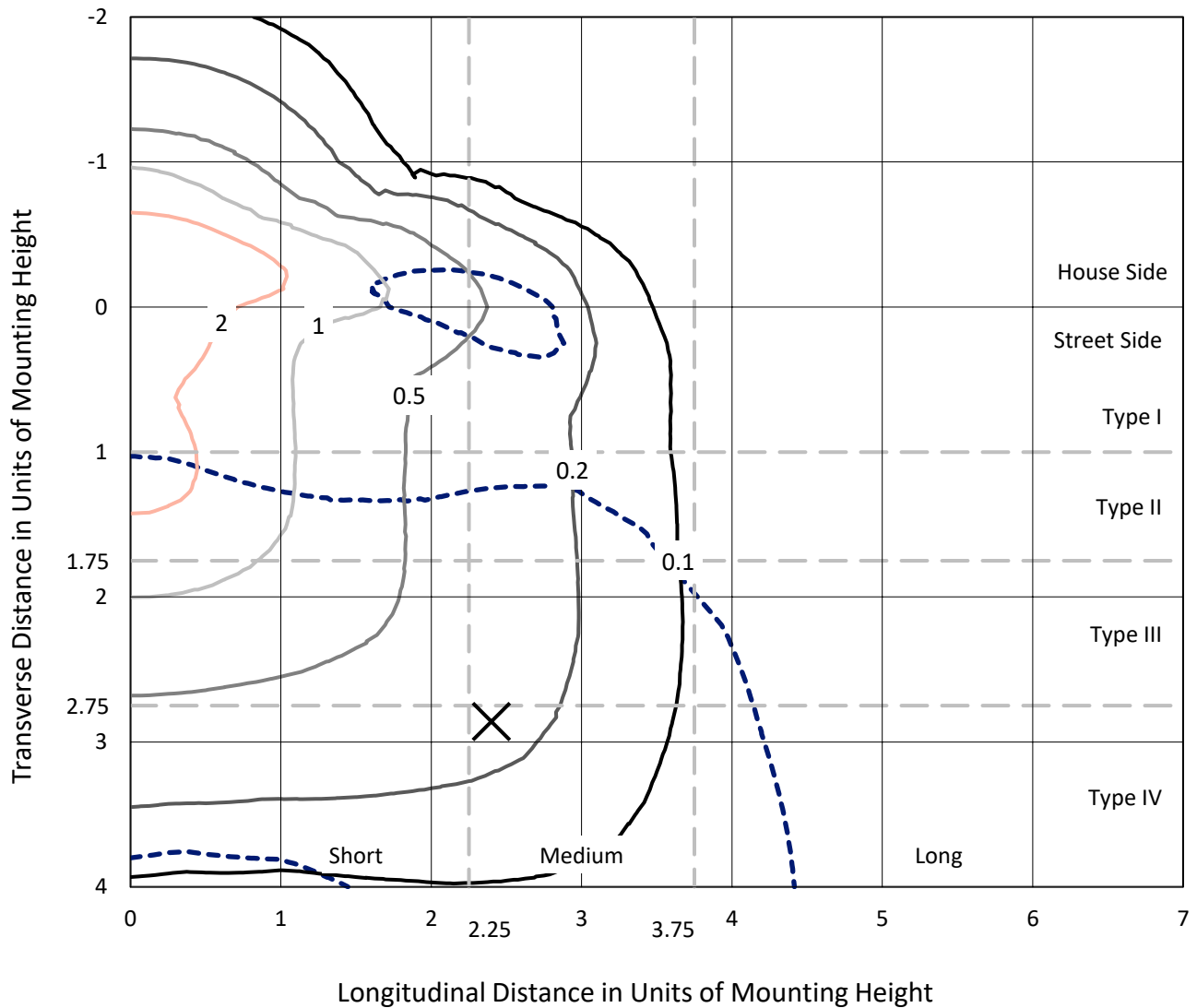
Lumens per Lamp: N/A  
Luminaire Lumens: 15173 lumens  
Efficiency: N/A  
Efficacy: 138.9 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')  
IES Classification: Type IV - Medium  
BUG Rating: B3 - U0 - G3  
  
Input Watts (W): 109.2  
Input Voltage (V): 120.0  
Input Current (Ain): 0.919  
Voltage Rise (V): NR  
Power Factor: 0.995  
Total Harmonic Distortion (THDi): 8.657  
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

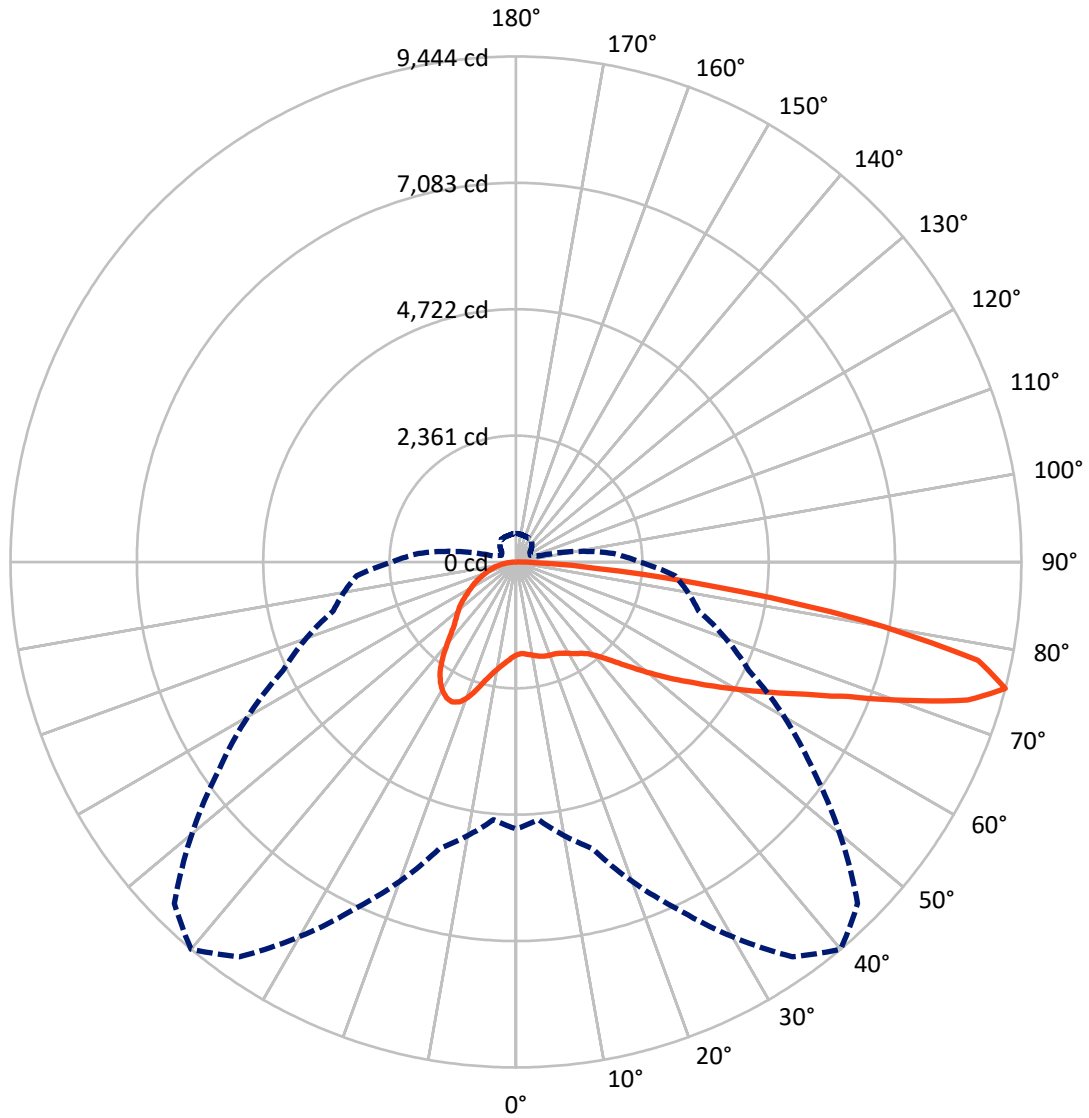
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.6 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	4701.1	0.0	4701.1
	% Fixture	31.0	0.0	31.0
<b>Street Side</b>	Lumens	10471.9	0.0	10471.9
	% Fixture	69.0	0.0	69.0
<b>Total</b>	Lumens	15173.0	0.0	15173.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	173.2	1.1
10°-20°	581.5	3.8
20°-30°	1061.7	7.0
30°-40°	1505.8	9.9
40°-50°	2033.3	13.4
50°-60°	2735.4	18.0
60°-70°	3471.8	22.9
70°-80°	3150.9	20.8
80°-90°	459.3	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°	15173.0	100.0
0°-180°	15173.0	100.0

**Coefficient of Utilization**



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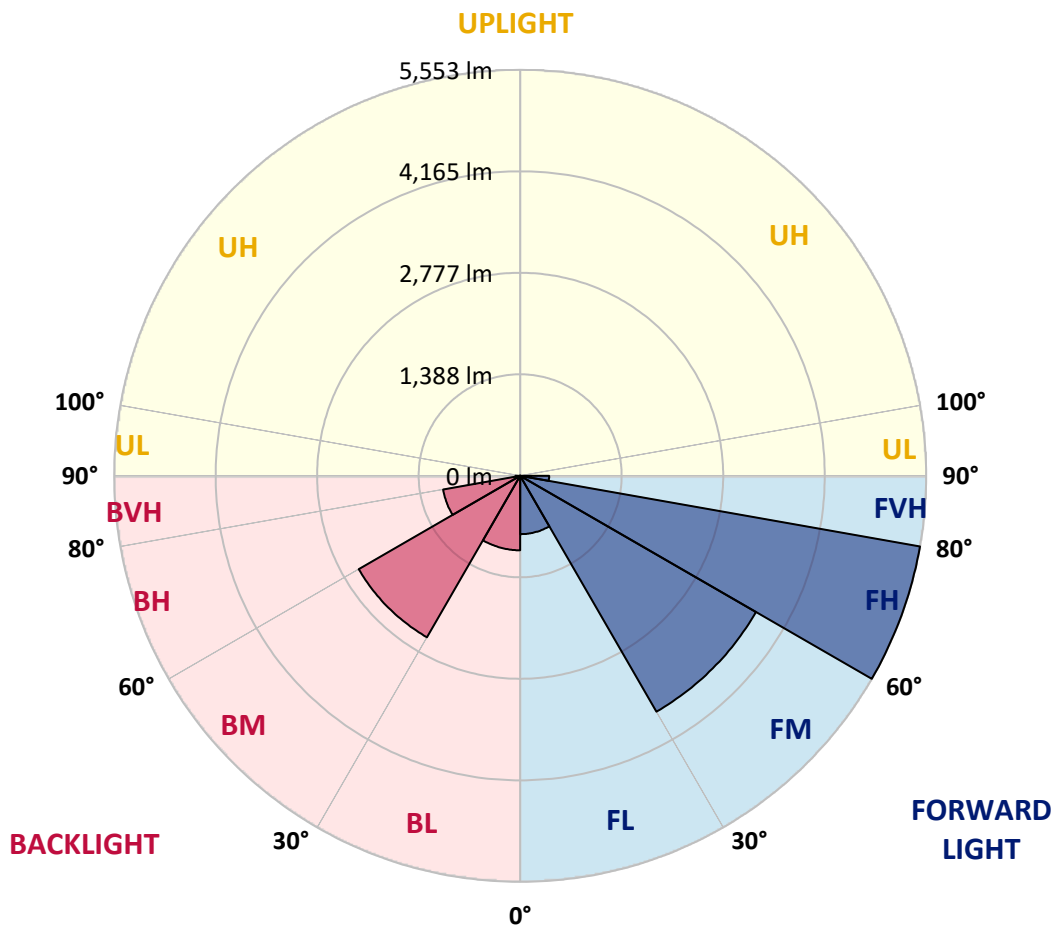
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	798.1	5.3			
FM (30°-60°)	3724.6	24.5			
FH (60°-80°)	5553.1	36.6			G3/7500
FVH (80°-90°)	396.1	2.6			G3/500
BL (0°-30°)	1018.3	6.7	B3/2500		
BM (30°-60°)	2549.9	16.8	B3/5000		
BH (60°-80°)	1069.6	7.0	B3/2500		G3/2500
BVH (80°-90°)	63.2	0.4			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: 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°	1735.1	1735.1	1735.1	1735.1	1735.1	1735.1	1735.1	1735.1	1735.1	1735.1	1735.1
2.5°	1708.5	1718.2	1715.7	1712.5	1712.5	1713.3	1712.5	1718.2	1723.8	1729.4	1738.3
5°	1726.2	1735.9	1731.0	1727.0	1723.8	1723.0	1720.6	1719.8	1723.0	1730.2	1742.3
7.5°	1760.8	1770.5	1763.2	1756.0	1749.5	1746.3	1743.1	1738.3	1735.9	1739.9	1756.8
10°	1799.4	1809.1	1800.2	1787.4	1776.9	1772.9	1769.7	1764.8	1761.6	1764.0	1782.5
12.5°	1838.1	1847.7	1835.6	1817.9	1804.3	1801.8	1797.8	1796.2	1795.4	1794.6	1813.1
15°	1874.3	1882.3	1867.0	1846.1	1831.6	1827.6	1823.6	1826.0	1830.0	1834.8	1855.8
17.5°	1902.4	1910.5	1888.0	1860.6	1846.9	1845.3	1842.9	1850.9	1862.2	1874.3	1900.0
20°	1928.2	1936.2	1907.3	1870.3	1854.2	1854.2	1855.0	1871.9	1888.0	1905.7	1941.1
22.5°	1964.4	1970.8	1935.4	1884.7	1861.4	1863.0	1869.4	1886.3	1906.5	1930.6	1979.7
25°	2018.3	2023.2	1979.7	1912.1	1885.5	1890.4	1896.0	1904.1	1923.4	1951.5	2017.5
27.5°	2105.2	2109.3	2052.1	1960.4	1920.1	1928.2	1936.2	1930.6	1939.5	1963.6	2048.1
30°	2227.6	2230.0	2157.5	2036.0	1978.9	1982.9	1984.5	1961.2	1944.3	1963.6	2069.8
32.5°	2372.4	2371.6	2285.5	2127.8	2045.7	2041.7	2028.0	1982.1	1942.7	1959.6	2089.1
35°	2596.9	2588.1	2477.0	2256.5	2121.3	2096.4	2064.2	2005.5	1950.7	1955.6	2106.0
37.5°	2968.7	2941.4	2787.7	2467.4	2234.0	2170.4	2122.9	2043.3	1968.4	1953.9	2126.2
40°	3388.0	3353.4	3184.4	2756.3	2403.0	2300.8	2224.3	2097.2	1997.4	1961.2	2155.9
42.5°	3885.4	3836.3	3654.4	3096.7	2617.1	2469.0	2353.9	2165.6	2040.1	1984.5	2196.2
45°	4496.2	4431.0	4173.5	3480.6	2886.7	2689.5	2535.8	2269.4	2105.2	2029.6	2256.5
47.5°	5113.4	5129.5	4763.3	3920.0	3210.2	2961.5	2763.5	2425.5	2200.2	2102.0	2353.9
50°	5769.3	5780.6	5350.0	4406.8	3577.1	3268.9	3019.4	2600.2	2332.2	2205.0	2499.6
52.5°	6281.1	6282.7	5882.8	4916.3	3959.4	3606.9	3295.5	2799.7	2485.1	2341.8	2693.5
55°	6601.4	6597.4	6256.2	5398.3	4398.8	3961.8	3601.3	3026.7	2671.8	2502.8	2937.4
57.5°	6834.0	6821.9	6513.7	5812.7	4867.2	4381.1	3947.3	3284.2	2892.3	2694.3	3258.5
60°	6922.5	6915.3	6688.3	6170.9	5359.7	4844.6	4346.5	3572.3	3142.6	2920.5	3671.3
62.5°	6956.3	6970.0	6859.7	6517.7	5886.8	5358.1	4785.1	3916.7	3424.2	3176.4	4106.7
65°	7075.4	7100.4	7077.8	6971.6	6482.3	5959.2	5366.9	4326.4	3731.7	3450.8	4561.4
67.5°	7311.2	7336.2	7345.8	7514.8	7209.8	6708.4	6092.8	4836.6	4091.4	3735.7	4903.4
70°	7305.6	7298.3	7468.9	7947.0	8120.8	7745.8	7071.4	5464.3	4520.3	3972.3	4946.8
72.5°	6649.7	6591.8	6994.9	7942.1	8878.9	8829.0	8266.4	6273.9	4890.5	4001.2	4292.6
75°	4988.7	4834.2	5546.4	7157.5	9005.2	9443.8	9026.1	6776.0	4802.8	3535.3	2987.3
77.5°	2133.4	1978.1	2817.4	5298.5	8059.6	8828.2	8329.2	5911.7	3833.9	2337.8	1467.1
80°	558.5	557.7	851.4	2402.2	5481.2	6519.3	5719.4	3817.8	2190.5	835.3	404.8
82.5°	231.0	225.3	313.0	934.3	2678.2	3658.4	2985.6	1702.9	791.1	226.1	134.4
85°	86.1	85.3	152.1	322.7	944.8	1508.9	1092.1	435.4	197.2	110.3	60.4
87.5°	24.1	23.3	33.0	111.9	230.2	349.3	186.7	71.6	55.5	43.5	17.7
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°	1735.1	1735.1	1735.1	1735.1	1735.1	1735.1	1735.1	1735.1	1735.1	1735.1	1735.1
2.5°	1740.7	1744.7	1752.0	1757.6	1764.8	1772.9	1784.1	1791.4	1798.6	1803.5	1800.2
5°	1747.9	1756.8	1775.3	1793.8	1815.5	1835.6	1859.0	1875.9	1889.6	1893.6	1895.2
7.5°	1764.0	1778.5	1809.9	1841.3	1875.9	1908.9	1942.7	1971.7	1995.0	2003.8	2004.6
10°	1792.2	1811.5	1855.8	1900.0	1945.9	1996.6	2040.1	2081.9	2114.9	2128.6	2129.4
12.5°	1827.6	1851.7	1909.7	1970.8	2034.4	2104.4	2160.8	2212.3	2253.3	2271.8	2271.8
15°	1873.5	1904.9	1978.9	2061.0	2154.3	2251.7	2323.3	2380.5	2426.3	2448.9	2447.3
17.5°	1923.4	1965.2	2058.6	2182.5	2316.1	2444.0	2527.7	2569.6	2617.1	2638.8	2638.0
20°	1971.7	2023.2	2156.7	2337.0	2514.9	2650.9	2718.5	2729.7	2732.9	2735.4	2741.8
22.5°	2021.5	2090.8	2279.9	2531.8	2722.5	2816.6	2826.3	2778.0	2710.4	2679.0	2687.9
25°	2076.3	2168.0	2440.8	2746.6	2901.1	2912.4	2838.4	2720.9	2592.9	2534.2	2543.0
27.5°	2129.4	2257.3	2634.0	2951.8	3029.9	2930.9	2771.6	2605.0	2450.5	2388.5	2395.8
30°	2182.5	2359.5	2847.2	3131.3	3088.7	2885.0	2666.2	2480.3	2324.9	2259.8	2267.0
32.5°	2236.4	2478.6	3092.7	3260.9	3078.2	2787.7	2535.0	2340.2	2203.4	2135.0	2143.9
35°	2297.6	2625.1	3325.2	3331.7	3008.2	2644.4	2362.0	2172.8	2053.7	1999.0	2011.1
37.5°	2377.2	2811.0	3530.5	3349.4	2885.9	2434.4	2147.1	1974.9	1876.7	1851.7	1869.4
40°	2476.2	3034.7	3687.4	3321.2	2704.8	2179.3	1912.1	1774.5	1719.0	1724.6	1743.9
42.5°	2605.0	3285.0	3797.6	3248.8	2452.9	1916.1	1706.1	1644.9	1671.5	1694.0	1714.9
45°	2772.4	3544.9	3866.0	3125.7	2168.0	1693.2	1584.6	1599.0	1619.2	1621.6	1637.7
47.5°	2986.4	3808.1	3911.1	2939.8	1877.5	1536.3	1507.3	1510.5	1506.5	1489.6	1502.5
50°	3253.6	4064.0	3951.3	2693.5	1630.4	1438.1	1399.5	1388.2	1332.7	1278.0	1285.2
52.5°	3557.8	4299.0	3968.2	2387.7	1438.1	1356.0	1293.2	1222.4	1118.6	1101.7	1107.3
55°	3895.8	4516.3	3924.8	2011.9	1276.3	1250.6	1155.6	1070.3	1059.1	1044.6	1047.0
57.5°	4299.8	4750.5	3836.3	1592.6	1110.6	1127.5	1034.9	1044.6	1024.5	1001.9	997.9
60°	4741.6	4992.7	3681.0	1210.4	939.1	973.8	1003.5	1002.7	997.1	978.6	972.1
62.5°	5139.2	5152.0	3375.1	927.1	788.7	854.7	935.9	935.1	930.3	919.8	915.8
65°	5375.8	5127.9	2864.9	729.9	664.7	756.5	844.2	850.6	851.4	850.6	850.6
67.5°	5333.9	4845.4	2164.8	581.0	562.5	656.7	753.3	762.1	768.5	770.2	771.8
70°	4860.7	4225.0	1411.5	463.5	471.6	569.0	667.1	676.0	681.6	688.1	691.3
72.5°	3788.8	3106.4	808.0	375.0	391.9	493.3	581.8	592.3	595.5	607.6	612.4
75°	2308.8	1826.8	436.2	295.3	321.9	421.7	497.3	509.4	515.0	529.5	531.1
77.5°	1097.7	791.1	248.7	230.2	259.1	344.4	420.1	433.8	418.5	426.5	420.1
80°	371.0	293.7	156.9	175.4	198.0	268.8	336.4	350.1	317.9	316.3	313.0
82.5°	129.6	119.1	99.8	116.7	128.0	192.3	254.3	272.0	236.6	235.8	224.5
85°	50.7	48.3	55.5	63.6	76.5	118.3	167.4	176.2	145.7	117.5	115.9
87.5°	10.5	11.3	13.7	14.5	23.3	41.0	60.4	74.0	58.7	49.9	45.9
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)