

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: P883144

Luminaire Tested: **NAV-SB3B-835-U-SL4**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P883144  
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-835-U-SL4  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(3) 80 CRI, 3500K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV SPILL  
LIGHT ELIMINATOR OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

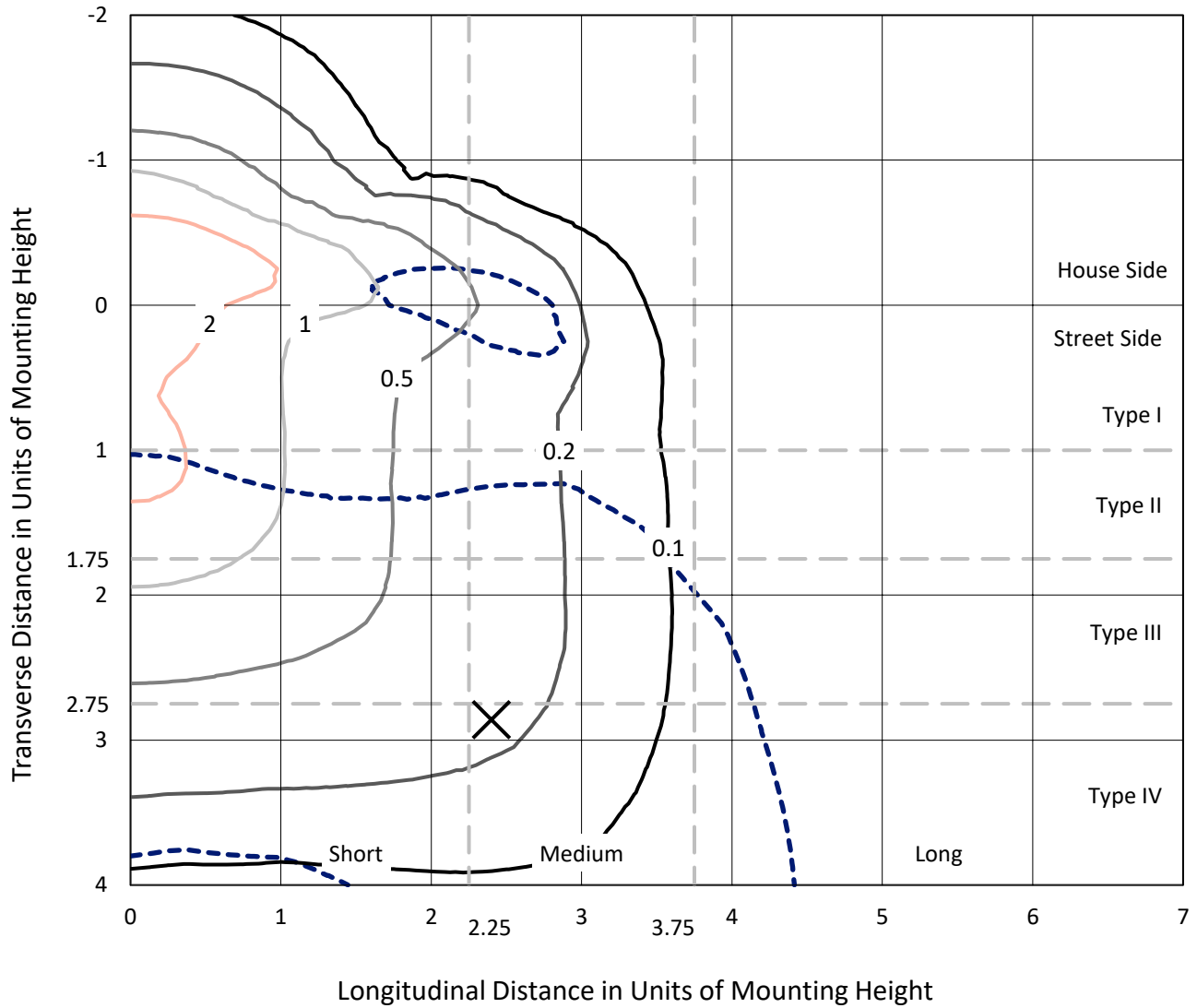
Lumens per Lamp: N/A  
Luminaire Lumens: 14127 lumens  
Efficiency: N/A  
Efficacy: 129.4 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')  
IES Classification: Type IV - Medium  
BUG Rating: B2 - U0 - G3  
  
Input Watts (W): 109.2  
Input Voltage (V): 120.0  
Input Current (Ain): 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

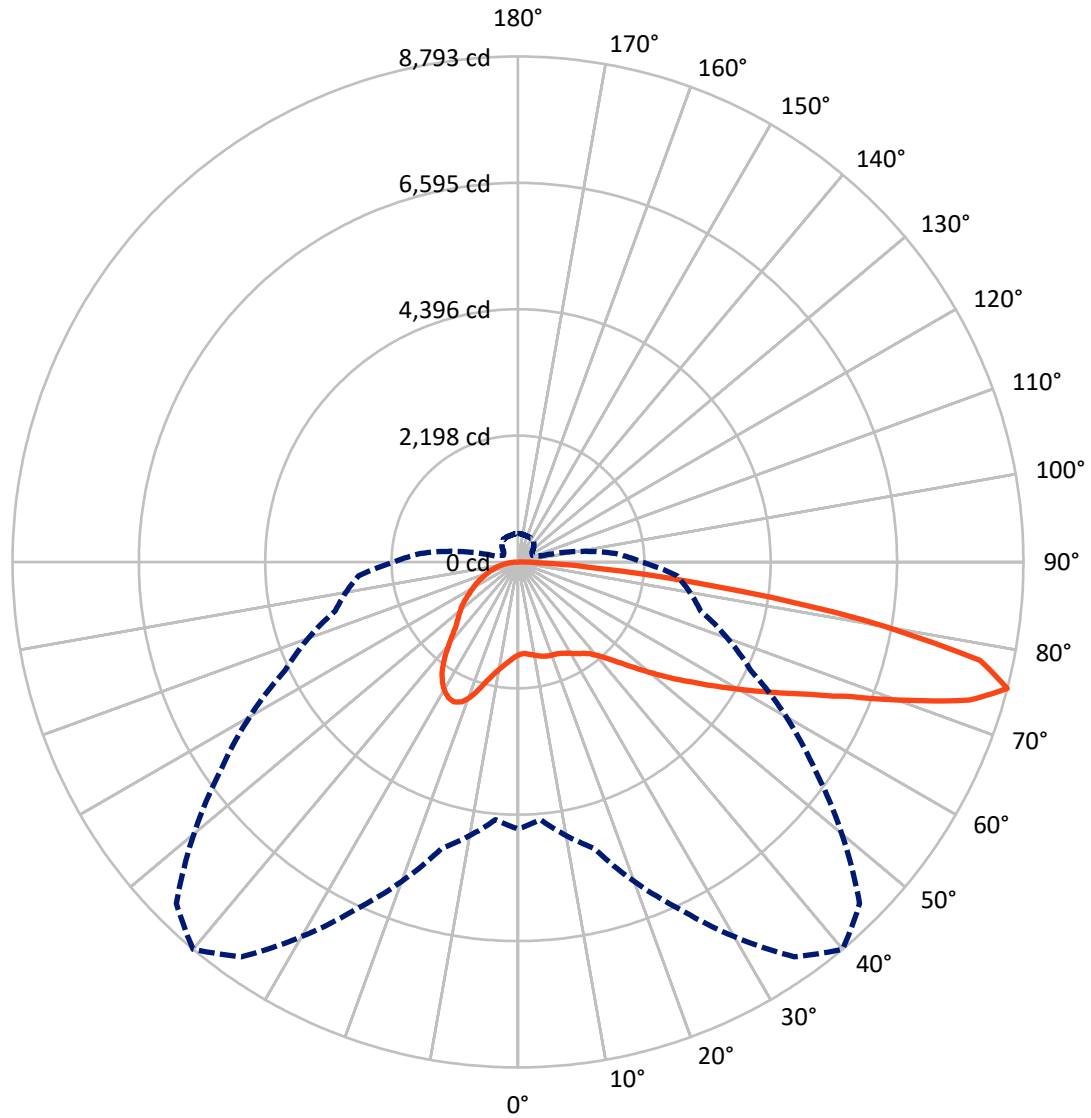
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.3 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	4377.0	0.0	4377.0
	% Fixture	31.0	0.0	31.0
<b>Street Side</b>	Lumens	9750.0	0.0	9750.0
	% Fixture	69.0	0.0	69.0
<b>Total</b>	Lumens	14127.0	0.0	14127.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	161.3	1.1
10°-20°	541.4	3.8
20°-30°	988.5	7.0
30°-40°	1402.0	9.9
40°-50°	1893.2	13.4
50°-60°	2546.8	18.0
60°-70°	3232.5	22.9
70°-80°	2933.7	20.8
80°-90°	427.6	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°	14127.0	100.0
0°-180°	14127.0	100.0

**Coefficient of Utilization**



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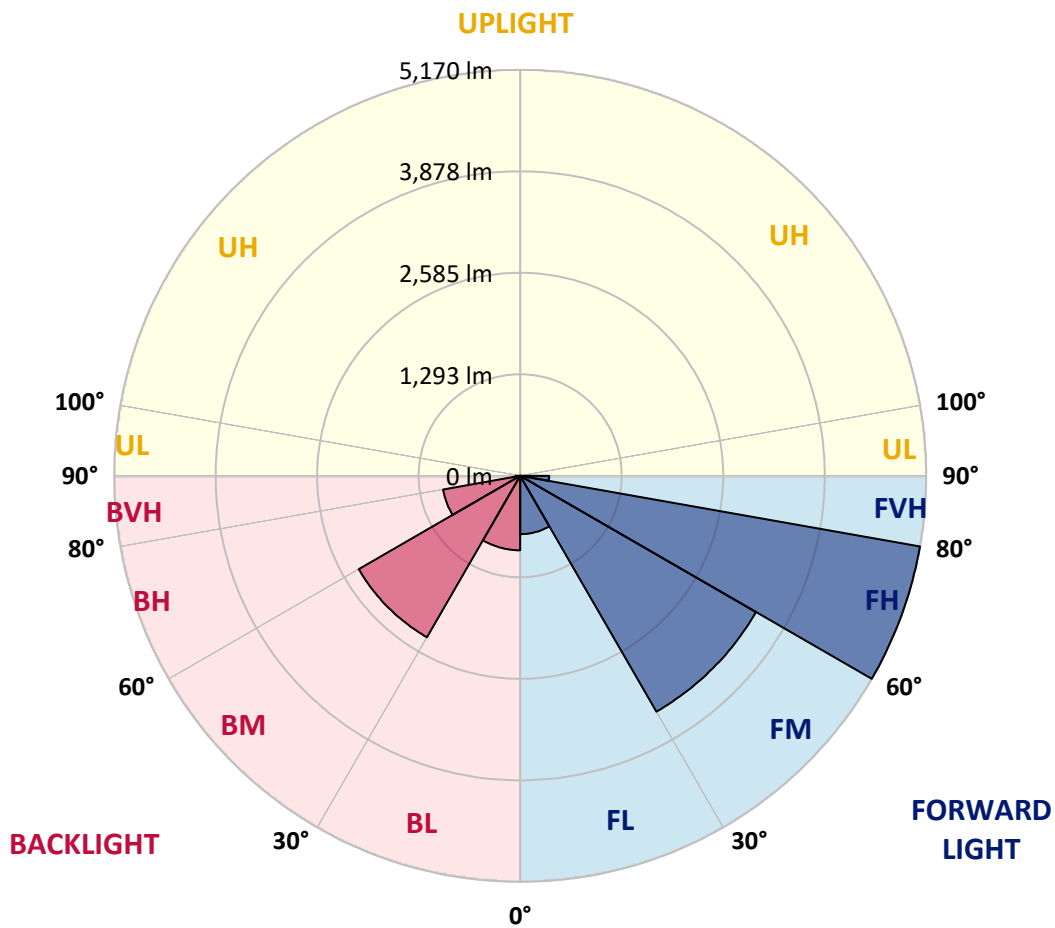
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	743.1	5.3			
FM (30°-60°)	3467.9	24.5			
FH (60°-80°)	5170.3	36.6			G3/7500
FVH (80°-90°)	368.8	2.6			G3/500
BL (0°-30°)	948.1	6.7	B2/1000		
BM (30°-60°)	2374.1	16.8	B2/2500		
BH (60°-80°)	995.9	7.0	B2/1000		G2/1000
BVH (80°-90°)	58.9	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°	1615.4	1615.4	1615.4	1615.4	1615.4	1615.4	1615.4	1615.4	1615.4	1615.4	1615.4
2.5°	1590.7	1599.7	1597.5	1594.5	1594.5	1595.2	1594.5	1599.7	1605.0	1610.2	1618.4
5°	1607.2	1616.2	1611.7	1607.9	1605.0	1604.2	1602.0	1601.2	1604.2	1610.9	1622.2
7.5°	1639.4	1648.4	1641.7	1634.9	1628.9	1625.9	1622.9	1618.4	1616.2	1619.9	1635.7
10°	1675.4	1684.4	1676.1	1664.1	1654.4	1650.7	1647.7	1643.2	1640.2	1642.4	1659.6
12.5°	1711.3	1720.3	1709.1	1692.6	1679.9	1677.6	1673.9	1672.4	1671.6	1670.9	1688.1
15°	1745.1	1752.6	1738.3	1718.8	1705.4	1701.6	1697.9	1700.1	1703.9	1708.4	1727.8
17.5°	1771.3	1778.8	1757.8	1732.3	1719.6	1718.1	1715.8	1723.3	1733.8	1745.1	1769.0
20°	1795.3	1802.8	1775.8	1741.3	1726.3	1726.3	1727.1	1742.8	1757.8	1774.3	1807.3
22.5°	1829.0	1835.0	1802.0	1754.8	1733.1	1734.6	1740.6	1756.3	1775.0	1797.5	1843.2
25°	1879.2	1883.7	1843.2	1780.3	1755.6	1760.1	1765.3	1772.8	1790.8	1817.0	1878.4
27.5°	1960.1	1963.9	1910.7	1825.2	1787.8	1795.3	1802.8	1797.5	1805.8	1828.2	1906.9
30°	2074.0	2076.2	2008.8	1895.7	1842.5	1846.2	1847.7	1826.0	1810.3	1828.2	1927.1
32.5°	2208.9	2208.1	2127.9	1981.1	1904.7	1900.9	1888.2	1845.5	1808.8	1824.5	1945.1
35°	2417.9	2409.7	2306.3	2101.0	1975.1	1951.9	1921.9	1867.2	1816.2	1820.7	1960.9
37.5°	2764.1	2738.6	2595.5	2297.3	2080.0	2020.8	1976.6	1902.4	1832.7	1819.2	1979.6
40°	3154.5	3122.2	2964.9	2566.3	2237.3	2142.2	2071.0	1952.6	1859.7	1826.0	2007.3
42.5°	3617.5	3571.8	3402.5	2883.2	2436.6	2298.8	2191.6	2016.3	1899.4	1847.7	2044.8
45°	4186.2	4125.5	3885.8	3240.6	2687.7	2504.1	2361.0	2113.0	1960.1	1889.7	2101.0
47.5°	4760.9	4775.9	4435.0	3649.7	2988.9	2757.3	2573.0	2258.3	2048.5	1957.1	2191.6
50°	5371.6	5382.1	4981.2	4103.0	3330.5	3043.6	2811.3	2420.9	2171.4	2053.0	2327.3
52.5°	5848.1	5849.6	5477.2	4577.3	3686.4	3358.3	3068.3	2606.7	2313.8	2180.4	2507.8
55°	6146.3	6142.6	5824.9	5026.2	4095.5	3688.7	3353.0	2818.0	2487.6	2330.3	2734.9
57.5°	6362.9	6351.6	6064.6	5412.0	4531.6	4079.1	3675.2	3057.8	2692.9	2508.6	3033.8
60°	6445.3	6438.5	6227.2	5745.5	4990.2	4510.6	4046.8	3326.0	2925.9	2719.1	3418.2
62.5°	6476.8	6489.5	6386.8	6068.4	5481.0	4988.7	4455.2	3646.7	3188.2	2957.4	3823.6
65°	6587.6	6610.9	6589.9	6491.0	6035.4	5548.4	4996.9	4028.1	3474.4	3212.9	4246.9
67.5°	6807.2	6830.4	6839.4	6996.7	6712.8	6246.0	5672.8	4503.2	3809.3	3478.1	4565.3
70°	6801.9	6795.2	6954.0	7399.1	7561.0	7211.8	6583.9	5087.6	4208.7	3698.4	4605.8
72.5°	6191.3	6137.3	6512.7	7394.6	8266.8	8220.3	7696.6	5841.4	4553.4	3725.4	3996.6
75°	4644.8	4500.9	5164.0	6664.1	8384.4	8792.8	8403.9	6308.9	4471.7	3291.6	2781.3
77.5°	1986.3	1841.7	2623.2	4933.2	7504.0	8219.6	7755.0	5504.2	3569.6	2176.6	1365.9
80°	520.0	519.2	792.7	2236.6	5103.3	6069.9	5325.1	3554.6	2039.5	777.7	376.9
82.5°	215.0	209.8	291.5	869.9	2493.6	3406.2	2779.8	1585.5	736.5	210.5	125.1
85°	80.2	79.4	141.6	300.5	879.7	1404.9	1016.8	405.4	183.6	102.7	56.2
87.5°	22.5	21.7	30.7	104.1	214.3	325.2	173.8	66.7	51.7	40.5	16.5
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°	1615.4	1615.4	1615.4	1615.4	1615.4	1615.4	1615.4	1615.4	1615.4	1615.4	1615.4
2.5°	1620.7	1624.4	1631.2	1636.4	1643.2	1650.7	1661.1	1667.9	1674.6	1679.1	1676.1
5°	1627.4	1635.7	1652.9	1670.1	1690.4	1709.1	1730.8	1746.6	1759.3	1763.0	1764.5
7.5°	1642.4	1655.9	1685.1	1714.3	1746.6	1777.3	1808.8	1835.7	1857.5	1865.7	1866.4
10°	1668.6	1686.6	1727.8	1769.0	1811.8	1859.0	1899.4	1938.4	1969.1	1981.8	1982.6
12.5°	1701.6	1724.1	1778.0	1835.0	1894.2	1959.4	2011.8	2059.8	2098.0	2115.2	2115.2
15°	1744.3	1773.5	1842.5	1918.9	2005.8	2096.5	2163.2	2216.4	2259.1	2280.0	2278.6
17.5°	1790.8	1829.7	1916.7	2032.0	2156.4	2275.6	2353.5	2392.4	2436.6	2456.9	2456.1
20°	1835.7	1883.7	2008.1	2175.9	2341.5	2468.1	2531.1	2541.5	2544.5	2546.8	2552.8
22.5°	1882.2	1946.6	2122.7	2357.2	2534.8	2622.5	2631.5	2586.5	2523.6	2494.3	2502.6
25°	1933.1	2018.6	2272.6	2557.3	2701.1	2711.6	2642.7	2533.3	2414.2	2359.5	2367.7
27.5°	1982.6	2101.7	2452.4	2748.3	2821.0	2728.9	2580.5	2425.4	2281.5	2223.9	2230.6
30°	2032.0	2196.9	2650.9	2915.4	2875.7	2686.2	2482.4	2309.3	2164.7	2104.0	2110.7
32.5°	2082.2	2307.8	2879.5	3036.1	2866.0	2595.5	2360.2	2178.9	2051.5	1987.8	1996.1
35°	2139.2	2444.1	3096.0	3102.0	2800.8	2462.1	2199.1	2023.0	1912.2	1861.2	1872.4
37.5°	2213.4	2617.2	3287.1	3118.5	2686.9	2266.6	1999.1	1838.7	1747.3	1724.1	1740.6
40°	2305.5	2825.5	3433.2	3092.3	2518.3	2029.0	1780.3	1652.2	1600.5	1605.7	1623.7
42.5°	2425.4	3058.5	3535.8	3024.8	2283.8	1784.0	1588.5	1531.5	1556.2	1577.2	1596.7
45°	2581.3	3300.6	3599.5	2910.2	2018.6	1576.5	1475.3	1488.8	1507.5	1509.8	1524.8
47.5°	2780.6	3545.6	3641.5	2737.1	1748.1	1430.4	1403.4	1406.4	1402.6	1386.9	1398.9
50°	3029.3	3783.8	3679.0	2507.8	1518.0	1339.0	1303.0	1292.5	1240.8	1189.9	1196.6
52.5°	3312.6	4002.6	3694.7	2223.1	1339.0	1262.5	1204.1	1138.2	1041.5	1025.8	1031.0
55°	3627.3	4204.9	3654.2	1873.2	1188.4	1164.4	1076.0	996.5	986.0	972.6	974.8
57.5°	4003.4	4423.0	3571.8	1482.8	1034.0	1049.7	963.6	972.6	953.8	932.8	929.1
60°	4414.7	4648.5	3427.2	1126.9	874.4	906.6	934.3	933.6	928.4	911.1	905.1
62.5°	4784.9	4796.9	3142.5	863.2	734.3	795.7	871.4	870.7	866.2	856.4	852.7
65°	5005.2	4774.4	2667.4	679.6	618.9	704.3	786.0	792.0	792.7	792.0	792.0
67.5°	4966.2	4511.4	2015.6	541.0	523.7	611.4	701.3	709.6	715.6	717.1	718.6
70°	4525.6	3933.7	1314.2	431.6	439.1	529.7	621.2	629.4	634.6	640.6	643.6
72.5°	3527.6	2892.2	752.3	349.2	364.9	459.3	541.7	551.5	554.5	565.7	570.2
75°	2149.7	1700.9	406.1	275.0	299.7	392.6	463.1	474.3	479.5	493.0	494.5
77.5°	1022.0	736.5	231.5	214.3	241.3	320.7	391.1	403.9	389.6	397.1	391.1
80°	345.4	273.5	146.1	163.3	184.3	250.3	313.2	325.9	296.0	294.5	291.5
82.5°	120.6	110.9	92.9	108.6	119.1	179.1	236.8	253.3	220.3	219.5	209.0
85°	47.2	45.0	51.7	59.2	71.2	110.1	155.8	164.1	135.6	109.4	107.9
87.5°	9.7	10.5	12.7	13.5	21.7	38.2	56.2	68.9	54.7	46.5	42.7
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)