

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: P883644

Luminaire Tested: **NAV-SB4A-830-U-SL4**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883644
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-830-U-SL4
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 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: 15768 lumens
Efficiency: N/A
Efficacy: 138.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B3 - U0 - G3

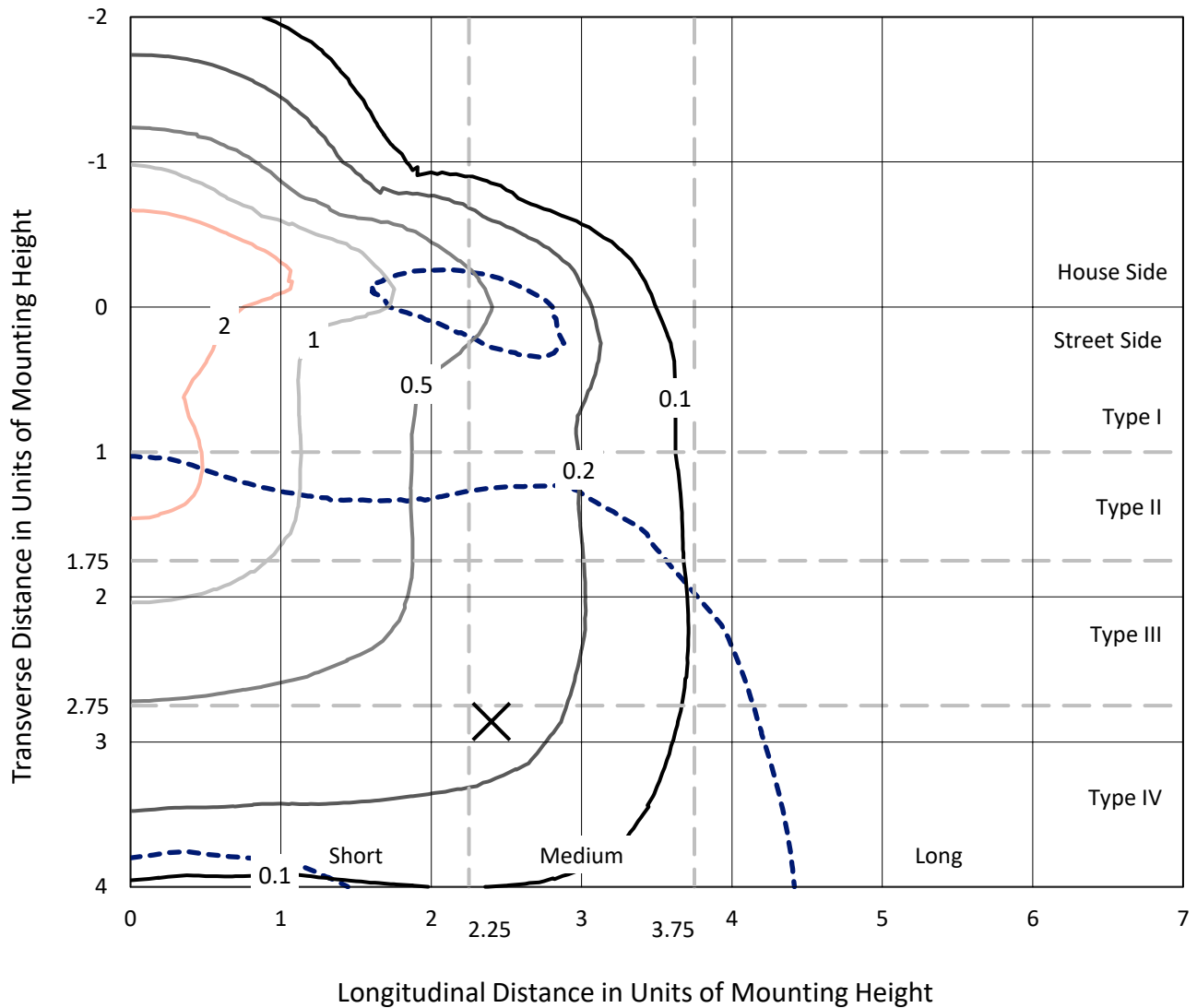
Input Watts (W): 114
Input Voltage (V): 120.0
Input Current (Ain): 0.952
Voltage Rise (V): NR
Power Factor: 0.995
Total Harmonic Distortion (THDi): 8.206
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

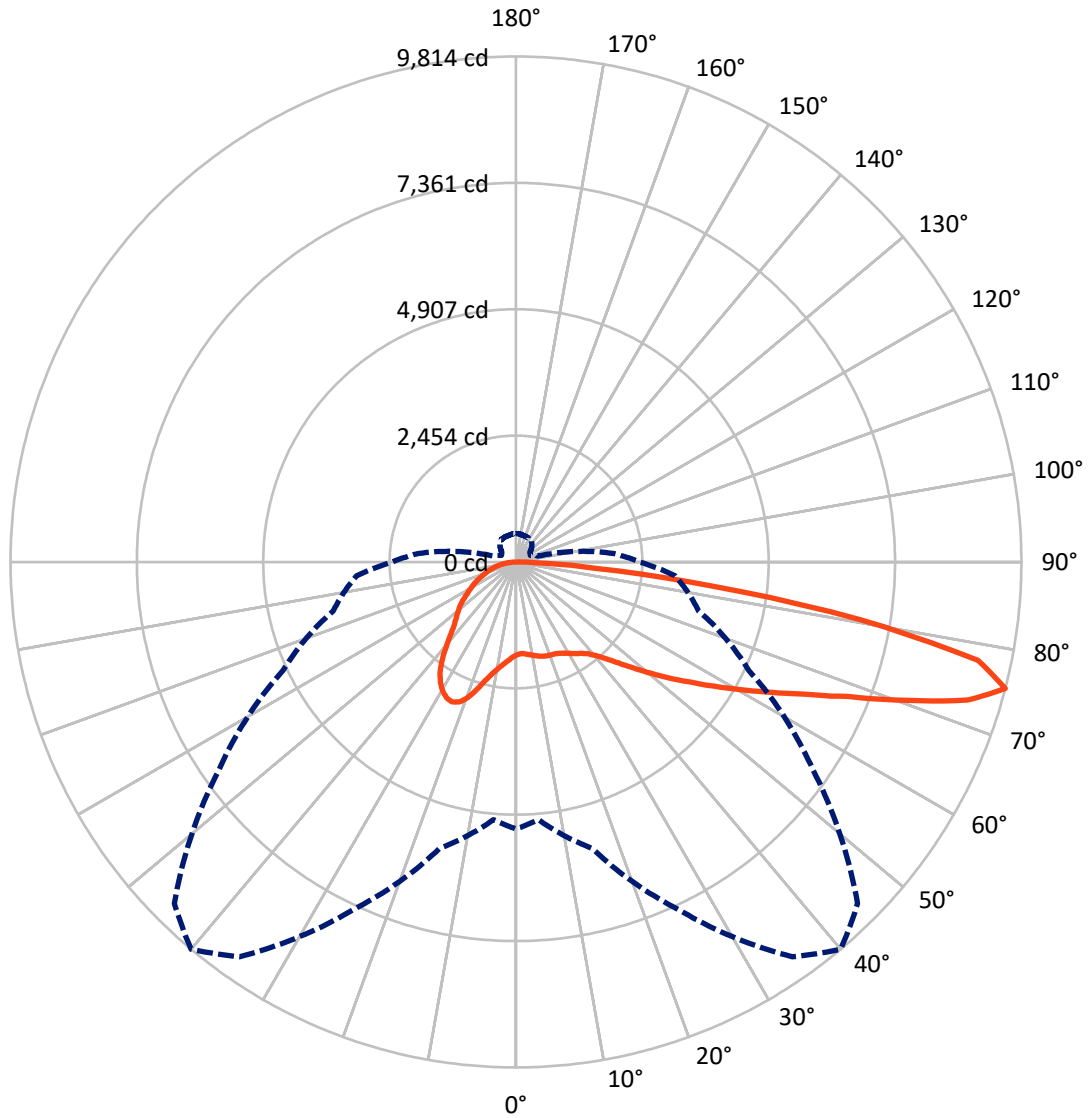
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.7 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	4885.5	0.0	4885.5
	% Fixture	31.0	0.0	31.0
Street Side	Lumens	10882.5	0.0	10882.5
	% Fixture	69.0	0.0	69.0
Total	Lumens	15768.0	0.0	15768.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	180.0	1.1
10°-20°	604.3	3.8
20°-30°	1103.4	7.0
30°-40°	1564.9	9.9
40°-50°	2113.1	13.4
50°-60°	2842.6	18.0
60°-70°	3608.0	22.9
70°-80°	3274.5	20.8
80°-90°	477.3	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°	15768.0	100.0
0°-180°	15768.0	100.0

Coefficient of Utilization



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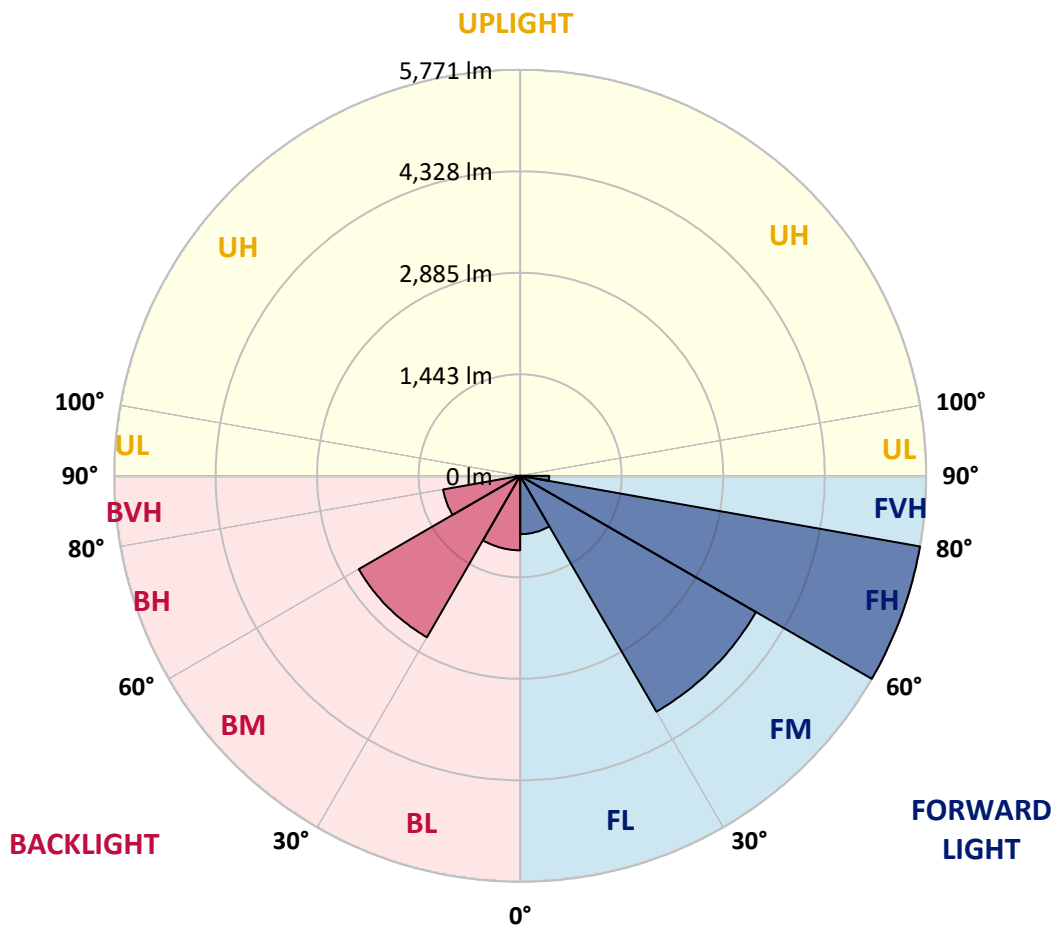
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	829.4	5.3			
FM (30°-60°)	3870.7	24.5			
FH (60°-80°)	5770.8	36.6			G3/7500
FVH (80°-90°)	411.6	2.6			G3/500
BL (0°-30°)	1058.2	6.7	B3/2500		
BM (30°-60°)	2649.9	16.8	B3/5000		
BH (60°-80°)	1111.6	7.0	B3/2500		G3/2500
BVH (80°-90°)	65.7	0.4			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: 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°	1803.1	1803.1	1803.1	1803.1	1803.1	1803.1	1803.1	1803.1	1803.1	1803.1	1803.1
2.5°	1775.5	1785.5	1783.0	1779.7	1779.7	1780.5	1779.7	1785.5	1791.4	1797.2	1806.4
5°	1793.9	1803.9	1798.9	1794.7	1791.4	1790.5	1788.0	1787.2	1790.5	1798.1	1810.6
7.5°	1829.9	1839.9	1832.4	1824.8	1818.1	1814.8	1811.5	1806.4	1803.9	1808.1	1825.7
10°	1870.0	1880.0	1870.8	1857.5	1846.6	1842.4	1839.1	1834.0	1830.7	1833.2	1852.4
12.5°	1910.1	1920.2	1907.6	1889.2	1875.0	1872.5	1868.3	1866.7	1865.8	1865.0	1884.2
15°	1947.8	1956.1	1940.2	1918.5	1903.4	1899.3	1895.1	1897.6	1901.8	1906.8	1928.5
17.5°	1977.0	1985.4	1962.0	1933.6	1919.3	1917.7	1915.2	1923.5	1935.2	1947.8	1974.5
20°	2003.8	2012.2	1982.1	1943.6	1926.9	1926.9	1927.7	1945.3	1962.0	1980.4	2017.2
22.5°	2041.4	2048.1	2011.3	1958.6	1934.4	1936.1	1942.8	1960.3	1981.2	2006.3	2057.3
25°	2097.5	2102.5	2057.3	1987.1	1959.5	1964.5	1970.4	1978.7	1998.8	2028.1	2096.6
27.5°	2187.8	2192.0	2132.6	2037.3	1995.4	2003.8	2012.2	2006.3	2015.5	2040.6	2128.4
30°	2314.9	2317.4	2242.2	2115.9	2056.5	2060.7	2062.3	2038.1	2020.5	2040.6	2151.0
32.5°	2465.5	2464.6	2375.1	2211.2	2125.9	2121.7	2107.5	2059.8	2018.9	2036.4	2171.1
35°	2698.8	2689.6	2574.2	2345.0	2204.5	2178.6	2145.1	2084.1	2027.2	2032.2	2188.6
37.5°	3085.2	3056.7	2897.0	2564.1	2321.6	2255.5	2206.2	2123.4	2045.6	2030.6	2209.5
40°	3520.9	3484.9	3309.3	2864.4	2497.2	2391.0	2311.6	2179.4	2075.7	2038.1	2240.5
42.5°	4037.7	3986.7	3797.7	3218.1	2719.7	2565.8	2446.2	2250.5	2120.1	2062.3	2282.3
45°	4672.5	4604.7	4337.1	3617.1	2999.9	2795.0	2635.2	2358.4	2187.8	2109.2	2345.0
47.5°	5313.9	5330.7	4950.1	4073.7	3336.1	3077.6	2871.9	2520.6	2286.5	2184.5	2446.2
50°	5995.5	6007.2	5559.8	4579.7	3717.4	3397.1	3137.8	2702.1	2423.6	2291.5	2597.6
52.5°	6527.4	6529.1	6113.5	5109.0	4114.7	3748.4	3424.7	2909.5	2582.5	2433.7	2799.1
55°	6860.3	6856.1	6501.5	5610.0	4571.3	4117.2	3742.5	3145.4	2776.6	2600.9	3052.5
57.5°	7102.0	7089.4	6769.1	6040.7	5058.0	4552.9	4102.1	3413.0	3005.7	2800.0	3386.2
60°	7194.0	7186.4	6950.6	6412.9	5569.8	5034.6	4516.9	3712.4	3265.8	3035.0	3815.3
62.5°	7229.1	7243.3	7128.7	6773.3	6117.6	5568.2	4972.7	4070.3	3558.5	3300.9	4267.7
65°	7352.9	7378.8	7355.4	7245.0	6736.5	6192.9	5577.4	4496.0	3878.0	3586.1	4740.2
67.5°	7597.9	7623.8	7633.9	7809.5	7492.5	6971.5	6331.7	5026.2	4251.8	3882.2	5095.7
70°	7592.1	7584.5	7761.8	8258.6	8439.2	8049.5	7348.7	5678.6	4697.6	4128.0	5140.8
72.5°	6910.5	6850.2	7269.2	8253.6	9227.0	9175.2	8590.6	6519.9	5082.3	4158.2	4460.9
75°	5184.3	5023.7	5763.9	7438.2	9358.3	9814.1	9380.1	7041.8	4991.1	3673.9	3104.4
77.5°	2217.1	2055.7	2927.9	5506.3	8375.7	9174.4	8655.8	6143.6	3984.2	2429.5	1524.6
80°	580.4	579.6	884.8	2496.4	5696.1	6775.0	5943.7	3967.5	2276.4	868.1	420.7
82.5°	240.0	234.2	325.3	971.0	2783.3	3801.9	3102.7	1769.6	822.1	235.0	139.7
85°	89.5	88.6	158.1	335.4	981.8	1568.1	1134.9	452.4	204.9	114.6	62.7
87.5°	25.1	24.3	34.3	116.2	239.2	363.0	194.0	74.4	57.7	45.2	18.4
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°	1803.1	1803.1	1803.1	1803.1	1803.1	1803.1	1803.1	1803.1	1803.1	1803.1	1803.1
2.5°	1808.9	1813.1	1820.7	1826.5	1834.0	1842.4	1854.1	1861.6	1869.2	1874.2	1870.8
5°	1816.5	1825.7	1844.9	1864.1	1886.7	1907.6	1931.9	1949.4	1963.7	1967.8	1969.5
7.5°	1833.2	1848.3	1880.9	1913.5	1949.4	1983.7	2018.9	2049.0	2073.2	2082.4	2083.3
10°	1862.5	1882.5	1928.5	1974.5	2022.2	2074.9	2120.1	2163.5	2197.8	2212.0	2212.9
12.5°	1899.3	1924.4	1984.6	2048.1	2114.2	2187.0	2245.5	2299.0	2341.7	2360.9	2360.9
15°	1946.9	1979.6	2056.5	2141.8	2238.8	2340.0	2414.4	2473.8	2521.5	2544.9	2543.2
17.5°	1998.8	2042.3	2139.3	2268.1	2406.9	2539.9	2626.9	2670.3	2719.7	2742.3	2741.4
20°	2049.0	2102.5	2241.3	2428.7	2613.5	2754.8	2825.1	2836.8	2840.1	2842.6	2849.3
22.5°	2100.8	2172.7	2369.3	2631.0	2829.2	2927.1	2937.1	2887.0	2816.7	2784.1	2793.3
25°	2157.7	2253.0	2536.5	2854.3	3014.9	3026.6	2949.7	2827.6	2694.6	2633.6	2642.8
27.5°	2212.9	2345.9	2737.3	3067.6	3148.7	3045.9	2880.3	2707.1	2546.6	2482.2	2489.7
30°	2268.1	2452.1	2958.9	3254.1	3209.8	2998.2	2770.7	2577.5	2416.1	2348.4	2355.9
32.5°	2324.1	2575.8	3214.0	3388.7	3198.9	2897.0	2634.4	2432.0	2289.8	2218.7	2227.9
35°	2387.7	2728.1	3455.6	3462.3	3126.1	2748.1	2454.6	2258.0	2134.3	2077.4	2089.9
37.5°	2470.5	2921.2	3668.9	3480.7	2999.0	2529.8	2231.3	2052.3	1950.3	1924.4	1942.8
40°	2573.3	3153.7	3832.0	3451.5	2810.8	2264.7	1987.1	1844.1	1786.4	1792.2	1812.3
42.5°	2707.1	3413.8	3946.6	3376.2	2549.1	1991.3	1773.0	1709.4	1737.0	1760.4	1782.2
45°	2881.1	3684.0	4017.6	3248.2	2253.0	1759.6	1646.7	1661.8	1682.7	1685.2	1701.9
47.5°	3103.6	3957.4	4064.5	3055.1	1951.1	1596.5	1566.4	1569.8	1565.6	1548.0	1561.4
50°	3381.2	4223.4	4106.3	2799.1	1694.4	1494.5	1454.3	1442.6	1384.9	1328.1	1335.6
52.5°	3697.3	4467.6	4123.9	2481.3	1494.5	1409.2	1344.0	1270.4	1162.5	1144.9	1150.8
55°	4048.6	4693.4	4078.7	2090.8	1326.4	1299.6	1200.9	1112.3	1100.6	1085.5	1088.0
57.5°	4468.4	4936.8	3986.7	1655.1	1154.1	1171.7	1075.5	1085.5	1064.6	1041.2	1037.0
60°	4927.6	5188.5	3825.3	1257.8	976.0	1011.9	1042.9	1042.0	1036.2	1017.0	1010.3
62.5°	5340.7	5354.1	3507.5	963.4	819.6	888.2	972.6	971.8	966.8	955.9	951.7
65°	5586.6	5329.0	2977.3	758.5	690.8	786.1	877.3	884.0	884.8	884.0	884.0
67.5°	5543.1	5035.4	2249.7	603.8	584.6	682.4	782.8	792.0	798.7	800.4	802.0
70°	5051.3	4390.6	1466.9	481.7	490.1	591.3	693.3	702.5	708.4	715.0	718.4
72.5°	3937.4	3228.2	839.7	389.7	407.3	512.7	604.7	615.5	618.9	631.4	636.4
75°	2399.4	1898.4	453.3	306.9	334.5	438.2	516.8	529.4	535.2	550.3	552.0
77.5°	1140.7	822.1	258.4	239.2	269.3	357.9	436.6	450.8	434.9	443.2	436.6
80°	385.5	305.3	163.1	182.3	205.7	279.3	349.6	363.8	330.3	328.7	325.3
82.5°	134.6	123.8	103.7	121.3	133.0	199.9	264.3	282.7	245.9	245.0	233.3
85°	52.7	50.2	57.7	66.1	79.4	122.9	174.0	183.2	151.4	122.1	120.4
87.5°	10.9	11.7	14.2	15.1	24.3	42.7	62.7	76.9	61.1	51.9	47.7
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)