

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: P965820

Luminaire Tested: **NAV-SB4A-835-U-T4W**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965820
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-1)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4A-835-U-T4W
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3500K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17059.1 lumens
Efficiency: N/A
Efficacy: 149.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G3

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



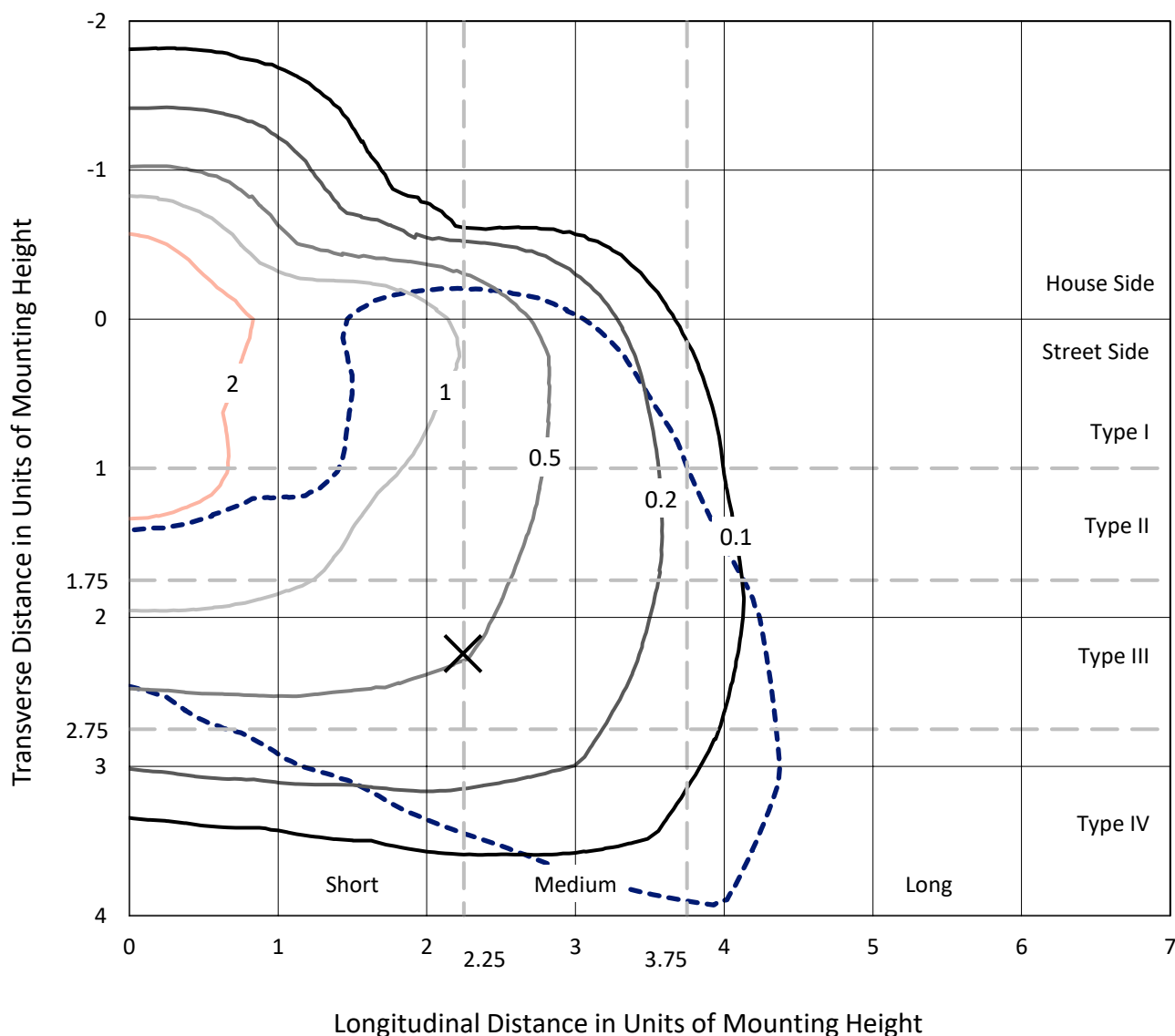
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

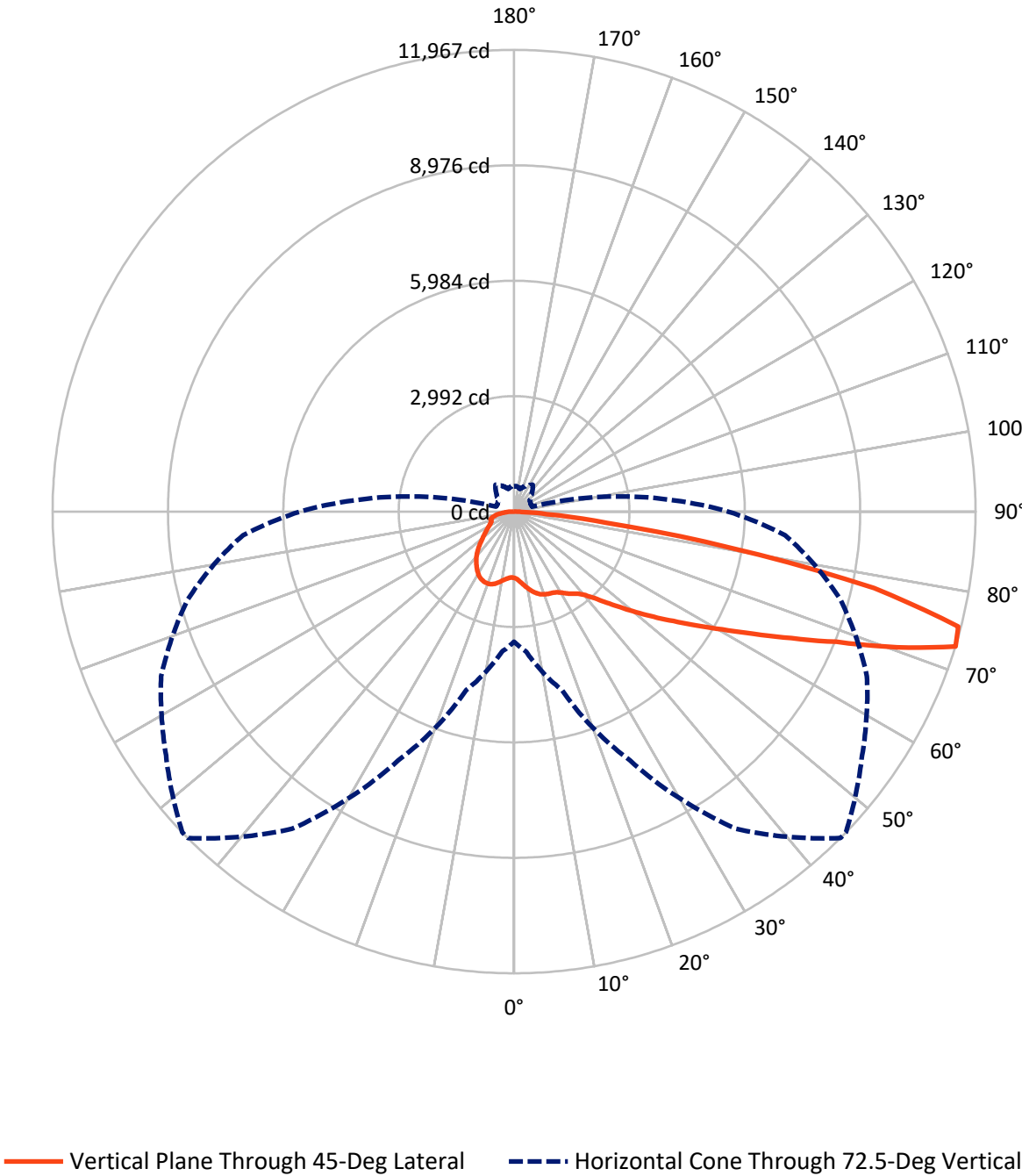


Based on 25 foot mounting height. Maximum calculated value = 3.4 fc

Type IV - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3856.5	0.0	3856.5
	% Fixture	22.6	0.0	22.6
Street Side	Lumens	13202.6	0.0	13202.6
	% Fixture	77.4	0.0	77.4
Total	Lumens	17059.1	0.0	17059.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	175.2	1.0
10°-20°	584.0	3.4
20°-30°	1015.9	6.0
30°-40°	1456.3	8.5
40°-50°	2050.6	12.0
50°-60°	3140.9	18.4
60°-70°	4550.1	26.7
70°-80°	3633.5	21.3
80°-90°	452.5	2.7
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°	17059.1	100.0
0°-180°	17059.1	100.0

Coefficient of Utilization



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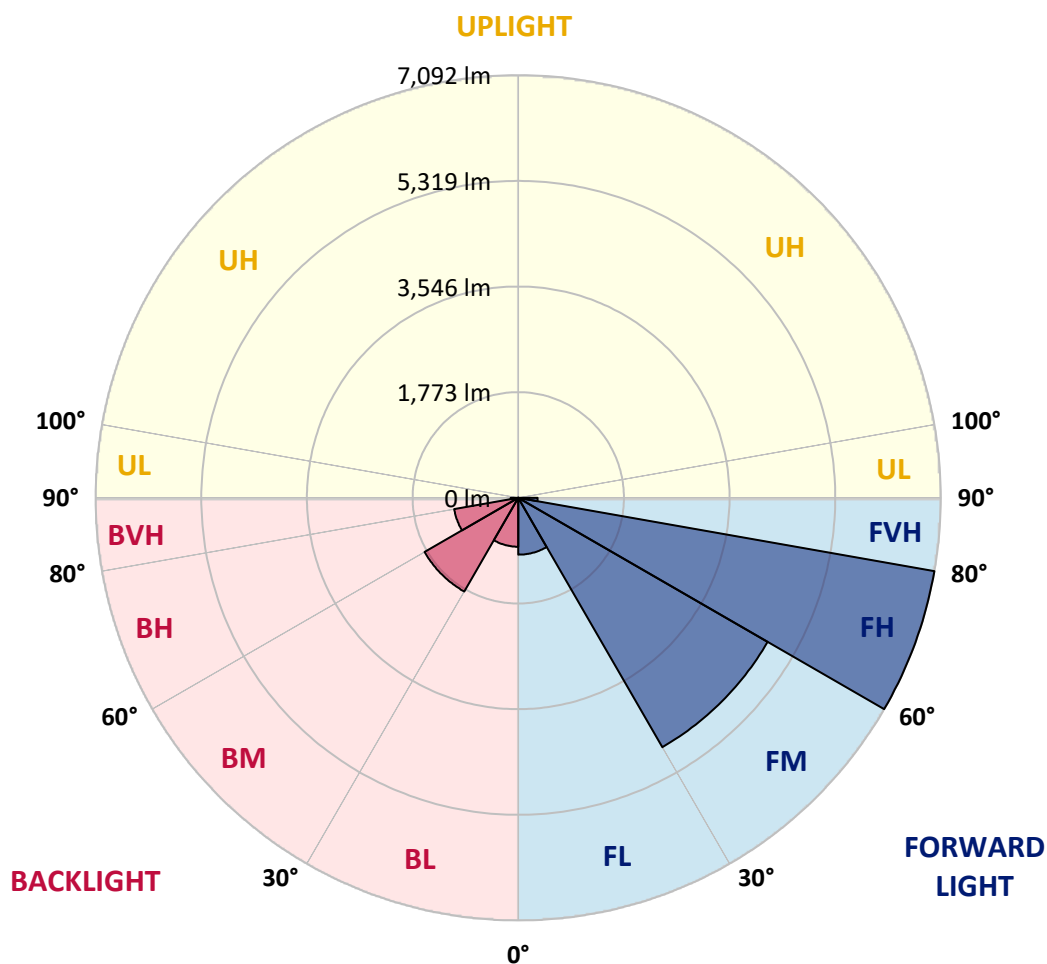
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	954.0	5.6			
FM	(30°-60°)	4832.0	28.3			
FH	(60°-80°)	7092.0	41.6			G3/7500
FVH	(80°-90°)	324.7	1.9			G3/500
BL	(0°-30°)	821.1	4.8	B2/1000		
BM	(30°-60°)	1815.9	10.6	B2/2500		
BH	(60°-80°)	1091.7	6.4	B3/2500		G3/2500
BVH	(80°-90°)	127.9	0.7			G2/225
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 Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	1721.0	1721.0	1721.0	1721.0	1721.0	1721.0	1721.0	1721.0	1721.0	1721.0	1721.0
2.5°	1788.3	1800.0	1789.2	1779.3	1774.9	1763.2	1762.3	1755.1	1750.6	1738.0	1734.4
5°	1913.3	1928.5	1910.5	1890.8	1872.8	1844.1	1840.5	1819.8	1796.4	1769.5	1754.2
7.5°	2054.3	2067.8	2047.1	2017.5	1986.0	1938.4	1937.5	1899.7	1862.9	1817.1	1791.0
10°	2177.4	2195.4	2167.6	2127.1	2087.6	2033.7	2027.3	1984.2	1937.5	1878.2	1838.6
12.5°	2286.2	2298.8	2271.8	2222.4	2176.6	2122.7	2114.6	2066.9	2014.7	1947.4	1897.1
15°	2372.5	2388.7	2352.7	2299.7	2251.1	2198.1	2190.9	2147.8	2095.7	2024.7	1960.0
17.5°	2429.0	2442.6	2405.7	2346.4	2299.7	2255.6	2250.3	2214.3	2168.5	2096.5	2027.3
20°	2450.7	2465.0	2426.4	2366.2	2323.1	2288.9	2286.2	2260.1	2228.7	2163.1	2092.9
22.5°	2472.2	2485.7	2435.4	2372.5	2334.7	2313.1	2312.2	2295.2	2282.6	2228.7	2160.4
25°	2559.4	2563.0	2495.6	2404.9	2350.8	2332.0	2331.2	2330.2	2335.6	2293.3	2233.2
27.5°	2634.9	2633.9	2576.4	2491.1	2407.5	2368.0	2367.0	2376.1	2393.2	2358.1	2308.6
30°	2745.4	2735.5	2667.3	2578.3	2501.8	2440.7	2435.4	2427.3	2440.7	2412.8	2384.1
32.5°	2980.0	2948.5	2837.9	2679.8	2580.0	2533.3	2526.1	2475.8	2481.2	2464.1	2449.8
35°	3316.1	3274.7	3127.4	2872.2	2677.1	2610.6	2607.0	2543.2	2532.4	2517.1	2522.5
37.5°	3715.9	3664.7	3493.1	3150.6	2844.3	2700.5	2695.0	2637.5	2593.6	2577.4	2607.9
40°	4117.6	4053.0	3911.0	3490.4	3090.5	2850.5	2833.5	2746.3	2696.0	2669.0	2733.7
42.5°	4507.6	4453.7	4332.5	3871.4	3394.2	3069.8	3032.1	2882.9	2845.2	2820.0	2936.8
45°	4852.8	4804.2	4715.2	4278.6	3750.1	3368.2	3331.4	3087.8	3076.1	3076.1	3245.0
47.5°	5133.1	5122.3	5028.0	4693.7	4169.8	3707.8	3644.1	3372.7	3404.1	3452.6	3682.7
50°	5444.1	5414.5	5313.8	5102.6	4663.1	4097.0	4044.9	3722.3	3840.0	3973.0	4315.4
52.5°	5729.9	5746.0	5633.7	5528.5	5220.3	4531.0	4439.4	4134.7	4389.0	4609.2	5056.7
55°	6023.7	6024.6	5993.2	5978.7	5804.5	5010.9	4910.3	4630.7	5035.2	5308.4	5921.2
57.5°	6299.5	6301.4	6348.1	6474.8	6482.0	5564.5	5450.3	5240.1	5753.2	6031.8	6812.8
60°	6545.9	6558.4	6686.0	6982.6	7077.8	6198.9	6091.1	5959.9	6495.5	6775.9	7750.0
62.5°	6628.5	6674.3	6958.3	7379.8	7666.5	6977.2	6871.1	6793.0	7275.6	7536.1	8533.6
65°	6488.4	6593.4	7142.5	7707.8	8272.2	7901.9	7796.8	7711.4	8086.1	8331.4	9177.1
67.5°	6144.2	6279.9	7131.7	8052.0	9007.3	9014.5	8916.5	8716.1	8955.1	9049.5	9386.4
70°	5237.3	5440.5	6503.6	8180.5	9851.1	10535.9	10441.5	9925.7	9822.4	9365.8	8797.0
72.5°	3374.5	3647.7	4788.9	7122.7	10038.8	11967.4	11962.1	11017.5	10096.5	8751.1	7055.4
75°	1231.1	1398.3	2225.1	4470.8	8426.7	11894.6	11929.7	10830.7	9216.6	6759.7	4395.3
77.5°	448.4	490.7	726.1	1718.2	5182.6	9543.8	9616.6	8658.6	6560.2	3392.4	1741.6
80°	235.4	258.8	372.1	666.8	2220.6	5667.8	5781.9	5145.7	3083.3	1021.8	522.1
82.5°	130.3	141.0	208.5	362.1	1000.2	2423.7	2492.0	2032.8	1084.7	433.2	215.7
85°	70.1	74.6	98.0	197.7	488.8	840.3	859.2	607.5	432.2	254.3	104.2
87.5°	20.7	25.1	32.4	62.9	191.4	188.7	193.2	120.4	170.8	128.5	34.1
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°	1721.0	1721.0	1721.0	1721.0	1721.0	1721.0	1721.0	1721.0	1721.0	1721.0	1721.0
2.5°	1729.0	1726.3	1716.5	1712.0	1706.5	1705.7	1710.1	1711.0	1712.0	1712.9	1716.5
5°	1745.2	1736.2	1727.2	1721.8	1723.6	1724.6	1733.5	1739.8	1744.2	1747.9	1749.7
7.5°	1776.6	1769.5	1754.2	1753.3	1755.9	1764.0	1775.7	1790.2	1798.3	1804.5	1806.3
10°	1823.4	1809.9	1791.9	1794.6	1800.0	1811.7	1836.0	1847.7	1861.1	1872.8	1870.1
12.5°	1871.0	1859.4	1838.6	1840.5	1849.4	1870.1	1893.5	1907.8	1916.9	1925.9	1929.5
15°	1933.0	1912.3	1889.9	1889.9	1906.1	1928.5	1939.3	1951.0	1956.4	1966.3	1969.8
17.5°	1996.8	1969.8	1940.2	1938.4	1958.2	1968.9	1975.3	1977.0	1978.9	1989.6	1993.2
20°	2060.7	2030.9	1988.7	1985.1	1989.6	1987.8	1987.0	1985.1	1987.8	2001.3	2006.7
22.5°	2123.5	2089.4	2030.9	2014.7	2002.2	1985.1	1984.2	1983.4	1985.1	1998.6	2007.6
25°	2197.2	2155.9	2077.7	2029.2	1987.0	1963.6	1966.3	1967.2	1968.9	1979.8	1994.1
27.5°	2277.2	2231.3	2120.8	2024.7	1948.3	1932.1	1927.6	1930.3	1936.6	1953.6	1970.8
30°	2357.2	2303.3	2160.4	2006.7	1899.7	1877.3	1862.9	1869.2	1889.0	1906.1	1925.0
32.5°	2430.0	2376.1	2191.9	1967.2	1837.7	1802.7	1783.8	1791.9	1811.7	1817.9	1840.5
35°	2515.4	2454.3	2205.3	1904.2	1770.4	1716.5	1691.2	1679.6	1689.5	1683.2	1702.9
37.5°	2610.6	2546.8	2203.5	1821.5	1691.2	1629.2	1594.2	1550.2	1529.5	1508.0	1521.4
40°	2751.7	2660.0	2181.9	1721.8	1593.4	1536.7	1473.8	1399.2	1352.5	1310.3	1312.9
42.5°	2944.0	2817.3	2142.4	1612.2	1482.8	1429.8	1344.4	1257.3	1183.6	1113.5	1107.1
45°	3230.7	3023.0	2092.9	1495.4	1363.2	1311.2	1218.6	1120.6	1037.1	947.2	936.4
47.5°	3644.1	3299.9	2046.2	1362.3	1237.5	1189.8	1106.3	1015.5	916.7	829.4	819.6
50°	4212.0	3697.1	2003.2	1233.0	1113.5	1077.5	1011.0	918.4	818.7	748.6	744.0
52.5°	4934.6	4237.1	1985.1	1108.0	997.5	984.0	931.0	844.7	750.4	691.1	686.5
55°	5764.0	4883.3	1985.1	988.5	896.0	900.5	863.6	783.6	701.8	648.8	643.4
57.5°	6610.5	5537.6	1949.1	878.0	809.6	828.6	805.2	735.1	661.4	606.6	597.6
60°	7390.6	6085.7	1803.6	777.4	733.3	763.0	747.6	687.5	597.6	551.8	544.6
62.5°	7990.0	6394.9	1523.3	697.3	670.3	704.6	696.5	624.5	585.9	567.0	560.8
65°	8290.1	6344.5	1164.7	626.4	617.4	670.3	653.3	650.7	620.0	598.5	591.3
67.5°	8105.9	5911.4	844.7	574.2	586.8	639.0	704.6	715.3	658.7	616.4	609.3
70°	7298.0	5127.8	629.0	524.8	548.2	639.8	803.4	748.6	646.2	596.8	588.7
72.5°	5551.9	3823.8	488.0	472.7	497.8	644.3	847.5	733.3	610.2	659.6	654.3
75°	3174.9	2099.3	391.9	408.9	434.9	602.1	824.9	693.7	582.3	605.7	605.7
77.5°	1210.5	807.0	323.5	345.9	349.6	525.7	789.0	691.1	554.4	541.0	493.3
80°	419.6	315.4	267.8	275.0	270.5	467.3	756.7	601.2	453.9	406.2	392.7
82.5°	171.7	157.2	212.1	203.1	192.3	363.1	611.1	491.6	371.2	328.0	324.4
85°	74.6	99.7	140.2	123.1	111.4	251.6	489.7	416.0	313.6	270.5	269.6
87.5°	15.3	37.7	59.3	55.8	57.5	168.1	347.8	295.6	222.0	166.3	130.3
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)