

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: P965816

Luminaire Tested: **NAV-SB4A-835-U-T3**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965816
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-5)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4A-835-U-T3
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3500K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17103.1 lumens
Efficiency: N/A
Efficacy: 150.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G3

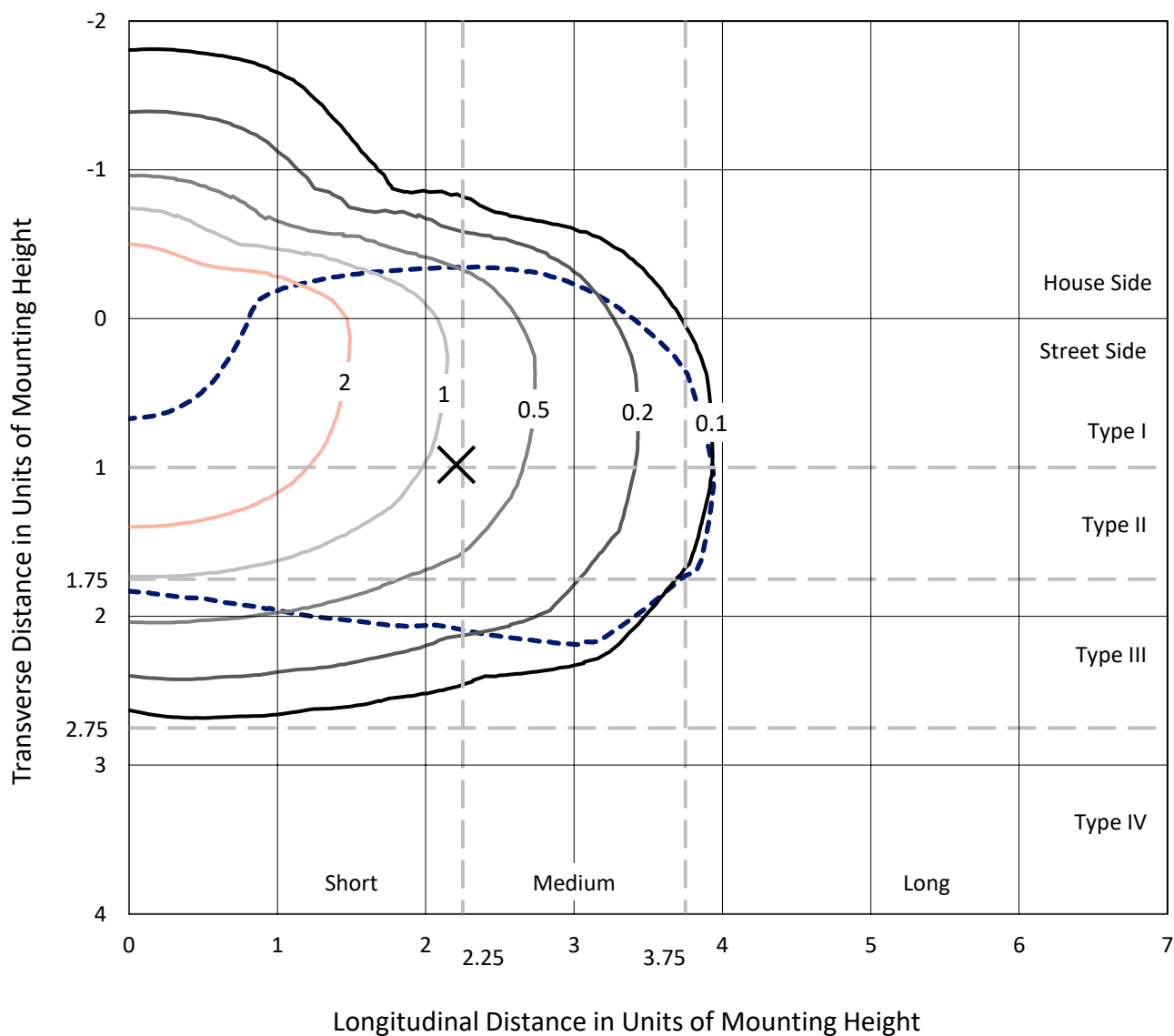
Input Watts (W): 114
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P965816
 CATALOG NUMBER: NAV-SB4A-835-U-T3

Iso-Footcandle Lines of Horizontal Illumination

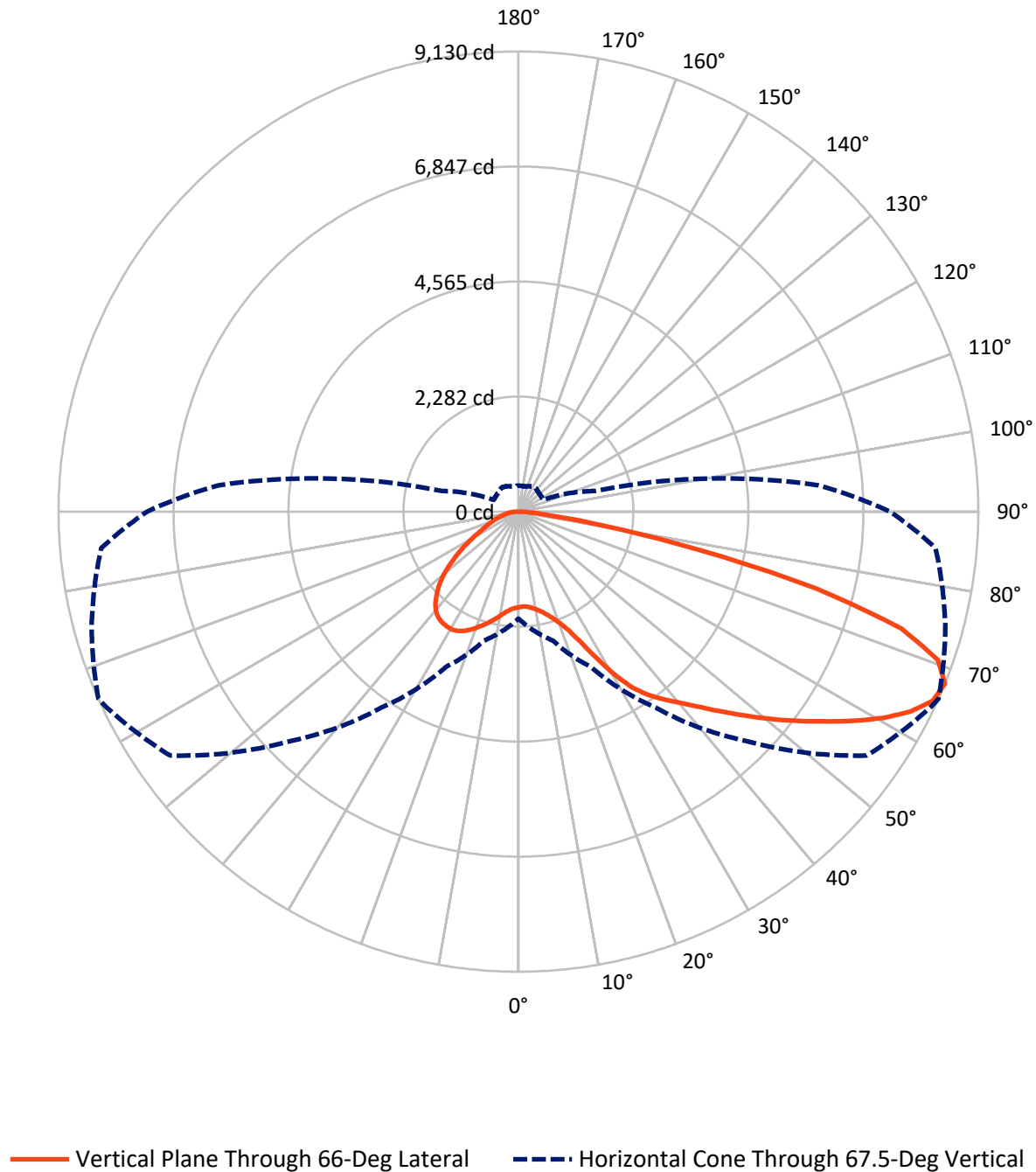
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.3 fc
 Type III - Short - N/A

REPORT NUMBER: P965816
CATALOG NUMBER: NAV-SB4A-835-U-T3

Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4252.6	0.0	4252.6
	% Fixture	24.9	0.0	24.9
Street Side	Lumens	12850.5	0.0	12850.5
	% Fixture	75.1	0.0	75.1
Total	Lumens	17103.1	0.0	17103.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	188.1	1.1
10°-20°	621.4	3.6
20°-30°	1197.7	7.0
30°-40°	2100.0	12.3
40°-50°	3122.0	18.3
50°-60°	3957.4	23.1
60°-70°	3872.2	22.6
70°-80°	1847.1	10.8
80°-90°	197.4	1.2
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°	17103.1	100.0
0°-180°	17103.1	100.0

Coefficient of Utilization



REPORT NUMBER: P965816

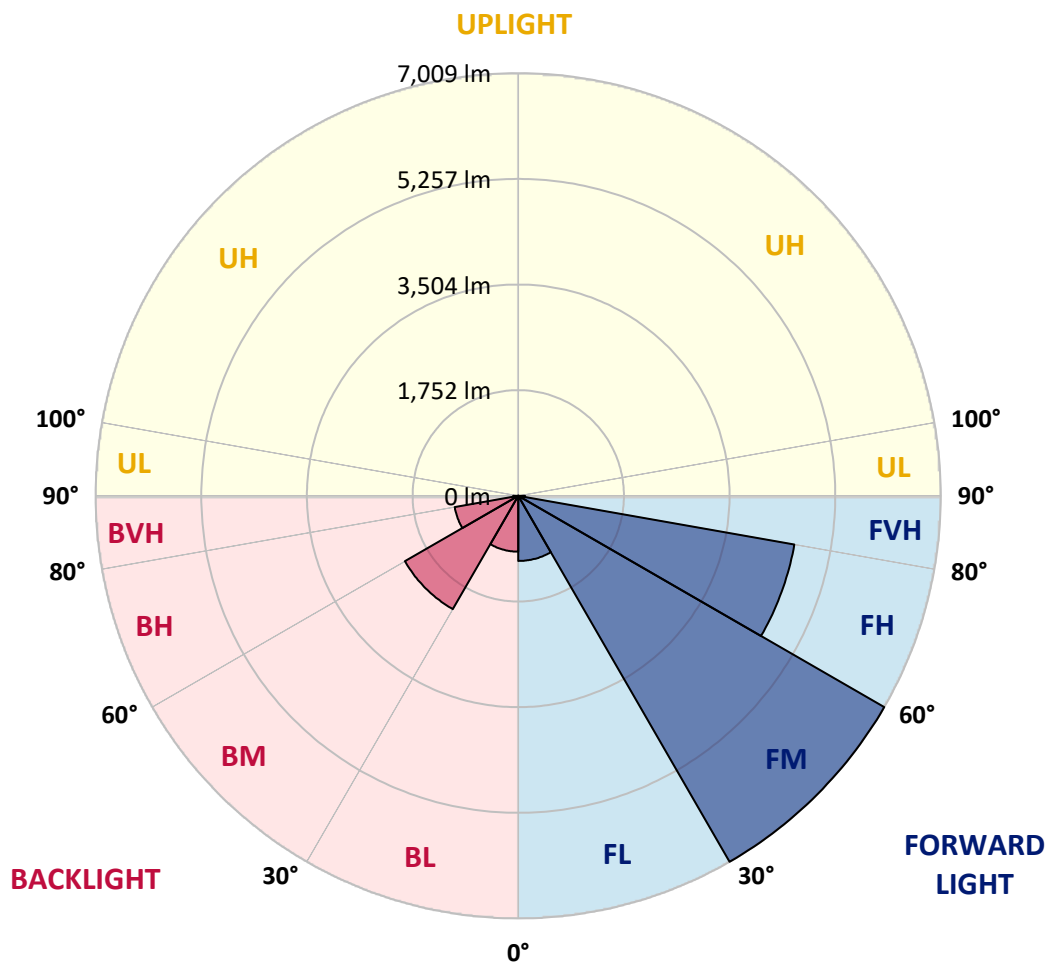
CATALOG NUMBER: NAV-SB4A-835-U-T3

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1080.8	6.3			
FM	(30°-60°)	7008.7	41.0			
FH	(60°-80°)	4649.1	27.2			G2/5000
FVH	(80°-90°)	111.9	0.7			G2/225
BL	(0°-30°)	926.4	5.4	B2/1000		
BM	(30°-60°)	2170.6	12.7	B2/2500		
BH	(60°-80°)	1070.2	6.3	B3/2500		G3/2500
BVH	(80°-90°)	85.5	0.5			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 III Short



REPORT NUMBER: P965816

CATALOG NUMBER: NAV-SB4A-835-U-T3

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	1897.0	1897.0	1897.0	1897.0	1897.0	1897.0	1897.0	1897.0	1897.0	1897.0	1897.0
2.5°	1877.2	1887.9	1885.3	1880.8	1879.8	1881.7	1884.4	1887.1	1886.2	1890.7	1897.9
5°	1871.9	1882.6	1881.7	1881.7	1885.3	1892.5	1897.0	1901.5	1897.0	1902.4	1912.2
7.5°	1875.4	1883.4	1887.1	1890.7	1899.6	1913.2	1923.9	1933.8	1928.4	1934.7	1947.3
10°	1921.3	1927.5	1931.1	1931.1	1937.4	1952.7	1963.5	1981.4	1976.9	1986.9	2003.0
12.5°	2004.8	2011.0	2011.0	2007.5	2012.0	2021.9	2025.5	2045.3	2037.2	2053.3	2069.5
15°	2107.2	2119.8	2110.0	2103.6	2105.5	2115.3	2114.5	2129.7	2121.6	2135.1	2149.4
17.5°	2220.5	2236.7	2220.5	2219.5	2215.9	2226.7	2227.6	2241.2	2226.7	2236.7	2246.5
20°	2354.3	2376.9	2363.3	2367.9	2359.8	2364.3	2368.8	2388.5	2366.0	2373.2	2370.5
22.5°	2543.0	2570.0	2555.6	2572.8	2567.3	2563.7	2562.8	2597.9	2562.8	2565.6	2539.4
25°	2818.0	2850.4	2825.2	2848.6	2848.6	2860.3	2873.8	2918.7	2860.3	2843.2	2775.8
27.5°	3224.2	3256.5	3207.1	3221.5	3217.1	3245.8	3231.4	3342.8	3279.9	3252.1	3116.4
30°	3713.1	3770.6	3677.1	3673.5	3669.0	3714.8	3735.5	3809.2	3745.5	3717.6	3554.0
32.5°	4241.4	4301.6	4190.2	4157.9	4140.8	4168.7	4151.6	4210.9	4166.8	4123.7	3921.5
35°	4800.4	4859.7	4753.6	4690.7	4622.4	4564.0	4502.9	4518.2	4476.9	4411.3	4201.9
37.5°	5328.8	5437.5	5325.2	5257.7	5132.0	5017.9	4847.1	4776.1	4737.4	4677.3	4466.1
40°	5867.0	5929.0	5843.6	5786.1	5649.6	5470.7	5197.6	5047.5	4995.3	4936.9	4758.2
42.5°	6263.3	6322.6	6276.8	6237.2	6130.3	5922.8	5569.5	5381.8	5306.3	5240.7	5088.8
45°	6577.8	6621.8	6593.1	6607.5	6561.6	6360.3	5955.0	5740.3	5662.1	5582.2	5462.6
47.5°	6704.5	6751.3	6797.1	6882.5	6960.7	6812.4	6369.3	6128.5	6045.9	5964.1	5846.4
50°	6690.2	6737.7	6870.8	7052.3	7294.9	7245.5	6806.1	6541.9	6465.5	6372.0	6263.3
52.5°	6575.2	6629.1	6799.7	7101.7	7488.1	7569.9	7250.8	6968.8	6896.8	6785.4	6676.6
55°	6273.2	6305.6	6561.6	6989.4	7534.0	7796.4	7686.7	7423.5	7351.5	7196.1	7077.4
57.5°	5713.3	5760.1	6133.0	6686.6	7418.9	7950.0	8069.5	7901.5	7832.3	7608.6	7484.6
60°	4982.8	5057.3	5484.3	6178.0	7126.0	7949.1	8417.3	8371.5	8314.0	8014.7	7885.3
62.5°	4156.1	4242.4	4653.0	5459.0	6613.8	7723.6	8634.7	8765.1	8735.4	8389.4	8224.1
65°	3191.8	3251.2	3660.1	4529.0	5816.7	7239.2	8659.9	9033.7	9039.2	8674.3	8401.1
67.5°	2125.2	2295.9	2650.9	3398.6	4749.1	6447.6	8438.8	9077.7	9129.9	8772.3	8312.1
70°	1037.0	1261.7	1609.5	2208.8	3398.6	5233.5	7861.0	8716.5	8832.4	8486.5	7782.0
72.5°	430.4	503.2	692.8	1090.0	1950.9	3531.5	6700.0	7737.0	7951.8	7519.6	6542.8
75°	290.3	314.5	396.3	558.9	888.7	1741.5	4831.8	5769.1	6115.0	5679.2	4642.2
77.5°	223.8	239.0	288.4	390.9	528.4	658.7	2586.2	3476.7	3655.6	3384.1	2415.4
80°	176.1	187.8	215.7	284.8	374.7	352.3	881.5	1575.2	1678.6	1408.1	776.4
82.5°	152.7	157.2	154.6	193.2	248.9	205.8	289.4	581.4	641.6	465.5	253.4
85°	110.5	123.1	128.5	119.5	132.1	104.2	118.6	205.8	226.4	202.2	142.9
87.5°	44.9	66.5	81.8	77.3	48.5	29.6	36.8	60.2	69.2	75.4	46.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

REPORT NUMBER: P965816

CATALOG NUMBER: NAV-SB4A-835-U-T3

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1897.0	1897.0	1897.0	1897.0	1897.0	1897.0	1897.0	1897.0	1897.0	1897.0	1897.0
2.5°	1898.8	1905.1	1909.6	1914.9	1918.5	1923.9	1934.7	1941.0	1941.9	1946.4	1945.4
5°	1915.8	1924.8	1934.7	1949.0	1965.2	1978.8	1999.4	2013.8	2019.1	2023.7	2022.7
7.5°	1952.7	1965.2	1983.3	2008.4	2031.8	2049.7	2074.9	2091.9	2109.0	2115.3	2116.2
10°	2007.5	2025.5	2051.5	2085.7	2110.9	2134.2	2160.3	2174.6	2191.8	2198.9	2202.5
12.5°	2075.8	2094.7	2128.8	2176.4	2199.8	2215.9	2225.0	2221.4	2225.0	2231.2	2233.1
15°	2153.9	2174.6	2213.3	2264.5	2280.6	2266.3	2246.5	2228.6	2225.9	2227.6	2234.0
17.5°	2246.5	2261.8	2306.8	2349.9	2338.2	2278.9	2235.7	2207.0	2192.6	2188.1	2194.4
20°	2376.0	2376.0	2412.7	2439.7	2361.5	2260.9	2193.5	2146.8	2117.1	2104.5	2101.9
22.5°	2533.2	2518.8	2542.2	2523.3	2357.1	2210.6	2117.1	2036.3	1991.4	1973.3	1970.7
25°	2732.6	2715.6	2709.3	2592.5	2324.7	2130.6	1978.8	1880.8	1841.2	1831.4	1833.2
27.5°	3033.7	2990.5	2908.8	2630.3	2265.4	2004.8	1817.0	1726.2	1703.8	1704.7	1707.3
30°	3434.5	3348.3	3147.9	2636.5	2168.4	1826.9	1651.7	1586.9	1576.1	1580.7	1595.9
32.5°	3805.6	3723.8	3392.2	2607.8	2019.1	1652.5	1503.4	1460.2	1444.0	1449.5	1456.6
35°	4096.7	4074.3	3618.7	2567.3	1835.9	1489.0	1370.4	1333.5	1302.1	1294.9	1300.3
37.5°	4371.7	4362.7	3788.5	2510.7	1654.4	1373.1	1263.4	1214.9	1169.1	1143.9	1144.8
40°	4673.7	4664.7	3899.9	2423.5	1493.5	1272.4	1167.3	1103.5	1046.8	1001.0	1005.5
42.5°	5013.4	4960.3	3953.0	2298.7	1356.9	1187.1	1089.2	1002.9	928.2	886.0	888.7
45°	5384.4	5264.9	3952.1	2139.6	1241.9	1108.8	1005.5	883.3	814.2	774.6	772.8
47.5°	5778.0	5556.1	3903.6	1963.5	1130.5	1022.6	876.2	782.7	736.9	712.6	707.2
50°	6184.2	5828.4	3820.9	1761.3	1016.3	924.7	795.3	731.4	696.4	673.9	665.8
52.5°	6566.2	6075.5	3721.2	1532.2	900.4	829.4	759.3	709.9	673.0	647.9	637.1
55°	6921.1	6288.5	3580.0	1297.5	806.1	765.6	742.2	700.9	658.7	629.0	617.4
57.5°	7236.5	6426.9	3336.6	1077.5	738.6	721.6	724.3	685.6	637.1	611.9	595.7
60°	7498.9	6528.4	2976.2	873.4	683.9	678.4	696.4	656.9	600.2	571.5	558.9
62.5°	7656.1	6526.6	2534.1	715.2	637.1	638.9	659.6	620.9	563.4	536.5	528.4
65°	7642.7	6366.7	2048.9	611.9	592.1	594.0	620.9	581.4	532.9	516.7	515.8
67.5°	7372.2	5976.7	1571.6	544.6	542.7	550.8	582.3	554.4	514.0	512.2	514.9
70°	6639.8	5167.0	1132.2	490.7	491.6	503.2	544.6	537.4	504.1	507.7	506.9
72.5°	5324.3	3939.5	760.2	434.0	434.9	453.8	508.6	523.9	494.3	541.8	549.1
75°	3545.9	2456.8	488.8	373.8	374.7	399.0	477.1	497.8	467.3	540.1	544.6
77.5°	1703.8	1104.4	354.0	314.5	314.5	337.0	412.5	445.7	398.1	419.6	384.6
80°	588.6	415.1	278.6	253.4	248.0	263.3	347.8	386.4	343.3	316.3	296.5
82.5°	231.9	215.7	223.8	196.8	178.9	188.7	270.5	319.0	252.6	228.3	227.3
85°	133.0	140.2	158.2	130.3	103.3	115.9	198.5	229.2	190.5	168.0	171.6
87.5°	36.0	49.4	72.8	67.4	46.7	49.4	94.4	126.7	109.7	84.5	87.1
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)