

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: P882751

Luminaire Tested: **NAV-SB2D-735-U-T4FT**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882751
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-24)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2D-735-U-T4FT
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 CRI, 3500K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20498 lumens
Efficiency: N/A
Efficacy: 138.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G4

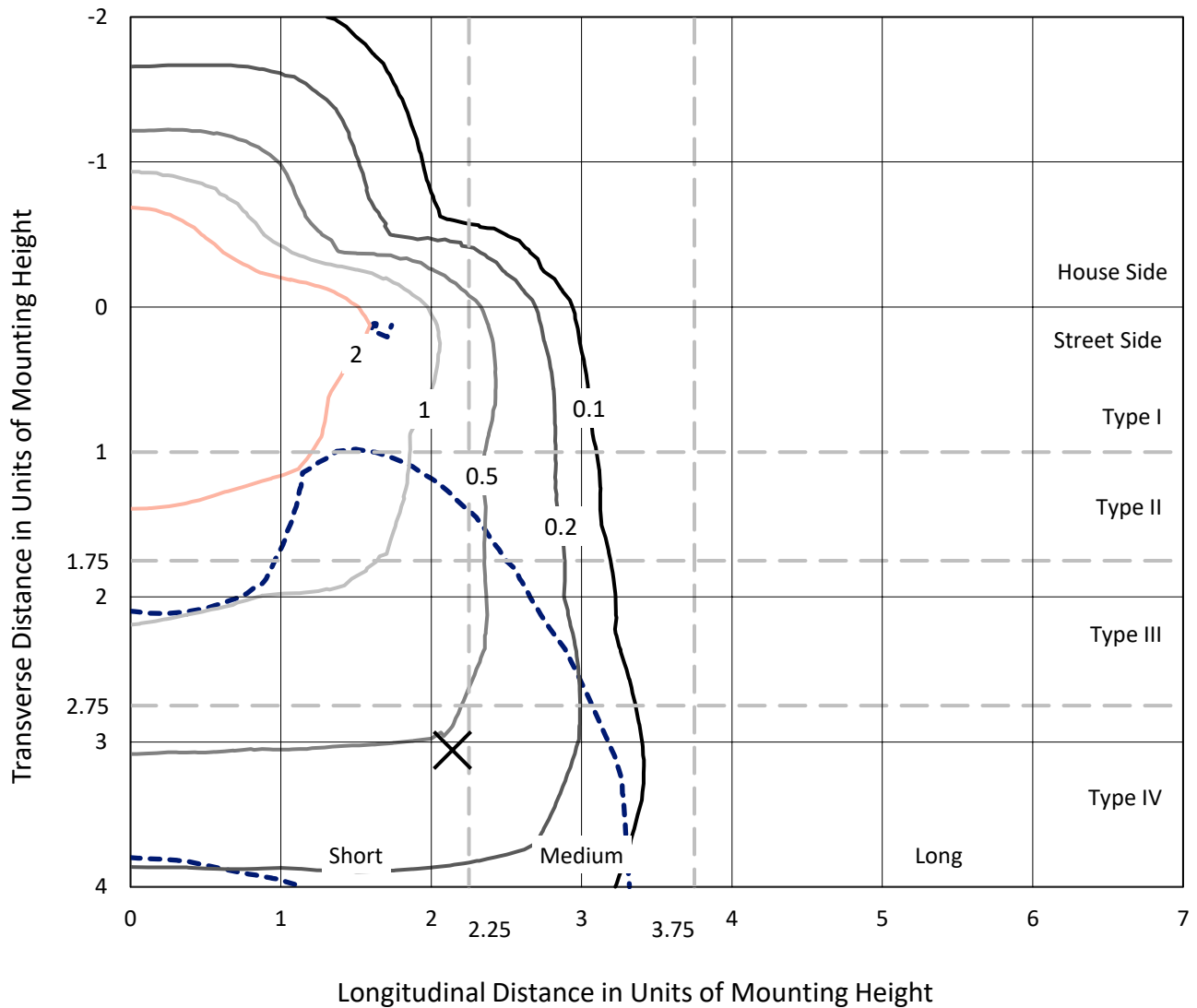
Input Watts (W): 147.6
Input Voltage (V): 120.0
Input Current (Ain): 1.234
Voltage Rise (V): NR
Power Factor: 0.999
Total Harmonic Distortion (THDi): 3.108
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P882751
 CATALOG NUMBER: NAV-SB2D-735-U-T4FT

Iso-Footcandle Lines of Horizontal Illumination

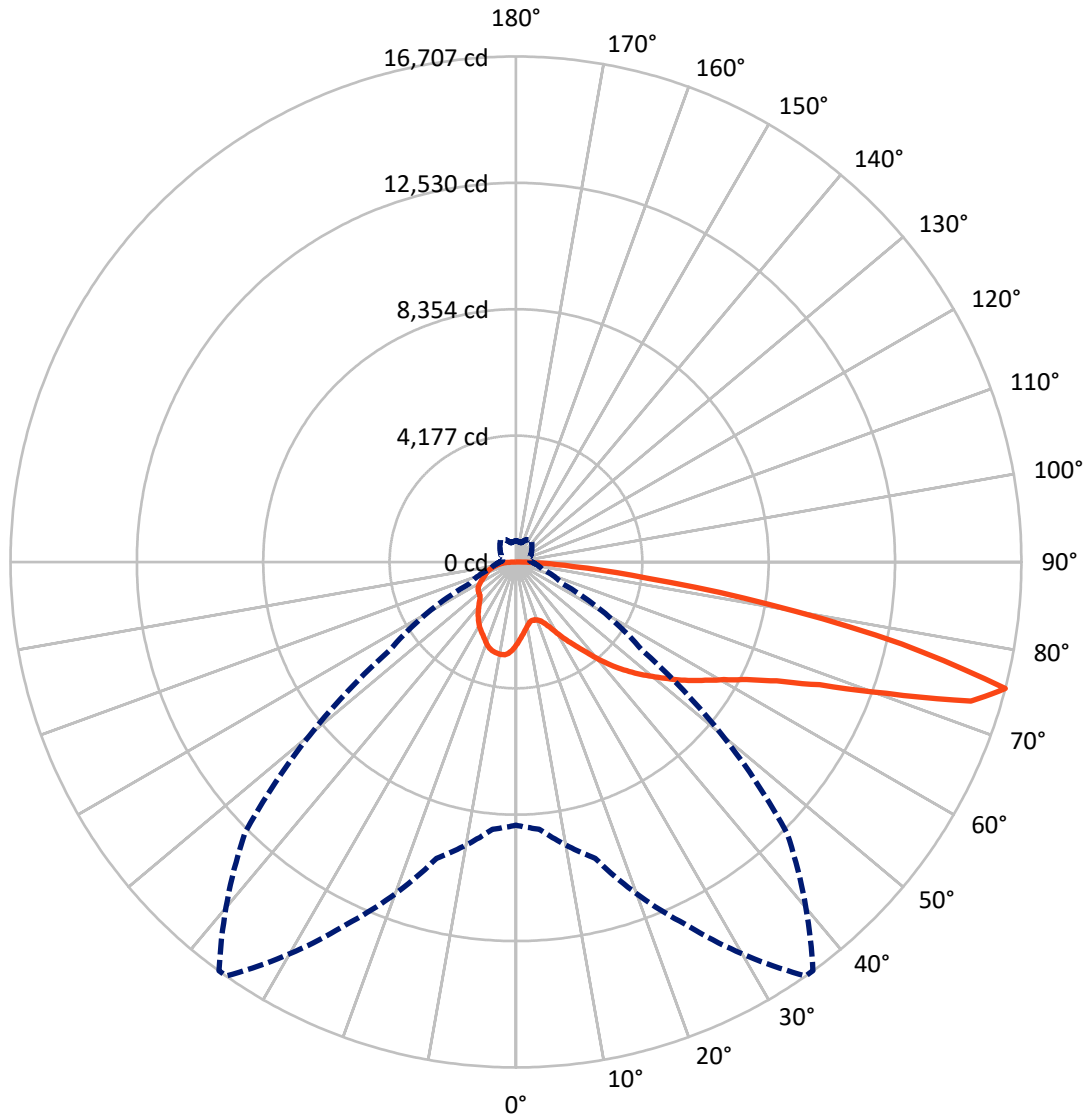
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.8 fc
 Type IV - Short - N/A

REPORT NUMBER: P882751
CATALOG NUMBER: NAV-SB2D-735-U-T4FT

Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

REPORT NUMBER: P882751

CATALOG NUMBER: NAV-SB2D-735-U-T4FT

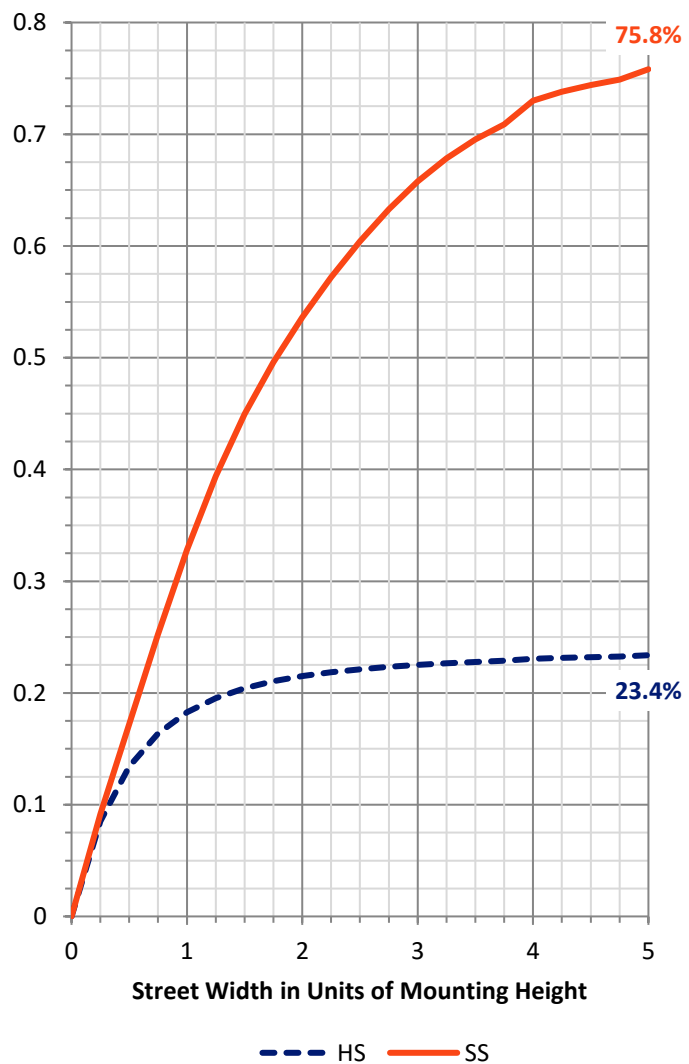
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4878.0	0.0	4878.0
	% Fixture	23.8	0.0	23.8
Street Side	Lumens	15620.0	0.0	15620.0
	% Fixture	76.2	0.0	76.2
Total	Lumens	20498.0	0.0	20498.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	258.6	1.3
10°-20°	746.0	3.6
20°-30°	1252.7	6.1
30°-40°	1946.8	9.5
40°-50°	2889.6	14.1
50°-60°	3989.3	19.5
60°-70°	4839.9	23.6
70°-80°	3999.8	19.5
80°-90°	575.3	2.8
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°	20498.0	100.0
0°-180°	20498.0	100.0

Coefficient of Utilization



REPORT NUMBER: P882751

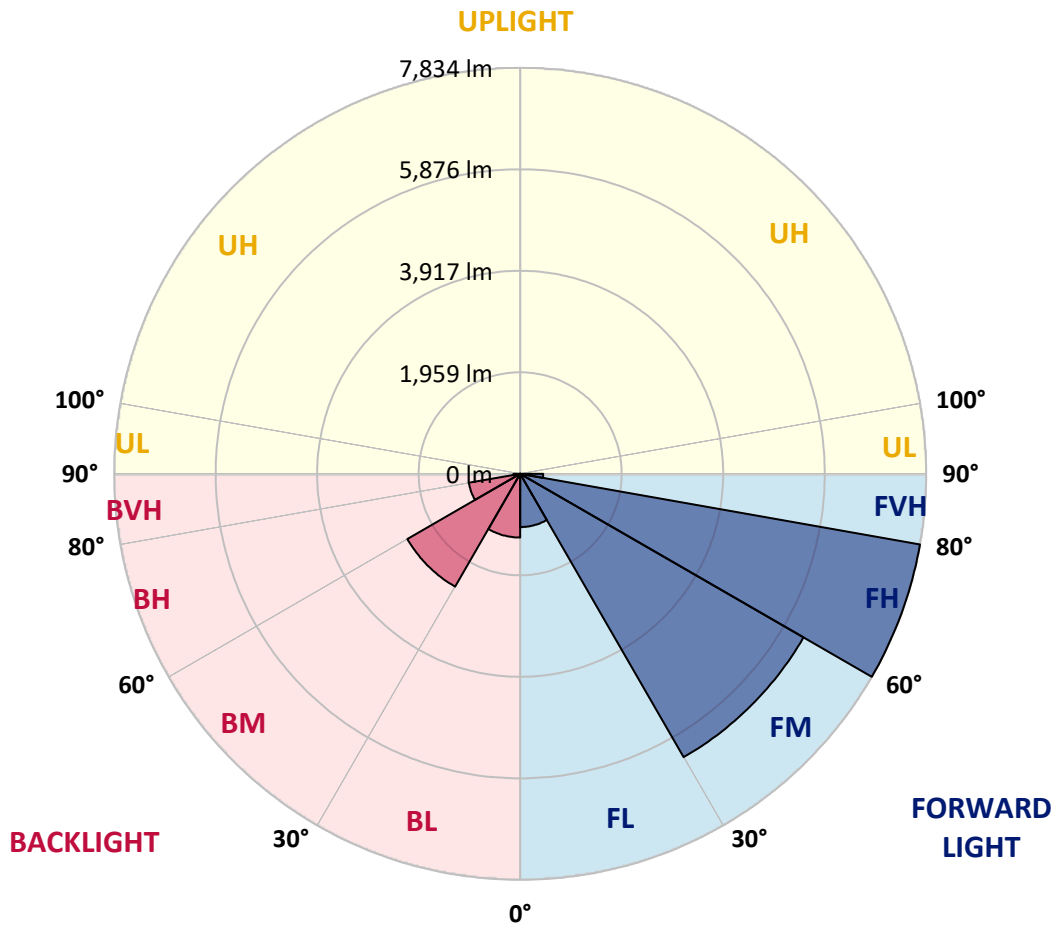
CATALOG NUMBER: NAV-SB2D-735-U-T4FT

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1027.9	5.0			
FM (30°-60°)	6312.3	30.8			
FH (60°-80°)	7834.0	38.2			G4/12000
FVH (80°-90°)	445.8	2.2			G3/500
BL (0°-30°)	1229.3	6.0	B3/2500		
BM (30°-60°)	2513.4	12.3	B3/5000		
BH (60°-80°)	1005.7	4.9	B3/2500		G3/2500
BVH (80°-90°)	129.5	0.6			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type IV Short



REPORT NUMBER: P882751
 CATALOG NUMBER: NAV-SB2D-735-U-T4FT

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	2731.5	2731.5	2731.5	2731.5	2731.5	2731.5	2731.5	2731.5	2731.5	2731.5	2731.5
2.5°	2518.7	2534.3	2540.9	2537.6	2554.2	2552.0	2575.3	2604.1	2644.0	2682.7	2739.3
5°	2324.8	2341.4	2355.8	2369.1	2401.3	2411.3	2447.8	2503.2	2576.4	2650.6	2743.7
7.5°	2144.2	2158.6	2180.8	2205.1	2259.4	2269.4	2330.4	2416.8	2518.7	2627.3	2755.9
10°	1996.8	2011.2	2034.5	2062.2	2129.8	2142.0	2219.5	2334.8	2467.8	2605.2	2769.2
12.5°	1933.7	1938.1	1951.4	1979.1	2037.8	2045.6	2130.9	2262.8	2417.9	2588.6	2789.1
15°	1930.3	1939.2	1940.3	1954.7	2003.5	2006.8	2085.5	2216.2	2386.9	2585.2	2819.0
17.5°	1963.6	1970.2	1960.3	1969.1	2010.1	2015.7	2077.7	2194.1	2376.9	2599.6	2870.0
20°	2052.2	2057.8	2027.8	2015.7	2045.6	2050.0	2111.0	2208.5	2386.9	2629.6	2939.8
22.5°	2240.6	2243.9	2170.8	2120.9	2123.1	2125.4	2178.5	2267.2	2425.7	2683.8	3028.5
25°	2534.3	2532.0	2415.7	2319.3	2263.9	2251.7	2287.1	2362.5	2491.0	2755.9	3142.6
27.5°	2877.8	2861.1	2744.8	2600.7	2480.0	2462.2	2454.5	2486.6	2584.1	2851.2	3282.2
30°	3265.6	3250.1	3124.9	2936.5	2769.2	2740.4	2667.2	2650.6	2722.6	2980.8	3476.1
32.5°	3691.1	3681.1	3531.6	3303.3	3079.4	3046.2	2923.2	2878.9	2935.4	3177.0	3746.5
35°	4047.9	4039.1	3915.0	3680.0	3406.3	3365.3	3240.1	3190.3	3219.1	3428.5	4100.0
37.5°	4370.4	4366.0	4259.6	4074.5	3792.0	3742.1	3601.4	3584.7	3579.2	3759.8	4528.9
40°	4669.6	4658.5	4547.7	4450.2	4240.7	4195.3	4071.2	4056.8	4014.7	4167.6	5014.2
42.5°	5000.9	4972.1	4811.4	4766.0	4709.5	4671.8	4597.6	4599.8	4506.7	4627.5	5528.4
45°	5271.3	5254.7	5089.6	5063.0	5123.9	5108.4	5172.7	5189.3	5008.7	5109.5	6062.5
47.5°	5561.6	5546.1	5406.5	5387.6	5552.8	5557.2	5784.3	5789.9	5498.5	5610.4	6597.7
50°	5919.5	5897.4	5758.9	5782.1	5967.2	5983.8	6399.3	6361.7	5949.5	6119.0	7128.5
52.5°	6155.6	6168.9	6138.9	6176.6	6429.3	6444.8	7004.4	6908.0	6396.0	6621.0	7649.3
55°	6329.5	6356.1	6449.2	6535.6	6916.8	6932.4	7575.1	7427.7	6766.1	7086.4	8139.1
57.5°	6553.4	6515.7	6689.7	6858.1	7380.0	7421.0	8130.2	7928.5	7094.1	7487.5	8474.8
60°	6874.7	6848.1	6983.3	7232.6	7898.6	7964.0	8717.5	8379.5	7334.6	7805.5	8540.2
62.5°	7526.3	7459.8	7480.9	7701.4	8552.4	8638.8	9380.2	8772.9	7454.3	7929.7	8190.1
65°	8500.3	8386.2	8279.8	8432.7	9473.3	9558.6	10128.1	9082.1	7409.9	7689.2	7260.4
67.5°	9727.0	9614.0	9483.2	9627.3	10829.6	10897.2	11051.2	9256.1	7060.9	6762.8	5617.0
70°	10738.7	10696.6	10852.9	11445.7	12995.9	12998.2	12234.7	9112.0	6104.6	4794.8	3250.1
72.5°	10604.6	10579.1	11402.5	13235.3	15726.3	15667.6	13355.0	8021.6	4112.2	2163.0	1217.8
75°	8699.8	8864.9	10140.3	13203.2	16707.0	16699.3	12669.0	5099.5	1701.0	896.5	629.4
77.5°	4665.2	4926.7	6583.3	9748.1	13042.5	13238.6	8907.0	1784.1	730.2	574.0	435.5
80°	1521.4	1749.7	2624.0	4963.2	8474.8	8438.3	3817.4	700.3	499.8	406.7	301.4
82.5°	646.0	672.6	1172.4	2343.7	4349.3	4281.7	1215.6	402.2	351.3	278.1	186.2
85°	252.6	282.6	517.5	1083.7	1883.8	1842.8	438.8	199.5	224.9	181.7	110.8
87.5°	83.1	100.8	185.1	371.2	586.2	565.1	107.5	68.7	97.5	83.1	39.9
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: P882751

CATALOG NUMBER: NAV-SB2D-735-U-T4FT

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2731.5	2731.5	2731.5	2731.5	2731.5	2731.5	2731.5	2731.5	2731.5	2731.5	2731.5
2.5°	2754.8	2772.5	2793.6	2824.6	2851.2	2873.3	2896.6	2911.0	2916.6	2933.2	2932.1
5°	2774.7	2813.5	2865.6	2916.6	2966.4	2996.3	3022.9	3036.2	3048.4	3057.3	3059.5
7.5°	2808.0	2857.8	2939.8	3006.3	3048.4	3072.8	3090.5	3086.1	3090.5	3092.7	3096.1
10°	2836.8	2906.6	3004.1	3067.3	3099.4	3100.5	3096.1	3080.6	3072.8	3073.9	3076.1
12.5°	2871.1	2948.7	3054.0	3107.1	3116.0	3091.6	3072.8	3046.2	3036.2	3031.8	3029.6
15°	2917.7	3006.3	3108.3	3128.2	3106.0	3075.0	3042.9	2999.7	2977.5	2959.8	2965.3
17.5°	2974.2	3071.7	3150.4	3136.0	3088.3	3037.3	2985.3	2919.9	2874.4	2855.6	2856.7
20°	3052.8	3140.4	3182.5	3119.3	3047.3	2969.7	2881.1	2801.3	2759.2	2740.4	2738.1
22.5°	3148.1	3232.4	3213.5	3090.5	2988.6	2864.5	2753.7	2694.9	2673.9	2660.6	2662.8
25°	3262.3	3334.3	3235.7	3048.4	2892.2	2724.8	2639.5	2620.7	2610.7	2600.7	2600.7
27.5°	3410.8	3449.6	3252.3	2986.4	2741.5	2576.4	2545.3	2548.7	2545.3	2528.7	2532.0
30°	3606.9	3599.1	3267.8	2885.5	2568.6	2442.3	2444.5	2458.9	2461.1	2450.0	2455.6
32.5°	3865.1	3786.4	3275.6	2754.8	2403.5	2324.8	2327.0	2342.5	2353.6	2334.8	2343.7
35°	4177.6	4004.7	3263.4	2590.8	2276.1	2212.9	2196.3	2200.7	2204.0	2186.3	2198.5
37.5°	4542.2	4249.6	3209.1	2409.0	2170.8	2103.2	2067.7	2037.8	2020.1	2003.5	2014.5
40°	4942.2	4516.7	3109.4	2231.7	2053.3	1986.8	1933.7	1877.1	1817.3	1795.1	1805.1
42.5°	5361.0	4791.5	2988.6	2062.2	1918.1	1863.8	1807.3	1725.3	1635.6	1590.1	1595.7
45°	5795.4	5072.9	2870.0	1894.9	1779.6	1756.4	1691.0	1592.4	1494.8	1437.2	1432.8
47.5°	6220.9	5338.9	2696.0	1726.4	1650.0	1675.5	1624.5	1533.6	1425.0	1334.2	1324.2
50°	6627.6	5588.2	2411.3	1555.8	1544.7	1651.1	1602.3	1471.6	1347.5	1231.1	1221.1
52.5°	7031.0	5789.9	2046.7	1400.7	1488.2	1644.4	1573.5	1429.5	1277.7	1155.8	1142.5
55°	7373.4	5894.1	1695.4	1267.7	1406.2	1587.9	1539.2	1379.6	1179.0	1049.4	1038.3
57.5°	7568.4	5809.8	1402.9	1136.9	1293.2	1494.8	1480.4	1273.2	1061.6	961.8	948.5
60°	7484.2	5468.5	1163.5	1022.8	1185.7	1394.0	1378.5	1168.0	971.8	877.6	864.3
62.5°	7019.9	4818.1	974.0	923.1	1088.2	1291.0	1276.5	1087.1	903.1	812.2	797.8
65°	6084.6	3919.4	826.7	839.9	989.5	1166.8	1187.9	1019.5	848.8	760.2	745.8
67.5°	4640.8	2839.0	711.4	767.9	893.1	1045.0	1105.9	970.7	803.4	719.2	705.9
70°	2645.1	1612.3	613.9	698.1	807.8	931.9	1042.7	931.9	754.6	684.8	675.9
72.5°	1002.8	740.2	530.8	628.3	725.8	836.6	972.9	871.0	698.1	646.0	637.2
75°	535.2	451.0	446.6	546.3	631.6	743.5	885.4	811.1	656.0	682.6	704.8
77.5°	364.6	319.1	373.4	467.6	528.6	640.5	792.3	720.3	568.5	566.2	521.9
80°	252.6	226.1	303.6	376.8	408.9	538.5	691.5	618.3	463.2	432.2	413.3
82.5°	151.8	147.4	227.2	281.5	289.2	415.5	572.9	518.6	379.0	330.2	332.4
85°	83.1	87.5	145.2	165.1	168.4	290.3	448.8	401.1	291.4	244.9	247.1
87.5°	23.3	29.9	53.2	65.4	80.9	150.7	267.1	238.2	146.3	101.9	101.9
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)