

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: P883591

Luminaire Tested: **NAV-SB4A-730-U-T4FT**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883591
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-SB4A-730-U-T4FT
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 3000K, 350mA 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: 17687 lumens
Efficiency: N/A
Efficacy: 155.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G3

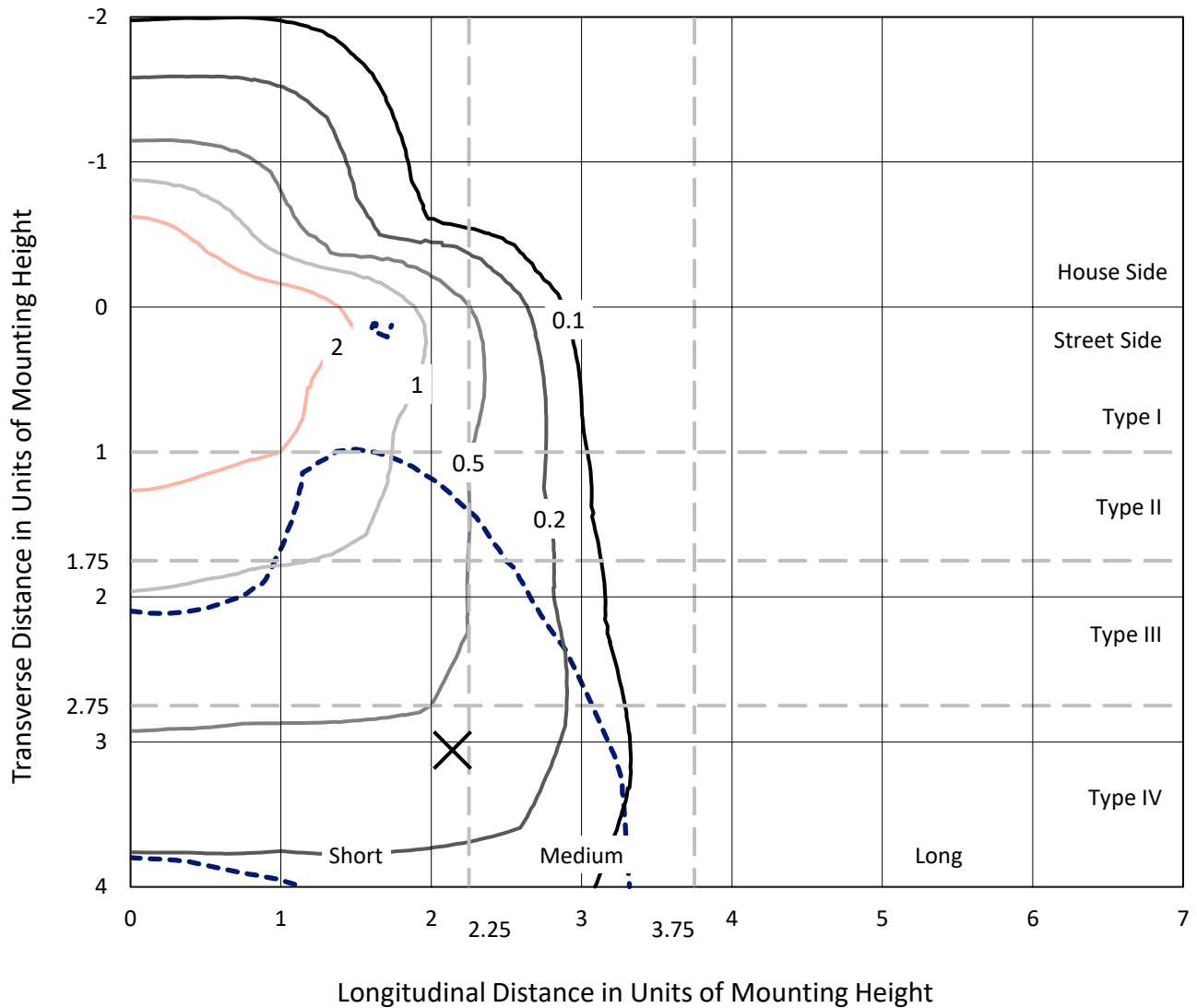
Input Watts (W): 114
Input Voltage (V): 120.0
Input Current (Ain): 0.952
Voltage Rise (V): NR
Power Factor: 0.995
Total Harmonic Distortion (THDi): 8.206
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P883591
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Iso-Footcandle Lines of Horizontal Illumination

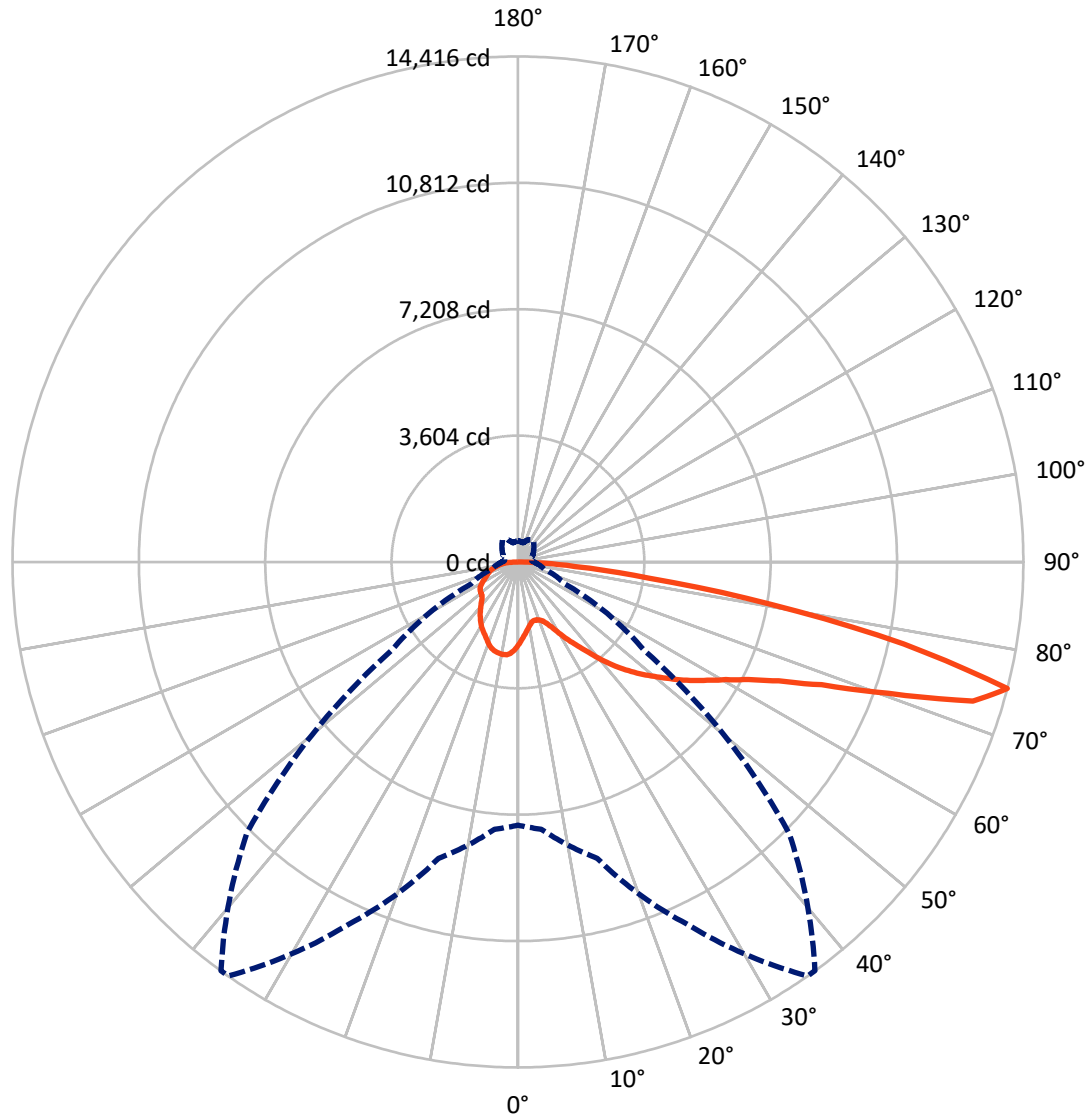
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.2 fc
 Type IV - Short - N/A

REPORT NUMBER: P883591
CATALOG NUMBER: NAV-SB4A-730-U-T4FT

Luminous Intensity Polar Plot



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

REPORT NUMBER: P883591
 CATALOG NUMBER: NAV-SB4A-730-U-T4FT

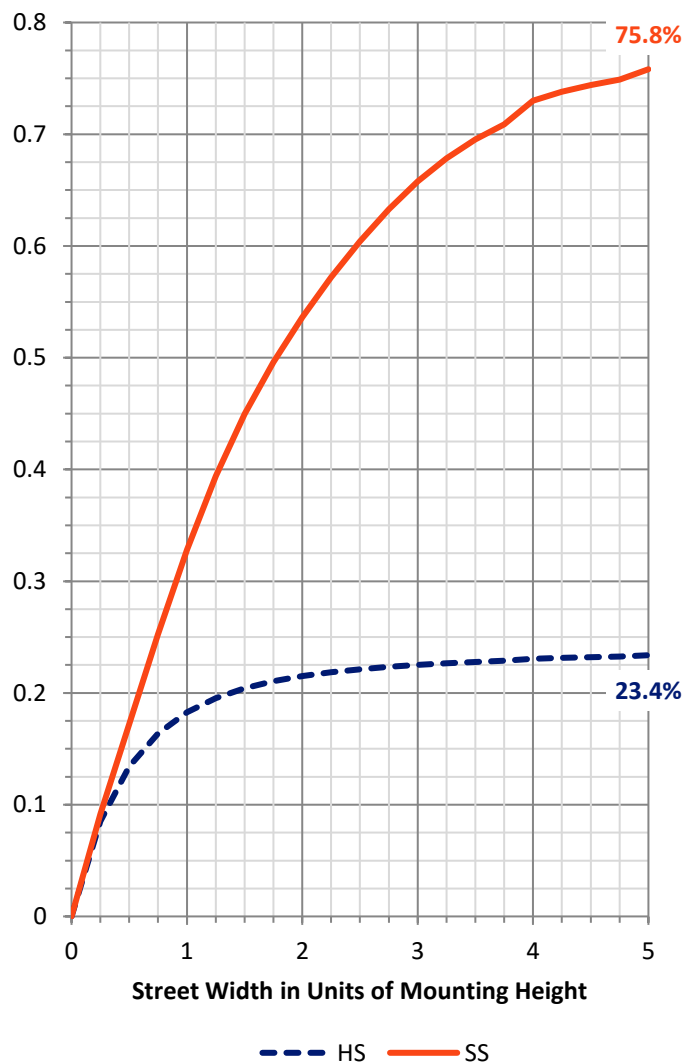
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4209.1	0.0	4209.1
	% Fixture	23.8	0.0	23.8
Street Side	Lumens	13477.9	0.0	13477.9
	% Fixture	76.2	0.0	76.2
Total	Lumens	17687.0	0.0	17687.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	223.2	1.3
10°-20°	643.7	3.6
20°-30°	1080.9	6.1
30°-40°	1679.9	9.5
40°-50°	2493.3	14.1
50°-60°	3442.2	19.5
60°-70°	4176.2	23.6
70°-80°	3451.3	19.5
80°-90°	496.4	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°	17687.0	100.0
0°-180°	17687.0	100.0

Coefficient of Utilization



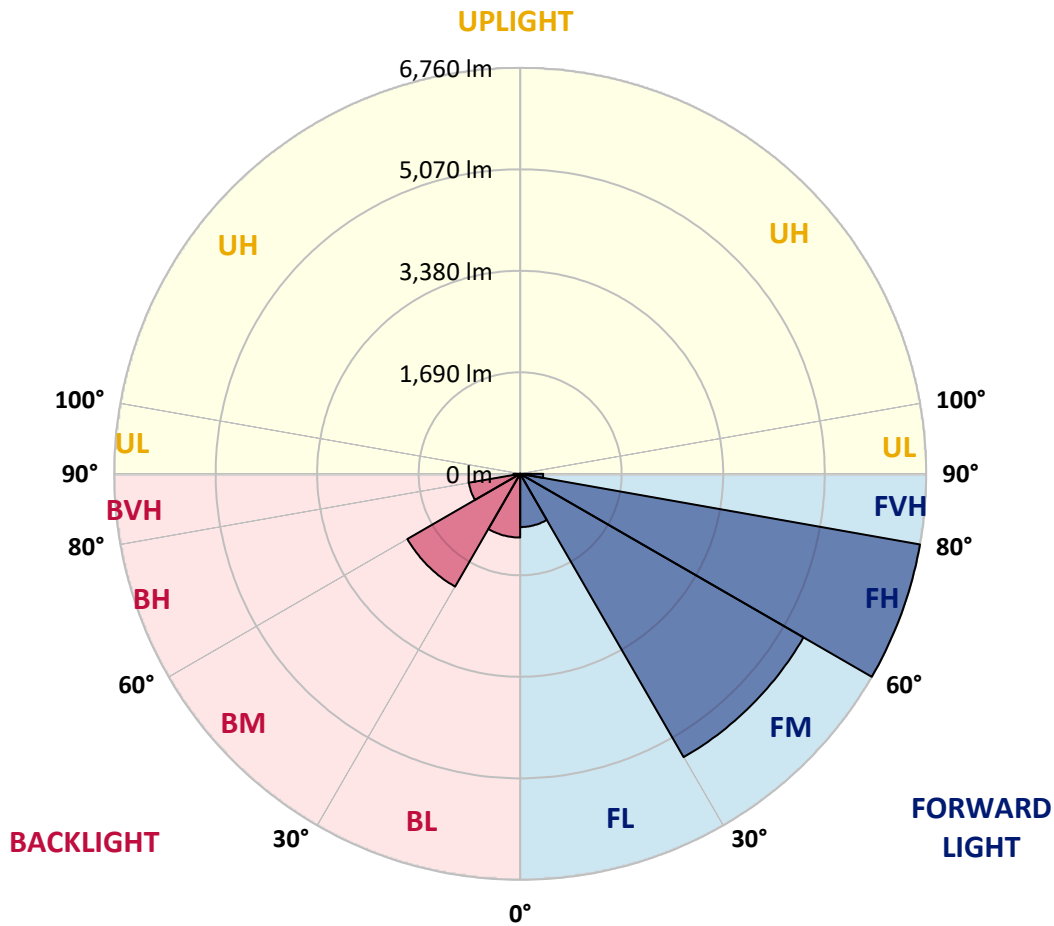
REPORT NUMBER: P883591
 CATALOG NUMBER: NAV-SB4A-730-U-T4FT

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	887.0	5.0			
FM (30°-60°)	5446.6	30.8			
FH (60°-80°)	6759.7	38.2			G3/7500
FVH (80°-90°)	384.6	2.2			G3/500
BL (0°-30°)	1060.7	6.0	B3/2500		
BM (30°-60°)	2168.8	12.3	B2/2500		
BH (60°-80°)	867.8	4.9	B2/1000		G2/1000
BVH (80°-90°)	111.8	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-G3

Type IV Short



REPORT NUMBER: P883591
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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	2356.9	2356.9	2356.9	2356.9	2356.9	2356.9	2356.9	2356.9	2356.9	2356.9	2356.9
2.5°	2173.3	2186.7	2192.5	2189.6	2203.9	2202.0	2222.1	2247.0	2281.4	2314.8	2363.6
5°	2006.0	2020.3	2032.8	2044.3	2072.0	2080.6	2112.1	2159.9	2223.1	2287.1	2367.4
7.5°	1850.2	1862.6	1881.7	1902.7	1949.6	1958.2	2010.8	2085.4	2173.3	2267.0	2377.9
10°	1723.0	1735.4	1755.5	1779.4	1837.7	1848.2	1915.2	2014.6	2129.3	2247.9	2389.4
12.5°	1668.5	1672.3	1683.8	1707.7	1758.4	1765.1	1838.7	1952.5	2086.3	2233.6	2406.6
15°	1665.6	1673.3	1674.2	1686.7	1728.7	1731.6	1799.5	1912.3	2059.5	2230.7	2432.4
17.5°	1694.3	1700.0	1691.4	1699.1	1734.5	1739.2	1792.8	1893.2	2050.9	2243.1	2476.4
20°	1770.8	1775.6	1749.8	1739.2	1765.1	1768.9	1821.5	1905.6	2059.5	2268.9	2536.7
22.5°	1933.3	1936.2	1873.1	1830.1	1832.0	1833.9	1879.8	1956.3	2093.0	2315.8	2613.2
25°	2186.7	2184.8	2084.4	2001.2	1953.4	1942.9	1973.5	2038.5	2149.4	2377.9	2711.6
27.5°	2483.1	2468.8	2368.4	2244.1	2139.9	2124.6	2117.9	2145.6	2229.7	2460.2	2832.1
30°	2817.8	2804.4	2696.3	2533.8	2389.4	2364.6	2301.5	2287.1	2349.3	2572.0	2999.4
32.5°	3184.9	3176.3	3047.3	2850.3	2657.1	2628.5	2522.3	2484.1	2532.8	2741.3	3232.7
35°	3492.8	3485.2	3378.1	3175.4	2939.2	2903.8	2795.8	2752.8	2777.6	2958.3	3537.8
37.5°	3771.1	3767.2	3675.4	3515.8	3271.9	3228.9	3107.5	3093.1	3088.4	3244.2	3907.8
40°	4029.2	4019.7	3924.0	3839.9	3659.2	3620.0	3512.9	3500.5	3464.1	3596.1	4326.6
42.5°	4315.1	4290.2	4151.6	4112.4	4063.6	4031.1	3967.1	3969.0	3888.7	3992.9	4770.2
45°	4548.4	4534.1	4391.6	4368.7	4421.2	4407.9	4463.3	4477.7	4321.8	4408.8	5231.1
47.5°	4798.9	4785.5	4665.1	4648.8	4791.3	4795.1	4991.1	4995.9	4744.4	4841.0	5692.9
50°	5107.8	5088.6	4969.1	4989.2	5148.9	5163.2	5521.8	5489.3	5133.6	5279.9	6150.9
52.5°	5311.4	5322.9	5297.1	5329.6	5547.6	5561.0	6043.8	5960.6	5518.9	5713.0	6600.3
55°	5461.5	5484.5	5564.8	5639.4	5968.3	5981.7	6536.2	6409.1	5838.3	6114.6	7022.9
57.5°	5654.7	5622.2	5772.3	5917.6	6368.0	6403.3	7015.3	6841.3	6121.3	6460.7	7312.6
60°	5932.0	5909.0	6025.7	6240.8	6815.4	6871.9	7522.0	7230.4	6328.8	6735.1	7369.1
62.5°	6494.2	6436.8	6455.0	6645.2	7379.6	7454.2	8093.8	7569.8	6432.0	6842.2	7066.9
65°	7334.6	7236.2	7144.4	7276.3	8174.1	8247.8	8739.2	7836.6	6393.8	6634.7	6264.7
67.5°	8393.1	8295.6	8182.7	8307.0	9344.5	9402.8	9535.7	7986.7	6092.6	5835.4	4846.7
70°	9266.1	9229.7	9364.5	9876.1	11213.7	11215.7	10556.9	7862.4	5267.4	4137.3	2804.4
72.5°	9150.4	9128.4	9838.8	11420.3	13569.7	13519.0	11523.5	6921.6	3548.3	1866.4	1050.8
75°	7506.7	7649.2	8749.7	11392.5	14415.9	14409.2	10931.7	4400.2	1467.7	773.5	543.1
77.5°	4025.4	4251.0	5680.5	8411.3	11253.9	11423.1	7685.5	1539.4	630.1	495.3	375.8
80°	1312.8	1509.8	2264.2	4282.6	7312.6	7281.1	3293.9	604.3	431.2	350.9	260.1
82.5°	557.4	580.4	1011.6	2022.3	3752.9	3694.6	1048.9	347.1	303.1	240.0	160.6
85°	218.0	243.8	446.5	935.1	1625.5	1590.1	378.6	172.1	194.1	156.8	95.6
87.5°	71.7	87.0	159.7	320.3	505.8	487.6	92.7	59.3	84.1	71.7	34.4
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: P883591
 CATALOG NUMBER: NAV-SB4A-730-U-T4FT

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2356.9	2356.9	2356.9	2356.9	2356.9	2356.9	2356.9	2356.9	2356.9	2356.9	2356.9
2.5°	2377.0	2392.3	2410.5	2437.2	2460.2	2479.3	2499.4	2511.8	2516.6	2530.9	2530.0
5°	2394.2	2427.7	2472.6	2516.6	2559.6	2585.4	2608.4	2619.9	2630.4	2638.0	2639.9
7.5°	2422.9	2465.9	2536.7	2594.0	2630.4	2651.4	2666.7	2662.9	2666.7	2668.6	2671.5
10°	2447.7	2508.0	2592.1	2646.6	2674.4	2675.3	2671.5	2658.1	2651.4	2652.4	2654.3
12.5°	2477.4	2544.3	2635.2	2681.0	2688.7	2667.7	2651.4	2628.5	2619.9	2616.0	2614.1
15°	2517.5	2594.0	2682.0	2699.2	2680.1	2653.3	2625.6	2588.3	2569.2	2553.9	2558.7
17.5°	2566.3	2650.5	2718.3	2705.9	2664.8	2620.8	2575.9	2519.5	2480.3	2464.0	2465.0
20°	2634.2	2709.7	2746.1	2691.6	2629.4	2562.5	2486.0	2417.1	2380.8	2364.6	2362.6
22.5°	2716.4	2789.1	2772.8	2666.7	2578.7	2471.7	2376.0	2325.4	2307.2	2295.7	2297.6
25°	2814.9	2877.1	2792.0	2630.4	2495.6	2351.2	2277.6	2261.3	2252.7	2244.1	2244.1
27.5°	2943.0	2976.5	2806.3	2576.8	2365.5	2223.1	2196.3	2199.1	2196.3	2181.9	2184.8
30°	3112.3	3105.6	2819.7	2489.8	2216.4	2107.4	2109.3	2121.7	2123.6	2114.1	2118.8
32.5°	3335.1	3267.2	2826.4	2377.0	2073.9	2006.0	2007.9	2021.3	2030.9	2014.6	2022.3
35°	3604.7	3455.5	2815.9	2235.5	1963.9	1909.4	1895.1	1898.9	1901.8	1886.5	1897.0
37.5°	3919.3	3666.8	2769.0	2078.7	1873.1	1814.8	1784.2	1758.4	1743.1	1728.7	1738.3
40°	4264.4	3897.3	2683.0	1925.7	1771.7	1714.4	1668.5	1619.7	1568.1	1549.0	1557.6
42.5°	4625.9	4134.4	2578.7	1779.4	1655.1	1608.2	1559.5	1488.7	1411.3	1372.1	1376.9
45°	5000.7	4377.3	2476.4	1635.0	1535.6	1515.5	1459.1	1374.0	1289.8	1240.1	1236.3
47.5°	5367.8	4606.7	2326.3	1489.7	1423.7	1445.7	1401.7	1323.3	1229.6	1151.2	1142.6
50°	5718.7	4821.9	2080.6	1342.4	1332.9	1424.7	1382.6	1269.8	1162.7	1062.3	1053.7
52.5°	6066.8	4995.9	1766.0	1208.6	1284.1	1418.9	1357.7	1233.4	1102.4	997.3	985.8
55°	6362.2	5085.8	1462.9	1093.8	1213.4	1370.2	1328.1	1190.4	1017.3	905.5	895.9
57.5°	6530.5	5013.1	1210.5	981.0	1115.8	1289.8	1277.4	1098.6	916.0	829.9	818.5
60°	6457.8	4718.6	1004.0	882.5	1023.1	1202.8	1189.5	1007.8	838.5	757.3	745.8
62.5°	6057.2	4157.3	840.5	796.5	938.9	1113.9	1101.5	938.0	779.3	700.9	688.4
65°	5250.2	3381.9	713.3	724.8	853.8	1006.8	1025.0	879.7	732.4	655.9	643.5
67.5°	4004.4	2449.7	613.8	662.6	770.7	901.7	954.2	837.6	693.2	620.5	609.1
70°	2282.3	1391.2	529.7	602.4	697.0	804.1	899.7	804.1	651.1	590.9	583.3
72.5°	865.3	638.7	458.0	542.1	626.3	721.9	839.5	751.5	602.4	557.4	549.8
75°	461.8	389.2	385.3	471.4	545.0	641.6	764.0	699.9	566.0	589.0	608.1
77.5°	314.6	275.4	322.2	403.5	456.1	552.7	683.6	621.5	490.5	488.6	450.3
80°	218.0	195.1	262.0	325.1	352.8	464.7	596.6	533.5	399.7	372.9	356.6
82.5°	131.0	127.2	196.0	242.9	249.6	358.6	494.3	447.5	327.0	284.9	286.8
85°	71.7	75.5	125.3	142.5	145.3	250.5	387.2	346.1	251.5	211.3	213.2
87.5°	20.1	25.8	45.9	56.4	69.8	130.0	230.4	205.6	126.2	88.0	88.0
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)