

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: P965772

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

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965772
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-8)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4A-830-U-SLL
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND SPILL LIGHT
ELIMINATOR LEFT OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16498.4 lumens
Efficiency: N/A
Efficacy: 144.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G4

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



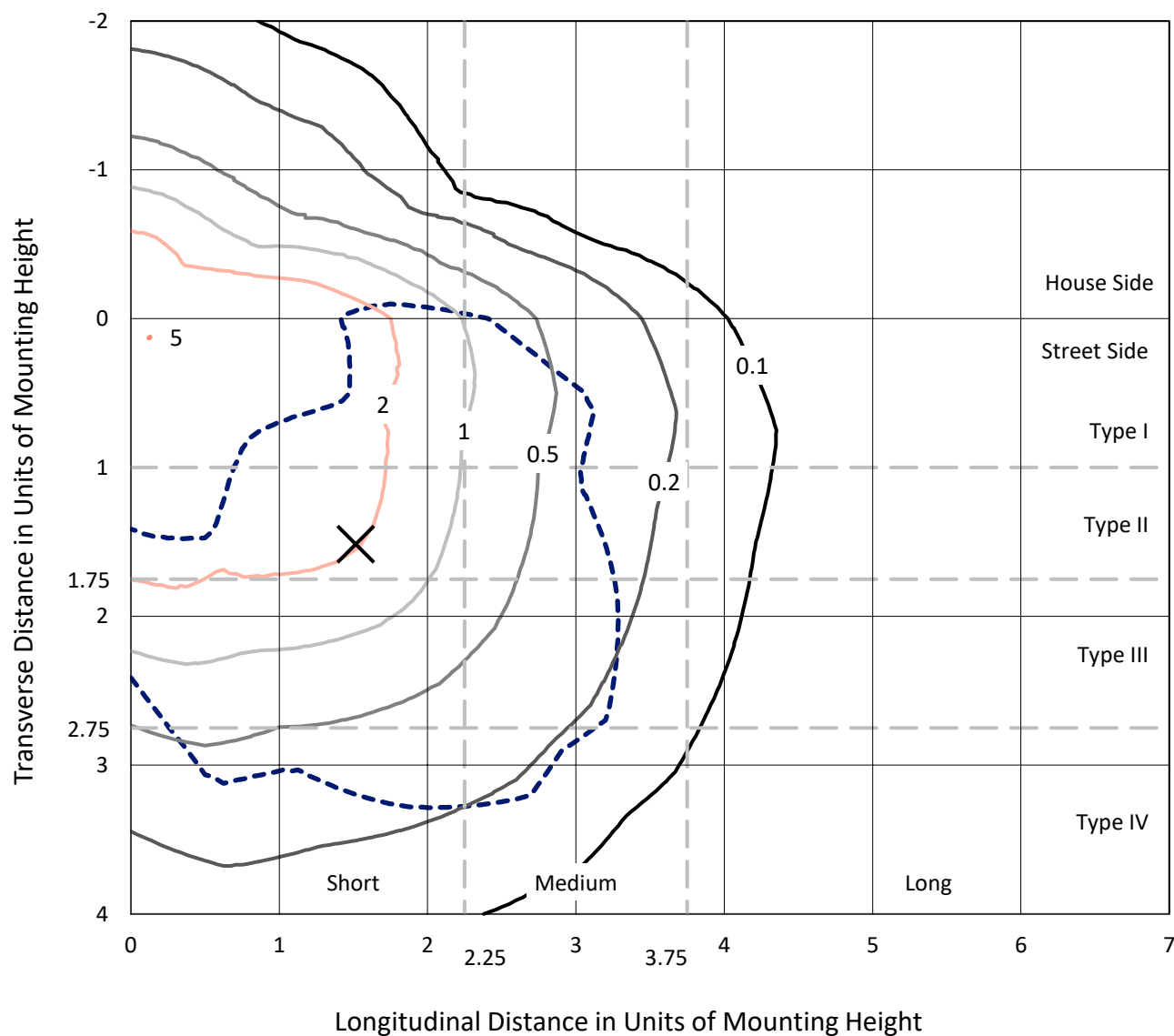
REPORT NUMBER: P965772

CATALOG NUMBER: NAV-SB4A-830-U-SLL

Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

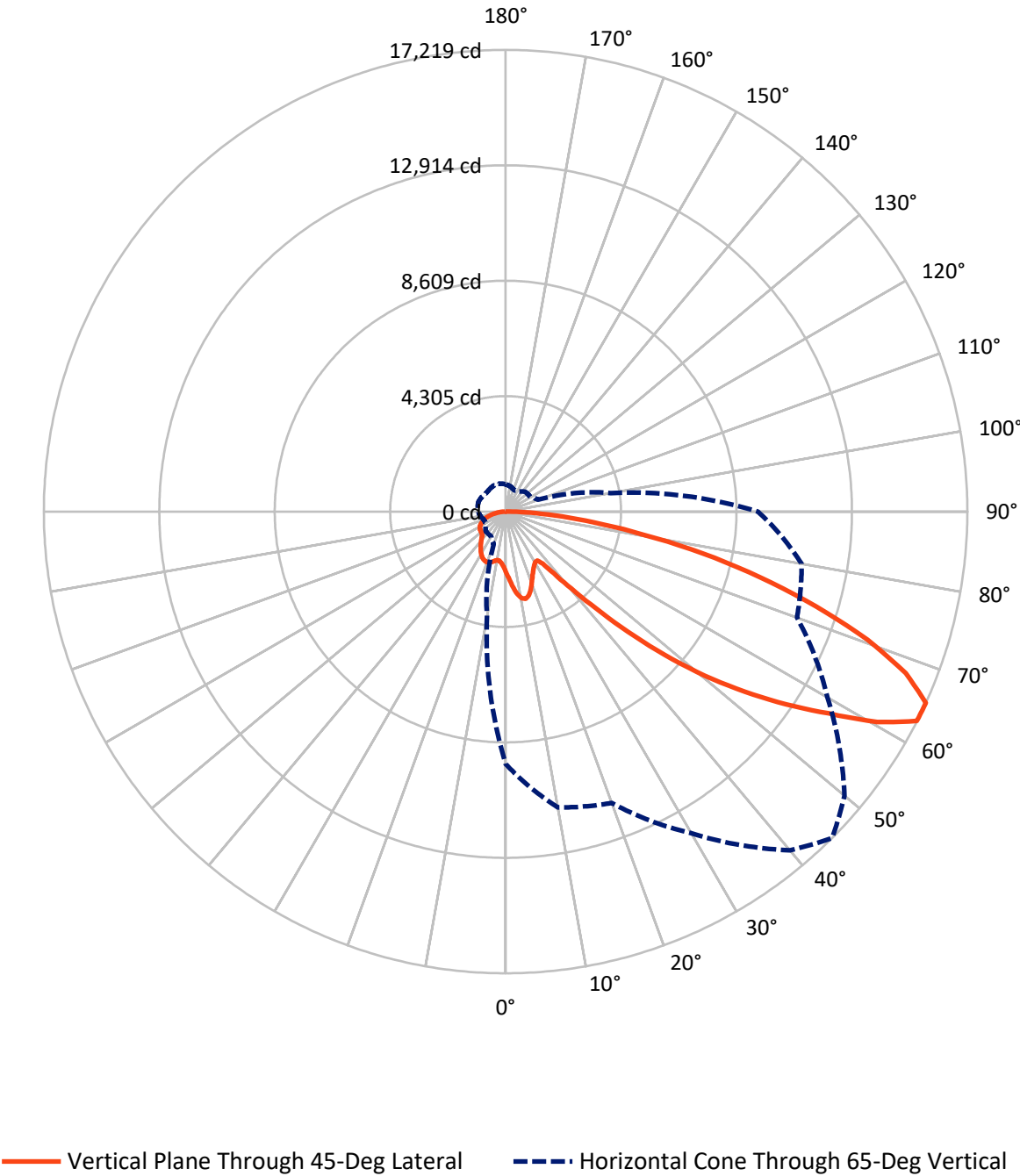


Based on 25 foot mounting height. Maximum calculated value = 5 fc

Type IV - Short - N/A

REPORT NUMBER: P965772
CATALOG NUMBER: NAV-SB4A-830-U-SLL

Luminous Intensity Polar Plot



REPORT NUMBER: P965772

CATALOG NUMBER: NAV-SB4A-830-U-SLL

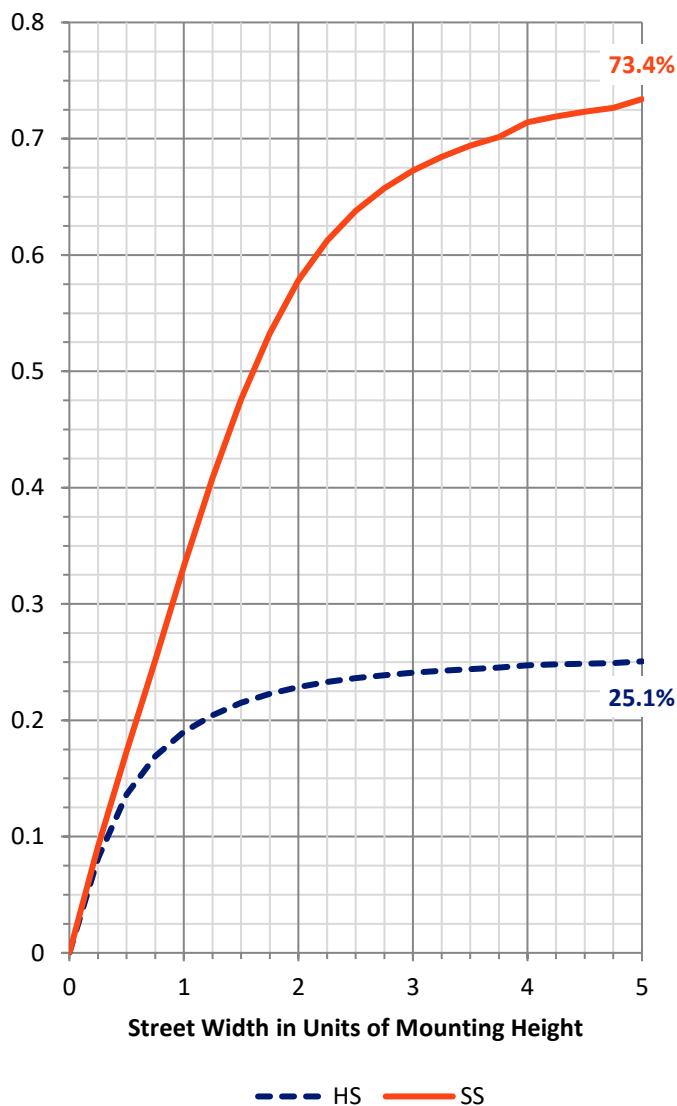
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4193.1	0.0	4193.1
	% Fixture	25.4	0.0	25.4
Street Side	Lumens	12305.3	0.0	12305.3
	% Fixture	74.6	0.0	74.6
Total	Lumens	16498.4	0.0	16498.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	225.0	1.4
10°-20°	706.5	4.3
20°-30°	1091.3	6.6
30°-40°	1382.9	8.4
40°-50°	2085.8	12.6
50°-60°	3369.9	20.4
60°-70°	4201.1	25.5
70°-80°	2754.9	16.7
80°-90°	681.1	4.1
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°	16498.4	100.0
0°-180°	16498.4	100.0

Coefficient of Utilization



REPORT NUMBER: P965772

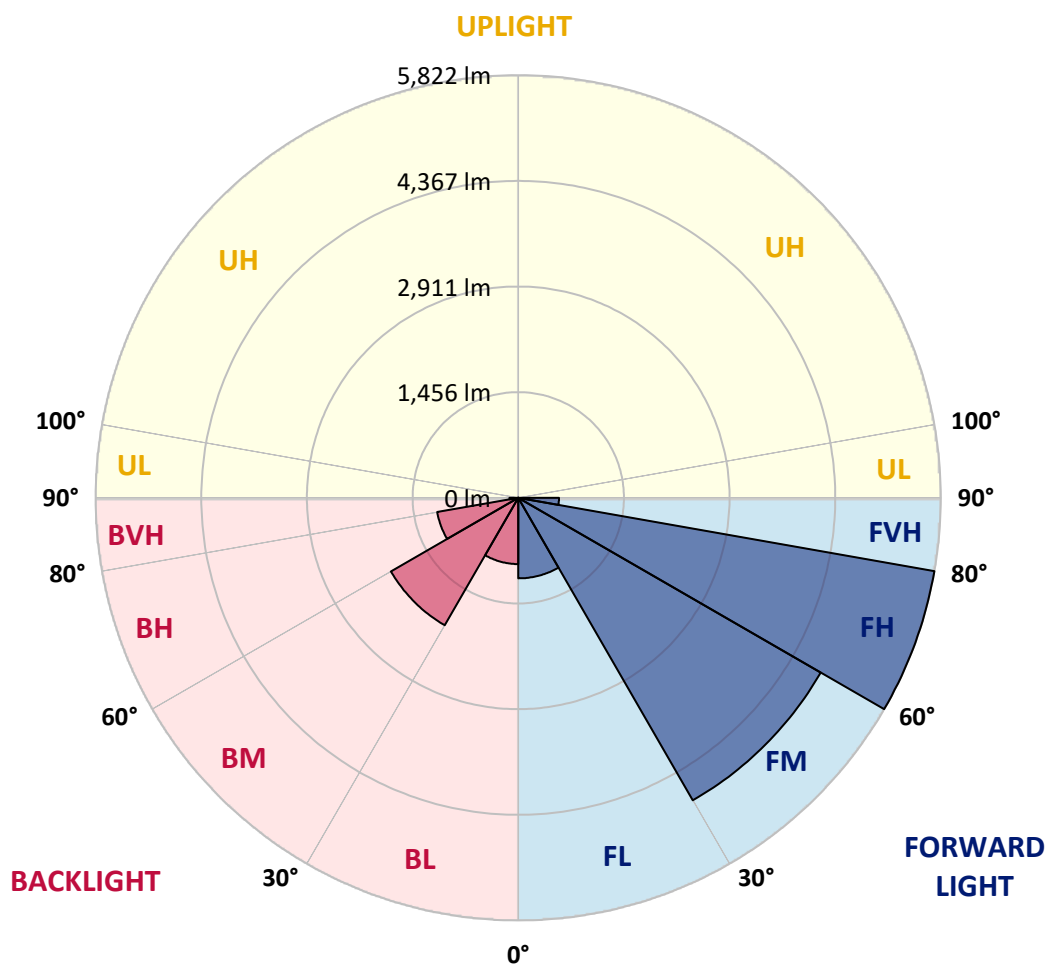
CATALOG NUMBER: NAV-SB4A-830-U-SLL

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1109.7	6.7			
FM	(30°-60°)	4812.2	29.2			
FH	(60°-80°)	5822.4	35.3			G3/7500
FVH	(80°-90°)	561.1	3.4			G4/750
BL	(0°-30°)	913.1	5.5	B2/1000		
BM	(30°-60°)	2026.3	12.3	B2/2500		
BH	(60°-80°)	1133.6	6.9	B3/2500		G3/2500
BVH	(80°-90°)	120.0	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-G4

Type IV Short



REPORT NUMBER: P965772

CATALOG NUMBER: NAV-SB4A-830-U-SLL

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2268.6	2268.6	2268.6	2268.6	2268.6	2268.6	2268.6	2268.6	2268.6	2268.6	2268.6
2.5°	2439.7	2448.9	2458.3	2471.4	2484.6	2492.4	2500.3	2504.2	2508.1	2506.3	2508.1
5°	2623.4	2655.7	2688.1	2720.1	2752.2	2769.7	2787.1	2797.6	2808.2	2816.3	2808.2
7.5°	2808.0	2860.6	2913.0	2960.3	3007.6	3036.0	3064.5	3079.9	3095.3	3102.7	3095.3
10°	2949.4	3011.7	3073.8	3129.2	3184.7	3218.3	3251.7	3266.7	3281.5	3287.2	3281.5
12.5°	3036.0	3103.5	3170.7	3220.9	3270.9	3295.3	3319.6	3327.8	3336.0	3336.9	3336.0
15°	3088.7	3146.9	3205.0	3236.3	3267.9	3268.7	3269.6	3260.9	3252.2	3242.0	3252.2
17.5°	3118.4	3157.6	3196.9	3197.5	3198.0	3162.7	3127.5	3095.2	3062.8	3039.9	3062.8
20°	3151.0	3164.7	3178.4	3137.0	3095.7	3017.9	2940.0	2883.3	2826.7	2791.9	2826.7
22.5°	3188.9	3170.9	3153.0	3067.3	2981.6	2867.1	2752.7	2681.8	2611.0	2572.5	2611.0
25°	3237.6	3181.0	3124.4	2994.3	2864.3	2725.3	2586.3	2511.8	2437.3	2401.0	2437.3
27.5°	3303.8	3202.6	3101.3	2929.0	2756.8	2602.8	2448.7	2375.4	2302.1	2267.8	2302.1
30°	3393.0	3242.2	3091.3	2879.3	2667.3	2506.6	2346.1	2278.2	2210.2	2178.1	2210.2
32.5°	3498.3	3291.8	3085.2	2845.3	2605.4	2454.6	2303.7	2250.3	2196.9	2173.8	2196.9
35°	3626.3	3373.5	3120.8	2870.7	2620.8	2516.0	2411.3	2398.8	2386.4	2384.5	2386.4
37.5°	3841.8	3544.3	3247.0	3019.8	2792.6	2785.7	2779.0	2836.0	2892.9	2922.5	2892.9
40°	4167.3	3844.0	3520.6	3351.5	3182.6	3301.8	3421.1	3559.5	3698.0	3766.9	3698.0
42.5°	4599.2	4278.2	3957.4	3860.0	3762.7	4022.8	4283.0	4534.7	4786.5	4934.3	4786.5
45°	5132.4	4844.2	4555.8	4512.9	4469.9	4886.6	5303.5	5717.1	6130.9	6382.1	6130.9
47.5°	5799.2	5518.8	5238.4	5229.7	5220.9	5822.1	6423.2	7028.8	7634.3	7990.0	7634.3
50°	6673.3	6326.8	5980.6	5982.0	5983.5	6758.3	7533.1	8332.5	9131.9	9615.3	9131.9
52.5°	7676.5	7257.1	6837.8	6795.4	6752.9	7678.4	8603.8	9593.0	10582.1	11161.4	10582.1
55°	8744.8	8330.4	7916.0	7750.6	7585.3	8615.4	9645.4	10824.5	12003.7	12692.7	12003.7
57.5°	9716.3	9490.7	9264.9	8933.3	8601.8	9641.9	10681.9	12017.5	13353.1	14207.5	13353.1
60°	10303.5	10654.0	11004.5	10592.8	10181.0	11165.2	12149.5	13579.5	15009.5	15932.9	15009.5
62.5°	10005.3	10963.0	11920.7	11874.3	11827.8	12729.5	13631.2	14991.6	16352.1	17205.6	16352.1
65°	9408.6	10307.4	11206.2	11384.1	11561.9	12707.7	13853.6	15172.9	16492.0	17218.8	16492.0
67.5°	8609.0	9463.8	10318.7	10402.1	10485.4	11679.3	12873.1	14198.0	15522.9	16092.3	15522.9
70°	7648.2	8578.1	9508.0	9545.3	9582.6	10650.3	11717.9	12858.0	13998.1	14314.5	13998.1
72.5°	6503.5	7570.5	8637.7	8664.5	8691.2	9526.6	10361.8	11215.8	12069.6	12101.7	12069.6
75°	5055.3	6159.7	7264.1	7363.3	7462.4	8112.3	8762.1	9363.3	9964.4	9803.3	9964.4
77.5°	3611.9	4642.8	5673.9	5815.7	5957.6	6451.7	6945.7	7372.0	7798.4	7521.7	7798.4
80°	2364.0	3231.3	4098.6	4275.0	4451.4	4824.5	5197.4	5421.3	5645.1	5199.8	5645.1
82.5°	1374.2	1967.1	2560.1	2757.1	2954.3	3211.0	3467.9	3561.3	3654.6	3304.6	3654.6
85°	604.6	919.3	1234.0	1401.6	1569.2	1780.2	1991.2	2044.2	2097.1	1816.8	2097.1
87.5°	187.2	292.9	398.7	492.2	585.7	691.3	796.7	801.2	805.6	676.4	805.6
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: P965772

CATALOG NUMBER: NAV-SB4A-830-U-SLL

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	2268.6	2268.6	2268.6	2268.6	2268.6	2268.6	2268.6	2268.6	2268.6	2268.6	2268.6
2.5°	2504.2	2500.3	2492.4	2484.6	2471.4	2458.3	2448.9	2439.7	2421.0	2402.3	2382.4
5°	2797.6	2787.1	2769.7	2752.2	2720.1	2688.1	2655.7	2623.4	2582.1	2540.8	2499.5
7.5°	3079.9	3064.5	3036.0	3007.6	2960.3	2913.0	2860.6	2808.0	2739.7	2671.6	2608.5
10°	3266.7	3251.7	3218.3	3184.7	3129.2	3073.8	3011.7	2949.4	2863.1	2776.9	2693.6
12.5°	3327.8	3319.6	3295.3	3270.9	3220.9	3170.7	3103.5	3036.0	2941.2	2846.5	2752.2
15°	3260.9	3269.6	3268.7	3267.9	3236.3	3205.0	3146.9	3088.7	2989.9	2891.1	2788.7
17.5°	3095.2	3127.5	3162.7	3198.0	3197.5	3196.9	3157.6	3118.4	3018.1	2918.0	2806.2
20°	2883.3	2940.0	3017.9	3095.7	3137.0	3178.4	3164.7	3151.0	3046.8	2942.7	2819.9
22.5°	2681.8	2752.7	2867.1	2981.6	3067.3	3153.0	3170.9	3188.9	3082.5	2976.0	2838.3
25°	2511.8	2586.3	2725.3	2864.3	2994.3	3124.4	3181.0	3237.6	3133.3	3029.1	2871.8
27.5°	2375.4	2448.7	2602.8	2756.8	2929.0	3101.3	3202.6	3303.8	3204.4	3104.8	2924.0
30°	2278.2	2346.1	2506.6	2667.3	2879.3	3091.3	3242.2	3393.0	3296.9	3200.9	2991.7
32.5°	2250.3	2303.7	2454.6	2605.4	2845.3	3085.2	3291.8	3498.3	3403.2	3308.1	3062.3
35°	2398.8	2411.3	2516.0	2620.8	2870.7	3120.8	3373.5	3626.3	3535.2	3444.1	3142.8
37.5°	2836.0	2779.0	2785.7	2792.6	3019.8	3247.0	3544.3	3841.8	3725.7	3609.5	3232.8
40°	3559.5	3421.1	3301.8	3182.6	3351.5	3520.6	3844.0	4167.3	3998.1	3828.9	3347.2
42.5°	4534.7	4283.0	4022.8	3762.7	3860.0	3957.4	4278.2	4599.2	4354.9	4110.6	3496.9
45°	5717.1	5303.5	4886.6	4469.9	4512.9	4555.8	4844.2	5132.4	4802.8	4473.4	3693.8
47.5°	7028.8	6423.2	5822.1	5220.9	5229.7	5238.4	5518.8	5799.2	5335.4	4871.6	3903.6
50°	8332.5	7533.1	6758.3	5983.5	5982.0	5980.6	6326.8	6673.3	5974.1	5274.9	4098.3
52.5°	9593.0	8603.8	7678.4	6752.9	6795.4	6837.8	7257.1	7676.5	6645.0	5613.3	4224.6
55°	10824.5	9645.4	8615.4	7585.3	7750.6	7916.0	8330.4	8744.8	7239.7	5734.8	4196.8
57.5°	12017.5	10681.9	9641.9	8601.8	8933.3	9264.9	9490.7	9716.3	7661.3	5606.2	4000.8
60°	13579.5	12149.5	11165.2	10181.0	10592.8	11004.5	10654.0	10303.5	7766.6	5229.7	3635.9
62.5°	14991.6	13631.2	12729.5	11827.8	11874.3	11920.7	10963.0	10005.3	7323.0	4640.8	3142.5
65°	15172.9	13853.6	12707.7	11561.9	11384.1	11206.2	10307.4	9408.6	6695.5	3982.3	2639.2
67.5°	14198.0	12873.1	11679.3	10485.4	10402.1	10318.7	9463.8	8609.0	5948.6	3288.3	2146.1
70°	12858.0	11717.9	10650.3	9582.6	9545.3	9508.0	8578.1	7648.2	5133.7	2619.1	1689.7
72.5°	11215.8	10361.8	9526.6	8691.2	8664.5	8637.7	7570.5	6503.5	4250.3	1997.0	1291.8
75°	9363.3	8762.1	8112.3	7462.4	7363.3	7264.1	6159.7	5055.3	3237.6	1419.7	937.6
77.5°	7372.0	6945.7	6451.7	5957.6	5815.7	5673.9	4642.8	3611.9	2266.0	920.0	635.3
80°	5421.3	5197.4	4824.5	4451.4	4275.0	4098.6	3231.3	2364.0	1459.9	555.9	409.4
82.5°	3561.3	3467.9	3211.0	2954.3	2757.1	2560.1	1967.1	1374.2	845.0	315.8	251.7
85°	2044.2	1991.2	1780.2	1569.2	1401.6	1234.0	919.3	604.6	380.1	155.7	134.6
87.5°	801.2	796.7	691.3	585.7	492.2	398.7	292.9	187.2	124.5	61.8	55.8
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: P965772

CATALOG NUMBER: NAV-SB4A-830-U-SLL

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	2268.6	2268.6	2268.6	2268.6	2268.6	2268.6	2268.6	2268.6	2268.6	2268.6	2268.6
2.5°	2362.5	2342.5	2322.4	2303.3	2284.2	2265.7	2245.0	2228.2	2211.6	2196.6	2181.6
5°	2458.3	2416.7	2375.3	2336.6	2297.8	2261.3	2225.2	2193.6	2162.0	2135.6	2109.1
7.5°	2545.5	2484.1	2422.8	2368.7	2314.7	2264.7	2218.0	2176.1	2134.2	2099.3	2064.6
10°	2610.4	2535.8	2461.2	2397.4	2333.3	2271.7	2221.5	2177.3	2133.0	2098.2	2063.4
12.5°	2657.8	2569.9	2481.9	2409.6	2337.3	2272.6	2225.9	2189.6	2153.6	2130.5	2107.4
15°	2686.3	2585.2	2483.9	2400.1	2316.4	2244.8	2207.3	2190.0	2172.7	2175.9	2179.0
17.5°	2694.5	2577.1	2459.5	2358.7	2258.1	2173.8	2150.8	2157.1	2163.4	2201.3	2239.2
20°	2697.2	2554.7	2412.3	2287.5	2162.6	2064.6	2058.4	2088.0	2117.6	2183.6	2249.6
22.5°	2700.7	2527.4	2354.1	2203.9	2053.5	1941.8	1953.8	1997.5	2041.3	2116.5	2191.9
25°	2714.4	2500.4	2286.5	2110.4	1934.4	1819.9	1852.1	1902.6	1953.1	2020.8	2088.4
27.5°	2743.1	2482.3	2221.7	2025.0	1828.4	1724.2	1763.3	1812.1	1860.8	1916.4	1972.0
30°	2782.5	2473.9	2165.2	1953.6	1742.0	1654.5	1685.2	1723.8	1762.7	1808.8	1854.9
32.5°	2816.4	2463.5	2110.4	1892.0	1673.6	1603.1	1616.8	1639.7	1662.6	1699.4	1736.4
35°	2841.3	2443.8	2046.5	1831.6	1616.6	1557.9	1552.2	1558.5	1564.9	1593.0	1620.9
37.5°	2856.2	2410.2	1964.1	1760.3	1556.6	1505.2	1484.5	1477.5	1470.6	1490.8	1510.8
40°	2865.5	2363.8	1862.1	1675.4	1488.6	1442.1	1410.3	1394.5	1378.8	1393.3	1407.8
42.5°	2883.1	2315.9	1748.8	1581.7	1414.5	1371.6	1331.5	1310.7	1289.8	1301.5	1313.5
45°	2914.2	2271.4	1628.6	1482.0	1335.5	1291.9	1253.2	1232.8	1212.5	1222.4	1232.6
47.5°	2935.5	2234.6	1533.7	1403.2	1272.7	1216.6	1183.3	1166.2	1149.1	1158.6	1167.9
50°	2921.6	2194.6	1467.6	1350.9	1234.3	1160.4	1121.8	1106.6	1091.5	1106.2	1120.8
52.5°	2835.9	2127.0	1418.1	1316.4	1214.8	1130.0	1075.8	1060.9	1046.0	1068.0	1090.0
55°	2658.6	2014.8	1370.9	1291.5	1212.0	1133.0	1051.4	1027.8	1004.2	1035.5	1066.6
57.5°	2395.3	1856.7	1318.0	1261.9	1205.7	1136.1	1036.8	1002.3	967.9	1001.5	1035.0
60°	2042.1	1651.5	1260.8	1216.6	1172.5	1126.5	1023.1	978.5	933.7	963.2	992.6
62.5°	1644.3	1405.8	1167.3	1138.0	1108.6	1103.0	1007.1	951.2	895.3	914.1	932.9
65°	1296.1	1184.7	1073.4	1059.5	1045.7	1046.4	973.2	913.9	854.4	861.7	868.8
67.5°	1003.9	972.3	940.6	948.4	956.0	954.2	913.1	863.6	814.2	811.9	809.6
70°	760.4	769.5	778.5	814.4	850.1	850.1	836.6	801.4	766.3	758.4	750.6
72.5°	586.6	613.9	641.1	692.0	742.7	751.3	751.4	727.3	703.3	691.8	680.3
75°	455.5	480.2	504.9	561.9	618.8	658.2	654.9	636.3	617.7	606.7	595.6
77.5°	350.7	367.5	384.4	439.6	494.9	559.8	558.0	543.1	528.3	517.1	505.9
80°	262.9	269.9	276.9	323.7	370.4	447.9	447.6	435.2	422.6	413.4	404.0
82.5°	187.9	189.1	190.4	225.0	259.4	325.5	329.2	323.2	317.0	310.5	303.8
85°	113.6	113.0	112.3	137.6	162.8	212.0	216.8	210.2	203.7	196.3	188.9
87.5°	49.8	49.2	48.6	58.8	69.2	89.7	95.7	93.2	90.5	89.2	87.7
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: P965772

CATALOG NUMBER: NAV-SB4A-830-U-SLL

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	2268.6	2268.6	2268.6	2268.6	2268.6	2268.6	2268.6	2268.6	2268.6	2268.6	2268.6
2.5°	2168.5	2155.4	2142.0	2128.9	2118.8	2108.5	2100.2	2091.9	2085.5	2079.1	2073.2
5°	2085.9	2062.5	2041.4	2020.2	2003.9	1987.5	1976.1	1964.7	1956.6	1948.5	1942.3
7.5°	2035.1	2005.7	1979.8	1954.0	1934.6	1915.2	1901.7	1888.0	1878.7	1869.5	1864.0
10°	2031.8	2000.1	1971.0	1941.8	1918.6	1895.3	1880.3	1864.9	1856.1	1847.4	1842.6
12.5°	2082.6	2057.8	2027.7	1997.5	1967.9	1938.3	1918.7	1899.1	1889.3	1879.5	1875.5
15°	2172.6	2166.1	2139.9	2113.8	2071.6	2029.4	1999.7	1969.9	1956.2	1942.7	1937.5
17.5°	2259.4	2279.6	2258.4	2237.4	2181.5	2125.7	2081.9	2038.0	2017.8	1997.5	1990.9
20°	2291.7	2333.9	2324.2	2314.3	2250.6	2186.8	2133.0	2079.3	2053.5	2027.6	2019.2
22.5°	2246.8	2301.7	2307.7	2313.5	2252.5	2191.7	2136.3	2080.9	2053.6	2026.2	2017.1
25°	2142.6	2196.6	2216.8	2236.9	2186.9	2137.0	2087.7	2038.6	2014.9	1991.4	1982.8
27.5°	2015.4	2058.7	2081.2	2103.7	2068.1	2032.6	1994.3	1956.1	1940.3	1924.3	1920.4
30°	1890.9	1927.0	1945.2	1963.6	1936.4	1909.3	1882.0	1854.4	1846.3	1838.1	1838.1
32.5°	1770.8	1805.3	1825.6	1846.0	1821.1	1796.1	1774.3	1752.4	1747.1	1741.8	1742.5
35°	1655.1	1689.3	1713.7	1738.1	1720.3	1702.6	1682.4	1662.3	1654.2	1646.3	1644.5
37.5°	1544.9	1579.0	1609.1	1639.3	1631.1	1622.9	1604.3	1585.7	1571.0	1556.4	1548.7
40°	1440.7	1473.6	1508.3	1543.0	1545.1	1546.9	1531.2	1515.5	1494.0	1472.8	1458.4
42.5°	1344.7	1376.0	1413.4	1450.8	1460.8	1470.8	1457.4	1444.2	1417.7	1391.1	1370.2
45°	1262.2	1291.7	1330.6	1369.4	1383.7	1398.1	1386.1	1374.2	1343.8	1313.5	1288.8
47.5°	1196.9	1225.7	1264.0	1302.4	1318.9	1335.5	1327.1	1318.8	1291.7	1264.7	1241.9
50°	1148.2	1175.5	1209.7	1244.0	1265.3	1286.5	1286.0	1285.7	1264.0	1242.5	1221.4
52.5°	1115.0	1140.0	1172.0	1204.0	1229.2	1254.3	1258.8	1263.3	1245.8	1228.2	1209.3
55°	1093.6	1120.5	1148.6	1176.6	1203.2	1229.9	1236.1	1242.5	1227.1	1211.9	1195.3
57.5°	1066.8	1098.5	1126.2	1153.9	1180.8	1207.7	1214.0	1220.4	1204.9	1189.3	1173.0
60°	1029.0	1065.4	1093.5	1121.8	1148.7	1175.7	1182.6	1189.6	1174.4	1159.4	1142.6
62.5°	975.2	1017.7	1047.8	1077.8	1102.5	1127.2	1133.9	1140.6	1127.0	1113.3	1095.5
65°	914.3	959.8	988.5	1017.2	1039.0	1060.8	1067.6	1074.4	1061.3	1048.2	1030.9
67.5°	851.6	893.6	920.9	948.0	966.9	985.6	992.3	999.0	986.9	974.9	958.8
70°	787.5	824.4	847.9	871.5	888.4	905.4	911.8	918.3	908.5	898.6	883.2
72.5°	709.4	738.4	759.6	780.8	797.6	814.2	821.8	829.4	821.3	813.1	798.5
75°	617.3	638.8	658.0	677.3	692.5	707.6	715.6	723.6	719.7	715.6	703.4
77.5°	523.6	541.1	557.6	574.1	590.1	605.9	613.4	620.8	615.3	609.6	597.2
80°	418.6	433.1	447.0	460.9	473.0	485.0	495.0	504.9	502.5	500.1	483.5
82.5°	302.6	301.3	296.5	291.6	317.4	343.2	360.1	377.0	375.9	374.7	360.8
85°	182.7	176.3	162.8	149.3	173.4	197.6	218.5	239.4	237.7	236.0	225.0
87.5°	87.5	87.2	77.0	66.6	76.7	86.9	95.3	103.7	101.7	99.4	93.9
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: P965772

CATALOG NUMBER: NAV-SB4A-830-U-SLL

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	2268.6	2268.6	2268.6	2268.6	2268.6	2268.6	2268.6	2268.6	2268.6	2268.6	2268.6
2.5°	2067.1	2059.7	2067.1	2073.2	2079.1	2085.5	2091.9	2100.2	2108.5	2118.8	2128.9
5°	1936.1	1930.1	1936.1	1942.3	1948.5	1956.6	1964.7	1976.1	1987.5	2003.9	2020.2
7.5°	1858.4	1854.3	1858.4	1864.0	1869.5	1878.7	1888.0	1901.7	1915.2	1934.6	1954.0
10°	1837.9	1836.0	1837.9	1842.6	1847.4	1856.1	1864.9	1880.3	1895.3	1918.6	1941.8
12.5°	1871.5	1870.8	1871.5	1875.5	1879.5	1889.3	1899.1	1918.7	1938.3	1967.9	1997.5
15°	1932.2	1931.8	1932.2	1937.5	1942.7	1956.2	1969.9	1999.7	2029.4	2071.6	2113.8
17.5°	1984.2	1983.2	1984.2	1990.9	1997.5	2017.8	2038.0	2081.9	2125.7	2181.5	2237.4
20°	2010.9	2008.4	2010.9	2019.2	2027.6	2053.5	2079.3	2133.0	2186.8	2250.6	2314.3
22.5°	2008.0	2004.0	2008.0	2017.1	2026.2	2053.6	2080.9	2136.3	2191.7	2252.5	2313.5
25°	1974.3	1969.2	1974.3	1982.8	1991.4	2014.9	2038.6	2087.7	2137.0	2186.9	2236.9
27.5°	1916.5	1915.2	1916.5	1920.4	1924.3	1940.3	1956.1	1994.3	2032.6	2068.1	2103.7
30°	1838.1	1839.5	1838.1	1838.1	1838.1	1846.3	1854.4	1882.0	1909.3	1936.4	1963.6
32.5°	1743.3	1744.6	1743.3	1742.5	1741.8	1747.1	1752.4	1774.3	1796.1	1821.1	1846.0
35°	1642.8	1641.8	1642.8	1644.5	1646.3	1654.2	1662.3	1682.4	1702.6	1720.3	1738.1
37.5°	1540.9	1536.6	1540.9	1548.7	1556.4	1571.0	1585.7	1604.3	1622.9	1631.1	1639.3
40°	1444.1	1435.5	1444.1	1458.4	1472.8	1494.0	1515.5	1531.2	1546.9	1545.1	1543.0
42.5°	1349.2	1335.5	1349.2	1370.2	1391.1	1417.7	1444.2	1457.4	1470.8	1460.8	1450.8
45°	1264.2	1248.3	1264.2	1288.8	1313.5	1343.8	1374.2	1386.1	1398.1	1383.7	1369.4
47.5°	1219.2	1204.0	1219.2	1241.9	1264.7	1291.7	1318.8	1327.1	1335.5	1318.9	1302.4
50°	1200.3	1185.7	1200.3	1221.4	1242.5	1264.0	1285.7	1286.0	1286.5	1265.3	1244.0
52.5°	1190.5	1177.0	1190.5	1209.3	1228.2	1245.8	1263.3	1258.8	1254.3	1229.2	1204.0
55°	1178.8	1166.6	1178.8	1195.3	1211.9	1227.1	1242.5	1236.1	1229.9	1203.2	1176.6
57.5°	1156.5	1143.9	1156.5	1173.0	1189.3	1204.9	1220.4	1214.0	1207.7	1180.8	1153.9
60°	1125.7	1112.5	1125.7	1142.6	1159.4	1174.4	1189.6	1182.6	1175.7	1148.7	1121.8
62.5°	1077.8	1062.1	1077.8	1095.5	1113.3	1127.0	1140.6	1133.9	1127.2	1102.5	1077.8
65°	1013.7	1000.3	1013.7	1030.9	1048.2	1061.3	1074.4	1067.6	1060.8	1039.0	1017.2
67.5°	942.8	930.6	942.8	958.8	974.9	986.9	999.0	992.3	985.6	966.9	948.0
70°	868.0	854.0	868.0	883.2	898.6	908.5	918.3	911.8	905.4	888.4	871.5
72.5°	783.9	770.5	783.9	798.5	813.1	821.3	829.4	821.8	814.2	797.6	780.8
75°	691.1	678.1	691.1	703.4	715.6	719.7	723.6	715.6	707.6	692.5	677.3
77.5°	584.9	574.6	584.9	597.2	609.6	615.3	620.8	613.4	605.9	590.1	574.1
80°	466.8	447.5	466.8	483.5	500.1	502.5	504.9	495.0	485.0	473.0	460.9
82.5°	346.7	334.3	346.7	360.8	374.7	375.9	377.0	360.1	343.2	317.4	291.6
85°	214.0	202.8	214.0	225.0	236.0	237.7	239.4	218.5	197.6	173.4	149.3
87.5°	88.1	82.7	88.1	93.9	99.4	101.7	103.7	95.3	86.9	76.7	66.6
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: P965772

CATALOG NUMBER: NAV-SB4A-830-U-SLL

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	2268.6	2268.6	2268.6	2268.6	2268.6	2268.6	2268.6	2268.6	2268.6	2268.6	2268.6
2.5°	2142.0	2155.4	2168.5	2181.6	2196.6	2211.6	2228.2	2245.0	2265.7	2284.2	2303.3
5°	2041.4	2062.5	2085.9	2109.1	2135.6	2162.0	2193.6	2225.2	2261.3	2297.8	2336.6
7.5°	1979.8	2005.7	2035.1	2064.6	2099.3	2134.2	2176.1	2218.0	2264.7	2314.7	2368.7
10°	1971.0	2000.1	2031.8	2063.4	2098.2	2133.0	2177.3	2221.5	2271.7	2333.3	2397.4
12.5°	2027.7	2057.8	2082.6	2107.4	2130.5	2153.6	2189.6	2225.9	2272.6	2337.3	2409.6
15°	2139.9	2166.1	2172.6	2179.0	2175.9	2172.7	2190.0	2207.3	2244.8	2316.4	2400.1
17.5°	2258.4	2279.6	2259.4	2239.2	2201.3	2163.4	2157.1	2150.8	2173.8	2258.1	2358.7
20°	2324.2	2333.9	2291.7	2249.6	2183.6	2117.6	2088.0	2058.4	2064.6	2162.6	2287.5
22.5°	2307.7	2301.7	2246.8	2191.9	2116.5	2041.3	1997.5	1953.8	1941.8	2053.5	2203.9
25°	2216.8	2196.6	2142.6	2088.4	2020.8	1953.1	1902.6	1852.1	1819.9	1934.4	2110.4
27.5°	2081.2	2058.7	2015.4	1972.0	1916.4	1860.8	1812.1	1763.3	1724.2	1828.4	2025.0
30°	1945.2	1927.0	1890.9	1854.9	1808.8	1762.7	1723.8	1685.2	1654.5	1742.0	1953.6
32.5°	1825.6	1805.3	1770.8	1736.4	1699.4	1662.6	1639.7	1616.8	1603.1	1673.6	1892.0
35°	1713.7	1689.3	1655.1	1620.9	1593.0	1564.9	1558.5	1552.2	1557.9	1616.6	1831.6
37.5°	1609.1	1579.0	1544.9	1510.8	1490.8	1470.6	1477.5	1484.5	1505.2	1556.6	1760.3
40°	1508.3	1473.6	1440.7	1407.8	1393.3	1378.8	1394.5	1410.3	1442.1	1488.6	1675.4
42.5°	1413.4	1376.0	1344.7	1313.5	1301.5	1289.8	1310.7	1331.5	1371.6	1414.5	1581.7
45°	1330.6	1291.7	1262.2	1232.6	1222.4	1212.5	1232.8	1253.2	1291.9	1335.5	1482.0
47.5°	1264.0	1225.7	1196.9	1167.9	1158.6	1149.1	1166.2	1183.3	1216.6	1272.7	1403.2
50°	1209.7	1175.5	1148.2	1120.8	1106.2	1091.5	1106.6	1121.8	1160.4	1234.3	1350.9
52.5°	1172.0	1140.0	1115.0	1090.0	1068.0	1046.0	1060.9	1075.8	1130.0	1214.8	1316.4
55°	1148.6	1120.5	1093.6	1066.6	1035.5	1004.2	1027.8	1051.4	1133.0	1212.0	1291.5
57.5°	1126.2	1098.5	1066.8	1035.0	1001.5	967.9	1002.3	1036.8	1136.1	1205.7	1261.9
60°	1093.5	1065.4	1029.0	992.6	963.2	933.7	978.5	1023.1	1126.5	1172.5	1216.6
62.5°	1047.8	1017.7	975.2	932.9	914.1	895.3	951.2	1007.1	1103.0	1108.6	1138.0
65°	988.5	959.8	914.3	868.8	861.7	854.4	913.9	973.2	1046.4	1045.7	1059.5
67.5°	920.9	893.6	851.6	809.6	811.9	814.2	863.6	913.1	954.2	956.0	948.4
70°	847.9	824.4	787.5	750.6	758.4	766.3	801.4	836.6	850.1	850.1	814.4
72.5°	759.6	738.4	709.4	680.3	691.8	703.3	727.3	751.4	751.3	742.7	692.0
75°	658.0	638.8	617.3	595.6	606.7	617.7	636.3	654.9	658.2	618.8	561.9
77.5°	557.6	541.1	523.6	505.9	517.1	528.3	543.1	558.0	559.8	494.9	439.6
80°	447.0	433.1	418.6	404.0	413.4	422.6	435.2	447.6	447.9	370.4	323.7
82.5°	296.5	301.3	302.6	303.8	310.5	317.0	323.2	329.2	325.5	259.4	225.0
85°	162.8	176.3	182.7	188.9	196.3	203.7	210.2	216.8	212.0	162.8	137.6
87.5°	77.0	87.2	87.5	87.7	89.2	90.5	93.2	95.7	89.7	69.2	58.8
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: P965772

CATALOG NUMBER: NAV-SB4A-830-U-SLL

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
0°	2268.6	2268.6	2268.6	2268.6	2268.6	2268.6	2268.6
2.5°	2322.4	2342.5	2362.5	2382.4	2402.3	2421.0	2439.7
5°	2375.3	2416.7	2458.3	2499.5	2540.8	2582.1	2623.4
7.5°	2422.8	2484.1	2545.5	2608.5	2671.6	2739.7	2808.0
10°	2461.2	2535.8	2610.4	2693.6	2776.9	2863.1	2949.4
12.5°	2481.9	2569.9	2657.8	2752.2	2846.5	2941.2	3036.0
15°	2483.9	2585.2	2686.3	2788.7	2891.1	2989.9	3088.7
17.5°	2459.5	2577.1	2694.5	2806.2	2918.0	3018.1	3118.4
20°	2412.3	2554.7	2697.2	2819.9	2942.7	3046.8	3151.0
22.5°	2354.1	2527.4	2700.7	2838.3	2976.0	3082.5	3188.9
25°	2286.5	2500.4	2714.4	2871.8	3029.1	3133.3	3237.6
27.5°	2221.7	2482.3	2743.1	2924.0	3104.8	3204.4	3303.8
30°	2165.2	2473.9	2782.5	2991.7	3200.9	3296.9	3393.0
32.5°	2110.4	2463.5	2816.4	3062.3	3308.1	3403.2	3498.3
35°	2046.5	2443.8	2841.3	3142.8	3444.1	3535.2	3626.3
37.5°	1964.1	2410.2	2856.2	3232.8	3609.5	3725.7	3841.8
40°	1862.1	2363.8	2865.5	3347.2	3828.9	3998.1	4167.3
42.5°	1748.8	2315.9	2883.1	3496.9	4110.6	4354.9	4599.2
45°	1628.6	2271.4	2914.2	3693.8	4473.4	4802.8	5132.4
47.5°	1533.7	2234.6	2935.5	3903.6	4871.6	5335.4	5799.2
50°	1467.6	2194.6	2921.6	4098.3	5274.9	5974.1	6673.3
52.5°	1418.1	2127.0	2835.9	4224.6	5613.3	6645.0	7676.5
55°	1370.9	2014.8	2658.6	4196.8	5734.8	7239.7	8744.8
57.5°	1318.0	1856.7	2395.3	4000.8	5606.2	7661.3	9716.3
60°	1260.8	1651.5	2042.1	3635.9	5229.7	7766.6	10303.5
62.5°	1167.3	1405.8	1644.3	3142.5	4640.8	7323.0	10005.3
65°	1073.4	1184.7	1296.1	2639.2	3982.3	6695.5	9408.6
67.5°	940.6	972.3	1003.9	2146.1	3288.3	5948.6	8609.0
70°	778.5	769.5	760.4	1689.7	2619.1	5133.7	7648.2
72.5°	641.1	613.9	586.6	1291.8	1997.0	4250.3	6503.5
75°	504.9	480.2	455.5	937.6	1419.7	3237.6	5055.3
77.5°	384.4	367.5	350.7	635.3	920.0	2266.0	3611.9
80°	276.9	269.9	262.9	409.4	555.9	1459.9	2364.0
82.5°	190.4	189.1	187.9	251.7	315.8	845.0	1374.2
85°	112.3	113.0	113.6	134.6	155.7	380.1	604.6
87.5°	48.6	49.2	49.8	55.8	61.8	124.5	187.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)