

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: P964221

Luminaire Tested: **NAV-SB3B-835-U-SLL-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P964221
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-9)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB3B-835-U-SLL-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 80 CRI, 3500K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND SPILL LIGHT
ELIMINATOR LEFT OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12259 lumens
Efficiency: N/A
Efficacy: 112.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G3

Input Watts (W): 109.2
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

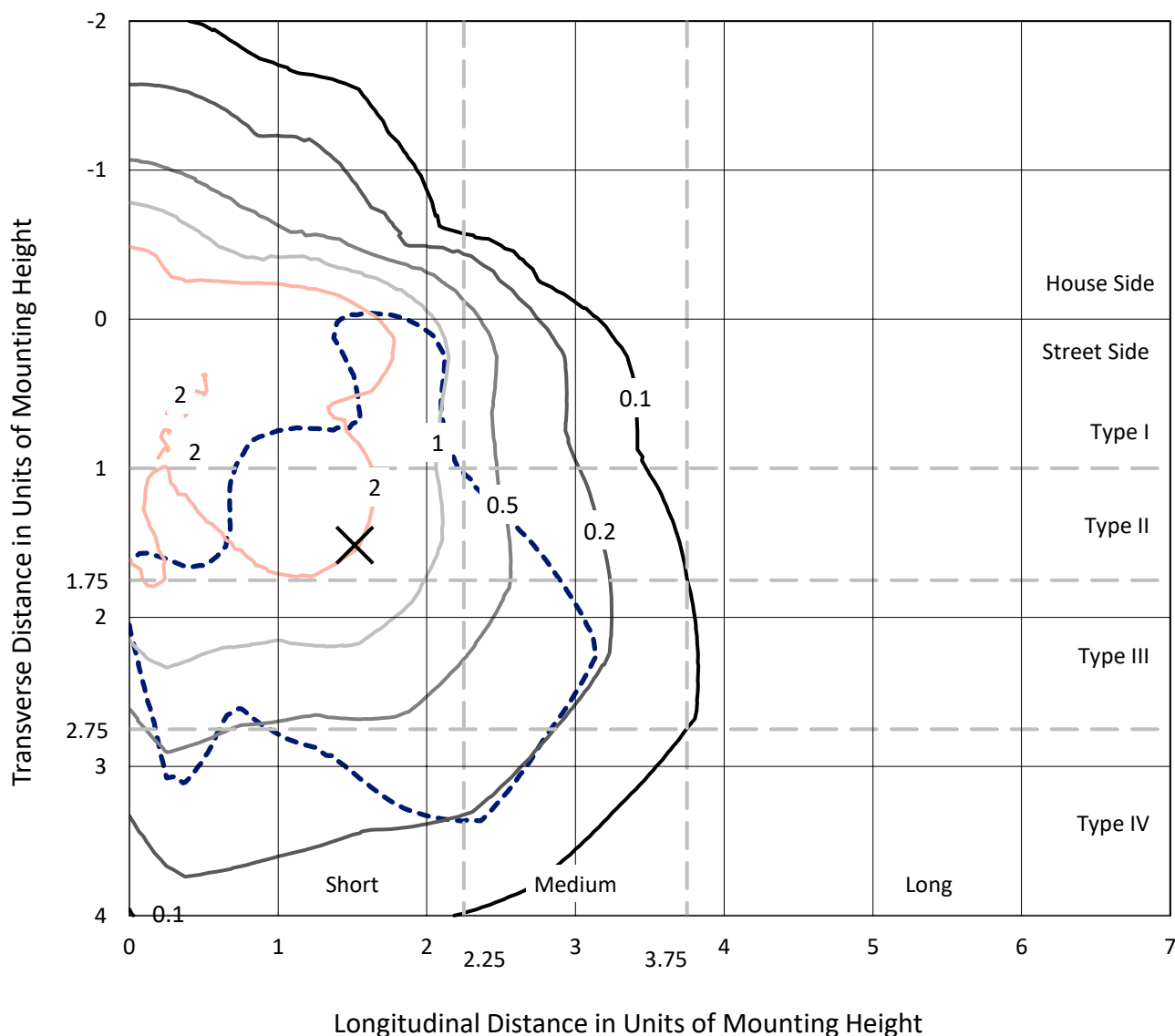


REPORT NUMBER: P964221

CATALOG NUMBER: NAV-SB3B-835-U-SLL-HSS

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
- - - 1/2 Max cd

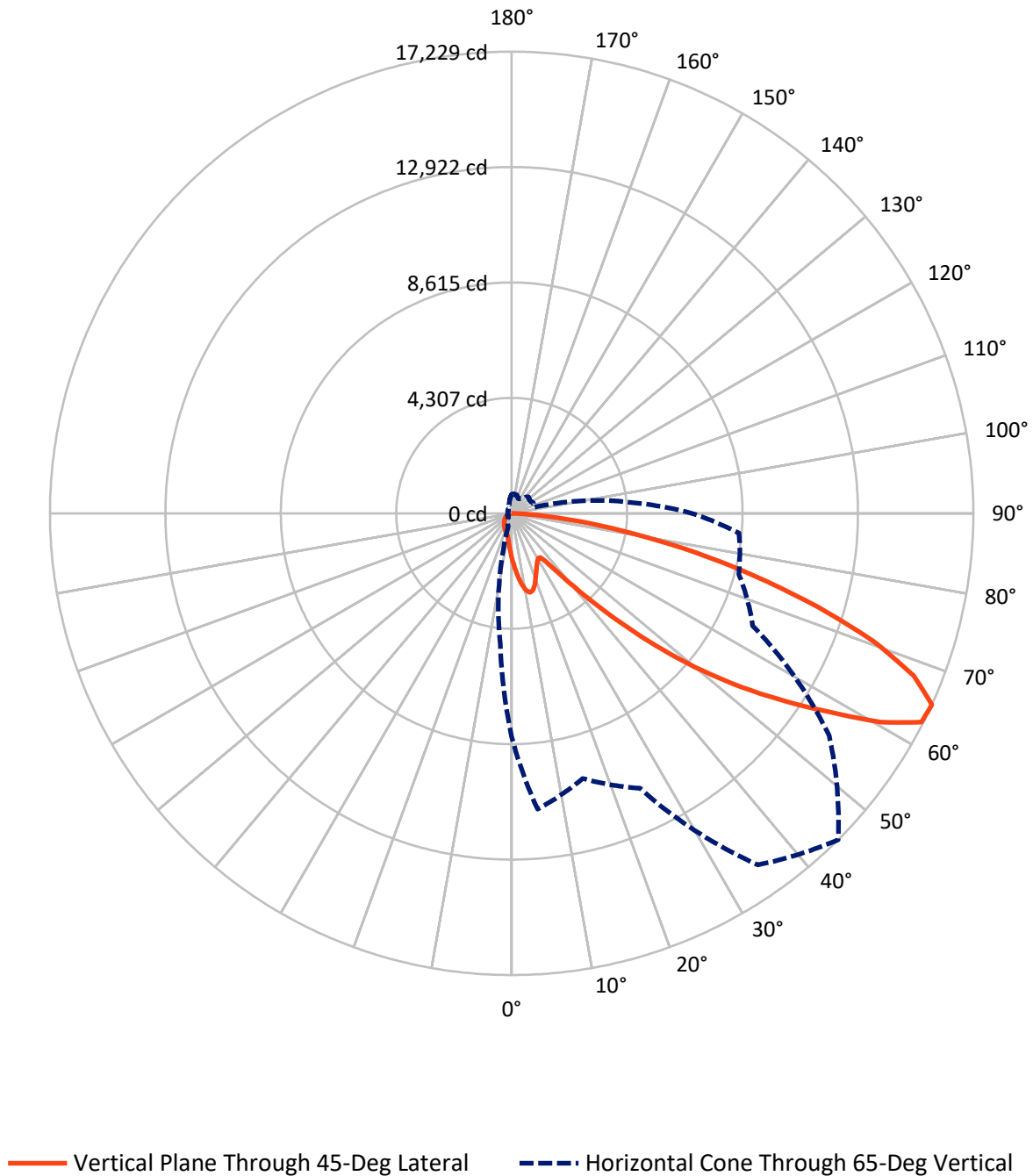


Based on 25 foot mounting height. Maximum calculated value = 4.5 fc

Type IV - Short - N/A

REPORT NUMBER: P964221
CATALOG NUMBER: NAV-SB3B-835-U-SLL-HSS

Luminous Intensity Polar Plot



REPORT NUMBER: P964221

CATALOG NUMBER: NAV-SB3B-835-U-SLL-HSS

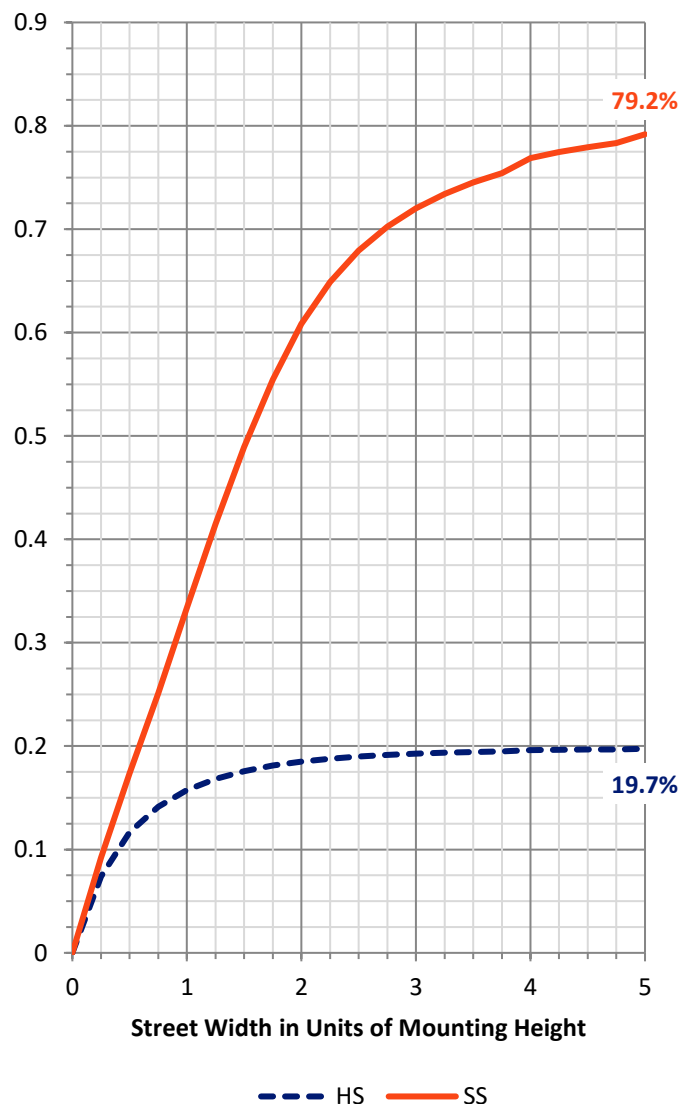
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2436.7	0.0	2436.7
	% Fixture	19.9	0.0	19.9
Street Side	Lumens	9822.3	0.0	9822.3
	% Fixture	80.1	0.0	80.1
Total	Lumens	12259.0	0.0	12259.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	167.1	1.4
10°-20°	501.0	4.1
20°-30°	738.1	6.0
30°-40°	948.2	7.7
40°-50°	1533.5	12.5
50°-60°	2689.2	21.9
60°-70°	3364.9	27.4
70°-80°	1966.3	16.0
80°-90°	350.8	2.9
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°	12259.0	100.0
0°-180°	12259.0	100.0

Coefficient of Utilization



REPORT NUMBER: P964221

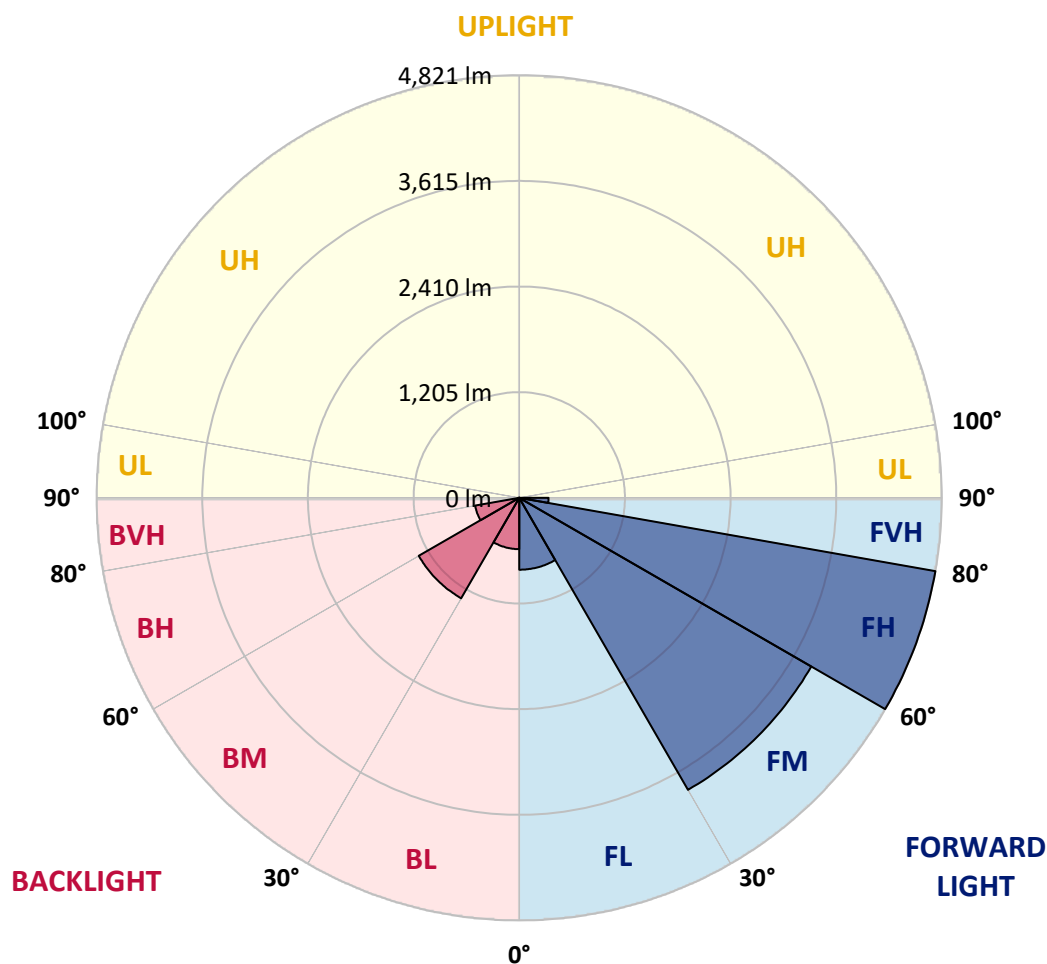
CATALOG NUMBER: NAV-SB3B-835-U-SLL-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	820.3	6.7			
FM	(30°-60°)	3847.0	31.4			
FH	(60°-80°)	4820.6	39.3			G2/5000
FVH	(80°-90°)	334.4	2.7			G3/500
BL	(0°-30°)	585.9	4.8	B2/1000		
BM	(30°-60°)	1323.9	10.8	B2/2500		
BH	(60°-80°)	510.5	4.2	B2/1000		G2/1000
BVH	(80°-90°)	16.4	0.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type IV Short



REPORT NUMBER: P964221

CATALOG NUMBER: NAV-SB3B-835-U-SLL-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	1697.5	1697.5	1697.5	1697.5	1697.5	1697.5	1697.5	1697.5	1697.5	1697.5	1697.5
2.5°	1901.9	1916.2	1948.3	1965.2	1991.4	1993.0	1993.0	1970.3	1969.4	1923.0	1917.9
5°	2125.6	2159.5	2235.4	2313.9	2330.8	2335.1	2326.6	2281.0	2247.2	2156.9	2137.4
7.5°	2347.8	2412.7	2528.5	2633.2	2666.9	2666.9	2646.8	2572.4	2503.2	2372.3	2323.3
10°	2531.9	2613.8	2770.9	2888.2	2927.1	2918.7	2877.3	2783.5	2688.1	2529.3	2465.1
12.5°	2653.5	2745.6	2917.8	3012.4	3052.0	3030.1	2982.9	2891.6	2791.2	2623.9	2551.3
15°	2714.3	2810.5	2960.0	3009.8	2998.8	2976.1	2970.1	2926.3	2850.2	2694.0	2614.7
17.5°	2740.4	2830.0	2933.9	2902.6	2809.7	2792.0	2851.1	2906.8	2888.2	2754.8	2680.5
20°	2764.9	2840.1	2871.3	2732.9	2570.7	2554.7	2667.9	2826.6	2907.7	2811.4	2743.0
22.5°	2798.8	2845.2	2781.0	2553.8	2379.0	2341.8	2466.9	2705.8	2913.6	2883.2	2814.8
25°	2845.2	2857.8	2681.3	2384.0	2208.4	2171.3	2287.8	2571.5	2903.4	2960.9	2902.6
27.5°	2901.0	2874.7	2585.9	2242.2	2072.4	2037.8	2154.3	2442.4	2874.7	3038.6	2997.2
30°	2973.5	2896.6	2491.4	2132.4	1975.3	1950.0	2062.3	2330.8	2839.2	3137.4	3114.6
32.5°	3047.0	2906.0	2403.5	2068.2	1953.3	1962.7	2054.7	2270.9	2800.4	3231.9	3242.9
35°	3126.4	2935.5	2360.5	2131.6	2136.6	2217.7	2255.7	2326.6	2794.5	3360.4	3403.4
37.5°	3234.5	3001.4	2411.9	2446.6	2622.3	2790.3	2759.0	2599.4	2862.9	3552.0	3632.3
40°	3389.9	3117.1	2636.6	2982.9	3343.4	3616.2	3497.1	3095.2	3072.3	3828.2	3948.1
42.5°	3616.2	3301.2	3035.2	3638.1	4249.6	4698.9	4379.6	3734.5	3438.9	4222.6	4375.4
45°	3950.7	3599.3	3517.4	4329.8	5366.9	6074.6	5410.8	4416.0	3952.3	4819.7	4939.6
47.5°	4414.3	4037.7	3969.2	5058.7	6724.9	7640.4	6554.3	5047.7	4536.8	5633.8	5661.7
50°	5030.0	4628.0	4397.4	5855.9	8213.7	9236.5	7696.9	5657.4	5206.5	6628.6	6596.5
52.5°	5842.4	5451.4	4896.5	6615.1	9744.9	10798.9	8844.6	6192.8	6037.5	7783.0	7717.2
55°	6950.4	6690.3	5578.9	7339.7	11275.1	12370.5	9947.5	6697.9	7135.3	9154.6	8756.0
57.5°	8325.3	8511.1	6562.8	8180.0	12650.9	13990.2	11055.5	7403.9	8560.9	10688.2	9359.0
60°	9212.0	10932.2	8446.8	9422.3	14214.1	15822.0	12574.0	8746.6	10059.0	11238.0	9244.1
62.5°	8997.4	11702.4	10703.5	11008.3	15651.4	17153.8	14062.1	10095.3	10341.1	10428.1	8359.1
65°	8339.6	11080.9	10243.1	11316.5	16015.4	17229.0	14459.8	9921.4	8771.9	8513.5	6719.0
67.5°	7434.3	10343.7	9149.5	10499.1	15357.6	16178.4	13719.2	8776.3	6778.9	6388.7	4874.6
70°	6457.2	9527.9	8431.6	9581.9	14103.4	14347.5	12460.0	7718.9	4986.0	4314.6	3128.1
72.5°	5529.9	8678.3	7940.2	8642.0	12430.5	11925.5	10820.8	6784.0	3630.6	3112.0	2223.6
75°	4581.5	7425.0	7240.1	7525.4	10230.5	9393.6	8990.7	5616.9	2849.4	2251.5	1534.5
77.5°	3535.1	5801.8	6227.5	6026.5	7201.2	6977.4	6969.0	4220.8	2081.8	1502.4	961.9
80°	2419.5	4043.5	4865.3	4251.3	4673.6	4559.5	5248.7	2831.7	1510.0	904.5	535.5
82.5°	1422.2	2461.7	3386.5	2058.1	2584.2	2652.6	3125.5	1377.4	888.5	208.6	116.5
85°	576.8	972.0	1324.2	805.6	1246.5	1051.4	1186.5	386.8	247.4	5.0	0.0
87.5°	145.2	310.8	217.9	90.4	144.4	132.6	104.8	47.3	10.1	0.0	0.0
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: P964221

CATALOG NUMBER: NAV-SB3B-835-U-SLL-HSS

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°	185°
0°	1697.5	1697.5	1697.5	1697.5	1697.5	1697.5	1697.5	1697.5	1697.5	1697.5	1697.5
2.5°	1885.0	1865.5	1817.4	1769.3	1730.4	1678.0	1643.4	1602.1	1562.4	1526.8	1520.2
5°	2084.2	2020.1	1932.2	1852.1	1770.1	1690.7	1612.2	1529.4	1453.4	1406.9	1377.4
7.5°	2246.4	2133.2	2016.7	1914.5	1815.7	1722.8	1619.0	1518.4	1399.3	1336.0	1278.6
10°	2367.1	2218.5	2065.7	1948.3	1848.7	1758.3	1670.4	1569.1	1425.6	1346.1	1260.0
12.5°	2446.6	2270.1	2091.0	1956.7	1845.3	1775.2	1736.4	1696.7	1553.9	1461.0	1336.0
15°	2501.4	2306.4	2108.7	1937.4	1800.5	1749.0	1787.8	1833.4	1742.2	1635.0	1472.0
17.5°	2561.4	2353.7	2116.3	1885.0	1713.5	1691.6	1792.1	1897.6	1893.4	1787.0	1627.4
20°	2624.7	2395.0	2111.3	1800.5	1607.9	1627.4	1755.7	1878.2	1929.8	1872.3	1730.4
22.5°	2689.8	2434.8	2091.8	1690.7	1509.1	1570.0	1698.3	1805.5	1866.4	1848.7	1740.6
25°	2771.7	2490.4	2063.1	1572.5	1427.2	1511.7	1631.6	1718.6	1760.8	1759.9	1685.6
27.5°	2869.7	2564.8	2048.0	1477.0	1369.0	1445.8	1552.3	1630.0	1659.5	1659.5	1600.3
30°	2983.7	2652.6	2031.0	1414.6	1335.2	1377.4	1460.2	1536.2	1565.7	1565.7	1515.9
32.5°	3110.4	2737.1	1990.5	1376.6	1309.8	1310.7	1363.0	1432.3	1467.8	1472.8	1437.4
35°	3262.4	2827.5	1901.9	1346.1	1280.3	1245.7	1271.0	1328.4	1370.6	1381.6	1359.7
37.5°	3461.6	2938.1	1775.2	1301.4	1234.7	1177.2	1183.2	1227.1	1273.6	1290.4	1276.0
40°	3729.4	3068.1	1643.4	1237.2	1170.6	1102.1	1099.5	1131.7	1177.2	1195.9	1188.3
42.5°	4083.2	3224.3	1517.6	1175.6	1092.9	1022.7	1018.4	1043.9	1083.5	1102.9	1099.5
45°	4535.9	3416.1	1409.5	1127.4	1016.8	947.5	945.9	967.0	1001.6	1021.8	1017.6
47.5°	5165.1	3607.8	1336.0	1102.1	956.8	885.9	889.3	907.8	939.1	953.5	947.5
50°	5985.1	3666.0	1298.9	1102.1	924.8	831.0	847.9	863.0	886.7	895.2	887.5
52.5°	6772.2	3473.5	1265.1	1108.8	929.0	784.5	820.8	831.9	852.1	855.5	844.5
55°	7158.1	2986.2	1218.6	1110.6	955.2	744.9	798.9	819.2	826.8	825.9	807.4
57.5°	7025.6	2414.5	1140.1	1103.8	972.9	719.6	771.9	810.8	815.8	808.2	773.6
60°	6560.2	1777.7	1080.1	1054.0	966.2	712.0	730.5	792.1	799.8	789.7	733.1
62.5°	5779.9	1233.8	1033.7	944.1	936.5	709.4	665.4	751.6	770.2	755.8	673.1
65°	4550.3	871.6	890.1	827.6	872.4	695.9	597.9	702.6	728.0	706.0	589.5
67.5°	3079.1	629.1	721.2	749.9	768.5	665.4	548.9	646.9	680.7	652.0	492.3
70°	1662.9	441.7	476.3	631.7	652.8	613.2	505.0	590.3	629.1	597.9	401.2
72.5°	982.2	317.5	333.5	507.6	543.9	539.7	456.0	524.5	571.7	534.5	326.0
75°	541.3	214.5	238.1	368.2	441.7	416.4	391.9	444.2	492.3	456.0	251.6
77.5°	242.4	128.3	165.5	241.5	347.1	285.5	303.2	346.2	391.0	353.0	168.1
80°	93.8	71.8	109.8	131.7	252.6	158.0	195.1	255.0	287.1	256.8	102.2
82.5°	11.8	32.1	47.3	51.6	147.0	83.6	113.2	160.4	158.0	136.8	51.6
85°	0.0	5.9	6.8	3.4	63.3	30.4	37.2	52.4	49.0	37.2	4.2
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	0.0	0.0
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: P964221

CATALOG NUMBER: NAV-SB3B-835-U-SLL-HSS

CANDELA DISTRIBUTION (continued):

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	1697.5	1697.5	1697.5	1697.5	1697.5	1697.5	1697.5	1697.5	1697.5	1697.5	1697.5
2.5°	1478.8	1448.3	1433.2	1420.4	1432.3	1439.1	1439.1	1467.8	1484.6	1491.4	1538.7
5°	1303.1	1246.5	1208.5	1185.7	1193.3	1201.7	1211.0	1247.3	1271.8	1287.9	1361.4
7.5°	1164.6	1078.4	1025.2	997.3	1001.6	1007.5	1015.2	1050.6	1075.0	1096.1	1178.1
10°	1096.1	974.6	904.5	870.7	864.8	861.4	858.8	880.0	898.5	915.4	996.5
12.5°	1099.5	929.8	844.5	803.1	785.4	765.2	749.1	752.5	764.2	785.4	836.9
15°	1142.7	915.4	813.2	761.8	732.2	708.6	689.1	684.9	689.1	692.5	724.6
17.5°	1200.9	913.8	786.3	722.1	691.7	672.2	654.5	648.6	649.4	653.6	662.2
20°	1247.3	908.7	755.8	684.1	657.0	640.1	622.4	616.5	618.2	619.0	628.3
22.5°	1271.8	901.1	722.1	646.1	623.3	606.4	590.3	589.5	589.5	594.5	601.3
25°	1271.8	885.1	691.7	609.8	589.5	574.3	554.8	558.2	560.0	566.6	576.8
27.5°	1241.5	854.6	667.2	578.5	557.4	542.2	524.5	528.7	531.2	538.8	551.4
30°	1202.6	818.4	639.3	548.9	524.5	513.4	498.3	500.0	503.4	511.8	526.1
32.5°	1161.2	775.3	616.5	519.4	494.9	486.5	469.6	472.1	475.5	484.7	500.8
35°	1115.6	724.6	589.5	492.3	467.9	461.1	441.7	443.4	448.4	458.6	474.6
37.5°	1067.4	683.3	562.4	466.2	440.9	434.1	413.8	415.5	421.4	433.3	448.4
40°	1020.2	642.7	533.7	438.3	413.0	407.0	385.1	386.8	393.5	406.2	422.3
42.5°	968.6	611.4	496.6	409.6	382.5	376.7	356.4	359.0	366.5	379.1	395.2
45°	907.0	591.1	455.2	382.5	352.2	346.2	327.7	332.7	341.2	353.8	370.7
47.5°	843.7	582.7	420.6	353.8	320.9	315.8	300.6	309.1	318.4	328.5	347.1
50°	782.9	571.7	385.1	326.9	293.9	288.8	278.7	289.7	299.0	308.2	326.0
52.5°	713.6	548.1	353.0	303.2	271.1	269.4	264.3	274.5	282.9	291.4	306.6
55°	641.9	510.0	325.1	282.1	251.6	253.4	250.8	259.2	266.0	273.6	287.1
57.5°	579.3	462.0	303.2	259.2	234.7	239.8	236.5	240.7	244.9	254.2	265.2
60°	516.0	404.6	278.7	232.3	217.9	223.8	214.5	213.7	215.4	217.9	238.1
62.5°	430.7	344.6	248.3	208.6	199.3	201.8	184.1	170.6	170.6	173.1	203.6
65°	346.2	288.8	214.5	181.5	173.9	172.3	147.0	128.3	126.7	134.3	160.4
67.5°	284.6	239.8	180.7	151.2	146.1	147.8	129.3	110.6	109.0	117.4	136.8
70°	235.6	193.4	144.4	116.5	121.6	129.3	110.6	92.9	90.4	98.0	116.5
72.5°	187.5	151.2	110.6	86.1	100.4	109.8	90.4	73.5	71.8	78.5	96.2
75°	137.7	108.1	75.1	62.5	77.7	86.1	65.9	52.4	49.8	55.8	73.5
77.5°	85.3	60.8	47.3	37.2	53.2	57.4	34.6	30.4	29.5	33.8	46.4
80°	39.7	26.1	22.8	12.7	19.5	22.8	14.3	16.1	16.9	20.3	28.7
82.5°	11.0	4.2	0.8	0.0	0.0	6.8	3.4	6.8	8.4	12.7	18.6
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	4.2	7.6	13.5
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4	6.8
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: P964221

CATALOG NUMBER: NAV-SB3B-835-U-SLL-HSS

CANDELA DISTRIBUTION (continued):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	1697.5	1697.5	1697.5	1697.5	1697.5	1697.5	1697.5	1697.5
2.5°	1574.2	1607.9	1662.0	1717.8	1772.6	1828.4	1882.4	1901.9
5°	1428.0	1505.7	1613.0	1727.8	1846.1	1966.1	2075.8	2125.6
7.5°	1265.1	1376.6	1537.9	1717.8	1906.1	2094.4	2267.5	2347.8
10°	1091.1	1232.2	1416.2	1659.5	1929.8	2189.8	2428.0	2531.9
12.5°	925.6	1073.4	1276.9	1568.2	1911.1	2244.8	2531.0	2653.5
15°	787.1	918.0	1137.5	1460.2	1851.2	2248.1	2580.0	2714.3
17.5°	683.3	768.5	995.7	1340.3	1772.6	2216.9	2596.9	2740.4
20°	631.7	655.4	811.6	1186.5	1699.1	2187.4	2613.8	2764.9
22.5°	601.3	607.2	663.8	988.1	1611.3	2178.0	2643.4	2798.8
25°	576.8	578.5	593.7	782.9	1477.0	2172.1	2689.0	2845.2
27.5°	552.3	552.3	560.8	630.9	1294.7	2146.8	2748.0	2901.0
30°	527.8	527.8	533.7	558.2	1081.0	2096.9	2819.0	2973.5
32.5°	502.5	502.5	507.6	525.3	863.0	2034.4	2884.0	3047.0
35°	477.1	475.5	482.3	500.8	686.5	1955.1	2949.0	3126.4
37.5°	450.1	449.3	456.0	477.1	592.9	1863.0	2998.0	3234.5
40°	421.4	421.4	429.1	451.8	565.8	1747.3	3075.7	3389.9
42.5°	395.2	393.5	402.0	429.9	545.6	1636.7	3215.1	3616.2
45°	369.9	366.5	374.1	408.8	510.0	1597.9	3475.2	3950.7
47.5°	346.2	337.8	344.6	383.5	478.0	1743.1	3900.8	4414.3
50°	326.9	310.8	316.7	358.0	453.5	2058.1	4453.1	5030.0
52.5°	306.6	285.5	288.8	326.9	431.5	2357.9	5051.9	5842.4
55°	285.5	261.8	263.5	295.6	400.3	2402.6	5636.3	6950.4
57.5°	261.8	239.8	239.8	266.9	377.5	2082.6	6085.6	8325.3
60°	235.6	221.3	217.0	244.1	397.8	1469.4	6137.9	9212.0
62.5°	206.9	199.3	193.4	222.1	413.0	870.7	5716.5	8997.4
65°	173.9	172.3	168.1	244.1	348.0	514.3	4907.5	8339.6
67.5°	146.1	143.6	143.6	255.8	264.3	323.5	3834.1	7434.3
70°	125.9	116.5	116.5	193.4	160.4	223.8	2677.1	6457.2
72.5°	105.6	95.4	88.7	154.6	119.9	163.8	1673.0	5529.9
75°	84.5	76.9	68.4	102.2	89.5	124.1	972.0	4581.5
77.5°	60.8	57.4	48.2	75.1	65.0	89.5	578.5	3535.1
80°	31.3	32.1	30.4	43.0	43.9	60.8	329.3	2419.5
82.5°	18.6	14.3	16.1	21.1	25.3	34.6	124.1	1422.2
85°	11.8	7.6	7.6	10.1	12.7	13.5	38.0	576.8
87.5°	5.9	2.6	3.4	5.0	4.2	3.4	1.6	145.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)