

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: P966277

Luminaire Tested: **NAV-SB4B-827-U-T2**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966277
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-3)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4B-827-U-T2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 2700K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II OPTICS
Light Source: -
Ballast/Driver: -

Summary

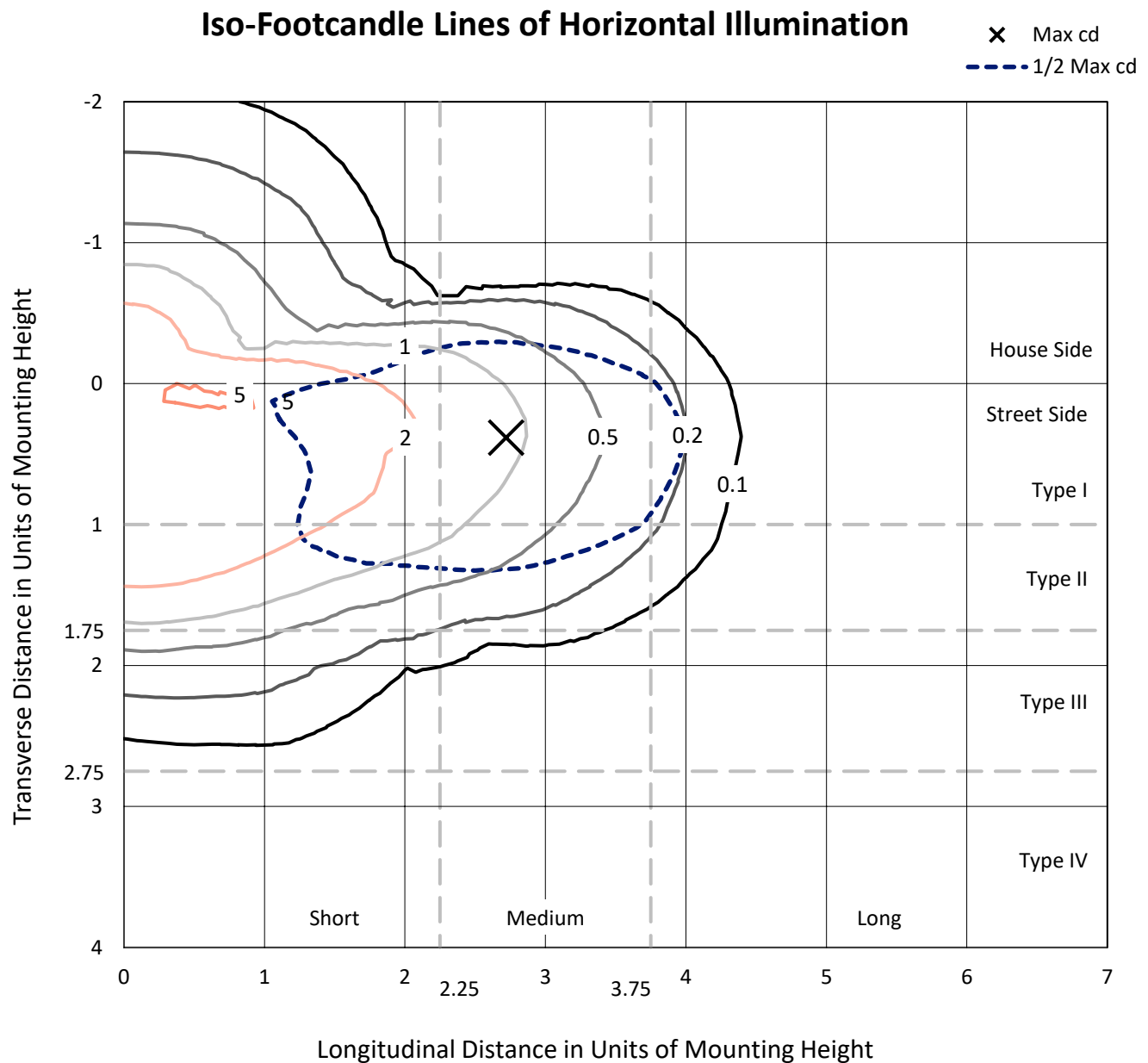
Lumens per Lamp: N/A
Luminaire Lumens: 19931.1 lumens
Efficiency: N/A
Efficacy: 135.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G3

Input Watts (W): 147
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: P966277

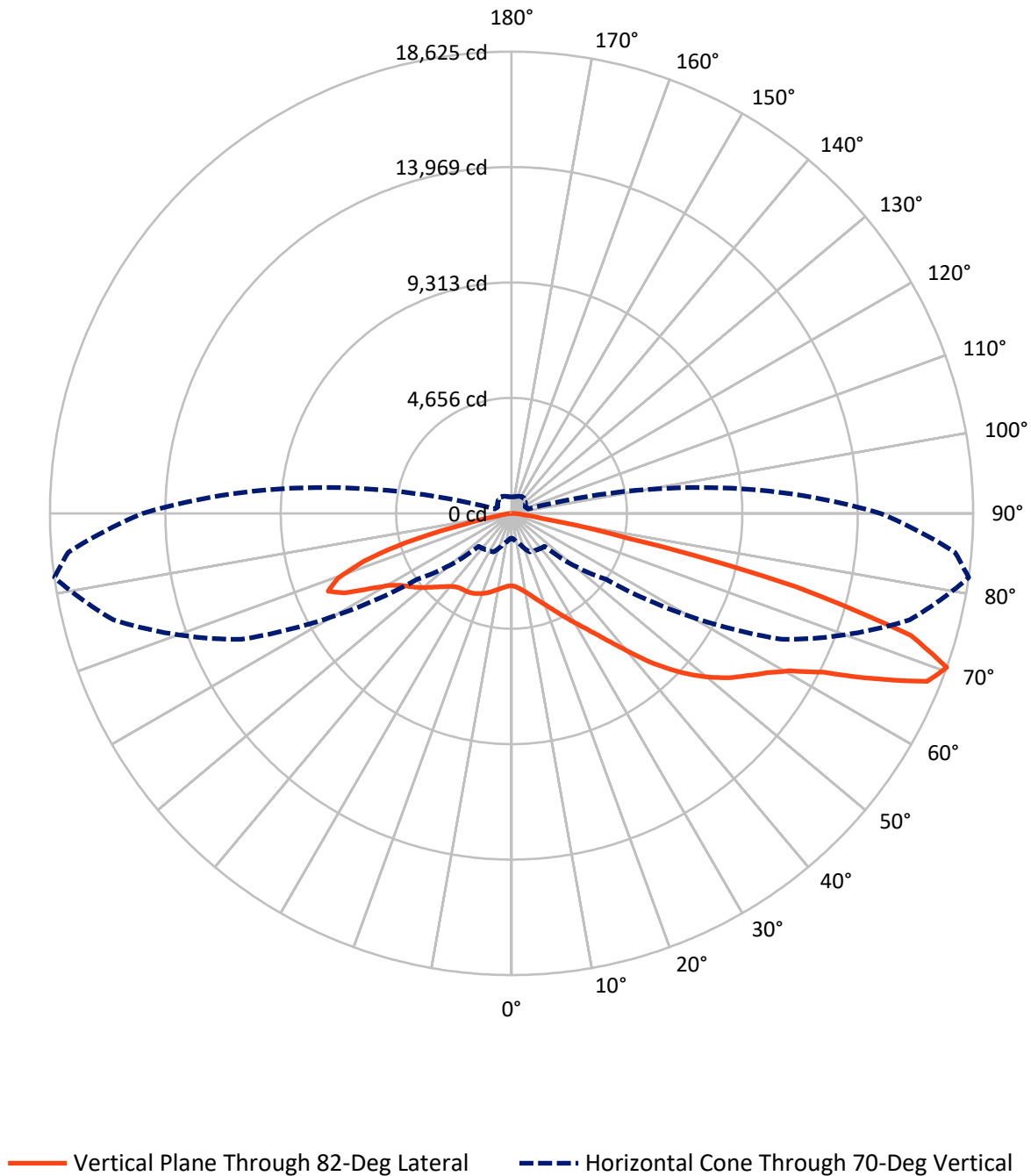
CATALOG NUMBER: NAV-SB4B-827-U-T2



Based on 25 foot mounting height. Maximum calculated value = 5.3 fc
Type II - Medium - N/A

REPORT NUMBER: P966277
CATALOG NUMBER: NAV-SB4B-827-U-T2

Luminous Intensity Polar Plot



REPORT NUMBER: P966277

CATALOG NUMBER: NAV-SB4B-827-U-T2

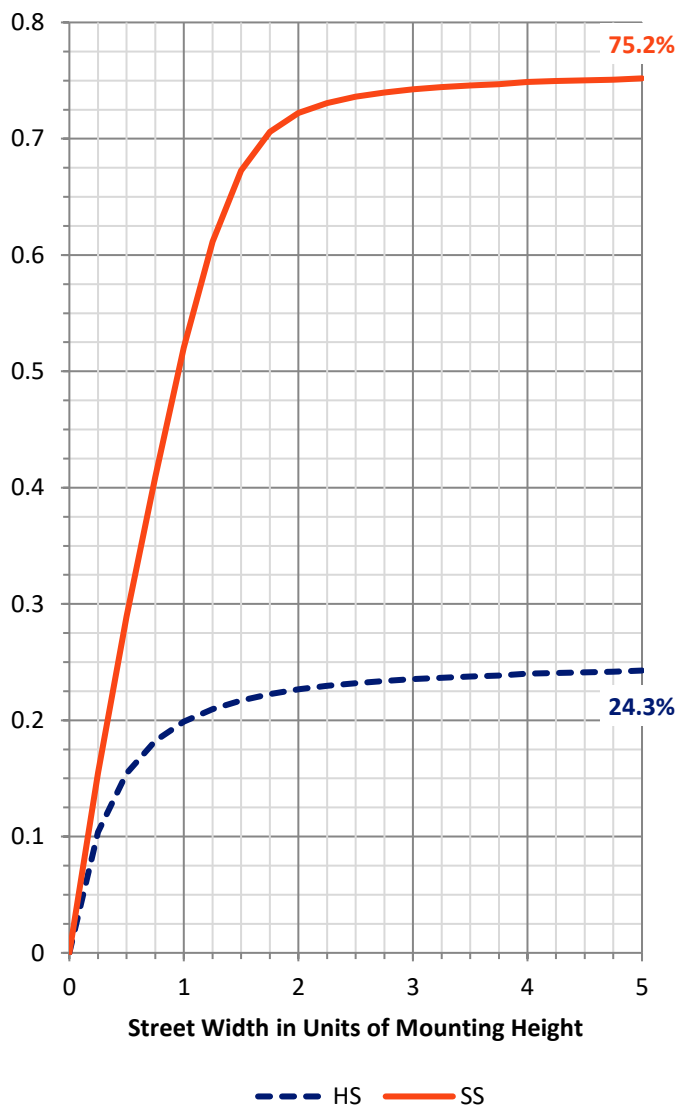
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4913.5	0.0	4913.5
	% Fixture	24.7	0.0	24.7
Street Side	Lumens	15017.6	0.0	15017.6
	% Fixture	75.3	0.0	75.3
Total	Lumens	19931.1	0.0	19931.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	275.9	1.4
10°-20°	792.7	4.0
20°-30°	1326.1	6.7
30°-40°	2071.7	10.4
40°-50°	3299.4	16.6
50°-60°	4591.5	23.0
60°-70°	4802.9	24.1
70°-80°	2510.3	12.6
80°-90°	260.7	1.3
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°	19931.1	100.0
0°-180°	19931.1	100.0

Coefficient of Utilization



REPORT NUMBER: P966277

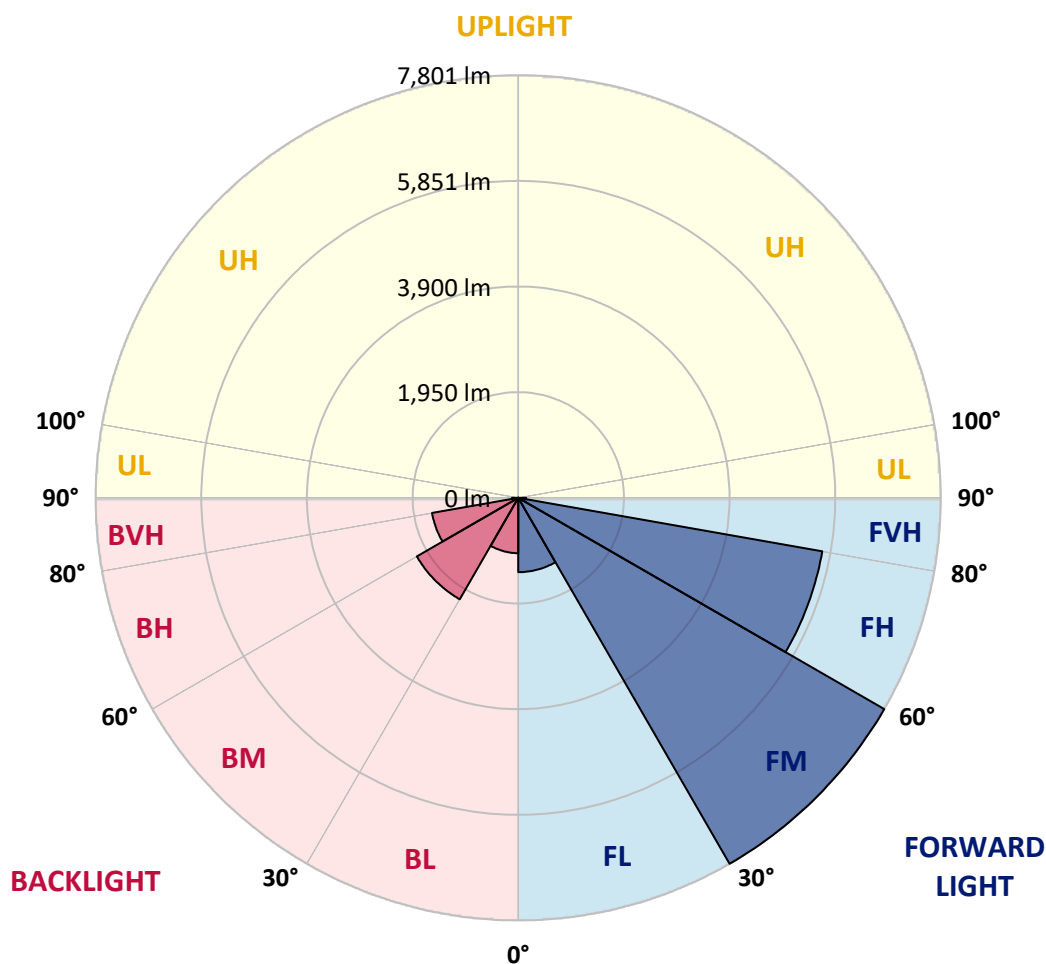
CATALOG NUMBER: NAV-SB4B-827-U-T2

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1372.5	6.9			
FM	(30°-60°)	7800.8	39.1			
FH	(60°-80°)	5698.4	28.6			G3/7500
FVH	(80°-90°)	145.9	0.7			G2/225
BL	(0°-30°)	1022.2	5.1	B3/2500		
BM	(30°-60°)	2161.7	10.8	B2/2500		
BH	(60°-80°)	1614.8	8.1	B3/2500		G3/2500
BVH	(80°-90°)	114.7	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 II Medium



REPORT NUMBER: P966277

CATALOG NUMBER: NAV-SB4B-827-U-T2

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	2922.2	2922.2	2922.2	2922.2	2922.2	2922.2	2922.2	2922.2	2922.2	2922.2	2922.2
2.5°	2992.0	3008.9	3003.6	2998.3	2998.3	2990.8	2989.8	2979.3	2970.8	2957.0	2953.8
5°	3030.0	3048.0	3045.9	3050.1	3063.8	3067.0	3070.2	3063.8	3046.9	3030.0	3022.6
7.5°	2996.2	3016.3	3022.6	3048.0	3090.3	3128.4	3156.9	3168.6	3152.7	3128.4	3116.7
10°	2882.0	2904.1	2926.4	2986.6	3061.8	3151.7	3227.8	3273.2	3270.1	3246.8	3226.7
12.5°	2650.3	2673.6	2721.2	2838.6	2976.1	3134.8	3276.4	3371.6	3404.4	3387.5	3352.6
15°	2465.2	2485.3	2521.3	2641.9	2820.6	3061.8	3294.5	3479.5	3563.1	3553.6	3511.2
17.5°	2460.0	2468.4	2490.6	2547.7	2685.3	2947.5	3275.4	3585.2	3744.9	3743.9	3691.0
20°	2553.1	2556.2	2569.0	2580.5	2658.8	2860.8	3226.7	3673.1	3949.1	3949.1	3891.9
22.5°	2682.1	2680.0	2692.7	2682.1	2720.1	2853.4	3196.1	3750.3	4176.5	4193.4	4121.4
25°	2875.6	2865.1	2861.9	2837.5	2845.0	2922.2	3229.9	3838.0	4446.1	4481.1	4391.2
27.5°	3133.6	3116.7	3105.1	3049.1	3030.0	3063.8	3333.6	3943.8	4746.5	4806.8	4692.6
30°	3470.0	3439.3	3422.4	3325.1	3256.3	3261.7	3490.1	4084.4	5060.6	5157.9	5013.1
32.5°	3929.0	3881.4	3836.0	3676.3	3550.4	3509.1	3692.0	4279.1	5401.1	5556.6	5370.5
35°	4443.0	4404.9	4356.2	4109.8	3916.3	3821.1	3964.9	4550.9	5799.9	6046.3	5804.2
37.5°	4937.9	4905.1	4928.4	4596.3	4346.7	4208.2	4322.4	4915.7	6291.7	6655.5	6347.7
40°	5449.8	5424.4	5427.6	5110.3	4819.4	4664.1	4756.0	5373.7	6855.4	7379.9	7001.4
42.5°	6006.1	5987.1	5923.6	5642.3	5315.5	5170.6	5255.2	5902.5	7460.4	8204.9	7718.4
45°	6629.1	6617.4	6558.2	6235.6	5861.3	5698.4	5812.6	6486.3	8068.4	8981.2	8438.6
47.5°	7167.3	7176.8	7169.5	6897.6	6509.6	6270.5	6407.0	7095.5	8634.3	9710.8	9129.2
50°	7426.4	7476.1	7549.1	7464.6	7223.4	6980.1	7006.6	7683.5	9173.6	10395.1	9791.3
52.5°	7291.1	7385.2	7584.1	7719.5	7812.6	7761.7	7690.9	8267.2	9681.3	11012.8	10417.4
55°	6786.6	6918.9	7248.8	7575.6	8050.5	8419.6	8512.6	8914.5	10176.2	11556.4	11009.6
57.5°	5867.6	6082.2	6378.4	7039.4	7838.9	8737.9	9470.8	9812.4	10700.8	12137.0	11629.3
60°	4291.8	4579.4	4947.5	5931.1	7098.6	8567.7	10286.2	11191.6	11446.4	12889.0	12436.3
62.5°	2746.6	2924.2	3262.7	4189.2	5531.2	7695.1	10535.9	12915.4	12710.2	14122.1	13646.2
65°	1880.5	1994.6	2304.5	2824.9	3575.7	5728.0	9867.5	14207.8	14717.6	16076.6	15714.9
67.5°	1366.4	1453.1	1717.6	2173.4	2329.9	3389.6	7657.1	14148.6	16668.9	18090.2	17527.6
70°	996.3	1057.6	1279.7	1717.6	1792.6	1885.7	4638.6	12027.0	16626.5	18625.4	17951.7
72.5°	738.2	780.5	929.7	1332.6	1451.0	1273.4	2296.1	8741.1	14287.2	16846.5	16306.1
75°	534.1	565.8	675.8	1019.6	1161.2	969.9	1145.3	5108.2	9965.8	11850.4	11945.6
77.5°	408.3	432.6	504.5	746.7	929.7	727.6	710.7	2350.0	4725.4	4748.6	5015.1
80°	327.9	343.7	382.8	525.6	712.8	544.7	463.2	948.6	1493.3	1263.8	1326.2
82.5°	241.2	267.5	323.6	369.1	509.7	375.5	282.4	479.1	568.0	488.6	492.8
85°	137.5	155.5	195.7	264.4	325.7	229.5	161.8	212.6	264.4	216.8	193.5
87.5°	48.7	63.4	68.8	103.6	141.8	95.2	62.4	61.3	86.7	64.5	53.9
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: P966277

CATALOG NUMBER: NAV-SB4B-827-U-T2

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2922.2	2922.2	2922.2	2922.2	2922.2	2922.2	2922.2	2922.2	2922.2	2922.2	2922.2
2.5°	2943.3	2938.1	2916.8	2888.3	2858.7	2830.1	2820.6	2800.5	2786.8	2779.4	2787.8
5°	3002.5	2985.6	2935.9	2872.5	2805.8	2733.9	2683.1	2636.6	2602.8	2571.0	2583.7
7.5°	3087.1	3057.6	2971.9	2860.8	2742.4	2622.9	2534.0	2466.4	2420.8	2391.2	2397.6
10°	3185.5	3140.0	3008.9	2842.8	2659.9	2488.5	2383.8	2325.6	2297.1	2281.2	2285.4
12.5°	3298.7	3234.2	3046.9	2801.6	2534.0	2338.3	2266.5	2249.6	2250.6	2251.6	2253.8
15°	3438.3	3348.4	3077.7	2711.7	2370.1	2223.1	2210.4	2237.9	2266.5	2280.2	2279.1
17.5°	3595.8	3468.9	3082.9	2563.6	2209.3	2149.0	2189.2	2248.4	2291.8	2310.9	2315.1
20°	3765.0	3591.6	3044.9	2354.2	2077.2	2088.7	2160.7	2236.9	2284.4	2308.7	2315.1
22.5°	3958.7	3722.8	2953.8	2134.3	1969.2	2023.1	2107.8	2181.8	2231.5	2255.8	2262.2
25°	4179.6	3869.8	2811.1	1949.1	1876.2	1949.1	2033.8	2095.1	2135.3	2157.5	2163.9
27.5°	4425.0	4023.1	2620.7	1802.2	1794.8	1873.0	1942.8	1990.4	2011.6	2028.5	2034.8
30°	4671.4	4162.7	2390.2	1691.1	1723.8	1798.0	1847.7	1868.8	1875.1	1878.3	1885.7
32.5°	4937.9	4283.3	2148.0	1599.1	1656.2	1725.0	1754.6	1764.1	1734.5	1714.4	1720.7
35°	5260.5	4412.3	1911.1	1526.1	1589.6	1648.8	1658.3	1649.8	1615.0	1573.7	1575.8
37.5°	5659.2	4573.0	1721.8	1474.3	1527.1	1566.3	1554.7	1552.6	1555.7	1507.1	1510.2
40°	6147.8	4782.4	1583.2	1434.1	1476.4	1484.9	1452.1	1470.1	1485.9	1411.9	1414.0
42.5°	6690.4	5035.2	1495.5	1406.6	1434.1	1414.0	1363.2	1383.3	1381.2	1283.9	1282.9
45°	7243.5	5310.2	1464.8	1386.5	1395.0	1354.7	1298.8	1304.0	1259.6	1171.8	1175.0
47.5°	7793.5	5605.3	1483.8	1369.6	1346.3	1300.8	1257.5	1234.2	1168.6	1103.1	1103.1
50°	8332.8	5915.2	1553.6	1335.8	1279.7	1253.3	1221.5	1180.3	1110.5	1054.4	1050.2
52.5°	8833.0	6227.2	1631.9	1279.7	1196.2	1212.0	1191.9	1144.3	1075.5	1018.4	1019.6
55°	9306.9	6539.2	1662.6	1202.5	1117.9	1176.1	1164.4	1076.7	994.1	947.6	943.4
57.5°	9823.0	6914.5	1628.7	1104.1	1054.4	1134.8	1090.4	993.1	945.5	910.6	907.4
60°	10537.9	7503.7	1555.7	982.5	994.1	1073.5	997.3	957.1	905.3	866.1	864.1
62.5°	11725.6	8602.5	1438.4	861.9	923.3	982.5	952.9	912.7	859.9	821.7	821.7
65°	13481.2	10129.7	1217.3	767.8	844.0	893.7	905.3	865.1	810.2	770.0	772.0
67.5°	14961.9	11087.9	921.2	689.5	762.5	821.7	854.5	815.4	757.3	718.1	719.1
70°	14880.4	10392.0	703.4	612.3	690.6	750.9	793.2	762.5	700.2	663.1	666.2
72.5°	13216.9	8693.4	569.0	534.1	617.7	676.9	727.6	704.4	640.9	605.0	605.0
75°	9709.8	6171.1	454.8	454.8	526.6	599.6	655.7	640.9	582.7	557.4	549.9
77.5°	4092.9	2589.0	356.4	377.6	437.9	515.1	584.9	590.1	539.4	571.1	518.2
80°	1088.2	713.9	271.8	297.1	343.7	425.2	508.7	506.6	451.6	422.0	392.4
82.5°	414.6	281.4	193.5	209.4	248.6	325.7	402.9	415.6	360.6	312.0	312.0
85°	159.7	120.5	119.5	125.9	144.9	215.8	304.6	315.2	271.8	230.5	238.0
87.5°	41.2	36.0	44.4	42.3	66.6	115.3	174.5	180.8	166.0	96.2	137.5
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)