

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: P966285

Luminaire Tested: **NAV-SB4B-827-U-T4W**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966285
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-1)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4B-827-U-T4W
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 2700K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20075.6 lumens
Efficiency: N/A
Efficacy: 136.6 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): 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

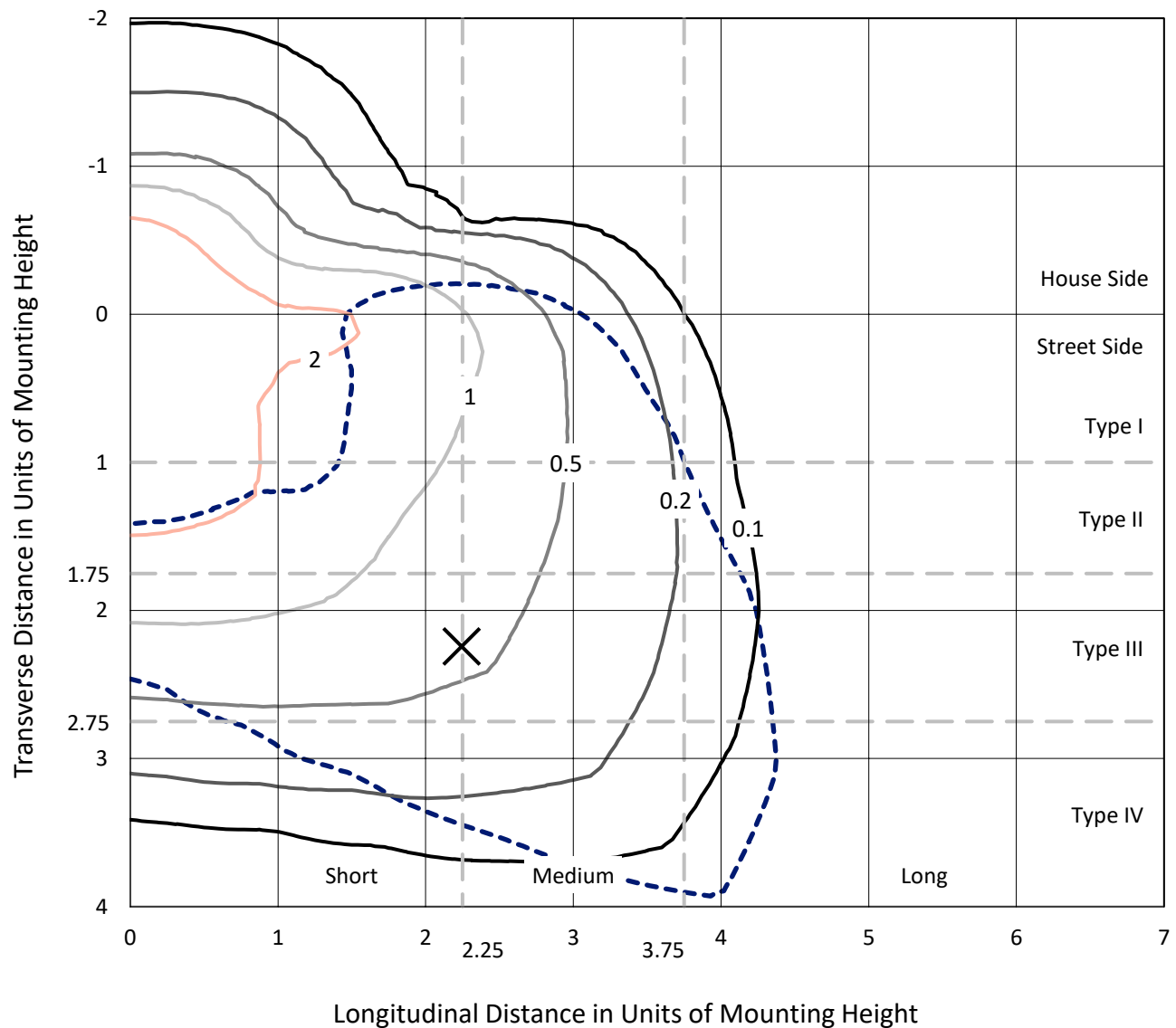


REPORT NUMBER: P966285

CATALOG NUMBER: NAV-SB4B-827-U-T4W

Iso-Footcandle Lines of Horizontal Illumination

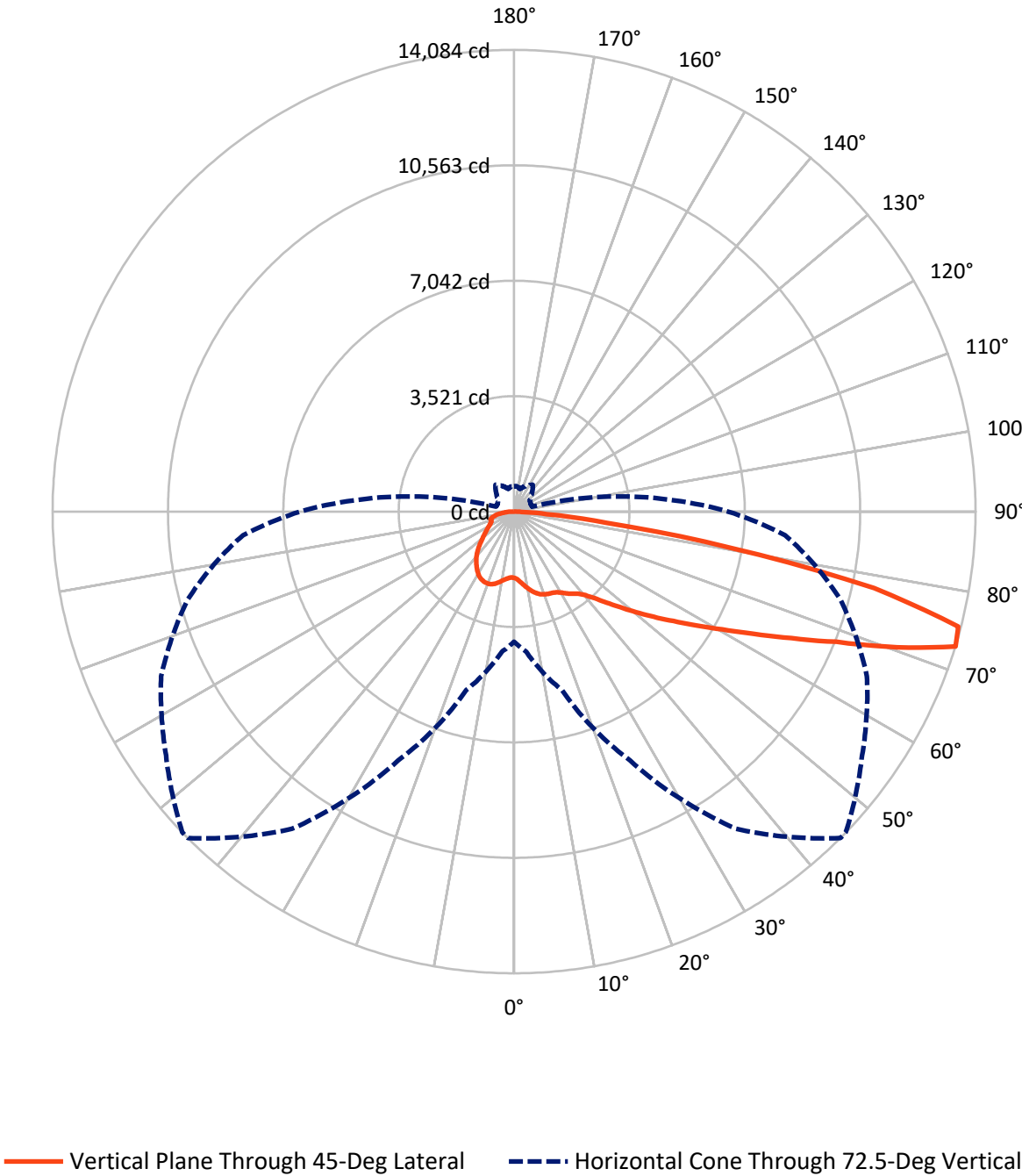
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4 fc
Type IV - Short - N/A

REPORT NUMBER: P966285
CATALOG NUMBER: NAV-SB4B-827-U-T4W

Luminous Intensity Polar Plot



REPORT NUMBER: P966285

CATALOG NUMBER: NAV-SB4B-827-U-T4W

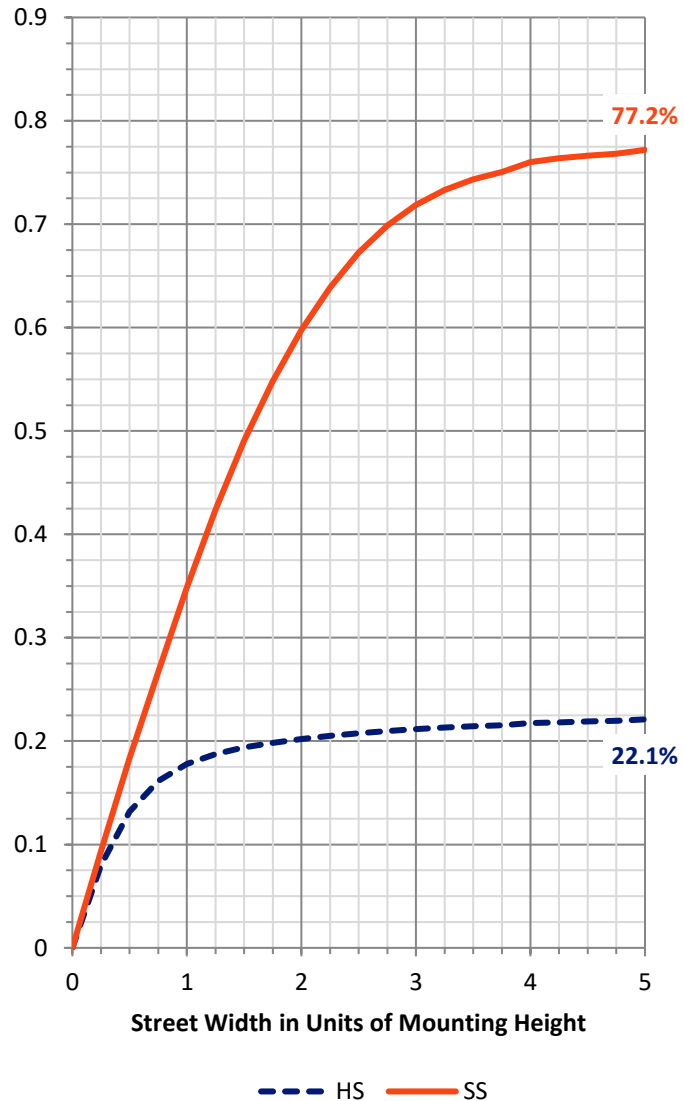
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4538.4	0.0	4538.4
	% Fixture	22.6	0.0	22.6
Street Side	Lumens	15537.2	0.0	15537.2
	% Fixture	77.4	0.0	77.4
Total	Lumens	20075.6	0.0	20075.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	206.1	1.0
10°-20°	687.3	3.4
20°-30°	1195.5	6.0
30°-40°	1713.9	8.5
40°-50°	2413.2	12.0
50°-60°	3696.3	18.4
60°-70°	5354.7	26.7
70°-80°	4276.0	21.3
80°-90°	532.6	2.7
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°	20075.6	100.0
0°-180°	20075.6	100.0

Coefficient of Utilization



REPORT NUMBER: P966285

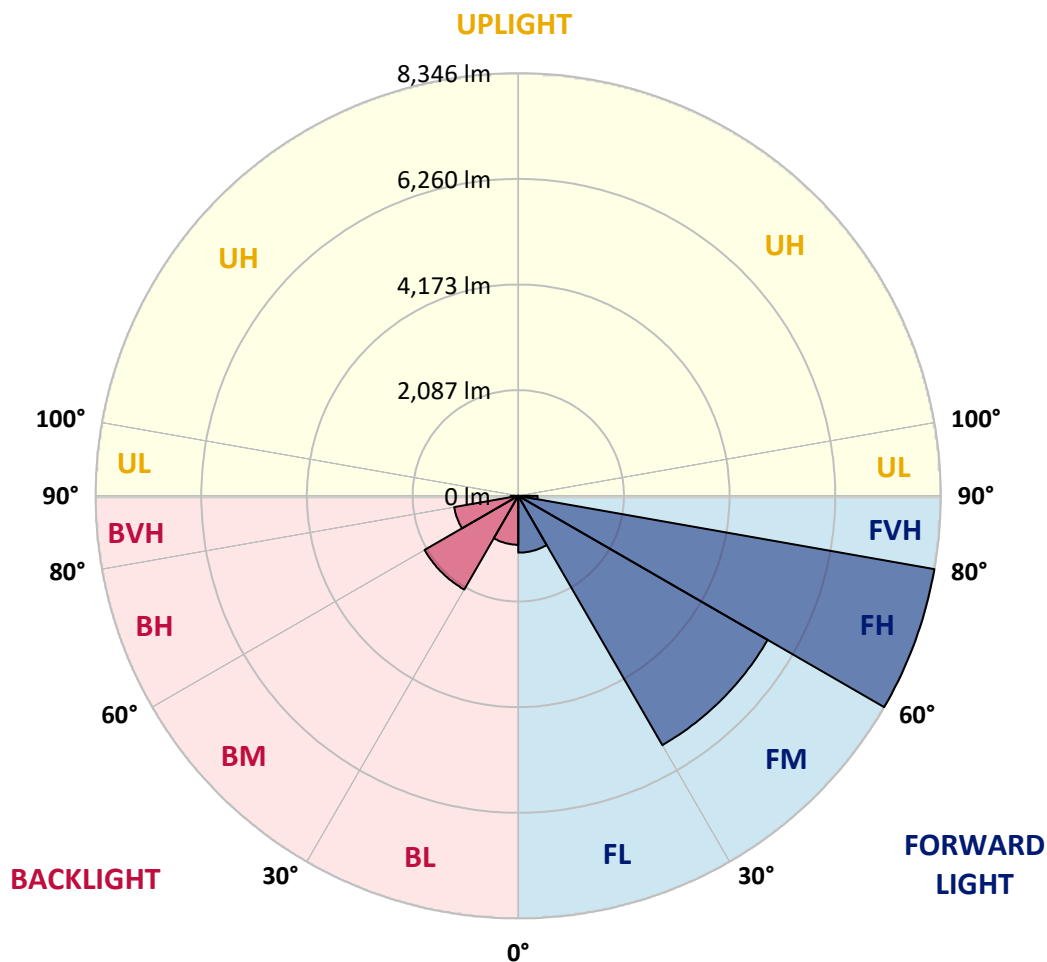
CATALOG NUMBER: NAV-SB4B-827-U-T4W

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1122.7	5.6			
FM	(30°-60°)	5686.5	28.3			
FH	(60°-80°)	8346.0	41.6			G4/12000
FVH	(80°-90°)	382.1	1.9			G3/500
BL	(0°-30°)	966.3	4.8	B2/1000		
BM	(30°-60°)	2136.9	10.6	B2/2500		
BH	(60°-80°)	1284.7	6.4	B3/2500		G3/2500
BVH	(80°-90°)	150.5	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: P966285

CATALOG NUMBER: NAV-SB4B-827-U-T4W

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	2025.2	2025.2	2025.2	2025.2	2025.2	2025.2	2025.2	2025.2	2025.2	2025.2	2025.2
2.5°	2104.5	2118.3	2105.7	2094.0	2088.7	2074.9	2073.9	2065.5	2060.1	2045.3	2041.1
5°	2251.5	2269.6	2248.4	2225.2	2204.0	2170.1	2165.9	2141.5	2114.1	2082.4	2064.4
7.5°	2417.6	2433.5	2409.2	2374.2	2337.2	2281.1	2280.1	2235.7	2192.4	2138.4	2107.7
10°	2562.5	2583.6	2550.8	2503.3	2456.7	2393.3	2385.9	2335.2	2280.1	2210.3	2163.8
12.5°	2690.4	2705.3	2673.5	2615.4	2561.5	2497.9	2488.5	2432.4	2371.0	2291.8	2232.6
15°	2792.0	2811.1	2768.7	2706.3	2649.2	2586.8	2578.4	2527.5	2466.3	2382.7	2306.6
17.5°	2858.6	2874.5	2831.2	2761.4	2706.3	2654.5	2648.2	2605.9	2551.9	2467.3	2385.9
20°	2883.9	2901.0	2855.4	2784.6	2733.8	2693.6	2690.4	2659.8	2622.8	2545.6	2463.1
22.5°	2909.4	2925.2	2866.0	2792.0	2747.5	2722.2	2721.2	2701.0	2686.2	2622.8	2542.4
25°	3012.0	3016.2	2936.8	2830.0	2766.6	2744.4	2743.3	2742.3	2748.6	2698.9	2628.1
27.5°	3100.8	3099.7	3032.1	2931.6	2833.2	2786.7	2785.6	2796.2	2816.3	2775.1	2716.9
30°	3230.9	3219.2	3138.9	3034.2	2944.3	2872.4	2866.0	2856.5	2872.4	2839.6	2805.7
32.5°	3506.9	3469.8	3339.8	3153.6	3036.3	2981.3	2972.8	2913.6	2919.9	2899.8	2882.9
35°	3902.4	3853.8	3680.4	3379.9	3150.5	3072.2	3068.0	2992.9	2980.2	2962.2	2968.6
37.5°	4373.1	4312.8	4110.8	3707.8	3347.2	3178.0	3171.7	3104.0	3052.1	3033.1	3069.1
40°	4845.8	4769.6	4602.6	4107.6	3637.0	3354.6	3334.5	3231.9	3172.7	3141.0	3217.2
42.5°	5304.8	5241.3	5098.6	4556.0	3994.4	3612.6	3568.2	3392.6	3348.3	3318.6	3456.1
45°	5710.9	5653.8	5549.0	5035.1	4413.2	3963.8	3920.4	3633.8	3620.1	3620.1	3818.8
47.5°	6040.8	6028.1	5917.1	5523.7	4907.1	4363.5	4288.4	3969.0	4006.1	4063.2	4333.9
50°	6406.8	6371.8	6253.4	6004.9	5487.7	4821.5	4760.1	4380.4	4519.0	4675.5	5078.5
52.5°	6743.1	6762.1	6629.9	6506.2	6143.4	5332.3	5224.4	4865.9	5165.2	5424.3	5950.9
55°	7088.9	7089.9	7052.9	7036.0	6830.8	5897.0	5778.5	5449.6	5925.5	6247.1	6968.4
57.5°	7413.5	7415.7	7470.6	7619.7	7628.3	6548.4	6414.1	6166.7	6770.5	7098.4	8017.4
60°	7703.3	7718.1	7868.3	8217.3	8329.4	7295.1	7168.2	7013.8	7644.1	7974.1	9120.4
62.5°	7800.7	7854.6	8188.7	8684.7	9022.2	8211.0	8086.1	7994.2	8562.0	8868.8	10042.6
65°	7635.6	7759.4	8405.5	9070.7	9734.9	9299.2	9175.5	9074.9	9516.0	9804.7	10799.9
67.5°	7230.6	7390.2	8392.9	9475.8	10600.0	10608.4	10493.2	10257.4	10538.6	10649.7	11046.3
70°	6163.5	6402.6	7653.6	9627.0	11593.1	12398.9	12287.9	11680.8	11559.2	11021.9	10352.5
72.5°	3971.2	4292.7	5635.8	8382.2	11814.0	14083.6	14077.2	12965.7	11881.8	10298.6	8303.0
75°	1448.8	1645.5	2618.6	5261.4	9916.8	13998.0	14039.2	12745.8	10846.4	7955.0	5172.6
77.5°	527.8	577.4	854.5	2022.1	6099.0	11231.3	11317.0	10189.6	7720.2	3992.3	2049.6
80°	277.1	304.6	437.9	784.7	2613.2	6670.1	6804.4	6055.6	3628.5	1202.4	614.5
82.5°	153.3	166.0	245.4	426.2	1177.1	2852.3	2932.6	2392.2	1276.5	509.7	253.8
85°	82.5	87.7	115.3	232.7	575.3	988.8	1011.1	714.9	508.7	299.3	122.7
87.5°	24.3	29.6	38.0	74.0	225.3	222.1	227.3	141.8	200.9	151.2	40.2
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: P966285

CATALOG NUMBER: NAV-SB4B-827-U-T4W

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2025.2	2025.2	2025.2	2025.2	2025.2	2025.2	2025.2	2025.2	2025.2	2025.2	2025.2
2.5°	2034.7	2031.5	2020.0	2014.6	2008.3	2007.3	2012.6	2013.6	2014.6	2015.8	2020.0
5°	2053.8	2043.2	2032.7	2026.3	2028.4	2029.5	2040.1	2047.4	2052.8	2057.0	2059.1
7.5°	2090.8	2082.4	2064.4	2063.3	2066.5	2076.0	2089.8	2106.7	2116.2	2123.6	2125.7
10°	2145.8	2130.0	2108.8	2112.0	2118.3	2132.1	2160.6	2174.3	2190.2	2204.0	2200.8
12.5°	2201.9	2188.1	2163.8	2165.9	2176.5	2200.8	2228.2	2245.3	2255.8	2266.4	2270.6
15°	2274.8	2250.5	2224.0	2224.0	2243.1	2269.6	2282.3	2296.0	2302.4	2313.9	2318.1
17.5°	2349.9	2318.1	2283.3	2281.1	2304.4	2317.1	2324.5	2326.6	2328.8	2341.4	2345.7
20°	2425.0	2390.1	2340.4	2336.2	2341.4	2339.4	2338.3	2336.2	2339.4	2355.2	2361.6
22.5°	2499.1	2458.9	2390.1	2371.0	2356.3	2336.2	2335.2	2334.0	2336.2	2352.1	2362.6
25°	2585.8	2537.1	2445.1	2387.9	2338.3	2310.8	2313.9	2315.1	2317.1	2329.8	2346.7
27.5°	2679.9	2625.9	2495.9	2382.7	2292.8	2273.8	2268.5	2271.6	2279.1	2299.2	2319.3
30°	2774.0	2710.5	2542.4	2361.6	2235.7	2209.3	2192.4	2199.8	2223.0	2243.1	2265.4
32.5°	2859.6	2796.2	2579.4	2315.1	2162.8	2121.4	2099.3	2108.8	2132.1	2139.5	2165.9
35°	2960.1	2888.2	2595.3	2241.0	2083.4	2020.0	1990.3	1976.6	1988.2	1980.8	2004.1
37.5°	3072.2	2997.1	2593.1	2143.7	1990.3	1917.4	1876.2	1824.3	1800.0	1774.6	1790.5
40°	3238.3	3130.4	2567.7	2026.3	1875.0	1808.4	1734.4	1646.7	1591.6	1541.9	1545.1
42.5°	3464.6	3315.5	2521.2	1897.3	1745.0	1682.6	1582.1	1479.6	1392.8	1310.4	1302.9
45°	3801.9	3557.7	2463.1	1759.8	1604.3	1543.0	1434.1	1318.8	1220.5	1114.7	1102.0
47.5°	4288.4	3883.4	2408.0	1603.3	1456.3	1400.3	1301.9	1195.0	1078.7	976.1	964.5
50°	4956.8	4350.8	2357.3	1451.0	1310.4	1268.0	1189.7	1080.9	963.4	881.0	875.7
52.5°	5807.1	4986.4	2336.2	1304.0	1173.9	1158.0	1095.6	994.1	883.0	813.2	808.0
55°	6783.2	5746.9	2336.2	1163.4	1054.4	1059.6	1016.3	922.2	825.9	763.5	757.2
57.5°	7779.4	6516.7	2293.8	1033.2	952.8	975.1	947.6	865.1	778.4	713.8	703.3
60°	8697.4	7161.9	2122.6	914.8	862.9	897.9	879.9	809.0	703.3	649.3	640.9
62.5°	9402.8	7525.7	1792.6	820.7	788.9	829.1	819.6	735.0	689.5	667.3	659.9
65°	9756.1	7466.4	1370.6	737.1	726.5	788.9	768.9	765.7	729.7	704.4	695.9
67.5°	9539.3	6956.7	994.1	675.8	690.5	751.9	829.1	841.8	775.2	725.5	717.0
70°	8588.5	6034.5	740.3	617.7	645.1	753.0	945.5	881.0	760.3	702.2	692.7
72.5°	6533.7	4500.0	574.3	556.3	585.9	758.3	997.3	862.9	718.1	776.2	769.9
75°	3736.4	2470.5	461.1	481.2	511.9	708.6	970.9	816.4	685.3	712.8	712.8
77.5°	1424.5	949.7	380.7	407.1	411.4	618.7	928.5	813.2	652.5	636.6	580.6
80°	493.8	371.3	315.2	323.6	318.4	549.9	890.5	707.6	534.0	478.1	462.2
82.5°	202.0	185.1	249.6	239.0	226.3	427.2	719.1	578.5	436.8	386.0	381.8
85°	87.7	117.4	165.0	144.9	131.1	296.1	576.4	489.6	369.1	318.4	317.2
87.5°	17.9	44.4	69.8	65.6	67.6	197.7	409.3	348.0	261.2	195.7	153.3
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)