

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: P963118

Luminaire Tested: **NAV-SB2D-827-U-T3R**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P963118
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-5)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2D-827-U-T3R
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 CRI, 2700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
ROADWAY OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18621.2 lumens
Efficiency: N/A
Efficacy: 126.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B3 - U0 - G3

Input Watts (W): 147.6
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

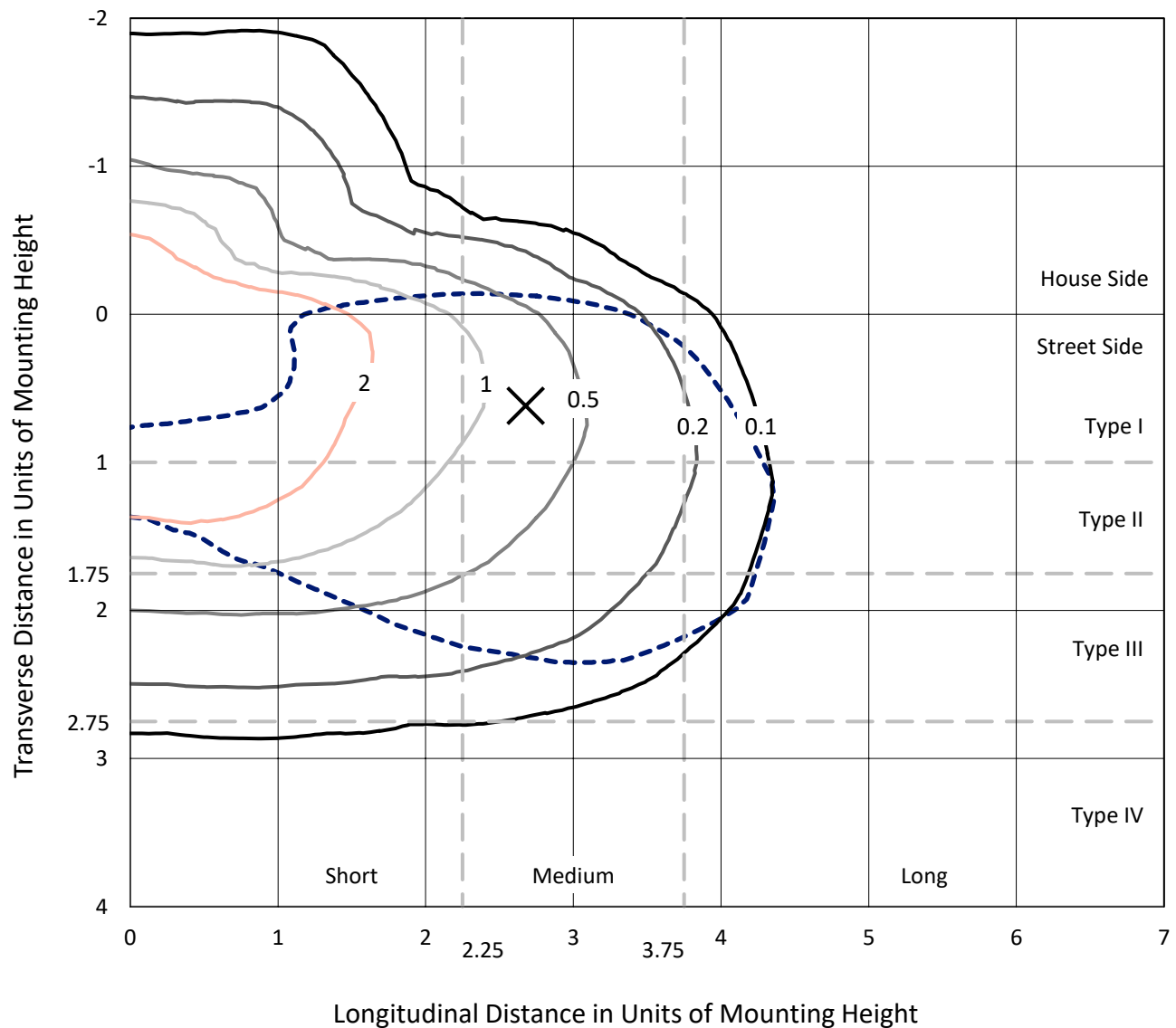


REPORT NUMBER: P963118

CATALOG NUMBER: NAV-SB2D-827-U-T3R

Iso-Footcandle Lines of Horizontal Illumination

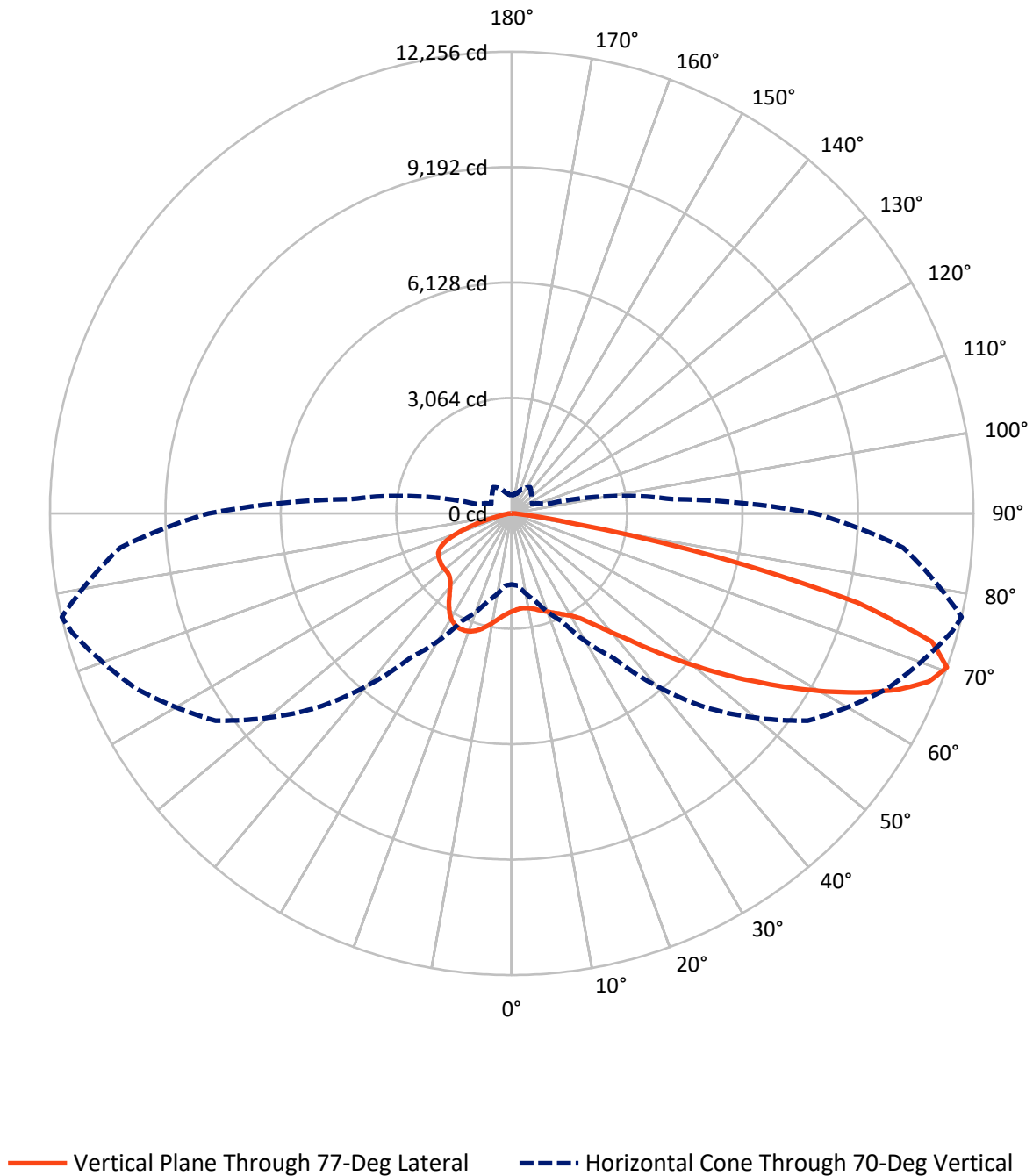
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.9 fc
Type III - Medium - N/A

REPORT NUMBER: P963118
CATALOG NUMBER: NAV-SB2D-827-U-T3R

Luminous Intensity Polar Plot



REPORT NUMBER: P963118

CATALOG NUMBER: NAV-SB2D-827-U-T3R

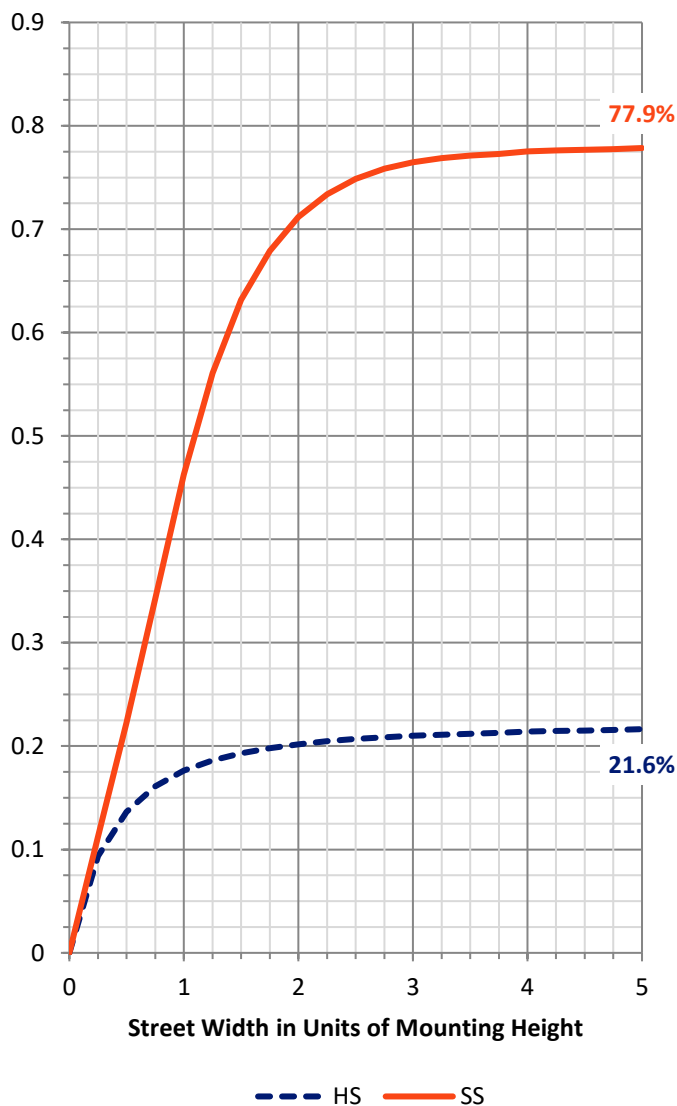
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4077.7	0.0	4077.7
	% Fixture	21.9	0.0	21.9
Street Side	Lumens	14543.4	0.0	14543.4
	% Fixture	78.1	0.0	78.1
Total	Lumens	18621.2	0.0	18621.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	247.8	1.3
10°-20°	715.1	3.8
20°-30°	1222.9	6.6
30°-40°	1966.5	10.6
40°-50°	3070.2	16.5
50°-60°	4101.1	22.0
60°-70°	4371.1	23.5
70°-80°	2690.8	14.5
80°-90°	235.8	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°	18621.2	100.0
0°-180°	18621.2	100.0

Coefficient of Utilization



REPORT NUMBER: P963118

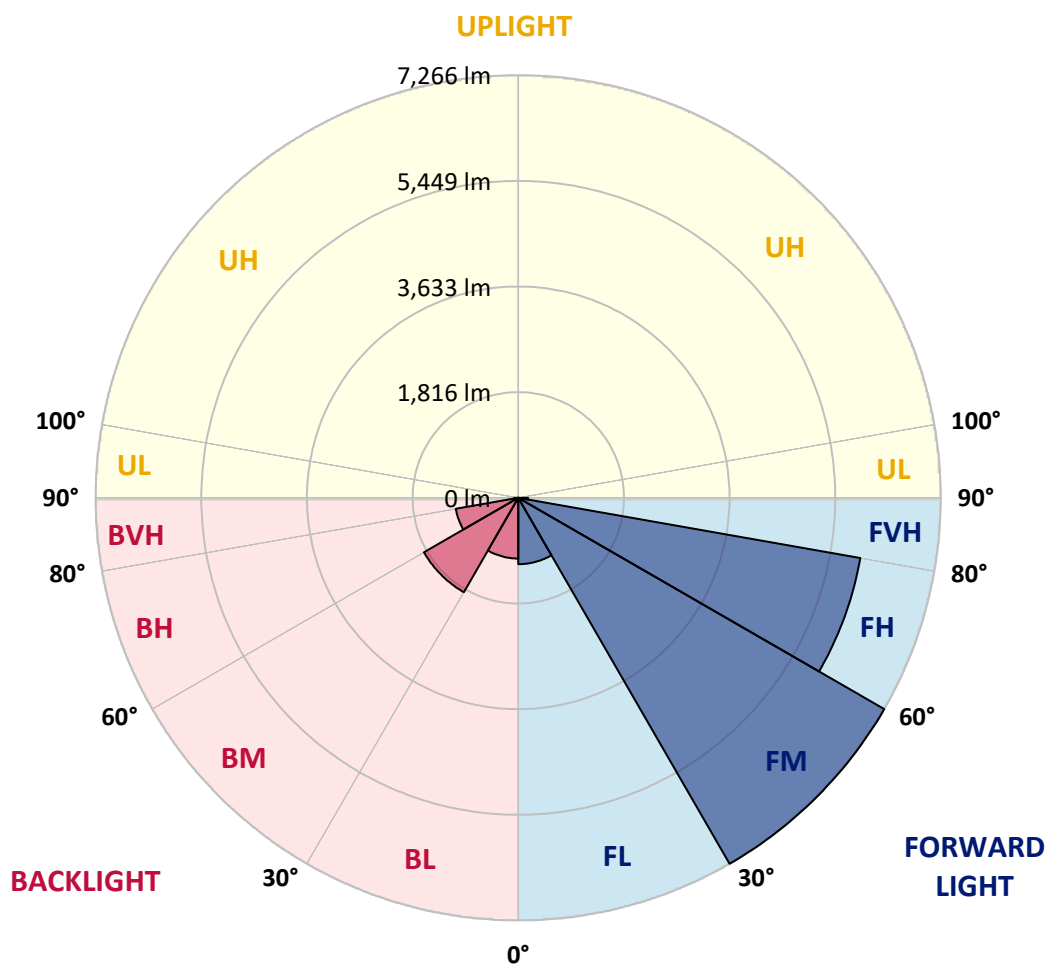
CATALOG NUMBER: NAV-SB2D-827-U-T3R

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1140.8	6.1			
FM	(30°-60°)	7265.6	39.0			
FH	(60°-80°)	5972.1	32.1			G3/7500
FVH	(80°-90°)	164.9	0.9			G2/225
BL	(0°-30°)	1044.8	5.6	B3/2500		
BM	(30°-60°)	1872.2	10.1	B2/2500		
BH	(60°-80°)	1089.8	5.9	B3/2500		G3/2500
BVH	(80°-90°)	70.9	0.4			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type III Medium



REPORT NUMBER: P963118

CATALOG NUMBER: NAV-SB2D-827-U-T3R

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	2597.9	2597.9	2597.9	2597.9	2597.9	2597.9	2597.9	2597.9	2597.9	2597.9	2597.9
2.5°	2394.7	2393.8	2406.1	2410.0	2432.8	2449.0	2479.6	2512.0	2554.0	2558.7	2584.4
5°	2256.4	2256.4	2270.7	2286.0	2315.6	2348.0	2394.7	2451.0	2523.4	2534.9	2598.8
7.5°	2139.1	2146.8	2159.2	2188.7	2223.0	2269.8	2341.3	2421.4	2516.8	2534.9	2637.8
10°	2044.7	2053.3	2068.6	2092.3	2143.9	2208.8	2302.1	2405.2	2533.0	2561.6	2695.1
12.5°	2015.2	2023.7	2032.3	2050.4	2098.1	2174.4	2286.0	2412.8	2572.0	2600.7	2773.3
15°	2083.8	2094.3	2087.6	2082.8	2107.6	2177.2	2293.6	2440.4	2620.7	2661.7	2869.6
17.5°	2242.1	2245.9	2230.7	2185.8	2182.0	2219.2	2329.8	2478.7	2681.7	2726.6	2966.9
20°	2497.7	2491.1	2459.6	2370.8	2320.3	2312.7	2391.8	2535.8	2744.6	2792.4	3071.8
22.5°	2844.8	2837.2	2774.3	2634.0	2521.5	2447.2	2481.5	2610.3	2815.3	2868.7	3173.8
25°	3277.8	3267.3	3174.8	2984.1	2809.5	2625.4	2603.5	2708.5	2902.1	2951.6	3280.6
27.5°	3783.3	3774.7	3674.5	3422.8	3170.9	2869.6	2755.2	2823.9	2992.7	3049.0	3400.8
30°	4326.8	4351.6	4174.2	3903.4	3584.8	3188.2	2959.3	2965.9	3110.0	3160.5	3546.7
32.5°	4965.8	5008.8	4795.1	4451.8	4016.9	3534.3	3216.8	3164.3	3280.6	3322.6	3730.8
35°	5599.1	5647.6	5470.3	5090.8	4590.1	3942.6	3485.7	3392.2	3507.7	3553.4	3975.0
37.5°	6146.5	6211.3	6119.8	5789.8	5203.3	4434.6	3836.7	3660.2	3787.1	3844.3	4303.1
40°	6578.4	6677.7	6671.0	6465.0	5926.1	5031.6	4282.0	3991.1	4134.2	4196.1	4700.6
42.5°	6929.4	7015.3	7089.6	7079.2	6680.5	5709.7	4805.6	4421.2	4530.0	4601.5	5148.0
45°	7171.7	7263.3	7423.5	7596.1	7406.2	6435.5	5405.4	4931.5	5030.7	5138.4	5681.1
47.5°	7388.2	7492.1	7700.0	7973.7	8022.4	7164.0	6062.6	5525.6	5616.2	5727.8	6216.1
50°	7407.3	7496.8	7819.2	8207.4	8460.0	7864.0	6768.3	6192.2	6277.1	6396.3	6789.3
52.5°	6946.6	7087.8	7650.4	8200.7	8661.4	8449.6	7469.2	6885.5	6981.0	7124.0	7382.5
55°	5392.1	5599.1	7155.4	7945.1	8589.8	8828.2	8135.8	7622.7	7744.8	7894.6	7979.4
57.5°	4644.4	4735.0	5680.1	7479.7	8263.7	8926.4	8698.6	8367.6	8564.1	8728.1	8610.8
60°	4174.2	4249.5	4808.5	6755.9	7834.5	8771.0	9133.4	9061.8	9401.4	9596.9	9256.4
62.5°	3670.7	3742.3	4250.6	5641.0	7285.2	8512.5	9408.1	9702.8	10259.7	10473.3	9864.9
65°	3170.9	3232.0	3719.3	4739.8	6587.1	8254.1	9550.1	10256.9	11054.1	11275.3	10370.3
67.5°	2614.1	2664.6	3125.2	3998.7	5738.3	7900.3	9620.8	10692.7	11745.5	11935.3	10620.1
70°	1886.4	1925.5	2401.4	3162.4	4673.1	7291.8	9592.2	11001.6	12104.1	12255.7	10431.3
72.5°	891.6	927.0	1485.8	2053.3	3300.7	6107.4	9013.2	10756.6	11739.8	11664.5	9275.5
75°	475.9	506.5	853.5	1126.3	1743.3	4186.6	7375.8	9266.0	9858.1	9492.0	6855.1
77.5°	322.4	346.1	528.4	676.2	796.3	1987.5	4740.7	6415.4	6172.2	5567.6	3433.2
80°	255.6	280.3	433.0	457.8	385.3	718.1	1958.9	2969.7	2133.3	1706.1	976.5
82.5°	196.5	224.1	364.3	331.9	209.8	294.7	570.3	939.4	546.4	415.8	236.5
85°	120.1	149.8	286.1	211.8	118.3	134.5	193.6	261.3	166.9	139.2	84.9
87.5°	61.0	85.8	144.9	77.3	53.4	31.5	51.5	51.5	43.9	38.1	21.9
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: P963118

CATALOG NUMBER: NAV-SB2D-827-U-T3R

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2597.9	2597.9	2597.9	2597.9	2597.9	2597.9	2597.9	2597.9	2597.9	2597.9	2597.9
2.5°	2607.4	2626.5	2658.8	2689.4	2713.2	2736.1	2759.0	2771.4	2775.2	2790.5	2799.1
5°	2637.8	2673.2	2736.1	2795.3	2832.4	2855.3	2871.5	2881.1	2883.0	2887.7	2895.4
7.5°	2694.1	2750.4	2838.1	2897.3	2924.9	2923.0	2916.3	2892.5	2883.0	2874.4	2876.3
10°	2773.3	2847.7	2955.5	2996.5	2979.3	2933.5	2874.4	2804.8	2772.3	2740.8	2731.3
12.5°	2871.5	2965.9	3071.8	3069.9	2985.0	2867.7	2730.4	2623.6	2555.8	2507.3	2495.8
15°	2990.7	3099.5	3180.5	3115.7	2929.7	2718.9	2517.7	2378.5	2317.4	2264.0	2258.3
17.5°	3113.7	3230.1	3267.3	3101.3	2790.5	2498.6	2270.7	2161.0	2100.9	2072.3	2081.0
20°	3234.0	3349.3	3318.8	3019.3	2578.8	2248.7	2045.6	1985.5	1973.1	1979.9	1977.0
22.5°	3360.8	3463.8	3329.3	2861.1	2308.8	1993.2	1881.6	1883.5	1911.2	1931.2	1936.0
25°	3490.4	3560.1	3301.6	2632.2	2018.9	1805.3	1777.7	1808.2	1862.5	1901.7	1912.1
27.5°	3615.4	3645.9	3241.6	2348.9	1770.1	1670.9	1675.6	1738.6	1820.6	1874.9	1888.3
30°	3756.5	3722.2	3126.1	2030.4	1597.5	1555.4	1595.5	1668.9	1750.9	1799.6	1811.1
32.5°	3915.8	3788.0	2943.1	1735.7	1475.4	1463.0	1528.8	1576.4	1612.6	1627.0	1634.6
35°	4114.1	3880.5	2708.5	1528.8	1365.7	1395.2	1458.2	1434.4	1420.0	1412.4	1420.0
37.5°	4371.6	4005.5	2433.8	1394.3	1276.9	1346.6	1372.4	1298.0	1241.7	1214.0	1220.7
40°	4681.6	4188.6	2169.6	1290.4	1220.7	1304.6	1259.8	1170.1	1098.6	1059.5	1062.4
42.5°	5025.9	4380.2	1947.4	1212.2	1189.2	1270.3	1176.8	1070.0	954.6	942.3	954.6
45°	5387.3	4577.6	1795.8	1152.0	1173.9	1240.8	1129.1	956.5	874.5	925.1	951.8
47.5°	5748.8	4758.9	1704.3	1107.2	1166.3	1207.3	1087.2	893.6	835.4	908.9	943.2
50°	6151.2	4921.0	1663.3	1074.8	1157.7	1194.0	1024.3	877.4	794.4	843.1	879.2
52.5°	6550.9	5046.9	1632.7	1042.3	1145.3	1183.6	993.7	858.3	744.9	747.6	767.7
55°	6949.5	5128.9	1599.3	999.5	1117.8	1160.6	990.9	837.3	707.7	694.2	703.8
57.5°	7374.8	5175.6	1558.3	951.8	1070.0	1102.5	988.0	821.1	696.2	674.2	677.1
60°	7807.7	5244.3	1504.9	893.6	1006.1	1032.8	981.3	815.4	689.5	652.3	655.2
62.5°	8195.9	5268.1	1441.0	838.2	924.1	964.2	967.0	810.7	671.4	607.5	607.5
65°	8450.5	5165.2	1329.4	775.3	835.4	893.6	939.4	794.4	639.0	575.0	575.0
67.5°	8440.1	4871.4	1154.9	694.2	749.6	815.4	899.3	766.8	599.8	535.0	537.9
70°	8047.2	4291.6	933.7	599.8	655.2	731.4	847.8	725.7	553.1	491.2	496.8
72.5°	6901.7	3358.8	678.0	489.2	545.5	644.7	781.0	676.2	505.4	452.0	449.2
75°	4930.6	2125.7	459.7	375.8	424.4	546.4	698.1	618.0	461.6	454.0	428.2
77.5°	2518.6	1015.7	304.2	274.7	295.6	431.0	586.5	552.2	468.2	374.8	333.7
80°	819.2	374.8	191.7	187.0	196.5	287.1	454.0	452.9	354.8	254.6	225.1
82.5°	261.3	161.1	124.9	120.1	115.4	180.2	316.6	358.5	239.3	161.1	160.2
85°	103.9	96.4	73.4	67.8	48.7	84.9	165.9	238.4	178.4	116.3	119.2
87.5°	38.1	38.1	20.0	14.3	10.5	28.6	44.8	71.5	102.1	60.1	59.1
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)