

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: P967318

Luminaire Tested: **NAV-SB4D-827-U-SL3**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967318
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-12)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4D-827-U-SL3
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 2700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
SPILL LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 35526.5 lumens
Efficiency: N/A
Efficacy: 121.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B3 - U0 - G5

Input Watts (W): 293.6
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



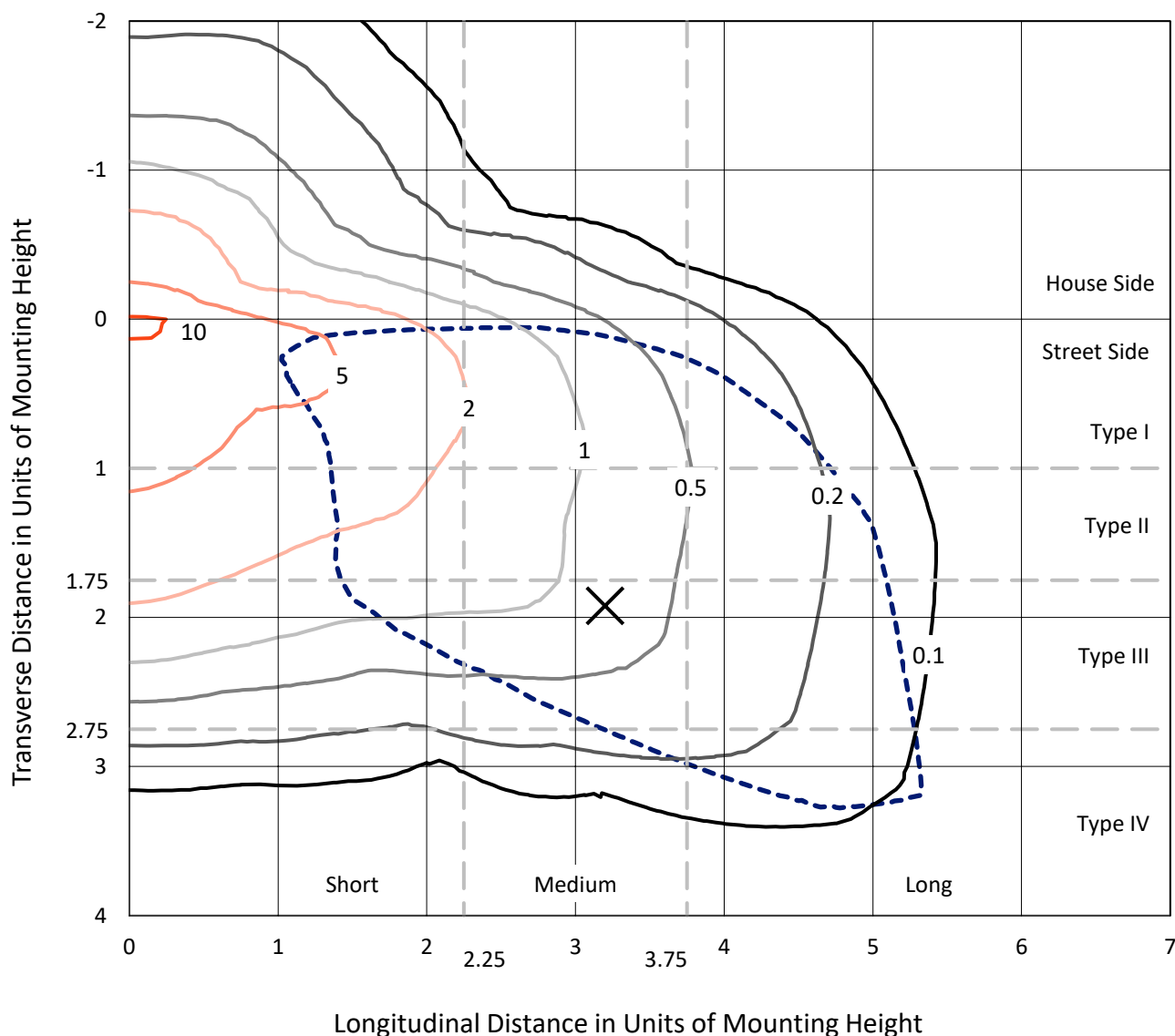
REPORT NUMBER: P967318

CATALOG NUMBER: NAV-SB4D-827-U-SL3

Iso-Footcandle Lines of Horizontal Illumination

× Max cd

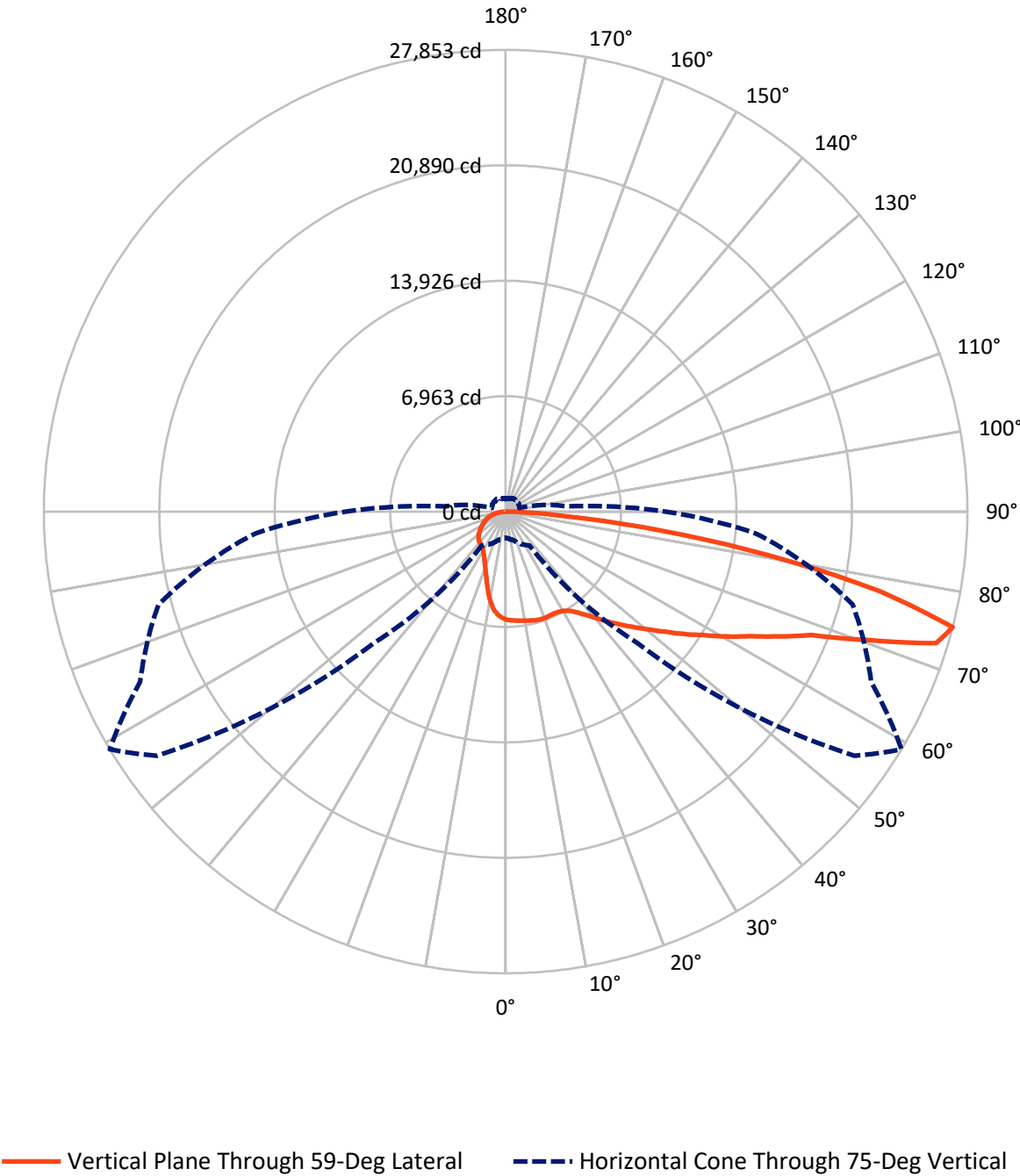
--- 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.4 fc
Type IV - Medium - N/A

REPORT NUMBER: P967318
CATALOG NUMBER: NAV-SB4D-827-U-SL3

Luminous Intensity Polar Plot



REPORT NUMBER: P967318

CATALOG NUMBER: NAV-SB4D-827-U-SL3

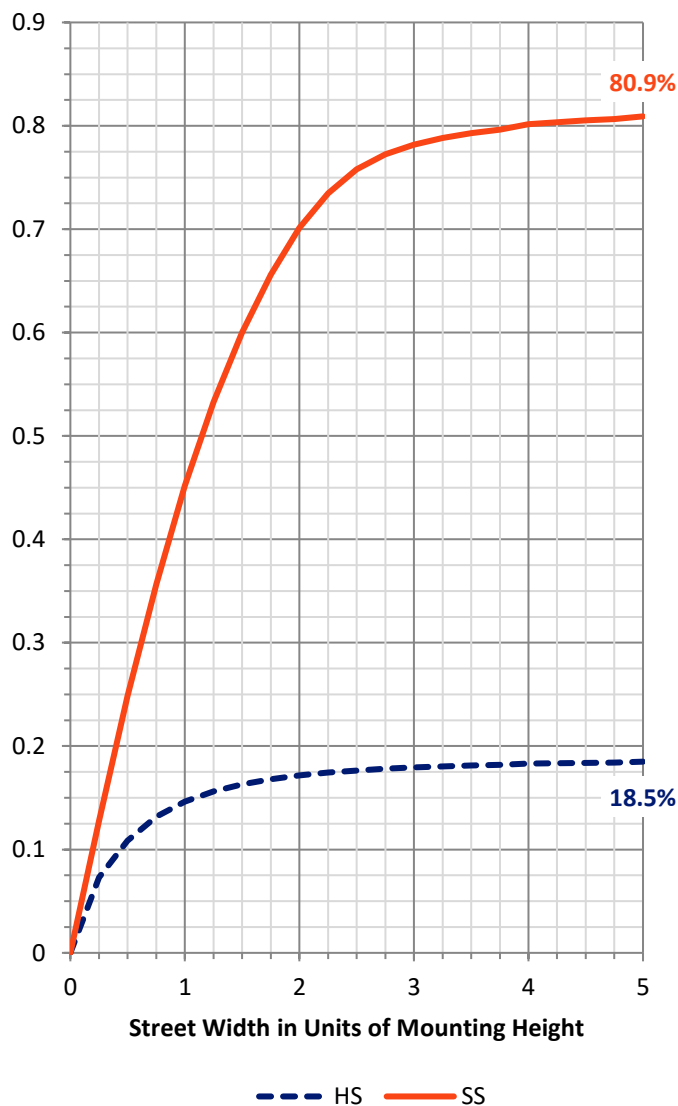
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6663.2	0.0	6663.2
	% Fixture	18.8	0.0	18.8
Street Side	Lumens	28863.2	0.0	28863.2
	% Fixture	81.2	0.0	81.2
Total	Lumens	35526.5	0.0	35526.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	584.7	1.6
10°-20°	1494.5	4.2
20°-30°	2270.1	6.4
30°-40°	3374.4	9.5
40°-50°	5018.3	14.1
50°-60°	6811.7	19.2
60°-70°	8316.0	23.4
70°-80°	6526.3	18.4
80°-90°	1130.5	3.2
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°	35526.5	100.0
0°-180°	35526.5	100.0

Coefficient of Utilization



REPORT NUMBER: P967318

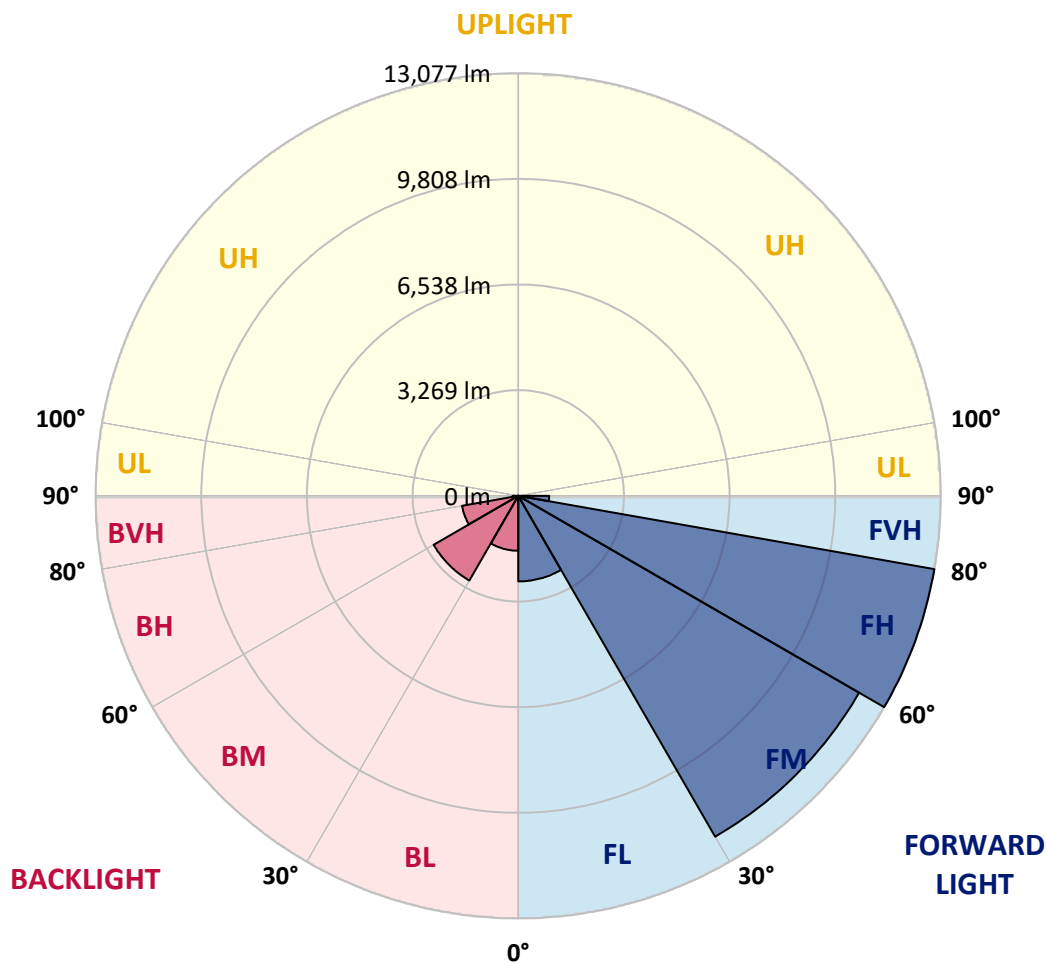
CATALOG NUMBER: NAV-SB4D-827-U-SL3

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2648.9	7.5			
FM	(30°-60°)	12180.0	34.3			
FH	(60°-80°)	13077.0	36.8			G5
FVH	(80°-90°)	957.5	2.7			G5
BL	(0°-30°)	1700.4	4.8	B3/2500		
BM	(30°-60°)	3024.4	8.5	B3/5000		
BH	(60°-80°)	1765.3	5.0	B3/2500		G3/2500
BVH	(80°-90°)	173.1	0.5			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G5

Type IV Medium



REPORT NUMBER: P967318

CATALOG NUMBER: NAV-SB4D-827-U-SL3

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	6520.8	6520.8	6520.8	6520.8	6520.8	6520.8	6520.8	6520.8	6520.8	6520.8	6520.8
2.5°	6576.2	6553.3	6576.2	6566.7	6562.9	6555.2	6557.1	6570.5	6562.9	6572.4	6539.9
5°	6532.3	6518.9	6541.9	6536.1	6560.9	6564.7	6589.6	6604.9	6614.4	6616.4	6591.6
7.5°	6459.7	6446.2	6478.7	6505.5	6559.1	6574.4	6625.9	6650.8	6664.1	6687.1	6650.8
10°	6194.0	6188.2	6268.5	6369.9	6495.9	6574.4	6652.7	6694.7	6715.7	6776.9	6734.9
12.5°	5723.9	5731.5	5836.7	6031.5	6283.9	6536.1	6683.3	6744.4	6776.9	6853.4	6834.2
15°	5274.8	5272.8	5387.5	5595.8	5949.4	6367.9	6698.6	6803.6	6859.1	6971.8	6956.6
17.5°	5014.8	5007.2	5087.5	5246.1	5574.8	6109.9	6660.3	6836.1	6954.6	7096.1	7082.6
20°	4967.0	4951.8	4993.8	5072.2	5305.3	5827.0	6560.9	6836.1	7031.1	7214.6	7206.9
22.5°	5141.0	5116.1	5099.0	5089.3	5192.5	5593.9	6448.2	6813.2	7143.8	7384.6	7371.3
25°	5490.7	5452.5	5364.5	5278.5	5248.0	5488.8	6348.8	6807.4	7312.0	7614.0	7564.3
27.5°	6056.4	6008.7	5830.9	5624.5	5439.1	5542.3	6304.9	6841.9	7497.4	7856.7	7757.3
30°	6757.8	6706.2	6482.6	6165.4	5832.8	5741.0	6360.2	6943.1	7734.3	8179.7	7984.7
32.5°	7386.6	7329.3	7138.1	6815.1	6366.0	6085.1	6536.1	7136.2	8107.0	8628.8	8326.8
35°	7944.6	7877.7	7705.7	7407.6	7019.6	6568.6	6853.4	7478.3	8636.4	9358.9	8791.2
37.5°	8491.2	8412.8	8225.5	7910.2	7638.8	7212.6	7291.0	7917.8	9339.7	10245.6	9406.6
40°	9102.7	8990.0	8762.6	8451.0	8187.3	7967.5	7866.3	8456.8	10054.5	11235.6	10174.9
42.5°	9695.2	9588.2	9316.8	9051.2	8720.5	8657.5	8533.2	9087.4	10836.2	12323.1	10954.7
45°	10333.5	10205.5	9876.8	9540.4	9332.1	9116.1	9179.2	9718.1	11602.5	13431.5	11772.6
47.5°	10931.7	10788.4	10400.5	10025.8	9911.1	9502.2	9771.6	10411.8	12399.5	14555.2	12582.9
50°	11254.7	11113.3	10790.3	10452.0	10362.2	9978.1	10413.8	11174.4	13234.6	15675.1	13360.8
52.5°	11524.2	11371.2	10948.9	10761.7	10734.8	10496.0	11205.0	12045.9	14069.8	16665.2	14111.9
55°	11810.9	11640.7	11101.8	10933.7	11056.0	11077.0	12143.4	13034.0	14952.8	17630.3	14820.9
57.5°	12141.4	11925.5	11249.0	11078.9	11369.4	11757.4	13221.3	14058.4	15820.5	18524.7	15451.6
60°	12453.0	12235.1	11531.9	11310.2	11707.7	12546.6	14457.7	15298.6	16802.7	19321.7	16047.8
62.5°	12514.1	12334.5	11757.4	11755.4	12166.3	13467.8	15921.7	16550.5	17660.9	20109.1	16583.0
65°	11455.4	11342.6	11000.5	11738.2	12823.8	14794.1	17551.9	18152.0	18752.1	20797.0	17053.1
67.5°	8718.6	8733.9	8709.0	10132.8	12292.4	16699.5	19912.2	19866.3	20099.4	21569.2	17593.9
70°	3986.6	4076.4	4661.3	6994.8	9848.1	16919.4	23814.7	23220.4	21790.8	22568.7	18062.1
72.5°	2153.8	2222.6	2461.5	3388.4	5920.7	15042.6	26731.1	27153.5	24040.2	23241.4	17548.1
75°	1580.6	1618.8	1785.0	2153.8	2486.3	11180.2	25685.7	27852.9	24321.2	21672.3	15153.4
77.5°	1183.0	1200.2	1335.9	1706.6	1272.8	5894.0	20523.8	23067.4	20820.0	17806.1	11193.5
80°	858.1	877.2	978.5	1280.4	892.5	2155.8	14092.7	16191.2	14259.0	11350.2	5578.7
82.5°	592.4	600.1	644.0	871.5	623.0	837.1	7996.2	9494.6	7959.9	3982.8	1505.9
85°	357.4	367.0	386.0	508.4	353.5	397.5	3451.5	3570.0	2379.3	951.7	468.2
87.5°	147.2	156.7	172.0	214.0	139.5	110.8	569.5	714.7	445.3	279.0	145.2
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: P967318

CATALOG NUMBER: NAV-SB4D-827-U-SL3

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	6520.8	6520.8	6520.8	6520.8	6520.8	6520.8	6520.8	6520.8	6520.8	6520.8	6520.8
2.5°	6530.4	6517.0	6480.7	6431.0	6385.1	6327.7	6302.9	6281.9	6262.9	6226.5	6209.2
5°	6570.5	6534.2	6436.7	6310.6	6167.2	6010.5	5857.7	5752.5	5662.7	5595.8	5540.4
7.5°	6631.6	6562.9	6385.1	6127.1	5798.4	5462.0	5158.2	4942.2	4779.8	4720.5	4617.3
10°	6694.7	6612.6	6302.9	5848.1	5280.5	4762.6	4359.3	4137.6	4007.6	3965.6	3900.6
12.5°	6769.3	6648.9	6174.9	5460.2	4701.4	4133.8	3782.1	3652.2	3585.3	3562.4	3568.1
15°	6878.2	6679.4	5981.9	4974.7	4149.1	3675.1	3447.7	3357.9	3323.5	3321.5	3329.2
17.5°	6960.4	6685.2	5681.8	4454.9	3724.8	3398.0	3210.7	3176.3	3199.2	3233.7	3247.0
20°	7052.1	6633.6	5288.1	3980.9	3426.7	3155.3	3076.9	3099.9	3155.3	3205.0	3222.2
22.5°	7117.1	6539.9	4812.3	3612.1	3168.7	3015.8	3012.0	3059.7	3090.3	3115.2	3128.5
25°	7174.4	6381.3	4307.7	3302.4	2956.5	2931.7	2973.7	2958.5	2937.4	2958.5	2971.8
27.5°	7216.5	6130.9	3856.7	3031.0	2807.5	2874.3	2849.5	2815.1	2813.2	2824.7	2843.8
30°	7203.1	5796.5	3485.9	2773.0	2702.3	2767.3	2708.0	2702.3	2696.6	2702.3	2723.4
32.5°	7203.1	5416.2	3201.2	2595.3	2635.5	2610.6	2604.9	2591.5	2568.5	2566.7	2591.5
35°	7243.3	5035.8	2956.5	2499.8	2580.0	2520.8	2524.6	2492.1	2444.3	2421.5	2444.3
37.5°	7325.4	4730.1	2713.8	2454.0	2482.5	2480.7	2465.3	2410.0	2325.8	2253.3	2278.1
40°	7524.1	4640.3	2547.5	2432.8	2436.7	2459.6	2419.5	2312.5	2121.3	2002.8	2018.1
42.5°	7835.7	4791.3	2511.2	2381.3	2406.1	2429.0	2350.7	2102.3	1966.6	1895.8	1895.8
45°	8231.3	5055.0	2589.6	2306.8	2333.5	2373.6	2140.5	2022.0	1960.8	1962.8	1972.3
47.5°	8732.0	5332.0	2734.8	2241.8	2228.4	2251.3	2001.0	1928.3	1844.3	1865.3	1918.8
50°	9311.1	5613.0	2872.5	2153.8	2111.8	2037.3	1911.1	1842.3	1735.3	1685.6	1699.0
52.5°	9937.9	5884.4	2927.9	2046.8	1985.6	1899.6	1850.0	1765.9	1635.9	1553.8	1551.8
55°	10532.3	6130.9	2866.7	1918.8	1859.6	1792.6	1785.0	1733.4	1593.9	1479.2	1479.2
57.5°	11094.2	6337.4	2713.8	1788.8	1731.5	1691.4	1742.9	1718.1	1542.3	1395.1	1387.4
60°	11570.0	6478.7	2492.1	1656.9	1616.8	1595.8	1674.1	1666.5	1469.6	1305.3	1299.6
62.5°	11948.4	6534.2	2247.5	1530.8	1521.3	1483.1	1578.6	1578.6	1377.9	1217.4	1211.7
65°	12244.6	6480.7	1999.1	1406.6	1425.7	1368.4	1462.1	1450.6	1280.4	1139.1	1131.4
67.5°	12506.5	6304.9	1723.8	1284.3	1328.2	1255.6	1339.7	1312.9	1173.4	1060.7	1053.1
70°	12623.1	5895.9	1410.4	1161.9	1215.4	1144.8	1217.4	1167.7	1053.1	976.6	961.3
72.5°	11686.6	4900.1	1110.4	1033.9	1079.8	1022.4	1085.6	1028.2	923.1	888.7	860.0
75°	9668.4	3677.0	854.2	894.4	928.9	884.9	926.9	884.9	789.2	814.2	743.4
77.5°	7021.6	2482.5	653.6	747.2	762.5	739.6	775.9	728.2	642.2	636.4	607.7
80°	3491.7	1454.4	512.2	590.5	584.8	569.5	611.5	588.7	516.0	546.6	540.9
82.5°	1011.0	623.0	372.7	414.7	403.2	407.0	437.7	449.2	672.7	667.0	682.2
85°	317.2	244.7	223.6	231.2	219.8	225.5	258.0	512.2	474.0	277.2	300.0
87.5°	82.2	84.0	55.5	59.2	61.2	72.7	82.2	311.5	149.0	97.5	103.2
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)