

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: P964151

Luminaire Tested: **NAV-SB3B-827-U-AFL**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P964151
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-14)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB3B-827-U-AFL
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 80 CRI, 2700K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND AUTOMOTIVE
FRONTLINE OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15315.6 lumens
Efficiency: N/A
Efficacy: 140.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B2 - U0 - G2

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

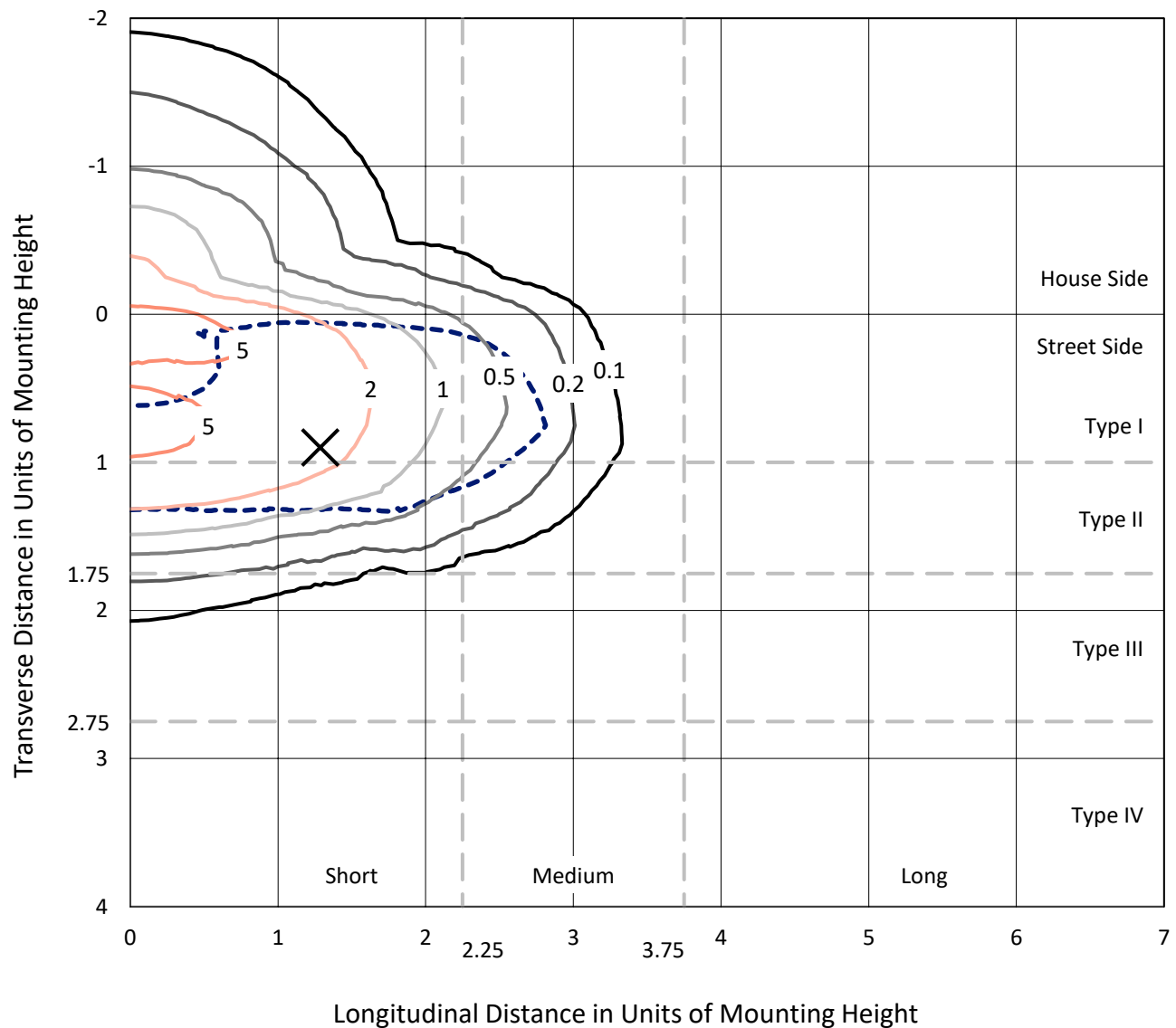


REPORT NUMBER: P964151

CATALOG NUMBER: NAV-SB3B-827-U-AFL

Iso-Footcandle Lines of Horizontal Illumination

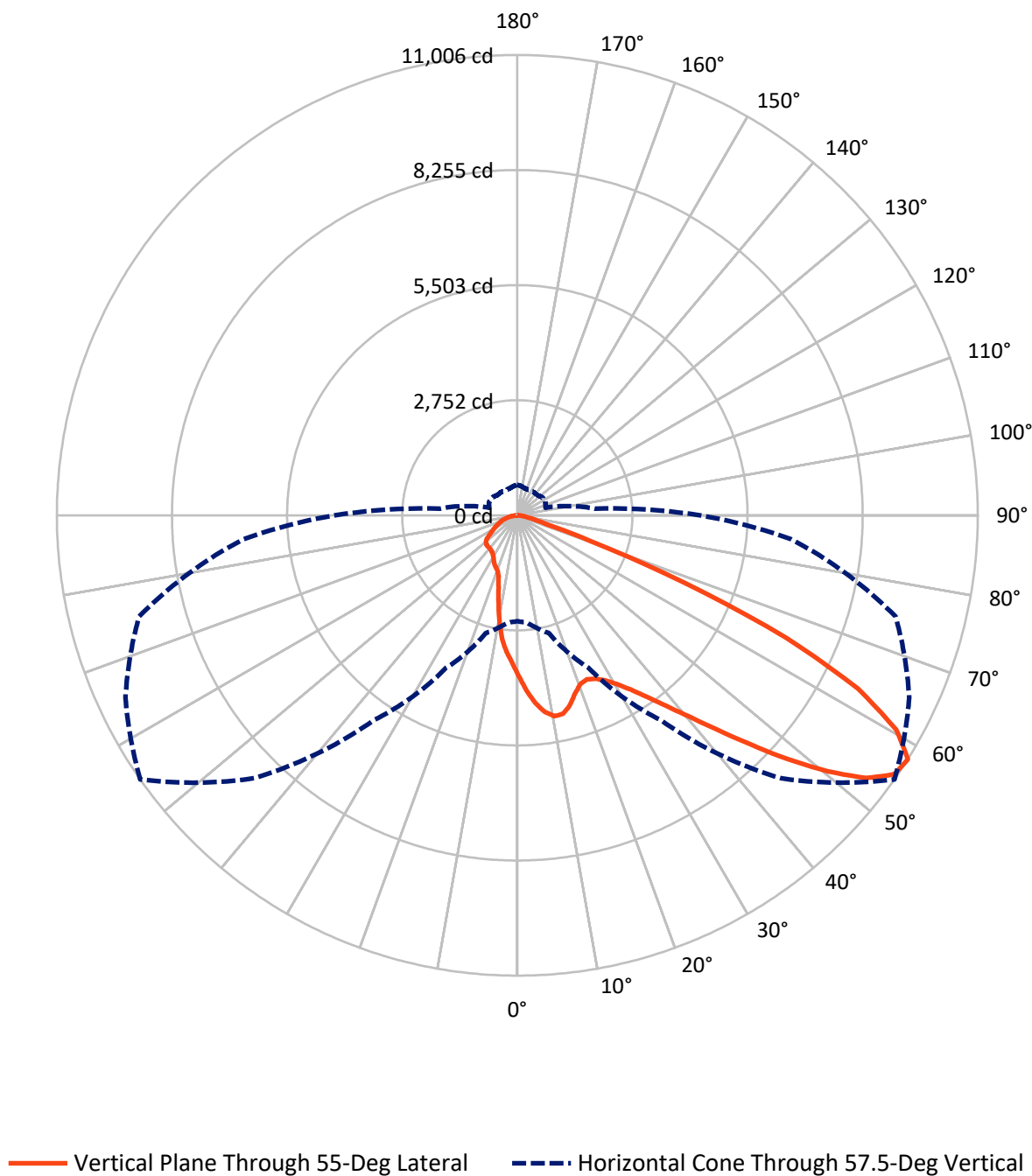
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.4 fc
Type II - Short - N/A

REPORT NUMBER: P964151
CATALOG NUMBER: NAV-SB3B-827-U-AFL

Luminous Intensity Polar Plot



REPORT NUMBER: P964151

CATALOG NUMBER: NAV-SB3B-827-U-AFL

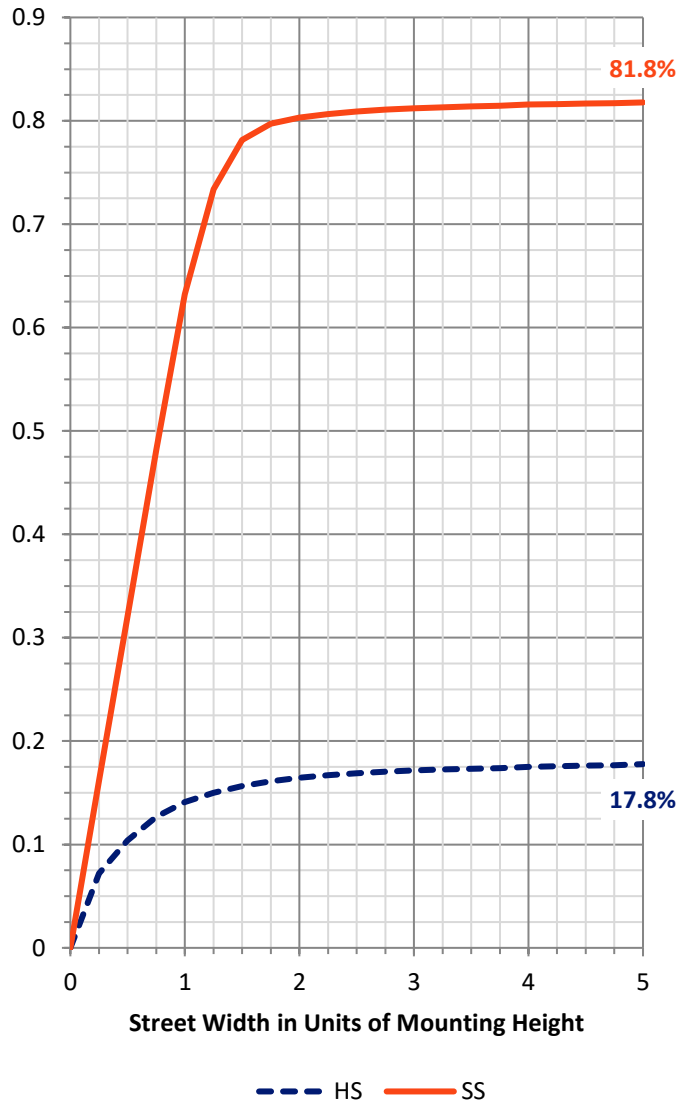
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2771.3	0.0	2771.3
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	12544.3	0.0	12544.3
	% Fixture	81.9	0.0	81.9
Total	Lumens	15315.6	0.0	15315.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	356.1	2.3
10°-20°	898.8	5.9
20°-30°	1434.3	9.4
30°-40°	2270.8	14.8
40°-50°	3475.7	22.7
50°-60°	3722.8	24.3
60°-70°	2342.0	15.3
70°-80°	692.6	4.5
80°-90°	122.5	0.8
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°	15315.6	100.0
0°-180°	15315.6	100.0

Coefficient of Utilization



REPORT NUMBER: P964151

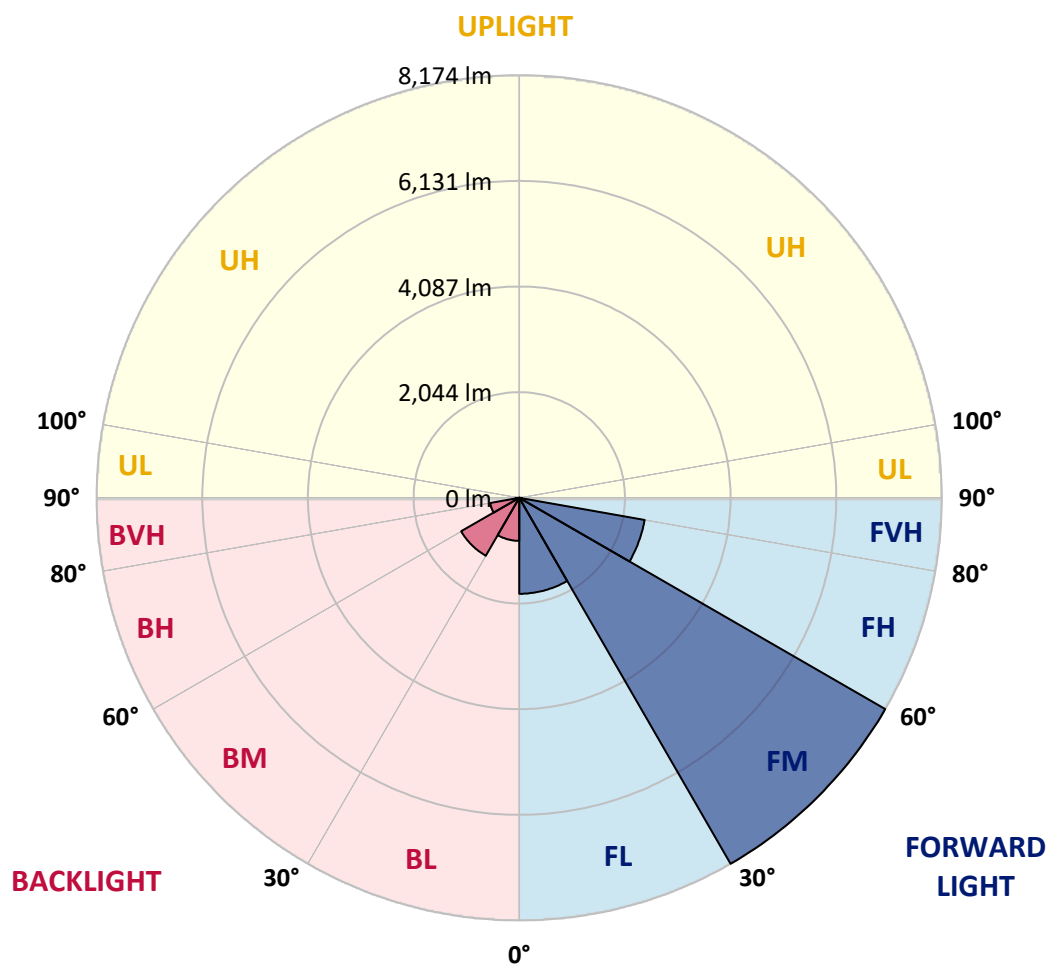
CATALOG NUMBER: NAV-SB3B-827-U-AFL

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1856.2	12.1			
FM	(30°-60°)	8174.0	53.4			
FH	(60°-80°)	2462.3	16.1			G2/5000
FVH	(80°-90°)	51.7	0.3			G1/100
BL	(0°-30°)	833.0	5.4	B2/1000		
BM	(30°-60°)	1295.3	8.5	B2/2500		
BH	(60°-80°)	572.3	3.7	B2/1000		G2/1000
BVH	(80°-90°)	70.7	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type II Short



REPORT NUMBER: P964151

CATALOG NUMBER: NAV-SB3B-827-U-AFL

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	3837.6	3837.6	3837.6	3837.6	3837.6	3837.6	3837.6	3837.6	3837.6	3837.6	3837.6
2.5°	4402.9	4399.7	4417.1	4357.8	4317.4	4262.8	4190.7	4098.9	3999.9	3895.4	3850.2
5°	4799.6	4771.9	4790.0	4745.8	4701.4	4619.1	4512.2	4362.5	4179.6	3971.4	3860.6
7.5°	4737.0	4718.0	4764.7	4804.3	4837.6	4827.2	4748.8	4592.1	4356.1	4053.8	3893.1
10°	4232.6	4211.3	4277.0	4414.0	4615.1	4790.0	4885.0	4787.7	4536.6	4144.0	3924.6
12.5°	3787.7	3777.4	3821.0	3931.8	4155.0	4490.7	4867.6	4958.6	4724.3	4250.9	3967.5
15°	3597.6	3585.0	3612.7	3669.0	3811.5	4124.2	4709.3	5075.9	4908.8	4374.4	4035.5
17.5°	3555.7	3541.5	3553.4	3582.7	3674.5	3912.8	4470.2	5133.7	5101.2	4512.2	4092.5
20°	3633.3	3621.4	3623.1	3621.4	3685.6	3874.8	4303.9	5111.5	5269.0	4638.8	4148.0
22.5°	3821.0	3801.1	3801.9	3760.0	3794.9	3941.3	4260.4	5052.1	5418.7	4749.6	4189.9
25°	4126.5	4091.0	4098.1	3991.1	3981.7	4090.2	4328.5	5006.2	5567.5	4838.3	4197.8
27.5°	4544.6	4504.3	4482.8	4323.8	4247.7	4301.5	4467.1	5022.0	5708.4	4915.2	4178.0
30°	5067.2	5018.1	4974.5	4748.8	4611.1	4591.3	4682.4	5126.5	5874.7	4995.8	4144.0
32.5°	5707.7	5650.7	5571.5	5272.2	5078.3	4974.5	4961.1	5312.6	6069.5	5098.9	4126.5
35°	6470.1	6395.7	6283.2	5896.1	5650.7	5438.4	5328.5	5581.0	6336.3	5254.0	4146.3
37.5°	7255.6	7171.6	7068.7	6607.9	6306.2	5993.5	5776.6	5945.2	6691.8	5464.6	4198.6
40°	7979.9	7885.7	7790.0	7379.8	7056.0	6679.1	6325.3	6406.0	7126.5	5716.4	4287.3
42.5°	8407.6	8337.9	8301.5	8079.8	7829.6	7447.1	7007.7	6952.3	7615.0	6006.2	4388.6
45°	8388.5	8360.0	8472.4	8564.3	8504.9	8292.8	7807.4	7556.4	8105.1	6257.1	4482.0
47.5°	7940.4	7959.4	8210.4	8726.6	8953.8	9064.7	8717.9	8149.4	8531.1	6444.8	4524.0
50°	6721.1	6736.9	7318.1	8431.2	9069.4	9694.1	9621.3	8728.2	8861.2	6559.6	4514.5
52.5°	5756.0	5766.2	6015.6	7555.6	8687.8	10010.8	10435.2	9273.7	9102.7	6591.3	4461.5
55°	4335.5	4371.2	4650.7	5927.8	7695.0	9759.8	10930.8	9835.8	9255.4	6594.4	4406.1
57.5°	2532.8	2571.6	2916.7	4023.6	5980.9	8884.9	11006.0	10334.7	9359.2	6569.1	4372.8
60°	1240.7	1257.3	1407.7	2114.8	3688.0	7199.3	10401.1	10576.2	9417.0	6555.6	4371.2
62.5°	836.1	833.7	840.1	1043.6	1817.0	4625.4	9140.6	10153.3	9386.1	6504.1	4355.4
65°	718.9	710.2	686.4	732.4	941.4	2115.5	7062.4	8891.3	9151.0	6375.1	4246.9
67.5°	621.6	622.3	623.1	608.8	672.2	976.2	4315.8	7003.7	8307.0	5763.9	3828.9
70°	514.7	521.7	524.9	524.9	547.9	640.5	1842.4	4800.4	6552.5	4519.2	3083.8
72.5°	468.7	453.7	455.2	447.3	447.3	487.7	741.9	2721.3	4128.2	2542.3	1882.0
75°	382.4	392.0	393.5	388.0	369.7	372.1	440.2	1141.6	1766.4	1054.6	930.3
77.5°	330.2	330.2	333.3	329.3	315.1	278.7	293.8	442.6	601.0	432.2	464.7
80°	265.3	264.4	277.9	285.8	263.6	205.8	187.7	244.7	266.8	190.0	241.5
82.5°	129.0	136.9	190.9	217.7	200.3	148.8	114.8	152.0	142.5	83.9	108.4
85°	75.2	71.2	85.5	121.2	114.8	82.3	55.5	79.1	74.4	42.7	43.6
87.5°	23.8	22.1	17.4	41.2	33.2	23.0	15.1	23.0	20.6	9.5	9.5
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: P964151

CATALOG NUMBER: NAV-SB3B-827-U-AFL

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3837.6	3837.6	3837.6	3837.6	3837.6	3837.6	3837.6	3837.6	3837.6	3837.6
2.5°	3794.0	3700.6	3608.0	3523.2	3471.8	3438.6	3405.3	3368.0	3353.8	3332.5
5°	3756.0	3575.5	3414.8	3276.2	3150.3	3051.4	2951.6	2870.8	2834.4	2859.0
7.5°	3733.9	3472.6	3224.8	2970.7	2726.0	2530.4	2360.2	2240.6	2186.8	2200.3
10°	3714.1	3356.2	2978.5	2577.2	2225.6	1983.3	1809.1	1718.1	1684.1	1691.1
12.5°	3695.8	3225.6	2681.6	2153.5	1779.8	1619.9	1570.0	1570.8	1577.2	1581.9
15°	3692.7	3068.0	2349.9	1783.0	1539.1	1528.9	1582.7	1616.7	1635.0	1640.5
17.5°	3688.0	2879.5	2011.9	1530.4	1480.5	1550.2	1600.1	1622.3	1636.5	1637.3
20°	3669.0	2640.5	1699.9	1410.1	1467.9	1528.1	1558.9	1576.3	1588.2	1592.2
22.5°	3610.4	2374.4	1456.8	1356.3	1417.3	1465.5	1501.9	1521.7	1528.9	1533.6
25°	3505.1	2076.8	1288.9	1304.8	1346.7	1407.7	1437.0	1440.9	1438.6	1445.8
27.5°	3367.3	1757.7	1184.5	1235.1	1288.9	1341.2	1357.0	1354.6	1349.9	1357.8
30°	3201.0	1471.1	1118.0	1156.7	1230.4	1277.9	1292.1	1286.6	1277.0	1285.8
32.5°	3025.3	1236.7	1063.3	1102.1	1182.0	1228.8	1243.0	1237.5	1230.4	1237.5
35°	2861.4	1072.8	1012.6	1065.7	1144.1	1190.0	1208.2	1209.0	1209.0	1217.7
37.5°	2710.9	977.0	970.7	1042.7	1118.0	1159.1	1185.2	1186.8	1152.8	1155.2
40°	2571.6	936.6	951.7	1027.7	1092.6	1132.2	1133.8	1045.1	982.6	980.9
42.5°	2457.5	928.8	957.2	1026.1	1074.4	1075.9	964.3	895.4	878.0	878.8
45°	2350.7	926.3	969.9	1026.1	1047.4	929.5	854.3	836.1	837.6	844.0
47.5°	2231.1	916.9	972.2	1011.9	969.9	826.6	804.4	796.5	793.3	794.9
50°	2100.5	882.8	942.2	983.4	836.9	782.3	754.5	752.1	756.1	758.5
52.5°	1962.8	827.4	890.7	931.9	775.9	743.4	712.6	718.1	735.5	741.1
55°	1872.5	762.5	822.7	828.9	733.2	707.0	680.9	693.6	726.0	736.4
57.5°	1848.7	693.6	745.1	737.9	678.6	675.4	659.5	670.7	711.8	726.8
60°	1841.6	631.8	669.0	663.5	625.5	640.5	636.5	642.1	656.3	661.1
62.5°	1786.2	582.7	601.0	593.1	578.0	604.1	613.6	601.7	612.8	618.4
65°	1645.2	543.1	534.4	528.9	535.3	558.9	578.0	554.2	564.5	580.4
67.5°	1412.4	489.3	465.6	471.9	491.7	504.3	528.9	501.9	510.7	537.6
70°	1142.5	421.2	399.9	418.0	437.1	463.2	467.1	449.0	469.6	499.6
72.5°	808.4	352.3	337.3	374.5	380.8	414.9	406.2	397.5	426.0	436.2
75°	560.6	284.2	275.5	304.0	327.0	356.3	349.9	360.3	420.5	425.2
77.5°	354.6	220.9	215.4	233.6	265.3	297.7	308.0	425.2	718.1	746.6
80°	205.8	164.7	158.4	172.6	200.3	230.4	296.9	521.7	473.4	467.9
82.5°	114.8	113.3	105.3	109.3	133.8	166.3	419.6	367.4	298.5	308.0
85°	53.8	66.5	57.0	54.6	75.2	194.7	280.2	209.8	139.3	136.2
87.5°	14.2	12.7	12.7	14.2	31.7	167.9	111.6	89.5	53.1	51.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)