

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: P959416

Luminaire Tested: **NAV-SB1A-827-U-SLL-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P959416
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-9)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB1A-827-U-SLL-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 80 CRI, 2700K, 350mA LIGHTSQUARE WITH 26 LEDS AND SPILL LIGHT
ELIMINATOR LEFT OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3052.4 lumens
Efficiency: N/A
Efficacy: 98.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G1

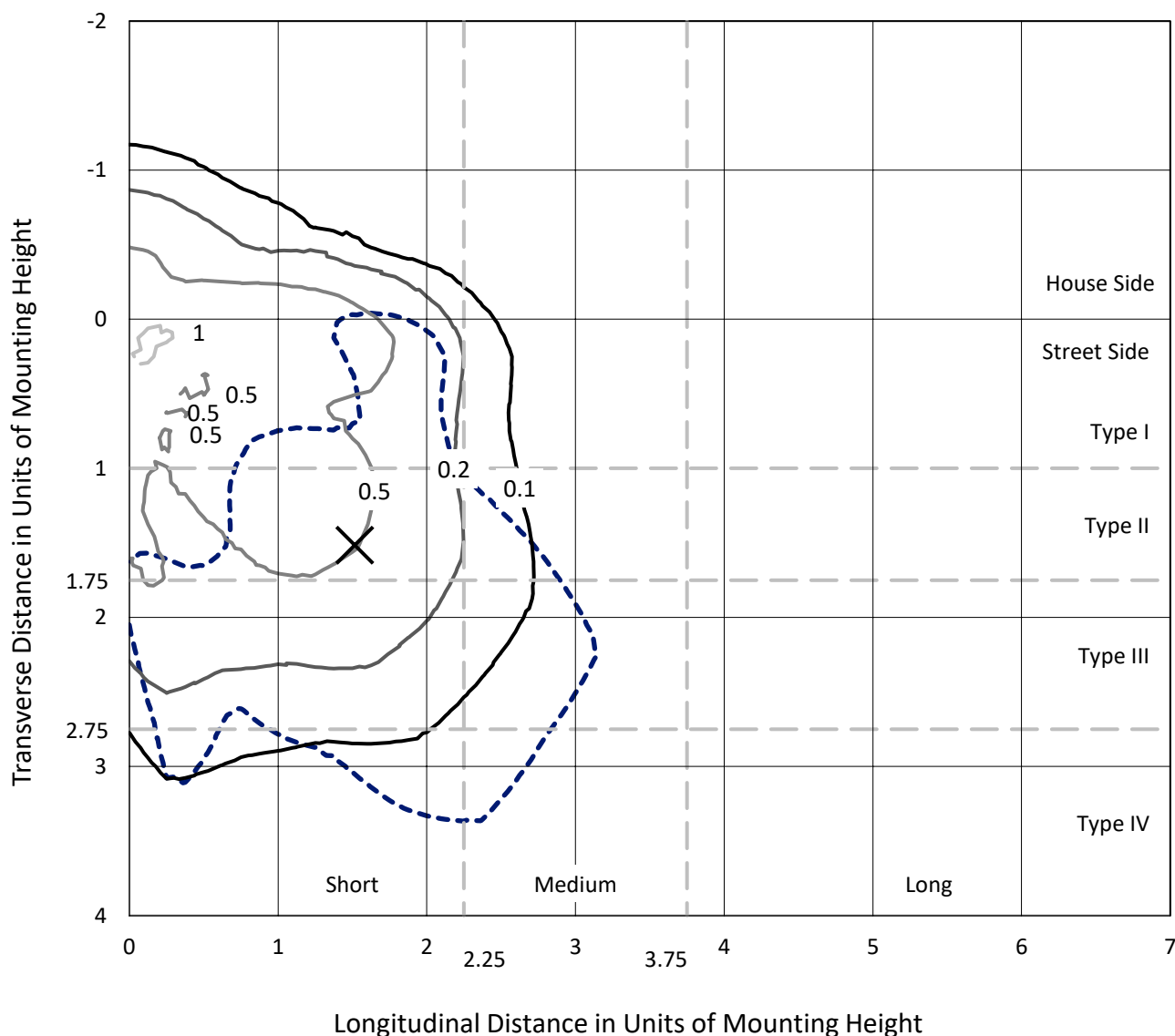
Input Watts (W): 30.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P959416
 CATALOG NUMBER: NAV-SB1A-827-U-SLL-HSS

Iso-Footcandle Lines of Horizontal Illumination

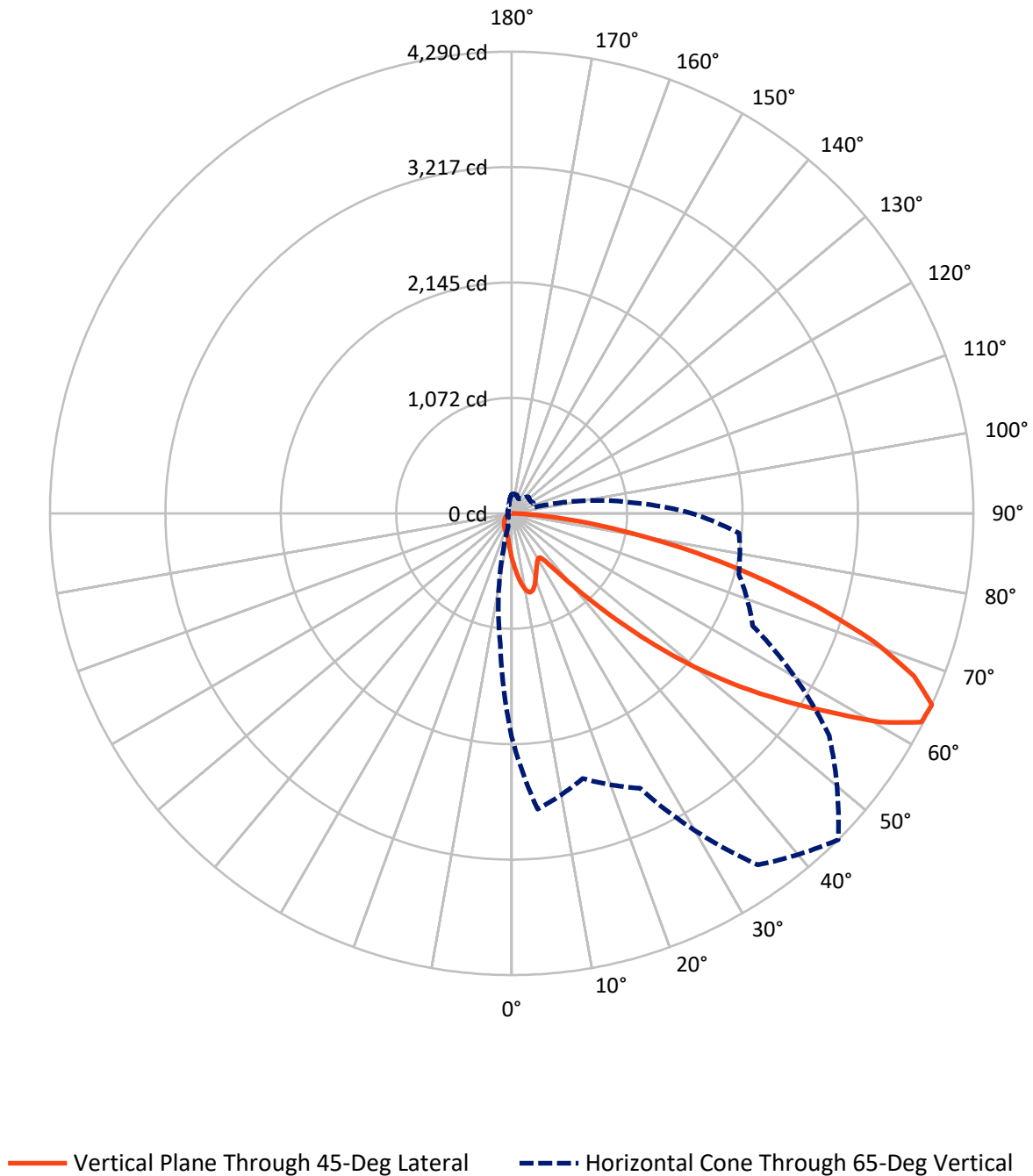
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.1 fc
 Type IV - Short - N/A

REPORT NUMBER: P959416
CATALOG NUMBER: NAV-SB1A-827-U-SLL-HSS

Luminous Intensity Polar Plot



REPORT NUMBER: P959416

CATALOG NUMBER: NAV-SB1A-827-U-SLL-HSS

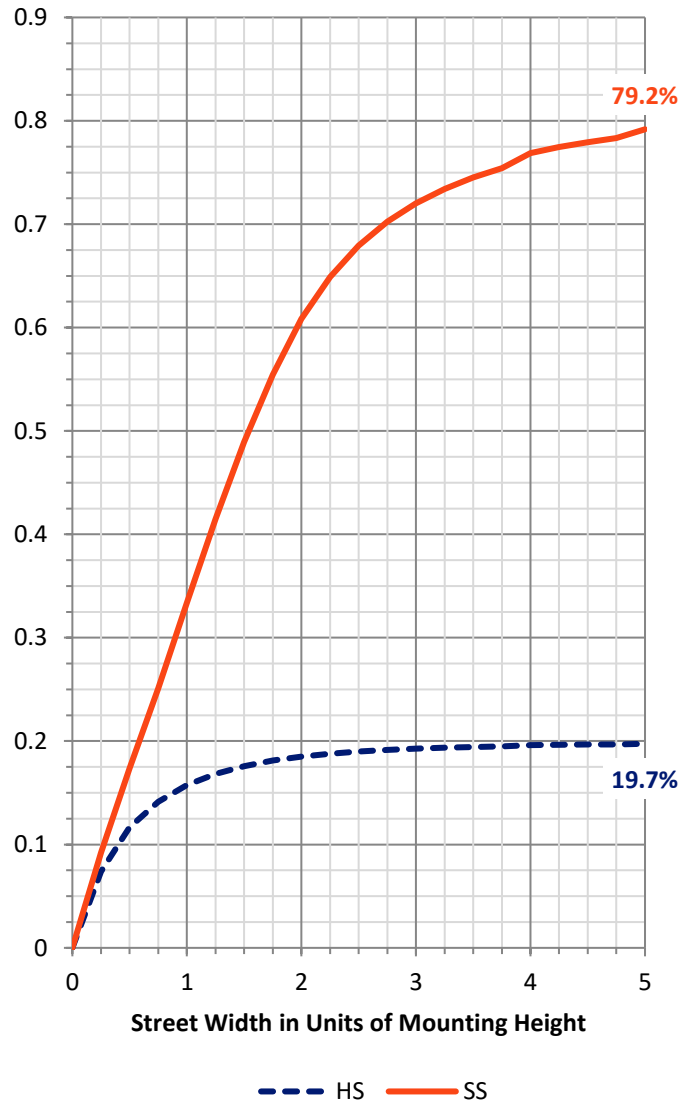
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	606.7	0.0	606.7
	% Fixture	19.9	0.0	19.9
Street Side	Lumens	2445.7	0.0	2445.7
	% Fixture	80.1	0.0	80.1
Total	Lumens	3052.4	0.0	3052.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	41.6	1.4
10°-20°	124.7	4.1
20°-30°	183.8	6.0
30°-40°	236.1	7.7
40°-50°	381.8	12.5
50°-60°	669.6	21.9
60°-70°	837.8	27.4
70°-80°	489.6	16.0
80°-90°	87.3	2.9
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°	3052.4	100.0
0°-180°	3052.4	100.0

Coefficient of Utilization



REPORT NUMBER: P959416

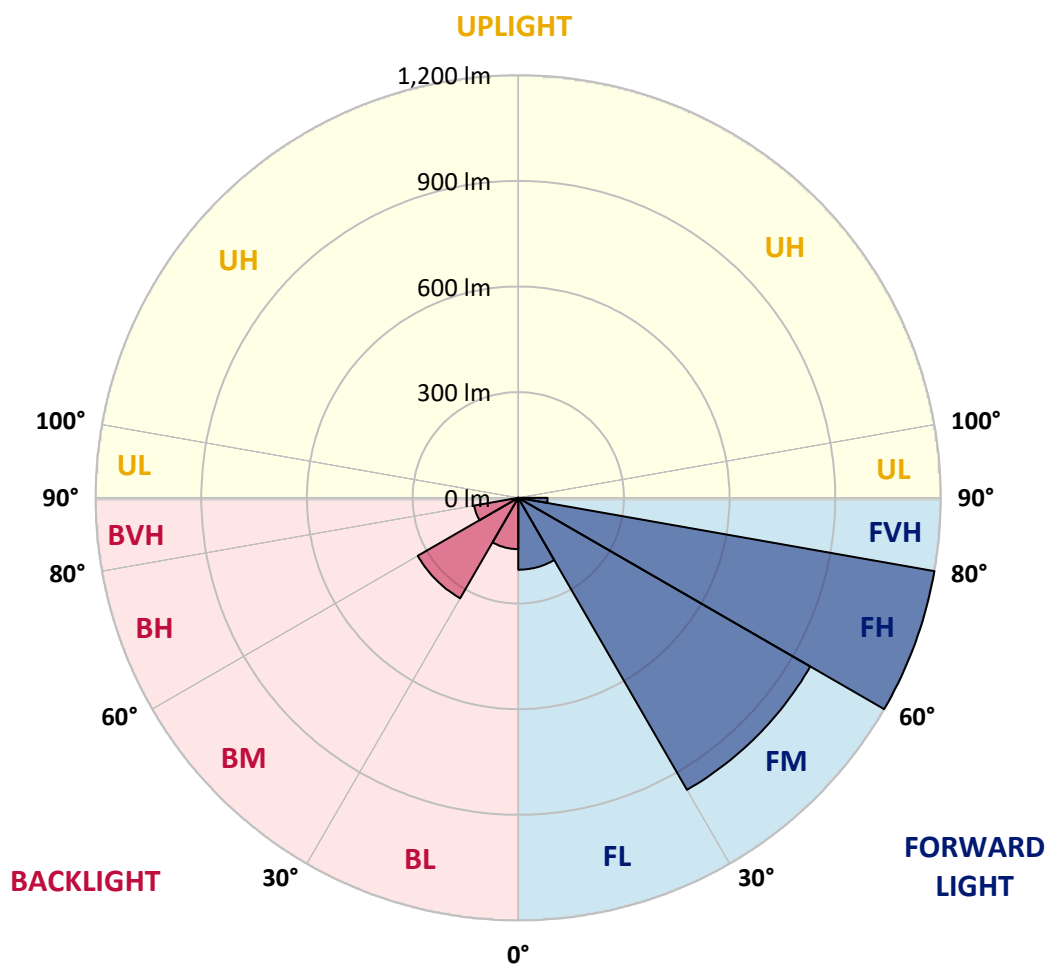
CATALOG NUMBER: NAV-SB1A-827-U-SLL-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	204.2	6.7			
FM	(30°-60°)	957.9	31.4			
FH	(60°-80°)	1200.3	39.3			G1/1800
FVH	(80°-90°)	83.3	2.7			G1/100
BL	(0°-30°)	145.9	4.8	B1/500		
BM	(30°-60°)	329.6	10.8	B1/1000		
BH	(60°-80°)	127.1	4.2	B1/500		G1/500
BVH	(80°-90°)	4.1	0.1			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1

Type IV Short



REPORT NUMBER: P959416

CATALOG NUMBER: NAV-SB1A-827-U-SLL-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	422.7	422.7	422.7	422.7	422.7	422.7	422.7	422.7	422.7	422.7	422.7
2.5°	473.6	477.1	485.1	489.3	495.9	496.3	496.3	490.6	490.4	478.8	477.5
5°	529.3	537.7	556.6	576.2	580.4	581.4	579.3	568.0	559.5	537.1	532.2
7.5°	584.6	600.8	629.6	655.7	664.1	664.1	659.0	640.5	623.3	590.7	578.5
10°	630.4	650.8	689.9	719.1	728.9	726.7	716.5	693.1	669.3	629.8	613.8
12.5°	660.7	683.7	726.5	750.1	759.9	754.5	742.7	720.0	694.9	653.3	635.3
15°	675.9	699.8	737.1	749.5	746.7	741.1	739.5	728.7	709.7	670.8	651.1
17.5°	682.3	704.7	730.5	722.7	699.6	695.2	709.9	723.8	719.1	685.9	667.5
20°	688.5	707.1	714.9	680.5	640.1	636.1	664.3	703.8	724.0	700.1	683.0
22.5°	696.9	708.5	692.5	635.9	592.3	583.1	614.3	673.7	725.5	717.9	700.9
25°	708.5	711.6	667.7	593.6	549.9	540.6	569.7	640.3	722.9	737.3	722.7
27.5°	722.3	715.8	643.9	558.3	516.0	507.4	536.4	608.1	715.8	756.6	746.3
30°	740.4	721.3	620.3	530.9	491.9	485.5	513.5	580.4	706.9	781.2	775.5
32.5°	758.7	723.5	598.5	515.0	486.4	488.7	511.6	565.5	697.3	804.7	807.5
35°	778.5	730.9	587.7	530.7	532.0	552.2	561.7	579.3	695.9	836.7	847.5
37.5°	805.3	747.3	600.5	609.2	652.9	694.7	687.0	647.3	712.9	884.5	904.5
40°	844.1	776.1	656.5	742.7	832.5	900.5	870.7	770.7	765.0	953.2	983.1
42.5°	900.5	821.9	755.7	905.9	1058.1	1170.0	1090.5	929.9	856.3	1051.4	1089.5
45°	983.7	896.3	875.9	1078.1	1336.3	1512.6	1347.3	1099.5	984.1	1200.1	1229.9
47.5°	1099.1	1005.3	988.3	1259.6	1674.4	1902.4	1632.0	1256.9	1129.7	1402.8	1409.7
50°	1252.4	1152.3	1094.9	1458.1	2045.2	2299.9	1916.5	1408.7	1296.4	1650.5	1642.6
52.5°	1454.7	1357.4	1219.2	1647.2	2426.5	2688.9	2202.3	1542.0	1503.3	1938.0	1921.6
55°	1730.6	1665.8	1389.1	1827.6	2807.5	3080.2	2476.9	1667.8	1776.6	2279.5	2180.2
57.5°	2073.0	2119.2	1634.1	2036.8	3150.0	3483.6	2752.8	1843.6	2131.6	2661.3	2330.3
60°	2293.7	2722.1	2103.2	2346.1	3539.2	3939.6	3130.9	2177.9	2504.7	2798.2	2301.7
62.5°	2240.3	2913.9	2665.1	2741.1	3897.2	4271.3	3501.4	2513.7	2574.9	2596.5	2081.4
65°	2076.5	2759.1	2550.5	2817.8	3987.8	4289.9	3600.4	2470.4	2184.2	2119.8	1673.0
67.5°	1851.2	2575.5	2278.2	2614.3	3824.0	4028.4	3416.0	2185.3	1688.0	1590.8	1213.7
70°	1607.8	2372.4	2099.4	2385.9	3511.8	3572.4	3102.5	1922.0	1241.5	1074.3	778.9
72.5°	1376.9	2160.9	1977.0	2151.8	3095.1	2969.4	2694.3	1689.2	904.0	774.9	553.7
75°	1140.8	1848.8	1802.8	1873.8	2547.3	2338.9	2238.7	1398.6	709.5	560.6	382.1
77.5°	880.3	1444.6	1550.6	1500.6	1793.0	1737.4	1735.2	1051.0	518.3	374.1	239.5
80°	602.5	1006.9	1211.4	1058.5	1163.7	1135.3	1306.9	705.1	376.0	225.2	133.4
82.5°	354.1	612.9	843.3	512.5	643.5	660.5	778.3	343.0	221.2	52.0	29.0
85°	143.6	242.0	329.7	200.6	310.4	261.8	295.4	96.4	61.6	1.2	0.0
87.5°	36.2	77.4	54.2	22.5	36.0	33.0	26.0	11.8	2.6	0.0	0.0
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: P959416

CATALOG NUMBER: NAV-SB1A-827-U-SLL-HSS

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°	185°
0°	422.7	422.7	422.7	422.7	422.7	422.7	422.7	422.7	422.7	422.7	422.7
2.5°	469.3	464.5	452.5	440.5	430.9	417.8	409.2	398.9	389.0	380.2	378.5
5°	519.0	503.0	481.1	461.1	440.7	421.0	401.4	380.8	361.9	350.3	343.0
7.5°	559.3	531.2	502.1	476.7	452.1	429.0	403.1	378.1	348.4	332.7	318.4
10°	589.4	552.4	514.3	485.1	460.3	437.8	415.9	390.7	355.0	335.2	313.8
12.5°	609.2	565.3	520.7	487.2	459.5	442.0	432.3	422.5	386.9	363.8	332.7
15°	622.9	574.3	525.1	482.4	448.3	435.5	445.2	456.5	433.8	407.1	366.5
17.5°	637.8	586.1	527.0	469.3	426.7	421.2	446.2	472.5	471.5	445.0	405.2
20°	653.5	596.3	525.7	448.3	400.4	405.2	437.2	467.7	480.5	466.2	430.9
22.5°	669.7	606.3	520.9	421.0	375.8	390.9	422.9	449.6	464.7	460.3	433.4
25°	690.1	620.1	513.7	391.5	355.4	376.4	406.3	427.9	438.4	438.2	419.7
27.5°	714.5	638.6	509.9	367.8	340.9	360.0	386.5	405.8	413.2	413.2	398.5
30°	742.9	660.5	505.7	352.2	332.4	343.0	363.6	382.5	389.9	389.9	377.4
32.5°	774.5	681.5	495.6	342.8	326.2	326.4	339.4	356.6	365.5	366.7	357.9
35°	812.3	704.1	473.6	335.2	318.8	310.2	316.5	330.8	341.3	344.0	338.6
37.5°	861.9	731.5	442.0	324.0	307.4	293.2	294.6	305.6	317.1	321.3	317.8
40°	928.6	763.9	409.2	308.0	291.4	274.4	273.8	281.8	293.2	297.8	295.9
42.5°	1016.7	802.9	377.9	292.7	272.1	254.6	253.6	259.9	269.8	274.6	273.8
45°	1129.4	850.5	351.0	280.7	253.2	236.0	235.5	240.8	249.4	254.4	253.4
47.5°	1286.1	898.3	332.7	274.4	238.2	220.6	221.4	226.0	233.8	237.4	236.0
50°	1490.2	912.9	323.4	274.4	230.2	206.9	211.2	214.9	220.8	222.9	221.0
52.5°	1686.2	864.9	315.0	276.1	231.3	195.4	204.4	207.2	212.2	213.0	210.3
55°	1782.4	743.5	303.4	276.5	237.8	185.4	199.0	204.0	205.8	205.6	201.0
57.5°	1749.4	601.2	283.9	274.8	242.2	179.2	192.2	201.8	203.2	201.2	192.6
60°	1633.4	442.6	269.0	262.4	240.6	177.2	181.9	197.2	199.2	196.6	182.6
62.5°	1439.2	307.2	257.4	235.1	233.2	176.6	165.7	187.2	191.8	188.2	167.6
65°	1133.0	217.0	221.6	206.1	217.2	173.2	148.8	175.0	181.2	175.8	146.8
67.5°	766.7	156.6	179.6	186.8	191.4	165.7	136.6	161.0	169.5	162.4	122.6
70°	414.0	110.0	118.6	157.3	162.6	152.6	125.8	147.0	156.6	148.8	99.8
72.5°	244.6	79.0	83.0	126.4	135.4	134.4	113.6	130.6	142.4	133.1	81.2
75°	134.8	53.4	59.3	91.6	110.0	103.6	97.6	110.6	122.6	113.6	62.6
77.5°	60.4	32.0	41.2	60.2	86.4	71.0	75.4	86.2	97.4	87.9	41.8
80°	23.4	17.8	27.4	32.8	62.8	39.4	48.6	63.6	71.5	64.0	25.4
82.5°	3.0	8.0	11.8	12.8	36.6	20.8	28.2	40.0	39.4	34.0	12.8
85°	0.0	1.4	1.6	0.8	15.8	7.6	9.2	13.0	12.2	9.2	1.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0
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: P959416

CATALOG NUMBER: NAV-SB1A-827-U-SLL-HSS

CANDELA DISTRIBUTION (continued):

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	422.7	422.7	422.7	422.7	422.7	422.7	422.7	422.7	422.7	422.7	422.7
2.5°	368.2	360.6	356.8	353.7	356.6	358.3	358.3	365.5	369.7	371.4	383.1
5°	324.5	310.4	300.9	295.2	297.1	299.2	301.6	310.6	316.7	320.7	339.0
7.5°	290.0	268.5	255.3	248.4	249.4	250.8	252.8	261.6	267.7	273.0	293.4
10°	273.0	242.6	225.2	216.8	215.4	214.5	213.8	219.1	223.8	228.0	248.2
12.5°	273.8	231.5	210.3	200.0	195.6	190.5	186.5	187.4	190.3	195.6	208.4
15°	284.5	228.0	202.5	189.6	182.3	176.4	171.6	170.6	171.6	172.4	180.4
17.5°	299.0	227.6	195.8	179.8	172.2	167.4	163.0	161.5	161.7	162.8	164.8
20°	310.6	226.2	188.2	170.4	163.6	159.4	155.0	153.5	154.0	154.2	156.4
22.5°	316.7	224.4	179.8	160.8	155.2	151.0	147.0	146.8	146.8	148.0	149.8
25°	316.7	220.4	172.2	151.8	146.8	143.0	138.2	139.0	139.4	141.1	143.6
27.5°	309.1	212.8	166.2	144.0	138.8	135.0	130.6	131.6	132.2	134.2	137.4
30°	299.4	203.8	159.2	136.6	130.6	127.8	124.0	124.5	125.4	127.4	131.0
32.5°	289.2	193.0	153.5	129.4	123.2	121.2	117.0	117.6	118.4	120.7	124.7
35°	277.8	180.4	146.8	122.6	116.5	114.8	110.0	110.4	111.6	114.2	118.2
37.5°	265.8	170.1	140.0	116.0	109.8	108.0	103.0	103.4	105.0	107.8	111.6
40°	254.0	160.0	132.9	109.2	102.8	101.4	95.8	96.4	98.0	101.2	105.2
42.5°	241.2	152.2	123.6	102.0	95.2	93.8	88.8	89.4	91.2	94.4	98.4
45°	225.8	147.2	113.4	95.2	87.6	86.2	81.6	82.8	85.0	88.1	92.4
47.5°	210.0	145.1	104.8	88.1	79.9	78.6	74.8	77.0	79.2	81.8	86.4
50°	195.0	142.4	95.8	81.4	73.2	72.0	69.4	72.2	74.4	76.8	81.2
52.5°	177.7	136.4	87.9	75.4	67.5	67.0	65.8	68.4	70.4	72.6	76.4
55°	159.8	127.0	81.0	70.2	62.6	63.0	62.4	64.6	66.2	68.2	71.5
57.5°	144.2	115.0	75.4	64.6	58.4	59.8	58.8	60.0	61.0	63.3	66.0
60°	128.4	100.8	69.4	57.8	54.2	55.8	53.4	53.2	53.6	54.2	59.3
62.5°	107.2	85.8	61.8	52.0	49.6	50.2	45.8	42.4	42.4	43.2	50.6
65°	86.2	72.0	53.4	45.2	43.4	42.9	36.6	32.0	31.6	33.4	40.0
67.5°	70.8	59.8	45.0	37.6	36.4	36.8	32.2	27.6	27.2	29.2	34.0
70°	58.6	48.2	36.0	29.0	30.2	32.2	27.6	23.2	22.5	24.4	29.0
72.5°	46.6	37.6	27.6	21.4	25.0	27.4	22.5	18.2	17.8	19.6	24.0
75°	34.2	27.0	18.8	15.6	19.4	21.4	16.4	13.0	12.4	13.8	18.2
77.5°	21.2	15.2	11.8	9.2	13.2	14.3	8.6	7.6	7.4	8.4	11.6
80°	9.8	6.6	5.6	3.2	4.8	5.6	3.6	4.0	4.2	5.0	7.2
82.5°	2.8	1.0	0.2	0.0	0.0	1.6	0.8	1.6	2.2	3.2	4.6
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	1.0	1.8	3.4
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	1.6
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: P959416

CATALOG NUMBER: NAV-SB1A-827-U-SLL-HSS

CANDELA DISTRIBUTION (continued):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	422.7	422.7	422.7	422.7	422.7	422.7	422.7	422.7
2.5°	392.0	400.4	413.8	427.7	441.4	455.3	468.7	473.6
5°	355.6	374.9	401.6	430.2	459.7	489.5	516.9	529.3
7.5°	315.0	342.8	382.9	427.7	474.6	521.5	564.6	584.6
10°	271.7	306.8	352.6	413.2	480.5	545.3	604.5	630.4
12.5°	230.4	267.2	318.0	390.5	475.9	558.9	630.2	660.7
15°	196.0	228.6	283.2	363.6	460.9	559.8	642.4	675.9
17.5°	170.1	191.4	247.9	333.7	441.4	552.0	646.6	682.3
20°	157.3	163.2	202.1	295.4	423.1	544.6	650.8	688.5
22.5°	149.8	151.2	165.3	246.0	401.2	542.3	658.2	696.9
25°	143.6	144.0	147.8	195.0	367.8	540.9	669.5	708.5
27.5°	137.6	137.6	139.6	157.0	322.4	534.5	684.3	722.3
30°	131.4	131.4	132.9	139.0	269.2	522.1	701.9	740.4
32.5°	125.2	125.2	126.4	130.8	214.9	506.6	718.1	758.7
35°	118.8	118.4	120.0	124.7	171.0	486.8	734.3	778.5
37.5°	112.0	111.8	113.6	118.8	147.6	463.9	746.5	805.3
40°	105.0	105.0	106.8	112.5	140.9	435.1	765.9	844.1
42.5°	98.4	98.0	100.1	107.0	135.8	407.5	800.5	900.5
45°	92.1	91.2	93.2	101.8	127.0	397.8	865.3	983.7
47.5°	86.2	84.2	85.8	95.4	119.0	434.0	971.3	1099.1
50°	81.4	77.4	78.8	89.2	113.0	512.5	1108.8	1252.4
52.5°	76.4	71.0	72.0	81.4	107.4	587.1	1257.9	1454.7
55°	71.0	65.2	65.6	73.6	99.6	598.3	1403.4	1730.6
57.5°	65.2	59.8	59.8	66.4	94.0	518.5	1515.3	2073.0
60°	58.6	55.1	54.0	60.8	99.0	365.9	1528.4	2293.7
62.5°	51.6	49.6	48.2	55.4	102.8	216.8	1423.4	2240.3
65°	43.4	42.9	41.8	60.8	86.6	128.0	1221.9	2076.5
67.5°	36.4	35.8	35.8	63.8	65.8	80.6	954.7	1851.2
70°	31.4	29.0	29.0	48.2	40.0	55.8	666.6	1607.8
72.5°	26.2	23.8	22.0	38.4	29.8	40.8	416.6	1376.9
75°	21.0	19.2	17.0	25.4	22.2	31.0	242.0	1140.8
77.5°	15.2	14.3	12.0	18.8	16.2	22.2	144.0	880.3
80°	7.8	8.0	7.6	10.8	11.0	15.2	82.0	602.5
82.5°	4.6	3.6	4.0	5.2	6.4	8.6	31.0	354.1
85°	3.0	1.8	1.8	2.6	3.2	3.4	9.4	143.6
87.5°	1.4	0.6	0.8	1.2	1.0	0.8	0.4	36.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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