

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: P959447

Luminaire Tested: **NAV-SB1A-830-U-SLL-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P959447
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-830-U-SLL-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 80 CRI, 3000K, 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: 3153.9 lumens
Efficiency: N/A
Efficacy: 102.1 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



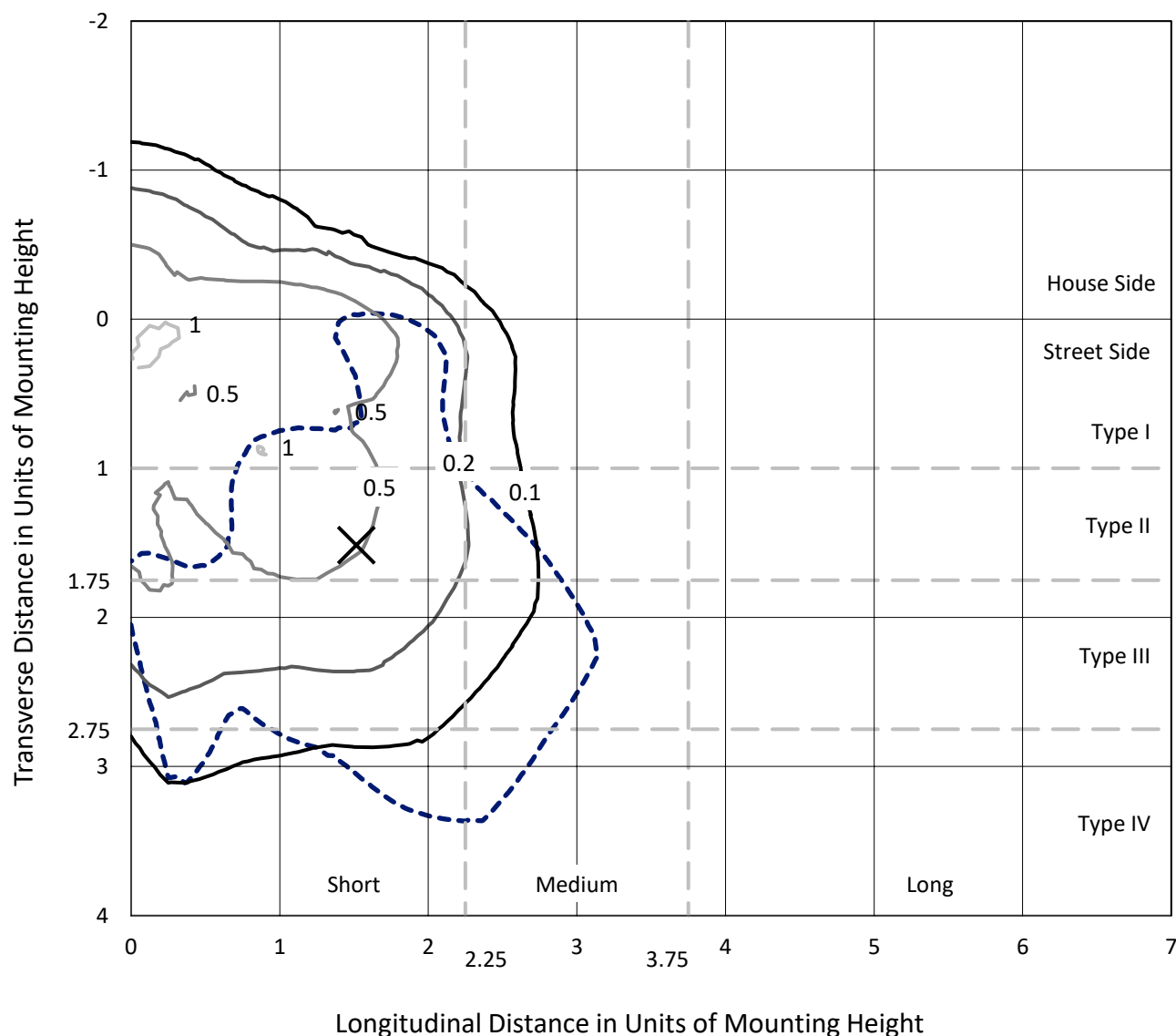
REPORT NUMBER: P959447

CATALOG NUMBER: NAV-SB1A-830-U-SLL-HSS

Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

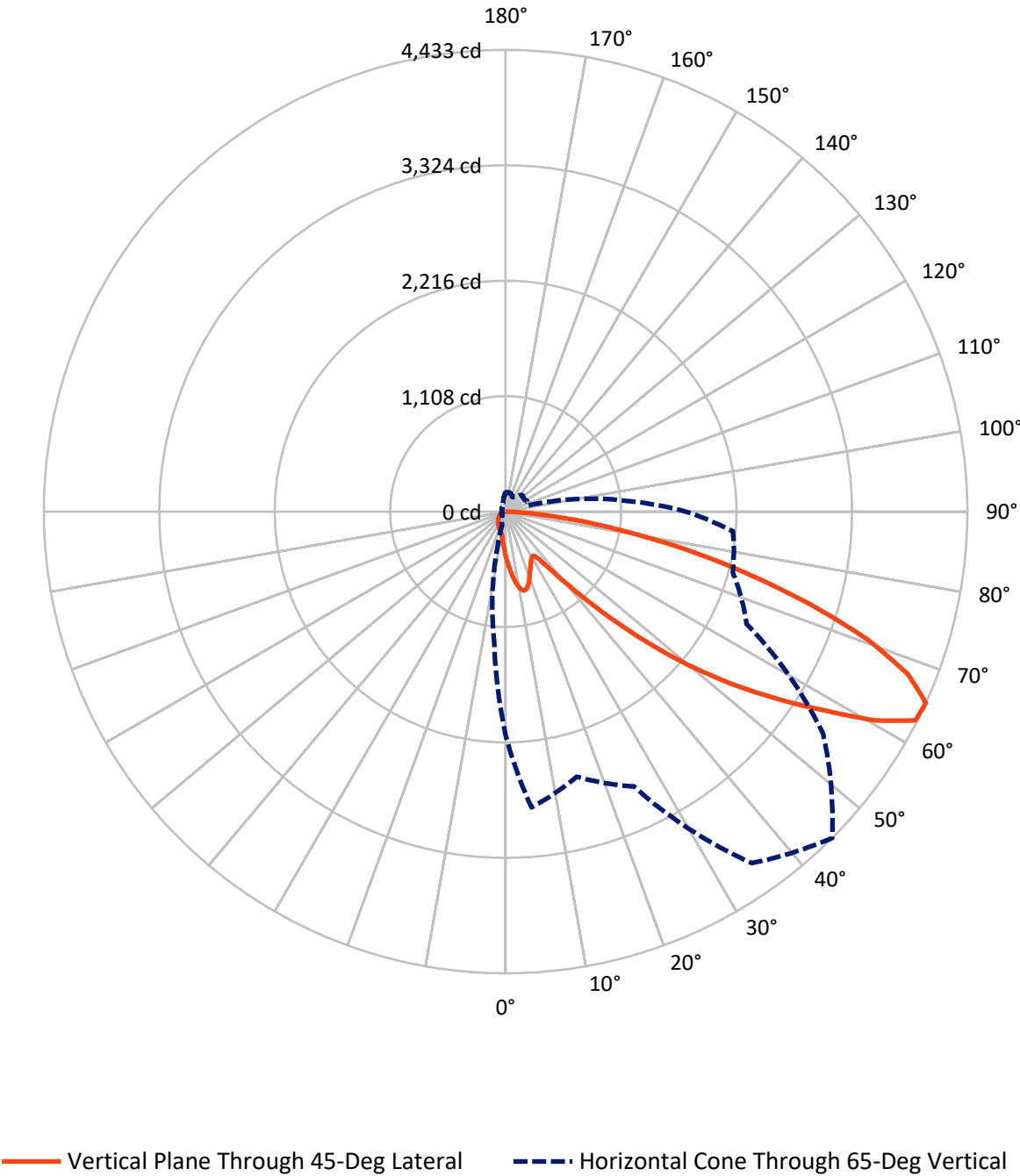


Based on 25 foot mounting height. Maximum calculated value = 1.1 fc

Type IV - Short - N/A

REPORT NUMBER: P959447
CATALOG NUMBER: NAV-SB1A-830-U-SLL-HSS

Luminous Intensity Polar Plot



REPORT NUMBER: P959447

CATALOG NUMBER: NAV-SB1A-830-U-SLL-HSS

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	626.9	0.0	626.9
	% Fixture	19.9	0.0	19.9
Street Side	Lumens	2527.0	0.0	2527.0
	% Fixture	80.1	0.0	80.1
Total	Lumens	3153.9	0.0	3153.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	43.0	1.4
10°-20°	128.9	4.1
20°-30°	189.9	6.0
30°-40°	243.9	7.7
40°-50°	394.5	12.5
50°-60°	691.8	21.9
60°-70°	865.7	27.4
70°-80°	505.9	16.0
80°-90°	90.2	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°	3153.9	100.0
0°-180°	3153.9	100.0

Coefficient of Utilization



REPORT NUMBER: P959447

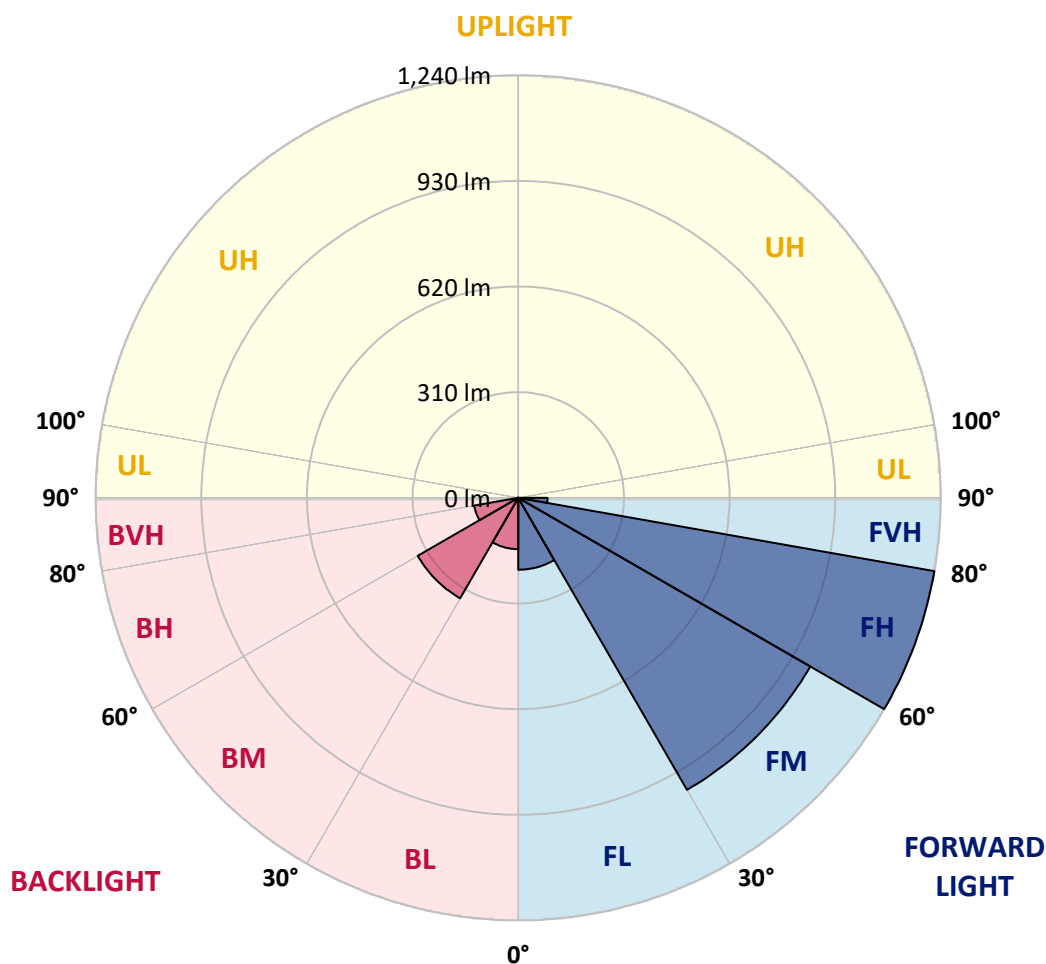
CATALOG NUMBER: NAV-SB1A-830-U-SLL-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	211.0	6.7			
FM	(30°-60°)	989.7	31.4			
FH	(60°-80°)	1240.2	39.3			G1/1800
FVH	(80°-90°)	86.0	2.7			G1/100
BL	(0°-30°)	150.7	4.8	B1/500		
BM	(30°-60°)	340.6	10.8	B1/1000		
BH	(60°-80°)	131.4	4.2	B1/500		G1/500
BVH	(80°-90°)	4.2	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: P959447

CATALOG NUMBER: NAV-SB1A-830-U-SLL-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	436.8	436.8	436.8	436.8	436.8	436.8	436.8	436.8	436.8	436.8	436.8
2.5°	489.3	493.0	501.2	505.6	512.3	512.8	512.8	506.9	506.7	494.8	493.4
5°	546.8	555.6	575.1	595.3	599.6	600.8	598.6	586.8	578.2	554.9	549.9
7.5°	604.0	620.7	650.5	677.4	686.1	686.1	680.9	661.8	644.0	610.3	597.7
10°	651.4	672.5	712.9	743.0	753.1	750.9	740.3	716.2	691.6	650.8	634.2
12.5°	682.6	706.3	750.7	775.0	785.3	779.6	767.4	743.9	718.1	675.1	656.4
15°	698.3	723.0	761.6	774.4	771.5	765.7	764.1	752.9	733.3	693.1	672.7
17.5°	705.1	728.1	754.8	746.8	722.8	718.3	733.5	747.8	743.0	708.8	689.6
20°	711.3	730.7	738.7	703.0	661.3	657.2	686.3	727.2	748.0	723.3	705.7
22.5°	720.1	732.0	715.4	657.0	612.0	602.5	634.7	696.2	749.6	741.8	724.2
25°	732.0	735.2	689.8	613.4	568.2	558.6	588.6	661.6	747.0	761.8	746.8
27.5°	746.3	739.6	665.3	576.9	533.2	524.3	554.2	628.3	739.6	781.8	771.1
30°	765.1	745.3	640.9	548.6	508.2	501.6	530.5	599.6	730.5	807.2	801.3
32.5°	783.9	747.6	618.4	532.1	502.6	504.9	528.6	584.2	720.5	831.5	834.4
35°	804.3	755.2	607.3	548.4	549.7	570.5	580.4	598.6	718.9	864.5	875.7
37.5°	832.2	772.2	620.5	629.5	674.7	717.9	709.8	668.8	736.6	913.9	934.5
40°	872.2	802.0	678.3	767.4	860.2	930.4	899.7	796.3	790.5	984.9	1015.8
42.5°	930.4	849.3	780.8	936.0	1093.3	1208.9	1126.8	960.7	884.8	1086.4	1125.7
45°	1016.4	926.0	905.0	1114.0	1380.8	1562.8	1392.1	1136.1	1016.8	1239.9	1270.8
47.5°	1135.7	1038.7	1021.2	1301.4	1730.1	1965.6	1686.2	1298.7	1167.2	1449.5	1456.6
50°	1294.1	1190.6	1131.3	1506.5	2113.2	2376.4	1980.2	1455.5	1339.5	1705.4	1697.1
52.5°	1503.1	1402.5	1259.7	1701.9	2507.1	2778.3	2275.5	1593.3	1553.3	2002.3	1985.4
55°	1788.1	1721.3	1435.3	1888.4	2900.9	3182.6	2559.2	1723.2	1835.8	2355.2	2252.6
57.5°	2141.8	2189.7	1688.4	2104.5	3254.8	3599.3	2844.3	1904.9	2202.5	2749.8	2407.8
60°	2370.0	2812.6	2173.2	2424.1	3656.9	4070.6	3235.0	2250.3	2587.9	2891.2	2378.3
62.5°	2314.9	3010.7	2753.7	2832.2	4026.7	4413.2	3617.8	2597.2	2660.5	2682.8	2150.6
65°	2145.5	2850.8	2635.3	2911.4	4120.4	4432.6	3720.1	2552.6	2256.8	2190.3	1728.7
67.5°	1912.6	2661.1	2353.9	2701.2	3951.1	4162.3	3529.6	2257.9	1744.0	1643.7	1254.1
70°	1661.2	2451.3	2169.2	2465.1	3628.5	3691.2	3205.7	1985.8	1282.8	1110.1	804.7
72.5°	1422.7	2232.7	2042.8	2223.3	3198.0	3068.1	2783.9	1745.4	934.1	800.6	572.1
75°	1178.8	1910.3	1862.6	1936.1	2632.0	2416.7	2313.1	1445.0	733.1	579.2	394.8
77.5°	909.5	1492.7	1602.2	1550.4	1852.7	1795.1	1792.9	1085.9	535.6	386.5	247.4
80°	622.5	1040.3	1251.7	1093.8	1202.4	1173.0	1350.3	728.5	388.5	232.7	137.8
82.5°	365.9	633.3	871.2	529.5	664.8	682.4	804.1	354.3	228.6	53.7	30.0
85°	148.4	250.1	340.7	207.3	320.7	270.5	305.2	99.5	63.7	1.3	0.0
87.5°	37.4	79.9	56.1	23.3	37.1	34.1	27.0	12.2	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: P959447

CATALOG NUMBER: NAV-SB1A-830-U-SLL-HSS

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°	185°
0°	436.8	436.8	436.8	436.8	436.8	436.8	436.8	436.8	436.8	436.8	436.8
2.5°	484.9	479.9	467.6	455.2	445.2	431.7	422.8	412.2	402.0	392.8	391.1
5°	536.2	519.7	497.1	476.5	455.4	435.0	414.8	393.5	373.9	361.9	354.3
7.5°	577.9	548.8	518.9	492.5	467.1	443.2	416.6	390.6	360.0	343.7	328.9
10°	609.1	570.8	531.5	501.2	475.6	452.3	429.8	403.6	366.7	346.3	324.2
12.5°	629.5	584.0	537.9	503.4	474.8	456.7	446.7	436.5	399.7	375.9	343.7
15°	643.6	593.4	542.5	498.5	463.2	450.0	459.9	471.7	448.2	420.7	378.7
17.5°	659.0	605.6	544.5	484.9	440.9	435.2	461.0	488.2	487.1	459.7	418.7
20°	675.3	616.2	543.1	463.2	413.7	418.7	451.7	483.2	496.5	481.6	445.2
22.5°	692.0	626.4	538.2	435.0	388.3	404.0	437.0	464.5	480.2	475.6	447.8
25°	713.1	640.7	530.8	404.6	367.2	388.9	419.7	442.2	453.0	452.8	433.7
27.5°	738.3	659.9	526.8	380.0	352.2	372.0	399.3	419.3	426.9	426.9	411.7
30°	767.6	682.4	522.5	364.0	343.5	354.3	375.7	395.2	402.8	402.8	390.0
32.5°	800.2	704.2	512.1	354.1	337.0	337.2	350.7	368.5	377.6	378.9	369.8
35°	839.4	727.4	489.3	346.3	329.4	320.5	327.0	341.7	352.6	355.5	349.8
37.5°	890.6	755.9	456.7	334.9	317.6	302.9	304.4	315.7	327.7	332.0	328.3
40°	959.5	789.4	422.8	318.3	301.1	283.5	282.9	291.1	302.9	307.7	305.7
42.5°	1050.5	829.5	390.4	302.5	281.2	263.1	262.0	268.5	278.8	283.7	282.9
45°	1167.0	878.8	362.6	290.1	261.6	243.7	243.3	248.8	257.7	262.9	261.8
47.5°	1328.8	928.1	343.7	283.5	246.2	228.0	228.8	233.6	241.6	245.3	243.7
50°	1539.9	943.2	334.2	283.5	237.9	213.8	218.1	222.0	228.2	230.3	228.4
52.5°	1742.3	893.6	325.4	285.3	239.0	201.8	211.2	214.0	219.2	220.1	217.3
55°	1841.6	768.2	313.5	285.7	245.7	191.7	205.5	210.7	212.7	212.5	207.7
57.5°	1807.5	621.2	293.4	283.9	250.3	185.1	198.5	208.6	209.9	208.0	199.1
60°	1687.8	457.4	277.9	271.1	248.6	183.2	188.0	203.8	205.7	203.2	188.6
62.5°	1487.0	317.4	266.0	242.9	241.0	182.6	171.2	193.4	198.1	194.4	173.1
65°	1170.7	224.3	229.0	212.9	224.5	179.1	153.9	180.8	187.3	181.6	151.7
67.5°	792.2	161.8	185.5	192.9	197.7	171.2	141.2	166.5	175.2	167.7	126.7
70°	427.8	113.7	122.6	162.6	168.0	157.7	130.0	151.9	161.8	153.9	103.2
72.5°	252.7	81.7	85.8	130.6	139.9	138.9	117.4	134.9	147.1	137.6	83.8
75°	139.3	55.1	61.3	94.7	113.7	107.1	100.9	114.3	126.7	117.4	64.8
77.5°	62.3	33.0	42.5	62.1	89.3	73.4	78.0	89.1	100.6	90.8	43.3
80°	24.1	18.4	28.3	33.9	65.0	40.6	50.2	65.6	73.9	66.0	26.2
82.5°	3.1	8.3	12.2	13.2	37.8	21.5	29.1	41.3	40.6	35.2	13.2
85°	0.0	1.5	1.7	0.8	16.3	7.8	9.5	13.4	12.6	9.5	1.1
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: P959447

CATALOG NUMBER: NAV-SB1A-830-U-SLL-HSS

CANDELA DISTRIBUTION (continued):

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	436.8	436.8	436.8	436.8	436.8	436.8	436.8	436.8	436.8	436.8	436.8
2.5°	380.5	372.6	368.7	365.4	368.5	370.2	370.2	377.6	381.9	383.7	395.9
5°	335.3	320.7	310.9	305.0	307.0	309.1	311.6	320.9	327.2	331.4	350.2
7.5°	299.6	277.5	263.7	256.6	257.7	259.2	261.2	270.3	276.5	282.0	303.1
10°	282.0	250.7	232.7	224.0	222.5	221.6	221.0	226.4	231.1	235.5	256.4
12.5°	282.9	239.2	217.3	206.6	202.0	196.8	192.7	193.6	196.6	202.0	215.4
15°	294.0	235.5	209.2	196.0	188.4	182.2	177.3	176.2	177.3	178.1	186.4
17.5°	308.9	235.1	202.2	185.7	177.9	172.9	168.4	166.9	167.1	168.2	170.4
20°	320.9	233.8	194.4	176.0	169.0	164.7	160.1	158.6	159.1	159.3	161.6
22.5°	327.2	231.9	185.7	166.3	160.3	156.0	151.9	151.7	151.7	152.9	154.7
25°	327.2	227.7	177.9	156.8	151.7	147.7	142.8	143.6	144.0	145.8	148.4
27.5°	319.4	219.9	171.7	148.8	143.4	139.5	134.9	136.0	136.6	138.6	141.9
30°	309.3	210.5	164.5	141.2	134.9	132.1	128.2	128.6	129.5	131.7	135.4
32.5°	298.8	199.5	158.6	133.7	127.3	125.2	120.8	121.5	122.3	124.7	128.8
35°	287.0	186.4	151.7	126.7	120.3	118.6	113.7	114.1	115.4	118.0	122.1
37.5°	274.6	175.8	144.7	119.9	113.4	111.7	106.5	106.9	108.4	111.4	115.4
40°	262.5	165.3	137.4	112.7	106.3	104.8	99.1	99.5	101.3	104.6	108.6
42.5°	249.2	157.3	127.7	105.4	98.4	96.9	91.7	92.4	94.3	97.6	101.7
45°	233.4	152.1	117.2	98.4	90.6	89.1	84.3	85.6	87.7	91.0	95.4
47.5°	217.1	150.0	108.2	91.0	82.5	81.3	77.4	79.5	81.9	84.6	89.3
50°	201.4	147.1	99.1	84.0	75.6	74.3	71.8	74.5	76.9	79.3	83.8
52.5°	183.6	141.0	90.8	78.0	69.7	69.3	68.0	70.6	72.8	74.9	78.8
55°	165.1	131.2	83.6	72.6	64.8	65.2	64.6	66.7	68.5	70.4	73.9
57.5°	149.0	118.8	78.0	66.7	60.4	61.7	60.9	61.9	63.0	65.4	68.3
60°	132.7	104.0	71.8	59.8	56.1	57.6	55.1	54.9	55.5	56.1	61.3
62.5°	110.8	88.7	63.9	53.7	51.2	52.0	47.4	43.9	43.9	44.6	52.4
65°	89.1	74.3	55.1	46.7	44.8	44.3	37.8	33.0	32.6	34.5	41.3
67.5°	73.2	61.7	46.5	38.8	37.6	38.0	33.2	28.5	28.0	30.2	35.2
70°	60.6	49.7	37.1	30.0	31.3	33.2	28.5	23.9	23.3	25.2	30.0
72.5°	48.3	38.8	28.5	22.1	25.8	28.3	23.3	18.9	18.4	20.2	24.8
75°	35.5	27.8	19.4	16.1	20.0	22.1	16.9	13.4	12.8	14.3	18.9
77.5°	21.9	15.7	12.2	9.5	13.7	14.8	8.9	7.8	7.6	8.7	12.0
80°	10.2	6.8	5.8	3.3	5.0	5.8	3.7	4.1	4.3	5.2	7.4
82.5°	2.9	1.1	0.2	0.0	0.0	1.7	0.8	1.7	2.2	3.3	4.8
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	1.1	1.9	3.5
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	1.7
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: P959447

CATALOG NUMBER: NAV-SB1A-830-U-SLL-HSS

CANDELA DISTRIBUTION (continued):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	436.8	436.8	436.8	436.8	436.8	436.8	436.8	436.8
2.5°	405.0	413.7	427.6	442.0	456.0	470.4	484.3	489.3
5°	367.4	387.3	415.0	444.5	475.0	505.8	534.0	546.8
7.5°	325.4	354.1	395.6	442.0	490.4	538.8	583.3	604.0
10°	280.7	317.0	364.4	426.9	496.5	563.3	624.6	651.4
12.5°	238.1	276.1	328.5	403.4	491.7	577.5	651.2	682.6
15°	202.5	236.2	292.6	375.7	476.2	578.4	663.8	698.3
17.5°	175.8	197.7	256.1	344.8	456.0	570.3	668.1	705.1
20°	162.6	168.6	208.8	305.2	437.2	562.7	672.5	711.3
22.5°	154.7	156.2	170.8	254.2	414.5	560.4	680.1	720.1
25°	148.4	148.8	152.7	201.4	380.0	558.8	691.8	732.0
27.5°	142.1	142.1	144.3	162.3	333.1	552.3	707.0	746.3
30°	135.8	135.8	137.4	143.6	278.1	539.5	725.3	765.1
32.5°	129.3	129.3	130.6	135.1	222.0	523.4	742.0	783.9
35°	122.8	122.3	124.0	128.8	176.6	503.0	758.7	804.3
37.5°	115.8	115.6	117.4	122.8	152.5	479.3	771.3	832.2
40°	108.4	108.4	110.4	116.2	145.5	449.6	791.3	872.2
42.5°	101.7	101.3	103.4	110.6	140.3	421.1	827.2	930.4
45°	95.1	94.3	96.2	105.2	131.2	411.1	894.1	1016.4
47.5°	89.1	86.9	88.7	98.6	123.0	448.4	1003.6	1135.7
50°	84.0	79.9	81.5	92.1	116.6	529.5	1145.6	1294.1
52.5°	78.8	73.4	74.3	84.0	111.0	606.6	1299.7	1503.1
55°	73.4	67.3	67.8	76.1	103.0	618.2	1450.1	1788.1
57.5°	67.3	61.7	61.7	68.7	97.2	535.8	1565.7	2141.8
60°	60.6	56.9	55.9	62.8	102.3	378.0	1579.1	2370.0
62.5°	53.2	51.2	49.7	57.1	106.3	224.0	1470.7	2314.9
65°	44.8	44.3	43.3	62.8	89.5	132.3	1262.6	2145.5
67.5°	37.6	36.9	36.9	65.8	68.0	83.2	986.5	1912.6
70°	32.4	30.0	30.0	49.7	41.3	57.6	688.8	1661.2
72.5°	27.2	24.6	22.9	39.8	30.9	42.1	430.4	1422.7
75°	21.7	19.8	17.6	26.2	23.1	32.0	250.1	1178.8
77.5°	15.7	14.8	12.4	19.4	16.7	23.1	148.8	909.5
80°	8.0	8.3	7.8	11.1	11.3	15.7	84.8	622.5
82.5°	4.8	3.7	4.1	5.4	6.6	8.9	32.0	365.9
85°	3.1	1.9	1.9	2.6	3.3	3.5	9.7	148.4
87.5°	1.5	0.6	0.8	1.3	1.1	0.8	0.4	37.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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