

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: P959821

Luminaire Tested: **NAV-SB1B-735-U-SLR-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P959821
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-SB1B-735-U-SLR-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 70 CRI, 3500K, 450mA LIGHTSQUARE WITH 26 LEDS AND SPILL LIGHT
ELIMINATOR RIGHT OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4406.5 lumens
Efficiency: N/A
Efficacy: 110.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

Input Watts (W): 39.8
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



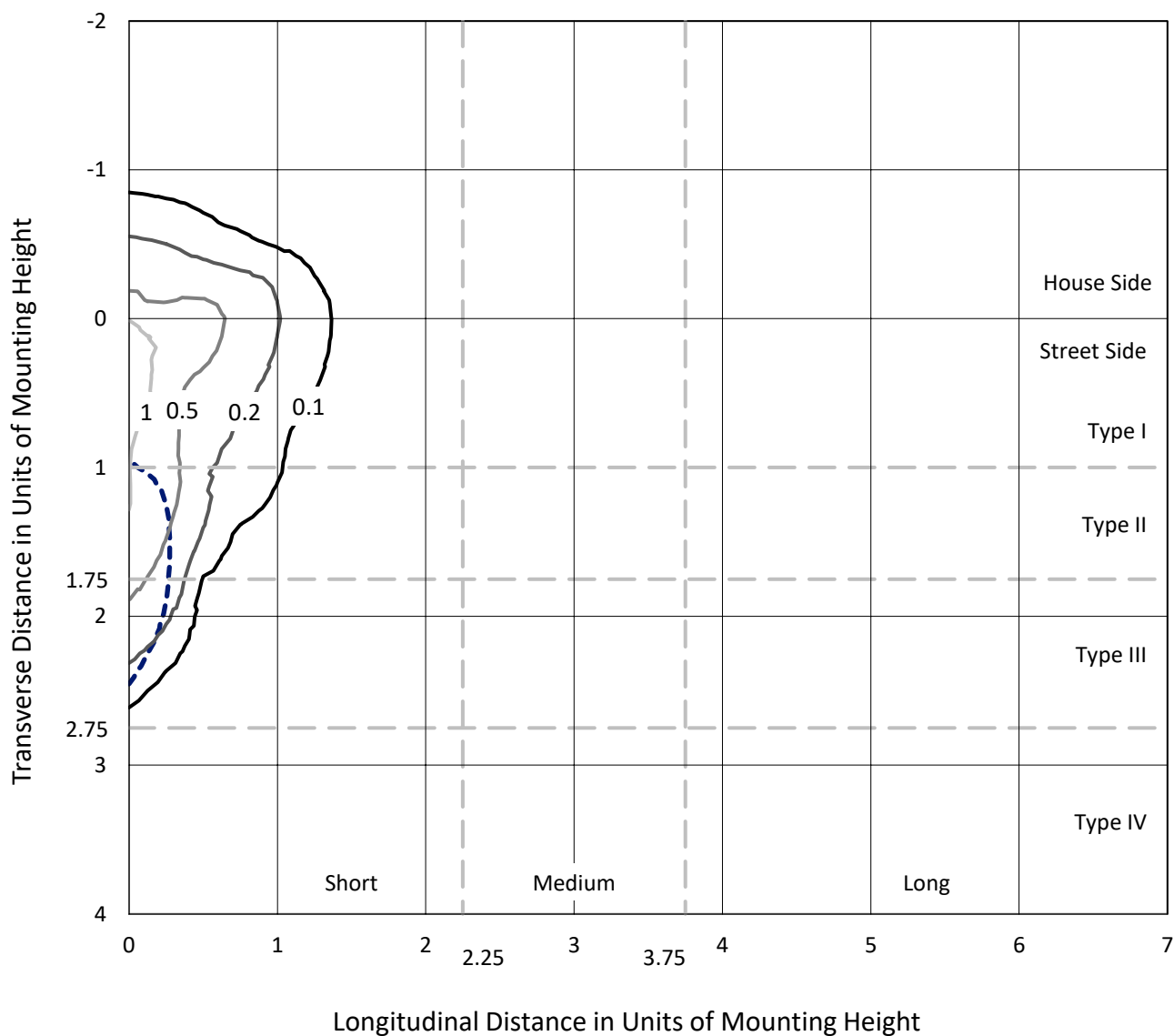
REPORT NUMBER: P959821

CATALOG NUMBER: NAV-SB1B-735-U-SLR-HSS

Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

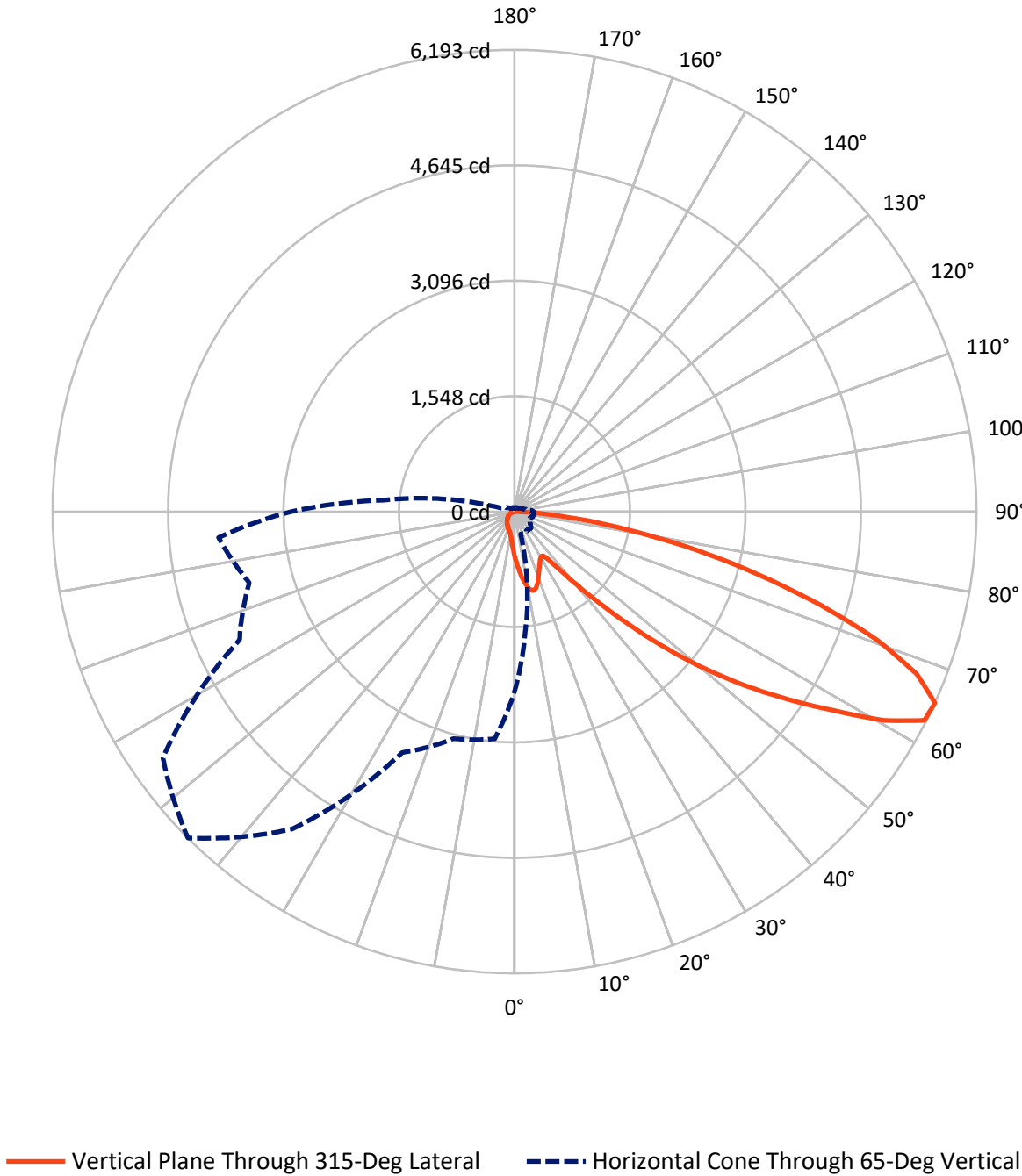


Based on 25 foot mounting height. Maximum calculated value = 1.4 fc

Type IV - Short - N/A

REPORT NUMBER: P959821
CATALOG NUMBER: NAV-SB1B-735-U-SLR-HSS

Luminous Intensity Polar Plot



REPORT NUMBER: P959821

CATALOG NUMBER: NAV-SB1B-735-U-SLR-HSS

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	617.1	0.0	617.1
	% Fixture	14.0	0.0	14.0
Street Side	Lumens	3789.4	0.0	3789.4
	% Fixture	86.0	0.0	86.0
Total	Lumens	4406.5	0.0	4406.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.1	1.4
10°-20°	180.1	4.1
20°-30°	265.3	6.0
30°-40°	340.8	7.7
40°-50°	551.2	12.5
50°-60°	966.6	21.9
60°-70°	1209.5	27.4
70°-80°	706.8	16.0
80°-90°	126.1	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°	4406.5	100.0
0°-180°	4406.5	100.0

Coefficient of Utilization



REPORT NUMBER: P959821

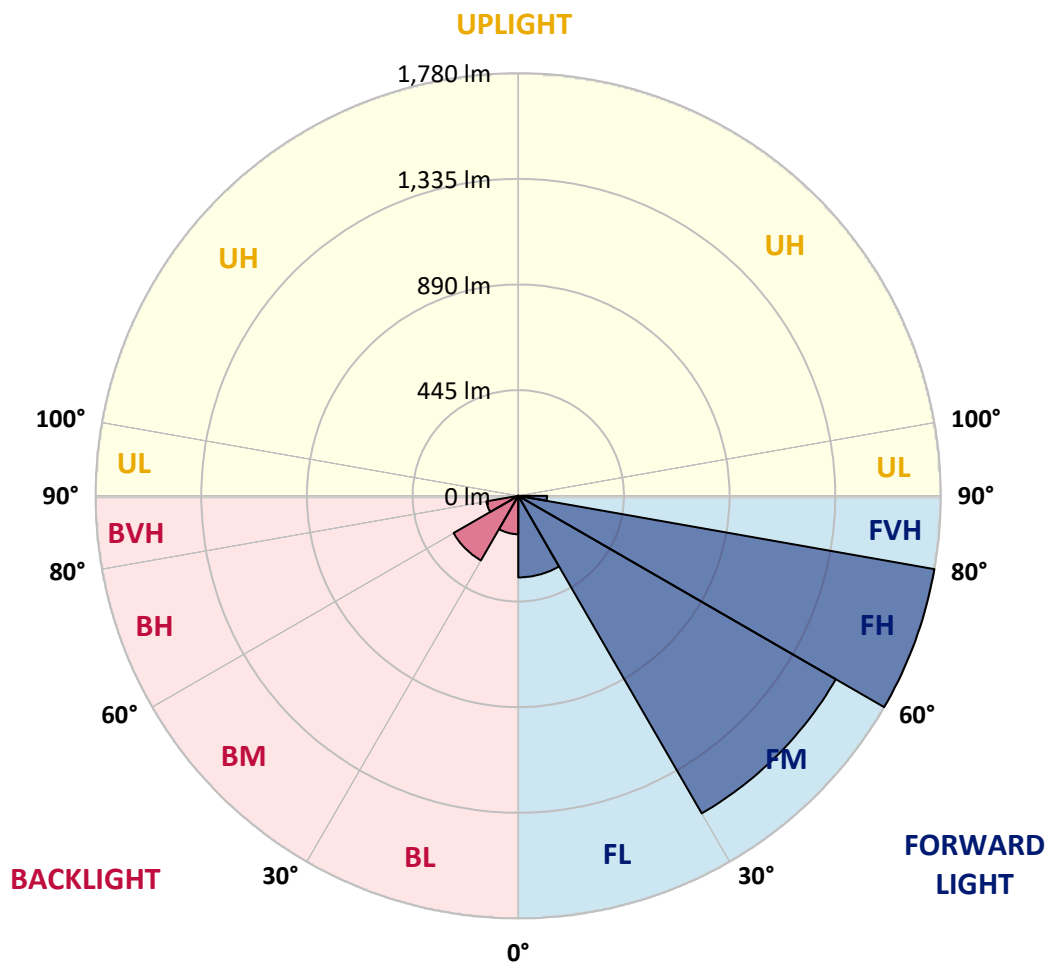
CATALOG NUMBER: NAV-SB1B-735-U-SLR-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	343.7	7.8			
FM	(30°-60°)	1544.4	35.0			
FH	(60°-80°)	1780.0	40.4			G1/1800
FVH	(80°-90°)	121.3	2.8			G2/225
BL	(0°-30°)	161.8	3.7	B1/500		
BM	(30°-60°)	314.2	7.1	B1/1000		
BH	(60°-80°)	136.3	3.1	B1/500		G1/500
BVH	(80°-90°)	4.8	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-G2

Type IV Short



REPORT NUMBER: P959821

CATALOG NUMBER: NAV-SB1B-735-U-SLR-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	610.2	610.2	610.2	610.2	610.2	610.2	610.2	610.2	610.2	610.2	610.2
2.5°	689.4	677.5	670.6	653.2	635.9	622.0	603.2	590.7	575.8	561.6	548.9
5°	768.3	749.2	726.1	694.5	665.7	636.2	607.7	579.5	549.7	522.4	505.7
7.5°	835.1	807.5	766.8	724.9	688.2	652.6	619.3	581.9	545.8	503.0	480.2
10°	886.1	850.9	797.4	742.5	700.3	664.5	632.0	600.4	564.1	512.4	483.9
12.5°	917.1	879.4	816.0	751.6	703.4	663.3	638.1	624.1	609.9	558.5	525.2
15°	939.8	899.1	829.0	758.0	696.4	647.2	628.6	642.7	659.1	626.3	587.7
17.5°	963.5	920.7	846.0	760.8	677.5	615.9	608.0	644.1	682.1	680.6	642.4
20°	985.9	943.5	860.9	758.9	647.2	578.0	585.0	631.1	675.2	693.6	673.0
22.5°	1011.8	966.9	875.1	751.9	607.7	542.4	564.4	610.5	649.0	670.9	664.5
25°	1043.3	996.3	895.2	741.6	565.2	513.0	543.4	586.5	617.8	632.9	632.6
27.5°	1077.4	1031.5	921.9	736.2	530.9	492.1	519.7	557.9	585.9	596.4	596.4
30°	1119.5	1072.5	953.5	730.1	508.5	479.9	495.1	524.9	552.2	562.8	562.8
32.5°	1165.6	1118.0	983.8	715.4	494.8	470.8	471.1	489.9	514.9	527.6	529.4
35°	1223.3	1172.7	1016.3	683.6	483.9	460.2	447.7	456.8	477.5	492.7	496.6
37.5°	1305.6	1244.2	1056.1	638.1	467.8	443.8	423.1	425.3	441.1	457.8	463.8
40°	1419.1	1340.5	1102.8	590.7	444.7	420.8	396.2	395.2	406.7	423.1	429.9
42.5°	1572.8	1467.7	1159.0	545.5	422.5	392.8	367.6	366.1	375.2	389.5	396.5
45°	1775.5	1630.5	1227.9	506.7	405.3	365.5	340.6	340.0	347.6	360.0	367.3
47.5°	2035.0	1856.6	1296.8	480.2	396.2	343.9	318.5	319.7	326.4	337.5	342.8
50°	2371.1	2151.4	1317.7	466.9	396.2	332.4	298.7	304.7	310.3	318.8	321.7
52.5°	2774.0	2434.3	1248.6	454.7	398.6	333.9	282.0	295.1	299.0	306.3	307.5
55°	3147.3	2573.0	1073.4	438.1	399.1	343.4	267.7	287.2	294.5	297.1	296.8
57.5°	3364.0	2525.3	867.9	409.8	396.8	349.7	258.6	277.5	291.4	293.3	290.5
60°	3322.7	2358.0	639.0	388.3	378.8	347.3	255.9	262.6	284.7	287.5	283.8
62.5°	3004.7	2077.6	443.5	371.6	339.4	336.6	255.0	239.2	270.2	276.9	271.7
65°	2415.1	1635.6	313.2	319.9	297.5	313.5	250.1	214.9	252.6	261.7	253.8
67.5°	1752.1	1106.8	226.1	259.2	269.6	276.2	239.2	197.3	232.6	244.7	234.3
70°	1124.4	597.7	158.8	171.2	227.0	234.6	220.4	181.5	212.2	226.1	214.9
72.5°	799.3	353.0	114.2	119.9	182.4	195.5	193.9	163.9	188.5	205.5	192.2
75°	551.6	194.5	77.1	85.6	132.3	158.8	149.6	140.8	159.7	177.0	163.9
77.5°	345.7	87.1	46.1	59.4	86.8	124.7	102.6	109.0	124.4	140.5	126.9
80°	192.5	33.7	25.8	39.5	47.4	90.8	56.8	70.1	91.6	103.2	92.2
82.5°	41.9	4.2	11.6	17.0	18.6	52.8	30.0	40.7	57.7	56.8	49.2
85°	0.0	0.0	2.2	2.5	1.2	22.8	11.0	13.3	18.9	17.6	13.3
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	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: P959821

CATALOG NUMBER: NAV-SB1B-735-U-SLR-HSS

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°	185°
0°	610.2	610.2	610.2	610.2	610.2	610.2	610.2	610.2	610.2	610.2	610.2
2.5°	546.4	531.6	520.6	515.2	510.6	514.9	517.3	517.3	527.6	533.6	536.1
5°	495.1	468.4	448.0	434.4	426.2	429.0	431.9	435.3	448.3	457.2	462.9
7.5°	459.6	418.6	387.7	368.5	358.5	360.0	362.1	364.9	377.6	386.4	394.0
10°	452.9	394.0	350.3	325.1	312.9	310.9	309.7	308.7	316.3	323.0	329.0
12.5°	480.2	395.2	334.3	303.6	288.6	282.3	275.0	269.3	270.5	274.7	282.3
15°	529.1	410.7	329.0	292.3	273.8	263.2	254.7	247.7	246.2	247.7	248.9
17.5°	585.0	431.6	328.4	282.6	259.5	248.7	241.6	235.2	233.1	233.4	234.9
20°	622.0	448.3	326.7	271.7	245.9	236.2	230.1	223.8	221.6	222.2	222.5
22.5°	625.7	457.2	323.9	259.5	232.3	224.1	217.9	212.2	211.9	211.9	213.7
25°	605.9	457.2	318.2	248.7	219.1	211.9	206.4	199.5	200.7	201.3	203.7
27.5°	575.2	446.2	307.2	239.8	208.0	200.4	194.9	188.5	190.0	191.0	193.6
30°	544.9	432.2	294.2	229.8	197.3	188.5	184.6	179.1	179.7	180.9	184.0
32.5°	516.7	417.4	278.7	221.6	186.7	177.8	174.9	168.8	169.7	170.9	174.2
35°	488.7	401.0	260.5	211.9	177.0	168.2	165.7	158.8	159.4	161.2	164.8
37.5°	458.7	383.7	245.6	202.1	167.6	158.5	156.0	148.7	149.3	151.5	155.7
40°	427.1	366.7	231.0	191.9	157.5	148.4	146.3	138.4	139.0	141.4	146.1
42.5°	395.2	348.2	219.8	178.5	147.2	137.6	135.4	128.1	129.0	131.7	136.3
45°	365.8	326.1	212.5	163.6	137.6	126.6	124.4	117.8	119.6	122.6	127.2
47.5°	340.6	303.3	209.4	151.2	127.2	115.3	113.6	108.0	111.1	114.5	118.1
50°	319.1	281.4	205.5	138.4	117.5	105.7	103.8	100.1	104.1	107.4	110.8
52.5°	303.6	256.6	197.0	126.9	109.0	97.5	96.9	95.0	98.7	101.7	104.8
55°	290.2	230.7	183.4	116.8	101.4	90.5	91.0	90.2	93.2	95.6	98.4
57.5°	278.1	208.3	166.0	109.0	93.2	84.4	86.2	85.0	86.5	88.0	91.3
60°	263.5	185.5	145.4	100.1	83.4	78.3	80.5	77.1	76.8	77.4	78.3
62.5°	241.9	154.8	123.8	89.3	75.0	71.6	72.6	66.2	61.3	61.3	62.2
65°	211.9	124.4	103.8	77.1	65.3	62.5	61.9	52.8	46.1	45.5	48.3
67.5°	177.0	102.3	86.2	65.0	54.3	52.5	53.1	46.4	39.8	39.2	42.2
70°	144.2	84.7	69.5	51.9	41.9	43.7	46.4	39.8	33.4	32.5	35.3
72.5°	117.2	67.3	54.3	39.8	31.0	36.1	39.5	32.5	26.4	25.8	28.2
75°	90.5	49.5	38.8	27.1	22.4	27.9	31.0	23.7	18.9	17.9	20.0
77.5°	60.4	30.6	21.8	17.0	13.3	19.2	20.6	12.4	11.0	10.7	12.1
80°	36.7	14.2	9.4	8.2	4.5	7.0	8.2	5.1	5.7	6.0	7.3
82.5°	18.6	4.0	1.5	0.3	0.0	0.0	2.5	1.2	2.5	3.1	4.5
85°	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	1.5	2.8
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2
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: P959821

CATALOG NUMBER: NAV-SB1B-735-U-SLR-HSS

CANDELA DISTRIBUTION (continued):

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	610.2	610.2	610.2	610.2	610.2	610.2	610.2	610.2	610.2	610.2	610.2
2.5°	553.1	565.8	578.0	597.4	617.5	637.1	657.2	676.6	683.6	688.8	700.3
5°	489.3	513.3	541.2	579.8	621.0	663.6	706.7	746.2	764.0	776.2	803.5
7.5°	423.4	454.7	494.8	552.8	617.5	685.1	752.9	815.1	843.9	867.3	908.9
10°	358.2	392.2	442.9	509.1	596.4	693.6	787.1	872.7	910.1	939.5	996.0
12.5°	300.8	332.7	385.8	459.0	563.8	687.0	806.9	909.8	953.8	986.9	1048.8
15°	260.5	282.9	329.9	408.9	524.9	665.4	808.1	927.4	975.6	1010.2	1063.9
17.5°	238.0	245.6	276.2	357.9	481.7	637.1	796.8	933.5	985.0	1017.2	1054.5
20°	225.8	227.0	235.5	291.7	426.5	610.8	786.2	939.5	993.8	1020.9	1032.1
22.5°	216.2	216.2	218.2	238.6	355.2	579.2	782.9	950.2	1006.0	1022.7	999.6
25°	207.4	207.4	208.0	213.4	281.4	530.9	780.7	966.6	1022.7	1027.3	963.8
27.5°	198.2	198.5	198.5	201.5	226.7	465.4	771.6	987.8	1042.7	1033.3	929.5
30°	189.1	189.7	189.7	191.9	200.7	388.6	753.8	1013.3	1068.9	1041.2	895.5
32.5°	180.0	180.6	180.6	182.4	188.8	310.3	731.2	1036.7	1095.2	1044.6	864.0
35°	170.6	171.5	170.9	173.3	180.0	246.8	702.7	1060.1	1123.8	1055.1	848.5
37.5°	161.2	161.8	161.5	163.9	171.5	213.1	669.6	1077.7	1162.7	1078.8	866.9
40°	151.8	151.5	151.5	154.2	162.4	203.4	628.0	1105.6	1218.5	1120.4	947.7
42.5°	142.1	142.1	141.4	144.5	154.5	196.1	588.3	1155.7	1299.8	1186.6	1091.0
45°	133.2	132.9	131.7	134.5	146.9	183.4	574.3	1249.2	1420.0	1293.8	1264.3
47.5°	124.7	124.4	121.5	123.8	137.9	171.8	626.6	1402.1	1586.7	1451.3	1426.7
50°	117.2	117.5	111.7	113.9	128.7	163.0	739.7	1600.6	1808.0	1663.5	1580.7
52.5°	110.2	110.2	102.6	103.8	117.5	155.1	847.6	1815.9	2100.0	1959.5	1760.0
55°	103.2	102.6	94.1	94.7	106.3	143.9	863.7	2025.9	2498.3	2404.8	2005.3
57.5°	95.3	94.1	86.2	86.2	95.9	135.7	748.6	2187.5	2992.5	3059.3	2358.9
60°	85.6	84.7	79.5	78.0	87.7	143.0	528.2	2206.3	3311.3	3929.5	3036.3
62.5°	73.2	74.4	71.6	69.5	79.8	148.4	312.9	2054.8	3234.1	4206.4	3847.3
65°	57.7	62.5	61.9	60.4	87.7	125.0	184.9	1764.0	2997.6	3983.0	3681.9
67.5°	49.2	52.5	51.6	51.6	91.9	95.0	116.2	1378.1	2672.3	3718.0	3288.8
70°	41.9	45.2	41.9	41.9	69.5	57.7	80.5	962.3	2321.0	3424.7	3030.7
72.5°	34.6	37.9	34.3	31.9	55.6	43.2	58.9	601.4	1987.7	3119.4	2854.1
75°	26.4	30.3	27.7	24.6	36.7	32.2	44.6	349.4	1646.8	2668.9	2602.4
77.5°	16.7	21.8	20.6	17.3	27.1	23.4	32.2	208.0	1270.7	2085.5	2238.5
80°	10.4	11.3	11.6	11.0	15.5	15.8	21.8	118.4	869.7	1453.4	1748.9
82.5°	6.7	6.7	5.1	5.7	7.6	9.1	12.4	44.6	511.2	884.9	1217.3
85°	4.8	4.2	2.8	2.8	3.7	4.5	4.8	13.6	207.4	349.4	476.0
87.5°	2.5	2.2	0.9	1.2	1.8	1.5	1.2	0.6	52.2	111.7	78.3
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: P959821

CATALOG NUMBER: NAV-SB1B-735-U-SLR-HSS

CANDELA DISTRIBUTION (continued):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	610.2	610.2	610.2	610.2	610.2	610.2	610.2	610.2
2.5°	706.4	715.8	716.4	716.4	708.2	707.9	691.2	689.4
5°	831.8	837.8	839.4	836.3	819.9	807.8	775.3	768.3
7.5°	946.5	958.7	958.7	951.4	924.7	899.7	852.7	835.1
10°	1038.2	1052.2	1049.1	1034.2	1000.5	966.3	909.2	886.1
12.5°	1082.8	1097.1	1089.2	1072.1	1039.4	1003.3	943.2	917.1
15°	1081.9	1078.0	1069.8	1067.6	1051.9	1024.5	968.3	939.8
17.5°	1043.3	1009.9	1003.6	1024.8	1044.9	1038.2	990.3	963.5
20°	982.4	924.0	918.3	959.0	1016.0	1045.2	1010.5	985.9
22.5°	918.0	855.2	841.7	886.7	972.6	1047.2	1036.4	1011.8
25°	856.9	793.8	780.4	822.4	924.3	1043.7	1064.3	1043.3
27.5°	806.0	745.0	732.5	774.4	877.9	1033.3	1092.2	1077.4
30°	766.5	710.0	700.9	741.3	837.8	1020.6	1127.7	1119.5
32.5°	743.4	702.1	705.5	738.5	816.3	1006.7	1161.7	1165.6
35°	766.2	768.0	797.1	810.8	836.3	1004.5	1207.9	1223.3
37.5°	879.4	942.6	1003.0	991.7	934.4	1029.1	1276.7	1305.6
40°	1072.1	1201.8	1299.8	1257.1	1112.5	1104.3	1376.1	1419.1
42.5°	1307.7	1527.6	1689.0	1574.3	1342.3	1236.0	1517.8	1572.8
45°	1556.4	1929.2	2183.6	1944.9	1587.3	1420.6	1732.5	1775.5
47.5°	1818.4	2417.3	2746.3	2356.0	1814.4	1630.8	2025.1	2035.0
50°	2104.8	2952.4	3320.1	2766.7	2033.6	1871.4	2382.6	2371.1
52.5°	2377.8	3502.7	3881.6	3179.1	2226.0	2170.1	2797.6	2774.0
55°	2638.2	4052.8	4446.6	3575.6	2407.5	2564.8	3290.6	3147.3
57.5°	2940.3	4547.3	5028.8	3973.9	2661.3	3077.2	3841.9	3364.0
60°	3386.8	5109.2	5687.2	4519.7	3144.0	3615.7	4039.5	3322.7
62.5°	3956.9	5625.9	6165.9	5054.6	3628.8	3717.1	3748.3	3004.7
65°	4067.7	5756.7	6192.9	5197.6	3566.2	3153.1	3060.2	2415.1
67.5°	3773.8	5520.2	5815.3	4931.4	3154.6	2436.6	2296.4	1752.1
70°	3444.2	5069.4	5157.2	4478.7	2774.6	1792.2	1550.9	1124.4
72.5°	3106.4	4468.1	4286.5	3889.5	2438.5	1305.0	1118.6	799.3
75°	2705.0	3677.3	3376.5	3231.7	2018.9	1024.2	809.3	551.6
77.5°	2166.2	2588.4	2508.0	2505.0	1517.2	748.2	540.1	345.7
80°	1528.2	1679.9	1638.9	1886.6	1017.8	542.7	325.1	192.5
82.5°	739.7	928.9	953.5	1123.5	495.1	319.4	75.0	41.9
85°	289.6	448.0	377.9	426.5	139.0	89.0	1.8	0.0
87.5°	32.5	51.9	47.7	37.6	17.0	3.7	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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