

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: P961586

Luminaire Tested: **NAV-SB2A-835-U-SLL-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P961586
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-SB2A-835-U-SLL-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 CRI, 3500K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND SPILL LIGHT
ELIMINATOR LEFT OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6508.7 lumens
Efficiency: N/A
Efficacy: 113.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

Input Watts (W): 57.3
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



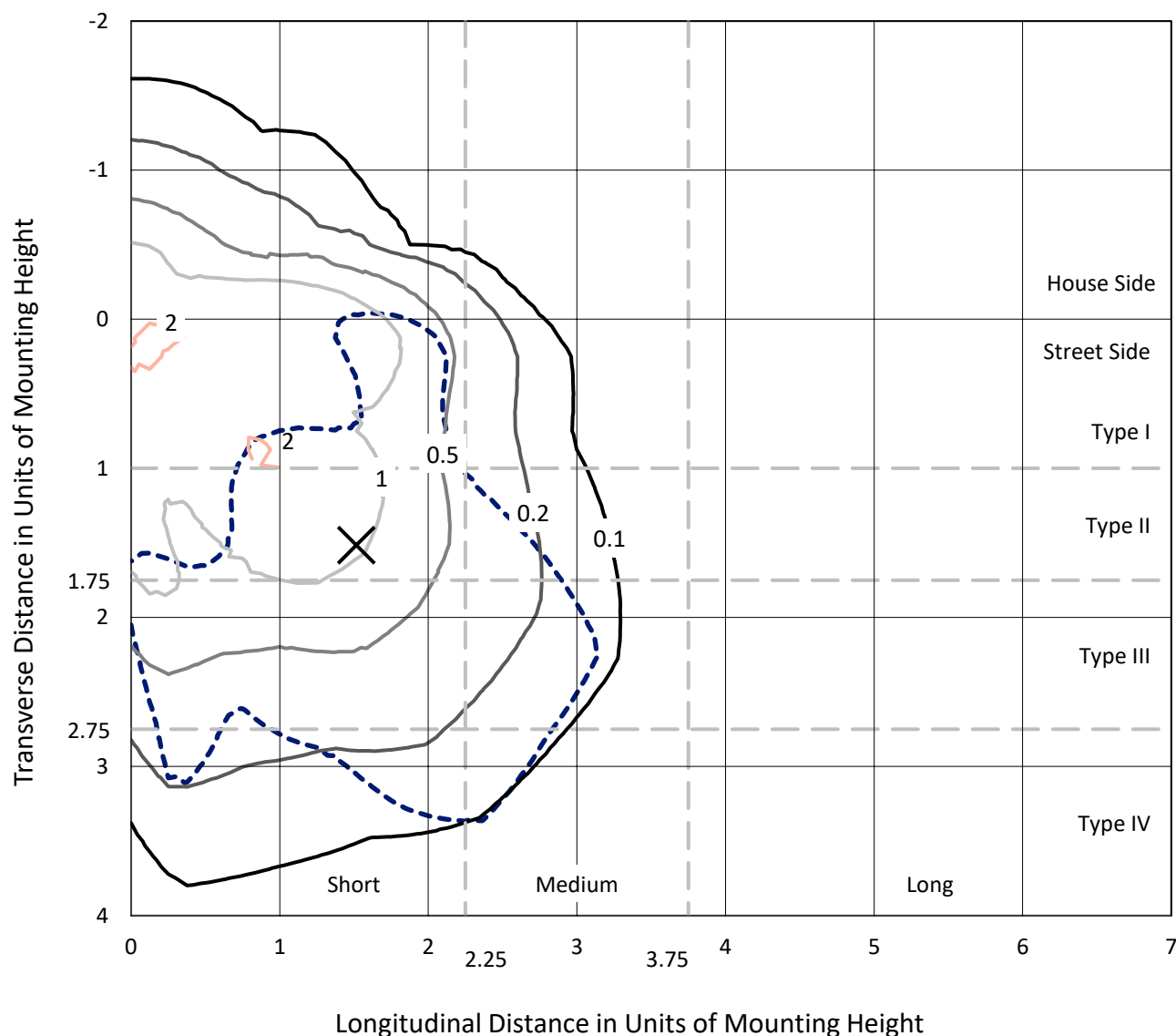
REPORT NUMBER: P961586

CATALOG NUMBER: NAV-SB2A-835-U-SLL-HSS

Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

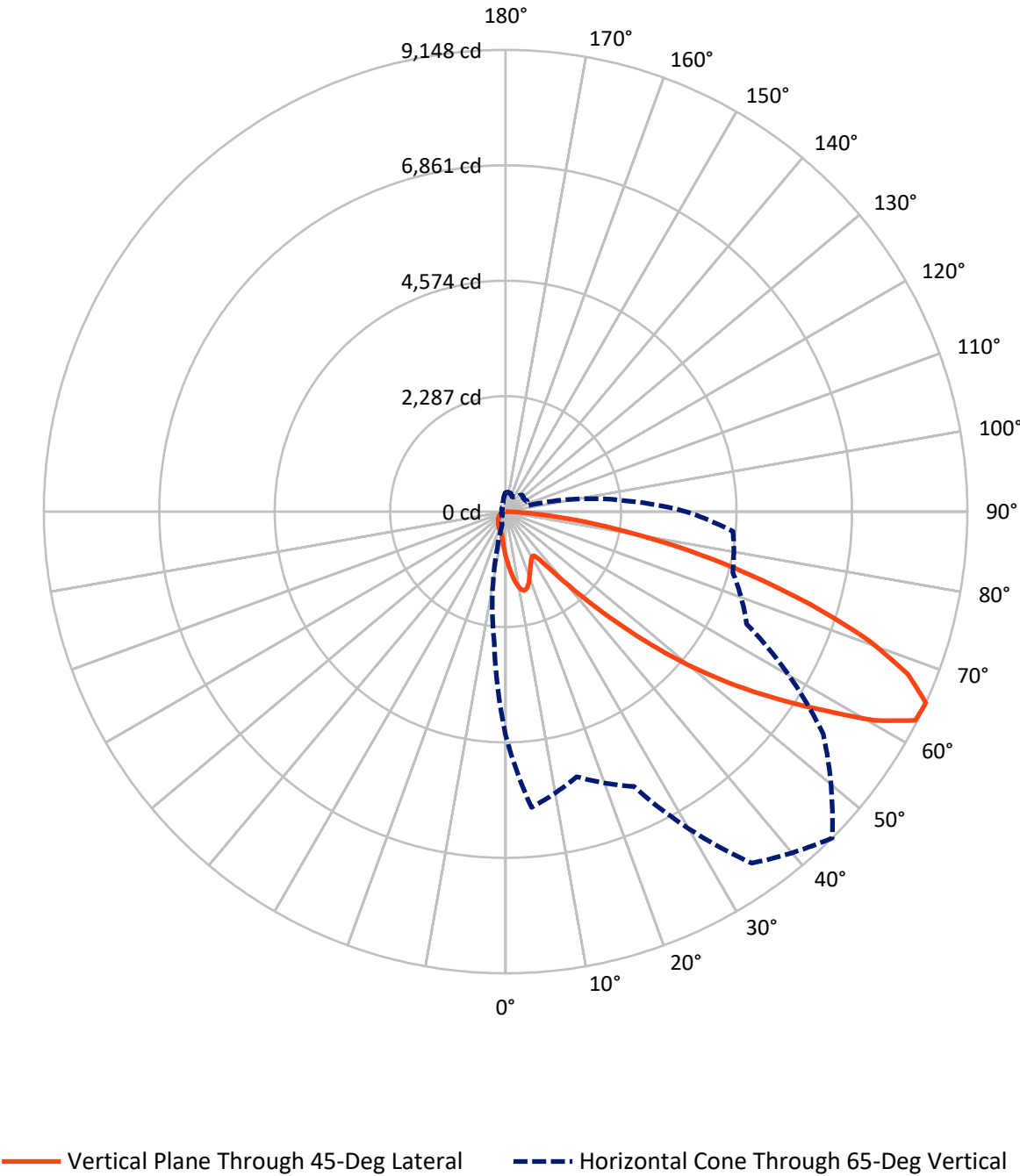


Based on 25 foot mounting height. Maximum calculated value = 2.4 fc

Type IV - Short - N/A

REPORT NUMBER: P961586
CATALOG NUMBER: NAV-SB2A-835-U-SLL-HSS

Luminous Intensity Polar Plot



REPORT NUMBER: P961586

CATALOG NUMBER: NAV-SB2A-835-U-SLL-HSS

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1293.7	0.0	1293.7
	% Fixture	19.9	0.0	19.9
Street Side	Lumens	5215.0	0.0	5215.0
	% Fixture	80.1	0.0	80.1
Total	Lumens	6508.7	0.0	6508.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.7	1.4
10°-20°	266.0	4.1
20°-30°	391.9	6.0
30°-40°	503.4	7.7
40°-50°	814.2	12.5
50°-60°	1427.8	21.9
60°-70°	1786.5	27.4
70°-80°	1044.0	16.0
80°-90°	186.3	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°	6508.7	100.0
0°-180°	6508.7	100.0

Coefficient of Utilization



REPORT NUMBER: P961586

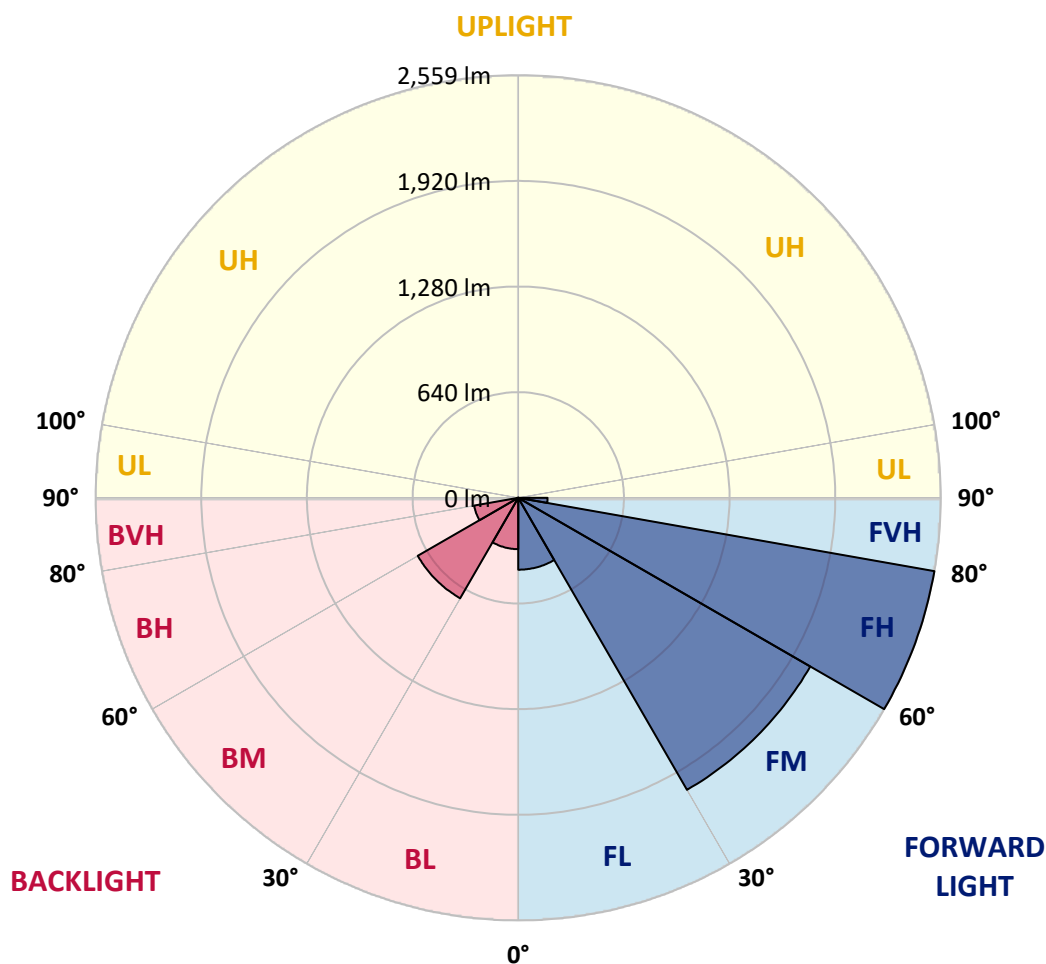
CATALOG NUMBER: NAV-SB2A-835-U-SLL-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	435.5	6.7			
FM	(30°-60°)	2042.5	31.4			
FH	(60°-80°)	2559.4	39.3			G2/5000
FVH	(80°-90°)	177.5	2.7			G2/225
BL	(0°-30°)	311.1	4.8	B1/500		
BM	(30°-60°)	702.9	10.8	B1/1000		
BH	(60°-80°)	271.1	4.2	B1/500		G1/500
BVH	(80°-90°)	8.7	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: P961586

CATALOG NUMBER: NAV-SB2A-835-U-SLL-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	901.3	901.3	901.3	901.3	901.3	901.3	901.3	901.3	901.3	901.3	901.3
2.5°	1009.7	1017.4	1034.4	1043.3	1057.3	1058.2	1058.2	1046.1	1045.6	1021.0	1018.2
5°	1128.6	1146.6	1186.8	1228.6	1237.6	1239.7	1235.3	1211.0	1193.2	1145.1	1134.9
7.5°	1246.5	1281.0	1342.4	1398.1	1416.0	1416.0	1405.3	1365.8	1329.0	1259.5	1233.5
10°	1344.3	1387.7	1471.2	1533.5	1554.1	1549.6	1527.7	1477.8	1427.2	1343.0	1308.8
12.5°	1408.9	1457.7	1549.2	1599.4	1620.4	1608.8	1583.7	1535.2	1481.9	1393.2	1354.5
15°	1441.1	1492.2	1571.6	1598.1	1592.2	1580.1	1577.0	1553.7	1513.3	1430.4	1388.2
17.5°	1455.0	1502.5	1557.7	1541.1	1491.8	1482.4	1513.7	1543.3	1533.5	1462.7	1423.2
20°	1468.0	1507.9	1524.5	1451.0	1364.9	1356.4	1416.4	1500.7	1543.8	1492.7	1456.3
22.5°	1485.9	1510.6	1476.5	1355.9	1263.1	1243.3	1309.7	1436.6	1546.9	1530.7	1494.4
25°	1510.6	1517.3	1423.6	1265.8	1172.5	1152.8	1214.6	1365.3	1541.5	1572.0	1541.1
27.5°	1540.2	1526.3	1373.0	1190.4	1100.3	1082.0	1143.8	1296.7	1526.3	1613.2	1591.3
30°	1578.8	1537.9	1322.8	1132.2	1048.8	1035.4	1094.9	1237.6	1507.5	1665.7	1653.6
32.5°	1617.8	1542.9	1276.1	1098.1	1037.1	1042.0	1090.9	1205.7	1486.9	1716.0	1721.8
35°	1659.9	1558.6	1253.3	1131.7	1134.4	1177.4	1197.6	1235.3	1483.7	1784.1	1807.0
37.5°	1717.3	1593.6	1280.6	1299.0	1392.3	1481.4	1464.8	1380.2	1520.1	1885.9	1928.5
40°	1799.8	1655.0	1399.8	1583.7	1775.2	1920.0	1856.8	1643.3	1631.2	2032.6	2096.2
42.5°	1920.0	1752.7	1611.5	1931.6	2256.2	2494.8	2325.3	1982.8	1825.8	2241.9	2323.1
45°	2097.6	1911.0	1867.5	2298.9	2849.5	3225.3	2872.8	2344.6	2098.5	2558.9	2622.6
47.5°	2343.7	2143.7	2107.4	2685.8	3570.5	4056.5	3479.9	2680.0	2408.8	2991.2	3006.0
50°	2670.5	2457.1	2334.7	3109.1	4361.0	4904.0	4086.6	3003.8	2764.3	3519.3	3502.3
52.5°	3102.0	2894.3	2599.7	3512.2	5173.9	5733.5	4695.9	3288.0	3205.5	4132.3	4097.3
55°	3690.2	3552.1	2962.0	3896.9	5986.4	6567.9	5281.5	3556.1	3788.4	4860.4	4648.9
57.5°	4420.2	4518.8	3484.4	4343.0	6716.8	7428.0	5869.8	3931.0	4545.3	5674.8	4969.0
60°	4891.0	5804.4	4484.8	5002.6	7546.8	8400.5	6676.0	4644.0	5340.8	5966.6	4908.0
62.5°	4777.1	6213.2	5682.8	5844.7	8309.9	9107.6	7466.1	5360.0	5490.5	5536.6	4438.1
65°	4427.8	5883.3	5438.4	6008.3	8503.2	9147.5	7677.2	5267.6	4657.4	4520.1	3567.3
67.5°	3947.2	5491.8	4857.8	5574.4	8153.9	8589.7	7284.1	4659.6	3599.2	3392.0	2588.1
70°	3428.3	5058.7	4476.7	5087.4	7488.0	7617.6	6615.5	4098.3	2647.3	2290.8	1660.8
72.5°	2936.0	4607.6	4215.7	4588.3	6599.8	6331.6	5745.1	3601.8	1927.6	1652.3	1180.6
75°	2432.5	3942.2	3844.0	3995.6	5431.8	4987.3	4773.5	2982.2	1512.9	1195.4	814.7
77.5°	1877.0	3080.4	3306.3	3199.6	3823.4	3704.6	3700.0	2241.1	1105.3	797.7	510.8
80°	1284.6	2146.9	2583.1	2257.2	2481.3	2420.8	2786.7	1503.5	801.8	480.2	284.2
82.5°	755.1	1307.1	1798.1	1092.8	1372.1	1408.4	1659.5	731.3	471.7	110.7	61.9
85°	306.3	516.1	703.0	427.7	661.8	558.2	630.0	205.4	131.4	2.7	0.0
87.5°	77.1	165.0	115.7	48.0	76.7	70.4	55.6	25.1	5.3	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: P961586

CATALOG NUMBER: NAV-SB2A-835-U-SLL-HSS

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°	185°
0°	901.3	901.3	901.3	901.3	901.3	901.3	901.3	901.3	901.3	901.3	901.3
2.5°	1000.8	990.5	964.9	939.4	918.7	890.9	872.6	850.5	829.5	810.7	807.1
5°	1106.6	1072.6	1025.9	983.3	939.8	897.7	856.0	812.0	771.6	747.0	731.3
7.5°	1192.7	1132.6	1070.7	1016.5	964.0	914.7	859.6	806.2	743.0	709.3	678.9
10°	1256.9	1177.9	1096.8	1034.4	981.5	933.6	886.9	833.1	756.9	714.7	669.0
12.5°	1299.0	1205.3	1110.2	1038.9	979.7	942.5	921.9	900.8	825.0	775.7	709.3
15°	1328.1	1224.6	1119.6	1028.6	955.9	928.6	949.3	973.4	925.1	868.1	781.6
17.5°	1360.0	1249.7	1123.6	1000.8	909.8	898.1	951.5	1007.5	1005.3	948.7	864.1
20°	1393.6	1271.6	1120.9	955.9	853.7	864.1	932.2	997.2	1024.6	994.0	918.7
22.5°	1428.1	1292.7	1110.7	897.7	801.2	833.5	901.7	958.7	991.0	981.5	924.1
25°	1471.6	1322.2	1095.4	834.9	757.8	802.6	866.3	912.5	934.9	934.4	894.9
27.5°	1523.7	1361.7	1087.3	784.2	726.8	767.6	824.1	865.4	881.1	881.1	849.7
30°	1584.1	1408.4	1078.4	751.0	708.9	731.3	775.2	815.6	831.3	831.3	804.8
32.5°	1651.4	1453.2	1056.9	730.8	695.5	695.9	723.6	760.4	779.3	782.0	763.1
35°	1732.1	1501.2	1009.7	714.7	679.8	661.3	674.9	705.3	727.7	733.6	721.9
37.5°	1837.9	1559.9	942.5	691.0	655.5	625.0	628.2	651.5	676.2	685.1	677.5
40°	1980.1	1629.0	872.6	656.9	621.5	585.2	583.8	600.9	625.0	634.9	630.9
42.5°	2168.0	1712.0	805.8	624.1	580.3	543.0	540.8	554.2	575.2	585.6	583.8
45°	2408.2	1813.7	748.4	598.6	539.9	503.1	502.1	513.4	531.8	542.5	540.3
47.5°	2742.3	1915.5	709.3	585.2	508.0	470.4	472.1	482.1	498.6	506.2	503.1
50°	3177.7	1946.5	689.6	585.2	491.0	441.2	450.2	458.3	470.8	475.3	471.3
52.5°	3595.6	1844.2	671.7	588.8	493.2	416.6	435.8	441.7	452.4	454.2	448.3
55°	3800.5	1585.5	647.0	589.6	507.2	395.4	424.1	434.9	439.0	438.5	428.7
57.5°	3730.1	1282.0	605.4	586.0	516.5	382.0	409.8	430.5	433.2	429.1	410.7
60°	3483.1	943.8	573.5	559.5	512.9	378.0	387.9	420.6	424.7	419.2	389.2
62.5°	3068.7	655.1	548.8	501.3	497.2	376.7	353.3	399.0	409.0	401.3	357.3
65°	2415.9	462.7	472.6	439.4	463.2	369.5	317.4	373.1	386.5	374.8	312.9
67.5°	1634.8	334.0	382.9	398.2	408.1	353.3	291.4	343.5	361.4	346.1	261.4
70°	882.8	234.5	252.9	335.4	346.6	325.5	268.1	313.4	334.0	317.4	213.0
72.5°	521.5	168.6	177.1	269.5	288.7	286.5	242.1	278.5	303.6	283.8	173.1
75°	287.4	113.9	126.5	195.5	234.5	221.1	208.1	235.9	261.4	242.1	133.7
77.5°	128.6	68.2	87.8	128.2	184.3	151.6	160.9	183.9	207.6	187.5	89.3
80°	49.8	38.1	58.3	69.9	134.1	83.8	103.6	135.4	152.4	136.3	54.2
82.5°	6.3	17.0	25.1	27.4	78.0	44.4	60.1	85.2	83.8	72.7	27.4
85°	0.0	3.2	3.6	1.7	33.6	16.1	19.7	27.8	26.0	19.7	2.3
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	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: P961586

CATALOG NUMBER: NAV-SB2A-835-U-SLL-HSS

CANDELA DISTRIBUTION (continued):

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	901.3	901.3	901.3	901.3	901.3	901.3	901.3	901.3	901.3	901.3	901.3
2.5°	785.2	769.0	761.0	754.2	760.4	764.0	764.0	779.3	788.2	791.8	816.9
5°	691.9	661.8	641.6	629.6	633.6	638.1	643.0	662.3	675.3	683.8	722.8
7.5°	618.3	572.6	544.4	529.5	531.8	534.9	538.9	557.8	570.8	582.0	625.5
10°	582.0	517.4	480.2	462.3	459.1	457.4	456.0	467.2	477.0	486.1	529.1
12.5°	583.8	493.6	448.3	426.4	417.0	406.2	397.7	399.5	405.8	417.0	444.3
15°	606.7	486.1	431.8	404.5	388.8	376.2	365.9	363.7	365.9	367.7	384.7
17.5°	637.7	485.1	417.5	383.3	367.3	356.9	347.5	344.4	344.8	347.1	351.6
20°	662.3	482.5	401.3	363.2	348.8	339.9	330.5	327.3	328.2	328.6	333.6
22.5°	675.3	478.5	383.3	343.0	330.9	322.0	313.4	312.9	312.9	315.7	319.3
25°	675.3	469.9	367.3	323.7	312.9	304.9	294.6	296.4	297.2	300.8	306.3
27.5°	659.1	453.8	354.2	307.2	295.9	287.8	278.5	280.6	282.1	286.1	292.8
30°	638.5	434.5	339.4	291.4	278.5	272.6	264.6	265.5	267.2	271.7	279.3
32.5°	616.5	411.6	327.3	275.7	262.7	258.3	249.3	250.6	252.5	257.4	265.9
35°	592.3	384.7	312.9	261.4	248.4	244.8	234.5	235.4	238.1	243.4	251.9
37.5°	566.7	362.7	298.6	247.5	234.0	230.4	219.7	220.6	223.8	230.0	238.1
40°	541.6	341.2	283.4	232.7	219.2	216.2	204.5	205.4	209.0	215.7	224.2
42.5°	514.3	324.6	263.6	217.5	203.2	200.0	189.2	190.5	194.6	201.3	209.8
45°	481.5	313.9	241.7	203.2	187.0	183.9	173.9	176.7	181.1	187.9	196.8
47.5°	447.9	309.3	223.2	187.9	170.4	167.7	159.6	164.1	169.0	174.5	184.3
50°	415.6	303.6	204.5	173.5	156.0	153.3	148.0	153.8	158.8	163.7	173.1
52.5°	378.8	291.0	187.5	160.9	143.9	143.0	140.3	145.8	150.2	154.7	162.8
55°	340.8	270.8	172.6	149.8	133.7	134.5	133.1	137.7	141.2	145.2	152.4
57.5°	307.6	245.3	160.9	137.7	124.6	127.3	125.6	127.8	130.1	135.0	140.8
60°	274.0	214.7	148.0	123.3	115.7	118.8	113.9	113.5	114.3	115.7	126.5
62.5°	228.7	183.0	131.8	110.7	105.8	107.2	97.8	90.6	90.6	91.9	108.0
65°	183.9	153.3	113.9	96.5	92.4	91.4	78.0	68.2	67.2	71.3	85.2
67.5°	151.1	127.3	95.9	80.3	77.6	78.5	68.6	58.7	57.8	62.3	72.7
70°	125.0	102.7	76.7	61.9	64.6	68.6	58.7	49.3	48.0	52.0	61.9
72.5°	99.5	80.3	58.7	45.7	53.4	58.3	48.0	39.1	38.1	41.7	51.1
75°	73.1	57.4	39.9	33.2	41.2	45.7	35.0	27.8	26.4	29.6	39.1
77.5°	45.3	32.3	25.1	19.7	28.3	30.4	18.3	16.1	15.7	17.9	24.7
80°	21.1	13.9	12.1	6.8	10.4	12.1	7.6	8.5	8.9	10.8	15.3
82.5°	5.8	2.3	0.4	0.0	0.0	3.6	1.7	3.6	4.5	6.8	9.8
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	2.3	4.0	7.2
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	3.6
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: P961586

CATALOG NUMBER: NAV-SB2A-835-U-SLL-HSS

CANDELA DISTRIBUTION (continued):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	901.3	901.3	901.3	901.3	901.3	901.3	901.3	901.3
2.5°	835.8	853.7	882.4	912.0	941.2	970.8	999.5	1009.7
5°	758.2	799.5	856.4	917.4	980.2	1043.9	1102.1	1128.6
7.5°	671.7	730.8	816.5	912.0	1012.0	1112.0	1203.9	1246.5
10°	579.3	654.2	751.9	881.1	1024.6	1162.7	1289.1	1344.3
12.5°	491.4	569.9	677.9	832.6	1014.6	1191.8	1343.8	1408.9
15°	417.9	487.4	603.9	775.2	982.9	1193.6	1369.8	1441.1
17.5°	362.7	408.1	528.7	711.6	941.2	1177.0	1378.8	1455.0
20°	335.4	348.0	430.9	630.0	902.1	1161.3	1387.7	1468.0
22.5°	319.3	322.4	352.4	524.6	855.6	1156.4	1403.4	1485.9
25°	306.3	307.2	315.2	415.6	784.2	1153.2	1427.6	1510.6
27.5°	293.3	293.3	297.8	335.0	687.4	1139.8	1459.1	1540.2
30°	280.2	280.2	283.4	296.4	573.9	1113.4	1496.7	1578.8
32.5°	266.8	266.8	269.5	278.9	458.3	1080.1	1531.2	1617.8
35°	253.4	252.5	256.0	265.9	364.5	1038.0	1565.8	1659.9
37.5°	239.0	238.5	242.1	253.4	314.8	989.1	1591.7	1717.3
40°	223.8	223.8	227.8	239.8	300.4	927.7	1633.0	1799.8
42.5°	209.8	209.0	213.4	228.3	289.7	869.0	1707.0	1920.0
45°	196.4	194.6	198.6	217.0	270.8	848.4	1845.1	2097.6
47.5°	183.9	179.4	183.0	203.6	253.8	925.5	2071.1	2343.7
50°	173.5	165.0	168.1	190.1	240.8	1092.8	2364.4	2670.5
52.5°	162.8	151.6	153.3	173.5	229.1	1251.9	2682.2	3102.0
55°	151.6	139.0	139.9	156.9	212.6	1275.6	2992.5	3690.2
57.5°	139.0	127.3	127.3	141.7	200.4	1105.7	3231.1	4420.2
60°	125.0	117.5	115.2	129.6	211.2	780.2	3258.9	4891.0
62.5°	109.9	105.8	102.7	117.9	219.2	462.3	3035.1	4777.1
65°	92.4	91.4	89.3	129.6	184.7	273.1	2605.5	4427.8
67.5°	77.6	76.3	76.3	135.8	140.3	171.7	2035.6	3947.2
70°	66.8	61.9	61.9	102.7	85.2	118.8	1421.4	3428.3
72.5°	56.1	50.6	47.0	82.1	63.7	87.0	888.3	2936.0
75°	44.8	40.8	36.3	54.2	47.6	65.9	516.1	2432.5
77.5°	32.3	30.4	25.5	39.9	34.5	47.6	307.2	1877.0
80°	16.6	17.0	16.1	22.9	23.3	32.3	174.9	1284.6
82.5°	9.8	7.6	8.5	11.2	13.4	18.3	65.9	755.1
85°	6.3	4.0	4.0	5.3	6.8	7.2	20.2	306.3
87.5°	3.2	1.3	1.7	2.7	2.3	1.7	0.9	77.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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