

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: P960811

Luminaire Tested: **NAV-SB1D-727-U-SLL-HSS**

Issue Date: 1/21/2025

**Test Information**

Test Method: LM-79-08  
Report Number: P960811  
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-SB1D-727-U-SLL-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(1) 70 CRI, 2700K, 900mA LIGHTSQUARE WITH 26 LEDS AND SPILL LIGHT  
ELIMINATOR LEFT OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: -

**Summary**

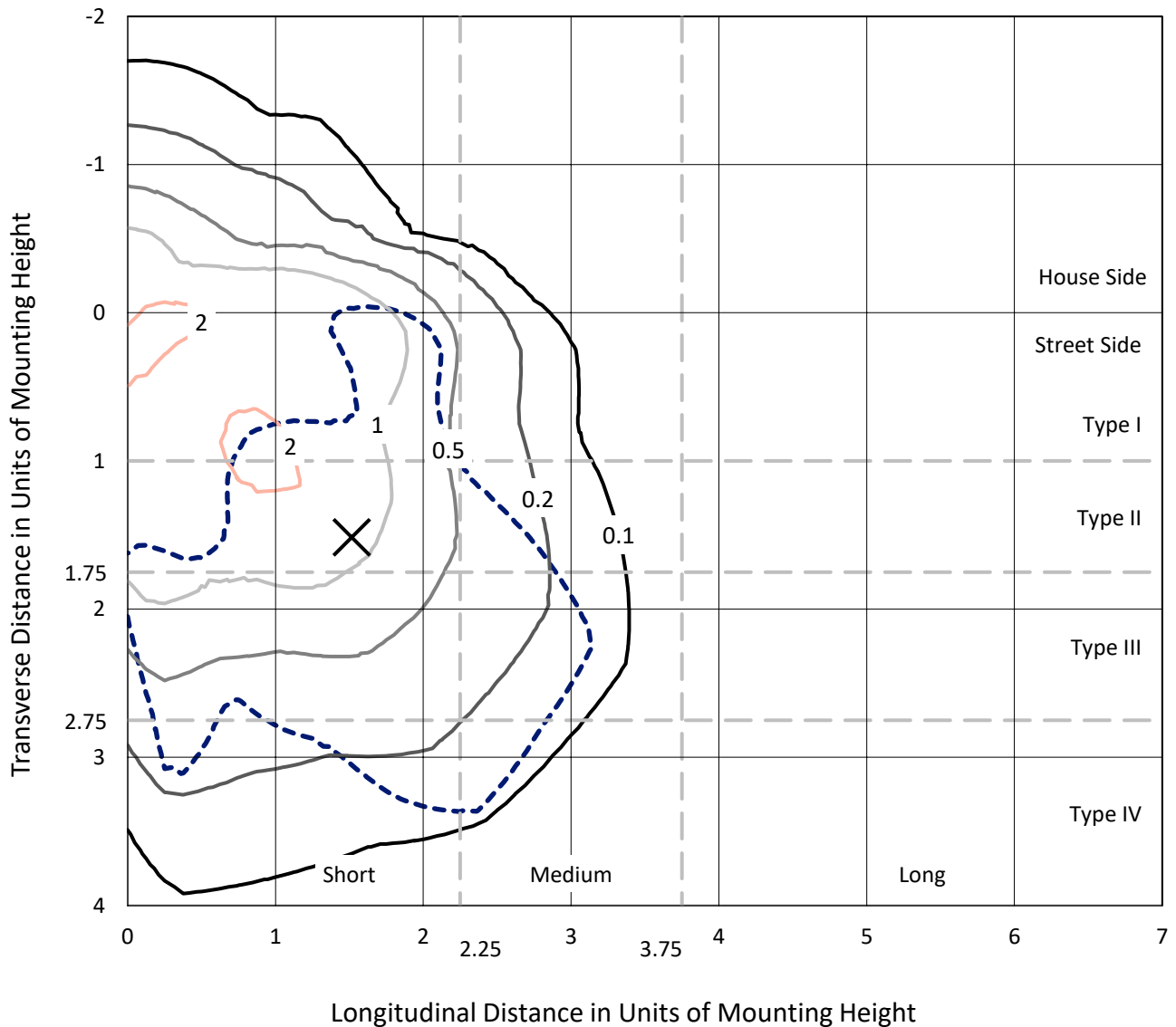
Lumens per Lamp: N/A  
Luminaire Lumens: 7386.1 lumens  
Efficiency: N/A  
Efficacy: 92.8 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G2  
  
Input Watts (W): 79.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
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



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### Iso-Footcandle Lines of Horizontal Illumination

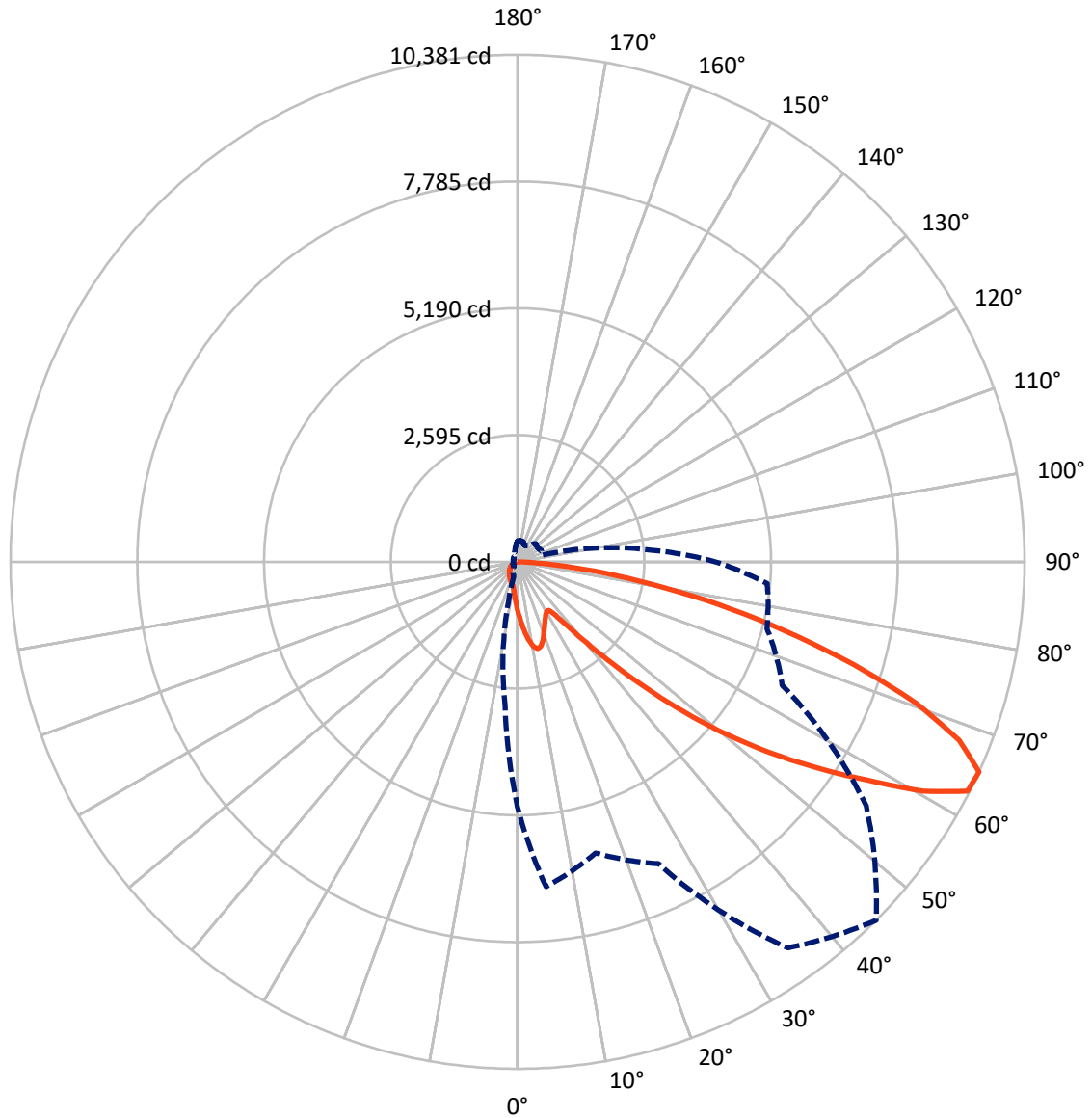
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.7 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral      - - - Horizontal Cone Through 65-Deg Vertical

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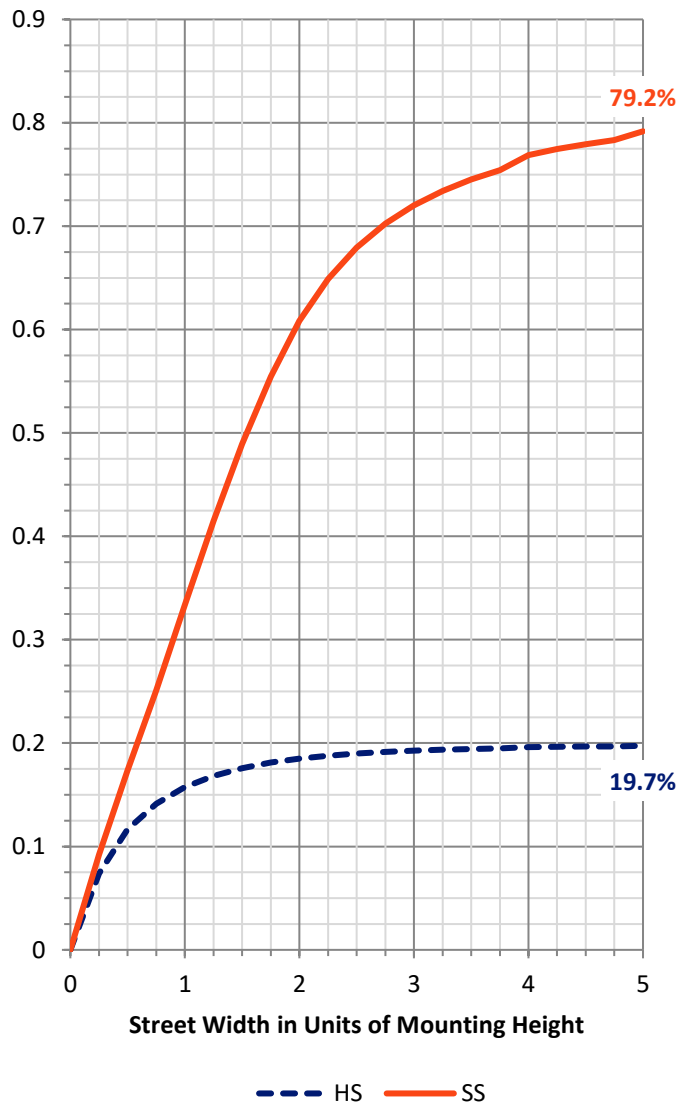
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1468.1	0.0	1468.1
	% Fixture	19.9	0.0	19.9
<b>Street Side</b>	Lumens	5918.0	0.0	5918.0
	% Fixture	80.1	0.0	80.1
<b>Total</b>	Lumens	7386.1	0.0	7386.1
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	100.7	1.4
10°-20°	301.8	4.1
20°-30°	444.7	6.0
30°-40°	571.3	7.7
40°-50°	924.0	12.5
50°-60°	1620.2	21.9
60°-70°	2027.4	27.4
70°-80°	1184.7	16.0
80°-90°	211.4	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°	7386.1	100.0
0°-180°	7386.1	100.0

**Coefficient of Utilization**



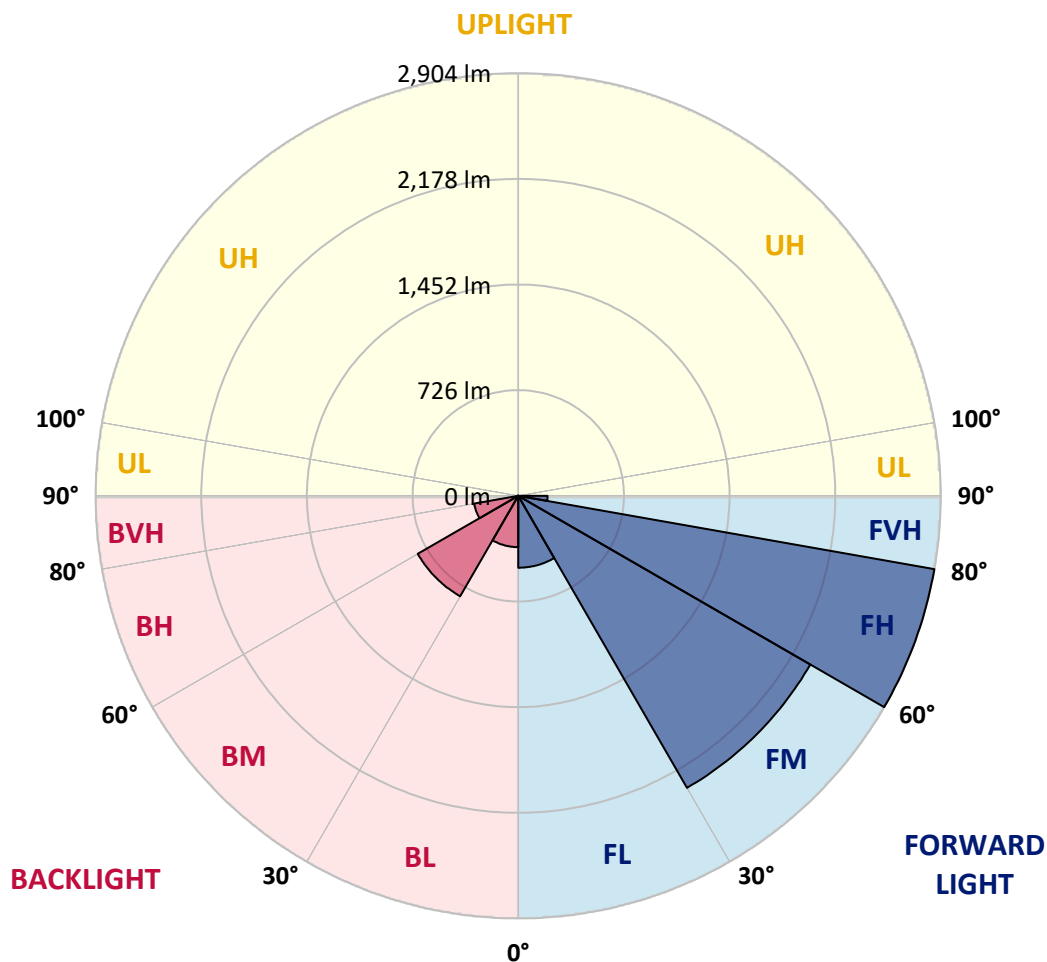
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	494.2	6.7			
FM (30°-60°)	2317.9	31.4			
FH (60°-80°)	2904.5	39.3			G2/5000
FVH (80°-90°)	201.5	2.7			G2/225
BL (0°-30°)	353.0	4.8	B1/500		
BM (30°-60°)	797.6	10.8	B1/1000		
BH (60°-80°)	307.6	4.2	B1/500		G1/500
BVH (80°-90°)	9.9	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



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	1022.7	1022.7	1022.7	1022.7	1022.7	1022.7	1022.7	1022.7	1022.7	1022.7	1022.7
2.5°	1145.8	1154.6	1173.8	1184.1	1199.9	1200.8	1200.8	1187.1	1186.5	1158.6	1155.6
5°	1280.7	1301.0	1346.8	1394.2	1404.4	1406.9	1401.8	1374.3	1354.0	1299.6	1287.8
7.5°	1414.5	1453.8	1523.5	1586.5	1606.9	1606.9	1594.7	1549.9	1508.2	1429.3	1399.7
10°	1525.5	1574.8	1669.4	1740.1	1763.6	1758.5	1733.6	1677.1	1619.6	1524.0	1485.2
12.5°	1598.7	1654.2	1758.0	1815.0	1839.0	1825.6	1797.1	1742.2	1681.7	1581.0	1537.2
15°	1635.4	1693.4	1783.4	1813.4	1806.9	1793.1	1789.5	1763.1	1717.3	1623.2	1575.3
17.5°	1651.2	1705.1	1767.7	1748.9	1692.9	1682.2	1717.8	1751.4	1740.1	1659.8	1615.0
20°	1665.9	1711.2	1730.0	1646.6	1548.9	1539.2	1607.4	1703.0	1751.9	1693.9	1652.7
22.5°	1686.2	1714.2	1675.6	1538.7	1433.4	1411.0	1486.2	1630.3	1755.4	1737.2	1696.0
25°	1714.2	1721.9	1615.5	1436.4	1330.6	1308.2	1378.4	1549.4	1749.4	1783.9	1748.9
27.5°	1747.8	1732.0	1558.0	1350.9	1248.7	1227.8	1298.1	1471.5	1732.0	1830.8	1805.8
30°	1791.6	1745.3	1501.0	1284.8	1190.1	1174.9	1242.6	1404.4	1710.7	1890.3	1876.6
32.5°	1835.9	1750.9	1448.1	1246.1	1176.9	1182.5	1238.0	1368.3	1687.3	1947.3	1953.9
35°	1883.6	1768.6	1422.2	1284.3	1287.3	1336.2	1359.0	1401.8	1683.7	2024.6	2050.6
37.5°	1948.8	1808.4	1453.2	1474.1	1579.9	1681.2	1662.3	1566.2	1725.0	2140.1	2188.5
40°	2042.4	1878.1	1588.5	1797.1	2014.4	2178.8	2107.1	1864.9	1851.2	2306.6	2378.8
42.5°	2178.8	1989.0	1828.7	2192.1	2560.4	2831.2	2638.8	2250.1	2071.9	2544.2	2636.2
45°	2380.3	2168.6	2119.3	2608.7	3233.6	3660.0	3260.1	2660.7	2381.3	2903.9	2976.1
47.5°	2659.7	2432.7	2391.5	3047.8	4051.8	4603.4	3949.0	3041.3	2733.5	3394.4	3411.2
50°	3030.6	2788.4	2649.4	3528.3	4948.9	5565.0	4637.5	3408.6	3136.9	3993.8	3974.4
52.5°	3520.1	3284.5	2950.2	3985.6	5871.4	6506.4	5329.0	3731.2	3637.6	4689.4	4649.7
55°	4187.6	4030.9	3361.3	4422.3	6793.4	7453.3	5993.5	4035.5	4299.1	5515.7	5275.6
57.5°	5016.0	5128.0	3954.1	4928.5	7622.2	8429.3	6661.1	4460.9	5158.0	6439.8	5638.8
60°	5550.3	6586.8	5089.3	5677.0	8564.1	9532.9	7576.0	5269.9	6060.6	6770.9	5569.6
62.5°	5421.0	7050.9	6448.9	6632.6	9430.1	10335.3	8472.5	6082.6	6230.6	6283.0	5036.3
65°	5024.7	6676.3	6171.6	6818.3	9649.5	10380.6	8712.2	5977.7	5285.2	5129.5	4048.2
67.5°	4479.2	6232.1	5512.7	6325.8	9253.1	9747.6	8265.9	5287.8	4084.3	3849.3	2936.9
70°	3890.5	5740.6	5080.1	5773.2	8497.5	8644.4	7507.3	4650.7	3004.2	2599.6	1884.7
72.5°	3331.8	5228.7	4784.0	5206.8	7489.5	7185.1	6519.6	4087.4	2187.5	1875.0	1339.8
75°	2760.4	4473.6	4362.2	4534.2	6163.9	5659.7	5417.0	3384.2	1716.8	1356.6	924.6
77.5°	2130.0	3495.7	3752.1	3631.0	4338.8	4203.9	4198.8	2543.1	1254.3	905.2	579.5
80°	1457.8	2436.2	2931.4	2561.5	2815.9	2747.2	3162.3	1706.1	909.8	545.0	322.6
82.5°	856.9	1483.3	2040.4	1240.0	1557.0	1598.2	1883.1	829.9	535.3	125.7	70.2
85°	347.6	585.7	797.9	485.4	751.0	633.4	714.9	233.1	149.1	3.1	0.0
87.5°	87.5	187.3	131.3	54.4	87.0	79.8	63.1	28.5	6.1	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

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**CANDELA DISTRIBUTION (continued):**

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°	185°
0°	1022.7	1022.7	1022.7	1022.7	1022.7	1022.7	1022.7	1022.7	1022.7	1022.7	1022.7
2.5°	1135.7	1124.0	1095.0	1066.0	1042.6	1011.1	990.1	965.2	941.4	919.9	915.9
5°	1255.8	1217.1	1164.2	1115.8	1066.5	1018.6	971.4	921.5	875.7	847.7	829.9
7.5°	1353.5	1285.4	1215.0	1153.5	1094.0	1038.0	975.4	914.9	843.2	804.9	770.4
10°	1426.3	1336.7	1244.6	1173.8	1113.9	1059.3	1006.4	945.4	859.0	811.1	759.2
12.5°	1474.1	1367.8	1259.8	1179.0	1111.8	1069.6	1046.1	1022.2	936.2	880.3	804.9
15°	1507.2	1389.6	1270.6	1167.3	1084.9	1053.8	1077.2	1104.6	1049.7	985.1	886.9
17.5°	1543.2	1418.1	1275.1	1135.7	1032.4	1019.2	1079.7	1143.4	1140.8	1076.7	980.5
20°	1581.5	1443.0	1272.0	1084.9	968.8	980.5	1057.9	1131.6	1162.7	1128.1	1042.6
22.5°	1620.6	1467.0	1260.3	1018.6	909.3	945.9	1023.3	1087.8	1124.5	1113.9	1048.7
25°	1669.9	1500.5	1243.0	947.4	859.9	910.8	983.1	1035.5	1060.9	1060.4	1015.7
27.5°	1729.0	1545.3	1233.9	889.9	824.8	871.1	935.2	982.1	999.9	999.9	964.2
30°	1797.6	1598.2	1223.7	852.3	804.4	829.9	879.8	925.6	943.4	943.4	913.4
32.5°	1874.0	1649.1	1199.4	829.4	789.1	789.7	821.2	862.9	884.4	887.4	866.0
35°	1965.6	1703.6	1145.8	811.1	771.4	750.5	765.8	800.4	825.8	832.4	819.2
37.5°	2085.7	1770.2	1069.6	784.1	743.9	709.3	712.9	739.3	767.3	777.5	768.9
40°	2247.0	1848.6	990.1	745.5	705.2	664.0	662.5	681.8	709.3	720.5	716.0
42.5°	2460.2	1942.7	914.4	708.3	658.5	616.2	613.7	628.9	652.8	664.5	662.5
45°	2733.0	2058.2	849.2	679.3	612.6	570.9	569.9	582.6	603.5	615.7	613.2
47.5°	3112.0	2173.7	804.9	664.0	576.5	533.7	535.8	546.9	565.8	574.5	570.9
50°	3606.1	2208.9	782.6	664.0	557.2	500.7	510.9	520.0	534.2	539.4	534.7
52.5°	4080.3	2092.8	762.2	668.1	559.8	472.7	494.6	501.2	513.4	515.5	508.8
55°	4312.8	1799.2	734.2	669.1	575.4	448.7	481.3	493.5	498.2	497.6	486.5
57.5°	4232.9	1454.8	687.0	665.0	586.2	433.5	465.0	488.5	491.5	487.0	466.1
60°	3952.6	1071.1	650.8	635.0	582.1	429.0	440.1	477.2	481.9	475.8	441.7
62.5°	3482.4	743.4	622.8	568.9	564.3	427.4	401.0	452.8	464.0	455.4	405.5
65°	2741.6	525.1	536.3	498.7	525.6	419.2	360.3	423.3	438.6	425.4	355.2
67.5°	1855.1	379.0	434.5	451.8	463.0	401.0	330.8	389.8	410.1	392.8	296.6
70°	1001.8	266.1	287.0	380.6	393.3	369.4	304.3	355.7	379.0	360.3	241.7
72.5°	591.7	191.4	201.0	305.8	327.7	325.1	274.8	316.0	344.5	322.1	196.4
75°	326.2	129.3	143.5	221.8	266.1	250.8	236.1	267.6	296.6	274.8	151.6
77.5°	146.1	77.4	99.7	145.5	209.1	172.0	182.7	208.6	235.5	212.7	101.3
80°	56.5	43.3	66.1	79.3	152.1	95.1	117.6	153.6	173.0	154.7	61.6
82.5°	7.1	19.4	28.5	31.1	88.6	50.3	68.2	96.7	95.1	82.4	31.1
85°	0.0	3.6	4.1	2.0	38.1	18.3	22.3	31.6	29.5	22.3	2.6
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	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



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**CANDELA DISTRIBUTION (continued):**

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	1022.7	1022.7	1022.7	1022.7	1022.7	1022.7	1022.7	1022.7	1022.7	1022.7	1022.7
2.5°	890.9	872.7	863.5	855.9	862.9	867.0	867.0	884.4	894.5	898.6	927.1
5°	785.2	751.0	728.2	714.4	718.9	724.1	729.7	751.5	766.3	775.9	820.2
7.5°	701.7	649.7	617.8	601.0	603.5	607.0	611.6	632.9	647.7	660.5	709.8
10°	660.5	587.2	545.0	524.6	521.0	519.0	517.5	530.2	541.4	551.6	600.4
12.5°	662.5	560.3	508.8	483.9	473.2	461.0	451.3	453.4	460.5	473.2	504.3
15°	688.5	551.6	490.1	459.0	441.2	426.9	415.2	412.7	415.2	417.3	436.5
17.5°	723.5	550.5	473.8	435.0	416.8	405.0	394.3	390.7	391.2	393.8	398.9
20°	751.5	547.5	455.4	412.2	395.9	385.7	375.0	371.5	372.5	373.0	378.5
22.5°	766.3	542.9	435.0	389.3	375.6	365.3	355.7	355.2	355.2	358.2	362.2
25°	766.3	533.2	416.8	367.4	355.2	346.0	334.3	336.3	337.3	341.4	347.6
27.5°	747.9	515.0	402.0	348.5	335.8	326.7	316.0	318.6	320.0	324.6	332.3
30°	724.6	493.0	385.2	330.8	316.0	309.3	300.2	301.2	303.3	308.3	317.0
32.5°	699.7	467.1	371.5	312.9	298.2	293.0	282.9	284.4	286.5	292.0	301.8
35°	672.2	436.5	355.2	296.6	281.9	277.8	266.1	267.1	270.2	276.3	286.0
37.5°	643.2	411.6	338.9	280.8	265.6	261.6	249.3	250.3	253.9	261.1	270.2
40°	614.7	387.2	321.5	264.0	248.8	245.3	232.1	233.1	237.1	244.8	254.4
42.5°	583.6	368.4	299.2	246.8	230.5	226.9	214.7	216.3	220.8	228.5	238.1
45°	546.5	356.2	274.3	230.5	212.2	208.6	197.4	200.5	205.6	213.2	223.3
47.5°	508.3	351.1	253.4	213.2	193.3	190.3	181.1	186.2	191.8	197.9	209.1
50°	471.7	344.5	232.1	196.9	177.1	174.0	167.9	174.6	180.1	185.7	196.4
52.5°	430.0	330.3	212.7	182.7	163.4	162.4	159.3	165.3	170.5	175.6	184.7
55°	386.7	307.3	195.9	169.9	151.6	152.6	151.1	156.2	160.3	164.8	173.0
57.5°	349.0	278.3	182.7	156.2	141.4	144.5	142.5	145.0	147.6	153.1	159.8
60°	310.9	243.7	167.9	139.9	131.3	134.9	129.3	128.7	129.8	131.3	143.5
62.5°	259.5	207.6	149.5	125.7	120.1	121.6	110.9	102.8	102.8	104.3	122.6
65°	208.6	174.0	129.3	109.4	104.9	103.8	88.6	77.4	76.4	80.9	96.7
67.5°	171.5	144.5	108.9	91.1	88.0	89.1	77.9	66.6	65.6	70.7	82.4
70°	142.0	116.5	87.0	70.2	73.3	77.9	66.6	56.0	54.4	59.0	70.2
72.5°	113.0	91.1	66.6	51.9	60.6	66.1	54.4	44.3	43.3	47.4	58.0
75°	82.9	65.1	45.3	37.6	46.8	51.9	39.7	31.6	30.0	33.6	44.3
77.5°	51.4	36.6	28.5	22.3	32.1	34.6	20.9	18.3	17.8	20.4	28.0
80°	23.9	15.8	13.7	7.6	11.7	13.7	8.6	9.6	10.1	12.2	17.3
82.5°	6.7	2.6	0.5	0.0	0.0	4.1	2.0	4.1	5.1	7.6	11.2
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	2.6	4.6	8.1
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	4.1
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: P960811  
 CATALOG NUMBER: NAV-SB1D-727-U-SLL-HSS

**CANDELA DISTRIBUTION (continued):**

	295°	305°	315°	325°	335°	345°	355°	360°
0°	1022.7	1022.7	1022.7	1022.7	1022.7	1022.7	1022.7	1022.7
2.5°	948.4	968.8	1001.4	1034.9	1068.0	1101.6	1134.2	1145.8
5°	860.4	907.2	971.9	1041.1	1112.3	1184.6	1250.7	1280.7
7.5°	762.2	829.4	926.6	1034.9	1148.4	1261.9	1366.2	1414.5
10°	657.4	742.4	853.3	999.9	1162.7	1319.4	1462.9	1525.5
12.5°	557.7	646.7	769.4	944.8	1151.5	1352.5	1525.0	1598.7
15°	474.3	553.1	685.4	879.8	1115.3	1354.5	1554.5	1635.4
17.5°	411.6	463.0	599.9	807.5	1068.0	1335.7	1564.7	1651.2
20°	380.6	394.8	489.0	714.9	1023.8	1317.8	1574.8	1665.9
22.5°	362.2	365.8	400.0	595.3	970.9	1312.3	1592.6	1686.2
25°	347.6	348.5	357.7	471.7	889.9	1308.7	1620.1	1714.2
27.5°	332.8	332.8	337.8	380.1	780.0	1293.4	1655.7	1747.8
30°	318.1	318.1	321.5	336.3	651.3	1263.4	1698.4	1791.6
32.5°	302.8	302.8	305.8	316.5	520.0	1225.8	1737.7	1835.9
35°	287.5	286.5	290.6	301.8	413.7	1177.9	1776.8	1883.6
37.5°	271.2	270.7	274.8	287.5	357.2	1122.5	1806.4	1948.8
40°	253.9	253.9	258.5	272.2	340.9	1052.8	1853.2	2042.4
42.5°	238.1	237.1	242.2	259.0	328.7	986.2	1937.1	2178.8
45°	222.8	220.8	225.4	246.3	307.3	962.7	2093.9	2380.3
47.5°	208.6	203.6	207.6	231.0	288.0	1050.2	2350.3	2659.7
50°	196.9	187.3	190.9	215.8	273.3	1240.0	2683.0	3030.6
52.5°	184.7	172.0	174.0	196.9	260.0	1420.6	3043.8	3520.1
55°	172.0	157.7	158.8	178.0	241.2	1447.6	3395.9	4187.6
57.5°	157.7	144.5	144.5	160.8	227.4	1254.8	3666.6	5016.0
60°	142.0	133.4	130.8	147.1	239.6	885.4	3698.2	5550.3
62.5°	124.6	120.1	116.5	133.9	248.8	524.6	3444.3	5421.0
65°	104.9	103.8	101.3	147.1	209.6	309.9	2956.8	5024.7
67.5°	88.0	86.5	86.5	154.2	159.3	194.9	2310.0	4479.2
70°	75.8	70.2	70.2	116.5	96.7	134.9	1612.9	3890.5
72.5°	63.7	57.5	53.4	93.1	72.3	98.7	1008.0	3331.8
75°	50.8	46.3	41.2	61.6	53.9	74.8	585.7	2760.4
77.5°	36.6	34.6	29.0	45.3	39.2	53.9	348.5	2130.0
80°	18.9	19.4	18.3	25.9	26.4	36.6	198.4	1457.8
82.5°	11.2	8.6	9.6	12.7	15.3	20.9	74.8	856.9
85°	7.1	4.6	4.6	6.1	7.6	8.1	22.9	347.6
87.5°	3.6	1.5	2.0	3.1	2.6	2.0	1.0	87.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)