

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: P965525

Luminaire Tested: **NAV-SB4A-722-U-SLR-HSS**

Issue Date: 1/21/2025

**Test Information**

Test Method: LM-79-08  
Report Number: P965525  
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-SB4A-722-U-SLR-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(4) 70 CRI, 2200K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND SPILL LIGHT  
ELIMINATOR RIGHT OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 11617.3 lumens  
Efficiency: N/A  
Efficacy: 101.9 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G3

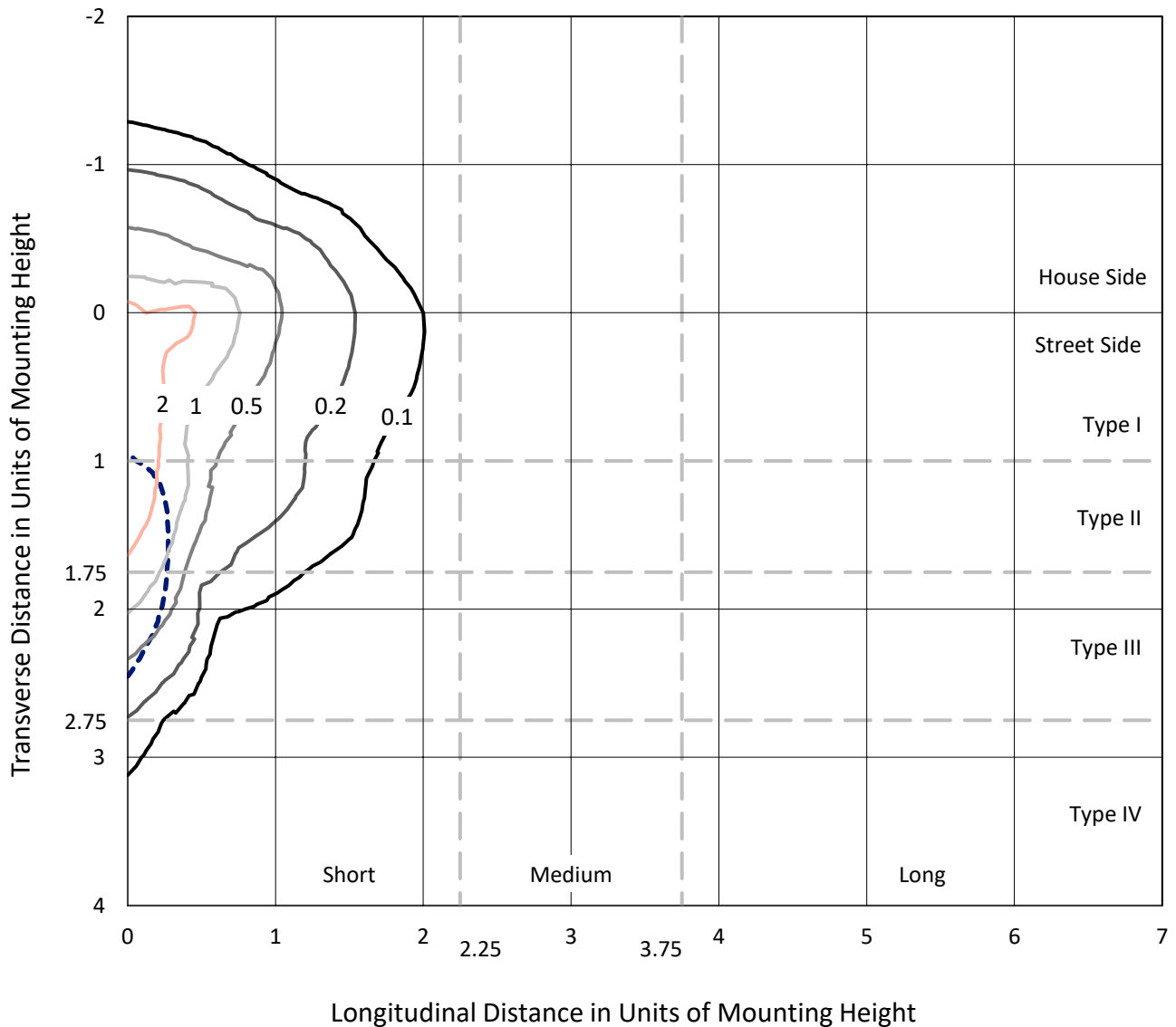
Input Watts (W): 114  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

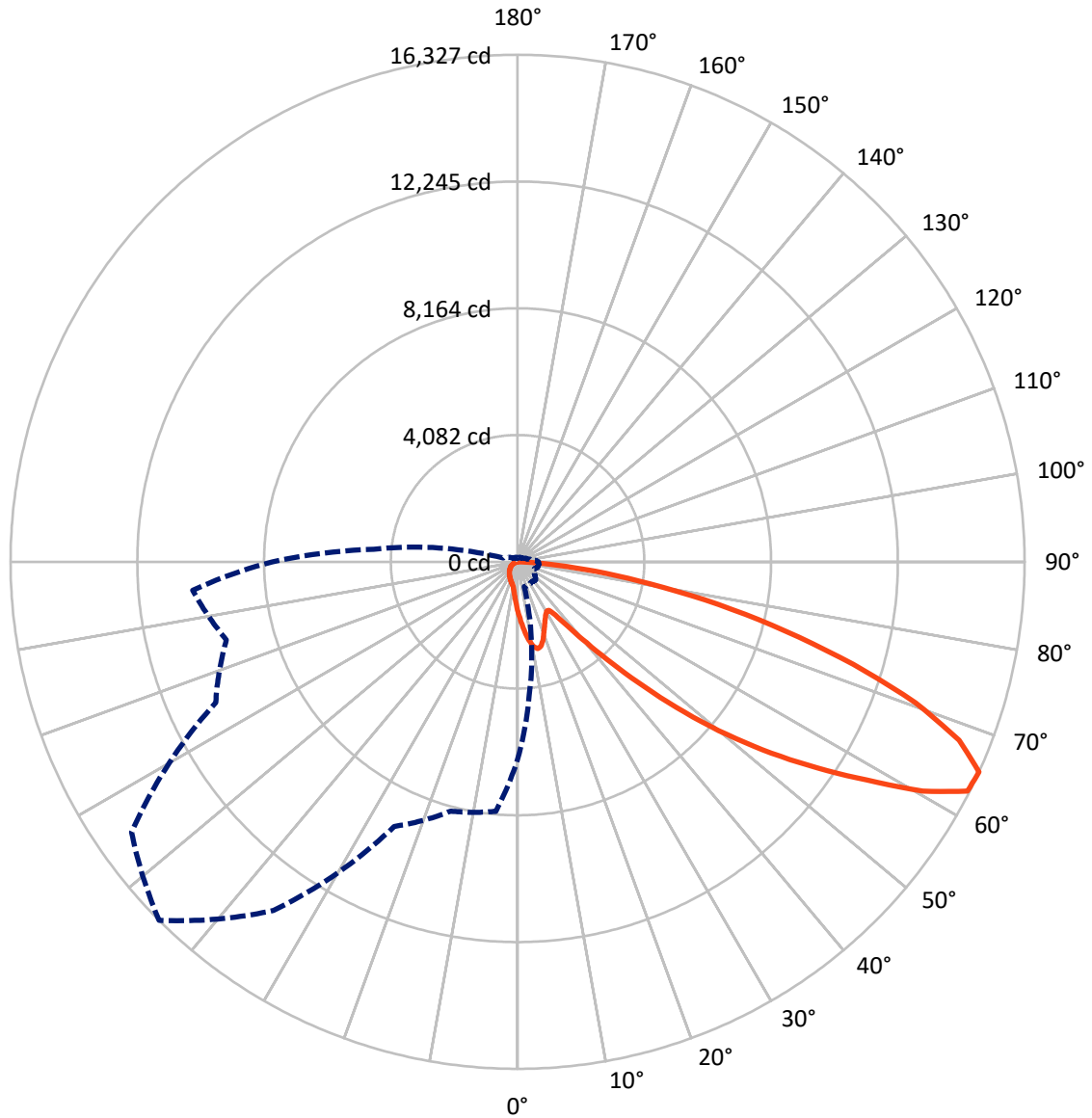
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.6 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 315-Deg Lateral    - - - Horizontal Cone Through 65-Deg Vertical

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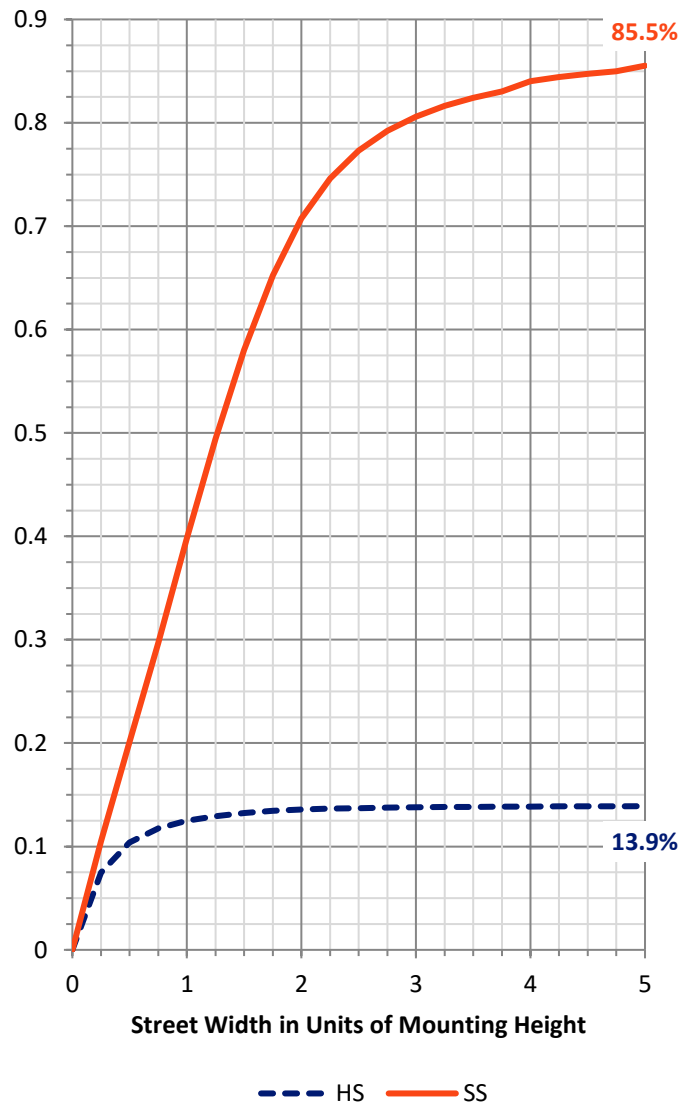
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1626.9	0.0	1626.9
	% Fixture	14.0	0.0	14.0
<b>Street Side</b>	Lumens	9990.4	0.0	9990.4
	% Fixture	86.0	0.0	86.0
<b>Total</b>	Lumens	11617.3	0.0	11617.3
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	158.4	1.4
10°-20°	474.8	4.1
20°-30°	699.4	6.0
30°-40°	898.6	7.7
40°-50°	1453.2	12.5
50°-60°	2548.4	21.9
60°-70°	3188.8	27.4
70°-80°	1863.4	16.0
80°-90°	332.5	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°	11617.3	100.0
0°-180°	11617.3	100.0

**Coefficient of Utilization**



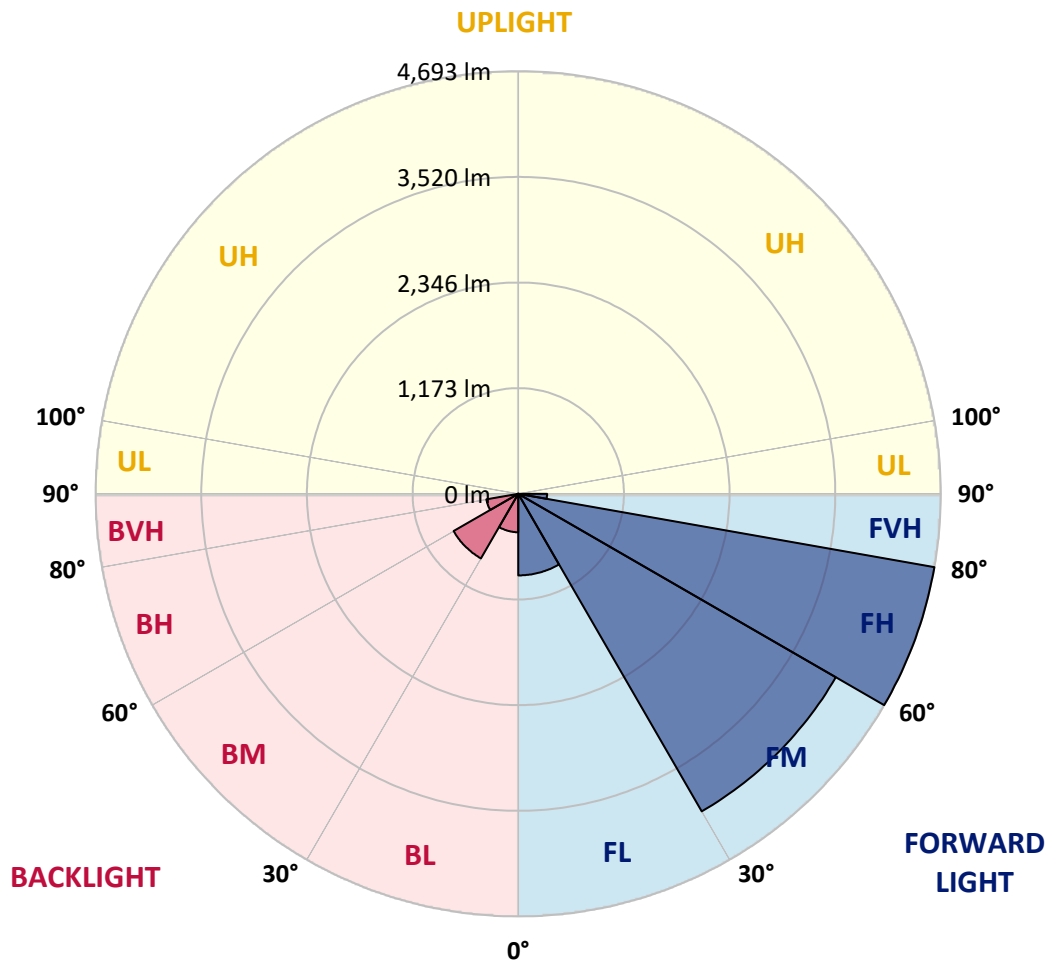
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	906.1	7.8			
FM (30°-60°)	4071.8	35.0			
FH (60°-80°)	4692.9	40.4			G2/5000
FVH (80°-90°)	319.7	2.8			G3/500
BL (0°-30°)	426.4	3.7	B1/500		
BM (30°-60°)	828.5	7.1	B1/1000		
BH (60°-80°)	359.2	3.1	B1/500		G1/500
BVH (80°-90°)	12.8	0.1			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G3**

Type IV Short



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	1608.6	1608.6	1608.6	1608.6	1608.6	1608.6	1608.6	1608.6	1608.6	1608.6	1608.6
2.5°	1817.5	1786.3	1767.9	1722.3	1676.7	1639.8	1590.2	1557.4	1518.2	1480.6	1447.0
5°	2025.6	1975.2	1914.4	1831.2	1755.1	1677.4	1602.2	1527.8	1449.4	1377.3	1333.3
7.5°	2201.7	2128.8	2021.6	1911.1	1814.4	1720.7	1632.6	1534.2	1439.0	1326.1	1266.1
10°	2336.1	2243.3	2102.4	1957.5	1846.3	1751.9	1666.2	1583.0	1487.0	1350.9	1275.7
12.5°	2417.8	2318.5	2151.3	1981.5	1854.3	1748.6	1682.2	1645.4	1607.8	1472.6	1384.6
15°	2477.7	2370.5	2185.6	1998.3	1835.9	1706.3	1657.4	1694.2	1737.5	1651.1	1549.4
17.5°	2540.2	2427.3	2230.5	2005.6	1786.3	1623.8	1603.0	1698.2	1798.3	1794.3	1693.5
20°	2599.4	2487.4	2269.7	2000.8	1706.3	1523.8	1542.2	1663.9	1779.9	1828.7	1774.3
22.5°	2667.5	2549.0	2307.3	1982.4	1602.2	1430.2	1487.8	1609.5	1711.0	1768.7	1751.9
25°	2750.7	2626.7	2360.2	1955.2	1490.1	1352.5	1432.5	1546.2	1628.6	1668.7	1667.9
27.5°	2840.3	2719.4	2430.6	1940.7	1399.7	1297.3	1370.1	1471.0	1544.6	1572.7	1572.7
30°	2951.6	2827.5	2513.8	1924.7	1340.5	1265.3	1305.3	1383.7	1455.8	1483.8	1483.8
32.5°	3073.2	2947.6	2593.9	1886.3	1304.5	1241.3	1242.1	1291.7	1357.3	1390.9	1395.7
35°	3225.3	3091.6	2679.5	1802.3	1275.7	1213.3	1180.5	1204.5	1258.9	1298.9	1309.3
37.5°	3442.2	3280.5	2784.3	1682.2	1233.3	1170.0	1115.6	1121.2	1162.9	1206.8	1222.9
40°	3741.5	3534.2	2907.5	1557.4	1172.5	1109.3	1044.4	1042.0	1072.5	1115.6	1133.2
42.5°	4146.4	3869.5	3055.6	1438.2	1114.1	1035.6	969.1	965.1	989.2	1026.8	1045.2
45°	4681.1	4298.4	3237.3	1335.7	1068.5	963.6	898.0	896.4	916.4	949.1	968.4
47.5°	5365.3	4894.7	3419.0	1266.1	1044.4	906.7	839.6	842.8	860.4	889.9	903.5
50°	6251.3	5671.8	3474.1	1230.9	1044.4	876.4	787.5	803.5	817.9	840.3	848.3
52.5°	7313.3	6417.7	3291.7	1198.8	1050.8	880.4	743.5	777.9	788.3	807.5	810.7
55°	8297.7	6783.4	2829.9	1154.9	1052.4	905.2	705.9	757.1	776.3	783.5	782.7
57.5°	8869.1	6657.8	2288.1	1080.5	1046.0	922.0	681.8	731.4	768.3	773.1	765.9
60°	8760.3	6216.8	1684.7	1023.6	998.8	915.5	674.7	692.3	750.7	757.9	748.2
62.5°	7921.5	5477.4	1169.2	979.6	894.7	887.5	672.3	630.7	712.3	729.9	716.3
65°	6367.3	4312.1	825.9	843.6	784.3	826.8	659.5	566.6	665.8	689.8	669.0
67.5°	4619.4	2918.0	596.2	683.5	710.6	728.3	630.7	520.2	613.1	645.0	617.9
70°	2964.4	1575.8	418.6	451.4	598.6	618.7	581.1	478.6	559.4	596.2	566.6
72.5°	2107.2	930.8	300.9	316.1	481.0	515.4	511.4	432.1	497.0	541.8	506.6
75°	1454.2	513.0	203.3	225.7	348.9	418.6	394.5	371.4	421.0	466.6	432.1
77.5°	911.5	229.7	121.7	156.8	228.9	328.9	270.5	287.3	328.1	370.5	334.6
80°	507.4	88.9	68.1	104.0	124.8	239.3	149.6	184.9	241.7	272.1	243.3
82.5°	110.4	11.2	30.4	44.8	48.8	139.3	79.2	107.2	152.1	149.6	129.7
85°	0.0	0.0	5.6	6.4	3.2	60.1	28.8	35.3	49.6	46.4	35.3
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	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

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**CANDELA DISTRIBUTION (continued):**

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°	185°
0°	1608.6	1608.6	1608.6	1608.6	1608.6	1608.6	1608.6	1608.6	1608.6	1608.6	1608.6
2.5°	1440.5	1401.4	1372.6	1358.1	1346.1	1357.3	1363.8	1363.8	1390.9	1406.9	1413.4
5°	1305.3	1234.9	1181.3	1145.2	1123.6	1130.9	1138.9	1147.7	1182.0	1205.3	1220.5
7.5°	1211.7	1103.6	1022.0	971.6	945.2	949.1	954.8	962.0	995.6	1018.8	1038.8
10°	1194.0	1038.8	923.5	857.1	825.1	819.5	816.3	814.0	833.9	851.6	867.6
12.5°	1266.1	1042.0	881.2	800.3	761.1	744.3	725.1	709.9	713.1	724.3	744.3
15°	1394.9	1082.8	867.6	770.7	721.9	693.8	671.5	653.0	649.0	653.0	656.3
17.5°	1542.2	1138.1	865.9	745.1	684.3	655.5	637.0	620.2	614.6	615.4	619.4
20°	1639.8	1182.0	861.1	716.3	648.2	622.7	606.6	589.8	584.2	585.8	586.6
22.5°	1649.4	1205.3	853.9	684.3	612.2	590.6	574.6	559.4	558.6	558.6	563.4
25°	1597.5	1205.3	838.8	655.5	577.8	558.6	544.2	525.8	529.0	530.6	537.0
27.5°	1516.6	1176.5	810.0	632.2	548.2	528.2	513.8	497.0	501.0	503.4	510.6
30°	1436.5	1139.7	775.5	605.9	520.2	497.0	486.6	472.2	473.8	477.0	485.0
32.5°	1362.1	1100.4	734.7	584.2	492.2	468.9	460.9	445.0	447.4	450.6	459.4
35°	1288.5	1057.2	686.6	558.6	466.6	443.4	437.0	418.6	420.1	425.0	434.6
37.5°	1209.3	1011.6	647.5	533.0	441.8	417.8	411.3	392.2	393.8	399.3	410.5
40°	1126.1	966.8	609.1	505.8	415.3	391.3	385.7	364.9	366.5	373.0	385.0
42.5°	1042.0	918.0	579.4	470.6	388.2	362.5	356.9	337.7	340.1	347.4	359.4
45°	964.4	859.6	560.3	431.3	362.5	333.7	328.1	310.5	315.3	323.3	335.4
47.5°	898.0	799.5	552.2	398.5	335.4	304.1	299.3	285.0	292.9	301.8	311.3
50°	841.1	741.9	541.8	364.9	309.8	278.5	273.7	264.1	274.5	283.3	292.1
52.5°	800.3	676.3	519.4	334.6	287.3	256.9	255.3	250.5	260.1	268.1	276.1
55°	765.1	608.2	483.4	308.1	267.3	238.5	240.1	237.7	245.7	252.2	259.3
57.5°	733.1	549.0	437.8	287.3	245.7	222.5	227.2	224.1	228.1	232.1	240.9
60°	694.6	489.0	383.3	264.1	220.1	206.4	212.1	203.3	202.4	204.1	206.4
62.5°	637.9	408.2	326.6	235.3	197.7	188.9	191.3	174.5	161.6	161.6	164.1
65°	558.6	328.1	273.7	203.3	172.1	164.8	163.3	139.3	121.7	120.0	127.2
67.5°	466.6	269.7	227.2	171.3	143.3	138.5	140.0	122.5	104.9	103.2	111.2
70°	380.2	223.2	183.3	136.8	110.4	115.2	122.5	104.9	88.0	85.6	92.9
72.5°	308.9	177.6	143.3	104.9	81.6	95.2	104.0	85.6	69.6	68.1	74.4
75°	238.5	130.5	102.4	71.2	59.2	73.6	81.6	62.4	49.6	47.3	52.8
77.5°	159.3	80.9	57.6	44.8	35.3	50.4	54.4	32.8	28.8	28.0	32.0
80°	96.9	37.6	24.8	21.6	12.0	18.4	21.6	13.6	15.2	16.0	19.2
82.5°	48.8	10.5	4.0	0.8	0.0	0.0	6.4	3.2	6.4	8.0	12.0
85°	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	4.0	7.2
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2
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°	1608.6	1608.6	1608.6	1608.6	1608.6	1608.6	1608.6	1608.6	1608.6	1608.6	1608.6
2.5°	1458.2	1491.8	1523.8	1575.0	1627.8	1679.9	1732.7	1783.9	1802.3	1815.9	1846.3
5°	1290.1	1353.3	1427.0	1528.6	1637.4	1749.5	1863.1	1967.2	2014.4	2046.4	2118.5
7.5°	1116.4	1198.8	1304.5	1457.3	1627.8	1806.4	1984.8	2148.8	2224.9	2286.5	2396.1
10°	944.3	1034.0	1167.7	1342.1	1572.7	1828.7	2075.2	2300.9	2399.3	2477.0	2625.8
12.5°	793.1	877.2	1017.2	1210.1	1486.1	1811.1	2127.3	2398.5	2514.6	2601.9	2765.0
15°	686.6	745.9	869.9	1078.0	1383.7	1754.3	2130.5	2444.9	2572.2	2663.5	2805.1
17.5°	627.4	647.5	728.3	943.6	1270.1	1679.9	2100.8	2460.9	2597.0	2681.8	2780.3
20°	595.4	598.6	621.0	769.1	1124.4	1610.3	2072.9	2477.0	2620.2	2691.4	2721.1
22.5°	569.8	569.8	575.4	629.0	936.3	1527.0	2064.0	2505.0	2652.3	2696.3	2635.5
25°	546.6	546.6	548.2	562.6	741.9	1399.7	2058.4	2548.1	2696.3	2708.3	2541.0
27.5°	522.6	523.4	523.4	531.4	597.9	1226.9	2034.4	2604.2	2749.0	2724.2	2450.6
30°	498.6	500.2	500.2	505.8	529.0	1024.4	1987.2	2671.5	2817.9	2745.1	2360.9
32.5°	474.6	476.2	476.2	481.0	497.8	817.9	1927.9	2733.1	2887.5	2753.9	2277.7
35°	449.8	452.1	450.6	456.9	474.6	650.7	1852.7	2794.7	2962.8	2781.8	2236.9
37.5°	425.0	426.6	425.8	432.1	452.1	561.8	1765.5	2841.1	3065.2	2844.3	2285.6
40°	400.2	399.3	399.3	406.5	428.1	536.2	1655.9	2914.8	3212.5	2953.9	2498.5
42.5°	374.5	374.5	373.0	381.0	407.3	517.0	1551.0	3046.8	3427.0	3128.4	2876.4
45°	351.4	350.5	347.4	354.5	387.3	483.4	1514.2	3293.3	3743.9	3410.9	3333.3
47.5°	328.9	328.1	320.1	326.6	363.4	452.9	1651.9	3696.7	4183.2	3826.3	3761.4
50°	308.9	309.8	294.5	300.1	339.4	429.8	1950.4	4220.0	4766.7	4385.8	4167.2
52.5°	290.5	290.5	270.5	273.7	309.8	409.0	2234.5	4787.5	5536.5	5166.0	4640.2
55°	272.1	270.5	248.0	249.7	280.1	379.4	2276.9	5341.3	6586.5	6340.1	5286.8
57.5°	251.3	248.0	227.2	227.2	252.9	357.7	1973.5	5767.1	7889.5	8065.5	6219.3
60°	225.7	223.2	209.7	205.7	231.2	377.0	1392.6	5816.7	8729.8	10360.1	8004.7
62.5°	192.9	196.1	188.9	183.3	210.4	391.3	825.1	5417.3	8526.6	11090.0	10143.2
65°	152.1	164.8	163.3	159.3	231.2	329.7	487.4	4650.6	7903.1	10500.9	9707.1
67.5°	129.7	138.5	136.0	136.0	242.5	250.5	306.5	3633.4	7045.1	9802.3	8670.6
70°	110.4	119.2	110.4	110.4	183.3	152.1	212.1	2537.0	6119.2	9029.1	7990.3
72.5°	91.2	100.0	90.4	84.0	146.5	113.7	155.3	1585.5	5240.4	8224.0	7524.5
75°	69.6	80.1	72.9	64.8	96.9	84.9	117.7	921.2	4341.7	7036.3	6861.0
77.5°	44.0	57.6	54.4	45.6	71.2	61.6	84.9	548.2	3350.1	5498.2	5901.5
80°	27.2	29.6	30.4	28.8	40.8	41.6	57.6	312.1	2292.9	3831.9	4610.7
82.5°	17.6	17.6	13.6	15.2	20.0	24.0	32.8	117.7	1347.8	2332.9	3209.3
85°	12.8	11.2	7.2	7.2	9.6	12.0	12.8	36.0	546.6	921.2	1254.9
87.5°	6.4	5.6	2.4	3.2	4.8	4.0	3.2	1.6	137.7	294.5	206.4
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: P965525  
 CATALOG NUMBER: NAV-SB4A-722-U-SLR-HSS

**CANDELA DISTRIBUTION (continued):**

	295°	305°	315°	325°	335°	345°	355°	360°
0°	1608.6	1608.6	1608.6	1608.6	1608.6	1608.6	1608.6	1608.6
2.5°	1862.3	1887.1	1888.8	1888.8	1867.1	1866.3	1822.3	1817.5
5°	2192.9	2208.9	2212.9	2204.9	2161.6	2129.6	2044.0	2025.6
7.5°	2495.4	2527.3	2527.3	2508.2	2437.8	2372.2	2248.1	2201.7
10°	2737.1	2773.9	2765.9	2726.7	2637.8	2547.4	2397.0	2336.1
12.5°	2854.7	2892.3	2871.5	2826.7	2740.2	2645.0	2486.5	2417.8
15°	2852.4	2841.9	2820.3	2814.8	2773.1	2701.1	2553.0	2477.7
17.5°	2750.7	2662.6	2645.8	2701.9	2754.7	2737.1	2610.7	2540.2
20°	2589.9	2436.1	2420.9	2528.2	2678.6	2755.5	2664.3	2599.4
22.5°	2420.1	2254.5	2219.2	2337.7	2564.2	2761.0	2732.2	2667.5
25°	2259.3	2092.8	2057.6	2168.1	2436.9	2751.5	2805.9	2750.7
27.5°	2124.8	1964.0	1931.2	2041.6	2314.6	2724.2	2879.5	2840.3
30°	2020.8	1872.0	1848.0	1954.4	2208.9	2690.6	2973.2	2951.6
32.5°	1960.0	1851.2	1860.0	1947.2	2152.1	2653.8	3062.8	3073.2
35°	2020.0	2024.8	2101.7	2137.6	2204.9	2648.2	3184.5	3225.3
37.5°	2318.5	2485.0	2644.2	2614.7	2463.4	2713.1	3366.1	3442.2
40°	2826.7	3168.5	3427.0	3314.1	2933.1	2911.5	3627.8	3741.5
42.5°	3447.8	4027.2	4452.9	4150.4	3539.0	3258.9	4001.6	4146.4
45°	4103.2	5085.9	5756.7	5127.6	4184.9	3745.5	4567.4	4681.1
47.5°	4793.9	6372.9	7240.4	6211.2	4783.5	4299.3	5338.9	5365.3
50°	5549.3	7783.8	8753.0	7294.1	5361.3	4933.9	6281.7	6251.3
52.5°	6268.9	9234.8	10233.6	8381.7	5868.7	5721.4	7375.7	7313.3
55°	6955.5	10685.0	11723.0	9426.9	6347.3	6761.8	8675.4	8297.7
57.5°	7751.9	11988.7	13258.0	10476.9	7016.3	8112.8	10128.7	8869.1
60°	8929.1	13470.0	14993.9	11915.8	8288.9	9532.5	10649.7	8760.3
62.5°	10432.1	14832.3	16256.0	13326.0	9566.9	9799.8	9882.2	7921.5
65°	10724.2	15177.2	16327.2	13703.0	9402.1	8312.9	8068.0	6367.3
67.5°	9949.5	14553.7	15331.6	13001.1	8316.8	6424.1	6054.4	4619.4
70°	9080.4	13365.3	13596.5	11807.8	7314.9	4725.0	4088.8	2964.4
72.5°	8189.6	11779.8	11301.2	10254.4	6428.9	3440.5	2949.1	2107.2
75°	7131.6	9695.0	8901.9	8520.1	5322.9	2700.3	2133.6	1454.2
77.5°	5711.0	6824.2	6612.2	6604.2	4000.0	1972.8	1423.7	911.5
80°	4028.8	4428.9	4320.9	4973.9	2683.4	1431.0	857.1	507.4
82.5°	1950.4	2448.9	2513.8	2961.9	1305.3	841.9	197.7	110.4
85°	763.5	1181.3	996.4	1124.4	366.5	234.5	4.8	0.0
87.5°	85.6	136.8	125.7	99.2	44.8	9.6	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)