

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: P967104

Luminaire Tested: **NAV-SB4D-722-U-SLL-HSS**

Issue Date: 1/21/2025

**Test Information**

Test Method: LM-79-08  
Report Number: P967104  
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-SB4D-722-U-SLL-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(4) 70 CRI, 2200K, 900mA 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: 26354.8 lumens  
Efficiency: N/A  
Efficacy: 89.8 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B3 - U0 - G4

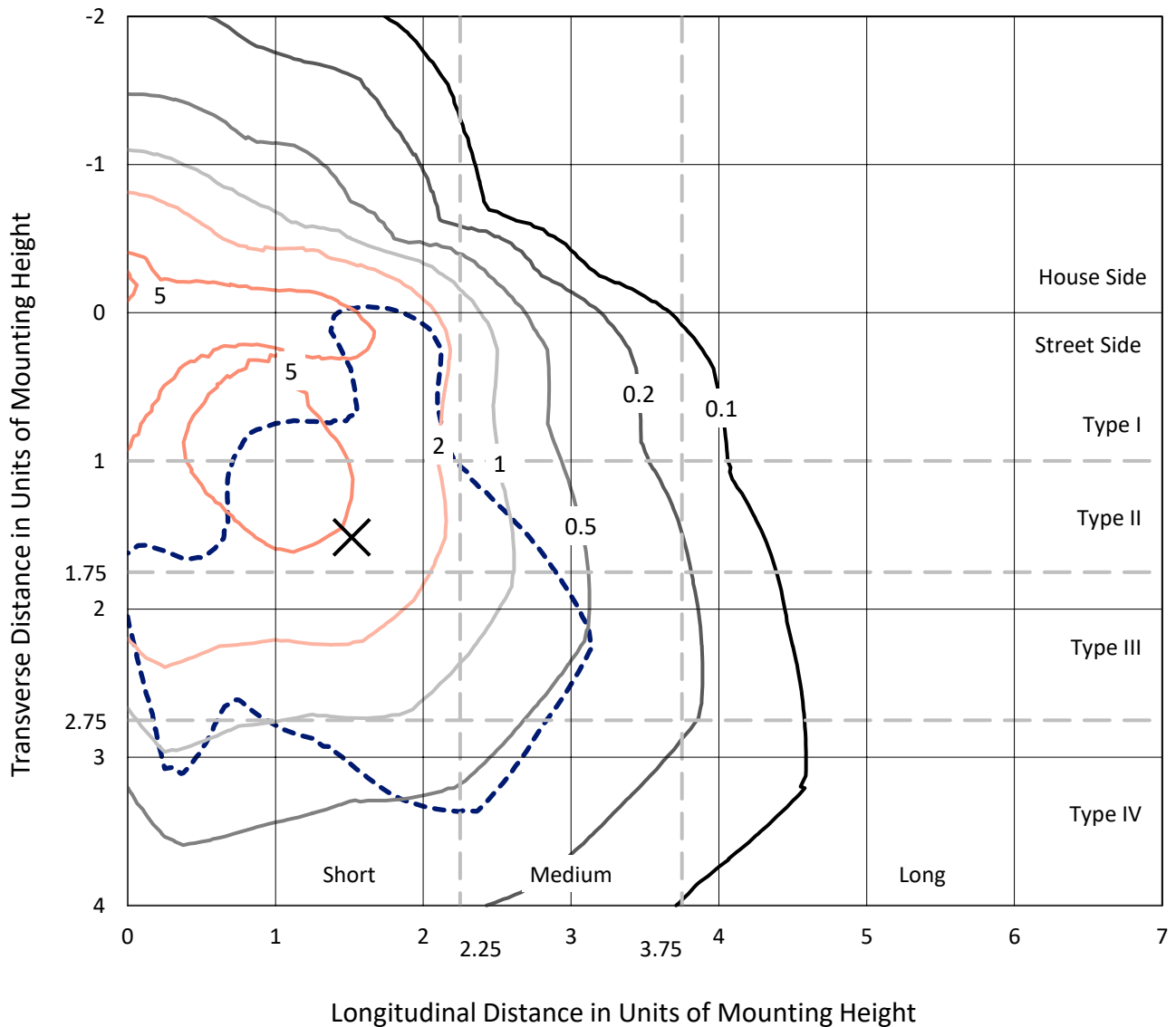
Input Watts (W): 293.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



REPORT NUMBER: P967104  
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### Iso-Footcandle Lines of Horizontal Illumination

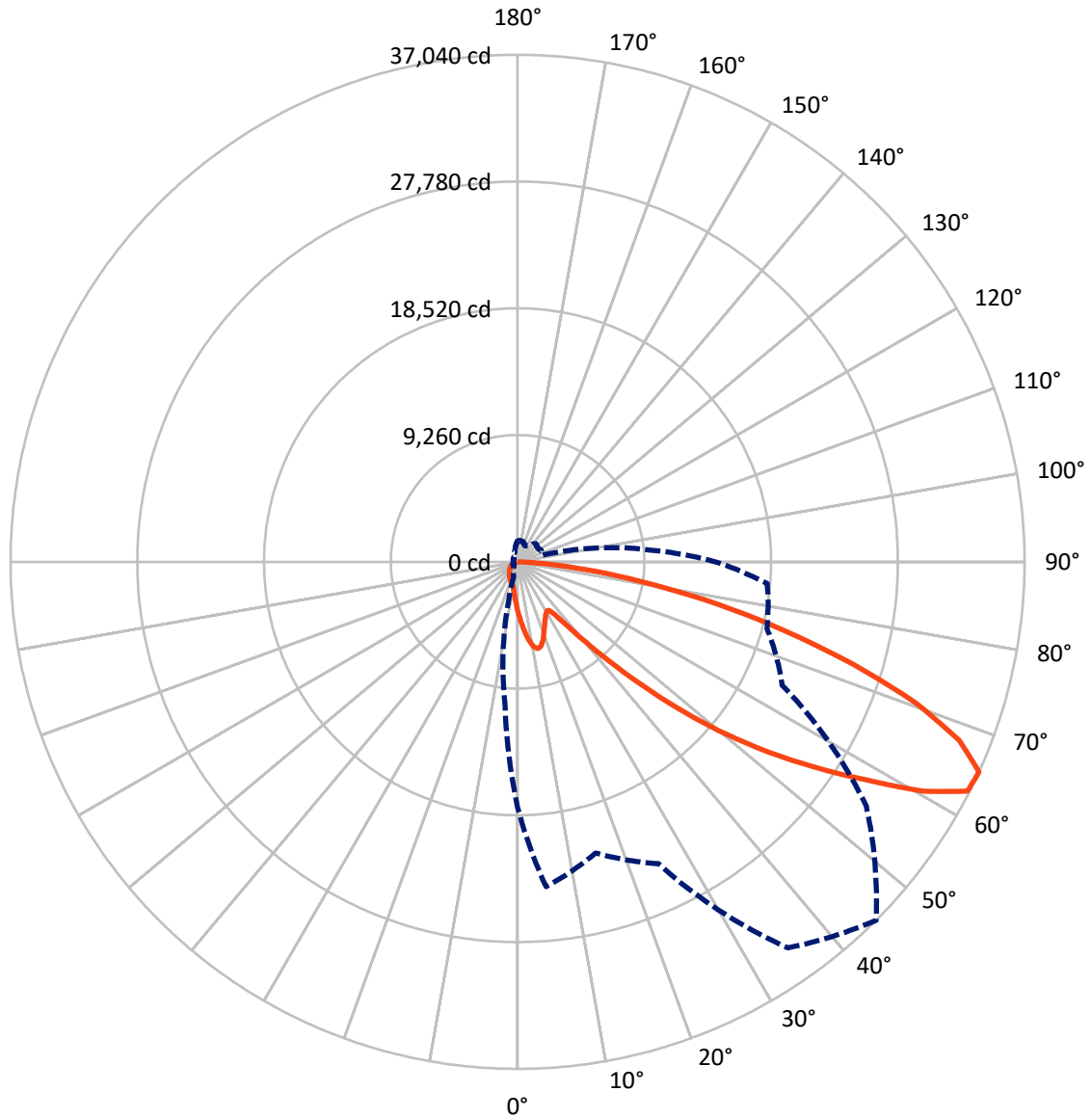
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.6 fc  
 Type IV - Short - N/A

REPORT NUMBER: P967104  
CATALOG NUMBER: NAV-SB4D-722-U-SLL-HSS

### Luminous Intensity Polar Plot



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

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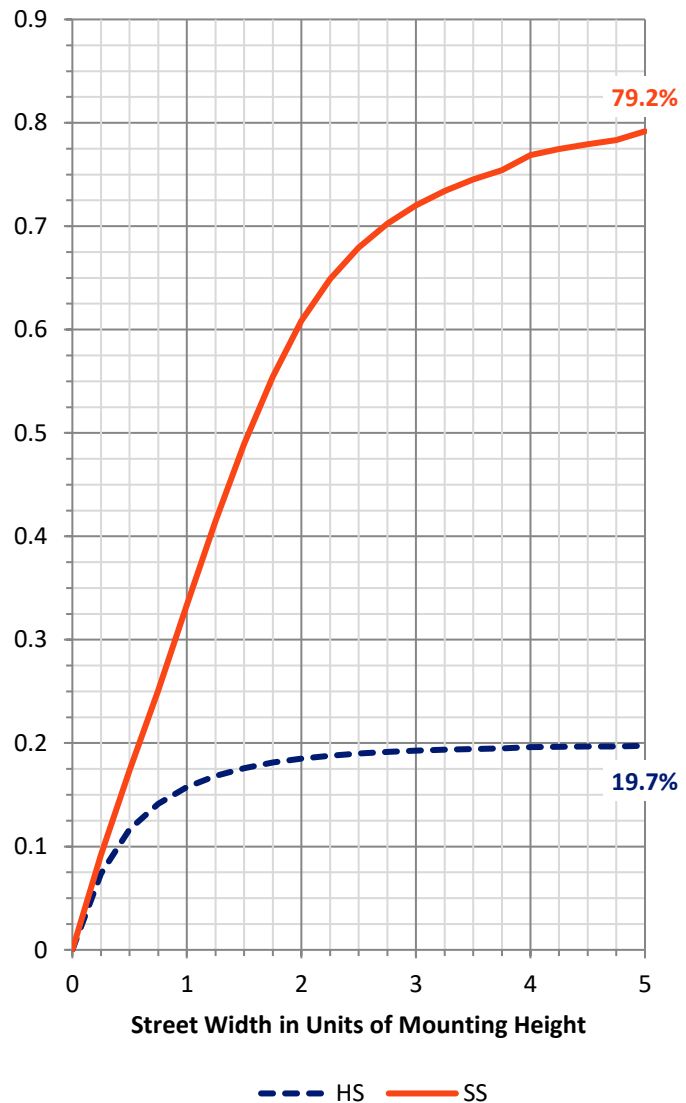
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	5238.5	0.0	5238.5
	% Fixture	19.9	0.0	19.9
<b>Street Side</b>	Lumens	21116.3	0.0	21116.3
	% Fixture	80.1	0.0	80.1
<b>Total</b>	Lumens	26354.8	0.0	26354.8
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	359.3	1.4
10°-20°	1077.0	4.1
20°-30°	1586.7	6.0
30°-40°	2038.5	7.7
40°-50°	3296.8	12.5
50°-60°	5781.2	21.9
60°-70°	7233.9	27.4
70°-80°	4227.2	16.0
80°-90°	754.2	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°	26354.8	100.0
0°-180°	26354.8	100.0

**Coefficient of Utilization**

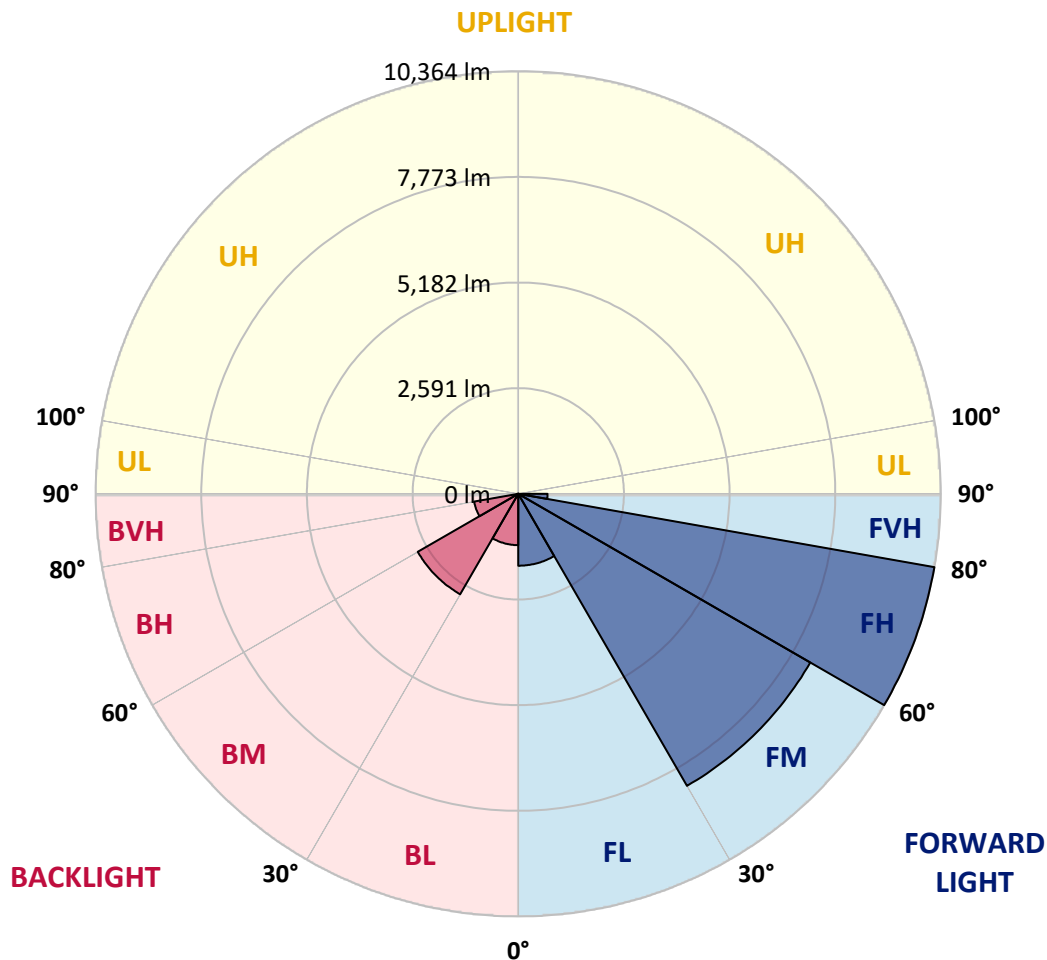


REPORT NUMBER: P967104  
 CATALOG NUMBER: NAV-SB4D-722-U-SLL-HSS

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1763.4	6.7			
FM (30°-60°)	8270.4	31.4			
FH (60°-80°)	10363.5	39.3			G4/12000
FVH (80°-90°)	718.9	2.7			G4/750
BL (0°-30°)	1259.6	4.8	B3/2500		
BM (30°-60°)	2846.1	10.8	B3/5000		
BH (60°-80°)	1097.6	4.2	B3/2500		G3/2500
BVH (80°-90°)	35.3	0.1			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G4**  
 Type IV Short



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	3649.3	3649.3	3649.3	3649.3	3649.3	3649.3	3649.3	3649.3	3649.3	3649.3	3649.3
2.5°	4088.6	4119.6	4188.6	4224.8	4281.1	4284.7	4284.7	4235.7	4233.9	4134.0	4123.2
5°	4569.8	4642.4	4805.8	4974.6	5011.0	5020.0	5001.9	4903.8	4831.2	4637.0	4595.2
7.5°	5047.3	5187.1	5435.8	5661.0	5733.5	5733.5	5690.0	5530.2	5381.4	5099.9	4994.6
10°	5443.1	5619.2	5956.9	6209.2	6292.8	6274.6	6185.7	5984.2	5779.0	5437.6	5299.7
12.5°	5704.5	5902.5	6272.8	6476.2	6561.4	6514.3	6412.6	6216.5	6000.5	5641.0	5484.9
15°	5835.2	6042.2	6363.6	6470.7	6447.0	6398.0	6385.3	6290.9	6127.6	5791.7	5621.0
17.5°	5891.5	6084.0	6307.3	6240.1	6040.4	6002.3	6129.4	6249.2	6209.2	5922.3	5762.7
20°	5944.2	6105.7	6173.0	5875.2	5526.6	5492.1	5735.4	6076.7	6251.0	6044.0	5896.9
22.5°	6016.7	6116.7	5978.7	5490.3	5114.4	5034.6	5303.2	5817.1	6263.7	6198.4	6051.3
25°	6116.7	6143.8	5764.4	5125.3	4747.7	4667.8	4918.4	5528.4	6241.9	6365.4	6240.1
27.5°	6236.5	6180.2	5559.3	4820.4	4455.4	4381.0	4631.6	5250.7	6180.2	6532.4	6443.5
30°	6392.6	6227.4	5355.9	4584.3	4246.6	4192.1	4433.6	5011.0	6104.0	6744.8	6695.8
32.5°	6550.6	6247.4	5167.1	4446.3	4199.4	4219.4	4417.2	4882.1	6020.4	6948.2	6971.7
35°	6721.2	6310.9	5074.6	4582.5	4593.4	4767.7	4849.4	5001.9	6007.7	7224.2	7316.8
37.5°	6953.6	6452.6	5185.3	5259.7	5637.3	5998.6	5931.5	5588.3	6154.8	7636.2	7808.8
40°	7287.7	6701.2	5668.2	6412.6	7187.8	7774.3	7518.3	6654.1	6605.0	8229.9	8487.8
42.5°	7774.3	7097.1	6525.2	7821.5	9135.9	10101.8	9415.5	8028.4	7393.0	9077.8	9406.4
45°	8493.3	7737.9	7561.8	9308.4	11537.9	13059.4	11632.3	9493.7	8496.8	10361.4	10619.3
47.5°	9490.0	8680.2	8533.2	10875.2	14457.4	16425.4	14090.7	10851.7	9753.3	12111.7	12171.6
50°	10813.5	9949.4	9453.7	12589.2	17658.2	19856.9	16547.1	12162.5	11193.0	14250.4	14181.4
52.5°	12560.1	11719.5	10526.6	14221.4	20949.9	23215.7	19014.5	13313.6	12979.5	16732.3	16590.6
55°	14942.1	14382.9	11993.6	15779.2	24239.7	26594.4	21385.6	14399.3	15339.7	19680.8	18823.8
57.5°	17897.9	18297.3	14108.8	17585.6	27197.2	30076.8	23767.6	15917.1	18404.4	22977.8	20120.1
60°	19804.2	23502.5	18159.3	20256.4	30557.9	34014.7	27032.0	18803.8	21625.2	24159.8	19873.2
62.5°	19343.1	25158.3	23010.5	23665.9	33648.0	36877.9	30231.0	21703.4	22231.6	22418.7	17970.5
65°	17928.8	23822.1	22021.1	24328.7	34430.5	37039.5	31086.2	21329.3	18858.4	18302.8	14444.7
67.5°	15982.5	22237.1	19669.9	22571.2	33016.2	34780.9	29494.0	18867.4	14573.6	13734.8	10479.5
70°	13881.9	20483.3	18126.6	20599.4	30320.0	30844.7	26786.9	16594.3	10719.1	9275.7	6724.9
72.5°	11888.4	18656.8	17070.0	18578.7	26723.4	25637.7	23262.9	14584.5	7805.2	6690.4	4780.4
75°	9849.4	15962.5	15564.9	16178.5	21993.8	20194.6	19328.5	12075.3	6125.7	4840.4	3298.9
77.5°	7600.0	12472.9	13388.0	12955.9	15481.4	15000.3	14982.1	9074.2	4475.4	3229.9	2067.9
80°	5201.6	8692.9	10459.5	9139.6	10047.4	9802.3	11283.8	6087.6	3246.3	1944.4	1151.1
82.5°	3057.4	5292.4	7280.5	4424.5	5555.6	5702.7	6719.4	2961.2	1910.0	448.4	250.5
85°	1240.0	2089.8	2846.8	1732.0	2679.8	2260.4	2550.9	831.5	532.0	10.9	0.0
87.5°	312.3	668.1	468.4	194.2	310.5	285.1	225.1	101.7	21.8	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: P967104  
 CATALOG NUMBER: NAV-SB4D-722-U-SLL-HSS

**CANDELA DISTRIBUTION (continued):**

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°	185°
0°	3649.3	3649.3	3649.3	3649.3	3649.3	3649.3	3649.3	3649.3	3649.3	3649.3	3649.3
2.5°	4052.3	4010.6	3907.1	3803.6	3720.1	3607.5	3533.1	3444.1	3358.8	3282.6	3268.0
5°	4480.8	4342.8	4154.0	3981.5	3805.4	3634.8	3465.9	3288.0	3124.6	3024.8	2961.2
7.5°	4829.4	4586.2	4335.5	4115.9	3903.5	3703.7	3480.5	3264.4	3008.4	2872.3	2748.7
10°	5089.0	4769.5	4440.9	4188.6	3974.2	3780.0	3591.2	3373.4	3064.6	2894.0	2708.9
12.5°	5259.7	4880.2	4495.3	4206.7	3967.1	3816.3	3732.8	3647.5	3340.7	3140.9	2872.3
15°	5377.8	4958.3	4533.5	4164.9	3870.8	3760.0	3843.5	3941.6	3745.6	3514.9	3164.6
17.5°	5506.6	5060.0	4549.8	4052.3	3683.7	3636.6	3852.7	4079.6	4070.5	3841.7	3498.6
20°	5642.8	5149.0	4538.9	3870.8	3456.8	3498.6	3774.6	4037.8	4148.6	4025.1	3720.1
22.5°	5782.6	5234.3	4497.2	3634.8	3244.4	3375.1	3651.2	3881.7	4012.4	3974.2	3741.9
25°	5958.7	5354.1	4435.5	3380.6	3068.3	3249.9	3507.7	3694.7	3785.4	3783.7	3623.9
27.5°	6169.3	5513.9	4402.8	3175.4	2943.1	3108.2	3337.0	3504.1	3567.6	3567.6	3440.5
30°	6414.4	5702.7	4366.4	3041.1	2870.4	2961.2	3139.2	3302.6	3366.1	3366.1	3259.0
32.5°	6686.8	5884.2	4279.3	2959.4	2816.0	2817.7	2930.4	3079.2	3155.5	3166.3	3090.1
35°	7013.6	6078.6	4088.6	2894.0	2752.4	2678.0	2732.4	2855.9	2946.7	2970.2	2923.1
37.5°	7442.0	6316.4	3816.3	2797.8	2654.3	2530.9	2543.6	2638.0	2737.9	2774.2	2743.3
40°	8017.6	6596.0	3533.1	2659.8	2516.4	2369.3	2363.9	2432.8	2530.9	2570.8	2554.5
42.5°	8778.3	6931.9	3262.6	2527.2	2349.3	2198.6	2189.6	2244.0	2329.4	2371.1	2363.9
45°	9751.4	7344.0	3030.2	2423.8	2185.9	2037.1	2033.4	2078.8	2153.2	2196.9	2187.8
47.5°	11104.0	7756.1	2872.3	2369.3	2057.1	1904.6	1911.8	1951.7	2018.9	2049.8	2037.1
50°	12866.9	7881.4	2792.3	2369.3	1988.1	1786.5	1822.9	1855.6	1906.4	1924.5	1908.1
52.5°	14559.1	7467.4	2719.7	2383.8	1997.1	1686.6	1764.7	1788.3	1831.9	1839.2	1815.6
55°	15388.7	6419.9	2619.9	2387.4	2053.4	1601.4	1717.5	1761.1	1777.5	1775.6	1735.7
57.5°	15103.7	5190.7	2451.0	2373.0	2091.5	1546.8	1659.5	1742.9	1753.9	1737.5	1663.1
60°	14103.4	3821.8	2322.1	2265.9	2077.1	1530.5	1570.5	1703.0	1719.3	1697.6	1575.9
62.5°	12425.8	2652.6	2222.3	2029.8	2013.5	1525.1	1430.7	1615.8	1655.8	1624.9	1447.0
65°	9782.3	1873.7	1913.6	1779.3	1875.4	1496.0	1285.5	1510.5	1565.1	1517.8	1267.3
67.5°	6619.6	1352.6	1550.5	1612.2	1652.2	1430.7	1180.1	1390.7	1463.4	1401.6	1058.5
70°	3574.9	949.6	1024.0	1358.0	1403.4	1318.1	1085.7	1269.1	1352.6	1285.5	862.4
72.5°	2111.5	682.6	717.2	1091.1	1169.2	1160.2	980.4	1127.5	1229.2	1149.2	700.8
75°	1163.8	461.1	512.0	791.6	949.6	895.0	842.4	955.0	1058.5	980.4	541.0
77.5°	521.1	275.9	355.9	519.3	746.2	613.7	651.8	744.4	840.6	758.9	361.3
80°	201.5	154.4	236.1	283.2	542.8	339.5	419.4	548.3	617.3	552.0	219.7
82.5°	25.4	69.0	101.7	110.7	315.9	179.8	243.3	344.9	339.5	294.1	110.7
85°	0.0	12.7	14.6	7.3	136.1	65.4	79.8	112.5	105.3	79.8	9.1
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	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



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**CANDELA DISTRIBUTION (continued):**

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	3649.3	3649.3	3649.3	3649.3	3649.3	3649.3	3649.3	3649.3	3649.3	3649.3	3649.3
2.5°	3179.0	3113.7	3081.0	3053.8	3079.2	3093.8	3093.8	3155.5	3191.7	3206.3	3308.0
5°	2801.4	2679.8	2598.1	2549.1	2565.4	2583.5	2603.5	2681.6	2734.3	2768.7	2926.7
7.5°	2503.7	2318.4	2204.1	2144.2	2153.2	2165.9	2182.3	2258.6	2311.2	2356.6	2532.7
10°	2356.6	2095.2	1944.4	1871.9	1859.1	1851.9	1846.4	1891.8	1931.8	1968.1	2142.4
12.5°	2363.9	1999.0	1815.6	1726.6	1688.5	1644.9	1610.4	1617.7	1643.1	1688.5	1799.2
15°	2456.5	1968.1	1748.4	1637.6	1574.1	1523.3	1481.5	1472.4	1481.5	1488.8	1557.8
17.5°	2581.8	1964.4	1690.3	1552.4	1487.0	1445.1	1407.0	1394.3	1396.2	1405.3	1423.4
20°	2681.6	1953.5	1624.9	1470.6	1412.6	1376.2	1338.0	1325.3	1329.0	1330.9	1350.7
22.5°	2734.3	1937.2	1552.4	1388.9	1339.9	1303.6	1269.1	1267.3	1267.3	1278.2	1292.7
25°	2734.3	1902.7	1487.0	1310.9	1267.3	1234.6	1192.8	1200.1	1203.8	1218.2	1240.0
27.5°	2668.9	1837.3	1434.3	1243.6	1198.3	1165.6	1127.5	1136.5	1142.0	1158.4	1185.6
30°	2585.4	1759.3	1374.4	1180.1	1127.5	1103.8	1071.2	1074.8	1082.1	1100.2	1131.1
32.5°	2496.4	1666.6	1325.3	1116.5	1063.9	1045.8	1009.4	1015.0	1022.1	1042.1	1076.7
35°	2398.4	1557.8	1267.3	1058.5	1005.8	991.3	949.6	953.1	964.1	985.8	1020.4
37.5°	2294.9	1468.8	1209.2	1002.2	947.7	933.2	889.6	893.3	906.0	931.4	964.1
40°	2193.2	1381.7	1147.5	942.3	887.9	875.1	827.9	831.5	846.0	873.3	907.7
42.5°	2082.5	1314.5	1067.5	880.6	822.5	809.7	766.2	771.6	787.9	815.2	849.7
45°	1950.0	1270.9	978.6	822.5	757.1	744.4	704.5	715.3	733.5	760.8	797.0
47.5°	1813.7	1252.8	904.2	760.8	689.9	679.1	646.4	664.5	684.5	706.2	746.2
50°	1683.0	1229.2	827.9	702.6	631.8	620.9	599.1	622.8	642.7	662.7	700.8
52.5°	1534.1	1178.3	758.9	651.8	582.8	579.1	568.3	590.1	608.2	626.4	659.1
55°	1379.9	1096.6	698.9	606.4	541.0	544.7	539.3	557.4	571.9	588.2	617.3
57.5°	1245.5	993.1	651.8	557.4	504.7	515.6	508.4	517.4	526.5	546.5	570.1
60°	1109.4	869.6	599.1	499.3	468.4	481.1	461.1	459.3	463.0	468.4	512.0
62.5°	926.0	740.8	533.8	448.4	428.4	433.9	395.8	366.7	366.7	372.2	437.6
65°	744.4	620.9	461.1	390.3	374.0	370.3	315.9	275.9	272.3	288.6	344.9
67.5°	611.8	515.6	388.6	325.0	314.1	317.8	277.8	237.8	234.2	252.4	294.1
70°	506.6	415.7	310.5	250.5	261.5	277.8	237.8	199.7	194.2	210.6	250.5
72.5°	403.0	325.0	237.8	185.2	216.1	236.1	194.2	158.0	154.4	168.8	206.9
75°	295.9	232.4	161.5	134.4	167.1	185.2	141.7	112.5	107.1	119.8	158.0
77.5°	183.4	130.7	101.7	79.8	114.4	123.4	74.4	65.4	63.6	72.7	99.8
80°	85.4	56.3	49.0	27.3	41.7	49.0	30.9	34.5	36.3	43.6	61.7
82.5°	23.6	9.1	1.8	0.0	0.0	14.6	7.3	14.6	18.1	27.3	40.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	9.1	16.3	29.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.3	14.6
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: P967104  
 CATALOG NUMBER: NAV-SB4D-722-U-SLL-HSS

**CANDELA DISTRIBUTION (continued):**

	295°	305°	315°	325°	335°	345°	355°	360°
0°	3649.3	3649.3	3649.3	3649.3	3649.3	3649.3	3649.3	3649.3
2.5°	3384.2	3456.8	3573.0	3692.9	3810.8	3930.7	4046.9	4088.6
5°	3070.1	3237.2	3467.8	3714.7	3968.8	4226.7	4462.6	4569.8
7.5°	2719.7	2959.4	3306.1	3692.9	4097.7	4502.6	4874.8	5047.3
10°	2345.7	2648.9	3044.8	3567.6	4148.6	4707.8	5219.8	5443.1
12.5°	1989.8	2307.6	2745.2	3371.5	4108.6	4825.8	5441.3	5704.5
15°	1692.1	1973.5	2445.5	3139.2	3979.8	4833.1	5546.6	5835.2
17.5°	1468.8	1652.2	2140.5	2881.3	3810.8	4765.8	5582.9	5891.5
20°	1358.0	1408.9	1744.8	2550.9	3652.9	4702.3	5619.2	5944.2
22.5°	1292.7	1305.4	1427.0	2124.2	3464.1	4682.4	5682.7	6016.7
25°	1240.0	1243.6	1276.3	1683.0	3175.4	4669.7	5780.8	6116.7
27.5°	1187.4	1187.4	1205.5	1356.3	2783.3	4615.2	5907.9	6236.5
30°	1134.8	1134.8	1147.5	1200.1	2323.9	4508.1	6060.4	6392.6
32.5°	1080.2	1080.2	1091.1	1129.2	1855.6	4373.7	6200.1	6550.6
35°	1025.8	1022.1	1036.7	1076.7	1476.1	4203.0	6339.9	6721.2
37.5°	967.7	965.9	980.4	1025.8	1274.5	4005.2	6445.3	6953.6
40°	906.0	906.0	922.3	971.3	1216.5	3756.4	6612.3	7287.7
42.5°	849.7	846.0	864.2	924.1	1172.9	3518.6	6911.9	7774.3
45°	795.2	787.9	804.3	878.7	1096.6	3435.1	7471.1	8493.3
47.5°	744.4	726.2	740.8	824.3	1027.6	3747.3	8386.1	9490.0
50°	702.6	668.1	680.8	769.8	975.0	4424.5	9573.5	10813.5
52.5°	659.1	613.7	620.9	702.6	927.7	5069.0	10860.7	12560.1
55°	613.7	562.8	566.4	635.5	860.6	5165.3	12117.1	14942.1
57.5°	562.8	515.6	515.6	573.7	811.6	4477.2	13083.0	17897.9
60°	506.6	475.7	466.6	524.7	855.2	3159.0	13195.5	19804.2
62.5°	444.8	428.4	415.7	477.4	887.9	1871.9	12289.5	19343.1
65°	374.0	370.3	361.3	524.7	748.0	1105.7	10550.3	17928.8
67.5°	314.1	308.6	308.6	550.1	568.3	695.4	8242.6	15982.5
70°	270.5	250.5	250.5	415.7	344.9	481.1	5755.4	13881.9
72.5°	226.9	205.2	190.6	332.2	257.8	352.2	3596.6	11888.4
75°	181.5	165.2	147.1	219.7	192.5	266.9	2089.8	9849.4
77.5°	130.7	123.4	103.5	161.5	139.8	192.5	1243.6	7600.0
80°	67.1	69.0	65.4	92.6	94.4	130.7	708.1	5201.6
82.5°	40.0	30.9	34.5	45.4	54.4	74.4	266.9	3057.4
85°	25.4	16.3	16.3	21.8	27.3	29.0	81.7	1240.0
87.5°	12.7	5.4	7.3	10.9	9.1	7.3	3.6	312.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)