

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: P967755

Luminaire Tested: **NAV-SB5A-740-U-SLL-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967755
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-SB5A-740-U-SLL-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 4000K, 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: 18753.4 lumens
Efficiency: N/A
Efficacy: 132.3 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G4

Input Watts (W): 141.7
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



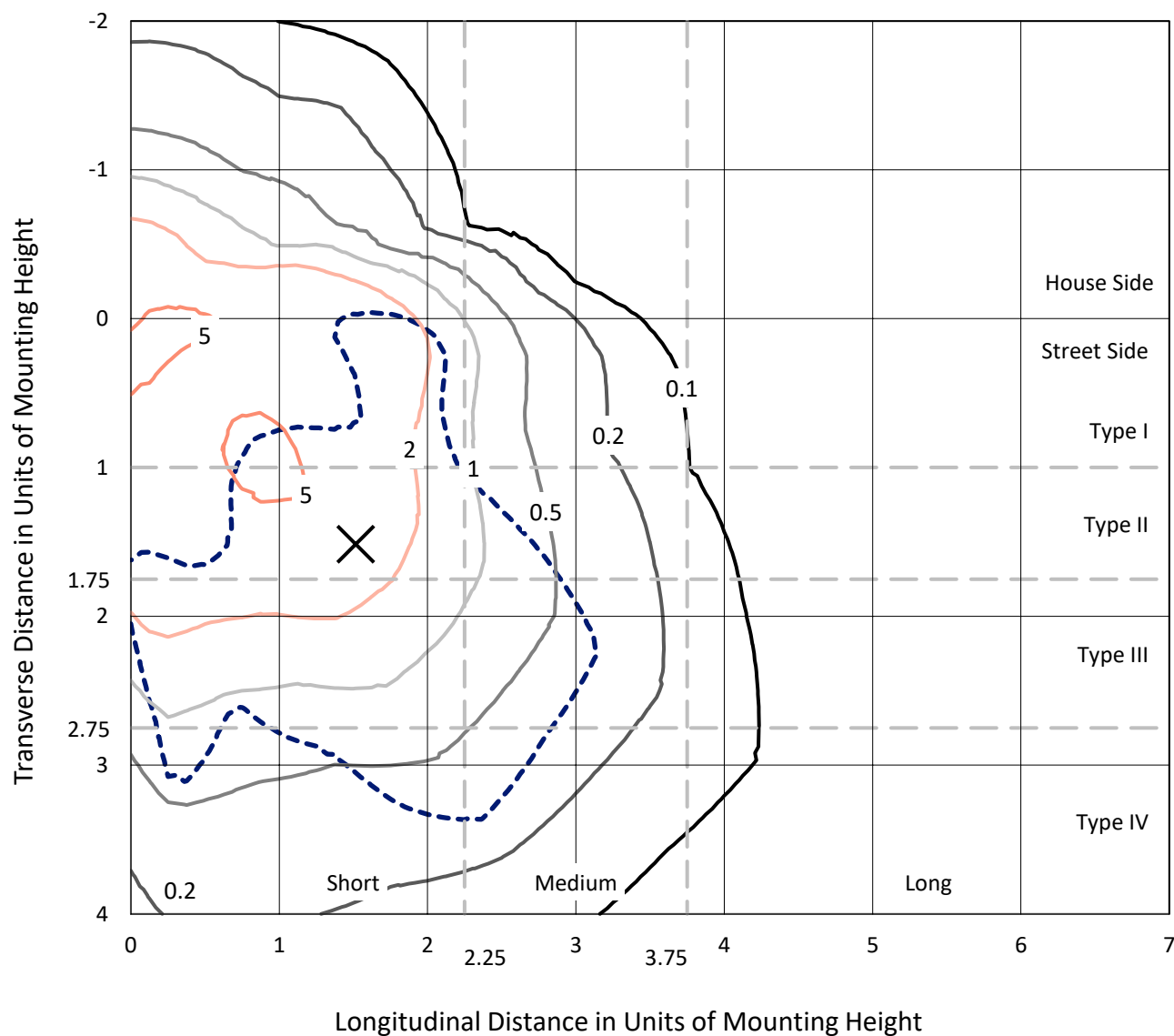
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

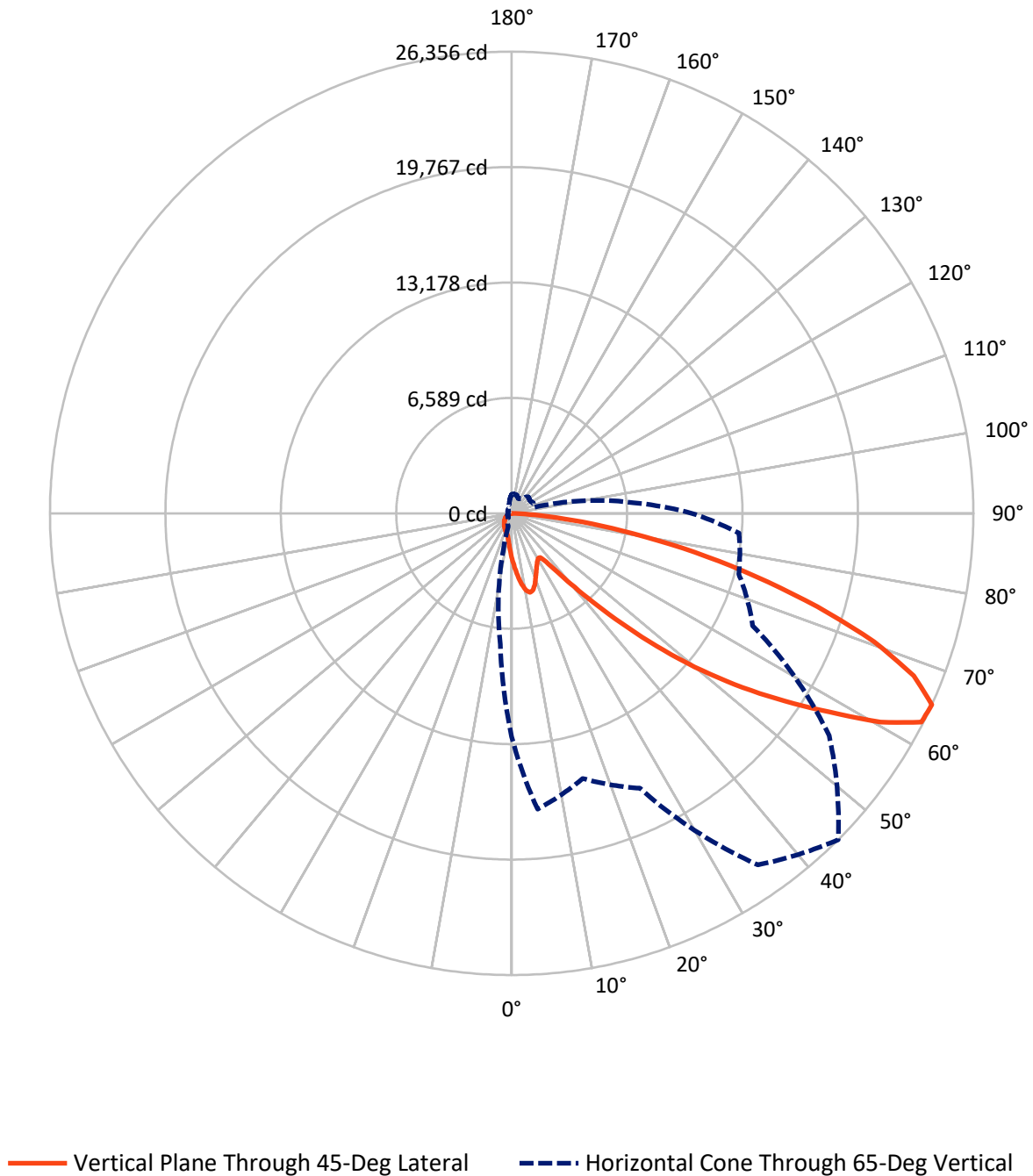


Based on 25 foot mounting height. Maximum calculated value = 6.8 fc

Type IV - Short - N/A

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Luminous Intensity Polar Plot



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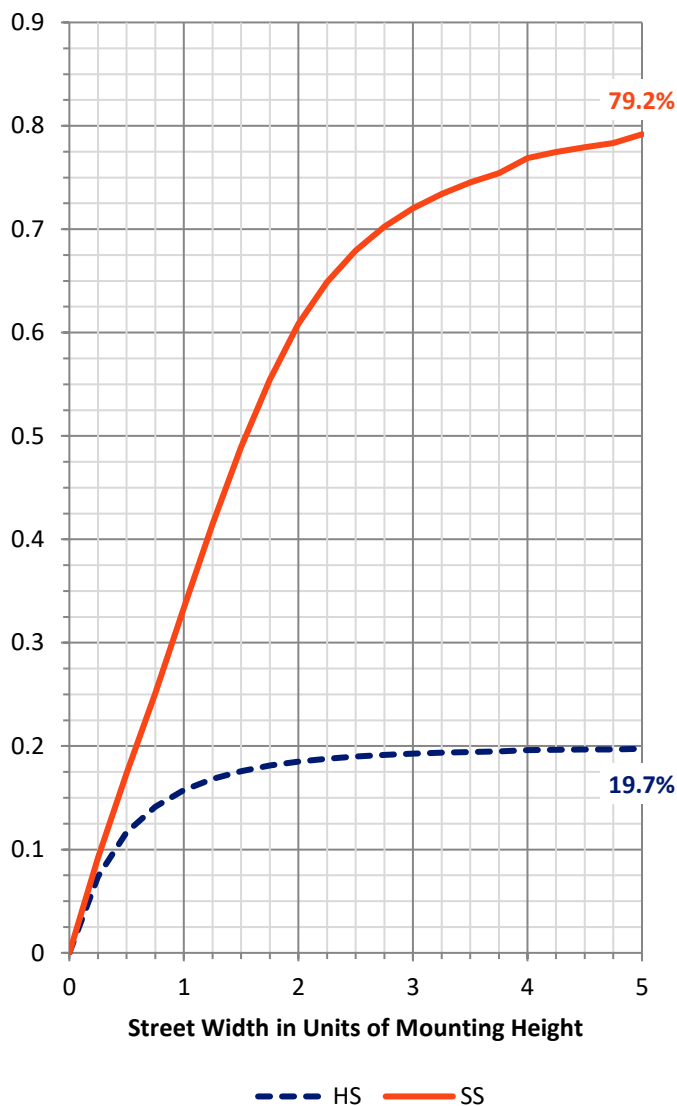
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3727.6	0.0	3727.6
	% Fixture	19.9	0.0	19.9
Street Side	Lumens	15025.8	0.0	15025.8
	% Fixture	80.1	0.0	80.1
Total	Lumens	18753.4	0.0	18753.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	255.7	1.4
10°-20°	766.4	4.1
20°-30°	1129.0	6.0
30°-40°	1450.5	7.7
40°-50°	2345.9	12.5
50°-60°	4113.8	21.9
60°-70°	5147.5	27.4
70°-80°	3007.9	16.0
80°-90°	536.7	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°	18753.4	100.0
0°-180°	18753.4	100.0

Coefficient of Utilization



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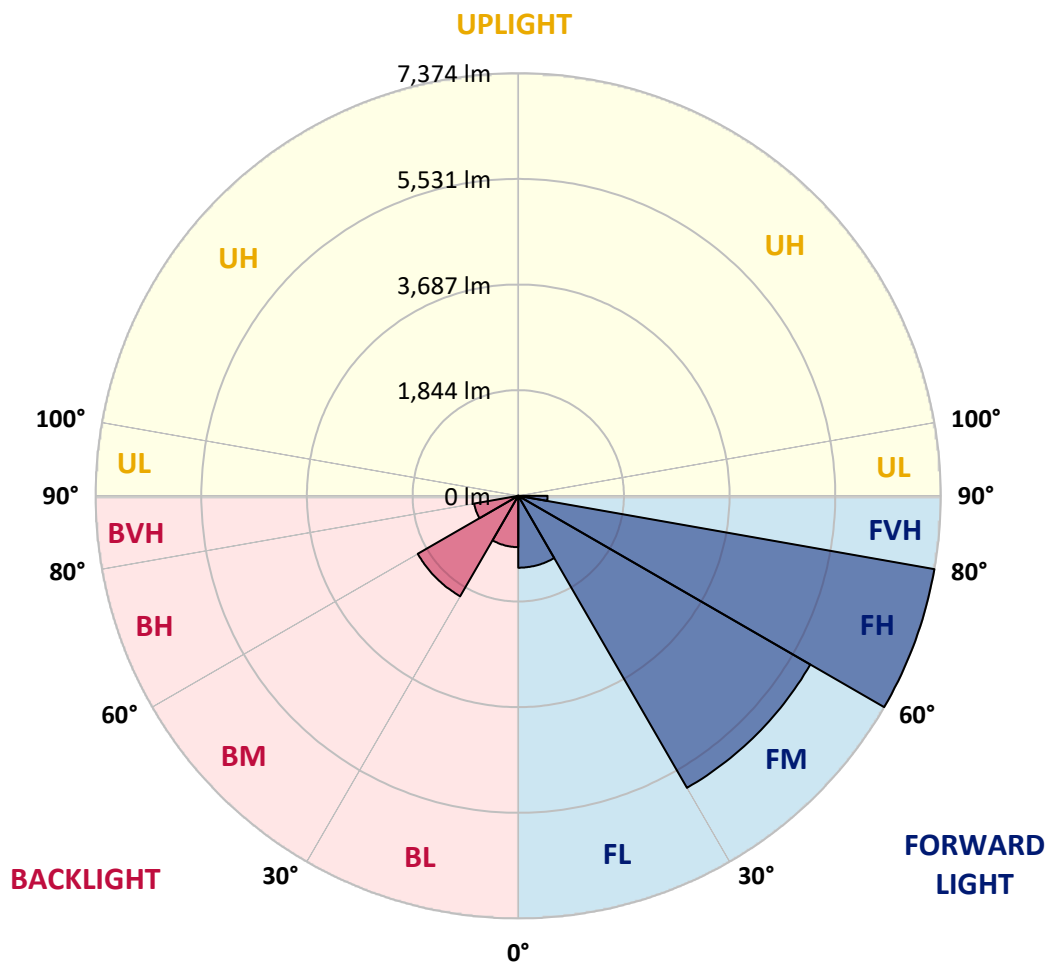
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1254.8	6.7			
FM	(30°-60°)	5885.0	31.4			
FH	(60°-80°)	7374.4	39.3			G3/7500
FVH	(80°-90°)	511.5	2.7			G4/750
BL	(0°-30°)	896.3	4.8	B2/1000		
BM	(30°-60°)	2025.2	10.8	B2/2500		
BH	(60°-80°)	781.0	4.2	B2/1000		G2/1000
BVH	(80°-90°)	25.1	0.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G4

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2596.7	2596.7	2596.7	2596.7	2596.7	2596.7	2596.7	2596.7	2596.7	2596.7	2596.7
2.5°	2909.4	2931.4	2980.5	3006.3	3046.3	3049.0	3049.0	3014.0	3012.8	2941.6	2934.0
5°	3251.7	3303.5	3419.7	3539.8	3565.7	3572.1	3559.2	3489.4	3437.7	3299.6	3269.9
7.5°	3591.5	3691.0	3867.9	4028.1	4079.9	4079.9	4048.9	3935.2	3829.2	3629.0	3554.1
10°	3873.2	3998.4	4238.8	4418.4	4477.8	4464.9	4401.6	4258.2	4112.2	3869.3	3771.1
12.5°	4059.2	4200.0	4463.6	4608.3	4669.0	4635.4	4563.0	4423.5	4269.7	4014.0	3902.9
15°	4152.2	4299.5	4528.1	4604.4	4587.6	4552.7	4543.6	4476.5	4360.2	4121.2	3999.8
17.5°	4192.2	4329.2	4488.1	4440.3	4298.2	4271.1	4361.5	4446.8	4418.4	4214.2	4100.5
20°	4229.8	4344.7	4392.5	4180.7	3932.6	3908.0	4081.1	4324.1	4448.1	4300.8	4196.1
22.5°	4281.4	4352.5	4254.3	3906.8	3639.4	3582.5	3773.6	4139.3	4457.1	4410.6	4305.9
25°	4352.5	4371.8	4101.8	3647.1	3378.4	3321.5	3499.8	3933.8	4441.6	4529.5	4440.3
27.5°	4437.7	4397.7	3955.9	3430.1	3170.3	3117.4	3295.7	3736.2	4397.7	4648.3	4585.0
30°	4548.8	4431.3	3811.2	3262.1	3021.8	2983.1	3154.8	3565.7	4343.4	4799.5	4764.6
32.5°	4661.2	4445.4	3676.8	3163.9	2988.2	3002.4	3143.3	3473.9	4284.0	4944.2	4960.9
35°	4782.6	4490.7	3610.9	3260.8	3268.5	3392.5	3450.7	3559.2	4275.0	5140.5	5206.4
37.5°	4948.0	4591.5	3689.7	3742.7	4011.4	4268.5	4220.6	3976.5	4379.6	5433.8	5556.5
40°	5185.8	4768.4	4033.4	4563.0	5114.6	5531.9	5349.8	4734.9	4699.9	5856.2	6039.7
42.5°	5531.9	5050.1	4643.1	5565.5	6500.9	7188.2	6699.9	5712.8	5260.7	6459.5	6693.4
45°	6043.6	5506.1	5380.8	6623.7	8210.1	9292.8	8277.3	6755.4	6046.2	7372.9	7556.4
47.5°	6752.8	6176.6	6072.0	7738.5	10287.5	11688.0	10026.6	7721.7	6940.2	8618.4	8660.9
50°	7694.7	7079.7	6727.0	8958.1	12565.2	14129.6	11774.5	8654.5	7964.7	10140.2	10091.1
52.5°	8937.5	8339.3	7490.5	10119.5	14907.4	16519.7	13530.2	9473.6	9235.9	11906.3	11805.5
55°	10632.4	10234.5	8534.4	11228.1	17248.3	18924.0	15217.5	10246.2	10915.3	14004.4	13394.6
57.5°	12735.7	13019.9	10039.5	12513.5	19352.8	21401.8	16912.4	11326.2	13096.1	16350.5	14317.0
60°	14092.2	16723.8	12921.8	14413.9	21744.1	24204.0	19235.3	13380.4	15388.0	17191.5	14141.3
62.5°	13764.0	17902.0	16373.8	16840.1	23943.1	26241.3	21511.7	15443.6	15819.4	15952.6	12787.4
65°	12757.7	16951.2	15669.6	17311.6	24499.9	26356.3	22120.1	15177.4	13419.1	13023.8	10278.5
67.5°	11372.7	15823.3	13996.6	16061.0	23493.4	24749.1	20987.2	13425.6	10370.2	9773.4	7456.9
70°	9877.9	14575.4	12898.5	14658.0	21574.9	21948.3	19060.9	11808.1	7627.4	6600.4	4785.2
72.5°	8459.4	13275.7	12146.6	13220.1	19015.7	18243.2	16553.2	10377.9	5554.0	4760.7	3401.6
75°	7008.6	11358.5	11075.5	11512.3	15650.2	14370.0	13753.8	8592.5	4358.9	3444.2	2347.5
77.5°	5407.9	8875.5	9526.6	9219.1	11016.2	10673.8	10660.8	6457.0	3184.6	2298.4	1471.5
80°	3701.4	6185.7	7442.7	6503.5	7149.5	6975.0	8029.2	4331.8	2309.9	1383.6	819.1
82.5°	2175.6	3766.0	5180.6	3148.4	3953.2	4057.9	4781.4	2107.1	1359.0	319.1	178.2
85°	882.4	1487.0	2025.7	1232.5	1906.9	1608.4	1815.2	591.7	378.5	7.8	0.0
87.5°	222.2	475.4	333.3	138.3	220.9	202.8	160.2	72.4	15.5	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°	2596.7	2596.7	2596.7	2596.7	2596.7	2596.7	2596.7	2596.7	2596.7	2596.7	2596.7
2.5°	2883.5	2853.8	2780.2	2706.5	2647.2	2567.0	2514.0	2450.8	2390.0	2335.8	2325.4
5°	3188.5	3090.3	2955.9	2833.2	2707.8	2586.4	2466.3	2339.7	2223.4	2152.3	2107.1
7.5°	3436.5	3263.4	3085.0	2928.7	2777.6	2635.5	2476.6	2322.9	2140.7	2043.8	1956.0
10°	3621.2	3393.9	3160.0	2980.5	2828.0	2689.8	2555.4	2400.3	2180.8	2059.3	1927.5
12.5°	3742.7	3472.7	3198.8	2993.4	2822.8	2715.6	2656.2	2595.5	2377.1	2235.0	2043.8
15°	3826.6	3528.3	3225.9	2963.7	2754.4	2675.6	2735.0	2804.7	2665.2	2501.1	2251.8
17.5°	3918.4	3600.5	3237.6	2883.5	2621.3	2587.7	2741.5	2902.9	2896.4	2733.7	2489.5
20°	4015.2	3663.9	3229.8	2754.4	2459.8	2489.5	2685.9	2873.2	2952.0	2864.2	2647.2
22.5°	4114.8	3724.5	3200.0	2586.4	2308.6	2401.7	2598.1	2762.1	2855.1	2828.0	2662.6
25°	4240.0	3809.8	3156.2	2405.6	2183.4	2312.5	2496.0	2629.0	2693.6	2692.4	2578.7
27.5°	4390.0	3923.5	3132.9	2259.5	2094.2	2211.7	2374.5	2493.4	2538.6	2538.6	2448.2
30°	4564.3	4057.9	3107.1	2164.0	2042.5	2107.1	2233.7	2350.0	2395.2	2395.2	2319.0
32.5°	4758.2	4187.1	3045.1	2105.9	2003.8	2005.0	2085.2	2191.0	2245.4	2253.1	2198.8
35°	4990.6	4325.3	2909.4	2059.3	1958.6	1905.6	1944.3	2032.2	2096.7	2113.5	2079.9
37.5°	5295.6	4494.5	2715.6	1990.9	1888.8	1800.9	1809.9	1877.2	1948.2	1974.0	1952.1
40°	5705.0	4693.5	2514.0	1892.7	1790.6	1685.9	1682.0	1731.1	1800.9	1829.3	1817.7
42.5°	6246.3	4932.5	2321.5	1798.4	1671.8	1564.5	1558.0	1596.8	1657.5	1687.3	1682.0
45°	6938.8	5225.8	2156.2	1724.7	1555.4	1449.6	1447.0	1479.3	1532.2	1563.2	1556.8
47.5°	7901.3	5519.0	2043.8	1685.9	1463.7	1355.3	1360.4	1388.8	1436.6	1458.6	1449.6
50°	9155.8	5608.2	1987.0	1685.9	1414.6	1271.2	1297.0	1320.3	1356.5	1369.4	1357.8
52.5°	10359.9	5313.6	1935.3	1696.3	1421.1	1200.2	1255.7	1272.5	1303.5	1308.7	1291.9
55°	10950.3	4568.2	1864.3	1698.8	1461.1	1139.5	1222.1	1253.2	1264.7	1263.5	1235.0
57.5°	10747.4	3693.6	1744.0	1688.5	1488.3	1100.7	1180.8	1240.2	1247.9	1236.4	1183.4
60°	10035.6	2719.4	1652.4	1612.3	1477.9	1089.1	1117.5	1211.9	1223.4	1208.0	1121.4
62.5°	8841.9	1887.4	1581.3	1444.3	1432.7	1085.2	1018.0	1149.8	1178.2	1156.3	1029.6
65°	6960.9	1333.2	1361.7	1266.1	1334.6	1064.6	914.7	1074.9	1113.7	1080.0	901.8
67.5°	4710.3	962.5	1103.3	1147.2	1175.7	1018.0	839.8	989.6	1041.3	997.3	753.2
70°	2543.7	675.7	728.7	966.4	998.7	938.0	772.5	903.0	962.5	914.7	613.7
72.5°	1502.4	485.7	510.3	776.4	832.0	825.5	697.6	802.3	874.6	817.7	498.7
75°	828.1	328.1	364.3	563.2	675.7	636.9	599.4	679.6	753.2	697.6	385.0
77.5°	370.7	196.4	253.2	369.5	530.9	436.6	463.8	529.7	598.2	540.0	257.1
80°	143.4	109.8	168.0	201.5	386.3	241.6	298.5	390.1	439.2	392.8	156.3
82.5°	18.0	49.1	72.4	78.8	224.8	127.9	173.1	245.5	241.6	209.3	78.8
85°	0.0	9.0	10.4	5.1	96.9	46.5	56.9	80.1	74.9	56.9	6.5
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	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°	2596.7	2596.7	2596.7	2596.7	2596.7	2596.7	2596.7	2596.7	2596.7	2596.7	2596.7
2.5°	2262.2	2215.6	2192.4	2173.0	2191.0	2201.4	2201.4	2245.4	2271.2	2281.5	2353.9
5°	1993.4	1906.9	1848.7	1813.8	1825.4	1838.4	1852.6	1908.1	1945.7	1970.2	2082.6
7.5°	1781.6	1649.7	1568.4	1525.7	1532.2	1541.3	1552.9	1607.1	1644.6	1676.9	1802.3
10°	1676.9	1490.9	1383.6	1332.0	1323.0	1317.7	1313.8	1346.1	1374.6	1400.5	1524.5
12.5°	1682.0	1422.4	1291.9	1228.6	1201.5	1170.4	1145.9	1151.1	1169.2	1201.5	1280.3
15°	1747.9	1400.5	1244.1	1165.3	1120.1	1083.9	1054.2	1047.8	1054.2	1059.3	1108.4
17.5°	1837.1	1397.9	1202.7	1104.5	1058.1	1028.4	1001.2	992.2	993.5	1000.0	1012.9
20°	1908.1	1390.1	1156.3	1046.4	1005.1	979.3	952.1	943.1	945.7	947.0	961.1
22.5°	1945.7	1378.5	1104.5	988.3	953.5	927.6	903.0	901.8	901.8	909.5	919.8
25°	1945.7	1353.9	1058.1	932.7	901.8	878.5	848.8	853.9	856.5	866.8	882.4
27.5°	1899.1	1307.4	1020.6	885.0	852.7	829.4	802.3	808.7	812.6	824.2	843.6
30°	1839.7	1251.8	978.0	839.8	802.3	785.5	762.2	764.9	770.0	782.9	804.8
32.5°	1776.4	1186.0	943.1	794.5	757.1	744.2	718.3	722.2	727.3	741.6	766.1
35°	1706.6	1108.4	901.8	753.2	715.8	705.4	675.7	678.2	686.0	701.5	726.0
37.5°	1632.9	1045.2	860.4	713.1	674.3	664.0	633.0	635.6	644.6	662.8	686.0
40°	1560.7	983.2	816.5	670.5	631.7	622.7	589.1	591.7	602.0	621.5	646.0
42.5°	1481.8	935.3	759.6	626.6	585.3	576.2	545.2	549.1	560.7	580.0	604.6
45°	1387.5	904.4	696.4	585.3	538.7	529.7	501.2	509.0	521.9	541.3	567.1
47.5°	1290.6	891.4	643.4	541.3	491.0	483.2	459.9	472.8	487.1	502.6	530.9
50°	1197.6	874.6	589.1	500.0	449.6	441.9	426.3	443.1	457.4	471.5	498.7
52.5°	1091.6	838.4	540.0	463.8	414.7	412.2	404.4	419.8	432.8	445.7	468.9
55°	981.8	780.3	497.4	431.5	385.0	387.6	383.7	396.6	406.9	418.6	439.2
57.5°	886.2	706.6	463.8	396.6	359.2	367.0	361.7	368.2	374.6	388.9	405.7
60°	789.4	618.8	426.3	355.3	333.3	342.3	328.1	326.9	329.4	333.3	364.3
62.5°	658.9	527.1	379.9	319.1	304.9	308.7	281.7	261.0	261.0	264.9	311.4
65°	529.7	441.9	328.1	277.8	266.1	263.5	224.8	196.4	193.8	205.4	245.5
67.5°	435.4	367.0	276.4	231.2	223.4	226.1	197.6	169.2	166.7	179.6	209.3
70°	360.5	295.8	220.9	178.2	186.0	197.6	169.2	142.1	138.3	149.9	178.2
72.5°	286.8	231.2	169.2	131.8	153.8	168.0	138.3	112.4	109.8	120.1	147.3
75°	210.5	165.3	115.0	95.6	118.9	131.8	100.8	80.1	76.3	85.3	112.4
77.5°	130.5	93.0	72.4	56.9	81.4	87.8	53.0	46.5	45.2	51.7	71.0
80°	60.7	40.1	34.8	19.4	29.7	34.8	21.9	24.5	25.8	31.0	44.0
82.5°	16.8	6.5	1.3	0.0	0.0	10.4	5.1	10.4	12.9	19.4	28.4
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	6.5	11.6	20.7
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.1	10.4
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: P967755

CATALOG NUMBER: NAV-SB5A-740-U-SLL-HSS

CANDELA DISTRIBUTION (continued):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	2596.7	2596.7	2596.7	2596.7	2596.7	2596.7	2596.7	2596.7
2.5°	2408.1	2459.8	2542.5	2627.8	2711.7	2797.0	2879.6	2909.4
5°	2184.6	2303.5	2467.6	2643.3	2824.1	3007.6	3175.6	3251.7
7.5°	1935.3	2105.9	2352.6	2627.8	2915.8	3203.9	3468.8	3591.5
10°	1669.1	1884.9	2166.5	2538.6	2952.0	3349.9	3714.3	3873.2
12.5°	1415.9	1642.0	1953.3	2399.1	2923.6	3434.0	3871.8	4059.2
15°	1204.1	1404.4	1740.2	2233.7	2831.9	3439.1	3946.8	4152.2
17.5°	1045.2	1175.7	1523.1	2050.3	2711.7	3391.3	3972.6	4192.2
20°	966.4	1002.6	1241.5	1815.2	2599.3	3346.0	3998.4	4229.8
22.5°	919.8	928.9	1015.5	1511.6	2464.9	3331.9	4043.7	4281.4
25°	882.4	885.0	908.3	1197.6	2259.5	3322.8	4113.4	4352.5
27.5°	844.9	844.9	857.8	965.0	1980.5	3284.0	4203.9	4437.7
30°	807.5	807.5	816.5	853.9	1653.6	3207.8	4312.4	4548.8
32.5°	768.6	768.6	776.4	803.6	1320.3	3112.2	4411.9	4661.2
35°	729.9	727.3	737.7	766.1	1050.3	2990.7	4511.3	4782.6
37.5°	688.6	687.3	697.6	729.9	906.9	2849.9	4586.3	4948.0
40°	644.6	644.6	656.3	691.2	865.6	2673.0	4705.2	5185.8
42.5°	604.6	602.0	615.0	657.5	834.6	2503.8	4918.4	5531.9
45°	565.9	560.7	572.4	625.2	780.3	2444.3	5316.3	6043.6
47.5°	529.7	516.8	527.1	586.5	731.2	2666.5	5967.3	6752.8
50°	500.0	475.4	484.5	547.8	693.7	3148.4	6812.3	7694.7
52.5°	468.9	436.6	441.9	500.0	660.2	3607.0	7728.2	8937.5
55°	436.6	400.5	403.0	452.1	612.3	3675.4	8622.2	10632.4
57.5°	400.5	367.0	367.0	408.3	577.5	3185.9	9309.6	12735.7
60°	360.5	338.5	332.0	373.4	608.4	2247.9	9389.6	14092.2
62.5°	316.5	304.9	295.8	339.8	631.7	1332.0	8745.0	13764.0
65°	266.1	263.5	257.1	373.4	532.3	786.8	7507.3	12757.7
67.5°	223.4	219.7	219.7	391.4	404.4	494.8	5865.3	11372.7
70°	192.5	178.2	178.2	295.8	245.5	342.3	4095.4	9877.9
72.5°	161.5	146.0	135.6	236.5	183.5	250.6	2559.3	8459.4
75°	129.1	117.6	104.7	156.3	136.9	189.9	1487.0	7008.6
77.5°	93.0	87.8	73.6	115.0	99.5	136.9	885.0	5407.9
80°	47.8	49.1	46.5	65.9	67.1	93.0	503.9	3701.4
82.5°	28.4	21.9	24.5	32.3	38.7	53.0	189.9	2175.6
85°	18.0	11.6	11.6	15.5	19.4	20.7	58.1	882.4
87.5°	9.0	3.9	5.1	7.8	6.5	5.1	2.6	222.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)