

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: P966670

Luminaire Tested: **NAV-SB4C-735-U-SLL-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966670
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-SB4C-735-U-SLL-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 3500K, 615mA 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: 23479.7 lumens
Efficiency: N/A
Efficacy: 117.0 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): 200.7
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



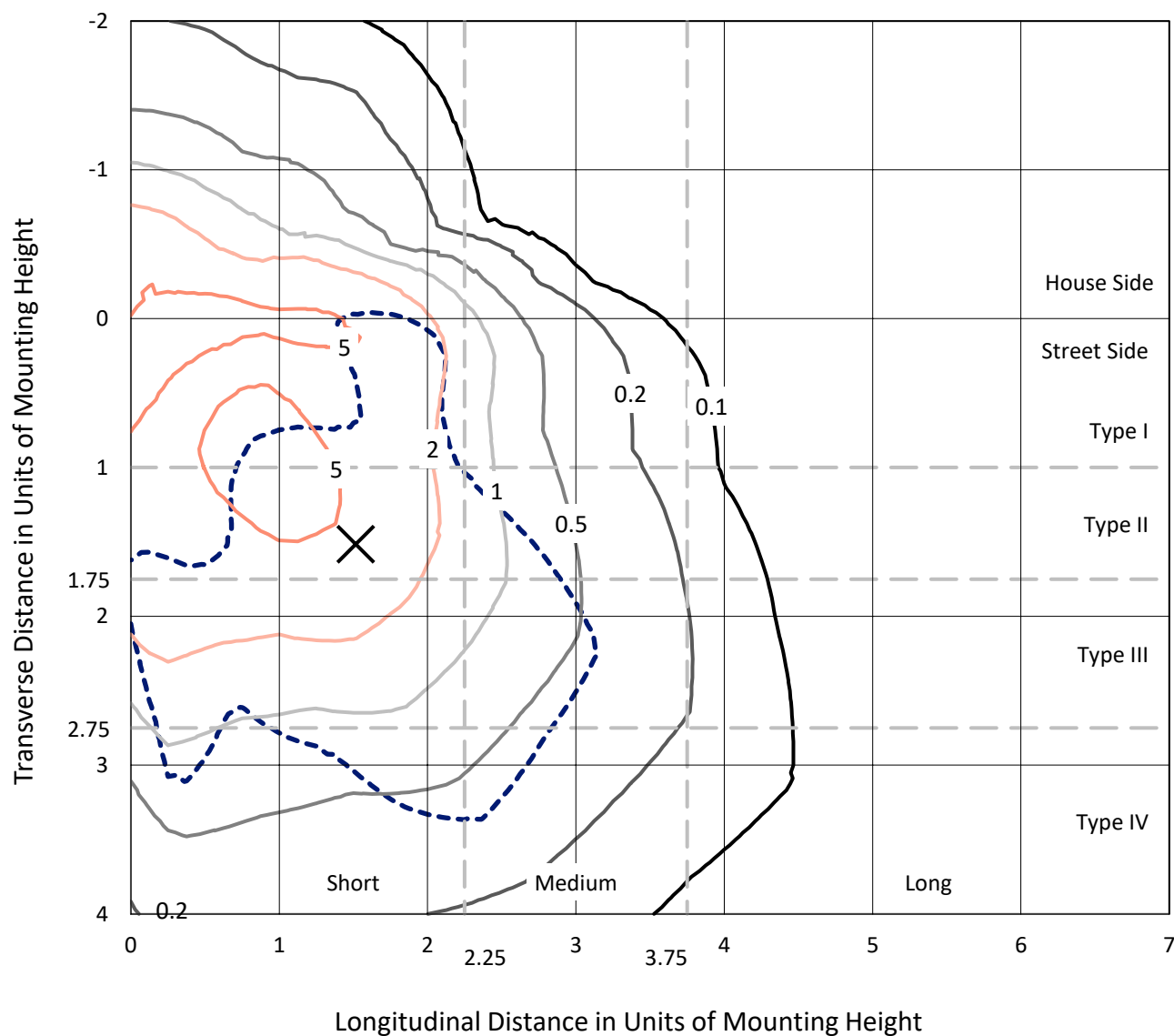
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

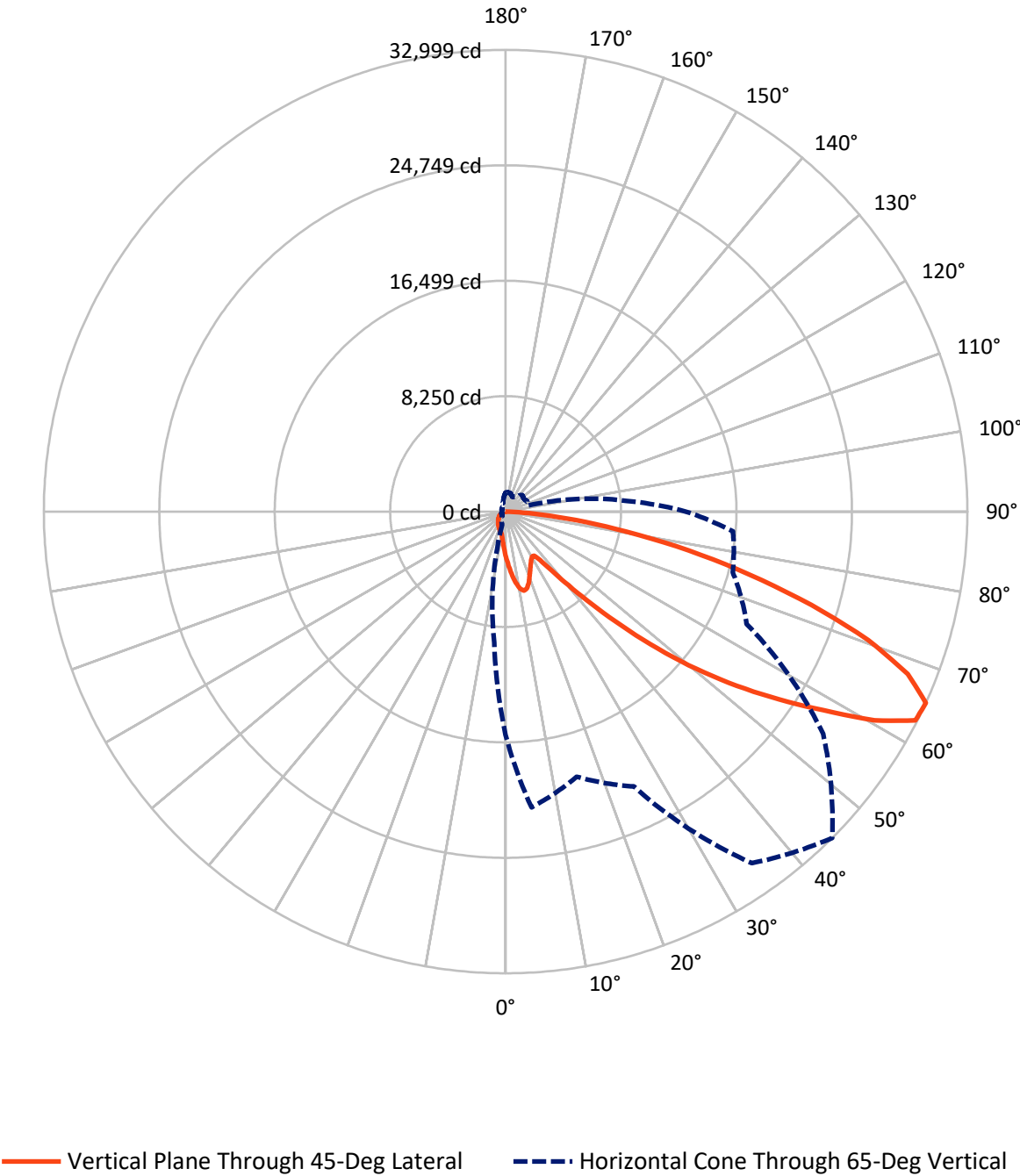


Based on 25 foot mounting height. Maximum calculated value = 8.5 fc

Type IV - Short - N/A

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Luminous Intensity Polar Plot



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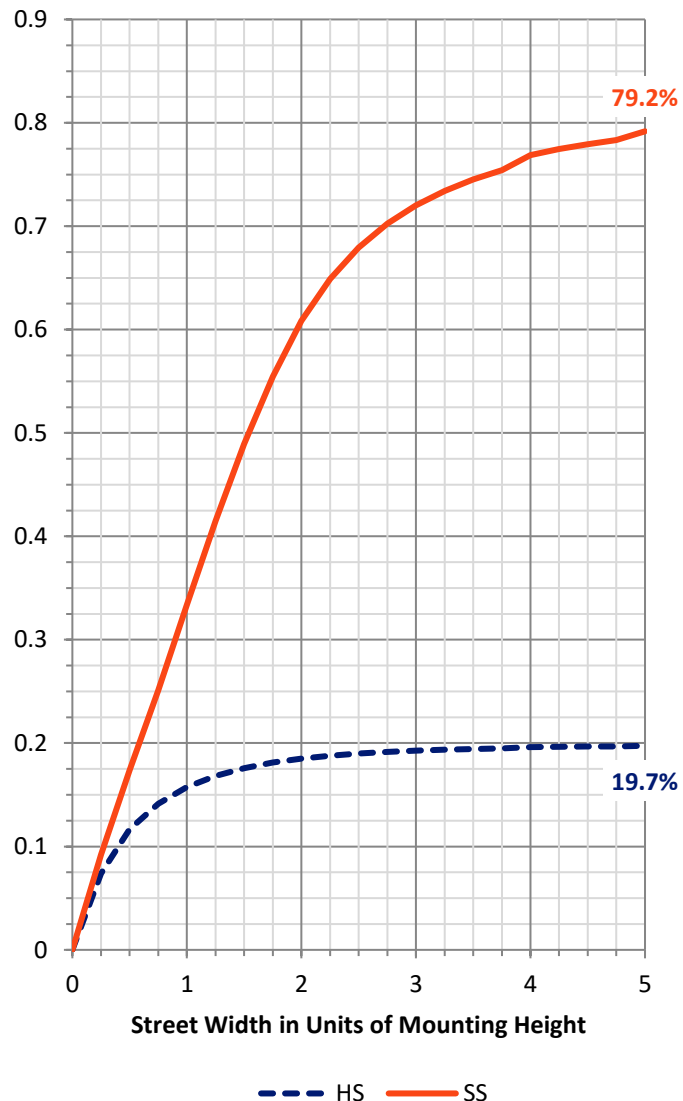
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4667.0	0.0	4667.0
	% Fixture	19.9	0.0	19.9
Street Side	Lumens	18812.6	0.0	18812.6
	% Fixture	80.1	0.0	80.1
Total	Lumens	23479.7	0.0	23479.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	320.1	1.4
10°-20°	959.5	4.1
20°-30°	1413.6	6.0
30°-40°	1816.1	7.7
40°-50°	2937.1	12.5
50°-60°	5150.6	21.9
60°-70°	6444.8	27.4
70°-80°	3766.0	16.0
80°-90°	671.9	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°	23479.7	100.0
0°-180°	23479.7	100.0

Coefficient of Utilization



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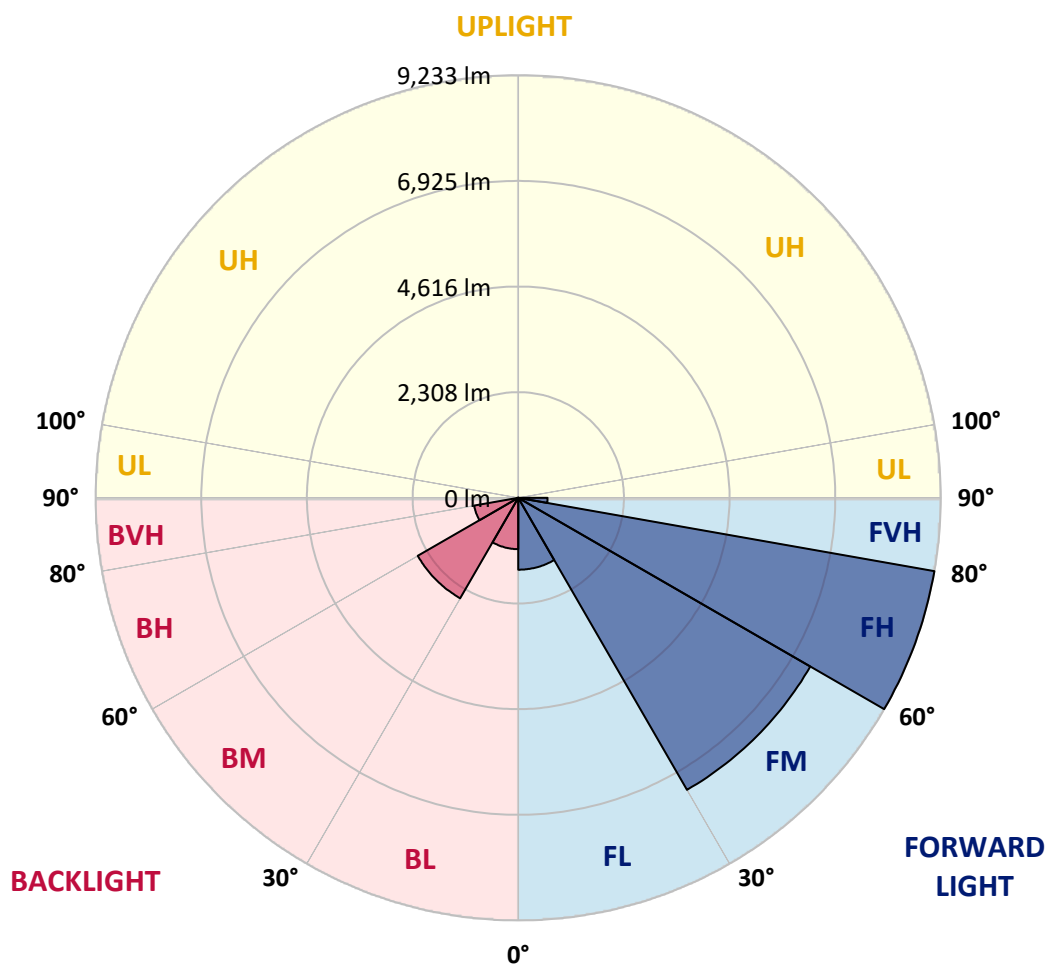
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1571.1	6.7			
FM	(30°-60°)	7368.2	31.4			
FH	(60°-80°)	9232.9	39.3			G4/12000
FVH	(80°-90°)	640.4	2.7			G4/750
BL	(0°-30°)	1122.1	4.8	B3/2500		
BM	(30°-60°)	2535.6	10.8	B3/5000		
BH	(60°-80°)	977.8	4.2	B2/1000		G2/1000
BVH	(80°-90°)	31.5	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°	3251.2	3251.2	3251.2	3251.2	3251.2	3251.2	3251.2	3251.2	3251.2	3251.2	3251.2
2.5°	3642.6	3670.1	3731.6	3763.9	3814.0	3817.3	3817.3	3773.6	3772.0	3683.0	3673.4
5°	4071.3	4136.0	4281.5	4432.0	4464.3	4472.4	4456.2	4368.9	4304.2	4131.1	4094.0
7.5°	4496.7	4621.2	4842.8	5043.4	5108.1	5108.1	5069.2	4926.9	4794.2	4543.6	4449.7
10°	4849.3	5006.2	5307.0	5531.8	5606.2	5590.1	5510.8	5331.3	5148.5	4844.5	4721.5
12.5°	5082.2	5258.6	5588.5	5769.6	5845.7	5803.7	5713.0	5538.4	5345.9	5025.6	4886.5
15°	5198.7	5383.1	5669.4	5764.8	5743.8	5700.1	5688.7	5604.7	5459.0	5159.8	5007.8
17.5°	5248.8	5420.3	5619.3	5559.4	5381.5	5347.4	5460.7	5567.5	5531.8	5276.3	5133.9
20°	5295.7	5439.7	5499.5	5234.3	4923.7	4892.9	5109.7	5413.7	5569.0	5384.6	5253.6
22.5°	5360.4	5449.4	5326.4	4891.3	4556.5	4485.3	4724.7	5182.5	5580.4	5522.2	5391.2
25°	5449.4	5473.6	5135.6	4566.2	4229.8	4158.6	4381.8	4925.3	5560.9	5671.0	5559.4
27.5°	5556.1	5506.0	4952.8	4294.4	3969.3	3903.0	4126.2	4677.8	5506.0	5819.7	5740.5
30°	5695.2	5548.0	4771.7	4084.2	3783.4	3734.8	3949.9	4464.3	5438.0	6009.1	5965.4
32.5°	5835.9	5565.9	4603.4	3961.3	3741.2	3759.1	3935.4	4349.5	5363.6	6190.2	6211.2
35°	5988.0	5622.4	4521.0	4082.6	4092.3	4247.6	4320.4	4456.2	5352.3	6436.1	6518.6
37.5°	6195.0	5748.6	4619.6	4685.9	5022.4	5344.2	5284.4	4978.6	5483.3	6803.2	6956.9
40°	6492.7	5970.2	5049.9	5713.0	6403.7	6926.1	6698.1	5928.2	5884.5	7332.1	7561.8
42.5°	6926.1	6322.8	5813.3	6968.3	8139.3	8999.8	8388.4	7152.7	6586.4	8087.6	8380.3
45°	7566.7	6893.8	6736.9	8293.0	10279.2	11634.7	10363.4	8457.9	7569.9	9231.0	9460.8
47.5°	8454.7	7733.3	7602.2	9688.8	12880.2	14633.5	12553.5	9667.8	8689.2	10790.4	10843.8
50°	9633.9	8863.9	8422.3	11215.8	15731.8	17690.7	14742.0	10835.7	9971.9	12695.8	12634.4
52.5°	11189.9	10441.0	9378.3	12669.9	18664.4	20683.1	16940.1	11861.2	11563.5	14906.9	14780.7
55°	13312.1	12813.8	10685.2	14057.8	21595.3	23693.2	19052.6	12828.4	13666.3	17533.8	16770.3
57.5°	15945.3	16301.2	12569.6	15667.1	24230.2	26795.6	21174.8	14180.7	16396.6	20471.1	17925.2
60°	17643.7	20938.6	16178.3	18046.5	27224.2	30303.9	24083.0	16752.5	19266.1	21524.2	17705.2
62.5°	17232.9	22413.8	20500.2	21084.1	29977.3	32854.7	26933.1	19335.6	19806.4	19972.9	16010.1
65°	15972.9	21223.2	19618.7	21674.5	30674.4	32998.7	27694.9	19002.5	16801.0	16306.1	12868.9
67.5°	14238.9	19811.2	17524.0	20108.9	29414.3	30986.6	26276.4	16809.1	12983.7	12236.4	9336.2
70°	12367.4	18248.7	16149.2	18352.2	27012.3	27479.7	23864.7	14784.0	9549.7	8263.9	5991.2
72.5°	10591.4	16621.5	15207.8	16551.9	23808.1	22840.8	20725.1	12993.4	6953.6	5960.5	4258.9
75°	8774.9	14221.1	13866.8	14413.6	19594.4	17991.5	17220.0	10758.0	5457.5	4312.3	2939.0
77.5°	6770.8	11112.2	11927.5	11542.5	13792.5	13363.8	13347.7	8084.3	3987.1	2877.6	1842.3
80°	4634.1	7744.6	9318.5	8142.5	8951.2	8732.9	10052.8	5423.5	2892.1	1732.4	1025.5
82.5°	2723.8	4715.0	6486.2	3941.8	4949.5	5080.6	5986.4	2638.1	1701.6	399.5	223.2
85°	1104.7	1861.7	2536.3	1543.1	2387.4	2013.8	2272.6	740.8	474.0	9.7	0.0
87.5°	278.2	595.2	417.3	173.1	276.5	254.0	200.6	90.6	19.4	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°	3251.2	3251.2	3251.2	3251.2	3251.2	3251.2	3251.2	3251.2	3251.2	3251.2	3251.2
2.5°	3610.3	3573.0	3480.9	3388.6	3314.2	3214.0	3147.7	3068.4	2992.4	2924.4	2911.5
5°	3992.0	3869.1	3700.9	3547.2	3390.3	3238.3	3087.8	2929.3	2783.7	2694.7	2638.1
7.5°	4302.5	4085.9	3862.6	3666.8	3477.6	3299.7	3100.7	2908.2	2680.2	2558.9	2448.9
10°	4533.9	4249.1	3956.4	3731.6	3540.8	3367.6	3199.4	3005.3	2730.4	2578.3	2413.4
12.5°	4685.9	4347.8	4005.0	3747.7	3534.2	3400.0	3325.6	3249.6	2976.2	2798.2	2558.9
15°	4791.1	4417.4	4038.9	3710.6	3448.5	3349.8	3424.2	3511.6	3336.9	3131.5	2819.3
17.5°	4905.9	4508.0	4053.5	3610.3	3281.9	3239.8	3432.3	3634.5	3626.4	3422.7	3116.9
20°	5027.2	4587.3	4043.7	3448.5	3079.7	3116.9	3362.8	3597.3	3696.0	3586.0	3314.2
22.5°	5151.8	4663.2	4006.5	3238.3	2890.5	3006.9	3252.8	3458.2	3574.7	3540.8	3333.7
25°	5308.7	4770.0	3951.6	3011.8	2733.6	2895.3	3125.0	3291.6	3372.5	3370.9	3228.5
27.5°	5496.3	4912.3	3922.5	2829.0	2622.0	2769.1	2973.0	3121.7	3178.4	3178.4	3065.2
30°	5714.7	5080.6	3890.1	2709.3	2557.3	2638.1	2796.7	2942.3	2998.8	2998.8	2903.4
32.5°	5957.3	5242.4	3812.5	2636.5	2508.8	2510.3	2610.7	2743.3	2811.3	2820.9	2752.9
35°	6248.4	5415.4	3642.6	2578.3	2452.1	2385.8	2434.4	2544.4	2625.2	2646.2	2604.2
37.5°	6630.1	5627.2	3400.0	2492.6	2364.8	2254.8	2266.2	2350.2	2439.2	2471.6	2444.0
40°	7142.9	5876.4	3147.7	2369.6	2241.9	2110.9	2106.0	2167.5	2254.8	2290.4	2275.8
42.5°	7820.6	6175.6	2906.7	2251.5	2093.0	1958.8	1950.7	1999.3	2075.2	2112.4	2106.0
45°	8687.6	6542.8	2699.6	2159.4	1947.5	1814.9	1811.6	1852.1	1918.4	1957.1	1949.1
47.5°	9892.7	6909.9	2558.9	2110.9	1832.6	1696.8	1703.2	1738.8	1798.7	1826.1	1814.9
50°	11463.3	7021.6	2487.7	2110.9	1771.2	1591.6	1624.0	1653.1	1698.4	1714.5	1700.0
52.5°	12970.8	6652.8	2423.0	2123.8	1779.3	1502.6	1572.2	1593.3	1632.1	1638.6	1617.6
55°	13710.0	5719.5	2334.0	2127.0	1829.4	1426.6	1530.1	1569.0	1583.5	1581.9	1546.3
57.5°	13456.0	4624.5	2183.7	2114.1	1863.3	1378.1	1478.4	1552.8	1562.5	1548.0	1481.6
60°	12564.8	3404.8	2068.8	2018.6	1850.4	1363.6	1399.1	1517.2	1531.8	1512.4	1404.0
62.5°	11070.2	2363.1	1979.8	1808.4	1793.9	1358.7	1274.6	1439.6	1475.2	1447.7	1289.1
65°	8715.1	1669.3	1704.9	1585.2	1670.9	1332.8	1145.2	1345.7	1394.3	1352.3	1129.0
67.5°	5897.4	1205.0	1381.4	1436.3	1471.9	1274.6	1051.3	1239.0	1303.7	1248.8	943.0
70°	3184.9	845.9	912.2	1209.9	1250.3	1174.3	967.3	1130.7	1205.0	1145.2	768.3
72.5°	1881.2	608.1	638.9	972.1	1041.7	1033.6	873.4	1004.5	1095.0	1023.9	624.3
75°	1036.8	410.8	456.1	705.2	845.9	797.4	750.5	850.9	943.0	873.4	482.1
77.5°	464.2	245.9	317.0	462.6	664.8	546.7	580.7	663.2	748.9	676.1	321.8
80°	179.6	137.5	210.2	252.4	483.6	302.5	373.6	488.5	549.9	491.7	195.7
82.5°	22.7	61.5	90.6	98.7	281.5	160.1	216.8	307.3	302.5	262.0	98.7
85°	0.0	11.3	12.9	6.5	121.4	58.2	71.1	100.2	93.8	71.1	8.1
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3	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

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CANDELA DISTRIBUTION (continued):

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	3251.2	3251.2	3251.2	3251.2	3251.2	3251.2	3251.2	3251.2	3251.2	3251.2	3251.2
2.5°	2832.3	2774.1	2745.0	2720.7	2743.3	2756.2	2756.2	2811.3	2843.6	2856.5	2947.1
5°	2495.8	2387.4	2314.7	2271.0	2285.5	2301.7	2319.5	2389.1	2435.9	2466.7	2607.4
7.5°	2230.5	2065.6	1963.7	1910.3	1918.4	1929.7	1944.2	2012.2	2059.1	2099.5	2256.4
10°	2099.5	1866.6	1732.4	1667.7	1656.3	1649.8	1645.0	1685.4	1721.0	1753.4	1908.7
12.5°	2106.0	1780.8	1617.6	1538.2	1504.3	1465.4	1434.7	1441.1	1463.8	1504.3	1603.0
15°	2188.5	1753.4	1557.7	1459.0	1402.4	1357.1	1319.9	1311.8	1319.9	1326.4	1387.8
17.5°	2300.1	1750.2	1505.9	1382.9	1324.7	1287.5	1253.6	1242.2	1243.8	1251.9	1268.1
20°	2389.1	1740.4	1447.7	1310.2	1258.4	1226.1	1192.1	1180.8	1184.0	1185.6	1203.5
22.5°	2435.9	1725.9	1382.9	1237.4	1193.7	1161.3	1130.7	1129.0	1129.0	1138.7	1151.7
25°	2435.9	1695.1	1324.7	1167.9	1129.0	1099.9	1062.7	1069.2	1072.4	1085.4	1104.7
27.5°	2377.7	1636.9	1277.9	1108.0	1067.5	1038.4	1004.5	1012.6	1017.4	1032.0	1056.3
30°	2303.3	1567.3	1224.5	1051.3	1004.5	983.5	954.4	957.6	964.0	980.2	1007.7
32.5°	2224.0	1484.9	1180.8	994.8	947.8	931.7	899.3	904.2	910.6	928.4	959.2
35°	2136.7	1387.8	1129.0	943.0	896.1	883.1	845.9	849.2	858.8	878.3	909.1
37.5°	2044.6	1308.5	1077.3	892.9	844.3	831.4	792.5	795.8	807.1	829.7	858.8
40°	1954.0	1230.9	1022.2	839.5	791.0	779.6	737.6	740.8	753.8	778.0	808.7
42.5°	1855.2	1171.1	951.1	784.5	732.8	721.4	682.5	687.5	702.0	726.2	757.0
45°	1737.2	1132.2	871.9	732.8	674.4	663.2	627.6	637.3	653.4	677.7	710.1
47.5°	1615.9	1116.1	805.5	677.7	614.7	605.0	575.8	592.0	609.8	629.2	664.8
50°	1499.5	1095.0	737.6	626.0	562.9	553.2	533.8	554.8	572.6	590.4	624.3
52.5°	1366.8	1049.8	676.1	580.7	519.3	516.0	506.2	525.7	541.8	558.0	587.1
55°	1229.3	976.9	622.8	540.3	482.1	485.2	480.4	496.6	509.5	524.1	549.9
57.5°	1109.6	884.8	580.7	496.6	449.7	459.4	452.9	460.9	469.0	486.9	507.9
60°	988.3	774.8	533.8	444.8	417.3	428.7	410.8	409.2	412.5	417.3	456.1
62.5°	824.9	659.9	475.5	399.5	381.7	386.6	352.6	326.8	326.8	331.6	389.8
65°	663.2	553.2	410.8	347.8	333.2	329.9	281.5	245.9	242.6	257.2	307.3
67.5°	545.1	459.4	346.1	289.6	279.8	283.1	247.4	211.9	208.7	224.8	262.0
70°	451.3	370.4	276.5	223.2	232.9	247.4	211.9	177.9	173.1	187.7	223.2
72.5°	359.1	289.6	211.9	165.0	192.5	210.2	173.1	140.7	137.5	150.5	184.4
75°	263.6	207.0	143.9	119.7	148.8	165.0	126.2	100.2	95.4	106.8	140.7
77.5°	163.4	116.4	90.6	71.1	101.9	110.0	66.3	58.2	56.6	64.7	89.0
80°	76.1	50.1	43.7	24.3	37.2	43.7	27.5	30.7	32.4	38.8	55.0
82.5°	21.0	8.1	1.6	0.0	0.0	12.9	6.5	12.9	16.2	24.3	35.6
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3	8.1	14.6	25.8
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.5	12.9
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: P966670

CATALOG NUMBER: NAV-SB4C-735-U-SLL-HSS

CANDELA DISTRIBUTION (continued):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	3251.2	3251.2	3251.2	3251.2	3251.2	3251.2	3251.2	3251.2
2.5°	3015.0	3079.7	3183.2	3290.0	3395.1	3501.9	3605.4	3642.6
5°	2735.2	2884.0	3089.5	3309.4	3535.8	3765.5	3975.9	4071.3
7.5°	2423.0	2636.5	2945.4	3290.0	3650.7	4011.4	4343.0	4496.7
10°	2089.8	2360.0	2712.6	3178.4	3696.0	4194.2	4650.3	4849.3
12.5°	1772.7	2055.8	2445.6	3003.7	3660.4	4299.4	4847.6	5082.2
15°	1507.5	1758.2	2178.7	2796.7	3545.6	4305.8	4941.5	5198.7
17.5°	1308.5	1471.9	1907.0	2567.0	3395.1	4246.0	4973.8	5248.8
20°	1209.9	1255.2	1554.4	2272.6	3254.4	4189.4	5006.2	5295.7
22.5°	1151.7	1163.0	1271.3	1892.5	3086.2	4171.5	5062.8	5360.4
25°	1104.7	1108.0	1137.1	1499.5	2829.0	4160.3	5150.1	5449.4
27.5°	1057.8	1057.8	1074.0	1208.3	2479.7	4111.7	5263.4	5556.1
30°	1011.0	1011.0	1022.2	1069.2	2070.4	4016.3	5399.2	5695.2
32.5°	962.4	962.4	972.1	1006.0	1653.1	3896.5	5523.8	5835.9
35°	913.9	910.6	923.6	959.2	1315.1	3744.5	5648.4	5988.0
37.5°	862.1	860.5	873.4	913.9	1135.5	3568.2	5742.2	6195.0
40°	807.1	807.1	821.7	865.4	1083.7	3346.6	5891.0	6492.7
42.5°	757.0	753.8	770.0	823.3	1044.9	3134.8	6157.8	6926.1
45°	708.5	702.0	716.6	782.9	976.9	3060.3	6656.0	7566.7
47.5°	663.2	647.0	659.9	734.3	915.5	3338.5	7471.2	8454.7
50°	626.0	595.2	606.6	685.8	868.6	3941.8	8529.1	9633.9
52.5°	587.1	546.7	553.2	626.0	826.6	4516.0	9675.9	11189.9
55°	546.7	501.4	504.7	566.1	766.7	4601.8	10795.2	13312.1
57.5°	501.4	459.4	459.4	511.2	723.0	3988.8	11655.7	15945.3
60°	451.3	423.7	415.7	467.5	761.9	2814.4	11756.0	17643.7
62.5°	396.3	381.7	370.4	425.4	791.0	1667.7	10948.8	17232.9
65°	333.2	329.9	321.8	467.5	666.5	985.0	9399.4	15972.9
67.5°	279.8	275.0	275.0	490.2	506.2	619.5	7343.5	14238.9
70°	241.0	223.2	223.2	370.4	307.3	428.7	5127.5	12367.4
72.5°	202.2	182.8	169.8	296.0	229.7	313.8	3204.3	10591.4
75°	161.7	147.2	131.0	195.7	171.5	237.8	1861.7	8774.9
77.5°	116.4	110.0	92.1	143.9	124.5	171.5	1108.0	6770.8
80°	59.9	61.5	58.2	82.5	84.2	116.4	630.8	4634.1
82.5°	35.6	27.5	30.7	40.5	48.5	66.3	237.8	2723.8
85°	22.7	14.6	14.6	19.4	24.3	25.8	72.8	1104.7
87.5°	11.3	4.8	6.5	9.7	8.1	6.5	3.3	278.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)