

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: P965616

Luminaire Tested: **NAV-SB4A-735-U-SLL-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965616
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-735-U-SLL-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 3500K, 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: 14064 lumens
Efficiency: N/A
Efficacy: 123.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - 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



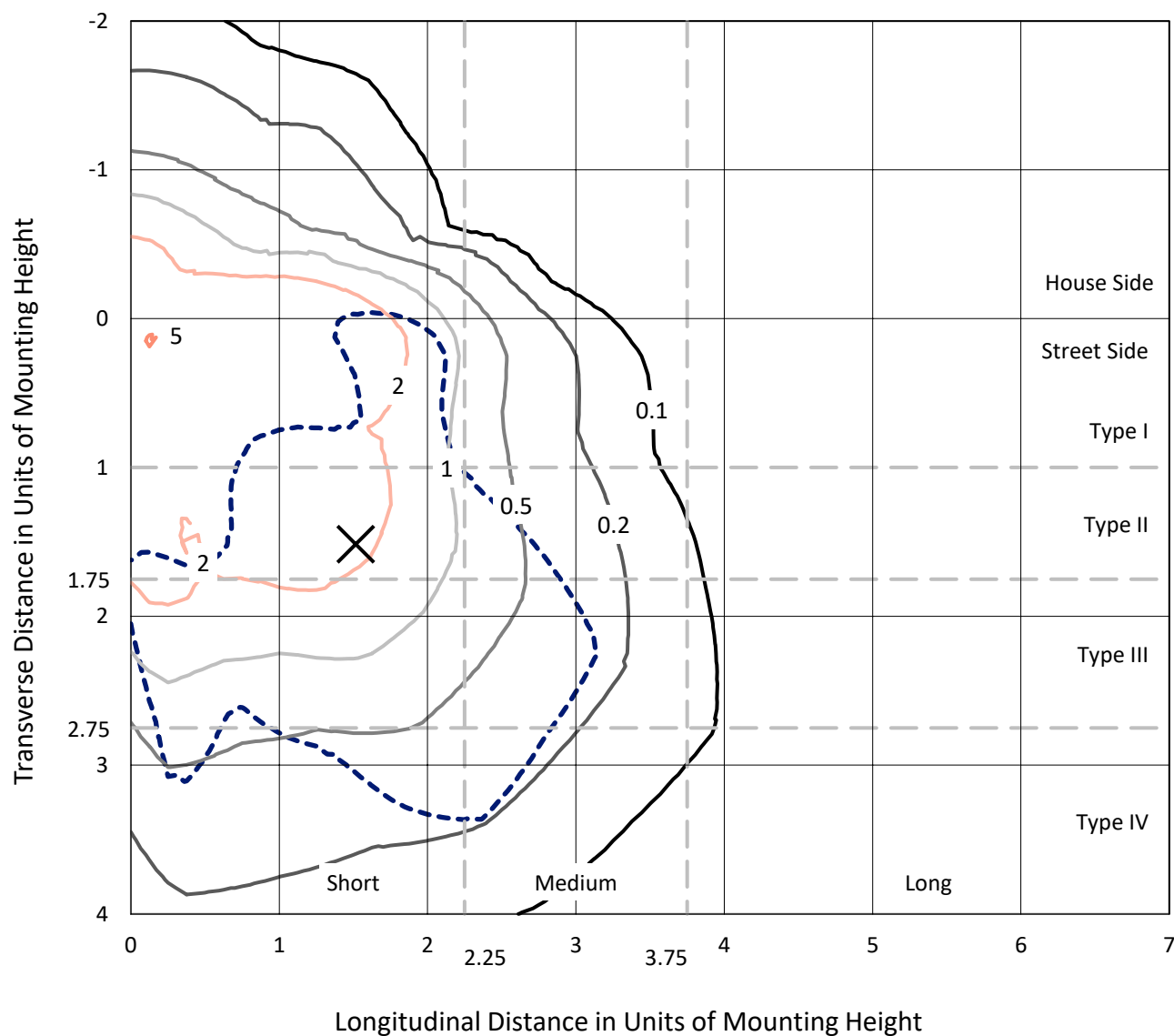
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

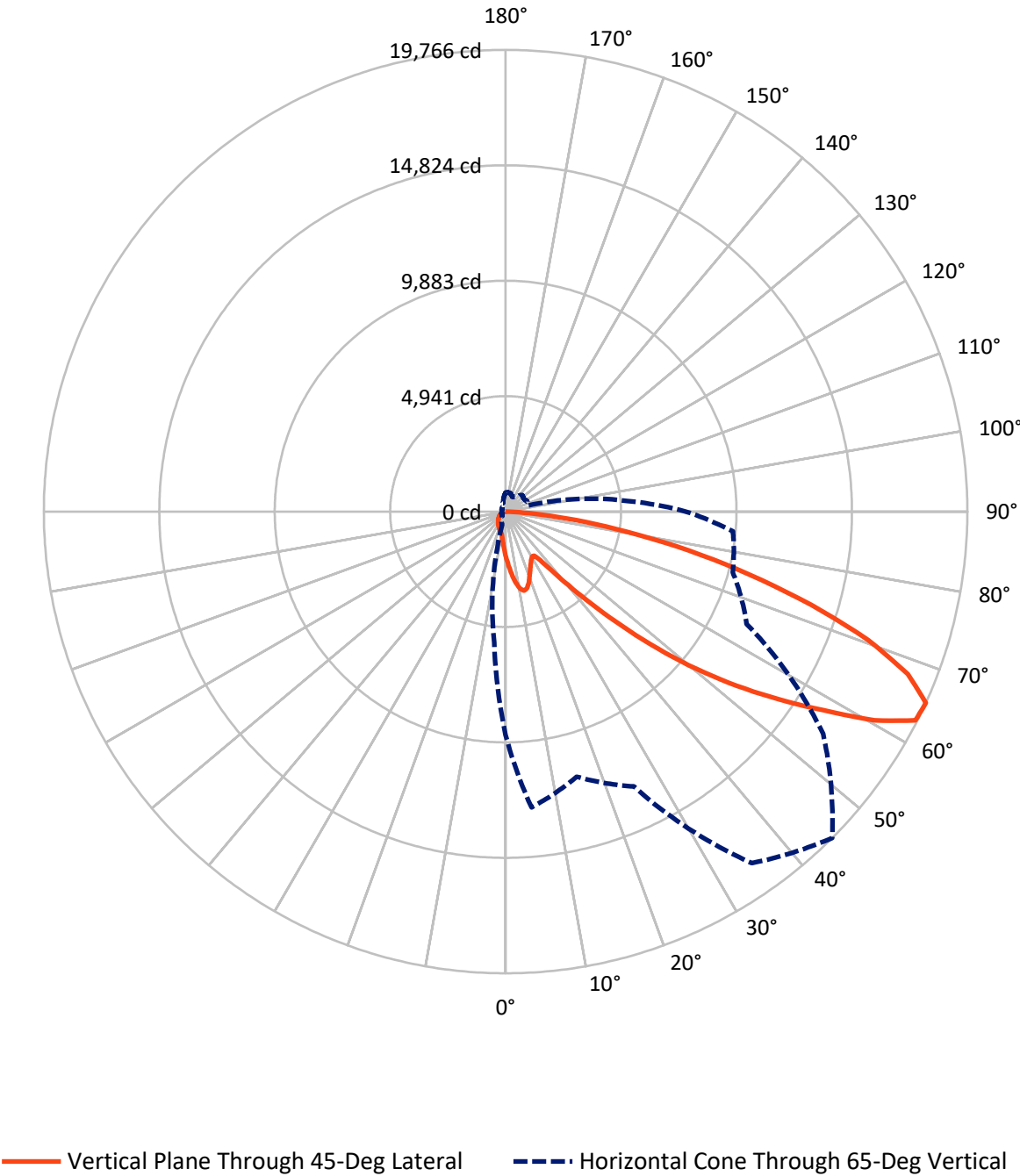


Based on 25 foot mounting height. Maximum calculated value = 5.1 fc

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	2795.5	0.0	2795.5
	% Fixture	19.9	0.0	19.9
Street Side	Lumens	11268.5	0.0	11268.5
	% Fixture	80.1	0.0	80.1
Total	Lumens	14064.0	0.0	14064.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	191.7	1.4
10°-20°	574.7	4.1
20°-30°	846.7	6.0
30°-40°	1087.8	7.7
40°-50°	1759.3	12.5
50°-60°	3085.1	21.9
60°-70°	3860.3	27.4
70°-80°	2255.8	16.0
80°-90°	402.5	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°	14064.0	100.0
0°-180°	14064.0	100.0

Coefficient of Utilization



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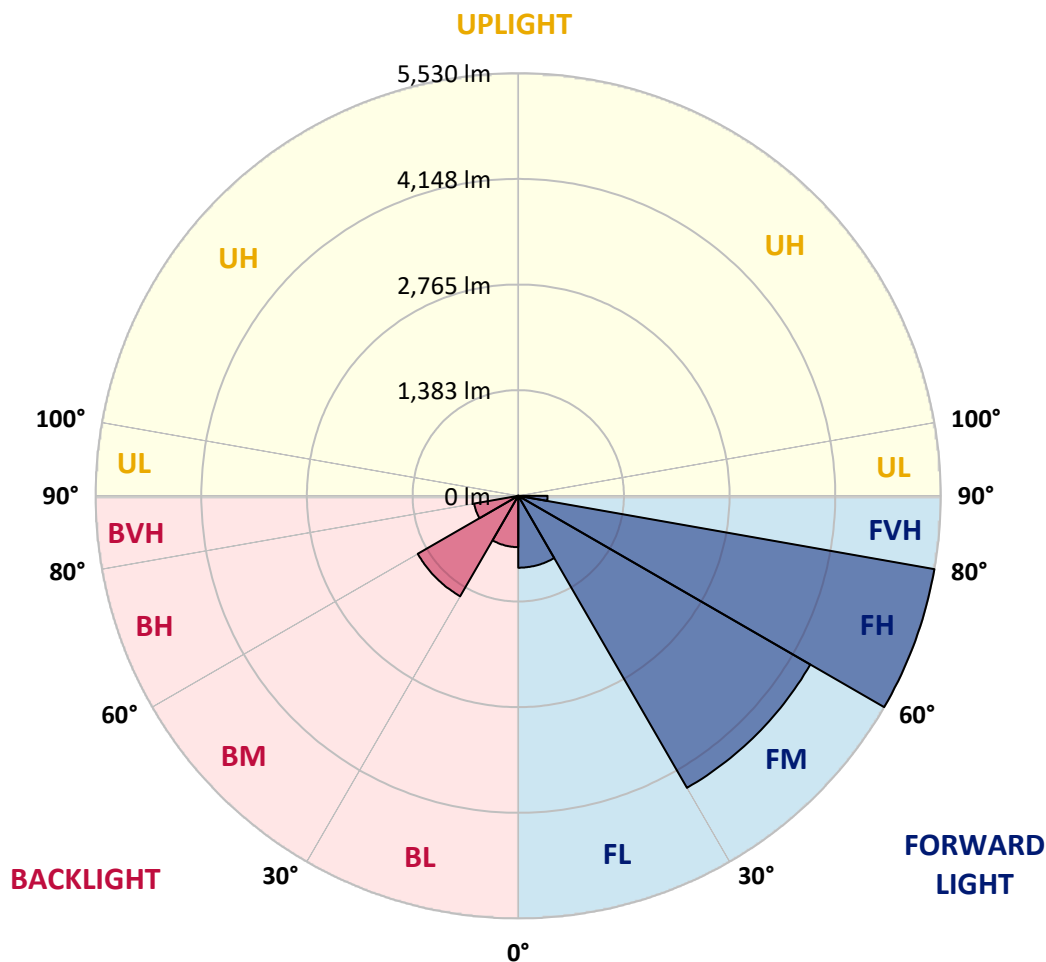
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	941.0	6.7			
FM	(30°-60°)	4413.5	31.4			
FH	(60°-80°)	5530.4	39.3			G3/7500
FVH	(80°-90°)	383.6	2.7			G3/500
BL	(0°-30°)	672.2	4.8	B2/1000		
BM	(30°-60°)	1518.8	10.8	B2/2500		
BH	(60°-80°)	585.7	4.2	B2/1000		G2/1000
BVH	(80°-90°)	18.9	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-G3

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	1947.4	1947.4	1947.4	1947.4	1947.4	1947.4	1947.4	1947.4	1947.4	1947.4	1947.4
2.5°	2181.9	2198.3	2235.2	2254.6	2284.6	2286.6	2286.6	2260.3	2259.4	2206.1	2200.3
5°	2438.7	2477.4	2564.5	2654.6	2674.0	2678.9	2669.2	2616.9	2578.2	2474.5	2452.2
7.5°	2693.4	2768.0	2900.7	3020.9	3059.6	3059.6	3036.5	2951.2	2871.7	2721.6	2665.3
10°	2904.6	2998.6	3178.8	3313.5	3358.1	3348.4	3300.9	3193.4	3083.9	2901.8	2828.1
12.5°	3044.1	3149.8	3347.4	3455.9	3501.5	3476.3	3422.1	3317.4	3202.1	3010.2	2927.0
15°	3114.0	3224.3	3395.8	3453.0	3440.4	3414.3	3407.5	3357.1	3270.0	3090.7	2999.6
17.5°	3144.0	3246.7	3365.8	3330.0	3223.4	3203.0	3270.9	3334.8	3313.5	3160.5	3075.2
20°	3172.1	3258.3	3294.1	3135.3	2949.2	2930.8	3060.6	3242.8	3335.8	3225.4	3146.9
22.5°	3210.8	3264.1	3190.5	2929.9	2729.3	2686.6	2830.0	3104.2	3342.6	3307.7	3229.3
25°	3264.1	3278.7	3076.1	2735.1	2533.6	2491.0	2624.6	2950.2	3330.9	3396.8	3330.0
27.5°	3328.1	3298.0	2966.7	2572.3	2377.6	2337.8	2471.6	2801.9	3298.0	3486.0	3438.5
30°	3411.4	3323.3	2858.1	2446.4	2266.2	2237.1	2366.0	2674.0	3257.3	3599.3	3573.2
32.5°	3495.7	3333.8	2757.4	2372.8	2241.0	2251.6	2357.3	2605.2	3212.8	3707.8	3720.4
35°	3586.8	3367.7	2707.9	2445.4	2451.2	2544.3	2587.8	2669.2	3206.0	3855.1	3904.5
37.5°	3710.7	3443.4	2767.1	2806.8	3008.4	3201.2	3165.3	2982.1	3284.4	4075.1	4167.0
40°	3889.1	3576.1	3024.8	3422.1	3835.8	4148.7	4012.1	3550.9	3524.8	4391.8	4529.5
42.5°	4148.7	3787.3	3482.1	4173.9	4875.3	5390.8	5024.5	4284.3	3945.2	4844.4	5019.7
45°	4532.3	4129.3	4035.3	4967.4	6157.2	6969.1	6207.5	5066.2	4534.3	5529.3	5666.9
47.5°	5064.2	4632.2	4553.7	5803.4	7715.1	8765.3	7519.4	5790.9	5204.7	6463.3	6495.2
50°	5770.5	5309.4	5044.8	6718.1	9423.1	10596.4	8830.3	6490.4	5973.1	7604.6	7567.8
52.5°	6702.6	6254.0	5617.5	7589.1	11179.8	12388.9	10146.9	7104.7	6926.4	8929.1	8853.4
55°	7973.8	7675.3	6400.3	8420.4	12935.3	14191.9	11412.2	7684.0	8186.0	10502.5	10045.2
57.5°	9551.1	9764.3	7529.0	9384.4	14513.6	16050.2	12683.5	8494.1	9821.3	12262.0	10737.0
60°	10568.4	12541.9	9690.6	10809.6	16306.9	18151.7	14425.4	10034.5	11540.2	12892.7	10605.2
62.5°	10322.3	13425.6	12279.4	12629.1	17955.9	19679.6	16132.6	11581.8	11863.8	11963.5	9589.8
65°	9567.6	12712.5	11751.3	12982.8	18373.5	19765.8	16588.9	11382.2	10063.6	9767.1	7708.3
67.5°	8528.9	11866.6	10496.7	12044.9	17618.8	18560.5	15739.2	10068.5	7777.1	7329.5	5592.3
70°	7408.0	10930.7	9673.1	10992.7	16180.0	16460.1	14294.6	8855.4	5720.2	4949.9	3588.6
72.5°	6344.1	9956.0	9109.3	9914.4	14260.7	13681.3	12414.1	7782.9	4165.2	3570.3	2551.0
75°	5256.1	8518.3	8306.1	8633.6	11736.9	10776.6	10314.6	6443.9	3268.9	2583.0	1760.4
77.5°	4055.6	6656.1	7144.5	6913.8	8261.5	8004.7	7995.1	4842.4	2388.2	1723.6	1103.5
80°	2775.8	4638.9	5581.6	4877.3	5361.7	5230.9	6021.5	3248.6	1732.4	1037.6	614.3
82.5°	1631.6	2824.3	3885.2	2361.1	2964.7	3043.2	3585.8	1580.2	1019.3	239.3	133.7
85°	661.7	1115.2	1519.2	924.3	1430.1	1206.2	1361.3	443.7	283.9	5.8	0.0
87.5°	166.7	356.5	250.0	103.6	165.6	152.1	120.1	54.2	11.6	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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°	185°
0°	1947.4	1947.4	1947.4	1947.4	1947.4	1947.4	1947.4	1947.4	1947.4	1947.4	1947.4
2.5°	2162.5	2140.2	2085.0	2029.8	1985.2	1925.2	1885.4	1837.9	1792.4	1751.7	1743.9
5°	2391.1	2317.5	2216.8	2124.7	2030.7	1939.7	1849.6	1754.6	1667.4	1614.2	1580.2
7.5°	2577.2	2447.4	2313.6	2196.4	2083.1	1976.5	1857.3	1742.0	1605.5	1532.8	1466.9
10°	2715.7	2545.2	2369.8	2235.2	2120.8	2017.2	1916.4	1800.1	1635.5	1544.4	1445.6
12.5°	2806.8	2604.3	2398.9	2244.9	2116.9	2036.6	1992.0	1946.5	1782.7	1676.2	1532.8
15°	2869.8	2645.9	2419.2	2222.6	2065.6	2006.5	2051.1	2103.4	1998.7	1875.7	1688.7
17.5°	2938.6	2700.3	2428.0	2162.5	1965.8	1940.6	2055.9	2177.0	2172.2	2050.1	1867.0
20°	3011.2	2747.7	2422.2	2065.6	1844.7	1867.0	2014.2	2154.8	2213.9	2148.0	1985.2
22.5°	3085.9	2793.2	2399.8	1939.7	1731.3	1801.1	1948.4	2071.4	2141.2	2120.8	1996.8
25°	3179.9	2857.2	2366.9	1804.0	1637.3	1734.3	1871.9	1971.7	2020.1	2019.1	1933.9
27.5°	3292.2	2942.5	2349.5	1694.5	1570.5	1658.7	1780.7	1869.9	1903.8	1903.8	1836.0
30°	3423.0	3043.2	2330.1	1622.9	1531.8	1580.2	1675.2	1762.4	1796.3	1796.3	1739.1
32.5°	3568.3	3140.1	2283.6	1579.2	1502.8	1503.7	1563.7	1643.2	1683.9	1689.7	1649.0
35°	3742.7	3243.7	2181.9	1544.4	1468.8	1429.1	1458.2	1524.1	1572.5	1585.1	1559.8
37.5°	3971.4	3370.7	2036.6	1493.0	1416.4	1350.6	1357.4	1407.7	1461.0	1480.4	1463.9
40°	4278.6	3519.8	1885.4	1419.4	1342.9	1264.3	1261.5	1298.3	1350.6	1372.0	1363.1
42.5°	4684.5	3699.1	1741.1	1348.7	1253.7	1173.3	1168.5	1197.5	1243.0	1265.4	1261.5
45°	5203.7	3919.1	1617.0	1293.4	1166.6	1087.1	1085.2	1109.4	1149.0	1172.3	1167.5
47.5°	5925.5	4139.0	1532.8	1264.3	1097.7	1016.4	1020.2	1041.5	1077.4	1093.9	1087.1
50°	6866.4	4205.9	1490.1	1264.3	1060.9	953.4	972.7	990.1	1017.3	1026.9	1018.2
52.5°	7769.3	3984.9	1451.4	1272.1	1065.8	900.1	941.8	954.4	977.5	981.4	968.8
55°	8212.1	3425.9	1398.1	1274.1	1095.8	854.5	916.6	939.8	948.5	947.5	926.2
57.5°	8060.0	2770.0	1308.0	1266.3	1116.1	825.4	885.5	930.1	935.9	927.2	887.4
60°	7526.2	2039.4	1239.2	1209.2	1108.3	816.7	838.0	908.8	917.5	905.9	841.0
62.5°	6630.9	1415.5	1185.9	1083.2	1074.5	813.8	763.4	862.3	883.7	867.2	772.2
65°	5220.2	999.9	1021.2	949.5	1000.8	798.4	685.9	806.1	835.2	810.0	676.3
67.5°	3532.5	721.8	827.4	860.4	881.7	763.4	629.8	742.1	780.9	747.9	564.9
70°	1907.7	506.8	546.4	724.7	749.0	703.4	579.3	677.2	721.8	685.9	460.2
72.5°	1126.8	364.3	382.7	582.3	623.9	619.1	523.2	601.7	655.9	613.3	374.0
75°	621.0	246.1	273.3	422.4	506.8	477.6	449.6	509.6	564.9	523.2	288.7
77.5°	278.1	147.3	189.9	277.1	398.2	327.5	347.8	397.2	448.5	405.0	192.8
80°	107.5	82.3	126.0	151.2	289.7	181.2	223.8	292.6	329.4	294.6	117.3
82.5°	13.5	36.8	54.2	59.1	168.6	95.9	129.9	184.1	181.2	156.9	59.1
85°	0.0	6.8	7.8	3.9	72.7	34.8	42.6	60.1	56.2	42.6	4.8
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	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°	1947.4	1947.4	1947.4	1947.4	1947.4	1947.4	1947.4	1947.4	1947.4	1947.4	1947.4
2.5°	1696.5	1661.6	1644.2	1629.6	1643.2	1651.0	1651.0	1683.9	1703.2	1711.0	1765.3
5°	1495.0	1430.1	1386.4	1360.3	1369.0	1378.7	1389.4	1431.0	1459.1	1477.5	1561.8
7.5°	1336.1	1237.3	1176.2	1144.2	1149.0	1155.9	1164.6	1205.3	1233.4	1257.6	1351.6
10°	1257.6	1118.1	1037.6	998.9	992.1	988.2	985.3	1009.5	1030.8	1050.2	1143.3
12.5°	1261.5	1066.7	968.8	921.4	901.1	877.8	859.4	863.3	876.8	901.1	960.1
15°	1310.9	1050.2	933.1	873.9	840.0	812.9	790.6	785.8	790.6	794.5	831.3
17.5°	1377.7	1048.3	902.0	828.4	793.5	771.2	750.9	744.0	745.1	749.9	759.6
20°	1431.0	1042.5	867.2	784.7	753.8	734.4	714.0	707.2	709.2	710.2	720.9
22.5°	1459.1	1033.8	828.4	741.2	715.0	695.7	677.2	676.3	676.3	682.0	689.8
25°	1459.1	1015.4	793.5	699.6	676.3	658.9	636.5	640.4	642.4	650.2	661.7
27.5°	1424.2	980.5	765.4	663.7	639.5	622.0	601.7	606.5	609.5	618.2	632.6
30°	1379.6	938.8	733.4	629.8	601.7	589.1	571.6	573.6	577.5	587.1	603.6
32.5°	1332.2	889.4	707.2	595.8	567.7	558.1	538.6	541.6	545.5	556.2	574.5
35°	1279.9	831.3	676.3	564.9	536.8	529.0	506.8	508.6	514.4	526.1	544.5
37.5°	1224.7	783.8	645.2	534.8	505.7	498.0	474.8	476.7	483.5	497.0	514.4
40°	1170.3	737.3	612.3	502.9	473.8	467.0	441.8	443.7	451.5	466.1	484.4
42.5°	1111.3	701.4	569.7	469.9	438.9	432.1	408.9	411.7	420.5	435.0	453.5
45°	1040.6	678.2	522.2	438.9	404.1	397.2	376.0	381.7	391.4	406.0	425.4
47.5°	967.9	668.5	482.5	406.0	368.2	362.3	344.9	354.6	365.3	376.9	398.2
50°	898.1	655.9	441.8	374.9	337.1	331.4	319.7	332.3	343.0	353.6	374.0
52.5°	818.7	628.8	405.0	347.8	311.0	309.0	303.3	314.9	324.6	334.3	351.7
55°	736.4	585.2	373.0	323.6	288.7	290.7	287.7	297.5	305.1	314.0	329.4
57.5°	664.6	529.9	347.8	297.5	269.4	275.1	271.3	276.1	281.0	291.6	304.2
60°	591.9	464.1	319.7	266.4	250.0	256.8	246.1	245.1	247.0	250.0	273.3
62.5°	494.2	395.3	284.8	239.3	228.7	231.5	211.3	195.7	195.7	198.6	233.5
65°	397.2	331.4	246.1	208.3	199.6	197.6	168.6	147.3	145.3	154.1	184.1
67.5°	326.5	275.1	207.4	173.4	167.6	169.5	148.2	126.9	124.9	134.7	156.9
70°	270.3	221.9	165.6	133.7	139.5	148.2	126.9	106.6	103.6	112.3	133.7
72.5°	215.0	173.4	126.9	98.8	115.3	126.0	103.6	84.3	82.3	90.1	110.5
75°	158.0	124.0	86.2	71.6	89.2	98.8	75.5	60.1	57.2	64.0	84.3
77.5°	97.9	69.8	54.2	42.6	61.0	65.9	39.8	34.8	33.9	38.7	53.3
80°	45.5	30.0	26.1	14.6	22.2	26.1	16.5	18.4	19.4	23.3	32.9
82.5°	12.6	4.8	0.9	0.0	0.0	7.8	3.9	7.8	9.7	14.6	21.3
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	4.8	8.7	15.5
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9	7.8
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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CATALOG NUMBER: NAV-SB4A-735-U-SLL-HSS

CANDELA DISTRIBUTION (continued):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	1947.4	1947.4	1947.4	1947.4	1947.4	1947.4	1947.4	1947.4
2.5°	1805.9	1844.7	1906.7	1970.7	2033.6	2097.6	2159.6	2181.9
5°	1638.4	1727.5	1850.5	1982.2	2118.0	2255.5	2381.5	2438.7
7.5°	1451.4	1579.2	1764.3	1970.7	2186.7	2402.8	2601.4	2693.4
10°	1251.7	1413.6	1624.8	1903.8	2213.9	2512.3	2785.4	2904.6
12.5°	1061.9	1231.4	1464.9	1799.2	2192.6	2575.2	2903.7	3044.1
15°	903.0	1053.2	1305.0	1675.2	2123.8	2579.1	2959.9	3114.0
17.5°	783.8	881.7	1142.3	1537.6	2033.6	2543.2	2979.3	3144.0
20°	724.7	751.8	931.1	1361.3	1949.3	2509.4	2998.6	3172.1
22.5°	689.8	696.6	761.6	1133.5	1848.6	2498.7	3032.6	3210.8
25°	661.7	663.7	681.1	898.1	1694.5	2491.9	3084.8	3264.1
27.5°	633.7	633.7	643.3	723.8	1485.2	2462.9	3152.7	3328.1
30°	605.6	605.6	612.3	640.4	1240.1	2405.7	3234.1	3411.4
32.5°	576.5	576.5	582.3	602.6	990.1	2334.0	3308.7	3495.7
35°	547.5	545.5	553.2	574.5	787.7	2242.9	3383.3	3586.8
37.5°	516.4	515.5	523.2	547.5	680.2	2137.3	3439.5	3710.7
40°	483.5	483.5	492.2	518.3	649.1	2004.6	3528.6	3889.1
42.5°	453.5	451.5	461.1	493.1	625.9	1877.7	3688.5	4148.7
45°	424.4	420.5	429.2	468.9	585.2	1833.1	3986.8	4532.3
47.5°	397.2	387.6	395.3	439.8	548.4	1999.8	4475.2	5064.2
50°	374.9	356.5	363.4	410.8	520.3	2361.1	5108.8	5770.5
52.5°	351.7	327.5	331.4	374.9	495.1	2705.1	5795.8	6702.6
55°	327.5	300.3	302.3	339.1	459.2	2756.4	6466.2	7973.8
57.5°	300.3	275.1	275.1	306.2	433.1	2389.2	6981.7	9551.1
60°	270.3	253.9	249.0	280.0	456.3	1685.8	7041.7	10568.4
62.5°	237.4	228.7	221.9	254.8	473.8	998.9	6558.3	10322.3
65°	199.6	197.6	192.8	280.0	399.1	590.0	5630.1	9567.6
67.5°	167.6	164.7	164.7	293.6	303.3	371.0	4398.7	8528.9
70°	144.3	133.7	133.7	221.9	184.1	256.8	3071.3	7408.0
72.5°	121.2	109.5	101.7	177.3	137.6	188.0	1919.3	6344.1
75°	96.9	88.1	78.5	117.3	102.7	142.4	1115.2	5256.1
77.5°	69.8	65.9	55.2	86.2	74.6	102.7	663.7	4055.6
80°	35.9	36.8	34.8	49.4	50.4	69.8	377.8	2775.8
82.5°	21.3	16.5	18.4	24.2	29.1	39.8	142.4	1631.6
85°	13.5	8.7	8.7	11.6	14.6	15.5	43.6	661.7
87.5°	6.8	2.9	3.9	5.8	4.8	3.9	1.9	166.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)