

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: P967726

Luminaire Tested: **NAV-SB5A-735-U-SLR-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967726
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-735-U-SLR-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 3500K, 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: 17726.4 lumens
Efficiency: N/A
Efficacy: 125.1 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G3

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

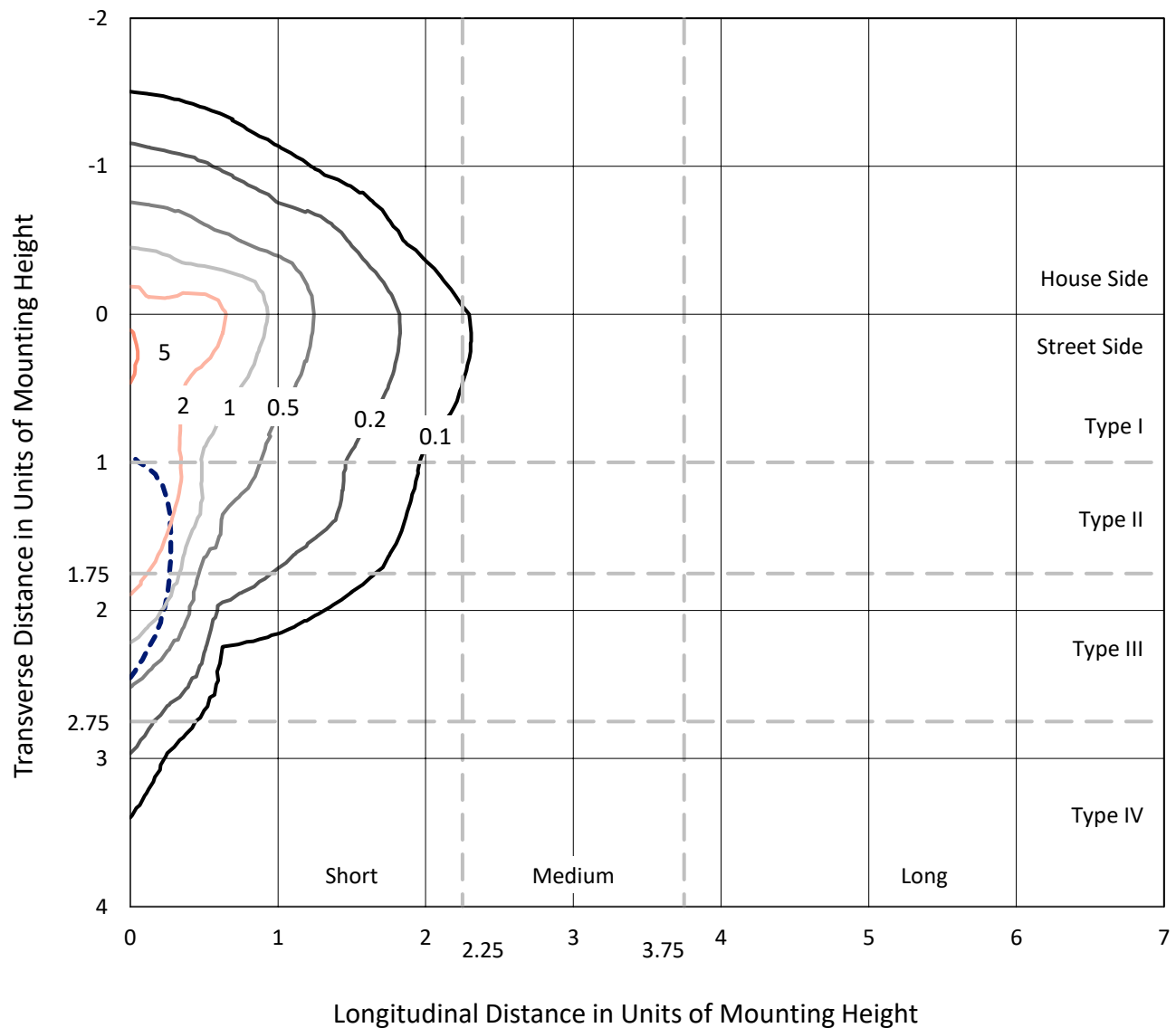


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Iso-Footcandle Lines of Horizontal Illumination

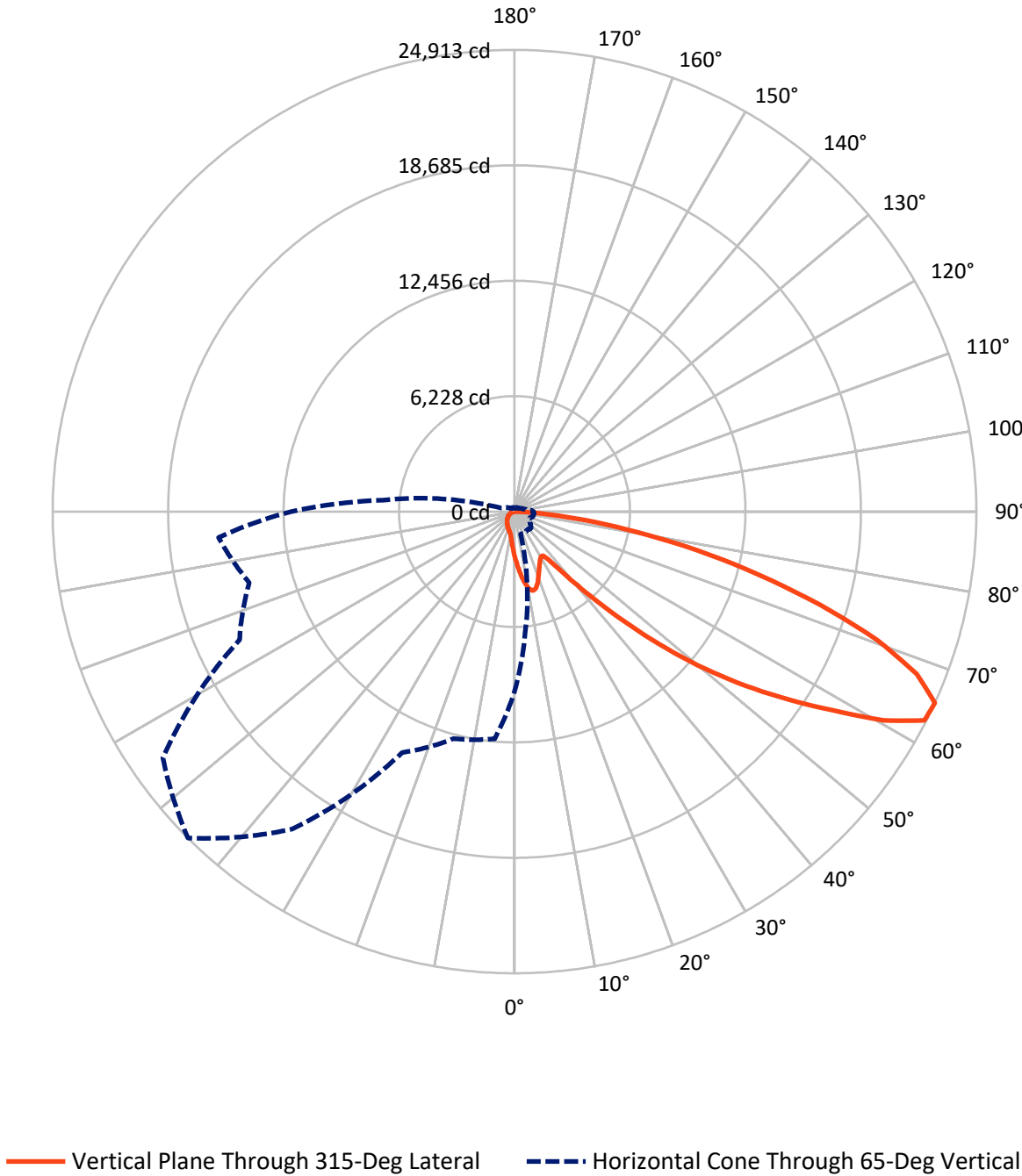
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.5 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	2482.4	0.0	2482.4
	% Fixture	14.0	0.0	14.0
Street Side	Lumens	15243.9	0.0	15243.9
	% Fixture	86.0	0.0	86.0
Total	Lumens	17726.4	0.0	17726.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	241.7	1.4
10°-20°	724.4	4.1
20°-30°	1067.2	6.0
30°-40°	1371.1	7.7
40°-50°	2217.4	12.5
50°-60°	3888.5	21.9
60°-70°	4865.6	27.4
70°-80°	2843.2	16.0
80°-90°	507.3	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°	17726.4	100.0
0°-180°	17726.4	100.0

Coefficient of Utilization



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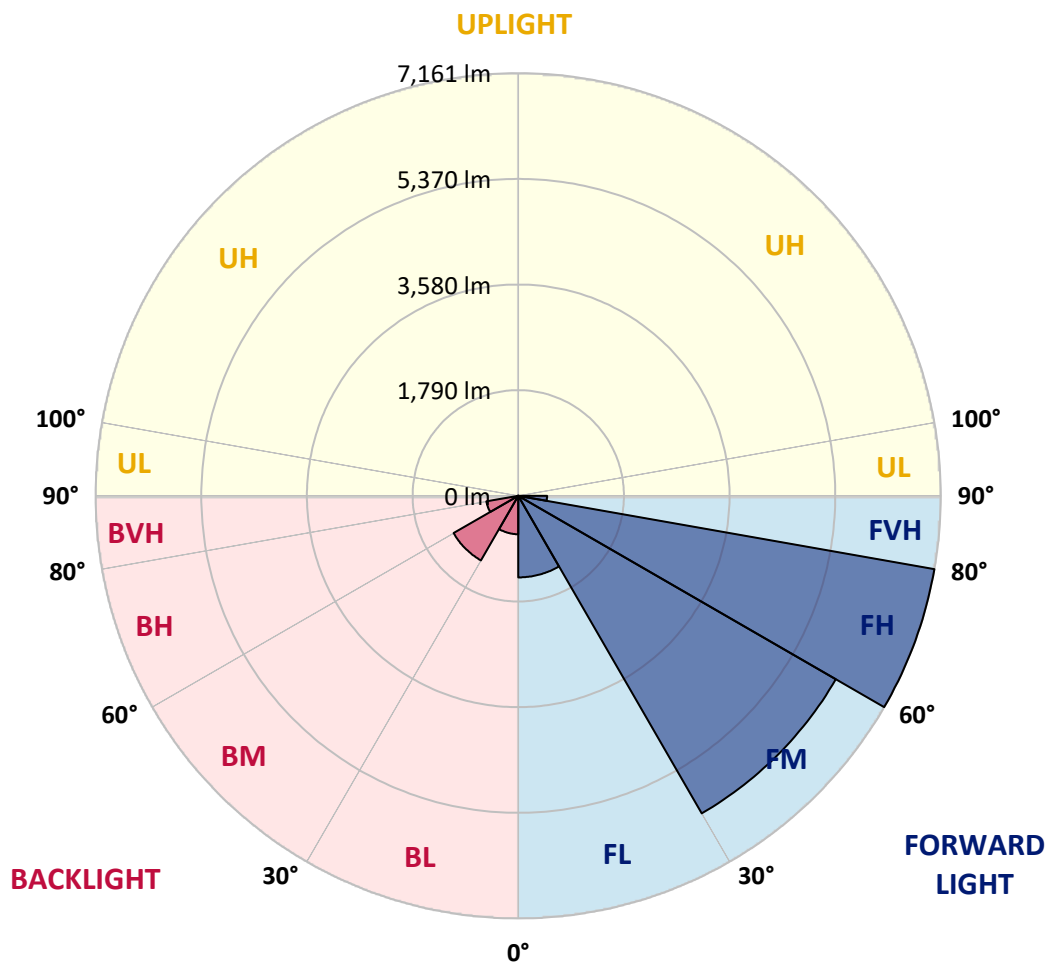
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1382.6	7.8			
FM	(30°-60°)	6212.9	35.0			
FH	(60°-80°)	7160.6	40.4			G3/7500
FVH	(80°-90°)	487.8	2.8			G3/500
BL	(0°-30°)	650.7	3.7	B2/1000		
BM	(30°-60°)	1264.1	7.1	B2/2500		
BH	(60°-80°)	548.1	3.1	B2/1000		G2/1000
BVH	(80°-90°)	19.5	0.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: 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°	2454.6	2454.6	2454.6	2454.6	2454.6	2454.6	2454.6	2454.6	2454.6	2454.6	2454.6
2.5°	2773.2	2725.7	2697.5	2627.9	2558.3	2502.1	2426.5	2376.4	2316.5	2259.1	2207.8
5°	3090.8	3013.8	2921.0	2794.0	2678.0	2559.5	2444.7	2331.2	2211.5	2101.7	2034.4
7.5°	3359.4	3248.3	3084.6	2916.1	2768.3	2625.5	2491.2	2341.0	2195.7	2023.5	1931.9
10°	3564.5	3422.9	3207.9	2987.0	2817.2	2673.1	2542.4	2415.4	2268.9	2061.3	1946.6
12.5°	3689.1	3537.7	3282.5	3023.5	2829.4	2668.3	2566.9	2510.7	2453.3	2246.9	2112.6
15°	3780.7	3617.1	3334.9	3049.3	2801.3	2603.5	2529.0	2585.2	2651.2	2519.2	2364.2
17.5°	3875.9	3703.7	3403.4	3060.2	2725.7	2477.7	2446.0	2591.3	2743.9	2737.9	2584.0
20°	3966.3	3795.4	3463.2	3052.9	2603.5	2325.1	2353.2	2538.8	2715.8	2790.4	2707.3
22.5°	4070.2	3889.4	3520.6	3024.8	2444.7	2182.2	2270.2	2455.8	2610.9	2698.7	2673.1
25°	4197.2	4007.9	3601.2	2983.3	2273.8	2063.7	2185.9	2359.2	2485.1	2546.1	2544.9
27.5°	4333.9	4149.5	3708.7	2961.3	2135.8	1979.5	2090.6	2244.4	2356.9	2399.6	2399.6
30°	4503.6	4314.3	3835.7	2936.9	2045.5	1930.7	1991.7	2111.4	2221.3	2264.0	2264.0
32.5°	4689.3	4497.5	3957.7	2878.3	1990.4	1894.0	1895.2	1971.0	2071.1	2122.4	2129.7
35°	4921.2	4717.4	4088.4	2750.1	1946.6	1851.3	1801.2	1837.8	1920.8	1981.9	1997.8
37.5°	5252.2	5005.5	4248.4	2566.9	1881.8	1785.3	1702.3	1710.8	1774.4	1841.5	1865.9
40°	5708.9	5392.6	4436.5	2376.4	1789.0	1692.5	1593.6	1590.0	1636.3	1702.3	1729.2
42.5°	6326.8	5904.3	4662.4	2194.4	1699.9	1580.1	1478.9	1472.7	1509.3	1566.7	1594.8
45°	7142.6	6558.9	4939.6	2038.1	1630.3	1470.3	1370.1	1367.7	1398.2	1448.3	1477.6
47.5°	8186.7	7468.7	5216.8	1931.9	1593.6	1383.5	1281.0	1285.9	1312.7	1357.9	1378.7
50°	9538.4	8654.4	5301.1	1878.1	1593.6	1337.2	1201.6	1226.0	1248.0	1282.2	1294.5
52.5°	11159.0	9792.4	5022.6	1829.3	1603.4	1343.3	1134.5	1186.9	1202.8	1232.2	1237.1
55°	12661.0	10350.6	4318.0	1762.2	1605.9	1381.1	1077.1	1155.2	1184.5	1195.6	1194.3
57.5°	13532.9	10158.9	3491.3	1648.6	1596.0	1406.8	1040.5	1116.1	1172.3	1179.7	1168.6
60°	13366.8	9486.0	2570.5	1561.9	1524.0	1397.0	1029.4	1056.3	1145.4	1156.4	1141.7
62.5°	12087.0	8357.6	1784.1	1494.7	1365.3	1354.2	1025.8	962.3	1086.8	1113.7	1093.0
65°	9715.6	6579.6	1260.2	1287.1	1196.7	1261.5	1006.2	864.6	1016.0	1052.7	1020.9
67.5°	7048.5	4452.4	909.8	1042.8	1084.3	1111.3	962.3	793.8	935.4	984.2	942.7
70°	4523.2	2404.4	638.7	688.7	913.4	943.9	886.5	730.2	853.6	909.8	864.6
72.5°	3215.3	1420.2	459.2	482.4	733.9	786.4	780.3	659.4	758.3	826.8	773.0
75°	2218.8	782.8	310.2	344.4	532.4	638.7	602.0	566.6	642.4	712.0	659.4
77.5°	1390.9	350.4	185.6	239.3	349.2	501.9	412.8	438.4	500.7	565.4	510.4
80°	774.2	135.5	103.8	158.8	190.5	365.1	228.4	282.1	368.8	415.2	371.3
82.5°	168.5	17.1	46.4	68.4	74.5	212.5	120.8	163.6	232.1	228.4	197.8
85°	0.0	0.0	8.5	9.7	4.9	91.6	44.0	53.7	75.7	70.8	53.7
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	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°	2454.6	2454.6	2454.6	2454.6	2454.6	2454.6	2454.6	2454.6	2454.6	2454.6	2454.6
2.5°	2198.1	2138.3	2094.3	2072.3	2054.0	2071.1	2080.9	2080.9	2122.4	2146.8	2156.6
5°	1991.7	1884.3	1802.5	1747.5	1714.5	1725.5	1737.7	1751.1	1803.7	1839.1	1862.2
7.5°	1848.8	1684.0	1559.4	1482.5	1442.2	1448.3	1456.8	1467.8	1519.2	1554.5	1585.1
10°	1821.9	1585.1	1409.2	1307.9	1259.0	1250.5	1245.6	1241.9	1272.4	1299.3	1323.8
12.5°	1931.9	1590.0	1344.5	1221.2	1161.3	1135.7	1106.4	1083.2	1088.0	1105.2	1135.7
15°	2128.5	1652.2	1323.8	1176.0	1101.5	1058.7	1024.6	996.5	990.4	996.5	1001.3
17.5°	2353.2	1736.5	1321.3	1136.9	1044.1	1000.1	972.0	946.4	937.9	939.1	945.2
20°	2502.1	1803.7	1313.9	1093.0	989.1	950.1	925.7	900.0	891.4	893.9	895.1
22.5°	2516.8	1839.1	1303.0	1044.1	934.2	901.2	876.8	853.6	852.4	852.4	859.7
25°	2437.4	1839.1	1279.8	1000.1	881.7	852.4	830.4	802.3	807.2	809.6	819.4
27.5°	2314.1	1795.1	1235.8	964.7	836.5	806.0	784.0	758.3	764.4	768.1	779.1
30°	2192.0	1738.9	1183.3	924.4	793.8	758.3	742.5	720.5	722.9	727.9	740.0
32.5°	2078.4	1679.1	1121.0	891.4	751.0	715.6	703.4	679.0	682.6	687.5	700.9
35°	1966.1	1613.1	1047.8	852.4	712.0	676.5	666.8	638.7	641.1	648.4	663.1
37.5°	1845.2	1543.5	987.9	813.3	674.0	637.4	627.7	598.4	600.9	609.4	626.5
40°	1718.2	1475.2	929.3	771.7	633.8	597.2	588.6	556.9	559.3	569.1	587.4
42.5°	1590.0	1400.7	884.2	718.0	592.2	553.2	544.7	515.4	519.0	530.0	548.3
45°	1471.5	1311.5	854.8	658.3	553.2	509.2	500.7	473.9	481.1	493.3	511.7
47.5°	1370.1	1220.0	842.6	608.1	511.7	464.0	456.7	434.7	446.9	460.3	475.0
50°	1283.4	1132.0	826.8	556.9	472.6	425.0	417.7	403.0	418.8	432.2	445.8
52.5°	1221.2	1031.9	792.5	510.4	438.4	392.0	389.5	382.2	396.9	409.1	421.3
55°	1167.5	928.0	737.6	470.2	407.8	363.9	366.3	362.6	374.9	384.7	395.6
57.5°	1118.6	837.7	668.0	438.4	374.9	339.5	346.9	341.9	348.0	354.1	367.6
60°	1060.0	746.1	585.0	403.0	335.8	315.1	323.6	310.2	308.9	311.4	315.1
62.5°	973.2	622.8	498.3	359.1	301.7	288.2	291.8	266.2	246.7	246.7	250.3
65°	852.4	500.7	417.7	310.2	262.5	251.5	249.1	212.5	185.6	183.2	194.1
67.5°	712.0	411.5	346.9	261.4	218.6	211.3	213.7	186.9	160.0	157.5	169.7
70°	580.0	340.7	279.6	208.8	168.5	175.9	186.9	160.0	134.4	130.7	141.7
72.5°	471.4	271.1	218.6	160.0	124.5	145.3	158.8	130.7	106.2	103.8	113.6
75°	363.9	199.1	156.3	108.6	90.4	112.3	124.5	95.2	75.7	72.1	80.6
77.5°	243.0	123.3	87.9	68.4	53.7	77.0	83.0	50.0	44.0	42.7	48.9
80°	147.8	57.4	37.8	33.0	18.3	28.1	33.0	20.8	23.2	24.4	29.3
82.5°	74.5	15.9	6.1	1.2	0.0	0.0	9.7	4.9	9.7	12.2	18.3
85°	6.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	6.1	11.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.9
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°	2454.6	2454.6	2454.6	2454.6	2454.6	2454.6	2454.6	2454.6	2454.6	2454.6	2454.6
2.5°	2225.0	2276.2	2325.1	2403.2	2483.9	2563.2	2643.8	2722.0	2750.1	2770.8	2817.2
5°	1968.5	2065.0	2177.3	2332.4	2498.5	2669.4	2842.8	3001.6	3073.7	3122.5	3232.4
7.5°	1703.6	1829.3	1990.4	2223.7	2483.9	2756.1	3028.5	3278.8	3394.8	3488.9	3656.2
10°	1440.9	1577.8	1781.7	2047.8	2399.6	2790.4	3166.4	3510.8	3661.0	3779.5	4006.6
12.5°	1210.2	1338.3	1552.1	1846.4	2267.7	2763.5	3245.9	3659.9	3836.9	3970.0	4219.1
15°	1047.8	1138.2	1327.4	1644.9	2111.4	2676.8	3250.7	3730.7	3924.8	4064.0	4280.2
17.5°	957.4	987.9	1111.3	1439.7	1938.0	2563.2	3205.6	3755.1	3962.6	4092.1	4242.3
20°	908.6	913.4	947.6	1173.5	1715.7	2456.9	3162.8	3779.5	3998.1	4106.8	4152.0
22.5°	869.5	869.5	878.0	959.8	1428.7	2329.9	3149.4	3822.2	4046.9	4114.0	4021.3
25°	834.0	834.0	836.5	858.4	1132.0	2135.8	3140.8	3888.1	4114.0	4132.4	3877.2
27.5°	797.4	798.7	798.7	810.9	912.2	1872.1	3104.2	3973.6	4194.7	4156.8	3739.2
30°	760.8	763.2	763.2	771.7	807.2	1563.1	3032.2	4076.2	4299.7	4188.6	3602.5
32.5°	724.2	726.6	726.6	733.9	759.5	1248.0	2941.7	4170.2	4406.0	4202.0	3475.5
35°	686.3	689.9	687.5	697.3	724.2	992.8	2827.0	4264.3	4520.8	4244.7	3413.1
37.5°	648.4	650.9	649.6	659.4	689.9	857.2	2693.9	4335.1	4677.1	4340.1	3487.7
40°	610.6	609.4	609.4	620.3	653.3	818.2	2526.6	4447.5	4901.8	4507.3	3812.5
42.5°	571.5	571.5	569.1	581.3	621.6	788.8	2366.6	4649.0	5229.0	4773.5	4388.8
45°	536.1	534.8	530.0	541.0	591.0	737.6	2310.5	5025.1	5712.6	5204.5	5086.2
47.5°	501.9	500.7	488.5	498.3	554.4	691.2	2520.5	5640.6	6383.0	5838.4	5739.5
50°	471.4	472.6	449.4	458.0	517.7	655.8	2976.0	6439.2	7273.2	6691.9	6358.6
52.5°	443.3	443.3	412.8	417.7	472.6	624.0	3409.5	7305.0	8447.9	7882.6	7080.3
55°	415.2	412.8	378.5	381.0	427.4	578.8	3474.2	8150.0	10050.1	9674.1	8067.0
57.5°	383.5	378.5	346.9	346.9	385.9	545.8	3011.3	8799.7	12038.2	12306.9	9489.7
60°	344.4	340.7	319.9	313.9	352.9	575.1	2124.8	8875.4	13320.4	15808.0	12214.0
62.5°	294.3	299.2	288.2	279.6	321.1	597.2	1259.0	8266.0	13010.2	16921.6	15477.0
65°	232.1	251.5	249.1	243.0	352.9	503.1	743.6	7096.2	12058.9	16022.8	14811.5
67.5°	197.8	211.3	207.6	207.6	370.0	382.2	467.7	5544.0	10749.9	14956.8	13230.1
70°	168.5	181.9	168.5	168.5	279.6	232.1	323.6	3871.1	9337.0	13777.1	12192.1
72.5°	139.2	152.6	138.0	128.2	223.4	173.4	236.9	2419.1	7996.1	12548.7	11481.3
75°	106.2	122.1	111.1	98.9	147.8	129.5	179.5	1405.6	6624.8	10736.5	10469.0
77.5°	67.1	87.9	83.0	69.6	108.6	94.0	129.5	836.5	5111.8	8389.4	9004.8
80°	41.5	45.2	46.4	44.0	62.3	63.6	87.9	476.2	3498.6	5846.9	7035.1
82.5°	26.9	26.9	20.8	23.2	30.5	36.6	50.0	179.5	2056.5	3559.7	4896.8
85°	19.6	17.1	11.0	11.0	14.7	18.3	19.6	54.9	834.0	1405.6	1914.8
87.5°	9.7	8.5	3.7	4.9	7.3	6.1	4.9	2.5	210.0	449.4	315.1
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-SB5A-735-U-SLR-HSS

CANDELA DISTRIBUTION (continued):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	2454.6	2454.6	2454.6	2454.6	2454.6	2454.6	2454.6	2454.6
2.5°	2841.6	2879.5	2881.9	2881.9	2849.0	2847.8	2780.6	2773.2
5°	3346.0	3370.4	3376.6	3364.3	3298.3	3249.6	3118.9	3090.8
7.5°	3807.6	3856.5	3856.5	3827.1	3719.6	3619.5	3430.3	3359.4
10°	4176.4	4232.5	4220.3	4160.5	4025.0	3886.9	3657.4	3564.5
12.5°	4355.8	4413.2	4381.6	4313.1	4181.3	4035.9	3794.1	3689.1
15°	4352.3	4336.4	4303.4	4294.9	4231.3	4121.4	3895.5	3780.7
17.5°	4197.2	4062.8	4037.2	4122.7	4203.2	4176.4	3983.5	3875.9
20°	3951.7	3717.2	3694.0	3857.7	4087.2	4204.4	4065.3	3966.3
22.5°	3692.8	3440.0	3386.3	3567.0	3912.6	4213.0	4169.1	4070.2
25°	3447.4	3193.3	3139.6	3308.1	3718.4	4198.4	4281.4	4197.2
27.5°	3242.2	2996.7	2946.7	3115.2	3531.6	4156.8	4393.8	4333.9
30°	3083.4	2856.3	2819.7	2982.0	3370.4	4105.5	4536.6	4503.6
32.5°	2990.6	2824.6	2838.0	2971.1	3283.7	4049.4	4673.4	4689.3
35°	3082.2	3089.6	3206.8	3261.8	3364.3	4040.9	4859.0	4921.2
37.5°	3537.7	3791.7	4034.7	3989.5	3758.8	4139.8	5136.2	5252.2
40°	4313.1	4834.6	5229.0	5056.8	4475.6	4442.6	5535.5	5708.9
42.5°	5260.7	6144.9	6794.5	6333.0	5400.0	4972.6	6105.8	6326.8
45°	6260.9	7760.5	8783.8	7823.9	6385.4	5715.0	6969.2	7142.6
47.5°	7314.7	9724.1	11047.9	9477.5	7298.9	6560.1	8146.4	8186.7
50°	8467.5	11877.0	13355.9	11129.7	8180.5	7528.4	9584.9	9538.4
52.5°	9565.3	14091.0	15615.0	12789.2	8954.8	8730.0	11254.2	11159.0
55°	10613.1	16303.8	17887.6	14384.0	9685.0	10317.5	13237.4	12661.0
57.5°	11828.2	18293.0	20229.7	15986.2	10705.9	12378.9	15455.1	13532.9
60°	13624.5	20553.3	22878.4	18181.9	12647.6	14545.3	16249.9	13366.8
62.5°	15917.8	22631.8	24804.2	20333.5	14597.7	14953.1	15078.9	12087.0
65°	16363.5	23158.1	24912.9	20908.7	14346.2	12684.2	12310.6	9715.6
67.5°	15181.5	22206.8	23393.8	19837.7	12690.3	9802.3	9238.1	7048.5
70°	13855.3	20393.4	20746.3	18017.0	11161.4	7209.7	6238.9	4523.2
72.5°	12496.1	17974.3	17244.0	15646.7	9809.6	5249.7	4500.0	3215.3
75°	10881.8	14793.1	13583.0	13000.5	8121.9	4120.2	3255.6	2218.8
77.5°	8714.2	10412.9	10089.2	10077.0	6103.4	3010.1	2172.5	1390.9
80°	6147.3	6757.9	6593.0	7589.5	4094.6	2183.5	1307.9	774.2
82.5°	2976.0	3736.7	3835.7	4519.5	1991.7	1284.6	301.7	168.5
85°	1165.0	1802.5	1520.4	1715.7	559.3	357.8	7.3	0.0
87.5°	130.7	208.8	191.7	151.4	68.4	14.7	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)