

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: P963694

Luminaire Tested: **NAV-SB3A-835-U-SLL-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P963694
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-SB3A-835-U-SLL-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 80 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: 9765.2 lumens
Efficiency: N/A
Efficacy: 115.3 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): 84.7
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



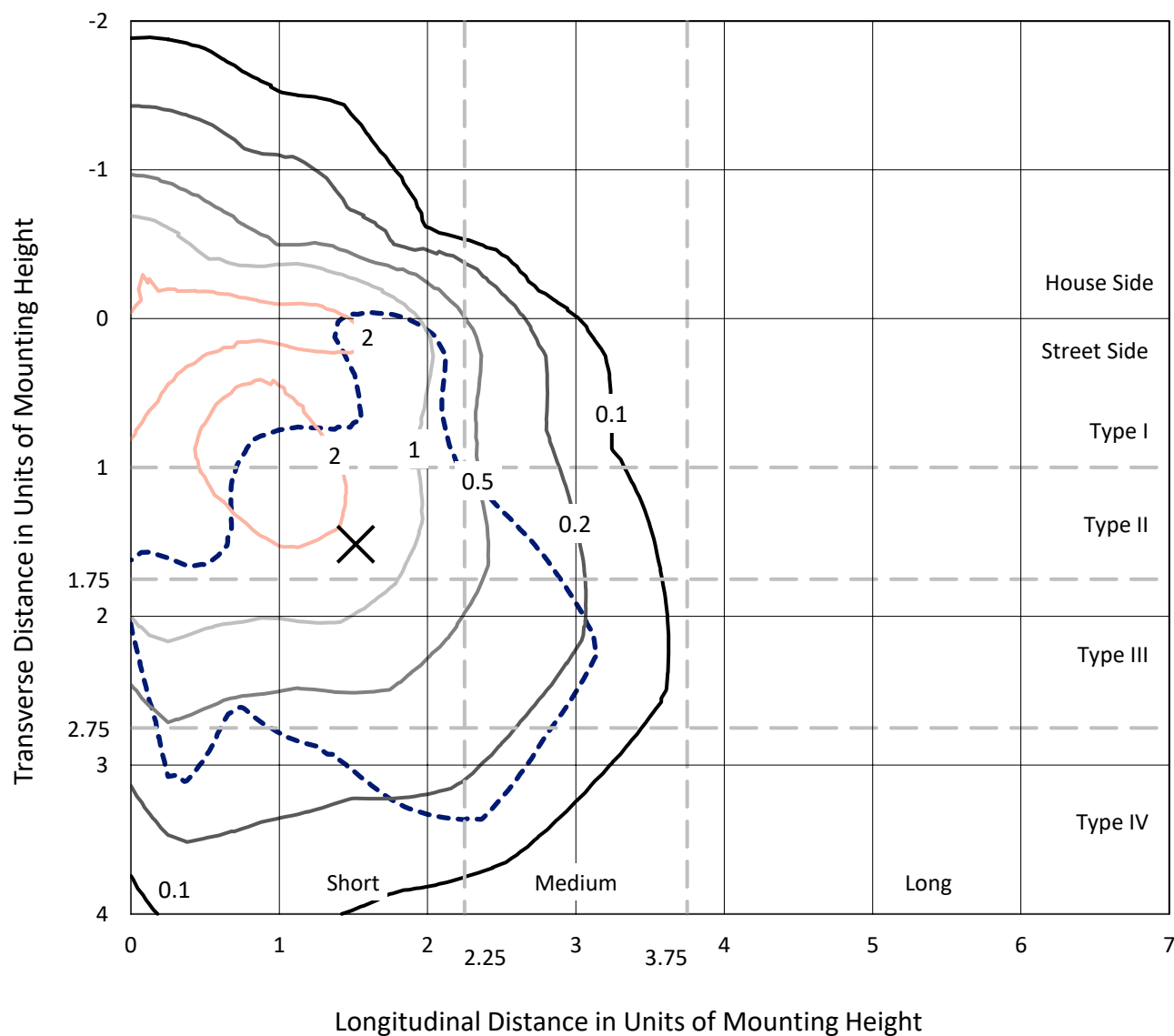
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

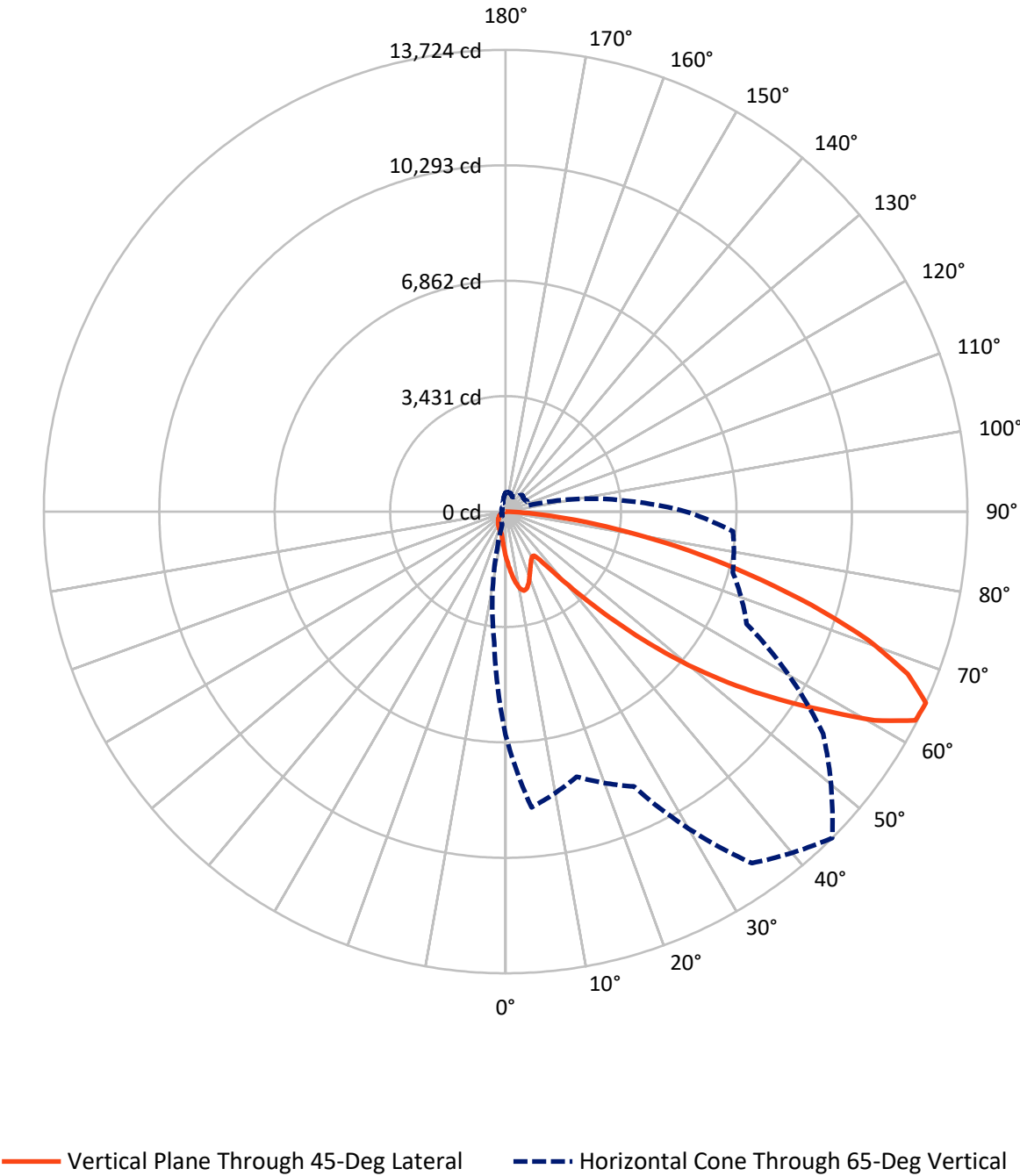


Based on 25 foot mounting height. Maximum calculated value = 3.6 fc

Type IV - Short - N/A

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Luminous Intensity Polar Plot



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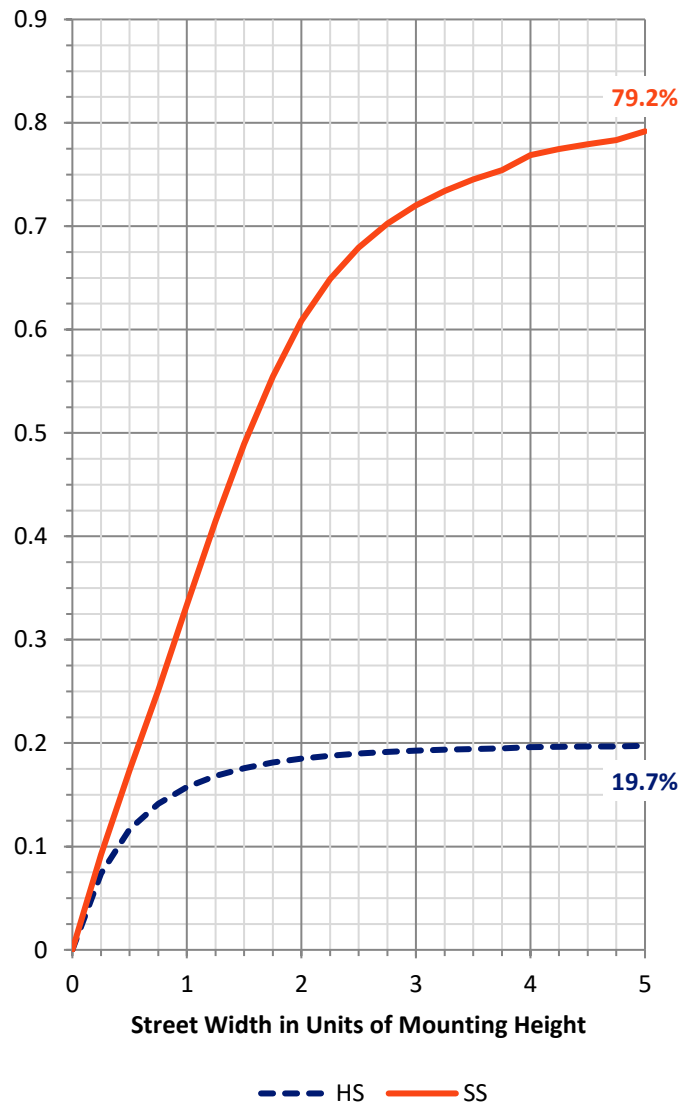
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1941.0	0.0	1941.0
	% Fixture	19.9	0.0	19.9
Street Side	Lumens	7824.2	0.0	7824.2
	% Fixture	80.1	0.0	80.1
Total	Lumens	9765.2	0.0	9765.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	133.1	1.4
10°-20°	399.1	4.1
20°-30°	587.9	6.0
30°-40°	755.3	7.7
40°-50°	1221.6	12.5
50°-60°	2142.1	21.9
60°-70°	2680.4	27.4
70°-80°	1566.3	16.0
80°-90°	279.4	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°	9765.2	100.0
0°-180°	9765.2	100.0

Coefficient of Utilization



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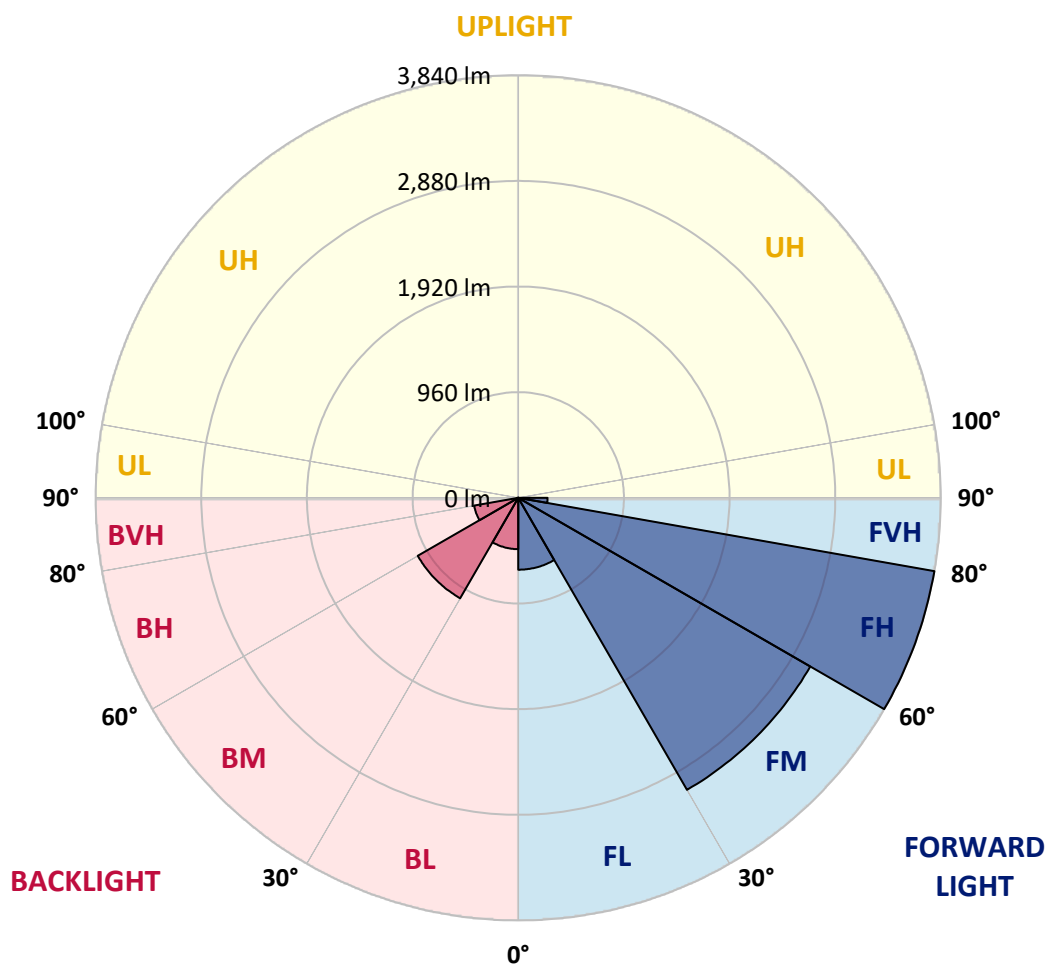
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	653.4	6.7			
FM	(30°-60°)	3064.4	31.4			
FH	(60°-80°)	3840.0	39.3			G2/5000
FVH	(80°-90°)	266.4	2.7			G3/500
BL	(0°-30°)	466.7	4.8	B1/500		
BM	(30°-60°)	1054.5	10.8	B2/2500		
BH	(60°-80°)	406.7	4.2	B1/500		G1/500
BVH	(80°-90°)	13.1	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-G3

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	1352.2	1352.2	1352.2	1352.2	1352.2	1352.2	1352.2	1352.2	1352.2	1352.2	1352.2
2.5°	1514.9	1526.4	1552.0	1565.4	1586.3	1587.6	1587.6	1569.5	1568.8	1531.8	1527.8
5°	1693.2	1720.2	1780.7	1843.3	1856.7	1860.1	1853.3	1817.0	1790.1	1718.1	1702.6
7.5°	1870.1	1922.0	2014.1	2097.6	2124.4	2124.4	2108.3	2049.1	1993.9	1889.7	1850.6
10°	2016.8	2082.1	2207.2	2300.7	2331.7	2324.9	2292.0	2217.3	2141.2	2014.8	1963.7
12.5°	2113.7	2187.0	2324.3	2399.6	2431.2	2413.7	2376.1	2303.4	2223.3	2090.2	2032.3
15°	2162.1	2238.8	2357.9	2397.6	2388.9	2370.6	2365.9	2331.0	2270.4	2145.9	2082.7
17.5°	2182.9	2254.3	2337.0	2312.1	2238.1	2224.0	2271.1	2315.5	2300.7	2194.4	2135.2
20°	2202.5	2262.4	2287.3	2176.9	2047.7	2034.9	2125.1	2251.6	2316.2	2239.5	2185.0
22.5°	2229.4	2266.4	2215.2	2034.3	1895.0	1865.4	1965.0	2155.4	2320.9	2296.6	2242.2
25°	2266.4	2276.5	2135.9	1899.1	1759.2	1729.6	1822.3	2048.5	2312.8	2358.5	2312.1
27.5°	2310.8	2290.0	2059.8	1786.1	1650.9	1623.3	1716.1	1945.6	2290.0	2420.4	2387.4
30°	2368.7	2307.4	1984.5	1698.6	1573.5	1553.3	1642.8	1856.7	2261.7	2499.2	2481.0
32.5°	2427.2	2314.9	1914.6	1647.5	1555.9	1563.4	1636.7	1808.9	2230.7	2574.5	2583.2
35°	2490.4	2338.3	1880.3	1697.9	1702.0	1766.6	1796.8	1853.3	2226.0	2676.8	2711.0
37.5°	2576.5	2390.8	1921.3	1948.8	2088.7	2222.7	2197.8	2070.6	2280.5	2829.4	2893.4
40°	2700.3	2483.0	2100.2	2376.1	2663.3	2880.6	2785.7	2465.5	2447.4	3049.5	3145.0
42.5°	2880.6	2629.6	2417.8	2898.1	3385.2	3743.0	3488.7	2974.8	2739.3	3363.6	3485.3
45°	3147.0	2867.1	2801.8	3449.0	4275.2	4838.8	4310.1	3517.6	3148.3	3839.2	3934.8
47.5°	3516.3	3216.2	3161.8	4029.6	5356.9	6086.0	5220.9	4020.9	3613.8	4487.7	4509.9
50°	4006.7	3686.5	3502.8	4664.7	6542.9	7357.6	6131.1	4506.5	4147.4	5280.2	5254.6
52.5°	4653.9	4342.4	3900.4	5269.4	7762.5	8602.0	7045.3	4933.0	4809.3	6199.8	6147.3
55°	5536.4	5329.3	4444.0	5846.6	8981.5	9853.9	7924.0	5335.3	5683.8	7292.3	6974.7
57.5°	6631.6	6779.7	5227.7	6515.9	10077.3	11144.2	8806.6	5897.7	6819.3	8514.0	7455.0
60°	7338.0	8708.3	6728.5	7505.6	11322.6	12603.4	10016.1	6967.3	8012.7	8951.8	7363.6
62.5°	7167.1	9321.9	8526.1	8768.9	12467.5	13664.3	11201.4	8041.6	8237.4	8306.7	6658.6
65°	6643.1	8826.8	8159.4	9014.5	12757.5	13724.1	11518.3	7903.1	6987.5	6781.7	5352.1
67.5°	5921.9	8239.5	7288.3	8363.3	12233.4	12887.2	10928.3	6990.9	5399.9	5089.1	3882.9
70°	5143.7	7589.6	6716.4	7632.7	11234.4	11428.9	9925.3	6148.7	3971.8	3436.9	2491.8
72.5°	4404.9	6912.8	6324.9	6883.9	9901.7	9499.5	8619.5	5403.9	2892.0	2479.0	1771.3
75°	3649.5	5914.6	5767.3	5994.6	8149.3	7482.6	7161.8	4474.2	2269.8	1793.4	1222.3
77.5°	2816.0	4621.6	4960.6	4800.5	5736.3	5558.0	5551.3	3362.2	1658.2	1196.8	766.2
80°	1927.3	3221.0	3875.5	3386.5	3722.8	3632.0	4181.0	2255.6	1202.8	720.5	426.5
82.5°	1132.8	1960.9	2697.6	1639.4	2058.5	2113.0	2489.7	1097.2	707.7	166.2	92.9
85°	459.5	774.3	1054.8	641.8	992.9	837.5	945.2	308.1	197.1	4.0	0.0
87.5°	115.7	247.5	173.5	72.0	115.0	105.6	83.4	37.7	8.1	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°	1352.2	1352.2	1352.2	1352.2	1352.2	1352.2	1352.2	1352.2	1352.2	1352.2	1352.2
2.5°	1501.5	1486.0	1447.7	1409.4	1378.4	1336.7	1309.1	1276.1	1244.6	1216.3	1210.9
5°	1660.3	1609.1	1539.1	1475.3	1410.0	1346.7	1284.2	1218.3	1157.7	1120.7	1097.2
7.5°	1789.4	1699.2	1606.5	1525.1	1446.4	1372.4	1289.6	1209.5	1114.7	1064.3	1018.5
10°	1885.6	1767.2	1645.4	1552.0	1472.6	1400.6	1330.7	1249.9	1135.6	1072.4	1003.7
12.5°	1948.8	1808.3	1665.6	1558.7	1469.8	1414.1	1383.1	1351.5	1237.8	1163.8	1064.3
15°	1992.6	1837.2	1679.8	1543.2	1434.3	1393.2	1424.1	1460.5	1387.8	1302.4	1172.5
17.5°	2040.4	1874.8	1685.8	1501.5	1365.0	1347.5	1427.5	1511.6	1508.2	1423.5	1296.3
20°	2090.8	1907.8	1681.8	1434.3	1280.8	1296.3	1398.6	1496.1	1537.2	1491.4	1378.4
22.5°	2142.6	1939.4	1666.3	1346.7	1202.1	1250.6	1352.8	1438.3	1486.7	1472.6	1386.5
25°	2207.8	1983.9	1643.5	1252.7	1136.9	1204.2	1299.7	1369.0	1402.6	1402.0	1342.7
27.5°	2285.9	2043.0	1631.4	1176.6	1090.5	1151.7	1236.5	1298.4	1321.9	1321.9	1274.8
30°	2376.7	2113.0	1617.9	1126.8	1063.5	1097.2	1163.2	1223.6	1247.2	1247.2	1207.6
32.5°	2477.6	2180.3	1585.6	1096.5	1043.3	1044.1	1085.8	1140.9	1169.2	1173.2	1144.9
35°	2598.7	2252.2	1514.9	1072.4	1019.9	992.3	1012.4	1058.2	1091.8	1100.5	1083.1
37.5°	2757.5	2340.4	1414.1	1036.7	983.5	937.8	942.5	977.4	1014.4	1027.9	1016.5
40°	2970.8	2444.0	1309.1	985.5	932.3	877.9	875.9	901.5	937.8	952.5	946.5
42.5°	3252.6	2568.4	1208.9	936.4	870.5	814.7	811.3	831.5	863.0	878.5	875.9
45°	3613.1	2721.2	1122.8	898.1	810.0	754.8	753.5	770.3	797.9	814.0	810.7
47.5°	4114.3	2873.9	1064.3	877.9	762.2	705.7	708.4	723.1	748.0	759.5	754.8
50°	4767.6	2920.2	1034.6	877.9	736.7	661.9	675.4	687.5	706.3	713.1	707.0
52.5°	5394.6	2766.9	1007.8	883.2	739.9	624.9	653.8	662.7	678.8	681.4	672.7
55°	5702.0	2378.7	970.8	884.6	760.9	593.4	636.4	652.5	658.6	657.9	643.1
57.5°	5596.3	1923.3	908.2	879.2	775.0	573.2	614.9	645.9	649.8	643.8	616.2
60°	5225.7	1416.0	860.4	839.6	769.6	567.1	581.9	631.0	637.0	629.0	583.9
62.5°	4604.1	982.9	823.4	752.1	746.0	565.1	530.1	598.7	613.6	602.1	536.2
65°	3624.6	694.2	709.1	659.3	694.9	554.3	476.3	559.8	579.8	562.4	469.6
67.5°	2452.7	501.2	574.5	597.4	612.1	530.1	437.3	515.3	542.2	519.4	392.2
70°	1324.6	351.9	379.5	503.2	520.0	488.4	402.3	470.3	501.2	476.3	319.5
72.5°	782.4	253.0	265.7	404.3	433.3	429.9	363.3	417.8	455.4	425.8	259.6
75°	431.2	170.9	189.7	293.4	351.9	331.7	312.1	353.8	392.2	363.3	200.5
77.5°	193.1	102.3	131.8	192.4	276.4	227.3	241.5	275.8	311.5	281.2	133.9
80°	74.7	57.2	87.4	105.0	201.1	125.8	155.4	203.2	228.7	204.5	81.4
82.5°	9.4	25.5	37.7	41.0	117.1	66.6	90.1	127.8	125.8	109.0	41.0
85°	0.0	4.7	5.4	2.7	50.4	24.2	29.6	41.7	39.1	29.6	3.4
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	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°	1352.2	1352.2	1352.2	1352.2	1352.2	1352.2	1352.2	1352.2	1352.2	1352.2	1352.2
2.5°	1177.9	1153.7	1141.6	1131.5	1140.9	1146.4	1146.4	1169.2	1182.6	1188.0	1225.7
5°	1038.0	992.9	962.7	944.5	950.6	957.2	964.6	993.6	1013.1	1025.9	1084.4
7.5°	927.7	859.1	816.7	794.5	797.9	802.6	808.6	836.9	856.4	873.2	938.5
10°	873.2	776.3	720.5	693.6	688.9	686.1	684.2	701.0	715.8	729.2	793.8
12.5°	875.9	740.7	672.7	639.8	625.7	609.5	596.7	599.4	608.8	625.7	666.7
15°	910.2	729.2	647.8	606.8	583.2	564.4	548.9	545.6	548.9	551.7	577.2
17.5°	956.6	727.9	626.3	575.1	550.9	535.5	521.3	516.6	517.3	520.7	527.4
20°	993.6	723.9	602.1	544.9	523.4	509.9	495.8	491.1	492.4	493.1	500.5
22.5°	1013.1	717.8	575.1	514.7	496.5	483.0	470.3	469.6	469.6	473.6	479.0
25°	1013.1	705.0	550.9	485.7	469.6	457.5	442.0	444.6	446.0	451.4	459.5
27.5°	988.9	680.8	531.5	460.8	444.0	431.9	417.8	421.2	423.1	429.2	439.3
30°	958.0	651.9	509.2	437.3	417.8	409.0	396.9	398.2	401.0	407.6	419.1
32.5°	925.0	617.6	491.1	413.7	394.2	387.4	374.0	376.1	378.7	386.1	398.9
35°	888.7	577.2	469.6	392.2	372.7	367.3	351.9	353.2	357.2	365.3	378.0
37.5°	850.3	544.3	448.0	371.4	351.2	345.7	329.6	331.0	335.7	345.1	357.2
40°	812.6	512.0	425.2	349.1	328.9	324.2	306.8	308.1	313.4	323.6	336.4
42.5°	771.6	487.1	395.5	326.3	304.7	300.0	283.9	285.9	291.9	302.1	314.9
45°	722.5	470.9	362.6	304.7	280.5	275.8	261.0	265.1	271.7	281.9	295.3
47.5°	672.1	464.2	335.0	281.9	255.6	251.6	239.4	246.2	253.6	261.7	276.4
50°	623.6	455.4	306.8	260.3	234.1	230.1	222.0	230.7	238.1	245.6	259.6
52.5°	568.5	436.5	281.2	241.5	216.0	214.6	210.5	218.6	225.4	232.1	244.2
55°	511.3	406.3	259.0	224.7	200.5	201.8	199.8	206.5	211.9	217.9	228.7
57.5°	461.5	368.0	241.5	206.5	187.1	191.1	188.4	191.7	195.1	202.4	211.3
60°	411.0	322.3	222.0	185.0	173.5	178.2	170.9	170.1	171.6	173.5	189.7
62.5°	343.1	274.5	197.8	166.2	158.8	160.8	146.7	135.9	135.9	137.9	162.2
65°	275.8	230.1	170.9	144.6	138.6	137.2	117.1	102.3	100.9	107.0	127.8
67.5°	226.7	191.1	144.0	120.4	116.3	117.8	102.9	88.1	86.8	93.5	109.0
70°	187.7	154.1	115.0	92.9	96.9	102.9	88.1	74.0	72.0	78.0	92.9
72.5°	149.3	120.4	88.1	68.6	80.1	87.4	72.0	58.5	57.2	62.5	76.7
75°	109.7	86.1	59.9	49.8	61.9	68.6	52.5	41.7	39.7	44.4	58.5
77.5°	68.0	48.5	37.7	29.6	42.3	45.7	27.6	24.2	23.6	27.0	37.0
80°	31.6	20.8	18.1	10.0	15.5	18.1	11.5	12.8	13.4	16.2	22.9
82.5°	8.7	3.4	0.7	0.0	0.0	5.4	2.7	5.4	6.8	10.0	14.8
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	3.4	6.0	10.8
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	5.4
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-SB3A-835-U-SLL-HSS

CANDELA DISTRIBUTION (continued):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	1352.2	1352.2	1352.2	1352.2	1352.2	1352.2	1352.2	1352.2
2.5°	1254.0	1280.8	1323.9	1368.3	1412.0	1456.4	1499.5	1514.9
5°	1137.5	1199.5	1284.9	1376.4	1470.6	1566.1	1653.5	1693.2
7.5°	1007.8	1096.5	1225.0	1368.3	1518.3	1668.4	1806.3	1870.1
10°	869.2	981.5	1128.1	1321.9	1537.2	1744.3	1934.1	2016.8
12.5°	737.3	855.1	1017.1	1249.3	1522.3	1788.1	2016.2	2113.7
15°	627.0	731.2	906.2	1163.2	1474.6	1790.8	2055.1	2162.1
17.5°	544.3	612.1	793.1	1067.6	1412.0	1765.9	2068.7	2182.9
20°	503.2	522.0	646.5	945.2	1353.5	1742.3	2082.1	2202.5
22.5°	479.0	483.7	528.8	787.1	1283.5	1734.9	2105.7	2229.4
25°	459.5	460.8	472.9	623.6	1176.6	1730.2	2141.9	2266.4
27.5°	439.9	439.9	446.7	502.6	1031.3	1710.0	2189.0	2310.8
30°	420.5	420.5	425.2	444.6	861.1	1670.3	2245.6	2368.7
32.5°	400.3	400.3	404.3	418.4	687.5	1620.6	2297.3	2427.2
35°	380.1	378.7	384.2	398.9	546.9	1557.4	2349.1	2490.4
37.5°	358.5	357.9	363.3	380.1	472.2	1484.0	2388.1	2576.5
40°	335.7	335.7	341.7	359.9	450.7	1391.8	2450.1	2700.3
42.5°	314.9	313.4	320.2	342.5	434.6	1303.7	2561.1	2880.6
45°	294.7	291.9	298.0	325.6	406.3	1272.7	2768.2	3147.0
47.5°	275.8	269.1	274.5	305.4	380.8	1388.5	3107.3	3516.3
50°	260.3	247.5	252.3	285.3	361.2	1639.4	3547.2	4006.7
52.5°	244.2	227.3	230.1	260.3	343.8	1878.2	4024.3	4653.9
55°	227.3	208.6	209.9	235.4	318.9	1913.9	4489.7	5536.4
57.5°	208.6	191.1	191.1	212.6	300.7	1659.0	4847.6	6631.6
60°	187.7	176.3	172.9	194.4	316.8	1170.6	4889.4	7338.0
62.5°	164.8	158.8	154.1	176.9	328.9	693.6	4553.7	7167.1
65°	138.6	137.2	133.9	194.4	277.2	409.7	3909.1	6643.1
67.5°	116.3	114.4	114.4	203.9	210.5	257.7	3054.2	5921.9
70°	100.2	92.9	92.9	154.1	127.8	178.2	2132.5	5143.7
72.5°	84.0	76.1	70.6	123.1	95.5	130.5	1332.7	4404.9
75°	67.2	61.2	54.5	81.4	71.3	98.9	774.3	3649.5
77.5°	48.5	45.7	38.3	59.9	51.8	71.3	460.8	2816.0
80°	24.9	25.5	24.2	34.3	35.0	48.5	262.4	1927.3
82.5°	14.8	11.5	12.8	16.8	20.2	27.6	98.9	1132.8
85°	9.4	6.0	6.0	8.1	10.0	10.8	30.2	459.5
87.5°	4.7	2.0	2.7	4.0	3.4	2.7	1.3	115.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)