

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: P961958

Luminaire Tested: **NAV-SB2B-740-U-SLL-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P961958
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-SB2B-740-U-SLL-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 CRI, 4000K, 450mA 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: 9320.3 lumens
Efficiency: N/A
Efficacy: 126.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G3

Input Watts (W): 73.9
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



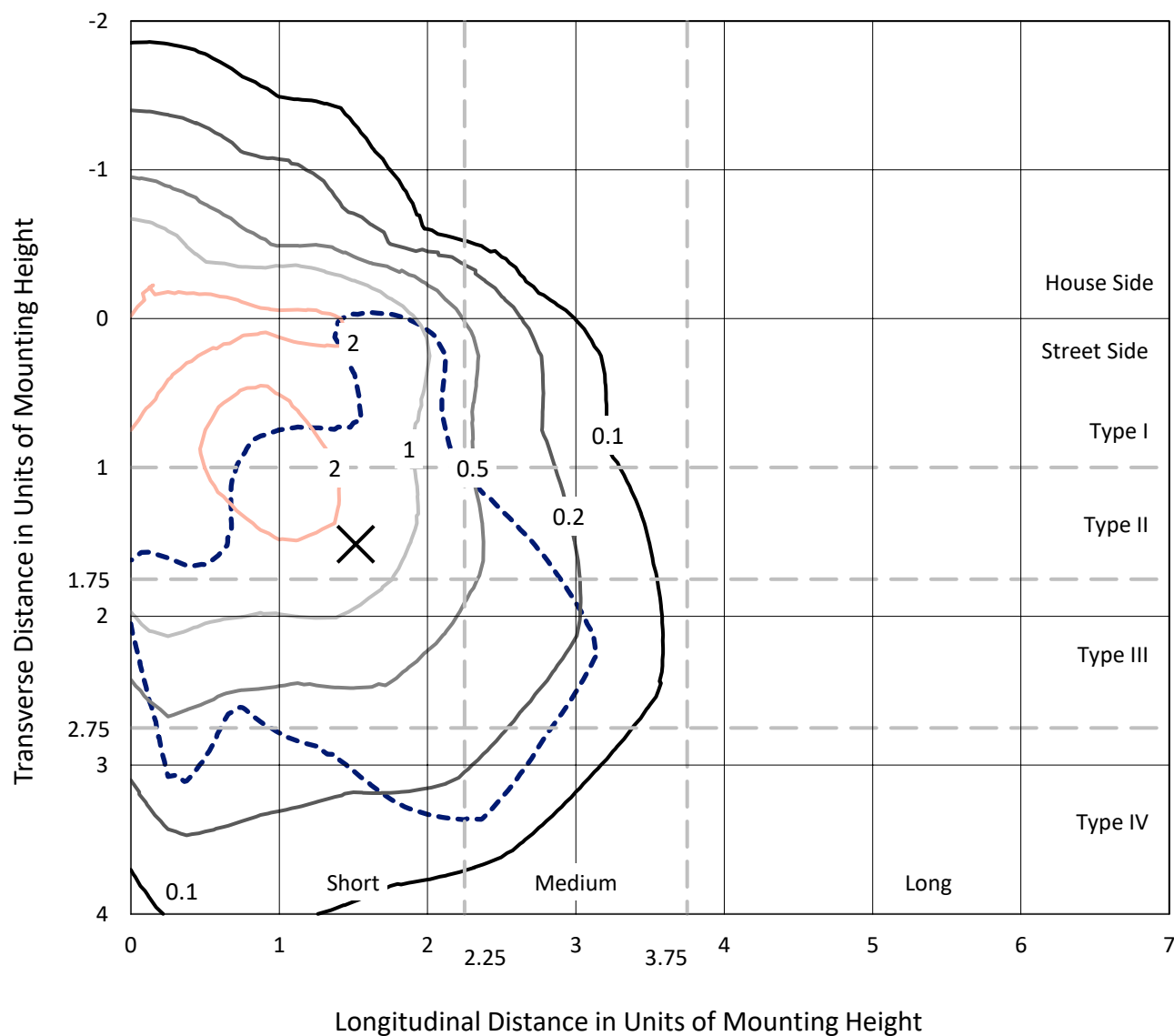
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

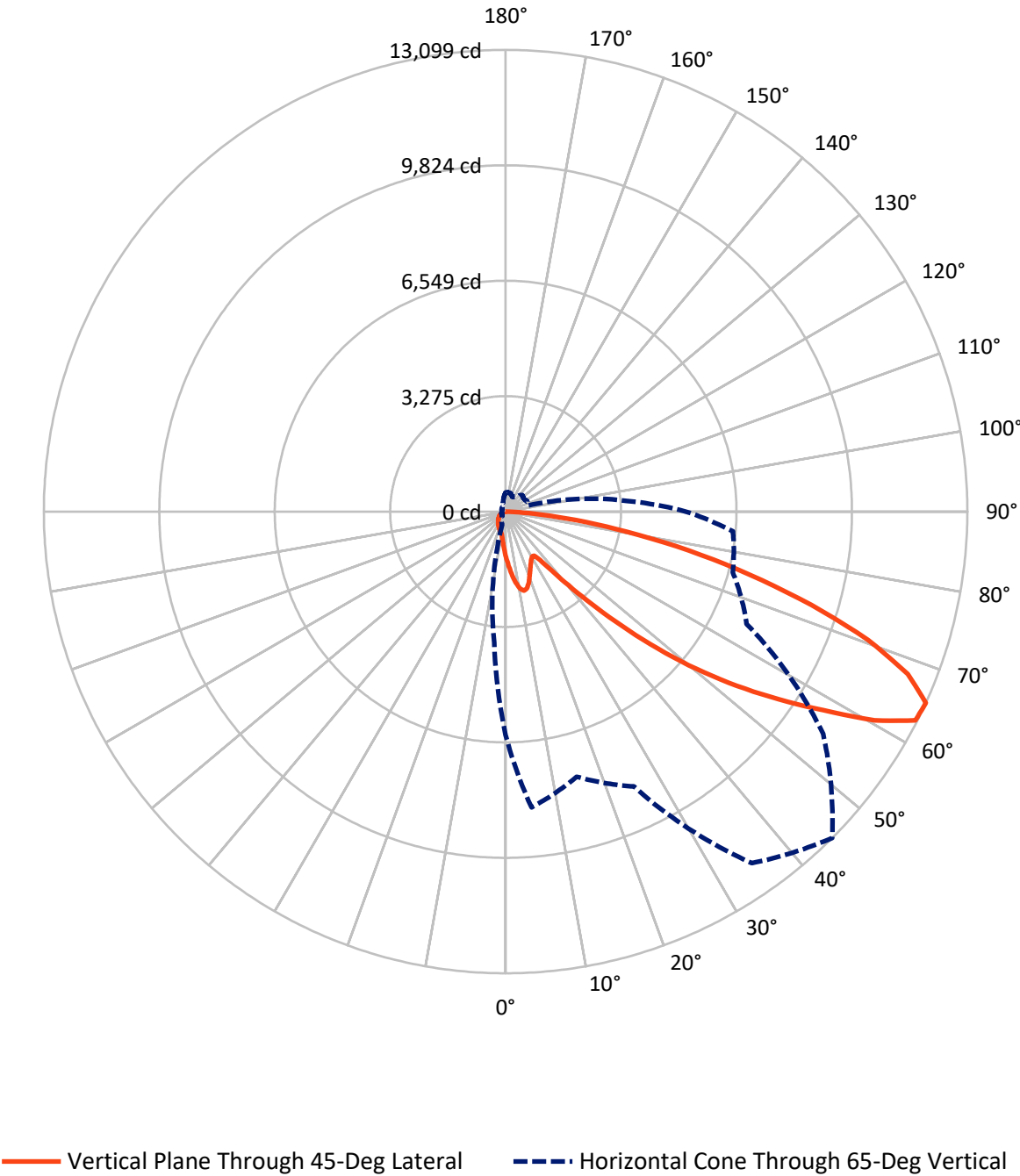


Based on 25 foot mounting height. Maximum calculated value = 3.4 fc

Type IV - Short - N/A

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Luminous Intensity Polar Plot



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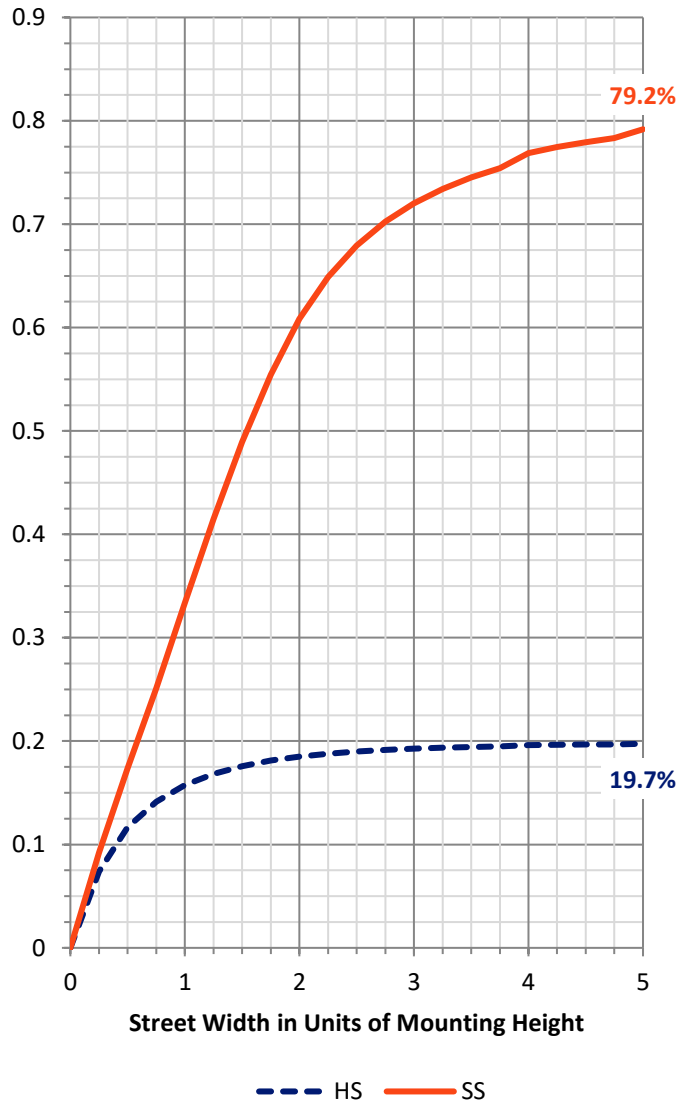
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1852.6	0.0	1852.6
	% Fixture	19.9	0.0	19.9
Street Side	Lumens	7467.7	0.0	7467.7
	% Fixture	80.1	0.0	80.1
Total	Lumens	9320.3	0.0	9320.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	127.1	1.4
10°-20°	380.9	4.1
20°-30°	561.1	6.0
30°-40°	720.9	7.7
40°-50°	1165.9	12.5
50°-60°	2044.5	21.9
60°-70°	2558.3	27.4
70°-80°	1494.9	16.0
80°-90°	266.7	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°	9320.3	100.0
0°-180°	9320.3	100.0

Coefficient of Utilization



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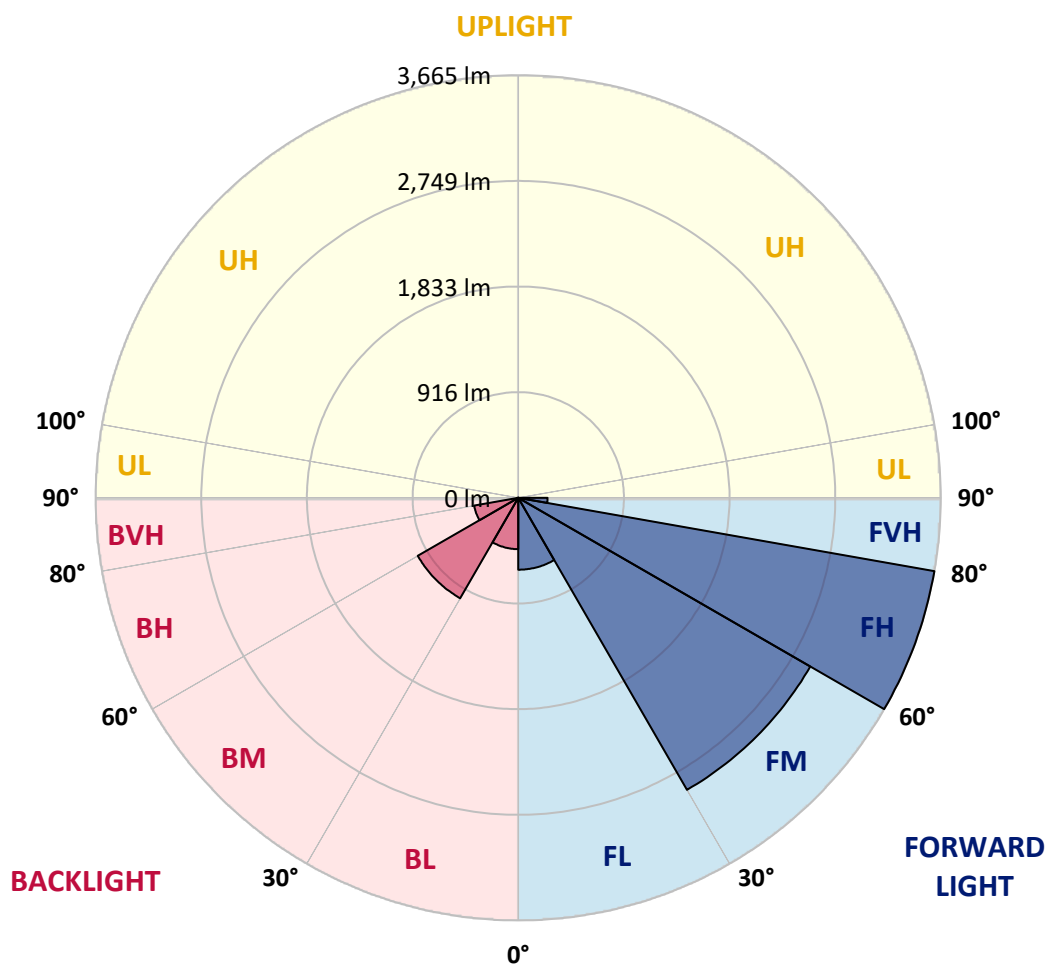
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	623.6	6.7			
FM	(30°-60°)	2924.8	31.4			
FH	(60°-80°)	3665.0	39.3			G2/5000
FVH	(80°-90°)	254.2	2.7			G3/500
BL	(0°-30°)	445.4	4.8	B1/500		
BM	(30°-60°)	1006.5	10.8	B2/2500		
BH	(60°-80°)	388.2	4.2	B1/500		G1/500
BVH	(80°-90°)	12.5	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°	1290.6	1290.6	1290.6	1290.6	1290.6	1290.6	1290.6	1290.6	1290.6	1290.6	1290.6
2.5°	1446.0	1456.8	1481.2	1494.1	1514.0	1515.3	1515.3	1497.9	1497.3	1462.0	1458.2
5°	1616.1	1641.7	1699.6	1759.3	1772.1	1775.3	1768.9	1734.2	1708.6	1639.9	1625.1
7.5°	1784.9	1834.4	1922.4	2002.0	2027.7	2027.7	2012.3	1955.8	1903.1	1803.6	1766.4
10°	1925.0	1987.2	2106.7	2195.9	2225.4	2219.0	2187.6	2116.3	2043.7	1923.0	1874.2
12.5°	2017.4	2087.4	2218.4	2290.3	2320.5	2303.8	2267.8	2198.4	2122.1	1995.0	1939.7
15°	2063.6	2136.8	2250.5	2288.3	2280.0	2262.7	2258.2	2224.8	2167.0	2048.3	1987.9
17.5°	2083.5	2151.6	2230.6	2206.8	2136.2	2122.7	2167.7	2210.0	2195.9	2094.5	2037.9
20°	2102.2	2159.3	2183.0	2077.8	1954.5	1942.3	2028.3	2149.0	2210.6	2137.4	2085.5
22.5°	2127.8	2163.2	2114.4	1941.7	1808.7	1780.4	1875.5	2057.2	2215.1	2192.1	2140.0
25°	2163.2	2172.8	2038.6	1812.6	1679.1	1650.8	1739.4	1955.1	2207.4	2251.1	2206.8
27.5°	2205.5	2185.6	1966.1	1704.7	1575.6	1549.3	1637.9	1856.9	2185.6	2310.1	2278.7
30°	2260.7	2202.3	1894.1	1621.2	1501.8	1482.6	1567.9	1772.1	2158.6	2385.3	2368.0
32.5°	2316.6	2209.4	1827.4	1572.5	1485.1	1492.2	1562.2	1726.5	2129.1	2457.2	2465.5
35°	2377.0	2231.8	1794.6	1620.6	1624.4	1686.1	1714.9	1768.9	2124.6	2554.8	2587.5
37.5°	2459.2	2282.0	1833.7	1860.1	1993.6	2121.4	2097.7	1976.3	2176.6	2700.6	2761.6
40°	2577.3	2369.9	2004.6	2267.8	2542.0	2749.4	2658.8	2353.2	2335.9	2910.5	3001.7
42.5°	2749.4	2509.8	2307.6	2766.1	3230.9	3572.5	3329.8	2839.2	2614.6	3210.4	3326.5
45°	3003.7	2736.5	2674.2	3291.9	4080.4	4618.4	4113.7	3357.4	3004.9	3664.3	3755.5
47.5°	3356.2	3069.8	3017.7	3846.0	5112.8	5808.9	4983.1	3837.7	3449.2	4283.3	4304.5
50°	3824.2	3518.5	3343.2	4452.1	6244.8	7022.4	5851.8	4301.2	3958.3	5039.6	5015.2
52.5°	4441.8	4144.6	3722.7	5029.4	7408.9	8210.1	6724.4	4708.3	4590.2	5917.3	5867.3
55°	5284.3	5086.5	4241.6	5580.3	8572.3	9405.1	7563.0	5092.3	5424.9	6960.1	6657.0
57.5°	6329.6	6470.8	4989.6	6219.1	9618.3	10636.6	8405.4	5629.1	6508.6	8126.1	7115.4
60°	7003.7	8311.6	6422.0	7163.6	10806.8	12029.2	9559.9	6650.0	7647.7	8544.1	7028.1
62.5°	6840.6	8897.2	8137.7	8369.4	11899.5	13041.8	10691.2	7675.3	7862.2	7928.3	6355.2
65°	6340.4	8424.7	7787.7	8603.7	12176.3	13098.9	10993.5	7543.1	6669.2	6472.8	5108.3
67.5°	5652.2	7864.1	6956.3	7982.3	11676.1	12300.2	10430.5	6672.4	5153.9	4857.3	3706.1
70°	4909.3	7243.9	6410.5	7285.0	10722.6	10908.2	9473.2	5868.5	3790.8	3280.3	2378.2
72.5°	4204.3	6597.9	6036.7	6570.4	9450.7	9066.7	8226.9	5157.8	2760.2	2366.0	1690.5
75°	3483.3	5645.1	5504.5	5721.5	7778.1	7141.8	6835.5	4270.5	2166.3	1711.7	1166.7
77.5°	2687.8	4411.1	4734.7	4581.9	5474.9	5304.8	5298.4	3209.1	1582.7	1142.3	731.3
80°	1839.6	3074.3	3699.0	3232.2	3553.3	3466.6	3990.5	2152.9	1148.0	687.7	407.0
82.5°	1081.3	1871.6	2574.7	1564.8	1964.7	2016.8	2376.4	1047.2	675.5	158.6	88.6
85°	438.5	739.0	1006.8	612.5	947.7	799.4	902.1	294.1	188.1	3.9	0.0
87.5°	110.4	236.3	165.6	68.7	109.8	100.8	79.6	36.0	7.7	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°	1290.6	1290.6	1290.6	1290.6	1290.6	1290.6	1290.6	1290.6	1290.6	1290.6	1290.6
2.5°	1433.2	1418.3	1381.7	1345.1	1315.6	1275.8	1249.5	1218.0	1187.9	1160.9	1155.7
5°	1584.6	1535.9	1469.0	1408.0	1345.8	1285.5	1225.7	1162.8	1105.1	1069.7	1047.2
7.5°	1708.0	1621.9	1533.3	1455.6	1380.5	1309.8	1230.8	1154.5	1063.9	1015.8	972.1
10°	1799.7	1686.7	1570.5	1481.2	1405.5	1336.8	1270.0	1193.0	1083.8	1023.5	958.0
12.5°	1860.1	1725.9	1589.8	1487.7	1402.9	1349.6	1320.1	1290.0	1181.4	1110.8	1015.8
15°	1901.8	1753.5	1603.3	1472.9	1368.9	1329.7	1359.3	1393.9	1324.6	1243.0	1119.1
17.5°	1947.4	1789.4	1609.0	1433.2	1302.8	1286.1	1362.4	1442.7	1439.5	1358.6	1237.3
20°	1995.6	1820.9	1605.1	1368.9	1222.5	1237.3	1334.9	1427.9	1467.2	1423.5	1315.6
22.5°	2045.0	1851.0	1590.4	1285.5	1147.4	1193.6	1291.2	1372.8	1419.0	1405.5	1323.3
25°	2107.3	1893.5	1568.6	1195.6	1085.1	1149.3	1240.5	1306.6	1338.8	1338.0	1281.6
27.5°	2181.8	1950.0	1557.1	1123.0	1040.8	1099.2	1180.1	1239.2	1261.7	1261.7	1216.8
30°	2268.4	2016.8	1544.2	1075.4	1015.2	1047.2	1110.2	1167.9	1190.4	1190.4	1152.5
32.5°	2364.8	2081.0	1513.4	1046.6	995.9	996.5	1036.3	1089.0	1115.9	1119.8	1092.9
35°	2480.3	2149.6	1446.0	1023.5	973.3	947.1	966.4	1009.9	1042.1	1050.4	1033.7
37.5°	2631.9	2233.8	1349.6	989.4	938.7	895.0	899.5	933.0	968.2	981.1	970.2
40°	2835.4	2332.7	1249.5	940.6	889.9	837.9	836.0	860.4	895.0	909.2	903.4
42.5°	3104.4	2451.4	1153.8	893.8	830.9	777.6	774.4	793.6	823.8	838.6	836.0
45°	3448.6	2597.1	1071.6	857.2	773.1	720.4	719.1	735.1	761.5	776.9	773.7
47.5°	3926.9	2742.9	1015.8	837.9	727.4	673.5	676.1	690.2	714.0	724.9	720.4
50°	4550.4	2787.3	987.5	837.9	703.0	631.8	644.6	656.2	674.1	680.6	674.9
52.5°	5148.8	2640.8	961.9	843.1	706.3	596.4	624.1	632.4	647.9	650.5	642.1
55°	5442.2	2270.4	926.5	844.3	726.2	566.3	607.4	622.8	628.6	627.9	613.9
57.5°	5341.4	1835.7	866.8	839.2	739.6	547.0	586.8	616.4	620.2	614.5	588.1
60°	4987.6	1351.6	821.2	801.3	734.5	541.3	555.3	602.3	608.0	600.3	557.3
62.5°	4394.4	938.1	785.9	717.8	712.1	539.4	505.9	571.4	585.6	574.6	511.8
65°	3459.5	662.7	676.7	629.2	663.3	529.1	454.6	534.2	553.5	536.8	448.1
67.5°	2341.0	478.4	548.4	570.2	584.2	505.9	417.4	491.8	517.5	495.7	374.3
70°	1264.2	335.8	362.1	480.3	496.3	466.2	384.0	448.8	478.4	454.6	304.9
72.5°	746.7	241.4	253.6	385.9	413.5	410.3	346.8	398.7	434.7	406.4	247.8
75°	411.5	163.1	181.0	279.9	335.8	316.5	298.0	337.7	374.3	346.8	191.4
77.5°	184.3	97.6	125.9	183.7	263.9	217.0	230.5	263.2	297.2	268.3	127.8
80°	71.2	54.5	83.4	100.1	192.0	120.0	148.3	193.9	218.3	195.2	77.7
82.5°	9.0	24.4	36.0	39.2	111.7	63.6	86.0	122.0	120.0	104.0	39.2
85°	0.0	4.5	5.1	2.6	48.2	23.2	28.3	39.8	37.2	28.3	3.2
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°	1290.6	1290.6	1290.6	1290.6	1290.6	1290.6	1290.6	1290.6	1290.6	1290.6	1290.6
2.5°	1124.2	1101.2	1089.6	1079.9	1089.0	1094.1	1094.1	1115.9	1128.7	1133.9	1169.8
5°	990.8	947.7	918.8	901.5	907.2	913.7	920.8	948.3	967.0	979.2	1035.0
7.5°	885.4	819.9	779.5	758.3	761.5	766.0	771.7	798.8	817.3	833.4	895.6
10°	833.4	741.0	687.7	661.9	657.4	654.9	653.0	669.0	683.2	696.0	757.7
12.5°	836.0	706.9	642.1	610.6	597.2	581.7	569.5	572.1	581.1	597.2	636.3
15°	868.7	696.0	618.3	579.1	556.7	538.7	524.0	520.7	524.0	526.5	550.9
17.5°	913.1	694.7	597.8	549.0	525.8	511.1	497.6	493.1	493.7	496.9	503.4
20°	948.3	690.8	574.6	520.1	499.5	486.7	473.2	468.7	470.0	470.7	477.8
22.5°	967.0	685.1	549.0	491.2	473.9	461.0	448.8	448.1	448.1	452.0	457.2
25°	967.0	672.9	525.8	463.6	448.1	436.6	421.9	424.5	425.7	430.8	438.5
27.5°	943.8	649.7	507.3	439.8	423.7	412.3	398.7	401.9	403.8	409.7	419.2
30°	914.3	622.2	486.1	417.4	398.7	390.4	378.8	380.1	382.6	389.1	400.1
32.5°	882.8	589.4	468.7	394.8	376.3	369.8	357.0	359.0	361.5	368.6	380.8
35°	848.2	550.9	448.1	374.3	355.7	350.5	335.8	337.1	340.9	348.6	360.8
37.5°	811.6	519.5	427.6	354.4	335.2	330.0	314.6	315.9	320.4	329.3	340.9
40°	775.6	488.6	405.8	333.2	314.0	309.4	292.7	294.1	299.2	308.8	321.0
42.5°	736.5	464.8	377.5	311.4	290.9	286.4	270.9	272.9	278.7	288.3	300.5
45°	689.6	449.5	346.0	290.9	267.7	263.2	249.1	253.0	259.4	269.1	281.9
47.5°	641.4	443.0	319.8	269.1	244.0	240.2	228.6	235.0	242.1	249.8	263.9
50°	595.2	434.7	292.7	248.5	223.4	219.6	211.9	220.3	227.3	234.3	247.8
52.5°	542.5	416.7	268.3	230.5	206.1	204.8	201.0	208.7	215.0	221.5	233.1
55°	488.0	387.9	247.2	214.4	191.4	192.6	190.6	197.1	202.2	208.1	218.3
57.5°	440.4	351.2	230.5	197.1	178.5	182.3	179.8	183.0	186.2	193.3	201.6
60°	392.3	307.6	211.9	176.6	165.6	170.1	163.1	162.5	163.7	165.6	181.0
62.5°	327.5	262.0	188.8	158.6	151.5	153.4	140.0	129.7	129.7	131.6	154.8
65°	263.2	219.6	163.1	138.1	132.2	131.0	111.7	97.6	96.4	102.1	122.0
67.5°	216.4	182.3	137.5	114.9	111.1	112.3	98.2	84.2	82.8	89.3	104.0
70°	179.2	147.0	109.8	88.6	92.5	98.2	84.2	70.6	68.7	74.5	88.6
72.5°	142.6	114.9	84.2	65.5	76.4	83.4	68.7	55.9	54.5	59.8	73.2
75°	104.7	82.2	57.2	47.6	59.0	65.5	50.1	39.8	37.9	42.3	55.9
77.5°	64.9	46.2	36.0	28.3	40.5	43.7	26.3	23.2	22.4	25.7	35.4
80°	30.1	19.9	17.3	9.6	14.8	17.3	10.9	12.2	12.8	15.4	21.8
82.5°	8.3	3.2	0.6	0.0	0.0	5.1	2.6	5.1	6.5	9.6	14.1
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	3.2	5.7	10.2
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	5.1
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-SB2B-740-U-SLL-HSS

CANDELA DISTRIBUTION (continued):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	1290.6	1290.6	1290.6	1290.6	1290.6	1290.6	1290.6	1290.6
2.5°	1196.8	1222.5	1263.6	1306.0	1347.7	1390.1	1431.2	1446.0
5°	1085.8	1144.8	1226.3	1313.6	1403.5	1494.8	1578.2	1616.1
7.5°	961.9	1046.6	1169.2	1306.0	1449.1	1592.3	1723.9	1784.9
10°	829.5	936.7	1076.8	1261.7	1467.2	1664.9	1845.9	1925.0
12.5°	703.7	816.1	970.8	1192.3	1453.0	1706.6	1924.3	2017.4
15°	598.4	697.9	864.9	1110.2	1407.4	1709.2	1961.5	2063.6
17.5°	519.5	584.2	757.0	1019.0	1347.7	1685.4	1974.4	2083.5
20°	480.3	498.3	617.0	902.1	1291.8	1663.0	1987.2	2102.2
22.5°	457.2	461.7	504.7	751.2	1225.1	1655.9	2009.7	2127.8
25°	438.5	439.8	451.4	595.2	1123.0	1651.4	2044.4	2163.2
27.5°	419.9	419.9	426.3	479.6	984.3	1632.1	2089.3	2205.5
30°	401.3	401.3	405.8	424.5	821.8	1594.3	2143.3	2260.7
32.5°	382.0	382.0	385.9	399.3	656.2	1546.7	2192.7	2316.6
35°	362.7	361.5	366.6	380.8	522.0	1486.4	2242.1	2377.0
37.5°	342.2	341.6	346.8	362.7	450.7	1416.4	2279.4	2459.2
40°	320.4	320.4	326.2	343.5	430.2	1328.4	2338.4	2577.3
42.5°	300.5	299.2	305.7	326.8	414.8	1244.4	2444.4	2749.4
45°	281.3	278.7	284.4	310.8	387.9	1214.8	2642.1	3003.7
47.5°	263.2	256.9	262.0	291.5	363.4	1325.2	2965.7	3356.2
50°	248.5	236.3	240.8	272.2	344.8	1564.8	3385.7	3824.2
52.5°	233.1	217.0	219.6	248.5	328.1	1792.6	3840.9	4441.8
55°	217.0	199.1	200.3	224.7	304.3	1826.7	4285.2	5284.3
57.5°	199.1	182.3	182.3	202.8	287.0	1583.3	4626.7	6329.6
60°	179.2	168.2	165.0	185.5	302.4	1117.2	4666.6	7003.7
62.5°	157.3	151.5	147.0	168.8	314.0	661.9	4346.2	6840.6
65°	132.2	131.0	127.8	185.5	264.6	391.0	3731.1	6340.4
67.5°	111.1	109.2	109.2	194.5	201.0	245.9	2915.0	5652.2
70°	95.6	88.6	88.6	147.0	122.0	170.1	2035.3	4909.3
72.5°	80.3	72.6	67.4	117.5	91.2	124.5	1271.9	4204.3
75°	64.2	58.4	52.0	77.7	68.1	94.4	739.0	3483.3
77.5°	46.2	43.7	36.6	57.2	49.4	68.1	439.8	2687.8
80°	23.8	24.4	23.2	32.7	33.4	46.2	250.4	1839.6
82.5°	14.1	10.9	12.2	16.1	19.3	26.3	94.4	1081.3
85°	9.0	5.7	5.7	7.7	9.6	10.2	28.9	438.5
87.5°	4.5	1.9	2.6	3.9	3.2	2.6	1.3	110.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)