

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: P964190

Luminaire Tested: **NAV-SB3B-830-U-SLL-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P964190
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-SB3B-830-U-SLL-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 80 CRI, 3000K, 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: 11875.7 lumens
Efficiency: N/A
Efficacy: 108.8 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): 109.2
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



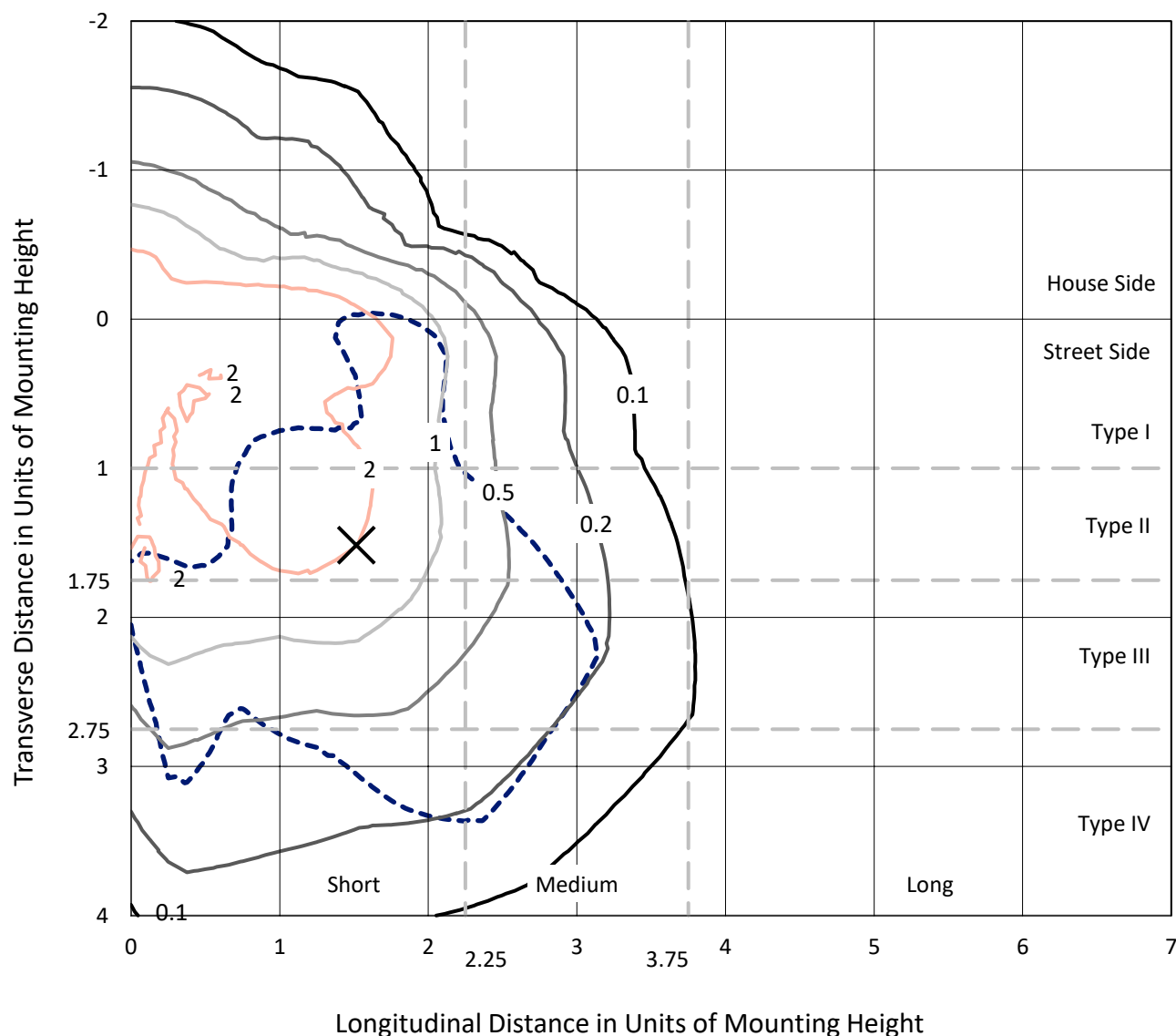
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

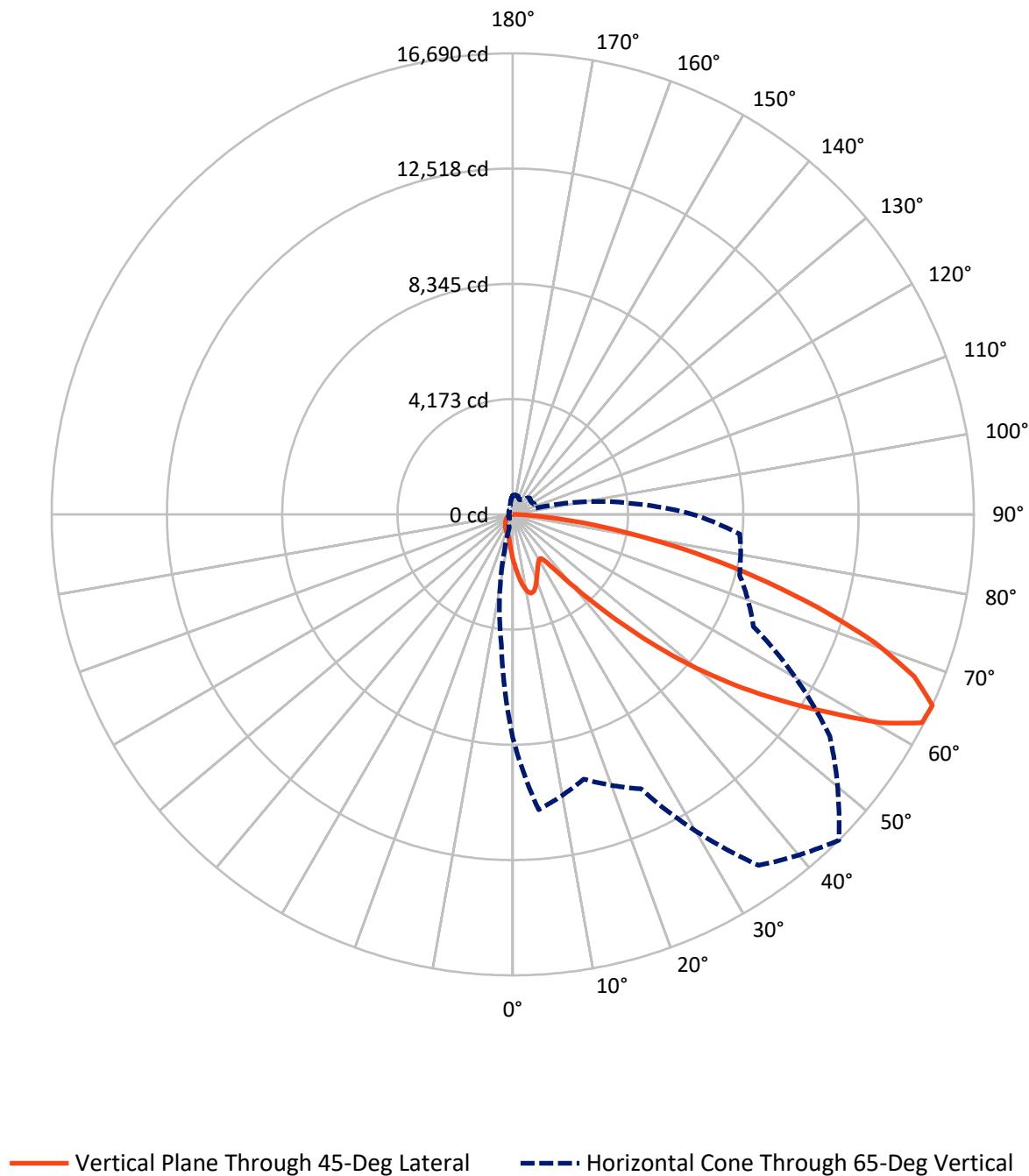


Based on 25 foot mounting height. Maximum calculated value = 4.3 fc

Type IV - Short - N/A

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Luminous Intensity Polar Plot



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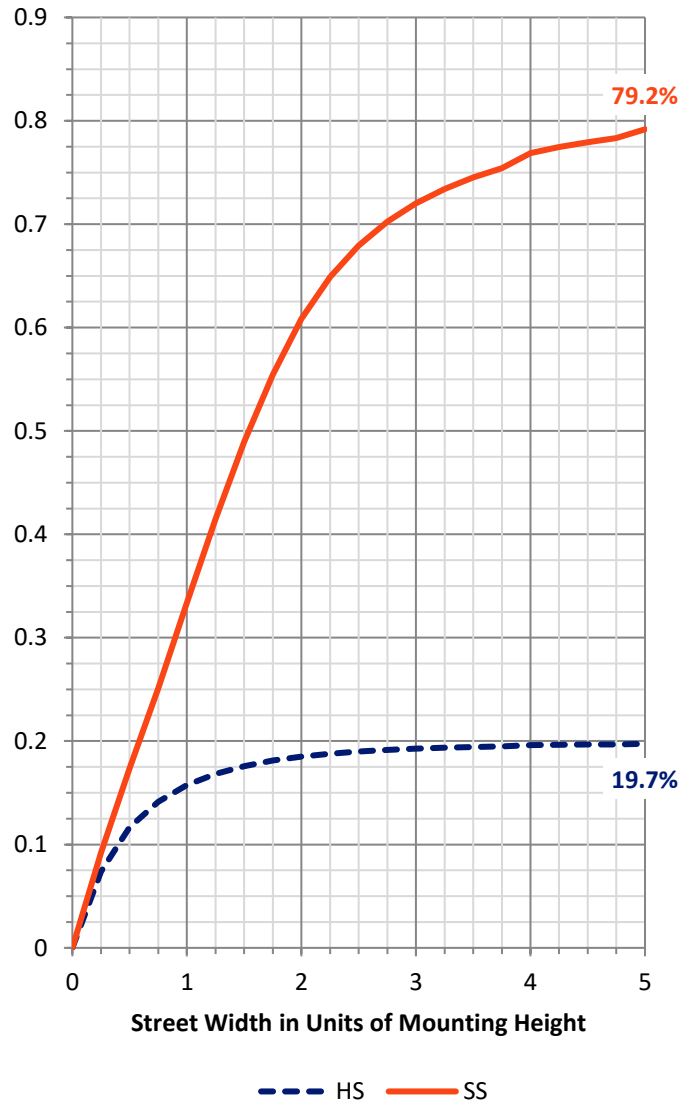
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2360.5	0.0	2360.5
	% Fixture	19.9	0.0	19.9
Street Side	Lumens	9515.1	0.0	9515.1
	% Fixture	80.1	0.0	80.1
Total	Lumens	11875.7	0.0	11875.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	161.9	1.4
10°-20°	485.3	4.1
20°-30°	715.0	6.0
30°-40°	918.5	7.7
40°-50°	1485.6	12.5
50°-60°	2605.1	21.9
60°-70°	3259.7	27.4
70°-80°	1904.8	16.0
80°-90°	339.8	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°	11875.7	100.0
0°-180°	11875.7	100.0

Coefficient of Utilization



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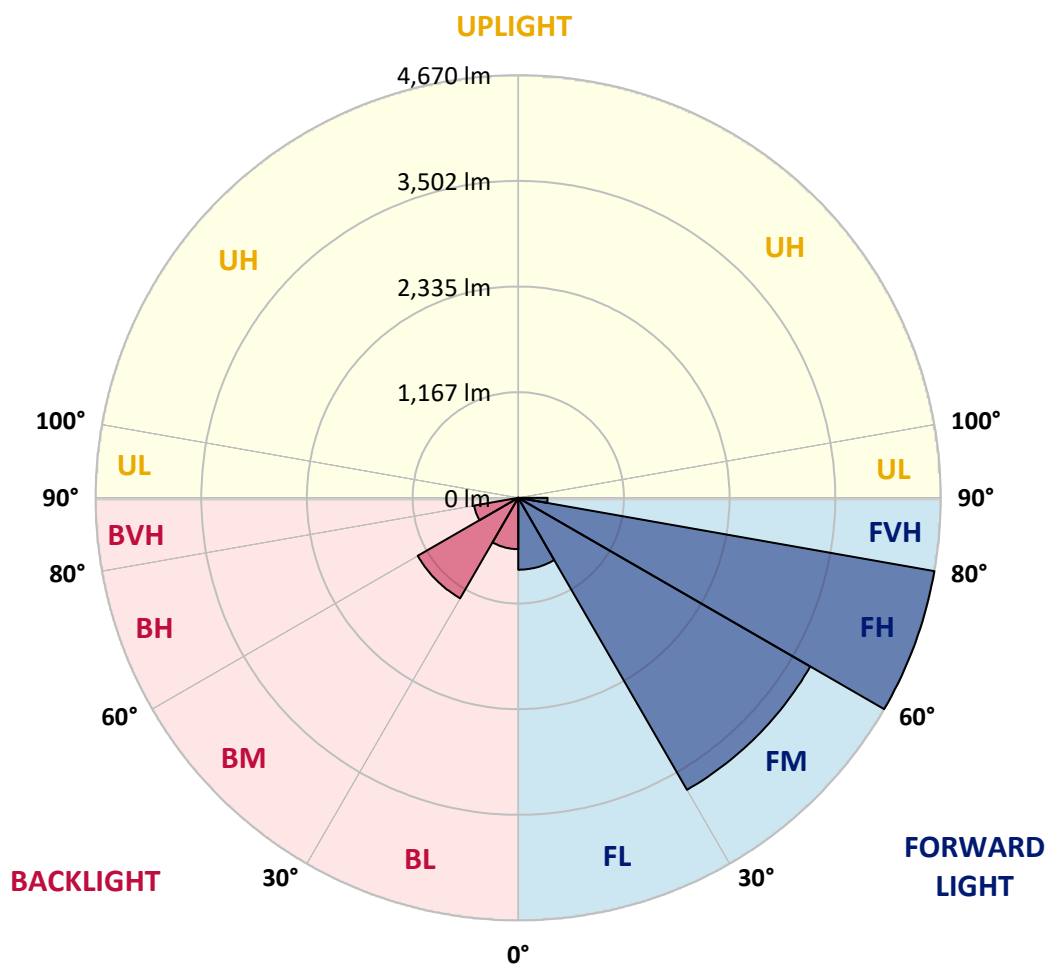
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	794.6	6.7			
FM	(30°-60°)	3726.7	31.4			
FH	(60°-80°)	4669.9	39.3			G2/5000
FVH	(80°-90°)	323.9	2.7			G3/500
BL	(0°-30°)	567.6	4.8	B2/1000		
BM	(30°-60°)	1282.5	10.8	B2/2500		
BH	(60°-80°)	494.6	4.2	B1/500		G1/500
BVH	(80°-90°)	15.9	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°	1644.4	1644.4	1644.4	1644.4	1644.4	1644.4	1644.4	1644.4	1644.4	1644.4	1644.4
2.5°	1842.3	1856.3	1887.3	1903.7	1929.0	1930.7	1930.7	1908.7	1907.8	1862.8	1857.9
5°	2059.2	2091.9	2165.5	2241.6	2258.0	2262.1	2253.9	2209.7	2177.0	2089.5	2070.6
7.5°	2274.4	2337.3	2449.4	2550.8	2583.6	2583.6	2563.9	2492.0	2424.8	2298.0	2250.6
10°	2452.7	2532.1	2684.2	2797.9	2835.6	2827.4	2787.3	2696.5	2604.0	2450.3	2388.0
12.5°	2570.5	2659.7	2826.5	2918.2	2956.6	2935.4	2889.6	2801.2	2703.8	2541.9	2471.5
15°	2629.4	2722.7	2867.4	2915.7	2905.1	2883.0	2877.3	2834.7	2761.1	2609.8	2532.9
17.5°	2654.7	2741.5	2842.1	2811.9	2721.9	2704.7	2762.0	2815.9	2797.9	2668.7	2596.6
20°	2678.5	2751.3	2781.5	2647.4	2490.3	2474.8	2584.4	2738.2	2816.7	2723.5	2657.2
22.5°	2711.2	2756.2	2694.0	2473.9	2304.6	2268.6	2389.7	2621.2	2822.4	2793.0	2726.7
25°	2756.2	2768.5	2597.5	2309.5	2139.4	2103.4	2216.3	2491.2	2812.7	2868.3	2811.9
27.5°	2810.2	2784.8	2505.0	2172.1	2007.7	1974.0	2087.0	2366.0	2784.8	2943.6	2903.4
30°	2880.6	2806.1	2413.5	2065.7	1913.6	1889.0	1997.8	2258.0	2750.5	3039.2	3017.2
32.5°	2951.7	2815.1	2328.3	2003.6	1892.3	1901.3	1990.4	2199.9	2712.9	3130.9	3141.5
35°	3028.7	2843.8	2286.6	2064.9	2069.8	2148.4	2185.2	2253.9	2707.1	3255.3	3297.0
37.5°	3133.3	2907.5	2336.5	2370.1	2540.3	2703.0	2672.8	2518.1	2773.3	3440.9	3518.7
40°	3283.9	3019.6	2554.1	2889.6	3238.9	3503.1	3387.8	2998.3	2976.3	3708.4	3824.7
42.5°	3503.1	3198.0	2940.3	3524.4	4116.7	4551.9	4242.7	3617.6	3331.4	4090.6	4238.6
45°	3827.1	3486.7	3407.4	4194.4	5199.1	5884.6	5241.6	4277.8	3828.8	4669.0	4785.1
47.5°	4276.3	3911.4	3845.1	4900.4	6514.6	7401.4	6349.4	4889.9	4394.9	5457.6	5484.6
50°	4872.6	4483.2	4259.9	5672.8	7956.9	8947.6	7456.3	5480.5	5043.6	6421.3	6390.3
52.5°	5659.6	5280.9	4743.4	6408.2	9440.1	10461.2	8568.1	5999.2	5848.6	7539.7	7475.8
55°	6733.0	6481.1	5404.4	7110.2	10922.6	11983.7	9636.5	6488.5	6912.2	8868.3	8482.2
57.5°	8064.9	8244.9	6357.6	7924.2	12255.3	13552.8	10709.8	7172.3	8293.2	10353.9	9066.2
60°	8924.0	10590.4	8182.7	9127.6	13769.5	15327.2	12180.8	8473.2	9744.5	10886.5	8955.0
62.5°	8716.1	11336.5	10368.7	10664.0	15162.0	16617.4	13622.4	9779.6	10017.7	10102.0	8097.6
65°	8078.8	10734.4	9922.8	10962.7	15514.6	16690.2	14007.6	9611.1	8497.7	8247.4	6508.9
67.5°	7201.9	10020.2	8863.4	10170.8	14877.3	15672.5	13290.2	8501.8	6567.0	6189.0	4722.1
70°	6255.3	9229.9	8168.0	9282.3	13662.4	13898.8	12070.4	7477.5	4830.1	4179.7	3030.3
72.5°	5357.0	8406.8	7691.8	8371.7	12041.7	11552.5	10482.5	6571.9	3517.1	3014.7	2154.0
75°	4438.2	7192.8	7013.7	7290.2	9910.5	9099.8	8709.6	5441.2	2760.3	2181.1	1486.5
77.5°	3424.6	5620.4	6032.7	5838.0	6976.0	6759.3	6751.1	4088.9	2016.7	1455.4	931.8
80°	2343.9	3917.1	4713.2	4118.3	4527.4	4416.9	5084.5	2743.1	1462.8	876.2	518.6
82.5°	1377.7	2384.8	3280.6	1993.7	2503.5	2569.7	3027.8	1334.3	860.7	202.0	112.9
85°	558.7	941.7	1282.8	780.4	1207.6	1018.5	1149.4	374.7	239.7	4.9	0.0
87.5°	140.7	301.0	211.0	87.5	139.9	128.4	101.5	45.8	9.8	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°	1644.4	1644.4	1644.4	1644.4	1644.4	1644.4	1644.4	1644.4	1644.4	1644.4	1644.4
2.5°	1826.0	1807.2	1760.5	1713.9	1676.3	1625.5	1592.0	1552.0	1513.5	1479.2	1472.6
5°	2019.0	1956.9	1871.9	1794.2	1714.7	1637.8	1561.8	1481.6	1407.9	1362.9	1334.3
7.5°	2176.2	2066.5	1953.6	1854.6	1758.9	1668.9	1568.4	1471.0	1355.6	1294.3	1238.6
10°	2293.1	2149.2	2001.1	1887.3	1790.9	1703.3	1618.2	1520.1	1381.0	1304.1	1220.6
12.5°	2370.1	2199.0	2025.6	1895.5	1787.6	1719.6	1682.0	1643.6	1505.3	1415.3	1294.3
15°	2423.2	2234.3	2042.8	1876.8	1744.2	1694.3	1731.9	1776.1	1687.8	1583.8	1426.0
17.5°	2481.3	2280.1	2050.2	1826.0	1660.0	1638.7	1736.0	1838.3	1834.2	1731.1	1576.4
20°	2542.7	2320.2	2045.3	1744.2	1557.7	1576.4	1700.9	1819.5	1869.4	1813.7	1676.3
22.5°	2605.7	2358.6	2026.4	1637.8	1462.0	1520.9	1645.2	1749.2	1808.0	1790.9	1686.1
25°	2685.0	2412.6	1998.6	1523.4	1382.6	1464.4	1580.6	1664.8	1705.8	1705.0	1632.9
27.5°	2779.9	2484.6	1983.9	1430.9	1326.1	1400.6	1503.7	1578.9	1607.6	1607.6	1550.3
30°	2890.4	2569.7	1967.6	1370.3	1293.4	1334.3	1414.5	1488.1	1516.8	1516.8	1468.5
32.5°	3013.1	2651.5	1928.2	1333.5	1268.8	1269.7	1320.4	1387.5	1421.9	1426.8	1392.5
35°	3160.4	2739.0	1842.3	1304.1	1240.2	1206.7	1231.2	1286.9	1327.8	1338.4	1317.1
37.5°	3353.4	2846.2	1719.6	1260.8	1196.1	1140.4	1146.2	1188.7	1233.7	1250.1	1236.1
40°	3612.7	2972.2	1592.0	1198.5	1133.9	1067.6	1065.2	1096.2	1140.4	1158.5	1151.1
42.5°	3955.6	3123.6	1470.2	1138.8	1058.6	990.8	986.7	1011.2	1049.6	1068.5	1065.2
45°	4394.1	3309.2	1365.4	1092.1	985.0	917.9	916.2	936.7	970.3	989.9	985.8
47.5°	5003.5	3494.9	1294.3	1067.6	926.9	858.2	861.5	879.4	909.7	923.6	917.9
50°	5797.9	3551.4	1258.3	1067.6	895.8	805.0	821.3	836.1	859.1	867.2	859.9
52.5°	6560.4	3364.9	1225.5	1074.2	900.0	760.0	795.2	805.9	825.4	828.7	818.2
55°	6934.3	2892.9	1180.5	1075.8	925.3	721.6	774.0	793.6	800.9	800.1	782.1
57.5°	6805.8	2338.9	1104.4	1069.3	942.5	697.0	747.7	785.4	790.3	782.9	749.4
60°	6355.1	1722.1	1046.3	1021.0	935.9	689.6	707.7	767.4	774.8	765.0	710.1
62.5°	5599.2	1195.3	1001.3	914.6	907.3	687.2	644.6	728.2	746.1	732.2	652.0
65°	4408.0	844.3	862.3	801.8	845.1	674.1	579.2	680.7	705.2	684.0	571.0
67.5°	2982.9	609.5	698.6	726.5	744.5	644.6	531.8	626.7	659.4	631.6	476.9
70°	1610.9	427.8	461.5	611.9	632.4	594.0	489.2	571.8	609.5	579.2	388.6
72.5°	951.5	307.6	323.2	491.7	526.8	522.8	441.8	508.1	553.9	517.8	315.8
75°	524.4	207.8	230.7	356.7	427.8	403.3	379.6	430.3	476.9	441.8	243.8
77.5°	234.8	124.3	160.3	234.0	336.2	276.5	293.7	335.4	378.7	341.9	162.8
80°	90.8	69.5	106.4	127.6	244.6	153.0	189.0	247.0	278.2	248.7	99.0
82.5°	11.5	31.1	45.8	49.9	142.4	81.0	109.7	155.4	153.0	132.5	49.9
85°	0.0	5.7	6.6	3.3	61.4	29.4	36.0	50.7	47.5	36.0	4.1
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	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):

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	1644.4	1644.4	1644.4	1644.4	1644.4	1644.4	1644.4	1644.4	1644.4	1644.4	1644.4
2.5°	1432.5	1403.0	1388.4	1376.1	1387.5	1394.1	1394.1	1421.9	1438.3	1444.7	1490.6
5°	1262.4	1207.6	1170.8	1148.6	1156.0	1164.2	1173.2	1208.4	1232.0	1247.6	1318.8
7.5°	1128.2	1044.7	993.2	966.2	970.3	976.0	983.4	1017.7	1041.5	1061.9	1141.2
10°	1061.9	944.1	876.2	843.5	837.7	834.5	832.0	852.5	870.4	886.8	965.3
12.5°	1065.2	900.8	818.2	778.0	760.9	741.2	725.7	729.0	740.4	760.9	810.8
15°	1106.9	886.8	787.8	737.9	709.3	686.4	667.6	663.5	667.6	670.9	701.9
17.5°	1163.4	885.2	761.7	699.5	670.0	651.2	634.1	628.3	629.1	633.2	641.4
20°	1208.4	880.3	732.2	662.7	636.5	620.1	602.9	597.3	598.8	599.6	608.6
22.5°	1232.0	872.9	699.5	625.9	603.7	587.4	571.8	571.0	571.0	575.9	582.5
25°	1232.0	857.4	670.0	590.7	571.0	556.3	537.5	540.8	542.4	549.0	558.7
27.5°	1202.6	827.9	646.3	560.4	540.0	525.2	508.1	512.1	514.6	521.9	534.2
30°	1165.0	792.7	619.3	531.8	508.1	497.4	482.7	484.3	487.6	495.8	509.7
32.5°	1124.9	751.0	597.3	503.2	479.4	471.2	454.9	457.4	460.6	469.6	485.1
35°	1080.8	701.9	571.0	476.9	453.3	446.7	427.8	429.5	434.4	444.2	459.8
37.5°	1034.1	661.8	544.9	451.6	427.0	420.6	400.9	402.5	408.3	419.7	434.4
40°	988.3	622.6	517.0	424.6	400.1	394.3	373.1	374.7	381.2	393.5	409.1
42.5°	938.4	592.3	481.0	396.8	370.6	364.9	345.2	347.7	355.1	367.4	382.8
45°	878.6	572.7	441.0	370.6	341.1	335.4	317.4	322.4	330.6	342.8	359.2
47.5°	817.3	564.5	407.4	342.8	310.9	306.0	291.2	299.4	308.4	318.3	336.2
50°	758.4	553.9	373.1	316.6	284.7	279.8	270.0	280.6	289.6	298.6	315.8
52.5°	691.3	530.9	341.9	293.7	262.6	261.0	256.0	265.9	274.1	282.3	296.9
55°	621.8	494.2	315.0	273.3	243.8	245.4	243.0	251.1	257.7	265.1	278.2
57.5°	561.2	447.5	293.7	251.1	227.4	232.4	229.1	233.2	237.3	246.2	256.9
60°	499.9	391.9	270.0	225.0	211.0	216.8	207.8	206.9	208.6	211.0	230.7
62.5°	417.3	333.7	240.6	202.0	193.1	195.6	178.4	165.2	165.2	167.7	197.2
65°	335.4	279.8	207.8	175.9	168.5	166.9	142.4	124.3	122.7	130.1	155.4
67.5°	275.7	232.4	175.1	146.5	141.6	143.2	125.2	107.2	105.6	113.7	132.5
70°	228.3	187.4	139.9	112.9	117.8	125.2	107.2	90.0	87.5	94.9	112.9
72.5°	181.6	146.5	107.2	83.4	97.4	106.4	87.5	71.1	69.5	76.1	93.3
75°	133.4	104.8	72.8	60.6	75.2	83.4	63.9	50.7	48.3	54.0	71.1
77.5°	82.6	58.9	45.8	36.0	51.6	55.7	33.5	29.4	28.6	32.7	45.0
80°	38.4	25.3	22.1	12.3	18.9	22.1	13.9	15.6	16.4	19.7	27.8
82.5°	10.7	4.1	0.8	0.0	0.0	6.6	3.3	6.6	8.2	12.3	18.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	4.1	7.4	13.1
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3	6.6
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: P964190

CATALOG NUMBER: NAV-SB3B-830-U-SLL-HSS

CANDELA DISTRIBUTION (continued):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	1644.4	1644.4	1644.4	1644.4	1644.4	1644.4	1644.4	1644.4
2.5°	1525.0	1557.7	1610.1	1664.0	1717.2	1771.2	1823.6	1842.3
5°	1383.4	1458.7	1562.6	1673.8	1788.4	1904.6	2010.9	2059.2
7.5°	1225.5	1333.5	1489.7	1664.0	1846.4	2028.9	2196.6	2274.4
10°	1057.0	1193.6	1372.0	1607.6	1869.4	2121.3	2352.1	2452.7
12.5°	896.7	1039.9	1237.0	1519.3	1851.4	2174.5	2451.9	2570.5
15°	762.5	889.3	1102.0	1414.5	1793.3	2177.8	2499.4	2629.4
17.5°	661.8	744.5	964.5	1298.4	1717.2	2147.6	2515.7	2654.7
20°	611.9	634.9	786.2	1149.4	1646.0	2118.9	2532.1	2678.5
22.5°	582.5	588.2	643.0	957.1	1561.0	2109.9	2560.7	2711.2
25°	558.7	560.4	575.1	758.4	1430.9	2104.2	2604.8	2756.2
27.5°	535.0	535.0	543.2	611.1	1254.2	2079.6	2662.1	2810.2
30°	511.3	511.3	517.0	540.8	1047.1	2031.3	2730.8	2880.6
32.5°	486.8	486.8	491.7	508.9	836.1	1970.9	2793.8	2951.7
35°	462.3	460.6	467.1	485.1	665.1	1893.9	2856.9	3028.7
37.5°	436.0	435.2	441.8	462.3	574.3	1804.7	2904.2	3133.3
40°	408.3	408.3	415.6	437.7	548.2	1692.7	2979.6	3283.9
42.5°	382.8	381.2	389.4	416.5	528.5	1585.5	3114.6	3503.1
45°	358.3	355.1	362.4	396.0	494.2	1547.9	3366.5	3827.1
47.5°	335.4	327.3	333.7	371.5	463.1	1688.6	3778.9	4276.3
50°	316.6	301.0	306.8	346.9	439.3	1993.7	4313.9	4872.6
52.5°	296.9	276.5	279.8	316.6	418.1	2284.1	4894.0	5659.6
55°	276.5	253.6	255.2	286.4	387.8	2327.5	5460.1	6733.0
57.5°	253.6	232.4	232.4	258.5	365.7	2017.4	5895.3	8064.9
60°	228.3	214.3	210.2	236.5	385.3	1423.5	5946.0	8924.0
62.5°	200.4	193.1	187.4	215.1	400.1	843.5	5537.8	8716.1
65°	168.5	166.9	162.8	236.5	337.0	498.3	4754.1	8078.8
67.5°	141.6	139.1	139.1	247.8	256.0	313.3	3714.2	7201.9
70°	121.9	112.9	112.9	187.4	155.4	216.8	2593.4	6255.3
72.5°	102.3	92.5	85.9	149.8	116.1	158.7	1620.6	5357.0
75°	81.8	74.4	66.3	99.0	86.7	120.2	941.7	4438.2
77.5°	58.9	55.7	46.6	72.8	63.0	86.7	560.4	3424.6
80°	30.2	31.1	29.4	41.7	42.5	58.9	319.1	2343.9
82.5°	18.0	13.9	15.6	20.5	24.5	33.5	120.2	1377.7
85°	11.5	7.4	7.4	9.8	12.3	13.1	36.8	558.7
87.5°	5.7	2.5	3.3	4.9	4.1	3.3	1.6	140.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)