

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: P967848

Luminaire Tested: **NAV-SB5A-827-U-SLL-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967848
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-827-U-SLL-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 2700K, 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: 15413.9 lumens
Efficiency: N/A
Efficacy: 108.8 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



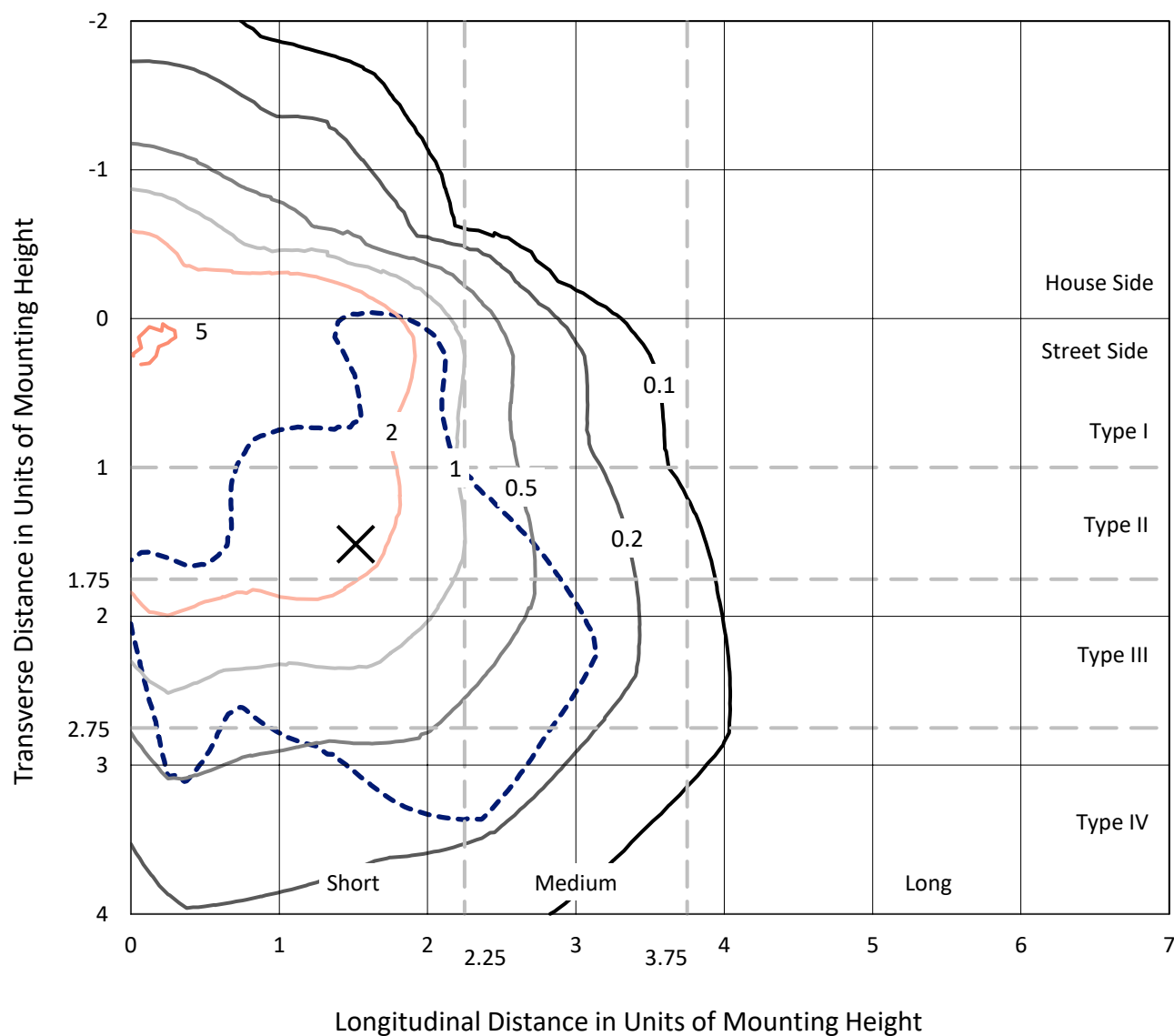
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

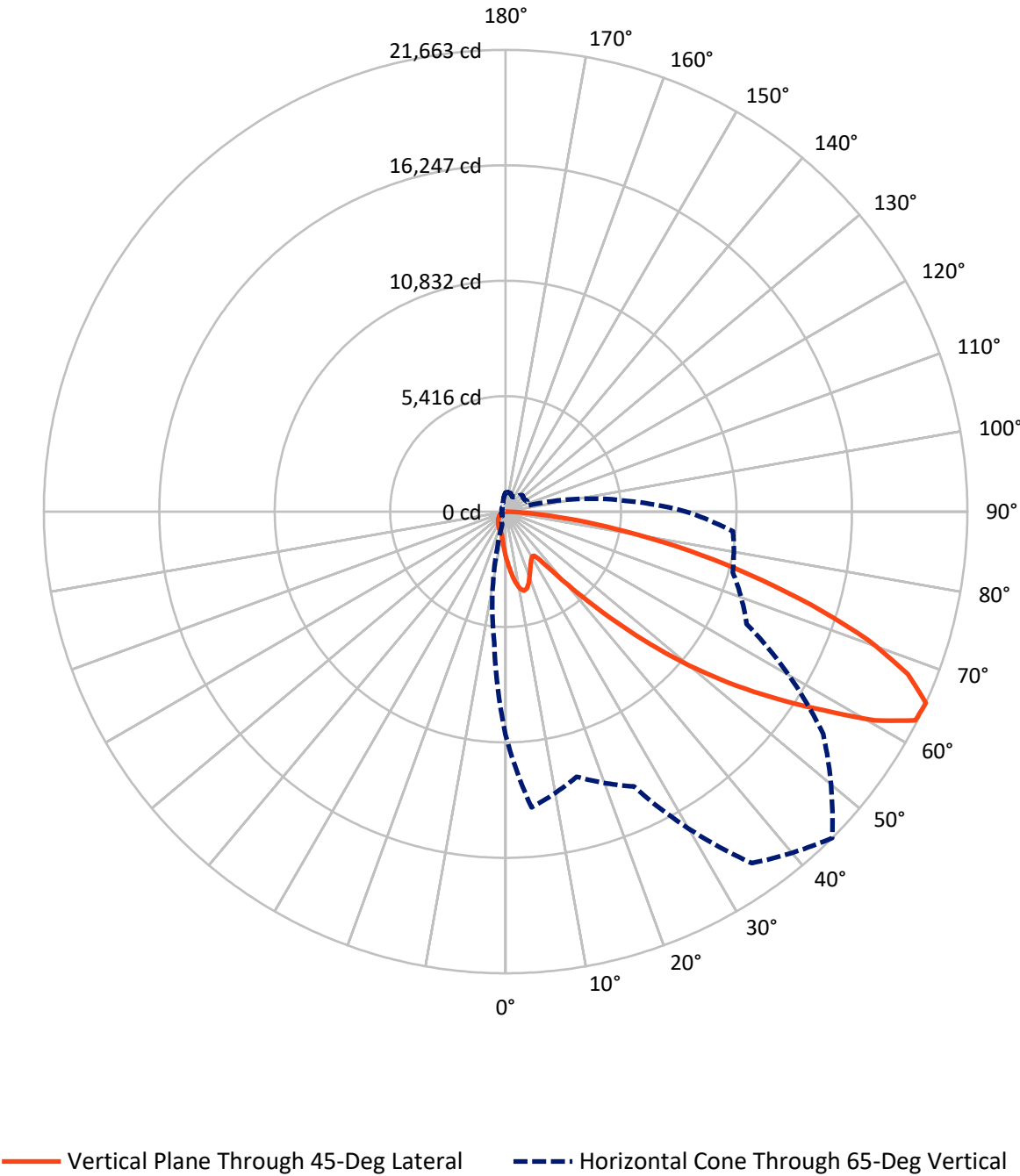


Based on 25 foot mounting height. Maximum calculated value = 5.6 fc

Type IV - Short - N/A

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Luminous Intensity Polar Plot



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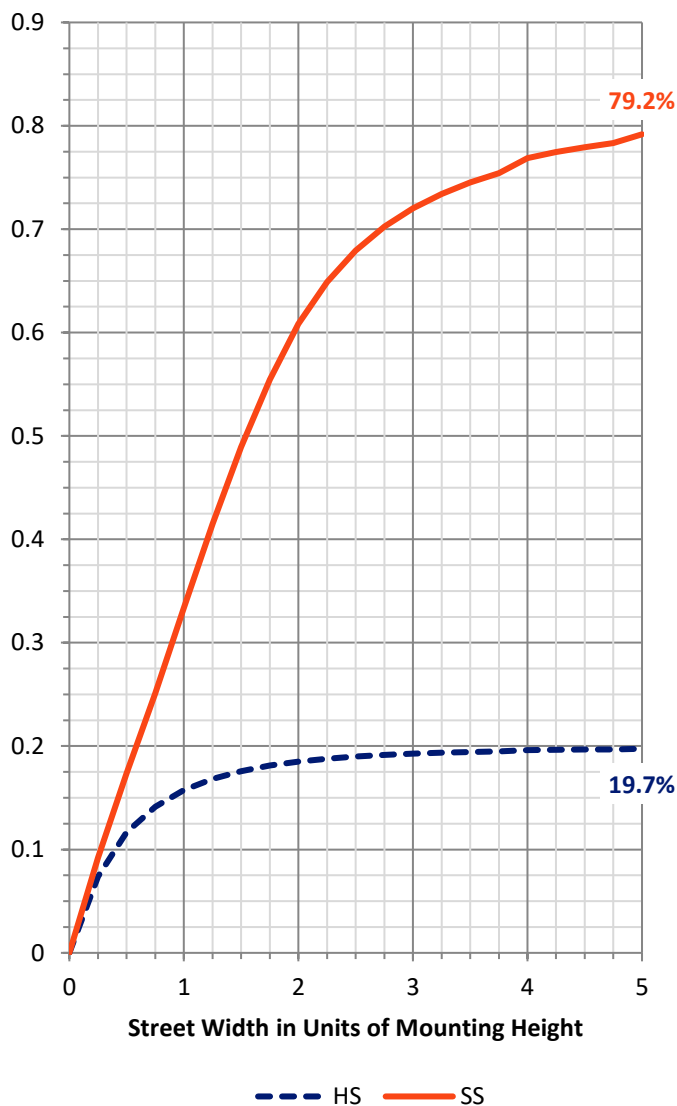
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3063.8	0.0	3063.8
	% Fixture	19.9	0.0	19.9
Street Side	Lumens	12350.1	0.0	12350.1
	% Fixture	80.1	0.0	80.1
Total	Lumens	15413.9	0.0	15413.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	210.1	1.4
10°-20°	629.9	4.1
20°-30°	928.0	6.0
30°-40°	1192.2	7.7
40°-50°	1928.2	12.5
50°-60°	3381.2	21.9
60°-70°	4230.8	27.4
70°-80°	2472.3	16.0
80°-90°	441.1	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°	15413.9	100.0
0°-180°	15413.9	100.0

Coefficient of Utilization



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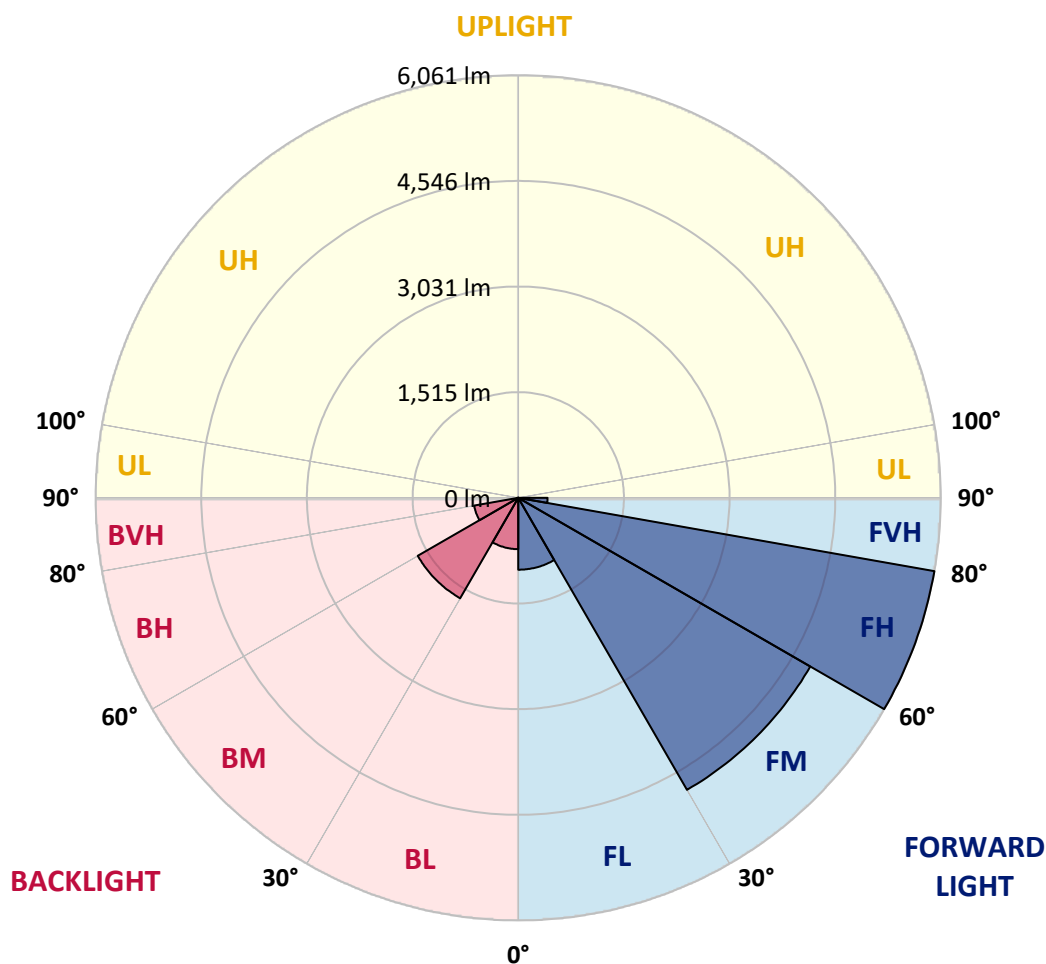
CATALOG NUMBER: NAV-SB5A-827-U-SLL-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1031.4	6.7			
FM	(30°-60°)	4837.1	31.4			
FH	(60°-80°)	6061.2	39.3			G3/7500
FVH	(80°-90°)	420.4	2.7			G3/500
BL	(0°-30°)	736.7	4.8	B2/1000		
BM	(30°-60°)	1664.5	10.8	B2/2500		
BH	(60°-80°)	641.9	4.2	B2/1000		G2/1000
BVH	(80°-90°)	20.7	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°	2134.4	2134.4	2134.4	2134.4	2134.4	2134.4	2134.4	2134.4	2134.4	2134.4	2134.4
2.5°	2391.3	2409.4	2449.8	2471.0	2503.9	2506.0	2506.0	2477.3	2476.3	2417.9	2411.5
5°	2672.7	2715.2	2810.8	2909.5	2930.8	2936.0	2925.5	2868.1	2825.6	2711.9	2687.5
7.5°	2952.0	3033.7	3179.2	3310.9	3353.4	3353.4	3327.9	3234.4	3147.4	2982.7	2921.1
10°	3183.4	3286.5	3484.0	3631.6	3680.4	3669.8	3617.7	3499.9	3379.9	3180.3	3099.6
12.5°	3336.4	3452.1	3668.7	3787.7	3837.6	3809.9	3750.5	3635.8	3509.5	3299.2	3207.8
15°	3412.8	3533.9	3721.8	3784.5	3770.7	3742.0	3734.6	3679.3	3583.8	3387.3	3287.5
17.5°	3445.7	3558.3	3688.9	3649.6	3532.8	3510.5	3584.8	3654.9	3631.6	3463.8	3370.3
20°	3476.5	3571.0	3610.4	3436.2	3232.3	3212.1	3354.4	3554.1	3656.0	3534.9	3448.9
22.5°	3519.0	3577.5	3496.7	3211.0	2991.3	2944.5	3101.6	3402.2	3663.5	3625.2	3539.2
25°	3577.5	3593.3	3371.4	2997.6	2776.7	2730.1	2876.6	3233.4	3650.6	3722.9	3649.6
27.5°	3647.5	3614.6	3251.4	2819.3	2605.8	2562.3	2708.8	3070.9	3614.6	3820.6	3768.5
30°	3738.8	3642.1	3132.5	2681.2	2483.7	2451.8	2593.0	2930.8	3570.0	3944.8	3916.1
32.5°	3831.1	3653.8	3022.0	2600.5	2456.1	2467.8	2583.5	2855.3	3521.1	4063.7	4077.6
35°	3931.0	3691.0	2967.9	2680.2	2686.5	2788.4	2836.3	2925.5	3513.7	4225.2	4279.3
37.5°	4066.9	3773.8	3032.7	3076.2	3297.1	3508.4	3469.1	3268.4	3599.7	4466.2	4567.1
40°	4262.3	3919.3	3315.2	3750.5	4203.9	4546.9	4397.1	3891.7	3863.0	4813.4	4964.2
42.5°	4546.9	4150.8	3816.3	4574.5	5343.3	5908.2	5506.8	4695.5	4323.9	5309.3	5501.5
45°	4967.4	4525.7	4422.7	5444.2	6748.1	7638.0	6803.3	5552.4	4969.5	6060.0	6210.8
47.5°	5550.4	5076.7	4990.7	6360.5	8455.6	9606.6	8241.1	6346.7	5704.3	7083.7	7118.7
50°	6324.5	5819.0	5529.1	7363.0	10327.7	11613.6	9677.7	7113.4	6546.4	8334.6	8294.2
52.5°	7346.0	6854.3	6156.7	8317.6	12252.8	13578.0	11120.8	7786.6	7591.3	9786.1	9703.3
55°	8739.2	8412.1	7014.7	9228.6	14176.9	15554.2	12507.7	8421.6	8971.6	11510.5	11009.3
57.5°	10467.8	10701.4	8251.8	10285.2	15906.7	17590.7	13900.8	9309.4	10764.0	13438.9	11767.5
60°	11582.8	13745.8	10620.7	11847.2	17872.2	19893.9	15810.0	10997.6	12647.8	14130.1	11623.1
62.5°	11313.0	14714.2	13458.0	13841.4	19679.5	21568.5	17681.0	12693.5	13002.4	13111.8	10510.2
65°	10485.9	13932.6	12879.3	14228.9	20137.1	21663.0	18181.1	12474.8	11029.5	10704.6	8448.2
67.5°	9347.6	13005.7	11504.2	13201.1	19310.0	20342.0	17249.9	11034.8	8523.6	8032.9	6129.1
70°	8119.0	11979.9	10601.6	12047.8	17733.1	18039.9	15666.7	9705.4	6269.2	5425.0	3933.1
72.5°	6953.1	10911.6	9983.6	10866.0	15629.5	14994.5	13605.6	8529.9	4564.9	3912.9	2795.9
75°	5760.6	9335.9	9103.3	9462.2	12863.3	11811.1	11304.5	7062.5	3582.7	2830.9	1929.4
77.5°	4444.9	7295.0	7830.2	7577.4	9054.4	8773.1	8762.5	5307.1	2617.4	1889.1	1209.5
80°	3042.2	5084.2	6117.4	5345.4	5876.3	5733.0	6599.5	3560.4	1898.6	1137.2	673.2
82.5°	1788.2	3095.3	4258.1	2587.7	3249.2	3335.4	3930.0	1731.9	1117.0	262.3	146.6
85°	725.3	1222.2	1665.0	1013.0	1567.3	1322.0	1491.9	486.4	311.1	6.4	0.0
87.5°	182.7	390.7	274.0	113.6	181.5	166.7	131.7	59.4	12.7	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°	2134.4	2134.4	2134.4	2134.4	2134.4	2134.4	2134.4	2134.4	2134.4	2134.4	2134.4
2.5°	2370.1	2345.6	2285.1	2224.6	2175.8	2110.0	2066.4	2014.3	1964.4	1919.8	1911.3
5°	2620.7	2540.0	2429.6	2328.7	2225.7	2125.8	2027.0	1923.0	1827.5	1769.0	1731.9
7.5°	2824.6	2682.2	2535.7	2407.2	2283.0	2166.2	2035.5	1909.3	1759.5	1679.9	1607.6
10°	2976.4	2789.5	2597.4	2449.8	2324.4	2210.8	2100.3	1972.9	1792.4	1692.6	1584.3
12.5°	3076.2	2854.3	2629.1	2460.3	2320.2	2232.0	2183.1	2133.2	1953.9	1837.0	1679.9
15°	3145.2	2899.9	2651.5	2435.9	2263.9	2199.1	2247.9	2305.3	2190.6	2055.7	1850.8
17.5°	3220.7	2959.4	2661.0	2370.1	2154.5	2126.9	2253.3	2386.0	2380.7	2246.9	2046.2
20°	3300.3	3011.4	2654.6	2263.9	2021.8	2046.2	2207.6	2361.6	2426.4	2354.1	2175.8
22.5°	3382.0	3061.4	2630.3	2125.8	1897.6	1974.0	2135.4	2270.3	2346.7	2324.4	2188.5
25°	3485.0	3131.4	2594.2	1977.2	1794.6	1900.8	2051.5	2160.9	2214.0	2212.9	2119.5
27.5°	3608.2	3224.9	2575.0	1857.2	1721.3	1817.9	1951.7	2049.4	2086.6	2086.6	2012.2
30°	3751.6	3335.4	2553.8	1778.6	1678.8	1731.9	1836.0	1931.5	1968.7	1968.7	1906.1
32.5°	3910.8	3441.4	2502.8	1730.8	1647.0	1648.0	1713.8	1800.9	1845.5	1851.9	1807.3
35°	4101.9	3555.1	2391.3	1692.6	1609.8	1566.2	1598.1	1670.3	1723.4	1737.2	1709.6
37.5°	4352.6	3694.2	2232.0	1636.3	1552.5	1480.2	1487.7	1542.9	1601.3	1622.5	1604.4
40°	4689.2	3857.7	2066.4	1555.6	1471.7	1385.7	1382.5	1422.9	1480.2	1503.6	1494.0
42.5°	5134.1	4054.2	1908.1	1478.2	1374.0	1285.9	1280.6	1312.4	1362.3	1386.8	1382.5
45°	5703.2	4295.3	1772.2	1417.6	1278.5	1191.4	1189.3	1215.9	1259.3	1284.8	1279.5
47.5°	6494.3	4536.2	1679.9	1385.7	1203.0	1113.9	1118.2	1141.5	1180.8	1198.8	1191.4
50°	7525.4	4609.5	1633.1	1385.7	1162.8	1044.9	1066.1	1085.3	1115.0	1125.6	1116.0
52.5°	8515.1	4367.4	1590.7	1394.2	1168.1	986.5	1032.2	1045.9	1071.4	1075.6	1061.9
55°	9000.3	3754.8	1532.3	1396.4	1201.0	936.5	1004.5	1030.0	1039.6	1038.5	1015.2
57.5°	8833.7	3035.8	1433.5	1387.8	1223.2	904.7	970.6	1019.4	1025.7	1016.2	972.6
60°	8248.5	2235.2	1358.1	1325.2	1214.7	895.1	918.5	996.0	1005.6	992.8	921.7
62.5°	7267.4	1551.3	1299.7	1187.2	1177.6	892.0	836.7	945.0	968.4	950.4	846.3
65°	5721.3	1095.8	1119.2	1040.6	1096.9	874.9	751.8	883.4	915.3	887.8	741.2
67.5°	3871.5	791.1	906.8	942.9	966.3	836.7	690.2	813.3	855.9	819.8	619.1
70°	2090.8	555.3	598.9	794.3	820.8	770.9	635.0	742.2	791.1	751.8	504.4
72.5°	1234.9	399.2	419.4	638.2	683.9	678.6	573.4	659.4	718.8	672.2	409.9
75°	680.7	269.7	299.4	463.0	555.3	523.5	492.7	558.5	619.1	573.4	316.4
77.5°	304.7	161.4	208.1	303.7	436.4	359.0	381.2	435.3	491.6	443.8	211.4
80°	117.9	90.3	138.1	165.6	317.5	198.5	245.3	320.7	361.0	322.8	128.5
82.5°	14.9	40.4	59.4	64.8	184.8	105.2	142.3	201.7	198.5	172.0	64.8
85°	0.0	7.5	8.5	4.2	79.6	38.2	46.7	65.8	61.6	46.7	5.3
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	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°	2134.4	2134.4	2134.4	2134.4	2134.4	2134.4	2134.4	2134.4	2134.4	2134.4	2134.4
2.5°	1859.4	1821.1	1802.0	1786.1	1800.9	1809.4	1809.4	1845.5	1866.7	1875.2	1934.7
5°	1638.5	1567.3	1519.6	1490.9	1500.4	1511.1	1522.7	1568.4	1599.2	1619.3	1711.7
7.5°	1464.3	1356.0	1289.1	1254.1	1259.3	1266.8	1276.3	1320.9	1351.8	1378.3	1481.3
10°	1378.3	1225.4	1137.2	1094.8	1087.3	1083.1	1079.9	1106.5	1129.9	1151.1	1253.0
12.5°	1382.5	1169.1	1061.9	1009.8	987.5	962.1	941.9	946.1	960.9	987.5	1052.3
15°	1436.7	1151.1	1022.5	957.8	920.7	890.9	866.4	861.2	866.4	870.7	911.1
17.5°	1509.9	1148.9	988.6	907.8	869.7	845.2	823.0	815.5	816.6	821.8	832.5
20°	1568.4	1142.6	950.4	860.1	826.2	804.9	782.6	775.2	777.3	778.4	790.1
22.5°	1599.2	1133.0	907.8	812.3	783.6	762.4	742.2	741.2	741.2	747.5	756.0
25°	1599.2	1112.8	869.7	766.7	741.2	722.1	697.6	701.9	704.0	712.5	725.3
27.5°	1561.0	1074.6	838.9	727.3	700.8	681.7	659.4	664.7	667.9	677.4	693.4
30°	1512.1	1028.9	803.8	690.2	659.4	645.6	626.5	628.6	632.8	643.5	661.5
32.5°	1460.0	974.8	775.2	653.0	622.3	611.6	590.4	593.6	597.8	609.5	629.7
35°	1402.7	911.1	741.2	619.1	588.2	579.7	555.3	557.5	563.9	576.6	596.8
37.5°	1342.2	859.1	707.2	586.2	554.3	545.8	520.3	522.4	529.8	544.7	563.9
40°	1282.7	808.1	671.1	551.1	519.3	511.8	484.2	486.4	494.9	510.8	530.9
42.5°	1217.9	768.7	624.3	515.0	481.0	473.6	448.1	451.3	460.8	476.7	496.9
45°	1140.4	743.3	572.4	481.0	442.8	435.3	412.0	418.4	429.0	445.0	466.2
47.5°	1060.8	732.7	528.8	445.0	403.5	397.1	378.0	388.7	400.4	413.1	436.4
50°	984.3	718.8	484.2	410.9	369.5	363.2	350.4	364.2	375.9	387.6	409.9
52.5°	897.3	689.1	443.8	381.2	340.8	338.8	332.4	345.1	355.7	366.3	385.5
55°	807.0	641.3	408.8	354.6	316.4	318.6	315.4	326.0	334.5	344.1	361.0
57.5°	728.5	580.9	381.2	326.0	295.2	301.6	297.4	302.6	307.9	319.6	333.4
60°	648.8	508.6	350.4	292.0	274.0	281.4	269.7	268.7	270.8	274.0	299.4
62.5°	541.5	433.3	312.2	262.3	250.6	253.8	231.4	214.5	214.5	217.7	255.9
65°	435.3	363.2	269.7	228.3	218.7	216.6	184.8	161.4	159.3	168.8	201.7
67.5°	357.8	301.6	227.2	190.0	183.7	185.8	162.5	139.1	136.9	147.6	172.0
70°	296.2	243.1	181.5	146.6	152.9	162.5	139.1	116.8	113.6	123.2	146.6
72.5°	235.7	190.0	139.1	108.3	126.4	138.1	113.6	92.4	90.3	98.7	121.1
75°	173.1	135.9	94.5	78.6	97.7	108.3	82.8	65.8	62.6	70.1	92.4
77.5°	107.2	76.5	59.4	46.7	66.9	72.2	43.6	38.2	37.2	42.4	58.4
80°	49.9	32.9	28.7	15.9	24.4	28.7	18.0	20.2	21.2	25.5	36.1
82.5°	13.8	5.3	1.0	0.0	0.0	8.5	4.2	8.5	10.7	15.9	23.4
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	5.3	9.5	17.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2	8.5
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: P967848

CATALOG NUMBER: NAV-SB5A-827-U-SLL-HSS

CANDELA DISTRIBUTION (continued):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	2134.4	2134.4	2134.4	2134.4	2134.4	2134.4	2134.4	2134.4
2.5°	1979.3	2021.8	2089.8	2159.8	2228.9	2299.0	2366.9	2391.3
5°	1795.6	1893.3	2028.2	2172.6	2321.2	2472.0	2610.1	2672.7
7.5°	1590.7	1730.8	1933.7	2159.8	2396.7	2633.4	2851.1	2952.0
10°	1372.0	1549.3	1780.7	2086.6	2426.4	2753.4	3052.9	3183.4
12.5°	1163.8	1349.6	1605.6	1971.9	2403.0	2822.4	3182.4	3336.4
15°	989.6	1154.3	1430.3	1836.0	2327.6	2826.6	3244.0	3412.8
17.5°	859.1	966.3	1251.9	1685.2	2228.9	2787.4	3265.2	3445.7
20°	794.3	824.0	1020.5	1491.9	2136.5	2750.2	3286.5	3476.5
22.5°	756.0	763.5	834.7	1242.4	2026.0	2738.5	3323.7	3519.0
25°	725.3	727.3	746.5	984.3	1857.2	2731.1	3381.0	3577.5
27.5°	694.4	694.4	705.1	793.2	1627.8	2699.2	3455.3	3647.5
30°	663.7	663.7	671.1	701.9	1359.1	2636.6	3544.4	3738.8
32.5°	631.8	631.8	638.2	660.5	1085.3	2558.0	3626.2	3831.1
35°	599.9	597.8	606.3	629.7	863.3	2458.2	3708.0	3931.0
37.5°	566.0	564.9	573.4	599.9	745.4	2342.4	3769.6	4066.9
40°	529.8	529.8	539.5	568.1	711.5	2197.0	3867.3	4262.3
42.5°	496.9	494.9	505.4	540.5	685.9	2057.9	4042.5	4546.9
45°	465.1	460.8	470.4	513.9	641.3	2009.0	4369.6	4967.4
47.5°	435.3	424.8	433.3	482.1	601.1	2191.7	4904.7	5550.4
50°	410.9	390.7	398.2	450.2	570.2	2587.7	5599.2	6324.5
52.5°	385.5	359.0	363.2	410.9	542.6	2964.7	6352.0	7346.0
55°	359.0	329.1	331.3	371.7	503.3	3021.0	7086.8	8739.2
57.5°	329.1	301.6	301.6	335.6	474.7	2618.6	7651.7	10467.8
60°	296.2	278.2	272.9	306.9	500.1	1847.7	7717.6	11582.8
62.5°	260.1	250.6	243.1	279.3	519.3	1094.8	7187.7	11313.0
65°	218.7	216.6	211.4	306.9	437.5	646.7	6170.5	10485.9
67.5°	183.7	180.5	180.5	321.7	332.4	406.7	4820.9	9347.6
70°	158.3	146.6	146.6	243.1	201.7	281.4	3366.1	8119.0
72.5°	132.7	120.0	111.5	194.3	150.8	206.0	2103.5	6953.1
75°	106.2	96.7	86.0	128.5	112.5	156.1	1222.2	5760.6
77.5°	76.5	72.2	60.5	94.5	81.8	112.5	727.3	4444.9
80°	39.3	40.4	38.2	54.1	55.2	76.5	414.1	3042.2
82.5°	23.4	18.0	20.2	26.5	31.9	43.6	156.1	1788.2
85°	14.9	9.5	9.5	12.7	15.9	17.0	47.8	725.3
87.5°	7.5	3.2	4.2	6.4	5.3	4.2	2.2	182.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)