

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: P970514

Luminaire Tested: **NAV-SB6B-830-U-SLL-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P970514
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-SB6B-830-U-SLL-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(6) 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: 24002.4 lumens
Efficiency: N/A
Efficacy: 108.9 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G4

Input Watts (W): 220.4
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

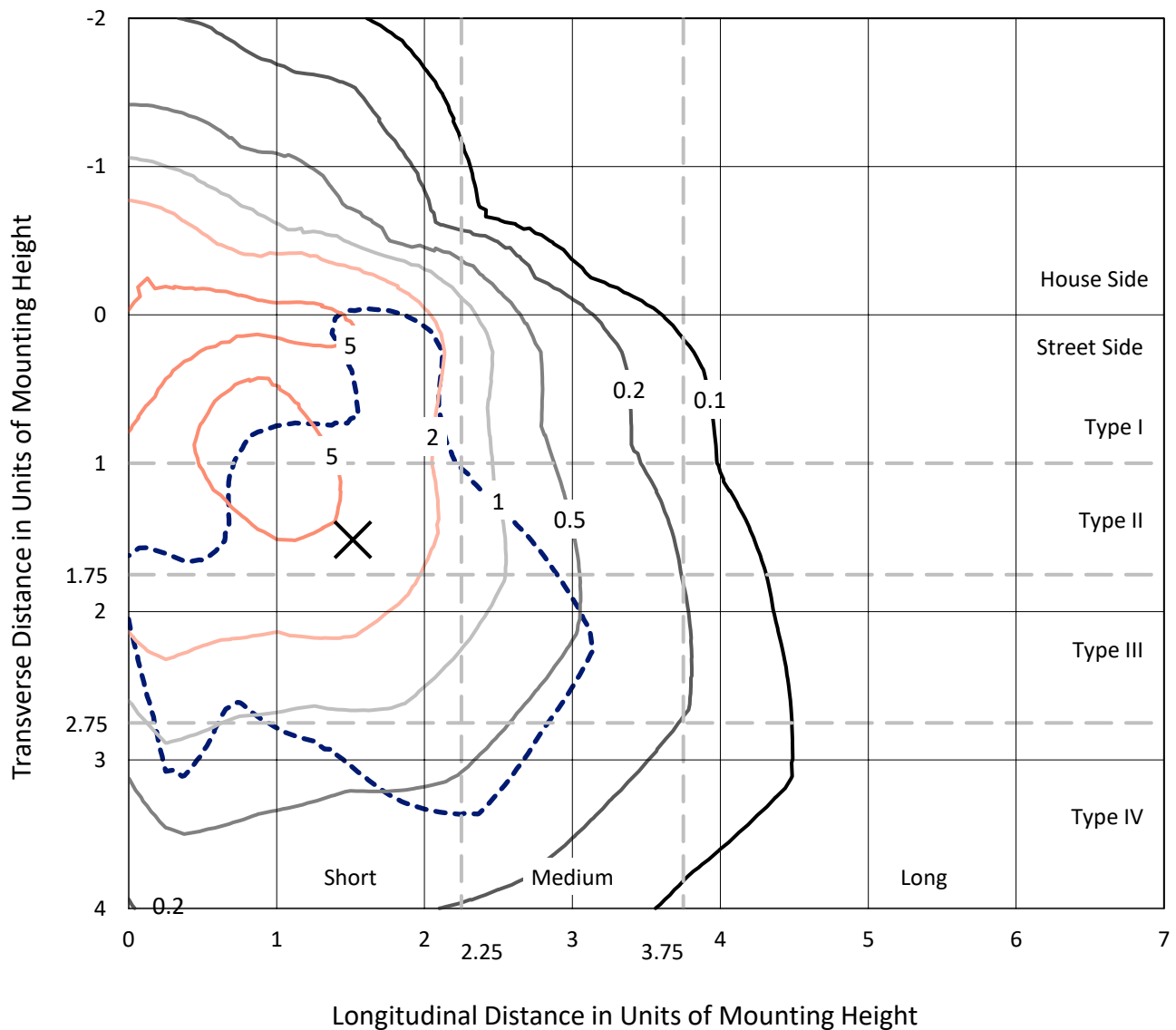


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Iso-Footcandle Lines of Horizontal Illumination

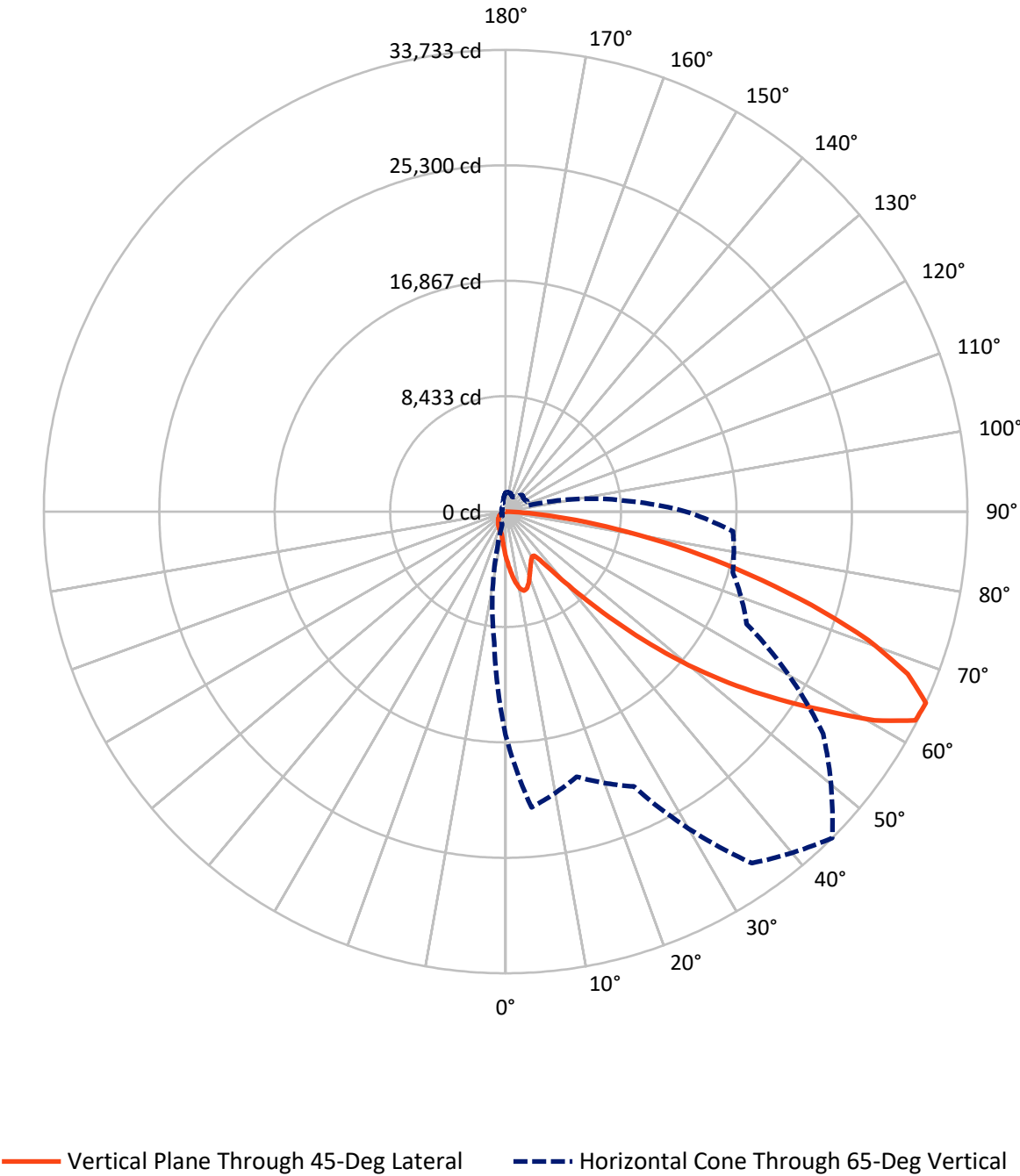
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.7 fc
Type IV - Short - N/A

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Luminous Intensity Polar Plot



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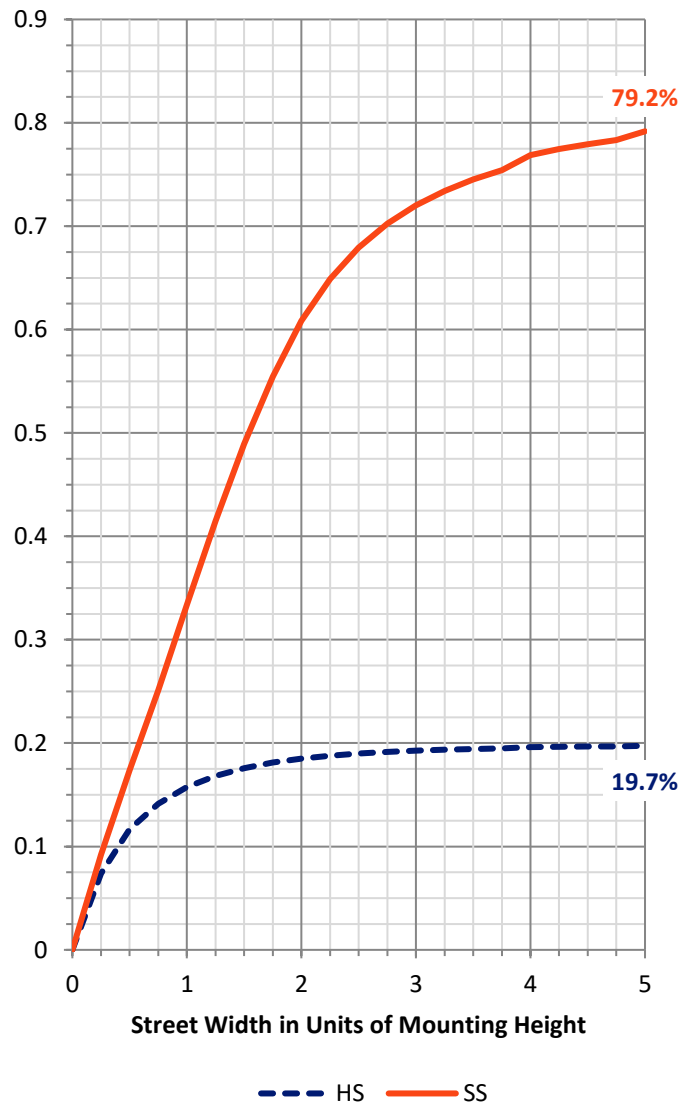
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4770.9	0.0	4770.9
	% Fixture	19.9	0.0	19.9
Street Side	Lumens	19231.5	0.0	19231.5
	% Fixture	80.1	0.0	80.1
Total	Lumens	24002.4	0.0	24002.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	327.2	1.4
10°-20°	980.9	4.1
20°-30°	1445.1	6.0
30°-40°	1856.5	7.7
40°-50°	3002.5	12.5
50°-60°	5265.2	21.9
60°-70°	6588.2	27.4
70°-80°	3849.9	16.0
80°-90°	686.9	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°	24002.4	100.0
0°-180°	24002.4	100.0

Coefficient of Utilization



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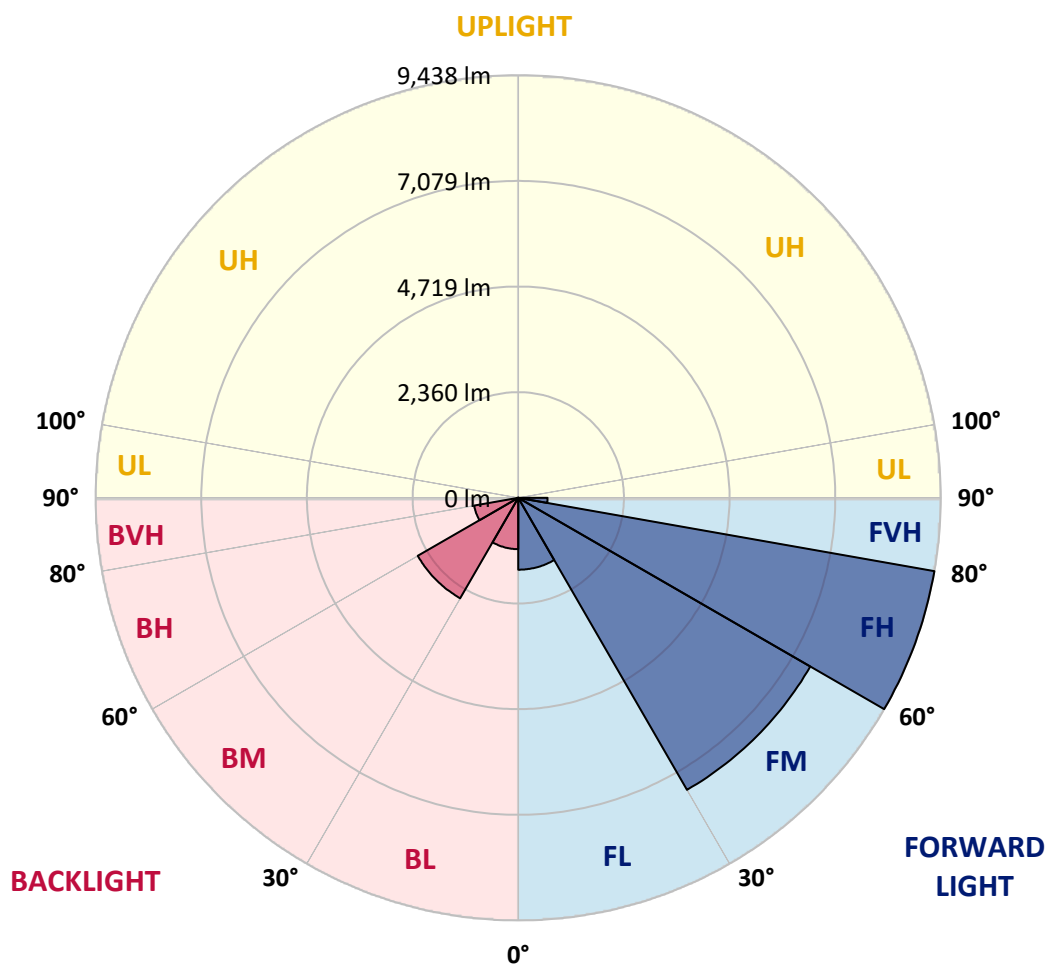
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1606.0	6.7			
FM	(30°-60°)	7532.2	31.4			
FH	(60°-80°)	9438.5	39.3			G4/12000
FVH	(80°-90°)	654.7	2.7			G4/750
BL	(0°-30°)	1147.1	4.8	B3/2500		
BM	(30°-60°)	2592.0	10.8	B3/5000		
BH	(60°-80°)	999.6	4.2	B2/1000		G2/1000
BVH	(80°-90°)	32.2	0.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	3323.6	3323.6	3323.6	3323.6	3323.6	3323.6	3323.6	3323.6	3323.6	3323.6	3323.6
2.5°	3723.7	3751.8	3814.6	3847.7	3899.0	3902.3	3902.3	3857.7	3856.0	3765.0	3755.1
5°	4161.9	4228.0	4376.9	4530.6	4563.7	4572.0	4555.4	4466.1	4400.0	4223.1	4185.1
7.5°	4596.8	4724.1	4950.6	5155.6	5221.8	5221.8	5182.1	5036.6	4901.0	4644.7	4548.8
10°	4957.2	5117.6	5425.2	5655.0	5731.1	5714.6	5633.5	5450.0	5263.2	4952.3	4826.6
12.5°	5195.3	5375.6	5712.9	5898.1	5975.9	5932.8	5840.2	5661.7	5464.9	5137.5	4995.2
15°	5314.4	5502.9	5795.6	5893.1	5871.6	5827.0	5815.4	5729.4	5580.6	5274.8	5119.3
17.5°	5365.7	5540.9	5744.3	5683.1	5501.3	5466.5	5582.3	5691.4	5655.0	5393.8	5248.3
20°	5413.6	5560.7	5621.9	5350.8	5033.3	5001.9	5223.5	5534.3	5693.1	5504.6	5370.6
22.5°	5479.8	5570.7	5445.0	5000.3	4657.9	4585.2	4829.9	5297.9	5704.6	5645.1	5511.2
25°	5570.7	5595.5	5249.9	4667.8	4324.0	4251.2	4479.4	5035.0	5684.8	5797.2	5683.1
27.5°	5679.8	5628.6	5063.1	4390.1	4057.8	3989.9	4218.1	4781.9	5628.6	5949.3	5868.3
30°	5822.0	5671.5	4877.9	4175.1	3867.5	3817.9	4037.9	4563.7	5559.1	6142.8	6098.1
32.5°	5965.9	5689.8	4705.9	4049.5	3824.6	3842.7	4023.0	4446.3	5483.0	6328.0	6349.5
35°	6121.3	5747.6	4621.6	4173.5	4183.4	4342.1	4416.5	4555.4	5471.4	6579.4	6663.6
37.5°	6333.0	5876.6	4722.5	4790.2	5134.1	5463.2	5402.1	5089.5	5605.4	6954.7	7111.8
40°	6637.2	6103.2	5162.3	5840.2	6546.3	7080.4	6847.2	6060.1	6015.5	7495.4	7730.1
42.5°	7080.4	6463.5	5942.7	7123.3	8320.5	9200.2	8575.2	7311.8	6733.1	8267.5	8566.8
45°	7735.2	7047.3	6886.9	8477.6	10508.1	11893.8	10594.1	8646.3	7738.4	9436.7	9671.4
47.5°	8642.9	7905.4	7771.6	9904.6	13166.9	14959.4	12832.9	9883.0	8882.6	11030.6	11085.2
50°	9848.3	9061.3	8609.9	11465.4	16082.1	18084.5	15070.2	11076.9	10193.9	12978.4	12915.6
52.5°	11439.0	10673.4	9587.1	12952.0	19080.0	21143.5	17317.3	12125.2	11821.0	15238.8	15109.8
55°	13608.4	13099.2	10923.1	14370.7	22076.1	24220.7	19476.7	13114.1	13970.5	17924.1	17143.6
57.5°	16300.4	16664.1	12849.5	16015.9	24769.6	27392.2	21646.2	14496.4	16761.7	20926.9	18324.2
60°	18036.5	21404.8	16538.5	18448.3	27830.3	30978.7	24619.2	17125.5	19695.1	22003.4	18099.3
62.5°	17616.6	22912.7	20956.6	21553.6	30644.6	33586.2	27532.7	19766.1	20247.3	20417.6	16366.5
65°	16328.5	21695.8	20055.5	22157.1	31357.3	33733.4	28311.5	19425.5	17175.1	16669.1	13155.4
67.5°	14555.9	20252.3	17914.2	20556.5	30069.2	31676.4	26861.4	17183.3	13272.7	12508.9	9544.1
70°	12642.8	18655.0	16508.8	18760.8	27613.7	28091.6	24396.0	15113.1	9762.4	8447.8	6124.6
72.5°	10827.2	16991.5	15546.4	16920.4	24338.1	23349.3	21186.5	13282.7	7108.5	6093.2	4353.7
75°	8970.3	14537.7	14175.5	14734.5	20030.7	18392.1	17603.4	10997.5	5579.0	4408.3	3004.5
77.5°	6921.6	11359.7	12193.0	11799.5	14099.5	13661.3	13644.8	8264.3	4075.9	2941.6	1883.3
80°	4737.3	7917.0	9525.9	8323.8	9150.6	8927.3	10276.6	5544.2	2956.5	1770.9	1048.4
82.5°	2784.5	4820.0	6630.6	4029.6	5059.8	5193.7	6119.7	2696.9	1739.5	408.5	228.2
85°	1129.3	1903.2	2592.7	1577.5	2440.6	2058.6	2323.2	757.3	484.5	9.9	0.0
87.5°	284.4	608.5	426.6	176.9	282.8	259.6	205.0	92.6	19.9	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°	3323.6	3323.6	3323.6	3323.6	3323.6	3323.6	3323.6	3323.6	3323.6	3323.6	3323.6
2.5°	3690.6	3652.6	3558.4	3464.1	3388.0	3285.5	3217.8	3136.7	3059.0	2989.5	2976.3
5°	4080.8	3955.2	3783.3	3626.1	3465.7	3310.3	3156.6	2994.5	2845.7	2754.8	2696.9
7.5°	4398.4	4176.8	3948.6	3748.5	3555.1	3373.2	3169.8	2973.0	2739.9	2615.9	2503.5
10°	4634.8	4343.7	4044.5	3814.6	3619.6	3442.7	3270.7	3072.2	2791.2	2635.7	2467.1
12.5°	4790.2	4444.6	4094.2	3831.2	3612.9	3475.7	3399.6	3321.9	3042.5	2860.6	2615.9
15°	4897.8	4515.7	4128.8	3793.2	3525.3	3424.4	3500.5	3589.8	3411.2	3201.2	2882.1
17.5°	5015.1	4608.4	4143.7	3690.6	3355.0	3312.0	3508.8	3715.4	3707.2	3498.8	3186.3
20°	5139.1	4689.4	4133.8	3525.3	3148.3	3186.3	3437.6	3677.4	3778.3	3665.8	3388.0
22.5°	5266.4	4767.1	4095.8	3310.3	2954.9	3073.9	3325.2	3535.2	3654.2	3619.6	3407.9
25°	5426.9	4876.2	4039.5	3078.9	2794.5	2959.8	3194.6	3364.9	3447.6	3445.9	3300.4
27.5°	5618.6	5021.7	4009.8	2892.0	2680.4	2830.8	3039.1	3191.3	3249.1	3249.1	3133.4
30°	5841.9	5193.7	3976.7	2769.7	2614.2	2696.9	2858.9	3007.8	3065.6	3065.6	2968.1
32.5°	6089.9	5359.0	3897.4	2695.2	2564.7	2566.3	2668.8	2804.4	2873.8	2883.7	2814.2
35°	6387.5	5535.9	3723.7	2635.7	2506.7	2439.0	2488.5	2600.9	2683.7	2705.2	2662.1
37.5°	6777.8	5752.6	3475.7	2548.0	2417.5	2305.0	2316.6	2402.6	2493.5	2526.5	2498.4
40°	7301.9	6007.2	3217.8	2422.4	2291.8	2157.8	2152.9	2215.7	2305.0	2341.4	2326.5
42.5°	7994.8	6313.1	2971.4	2301.7	2139.7	2002.4	1994.1	2043.7	2121.4	2159.5	2152.9
45°	8881.0	6688.4	2759.7	2207.4	1990.9	1855.2	1852.0	1893.3	1961.0	2000.8	1992.5
47.5°	10112.9	7063.8	2615.9	2157.8	1873.4	1734.5	1741.2	1777.6	1838.7	1866.8	1855.2
50°	11718.5	7177.9	2543.1	2157.8	1810.6	1627.1	1660.1	1689.9	1736.1	1752.7	1737.9
52.5°	13259.5	6800.9	2477.0	2171.1	1818.9	1536.2	1607.2	1628.7	1668.4	1675.1	1653.5
55°	14015.2	5846.8	2386.0	2174.3	1870.1	1458.4	1564.3	1603.9	1618.8	1617.1	1580.8
57.5°	13755.6	4727.4	2232.2	2161.1	1904.9	1408.8	1511.4	1587.4	1597.3	1582.4	1514.6
60°	12844.5	3480.7	2114.9	2063.6	1891.6	1393.9	1430.3	1551.0	1565.9	1546.0	1435.2
62.5°	11316.6	2415.8	2023.9	1848.6	1833.7	1389.0	1303.0	1471.6	1508.0	1479.9	1317.8
65°	8909.1	1706.4	1742.8	1620.4	1708.1	1362.5	1170.7	1375.8	1425.4	1382.3	1154.1
67.5°	6028.7	1231.8	1412.1	1468.3	1504.7	1303.0	1074.8	1266.6	1332.7	1276.5	964.0
70°	3255.8	864.8	932.5	1236.9	1278.2	1200.5	988.8	1155.8	1231.8	1170.7	785.5
72.5°	1923.0	621.8	653.1	993.7	1064.9	1056.6	892.9	1026.8	1119.4	1046.6	638.3
75°	1060.0	419.9	466.3	720.9	864.8	815.2	767.2	869.7	964.0	892.9	492.7
77.5°	474.6	251.3	324.1	472.9	679.6	558.9	593.6	677.9	765.6	691.2	329.0
80°	183.6	140.5	214.9	258.0	494.4	309.2	381.9	499.4	562.2	502.7	200.1
82.5°	23.2	62.8	92.6	100.9	287.7	163.7	221.6	314.2	309.2	267.8	100.9
85°	0.0	11.6	13.2	6.7	124.0	59.6	72.8	102.5	95.9	72.8	8.3
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3	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°	3323.6	3323.6	3323.6	3323.6	3323.6	3323.6	3323.6	3323.6	3323.6	3323.6	3323.6
2.5°	2895.3	2835.8	2806.0	2781.2	2804.4	2817.6	2817.6	2873.8	2906.9	2920.1	3012.7
5°	2551.3	2440.6	2366.2	2321.5	2336.4	2353.0	2371.1	2442.3	2490.2	2521.6	2665.5
7.5°	2280.2	2111.5	2007.4	1952.8	1961.0	1972.6	1987.6	2057.0	2104.9	2146.2	2306.7
10°	2146.2	1908.1	1770.9	1704.8	1693.2	1686.6	1681.6	1722.9	1759.3	1792.4	1951.2
12.5°	2152.9	1820.5	1653.5	1572.5	1537.8	1498.0	1466.7	1473.2	1496.4	1537.8	1638.7
15°	2237.2	1792.4	1592.3	1491.5	1433.6	1387.3	1349.3	1341.0	1349.3	1355.9	1418.7
17.5°	2351.4	1789.1	1539.4	1413.8	1354.2	1316.2	1281.5	1269.9	1271.5	1279.8	1296.3
20°	2442.3	1779.2	1479.9	1339.4	1286.5	1253.4	1218.6	1207.0	1210.4	1212.1	1230.2
22.5°	2490.2	1764.3	1413.8	1265.0	1220.3	1187.3	1155.8	1154.1	1154.1	1164.1	1177.3
25°	2490.2	1732.9	1354.2	1193.8	1154.1	1124.4	1086.4	1093.0	1096.2	1109.5	1129.3
27.5°	2430.7	1673.3	1306.3	1132.6	1091.3	1061.6	1026.8	1035.1	1040.1	1054.9	1079.7
30°	2354.6	1602.3	1251.7	1074.8	1026.8	1005.3	975.6	978.9	985.5	1002.0	1030.1
32.5°	2273.6	1517.9	1207.0	1016.9	968.9	952.4	919.3	924.3	930.9	949.1	980.5
35°	2184.3	1418.7	1154.1	964.0	916.0	902.8	864.8	868.1	878.0	897.9	929.3
37.5°	2090.1	1337.7	1101.3	912.8	863.2	849.9	810.3	813.5	825.1	848.3	878.0
40°	1997.4	1258.3	1045.0	858.1	808.5	797.0	754.0	757.3	770.5	795.3	826.8
42.5°	1896.6	1197.1	972.3	802.0	749.1	737.5	697.8	702.7	717.6	742.4	773.9
45°	1775.9	1157.4	891.2	749.1	689.5	677.9	641.5	651.5	668.0	692.8	725.9
47.5°	1651.9	1140.9	823.5	692.8	628.3	618.4	588.7	605.2	623.4	643.2	679.6
50°	1532.8	1119.4	754.0	639.9	575.4	565.5	545.7	567.1	585.4	603.5	638.3
52.5°	1397.2	1073.2	691.2	593.6	530.7	527.5	517.5	537.4	553.9	570.4	600.2
55°	1256.6	998.8	636.6	552.3	492.7	496.1	491.1	507.6	520.9	535.8	562.2
57.5°	1134.3	904.5	593.6	507.6	459.7	469.6	463.0	471.3	479.5	497.7	519.2
60°	1010.3	792.0	545.7	454.7	426.6	438.2	419.9	418.3	421.7	426.6	466.3
62.5°	843.3	674.7	486.2	408.5	390.2	395.2	360.5	334.0	334.0	339.0	398.5
65°	677.9	565.5	419.9	355.5	340.6	337.3	287.7	251.3	248.0	262.9	314.2
67.5°	557.2	469.6	353.8	296.0	286.1	289.4	253.0	216.6	213.3	229.8	267.8
70°	461.4	378.6	282.8	228.2	238.1	253.0	216.6	181.9	176.9	191.8	228.2
72.5°	367.1	296.0	216.6	168.6	196.8	214.9	176.9	143.8	140.5	153.8	188.5
75°	269.5	211.7	147.2	122.4	152.1	168.6	128.9	102.5	97.6	109.2	143.8
77.5°	167.0	119.0	92.6	72.8	104.1	112.4	67.8	59.6	57.9	66.1	90.9
80°	77.7	51.2	44.7	24.8	38.0	44.7	28.1	31.5	33.1	39.7	56.2
82.5°	21.5	8.3	1.6	0.0	0.0	13.2	6.7	13.2	16.5	24.8	36.4
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3	8.3	14.9	26.4
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.7	13.2
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: P970514

CATALOG NUMBER: NAV-SB6B-830-U-SLL-HSS

CANDELA DISTRIBUTION (continued):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	3323.6	3323.6	3323.6	3323.6	3323.6	3323.6	3323.6	3323.6
2.5°	3082.2	3148.3	3254.2	3363.2	3470.8	3579.8	3685.7	3723.7
5°	2796.1	2948.2	3158.2	3383.1	3614.6	3849.4	4064.3	4161.9
7.5°	2477.0	2695.2	3011.0	3363.2	3732.0	4100.7	4439.7	4596.8
10°	2136.3	2412.4	2772.9	3249.1	3778.3	4287.6	4753.8	4957.2
12.5°	1812.3	2101.7	2500.1	3070.6	3741.9	4395.1	4955.6	5195.3
15°	1541.1	1797.3	2227.3	2858.9	3624.5	4401.7	5051.5	5314.4
17.5°	1337.7	1504.7	1949.4	2624.1	3470.8	4340.5	5084.5	5365.7
20°	1236.9	1283.1	1589.1	2323.2	3326.8	4282.7	5117.6	5413.6
22.5°	1177.3	1188.9	1299.7	1934.6	3155.0	4264.4	5175.5	5479.8
25°	1129.3	1132.6	1162.5	1532.8	2892.0	4252.8	5264.8	5570.7
27.5°	1081.4	1081.4	1098.0	1235.2	2534.8	4203.2	5380.5	5679.8
30°	1033.4	1033.4	1045.0	1093.0	2116.5	4105.6	5519.4	5822.0
32.5°	983.8	983.8	993.7	1028.5	1689.9	3983.4	5646.7	5965.9
35°	934.3	930.9	944.1	980.5	1344.3	3827.9	5774.0	6121.3
37.5°	881.3	879.7	892.9	934.3	1160.8	3647.7	5870.0	6333.0
40°	825.1	825.1	840.0	884.7	1107.8	3421.1	6022.1	6637.2
42.5°	773.9	770.5	787.1	841.6	1068.2	3204.6	6294.9	7080.4
45°	724.3	717.6	732.5	800.3	998.8	3128.4	6804.3	7735.2
47.5°	677.9	661.4	674.7	750.7	935.9	3412.8	7637.6	8642.9
50°	639.9	608.5	620.0	701.1	888.0	4029.6	8719.0	9848.3
52.5°	600.2	558.9	565.5	639.9	844.9	4616.6	9891.4	11439.0
55°	558.9	512.6	515.9	578.7	783.8	4704.2	11035.6	13608.4
57.5°	512.6	469.6	469.6	522.5	739.1	4077.6	11915.2	16300.4
60°	461.4	433.3	425.0	477.9	778.8	2877.1	12017.7	18036.5
62.5°	405.1	390.2	378.6	434.9	808.5	1704.8	11192.7	17616.6
65°	340.6	337.3	329.0	477.9	681.2	1007.0	9608.6	16328.5
67.5°	286.1	281.1	281.1	501.0	517.5	633.3	7507.0	14555.9
70°	246.4	228.2	228.2	378.6	314.2	438.2	5241.6	12642.8
72.5°	206.6	186.9	173.6	302.6	234.8	320.8	3275.6	10827.2
75°	165.3	150.5	134.0	200.1	175.3	243.0	1903.2	8970.3
77.5°	119.0	112.4	94.3	147.2	127.3	175.3	1132.6	6921.6
80°	61.2	62.8	59.6	84.4	86.0	119.0	644.8	4737.3
82.5°	36.4	28.1	31.5	41.3	49.6	67.8	243.0	2784.5
85°	23.2	14.9	14.9	19.9	24.8	26.4	74.4	1129.3
87.5°	11.6	4.9	6.7	9.9	8.3	6.7	3.3	284.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)