

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: P968406

Luminaire Tested: **NAV-SB5B-830-U-SLL-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P968406
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-SB5B-830-U-SLL-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 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: 19994.7 lumens
Efficiency: N/A
Efficacy: 109.4 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G4

Input Watts (W): 182.7
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



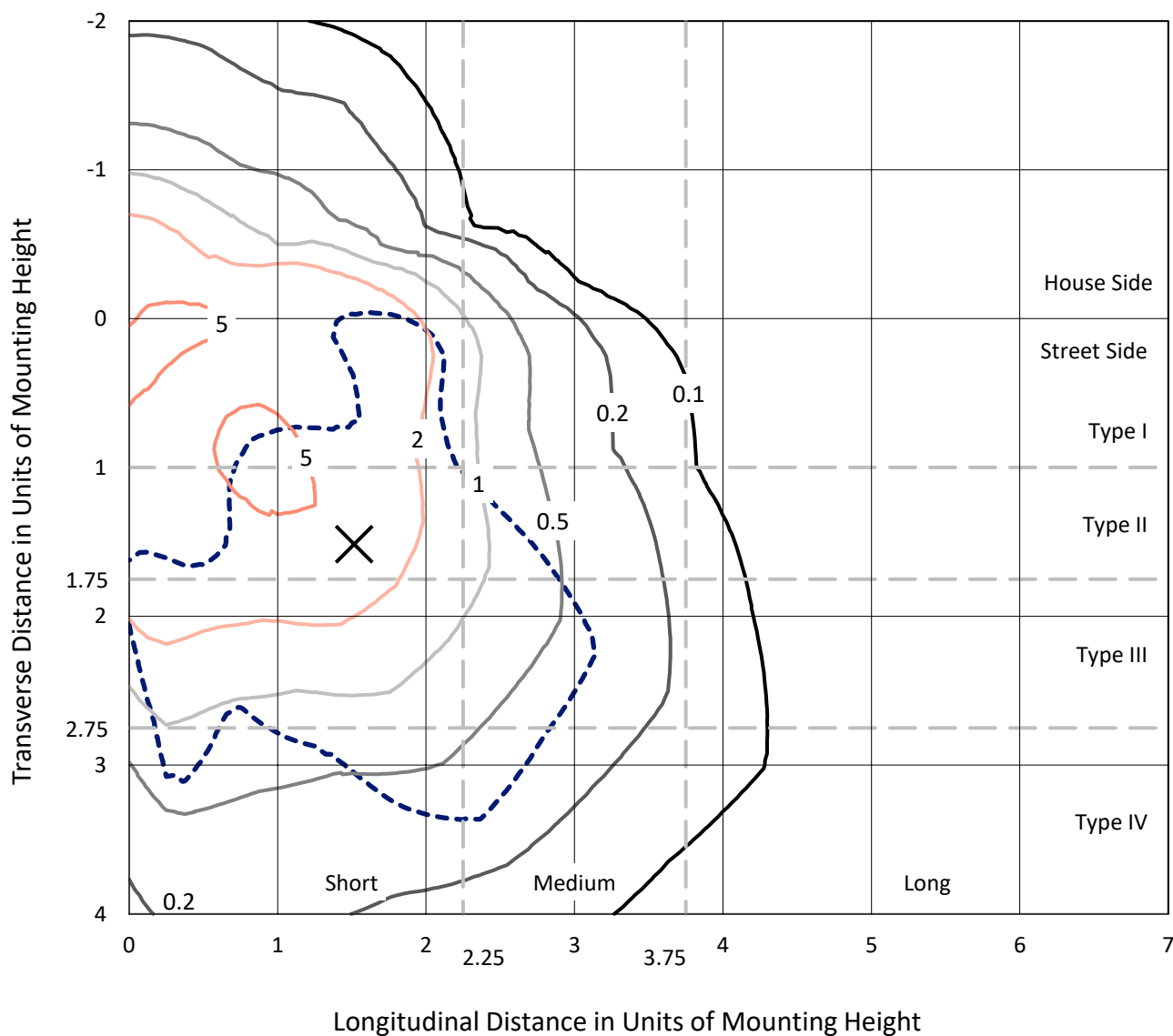
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

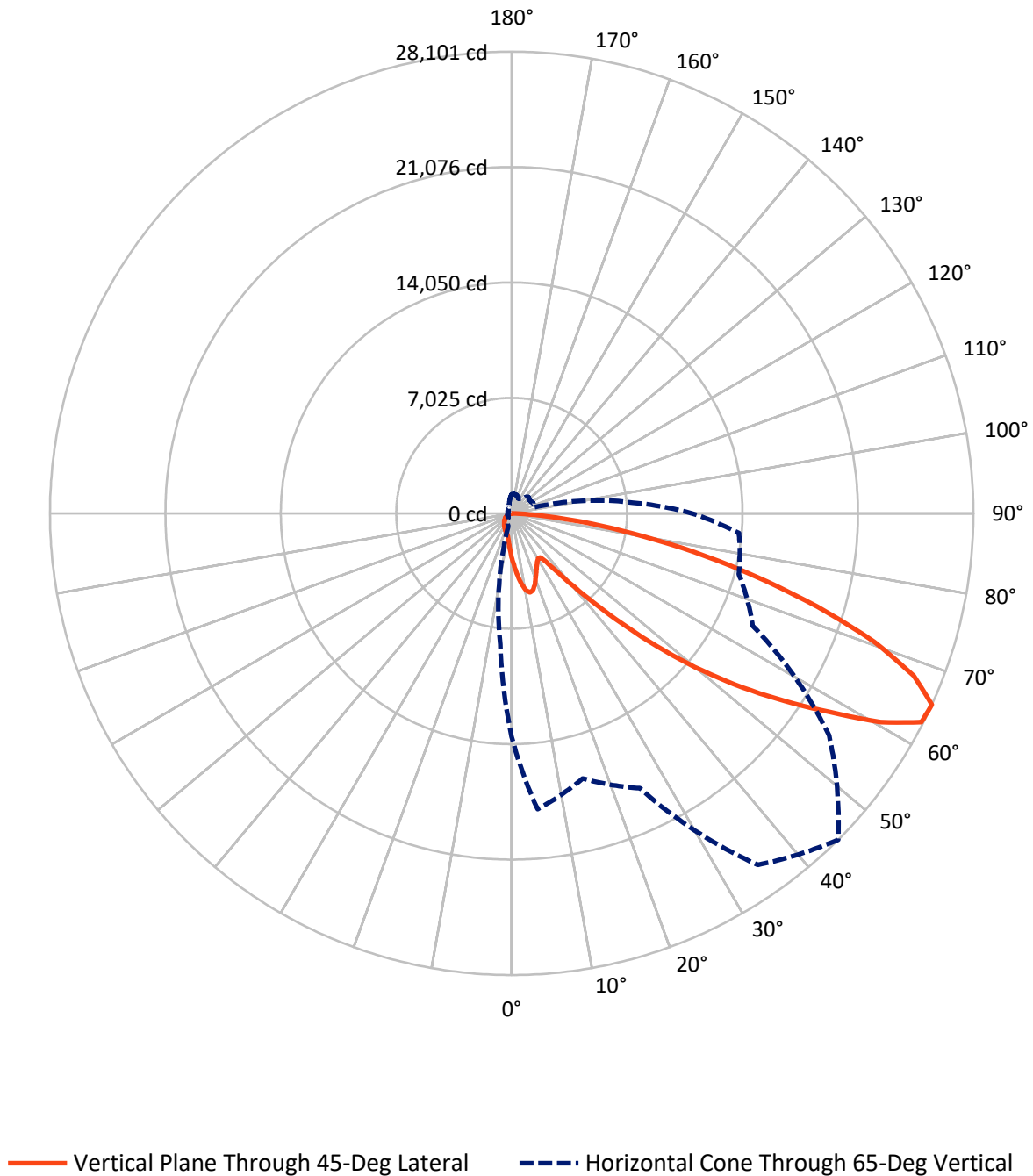


Based on 25 foot mounting height. Maximum calculated value = 7.3 fc

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	3974.3	0.0	3974.3
	% Fixture	19.9	0.0	19.9
Street Side	Lumens	16020.3	0.0	16020.3
	% Fixture	80.1	0.0	80.1
Total	Lumens	19994.7	0.0	19994.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	272.6	1.4
10°-20°	817.1	4.1
20°-30°	1203.8	6.0
30°-40°	1546.5	7.7
40°-50°	2501.2	12.5
50°-60°	4386.1	21.9
60°-70°	5488.2	27.4
70°-80°	3207.0	16.0
80°-90°	572.2	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°	19994.7	100.0
0°-180°	19994.7	100.0

Coefficient of Utilization



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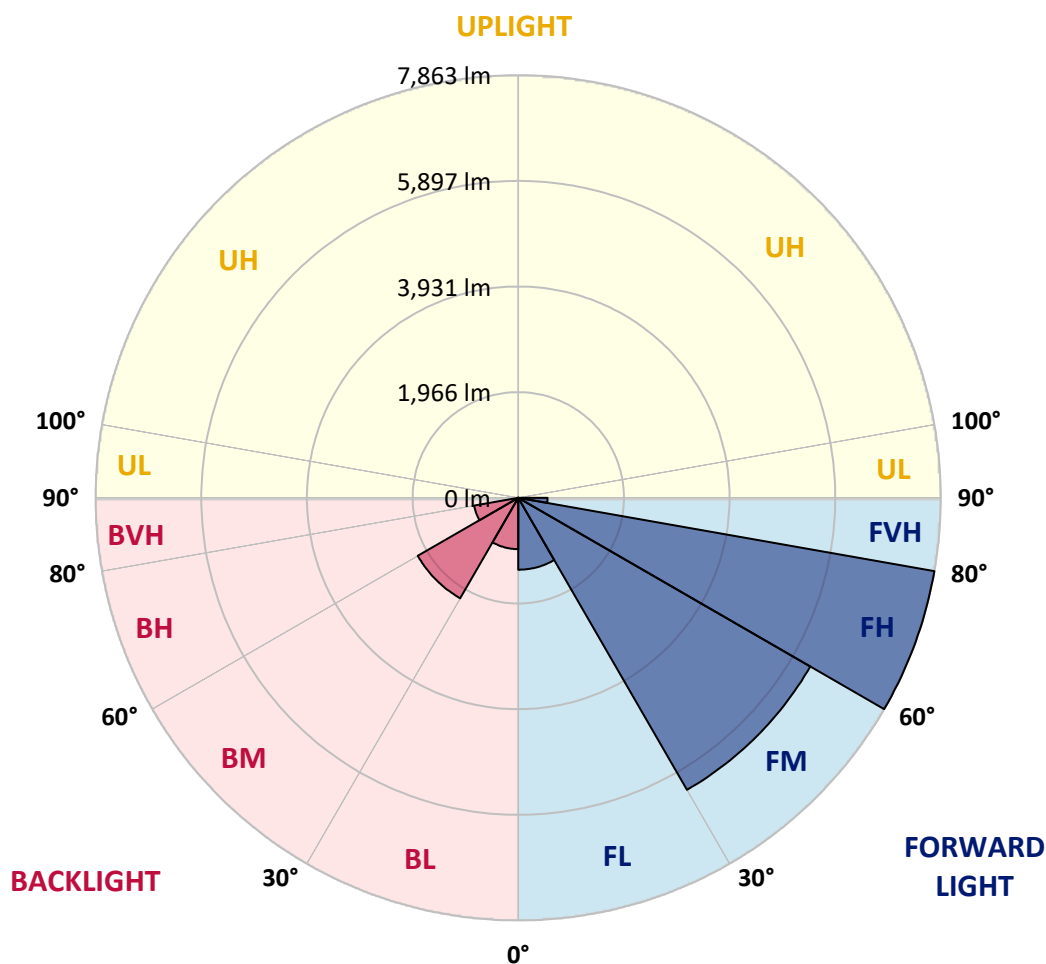
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1337.9	6.7			
FM	(30°-60°)	6274.6	31.4			
FH	(60°-80°)	7862.5	39.3			G4/12000
FVH	(80°-90°)	545.4	2.7			G4/750
BL	(0°-30°)	955.6	4.8	B2/1000		
BM	(30°-60°)	2159.2	10.8	B2/2500		
BH	(60°-80°)	832.7	4.2	B2/1000		G2/1000
BVH	(80°-90°)	26.8	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-G4

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2768.6	2768.6	2768.6	2768.6	2768.6	2768.6	2768.6	2768.6	2768.6	2768.6	2768.6
2.5°	3102.0	3125.3	3177.7	3205.3	3247.9	3250.7	3250.7	3213.6	3212.1	3136.4	3128.1
5°	3467.0	3522.1	3646.0	3774.2	3801.7	3808.6	3794.8	3720.4	3665.3	3517.9	3486.2
7.5°	3829.2	3935.3	4124.0	4294.9	4349.9	4349.9	4316.9	4195.6	4082.7	3869.2	3789.3
10°	4129.5	4263.1	4519.3	4710.8	4774.1	4760.4	4692.9	4540.0	4384.3	4125.4	4020.7
12.5°	4327.9	4478.0	4759.0	4913.2	4978.0	4942.2	4865.1	4716.3	4552.4	4279.7	4161.2
15°	4427.1	4584.1	4827.9	4909.1	4891.2	4854.1	4844.4	4772.8	4648.8	4394.0	4264.5
17.5°	4469.7	4615.8	4785.2	4734.2	4582.7	4553.8	4650.2	4741.1	4710.8	4493.2	4371.9
20°	4509.7	4632.3	4683.2	4457.3	4192.9	4166.7	4351.3	4610.2	4742.5	4585.4	4473.9
22.5°	4564.7	4640.6	4535.8	4165.3	3880.2	3819.6	4023.4	4413.2	4752.1	4702.5	4591.0
25°	4640.6	4661.2	4373.4	3888.4	3602.0	3541.4	3731.4	4194.3	4735.6	4829.3	4734.2
27.5°	4731.5	4688.8	4217.7	3657.1	3380.2	3323.8	3513.8	3983.6	4688.8	4956.0	4888.4
30°	4849.9	4724.5	4063.4	3478.0	3221.8	3180.5	3363.6	3801.7	4631.0	5117.1	5079.9
32.5°	4969.7	4739.7	3920.1	3373.3	3186.0	3201.2	3351.2	3703.9	4567.5	5271.4	5289.3
35°	5099.3	4787.9	3849.9	3476.6	3484.9	3617.1	3679.1	3794.8	4557.9	5480.8	5551.0
37.5°	5275.6	4895.4	3934.0	3990.4	4276.9	4551.0	4500.1	4239.7	4669.5	5793.4	5924.3
40°	5529.0	5084.1	4300.3	4865.1	5453.2	5898.2	5703.9	5048.2	5011.0	6243.9	6439.5
42.5°	5898.2	5384.3	4950.4	5933.9	6931.2	7664.0	7143.3	6091.0	5608.9	6887.1	7136.5
45°	6443.6	5870.6	5736.9	7062.0	8753.5	9907.9	8825.1	7202.6	6446.3	7860.9	8056.6
47.5°	7199.8	6585.4	6473.9	8250.7	10968.4	12461.5	10690.2	8232.9	7399.5	9188.8	9234.2
50°	8203.9	7548.3	7172.2	9551.1	13396.9	15064.9	12553.9	9227.4	8491.8	10811.4	10759.0
52.5°	9529.0	8891.3	7986.3	10789.4	15894.1	17613.1	14425.7	10100.7	9847.2	12694.3	12586.9
55°	11336.2	10911.9	9099.2	11971.2	18390.0	20176.5	16224.7	10924.3	11637.8	14931.3	14281.1
57.5°	13578.7	13881.7	10704.0	13341.7	20633.9	22818.4	18031.9	12075.8	13963.0	17432.7	15264.6
60°	15025.0	17830.8	13777.0	15367.9	23183.4	25806.0	20508.5	14266.0	16406.5	18329.4	15077.2
62.5°	14675.0	19086.9	17457.5	17954.7	25527.8	27978.2	22935.5	16465.7	16866.6	17008.4	13633.7
65°	13602.1	18073.2	16706.8	18457.5	26121.5	28100.8	23584.2	16182.0	14307.3	13885.8	10958.8
67.5°	12125.4	16870.7	14923.0	17124.2	25048.4	26387.3	22376.3	14314.2	11056.6	10420.3	7950.5
70°	10531.8	15540.1	13752.2	15628.3	23002.9	23401.1	20322.5	12589.7	8132.4	7037.2	5101.9
72.5°	9019.4	14154.4	12950.6	14095.2	20274.3	19450.6	17649.0	11064.9	5921.5	5075.8	3626.8
75°	7472.6	12110.3	11808.6	12274.3	16686.1	15321.1	14664.1	9161.2	4647.5	3672.2	2502.7
77.5°	5765.9	9462.9	10157.1	9829.3	11745.3	11380.3	11366.5	6884.4	3395.3	2450.5	1568.9
80°	3946.4	6595.2	7935.3	6933.9	7622.6	7436.7	8560.7	4618.5	2462.9	1475.2	873.3
82.5°	2319.6	4015.2	5523.5	3356.8	4214.9	4326.5	5097.8	2246.6	1449.0	340.2	190.0
85°	940.7	1585.4	2159.8	1314.0	2033.1	1714.9	1935.3	630.9	403.5	8.3	0.0
87.5°	236.9	506.9	355.4	147.4	235.5	216.3	170.8	77.2	16.5	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°	2768.6	2768.6	2768.6	2768.6	2768.6	2768.6	2768.6	2768.6	2768.6	2768.6	2768.6
2.5°	3074.4	3042.7	2964.2	2885.7	2822.3	2737.0	2680.5	2612.9	2548.3	2490.3	2479.4
5°	3399.5	3294.8	3151.6	3020.7	2887.1	2757.6	2629.5	2494.5	2370.5	2294.8	2246.6
7.5°	3664.0	3479.4	3289.3	3122.7	2961.4	2809.9	2640.5	2476.6	2282.4	2179.0	2085.5
10°	3861.0	3618.5	3369.2	3177.7	3015.1	2867.8	2724.6	2559.2	2325.1	2195.7	2055.1
12.5°	3990.4	3702.5	3410.5	3191.5	3009.7	2895.3	2832.0	2767.3	2534.4	2382.9	2179.0
15°	4079.9	3761.7	3439.4	3159.8	2936.6	2852.7	2916.0	2990.4	2841.6	2666.7	2400.9
17.5°	4177.7	3838.9	3451.8	3074.4	2794.8	2759.0	2922.9	3095.1	3088.2	2914.6	2654.3
20°	4281.0	3906.4	3443.6	2936.6	2622.6	2654.3	2863.6	3063.4	3147.4	3053.8	2822.3
22.5°	4387.1	3971.2	3411.9	2757.6	2461.4	2560.7	2770.0	2944.9	3044.1	3015.1	2838.8
25°	4520.7	4062.1	3365.1	2564.8	2327.9	2465.6	2661.2	2803.1	2871.9	2870.5	2749.4
27.5°	4680.5	4183.2	3340.3	2409.2	2232.8	2358.1	2531.8	2658.4	2706.6	2706.6	2610.3
30°	4866.4	4326.5	3312.7	2307.2	2177.7	2246.6	2381.6	2505.5	2553.8	2553.8	2472.5
32.5°	5073.0	4464.2	3246.6	2245.2	2136.4	2137.7	2223.1	2336.1	2394.0	2402.2	2344.4
35°	5321.0	4611.6	3102.0	2195.7	2088.1	2031.7	2073.1	2166.6	2235.5	2253.5	2217.7
37.5°	5646.1	4792.1	2895.3	2122.6	2013.8	1920.1	1929.8	2001.4	2077.2	2104.7	2081.3
40°	6082.7	5004.2	2680.5	2017.9	1909.1	1797.5	1793.4	1845.7	1920.1	1950.5	1938.1
42.5°	6659.8	5259.0	2475.3	1917.4	1782.4	1668.1	1661.2	1702.5	1767.2	1798.9	1793.4
45°	7398.1	5571.7	2298.9	1838.8	1658.4	1545.5	1542.7	1577.2	1633.6	1666.6	1659.8
47.5°	8424.4	5884.3	2179.0	1797.5	1560.7	1444.9	1450.5	1480.7	1531.7	1555.1	1545.5
50°	9761.8	5979.4	2118.5	1797.5	1508.3	1355.4	1382.9	1407.7	1446.3	1460.1	1447.7
52.5°	11045.6	5665.4	2063.4	1808.5	1515.2	1279.6	1338.9	1356.8	1389.8	1395.3	1377.4
55°	11675.1	4870.6	1987.6	1811.3	1557.9	1214.9	1303.1	1336.1	1348.5	1347.2	1316.8
57.5°	11458.8	3938.0	1859.6	1800.3	1586.8	1173.5	1259.0	1322.4	1330.6	1318.1	1261.7
60°	10699.9	2899.5	1761.8	1719.0	1575.7	1161.1	1191.5	1292.0	1304.4	1287.9	1195.6
62.5°	9427.1	2012.4	1685.9	1540.0	1527.6	1157.0	1085.4	1225.9	1256.2	1232.8	1097.8
65°	7421.5	1421.5	1451.8	1349.9	1422.9	1135.0	975.2	1146.1	1187.4	1151.5	961.4
67.5°	5022.1	1026.2	1176.3	1223.1	1253.5	1085.4	895.3	1055.1	1110.2	1063.3	803.1
70°	2712.1	720.4	776.8	1030.3	1064.8	1000.0	823.7	962.8	1026.2	975.2	654.3
72.5°	1602.0	517.9	544.1	827.8	887.0	880.2	743.8	855.4	932.5	871.9	531.7
75°	882.9	349.8	388.5	600.5	720.4	679.1	639.1	724.6	803.1	743.8	410.5
77.5°	395.3	209.4	270.0	393.9	566.1	465.6	494.5	564.8	637.8	575.7	274.1
80°	152.9	117.1	179.1	214.8	411.8	257.6	318.2	415.9	468.3	418.7	166.7
82.5°	19.3	52.4	77.2	84.0	239.6	136.3	184.6	261.7	257.6	223.1	84.0
85°	0.0	9.6	11.1	5.5	103.3	49.6	60.6	85.4	79.8	60.6	6.9
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	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):

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	2768.6	2768.6	2768.6	2768.6	2768.6	2768.6	2768.6	2768.6	2768.6	2768.6	2768.6
2.5°	2411.8	2362.3	2337.5	2316.8	2336.1	2347.1	2347.1	2394.0	2421.6	2432.5	2509.7
5°	2125.3	2033.1	1971.1	1933.9	1946.3	1960.1	1975.3	2034.4	2074.4	2100.5	2220.5
7.5°	1899.4	1759.0	1672.2	1626.8	1633.6	1643.3	1655.7	1713.5	1753.5	1787.9	1921.5
10°	1787.9	1589.6	1475.2	1420.1	1410.5	1405.0	1400.9	1435.3	1465.5	1493.1	1625.3
12.5°	1793.4	1516.6	1377.4	1309.9	1281.0	1247.9	1221.8	1227.3	1246.6	1281.0	1365.0
15°	1863.7	1493.1	1326.5	1242.4	1194.2	1155.7	1124.0	1117.0	1124.0	1129.4	1181.8
17.5°	1958.7	1490.4	1282.4	1177.7	1128.1	1096.4	1067.5	1057.9	1059.2	1066.1	1079.9
20°	2034.4	1482.1	1232.8	1115.7	1071.6	1044.1	1015.2	1005.5	1008.3	1009.6	1024.8
22.5°	2074.4	1469.7	1177.7	1053.7	1016.5	989.0	962.8	961.4	961.4	969.8	980.7
25°	2074.4	1443.5	1128.1	994.5	961.4	936.6	905.0	910.5	913.3	924.2	940.7
27.5°	2024.8	1394.0	1088.1	943.5	909.1	884.3	855.4	862.2	866.4	878.8	899.4
30°	1961.4	1334.8	1042.7	895.3	855.4	837.4	812.7	815.4	820.9	834.8	858.1
32.5°	1894.0	1264.4	1005.5	847.2	807.2	793.3	765.9	770.0	775.5	790.7	816.8
35°	1819.6	1181.8	961.4	803.1	763.1	752.0	720.4	723.1	731.4	747.9	774.1
37.5°	1741.1	1114.4	917.4	760.3	719.0	708.0	675.0	677.7	687.4	706.6	731.4
40°	1663.9	1048.3	870.5	714.8	673.5	663.9	628.1	630.9	641.9	662.6	688.7
42.5°	1579.9	997.2	810.0	668.1	624.0	614.3	581.3	585.4	597.8	618.5	644.6
45°	1479.4	964.2	742.4	624.0	574.4	564.8	534.4	542.7	556.5	577.2	604.6
47.5°	1376.1	950.4	685.9	577.2	523.5	515.2	490.4	504.1	519.3	535.8	566.1
50°	1276.8	932.5	628.1	533.1	479.4	471.1	454.6	472.4	487.6	502.8	531.7
52.5°	1163.9	893.9	575.7	494.5	442.2	439.4	431.1	447.6	461.5	475.2	500.0
55°	1046.8	832.0	530.3	460.0	410.5	413.2	409.1	422.9	433.9	446.3	468.3
57.5°	944.9	753.5	494.5	422.9	382.9	391.1	385.7	392.6	399.4	414.6	432.6
60°	841.6	659.8	454.6	378.8	355.4	365.0	349.8	348.5	351.3	355.4	388.5
62.5°	702.5	562.0	405.0	340.2	325.0	329.2	300.3	278.3	278.3	282.4	332.0
65°	564.8	471.1	349.8	296.1	283.7	281.0	239.6	209.4	206.6	219.0	261.7
67.5°	464.2	391.1	294.8	246.5	238.3	241.1	210.7	180.4	177.7	191.5	223.1
70°	384.3	315.4	235.5	190.0	198.3	210.7	180.4	151.5	147.4	159.8	190.0
72.5°	305.8	246.5	180.4	140.5	163.9	179.1	147.4	119.8	117.1	128.1	157.0
75°	224.5	176.3	122.6	101.9	126.7	140.5	107.4	85.4	81.3	90.9	119.8
77.5°	139.1	99.2	77.2	60.6	86.8	93.7	56.5	49.6	48.2	55.1	75.7
80°	64.8	42.7	37.2	20.7	31.7	37.2	23.4	26.1	27.6	33.1	46.8
82.5°	17.9	6.9	1.3	0.0	0.0	11.1	5.5	11.1	13.7	20.7	30.3
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	6.9	12.4	22.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.5	11.1
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: P968406

CATALOG NUMBER: NAV-SB5B-830-U-SLL-HSS

CANDELA DISTRIBUTION (continued):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	2768.6	2768.6	2768.6	2768.6	2768.6	2768.6	2768.6	2768.6
2.5°	2567.5	2622.6	2710.8	2801.6	2891.2	2982.1	3070.3	3102.0
5°	2329.2	2455.9	2630.9	2818.2	3011.0	3206.6	3385.7	3467.0
7.5°	2063.4	2245.2	2508.3	2801.6	3108.8	3416.0	3698.4	3829.2
10°	1779.6	2009.6	2309.9	2706.6	3147.4	3571.6	3960.1	4129.5
12.5°	1509.6	1750.7	2082.7	2557.9	3117.1	3661.2	4128.2	4327.9
15°	1283.7	1497.2	1855.4	2381.6	3019.3	3666.7	4208.0	4427.1
17.5°	1114.4	1253.5	1624.0	2186.0	2891.2	3615.7	4235.6	4469.7
20°	1030.3	1068.9	1323.7	1935.3	2771.4	3567.5	4263.1	4509.7
22.5°	980.7	990.4	1082.6	1611.6	2628.1	3552.3	4311.4	4564.7
25°	940.7	943.5	968.3	1276.8	2409.2	3542.7	4385.8	4640.6
27.5°	900.9	900.9	914.6	1028.9	2111.6	3501.4	4482.1	4731.5
30°	860.9	860.9	870.5	910.5	1763.1	3420.1	4597.8	4849.9
32.5°	819.6	819.6	827.8	856.8	1407.7	3318.2	4703.9	4969.7
35°	778.3	775.5	786.5	816.8	1119.8	3188.8	4809.9	5099.3
37.5°	734.2	732.8	743.8	778.3	967.0	3038.6	4889.9	5275.6
40°	687.4	687.4	699.8	736.9	922.9	2849.9	5016.6	5529.0
42.5°	644.6	641.9	655.7	701.1	889.8	2669.4	5243.9	5898.2
45°	603.3	597.8	610.2	666.7	832.0	2606.1	5668.1	6443.6
47.5°	564.8	550.9	562.0	625.4	779.6	2843.0	6362.3	7199.8
50°	533.1	506.9	516.5	584.0	739.6	3356.8	7263.2	8203.9
52.5°	500.0	465.6	471.1	533.1	703.9	3845.8	8239.8	9529.0
55°	465.6	427.0	429.8	482.1	652.9	3918.8	9192.9	11336.2
57.5°	427.0	391.1	391.1	435.2	615.7	3396.7	9925.7	13578.7
60°	384.3	360.9	354.0	398.1	648.7	2396.8	10011.1	15025.0
62.5°	337.4	325.0	315.4	362.2	673.5	1420.1	9323.8	14675.0
65°	283.7	281.0	274.1	398.1	567.5	838.9	8004.2	13602.1
67.5°	238.3	234.2	234.2	417.4	431.1	527.6	6253.5	12125.4
70°	205.2	190.0	190.0	315.4	261.7	365.0	4366.4	10531.8
72.5°	172.2	155.7	144.6	252.0	195.6	267.2	2728.7	9019.4
75°	137.8	125.4	111.6	166.7	146.0	202.4	1585.4	7472.6
77.5°	99.2	93.7	78.5	122.6	106.1	146.0	943.5	5765.9
80°	50.9	52.4	49.6	70.2	71.6	99.2	537.2	3946.4
82.5°	30.3	23.4	26.1	34.4	41.3	56.5	202.4	2319.6
85°	19.3	12.4	12.4	16.5	20.7	22.0	62.0	940.7
87.5°	9.6	4.1	5.5	8.3	6.9	5.5	2.8	236.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)