

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: P967879

Luminaire Tested: **NAV-SB5A-830-U-SLL-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967879
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-830-U-SLL-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 3000K, 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: 15927.5 lumens
Efficiency: N/A
Efficacy: 112.4 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



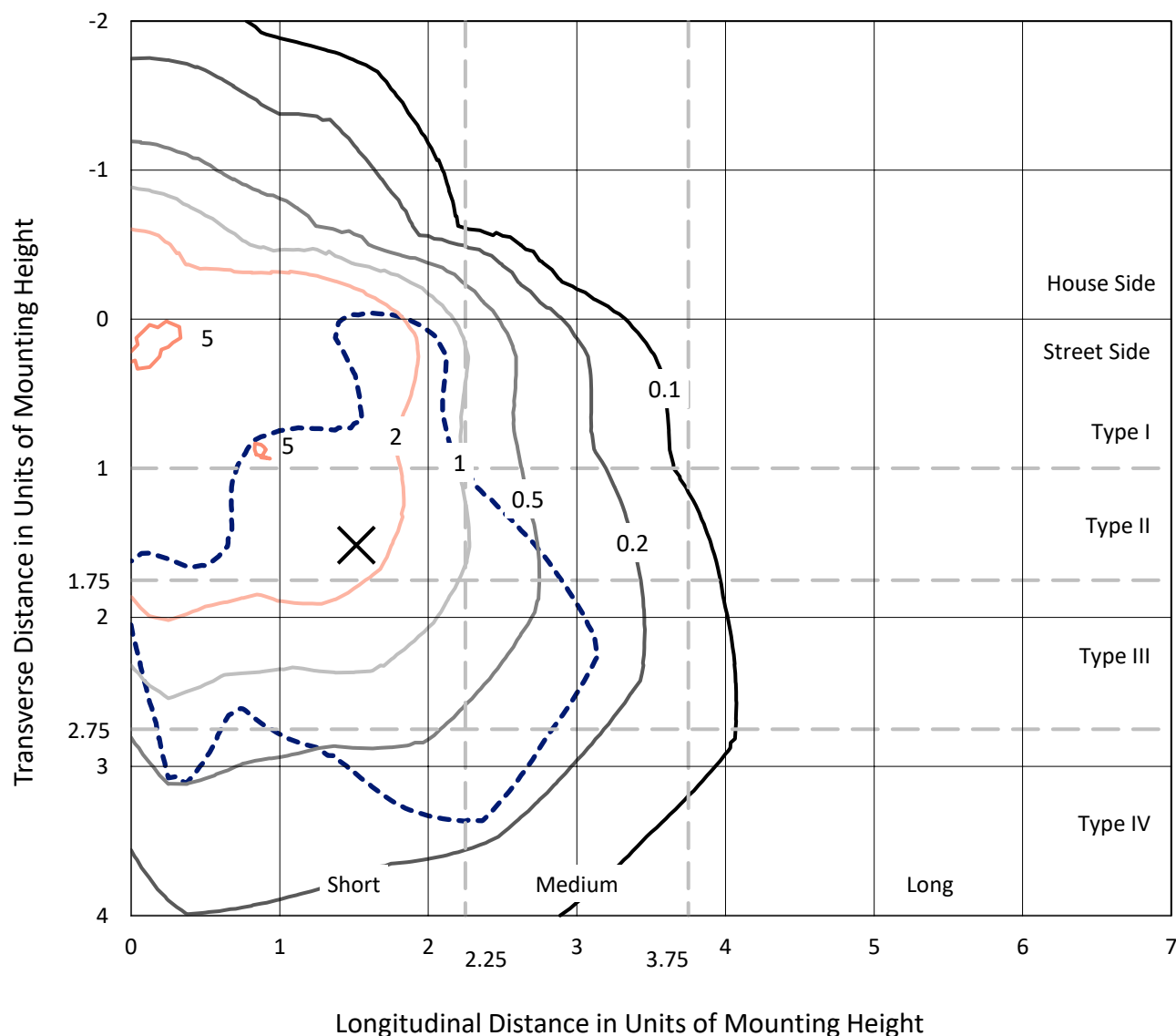
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

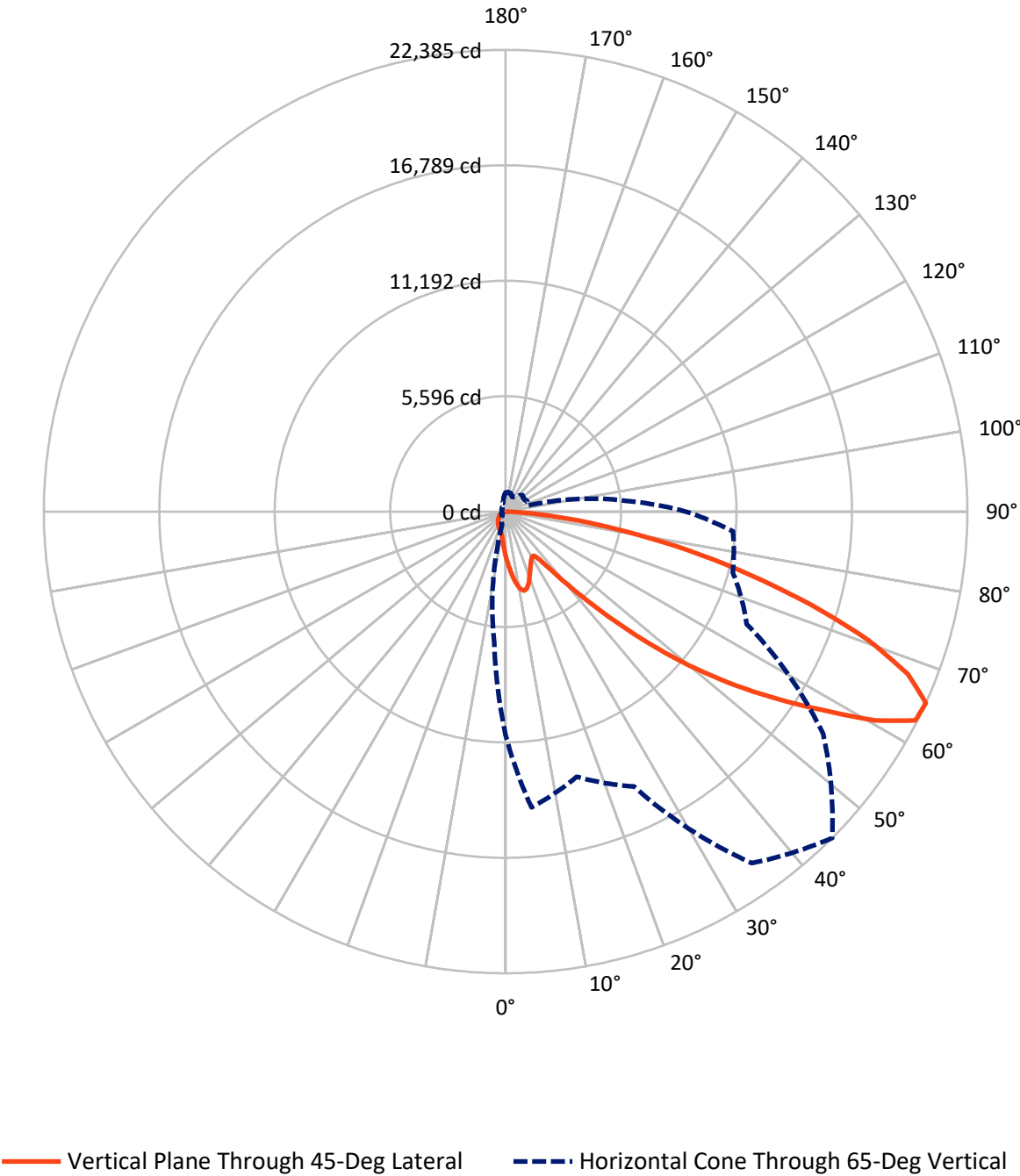


Based on 25 foot mounting height. Maximum calculated value = 5.8 fc

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	3165.9	0.0	3165.9
	% Fixture	19.9	0.0	19.9
Street Side	Lumens	12761.6	0.0	12761.6
	% Fixture	80.1	0.0	80.1
Total	Lumens	15927.5	0.0	15927.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	217.1	1.4
10°-20°	650.9	4.1
20°-30°	958.9	6.0
30°-40°	1231.9	7.7
40°-50°	1992.4	12.5
50°-60°	3493.9	21.9
60°-70°	4371.8	27.4
70°-80°	2554.7	16.0
80°-90°	455.8	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°	15927.5	100.0
0°-180°	15927.5	100.0

Coefficient of Utilization



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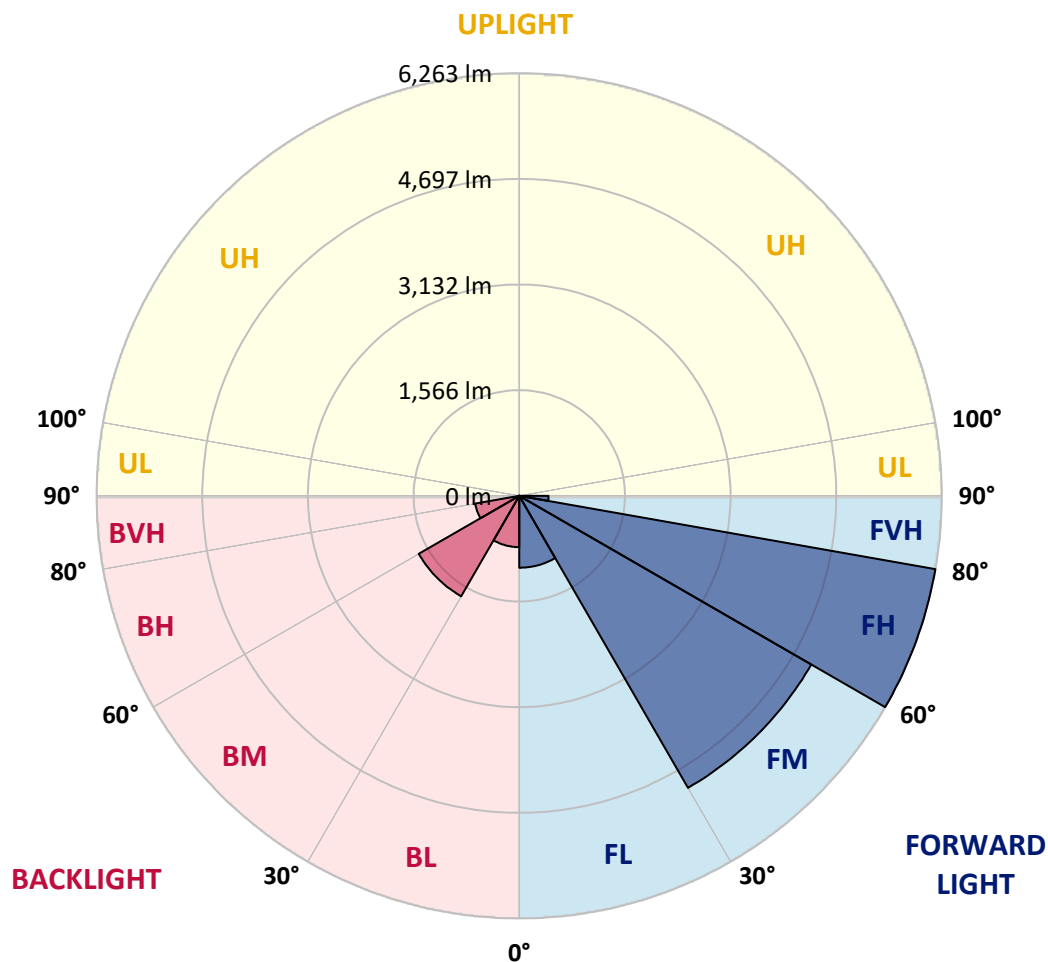
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1065.7	6.7			
FM	(30°-60°)	4998.2	31.4			
FH	(60°-80°)	6263.2	39.3			G3/7500
FVH	(80°-90°)	434.4	2.7			G3/500
BL	(0°-30°)	761.2	4.8	B2/1000		
BM	(30°-60°)	1720.0	10.8	B2/2500		
BH	(60°-80°)	663.3	4.2	B2/1000		G2/1000
BVH	(80°-90°)	21.4	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°	2205.5	2205.5	2205.5	2205.5	2205.5	2205.5	2205.5	2205.5	2205.5	2205.5	2205.5
2.5°	2471.0	2489.6	2531.3	2553.3	2587.3	2589.5	2589.5	2559.8	2558.7	2498.4	2491.8
5°	2761.8	2805.6	2904.3	3006.4	3028.4	3033.9	3022.9	2963.7	2919.7	2802.4	2777.1
7.5°	3050.3	3134.8	3285.1	3421.1	3465.1	3465.1	3438.8	3342.2	3252.2	3082.2	3018.5
10°	3289.5	3395.9	3600.0	3752.5	3803.1	3792.1	3738.3	3616.5	3492.5	3286.3	3202.8
12.5°	3447.5	3567.1	3791.0	3913.9	3965.4	3936.9	3875.4	3756.9	3626.3	3409.2	3314.7
15°	3526.5	3651.6	3845.8	3910.6	3896.3	3866.7	3859.0	3801.9	3703.2	3500.2	3397.1
17.5°	3560.5	3676.9	3811.8	3771.2	3650.5	3627.5	3704.2	3776.7	3752.5	3579.2	3482.6
20°	3592.3	3690.0	3730.6	3550.7	3340.0	3319.2	3466.1	3672.5	3777.7	3652.7	3563.8
22.5°	3636.3	3696.6	3613.2	3318.0	3090.9	3042.6	3205.1	3515.5	3785.4	3746.0	3657.1
25°	3696.6	3713.1	3483.8	3097.5	2869.3	2821.0	2972.4	3341.1	3772.3	3846.9	3771.2
27.5°	3769.0	3735.0	3359.7	2913.2	2692.6	2647.7	2799.1	3173.2	3735.0	3947.9	3894.1
30°	3863.3	3763.5	3236.8	2770.5	2566.4	2533.5	2679.5	3028.4	3688.9	4076.2	4046.6
32.5°	3958.9	3775.6	3122.8	2687.1	2537.9	2550.0	2669.6	2950.5	3638.4	4199.1	4213.4
35°	4062.0	3814.0	3066.8	2769.4	2776.0	2881.4	2930.7	3022.9	3630.8	4365.9	4421.8
37.5°	4202.4	3899.6	3133.7	3178.7	3406.9	3625.2	3584.6	3377.3	3719.6	4615.0	4719.2
40°	4404.3	4049.9	3425.6	3875.4	4344.0	4698.4	4543.6	4021.4	3991.8	4973.8	5129.6
42.5°	4698.4	4289.1	3943.5	4726.9	5521.3	6105.0	5690.3	4851.9	4468.0	5486.2	5684.8
45°	5132.9	4676.5	4570.0	5625.5	6973.0	7892.4	7030.0	5737.4	5135.0	6261.9	6417.7
47.5°	5735.3	5245.8	5157.0	6572.4	8737.3	9926.7	8515.7	6558.2	5894.4	7319.6	7355.9
50°	6535.1	6012.9	5713.3	7608.3	10671.7	12000.5	10000.2	7350.4	6764.5	8612.3	8570.5
52.5°	7590.6	7082.6	6361.8	8594.6	12661.0	14030.4	11491.4	8046.0	7844.1	10112.1	10026.6
55°	9030.2	8692.3	7248.4	9536.1	14649.2	16072.3	12924.3	8702.1	9270.5	11894.0	11376.2
57.5°	10816.5	11057.9	8526.7	10627.8	16436.6	18176.8	14363.9	9619.5	11122.7	13886.6	12159.6
60°	11968.6	14203.7	10974.6	12241.9	18467.6	20556.7	16336.8	11364.1	13069.2	14600.9	12010.3
62.5°	11689.9	15204.4	13906.4	14302.4	20335.1	22287.1	18270.1	13116.4	13435.7	13548.7	10860.5
65°	10835.2	14396.8	13308.4	14703.0	20808.0	22384.8	18786.9	12890.3	11397.0	11061.3	8729.6
67.5°	9659.0	13439.0	11887.4	13640.8	19953.3	21019.8	17824.6	11402.5	8807.5	8300.6	6333.3
70°	8389.5	12379.0	10954.8	12449.2	18323.8	18641.0	16188.6	10028.7	6478.1	5605.8	4064.1
72.5°	7184.7	11275.2	10316.2	11228.1	16150.2	15494.1	14058.9	8814.1	4717.0	4043.3	2889.1
75°	5952.5	9646.9	9406.6	9777.5	13291.9	12204.6	11681.2	7297.7	3702.1	2925.2	1993.7
77.5°	4593.0	7538.1	8091.0	7829.9	9356.1	9065.4	9054.4	5484.0	2704.7	1952.0	1249.8
80°	3143.6	5253.5	6321.2	5523.5	6072.1	5924.0	6819.3	3679.0	1961.8	1175.2	695.7
82.5°	1847.8	3198.4	4399.9	2673.9	3357.6	3446.5	4060.8	1789.5	1154.3	271.0	151.4
85°	749.4	1262.9	1720.5	1046.7	1619.5	1366.0	1541.6	502.6	321.4	6.6	0.0
87.5°	188.7	403.7	283.1	117.4	187.7	172.3	136.0	61.4	13.1	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°	2205.5	2205.5	2205.5	2205.5	2205.5	2205.5	2205.5	2205.5	2205.5	2205.5	2205.5
2.5°	2449.0	2423.8	2361.3	2298.7	2248.2	2180.2	2135.2	2081.5	2029.9	1983.8	1975.1
5°	2707.9	2624.6	2510.4	2406.3	2299.8	2196.7	2094.6	1987.1	1888.4	1828.0	1789.5
7.5°	2918.7	2771.6	2620.2	2487.5	2359.0	2238.4	2103.4	1972.8	1818.1	1735.8	1661.2
10°	3075.5	2882.4	2683.9	2531.3	2401.9	2284.4	2170.3	2038.6	1852.2	1749.0	1637.0
12.5°	3178.7	2949.3	2716.8	2542.3	2397.5	2306.4	2255.9	2204.4	2018.9	1898.2	1735.8
15°	3250.0	2996.6	2739.8	2517.1	2339.4	2272.4	2322.9	2382.1	2263.6	2124.2	1912.4
17.5°	3327.9	3058.0	2749.7	2449.0	2226.3	2197.8	2328.3	2465.5	2460.0	2321.7	2114.4
20°	3410.2	3111.8	2743.1	2339.4	2089.2	2114.4	2281.1	2440.2	2507.1	2432.5	2248.2
22.5°	3494.7	3163.4	2717.9	2196.7	1960.7	2039.7	2206.5	2345.9	2424.8	2401.9	2261.4
25°	3601.1	3235.7	2680.6	2043.0	1854.3	1964.0	2119.9	2232.9	2287.7	2286.7	2190.1
27.5°	3728.4	3332.3	2660.8	1919.1	1778.6	1878.5	2016.7	2117.6	2156.1	2156.1	2079.2
30°	3876.6	3446.5	2638.9	1837.8	1734.7	1789.5	1897.2	1995.9	2034.3	2034.3	1969.5
32.5°	4041.2	3556.1	2586.2	1788.5	1701.8	1702.9	1770.9	1860.9	1907.0	1913.6	1867.4
35°	4238.6	3673.5	2471.0	1749.0	1663.4	1618.5	1651.4	1726.0	1780.8	1795.1	1766.6
37.5°	4497.6	3817.3	2306.4	1690.8	1604.1	1529.5	1537.2	1594.3	1654.7	1676.6	1657.9
40°	4845.4	3986.2	2135.2	1607.4	1520.8	1431.9	1428.6	1470.3	1529.5	1553.7	1543.9
42.5°	5305.1	4189.3	1971.7	1527.4	1419.8	1328.7	1323.3	1356.2	1407.7	1432.9	1428.6
45°	5893.2	4438.4	1831.3	1464.8	1321.1	1231.1	1228.9	1256.3	1301.3	1327.7	1322.1
47.5°	6710.7	4687.4	1735.8	1431.9	1243.1	1151.0	1155.4	1179.6	1220.2	1238.8	1231.1
50°	7776.2	4763.1	1687.6	1431.9	1201.5	1079.6	1101.7	1121.4	1152.1	1163.1	1153.2
52.5°	8798.7	4513.0	1643.7	1440.6	1206.9	1019.4	1066.5	1080.8	1107.1	1111.5	1097.3
55°	9300.1	3879.8	1583.3	1442.9	1241.0	967.8	1038.0	1064.4	1074.2	1073.1	1049.0
57.5°	9127.9	3137.0	1481.2	1434.1	1264.0	934.8	1002.9	1053.4	1060.0	1050.0	1005.1
60°	8523.3	2309.6	1403.3	1369.4	1255.2	925.0	949.1	1029.2	1039.0	1025.9	952.4
62.5°	7509.5	1603.1	1343.1	1226.7	1216.9	921.7	864.6	976.5	1000.7	982.1	874.5
65°	5911.9	1132.3	1156.5	1075.3	1133.4	904.2	776.8	912.9	945.8	917.3	765.9
67.5°	4000.6	817.4	937.1	974.4	998.5	864.6	713.2	840.5	884.4	847.1	639.7
70°	2160.5	573.9	618.8	820.7	848.2	796.6	656.1	767.0	817.4	776.8	521.2
72.5°	1276.1	412.6	433.4	659.5	706.6	701.1	592.6	681.4	742.8	694.5	423.5
75°	703.4	278.7	309.4	478.4	573.9	540.9	509.1	577.2	639.7	592.6	327.0
77.5°	314.9	166.8	215.0	313.9	451.0	370.8	393.9	449.9	508.0	458.7	218.3
80°	121.8	93.3	142.7	171.2	328.1	205.2	253.5	331.4	373.1	333.5	132.7
82.5°	15.4	41.7	61.4	66.9	191.0	108.6	147.0	208.5	205.2	177.7	66.9
85°	0.0	7.7	8.8	4.4	82.3	39.5	48.3	68.1	63.7	48.3	5.5
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°	2205.5	2205.5	2205.5	2205.5	2205.5	2205.5	2205.5	2205.5	2205.5	2205.5	2205.5
2.5°	1921.3	1881.8	1862.0	1845.5	1860.9	1869.7	1869.7	1907.0	1928.9	1937.8	1999.2
5°	1693.0	1619.5	1570.1	1540.5	1550.4	1561.4	1573.5	1620.6	1652.4	1673.3	1768.7
7.5°	1513.1	1401.2	1332.1	1295.8	1301.3	1309.0	1318.9	1365.0	1396.8	1424.2	1530.6
10°	1424.2	1266.2	1175.2	1131.3	1123.6	1119.2	1115.9	1143.3	1167.5	1189.4	1294.8
12.5°	1428.6	1208.1	1097.3	1043.4	1020.4	994.1	973.2	977.6	993.0	1020.4	1087.3
15°	1484.6	1189.4	1056.7	989.7	951.3	920.6	895.3	889.9	895.3	899.7	941.5
17.5°	1560.3	1187.3	1021.5	938.2	898.6	873.4	850.3	842.7	843.8	849.2	860.3
20°	1620.6	1180.6	982.1	888.8	853.6	831.7	808.6	800.9	803.2	804.3	816.3
22.5°	1652.4	1170.8	938.2	839.4	809.7	787.8	767.0	765.9	765.9	772.4	781.3
25°	1652.4	1149.9	898.6	792.2	765.9	746.1	720.9	725.3	727.4	736.3	749.4
27.5°	1612.9	1110.4	866.8	751.6	724.2	704.4	681.4	686.9	690.1	700.1	716.5
30°	1562.5	1063.2	830.6	713.2	681.4	667.1	647.4	649.5	653.9	664.9	683.6
32.5°	1508.7	1007.3	800.9	674.8	643.0	632.0	610.1	613.4	617.8	629.9	650.7
35°	1449.5	941.5	765.9	639.7	607.8	599.1	573.9	576.0	582.6	595.8	616.6
37.5°	1386.9	887.6	730.7	605.7	572.8	564.0	537.6	539.9	547.6	562.9	582.6
40°	1325.4	835.0	693.4	569.5	536.6	528.9	500.3	502.6	511.3	527.8	548.6
42.5°	1258.5	794.4	645.1	532.2	497.0	489.3	463.0	466.4	476.2	492.6	513.5
45°	1178.4	768.0	591.4	497.0	457.6	449.9	425.7	432.3	443.3	459.7	481.6
47.5°	1096.1	757.1	546.4	459.7	417.0	410.4	390.6	401.6	413.7	426.8	451.0
50°	1017.1	742.8	500.3	424.7	381.8	375.3	362.1	376.4	388.4	400.5	423.5
52.5°	927.2	712.1	458.7	393.9	352.2	350.0	343.5	356.6	367.6	378.5	398.3
55°	833.9	662.8	422.4	366.4	327.0	329.1	325.8	336.8	345.6	355.5	373.1
57.5°	752.7	600.1	393.9	336.8	305.0	311.6	307.2	312.7	318.2	330.3	344.5
60°	670.5	525.6	362.1	301.8	283.1	290.8	278.7	277.6	279.8	283.1	309.4
62.5°	559.5	447.7	322.6	271.0	258.9	262.2	239.2	221.6	221.6	224.9	264.4
65°	449.9	375.3	278.7	236.0	226.0	223.9	191.0	166.8	164.6	174.5	208.5
67.5°	369.7	311.6	234.8	196.4	189.8	192.0	167.9	143.7	141.6	152.5	177.7
70°	306.2	251.2	187.7	151.4	158.0	167.9	143.7	120.7	117.4	127.3	151.4
72.5°	243.5	196.4	143.7	111.9	130.6	142.7	117.4	95.4	93.3	102.1	125.0
75°	178.9	140.4	97.7	81.2	101.0	111.9	85.6	68.1	64.8	72.5	95.4
77.5°	110.8	79.0	61.4	48.3	69.1	74.6	45.0	39.5	38.4	43.9	60.4
80°	51.6	34.0	29.6	16.5	25.2	29.6	18.7	20.8	21.9	26.3	37.3
82.5°	14.2	5.5	1.1	0.0	0.0	8.8	4.4	8.8	11.0	16.5	24.2
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	5.5	9.8	17.5
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.4	8.8
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: P967879

CATALOG NUMBER: NAV-SB5A-830-U-SLL-HSS

CANDELA DISTRIBUTION (continued):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	2205.5	2205.5	2205.5	2205.5	2205.5	2205.5	2205.5	2205.5
2.5°	2045.3	2089.2	2159.4	2231.7	2303.1	2375.5	2445.8	2471.0
5°	1855.5	1956.4	2095.7	2245.0	2398.6	2554.4	2697.0	2761.8
7.5°	1643.7	1788.5	1998.0	2231.7	2476.5	2721.2	2946.1	3050.3
10°	1417.7	1600.8	1840.1	2156.1	2507.1	2845.1	3154.5	3289.5
12.5°	1202.5	1394.6	1659.1	2037.6	2483.1	2916.4	3288.4	3447.5
15°	1022.6	1192.7	1477.9	1897.2	2405.2	2920.8	3352.1	3526.5
17.5°	887.6	998.5	1293.7	1741.3	2303.1	2880.2	3374.0	3560.5
20°	820.7	851.5	1054.4	1541.6	2207.6	2841.8	3395.9	3592.3
22.5°	781.3	788.9	862.4	1283.8	2093.6	2829.8	3434.4	3636.3
25°	749.4	751.6	771.3	1017.1	1919.1	2822.1	3493.6	3696.6
27.5°	717.6	717.6	728.6	819.6	1682.0	2789.1	3570.4	3769.0
30°	685.7	685.7	693.4	725.3	1404.5	2724.4	3662.5	3863.3
32.5°	652.8	652.8	659.5	682.4	1121.4	2643.3	3747.1	3958.9
35°	619.9	617.8	626.5	650.7	892.1	2540.1	3831.6	4062.0
37.5°	584.9	583.7	592.6	619.9	770.3	2420.5	3895.2	4202.4
40°	547.6	547.6	557.4	587.0	735.1	2270.2	3996.2	4404.3
42.5°	513.5	511.3	522.2	558.5	708.8	2126.5	4177.2	4698.4
45°	480.6	476.2	486.1	531.1	662.8	2075.9	4515.1	5132.9
47.5°	449.9	438.9	447.7	498.2	621.0	2264.7	5068.1	5735.3
50°	424.7	403.7	411.4	465.2	589.2	2673.9	5785.7	6535.1
52.5°	398.3	370.8	375.3	424.7	560.7	3063.5	6563.7	7590.6
55°	370.8	340.1	342.3	384.1	520.1	3121.6	7322.9	9030.2
57.5°	340.1	311.6	311.6	346.8	490.5	2705.8	7906.6	10816.5
60°	306.2	287.5	282.0	317.1	516.8	1909.2	7974.7	11968.6
62.5°	268.9	258.9	251.2	288.5	536.6	1131.3	7427.2	11689.9
65°	226.0	223.9	218.3	317.1	452.0	668.2	6376.0	10835.2
67.5°	189.8	186.5	186.5	332.5	343.5	420.2	4981.5	9659.0
70°	163.5	151.4	151.4	251.2	208.5	290.8	3478.2	8389.5
72.5°	137.1	124.0	115.2	200.8	155.8	212.9	2173.6	7184.7
75°	109.7	99.8	88.9	132.7	116.3	161.3	1262.9	5952.5
77.5°	79.0	74.6	62.5	97.7	84.5	116.3	751.6	4593.0
80°	40.6	41.7	39.5	56.0	57.1	79.0	427.9	3143.6
82.5°	24.2	18.7	20.8	27.5	32.9	45.0	161.3	1847.8
85°	15.4	9.8	9.8	13.1	16.5	17.5	49.4	749.4
87.5°	7.7	3.3	4.4	6.6	5.5	4.4	2.2	188.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)