

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: P968375

Luminaire Tested: **NAV-SB5B-827-U-SLL-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P968375
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-827-U-SLL-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 2700K, 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: 19348.9 lumens
Efficiency: N/A
Efficacy: 105.9 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

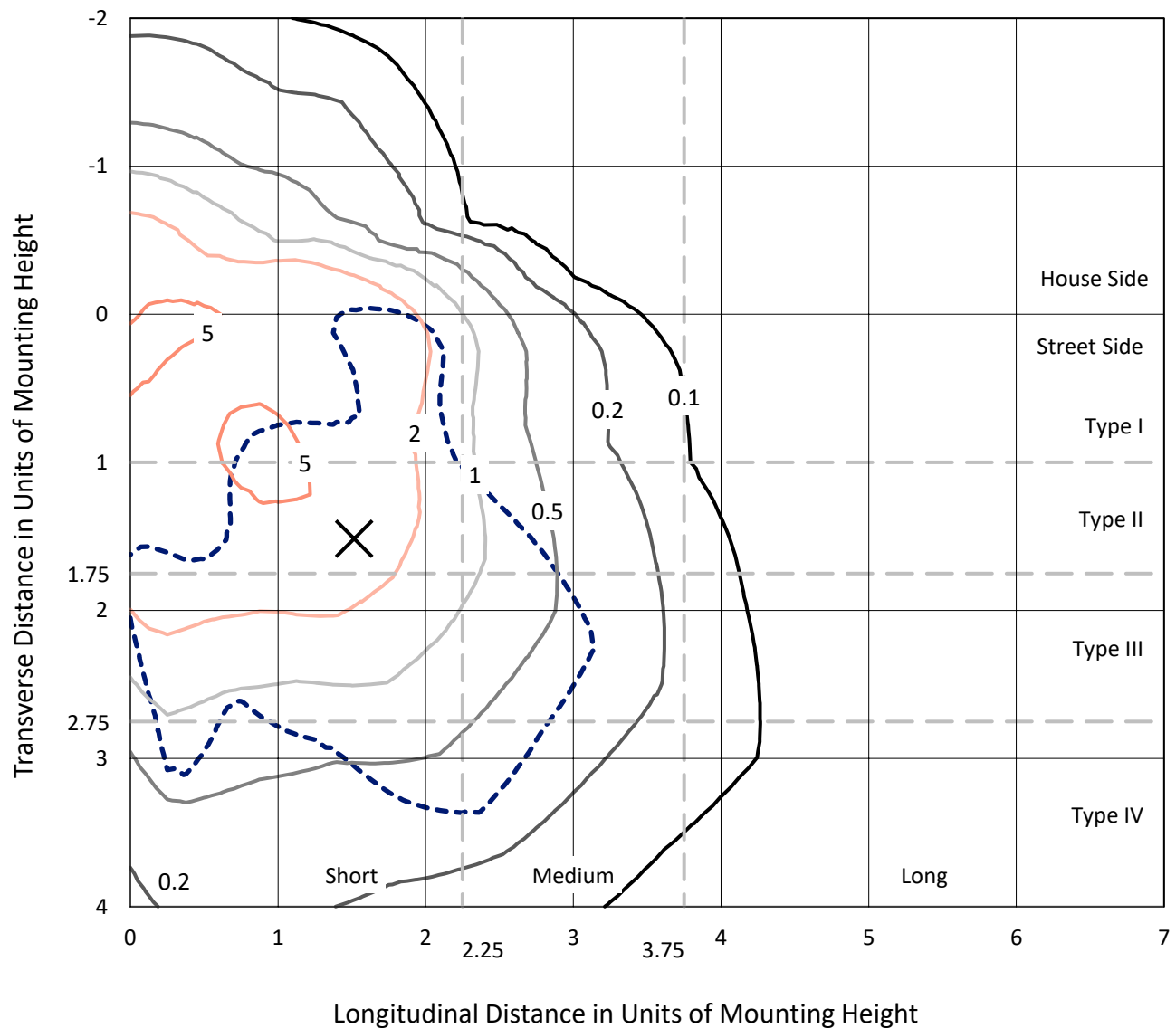


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
- - - 1/2 Max cd

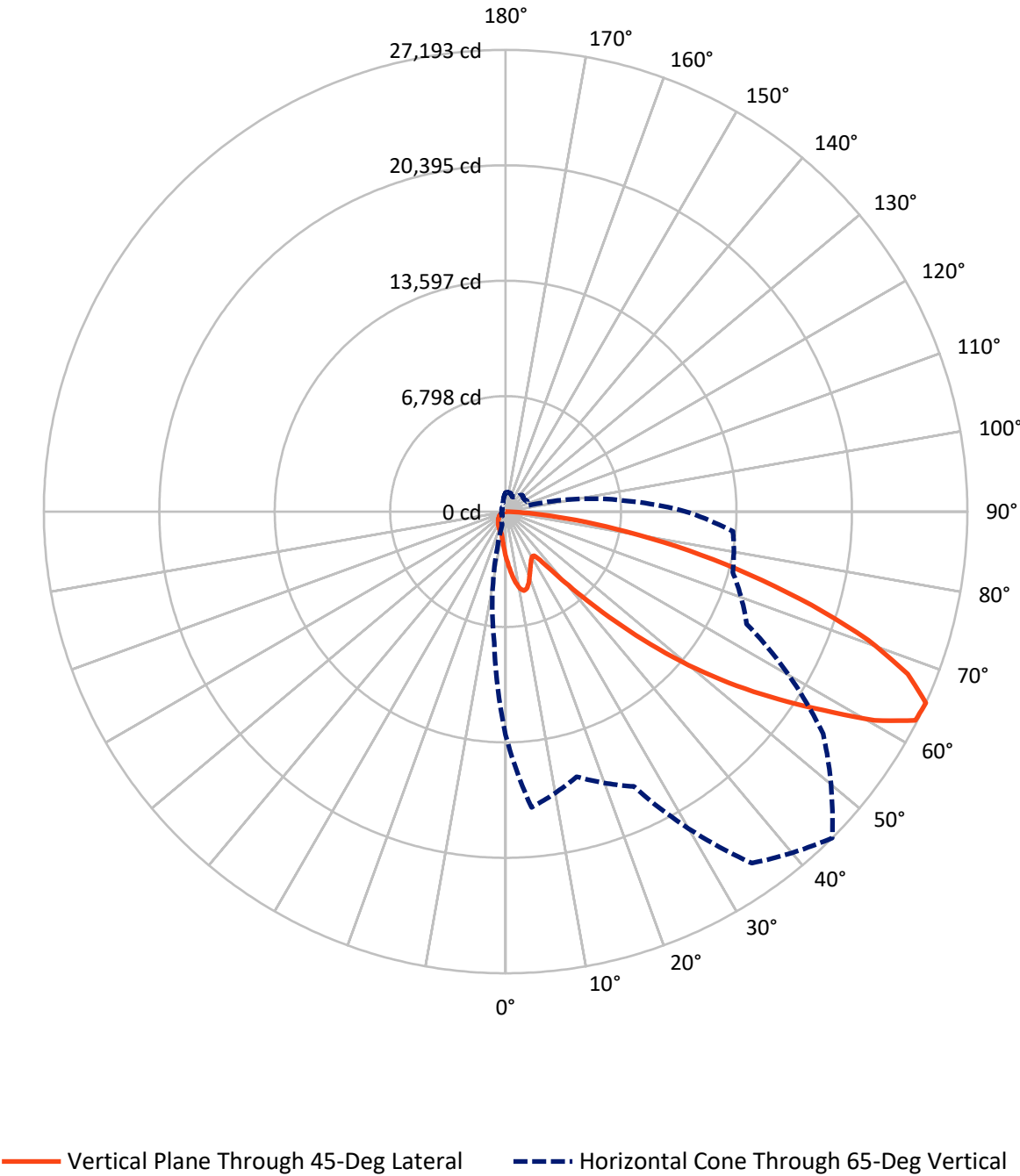


Based on 25 foot mounting height. Maximum calculated value = 7 fc

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	3846.0	0.0	3846.0
	% Fixture	19.9	0.0	19.9
Street Side	Lumens	15502.9	0.0	15502.9
	% Fixture	80.1	0.0	80.1
Total	Lumens	19348.9	0.0	19348.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	263.8	1.4
10°-20°	790.7	4.1
20°-30°	1164.9	6.0
30°-40°	1496.6	7.7
40°-50°	2420.4	12.5
50°-60°	4244.4	21.9
60°-70°	5310.9	27.4
70°-80°	3103.5	16.0
80°-90°	553.7	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°	19348.9	100.0
0°-180°	19348.9	100.0

Coefficient of Utilization



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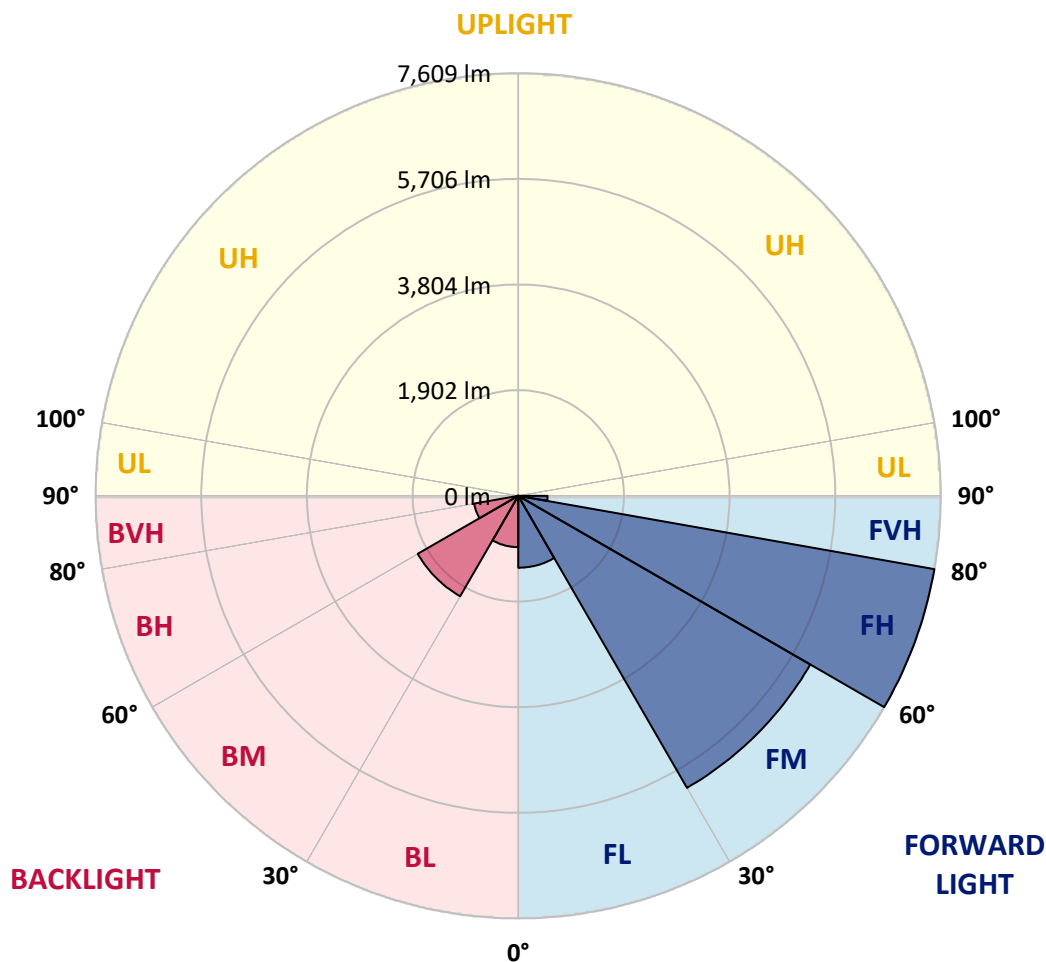
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1294.7	6.7			
FM	(30°-60°)	6071.9	31.4			
FH	(60°-80°)	7608.6	39.3			G4/12000
FVH	(80°-90°)	527.8	2.7			G4/750
BL	(0°-30°)	924.7	4.8	B2/1000		
BM	(30°-60°)	2089.5	10.8	B2/2500		
BH	(60°-80°)	805.8	4.2	B2/1000		G2/1000
BVH	(80°-90°)	25.9	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-G4

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2679.2	2679.2	2679.2	2679.2	2679.2	2679.2	2679.2	2679.2	2679.2	2679.2	2679.2
2.5°	3001.8	3024.5	3075.1	3101.8	3143.1	3145.7	3145.7	3109.7	3108.4	3035.1	3027.1
5°	3355.0	3408.3	3528.3	3652.3	3678.9	3685.6	3672.3	3600.3	3546.9	3404.3	3373.7
7.5°	3705.6	3808.2	3990.8	4156.1	4209.5	4209.5	4177.4	4060.1	3950.9	3744.2	3666.9
10°	3996.2	4125.4	4373.4	4558.7	4620.0	4606.7	4541.4	4393.4	4242.8	3992.2	3890.8
12.5°	4188.0	4333.4	4605.3	4754.6	4817.2	4782.5	4707.9	4564.0	4405.3	4141.4	4026.8
15°	4284.1	4436.0	4672.0	4750.6	4733.2	4697.3	4687.9	4618.6	4498.6	4252.1	4126.8
17.5°	4325.4	4466.6	4630.6	4581.3	4434.7	4406.7	4500.0	4588.0	4558.7	4348.0	4230.8
20°	4364.0	4482.6	4532.0	4313.4	4057.5	4032.1	4210.8	4461.3	4589.3	4437.3	4329.4
22.5°	4417.3	4490.6	4389.4	4030.8	3754.9	3696.3	3893.6	4270.8	4598.7	4550.7	4442.7
25°	4490.6	4510.6	4232.1	3762.9	3485.6	3427.0	3611.0	4058.8	4582.7	4673.3	4581.3
27.5°	4578.7	4537.4	4081.4	3538.9	3271.1	3216.3	3400.3	3854.8	4537.4	4795.9	4730.6
30°	4693.3	4572.0	3932.2	3365.7	3117.7	3077.8	3255.0	3678.9	4481.3	4951.9	4915.9
32.5°	4809.2	4586.7	3793.5	3264.3	3083.1	3097.8	3243.0	3584.3	4420.0	5101.1	5118.4
35°	4934.6	4633.3	3725.6	3364.4	3372.4	3500.3	3560.2	3672.3	4410.7	5303.8	5371.7
37.5°	5105.1	4737.2	3806.8	3861.5	4138.7	4404.0	4354.7	4102.8	4518.7	5606.3	5732.9
40°	5350.4	4919.9	4161.4	4707.9	5277.1	5707.6	5519.7	4885.3	4849.3	6042.2	6231.5
42.5°	5707.6	5210.5	4790.5	5742.3	6707.4	7416.5	6912.6	5894.3	5427.7	6664.7	6905.9
45°	6235.5	5681.0	5551.7	6834.0	8470.8	9587.8	8540.1	6969.9	6238.2	7607.0	7796.4
47.5°	6967.2	6372.7	6264.8	7984.3	10614.2	12059.1	10344.9	7967.0	7160.5	8892.1	8936.1
50°	7938.9	7304.5	6940.6	9242.6	12964.2	14578.4	12148.4	8929.4	8217.5	10462.3	10411.5
52.5°	9221.3	8604.2	7728.4	10441.0	15380.7	17044.3	13959.9	9774.4	9529.2	12284.3	12180.4
55°	10970.1	10559.6	8805.4	11584.6	17796.0	19524.9	15700.6	10571.5	11262.0	14449.0	13819.9
57.5°	13140.1	13433.3	10358.2	12910.8	19967.4	22081.5	17449.5	11685.9	13512.0	16869.7	14771.6
60°	14539.7	17254.8	13332.1	14871.6	22434.7	24972.6	19846.2	13805.2	15876.6	17737.4	14590.4
62.5°	14201.2	18470.5	16893.6	17374.9	24703.3	27074.7	22194.7	15933.9	16321.8	16459.1	13193.4
65°	13162.7	17489.5	16167.2	17861.3	25277.8	27193.2	22822.5	15659.3	13845.2	13437.3	10604.9
67.5°	11733.9	16325.8	14441.0	16571.1	24239.5	25535.1	21653.6	13851.8	10699.5	10083.6	7693.8
70°	10191.7	15038.2	13308.1	15123.6	22260.0	22645.3	19666.2	12183.0	7869.6	6810.0	4937.2
72.5°	8728.1	13697.3	12532.3	13640.0	19619.5	18822.4	17079.0	10707.5	5730.3	4911.9	3509.6
75°	7231.2	11719.2	11427.3	11877.8	16147.2	14826.3	14190.5	8865.3	4497.3	3553.6	2422.0
77.5°	5579.7	9157.2	9829.1	9511.9	11366.0	11012.7	10999.4	6662.0	3285.7	2371.3	1518.2
80°	3818.8	6382.1	7679.1	6710.1	7376.5	7196.5	8284.3	4469.3	2383.3	1427.6	845.1
82.5°	2244.6	3885.5	5345.1	3248.3	4078.8	4186.7	4933.2	2174.0	1402.3	329.2	184.0
85°	910.4	1534.2	2090.1	1271.6	1967.4	1659.5	1872.8	610.5	390.5	8.0	0.0
87.5°	229.3	490.6	343.9	142.6	228.0	209.3	165.3	74.6	16.0	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°	2679.2	2679.2	2679.2	2679.2	2679.2	2679.2	2679.2	2679.2	2679.2	2679.2	2679.2
2.5°	2975.2	2944.4	2868.5	2792.5	2731.2	2648.6	2593.9	2528.6	2465.9	2410.0	2399.3
5°	3289.7	3188.4	3049.8	2923.1	2793.8	2668.6	2544.6	2414.0	2294.0	2220.7	2174.0
7.5°	3545.6	3367.0	3183.0	3021.8	2865.8	2719.2	2555.2	2396.7	2208.7	2108.7	2018.0
10°	3736.2	3501.6	3260.3	3075.1	2917.8	2775.2	2636.5	2476.6	2250.0	2124.7	1988.7
12.5°	3861.5	3583.0	3300.4	3088.4	2912.4	2801.8	2740.5	2677.9	2452.6	2305.9	2108.7
15°	3948.2	3640.3	3328.4	3057.8	2841.8	2760.5	2821.8	2893.8	2749.9	2580.5	2323.3
17.5°	4042.8	3714.9	3340.4	2975.2	2704.6	2669.9	2828.5	2995.2	2988.5	2820.5	2568.5
20°	4142.7	3780.2	3332.4	2841.8	2537.9	2568.5	2771.2	2964.5	3045.8	2955.1	2731.2
22.5°	4245.4	3842.8	3301.7	2668.6	2382.0	2477.9	2680.6	2849.8	2945.7	2917.8	2747.2
25°	4374.7	3930.9	3256.3	2481.9	2252.6	2386.0	2575.2	2712.6	2779.2	2777.9	2660.6
27.5°	4529.4	4048.1	3232.3	2331.3	2160.7	2282.0	2450.0	2572.5	2619.2	2619.2	2525.9
30°	4709.3	4186.7	3205.7	2232.7	2107.4	2174.0	2304.6	2424.6	2471.3	2471.3	2392.7
32.5°	4909.2	4320.1	3141.7	2172.7	2067.4	2068.8	2151.4	2260.6	2316.6	2324.6	2268.6
35°	5149.2	4462.6	3001.8	2124.7	2020.7	1966.1	2006.0	2096.7	2163.4	2180.7	2146.0
37.5°	5463.8	4637.3	2801.8	2054.1	1948.7	1858.1	1867.4	1936.7	2010.0	2036.8	2014.0
40°	5886.3	4842.6	2593.9	1952.7	1847.5	1739.5	1735.5	1786.2	1858.1	1887.4	1875.4
42.5°	6444.8	5089.1	2395.3	1855.5	1724.9	1614.2	1607.5	1647.5	1710.1	1740.9	1735.5
45°	7159.2	5391.7	2224.7	1779.5	1604.8	1495.6	1492.9	1526.2	1580.9	1612.8	1606.2
47.5°	8152.2	5694.3	2108.7	1739.5	1510.2	1398.2	1403.6	1432.9	1482.3	1504.9	1495.6
50°	9446.5	5786.3	2050.1	1739.5	1459.6	1311.6	1338.2	1362.2	1399.5	1413.0	1400.9
52.5°	10688.8	5482.4	1996.7	1750.2	1466.3	1238.3	1295.6	1312.9	1344.9	1350.2	1332.9
55°	11298.0	4713.3	1923.4	1752.9	1507.6	1175.7	1261.0	1292.9	1304.9	1303.6	1274.3
57.5°	11088.8	3810.8	1799.5	1742.2	1535.6	1135.7	1218.3	1279.6	1287.6	1275.6	1221.0
60°	10354.2	2805.8	1704.8	1663.5	1524.9	1123.7	1153.0	1250.3	1262.3	1246.3	1157.0
62.5°	9122.6	1947.4	1631.5	1490.2	1478.3	1119.7	1050.3	1186.3	1215.6	1193.0	1062.3
65°	7181.9	1375.6	1405.0	1306.3	1376.9	1098.4	943.7	1109.0	1149.0	1114.4	930.4
67.5°	4859.9	993.0	1138.4	1183.7	1213.0	1050.3	866.4	1021.0	1074.3	1029.0	777.1
70°	2624.5	697.1	751.7	997.0	1030.3	967.7	797.1	931.7	993.0	943.7	633.1
72.5°	1550.2	501.2	526.5	801.1	858.4	851.8	719.8	827.8	902.4	843.8	514.6
75°	854.4	338.6	375.9	581.2	697.1	657.1	618.5	701.1	777.1	719.8	397.2
77.5°	382.5	202.6	261.3	381.2	547.9	450.5	478.6	546.5	617.2	557.2	265.3
80°	147.9	113.3	173.3	208.0	398.5	249.3	307.9	402.5	453.2	405.2	161.3
82.5°	18.7	50.6	74.6	81.3	232.0	131.9	178.7	253.3	249.3	216.0	81.3
85°	0.0	9.3	10.7	5.3	99.9	48.0	58.6	82.6	77.3	58.6	6.7
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	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):

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	2679.2	2679.2	2679.2	2679.2	2679.2	2679.2	2679.2	2679.2	2679.2	2679.2	2679.2
2.5°	2333.9	2286.0	2262.0	2242.0	2260.6	2271.3	2271.3	2316.6	2343.4	2354.0	2428.6
5°	2056.8	1967.4	1907.4	1871.4	1883.4	1896.8	1911.4	1968.7	2007.4	2032.8	2148.7
7.5°	1838.1	1702.1	1618.2	1574.2	1580.9	1590.2	1602.2	1658.1	1696.8	1730.2	1859.5
10°	1730.2	1538.2	1427.6	1374.2	1364.9	1359.6	1355.6	1388.9	1418.3	1444.9	1572.9
12.5°	1735.5	1467.6	1332.9	1267.6	1239.6	1207.7	1182.3	1187.7	1206.3	1239.6	1320.9
15°	1803.5	1444.9	1283.6	1202.3	1155.7	1118.4	1087.6	1081.0	1087.6	1093.1	1143.7
17.5°	1895.4	1442.3	1241.0	1139.7	1091.7	1061.0	1033.0	1023.7	1025.0	1031.7	1045.0
20°	1968.7	1434.3	1193.0	1079.6	1037.0	1010.3	982.4	973.0	975.7	977.0	991.7
22.5°	2007.4	1422.3	1139.7	1019.7	983.7	957.0	931.7	930.4	930.4	938.4	949.0
25°	2007.4	1396.9	1091.7	962.4	930.4	906.4	875.8	881.1	883.8	894.4	910.4
27.5°	1959.4	1348.9	1053.0	913.1	879.8	855.8	827.8	834.5	838.4	850.4	870.4
30°	1898.1	1291.6	1009.0	866.4	827.8	810.5	786.5	789.1	794.5	807.8	830.5
32.5°	1832.8	1223.6	973.0	819.8	781.2	767.7	741.1	745.1	750.4	765.1	790.5
35°	1760.8	1143.7	930.4	777.1	738.4	727.7	697.1	699.8	707.8	723.8	749.1
37.5°	1684.8	1078.3	887.8	735.7	695.8	685.1	653.1	655.8	665.1	683.8	707.8
40°	1610.2	1014.3	842.4	691.8	651.8	642.5	607.8	610.5	621.2	641.1	666.5
42.5°	1528.9	965.0	783.8	646.5	603.8	594.5	562.5	566.5	578.5	598.5	623.8
45°	1431.6	933.1	718.4	603.8	555.9	546.5	517.2	525.2	538.5	558.5	585.2
47.5°	1331.6	919.7	663.8	558.5	506.6	498.6	474.6	487.9	502.6	518.5	547.9
50°	1235.6	902.4	607.8	515.9	463.8	455.8	439.8	457.2	471.9	486.6	514.6
52.5°	1126.4	865.1	557.2	478.6	427.8	425.2	417.2	433.2	446.5	459.8	483.9
55°	1013.0	805.1	513.2	445.2	397.2	399.9	395.9	409.2	419.8	431.8	453.2
57.5°	914.4	729.1	478.6	409.2	370.5	378.5	373.2	379.9	386.5	401.2	418.5
60°	814.5	638.5	439.8	366.5	343.9	353.2	338.6	337.2	339.9	343.9	375.9
62.5°	679.8	543.9	391.9	329.2	314.6	318.6	290.6	269.3	269.3	273.3	321.2
65°	546.5	455.8	338.6	286.6	274.6	271.9	232.0	202.6	200.0	212.0	253.3
67.5°	449.2	378.5	285.3	238.6	230.6	233.3	204.0	174.7	172.0	185.3	216.0
70°	371.9	305.2	228.0	184.0	192.0	204.0	174.7	146.6	142.6	154.6	184.0
72.5°	295.9	238.6	174.7	135.9	158.7	173.3	142.6	115.9	113.3	123.9	151.9
75°	217.3	170.7	118.6	98.6	122.6	135.9	103.9	82.6	78.6	87.9	115.9
77.5°	134.6	95.9	74.6	58.6	83.9	90.6	54.6	48.0	46.6	53.3	73.3
80°	62.6	41.3	36.0	20.0	30.6	36.0	22.7	25.3	26.6	32.0	45.3
82.5°	17.3	6.7	1.3	0.0	0.0	10.7	5.3	10.7	13.3	20.0	29.3
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	6.7	12.0	21.3
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.3	10.7
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: P968375

CATALOG NUMBER: NAV-SB5B-827-U-SLL-HSS

CANDELA DISTRIBUTION (continued):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	2679.2	2679.2	2679.2	2679.2	2679.2	2679.2	2679.2	2679.2
2.5°	2484.6	2537.9	2623.2	2711.2	2797.8	2885.8	2971.2	3001.8
5°	2254.0	2376.7	2545.9	2727.2	2913.8	3103.1	3276.4	3355.0
7.5°	1996.7	2172.7	2427.3	2711.2	3008.5	3305.7	3578.9	3705.6
10°	1722.2	1944.7	2235.3	2619.2	3045.8	3456.3	3832.2	3996.2
12.5°	1460.9	1694.1	2015.4	2475.3	3016.5	3542.9	3994.8	4188.0
15°	1242.3	1448.9	1795.5	2304.6	2921.8	3548.2	4072.1	4284.1
17.5°	1078.3	1213.0	1571.5	2115.4	2797.8	3498.9	4098.8	4325.4
20°	997.0	1034.3	1280.9	1872.8	2681.9	3452.3	4125.4	4364.0
22.5°	949.0	958.4	1047.7	1559.5	2543.2	3437.6	4172.1	4417.3
25°	910.4	913.1	937.1	1235.6	2331.3	3428.3	4244.1	4490.6
27.5°	871.8	871.8	885.1	995.7	2043.4	3388.3	4337.4	4578.7
30°	833.1	833.1	842.4	881.1	1706.1	3309.7	4449.3	4693.3
32.5°	793.1	793.1	801.1	829.1	1362.2	3211.0	4552.0	4809.2
35°	753.1	750.4	761.1	790.5	1083.6	3085.8	4654.6	4934.6
37.5°	710.4	709.1	719.8	753.1	935.7	2940.4	4731.9	5105.1
40°	665.1	665.1	677.1	713.1	893.1	2757.9	4854.6	5350.4
42.5°	623.8	621.2	634.5	678.4	861.1	2583.2	5074.5	5707.6
45°	583.8	578.5	590.5	645.1	805.1	2521.9	5485.1	6235.5
47.5°	546.5	533.2	543.9	605.2	754.4	2751.2	6156.9	6967.2
50°	515.9	490.6	499.9	565.2	715.8	3248.3	7028.6	7938.9
52.5°	483.9	450.5	455.8	515.9	681.1	3721.6	7973.7	9221.3
55°	450.5	413.2	415.8	466.5	631.8	3792.2	8896.1	10970.1
57.5°	413.2	378.5	378.5	421.2	595.8	3287.1	9605.2	13140.1
60°	371.9	349.2	342.6	385.2	627.8	2319.3	9687.8	14539.7
62.5°	326.6	314.6	305.2	350.5	651.8	1374.2	9022.7	14201.2
65°	274.6	271.9	265.3	385.2	549.2	811.8	7745.7	13162.7
67.5°	230.6	226.6	226.6	403.8	417.2	510.6	6051.5	11733.9
70°	198.6	184.0	184.0	305.2	253.3	353.2	4225.5	10191.7
72.5°	166.7	150.6	139.9	244.0	189.3	258.6	2640.5	8728.1
75°	133.2	121.3	107.9	161.3	141.2	196.0	1534.2	7231.2
77.5°	95.9	90.6	76.0	118.6	102.6	141.2	913.1	5579.7
80°	49.3	50.6	48.0	68.0	69.3	95.9	519.9	3818.8
82.5°	29.3	22.7	25.3	33.3	40.0	54.6	196.0	2244.6
85°	18.7	12.0	12.0	16.0	20.0	21.3	60.0	910.4
87.5°	9.3	4.0	5.3	8.0	6.7	5.3	2.7	229.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)