

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: P964500

Luminaire Tested: **NAV-SB3C-727-U-SLL-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P964500
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-SB3C-727-U-SLL-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 70 CRI, 2700K, 615mA 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: 16303.6 lumens
Efficiency: N/A
Efficacy: 109.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G3

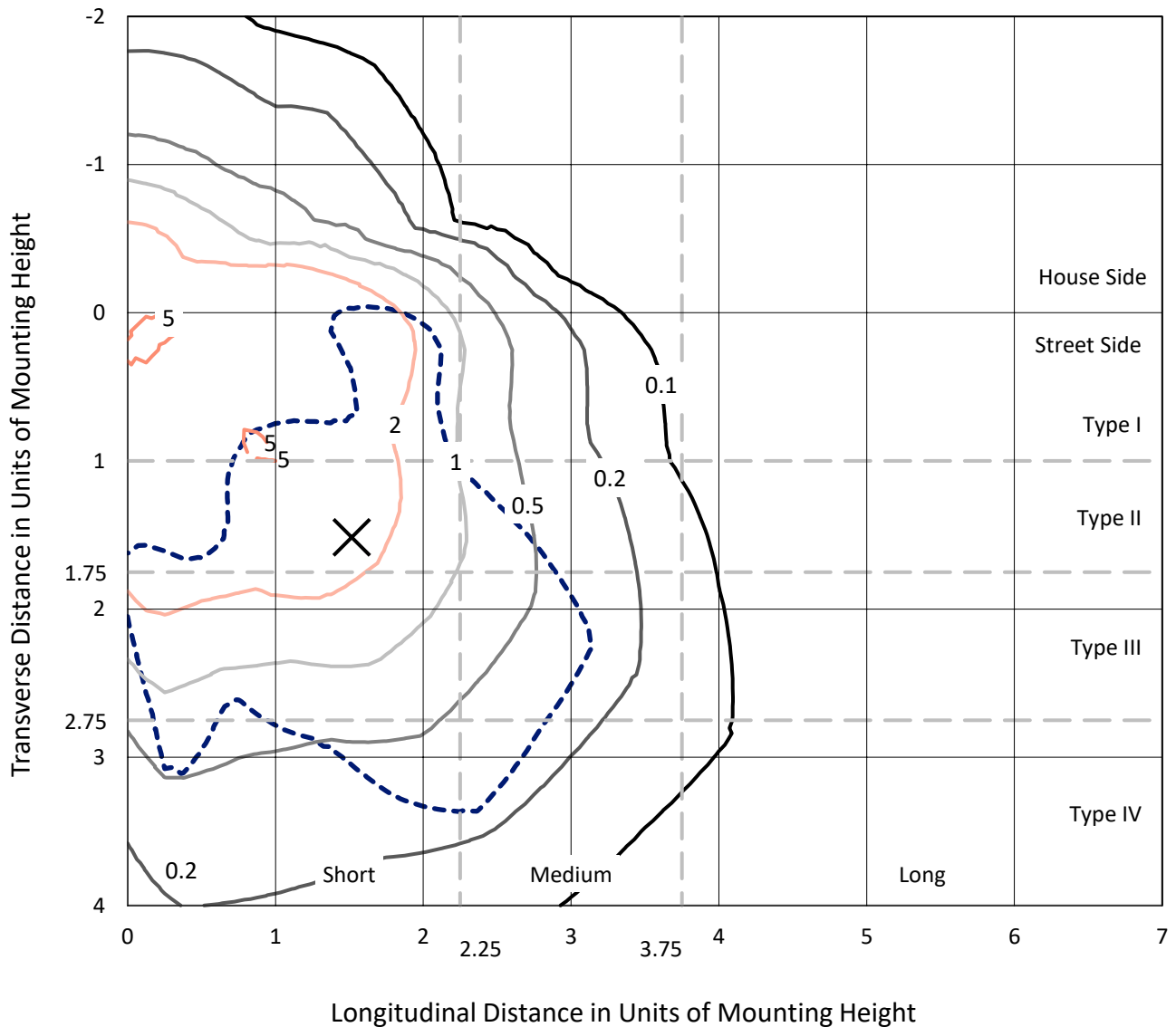
Input Watts (W): 149.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P964500
 CATALOG NUMBER: NAV-SB3C-727-U-SLL-HSS

Iso-Footcandle Lines of Horizontal Illumination

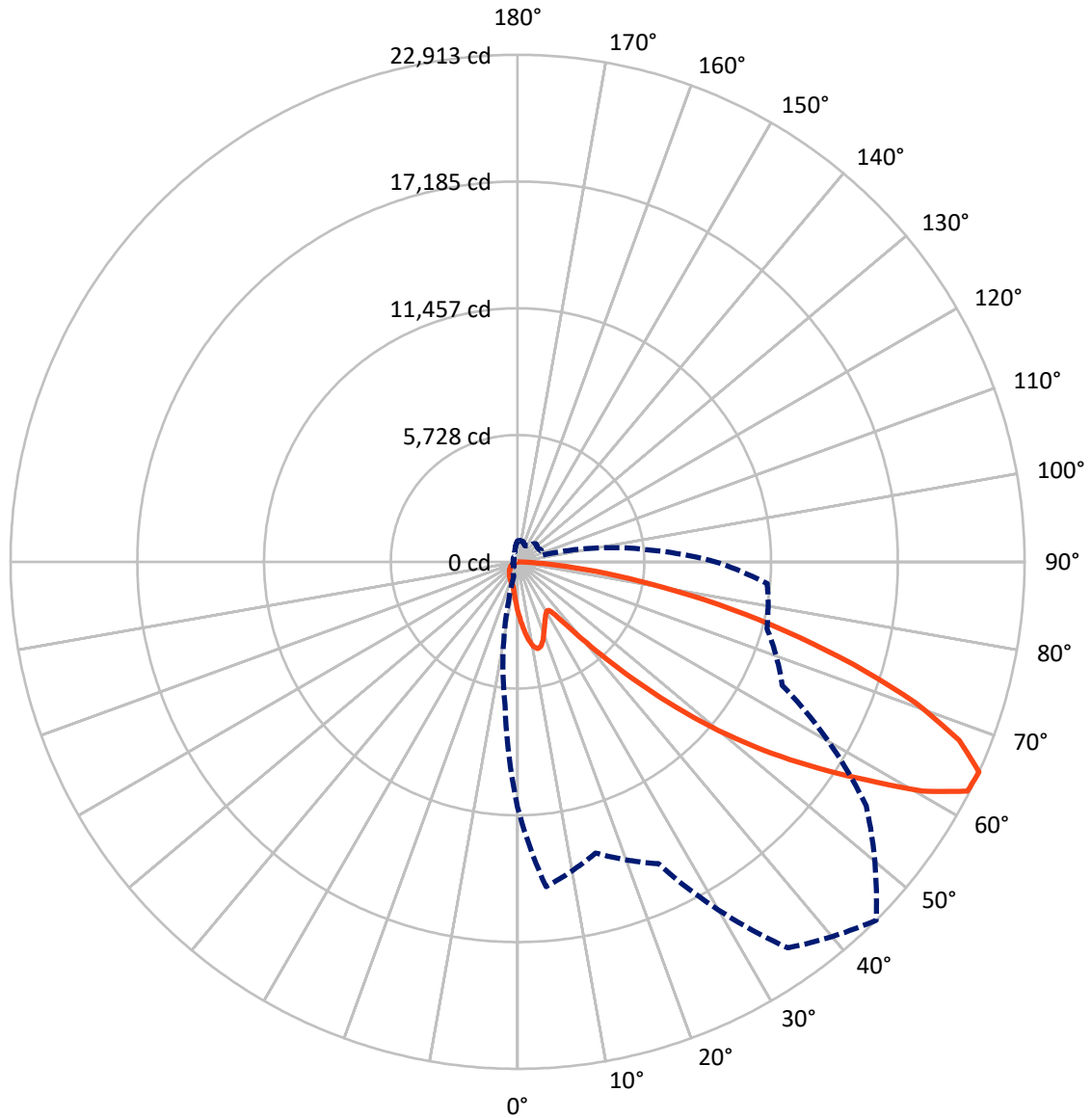
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.9 fc
 Type IV - Short - N/A

REPORT NUMBER: P964500
CATALOG NUMBER: NAV-SB3C-727-U-SLL-HSS

Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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 CATALOG NUMBER: NAV-SB3C-727-U-SLL-HSS

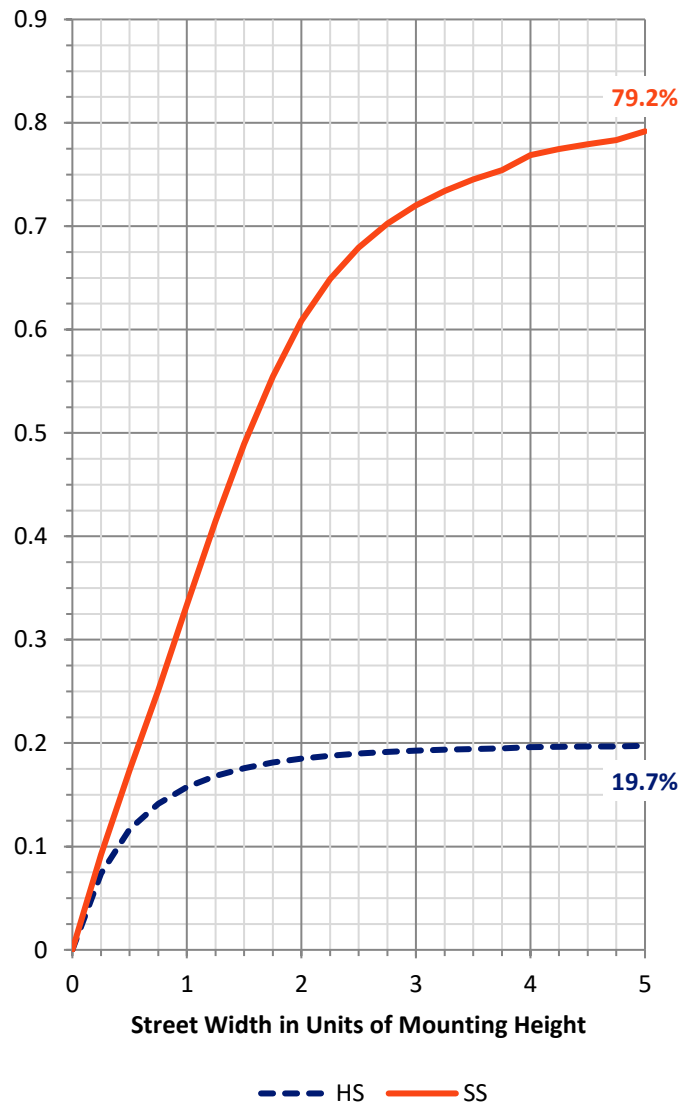
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3240.7	0.0	3240.7
	% Fixture	19.9	0.0	19.9
Street Side	Lumens	13063.0	0.0	13063.0
	% Fixture	80.1	0.0	80.1
Total	Lumens	16303.6	0.0	16303.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	222.3	1.4
10°-20°	666.3	4.1
20°-30°	981.6	6.0
30°-40°	1261.0	7.7
40°-50°	2039.5	12.5
50°-60°	3576.4	21.9
60°-70°	4475.1	27.4
70°-80°	2615.0	16.0
80°-90°	466.6	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°	16303.6	100.0
0°-180°	16303.6	100.0

Coefficient of Utilization



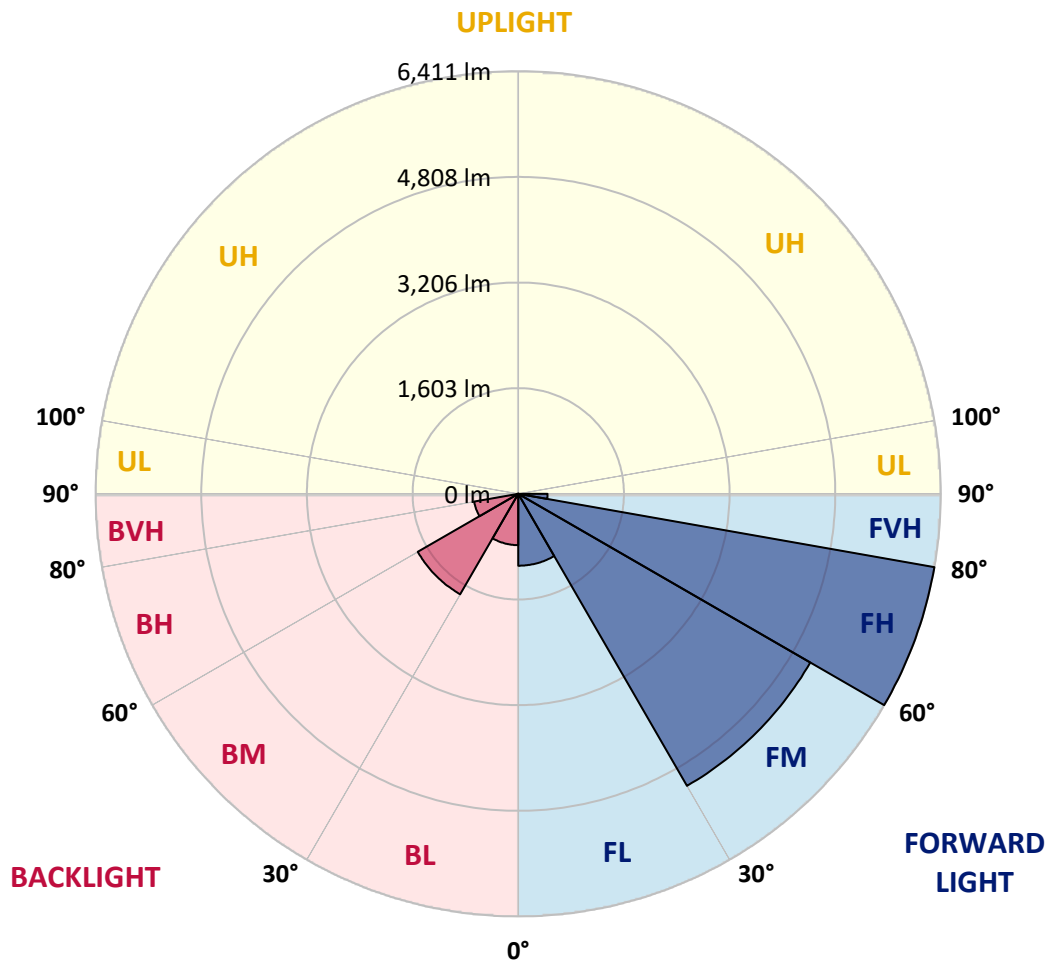
REPORT NUMBER: P964500
 CATALOG NUMBER: NAV-SB3C-727-U-SLL-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1090.9	6.7			
FM (30°-60°)	5116.3	31.4			
FH (60°-80°)	6411.1	39.3			G3/7500
FVH (80°-90°)	444.7	2.7			G3/500
BL (0°-30°)	779.2	4.8	B2/1000		
BM (30°-60°)	1760.6	10.8	B2/2500		
BH (60°-80°)	679.0	4.2	B2/1000		G2/1000
BVH (80°-90°)	21.9	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-G3

Type IV Short



REPORT NUMBER: P964500
 CATALOG NUMBER: NAV-SB3C-727-U-SLL-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2257.6	2257.6	2257.6	2257.6	2257.6	2257.6	2257.6	2257.6	2257.6	2257.6	2257.6
2.5°	2529.3	2548.5	2591.1	2613.5	2648.4	2650.6	2650.6	2620.3	2619.2	2557.4	2550.7
5°	2827.0	2871.9	2973.0	3077.5	3099.9	3105.5	3094.3	3033.6	2988.7	2868.6	2842.7
7.5°	3122.4	3208.9	3362.7	3502.0	3546.9	3546.9	3520.0	3421.1	3329.0	3155.0	3089.8
10°	3367.2	3476.2	3685.1	3841.2	3892.8	3881.6	3826.5	3701.9	3575.0	3363.8	3278.5
12.5°	3529.0	3651.4	3880.4	4006.3	4059.1	4029.9	3967.0	3845.7	3712.0	3489.6	3393.1
15°	3609.8	3737.9	3936.6	4002.9	3988.3	3957.9	3950.1	3891.7	3790.7	3582.9	3477.3
17.5°	3644.6	3763.7	3901.9	3860.3	3736.7	3713.2	3791.8	3865.9	3841.2	3663.8	3564.8
20°	3677.2	3777.1	3818.7	3634.5	3418.9	3397.6	3548.0	3759.2	3867.0	3739.0	3648.0
22.5°	3722.1	3783.9	3698.5	3396.4	3163.9	3114.5	3280.7	3598.6	3874.9	3834.4	3743.5
25°	3783.9	3800.7	3566.0	3170.6	2937.0	2887.6	3042.6	3420.0	3861.4	3937.7	3860.3
27.5°	3858.0	3823.2	3439.1	2981.9	2756.2	2710.2	2865.2	3248.1	3823.2	4041.1	3986.0
30°	3954.7	3852.4	3313.3	2836.0	2627.1	2593.4	2742.7	3099.9	3776.0	4172.5	4142.2
32.5°	4052.3	3864.8	3196.5	2750.6	2597.9	2610.2	2732.6	3020.2	3724.3	4298.3	4312.9
35°	4157.9	3904.1	3139.2	2834.8	2841.6	2949.4	3000.0	3094.3	3716.5	4469.0	4526.3
37.5°	4301.7	3991.7	3207.7	3253.8	3487.4	3710.9	3669.3	3457.0	3807.5	4724.0	4830.7
40°	4508.4	4145.5	3506.5	3967.0	4446.6	4809.3	4650.9	4116.4	4086.1	5091.3	5250.8
42.5°	4809.3	4390.4	4036.7	4838.5	5651.7	6249.2	5824.7	4966.5	4573.4	5615.8	5819.0
45°	5254.2	4786.9	4677.9	5758.3	7137.6	8078.8	7196.0	5872.9	5256.3	6409.8	6569.3
47.5°	5870.7	5369.8	5278.9	6727.7	8943.6	10161.1	8716.8	6713.0	6033.6	7492.5	7529.6
50°	6689.5	6154.8	5848.2	7787.9	10923.7	12283.9	10236.4	7524.0	6924.2	8815.6	8773.0
52.5°	7769.9	7249.9	6512.0	8797.7	12960.0	14361.7	11762.8	8236.1	8029.4	10351.0	10263.3
55°	9243.6	8897.6	7419.6	9761.3	14995.2	16452.0	13229.6	8907.8	9489.6	12174.9	11644.8
57.5°	11072.0	11319.1	8728.0	10878.8	16824.8	18606.1	14703.2	9846.7	11385.4	14214.6	12446.8
60°	12251.3	14539.2	11233.8	12531.0	18903.8	21042.2	16722.6	11632.5	13377.9	14945.7	12294.1
62.5°	11966.1	15563.5	14234.8	14640.3	20815.4	22813.4	18701.6	13426.2	13752.9	13868.7	11116.9
65°	11091.1	14736.8	13622.7	15050.2	21299.4	22913.4	19230.6	13194.8	11666.1	11322.5	8935.7
67.5°	9887.2	13756.3	12168.2	13963.1	20424.5	21516.2	18245.6	11671.8	9015.5	8496.6	6482.8
70°	8587.7	12671.4	11213.5	12743.3	18756.6	19081.2	16571.0	10265.6	6631.1	5738.2	4160.2
72.5°	7354.4	11541.5	10559.9	11493.2	16531.7	15860.0	14390.9	9022.3	4828.5	4138.8	2957.2
75°	6093.1	9874.7	9628.7	10008.4	13605.8	12492.8	11957.0	7470.1	3789.5	2994.3	2040.8
77.5°	4701.5	7716.1	8282.1	8014.8	9577.1	9279.4	9268.3	5613.5	2768.5	1998.1	1279.3
80°	3217.8	5377.7	6470.5	5653.9	6215.5	6063.9	6980.4	3766.0	2008.2	1202.9	712.1
82.5°	1891.4	3274.0	4503.8	2737.2	3436.8	3527.8	4156.8	1831.9	1181.5	277.5	155.0
85°	767.1	1292.7	1761.1	1071.5	1657.7	1398.3	1578.0	514.4	329.1	6.8	0.0
87.5°	193.2	413.3	289.8	120.1	192.1	176.3	139.3	62.9	13.4	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

REPORT NUMBER: P964500
 CATALOG NUMBER: NAV-SB3C-727-U-SLL-HSS

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°	185°
0°	2257.6	2257.6	2257.6	2257.6	2257.6	2257.6	2257.6	2257.6	2257.6	2257.6	2257.6
2.5°	2506.8	2481.0	2417.1	2353.0	2301.3	2231.7	2185.6	2130.7	2077.9	2030.6	2021.7
5°	2771.9	2686.6	2569.8	2463.1	2354.1	2248.5	2144.1	2034.0	1932.9	1871.1	1831.9
7.5°	2987.6	2837.1	2682.1	2546.2	2414.8	2291.2	2153.1	2019.5	1861.1	1776.8	1700.5
10°	3148.2	2950.6	2747.2	2591.1	2458.6	2338.4	2221.6	2086.8	1895.8	1790.3	1675.8
12.5°	3253.8	3019.0	2780.9	2602.4	2454.1	2360.9	2309.2	2256.4	2066.6	1943.1	1776.8
15°	3326.7	3067.3	2804.5	2576.5	2394.6	2326.0	2377.7	2438.4	2317.0	2174.4	1957.6
17.5°	3406.5	3130.2	2814.6	2506.8	2278.9	2249.7	2383.3	2523.8	2518.1	2376.6	2164.3
20°	3490.7	3185.3	2807.9	2394.6	2138.5	2164.3	2335.1	2497.9	2566.4	2490.0	2301.3
22.5°	3577.2	3238.1	2782.1	2248.5	2007.1	2087.9	2258.7	2401.3	2482.1	2458.6	2314.9
25°	3686.2	3312.2	2743.8	2091.3	1898.1	2010.4	2169.9	2285.6	2341.8	2340.7	2241.8
27.5°	3816.5	3411.0	2723.6	1964.4	1820.6	1922.8	2064.4	2167.7	2207.0	2207.0	2128.4
30°	3968.1	3527.8	2701.2	1881.3	1775.7	1831.9	1942.0	2043.0	2082.3	2082.3	2016.1
32.5°	4136.6	3640.1	2647.3	1830.8	1742.0	1743.1	1812.8	1904.9	1952.0	1958.8	1911.6
35°	4338.7	3760.3	2529.3	1790.3	1702.7	1656.6	1690.3	1766.7	1822.9	1837.5	1808.3
37.5°	4603.8	3907.4	2360.9	1730.8	1642.0	1565.7	1573.6	1631.9	1693.7	1716.2	1697.1
40°	4959.9	4080.4	2185.6	1645.4	1556.7	1465.7	1462.4	1505.0	1565.7	1590.4	1580.2
42.5°	5430.4	4288.2	2018.3	1563.4	1453.3	1360.2	1354.5	1388.3	1441.0	1466.9	1462.4
45°	6032.4	4543.1	1874.5	1499.4	1352.3	1260.1	1257.9	1286.0	1332.1	1359.0	1353.4
47.5°	6869.2	4798.1	1776.8	1465.7	1272.5	1178.1	1182.6	1207.3	1249.0	1268.0	1260.1
50°	7959.7	4875.6	1727.4	1465.7	1229.9	1105.2	1127.6	1147.9	1179.3	1190.5	1180.4
52.5°	9006.6	4619.5	1682.4	1474.7	1235.4	1043.4	1091.7	1106.3	1133.2	1137.8	1123.2
55°	9519.8	3971.5	1620.7	1476.9	1270.3	990.7	1062.5	1089.5	1099.5	1098.5	1073.7
57.5°	9343.5	3211.1	1516.3	1468.0	1293.9	956.9	1026.5	1078.2	1085.0	1074.8	1028.8
60°	8724.6	2364.3	1436.5	1401.7	1284.8	946.8	971.5	1053.5	1063.6	1050.1	974.9
62.5°	7686.9	1640.9	1374.7	1255.7	1245.6	943.4	885.1	999.6	1024.3	1005.2	895.1
65°	6051.5	1159.1	1183.8	1100.6	1160.2	925.5	795.2	934.5	968.1	939.0	783.9
67.5°	4095.0	836.7	959.2	997.3	1022.0	885.1	730.0	860.4	905.3	867.0	654.8
70°	2211.4	587.4	633.4	840.1	868.2	815.4	671.7	785.0	836.7	795.2	533.5
72.5°	1306.3	422.3	443.6	675.1	723.3	717.7	606.5	697.5	760.3	710.9	433.6
75°	720.0	285.3	316.7	489.7	587.4	553.7	521.1	590.8	654.8	606.5	334.7
77.5°	322.4	170.8	220.2	321.2	461.7	379.7	403.2	460.5	520.0	469.4	223.6
80°	124.6	95.4	146.0	175.2	335.8	210.0	259.4	339.2	381.9	341.4	135.9
82.5°	15.7	42.6	62.9	68.5	195.5	111.2	150.5	213.4	210.0	181.9	68.5
85°	0.0	7.9	9.0	4.5	84.3	40.4	49.4	69.6	65.2	49.4	5.6
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	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

REPORT NUMBER: P964500
 CATALOG NUMBER: NAV-SB3C-727-U-SLL-HSS

CANDELA DISTRIBUTION (continued):

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	2257.6	2257.6	2257.6	2257.6	2257.6	2257.6	2257.6	2257.6	2257.6	2257.6	2257.6
2.5°	1966.7	1926.2	1906.0	1889.2	1904.9	1913.9	1913.9	1952.0	1974.5	1983.5	2046.4
5°	1733.1	1657.7	1607.2	1576.9	1587.0	1598.3	1610.6	1658.9	1691.5	1712.8	1810.6
7.5°	1548.8	1434.3	1363.5	1326.5	1332.1	1339.9	1350.0	1397.2	1429.8	1457.9	1566.8
10°	1457.9	1296.1	1202.9	1157.9	1150.2	1145.6	1142.3	1170.3	1195.0	1217.5	1325.3
12.5°	1462.4	1236.6	1123.2	1068.2	1044.6	1017.6	996.2	1000.7	1016.5	1044.6	1113.0
15°	1519.7	1217.5	1081.6	1013.1	973.7	942.3	916.5	910.9	916.5	921.0	963.7
17.5°	1597.2	1215.2	1045.6	960.3	919.8	894.0	870.4	862.5	863.7	869.3	880.6
20°	1658.9	1208.5	1005.2	909.8	873.8	851.4	827.8	819.9	822.2	823.3	835.6
22.5°	1691.5	1198.4	960.3	859.3	828.9	806.5	785.0	783.9	783.9	790.7	799.7
25°	1691.5	1177.1	919.8	810.9	783.9	763.7	737.9	742.4	744.7	753.7	767.1
27.5°	1651.1	1136.6	887.2	769.4	741.3	721.1	697.5	703.0	706.4	716.6	733.4
30°	1599.4	1088.3	850.2	730.0	697.5	682.9	662.7	664.9	669.4	680.6	699.8
32.5°	1544.4	1031.0	819.9	690.7	658.2	647.0	624.4	627.8	632.3	644.7	666.0
35°	1483.7	963.7	783.9	654.8	622.2	613.3	587.4	589.7	596.3	609.9	631.2
37.5°	1419.6	908.7	748.0	620.0	586.3	577.3	550.3	552.6	560.5	576.2	596.3
40°	1356.8	854.7	709.8	582.9	549.2	541.4	512.2	514.4	523.4	540.3	561.6
42.5°	1288.2	813.1	660.4	544.7	508.8	500.9	474.0	477.3	487.5	504.3	525.6
45°	1206.2	786.2	605.4	508.8	468.3	460.5	435.8	442.5	453.8	470.6	493.0
47.5°	1122.1	775.0	559.3	470.6	426.8	420.0	399.9	411.0	423.4	436.9	461.7
50°	1041.2	760.3	512.2	434.7	390.8	384.1	370.6	385.2	397.6	410.0	433.6
52.5°	949.0	728.9	469.4	403.2	360.5	358.2	351.6	365.0	376.3	387.4	407.7
55°	853.6	678.3	432.4	375.2	334.7	336.9	333.5	344.8	353.8	363.9	381.9
57.5°	770.5	614.4	403.2	344.8	312.2	319.0	314.5	320.1	325.7	338.0	352.7
60°	686.2	538.0	370.6	308.8	289.8	297.7	285.3	284.1	286.4	289.8	316.7
62.5°	572.8	458.3	330.3	277.5	265.1	268.4	244.9	226.8	226.8	230.2	270.7
65°	460.5	384.1	285.3	241.5	231.3	229.1	195.5	170.8	168.5	178.6	213.4
67.5°	378.5	319.0	240.4	201.0	194.3	196.6	171.9	147.1	144.9	156.1	181.9
70°	313.3	257.2	192.1	155.0	161.7	171.9	147.1	123.5	120.1	130.3	155.0
72.5°	249.4	201.0	147.1	114.6	133.7	146.0	120.1	97.7	95.4	104.4	128.0
75°	183.1	143.8	99.9	83.1	103.3	114.6	87.6	69.6	66.2	74.1	97.7
77.5°	113.5	80.9	62.9	49.4	70.7	76.4	46.0	40.4	39.4	44.9	61.8
80°	52.8	34.8	30.3	16.8	25.8	30.3	19.1	21.3	22.4	27.0	38.2
82.5°	14.6	5.6	1.1	0.0	0.0	9.0	4.5	9.0	11.3	16.8	24.7
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	5.6	10.1	17.9
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5	9.0
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: P964500
 CATALOG NUMBER: NAV-SB3C-727-U-SLL-HSS

CANDELA DISTRIBUTION (continued):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	2257.6	2257.6	2257.6	2257.6	2257.6	2257.6	2257.6	2257.6
2.5°	2093.6	2138.5	2210.4	2284.5	2357.5	2431.6	2503.5	2529.3
5°	1899.2	2002.5	2145.2	2297.9	2455.2	2614.7	2760.7	2827.0
7.5°	1682.4	1830.8	2045.3	2284.5	2534.9	2785.4	3015.7	3122.4
10°	1451.1	1638.7	1883.5	2207.0	2566.4	2912.3	3229.1	3367.2
12.5°	1230.9	1427.5	1698.2	2085.7	2541.7	2985.3	3366.1	3529.0
15°	1046.7	1220.9	1512.9	1942.0	2461.9	2989.8	3431.2	3609.8
17.5°	908.7	1022.0	1324.2	1782.5	2357.5	2948.3	3453.7	3644.6
20°	840.1	871.6	1079.3	1578.0	2259.8	2909.0	3476.2	3677.2
22.5°	799.7	807.5	882.8	1314.0	2143.0	2896.6	3515.4	3722.1
25°	767.1	769.4	789.6	1041.2	1964.4	2888.8	3576.1	3783.9
27.5°	734.5	734.5	745.8	839.0	1721.8	2855.0	3654.7	3858.0
30°	701.9	701.9	709.8	742.4	1437.7	2788.8	3749.0	3954.7
32.5°	668.3	668.3	675.1	698.6	1147.9	2705.7	3835.6	4052.3
35°	634.6	632.3	641.3	666.0	913.2	2600.1	3922.1	4157.9
37.5°	598.6	597.5	606.5	634.6	788.4	2477.6	3987.1	4301.7
40°	560.5	560.5	570.5	600.9	752.6	2323.8	4090.5	4508.4
42.5°	525.6	523.4	534.6	571.6	725.6	2176.7	4275.8	4809.3
45°	491.9	487.5	497.5	543.6	678.3	2125.0	4621.7	5254.2
47.5°	460.5	449.3	458.3	509.9	635.7	2318.1	5187.8	5870.7
50°	434.7	413.3	421.2	476.2	603.1	2737.2	5922.3	6689.5
52.5°	407.7	379.7	384.1	434.7	573.9	3135.9	6718.7	7769.9
55°	379.7	348.2	350.4	393.1	532.4	3195.3	7495.9	9243.6
57.5°	348.2	319.0	319.0	355.0	502.0	2769.7	8093.4	11072.0
60°	313.3	294.3	288.6	324.6	529.0	1954.3	8163.1	12251.3
62.5°	275.2	265.1	257.2	295.4	549.2	1157.9	7602.6	11966.1
65°	231.3	229.1	223.6	324.6	462.8	684.0	6526.6	11091.1
67.5°	194.3	191.0	191.0	340.3	351.6	430.2	5099.1	9887.2
70°	167.4	155.0	155.0	257.2	213.4	297.7	3560.4	8587.7
72.5°	140.4	126.9	118.0	205.5	159.5	217.9	2225.0	7354.4
75°	112.3	102.2	91.0	135.9	119.1	165.1	1292.7	6093.1
77.5°	80.9	76.4	64.1	99.9	86.5	119.1	769.4	4701.5
80°	41.5	42.6	40.4	57.3	58.4	80.9	438.0	3217.8
82.5°	24.7	19.1	21.3	28.1	33.7	46.0	165.1	1891.4
85°	15.7	10.1	10.1	13.4	16.8	17.9	50.5	767.1
87.5°	7.9	3.4	4.5	6.8	5.6	4.5	2.3	193.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)