

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: P964686

Luminaire Tested: **NAV-SB3C-827-U-SLL-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P964686
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-827-U-SLL-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 80 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: 15284.8 lumens
Efficiency: N/A
Efficacy: 102.5 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



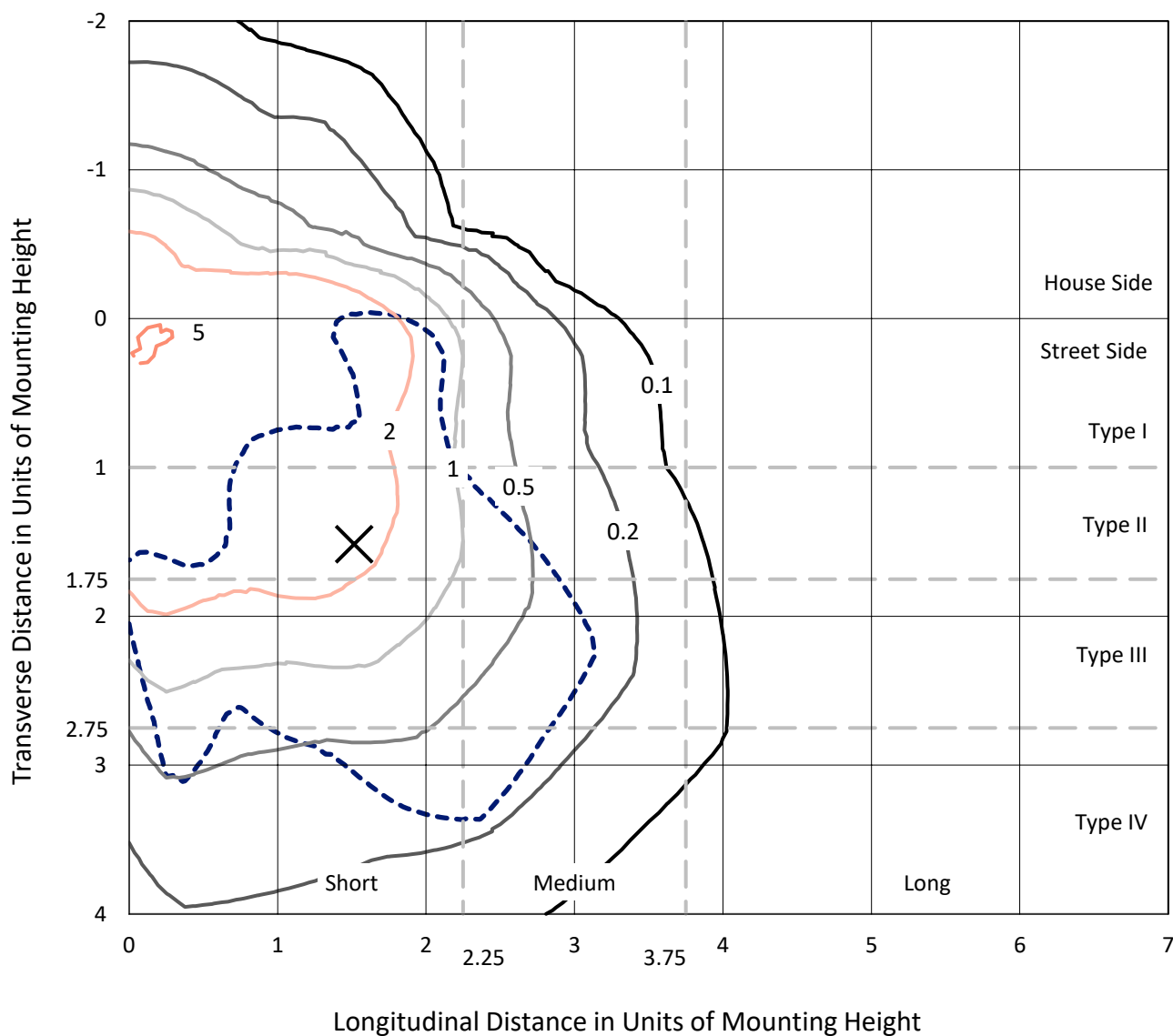
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

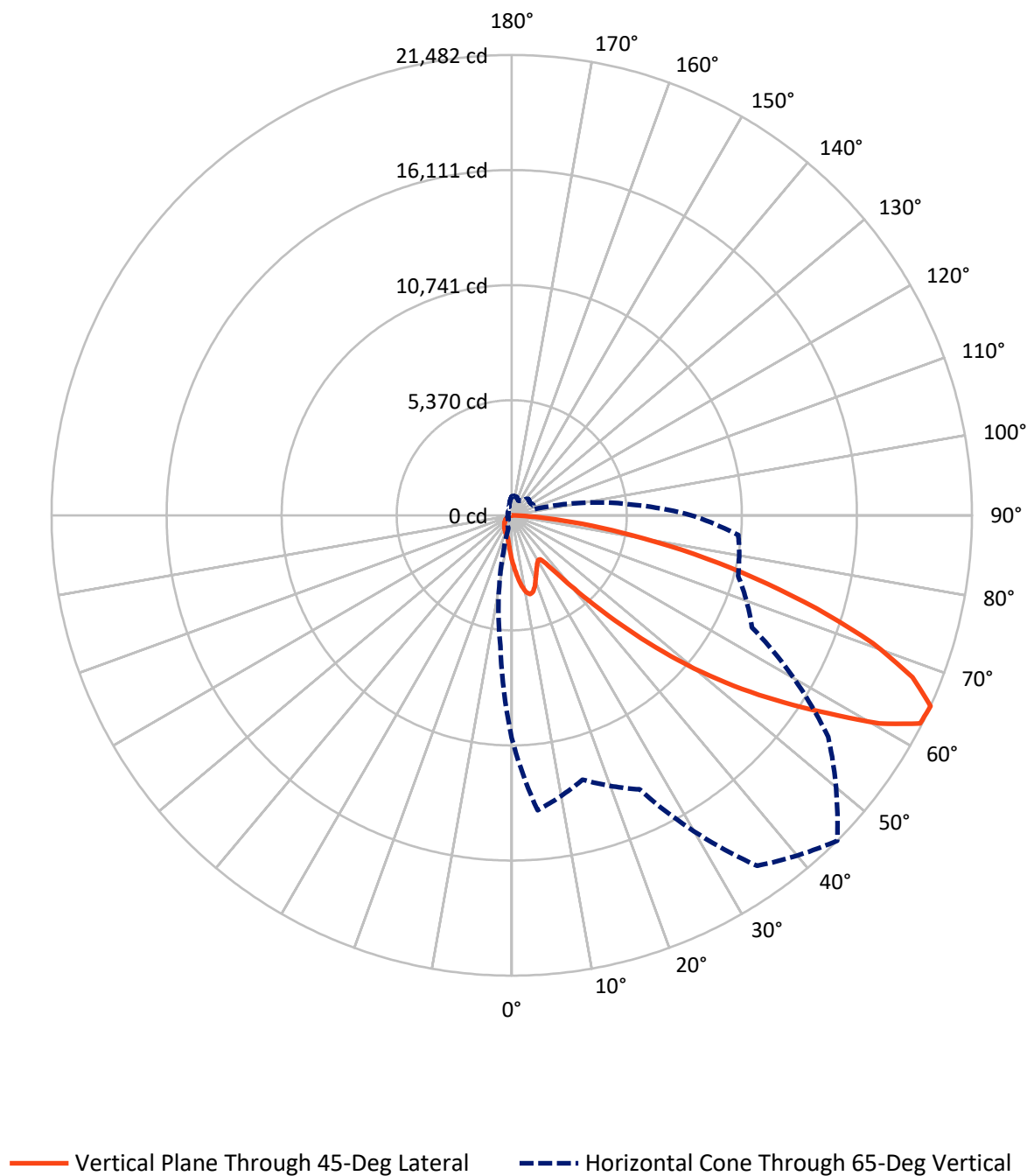


Based on 25 foot mounting height. Maximum calculated value = 5.6 fc

Type IV - Short - N/A

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Luminous Intensity Polar Plot



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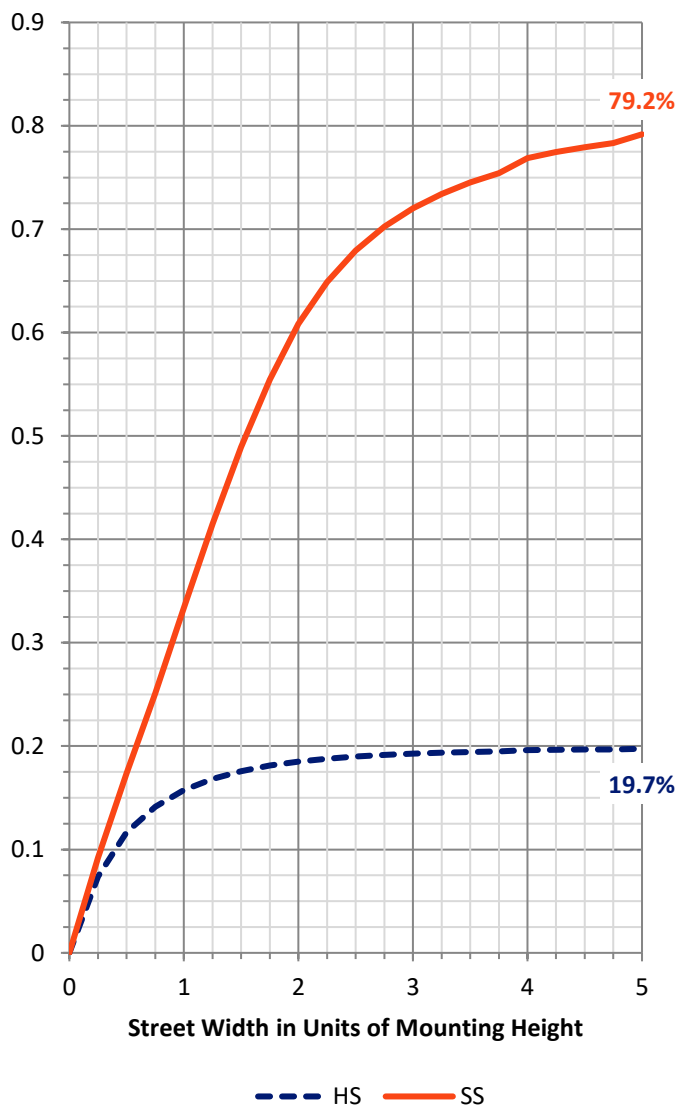
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3038.1	0.0	3038.1
	% Fixture	19.9	0.0	19.9
Street Side	Lumens	12246.7	0.0	12246.7
	% Fixture	80.1	0.0	80.1
Total	Lumens	15284.8	0.0	15284.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	208.4	1.4
10°-20°	624.6	4.1
20°-30°	920.2	6.0
30°-40°	1182.2	7.7
40°-50°	1912.0	12.5
50°-60°	3352.9	21.9
60°-70°	4195.4	27.4
70°-80°	2451.6	16.0
80°-90°	437.4	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°	15284.8	100.0
0°-180°	15284.8	100.0

Coefficient of Utilization



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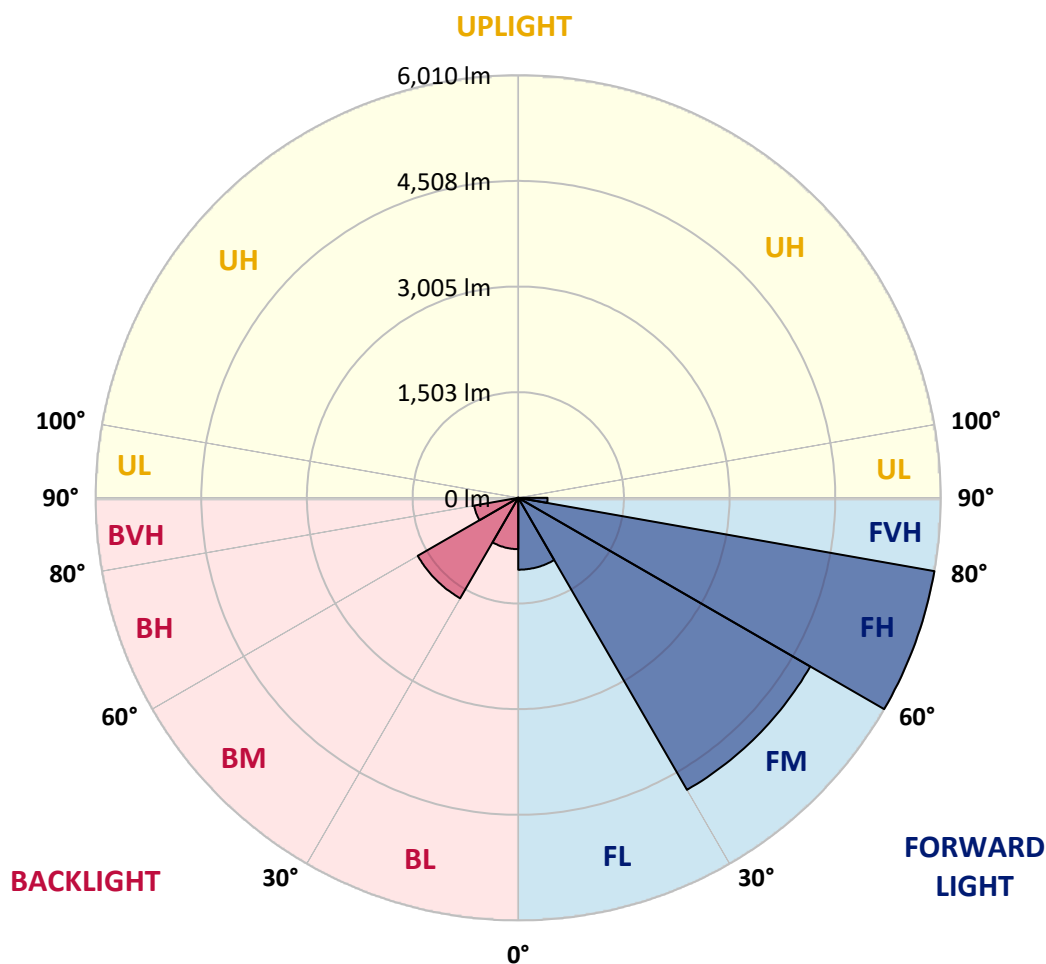
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1022.7	6.7			
FM	(30°-60°)	4796.6	31.4			
FH	(60°-80°)	6010.5	39.3			G3/7500
FVH	(80°-90°)	416.9	2.7			G3/500
BL	(0°-30°)	730.5	4.8	B2/1000		
BM	(30°-60°)	1650.6	10.8	B2/2500		
BH	(60°-80°)	636.5	4.2	B2/1000		G2/1000
BVH	(80°-90°)	20.5	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°	2116.4	2116.4	2116.4	2116.4	2116.4	2116.4	2116.4	2116.4	2116.4	2116.4	2116.4
2.5°	2371.2	2389.2	2429.1	2450.3	2482.9	2485.0	2485.0	2456.5	2455.5	2397.6	2391.3
5°	2650.3	2692.5	2787.2	2885.1	2906.2	2911.4	2901.0	2844.1	2801.9	2689.3	2665.0
7.5°	2927.2	3008.3	3152.6	3283.2	3325.3	3325.3	3300.0	3207.3	3121.0	2957.7	2896.8
10°	3156.8	3258.9	3454.8	3601.1	3649.6	3639.1	3587.4	3470.5	3351.5	3153.6	3073.6
12.5°	3308.4	3423.2	3638.0	3755.9	3805.4	3778.0	3719.1	3605.3	3480.1	3271.6	3181.0
15°	3384.2	3504.3	3690.6	3752.7	3739.1	3710.6	3703.2	3648.5	3553.8	3358.9	3260.0
17.5°	3416.8	3528.5	3658.0	3619.1	3503.2	3481.1	3554.8	3624.3	3601.1	3434.8	3342.1
20°	3447.4	3541.1	3580.1	3407.4	3205.2	3185.2	3326.3	3524.3	3625.3	3505.3	3420.0
22.5°	3489.5	3547.4	3467.4	3184.2	2966.2	2919.9	3075.7	3373.7	3632.7	3594.8	3509.5
25°	3547.4	3563.2	3343.1	2972.5	2753.5	2707.1	2852.5	3206.3	3620.1	3691.6	3619.1
27.5°	3616.9	3584.3	3224.1	2795.6	2583.9	2540.8	2686.1	3045.2	3584.3	3788.6	3736.9
30°	3707.5	3611.7	3106.3	2658.7	2462.9	2431.3	2571.3	2906.2	3540.0	3911.7	3883.3
32.5°	3799.1	3623.3	2996.7	2578.7	2435.5	2447.1	2561.9	2831.5	3491.7	4029.7	4043.4
35°	3898.1	3660.1	2943.1	2657.7	2664.0	2765.0	2812.5	2901.0	3484.3	4189.8	4243.4
37.5°	4032.9	3742.3	3007.2	3050.4	3269.4	3479.0	3440.0	3241.0	3569.6	4428.7	4528.8
40°	4226.6	3886.5	3287.4	3719.1	4168.7	4508.8	4360.3	3859.1	3830.6	4773.1	4922.6
42.5°	4508.8	4116.0	3784.3	4536.1	5298.5	5858.7	5460.7	4656.2	4287.7	5264.8	5455.4
45°	4925.7	4487.8	4385.6	5398.6	6691.6	7573.9	6746.3	5506.0	4927.9	6009.3	6158.8
47.5°	5503.8	5034.2	4948.9	6307.2	8384.7	9526.1	8172.0	6293.6	5656.6	7024.3	7059.1
50°	6271.5	5770.2	5482.8	7301.3	10241.1	11516.3	9596.7	7053.8	6491.5	8264.7	8224.7
52.5°	7284.4	6796.9	6105.1	8247.9	12150.1	13464.2	11027.7	7721.4	7527.6	9704.1	9622.0
55°	8665.9	8341.6	6955.9	9151.3	14058.1	15423.8	12402.8	8351.1	8896.5	11414.1	10917.1
57.5°	10380.1	10611.7	8182.6	10199.0	15773.4	17443.3	13784.3	9231.4	10673.8	13326.3	11668.9
60°	11485.7	13630.7	10531.8	11747.9	17722.5	19727.3	15677.6	10905.5	12541.8	14011.7	11525.7
62.5°	11218.3	14590.9	13345.3	13725.4	19514.6	21387.8	17532.9	12587.1	12893.6	13002.0	10422.2
65°	10398.0	13816.0	12771.4	14109.7	19968.4	21481.5	18028.8	12370.2	10937.2	10614.9	8377.3
67.5°	9269.3	12896.7	11407.8	13090.5	19148.1	20171.6	17105.4	10942.4	8452.2	7965.7	6077.7
70°	8051.0	11879.5	10512.8	11946.9	17584.5	17888.8	15535.4	9624.0	6216.7	5379.6	3900.1
72.5°	6894.8	10820.2	9900.0	10775.0	15498.5	14868.9	13491.7	8458.4	4526.7	3880.1	2772.4
75°	5712.3	9257.7	9027.1	9383.0	12755.6	11712.1	11209.8	7003.2	3552.6	2807.2	1913.3
77.5°	4407.7	7233.8	7764.6	7514.0	8978.6	8699.6	8689.0	5262.8	2595.5	1873.2	1199.4
80°	3016.8	5041.6	6066.2	5300.6	5827.1	5685.0	6544.2	3530.6	1882.7	1127.7	667.6
82.5°	1773.1	3069.4	4222.4	2566.1	3222.1	3307.4	3897.0	1717.4	1107.7	260.0	145.3
85°	719.1	1212.0	1651.1	1004.5	1554.2	1311.0	1479.4	482.3	308.5	6.4	0.0
87.5°	181.1	387.4	271.6	112.6	180.1	165.3	130.6	58.9	12.6	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°	2116.4	2116.4	2116.4	2116.4	2116.4	2116.4	2116.4	2116.4	2116.4	2116.4	2116.4
2.5°	2350.2	2326.0	2266.0	2206.0	2157.5	2092.2	2049.1	1997.5	1948.0	1903.7	1895.3
5°	2598.7	2518.7	2409.2	2309.1	2207.0	2108.0	2010.1	1906.9	1812.2	1754.3	1717.4
7.5°	2800.9	2659.8	2514.4	2387.0	2263.9	2148.1	2018.5	1893.3	1744.8	1665.8	1594.2
10°	2951.5	2766.2	2575.5	2429.1	2304.9	2192.3	2082.8	1956.4	1777.5	1678.4	1571.0
12.5°	3050.4	2830.3	2607.1	2439.7	2300.7	2213.3	2164.9	2115.4	1937.5	1821.6	1665.8
15°	3118.9	2875.6	2629.2	2415.5	2245.0	2180.7	2229.2	2286.0	2172.3	2038.5	1835.4
17.5°	3193.6	2934.6	2638.8	2350.2	2136.5	2109.0	2234.4	2366.0	2360.8	2228.0	2029.1
20°	3272.6	2986.2	2632.4	2245.0	2004.8	2029.1	2189.1	2341.8	2406.0	2334.4	2157.5
22.5°	3353.7	3035.7	2608.2	2108.0	1881.7	1957.4	2117.5	2251.2	2327.1	2304.9	2170.1
25°	3455.8	3105.2	2572.3	1960.6	1779.5	1884.8	2034.3	2142.8	2195.4	2194.4	2101.8
27.5°	3578.0	3197.9	2553.5	1841.6	1706.8	1802.7	1935.3	2032.3	2069.1	2069.1	1995.4
30°	3720.1	3307.4	2532.4	1763.7	1664.7	1717.4	1820.6	1915.3	1952.2	1952.2	1890.1
32.5°	3878.1	3412.6	2481.8	1716.4	1633.1	1634.2	1699.4	1785.9	1830.0	1836.4	1792.1
35°	4067.6	3525.3	2371.2	1678.4	1596.3	1553.1	1584.8	1656.3	1709.0	1722.6	1695.2
37.5°	4316.1	3663.2	2213.3	1622.6	1539.4	1467.8	1475.2	1529.9	1587.8	1608.9	1591.0
40°	4649.9	3825.4	2049.1	1542.6	1459.4	1374.1	1370.9	1411.0	1467.8	1491.0	1481.5
42.5°	5091.1	4020.3	1892.2	1465.7	1362.5	1275.1	1269.9	1301.4	1350.9	1375.1	1370.9
45°	5655.4	4259.3	1757.4	1405.7	1267.7	1181.4	1179.4	1205.6	1248.9	1274.1	1268.8
47.5°	6440.0	4498.2	1665.8	1374.1	1193.0	1104.5	1108.7	1131.9	1170.9	1188.8	1181.4
50°	7462.3	4570.9	1619.5	1374.1	1153.0	1036.1	1057.2	1076.1	1105.6	1116.1	1106.7
52.5°	8443.7	4330.8	1577.4	1382.5	1158.2	978.2	1023.5	1037.2	1062.4	1066.6	1053.0
55°	8924.9	3723.3	1519.5	1384.7	1190.9	928.8	996.1	1021.4	1030.8	1029.8	1006.7
57.5°	8759.6	3010.4	1421.5	1376.3	1213.0	897.1	962.4	1010.9	1017.2	1007.7	964.5
60°	8179.4	2216.5	1346.7	1314.0	1204.6	887.6	910.8	987.7	997.1	984.5	914.0
62.5°	7206.5	1538.4	1288.8	1177.2	1167.8	884.5	829.7	937.2	960.3	942.4	839.2
65°	5673.4	1086.7	1109.9	1031.9	1087.7	867.7	745.5	876.1	907.6	880.3	734.9
67.5°	3839.1	784.4	899.2	935.0	958.2	829.7	684.4	806.6	848.7	812.9	613.9
70°	2073.3	550.7	593.9	787.6	814.0	764.4	629.7	736.1	784.4	745.5	500.2
72.5°	1224.6	396.0	415.9	632.8	678.1	672.8	568.6	653.8	712.9	666.6	406.4
75°	675.0	267.4	296.9	459.1	550.7	519.1	488.6	553.8	613.9	568.6	313.8
77.5°	302.2	160.0	206.3	301.1	432.8	355.9	378.0	431.7	487.5	440.1	209.5
80°	116.8	89.5	136.8	164.3	314.9	196.9	243.2	318.0	358.0	320.1	127.4
82.5°	14.8	40.0	58.9	64.3	183.2	104.2	141.1	200.1	196.9	170.6	64.3
85°	0.0	7.4	8.4	4.2	78.9	37.9	46.3	65.3	61.1	46.3	5.2
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°	2116.4	2116.4	2116.4	2116.4	2116.4	2116.4	2116.4	2116.4	2116.4	2116.4	2116.4
2.5°	1843.8	1805.8	1786.9	1771.1	1785.9	1794.3	1794.3	1830.0	1851.2	1859.6	1918.5
5°	1624.7	1554.2	1506.7	1478.4	1487.8	1498.3	1509.9	1555.2	1585.8	1605.8	1697.4
7.5°	1452.0	1344.6	1278.3	1243.5	1248.9	1256.1	1265.7	1309.8	1340.4	1366.7	1468.9
10°	1366.7	1215.1	1127.7	1085.6	1078.2	1074.0	1070.8	1097.2	1120.3	1141.4	1242.5
12.5°	1370.9	1159.3	1053.0	1001.3	979.3	954.0	934.0	938.2	952.9	979.3	1043.4
15°	1424.6	1141.4	1014.0	949.8	913.0	883.4	859.3	853.9	859.3	863.5	903.4
17.5°	1497.3	1139.3	980.3	900.3	862.3	838.1	816.0	808.7	809.7	815.0	825.5
20°	1555.2	1133.0	942.4	852.9	819.2	798.2	776.0	768.6	770.8	771.8	783.4
22.5°	1585.8	1123.5	900.3	805.5	777.1	756.0	736.1	734.9	734.9	741.3	749.7
25°	1585.8	1103.5	862.3	760.2	734.9	716.1	691.8	696.0	698.1	706.5	719.1
27.5°	1547.9	1065.6	831.9	721.3	694.9	676.0	653.8	659.2	662.4	671.8	687.6
30°	1499.4	1020.3	797.1	684.4	653.8	640.2	621.3	623.4	627.6	638.1	656.0
32.5°	1447.8	966.6	768.6	647.6	617.0	606.5	585.5	588.7	592.9	604.4	624.4
35°	1390.9	903.4	734.9	613.9	583.3	574.9	550.7	552.8	559.1	571.7	591.7
37.5°	1331.0	851.9	701.3	581.3	549.6	541.2	516.0	518.0	525.4	540.2	559.1
40°	1272.0	801.3	665.4	546.5	514.9	507.5	480.1	482.3	490.7	506.5	526.4
42.5°	1207.8	762.4	619.1	510.7	477.0	469.7	444.3	447.5	456.9	472.7	492.8
45°	1130.9	737.1	567.5	477.0	439.1	431.7	408.6	414.8	425.4	441.2	462.3
47.5°	1052.0	726.5	524.4	441.2	400.2	393.8	374.8	385.4	397.0	409.6	432.8
50°	976.1	712.9	480.1	407.5	366.4	360.1	347.5	361.2	372.8	384.4	406.4
52.5°	889.8	683.4	440.1	378.0	338.0	335.9	329.5	342.2	352.7	363.3	382.2
55°	800.2	636.0	405.4	351.7	313.8	315.9	312.7	323.3	331.7	341.1	358.0
57.5°	722.3	575.9	378.0	323.3	292.7	299.0	294.8	300.1	305.3	316.9	330.7
60°	643.4	504.4	347.5	289.6	271.6	279.0	267.4	266.4	268.5	271.6	296.9
62.5°	537.0	429.6	309.5	260.0	248.5	251.6	229.5	212.7	212.7	215.9	253.8
65°	431.7	360.1	267.4	226.4	216.9	214.8	183.2	160.0	158.0	167.4	200.1
67.5°	354.9	299.0	225.3	188.5	182.1	184.3	161.1	138.0	135.8	146.4	170.6
70°	293.8	241.1	180.1	145.3	151.6	161.1	138.0	115.8	112.6	122.2	145.3
72.5°	233.8	188.5	138.0	107.4	125.3	136.8	112.6	91.6	89.5	97.9	120.0
75°	171.6	134.8	93.7	77.9	96.9	107.4	82.1	65.3	62.1	69.5	91.6
77.5°	106.4	75.8	58.9	46.3	66.3	71.6	43.2	37.9	36.9	42.1	57.9
80°	49.5	32.6	28.4	15.8	24.2	28.4	17.9	20.0	21.0	25.3	35.8
82.5°	13.7	5.2	1.0	0.0	0.0	8.4	4.2	8.4	10.6	15.8	23.2
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	5.2	9.4	16.8
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2	8.4
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: P964686

CATALOG NUMBER: NAV-SB3C-827-U-SLL-HSS

CANDELA DISTRIBUTION (continued):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	2116.4	2116.4	2116.4	2116.4	2116.4	2116.4	2116.4	2116.4
2.5°	1962.8	2004.8	2072.2	2141.7	2210.2	2279.7	2347.0	2371.2
5°	1780.5	1877.4	2011.2	2154.3	2301.7	2451.3	2588.2	2650.3
7.5°	1577.4	1716.4	1917.5	2141.7	2376.6	2611.4	2827.2	2927.2
10°	1360.4	1536.3	1765.9	2069.1	2406.0	2730.3	3027.2	3156.8
12.5°	1154.0	1338.3	1592.0	1955.4	2382.8	2798.8	3155.8	3308.4
15°	981.3	1144.6	1418.3	1820.6	2308.1	2803.0	3216.8	3384.2
17.5°	851.9	958.2	1241.5	1671.1	2210.2	2764.0	3237.9	3416.8
20°	787.6	817.1	1011.9	1479.4	2118.6	2727.2	3258.9	3447.4
22.5°	749.7	757.1	827.6	1231.9	2009.1	2715.6	3295.8	3489.5
25°	719.1	721.3	740.3	976.1	1841.6	2708.3	3352.7	3547.4
27.5°	688.6	688.6	699.2	786.6	1614.2	2676.6	3426.4	3616.9
30°	658.2	658.2	665.4	696.0	1347.8	2614.5	3514.8	3707.5
32.5°	626.5	626.5	632.8	655.0	1076.1	2536.6	3595.9	3799.1
35°	594.9	592.9	601.3	624.4	856.1	2437.7	3677.0	3898.1
37.5°	561.2	560.2	568.6	594.9	739.2	2322.9	3738.0	4032.9
40°	525.4	525.4	534.9	563.3	705.5	2178.5	3834.9	4226.6
42.5°	492.8	490.7	501.2	536.0	680.2	2040.7	4008.7	4508.8
45°	461.1	456.9	466.5	509.6	636.0	1992.2	4333.0	4925.7
47.5°	431.7	421.2	429.6	478.1	595.9	2173.3	4863.6	5503.8
50°	407.5	387.4	394.8	446.5	565.4	2566.1	5552.3	6271.5
52.5°	382.2	355.9	360.1	407.5	538.0	2939.9	6298.8	7284.4
55°	355.9	326.5	328.5	368.5	499.1	2995.7	7027.5	8665.9
57.5°	326.5	299.0	299.0	332.7	470.7	2596.6	7587.7	10380.1
60°	293.8	275.8	270.6	304.3	495.9	1832.2	7653.0	11485.7
62.5°	258.0	248.5	241.1	277.0	514.9	1085.6	7127.5	11218.3
65°	216.9	214.8	209.5	304.3	433.8	641.2	6118.7	10398.0
67.5°	182.1	179.0	179.0	319.1	329.5	403.2	4780.5	9269.3
70°	156.9	145.3	145.3	241.1	200.1	279.0	3337.9	8051.0
72.5°	131.6	119.0	110.6	192.7	149.5	204.3	2085.9	6894.8
75°	105.3	95.8	85.3	127.4	111.6	154.8	1212.0	5712.3
77.5°	75.8	71.6	60.1	93.7	81.1	111.6	721.3	4407.7
80°	38.9	40.0	37.9	53.7	54.7	75.8	410.6	3016.8
82.5°	23.2	17.9	20.0	26.3	31.6	43.2	154.8	1773.1
85°	14.8	9.4	9.4	12.6	15.8	16.8	47.4	719.1
87.5°	7.4	3.2	4.2	6.4	5.2	4.2	2.2	181.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)