

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: P964717

Luminaire Tested: **NAV-SB3C-830-U-SLL-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P964717
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-830-U-SLL-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 80 CRI, 3000K, 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: 15794.2 lumens
Efficiency: N/A
Efficacy: 105.9 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



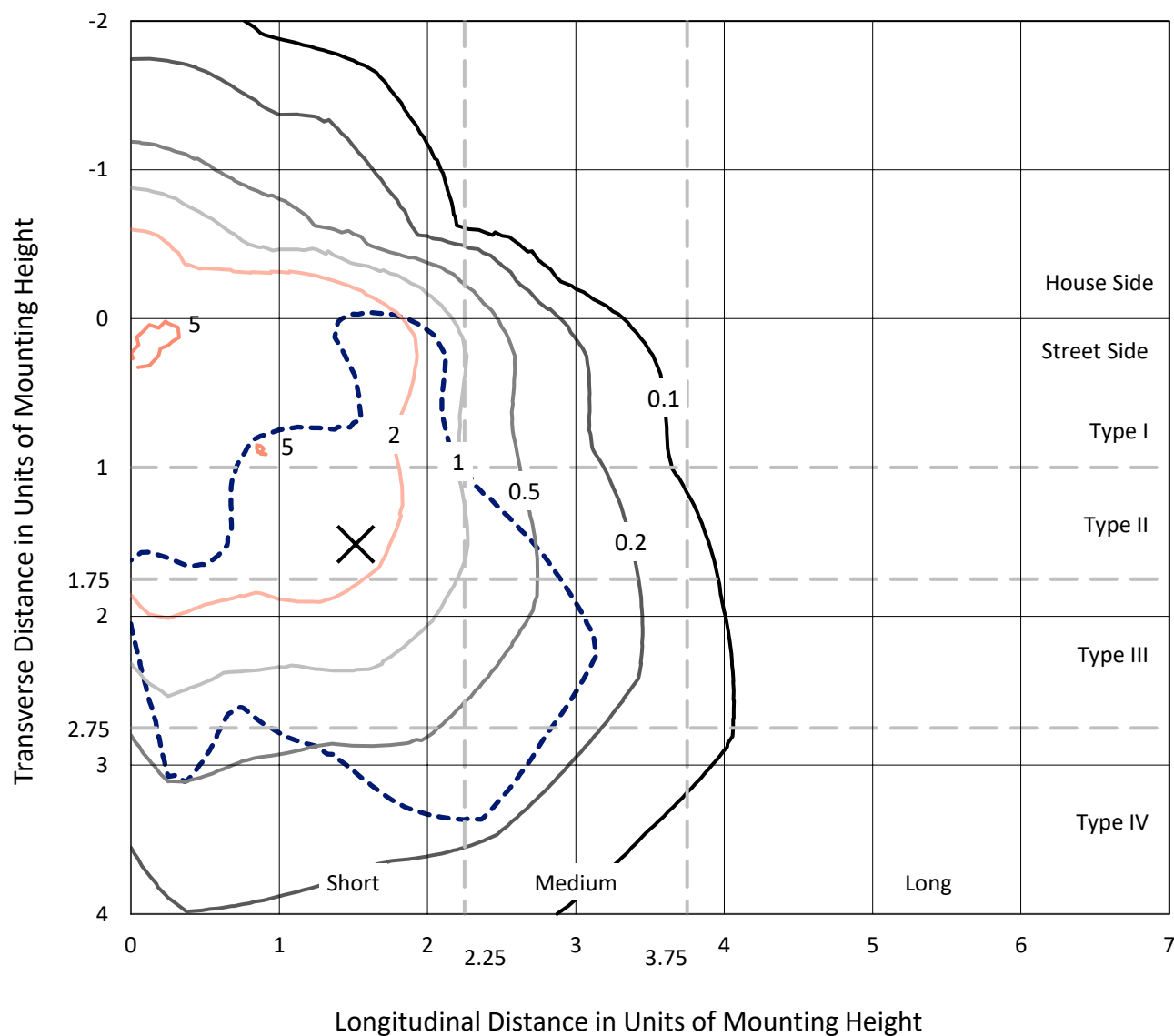
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

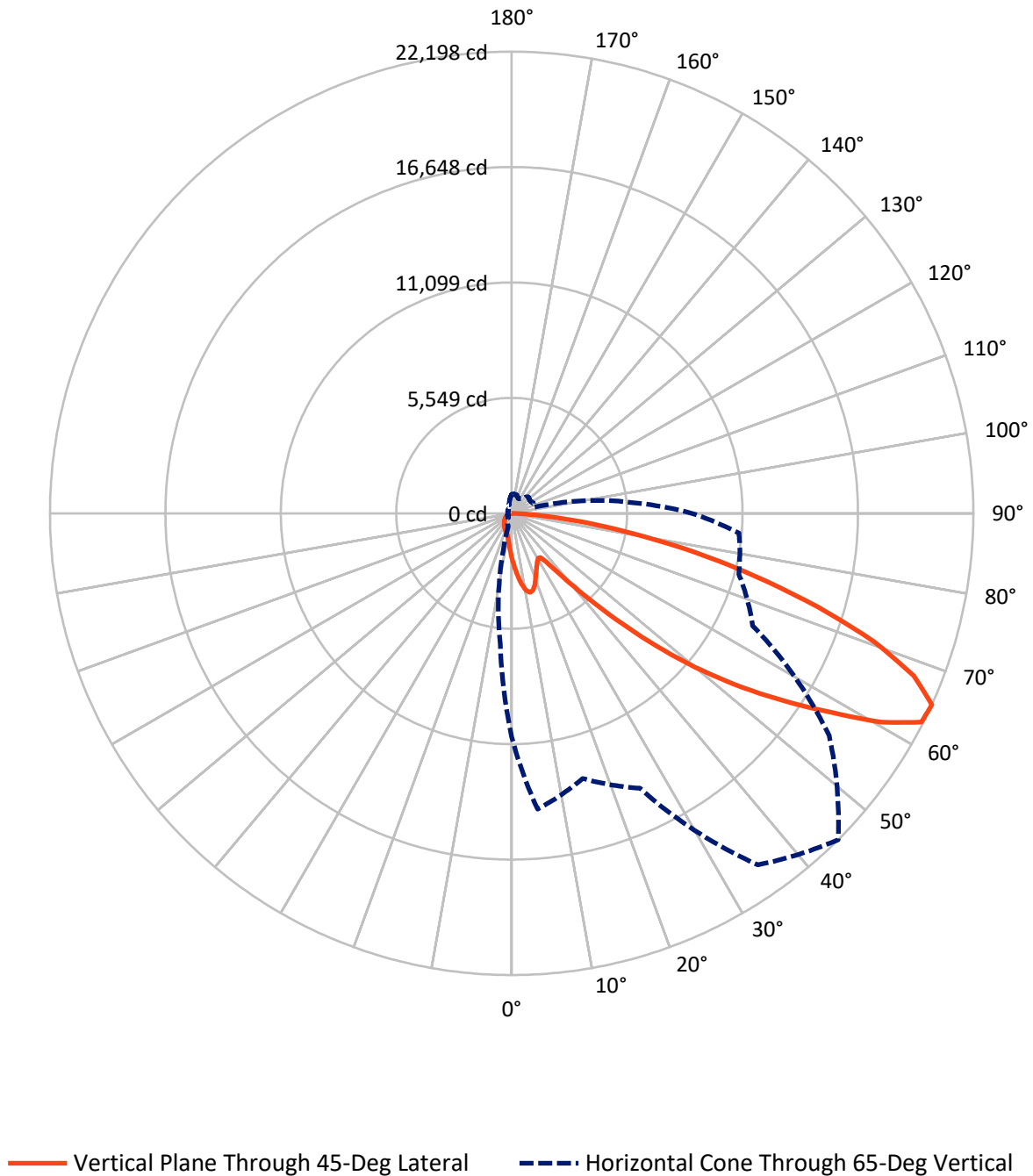


Based on 25 foot mounting height. Maximum calculated value = 5.7 fc

Type IV - Short - N/A

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Luminous Intensity Polar Plot



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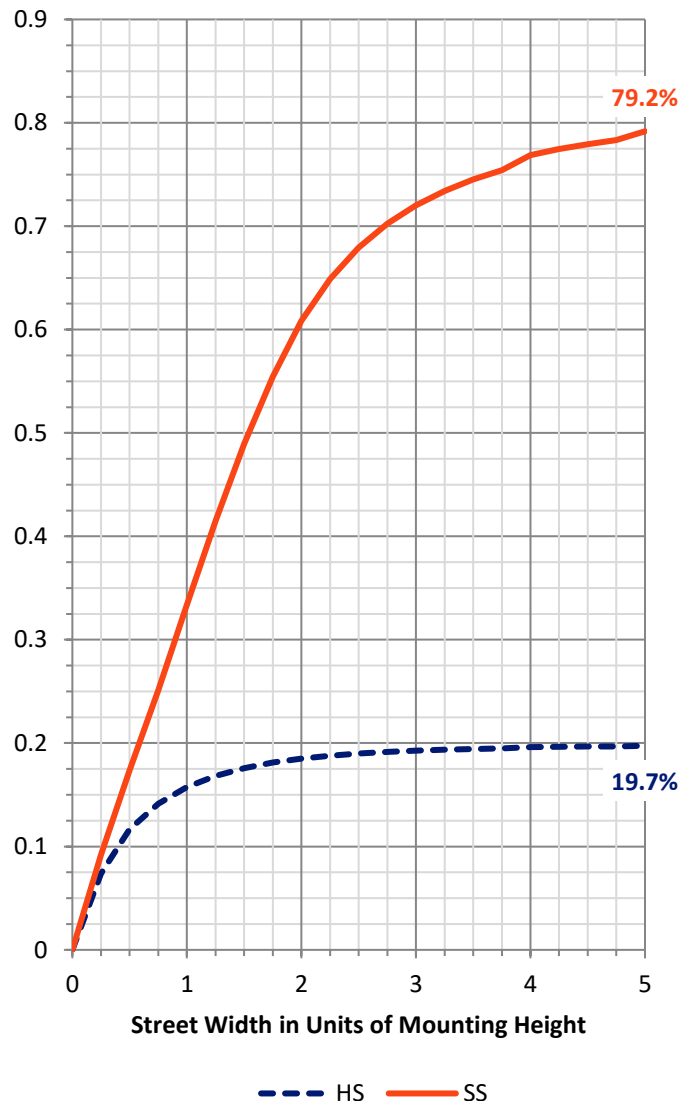
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3139.4	0.0	3139.4
	% Fixture	19.9	0.0	19.9
Street Side	Lumens	12654.8	0.0	12654.8
	% Fixture	80.1	0.0	80.1
Total	Lumens	15794.2	0.0	15794.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	215.3	1.4
10°-20°	645.5	4.1
20°-30°	950.9	6.0
30°-40°	1221.6	7.7
40°-50°	1975.7	12.5
50°-60°	3464.7	21.9
60°-70°	4335.2	27.4
70°-80°	2533.3	16.0
80°-90°	452.0	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°	15794.2	100.0
0°-180°	15794.2	100.0

Coefficient of Utilization



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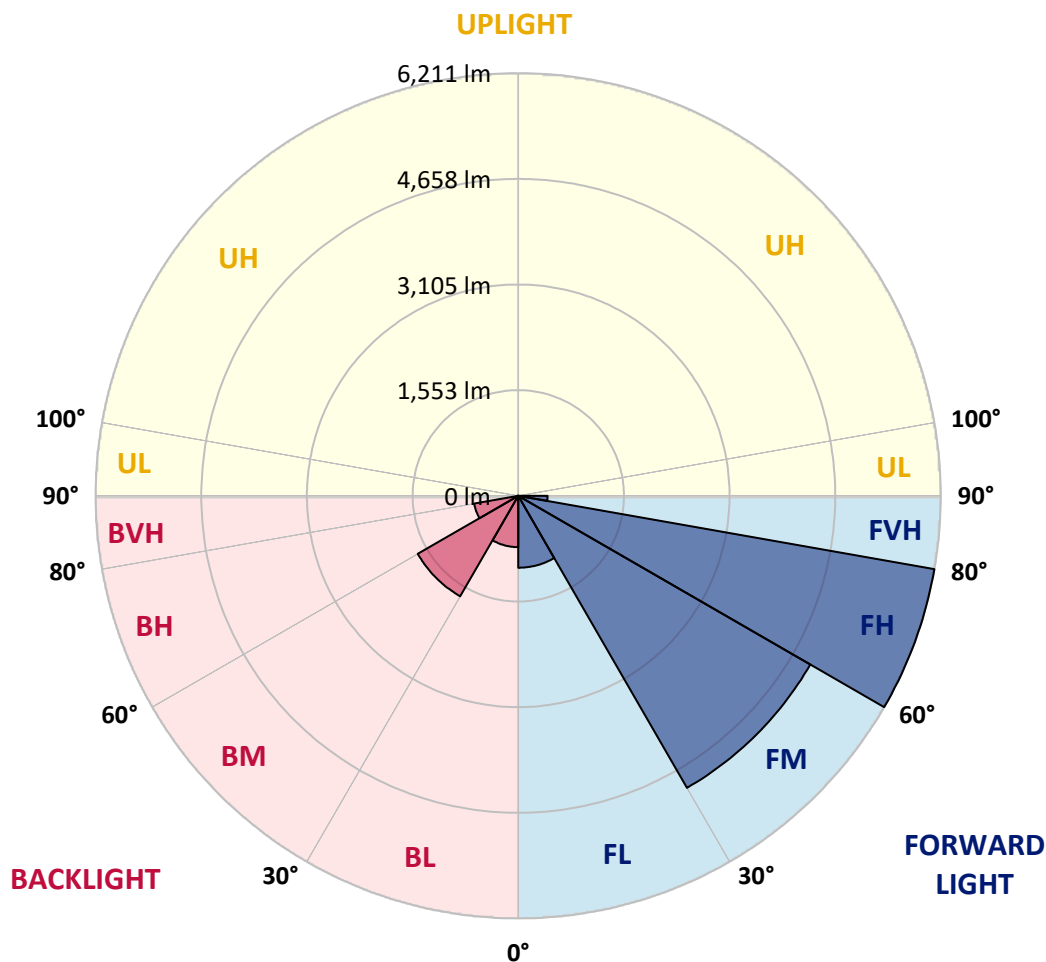
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1056.8	6.7			
FM	(30°-60°)	4956.4	31.4			
FH	(60°-80°)	6210.8	39.3			G3/7500
FVH	(80°-90°)	430.8	2.7			G3/500
BL	(0°-30°)	754.8	4.8	B2/1000		
BM	(30°-60°)	1705.6	10.8	B2/2500		
BH	(60°-80°)	657.8	4.2	B2/1000		G2/1000
BVH	(80°-90°)	21.2	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°	2187.0	2187.0	2187.0	2187.0	2187.0	2187.0	2187.0	2187.0	2187.0	2187.0	2187.0
2.5°	2450.3	2468.8	2510.1	2532.0	2565.7	2567.8	2567.8	2538.4	2537.4	2477.5	2471.0
5°	2738.6	2782.2	2880.0	2981.3	3003.0	3008.5	2997.6	2938.9	2895.3	2778.9	2753.9
7.5°	3024.8	3108.6	3257.7	3392.5	3436.1	3436.1	3410.0	3314.2	3225.0	3056.3	2993.2
10°	3262.0	3367.5	3569.9	3721.2	3771.2	3760.3	3707.0	3586.3	3463.3	3258.7	3176.1
12.5°	3418.7	3537.3	3759.2	3881.1	3932.2	3903.9	3843.0	3725.5	3596.0	3380.6	3287.0
15°	3497.0	3621.0	3813.6	3877.9	3863.7	3834.3	3826.7	3770.2	3672.2	3470.9	3368.7
17.5°	3530.7	3646.1	3779.9	3739.6	3620.0	3597.1	3673.3	3745.0	3721.2	3549.3	3453.5
20°	3562.3	3659.1	3699.4	3521.0	3312.1	3291.4	3437.1	3641.7	3746.2	3622.1	3534.0
22.5°	3605.8	3665.7	3583.0	3290.2	3065.1	3017.2	3178.2	3486.1	3753.8	3714.6	3626.4
25°	3665.7	3682.0	3454.6	3071.6	2845.3	2797.4	2947.6	3313.1	3740.7	3814.7	3739.6
27.5°	3737.5	3703.7	3331.7	2888.8	2670.1	2625.4	2775.6	3146.6	3703.7	3914.8	3861.5
30°	3831.0	3732.0	3209.8	2747.3	2545.0	2512.3	2657.0	3003.0	3658.0	4042.1	4012.8
32.5°	3925.7	3744.0	3096.6	2664.7	2516.7	2528.7	2647.3	2925.8	3608.0	4164.0	4178.1
35°	4027.9	3782.0	3041.1	2746.3	2752.7	2857.2	2906.2	2997.6	3600.4	4329.4	4384.8
37.5°	4167.2	3866.9	3107.5	3152.1	3378.4	3595.0	3554.7	3349.1	3688.5	4576.3	4679.7
40°	4367.4	4016.1	3397.0	3843.0	4307.7	4659.0	4505.7	3987.8	3958.3	4932.2	5086.7
42.5°	4659.0	4253.2	3910.5	4687.3	5475.1	6054.0	5642.6	4811.3	4430.6	5440.3	5637.2
45°	5089.9	4637.3	4531.7	5578.5	6914.6	7826.4	6971.2	5689.5	5092.1	6209.6	6364.0
47.5°	5687.3	5202.0	5113.8	6517.5	8664.2	9843.7	8444.4	6503.3	5845.1	7258.4	7294.3
50°	6480.5	5962.5	5665.5	7544.6	10582.4	11900.0	9916.6	7288.9	6707.9	8540.2	8498.8
52.5°	7527.2	7023.4	6308.6	8522.8	12555.1	13912.9	11395.2	7978.7	7778.5	10027.6	9942.7
55°	8954.7	8619.6	7187.7	9456.3	14526.6	15937.8	12816.2	8629.4	9193.0	11794.6	11280.9
57.5°	10726.1	10965.4	8455.3	10538.9	16299.1	18024.7	14243.7	9539.0	11029.6	13770.5	12057.9
60°	11868.6	14084.9	10882.7	12139.5	18313.1	20384.8	16200.1	11269.1	12959.9	14478.7	11909.9
62.5°	11592.1	15077.2	13790.0	14182.8	20164.9	22100.6	18117.3	13006.6	13323.3	13435.3	10769.6
65°	10744.6	14276.4	13197.1	14580.0	20633.9	22197.5	18629.7	12782.5	11301.6	10968.7	8656.5
67.5°	9578.2	13326.5	11788.0	13526.7	19786.3	20843.9	17675.5	11307.1	8733.8	8231.2	6280.3
70°	8319.3	12275.5	10863.2	12345.1	18170.6	18485.0	16053.2	9944.9	6423.9	5558.9	4030.2
72.5°	7124.6	11180.9	10229.9	11134.1	16015.1	15364.4	13941.2	8740.4	4677.6	4009.5	2864.9
75°	5902.7	9566.2	9327.9	9695.7	13180.7	12102.5	11583.4	7236.7	3671.1	2900.7	1977.0
77.5°	4554.6	7474.9	8023.3	7764.4	9277.9	8989.6	8978.7	5438.1	2682.0	1935.6	1239.3
80°	3117.3	5209.7	6268.3	5477.3	6021.3	5874.4	6762.2	3648.3	1945.4	1165.3	689.8
82.5°	1832.3	3171.7	4363.1	2651.6	3329.4	3417.6	4026.9	1774.6	1144.6	268.8	150.2
85°	743.1	1252.3	1706.1	1038.0	1606.0	1354.6	1528.7	498.4	318.8	6.6	0.0
87.5°	187.2	400.4	280.7	116.4	186.0	170.9	134.9	60.9	13.0	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°	2187.0	2187.0	2187.0	2187.0	2187.0	2187.0	2187.0	2187.0	2187.0	2187.0	2187.0
2.5°	2428.5	2403.5	2341.5	2279.5	2229.5	2161.9	2117.3	2064.0	2012.9	1967.2	1958.5
5°	2685.3	2602.7	2489.5	2386.1	2280.5	2178.3	2077.1	1970.5	1872.6	1812.7	1774.6
7.5°	2894.2	2748.4	2598.3	2466.7	2339.4	2219.6	2085.8	1956.3	1802.9	1721.3	1647.3
10°	3049.8	2858.3	2661.4	2510.1	2381.8	2265.4	2152.2	2021.6	1836.6	1734.4	1623.4
12.5°	3152.1	2924.7	2694.0	2521.0	2377.4	2287.1	2237.1	2185.9	2002.0	1882.3	1721.3
15°	3222.8	2971.5	2716.9	2496.0	2319.8	2253.4	2303.4	2362.2	2244.6	2106.5	1896.5
17.5°	3300.1	3032.5	2726.7	2428.5	2207.6	2179.4	2308.8	2444.8	2439.4	2302.4	2096.6
20°	3381.7	3085.8	2720.1	2319.8	2071.6	2096.6	2262.1	2419.8	2486.2	2412.2	2229.5
22.5°	3465.4	3136.9	2695.1	2178.3	1944.3	2022.7	2188.1	2326.2	2404.6	2381.8	2242.5
25°	3571.0	3208.7	2658.1	2025.9	1838.8	1947.6	2102.2	2214.2	2268.6	2267.5	2171.8
27.5°	3697.2	3304.4	2638.6	1903.0	1763.7	1862.7	1999.9	2099.9	2138.0	2138.0	2061.9
30°	3844.1	3417.6	2616.8	1822.4	1720.3	1774.6	1881.3	1979.2	2017.3	2017.3	1953.0
32.5°	4007.3	3526.4	2564.5	1773.6	1687.6	1688.7	1756.1	1845.3	1891.0	1897.6	1851.9
35°	4203.1	3642.8	2450.3	1734.4	1649.5	1604.8	1637.5	1711.5	1765.9	1780.0	1751.7
37.5°	4460.0	3785.3	2287.1	1676.7	1590.7	1516.8	1524.4	1581.0	1640.8	1662.6	1644.1
40°	4804.9	3952.9	2117.3	1594.0	1508.1	1419.9	1416.7	1458.0	1516.8	1540.7	1530.9
42.5°	5260.7	4154.2	1955.2	1514.5	1407.9	1317.6	1312.2	1344.8	1395.9	1421.0	1416.7
45°	5843.9	4401.1	1816.0	1452.5	1310.1	1220.8	1218.6	1245.8	1290.5	1316.5	1311.1
47.5°	6654.6	4648.2	1721.3	1419.9	1232.8	1141.3	1145.7	1169.6	1209.9	1228.5	1220.8
50°	7711.1	4723.3	1673.4	1419.9	1191.5	1070.6	1092.4	1112.0	1142.5	1153.3	1143.6
52.5°	8725.1	4475.2	1630.0	1428.6	1196.9	1010.9	1057.6	1071.7	1097.9	1102.2	1088.0
55°	9222.3	3847.3	1570.1	1430.8	1230.6	959.7	1029.3	1055.4	1065.2	1064.2	1040.2
57.5°	9051.6	3110.8	1468.9	1422.1	1253.5	927.0	994.5	1044.6	1051.0	1041.3	996.7
60°	8452.0	2290.4	1391.6	1357.9	1244.8	917.3	941.2	1020.6	1030.4	1017.3	944.4
62.5°	7446.6	1589.7	1331.8	1216.5	1206.6	914.0	857.4	968.4	992.3	973.9	867.2
65°	5862.5	1122.9	1146.8	1066.3	1123.9	896.6	770.4	905.3	937.9	909.6	759.4
67.5°	3967.1	810.6	929.2	966.2	990.1	857.4	707.2	833.4	877.0	840.0	634.4
70°	2142.4	569.1	613.7	813.8	841.1	790.0	650.7	760.6	810.6	770.4	516.8
72.5°	1265.4	409.1	429.8	653.9	700.7	695.3	587.5	675.7	736.6	688.7	419.9
75°	697.4	276.3	306.8	474.4	569.1	536.4	504.8	572.4	634.4	587.5	324.2
77.5°	312.3	165.4	213.3	311.2	447.2	367.8	390.6	446.1	503.8	454.8	216.5
80°	120.7	92.5	141.4	169.7	325.3	203.5	251.3	328.6	369.9	330.8	131.6
82.5°	15.3	41.3	60.9	66.4	189.3	107.7	145.8	206.7	203.5	176.3	66.4
85°	0.0	7.6	8.7	4.3	81.6	39.2	47.9	67.4	63.1	47.9	5.4
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°	2187.0	2187.0	2187.0	2187.0	2187.0	2187.0	2187.0	2187.0	2187.0	2187.0	2187.0
2.5°	1905.2	1866.0	1846.4	1830.1	1845.3	1854.0	1854.0	1891.0	1912.9	1921.5	1982.5
5°	1678.8	1606.0	1557.0	1527.7	1537.4	1548.3	1560.3	1607.1	1638.6	1659.3	1754.0
7.5°	1500.4	1389.5	1320.9	1285.0	1290.5	1298.1	1307.8	1353.5	1385.1	1412.3	1517.8
10°	1412.3	1255.6	1165.3	1121.8	1114.2	1109.8	1106.6	1133.8	1157.7	1179.5	1283.9
12.5°	1416.7	1197.9	1088.0	1034.7	1011.9	985.7	965.1	969.4	984.7	1011.9	1078.3
15°	1472.1	1179.5	1047.8	981.4	943.3	912.9	887.9	882.4	887.9	892.2	933.6
17.5°	1547.2	1177.3	1013.0	930.3	891.1	866.1	843.3	835.6	836.7	842.1	853.0
20°	1607.1	1170.8	973.9	881.3	846.5	824.7	801.9	794.3	796.4	797.6	809.5
22.5°	1638.6	1160.9	930.3	832.4	803.0	781.3	760.6	759.4	759.4	766.0	774.7
25°	1638.6	1140.3	891.1	785.6	759.4	739.8	714.8	719.2	721.4	730.1	743.1
27.5°	1599.4	1101.2	859.6	745.3	718.1	698.5	675.7	681.1	684.4	694.1	710.5
30°	1549.4	1054.3	823.7	707.2	675.7	661.5	642.0	644.1	648.5	659.4	677.8
32.5°	1496.1	998.9	794.3	669.1	637.7	626.7	605.0	608.2	612.5	624.5	645.2
35°	1437.4	933.6	759.4	634.4	602.8	594.1	569.1	571.2	577.8	590.8	611.5
37.5°	1375.3	880.3	724.7	600.6	568.0	559.2	533.1	535.4	542.9	558.2	577.8
40°	1314.4	828.0	687.7	564.7	532.1	524.5	496.2	498.4	507.1	523.4	544.1
42.5°	1248.0	787.7	639.8	527.7	492.9	485.2	459.2	462.4	472.2	488.5	509.2
45°	1168.6	761.7	586.5	492.9	453.8	446.1	422.2	428.7	439.6	455.9	477.6
47.5°	1087.0	750.7	541.8	455.9	413.5	406.9	387.3	398.2	410.2	423.2	447.2
50°	1008.6	736.6	496.2	421.1	378.6	372.1	359.1	373.2	385.2	397.2	419.9
52.5°	919.4	706.1	454.8	390.6	349.2	347.1	340.6	353.6	364.5	375.4	394.9
55°	827.0	657.2	418.9	363.4	324.2	326.5	323.2	334.0	342.8	352.5	369.9
57.5°	746.4	595.2	390.6	334.0	302.5	309.0	304.6	310.1	315.5	327.5	341.6
60°	664.8	521.2	359.1	299.2	280.7	288.3	276.3	275.3	277.5	280.7	306.8
62.5°	554.9	443.9	319.9	268.8	256.8	260.0	237.2	219.8	219.8	223.0	262.2
65°	446.1	372.1	276.3	233.9	224.2	221.9	189.3	165.4	163.2	173.0	206.7
67.5°	366.6	309.0	232.9	194.7	188.2	190.4	166.5	142.6	140.3	151.3	176.3
70°	303.6	249.2	186.0	150.2	156.7	166.5	142.6	119.7	116.4	126.2	150.2
72.5°	241.6	194.7	142.6	111.0	129.5	141.4	116.4	94.7	92.5	101.2	124.0
75°	177.3	139.3	96.9	80.6	100.1	111.0	84.9	67.4	64.2	71.9	94.7
77.5°	109.9	78.3	60.9	47.9	68.6	74.0	44.6	39.2	38.1	43.6	59.9
80°	51.1	33.7	29.4	16.3	25.0	29.4	18.4	20.7	21.7	26.1	37.0
82.5°	14.1	5.4	1.1	0.0	0.0	8.7	4.3	8.7	10.9	16.3	24.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	5.4	9.8	17.4
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	8.7
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: P964717

CATALOG NUMBER: NAV-SB3C-830-U-SLL-HSS

CANDELA DISTRIBUTION (continued):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	2187.0	2187.0	2187.0	2187.0	2187.0	2187.0	2187.0	2187.0
2.5°	2028.2	2071.6	2141.3	2213.1	2283.8	2355.7	2425.3	2450.3
5°	1839.9	1940.0	2078.2	2226.2	2378.5	2533.0	2674.4	2738.6
7.5°	1630.0	1773.6	1981.3	2213.1	2455.7	2698.4	2921.5	3024.8
10°	1405.8	1587.5	1824.7	2138.0	2486.2	2821.3	3128.2	3262.0
12.5°	1192.5	1382.9	1645.1	2020.5	2462.3	2892.0	3260.9	3418.7
15°	1014.0	1182.7	1465.6	1881.3	2385.0	2896.4	3324.0	3497.0
17.5°	880.3	990.1	1282.8	1726.7	2283.8	2856.2	3345.8	3530.7
20°	813.8	844.3	1045.6	1528.7	2189.2	2818.0	3367.5	3562.3
22.5°	774.7	782.3	855.3	1273.0	2076.0	2806.1	3405.7	3605.8
25°	743.1	745.3	764.9	1008.6	1903.0	2798.5	3464.4	3665.7
27.5°	711.6	711.6	722.4	812.8	1668.0	2765.9	3540.6	3737.5
30°	680.0	680.0	687.7	719.2	1392.7	2701.7	3632.0	3831.0
32.5°	647.4	647.4	653.9	676.8	1112.0	2621.1	3715.7	3925.7
35°	614.8	612.5	621.3	645.2	884.6	2518.8	3799.5	4027.9
37.5°	579.9	578.8	587.5	614.8	763.8	2400.2	3862.6	4167.2
40°	542.9	542.9	552.8	582.1	729.0	2251.2	3962.8	4367.4
42.5°	509.2	507.1	517.9	553.8	702.8	2108.6	4142.2	4659.0
45°	476.5	472.2	482.1	526.6	657.2	2058.6	4477.4	5089.9
47.5°	446.1	435.2	443.9	493.9	615.8	2245.8	5025.8	5687.3
50°	421.1	400.4	408.1	461.4	584.2	2651.6	5737.3	6480.5
52.5°	394.9	367.8	372.1	421.1	556.0	3037.9	6508.7	7527.2
55°	367.8	337.3	339.5	380.8	515.8	3095.5	7261.7	8954.7
57.5°	337.3	309.0	309.0	343.8	486.4	2683.1	7840.5	10726.1
60°	303.6	285.1	279.6	314.5	512.5	1893.2	7908.0	11868.6
62.5°	266.6	256.8	249.2	286.2	532.1	1121.8	7365.0	11592.1
65°	224.2	221.9	216.5	314.5	448.2	662.7	6322.7	10744.6
67.5°	188.2	185.0	185.0	329.6	340.6	416.8	4939.8	9578.2
70°	162.2	150.2	150.2	249.2	206.7	288.3	3449.1	8319.3
72.5°	136.0	123.0	114.3	199.2	154.5	211.0	2155.5	7124.6
75°	108.9	99.0	88.1	131.6	115.3	159.9	1252.3	5902.7
77.5°	78.3	74.0	62.0	96.9	83.7	115.3	745.3	4554.6
80°	40.3	41.3	39.2	55.5	56.6	78.3	424.4	3117.3
82.5°	24.0	18.4	20.7	27.2	32.6	44.6	159.9	1832.3
85°	15.3	9.8	9.8	13.0	16.3	17.4	49.0	743.1
87.5°	7.6	3.3	4.3	6.6	5.4	4.3	2.2	187.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)