

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: P962888

Luminaire Tested: **NAV-SB2D-722-U-SLL-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P962888
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-SB2D-722-U-SLL-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 CRI, 2200K, 900mA 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: 13150.8 lumens
Efficiency: N/A
Efficacy: 89.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G3

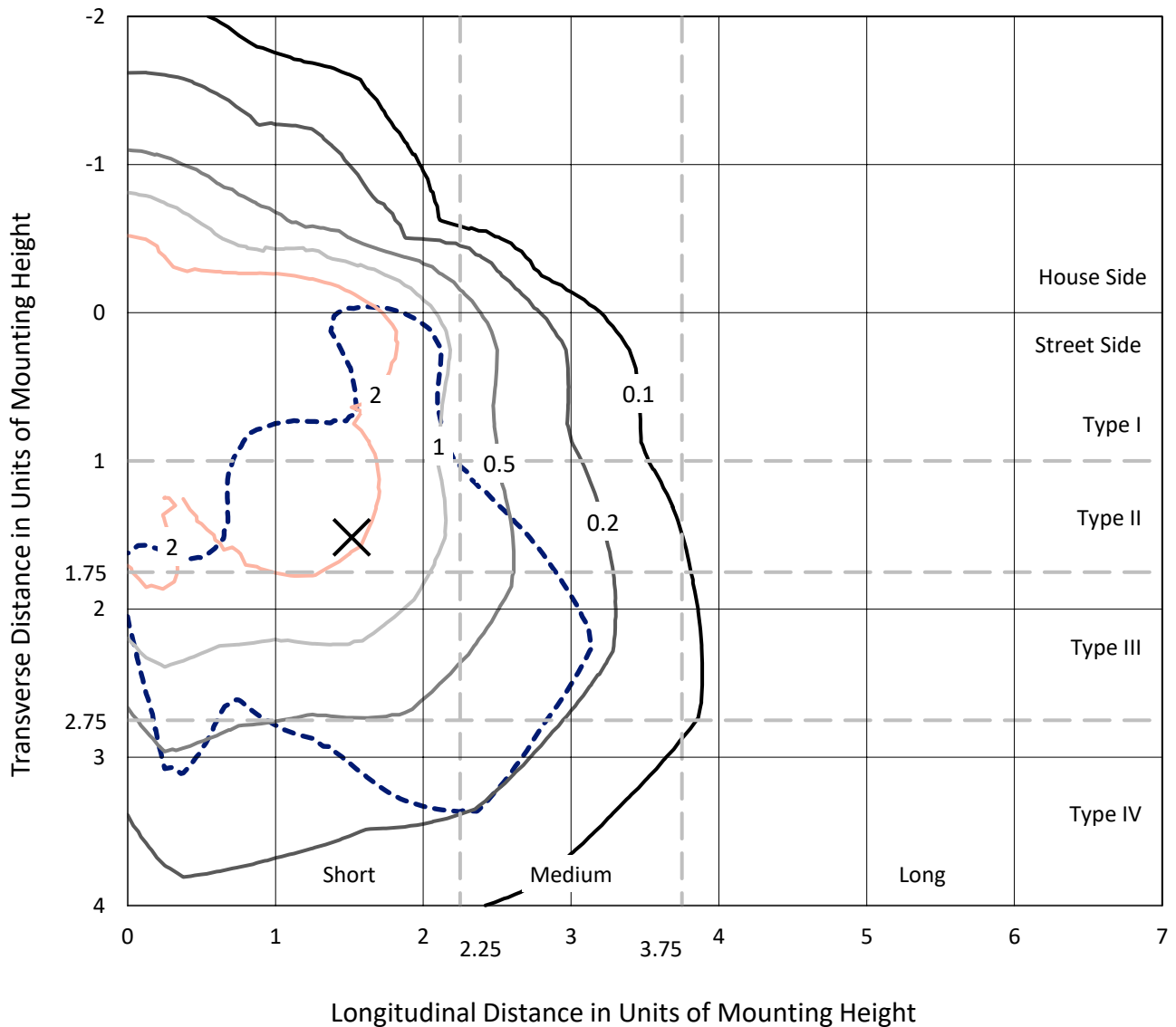
Input Watts (W): 147.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

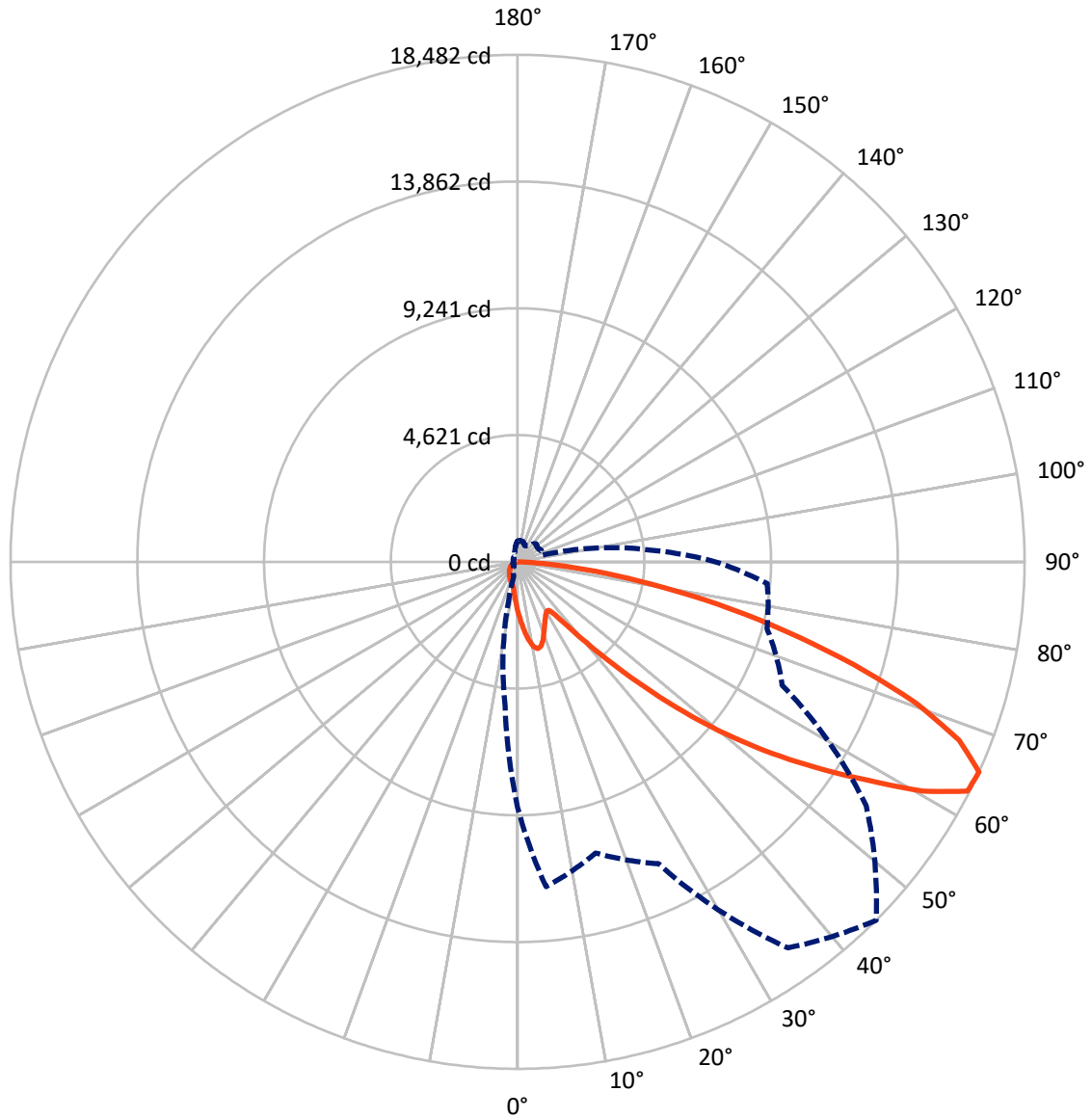
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.8 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



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

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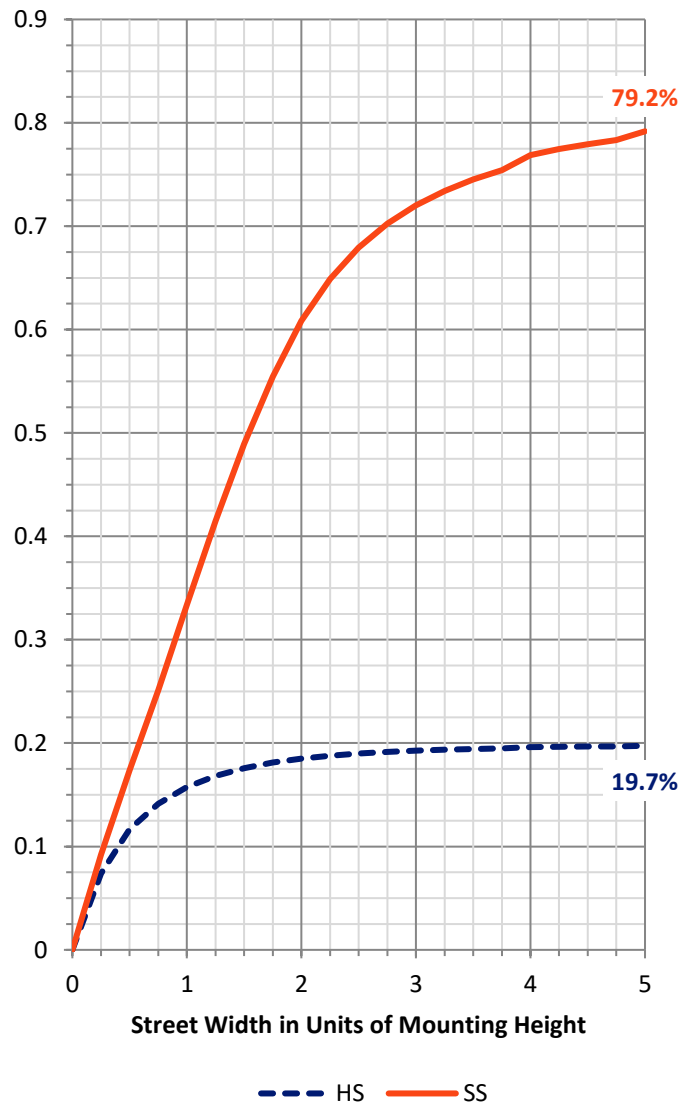
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2614.0	0.0	2614.0
	% Fixture	19.9	0.0	19.9
Street Side	Lumens	10536.8	0.0	10536.8
	% Fixture	80.1	0.0	80.1
Total	Lumens	13150.8	0.0	13150.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	179.3	1.4
10°-20°	537.4	4.1
20°-30°	791.7	6.0
30°-40°	1017.2	7.7
40°-50°	1645.1	12.5
50°-60°	2884.8	21.9
60°-70°	3609.6	27.4
70°-80°	2109.3	16.0
80°-90°	376.3	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°	13150.8	100.0
0°-180°	13150.8	100.0

Coefficient of Utilization



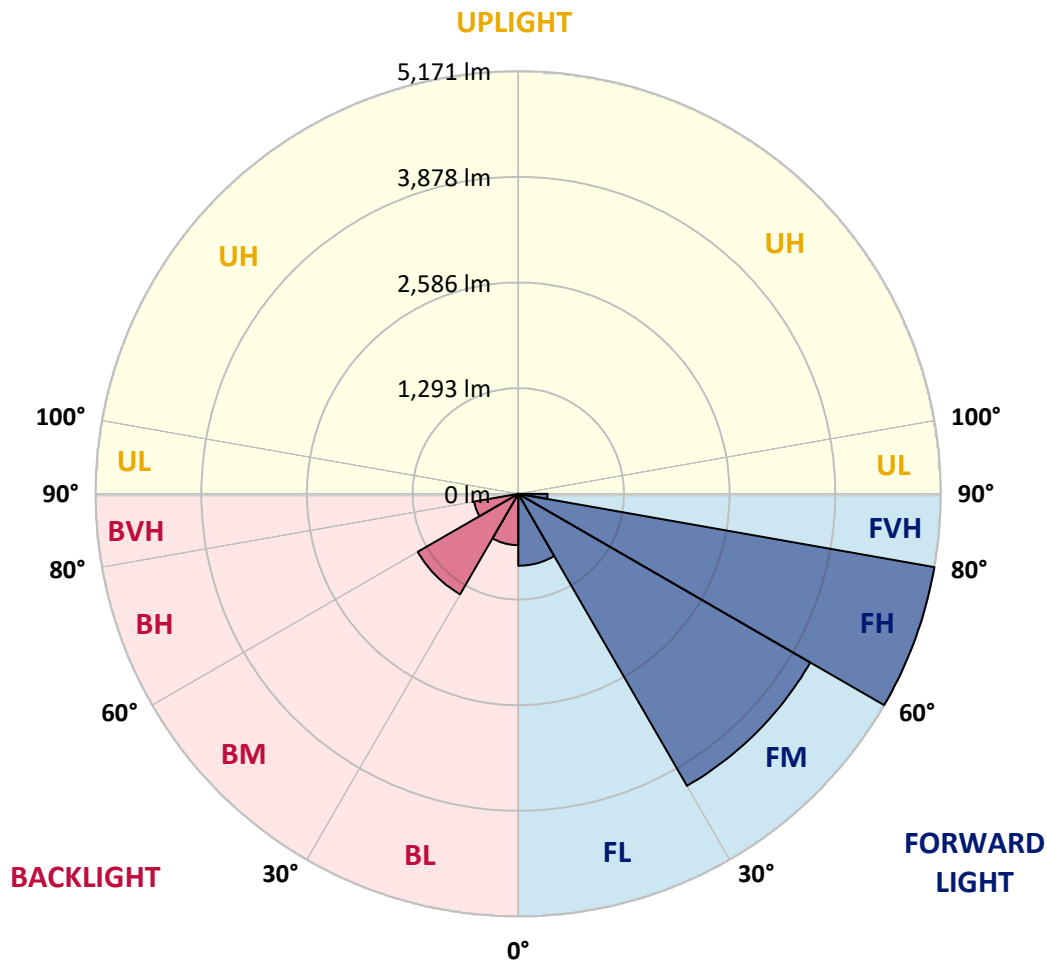
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	879.9	6.7			
FM (30°-60°)	4126.9	31.4			
FH (60°-80°)	5171.3	39.3			G3/7500
FVH (80°-90°)	358.7	2.7			G3/500
BL (0°-30°)	628.5	4.8	B2/1000		
BM (30°-60°)	1420.2	10.8	B2/2500		
BH (60°-80°)	547.7	4.2	B2/1000		G2/1000
BVH (80°-90°)	17.6	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°	1820.9	1820.9	1820.9	1820.9	1820.9	1820.9	1820.9	1820.9	1820.9	1820.9	1820.9
2.5°	2040.2	2055.6	2090.0	2108.1	2136.2	2138.0	2138.0	2113.5	2112.6	2062.8	2057.4
5°	2280.3	2316.5	2398.1	2482.3	2500.4	2505.0	2495.9	2447.0	2410.7	2313.8	2292.9
7.5°	2518.5	2588.3	2712.5	2824.8	2861.0	2861.0	2839.2	2759.5	2685.2	2544.8	2492.3
10°	2716.0	2803.9	2972.4	3098.4	3140.0	3131.0	3086.6	2986.0	2883.6	2713.3	2644.5
12.5°	2846.5	2945.2	3130.0	3231.5	3274.1	3250.6	3199.8	3102.0	2994.1	2814.8	2736.9
15°	2911.7	3015.0	3175.3	3228.9	3217.1	3192.6	3186.2	3139.2	3057.6	2890.0	2804.8
17.5°	2939.8	3035.8	3147.3	3113.7	3014.1	2995.0	3058.5	3118.3	3098.4	2955.2	2875.4
20°	2966.0	3046.7	3080.2	2931.6	2757.7	2740.5	2861.9	3032.3	3119.2	3015.9	2942.6
22.5°	3002.3	3052.1	2983.3	2739.6	2552.0	2512.2	2646.2	2902.7	3125.5	3092.9	3019.5
25°	3052.1	3065.8	2876.4	2557.5	2369.1	2329.2	2454.3	2758.6	3114.7	3176.3	3113.7
27.5°	3111.9	3083.8	2774.1	2405.3	2223.2	2186.0	2311.1	2620.0	3083.8	3259.6	3215.2
30°	3189.8	3107.4	2672.6	2287.5	2119.0	2091.8	2212.4	2500.4	3045.8	3365.6	3341.1
32.5°	3268.6	3117.3	2578.3	2218.7	2095.5	2105.5	2204.2	2436.1	3004.2	3467.1	3478.8
35°	3353.8	3149.1	2532.2	2286.6	2292.0	2379.0	2419.8	2495.9	2997.8	3604.8	3650.9
37.5°	3469.8	3219.7	2587.4	2624.5	2813.0	2993.3	2959.7	2788.5	3071.2	3810.4	3896.5
40°	3636.5	3343.9	2828.4	3199.8	3586.7	3879.3	3751.5	3320.3	3295.9	4106.7	4235.3
42.5°	3879.3	3541.4	3256.0	3902.8	4558.7	5040.7	4698.3	4006.1	3689.0	4529.8	4693.7
45°	4238.1	3861.2	3773.2	4644.8	5757.3	6516.5	5804.4	4737.2	4239.8	5170.2	5298.9
47.5°	4735.4	4331.3	4258.0	5426.7	7214.1	8196.1	7031.1	5414.9	4866.8	6043.6	6073.5
50°	5395.8	4964.6	4717.3	6281.8	8811.3	9908.4	8256.8	6068.9	5585.2	7110.8	7076.4
52.5°	6267.4	5847.9	5252.7	7096.3	10453.8	11584.3	9488.0	6643.3	6476.7	8349.2	8278.5
55°	7456.0	7176.9	5984.7	7873.6	12095.3	13270.4	10671.2	7185.0	7654.4	9820.5	9392.9
57.5°	8930.8	9130.2	7040.1	8775.0	13571.1	15007.9	11859.8	7942.4	9183.6	11465.6	10039.8
60°	9882.1	11727.5	9061.3	10107.6	15248.0	16973.0	13488.7	9383.0	10790.8	12055.4	9916.6
62.5°	9652.0	12553.8	11482.0	11809.0	16789.9	18401.6	15084.9	10829.7	11093.4	11186.6	8967.1
65°	8946.2	11886.9	10988.3	12139.7	17180.4	18482.3	15511.6	10643.1	9410.1	9132.9	7207.7
67.5°	7975.1	11096.0	9815.1	11262.8	16474.7	17355.3	14717.2	9414.6	7272.1	6853.5	5229.1
70°	6926.8	10220.9	9045.0	10278.9	15129.3	15391.2	13366.4	8280.4	5348.8	4628.5	3355.6
72.5°	5932.2	9309.6	8517.8	9270.6	13334.6	12792.9	11607.9	7277.5	3894.7	3338.4	2385.4
75°	4914.8	7965.1	7766.7	8072.9	10974.7	10076.9	9644.7	6025.5	3056.7	2415.3	1646.2
77.5°	3792.3	6223.9	6680.4	6464.9	7725.0	7485.0	7475.9	4527.9	2233.2	1611.7	1031.9
80°	2595.5	4337.7	5219.2	4560.5	5013.5	4891.2	5630.4	3037.7	1619.8	970.3	574.4
82.5°	1525.6	2640.8	3632.9	2207.7	2772.2	2845.6	3352.9	1477.6	953.0	223.8	125.0
85°	618.8	1042.7	1420.5	864.3	1337.2	1127.9	1272.8	414.9	265.5	5.4	0.0
87.5°	155.8	333.4	233.7	97.0	154.9	142.3	112.3	50.7	10.9	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°	1820.9	1820.9	1820.9	1820.9	1820.9	1820.9	1820.9	1820.9	1820.9	1820.9	1820.9
2.5°	2022.1	2001.2	1949.7	1898.0	1856.3	1800.1	1763.0	1718.6	1676.0	1637.9	1630.7
5°	2235.8	2167.1	2072.9	1986.8	1898.9	1813.7	1729.5	1640.7	1559.1	1509.3	1477.6
7.5°	2409.8	2288.4	2163.4	2053.8	1947.8	1848.2	1736.7	1628.9	1501.1	1433.3	1371.7
10°	2539.3	2379.9	2215.9	2090.0	1983.2	1886.2	1792.0	1683.3	1529.2	1444.1	1351.7
12.5°	2624.5	2435.2	2243.1	2099.1	1979.5	1904.3	1862.6	1820.1	1667.0	1567.3	1433.3
15°	2683.4	2474.1	2262.2	2078.3	1931.5	1876.3	1917.9	1966.8	1869.0	1753.9	1579.1
17.5°	2747.7	2524.9	2270.3	2022.1	1838.1	1814.7	1922.4	2035.6	2031.1	1917.0	1745.8
20°	2815.7	2569.3	2264.8	1931.5	1725.0	1745.8	1883.4	2014.8	2070.1	2008.5	1856.3
22.5°	2885.5	2611.8	2244.0	1813.7	1618.9	1684.2	1821.8	1936.9	2002.1	1983.2	1867.1
25°	2973.3	2671.7	2213.3	1686.8	1531.0	1621.7	1750.3	1843.6	1888.9	1887.9	1808.3
27.5°	3078.4	2751.4	2196.9	1584.5	1468.5	1551.0	1665.1	1748.4	1780.2	1780.2	1716.8
30°	3200.8	2845.6	2178.8	1517.5	1432.3	1477.6	1566.4	1647.9	1679.7	1679.7	1626.2
32.5°	3336.6	2936.2	2135.3	1476.7	1405.2	1406.0	1462.2	1536.5	1574.5	1579.9	1541.9
35°	3499.7	3033.1	2040.2	1444.1	1373.4	1336.3	1363.5	1425.1	1470.4	1482.1	1458.6
37.5°	3713.5	3151.8	1904.3	1396.0	1324.5	1262.9	1269.3	1316.3	1366.2	1384.3	1368.9
40°	4000.7	3291.3	1763.0	1327.2	1255.6	1182.2	1179.6	1214.0	1262.9	1282.8	1274.7
42.5°	4380.2	3459.0	1628.0	1261.1	1172.3	1097.1	1092.5	1119.7	1162.4	1183.2	1179.6
45°	4865.9	3664.6	1512.1	1209.4	1090.8	1016.5	1014.6	1037.3	1074.4	1096.2	1091.6
47.5°	5540.7	3870.2	1433.3	1182.2	1026.4	950.4	954.0	973.9	1007.4	1022.8	1016.5
50°	6420.5	3932.7	1393.4	1182.2	992.0	891.4	909.6	925.9	951.2	960.3	952.1
52.5°	7264.8	3726.2	1357.1	1189.5	996.5	841.6	880.6	892.4	914.1	917.7	906.0
55°	7678.8	3203.4	1307.3	1191.4	1024.6	799.1	857.0	878.7	886.9	886.0	866.1
57.5°	7536.6	2590.1	1223.0	1184.1	1043.7	771.8	828.0	869.7	875.1	866.9	829.8
60°	7037.4	1907.0	1158.7	1130.6	1036.4	763.7	783.6	849.8	857.9	847.1	786.4
62.5°	6200.3	1323.6	1108.8	1012.8	1004.7	761.0	713.9	806.3	826.3	810.8	722.0
65°	4881.3	934.9	954.9	887.9	935.8	746.5	641.4	753.8	780.9	757.4	632.3
67.5°	3303.1	675.0	773.7	804.5	824.4	713.9	588.9	693.9	730.2	699.4	528.2
70°	1783.8	473.9	511.0	677.6	700.3	657.7	541.7	633.2	675.0	641.4	430.3
72.5°	1053.6	340.6	357.8	544.5	583.4	578.9	489.2	562.6	613.4	573.5	349.7
75°	580.7	230.1	255.4	395.0	473.9	446.6	420.4	476.5	528.2	489.2	270.0
77.5°	260.0	137.7	177.5	259.1	372.4	306.2	325.2	371.5	419.4	378.7	180.3
80°	100.6	77.0	117.8	141.3	270.9	169.4	209.3	273.6	308.0	275.4	109.6
82.5°	12.7	34.4	50.7	55.2	157.6	89.7	121.4	172.1	169.4	146.8	55.2
85°	0.0	6.4	7.3	3.6	68.0	32.6	39.9	56.2	52.6	39.9	4.5
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	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°	1820.9	1820.9	1820.9	1820.9	1820.9	1820.9	1820.9	1820.9	1820.9	1820.9	1820.9
2.5°	1586.3	1553.7	1537.4	1523.8	1536.5	1543.8	1543.8	1574.5	1592.6	1599.9	1650.7
5°	1397.9	1337.2	1296.4	1271.9	1280.1	1289.1	1299.1	1338.1	1364.4	1381.6	1460.4
7.5°	1249.3	1156.9	1099.8	1069.9	1074.4	1080.8	1089.0	1127.0	1153.2	1175.9	1263.8
10°	1175.9	1045.5	970.3	934.1	927.7	924.0	921.4	944.0	963.9	982.1	1069.0
12.5°	1179.6	997.4	906.0	861.5	842.6	820.8	803.6	807.2	819.9	842.6	897.8
15°	1225.8	982.1	872.5	817.1	785.5	760.1	739.2	734.7	739.2	742.9	777.3
17.5°	1288.2	980.2	843.5	774.6	742.0	721.1	702.1	695.8	696.7	701.2	710.2
20°	1338.1	974.8	810.8	733.8	704.8	686.7	667.7	661.3	663.2	664.1	674.0
22.5°	1364.4	966.7	774.6	693.0	668.6	650.5	633.2	632.3	632.3	637.8	645.0
25°	1364.4	949.5	742.0	654.1	632.3	616.0	595.2	598.8	600.6	607.9	618.8
27.5°	1331.8	916.9	715.7	620.5	597.9	581.6	562.6	567.1	569.8	578.0	591.6
30°	1290.1	877.9	685.8	588.9	562.6	550.8	534.5	536.3	540.0	549.0	564.4
32.5°	1245.7	831.7	661.3	557.2	530.8	521.8	503.7	506.5	510.0	520.0	537.2
35°	1196.8	777.3	632.3	528.2	501.9	494.7	473.9	475.6	481.0	491.9	509.1
37.5°	1145.1	732.9	603.3	500.1	472.9	465.7	443.9	445.8	452.0	464.7	481.0
40°	1094.4	689.4	572.6	470.2	443.0	436.6	413.1	414.9	422.2	435.7	452.9
42.5°	1039.1	655.9	532.7	439.4	410.4	404.1	382.3	385.0	393.2	406.7	423.9
45°	973.0	634.2	488.3	410.4	377.8	371.5	351.5	356.9	366.0	379.6	397.7
47.5°	905.1	625.1	451.2	379.6	344.3	338.9	322.6	331.6	341.5	352.4	372.4
50°	839.8	613.4	413.1	350.7	315.3	309.9	299.0	310.8	320.7	330.7	349.7
52.5°	765.6	587.9	378.7	325.2	290.8	288.9	283.5	294.5	303.5	312.5	328.8
55°	688.5	547.1	348.8	302.6	270.0	271.8	269.1	278.1	285.4	293.6	308.0
57.5°	621.5	495.6	325.2	278.1	251.8	257.3	253.7	258.2	262.7	272.6	284.4
60°	553.5	434.0	299.0	249.2	233.7	240.1	230.1	229.2	231.0	233.7	255.4
62.5°	462.1	369.6	266.4	223.8	213.8	216.5	197.5	183.0	183.0	185.7	218.3
65°	371.5	309.9	230.1	194.7	186.7	184.8	157.6	137.7	135.9	144.0	172.1
67.5°	305.3	257.3	193.8	162.2	156.7	158.6	138.6	118.7	116.8	126.0	146.8
70°	252.8	207.5	154.9	125.0	130.5	138.6	118.7	99.6	97.0	105.1	125.0
72.5°	201.1	162.2	118.7	92.5	107.8	117.8	97.0	78.8	77.0	84.3	103.3
75°	147.7	115.9	80.7	67.0	83.3	92.5	70.6	56.2	53.4	59.8	78.8
77.5°	91.5	65.2	50.7	39.9	57.1	61.6	37.1	32.6	31.7	36.3	49.8
80°	42.5	28.1	24.5	13.6	20.8	24.5	15.4	17.2	18.1	21.7	30.9
82.5°	11.8	4.5	0.9	0.0	0.0	7.3	3.6	7.3	9.0	13.6	19.9
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	4.5	8.2	14.5
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	7.3
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: P962888
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CANDELA DISTRIBUTION (continued):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	1820.9	1820.9	1820.9	1820.9	1820.9	1820.9	1820.9	1820.9
2.5°	1688.7	1725.0	1782.9	1842.7	1901.6	1961.3	2019.4	2040.2
5°	1532.0	1615.3	1730.4	1853.6	1980.4	2109.0	2226.8	2280.3
7.5°	1357.1	1476.7	1649.7	1842.7	2044.8	2246.8	2432.4	2518.5
10°	1170.4	1321.7	1519.3	1780.2	2070.1	2349.1	2604.6	2716.0
12.5°	992.9	1151.5	1369.8	1682.3	2050.2	2408.0	2715.1	2846.5
15°	844.4	984.7	1220.3	1566.4	1985.8	2411.6	2767.7	2911.7
17.5°	732.9	824.4	1068.2	1437.8	1901.6	2378.1	2785.7	2939.8
20°	677.6	703.0	870.6	1272.8	1822.8	2346.4	2803.9	2966.0
22.5°	645.0	651.4	712.1	1060.0	1728.6	2336.5	2835.7	3002.3
25°	618.8	620.5	636.8	839.8	1584.5	2330.1	2884.6	3052.1
27.5°	592.4	592.4	601.6	676.7	1388.8	2303.0	2948.0	3111.9
30°	566.2	566.2	572.6	598.8	1159.6	2249.5	3024.1	3189.8
32.5°	539.0	539.0	544.5	563.5	925.9	2182.4	3093.9	3268.6
35°	511.9	510.0	517.3	537.2	736.6	2097.3	3163.6	3353.8
37.5°	482.9	482.0	489.2	511.9	636.0	1998.5	3216.1	3469.8
40°	452.0	452.0	460.2	484.7	607.0	1874.4	3299.5	3636.5
42.5°	423.9	422.2	431.2	461.1	585.3	1755.7	3448.9	3879.3
45°	396.8	393.2	401.3	438.5	547.1	1714.0	3728.0	4238.1
47.5°	371.5	362.3	369.6	411.3	512.8	1869.9	4184.6	4735.4
50°	350.7	333.4	339.7	384.2	486.5	2207.7	4777.1	5395.8
52.5°	328.8	306.2	309.9	350.7	462.9	2529.4	5419.4	6267.4
55°	306.2	280.8	282.7	317.0	429.4	2577.5	6046.3	7456.0
57.5°	280.8	257.3	257.3	286.3	405.0	2234.1	6528.2	8930.8
60°	252.8	237.4	232.9	261.8	426.7	1576.3	6584.4	9882.1
62.5°	221.9	213.8	207.5	238.3	443.0	934.1	6132.4	9652.0
65°	186.7	184.8	180.3	261.8	373.2	551.8	5264.5	8946.2
67.5°	156.7	154.1	154.1	274.5	283.5	347.0	4113.0	7975.1
70°	135.0	125.0	125.0	207.5	172.1	240.1	2871.8	6926.8
72.5°	113.3	102.4	95.1	165.7	128.6	175.8	1794.7	5932.2
75°	90.6	82.4	73.4	109.6	96.0	133.1	1042.7	4914.8
77.5°	65.2	61.6	51.7	80.7	69.8	96.0	620.5	3792.3
80°	33.5	34.4	32.6	46.2	47.2	65.2	353.3	2595.5
82.5°	19.9	15.4	17.2	22.7	27.2	37.1	133.1	1525.6
85°	12.7	8.2	8.2	10.9	13.6	14.5	40.8	618.8
87.5°	6.4	2.8	3.6	5.4	4.5	3.6	1.8	155.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)