

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: P962392

Luminaire Tested: **NAV-SB2C-727-U-SLL-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P962392
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-SB2C-727-U-SLL-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 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: 10867.1 lumens
Efficiency: N/A
Efficacy: 107.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G3

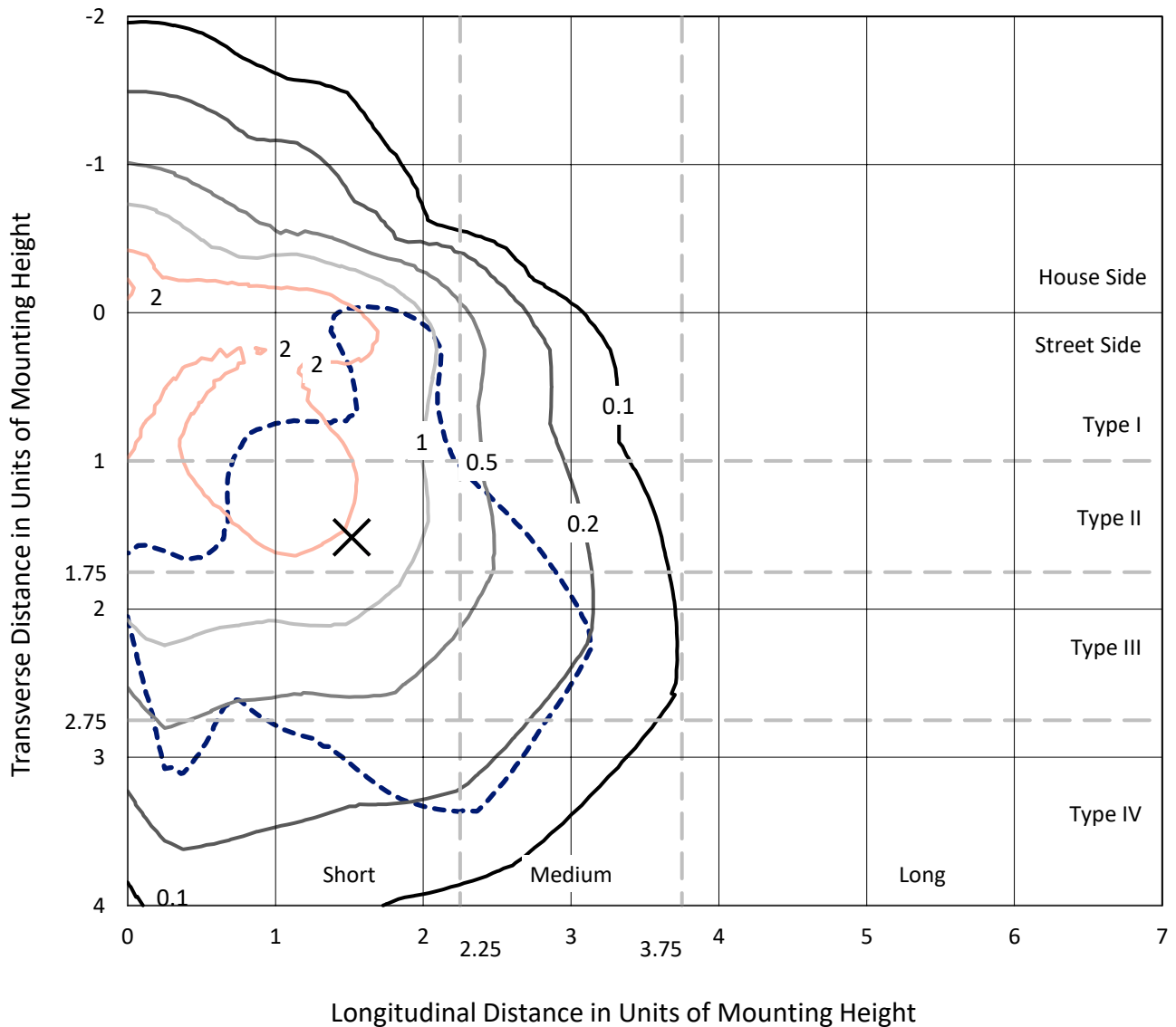
Input Watts (W): 100.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

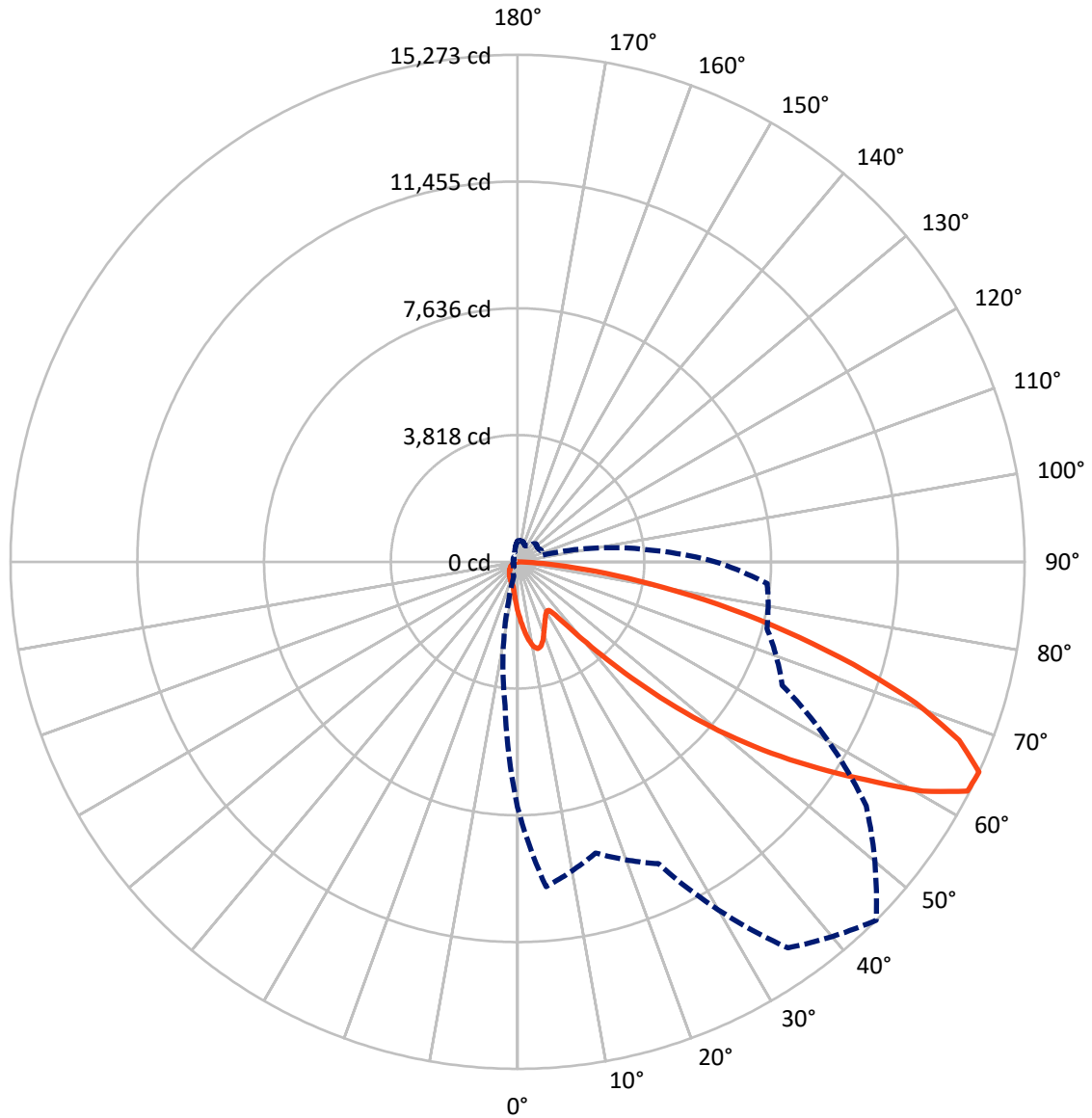
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4 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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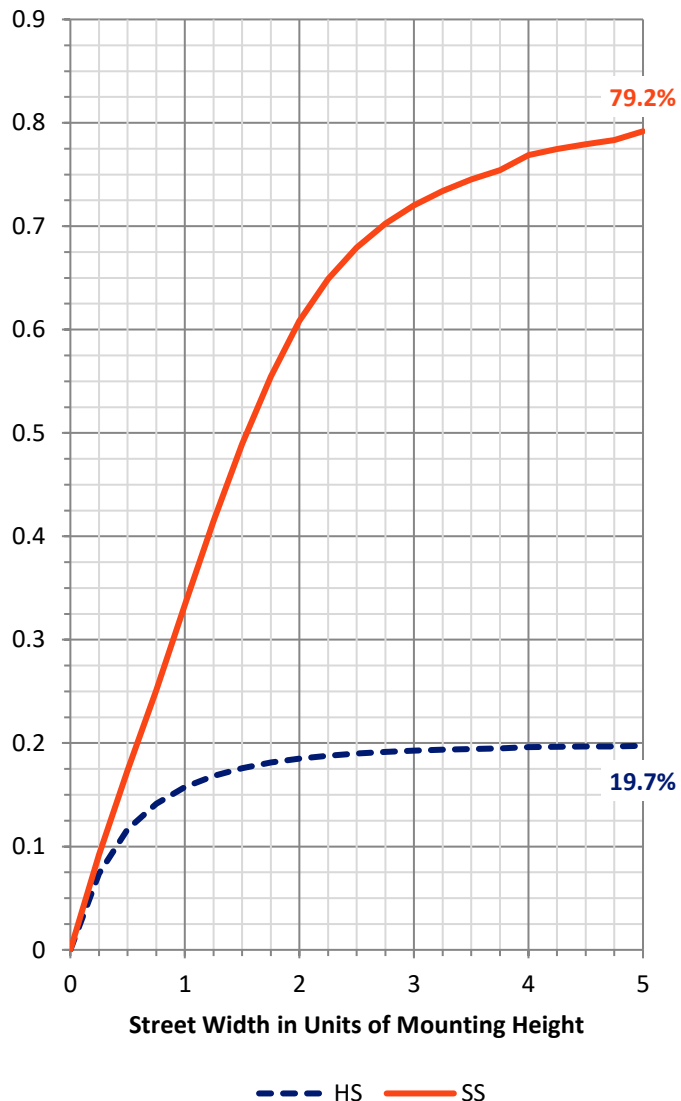
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2160.0	0.0	2160.0
	% Fixture	19.9	0.0	19.9
Street Side	Lumens	8707.0	0.0	8707.0
	% Fixture	80.1	0.0	80.1
Total	Lumens	10867.1	0.0	10867.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	148.1	1.4
10°-20°	444.1	4.1
20°-30°	654.2	6.0
30°-40°	840.5	7.7
40°-50°	1359.4	12.5
50°-60°	2383.8	21.9
60°-70°	2982.8	27.4
70°-80°	1743.0	16.0
80°-90°	311.0	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°	10867.1	100.0
0°-180°	10867.1	100.0

Coefficient of Utilization



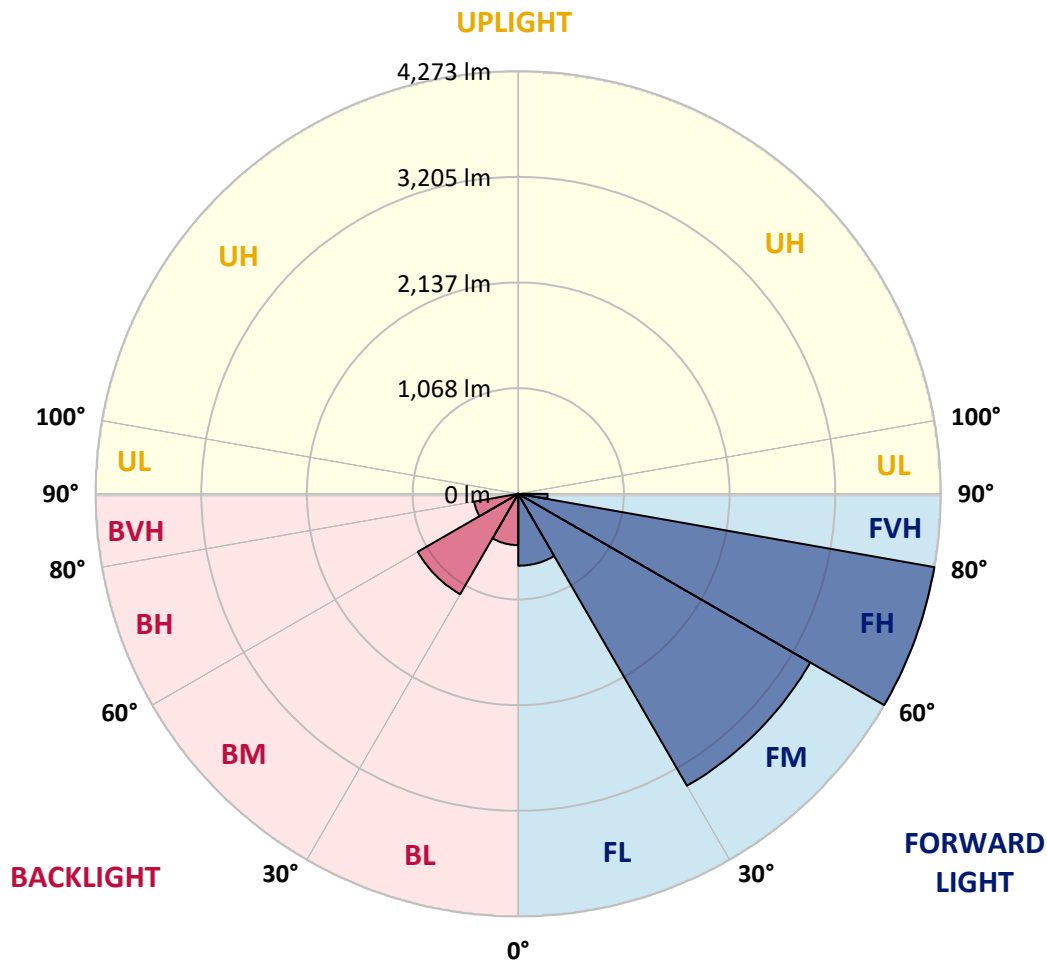
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	727.1	6.7			
FM (30°-60°)	3410.2	31.4			
FH (60°-80°)	4273.3	39.3			G2/5000
FVH (80°-90°)	296.4	2.7			G3/500
BL (0°-30°)	519.4	4.8	B2/1000		
BM (30°-60°)	1173.5	10.8	B2/2500		
BH (60°-80°)	452.6	4.2	B1/500		G1/500
BVH (80°-90°)	14.6	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°	1504.7	1504.7	1504.7	1504.7	1504.7	1504.7	1504.7	1504.7	1504.7	1504.7	1504.7
2.5°	1685.9	1698.6	1727.1	1742.1	1765.3	1766.8	1766.8	1746.5	1745.8	1704.6	1700.2
5°	1884.3	1914.2	1981.6	2051.2	2066.2	2070.0	2062.5	2022.0	1992.1	1912.0	1894.8
7.5°	2081.2	2138.9	2241.4	2334.2	2364.2	2364.2	2346.2	2280.3	2218.9	2102.9	2059.4
10°	2244.3	2317.0	2456.2	2560.3	2594.8	2587.2	2550.6	2467.5	2382.9	2242.1	2185.2
12.5°	2352.2	2433.8	2586.5	2670.3	2705.5	2686.1	2644.2	2563.3	2474.2	2326.0	2261.6
15°	2406.1	2491.5	2623.9	2668.1	2658.3	2638.1	2632.9	2594.0	2526.6	2388.1	2317.7
17.5°	2429.2	2508.7	2600.7	2573.1	2490.6	2475.0	2527.3	2576.7	2560.3	2442.1	2376.2
20°	2451.0	2517.6	2545.3	2422.6	2278.8	2264.6	2364.9	2505.6	2577.6	2492.2	2431.5
22.5°	2480.9	2522.1	2465.2	2263.8	2108.8	2075.9	2186.7	2398.6	2582.8	2555.8	2495.2
25°	2522.1	2533.4	2376.9	2113.3	1957.6	1924.7	2028.1	2279.6	2573.8	2624.7	2573.1
27.5°	2571.5	2548.4	2292.3	1987.6	1837.1	1806.5	1909.8	2165.0	2548.4	2693.6	2656.9
30°	2635.9	2567.8	2208.5	1890.3	1751.0	1728.6	1828.2	2066.2	2516.9	2781.1	2760.9
32.5°	2701.1	2576.0	2130.6	1833.4	1731.5	1739.8	1821.4	2013.1	2482.4	2865.0	2874.7
35°	2771.4	2602.3	2092.4	1889.5	1894.0	1965.8	1999.6	2062.5	2477.2	2978.8	3017.0
37.5°	2867.2	2660.6	2138.0	2168.8	2324.5	2473.4	2445.8	2304.3	2537.8	3148.7	3219.8
40°	3005.0	2763.2	2337.2	2644.2	2963.8	3205.6	3100.0	2743.7	2723.5	3393.6	3499.9
42.5°	3205.6	2926.4	2690.5	3225.1	3767.1	4165.4	3882.4	3310.4	3048.5	3743.1	3878.6
45°	3502.1	3190.6	3118.0	3838.2	4757.5	5384.8	4796.5	3914.6	3503.6	4272.4	4378.7
47.5°	3913.0	3579.2	3518.5	4484.3	5961.3	6772.8	5810.1	4474.5	4021.6	4994.1	5018.8
50°	4458.9	4102.5	3898.1	5191.0	7281.1	8187.7	6823.0	5015.0	4615.3	5876.0	5847.5
52.5°	5179.0	4832.4	4340.6	5864.0	8638.4	9572.7	7840.3	5489.7	5351.9	6899.4	6841.0
55°	6161.2	5930.6	4945.4	6506.3	9994.9	10965.9	8818.1	5937.3	6325.2	8115.1	7761.7
57.5°	7380.0	7544.6	5817.6	7251.2	11214.4	12401.8	9800.2	6563.2	7588.8	9474.6	8296.2
60°	8166.0	9691.0	7487.7	8352.4	12600.1	14025.5	11146.3	7753.5	8916.9	9962.0	8194.5
62.5°	7975.8	10373.7	9488.1	9758.3	13874.3	15206.1	12465.3	8949.1	9166.9	9244.1	7409.9
65°	7392.7	9822.7	9080.1	10031.6	14197.0	15272.7	12817.9	8794.9	7776.0	7546.9	5956.1
67.5°	6590.1	9169.1	8110.6	9306.9	13613.7	14341.4	12161.4	7779.7	6009.3	5663.3	4321.1
70°	5724.0	8446.0	7474.3	8493.9	12502.0	12718.4	11045.2	6842.5	4419.9	3824.7	2772.9
72.5°	4902.0	7692.9	7038.6	7660.6	11019.1	10571.3	9592.2	6013.7	3218.3	2758.7	1971.2
75°	4061.3	6581.9	6417.9	6671.0	9068.9	8327.0	7969.9	4979.1	2525.9	1995.9	1360.3
77.5°	3133.7	5143.0	5520.3	5342.2	6383.5	6185.2	6177.7	3741.7	1845.4	1331.8	852.7
80°	2144.8	3584.4	4312.8	3768.6	4142.9	4041.9	4652.7	2510.1	1338.5	801.8	474.7
82.5°	1260.6	2182.2	3002.0	1824.4	2290.8	2351.5	2770.7	1221.0	787.5	184.9	103.3
85°	511.3	861.7	1173.8	714.2	1104.9	932.0	1051.9	342.9	219.4	4.5	0.0
87.5°	128.7	275.5	193.1	80.1	128.0	117.6	92.9	41.9	9.0	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°	1504.7	1504.7	1504.7	1504.7	1504.7	1504.7	1504.7	1504.7	1504.7	1504.7	1504.7
2.5°	1671.0	1653.7	1611.0	1568.4	1533.9	1487.5	1456.8	1420.1	1385.0	1353.5	1347.6
5°	1847.6	1790.7	1712.9	1641.7	1569.1	1498.8	1429.2	1355.8	1288.4	1247.2	1221.0
7.5°	1991.4	1891.0	1787.7	1697.1	1609.6	1527.1	1435.1	1346.0	1240.5	1184.3	1133.4
10°	2098.4	1966.7	1831.2	1727.1	1638.8	1558.6	1480.8	1390.9	1263.7	1193.3	1116.9
12.5°	2168.8	2012.3	1853.6	1734.6	1635.8	1573.6	1539.1	1504.0	1377.5	1295.1	1184.3
15°	2217.4	2044.5	1869.3	1717.4	1596.0	1550.4	1584.9	1625.2	1544.4	1449.4	1304.8
17.5°	2270.6	2086.4	1876.1	1671.0	1518.9	1499.5	1588.5	1682.1	1678.4	1584.1	1442.6
20°	2326.8	2123.1	1871.5	1596.0	1425.4	1442.6	1556.4	1664.9	1710.6	1659.7	1533.9
22.5°	2384.4	2158.2	1854.3	1498.8	1337.8	1391.7	1505.5	1600.5	1654.5	1638.8	1542.9
25°	2457.0	2207.7	1828.9	1393.9	1265.2	1340.1	1446.4	1523.5	1560.9	1560.2	1494.2
27.5°	2543.8	2273.6	1815.4	1309.3	1213.5	1281.7	1376.0	1444.8	1471.1	1471.1	1418.6
30°	2644.9	2351.5	1800.4	1254.0	1183.6	1221.0	1294.4	1361.7	1388.0	1388.0	1343.8
32.5°	2757.1	2426.3	1764.5	1220.3	1161.1	1161.8	1208.3	1269.7	1301.1	1305.6	1274.2
35°	2891.9	2506.4	1685.9	1193.3	1134.9	1104.2	1126.7	1177.6	1215.0	1224.8	1205.3
37.5°	3068.6	2604.4	1573.6	1153.6	1094.5	1043.6	1048.8	1087.7	1128.9	1143.9	1131.2
40°	3305.9	2719.7	1456.8	1096.8	1037.6	976.9	974.7	1003.2	1043.6	1060.1	1053.3
42.5°	3619.6	2858.2	1345.3	1042.1	968.7	906.6	902.8	925.3	960.5	977.7	974.7
45°	4020.9	3028.2	1249.5	999.4	901.4	840.0	838.4	857.2	887.9	905.8	902.1
47.5°	4578.6	3198.1	1184.3	976.9	848.2	785.4	788.3	804.7	832.5	845.2	840.0
50°	5305.5	3249.8	1151.4	976.9	819.8	736.7	751.6	765.1	786.1	793.6	786.8
52.5°	6003.2	3079.1	1121.5	983.0	823.5	695.5	727.6	737.4	755.3	758.4	748.7
55°	6345.4	2647.2	1080.2	984.4	846.6	660.3	708.2	726.2	732.9	732.2	715.7
57.5°	6227.8	2140.3	1010.6	978.5	862.4	637.9	684.3	718.7	723.1	716.5	685.7
60°	5815.3	1575.8	957.5	934.3	856.4	631.1	647.6	702.2	709.0	700.0	649.8
62.5°	5123.6	1093.8	916.4	837.0	830.2	628.8	589.9	666.2	682.8	670.0	596.7
65°	4033.6	772.5	789.0	733.7	773.4	616.8	530.0	622.9	645.3	625.9	522.5
67.5°	2729.5	557.7	639.3	664.8	681.2	589.9	486.6	573.5	603.4	577.9	436.4
70°	1474.1	391.5	422.2	560.0	578.7	543.5	447.7	523.3	557.7	530.0	355.6
72.5°	870.6	281.5	295.7	450.0	482.2	478.4	404.3	464.9	506.9	473.9	288.9
75°	479.9	190.1	211.2	326.4	391.5	369.1	347.4	393.8	436.4	404.3	223.0
77.5°	214.8	113.8	146.8	214.1	307.7	253.1	268.8	307.0	346.7	312.9	148.9
80°	83.1	63.7	97.3	116.7	223.9	140.0	172.9	226.1	254.5	227.6	90.6
82.5°	10.5	28.5	41.9	45.7	130.3	74.1	100.3	142.3	140.0	121.3	45.7
85°	0.0	5.2	5.9	3.0	56.2	27.0	32.9	46.4	43.5	32.9	3.8
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	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°	1504.7	1504.7	1504.7	1504.7	1504.7	1504.7	1504.7	1504.7	1504.7	1504.7	1504.7
2.5°	1310.9	1283.9	1270.4	1259.2	1269.7	1275.6	1275.6	1301.1	1316.1	1322.0	1364.0
5°	1155.2	1104.9	1071.3	1051.0	1057.8	1065.3	1073.5	1105.8	1127.4	1141.6	1206.8
7.5°	1032.4	956.0	908.9	884.2	887.9	893.1	899.8	931.3	953.0	971.7	1044.4
10°	971.7	863.9	801.8	771.8	766.6	763.6	761.4	780.0	796.5	811.5	883.3
12.5°	974.7	824.2	748.7	712.0	696.2	678.2	664.0	667.1	677.5	696.2	741.9
15°	1012.9	811.5	720.9	675.3	649.0	628.1	610.9	607.1	610.9	613.9	642.4
17.5°	1064.6	810.1	697.0	640.1	613.2	595.9	580.2	574.9	575.7	579.4	586.9
20°	1105.8	805.5	670.0	606.4	582.4	567.4	551.8	546.5	548.0	548.8	557.0
22.5°	1127.4	798.8	640.1	572.7	552.5	537.5	523.3	522.5	522.5	527.1	533.0
25°	1127.4	784.5	613.2	540.5	522.5	509.0	491.9	494.9	496.3	502.4	511.3
27.5°	1100.4	757.6	591.4	512.8	494.0	480.6	464.9	468.6	470.9	477.6	488.8
30°	1066.0	725.4	566.7	486.6	464.9	455.2	441.7	443.2	446.2	453.7	466.4
32.5°	1029.4	687.3	546.5	460.4	438.7	431.2	416.3	418.5	421.5	429.7	443.9
35°	988.9	642.4	522.5	436.4	414.7	408.8	391.5	393.0	397.5	406.5	420.8
37.5°	946.3	605.7	498.6	413.3	390.8	384.8	366.8	368.3	373.6	384.1	397.5
40°	904.4	569.7	473.1	388.6	366.0	360.8	341.3	342.9	348.9	360.1	374.3
42.5°	858.6	542.0	440.2	363.1	339.2	333.8	315.9	318.2	324.9	336.1	350.3
45°	804.0	524.1	403.5	339.2	312.2	307.0	290.5	295.0	302.5	313.6	328.6
47.5°	747.8	516.6	372.8	313.6	284.4	280.0	266.5	274.0	282.2	291.2	307.7
50°	694.0	506.9	341.3	289.8	260.6	256.0	247.0	256.8	265.0	273.3	288.9
52.5°	632.6	485.8	312.9	268.8	240.3	238.8	234.3	243.3	250.8	258.3	271.7
55°	569.0	452.1	288.2	250.0	223.0	224.6	222.3	229.8	235.9	242.5	254.5
57.5°	513.5	409.5	268.8	229.8	208.1	212.6	209.6	213.4	217.1	225.3	235.0
60°	457.5	358.5	247.0	205.9	193.1	198.3	190.1	189.4	190.9	193.1	211.2
62.5°	381.8	305.4	220.1	184.9	176.7	179.0	163.2	151.2	151.2	153.4	180.4
65°	307.0	256.0	190.1	160.9	154.3	152.7	130.3	113.8	112.3	119.0	142.3
67.5°	252.3	212.6	160.2	134.0	129.6	131.0	114.5	98.1	96.6	104.0	121.3
70°	208.9	171.5	128.0	103.3	107.8	114.5	98.1	82.3	80.1	86.8	103.3
72.5°	166.2	134.0	98.1	76.4	89.1	97.3	80.1	65.1	63.7	69.6	85.4
75°	122.0	95.8	66.6	55.4	68.9	76.4	58.4	46.4	44.2	49.4	65.1
77.5°	75.6	53.9	41.9	32.9	47.2	50.9	30.6	27.0	26.2	29.9	41.2
80°	35.2	23.2	20.2	11.3	17.2	20.2	12.7	14.2	15.0	17.9	25.4
82.5°	9.7	3.8	0.7	0.0	0.0	5.9	3.0	5.9	7.5	11.3	16.5
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	3.8	6.8	12.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	5.9
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):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	1504.7	1504.7	1504.7	1504.7	1504.7	1504.7	1504.7	1504.7
2.5°	1395.4	1425.4	1473.3	1522.7	1571.3	1620.7	1668.7	1685.9
5°	1266.0	1334.8	1429.9	1531.7	1636.5	1742.8	1840.1	1884.3
7.5°	1121.5	1220.3	1363.2	1522.7	1689.6	1856.6	2010.0	2081.2
10°	967.2	1092.2	1255.4	1471.1	1710.6	1941.1	2152.3	2244.3
12.5°	820.5	951.5	1131.9	1390.2	1694.1	1989.8	2243.6	2352.2
15°	697.7	813.7	1008.4	1294.4	1641.0	1992.8	2287.1	2406.1
17.5°	605.7	681.2	882.6	1188.1	1571.3	1965.1	2302.0	2429.2
20°	560.0	581.0	719.4	1051.9	1506.2	1939.0	2317.0	2451.0
22.5°	533.0	538.2	588.5	875.9	1428.3	1930.7	2343.1	2480.9
25°	511.3	512.8	526.2	694.0	1309.3	1925.5	2383.6	2522.1
27.5°	489.6	489.6	497.1	559.2	1147.7	1903.0	2436.0	2571.5
30°	467.9	467.9	473.1	494.9	958.3	1858.8	2499.0	2635.9
32.5°	445.5	445.5	450.0	465.7	765.1	1803.5	2556.6	2701.1
35°	423.0	421.5	427.4	443.9	608.6	1733.1	2614.2	2771.4
37.5°	399.0	398.3	404.3	423.0	525.5	1651.5	2657.6	2867.2
40°	373.6	373.6	380.3	400.5	501.5	1548.9	2726.5	3005.0
42.5°	350.3	348.9	356.4	381.1	483.6	1450.9	2850.0	3205.6
45°	327.9	324.9	331.7	362.3	452.1	1416.4	3080.6	3502.1
47.5°	307.0	299.4	305.4	339.9	423.7	1545.2	3457.9	3913.0
50°	289.8	275.5	280.7	317.4	402.0	1824.4	3947.5	4458.9
52.5°	271.7	253.1	256.0	289.8	382.5	2090.2	4478.3	5179.0
55°	253.1	232.1	233.6	262.0	354.9	2129.8	4996.4	6161.2
57.5°	232.1	212.6	212.6	236.6	334.7	1846.1	5394.6	7380.0
60°	208.9	196.2	192.4	216.4	352.6	1302.6	5441.0	8166.0
62.5°	183.4	176.7	171.5	196.9	366.0	771.8	5067.5	7975.8
65°	154.3	152.7	148.9	216.4	308.4	455.9	4350.3	7392.7
67.5°	129.6	127.3	127.3	226.8	234.3	286.7	3398.8	6590.1
70°	111.5	103.3	103.3	171.5	142.3	198.3	2373.2	5724.0
72.5°	93.6	84.6	78.6	137.0	106.3	145.2	1483.1	4902.0
75°	74.8	68.2	60.7	90.6	79.3	110.1	861.7	4061.3
77.5°	53.9	50.9	42.6	66.6	57.6	79.3	512.8	3133.7
80°	27.7	28.5	27.0	38.1	38.9	53.9	291.9	2144.8
82.5°	16.5	12.7	14.2	18.8	22.4	30.6	110.1	1260.6
85°	10.5	6.8	6.8	9.0	11.3	12.0	33.7	511.3
87.5°	5.2	2.3	3.0	4.5	3.8	3.0	1.5	128.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)