

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: P961865

Luminaire Tested: **NAV-SB2B-727-U-SLL-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P961865
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-SB2B-727-U-SLL-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 CRI, 2700K, 450mA 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: 8171.3 lumens
Efficiency: N/A
Efficacy: 110.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

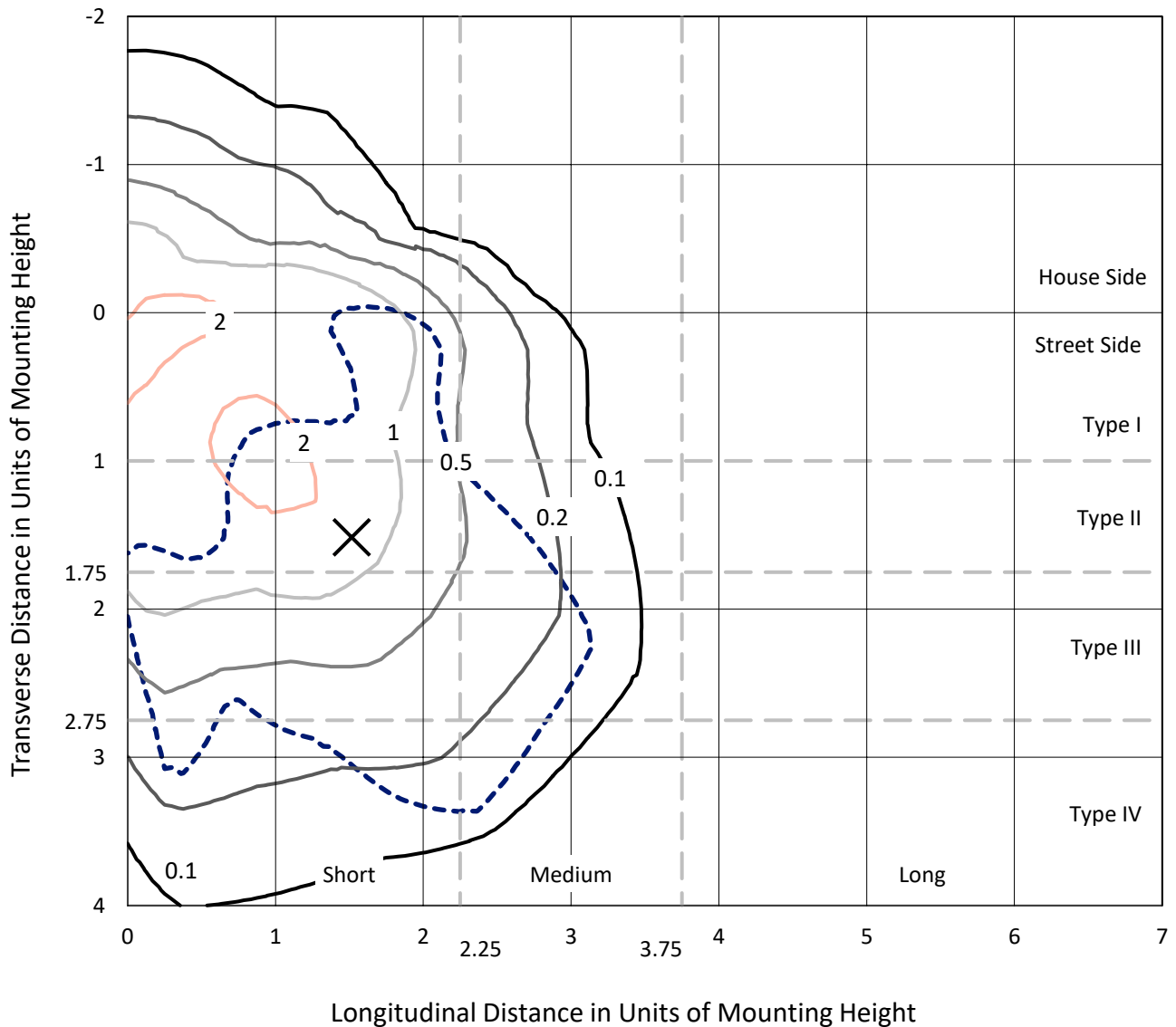
Input Watts (W): 73.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

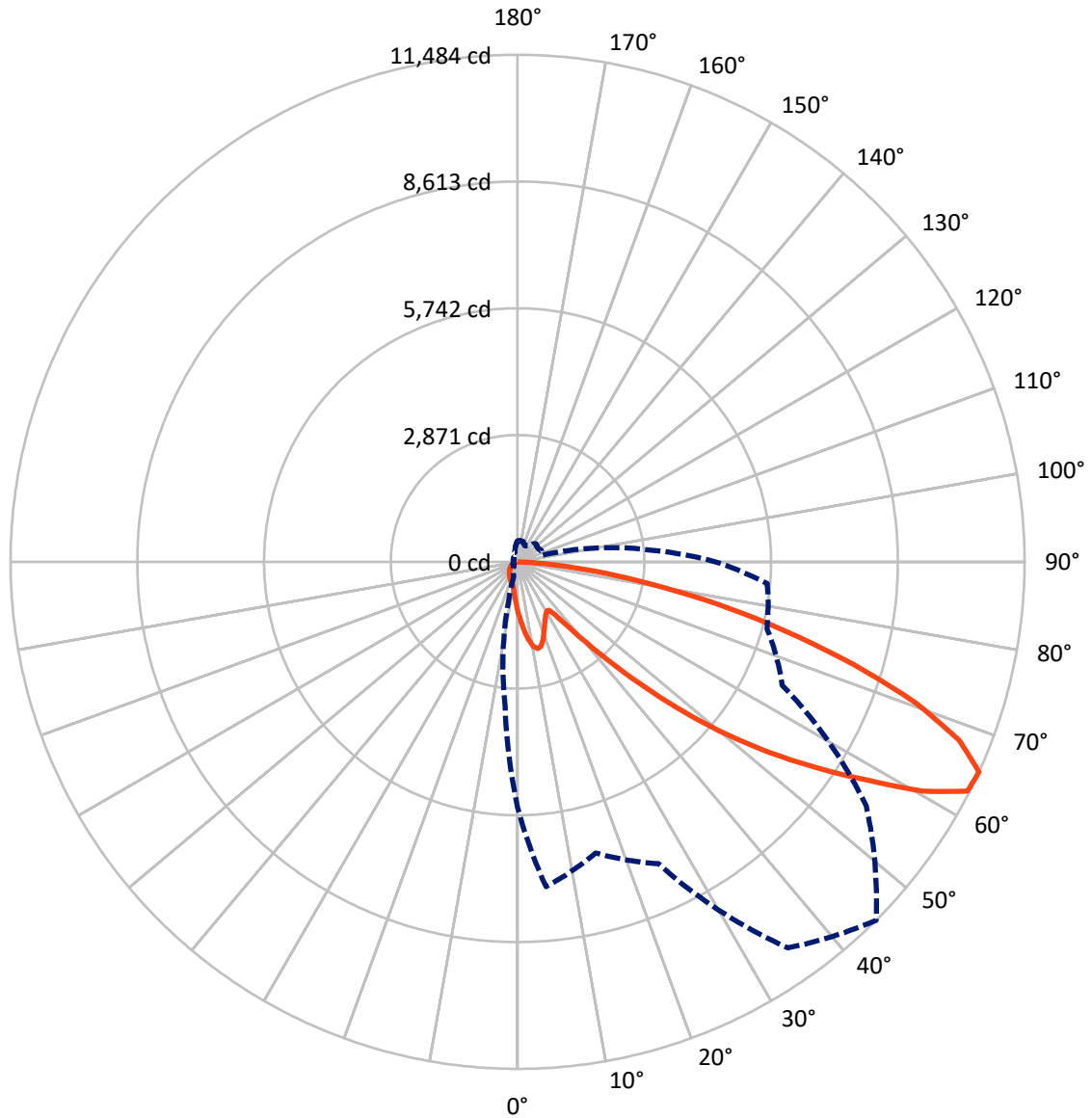
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3 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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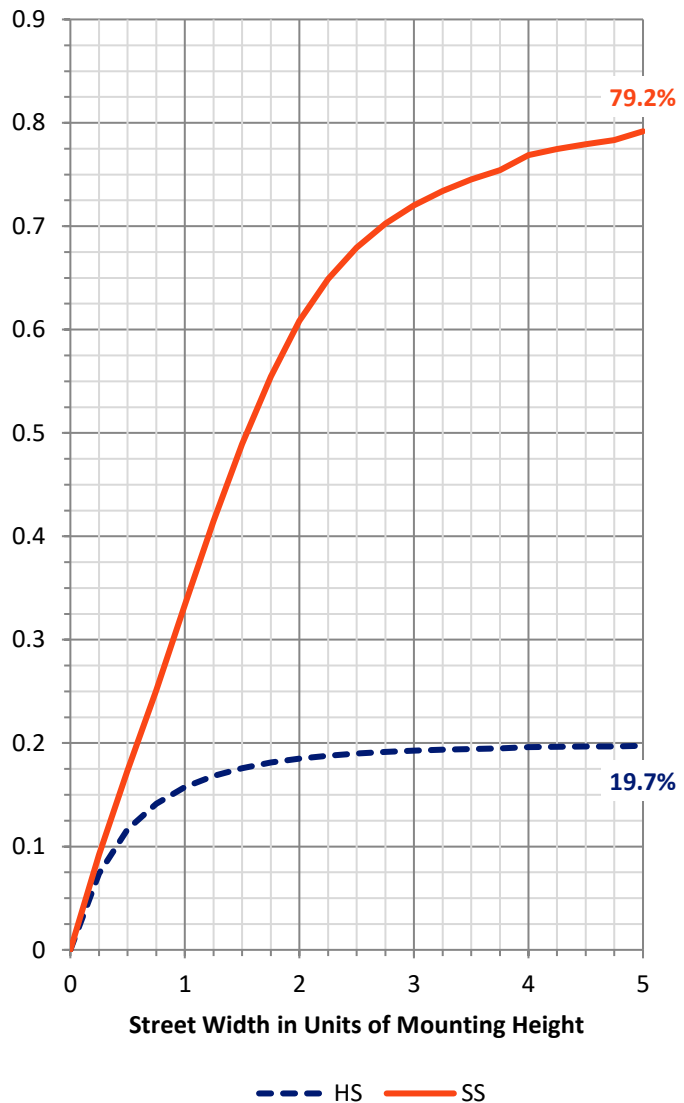
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1624.2	0.0	1624.2
	% Fixture	19.9	0.0	19.9
Street Side	Lumens	6547.1	0.0	6547.1
	% Fixture	80.1	0.0	80.1
Total	Lumens	8171.3	0.0	8171.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	111.4	1.4
10°-20°	333.9	4.1
20°-30°	492.0	6.0
30°-40°	632.0	7.7
40°-50°	1022.2	12.5
50°-60°	1792.5	21.9
60°-70°	2242.9	27.4
70°-80°	1310.6	16.0
80°-90°	233.8	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°	8171.3	100.0
0°-180°	8171.3	100.0

Coefficient of Utilization



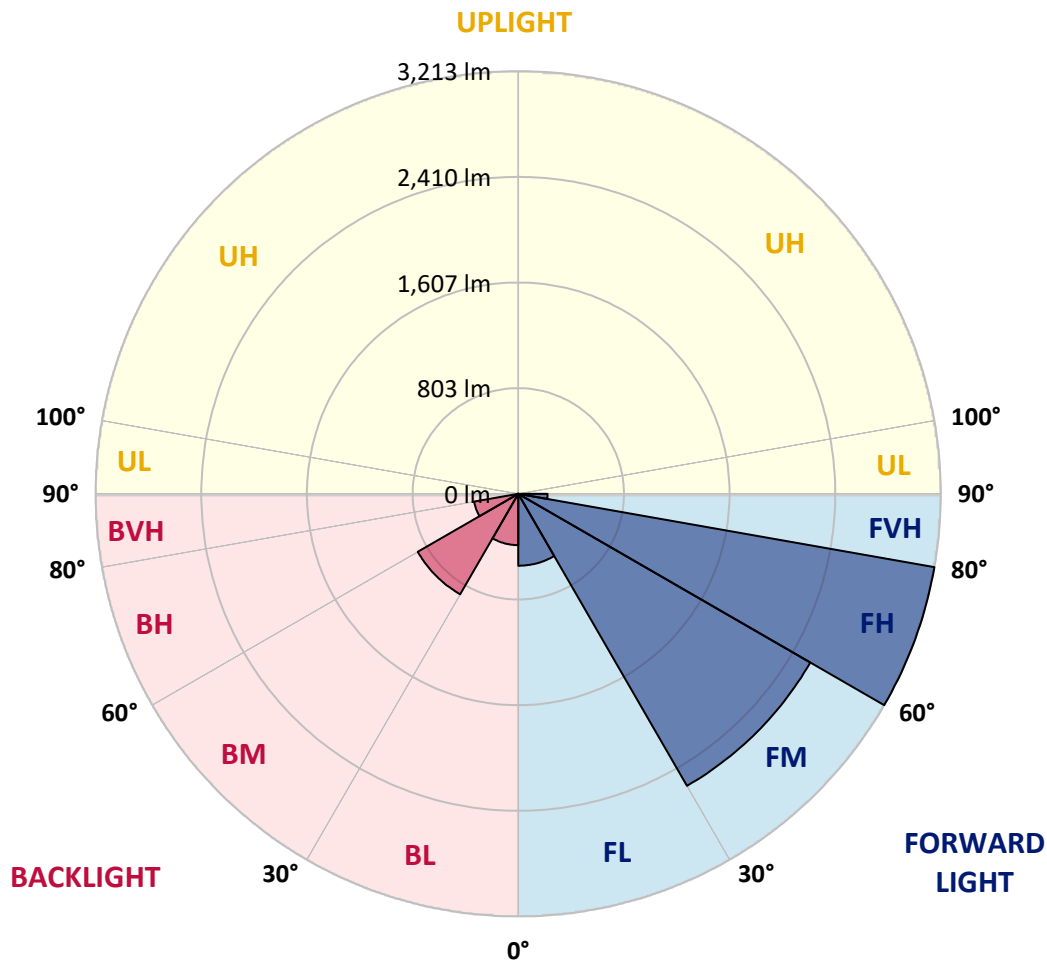
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	546.8	6.7			
FM (30°-60°)	2564.2	31.4			
FH (60°-80°)	3213.2	39.3			G2/5000
FVH (80°-90°)	222.9	2.7			G2/225
BL (0°-30°)	390.5	4.8	B1/500		
BM (30°-60°)	882.4	10.8	B1/1000		
BH (60°-80°)	340.3	4.2	B1/500		G1/500
BVH (80°-90°)	11.0	0.1			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	1131.5	1131.5	1131.5	1131.5	1131.5	1131.5	1131.5	1131.5	1131.5	1131.5	1131.5
2.5°	1267.7	1277.3	1298.7	1309.9	1327.4	1328.5	1328.5	1313.3	1312.7	1281.8	1278.4
5°	1416.9	1439.4	1490.0	1542.4	1553.7	1556.5	1550.8	1520.5	1497.9	1437.7	1424.7
7.5°	1564.9	1608.2	1685.4	1755.2	1777.7	1777.7	1764.2	1714.6	1668.5	1581.3	1548.6
10°	1687.7	1742.2	1846.9	1925.2	1951.1	1945.4	1917.9	1855.4	1791.8	1685.9	1643.2
12.5°	1768.6	1830.0	1944.8	2008.0	2034.4	2019.8	1988.2	1927.4	1860.5	1749.0	1700.6
15°	1809.2	1873.4	1973.0	2006.2	1999.0	1983.7	1979.8	1950.5	1899.8	1795.7	1742.8
17.5°	1826.7	1886.3	1955.6	1934.8	1872.8	1861.0	1900.5	1937.6	1925.2	1836.2	1786.7
20°	1843.0	1893.1	1913.9	1821.6	1713.5	1702.8	1778.3	1884.1	1938.2	1873.9	1828.4
22.5°	1865.5	1896.5	1853.7	1702.2	1585.8	1561.0	1644.3	1803.6	1942.1	1921.8	1876.2
25°	1896.5	1905.0	1787.3	1589.2	1472.0	1447.3	1524.9	1714.1	1935.3	1973.6	1934.8
27.5°	1933.7	1916.1	1723.6	1494.6	1381.4	1358.3	1436.0	1628.0	1916.1	2025.4	1997.8
30°	1982.0	1930.8	1660.6	1421.4	1316.6	1299.8	1374.6	1553.7	1892.6	2091.2	2076.0
32.5°	2031.0	1937.0	1602.1	1378.6	1302.1	1308.2	1369.6	1513.7	1866.6	2154.2	2161.6
35°	2083.9	1956.7	1573.4	1420.8	1424.1	1478.3	1503.6	1550.8	1862.7	2239.8	2268.5
37.5°	2156.0	2000.6	1607.7	1630.8	1747.8	1859.9	1839.1	1732.7	1908.2	2367.6	2421.2
40°	2259.5	2077.8	1757.5	1988.2	2228.6	2410.4	2331.1	2063.1	2047.8	2551.7	2631.7
42.5°	2410.4	2200.5	2023.1	2425.0	2832.6	3132.1	2919.3	2489.2	2292.2	2814.5	2916.4
45°	2633.3	2399.1	2344.6	2886.1	3577.4	4049.1	3606.6	2943.5	2634.5	3212.6	3292.5
47.5°	2942.4	2691.3	2645.7	3371.8	4482.5	5092.7	4368.8	3364.6	3024.0	3755.2	3773.8
50°	3352.8	3084.7	2931.1	3903.3	5474.9	6156.7	5130.4	3771.0	3470.3	4418.4	4396.9
52.5°	3894.3	3633.6	3263.8	4409.3	6495.5	7198.1	5895.4	4127.9	4024.3	5187.8	5144.0
55°	4632.8	4459.5	3718.6	4892.3	7515.5	8245.6	6630.6	4464.5	4756.1	6102.0	5836.3
57.5°	5549.2	5673.1	4374.4	5452.4	8432.5	9325.2	7369.1	4935.1	5706.3	7124.3	6238.3
60°	6140.3	7286.9	5630.3	6280.5	9474.5	10546.2	8381.3	5830.1	6704.9	7490.7	6161.7
62.5°	5997.3	7800.4	7134.4	7337.7	10432.6	11434.0	9373.1	6729.1	6892.9	6950.9	5571.8
65°	5558.8	7386.0	6827.6	7543.1	10675.2	11484.1	9638.3	6613.2	5847.0	5674.8	4478.5
67.5°	4955.4	6894.6	6098.6	6998.2	10236.7	10783.8	9144.6	5849.9	4518.5	4258.5	3249.1
70°	4304.1	6350.8	5620.2	6386.9	9400.7	9563.4	8305.3	5145.1	3323.5	2875.9	2085.1
72.5°	3686.0	5784.6	5292.6	5760.3	8285.6	7949.0	7212.6	4521.9	2420.0	2074.4	1482.1
75°	3053.8	4949.2	4825.9	5016.1	6819.2	6261.3	5992.9	3743.9	1899.3	1500.7	1022.8
77.5°	2356.4	3867.2	4150.9	4017.0	4800.0	4650.8	4645.2	2813.4	1387.5	1001.4	641.1
80°	1612.7	2695.2	3243.0	2833.7	3115.2	3039.2	3498.5	1887.4	1006.4	602.9	356.9
82.5°	947.9	1640.9	2257.3	1371.9	1722.5	1768.1	2083.3	918.1	592.1	139.0	77.7
85°	384.5	647.9	882.6	537.0	830.9	700.8	790.9	257.8	164.9	3.4	0.0
87.5°	96.9	207.2	145.2	60.3	96.2	88.4	69.8	31.6	6.8	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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°	185°
0°	1131.5	1131.5	1131.5	1131.5	1131.5	1131.5	1131.5	1131.5	1131.5	1131.5	1131.5
2.5°	1256.4	1243.5	1211.4	1179.3	1153.4	1118.5	1095.4	1067.8	1041.4	1017.7	1013.2
5°	1389.3	1346.5	1287.9	1234.5	1179.9	1127.0	1074.6	1019.5	968.8	937.8	918.1
7.5°	1497.3	1421.9	1344.3	1276.1	1210.3	1148.3	1079.1	1012.1	932.7	890.5	852.3
10°	1577.9	1478.8	1376.9	1298.7	1232.3	1172.0	1113.5	1045.9	950.2	897.3	839.9
12.5°	1630.8	1513.1	1393.8	1304.3	1230.0	1183.3	1157.3	1130.9	1035.8	973.9	890.5
15°	1667.4	1537.3	1405.6	1291.3	1200.2	1165.8	1191.7	1222.1	1161.3	1089.8	981.1
17.5°	1707.3	1568.9	1410.7	1256.4	1142.2	1127.5	1194.5	1264.8	1262.1	1191.2	1084.8
20°	1749.6	1596.4	1407.3	1200.2	1071.8	1084.8	1170.3	1251.9	1286.3	1247.9	1153.4
22.5°	1792.9	1622.9	1394.3	1127.0	1005.9	1046.4	1132.0	1203.6	1244.0	1232.3	1160.2
25°	1847.5	1660.1	1375.2	1048.2	951.3	1007.6	1087.5	1145.5	1173.7	1173.1	1123.6
27.5°	1912.8	1709.6	1365.1	984.5	912.5	963.7	1034.6	1086.4	1106.2	1106.2	1066.7
30°	1988.8	1768.1	1353.8	942.9	890.0	918.1	973.2	1024.0	1043.7	1043.7	1010.4
32.5°	2073.3	1824.4	1326.8	917.6	873.1	873.6	908.6	954.7	978.4	981.7	958.1
35°	2174.5	1884.7	1267.7	897.3	853.4	830.4	847.2	885.5	913.6	921.0	906.3
37.5°	2307.4	1958.4	1183.3	867.5	823.0	784.7	788.6	817.9	848.9	860.2	850.5
40°	2485.8	2045.1	1095.4	824.7	780.2	734.6	732.9	754.3	784.7	797.0	792.0
42.5°	2721.7	2149.2	1011.6	783.6	728.4	681.7	678.9	695.8	722.2	735.1	732.9
45°	3023.4	2277.0	939.5	751.5	677.7	631.6	630.5	644.5	667.6	681.1	678.3
47.5°	3442.8	2404.8	890.5	734.6	637.8	590.5	592.8	605.2	626.0	635.5	631.6
50°	3989.4	2443.6	865.8	734.6	616.4	553.9	565.2	575.3	591.0	596.7	591.6
52.5°	4514.0	2315.3	843.3	739.1	619.2	523.0	547.1	554.4	568.0	570.2	562.9
55°	4771.3	1990.4	812.3	740.3	636.6	496.5	532.5	546.0	551.1	550.5	538.1
57.5°	4682.9	1609.4	759.9	735.7	648.5	479.6	514.6	540.4	543.8	538.7	515.7
60°	4372.8	1184.9	720.0	702.5	644.0	474.6	486.9	528.0	533.1	526.3	488.6
62.5°	3852.6	822.5	689.0	629.3	624.2	472.8	443.6	501.0	513.4	503.8	448.6
65°	3033.0	581.0	593.3	551.7	581.5	463.8	398.5	468.3	485.2	470.6	392.9
67.5°	2052.4	419.3	480.7	499.9	512.3	443.6	365.9	431.2	453.7	434.6	328.2
70°	1108.4	294.4	317.4	421.1	435.1	408.7	336.6	393.5	419.3	398.5	267.4
72.5°	654.7	211.7	222.3	338.4	362.5	359.7	304.0	349.5	381.1	356.3	217.3
75°	360.8	143.0	158.8	245.4	294.4	277.5	261.2	296.1	328.2	304.0	167.8
77.5°	161.5	85.6	110.3	161.0	231.3	190.2	202.1	230.8	260.7	235.3	112.0
80°	62.5	47.9	73.2	87.8	168.3	105.3	130.1	170.0	191.4	171.2	68.2
82.5°	7.9	21.4	31.6	34.3	98.0	55.8	75.4	106.9	105.3	91.2	34.3
85°	0.0	3.9	4.5	2.3	42.2	20.3	24.8	34.8	32.7	24.8	2.8
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	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°	1131.5	1131.5	1131.5	1131.5	1131.5	1131.5	1131.5	1131.5	1131.5	1131.5	1131.5
2.5°	985.6	965.4	955.3	946.8	954.7	959.2	959.2	978.4	989.6	994.1	1025.6
5°	868.6	830.9	805.5	790.4	795.4	801.0	807.2	831.4	847.8	858.4	907.4
7.5°	776.2	718.8	683.4	664.8	667.6	671.6	676.6	700.3	716.6	730.6	785.3
10°	730.6	649.6	602.9	580.4	576.5	574.2	572.5	586.6	598.9	610.2	664.2
12.5°	732.9	619.8	562.9	535.4	523.5	510.0	499.3	501.5	509.4	523.5	557.8
15°	761.7	610.2	542.1	507.8	488.0	472.3	459.3	456.5	459.3	461.6	483.0
17.5°	800.4	609.1	524.1	481.3	461.0	448.1	436.2	432.3	432.9	435.7	441.4
20°	831.4	605.7	503.8	455.9	438.0	426.7	414.9	410.9	412.0	412.7	418.8
22.5°	847.8	600.6	481.3	430.6	415.4	404.2	393.5	392.9	392.9	396.3	400.8
25°	847.8	589.9	461.0	406.4	392.9	382.7	369.8	372.1	373.2	377.7	384.5
27.5°	827.5	569.7	444.7	385.6	371.6	361.4	349.5	352.4	354.0	359.2	367.6
30°	801.6	545.5	426.1	365.9	349.5	342.2	332.1	333.2	335.5	341.1	350.7
32.5°	774.0	516.8	410.9	346.2	329.8	324.2	312.9	314.7	316.9	323.1	333.8
35°	743.6	483.0	392.9	328.2	311.8	307.4	294.4	295.5	298.9	305.7	316.3
37.5°	711.6	455.4	374.9	310.8	293.9	289.4	275.8	277.0	280.8	288.7	298.9
40°	680.0	428.3	355.8	292.1	275.3	271.3	256.7	257.8	262.3	270.8	281.5
42.5°	645.6	407.5	331.0	273.1	255.0	251.0	237.6	239.2	244.3	252.8	263.4
45°	604.5	394.0	303.4	255.0	234.7	230.8	218.4	221.8	227.4	235.9	247.1
47.5°	562.3	388.4	280.3	235.9	213.9	210.5	200.4	206.0	212.2	218.9	231.3
50°	521.8	381.1	256.7	217.8	195.9	192.5	185.7	193.1	199.3	205.5	217.3
52.5°	475.7	365.3	235.3	202.1	180.7	179.6	176.2	183.0	188.6	194.2	204.4
55°	427.8	340.0	216.7	188.0	167.8	168.9	167.2	172.8	177.3	182.3	191.4
57.5°	386.1	307.9	202.1	172.8	156.5	159.9	157.6	160.4	163.3	169.4	176.7
60°	344.0	269.7	185.7	154.8	145.2	149.1	143.0	142.4	143.5	145.2	158.8
62.5°	287.1	229.7	165.5	139.0	132.8	134.6	122.7	113.7	113.7	115.4	135.7
65°	230.8	192.5	143.0	121.1	115.9	114.8	98.0	85.6	84.5	89.5	106.9
67.5°	189.7	159.9	120.4	100.8	97.4	98.5	86.1	73.7	72.6	78.2	91.2
70°	157.0	128.9	96.2	77.7	81.1	86.1	73.7	61.9	60.3	65.3	77.7
72.5°	124.9	100.8	73.7	57.4	67.0	73.2	60.3	49.0	47.9	52.4	64.2
75°	91.7	72.1	50.1	41.6	51.8	57.4	43.9	34.8	33.2	37.1	49.0
77.5°	56.9	40.5	31.6	24.8	35.5	38.2	23.1	20.3	19.7	22.5	31.0
80°	26.4	17.4	15.2	8.4	12.9	15.2	9.5	10.7	11.3	13.5	19.2
82.5°	7.3	2.8	0.5	0.0	0.0	4.5	2.3	4.5	5.6	8.4	12.4
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	2.8	5.0	9.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	4.5
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°	1131.5	1131.5	1131.5	1131.5	1131.5	1131.5	1131.5	1131.5
2.5°	1049.3	1071.8	1107.8	1144.9	1181.5	1218.7	1254.7	1267.7
5°	951.9	1003.7	1075.1	1151.7	1230.5	1310.5	1383.6	1416.9
7.5°	843.3	917.6	1025.1	1144.9	1270.5	1396.0	1511.5	1564.9
10°	727.3	821.3	944.0	1106.2	1286.3	1459.6	1618.4	1687.7
12.5°	616.9	715.4	851.2	1045.3	1273.9	1496.2	1687.0	1768.6
15°	524.6	611.9	758.3	973.2	1233.9	1498.4	1719.7	1809.2
17.5°	455.4	512.3	663.7	893.4	1181.5	1477.6	1731.0	1826.7
20°	421.1	436.9	541.0	790.9	1132.6	1458.0	1742.2	1843.0
22.5°	400.8	404.8	442.5	658.6	1074.0	1451.8	1762.0	1865.5
25°	384.5	385.6	395.8	521.8	984.5	1447.8	1792.3	1896.5
27.5°	368.2	368.2	373.8	420.5	862.9	1430.9	1831.8	1933.7
30°	351.8	351.8	355.8	372.1	720.6	1397.7	1879.0	1982.0
32.5°	335.0	335.0	338.4	350.1	575.3	1356.1	1922.4	2031.0
35°	318.1	316.9	321.4	333.8	457.7	1303.2	1965.7	2083.9
37.5°	300.0	299.5	304.0	318.1	395.1	1241.8	1998.3	2156.0
40°	280.8	280.8	286.0	301.1	377.2	1164.7	2050.1	2259.5
42.5°	263.4	262.3	267.9	286.5	363.7	1090.9	2143.1	2410.4
45°	246.5	244.3	249.4	272.4	340.0	1065.1	2316.4	2633.3
47.5°	230.8	225.2	229.7	255.5	318.6	1161.8	2600.1	2942.4
50°	217.8	207.2	211.0	238.7	302.3	1371.9	2968.3	3352.8
52.5°	204.4	190.2	192.5	217.8	287.6	1571.6	3367.3	3894.3
55°	190.2	174.5	175.6	197.0	266.8	1601.5	3756.9	4632.8
57.5°	174.5	159.9	159.9	177.8	251.6	1388.2	4056.3	5549.2
60°	157.0	147.5	144.6	162.7	265.2	979.5	4091.3	6140.3
62.5°	138.0	132.8	128.9	148.0	275.3	580.4	3810.4	5997.3
65°	115.9	114.8	112.0	162.7	232.0	342.9	3271.1	5558.8
67.5°	97.4	95.7	95.7	170.6	176.2	215.6	2555.6	4955.4
70°	83.8	77.7	77.7	128.9	106.9	149.1	1784.4	4304.1
72.5°	70.3	63.7	59.1	103.0	79.9	109.2	1115.1	3686.0
75°	56.3	51.2	45.6	68.2	59.7	82.7	647.9	3053.8
77.5°	40.5	38.2	32.1	50.1	43.4	59.7	385.6	2356.4
80°	20.8	21.4	20.3	28.7	29.3	40.5	219.6	1612.7
82.5°	12.4	9.5	10.7	14.0	16.9	23.1	82.7	947.9
85°	7.9	5.0	5.0	6.8	8.4	9.0	25.3	384.5
87.5°	3.9	1.6	2.3	3.4	2.8	2.3	1.1	96.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)