

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: P960873

Luminaire Tested: **NAV-SB1D-735-U-SLL-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P960873
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-SB1D-735-U-SLL-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 70 CRI, 3500K, 900mA LIGHTSQUARE WITH 26 LEDS AND SPILL LIGHT
ELIMINATOR LEFT OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7963.2 lumens
Efficiency: N/A
Efficacy: 100.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

Input Watts (W): 79.6
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



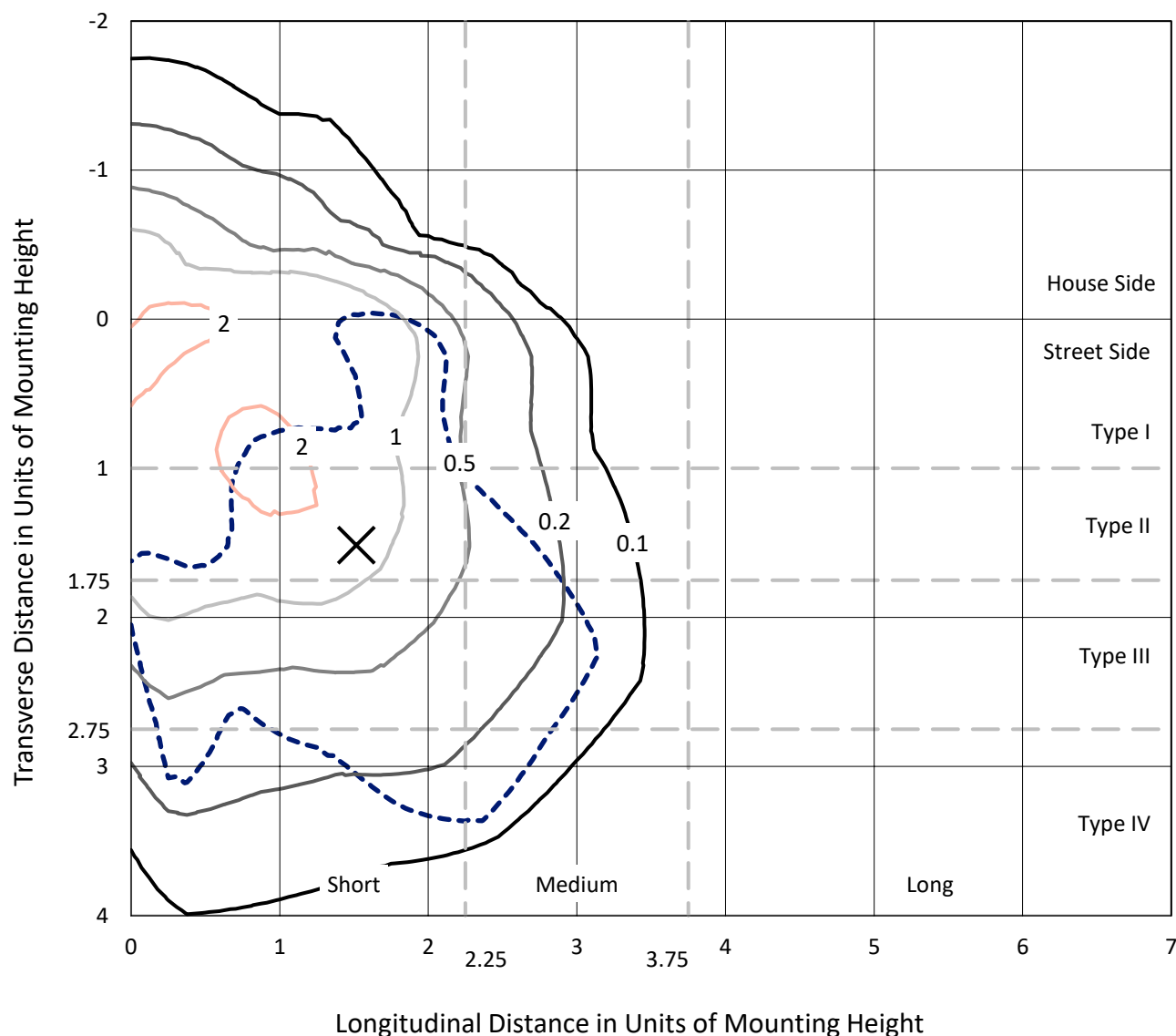
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

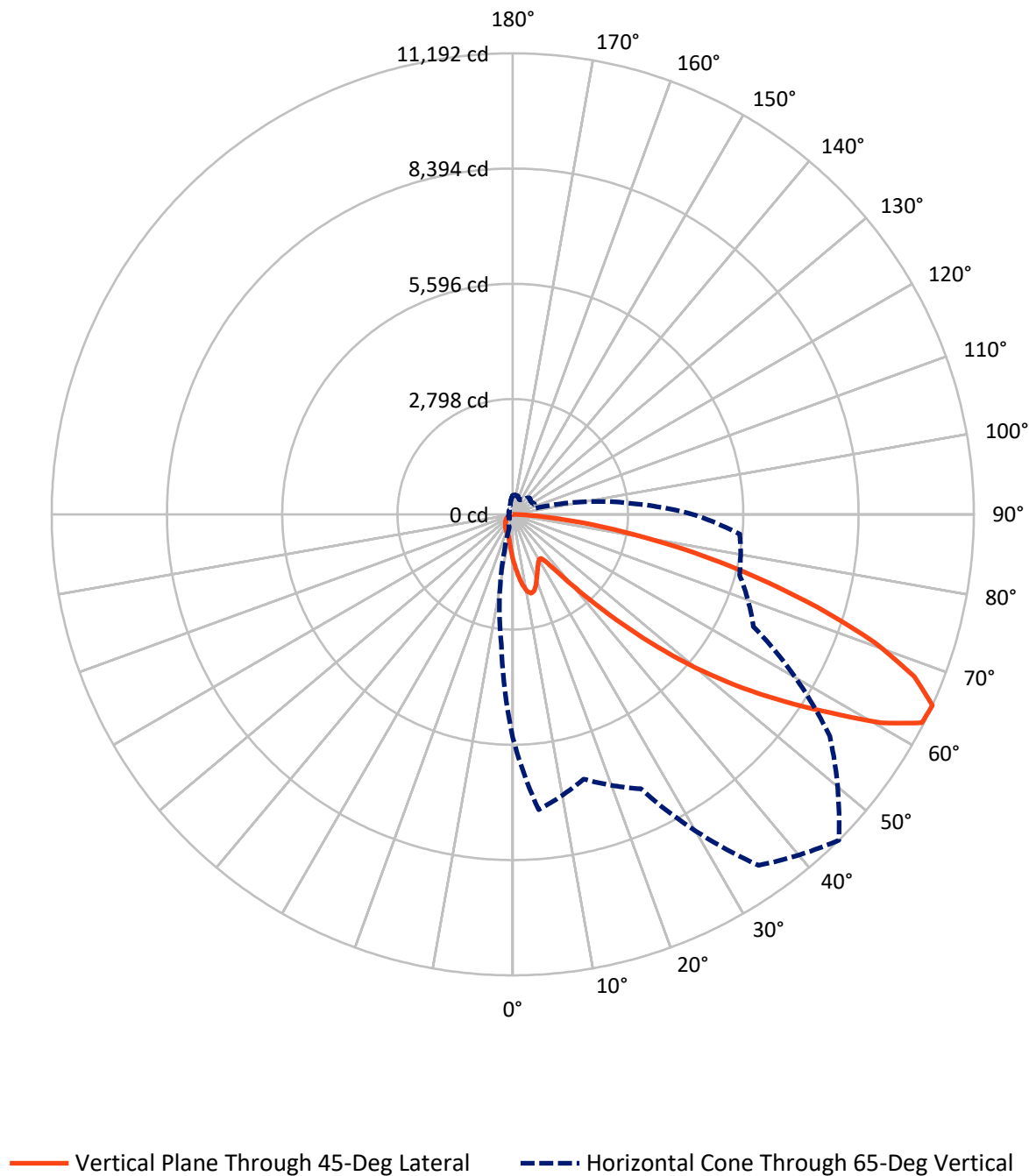


Based on 25 foot mounting height. Maximum calculated value = 2.9 fc

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	1582.8	0.0	1582.8
	% Fixture	19.9	0.0	19.9
Street Side	Lumens	6380.4	0.0	6380.4
	% Fixture	80.1	0.0	80.1
Total	Lumens	7963.2	0.0	7963.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	108.6	1.4
10°-20°	325.4	4.1
20°-30°	479.4	6.0
30°-40°	615.9	7.7
40°-50°	996.1	12.5
50°-60°	1746.8	21.9
60°-70°	2185.8	27.4
70°-80°	1277.3	16.0
80°-90°	227.9	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°	7963.2	100.0
0°-180°	7963.2	100.0

Coefficient of Utilization



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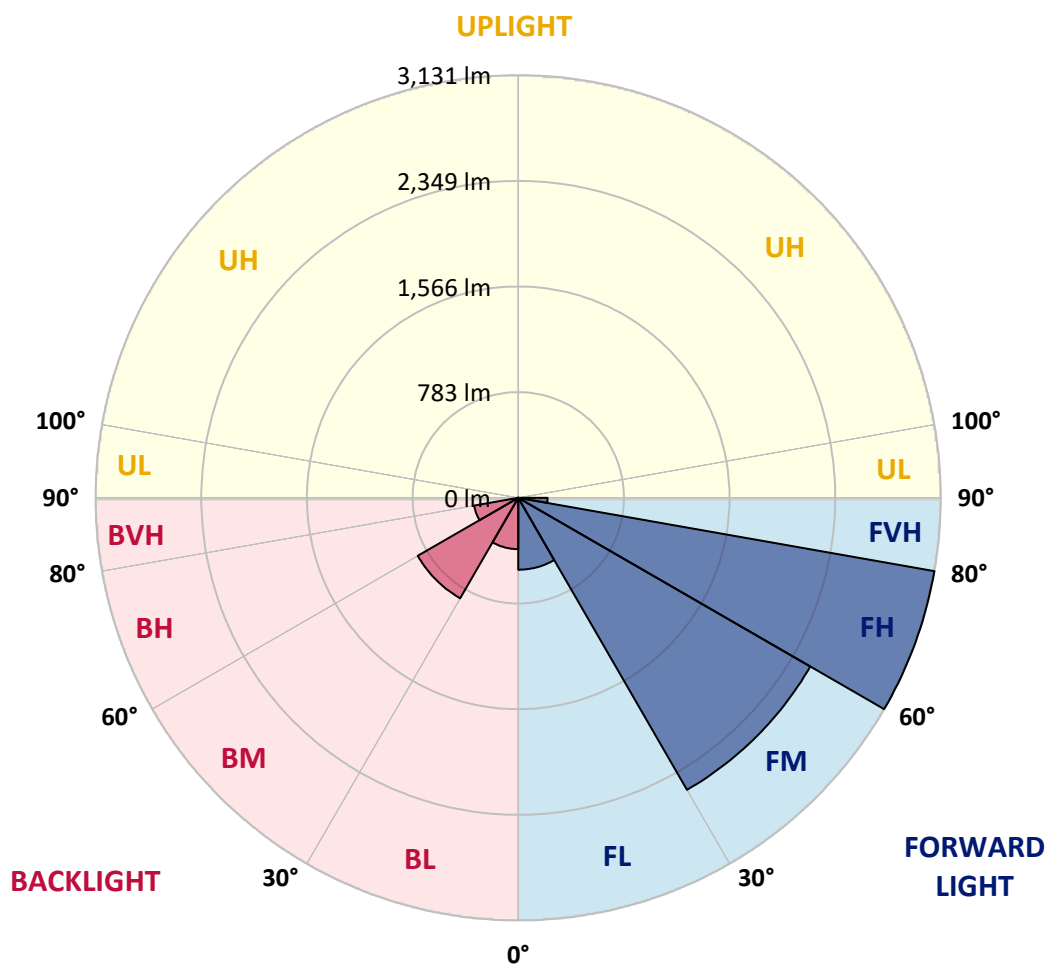
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	532.8	6.7			
FM	(30°-60°)	2499.0	31.4			
FH	(60°-80°)	3131.4	39.3			G2/5000
FVH	(80°-90°)	217.2	2.7			G2/225
BL	(0°-30°)	380.6	4.8	B1/500		
BM	(30°-60°)	860.0	10.8	B1/1000		
BH	(60°-80°)	331.6	4.2	B1/500		G1/500
BVH	(80°-90°)	10.7	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°	1102.7	1102.7	1102.7	1102.7	1102.7	1102.7	1102.7	1102.7	1102.7	1102.7	1102.7
2.5°	1235.4	1244.8	1265.6	1276.5	1293.6	1294.7	1294.7	1279.8	1279.3	1249.2	1245.8
5°	1380.8	1402.7	1452.1	1503.2	1514.1	1516.8	1511.4	1481.7	1459.8	1401.1	1388.5
7.5°	1525.1	1567.3	1642.5	1710.5	1732.5	1732.5	1719.2	1671.0	1626.0	1541.0	1509.1
10°	1644.6	1697.9	1799.9	1876.2	1901.4	1895.9	1869.0	1808.1	1746.2	1643.0	1601.4
12.5°	1723.6	1783.4	1895.3	1956.8	1982.6	1968.3	1937.6	1878.3	1813.0	1704.5	1657.2
15°	1763.1	1825.7	1922.8	1955.2	1948.0	1933.3	1929.4	1900.9	1851.5	1750.0	1698.4
17.5°	1780.1	1838.3	1905.8	1885.5	1825.1	1813.6	1852.0	1888.3	1876.2	1789.4	1741.2
20°	1796.1	1844.9	1865.2	1775.2	1669.9	1659.5	1733.0	1836.1	1888.8	1826.2	1781.8
22.5°	1818.0	1848.2	1806.5	1659.0	1545.4	1521.2	1602.4	1757.7	1892.7	1872.9	1828.4
25°	1848.2	1856.4	1741.8	1548.7	1434.6	1410.4	1486.1	1670.4	1886.0	1923.3	1885.5
27.5°	1884.4	1867.3	1679.8	1456.5	1346.2	1323.7	1399.4	1586.5	1867.3	1973.8	1946.9
30°	1931.5	1881.6	1618.3	1385.2	1283.1	1266.7	1339.7	1514.1	1844.4	2038.0	2023.1
32.5°	1979.3	1887.6	1561.3	1343.5	1268.8	1274.9	1334.7	1475.2	1819.1	2099.4	2106.6
35°	2030.8	1906.9	1533.3	1384.7	1388.0	1440.5	1465.2	1511.4	1815.3	2182.8	2210.8
37.5°	2101.0	1949.7	1566.7	1589.3	1703.3	1812.5	1792.2	1688.6	1859.7	2307.4	2359.4
40°	2202.0	2024.8	1712.7	1937.6	2171.9	2349.0	2271.7	2010.5	1995.8	2486.8	2564.7
42.5°	2349.0	2144.4	1971.6	2363.3	2760.4	3052.3	2845.0	2425.9	2233.8	2742.9	2842.2
45°	2566.3	2338.0	2284.8	2812.6	3486.2	3945.9	3514.7	2868.6	2567.3	3130.8	3208.7
47.5°	2867.4	2622.8	2578.4	3286.0	4368.3	4963.0	4257.5	3278.9	2947.0	3659.6	3677.7
50°	3267.4	3006.2	2856.5	3803.9	5335.5	5999.8	4999.7	3674.9	3382.0	4305.8	4285.0
52.5°	3795.1	3541.1	3180.7	4297.0	6330.1	7014.7	5745.3	4022.7	3921.9	5055.7	5013.0
55°	4514.8	4345.9	3624.0	4767.7	7324.1	8035.7	6461.8	4350.8	4634.9	5946.6	5687.7
57.5°	5407.9	5528.6	4263.1	5313.6	8217.7	9087.9	7181.5	4809.4	5561.0	6942.8	6079.4
60°	5984.0	7101.4	5486.9	6120.6	9233.2	10277.7	8167.8	5681.7	6534.2	7299.9	6004.8
62.5°	5844.7	7601.7	6952.8	7150.8	10166.9	11142.8	9134.5	6557.7	6717.4	6773.9	5429.8
65°	5417.2	7198.0	6653.8	7351.0	10403.3	11191.7	9392.8	6444.8	5698.2	5530.3	4364.6
67.5°	4829.2	6719.1	5943.4	6819.9	9976.0	10509.2	8911.8	5700.8	4403.5	4150.0	3166.4
70°	4194.5	6189.2	5477.1	6224.2	9161.3	9319.9	8093.8	5014.1	3238.8	2802.8	2032.0
72.5°	3592.1	5637.2	5157.8	5613.6	8074.6	7746.5	7029.0	4406.8	2358.3	2021.5	1444.4
75°	2976.1	4823.1	4703.0	4888.4	6645.5	6101.9	5840.2	3648.6	1850.9	1462.6	996.8
77.5°	2296.4	3768.7	4045.3	3914.7	4677.8	4532.3	4526.9	2741.8	1352.3	975.9	624.8
80°	1571.7	2626.7	3160.4	2761.6	3035.8	2961.8	3409.5	1839.4	980.8	587.5	347.8
82.5°	923.8	1599.1	2199.9	1336.9	1678.6	1723.1	2030.3	894.7	577.1	135.5	75.7
85°	374.6	631.4	860.2	523.4	809.7	683.0	770.8	251.2	160.7	3.3	0.0
87.5°	94.4	201.9	141.6	58.7	93.8	86.1	68.1	30.7	6.6	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°	1102.7	1102.7	1102.7	1102.7	1102.7	1102.7	1102.7	1102.7	1102.7	1102.7	1102.7
2.5°	1224.5	1211.9	1180.6	1149.3	1124.0	1090.0	1067.5	1040.7	1014.9	991.8	987.5
5°	1353.9	1312.2	1255.1	1203.0	1149.8	1098.3	1047.2	993.5	944.1	913.9	894.7
7.5°	1459.2	1385.7	1310.1	1243.6	1179.5	1119.1	1051.6	986.4	909.0	867.9	830.6
10°	1537.7	1441.1	1341.8	1265.6	1200.9	1142.2	1085.1	1019.3	926.0	874.4	818.5
12.5°	1589.3	1474.6	1358.3	1271.1	1198.6	1153.1	1127.9	1102.1	1009.4	949.0	867.9
15°	1624.9	1498.1	1369.8	1258.5	1169.6	1136.1	1161.3	1190.9	1131.7	1062.1	956.2
17.5°	1663.9	1528.9	1374.7	1224.5	1113.0	1098.8	1164.1	1232.7	1229.9	1160.8	1057.1
20°	1705.0	1555.7	1371.4	1169.6	1044.5	1057.1	1140.5	1220.1	1253.5	1216.2	1124.0
22.5°	1747.2	1581.6	1358.8	1098.3	980.3	1019.8	1103.2	1172.9	1212.4	1200.9	1130.7
25°	1800.4	1617.8	1340.2	1021.4	927.1	982.0	1059.8	1116.3	1143.8	1143.3	1095.0
27.5°	1864.1	1666.0	1330.3	959.5	889.3	939.2	1008.3	1058.7	1078.0	1078.0	1039.6
30°	1938.2	1723.1	1319.4	918.9	867.4	894.7	948.5	997.8	1017.1	1017.1	984.7
32.5°	2020.5	1778.0	1293.0	894.2	850.9	851.4	885.4	930.4	953.5	956.7	933.7
35°	2119.2	1836.7	1235.4	874.4	831.7	809.1	825.6	862.9	890.3	897.5	883.2
37.5°	2248.6	1908.5	1153.1	845.3	802.1	764.8	768.5	797.0	827.3	838.2	828.9
40°	2422.6	1993.0	1067.5	803.7	760.3	715.9	714.2	735.1	764.8	776.7	771.8
42.5°	2652.4	2094.5	985.8	763.6	709.9	664.3	661.6	678.0	703.9	716.5	714.2
45°	2946.5	2219.0	915.6	732.4	660.5	615.5	614.4	628.1	650.7	663.8	661.0
47.5°	3355.1	2343.6	867.9	715.9	621.6	575.4	577.7	589.7	610.0	619.3	615.5
50°	3887.8	2381.4	843.7	715.9	600.6	539.8	550.7	560.7	576.0	581.5	576.6
52.5°	4399.1	2256.3	821.7	720.3	603.4	509.6	533.2	540.4	553.5	555.8	548.6
55°	4649.8	1939.8	791.6	721.4	620.4	483.8	519.0	532.1	537.1	536.5	524.5
57.5°	4563.7	1568.4	740.6	717.0	632.0	467.4	501.4	526.6	529.9	525.0	502.5
60°	4261.4	1154.8	701.6	684.6	627.6	462.5	474.6	514.6	519.5	512.9	476.2
62.5°	3754.5	801.4	671.5	613.4	608.3	460.8	432.2	488.2	500.3	491.0	437.3
65°	2955.8	566.1	578.2	537.6	566.7	452.0	388.4	456.4	472.8	458.6	382.9
67.5°	2000.1	408.7	468.5	487.2	499.2	432.2	356.6	420.2	442.2	423.5	319.8
70°	1080.1	286.9	309.4	410.3	424.0	398.3	328.1	383.5	408.7	388.4	260.6
72.5°	638.0	206.2	216.7	329.7	353.3	350.5	296.2	340.7	371.4	347.3	211.8
75°	351.7	139.3	154.7	239.1	286.9	270.5	254.5	288.5	319.8	296.2	163.5
77.5°	157.4	83.4	107.5	156.9	225.5	185.4	196.9	224.9	254.0	229.3	109.2
80°	60.9	46.6	71.3	85.6	164.0	102.6	126.7	165.6	186.5	166.8	66.4
82.5°	7.7	20.8	30.7	33.4	95.4	54.3	73.5	104.2	102.6	88.9	33.4
85°	0.0	3.8	4.4	2.2	41.1	19.8	24.1	34.0	31.8	24.1	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°	1102.7	1102.7	1102.7	1102.7	1102.7	1102.7	1102.7	1102.7	1102.7	1102.7	1102.7
2.5°	960.5	940.8	930.9	922.7	930.4	934.8	934.8	953.5	964.4	968.8	999.5
5°	846.4	809.7	785.0	770.2	775.1	780.6	786.7	810.3	826.2	836.6	884.3
7.5°	756.4	700.6	665.9	647.9	650.7	654.5	659.4	682.4	698.3	712.1	765.3
10°	712.1	633.0	587.5	565.6	561.7	559.5	557.9	571.6	583.7	594.7	647.3
12.5°	714.2	604.0	548.6	521.7	510.1	497.0	486.6	488.8	496.5	510.1	543.7
15°	742.2	594.7	528.3	494.9	475.6	460.2	447.6	444.8	447.6	449.9	470.7
17.5°	780.1	593.6	510.8	469.0	449.3	436.6	425.2	421.3	421.9	424.6	430.1
20°	810.3	590.3	491.0	444.3	426.8	415.8	404.3	400.5	401.6	402.1	408.2
22.5°	826.2	585.4	469.0	419.6	404.9	393.9	383.5	382.9	382.9	386.2	390.6
25°	826.2	574.9	449.3	396.1	382.9	373.0	360.4	362.6	363.7	368.1	374.6
27.5°	806.4	555.1	433.4	375.8	362.0	352.2	340.7	343.4	345.0	350.0	358.2
30°	781.2	531.6	415.2	356.6	340.7	333.5	323.7	324.7	327.0	332.4	341.7
32.5°	754.3	503.6	400.5	337.3	321.4	316.0	305.0	306.7	308.8	314.9	325.3
35°	724.7	470.7	382.9	319.8	303.9	299.5	286.9	288.0	291.3	297.9	308.3
37.5°	693.4	443.8	365.3	302.8	286.4	282.0	268.8	269.9	273.8	281.5	291.3
40°	662.7	417.5	346.7	284.7	268.2	264.4	250.2	251.2	255.6	263.8	274.3
42.5°	629.2	397.2	322.6	266.1	248.5	244.7	231.5	233.2	238.1	246.3	256.8
45°	589.2	384.0	295.7	248.5	228.8	224.9	212.9	216.2	221.6	229.9	240.9
47.5°	548.1	378.5	273.2	229.9	208.5	205.2	195.3	200.8	206.8	213.4	225.5
50°	508.5	371.4	250.2	212.3	191.0	187.6	181.0	188.2	194.2	200.2	211.8
52.5°	463.5	356.0	229.3	196.9	176.1	175.0	171.7	178.2	183.8	189.2	199.2
55°	417.0	331.4	211.3	183.3	163.5	164.6	163.0	168.4	172.8	177.7	186.5
57.5°	376.3	300.1	196.9	168.4	152.5	155.8	153.6	156.3	159.1	165.1	172.3
60°	335.2	262.8	181.0	150.9	141.6	145.3	139.3	138.8	139.9	141.6	154.7
62.5°	279.8	223.9	161.2	135.5	129.5	131.1	119.6	110.8	110.8	112.4	132.2
65°	224.9	187.6	139.3	118.0	113.1	111.9	95.4	83.4	82.3	87.2	104.2
67.5°	184.9	155.8	117.4	98.2	94.9	96.0	83.9	71.9	70.7	76.3	88.9
70°	153.0	125.7	93.8	75.7	79.0	83.9	71.9	60.4	58.7	63.7	75.7
72.5°	121.8	98.2	71.9	56.0	65.3	71.3	58.7	47.8	46.6	51.0	62.5
75°	89.4	70.2	48.8	40.6	50.4	56.0	42.7	34.0	32.4	36.2	47.8
77.5°	55.5	39.5	30.7	24.1	34.5	37.3	22.4	19.8	19.2	21.9	30.1
80°	25.8	17.0	14.9	8.2	12.6	14.9	9.3	10.5	11.0	13.1	18.7
82.5°	7.2	2.8	0.5	0.0	0.0	4.4	2.2	4.4	5.5	8.2	12.1
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	2.8	4.9	8.8
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	4.4
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°	1102.7	1102.7	1102.7	1102.7	1102.7	1102.7	1102.7	1102.7
2.5°	1022.5	1044.5	1079.6	1115.8	1151.5	1187.7	1222.8	1235.4
5°	927.6	978.2	1047.8	1122.4	1199.2	1277.1	1348.4	1380.8
7.5°	821.7	894.2	999.0	1115.8	1238.2	1360.5	1472.9	1525.1
10°	708.8	800.4	919.9	1078.0	1253.5	1422.5	1577.2	1644.6
12.5°	601.3	697.2	829.4	1018.7	1241.5	1458.2	1644.1	1723.6
15°	511.3	596.3	738.9	948.5	1202.5	1460.3	1675.9	1763.1
17.5°	443.8	499.2	646.8	870.6	1151.5	1440.0	1686.8	1780.1
20°	410.3	425.7	527.2	770.8	1103.7	1420.9	1697.9	1796.1
22.5°	390.6	394.4	431.2	641.9	1046.7	1414.8	1717.1	1818.0
25°	374.6	375.8	385.6	508.5	959.5	1410.9	1746.7	1848.2
27.5°	358.7	358.7	364.3	409.8	841.0	1394.5	1785.1	1884.4
30°	342.9	342.9	346.7	362.6	702.2	1362.1	1831.2	1931.5
32.5°	326.4	326.4	329.7	341.2	560.7	1321.5	1873.4	1979.3
35°	310.0	308.8	313.2	325.3	446.0	1270.0	1915.6	2030.8
37.5°	292.4	291.8	296.2	310.0	385.1	1210.2	1947.5	2101.0
40°	273.8	273.8	278.7	293.5	367.6	1135.0	1997.9	2202.0
42.5°	256.8	255.6	261.2	279.2	354.3	1063.1	2088.4	2349.0
45°	240.3	238.1	243.0	265.5	331.4	1037.9	2257.5	2566.3
47.5°	224.9	219.5	223.9	249.1	310.5	1132.3	2533.9	2867.4
50°	212.3	201.9	205.7	232.6	294.6	1336.9	2892.7	3267.4
52.5°	199.2	185.4	187.6	212.3	280.3	1531.7	3281.6	3795.1
55°	185.4	170.0	171.2	192.0	260.0	1560.8	3661.2	4514.8
57.5°	170.0	155.8	155.8	173.3	245.2	1352.8	3953.1	5407.9
60°	153.0	143.7	140.9	158.6	258.4	954.6	3987.1	5984.0
62.5°	134.4	129.5	125.7	144.3	268.2	565.6	3713.4	5844.7
65°	113.1	111.9	109.2	158.6	226.0	334.0	3187.9	5417.2
67.5°	94.9	93.3	93.3	166.3	171.7	210.1	2490.5	4829.2
70°	81.7	75.7	75.7	125.7	104.2	145.3	1739.0	4194.5
72.5°	68.6	62.0	57.6	100.3	77.9	106.4	1086.7	3592.1
75°	54.8	49.9	44.5	66.4	58.1	80.7	631.4	2976.1
77.5°	39.5	37.3	31.3	48.8	42.2	58.1	375.8	2296.4
80°	20.3	20.8	19.8	28.0	28.5	39.5	213.9	1571.7
82.5°	12.1	9.3	10.5	13.7	16.5	22.4	80.7	923.8
85°	7.7	4.9	4.9	6.6	8.2	8.8	24.7	374.6
87.5°	3.8	1.6	2.2	3.3	2.8	2.2	1.1	94.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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