

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: P960904

Luminaire Tested: **NAV-SB1D-740-U-SLL-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P960904
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-740-U-SLL-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 70 CRI, 4000K, 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: 8424.5 lumens
Efficiency: N/A
Efficacy: 105.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G3

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

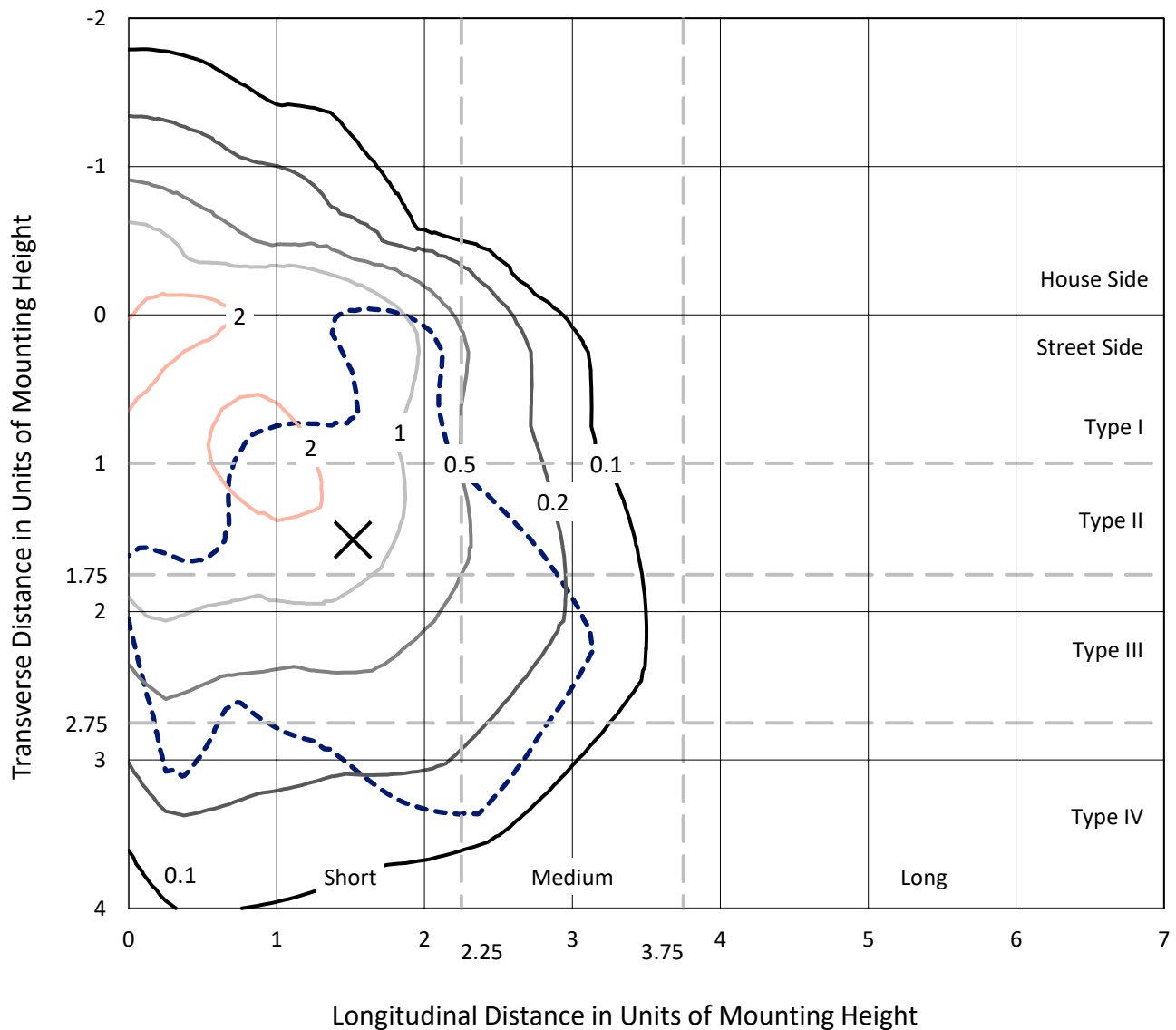


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
- - - 1/2 Max cd

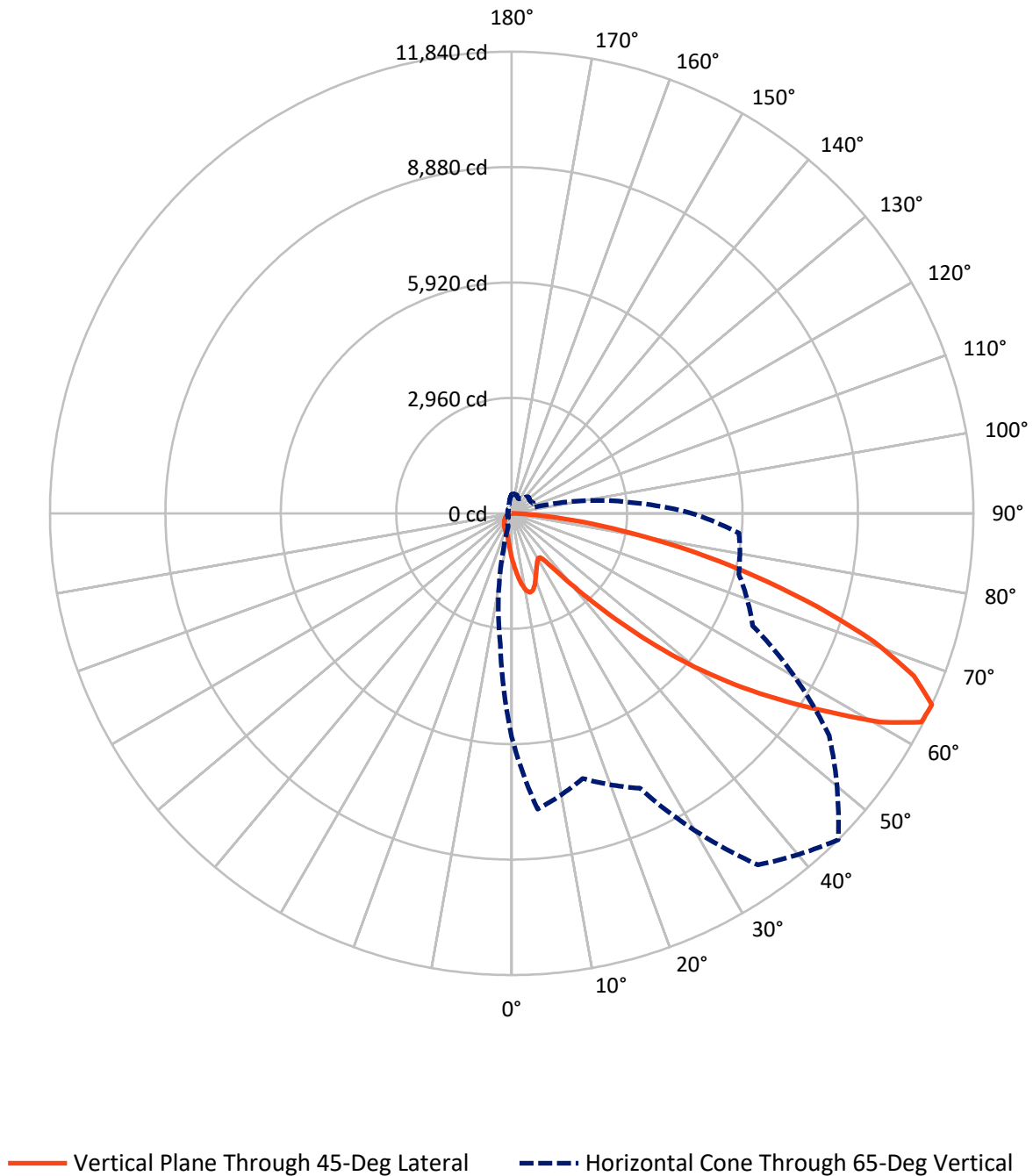


Based on 25 foot mounting height. Maximum calculated value = 3.1 fc

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	1674.5	0.0	1674.5
	% Fixture	19.9	0.0	19.9
Street Side	Lumens	6750.0	0.0	6750.0
	% Fixture	80.1	0.0	80.1
Total	Lumens	8424.5	0.0	8424.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	114.8	1.4
10°-20°	344.3	4.1
20°-30°	507.2	6.0
30°-40°	651.6	7.7
40°-50°	1053.8	12.5
50°-60°	1848.0	21.9
60°-70°	2312.4	27.4
70°-80°	1351.2	16.0
80°-90°	241.1	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°	8424.5	100.0
0°-180°	8424.5	100.0

Coefficient of Utilization



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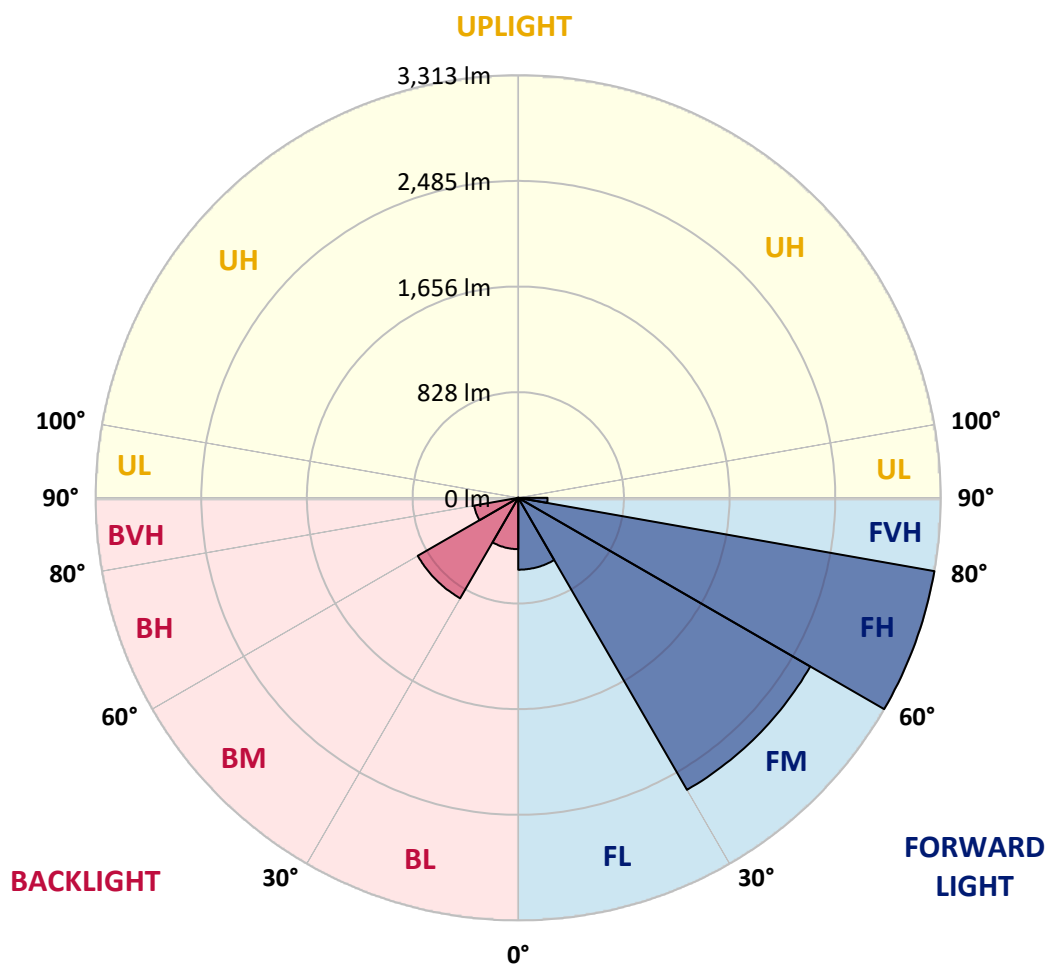
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	563.7	6.7			
FM	(30°-60°)	2643.7	31.4			
FH	(60°-80°)	3312.8	39.3			G2/5000
FVH	(80°-90°)	229.8	2.7			G3/500
BL	(0°-30°)	402.6	4.8	B1/500		
BM	(30°-60°)	909.8	10.8	B1/1000		
BH	(60°-80°)	350.8	4.2	B1/500		G1/500
BVH	(80°-90°)	11.3	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-G3

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	1166.6	1166.6	1166.6	1166.6	1166.6	1166.6	1166.6	1166.6	1166.6	1166.6	1166.6
2.5°	1307.0	1316.8	1338.9	1350.5	1368.5	1369.6	1369.6	1354.0	1353.4	1321.4	1317.9
5°	1460.7	1484.0	1536.2	1590.2	1601.8	1604.7	1598.9	1567.5	1544.4	1482.3	1468.9
7.5°	1613.4	1658.0	1737.6	1809.5	1832.8	1832.8	1818.9	1767.8	1720.2	1630.3	1596.5
10°	1739.9	1796.2	1904.1	1984.8	2011.6	2005.7	1977.3	1912.9	1847.3	1738.2	1694.0
12.5°	1823.5	1886.7	2005.1	2070.1	2097.5	2082.3	2049.8	1987.2	1918.1	1803.2	1753.3
15°	1865.3	1931.4	2034.1	2068.3	2060.9	2045.2	2041.1	2010.9	1958.7	1851.4	1796.8
17.5°	1883.2	1944.7	2016.2	1994.6	1930.9	1918.7	1959.3	1997.6	1984.8	1893.2	1842.0
20°	1900.0	1951.7	1973.2	1878.0	1766.6	1755.6	1833.3	1942.5	1998.1	1932.0	1885.0
22.5°	1923.3	1955.2	1911.1	1755.0	1634.9	1609.4	1695.2	1859.5	2002.2	1981.3	1934.4
25°	1955.2	1963.9	1842.6	1638.4	1517.6	1492.1	1572.1	1767.2	1995.3	2034.7	1994.6
27.5°	1993.5	1975.6	1777.0	1540.9	1424.2	1400.4	1480.5	1678.4	1975.6	2088.1	2059.7
30°	2043.4	1990.7	1712.1	1465.4	1357.4	1340.1	1417.3	1601.8	1951.2	2156.0	2140.4
32.5°	2094.0	1997.0	1651.7	1421.3	1342.3	1348.8	1412.0	1560.6	1924.4	2221.1	2228.6
35°	2148.5	2017.3	1622.1	1464.8	1468.3	1524.0	1550.1	1598.9	1920.4	2309.2	2338.8
37.5°	2222.8	2062.6	1657.5	1681.3	1802.1	1917.5	1896.0	1786.4	1967.4	2441.0	2496.1
40°	2329.5	2142.1	1811.9	2049.8	2297.6	2485.1	2403.2	2127.0	2111.3	2630.8	2713.2
42.5°	2485.1	2268.6	2085.8	2500.2	2920.3	3229.2	3009.7	2566.4	2363.2	2901.8	3006.8
45°	2714.9	2473.5	2417.2	2975.5	3688.2	4174.5	3718.4	3034.7	2716.0	3312.1	3394.5
47.5°	3033.5	2774.7	2727.7	3476.4	4621.4	5250.5	4504.2	3468.8	3117.6	3871.5	3890.7
50°	3456.6	3180.4	3021.9	4024.3	5644.6	6347.4	5289.4	3887.8	3577.9	4555.2	4533.2
52.5°	4014.9	3746.2	3364.9	4546.0	6696.7	7421.0	6078.0	4255.8	4149.0	5348.6	5303.3
55°	4776.4	4597.6	3833.8	5043.9	7748.4	8501.0	6836.0	4602.9	4903.5	6291.0	6017.2
57.5°	5721.1	5848.9	4510.0	5621.3	8693.7	9614.2	7597.5	5088.0	5883.1	7345.0	6431.6
60°	6330.5	7512.7	5804.8	6475.0	9768.0	10873.0	8641.0	6010.8	6912.6	7722.9	6352.6
62.5°	6183.1	8042.0	7355.5	7565.0	10755.7	11788.2	9663.6	6937.6	7106.5	7166.3	5744.4
65°	5731.1	7614.9	7039.2	7776.8	11005.9	11839.9	9936.9	6818.1	6028.2	5850.6	4617.3
67.5°	5108.9	7108.3	6287.6	7215.0	10553.8	11118.0	9427.9	6031.1	4658.5	4390.4	3349.8
70°	4437.4	6547.6	5794.3	6584.7	9692.0	9859.7	8562.6	5304.5	3426.5	2965.0	2149.6
72.5°	3800.2	5963.8	5456.5	5938.8	8542.2	8195.3	7436.2	4662.0	2495.0	2138.7	1528.1
75°	3148.5	5102.6	4975.5	5171.5	7030.5	6455.3	6178.5	3859.9	1958.2	1547.2	1054.5
77.5°	2429.4	3987.0	4279.6	4141.4	4948.7	4795.0	4789.1	2900.6	1430.6	1032.5	661.0
80°	1662.8	2778.8	3343.4	2921.6	3211.7	3133.3	3607.0	1946.0	1037.7	621.6	368.0
82.5°	977.3	1691.8	2327.3	1414.3	1775.9	1822.9	2147.9	946.6	610.5	143.4	80.1
85°	396.4	668.0	910.0	553.7	856.6	722.5	815.4	265.8	170.0	3.5	0.0
87.5°	99.8	213.6	149.8	62.1	99.2	91.1	72.0	32.5	7.0	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°	1166.6	1166.6	1166.6	1166.6	1166.6	1166.6	1166.6	1166.6	1166.6	1166.6	1166.6
2.5°	1295.4	1282.0	1249.0	1215.9	1189.2	1153.1	1129.3	1101.0	1073.7	1049.3	1044.7
5°	1432.3	1388.3	1327.9	1272.7	1216.5	1161.8	1107.9	1051.0	998.8	966.9	946.6
7.5°	1543.8	1466.0	1385.9	1315.7	1247.7	1184.0	1112.5	1043.4	961.7	918.1	878.6
10°	1626.8	1524.6	1419.5	1338.9	1270.4	1208.3	1148.0	1078.3	979.7	925.1	865.9
12.5°	1681.3	1560.0	1436.9	1344.7	1268.1	1220.0	1193.2	1165.9	1067.8	1004.0	918.1
15°	1719.0	1585.0	1449.1	1331.4	1237.3	1201.9	1228.7	1259.9	1197.3	1123.6	1011.6
17.5°	1760.2	1617.4	1454.4	1295.4	1177.5	1162.5	1231.5	1304.1	1301.1	1228.1	1118.4
20°	1803.8	1645.9	1450.9	1237.3	1105.1	1118.4	1206.5	1290.7	1326.1	1286.7	1189.2
22.5°	1848.5	1673.2	1437.6	1161.8	1037.1	1078.9	1167.1	1240.8	1282.6	1270.4	1196.1
25°	1904.8	1711.4	1417.8	1080.7	980.8	1038.8	1121.2	1181.0	1210.0	1209.5	1158.4
27.5°	1972.1	1762.6	1407.3	1015.1	940.7	993.5	1066.7	1120.1	1140.4	1140.4	1099.8
30°	2050.4	1822.9	1395.7	972.1	917.6	946.6	1003.5	1055.6	1075.9	1075.9	1041.7
32.5°	2137.4	1881.0	1367.9	946.0	900.2	900.7	936.7	984.3	1008.7	1012.2	987.8
35°	2241.9	1943.0	1307.0	925.1	879.9	856.0	873.4	912.9	941.9	949.5	934.4
37.5°	2378.9	2019.0	1220.0	894.3	848.5	809.0	813.1	843.3	875.1	886.8	876.9
40°	2562.9	2108.4	1129.3	850.2	804.4	757.4	755.6	777.7	809.0	821.7	816.5
42.5°	2806.0	2215.8	1042.9	807.9	751.0	702.8	699.9	717.3	744.6	758.0	755.6
45°	3117.1	2347.6	968.6	774.8	698.7	651.2	650.0	664.5	688.3	702.2	699.4
47.5°	3549.5	2479.3	918.1	757.4	657.5	608.7	611.1	623.9	645.3	655.2	651.2
50°	4113.0	2519.3	892.6	757.4	635.5	571.0	582.7	593.2	609.4	615.2	610.0
52.5°	4653.9	2387.0	869.4	762.0	638.4	539.2	564.1	571.6	585.6	587.9	580.4
55°	4919.1	2052.2	837.4	763.2	656.4	511.9	549.0	562.9	568.2	567.5	554.8
57.5°	4828.0	1659.3	783.5	758.5	668.6	494.5	530.4	557.2	560.7	555.4	531.6
60°	4508.3	1221.7	742.3	724.3	663.9	489.2	502.0	544.4	549.6	542.6	503.8
62.5°	3972.0	847.9	710.3	648.8	643.6	487.5	457.4	516.5	529.3	519.5	462.6
65°	3127.0	598.9	611.7	568.8	599.5	478.3	410.9	482.9	500.3	485.1	405.1
67.5°	2116.0	432.3	495.6	515.4	528.1	457.4	377.2	444.5	467.8	448.0	338.4
70°	1142.8	303.5	327.3	434.1	448.6	421.4	347.1	405.7	432.3	410.9	275.6
72.5°	675.0	218.2	229.3	348.8	373.7	370.8	313.3	360.4	392.9	367.4	224.1
75°	372.0	147.4	163.7	253.1	303.5	286.1	269.3	305.2	338.4	313.3	172.9
77.5°	166.6	88.3	113.8	165.9	238.5	196.2	208.4	237.9	268.8	242.6	115.5
80°	64.4	49.3	75.4	90.5	173.5	108.5	134.1	175.3	197.3	176.4	70.2
82.5°	8.1	22.0	32.5	35.4	101.0	57.5	77.8	110.3	108.5	94.0	35.4
85°	0.0	4.1	4.6	2.4	43.6	20.9	25.5	36.0	33.6	25.5	2.9
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°	1166.6	1166.6	1166.6	1166.6	1166.6	1166.6	1166.6	1166.6	1166.6	1166.6	1166.6
2.5°	1016.2	995.3	984.8	976.2	984.3	988.9	988.9	1008.7	1020.3	1024.9	1057.4
5°	895.5	856.6	830.5	814.8	820.0	825.8	832.2	857.2	874.0	885.1	935.5
7.5°	800.3	741.1	704.6	685.4	688.3	692.4	697.6	722.0	738.8	753.3	809.6
10°	753.3	669.7	621.6	598.4	594.3	591.9	590.2	604.8	617.5	629.1	684.8
12.5°	755.6	639.0	580.4	552.0	539.8	525.8	514.8	517.1	525.2	539.8	575.1
15°	785.3	629.1	558.9	523.5	503.2	486.9	473.6	470.7	473.6	475.9	497.9
17.5°	825.2	627.9	540.3	496.2	475.3	462.0	449.8	445.7	446.3	449.2	455.0
20°	857.2	624.4	519.5	470.1	451.5	439.9	427.7	423.6	424.9	425.4	431.8
22.5°	874.0	619.2	496.2	443.9	428.3	416.7	405.7	405.1	405.1	408.6	413.2
25°	874.0	608.2	475.3	419.0	405.1	394.6	381.3	383.7	384.8	389.4	396.4
27.5°	853.1	587.3	458.5	397.5	383.0	372.6	360.4	363.3	365.0	370.2	378.9
30°	826.5	562.4	439.3	377.2	360.4	352.9	342.5	343.6	345.9	351.7	361.5
32.5°	798.0	532.8	423.6	356.9	340.1	334.3	322.7	324.4	326.8	333.1	344.2
35°	766.7	497.9	405.1	338.4	321.5	316.8	303.5	304.7	308.2	315.1	326.2
37.5°	733.6	469.6	386.5	320.3	303.0	298.3	284.3	285.6	289.6	297.8	308.2
40°	701.1	441.7	366.7	301.2	283.8	279.7	264.7	265.8	270.5	279.1	290.2
42.5°	665.6	420.1	341.2	281.5	262.9	258.8	244.9	246.6	251.8	260.6	271.6
45°	623.3	406.2	312.8	262.9	242.0	237.9	225.2	228.7	234.4	243.1	254.8
47.5°	579.7	400.5	289.0	243.1	220.6	217.1	206.6	212.4	218.8	225.8	238.5
50°	538.0	392.9	264.7	224.6	201.9	198.4	191.5	199.1	205.4	211.9	224.1
52.5°	490.4	376.7	242.6	208.4	186.3	185.1	181.6	188.6	194.4	200.2	210.6
55°	441.1	350.5	223.4	193.8	172.9	174.1	172.4	178.1	182.9	188.0	197.3
57.5°	398.1	317.4	208.4	178.1	161.3	164.8	162.5	165.4	168.3	174.7	182.2
60°	354.6	278.0	191.5	159.6	149.8	153.8	147.4	146.8	148.0	149.8	163.7
62.5°	296.0	236.8	170.7	143.4	136.9	138.7	126.5	117.3	117.3	119.0	139.9
65°	237.9	198.4	147.4	124.7	119.5	118.4	101.0	88.3	87.0	92.2	110.3
67.5°	195.6	164.8	124.2	103.9	100.4	101.6	88.8	76.1	74.8	80.7	94.0
70°	162.0	132.9	99.2	80.1	83.5	88.8	76.1	63.9	62.1	67.3	80.1
72.5°	128.8	103.9	76.1	59.2	69.1	75.4	62.1	50.5	49.3	54.0	66.1
75°	94.6	74.3	51.7	42.9	53.4	59.2	45.3	36.0	34.2	38.3	50.5
77.5°	58.6	41.8	32.5	25.5	36.6	39.5	23.8	20.9	20.3	23.2	31.9
80°	27.3	18.0	15.7	8.7	13.3	15.7	9.8	11.1	11.6	13.9	19.8
82.5°	7.6	2.9	0.6	0.0	0.0	4.6	2.4	4.6	5.8	8.7	12.8
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	2.9	5.2	9.3
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	4.6
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°	1166.6	1166.6	1166.6	1166.6	1166.6	1166.6	1166.6	1166.6
2.5°	1081.8	1105.1	1142.2	1180.5	1218.2	1256.4	1293.7	1307.0
5°	981.3	1034.7	1108.4	1187.5	1268.6	1351.1	1426.5	1460.7
7.5°	869.4	946.0	1056.9	1180.5	1309.8	1439.3	1558.3	1613.4
10°	749.8	846.8	973.2	1140.4	1326.1	1504.9	1668.5	1739.9
12.5°	636.1	737.6	877.5	1077.7	1313.3	1542.6	1739.3	1823.5
15°	540.9	630.9	781.8	1003.5	1272.1	1544.9	1773.0	1865.3
17.5°	469.6	528.1	684.3	921.1	1218.2	1523.5	1784.6	1883.2
20°	434.1	450.4	557.7	815.4	1167.7	1503.2	1796.2	1900.0
22.5°	413.2	417.3	456.1	679.1	1107.3	1496.7	1816.5	1923.3
25°	396.4	397.5	408.0	538.0	1015.1	1492.7	1847.9	1955.2
27.5°	379.6	379.6	385.4	433.6	889.7	1475.3	1888.5	1993.5
30°	362.7	362.7	366.7	383.7	742.8	1441.0	1937.2	2043.4
32.5°	345.3	345.3	348.8	361.0	593.2	1398.1	1981.9	2094.0
35°	327.9	326.8	331.4	344.2	471.8	1343.6	2026.6	2148.5
37.5°	309.3	308.7	313.3	327.9	407.4	1280.2	2060.2	2222.8
40°	289.6	289.6	294.8	310.5	388.9	1200.8	2113.7	2329.5
42.5°	271.6	270.5	276.2	295.4	374.9	1124.7	2209.4	2485.1
45°	254.2	251.8	257.1	280.8	350.5	1098.1	2388.1	2714.9
47.5°	237.9	232.2	236.8	263.5	328.5	1197.8	2680.7	3033.5
50°	224.6	213.6	217.6	246.1	311.7	1414.3	3060.2	3456.6
52.5°	210.6	196.2	198.4	224.6	296.5	1620.3	3471.7	4014.9
55°	196.2	179.9	181.1	203.2	275.1	1651.1	3873.3	4776.4
57.5°	179.9	164.8	164.8	183.4	259.4	1431.2	4182.1	5721.1
60°	162.0	152.0	149.1	167.7	273.4	1009.8	4218.1	6330.5
62.5°	142.2	136.9	132.9	152.6	283.8	598.4	3928.4	6183.1
65°	119.5	118.4	115.5	167.7	239.1	353.4	3372.5	5731.1
67.5°	100.4	98.7	98.7	175.9	181.6	222.3	2634.9	5108.9
70°	86.5	80.1	80.1	132.9	110.3	153.8	1839.8	4437.4
72.5°	72.6	65.6	61.0	106.2	82.4	112.5	1149.6	3800.2
75°	58.0	52.8	47.0	70.2	61.5	85.3	668.0	3148.5
77.5°	41.8	39.5	33.1	51.7	44.7	61.5	397.5	2429.4
80°	21.4	22.0	20.9	29.6	30.1	41.8	226.3	1662.8
82.5°	12.8	9.8	11.1	14.6	17.4	23.8	85.3	977.3
85°	8.1	5.2	5.2	7.0	8.7	9.3	26.1	396.4
87.5°	4.1	1.7	2.4	3.5	2.9	2.4	1.1	99.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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