

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: P959292

Luminaire Tested: **NAV-SB1A-735-U-SLL-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P959292
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-SB1A-735-U-SLL-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 70 CRI, 3500K, 350mA 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: 3510.6 lumens
Efficiency: N/A
Efficacy: 113.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G1

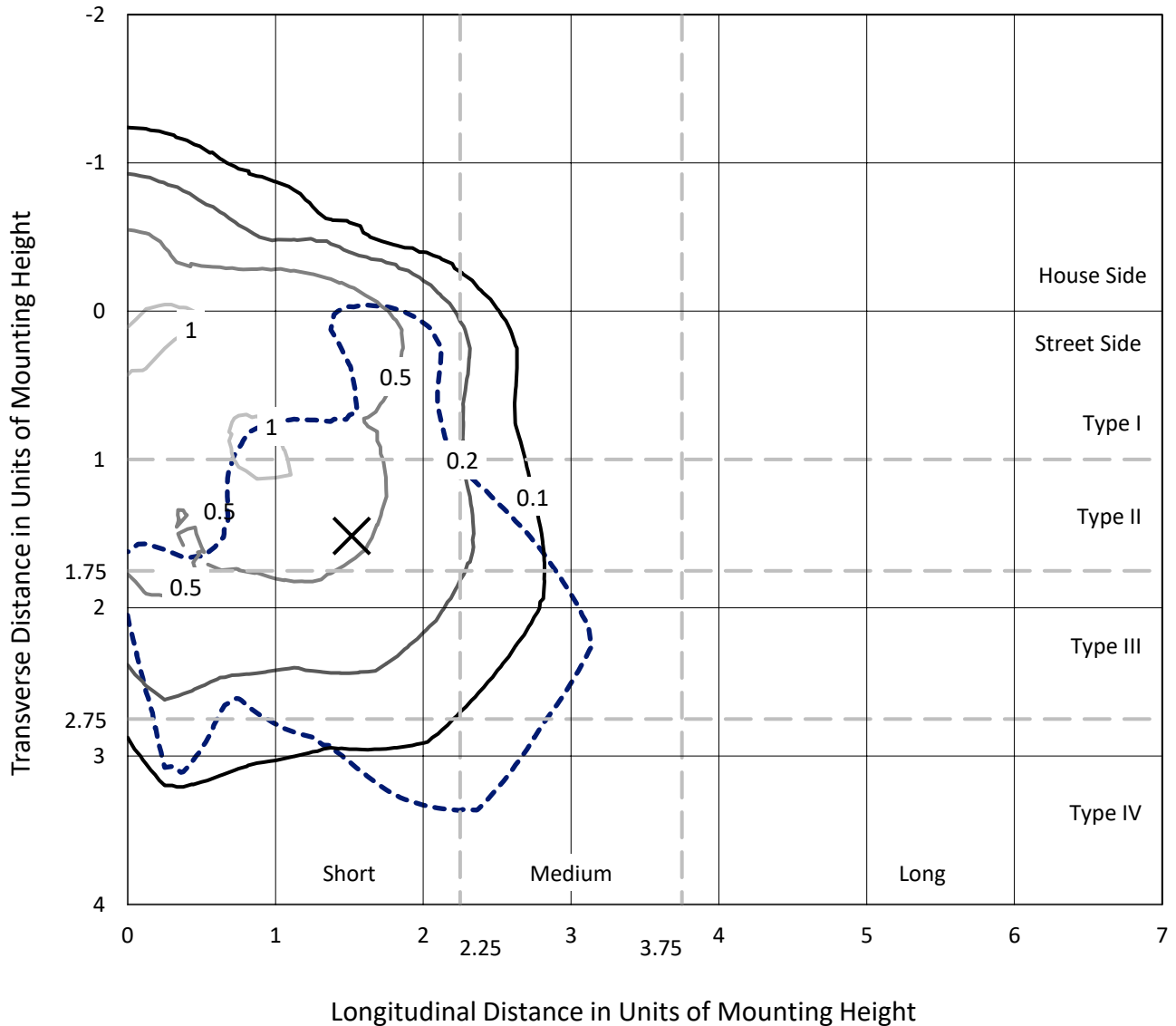
Input Watts (W): 30.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

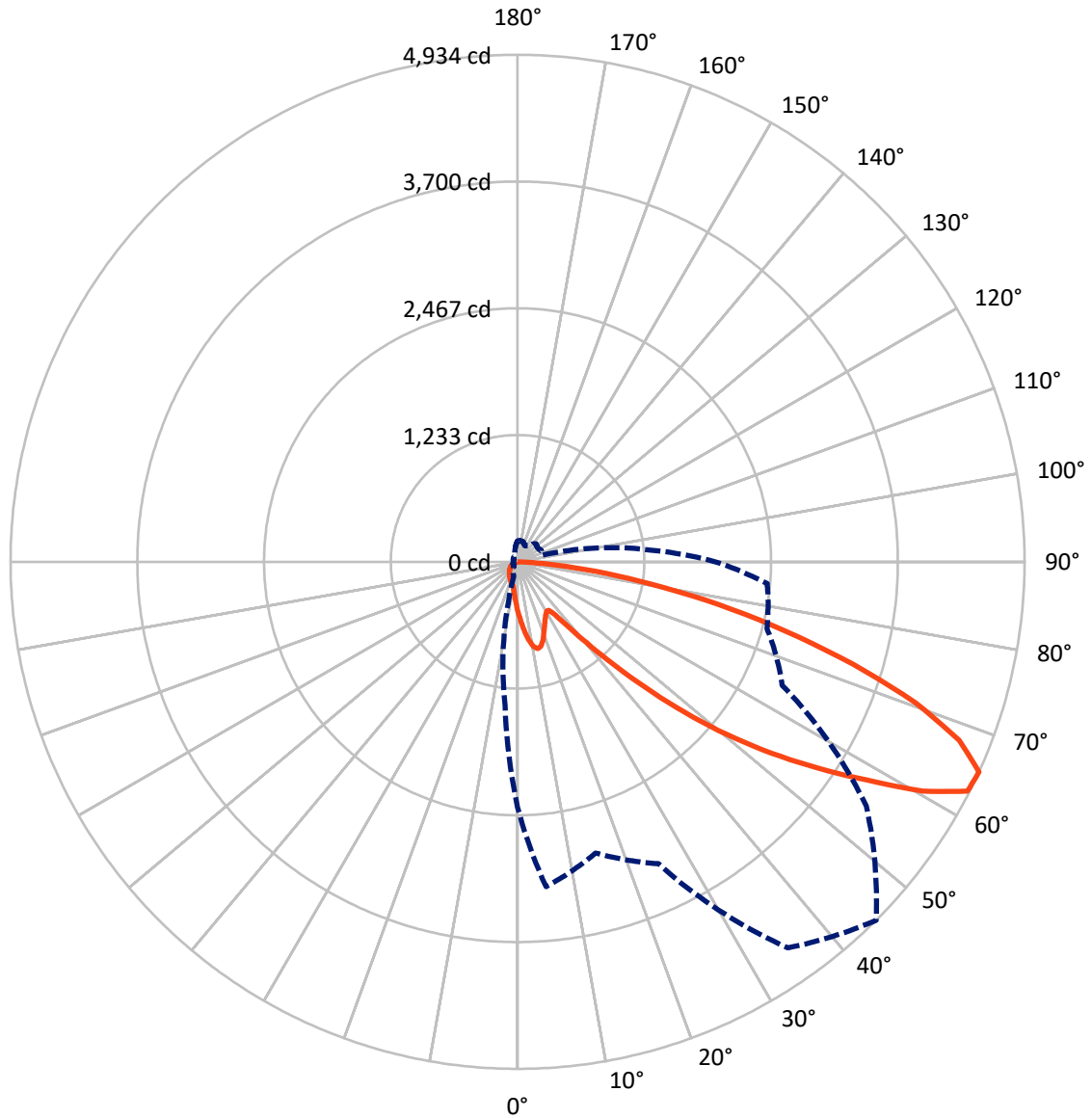
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.3 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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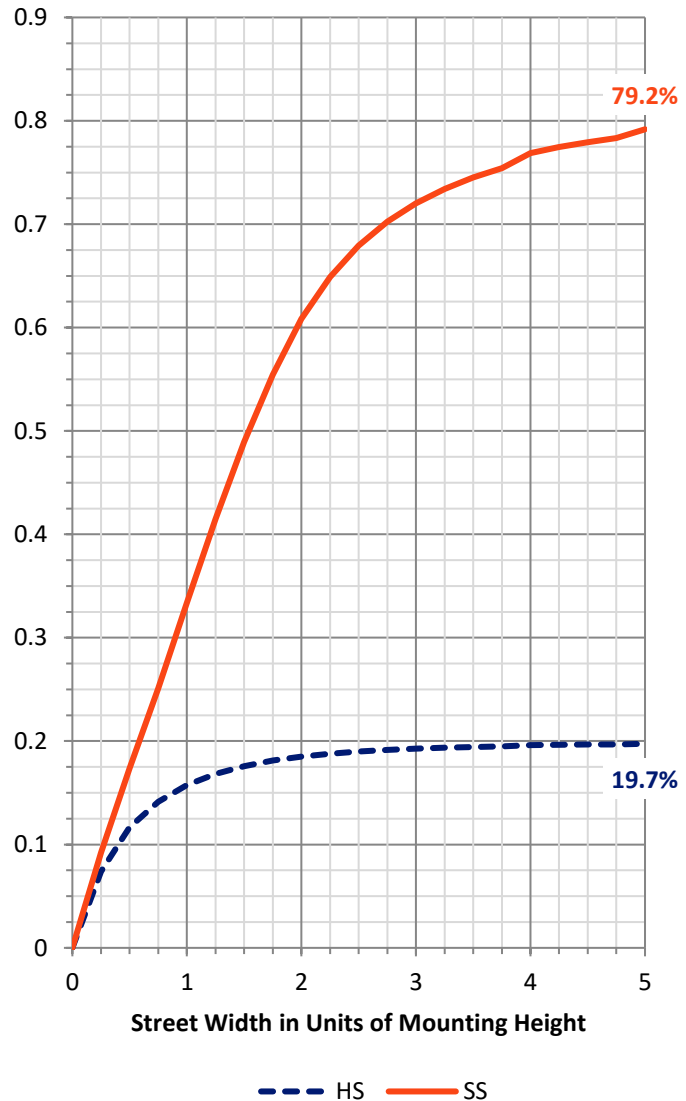
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	697.8	0.0	697.8
	% Fixture	19.9	0.0	19.9
Street Side	Lumens	2812.8	0.0	2812.8
	% Fixture	80.1	0.0	80.1
Total	Lumens	3510.6	0.0	3510.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.9	1.4
10°-20°	143.5	4.1
20°-30°	211.4	6.0
30°-40°	271.5	7.7
40°-50°	439.2	12.5
50°-60°	770.1	21.9
60°-70°	963.6	27.4
70°-80°	563.1	16.0
80°-90°	100.5	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°	3510.6	100.0
0°-180°	3510.6	100.0

Coefficient of Utilization



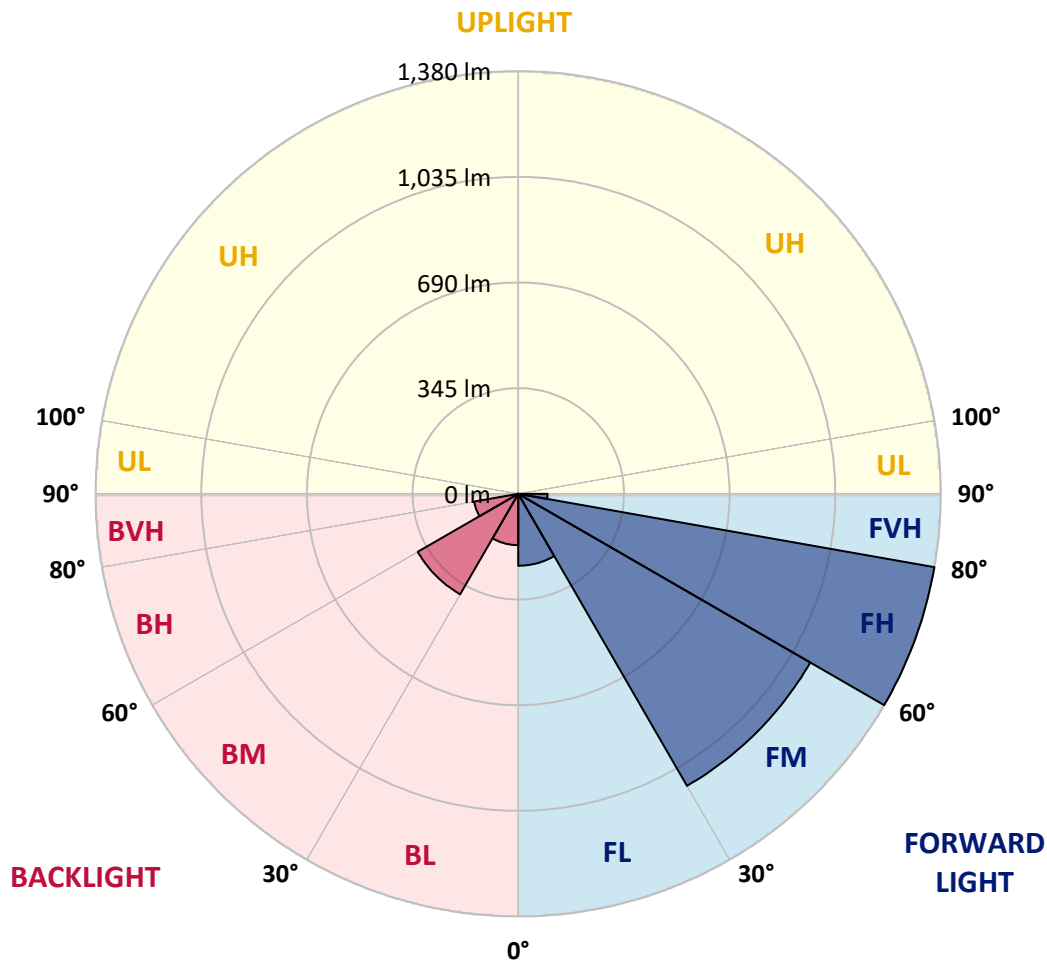
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	234.9	6.7			
FM (30°-60°)	1101.7	31.4			
FH (60°-80°)	1380.5	39.3			G1/1800
FVH (80°-90°)	95.8	2.7			G1/100
BL (0°-30°)	167.8	4.8	B1/500		
BM (30°-60°)	379.1	10.8	B1/1000		
BH (60°-80°)	146.2	4.2	B1/500		G1/500
BVH (80°-90°)	4.7	0.1			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	486.2	486.2	486.2	486.2	486.2	486.2	486.2	486.2	486.2	486.2	486.2
2.5°	544.7	548.8	557.9	562.7	570.3	570.7	570.7	564.3	564.0	550.7	549.2
5°	608.7	618.4	640.2	662.7	667.5	668.7	666.2	653.2	643.6	617.7	612.1
7.5°	672.3	691.0	724.1	754.1	763.7	763.7	758.0	736.7	716.8	679.4	665.3
10°	725.1	748.6	793.5	827.1	838.2	835.8	824.0	797.1	769.8	724.4	705.9
12.5°	759.8	786.3	835.6	862.6	874.0	867.8	854.2	828.1	799.3	751.4	730.6
15°	777.3	804.8	847.7	861.9	858.7	852.3	850.5	838.0	816.2	771.5	748.8
17.5°	784.7	810.5	840.2	831.2	804.6	799.5	816.5	832.4	827.1	788.9	767.6
20°	791.8	813.3	822.3	782.6	736.2	731.5	764.0	809.4	832.7	805.1	785.6
22.5°	801.4	814.8	796.4	731.3	681.3	670.7	706.4	774.9	834.4	825.6	806.1
25°	814.8	818.4	767.8	682.8	632.4	621.8	655.2	736.5	831.5	847.9	831.2
27.5°	830.8	823.3	740.6	642.1	593.5	583.5	616.9	699.5	823.3	870.1	858.3
30°	851.6	829.5	713.4	610.7	565.7	558.4	590.6	667.5	813.1	898.4	892.0
32.5°	872.6	832.2	688.3	592.2	559.3	562.0	588.5	650.4	802.0	925.6	928.6
35°	895.3	840.7	676.0	610.4	611.8	635.1	646.0	666.2	800.2	962.3	974.7
37.5°	926.3	859.6	690.7	700.6	750.9	799.1	790.1	744.4	819.9	1017.2	1040.2
40°	970.8	892.7	755.0	854.2	957.5	1035.6	1001.5	886.3	879.9	1096.2	1130.7
42.5°	1035.6	945.4	869.2	1041.9	1217.0	1345.6	1254.2	1069.5	984.8	1209.2	1253.0
45°	1131.4	1030.7	1007.3	1239.9	1536.9	1739.6	1549.5	1264.6	1131.8	1380.2	1414.6
47.5°	1264.1	1156.3	1136.6	1448.6	1925.8	2188.0	1877.0	1445.6	1299.2	1613.4	1621.3
50°	1440.4	1325.3	1259.3	1677.0	2352.2	2645.0	2204.2	1620.1	1491.0	1898.2	1889.1
52.5°	1673.1	1561.1	1402.2	1894.4	2790.7	3092.5	2532.9	1773.5	1729.0	2228.9	2210.0
55°	1990.3	1915.9	1597.7	2101.9	3228.9	3542.5	2848.7	1918.1	2043.3	2621.6	2507.5
57.5°	2384.1	2437.3	1879.3	2342.5	3622.9	4006.4	3166.0	2120.2	2451.6	3060.8	2680.2
60°	2638.0	3130.7	2418.9	2698.3	4070.5	4531.0	3600.8	2504.8	2880.7	3218.2	2647.3
62.5°	2576.6	3351.2	3065.2	3152.5	4482.1	4912.3	4026.9	2891.0	2961.4	2986.3	2393.8
65°	2388.2	3173.3	2933.3	3240.7	4586.4	4933.8	4140.9	2841.2	2512.1	2438.1	1924.1
67.5°	2128.9	2962.1	2620.1	3006.6	4398.0	4633.0	3928.8	2513.3	1941.2	1829.5	1395.9
70°	1849.1	2728.5	2414.6	2744.0	4038.8	4108.7	3568.2	2210.5	1427.8	1235.6	895.7
72.5°	1583.6	2485.2	2273.9	2474.8	3559.7	3415.1	3098.8	1942.8	1039.7	891.2	636.7
75°	1312.0	2126.3	2073.4	2155.1	2929.8	2690.0	2574.7	1608.5	816.0	644.7	439.4
77.5°	1012.4	1661.5	1783.4	1725.8	2062.2	1998.1	1995.7	1208.8	596.1	430.2	275.4
80°	692.9	1157.9	1393.3	1217.5	1338.3	1305.7	1503.1	810.9	432.4	259.0	153.3
82.5°	407.2	705.0	969.8	589.4	740.0	759.6	895.0	394.4	254.4	59.8	33.4
85°	165.2	278.4	379.2	230.7	357.0	301.1	339.8	110.8	70.8	1.4	0.0
87.5°	41.6	89.0	62.4	25.8	41.3	37.9	30.0	13.5	2.9	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°	486.2	486.2	486.2	486.2	486.2	486.2	486.2	486.2	486.2	486.2	486.2
2.5°	539.8	534.2	520.5	506.7	495.6	480.5	470.7	458.8	447.4	437.3	435.3
5°	596.9	578.5	553.3	530.3	506.9	484.2	461.7	438.0	416.3	402.9	394.4
7.5°	643.3	610.9	577.5	548.3	520.0	493.3	463.6	434.8	400.8	382.6	366.1
10°	677.9	635.3	591.5	557.9	529.4	503.5	478.4	449.4	408.3	385.5	360.8
12.5°	700.6	650.1	598.8	560.4	528.4	508.4	497.2	485.8	445.0	418.4	382.6
15°	716.4	660.5	603.9	554.8	515.6	500.8	512.0	525.0	499.0	468.2	421.6
17.5°	733.5	674.0	606.1	539.8	490.7	484.4	513.2	543.5	542.2	511.8	466.1
20°	751.6	685.8	604.6	515.6	460.4	466.1	502.8	537.8	552.6	536.2	495.6
22.5°	770.3	697.2	599.0	484.2	432.1	449.6	486.4	517.1	534.4	529.4	498.5
25°	793.8	713.2	590.8	450.3	408.7	432.9	467.2	492.2	504.2	504.0	482.7
27.5°	821.7	734.5	586.5	423.0	392.1	414.0	444.5	466.8	475.2	475.2	458.3
30°	854.4	759.6	581.7	405.1	382.3	394.4	418.2	439.9	448.3	448.3	434.1
32.5°	890.7	783.8	570.0	394.2	375.2	375.4	390.3	410.2	420.4	421.8	411.6
35°	934.3	809.6	544.7	385.5	366.6	356.7	364.0	380.4	392.5	395.6	389.4
37.5°	991.3	841.4	508.4	372.7	353.6	337.1	338.9	351.4	364.7	369.5	365.4
40°	1067.9	878.6	470.7	354.3	335.2	315.6	314.9	324.1	337.1	342.5	340.3
42.5°	1169.3	923.3	434.6	336.6	312.9	292.8	291.7	298.9	310.3	315.8	314.9
45°	1299.0	978.3	403.6	322.9	291.2	271.3	270.9	277.0	286.8	292.6	291.4
47.5°	1479.2	1033.2	382.6	315.6	274.0	253.7	254.7	259.9	269.0	273.1	271.3
50°	1714.0	1049.8	372.0	315.6	264.9	238.0	242.8	247.1	253.9	256.4	254.2
52.5°	1939.4	994.7	362.2	317.5	266.0	224.7	235.0	238.2	244.1	245.0	241.8
55°	2049.9	855.2	349.0	318.1	273.6	213.3	228.8	234.6	236.8	236.6	231.2
57.5°	2011.9	691.5	326.5	316.1	278.6	206.0	221.1	232.2	233.6	231.4	221.5
60°	1878.6	509.1	309.3	301.9	276.6	203.9	209.2	226.8	229.0	226.1	209.9
62.5°	1655.2	353.3	296.0	270.4	268.2	203.2	190.5	215.2	220.6	216.5	192.7
65°	1303.1	249.6	254.9	237.0	249.8	199.3	171.3	201.2	208.5	202.2	168.8
67.5°	881.8	180.2	206.5	214.7	220.1	190.5	157.2	185.2	195.0	186.8	141.0
70°	476.2	126.5	136.4	180.9	187.0	175.6	144.6	169.0	180.2	171.3	114.9
72.5°	281.3	90.9	95.5	145.3	155.7	154.6	130.6	150.2	163.7	153.1	93.4
75°	155.0	61.4	68.2	105.5	126.5	119.2	112.2	127.2	141.0	130.6	72.1
77.5°	69.4	36.8	47.4	69.2	99.4	81.7	86.8	99.1	111.9	101.1	48.2
80°	26.9	20.6	31.5	37.7	72.3	45.2	55.9	73.1	82.2	73.5	29.2
82.5°	3.4	9.2	13.5	14.8	42.1	24.0	32.4	45.9	45.2	39.2	14.8
85°	0.0	1.7	1.9	0.9	18.1	8.7	10.7	15.0	14.0	10.7	1.2
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	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°	486.2	486.2	486.2	486.2	486.2	486.2	486.2	486.2	486.2	486.2	486.2
2.5°	423.4	414.7	410.4	406.8	410.2	412.2	412.2	420.4	425.2	427.1	440.6
5°	373.2	357.0	346.0	339.6	341.7	344.2	346.8	357.2	364.2	368.8	389.8
7.5°	333.5	308.8	293.6	285.7	286.8	288.5	290.7	300.8	307.9	314.0	337.3
10°	314.0	279.1	259.0	249.4	247.6	246.7	246.0	252.0	257.3	262.2	285.4
12.5°	314.9	266.3	241.8	230.0	224.9	219.1	214.5	215.5	218.8	224.9	239.6
15°	327.2	262.2	232.9	218.1	209.7	203.0	197.3	196.2	197.3	198.3	207.5
17.5°	343.9	261.7	225.2	206.7	198.0	192.5	187.5	185.7	185.9	187.2	189.6
20°	357.2	260.2	216.5	195.9	188.2	183.3	178.2	176.5	177.0	177.2	179.9
22.5°	364.2	258.1	206.7	185.0	178.5	173.6	169.0	168.8	168.8	170.3	172.2
25°	364.2	253.5	198.0	174.7	168.8	164.4	158.9	159.9	160.3	162.3	165.2
27.5°	355.5	244.8	191.1	165.6	159.6	155.3	150.2	151.4	152.1	154.3	158.0
30°	344.4	234.3	183.1	157.2	150.2	147.1	142.7	143.2	144.1	146.6	150.7
32.5°	332.5	222.0	176.5	148.7	141.8	139.3	134.5	135.2	136.1	138.8	143.4
35°	319.5	207.5	168.8	141.0	134.0	132.0	126.5	127.0	128.4	131.3	135.9
37.5°	305.7	195.7	161.0	133.5	126.3	124.3	118.5	119.0	120.6	124.0	128.4
40°	292.1	184.1	152.8	125.6	118.3	116.5	110.3	110.8	112.7	116.3	121.0
42.5°	277.4	175.1	142.2	117.3	109.6	107.8	102.1	102.8	105.0	108.5	113.2
45°	259.7	169.3	130.4	109.6	100.9	99.1	93.8	95.3	97.7	101.4	106.2
47.5°	241.6	166.9	120.4	101.4	91.9	90.4	86.1	88.6	91.2	94.1	99.4
50°	224.2	163.7	110.3	93.6	84.2	82.7	79.8	82.9	85.6	88.3	93.4
52.5°	204.4	156.9	101.1	86.8	77.6	77.2	75.7	78.6	81.0	83.4	87.7
55°	183.8	146.1	93.1	80.8	72.1	72.6	71.9	74.2	76.2	78.3	82.2
57.5°	165.9	132.3	86.8	74.2	67.2	68.7	67.8	68.9	70.1	72.8	76.0
60°	147.8	115.8	79.8	66.5	62.4	64.1	61.4	61.2	61.7	62.4	68.2
62.5°	123.3	98.7	71.1	59.8	57.1	57.8	52.7	48.9	48.9	49.6	58.3
65°	99.1	82.7	61.4	52.0	49.8	49.3	42.1	36.8	36.3	38.4	45.9
67.5°	81.5	68.7	51.8	43.3	41.8	42.3	37.0	31.7	31.2	33.6	39.2
70°	67.4	55.4	41.3	33.4	34.8	37.0	31.7	26.6	25.8	28.1	33.4
72.5°	53.7	43.3	31.7	24.7	28.8	31.5	25.8	21.0	20.6	22.4	27.6
75°	39.5	31.0	21.5	17.9	22.2	24.7	18.9	15.0	14.2	16.0	21.0
77.5°	24.4	17.4	13.5	10.7	15.3	16.4	9.9	8.7	8.5	9.6	13.3
80°	11.4	7.5	6.6	3.6	5.5	6.6	4.1	4.6	4.8	5.8	8.2
82.5°	3.2	1.2	0.2	0.0	0.0	1.9	0.9	1.9	2.5	3.6	5.3
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	1.2	2.2	3.9
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	1.9
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°	486.2	486.2	486.2	486.2	486.2	486.2	486.2	486.2
2.5°	450.8	460.4	475.9	491.9	507.7	523.6	539.0	544.7
5°	409.0	431.2	462.0	494.8	528.7	563.0	594.5	608.7
7.5°	362.2	394.2	440.4	491.9	545.8	599.7	649.3	672.3
10°	312.4	352.8	405.6	475.2	552.6	627.1	695.3	725.1
12.5°	265.1	307.4	365.7	449.2	547.2	642.8	724.8	759.8
15°	225.4	262.9	325.7	418.2	530.1	643.8	738.8	777.3
17.5°	195.7	220.1	285.2	383.8	507.7	634.9	743.6	784.7
20°	180.9	187.7	232.4	339.8	486.6	626.4	748.6	791.8
22.5°	172.2	173.8	190.1	283.0	461.5	623.7	757.0	801.4
25°	165.2	165.6	170.0	224.2	423.0	622.1	770.1	814.8
27.5°	158.2	158.2	160.6	180.7	370.7	614.8	787.0	830.8
30°	151.2	151.2	152.8	159.9	309.5	600.5	807.3	851.6
32.5°	143.9	143.9	145.3	150.5	247.1	582.6	825.9	872.6
35°	136.6	136.1	138.1	143.4	196.6	559.9	844.5	895.3
37.5°	128.9	128.6	130.6	136.6	169.7	533.5	858.5	926.3
40°	120.6	120.6	122.9	129.4	162.1	500.4	880.8	970.8
42.5°	113.2	112.7	115.1	123.1	156.2	468.7	920.7	1035.6
45°	105.9	105.0	107.1	117.1	146.1	457.6	995.2	1131.4
47.5°	99.1	96.8	98.7	109.8	136.8	499.2	1117.0	1264.1
50°	93.6	89.0	90.7	102.5	129.9	589.4	1275.2	1440.4
52.5°	87.7	81.7	82.7	93.6	123.6	675.3	1446.7	1673.1
55°	81.7	74.9	75.4	84.7	114.6	688.1	1614.1	1990.3
57.5°	74.9	68.7	68.7	76.5	108.1	596.3	1742.7	2384.1
60°	67.4	63.3	62.1	69.9	113.9	420.8	1757.8	2638.0
62.5°	59.2	57.1	55.4	63.7	118.3	249.4	1637.0	2576.6
65°	49.8	49.3	48.2	69.9	99.6	147.3	1405.4	2388.2
67.5°	41.8	41.1	41.1	73.3	75.7	92.7	1098.0	2128.9
70°	36.1	33.4	33.4	55.4	45.9	64.1	766.7	1849.1
72.5°	30.2	27.4	25.4	44.3	34.3	46.9	479.1	1583.6
75°	24.2	22.0	19.6	29.2	25.6	35.6	278.4	1312.0
77.5°	17.4	16.4	13.7	21.5	18.7	25.6	165.6	1012.4
80°	8.9	9.2	8.7	12.3	12.6	17.4	94.3	692.9
82.5°	5.3	4.1	4.6	6.0	7.3	9.9	35.6	407.2
85°	3.4	2.2	2.2	2.9	3.6	3.9	10.9	165.2
87.5°	1.7	0.7	0.9	1.4	1.2	0.9	0.5	41.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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