

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: P960007

Luminaire Tested: **NAV-SB1B-835-U-SLR-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P960007
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-SB1B-835-U-SLR-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 80 CRI, 3500K, 450mA LIGHTSQUARE WITH 26 LEDS AND SPILL LIGHT
ELIMINATOR RIGHT OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4086.7 lumens
Efficiency: N/A
Efficacy: 102.7 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

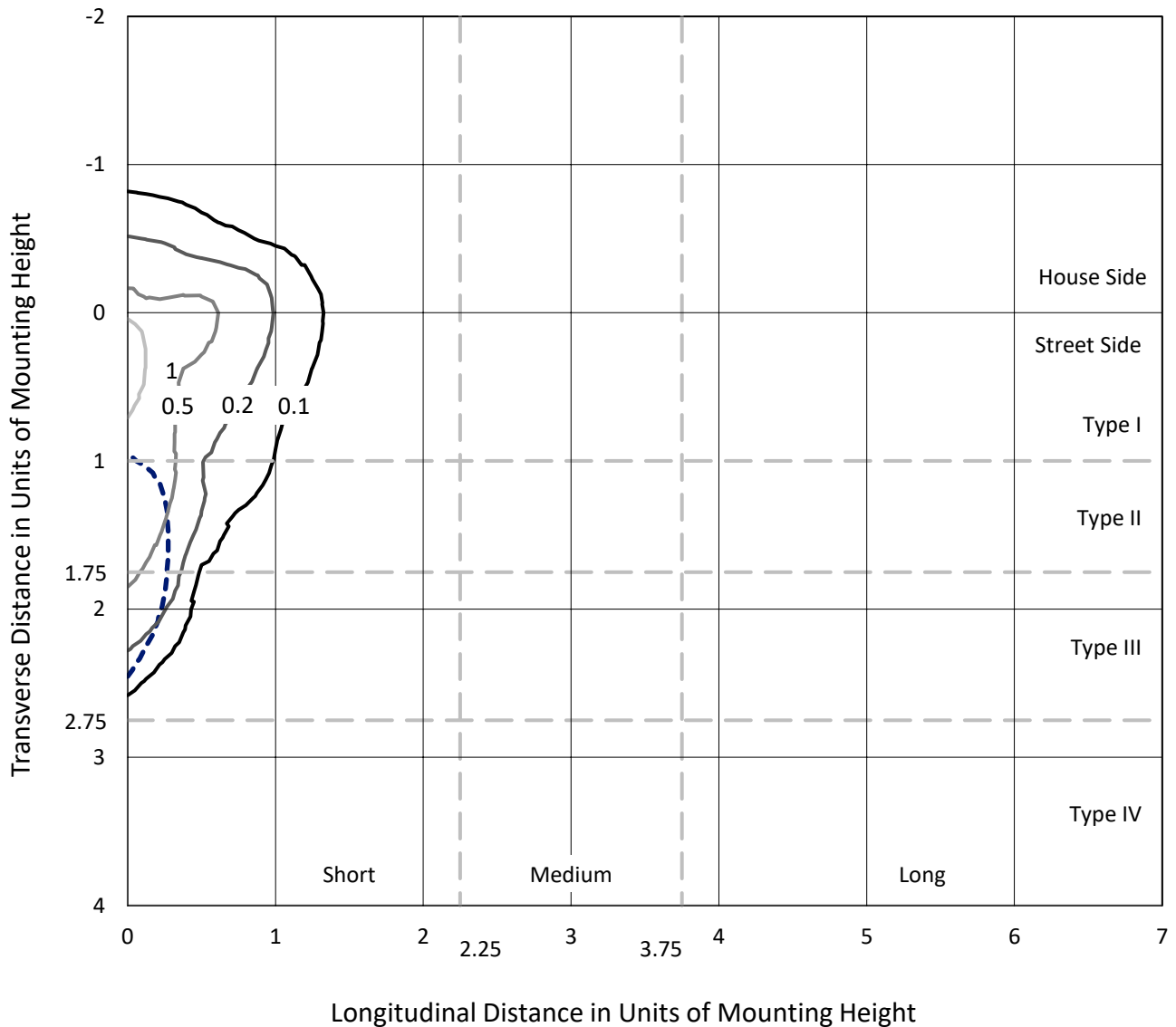
Input Watts (W): 39.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

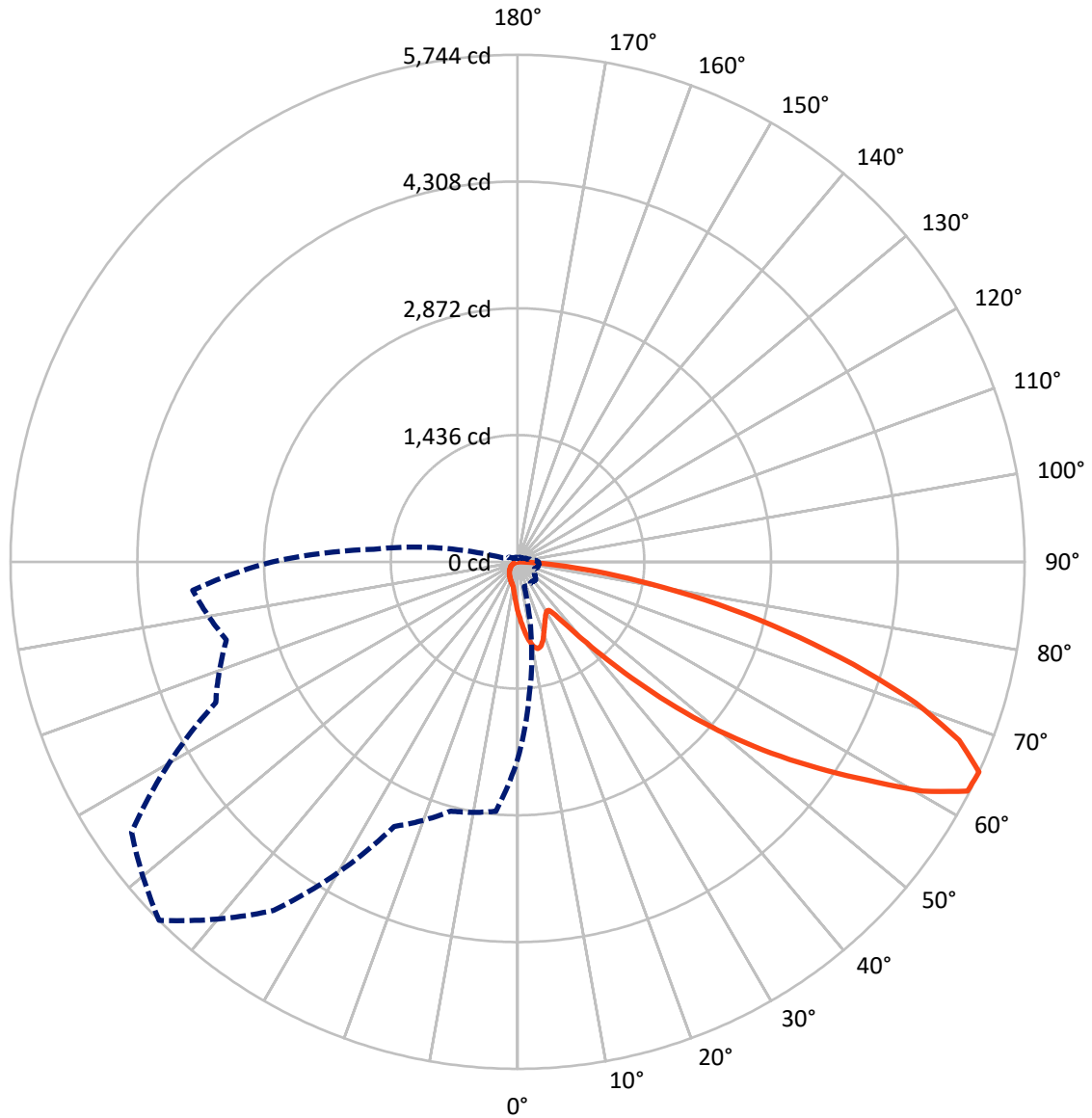
× Max cd
 - - - 1/2 Max cd



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 315-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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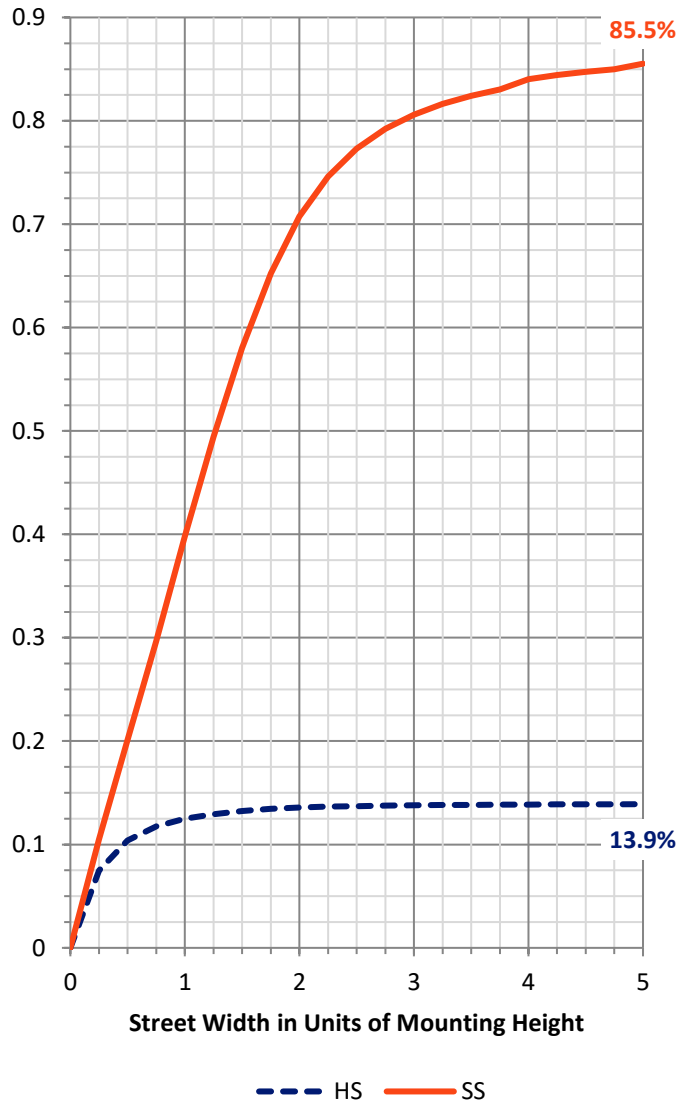
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	572.3	0.0	572.3
	% Fixture	14.0	0.0	14.0
Street Side	Lumens	3514.4	0.0	3514.4
	% Fixture	86.0	0.0	86.0
Total	Lumens	4086.7	0.0	4086.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	55.7	1.4
10°-20°	167.0	4.1
20°-30°	246.0	6.0
30°-40°	316.1	7.7
40°-50°	511.2	12.5
50°-60°	896.5	21.9
60°-70°	1121.7	27.4
70°-80°	655.5	16.0
80°-90°	116.9	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°	4086.7	100.0
0°-180°	4086.7	100.0

Coefficient of Utilization



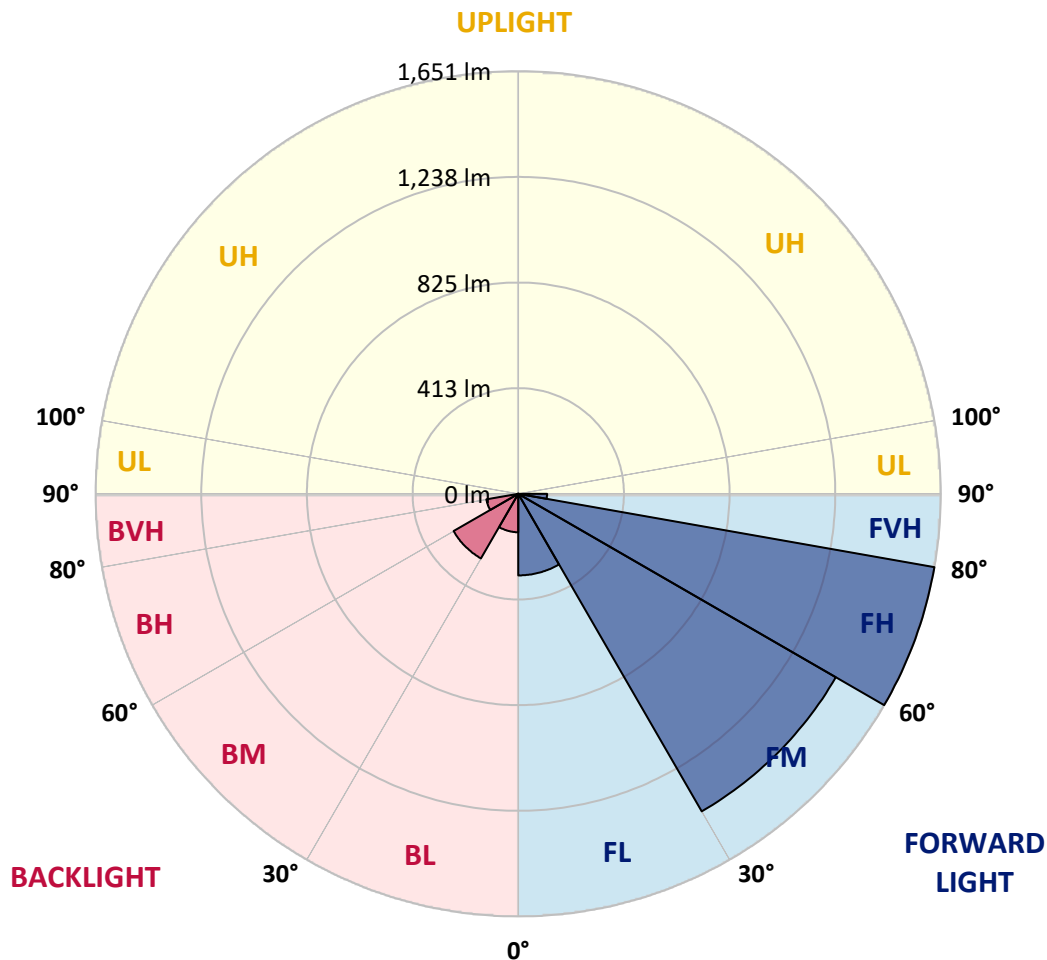
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	318.7	7.8			
FM (30°-60°)	1432.3	35.0			
FH (60°-80°)	1650.8	40.4			G1/1800
FVH (80°-90°)	112.5	2.8			G2/225
BL (0°-30°)	150.0	3.7	B1/500		
BM (30°-60°)	291.4	7.1	B1/1000		
BH (60°-80°)	126.4	3.1	B1/500		G1/500
BVH (80°-90°)	4.5	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-G2

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	565.9	565.9	565.9	565.9	565.9	565.9	565.9	565.9	565.9	565.9	565.9
2.5°	639.4	628.3	621.9	605.9	589.8	576.9	559.4	547.9	534.0	520.8	509.0
5°	712.6	694.8	673.4	644.1	617.4	590.1	563.6	537.4	509.8	484.5	469.0
7.5°	774.5	748.9	711.1	672.3	638.3	605.3	574.3	539.7	506.1	466.5	445.4
10°	821.7	789.1	739.5	688.6	649.4	616.2	586.1	556.9	523.1	475.2	448.7
12.5°	850.5	815.6	756.8	697.1	652.3	615.1	591.7	578.8	565.6	518.0	487.1
15°	871.7	833.9	768.9	702.9	645.9	600.2	583.0	596.0	611.2	580.8	545.0
17.5°	893.6	853.9	784.6	705.5	628.3	571.2	563.9	597.4	632.6	631.2	595.7
20°	914.4	875.0	798.4	703.9	600.2	536.1	542.5	585.3	626.1	643.3	624.1
22.5°	938.4	896.7	811.7	697.3	563.6	503.1	523.4	566.1	601.9	622.2	616.2
25°	967.6	923.9	830.2	687.8	524.2	475.8	503.9	543.9	572.9	587.0	586.7
27.5°	999.2	956.6	855.1	682.8	492.4	456.3	482.0	517.4	543.4	553.2	553.2
30°	1038.3	994.7	884.3	677.1	471.6	445.1	459.2	486.8	512.1	521.9	521.9
32.5°	1081.1	1036.9	912.5	663.6	458.9	436.6	437.0	454.4	477.4	489.3	491.0
35°	1134.6	1087.5	942.6	634.0	448.7	426.8	415.2	423.7	442.8	456.9	460.5
37.5°	1210.8	1153.9	979.5	591.7	433.9	411.6	392.5	394.4	409.1	424.6	430.2
40°	1316.1	1243.2	1022.7	547.9	412.5	390.2	367.4	366.5	377.2	392.5	398.6
42.5°	1458.6	1361.2	1074.9	505.9	391.9	364.3	340.9	339.5	348.0	361.2	367.7
45°	1646.7	1512.1	1138.8	469.9	375.9	339.0	315.9	315.3	322.4	333.8	340.6
47.5°	1887.3	1721.8	1202.7	445.4	367.4	319.0	295.3	296.4	302.7	313.0	317.9
50°	2199.0	1995.2	1222.1	433.0	367.4	308.3	277.1	282.7	287.7	295.6	298.4
52.5°	2572.6	2257.6	1157.9	421.7	369.6	309.7	261.6	273.7	277.3	284.0	285.2
55°	2918.9	2386.2	995.5	406.2	370.2	318.4	248.4	266.3	273.1	275.6	275.3
57.5°	3119.9	2342.0	804.9	380.1	368.0	324.3	239.8	257.3	270.3	271.9	269.5
60°	3081.7	2186.9	592.7	360.1	351.4	322.1	237.3	243.5	264.0	266.6	263.2
62.5°	2786.6	1926.8	411.3	344.6	314.8	312.2	236.5	221.8	250.5	256.8	251.9
65°	2239.8	1516.9	290.6	296.7	275.9	290.8	232.0	199.4	234.2	242.7	235.3
67.5°	1625.0	1026.4	209.7	240.5	250.0	256.1	221.8	183.0	215.7	226.9	217.3
70°	1042.8	554.3	147.2	158.8	210.5	217.6	204.4	168.3	196.8	209.7	199.4
72.5°	741.3	327.4	105.9	111.2	169.2	181.3	179.9	152.0	174.9	190.5	178.2
75°	511.6	180.5	71.5	79.4	122.8	147.2	138.8	130.6	148.1	164.1	152.0
77.5°	320.6	80.8	42.7	55.1	80.6	115.7	95.1	101.1	115.4	130.4	117.7
80°	178.5	31.3	23.9	36.6	43.9	84.2	52.7	65.0	85.0	95.7	85.6
82.5°	38.8	3.9	10.7	15.8	17.2	49.0	27.9	37.7	53.5	52.7	45.6
85°	0.0	0.0	1.9	2.3	1.1	21.1	10.1	12.4	17.4	16.3	12.4
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	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°	565.9	565.9	565.9	565.9	565.9	565.9	565.9	565.9	565.9	565.9	565.9
2.5°	506.8	492.9	482.8	477.8	473.6	477.4	479.7	479.7	489.3	495.0	497.2
5°	459.2	434.4	415.5	402.8	395.2	397.8	400.6	403.7	415.8	423.9	429.4
7.5°	426.2	388.3	359.5	341.7	332.5	333.8	335.9	338.4	350.2	358.3	365.4
10°	420.0	365.4	324.9	301.6	290.3	288.3	287.2	286.3	293.4	299.5	305.1
12.5°	445.4	366.5	310.0	281.6	267.7	261.8	255.0	249.7	250.8	254.8	261.8
15°	490.7	380.9	305.1	271.1	253.9	244.1	236.2	229.7	228.4	229.7	230.8
17.5°	542.5	400.4	304.6	262.1	240.7	230.5	224.1	218.2	216.2	216.5	217.9
20°	576.9	415.8	302.9	251.9	228.1	219.0	213.4	207.5	205.5	206.1	206.3
22.5°	580.3	423.9	300.4	240.7	215.4	207.8	202.1	196.8	196.5	196.5	198.2
25°	561.9	423.9	295.0	230.5	203.3	196.5	191.5	185.0	186.1	186.7	188.9
27.5°	533.5	413.9	285.0	222.4	192.8	185.8	180.7	174.9	176.2	177.1	179.6
30°	505.3	400.9	272.8	213.1	183.0	174.9	171.2	166.2	166.7	167.8	170.6
32.5°	479.2	387.1	258.4	205.5	173.1	165.0	162.2	156.5	157.3	158.5	161.6
35°	453.3	371.9	241.6	196.5	164.1	156.0	153.8	147.2	147.8	149.4	152.8
37.5°	425.4	355.9	227.8	187.5	155.4	147.0	144.7	138.0	138.5	140.5	144.4
40°	396.2	340.1	214.2	177.9	146.1	137.7	135.7	128.3	128.9	131.2	135.4
42.5°	366.5	322.9	203.9	165.5	136.5	127.5	125.6	118.8	119.6	122.2	126.4
45°	339.3	302.4	197.1	151.7	127.5	117.4	115.4	109.3	110.9	113.8	118.0
47.5°	315.9	281.3	194.2	140.2	118.0	107.0	105.3	100.2	103.0	106.1	109.5
50°	295.9	261.0	190.5	128.3	109.0	98.0	96.2	92.9	96.6	99.6	102.8
52.5°	281.6	237.9	182.8	117.7	101.1	90.4	89.8	88.1	91.5	94.3	97.2
55°	269.2	213.9	170.0	108.3	94.0	83.8	84.5	83.6	86.4	88.7	91.2
57.5°	257.9	193.1	154.0	101.1	86.4	78.3	79.9	78.8	80.3	81.7	84.8
60°	244.4	172.0	134.9	92.9	77.4	72.7	74.6	71.5	71.2	71.8	72.7
62.5°	224.4	143.6	114.9	82.8	69.5	66.4	67.2	61.4	56.9	56.9	57.7
65°	196.5	115.4	96.2	71.5	60.6	58.0	57.4	49.0	42.7	42.2	44.8
67.5°	164.1	94.9	79.9	60.3	50.4	48.7	49.3	43.0	36.9	36.3	39.2
70°	133.8	78.5	64.5	48.2	38.8	40.6	43.0	36.9	31.0	30.1	32.7
72.5°	108.6	62.5	50.4	36.9	28.7	33.5	36.6	30.1	24.5	23.9	26.1
75°	83.8	45.9	36.1	25.0	20.8	25.9	28.7	21.9	17.4	16.6	18.6
77.5°	56.1	28.4	20.3	15.8	12.4	17.7	19.2	11.6	10.1	9.8	11.3
80°	34.0	13.2	8.7	7.6	4.2	6.5	7.6	4.8	5.3	5.6	6.8
82.5°	17.2	3.7	1.4	0.3	0.0	0.0	2.3	1.1	2.3	2.8	4.2
85°	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	1.4	2.6
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1
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°	565.9	565.9	565.9	565.9	565.9	565.9	565.9	565.9	565.9	565.9	565.9
2.5°	512.9	524.8	536.1	554.0	572.7	590.9	609.5	627.5	634.0	638.8	649.4
5°	453.9	476.1	501.9	537.7	576.0	615.4	655.4	692.0	708.6	719.9	745.2
7.5°	392.8	421.7	458.9	512.7	572.7	635.4	698.2	755.9	782.7	804.3	842.9
10°	332.2	363.8	410.7	472.1	553.2	643.3	730.0	809.4	844.0	871.4	923.7
12.5°	279.0	308.5	357.8	425.7	522.8	637.1	748.4	843.8	884.6	915.2	972.7
15°	241.6	262.4	306.1	379.2	486.8	617.2	749.5	860.1	904.9	937.0	986.8
17.5°	220.7	227.8	256.1	331.9	446.8	590.9	739.0	865.7	913.6	943.4	978.1
20°	209.4	210.5	218.4	270.6	395.5	566.4	729.2	871.4	921.7	946.8	957.2
22.5°	200.5	200.5	202.4	221.3	329.4	537.2	726.1	881.2	933.0	948.4	927.1
25°	192.3	192.3	192.8	197.9	261.0	492.4	724.1	896.4	948.4	952.7	893.9
27.5°	183.9	184.1	184.1	187.0	210.3	431.6	715.7	916.1	967.1	958.4	862.0
30°	175.4	176.0	176.0	177.9	186.1	360.4	699.0	939.7	991.3	965.7	830.6
32.5°	167.0	167.5	167.5	169.2	175.1	287.7	678.2	961.4	1015.8	968.7	801.2
35°	158.3	159.1	158.5	160.7	167.0	228.9	651.7	983.1	1042.2	978.6	786.9
37.5°	149.4	150.1	149.8	152.0	159.1	197.6	621.0	999.5	1078.3	1000.6	804.0
40°	140.7	140.5	140.5	143.0	150.6	188.6	582.5	1025.3	1130.1	1039.1	878.9
42.5°	131.7	131.7	131.2	134.0	143.3	181.8	545.6	1071.7	1205.5	1100.5	1011.8
45°	123.6	123.3	122.2	124.7	136.2	170.0	532.7	1158.5	1317.0	1199.9	1172.6
47.5°	115.7	115.4	112.6	114.9	127.8	159.4	581.1	1300.4	1471.6	1346.0	1323.2
50°	108.6	109.0	103.6	105.6	119.4	151.2	686.1	1484.5	1676.8	1542.8	1466.0
52.5°	102.2	102.2	95.1	96.2	109.0	143.9	786.1	1684.1	1947.6	1817.2	1632.3
55°	95.7	95.1	87.2	87.8	98.5	133.5	800.9	1878.9	2317.0	2230.3	1859.8
57.5°	88.4	87.2	79.9	79.9	89.0	125.9	694.2	2028.7	2775.3	2837.3	2187.8
60°	79.4	78.5	73.8	72.4	81.4	132.6	489.8	2046.1	3070.9	3644.4	2815.9
62.5°	67.9	69.0	66.4	64.5	74.0	137.7	290.3	1905.7	2999.5	3901.2	3568.1
65°	53.5	58.0	57.4	56.1	81.4	116.0	171.5	1636.0	2780.1	3693.9	3414.7
67.5°	45.6	48.7	47.9	47.9	85.3	88.1	107.8	1278.2	2478.3	3448.2	3050.1
70°	38.8	41.9	38.8	38.8	64.5	53.5	74.6	892.5	2152.6	3176.2	2810.8
72.5°	32.1	35.2	31.8	29.5	51.6	40.0	54.6	557.7	1843.5	2893.0	2647.0
75°	24.5	28.2	25.6	22.8	34.0	29.8	41.4	324.0	1527.2	2475.2	2413.6
77.5°	15.5	20.3	19.2	16.1	25.0	21.6	29.8	192.8	1178.4	1934.1	2076.0
80°	9.5	10.5	10.7	10.1	14.3	14.7	20.3	109.8	806.6	1348.0	1621.9
82.5°	6.1	6.1	4.8	5.3	7.1	8.4	11.6	41.4	474.1	820.6	1128.9
85°	4.5	3.9	2.6	2.6	3.4	4.2	4.5	12.7	192.3	324.0	441.5
87.5°	2.3	1.9	0.8	1.1	1.6	1.4	1.1	0.5	48.4	103.6	72.7
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°	565.9	565.9	565.9	565.9	565.9	565.9	565.9	565.9
2.5°	655.1	663.9	664.4	664.4	656.8	656.5	641.0	639.4
5°	771.4	777.1	778.4	775.6	760.4	749.2	719.0	712.6
7.5°	877.8	889.1	889.1	882.3	857.5	834.5	790.8	774.5
10°	962.8	975.8	972.9	959.2	927.9	896.2	843.2	821.7
12.5°	1004.2	1017.4	1010.1	994.4	963.9	930.5	874.7	850.5
15°	1003.4	999.7	992.1	990.1	975.5	950.2	898.1	871.7
17.5°	967.6	936.6	930.7	950.5	969.0	962.8	918.3	893.6
20°	911.0	857.0	851.7	889.4	942.3	969.3	937.3	914.4
22.5°	851.4	793.0	780.6	822.4	902.0	971.3	961.1	938.4
25°	794.8	736.2	723.9	762.7	857.2	967.9	987.1	967.6
27.5°	747.4	690.8	679.4	718.2	814.2	958.4	1012.9	999.2
30°	710.8	658.5	650.1	687.5	777.1	946.5	1045.9	1038.3
32.5°	689.4	651.2	654.3	685.0	757.1	933.6	1077.4	1081.1
35°	710.5	712.3	739.3	751.9	775.6	931.6	1120.2	1134.6
37.5°	815.6	874.1	930.2	919.7	866.5	954.4	1184.1	1210.8
40°	994.4	1114.6	1205.5	1165.8	1031.8	1024.2	1276.1	1316.1
42.5°	1212.8	1416.7	1566.4	1460.0	1245.0	1146.4	1407.6	1458.6
45°	1443.4	1789.1	2025.0	1803.8	1472.1	1317.5	1606.7	1646.7
47.5°	1686.3	2241.8	2547.0	2185.0	1682.7	1512.4	1878.1	1887.3
50°	1952.1	2738.2	3079.1	2565.9	1886.0	1735.6	2209.7	2199.0
52.5°	2205.2	3248.5	3599.9	2948.4	2064.5	2012.7	2594.6	2572.6
55°	2446.8	3758.7	4123.9	3316.2	2232.8	2378.6	3051.7	2918.9
57.5°	2726.9	4217.3	4663.9	3685.5	2468.2	2853.9	3563.0	3119.9
60°	3141.0	4738.4	5274.4	4191.7	2915.8	3353.3	3746.3	3081.7
62.5°	3669.7	5217.6	5718.4	4687.7	3365.4	3447.3	3476.3	2786.6
65°	3772.5	5338.9	5743.5	4820.4	3307.4	2924.2	2838.1	2239.8
67.5°	3500.0	5119.6	5393.2	4573.4	2925.7	2259.8	2129.7	1625.0
70°	3194.2	4701.6	4782.9	4153.7	2573.2	1662.1	1438.4	1042.8
72.5°	2880.9	4143.9	3975.5	3607.3	2261.6	1210.3	1037.4	741.3
75°	2508.7	3410.5	3131.5	2997.2	1872.5	949.9	750.6	511.6
77.5°	2009.0	2400.5	2326.0	2323.2	1407.1	693.9	500.8	320.6
80°	1417.3	1558.0	1520.0	1749.7	943.9	503.4	301.6	178.5
82.5°	686.1	861.5	884.3	1041.9	459.2	296.1	69.5	38.8
85°	268.5	415.5	350.5	395.5	128.9	82.5	1.6	0.0
87.5°	30.1	48.2	44.2	35.0	15.8	3.4	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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