

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: P959850

Luminaire Tested: **NAV-SB1B-740-U-SLL-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P959850
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-740-U-SLL-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 70 CRI, 4000K, 450mA 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: 4661.7 lumens
Efficiency: N/A
Efficacy: 117.1 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

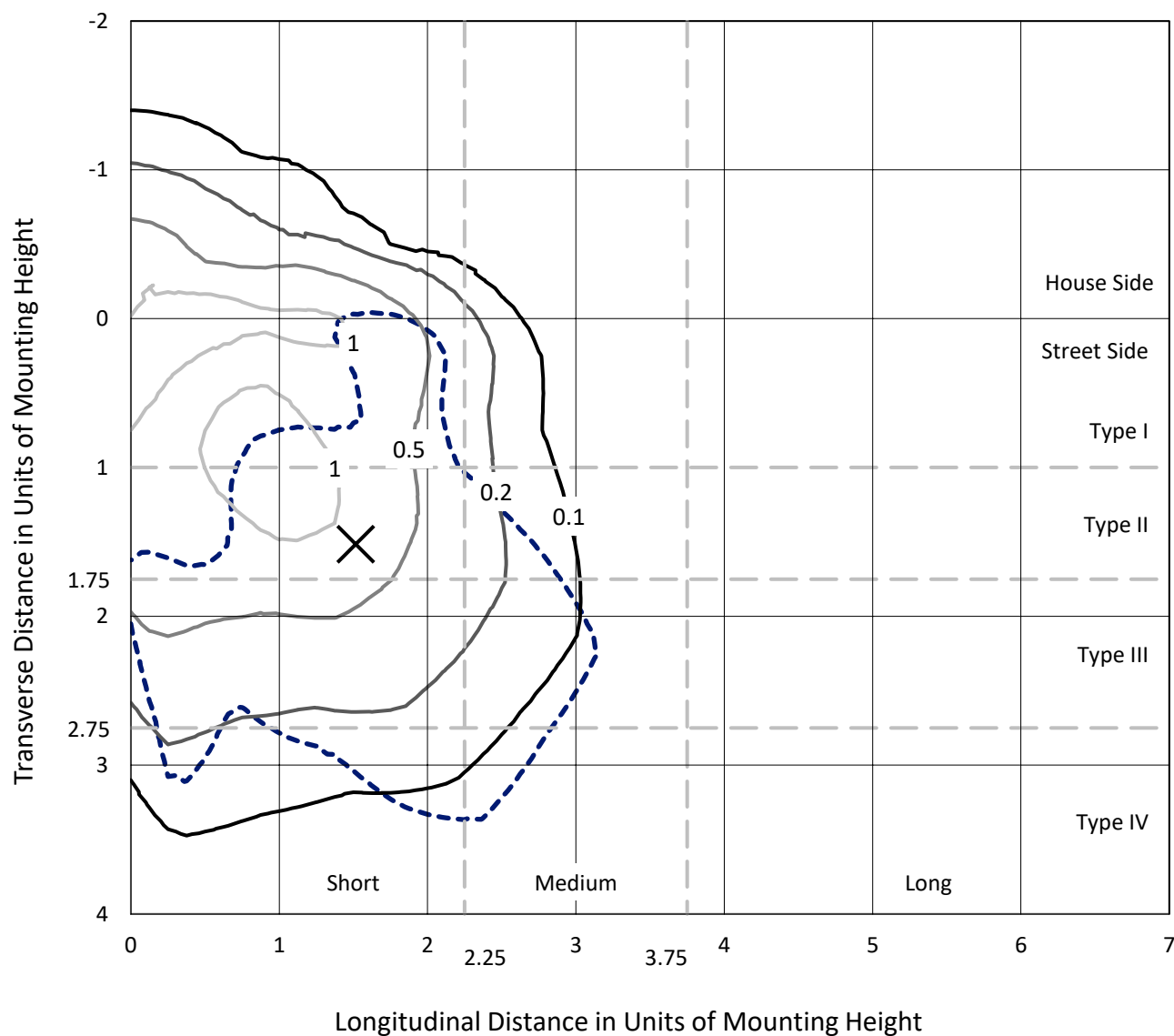


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Iso-Footcandle Lines of Horizontal Illumination

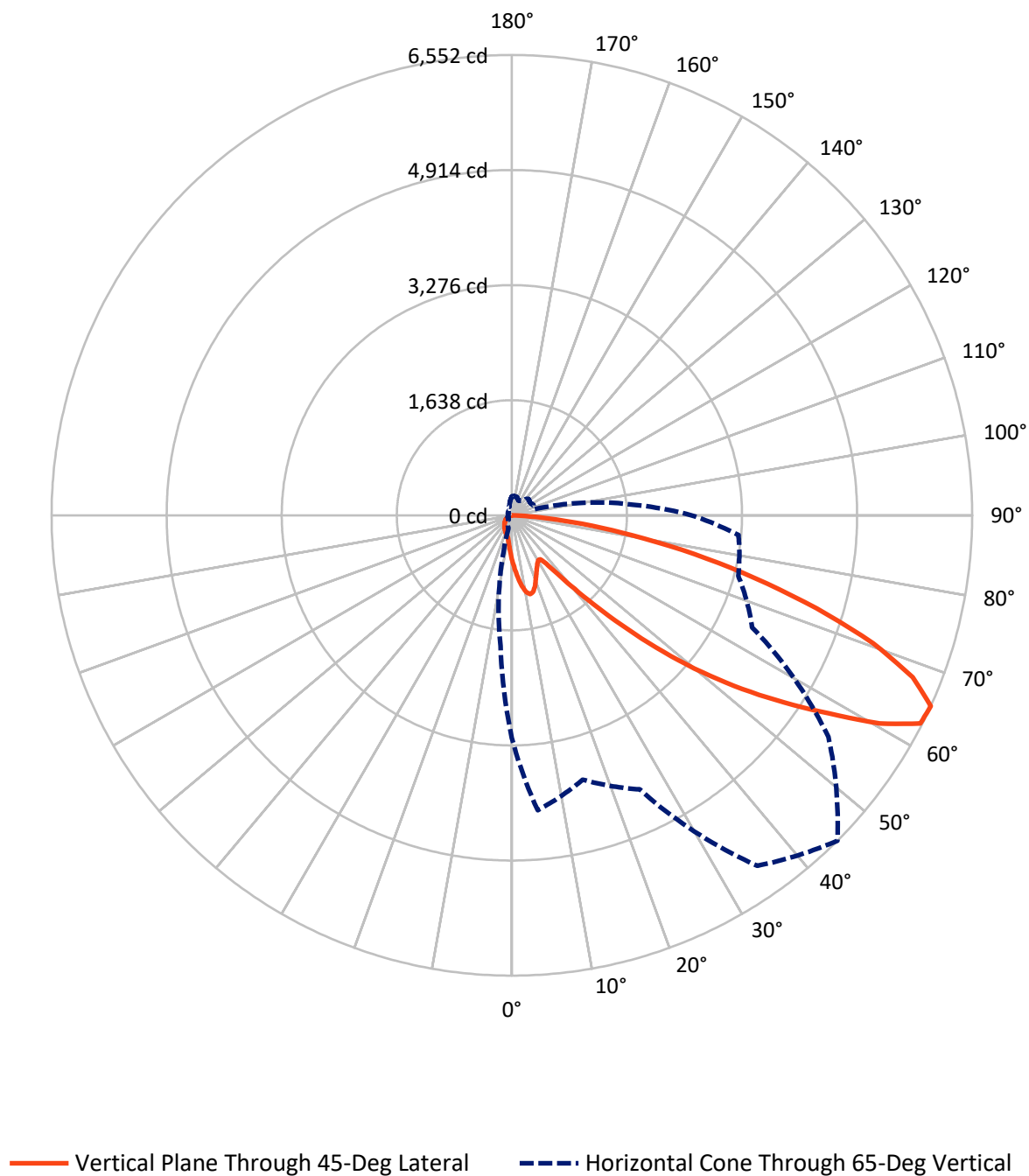
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.7 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



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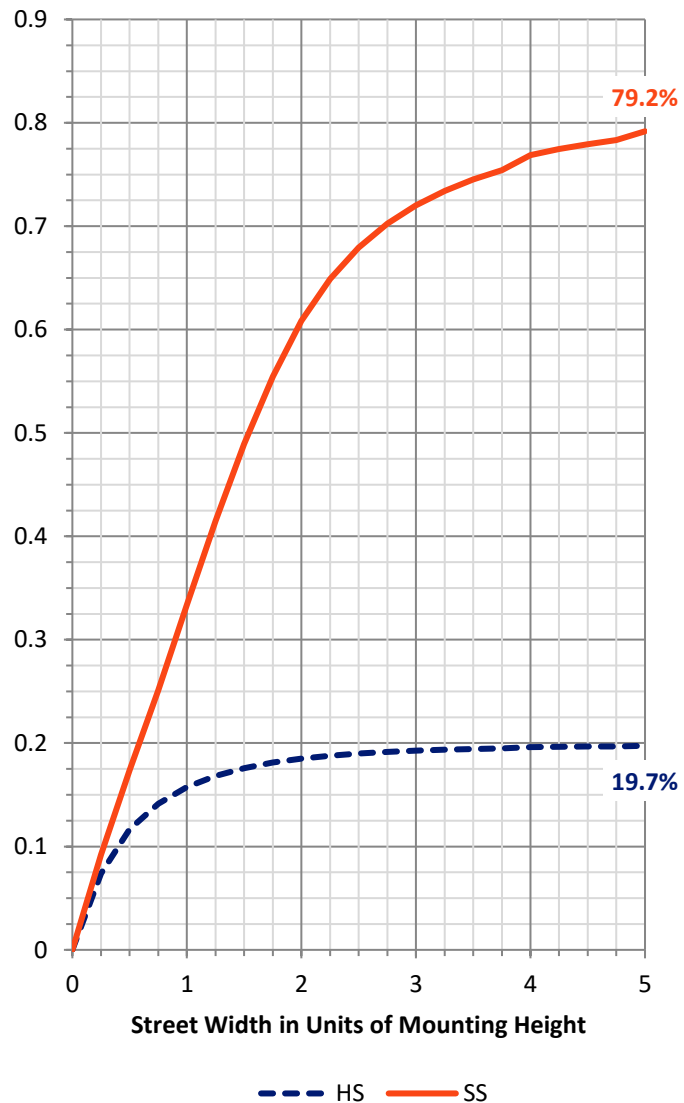
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	926.6	0.0	926.6
	% Fixture	19.9	0.0	19.9
Street Side	Lumens	3735.1	0.0	3735.1
	% Fixture	80.1	0.0	80.1
Total	Lumens	4661.7	0.0	4661.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.6	1.4
10°-20°	190.5	4.1
20°-30°	280.7	6.0
30°-40°	360.6	7.7
40°-50°	583.1	12.5
50°-60°	1022.6	21.9
60°-70°	1279.6	27.4
70°-80°	747.7	16.0
80°-90°	133.4	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°	4661.7	100.0
0°-180°	4661.7	100.0

Coefficient of Utilization



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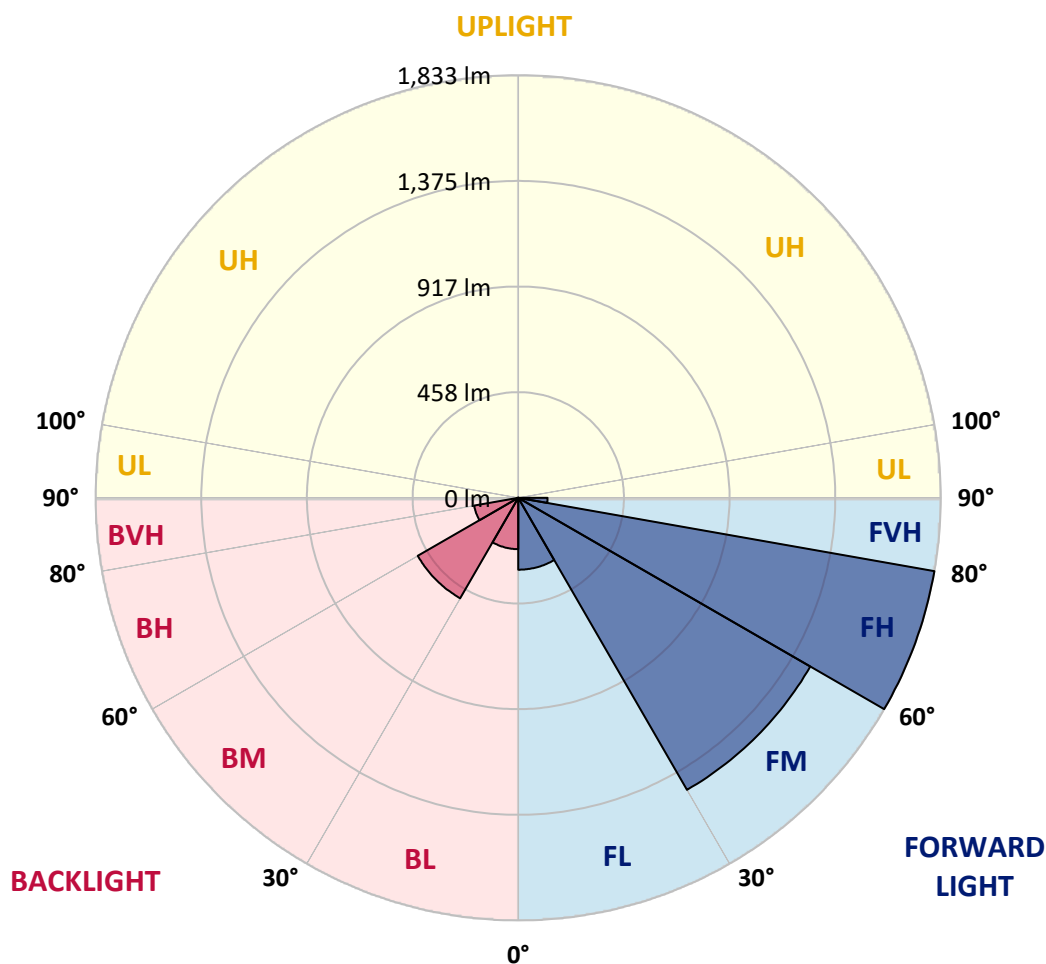
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	311.9	6.7			
FM	(30°-60°)	1462.9	31.4			
FH	(60°-80°)	1833.1	39.3			G2/5000
FVH	(80°-90°)	127.2	2.7			G2/225
BL	(0°-30°)	222.8	4.8	B1/500		
BM	(30°-60°)	503.4	10.8	B1/1000		
BH	(60°-80°)	194.1	4.2	B1/500		G1/500
BVH	(80°-90°)	6.3	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°	645.5	645.5	645.5	645.5	645.5	645.5	645.5	645.5	645.5	645.5	645.5
2.5°	723.2	728.7	740.9	747.3	757.3	757.9	757.9	749.3	748.9	731.2	729.3
5°	808.3	821.1	850.0	880.0	886.3	888.0	884.8	867.4	854.5	820.2	812.8
7.5°	892.8	917.5	961.4	1001.3	1014.1	1014.1	1006.4	978.2	951.8	902.1	883.4
10°	962.8	993.9	1053.7	1098.3	1113.0	1109.9	1094.1	1058.5	1022.2	961.9	937.5
12.5°	1009.0	1044.1	1109.6	1145.5	1160.6	1152.3	1134.3	1099.6	1061.4	997.8	970.2
15°	1032.2	1068.8	1125.7	1144.5	1140.4	1131.7	1129.4	1112.7	1083.8	1024.5	994.2
17.5°	1042.1	1076.1	1115.6	1103.7	1068.5	1061.7	1084.1	1105.4	1098.3	1047.6	1019.3
20°	1051.4	1080.0	1091.9	1039.2	977.5	971.5	1014.4	1074.8	1105.7	1069.1	1043.0
22.5°	1064.3	1081.9	1057.5	971.1	904.7	890.5	938.1	1028.9	1107.9	1096.3	1070.4
25°	1081.9	1086.7	1019.7	906.6	839.8	825.6	870.0	977.8	1104.1	1126.0	1103.7
27.5°	1103.1	1093.2	983.4	852.6	788.1	774.9	819.3	928.8	1093.2	1155.5	1139.7
30°	1130.8	1101.6	947.4	810.9	751.1	741.5	784.2	886.3	1079.6	1193.0	1184.4
32.5°	1158.7	1105.1	914.0	786.5	742.8	746.3	781.4	863.6	1064.9	1229.0	1233.2
35°	1188.9	1116.3	897.6	810.6	812.5	843.4	857.8	884.8	1062.6	1277.9	1294.2
37.5°	1230.0	1141.3	917.2	930.4	997.1	1061.1	1049.2	988.5	1088.7	1350.7	1381.2
40°	1289.0	1185.3	1002.7	1134.3	1271.4	1375.1	1329.8	1177.0	1168.3	1455.7	1501.3
42.5°	1375.1	1255.3	1154.1	1383.4	1616.0	1786.9	1665.4	1420.1	1307.7	1605.7	1663.9
45°	1502.3	1368.7	1337.5	1646.5	2040.9	2309.9	2057.6	1679.3	1503.0	1832.8	1878.3
47.5°	1678.6	1535.3	1509.4	1923.6	2557.3	2905.4	2492.4	1919.5	1725.2	2142.4	2152.9
50°	1912.8	1759.8	1672.2	2226.8	3123.5	3512.4	2926.9	2151.4	1979.9	2520.7	2508.5
52.5°	2221.7	2073.0	1862.0	2515.6	3705.7	4106.5	3363.3	2354.9	2295.9	2959.7	2934.6
55°	2643.0	2544.0	2121.4	2791.1	4287.6	4704.1	3782.8	2547.0	2713.4	3481.2	3329.6
57.5°	3165.8	3236.4	2495.6	3110.6	4810.7	5320.1	4204.0	2815.5	3255.4	4064.3	3558.9
60°	3503.0	4157.2	3212.0	3583.0	5405.1	6016.6	4781.5	3326.0	3825.1	4273.4	3515.2
62.5°	3421.4	4450.0	4070.2	4186.1	5951.8	6523.0	5347.3	3838.9	3932.4	3965.4	3178.6
65°	3171.2	4213.7	3895.1	4303.3	6090.1	6551.6	5498.6	3772.8	3335.7	3237.5	2555.0
67.5°	2827.1	3933.3	3479.3	3992.5	5839.9	6152.2	5216.9	3337.3	2577.8	2429.5	1853.6
70°	2455.5	3623.2	3206.3	3643.7	5363.1	5455.9	4738.2	2935.3	1896.0	1640.7	1189.5
72.5°	2102.9	3300.1	3019.3	3286.3	4726.9	4534.8	4114.8	2579.7	1380.6	1183.4	845.5
75°	1742.2	2823.5	2753.1	2861.7	3890.3	3572.0	3418.9	2135.9	1083.5	856.2	583.5
77.5°	1344.3	2206.2	2368.1	2291.7	2738.4	2653.3	2650.0	1605.0	791.6	571.3	365.8
80°	920.0	1537.6	1850.1	1616.6	1777.2	1733.9	1995.9	1076.8	574.2	344.0	203.6
82.5°	540.8	936.1	1287.8	782.6	982.7	1008.7	1188.6	523.8	337.8	79.3	44.3
85°	219.4	369.6	503.6	306.4	474.0	399.9	451.2	147.1	94.1	1.9	0.0
87.5°	55.2	118.2	82.8	34.3	54.9	50.4	39.9	17.9	3.9	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°	645.5	645.5	645.5	645.5	645.5	645.5	645.5	645.5	645.5	645.5	645.5
2.5°	716.8	709.4	691.1	672.8	658.0	638.1	624.9	609.2	594.1	580.7	578.1
5°	792.5	768.1	734.8	704.3	673.1	642.9	613.1	581.6	552.7	535.0	523.8
7.5°	854.2	811.2	766.9	728.1	690.4	655.2	615.6	577.4	532.2	508.1	486.3
10°	900.2	843.7	785.6	740.9	702.9	668.6	635.2	596.7	542.1	511.9	479.2
12.5°	930.4	863.3	795.2	744.0	701.7	675.1	660.3	645.1	590.9	555.6	508.1
15°	951.2	877.0	801.9	736.7	684.7	665.1	679.9	697.2	662.6	621.8	559.8
17.5°	974.1	895.0	804.8	716.8	651.6	643.3	681.4	721.6	720.0	679.6	618.8
20°	998.1	910.7	802.9	684.7	611.4	618.8	667.7	714.2	733.8	712.0	658.0
22.5°	1022.8	925.9	795.5	642.9	573.9	597.0	645.9	686.6	709.7	702.9	661.8
25°	1054.0	947.1	784.5	598.0	542.7	574.8	620.4	653.5	669.6	669.2	641.0
27.5°	1091.2	975.3	778.8	561.7	520.6	549.8	590.3	619.8	631.1	631.1	608.5
30°	1134.6	1008.7	772.3	537.9	507.7	523.8	555.2	584.1	595.4	595.4	576.5
32.5°	1182.7	1040.8	757.0	523.5	498.0	498.5	518.3	544.7	558.1	560.1	546.6
35°	1240.6	1075.2	723.2	511.9	486.9	473.7	483.3	505.1	521.2	525.4	517.0
37.5°	1316.4	1117.2	675.1	494.9	469.6	447.7	449.9	466.6	484.3	490.7	485.2
40°	1418.2	1166.8	624.9	470.5	445.1	419.1	418.1	430.3	447.7	454.7	451.8
42.5°	1552.8	1226.1	577.1	447.0	415.5	388.9	387.3	397.0	412.0	419.4	418.1
45°	1724.9	1299.0	536.0	428.8	386.6	360.3	359.7	367.7	380.9	388.6	386.9
47.5°	1964.1	1372.0	508.1	419.1	363.9	336.9	338.1	345.2	357.1	362.5	360.3
50°	2275.9	1394.1	493.9	419.1	351.7	316.0	322.5	328.2	337.2	340.4	337.5
52.5°	2575.2	1320.8	481.0	421.7	353.2	298.4	312.1	316.3	324.0	325.3	321.1
55°	2722.0	1135.6	463.4	422.3	363.3	283.2	303.8	311.5	314.4	314.1	307.0
57.5°	2671.6	918.2	433.6	419.7	369.9	273.6	293.6	308.3	310.3	307.3	294.2
60°	2494.6	676.0	410.7	400.8	367.4	270.7	277.8	301.2	304.1	300.2	278.8
62.5°	2197.9	469.1	393.1	359.1	356.2	269.8	253.1	285.8	292.8	287.4	255.9
65°	1730.3	331.4	338.5	314.7	331.7	264.7	227.3	267.2	276.9	268.4	224.2
67.5°	1170.9	239.2	274.3	285.2	292.2	253.1	208.8	246.0	258.8	247.9	187.3
70°	632.3	168.0	181.1	240.3	248.3	233.2	192.1	224.5	239.2	227.3	152.5
72.5°	373.5	120.7	126.9	193.0	206.8	205.2	173.4	199.5	217.4	203.3	123.9
75°	205.8	81.6	90.6	140.0	168.0	158.4	149.0	168.9	187.3	173.4	95.7
77.5°	92.1	48.8	62.9	91.8	132.0	108.5	115.3	131.7	148.7	134.3	63.9
80°	35.7	27.3	41.7	50.1	96.0	60.1	74.2	97.0	109.2	97.6	38.8
82.5°	4.5	12.2	17.9	19.6	55.9	31.8	43.0	61.0	60.1	52.1	19.6
85°	0.0	2.3	2.6	1.3	24.1	11.6	14.1	19.9	18.7	14.1	1.6
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	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):

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	645.5	645.5	645.5	645.5	645.5	645.5	645.5	645.5	645.5	645.5	645.5
2.5°	562.3	550.7	545.0	540.2	544.7	547.2	547.2	558.1	564.6	567.1	585.2
5°	495.5	474.0	459.5	450.9	453.8	456.9	460.5	474.4	483.6	489.7	517.7
7.5°	442.9	410.1	389.9	379.2	380.9	383.1	386.0	399.5	408.8	416.9	448.0
10°	416.9	370.6	344.0	331.1	328.8	327.6	326.6	334.7	341.7	348.1	378.9
12.5°	418.1	353.6	321.1	305.4	298.7	291.0	284.8	286.2	290.6	298.7	318.3
15°	434.5	348.1	309.2	289.7	278.4	269.5	262.1	260.5	262.1	263.3	275.5
17.5°	456.6	347.5	299.0	274.6	263.0	255.6	248.9	246.6	246.9	248.6	251.7
20°	474.4	345.5	287.4	260.1	249.9	243.4	236.7	234.4	235.0	235.4	238.9
22.5°	483.6	342.7	274.6	245.7	237.0	230.6	224.5	224.2	224.2	226.1	228.7
25°	483.6	336.5	263.0	231.9	224.2	218.4	210.9	212.3	212.9	215.5	219.4
27.5°	472.1	325.0	253.7	220.0	212.0	206.1	199.5	201.0	202.0	204.9	209.7
30°	457.4	311.2	243.1	208.8	199.5	195.3	189.5	190.1	191.4	194.6	200.1
32.5°	441.6	294.8	234.4	197.5	188.2	185.0	178.6	179.5	180.8	184.3	190.4
35°	424.2	275.5	224.2	187.3	177.9	175.4	168.0	168.6	170.6	174.4	180.5
37.5°	405.9	259.8	213.9	177.2	167.6	165.0	157.3	158.0	160.2	164.7	170.6
40°	388.0	244.4	203.0	166.7	157.0	154.8	146.5	147.1	149.6	154.5	160.6
42.5°	368.4	232.5	188.8	155.8	145.4	143.2	135.5	136.5	139.4	144.2	150.3
45°	344.9	224.8	173.1	145.4	134.0	131.7	124.6	126.5	129.8	134.6	140.9
47.5°	320.8	221.6	159.9	134.6	122.1	120.1	114.3	117.6	121.1	124.9	132.0
50°	297.7	217.4	146.5	124.3	111.7	109.9	106.0	110.2	113.7	117.3	123.9
52.5°	271.3	208.4	134.3	115.3	103.1	102.4	100.6	104.3	107.6	110.8	116.5
55°	244.1	193.9	123.6	107.2	95.7	96.4	95.4	98.6	101.2	104.0	109.2
57.5°	220.3	175.7	115.3	98.6	89.3	91.2	89.9	91.5	93.2	96.7	100.9
60°	196.2	153.9	106.0	88.4	82.8	85.1	81.6	81.3	81.9	82.8	90.6
62.5°	163.8	131.0	94.4	79.3	75.7	76.8	70.0	64.9	64.9	65.8	77.4
65°	131.7	109.9	81.6	69.1	66.1	65.5	55.9	48.8	48.2	51.0	61.0
67.5°	108.2	91.2	68.7	57.5	55.6	56.2	49.1	42.0	41.4	44.7	52.1
70°	89.6	73.5	54.9	44.3	46.2	49.1	42.0	35.4	34.3	37.2	44.3
72.5°	71.3	57.5	42.0	32.8	38.2	41.7	34.3	28.0	27.3	29.8	36.6
75°	52.4	41.1	28.6	23.8	29.5	32.8	25.0	19.9	19.0	21.2	28.0
77.5°	32.4	23.2	17.9	14.1	20.2	21.8	13.1	11.6	11.3	12.8	17.6
80°	15.1	9.9	8.7	4.8	7.4	8.7	5.4	6.1	6.5	7.7	11.0
82.5°	4.2	1.6	0.3	0.0	0.0	2.6	1.3	2.6	3.2	4.8	7.1
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	1.6	2.9	5.1
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	2.6
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°	645.5	645.5	645.5	645.5	645.5	645.5	645.5	645.5
2.5°	598.6	611.4	632.0	653.2	674.0	695.3	715.9	723.2
5°	543.0	572.6	613.4	657.0	702.0	747.6	789.4	808.3
7.5°	481.0	523.5	584.8	653.2	724.8	796.4	862.2	892.8
10°	414.9	468.5	538.5	631.1	733.8	832.7	923.3	962.8
12.5°	352.0	408.2	485.5	596.3	726.7	853.6	962.5	1009.0
15°	299.3	349.1	432.6	555.2	704.0	854.8	981.1	1032.2
17.5°	259.8	292.2	378.6	509.6	674.0	843.0	987.5	1042.1
20°	240.3	249.2	308.6	451.2	646.2	831.8	993.9	1051.4
22.5°	228.7	230.9	252.5	375.8	612.7	828.2	1005.2	1064.3
25°	219.4	220.0	225.8	297.7	561.7	825.9	1022.5	1081.9
27.5°	210.0	210.0	213.2	239.8	492.3	816.3	1045.0	1103.1
30°	200.7	200.7	203.0	212.3	411.0	797.3	1071.9	1130.8
32.5°	191.1	191.1	193.0	199.8	328.2	773.7	1096.8	1158.7
35°	181.4	180.8	183.4	190.4	261.1	743.4	1121.5	1188.9
37.5°	171.2	170.9	173.4	181.4	225.4	708.5	1140.0	1230.0
40°	160.2	160.2	163.2	171.8	215.1	664.4	1169.6	1289.0
42.5°	150.3	149.6	152.8	163.5	207.5	622.4	1222.6	1375.1
45°	140.6	139.4	142.3	155.4	193.9	607.6	1321.5	1502.3
47.5°	131.7	128.4	131.0	145.8	181.7	662.9	1483.4	1678.6
50°	124.3	118.2	120.4	136.1	172.4	782.6	1693.4	1912.8
52.5°	116.5	108.5	109.9	124.3	164.1	896.7	1921.1	2221.7
55°	108.5	99.5	100.2	112.4	152.2	913.7	2143.3	2643.0
57.5°	99.5	91.2	91.2	101.5	143.5	791.9	2314.1	3165.8
60°	89.6	84.2	82.5	92.8	151.3	558.8	2334.0	3503.0
62.5°	78.7	75.7	73.5	84.5	157.0	331.1	2173.8	3421.4
65°	66.1	65.5	63.9	92.8	132.3	195.6	1866.1	3171.2
67.5°	55.6	54.6	54.6	97.3	100.6	123.0	1458.0	2827.1
70°	47.9	44.3	44.3	73.5	61.0	85.1	1018.0	2455.5
72.5°	40.2	36.3	33.7	58.7	45.6	62.3	636.2	2102.9
75°	32.1	29.2	26.0	38.8	34.0	47.3	369.6	1742.2
77.5°	23.2	21.8	18.3	28.6	24.7	34.0	220.0	1344.3
80°	11.9	12.2	11.6	16.4	16.7	23.2	125.3	920.0
82.5°	7.1	5.4	6.1	8.0	9.6	13.1	47.3	540.8
85°	4.5	2.9	2.9	3.9	4.8	5.1	14.5	219.4
87.5°	2.3	0.9	1.3	1.9	1.6	1.3	0.6	55.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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