

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: P959974

Luminaire Tested: **NAV-SB1B-830-U-SLL-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P959974
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-830-U-SLL-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 80 CRI, 3000K, 450mA LIGHTSQUARE WITH 26 LEDS AND SPILL LIGHT
ELIMINATOR LEFT OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

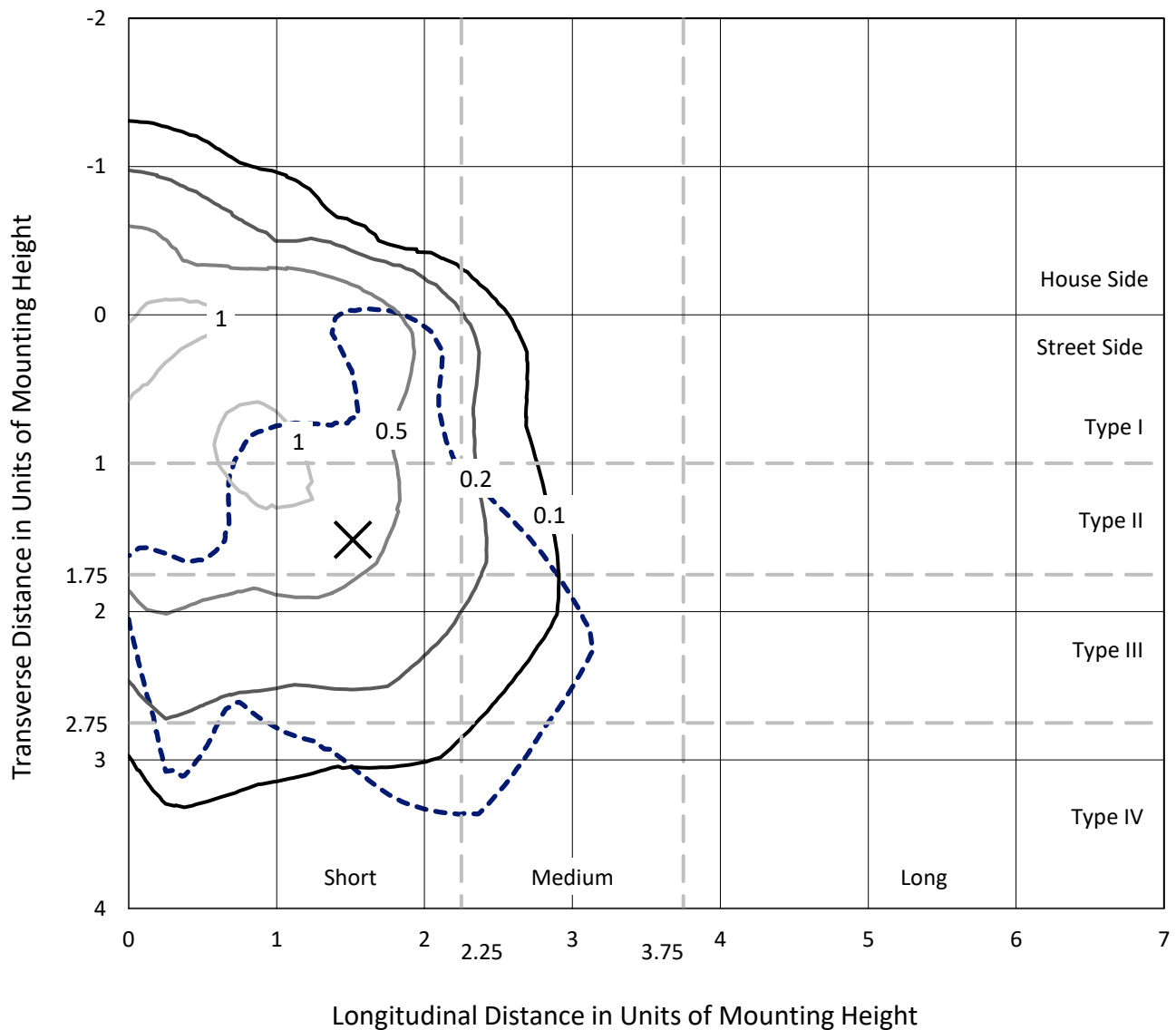
Lumens per Lamp: N/A
Luminaire Lumens: 3959.6 lumens
Efficiency: N/A
Efficacy: 99.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

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



Iso-Footcandle Lines of Horizontal Illumination

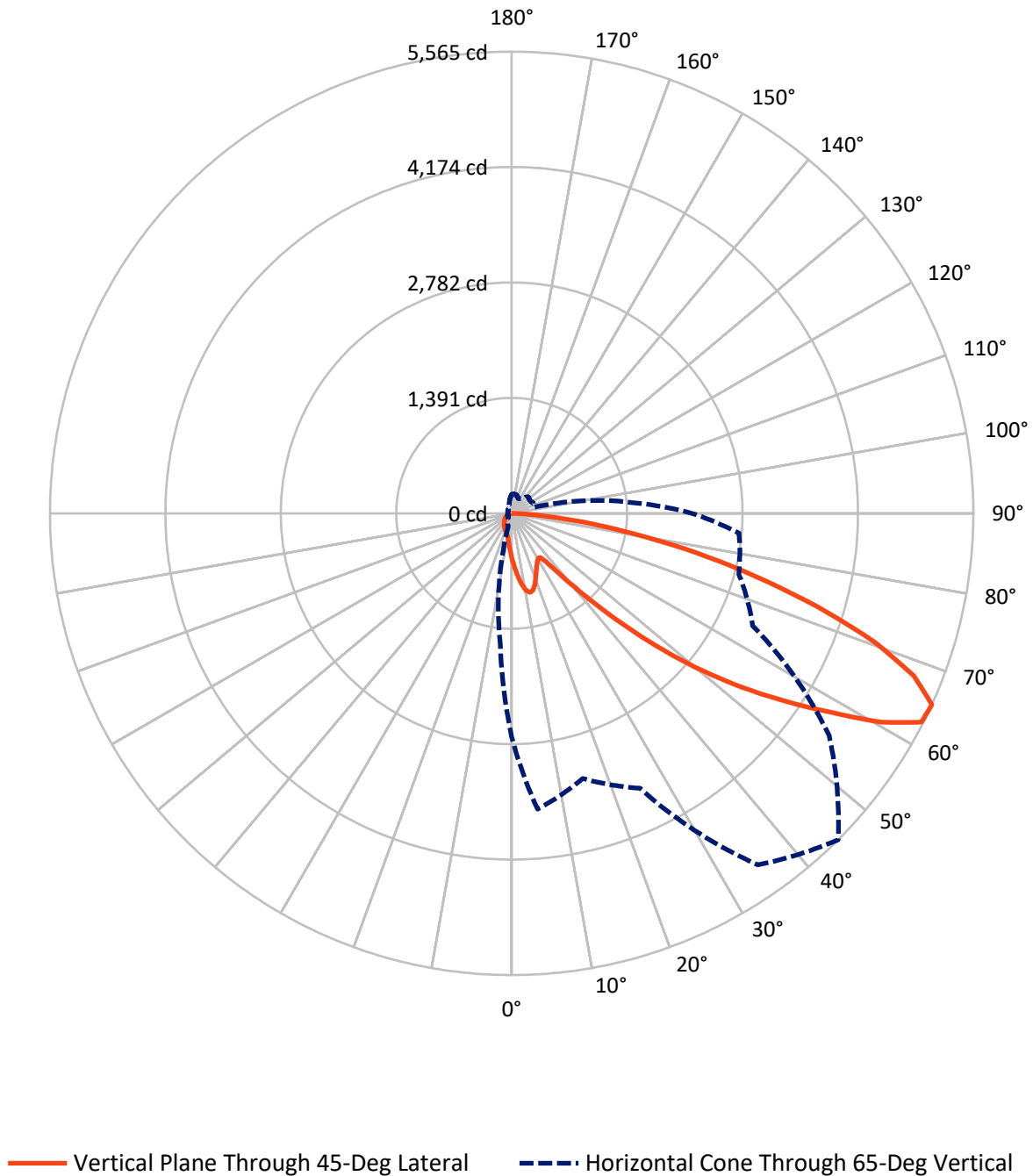
✕ Max cd
 --- 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.4 fc
Type IV - Short - N/A

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Luminous Intensity Polar Plot



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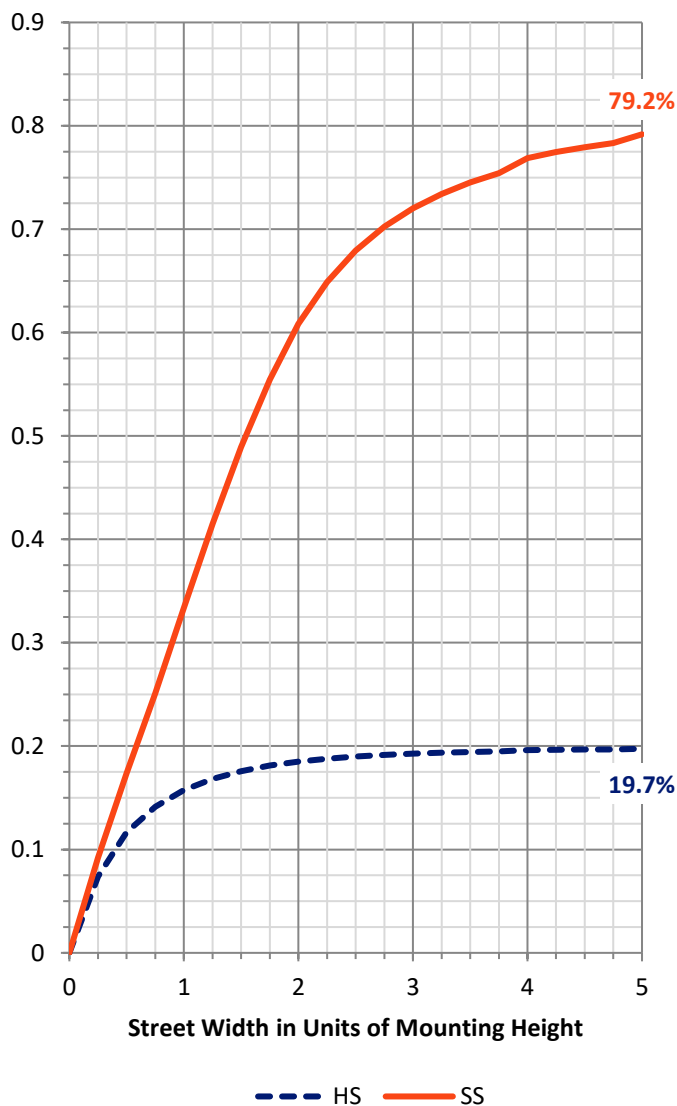
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	787.0	0.0	787.0
	% Fixture	19.9	0.0	19.9
Street Side	Lumens	3172.5	0.0	3172.5
	% Fixture	80.1	0.0	80.1
Total	Lumens	3959.6	0.0	3959.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.0	1.4
10°-20°	161.8	4.1
20°-30°	238.4	6.0
30°-40°	306.3	7.7
40°-50°	495.3	12.5
50°-60°	868.6	21.9
60°-70°	1086.8	27.4
70°-80°	635.1	16.0
80°-90°	113.3	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°	3959.6	100.0
0°-180°	3959.6	100.0

Coefficient of Utilization



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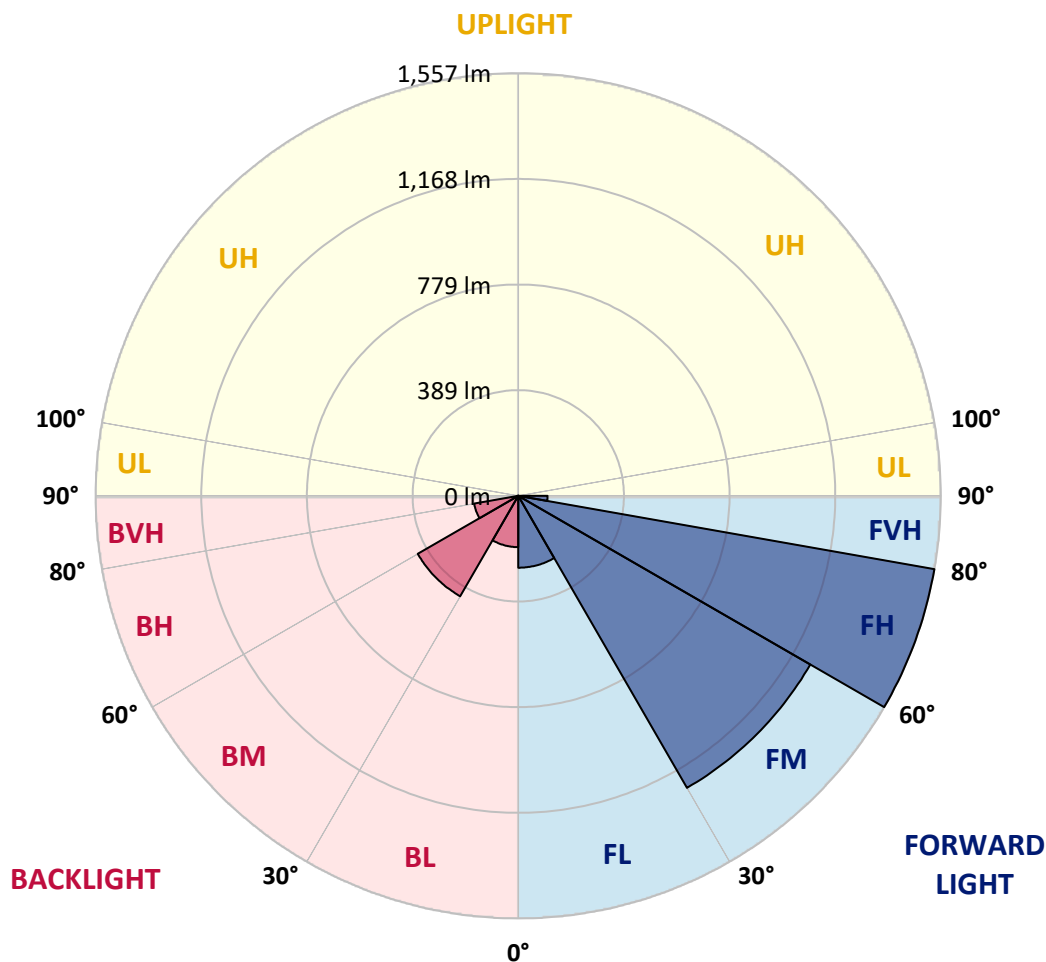
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	264.9	6.7			
FM	(30°-60°)	1242.6	31.4			
FH	(60°-80°)	1557.0	39.3			G1/1800
FVH	(80°-90°)	108.0	2.7			G2/225
BL	(0°-30°)	189.2	4.8	B1/500		
BM	(30°-60°)	427.6	10.8	B1/1000		
BH	(60°-80°)	164.9	4.2	B1/500		G1/500
BVH	(80°-90°)	5.3	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°	548.3	548.3	548.3	548.3	548.3	548.3	548.3	548.3	548.3	548.3	548.3
2.5°	614.3	618.9	629.2	634.8	643.2	643.7	643.7	636.4	636.1	621.2	619.5
5°	686.5	697.5	722.0	747.4	752.9	754.2	751.5	736.8	725.8	696.7	690.4
7.5°	758.3	779.3	816.7	850.5	861.4	861.4	854.8	830.9	808.5	766.2	750.4
10°	817.7	844.2	894.9	932.9	945.5	942.7	929.4	899.0	868.3	816.9	796.2
12.5°	857.1	886.8	942.4	973.0	985.8	978.7	963.4	934.0	901.5	847.5	824.0
15°	876.7	907.7	956.1	972.2	968.6	961.2	959.3	945.2	920.7	870.1	844.5
17.5°	885.2	914.1	947.6	937.6	907.5	901.8	920.9	938.9	932.9	889.8	865.8
20°	893.1	917.4	927.4	882.7	830.4	825.1	861.7	913.0	939.2	908.0	886.0
22.5°	903.9	919.0	898.2	824.8	768.4	756.4	796.7	873.9	941.1	931.2	909.2
25°	919.0	923.1	866.0	770.1	713.3	701.3	738.9	830.6	937.8	956.3	937.6
27.5°	937.0	928.5	835.3	724.2	669.4	658.2	695.9	788.8	928.5	981.4	968.1
30°	960.4	935.6	804.7	688.8	638.1	629.9	666.1	752.9	917.1	1013.3	1006.0
32.5°	984.2	938.6	776.3	668.0	630.9	634.0	663.7	733.5	904.6	1043.9	1047.4
35°	1009.8	948.1	762.4	688.5	690.1	716.3	728.6	751.5	902.6	1085.4	1099.3
37.5°	1044.7	969.4	779.0	790.3	847.0	901.3	891.1	839.6	924.7	1147.3	1173.2
40°	1094.9	1006.9	851.6	963.4	1079.9	1168.0	1129.6	999.7	992.3	1236.5	1275.2
42.5°	1168.0	1066.3	980.3	1175.1	1372.6	1517.7	1414.6	1206.2	1110.7	1363.9	1413.3
45°	1276.0	1162.6	1136.1	1398.5	1733.5	1962.1	1747.6	1426.3	1276.5	1556.7	1595.4
47.5°	1425.8	1304.1	1282.1	1634.0	2172.1	2467.8	2117.0	1630.4	1465.3	1819.7	1828.7
50°	1624.6	1494.8	1420.3	1891.4	2653.0	2983.4	2486.0	1827.3	1681.6	2141.0	2130.7
52.5°	1887.0	1760.7	1581.6	2136.6	3147.6	3488.0	2856.8	2000.3	1950.1	2513.9	2492.6
55°	2245.0	2160.9	1802.0	2370.7	3641.8	3995.6	3213.0	2163.4	2304.7	2956.8	2828.1
57.5°	2689.0	2749.0	2119.7	2642.0	4086.2	4518.7	3570.9	2391.4	2765.1	3452.2	3022.8
60°	2975.4	3531.0	2728.2	3043.3	4591.1	5110.4	4061.4	2825.1	3249.0	3629.8	2985.8
62.5°	2906.1	3779.8	3457.1	3555.6	5055.3	5540.5	4542.0	3260.7	3340.1	3368.3	2700.0
65°	2693.6	3579.1	3308.5	3655.2	5172.9	5564.8	4670.4	3204.6	2833.3	2749.9	2170.2
67.5°	2401.3	3340.9	2955.2	3391.1	4960.4	5225.6	4431.2	2834.6	2189.5	2063.5	1574.4
70°	2085.7	3077.5	2723.3	3094.9	4555.3	4634.1	4024.5	2493.1	1610.5	1393.6	1010.3
72.5°	1786.2	2803.1	2564.7	2791.3	4014.9	3851.8	3495.0	2191.1	1172.7	1005.2	718.2
75°	1479.8	2398.2	2338.4	2430.7	3304.4	3034.1	2903.9	1814.2	920.3	727.2	495.6
77.5°	1141.8	1873.9	2011.5	1946.5	2325.9	2253.7	2250.9	1363.4	672.4	485.2	310.7
80°	781.5	1306.1	1571.4	1373.1	1509.5	1472.7	1695.2	914.6	487.7	292.1	172.9
82.5°	459.3	795.1	1093.8	664.7	834.7	856.8	1009.5	444.8	287.0	67.3	37.6
85°	186.3	314.0	427.7	260.2	402.6	339.6	383.2	124.9	79.9	1.6	0.0
87.5°	46.9	100.3	70.4	29.2	46.6	42.8	33.8	15.3	3.3	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°	548.3	548.3	548.3	548.3	548.3	548.3	548.3	548.3	548.3	548.3	548.3
2.5°	608.8	602.6	587.0	571.4	558.9	542.0	530.8	517.4	504.6	493.1	491.0
5°	673.2	652.5	624.1	598.2	571.7	546.1	520.7	493.9	469.4	454.5	444.8
7.5°	725.6	689.0	651.4	618.4	586.5	556.5	523.0	490.5	452.0	431.5	413.0
10°	764.5	716.6	667.2	629.2	597.1	568.0	539.6	506.9	460.4	434.8	407.0
12.5°	790.3	733.2	675.4	632.0	596.0	573.4	560.8	548.0	501.9	471.9	431.5
15°	807.9	745.0	681.1	625.8	581.6	564.9	577.5	592.1	562.7	528.1	475.4
17.5°	827.3	760.2	683.6	608.8	553.5	546.3	578.8	612.9	611.5	577.2	525.6
20°	847.8	773.6	681.9	581.6	519.4	525.6	567.1	606.7	623.3	604.8	558.9
22.5°	868.8	786.4	675.7	546.1	487.5	507.1	548.6	583.2	602.8	597.1	562.2
25°	895.2	804.4	666.4	507.9	460.9	488.3	527.0	555.1	568.8	568.5	544.5
27.5°	926.9	828.4	661.4	477.0	442.2	467.0	501.3	526.4	536.0	536.0	516.9
30°	963.7	856.8	656.0	456.9	431.2	444.8	471.6	496.2	505.7	505.7	489.6
32.5°	1004.6	884.1	642.9	444.6	423.1	423.3	440.2	462.6	474.1	475.7	464.2
35°	1053.7	913.3	614.3	434.8	413.5	402.3	410.5	429.1	442.7	446.3	439.2
37.5°	1118.1	948.9	573.4	420.4	398.8	380.3	382.1	396.4	411.3	416.8	412.2
40°	1204.6	991.0	530.8	399.6	378.0	356.0	355.2	365.5	380.3	386.2	383.8
42.5°	1318.9	1041.4	490.2	379.7	353.0	330.4	328.9	337.1	349.9	356.3	355.2
45°	1465.0	1103.4	455.3	364.2	328.4	306.1	305.6	312.3	323.5	330.0	328.7
47.5°	1668.3	1165.3	431.5	356.0	309.0	286.2	287.2	293.3	303.3	307.9	306.1
50°	1933.2	1184.1	419.5	356.0	298.7	268.4	273.9	278.8	286.4	289.2	286.7
52.5°	2187.4	1122.0	408.6	358.1	300.0	253.4	265.2	268.7	275.2	276.3	272.8
55°	2312.0	964.5	393.6	358.6	308.5	240.6	258.0	264.6	267.0	266.8	260.8
57.5°	2269.2	779.8	368.3	356.5	314.3	232.4	249.3	261.9	263.5	261.1	249.9
60°	2118.9	574.2	348.9	340.4	312.0	229.9	236.0	255.8	258.3	255.0	236.8
62.5°	1866.8	398.5	333.8	304.9	302.5	229.1	214.9	242.7	248.8	244.2	217.4
65°	1469.7	281.5	287.5	267.3	281.8	224.8	193.1	226.9	235.1	228.1	190.4
67.5°	994.6	203.3	233.0	242.2	248.3	214.9	177.3	208.9	219.9	210.5	159.0
70°	537.1	142.7	153.9	204.1	210.8	198.0	163.1	190.6	203.3	193.1	129.6
72.5°	317.2	102.6	107.7	163.9	175.7	174.4	147.3	169.4	184.7	172.7	105.3
75°	174.9	69.3	76.9	118.9	142.7	134.5	126.6	143.5	159.0	147.3	81.3
77.5°	78.3	41.5	53.5	78.0	112.1	92.1	97.9	111.8	126.3	114.0	54.3
80°	30.2	23.2	35.5	42.5	81.6	51.0	63.0	82.4	92.8	82.9	33.0
82.5°	3.8	10.4	15.3	16.6	47.5	27.0	36.6	51.9	51.0	44.2	16.6
85°	0.0	1.9	2.2	1.1	20.5	9.8	12.0	16.9	15.8	12.0	1.3
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°	548.3	548.3	548.3	548.3	548.3	548.3	548.3	548.3	548.3	548.3	548.3
2.5°	477.6	467.8	462.9	458.8	462.6	464.8	464.8	474.1	479.5	481.7	497.0
5°	420.9	402.6	390.3	382.9	385.4	388.2	391.1	402.9	410.8	415.9	439.7
7.5°	376.2	348.3	331.2	322.2	323.5	325.4	327.9	339.4	347.3	354.0	380.5
10°	354.0	314.8	292.1	281.3	279.3	278.2	277.4	284.2	290.3	295.7	321.8
12.5°	355.2	300.3	272.8	259.4	253.7	247.1	241.9	243.0	246.8	253.7	270.3
15°	369.1	295.7	262.7	246.0	236.5	228.9	222.6	221.2	222.6	223.7	234.0
17.5°	387.9	295.1	254.0	233.2	223.4	217.1	211.4	209.5	209.7	211.2	213.8
20°	402.9	293.5	244.2	221.0	212.2	206.7	201.0	199.2	199.7	200.0	203.0
22.5°	410.8	291.1	233.2	208.7	201.3	195.9	190.6	190.4	190.4	192.0	194.2
25°	410.8	285.9	223.4	196.9	190.4	185.5	179.2	180.3	180.8	183.1	186.3
27.5°	401.0	276.0	215.5	186.9	180.0	175.1	169.4	170.8	171.6	174.0	178.1
30°	388.5	264.3	206.5	177.3	169.4	165.8	160.9	161.4	162.6	165.3	169.9
32.5°	375.0	250.4	199.2	167.8	159.8	157.1	151.7	152.5	153.5	156.6	161.7
35°	360.3	234.0	190.4	159.0	151.1	148.9	142.7	143.2	144.8	148.1	153.3
37.5°	344.8	220.7	181.6	150.6	142.4	140.2	133.7	134.2	136.1	139.9	144.8
40°	329.5	207.6	172.4	141.6	133.4	131.5	124.4	124.9	127.1	131.2	136.4
42.5°	312.8	197.5	160.4	132.3	123.6	121.7	115.1	115.9	118.4	122.5	127.6
45°	292.9	191.0	147.0	123.6	113.8	111.8	105.9	107.5	110.2	114.3	119.7
47.5°	272.5	188.2	135.8	114.3	103.6	102.0	97.1	99.8	102.8	106.1	112.1
50°	252.9	184.7	124.4	105.6	94.9	93.3	90.0	93.6	96.6	99.5	105.3
52.5°	230.5	177.0	114.0	97.9	87.5	87.0	85.4	88.7	91.4	94.1	99.0
55°	207.4	164.7	105.1	91.1	81.3	81.8	81.0	83.7	85.9	88.4	92.8
57.5°	187.2	149.2	97.9	83.7	75.8	77.5	76.4	77.7	79.1	82.1	85.7
60°	166.7	130.7	90.0	75.0	70.4	72.3	69.3	69.0	69.6	70.4	76.9
62.5°	139.1	111.3	80.2	67.3	64.4	65.2	59.4	55.1	55.1	56.0	65.7
65°	111.8	93.3	69.3	58.6	56.2	55.7	47.5	41.5	40.9	43.4	51.9
67.5°	91.9	77.5	58.3	48.8	47.2	47.8	41.7	35.8	35.2	37.9	44.2
70°	76.1	62.4	46.6	37.6	39.3	41.7	35.8	30.0	29.2	31.7	37.6
72.5°	60.6	48.8	35.8	27.8	32.5	35.5	29.2	23.8	23.2	25.3	31.1
75°	44.5	35.0	24.3	20.2	25.1	27.8	21.3	16.9	16.1	18.0	23.8
77.5°	27.6	19.7	15.3	12.0	17.2	18.6	11.2	9.8	9.5	10.9	15.0
80°	12.8	8.4	7.4	4.1	6.3	7.4	4.6	5.2	5.4	6.6	9.2
82.5°	3.6	1.3	0.3	0.0	0.0	2.2	1.1	2.2	2.8	4.1	6.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	1.3	2.5	4.4
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	2.2
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°	548.3	548.3	548.3	548.3	548.3	548.3	548.3	548.3
2.5°	508.4	519.4	536.8	554.8	572.6	590.6	608.0	614.3
5°	461.2	486.4	521.0	558.1	596.2	635.0	670.5	686.5
7.5°	408.6	444.6	496.7	554.8	615.6	676.5	732.4	758.3
10°	352.4	398.0	457.5	536.0	623.3	707.4	784.2	817.7
12.5°	299.0	346.7	412.5	506.6	617.3	725.0	817.5	857.1
15°	254.2	296.5	367.5	471.6	597.9	726.1	833.3	876.7
17.5°	220.7	248.3	321.6	432.9	572.6	716.1	838.8	885.2
20°	204.1	211.7	262.1	383.2	548.8	706.5	844.2	893.1
22.5°	194.2	196.1	214.4	319.2	520.5	703.5	853.8	903.9
25°	186.3	186.9	191.8	252.9	477.0	701.6	868.5	919.0
27.5°	178.4	178.4	181.1	203.8	418.2	693.4	887.6	937.0
30°	170.5	170.5	172.4	180.3	349.1	677.3	910.5	960.4
32.5°	162.3	162.3	163.9	169.6	278.8	657.1	931.5	984.2
35°	154.2	153.5	155.8	161.7	221.8	631.5	952.5	1009.8
37.5°	145.3	145.1	147.3	154.2	191.5	601.8	968.3	1044.7
40°	136.1	136.1	138.6	146.0	182.8	564.4	993.4	1094.9
42.5°	127.6	127.1	129.9	138.9	176.2	528.6	1038.4	1168.0
45°	119.5	118.4	120.8	132.0	164.7	516.1	1122.5	1276.0
47.5°	111.8	109.1	111.3	123.8	154.4	563.0	1259.9	1425.8
50°	105.6	100.3	102.3	115.6	146.5	664.7	1438.4	1624.6
52.5°	99.0	92.1	93.3	105.6	139.4	761.6	1631.7	1887.0
55°	92.1	84.6	85.1	95.4	129.3	776.0	1820.5	2245.0
57.5°	84.6	77.5	77.5	86.2	122.0	672.7	1965.6	2689.0
60°	76.1	71.4	70.1	78.8	128.4	474.6	1982.6	2975.4
62.5°	66.8	64.4	62.4	71.8	133.4	281.3	1846.4	2906.1
65°	56.2	55.7	54.3	78.8	112.3	166.2	1585.1	2693.6
67.5°	47.2	46.3	46.3	82.6	85.4	104.4	1238.4	2401.3
70°	40.7	37.6	37.6	62.4	51.9	72.3	864.7	2085.7
72.5°	34.1	30.9	28.6	49.9	38.7	52.9	540.4	1786.2
75°	27.3	24.8	22.1	33.0	28.9	40.1	314.0	1479.8
77.5°	19.7	18.6	15.6	24.3	21.0	28.9	186.9	1141.8
80°	10.0	10.4	9.8	13.9	14.1	19.7	106.4	781.5
82.5°	6.0	4.6	5.2	6.9	8.2	11.2	40.1	459.3
85°	3.8	2.5	2.5	3.3	4.1	4.4	12.3	186.3
87.5°	1.9	0.8	1.1	1.6	1.3	1.1	0.5	46.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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