

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: P961524

Luminaire Tested: **NAV-SB2A-827-U-SLL-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P961524
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-SB2A-827-U-SLL-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 CRI, 2700K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND SPILL LIGHT
ELIMINATOR LEFT OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6101.8 lumens
Efficiency: N/A
Efficacy: 106.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

Input Watts (W): 57.3
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



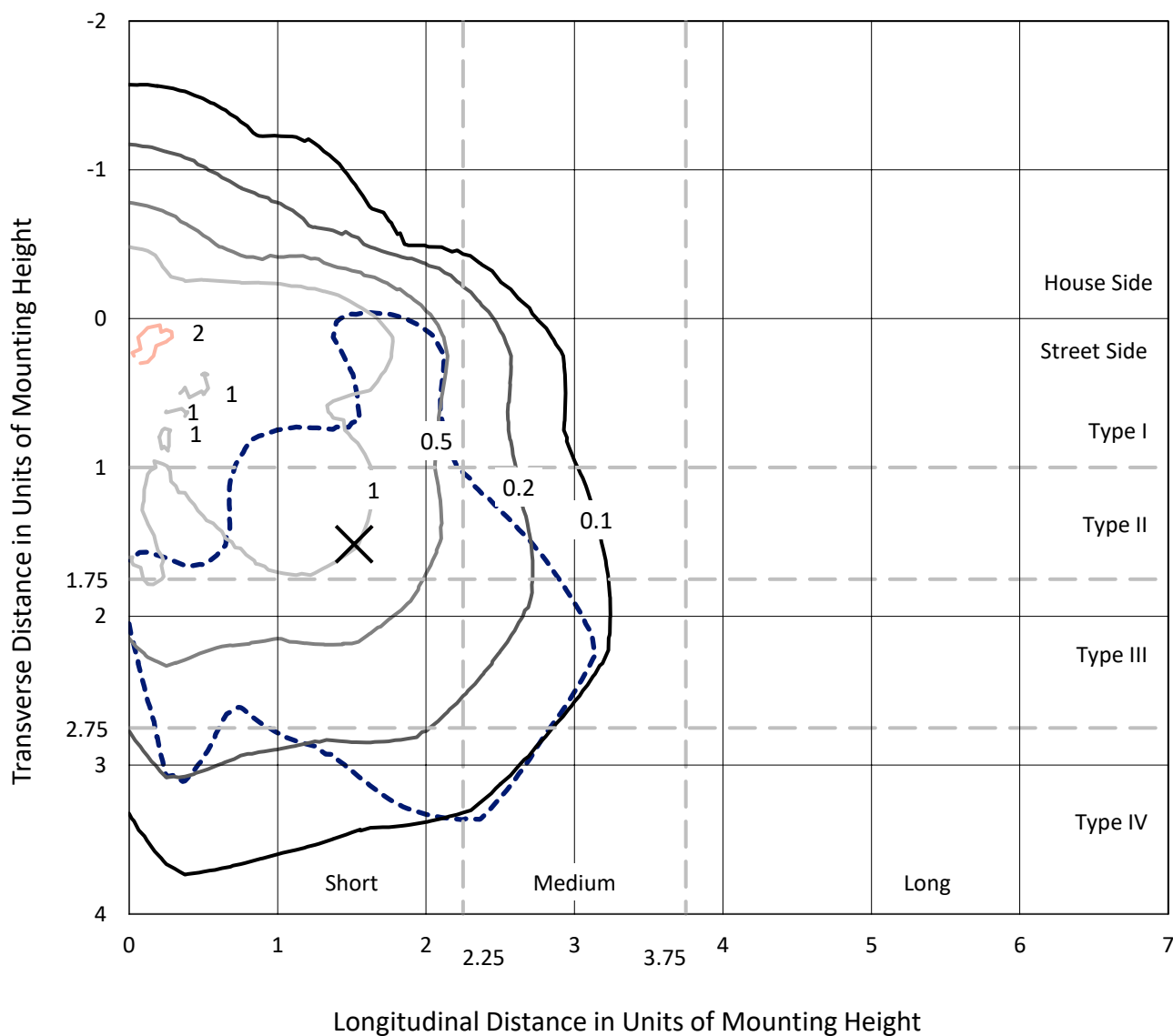
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

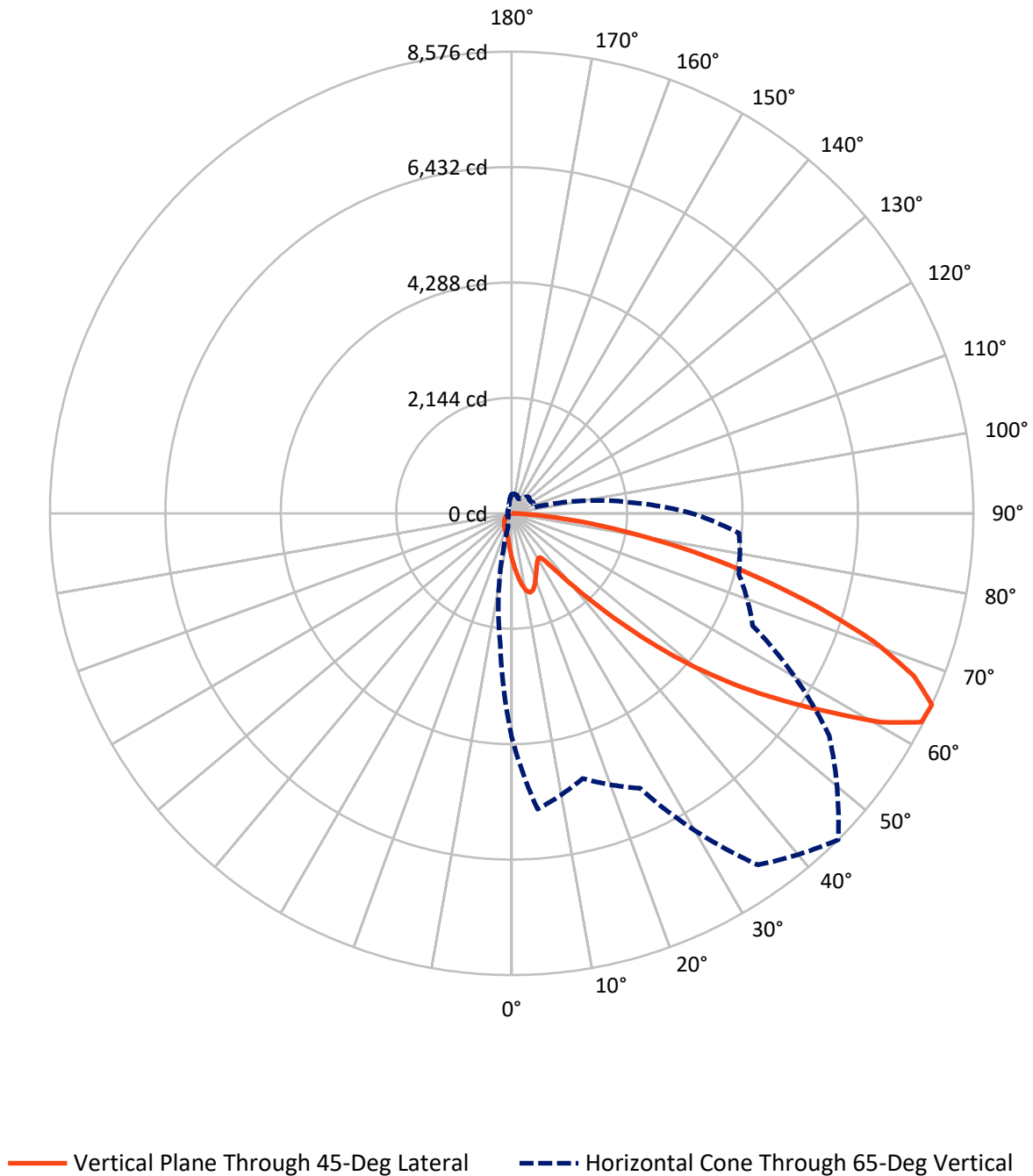


Based on 25 foot mounting height. Maximum calculated value = 2.2 fc

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	1212.9	0.0	1212.9
	% Fixture	19.9	0.0	19.9
Street Side	Lumens	4889.0	0.0	4889.0
	% Fixture	80.1	0.0	80.1
Total	Lumens	6101.8	0.0	6101.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.2	1.4
10°-20°	249.4	4.1
20°-30°	367.4	6.0
30°-40°	472.0	7.7
40°-50°	763.3	12.5
50°-60°	1338.5	21.9
60°-70°	1674.8	27.4
70°-80°	978.7	16.0
80°-90°	174.6	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°	6101.8	100.0
0°-180°	6101.8	100.0

Coefficient of Utilization



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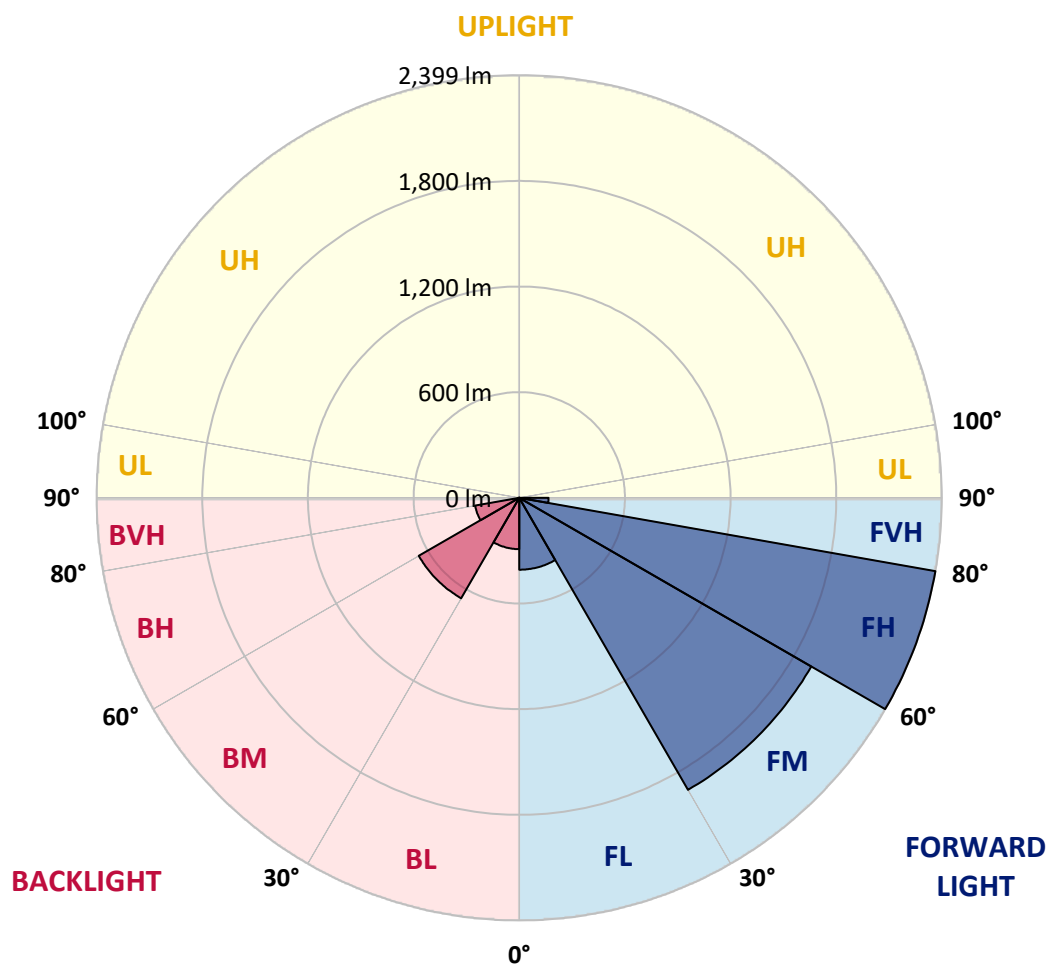
CATALOG NUMBER: NAV-SB2A-827-U-SLL-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	408.3	6.7			
FM	(30°-60°)	1914.8	31.4			
FH	(60°-80°)	2399.4	39.3			G2/5000
FVH	(80°-90°)	166.4	2.7			G2/225
BL	(0°-30°)	291.6	4.8	B1/500		
BM	(30°-60°)	658.9	10.8	B1/1000		
BH	(60°-80°)	254.1	4.2	B1/500		G1/500
BVH	(80°-90°)	8.2	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°	844.9	844.9	844.9	844.9	844.9	844.9	844.9	844.9	844.9	844.9	844.9
2.5°	946.6	953.8	969.8	978.2	991.2	992.0	992.0	980.7	980.3	957.1	954.6
5°	1058.0	1074.8	1112.6	1151.8	1160.2	1162.2	1158.0	1135.4	1118.6	1073.6	1063.9
7.5°	1168.6	1201.0	1258.5	1310.7	1327.5	1327.5	1317.4	1280.4	1245.9	1180.8	1156.4
10°	1260.2	1301.0	1379.1	1437.6	1456.9	1452.7	1432.1	1385.5	1337.9	1258.9	1227.0
12.5°	1320.7	1366.5	1452.3	1499.4	1519.2	1508.2	1484.7	1439.3	1389.3	1306.1	1269.9
15°	1351.1	1398.9	1473.3	1498.1	1492.7	1481.3	1478.4	1456.5	1418.7	1340.9	1301.4
17.5°	1364.1	1408.6	1460.3	1444.7	1398.5	1389.7	1419.1	1446.9	1437.6	1371.1	1334.2
20°	1376.3	1413.7	1429.2	1360.3	1279.5	1271.6	1327.9	1406.9	1447.3	1399.3	1365.3
22.5°	1393.1	1416.1	1384.3	1271.1	1184.2	1165.6	1227.8	1346.8	1450.2	1435.1	1401.1
25°	1416.1	1422.5	1334.7	1186.6	1099.2	1080.8	1138.8	1280.0	1445.1	1473.7	1444.7
27.5°	1443.9	1430.9	1287.1	1116.0	1031.6	1014.3	1072.4	1215.6	1430.9	1512.4	1491.8
30°	1480.1	1441.8	1240.0	1061.4	983.2	970.6	1026.5	1160.2	1413.3	1561.6	1550.2
32.5°	1516.6	1446.5	1196.3	1029.4	972.3	976.9	1022.7	1130.4	1393.9	1608.7	1614.2
35°	1556.2	1461.1	1174.9	1061.0	1063.5	1103.8	1122.8	1158.0	1390.9	1672.6	1694.0
37.5°	1610.0	1493.9	1200.5	1217.8	1305.2	1388.9	1373.3	1293.9	1425.0	1768.0	1807.9
40°	1687.3	1551.5	1312.3	1484.7	1664.2	1799.9	1740.7	1540.6	1529.2	1905.5	1965.1
42.5°	1799.9	1643.2	1510.7	1810.9	2115.2	2338.8	2180.0	1858.8	1711.6	2101.8	2177.8
45°	1966.4	1791.5	1750.8	2155.2	2671.4	3023.5	2693.2	2198.0	1967.3	2398.9	2458.7
47.5°	2197.2	2009.7	1975.7	2517.9	3347.2	3803.0	3262.4	2512.5	2258.2	2804.2	2818.0
50°	2503.7	2303.5	2188.8	2914.7	4088.3	4597.4	3831.0	2816.0	2591.5	3299.4	3283.4
52.5°	2908.0	2713.4	2437.2	3292.6	4850.4	5375.0	4402.4	3082.5	3005.1	3874.0	3841.2
55°	3459.5	3330.0	2776.8	3653.3	5612.1	6157.3	4951.4	3333.8	3551.5	4556.6	4358.2
57.5°	4143.9	4236.3	3266.6	4071.5	6296.9	6963.5	5502.8	3685.2	4261.1	5320.0	4658.3
60°	4585.2	5441.4	4204.3	4689.9	7075.0	7875.3	6258.6	4353.6	5006.8	5593.6	4601.1
62.5°	4478.4	5824.8	5327.5	5479.2	7790.4	8538.1	6999.3	5024.9	5147.2	5190.5	4160.7
65°	4150.9	5515.4	5098.5	5632.7	7971.5	8575.6	7197.2	4938.2	4366.2	4237.6	3344.4
67.5°	3700.4	5148.5	4554.1	5225.9	7644.1	8052.7	6828.7	4368.3	3374.2	3180.0	2426.3
70°	3214.0	4742.4	4196.8	4769.3	7019.9	7141.4	6201.9	3842.0	2481.7	2147.6	1557.0
72.5°	2752.4	4319.6	3952.2	4301.4	6187.2	5935.8	5386.0	3376.7	1807.1	1549.0	1106.8
75°	2280.4	3695.7	3603.7	3745.8	5092.1	4675.5	4475.0	2795.8	1418.3	1120.6	763.8
77.5°	1759.6	2887.8	3099.7	2999.7	3584.3	3472.9	3468.7	2100.9	1036.2	747.8	478.8
80°	1204.3	2012.7	2421.7	2116.0	2326.2	2269.5	2612.5	1409.5	751.6	450.2	266.5
82.5°	707.9	1225.3	1685.6	1024.4	1286.3	1320.3	1555.7	685.6	442.2	103.8	58.0
85°	287.1	483.8	659.1	401.0	620.4	523.4	590.6	192.5	123.2	2.6	0.0
87.5°	72.3	154.7	108.4	45.0	71.9	66.0	52.2	23.6	5.0	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°	844.9	844.9	844.9	844.9	844.9	844.9	844.9	844.9	844.9	844.9	844.9
2.5°	938.2	928.5	904.6	880.7	861.3	835.3	818.1	797.4	777.7	760.0	756.7
5°	1037.4	1005.5	961.8	921.8	881.1	841.5	802.5	761.3	723.4	700.3	685.6
7.5°	1118.2	1061.8	1003.8	952.9	903.7	857.5	805.9	755.8	696.5	665.0	636.4
10°	1178.2	1104.2	1028.2	969.8	920.1	875.1	831.5	781.0	709.5	670.0	627.2
12.5°	1217.8	1129.9	1040.8	974.0	918.5	883.6	864.3	844.5	773.5	727.2	665.0
15°	1245.1	1148.0	1049.6	964.3	896.2	870.5	889.9	912.6	867.2	813.8	732.7
17.5°	1274.9	1171.5	1053.4	938.2	852.9	841.9	892.0	944.5	942.4	889.5	810.1
20°	1306.5	1192.1	1050.8	896.2	800.3	810.1	873.9	934.9	960.5	931.9	861.3
22.5°	1338.9	1211.9	1041.2	841.5	751.1	781.5	845.3	898.7	929.0	920.1	866.3
25°	1379.5	1239.6	1026.9	782.7	710.4	752.5	812.1	855.5	876.5	876.0	839.1
27.5°	1428.3	1276.6	1019.4	735.2	681.4	719.7	772.6	811.3	825.9	825.9	796.5
30°	1485.1	1320.3	1011.0	704.1	664.6	685.6	726.8	764.6	779.3	779.3	754.5
32.5°	1548.2	1362.3	990.8	685.2	652.0	652.4	678.4	712.9	730.6	733.1	715.4
35°	1623.8	1407.3	946.6	670.0	637.2	620.0	632.6	661.2	682.2	687.7	676.8
37.5°	1723.0	1462.4	883.6	647.8	614.6	586.0	588.9	610.8	633.9	642.3	635.2
40°	1856.3	1527.1	818.1	615.8	582.6	548.6	547.2	563.2	586.0	595.2	591.4
42.5°	2032.4	1604.9	755.3	585.2	544.0	509.0	507.0	519.6	539.4	549.0	547.2
45°	2257.7	1700.4	701.6	561.2	506.1	471.6	470.8	481.3	498.6	508.6	506.6
47.5°	2570.9	1795.7	665.0	548.6	476.2	441.0	442.6	451.9	467.4	474.6	471.6
50°	2979.1	1824.7	646.5	548.6	460.3	413.6	422.0	429.6	441.4	445.6	441.8
52.5°	3370.8	1728.9	629.7	552.0	462.4	390.5	408.6	414.0	424.1	425.8	420.4
55°	3562.9	1486.4	606.6	552.8	475.4	370.7	397.7	407.7	411.5	411.1	401.9
57.5°	3496.9	1201.8	567.4	549.4	484.2	358.1	384.2	403.5	406.1	402.3	385.1
60°	3265.3	884.9	537.6	524.6	480.9	354.3	363.6	394.3	398.1	393.0	364.9
62.5°	2876.9	614.2	514.6	470.0	466.2	353.1	331.3	374.1	383.3	376.2	335.0
65°	2264.8	433.8	443.0	411.9	434.2	346.3	297.7	349.7	362.3	351.4	293.4
67.5°	1532.6	313.1	359.0	373.3	382.5	331.3	273.3	322.0	338.8	324.5	245.1
70°	827.7	219.9	237.1	314.5	324.9	305.1	251.3	293.9	313.1	297.7	199.7
72.5°	488.8	158.1	166.0	252.7	270.7	268.7	227.0	261.1	284.5	266.1	162.3
75°	269.5	106.8	118.5	183.3	219.9	207.3	195.1	221.1	245.1	227.0	125.3
77.5°	120.6	63.9	82.4	120.2	172.8	142.1	150.9	172.3	194.6	175.7	83.6
80°	46.6	35.8	54.6	65.6	125.7	78.6	97.1	127.0	142.9	127.8	50.8
82.5°	5.8	16.0	23.6	25.6	73.2	41.6	56.4	79.8	78.6	68.1	25.6
85°	0.0	3.0	3.4	1.6	31.6	15.2	18.4	26.0	24.4	18.4	2.2
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	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°	844.9	844.9	844.9	844.9	844.9	844.9	844.9	844.9	844.9	844.9	844.9
2.5°	736.1	720.9	713.3	707.0	712.9	716.3	716.3	730.6	739.0	742.3	765.9
5°	648.6	620.4	601.6	590.2	594.0	598.2	602.8	620.8	633.0	641.0	677.6
7.5°	579.6	536.8	510.3	496.4	498.6	501.4	505.2	523.0	535.2	545.6	586.4
10°	545.6	485.1	450.2	433.4	430.4	428.8	427.5	438.0	447.2	455.6	496.0
12.5°	547.2	462.8	420.4	399.7	390.9	380.9	372.9	374.5	380.4	390.9	416.6
15°	568.8	455.6	404.8	379.1	364.5	352.7	343.0	340.9	343.0	344.7	360.7
17.5°	597.8	454.8	391.3	359.4	344.3	334.6	325.7	322.9	323.3	325.3	329.5
20°	620.8	452.3	376.2	340.5	327.1	318.7	309.8	306.9	307.7	308.1	312.7
22.5°	633.0	448.5	359.4	321.5	310.3	301.9	293.9	293.4	293.4	295.9	299.3
25°	633.0	440.5	344.3	303.5	293.4	285.9	276.1	277.9	278.7	282.1	287.1
27.5°	617.9	425.4	332.1	287.9	277.5	269.9	261.1	263.1	264.4	268.1	274.5
30°	598.6	407.3	318.2	273.3	261.1	255.5	248.0	248.9	250.5	254.7	261.9
32.5°	578.0	385.9	306.9	258.5	246.3	242.1	233.7	234.9	236.7	241.3	249.3
35°	555.2	360.7	293.4	245.1	232.9	229.5	219.9	220.7	223.2	228.3	236.3
37.5°	531.4	340.1	279.9	232.1	219.5	216.1	205.9	206.8	209.7	215.7	223.2
40°	507.8	319.9	265.7	218.1	205.5	202.6	191.7	192.5	195.9	202.2	210.1
42.5°	482.2	304.3	247.1	203.9	190.4	187.5	177.4	178.7	182.4	188.7	196.7
45°	451.4	294.3	226.5	190.4	175.3	172.3	163.1	165.6	169.8	176.1	184.5
47.5°	419.9	290.1	209.3	176.1	159.7	157.2	149.6	153.9	158.5	163.5	172.8
50°	389.7	284.5	191.7	162.7	146.3	143.8	138.7	144.2	148.8	153.4	162.3
52.5°	355.2	272.9	175.7	150.9	134.9	134.1	131.6	136.6	140.8	145.0	152.6
55°	319.5	253.9	161.8	140.4	125.3	126.1	124.8	129.0	132.4	136.2	142.9
57.5°	288.3	229.9	150.9	129.0	116.8	119.4	117.7	119.8	121.9	126.5	132.0
60°	256.9	201.3	138.7	115.6	108.4	111.4	106.8	106.4	107.2	108.4	118.5
62.5°	214.4	171.5	123.6	103.8	99.2	100.4	91.6	84.9	84.9	86.2	101.3
65°	172.3	143.8	106.8	90.4	86.6	85.8	73.2	63.9	63.0	66.8	79.8
67.5°	141.7	119.4	90.0	75.2	72.7	73.6	64.3	55.0	54.2	58.4	68.1
70°	117.3	96.2	71.9	58.0	60.6	64.3	55.0	46.2	45.0	48.8	58.0
72.5°	93.3	75.2	55.0	42.8	50.0	54.6	45.0	36.6	35.8	39.1	48.0
75°	68.5	53.8	37.4	31.1	38.6	42.8	32.8	26.0	24.8	27.8	36.6
77.5°	42.4	30.2	23.6	18.4	26.4	28.6	17.2	15.2	14.8	16.8	23.2
80°	19.8	13.0	11.4	6.4	9.6	11.4	7.2	8.0	8.4	10.0	14.2
82.5°	5.4	2.2	0.4	0.0	0.0	3.4	1.6	3.4	4.2	6.4	9.2
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	2.2	3.8	6.8
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	3.4
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°	844.9	844.9	844.9	844.9	844.9	844.9	844.9	844.9
2.5°	783.5	800.3	827.3	855.0	882.3	910.1	937.0	946.6
5°	710.8	749.5	802.9	860.1	918.9	978.6	1033.2	1058.0
7.5°	629.7	685.2	765.5	855.0	948.7	1042.4	1128.6	1168.6
10°	543.0	613.3	704.9	825.9	960.5	1090.0	1208.5	1260.2
12.5°	460.7	534.2	635.6	780.6	951.3	1117.2	1259.8	1320.7
15°	391.8	456.9	566.2	726.8	921.4	1119.0	1284.2	1351.1
17.5°	340.1	382.5	495.6	667.1	882.3	1103.4	1292.6	1364.1
20°	314.5	326.2	404.0	590.6	845.7	1088.8	1301.0	1376.3
22.5°	299.3	302.3	330.4	491.8	802.1	1084.0	1315.7	1393.1
25°	287.1	287.9	295.5	389.7	735.2	1081.2	1338.4	1416.1
27.5°	274.9	274.9	279.1	314.0	644.4	1068.6	1367.9	1443.9
30°	262.7	262.7	265.7	277.9	538.0	1043.8	1403.1	1480.1
32.5°	250.1	250.1	252.7	261.5	429.6	1012.6	1435.5	1516.6
35°	237.5	236.7	240.1	249.3	341.7	973.1	1467.9	1556.2
37.5°	224.1	223.7	227.0	237.5	295.1	927.3	1492.3	1610.0
40°	209.7	209.7	213.5	224.9	281.7	869.7	1530.9	1687.3
42.5°	196.7	195.9	200.1	213.9	271.5	814.7	1600.2	1799.9
45°	184.1	182.4	186.2	203.5	253.9	795.3	1729.8	1966.4
47.5°	172.3	168.1	171.5	190.9	237.9	867.6	1941.6	2197.2
50°	162.7	154.7	157.6	178.2	225.7	1024.4	2216.6	2503.7
52.5°	152.6	142.1	143.8	162.7	214.8	1173.6	2514.5	2908.0
55°	142.1	130.3	131.2	147.1	199.3	1195.9	2805.4	3459.5
57.5°	130.3	119.4	119.4	132.8	187.9	1036.6	3029.1	4143.9
60°	117.3	110.1	108.0	121.5	198.0	731.4	3055.1	4585.2
62.5°	103.0	99.2	96.2	110.6	205.5	433.4	2845.4	4478.4
65°	86.6	85.8	83.6	121.5	173.2	256.0	2442.7	4150.9
67.5°	72.7	71.4	71.4	127.4	131.6	161.0	1908.4	3700.4
70°	62.6	58.0	58.0	96.2	79.8	111.4	1332.5	3214.0
72.5°	52.6	47.5	44.2	76.9	59.7	81.6	832.7	2752.4
75°	42.0	38.2	34.0	50.8	44.6	61.8	483.8	2280.4
77.5°	30.2	28.6	24.0	37.4	32.4	44.6	287.9	1759.6
80°	15.6	16.0	15.2	21.4	21.8	30.2	163.9	1204.3
82.5°	9.2	7.2	8.0	10.6	12.6	17.2	61.8	707.9
85°	5.8	3.8	3.8	5.0	6.4	6.8	19.0	287.1
87.5°	3.0	1.2	1.6	2.6	2.2	1.6	0.8	72.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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