

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: P960997

Luminaire Tested: **NAV-SB1D-827-U-SLL-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P960997
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-SB1D-827-U-SLL-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 80 CRI, 2700K, 900mA 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: 6923.9 lumens
Efficiency: N/A
Efficacy: 87.0 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): 79.6
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



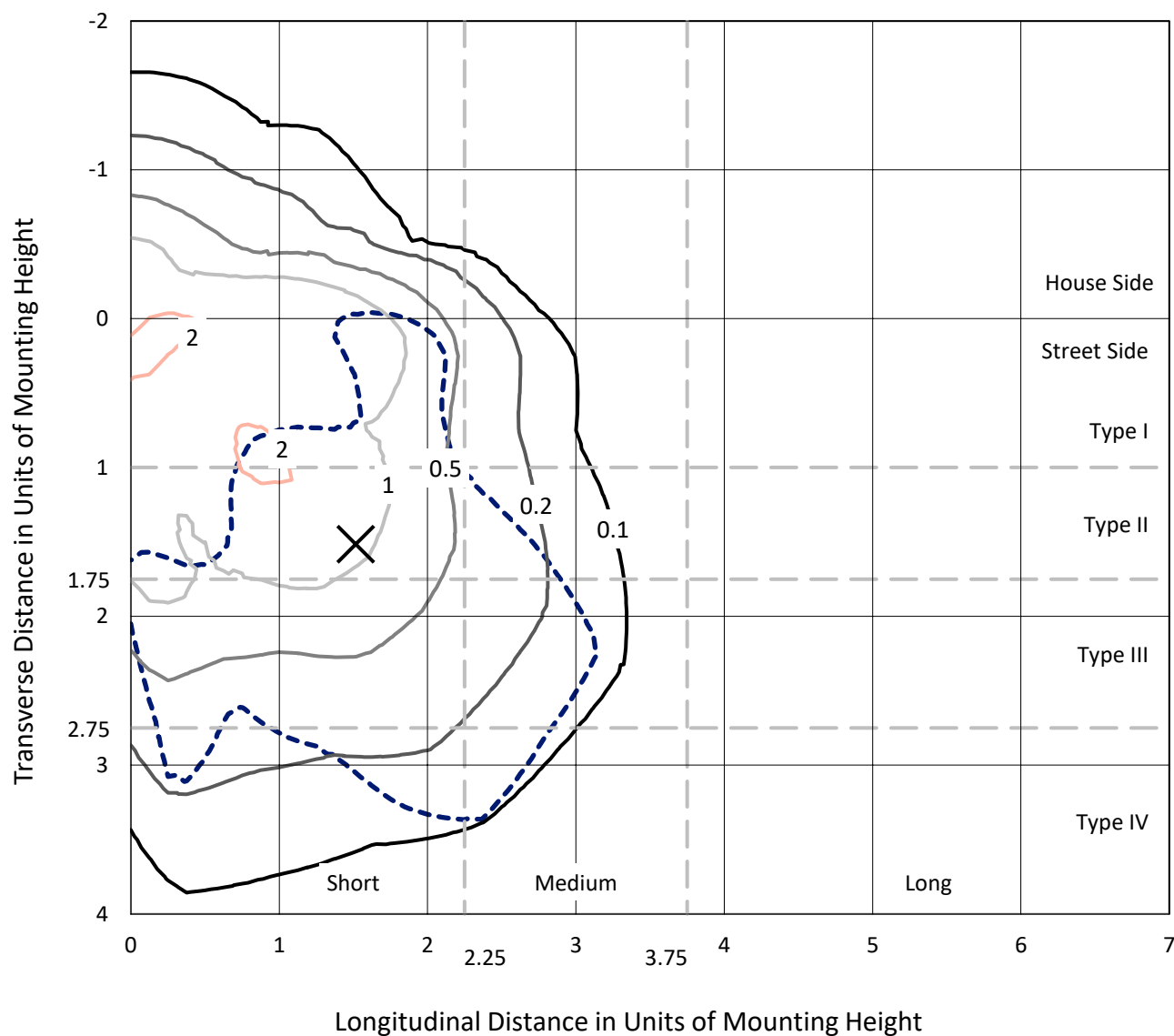
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

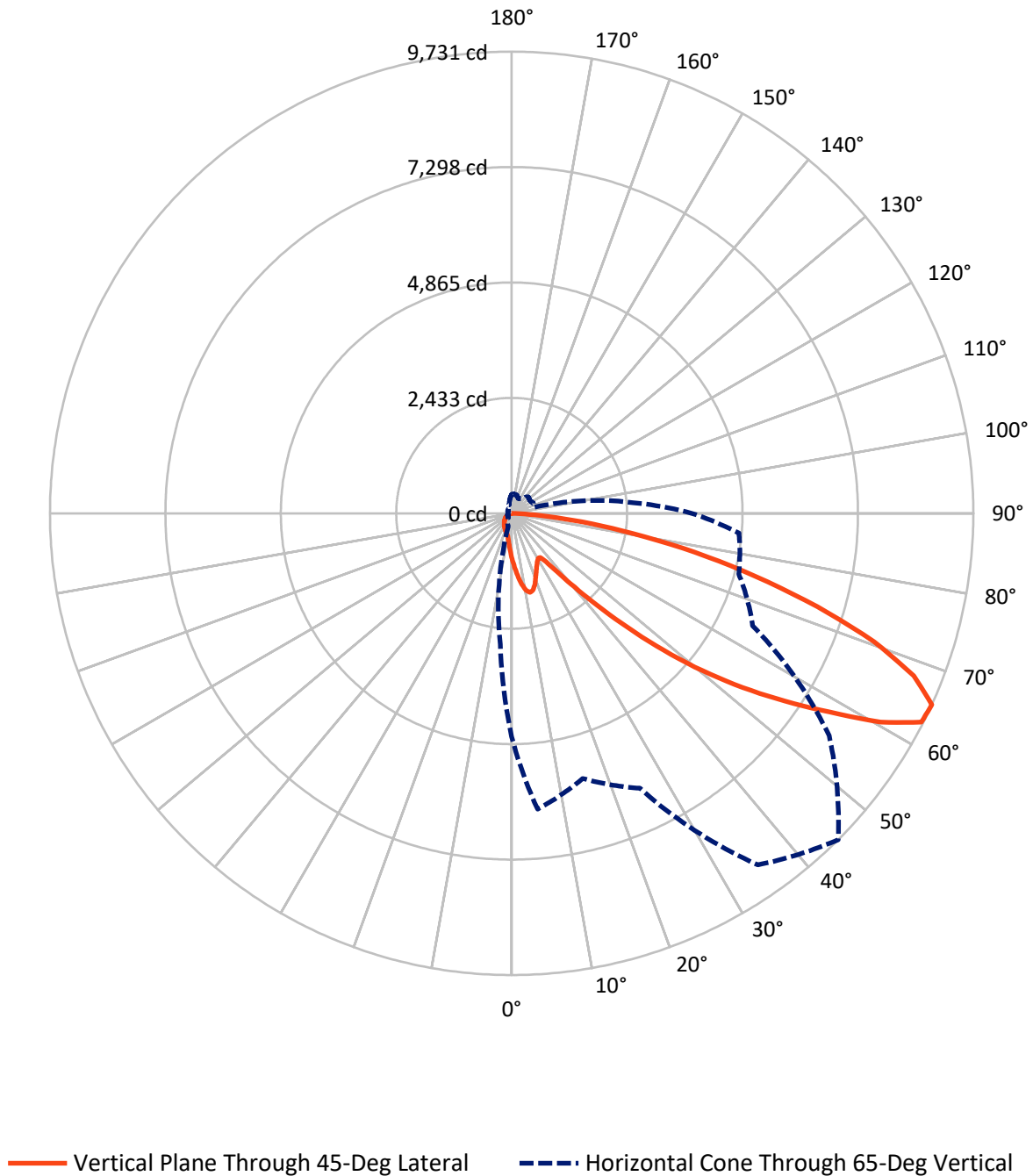


Based on 25 foot mounting height. Maximum calculated value = 2.5 fc

Type IV - Short - N/A

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Luminous Intensity Polar Plot



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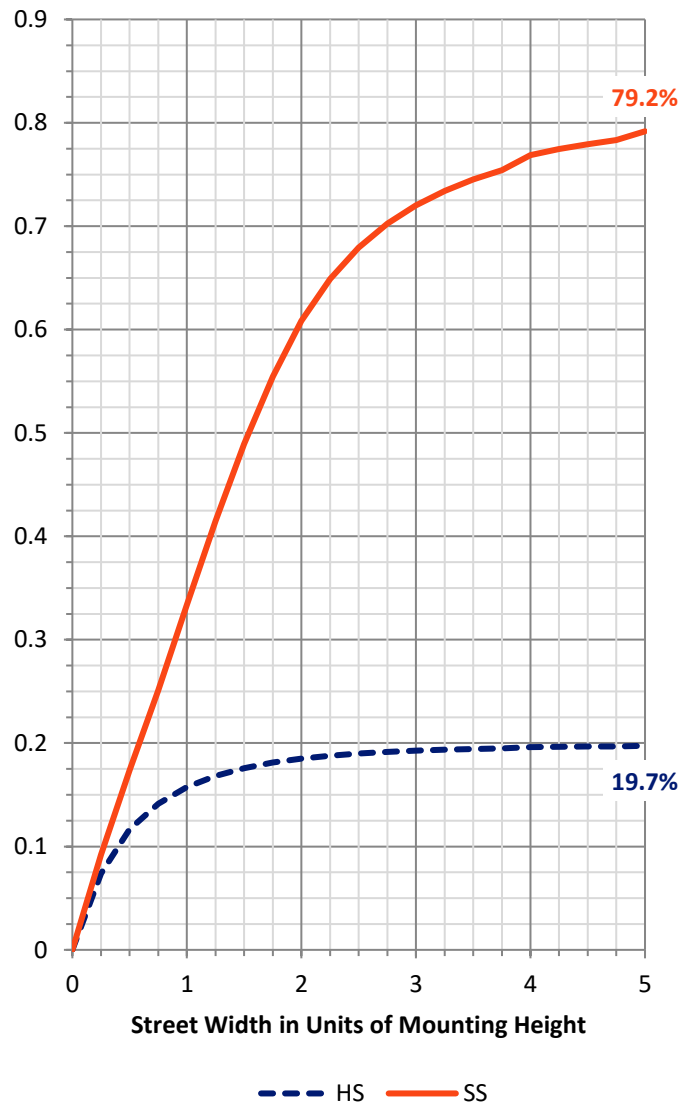
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1376.3	0.0	1376.3
	% Fixture	19.9	0.0	19.9
Street Side	Lumens	5547.6	0.0	5547.6
	% Fixture	80.1	0.0	80.1
Total	Lumens	6923.9	0.0	6923.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.4	1.4
10°-20°	283.0	4.1
20°-30°	416.9	6.0
30°-40°	535.5	7.7
40°-50°	866.1	12.5
50°-60°	1518.8	21.9
60°-70°	1900.5	27.4
70°-80°	1110.6	16.0
80°-90°	198.1	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°	6923.9	100.0
0°-180°	6923.9	100.0

Coefficient of Utilization



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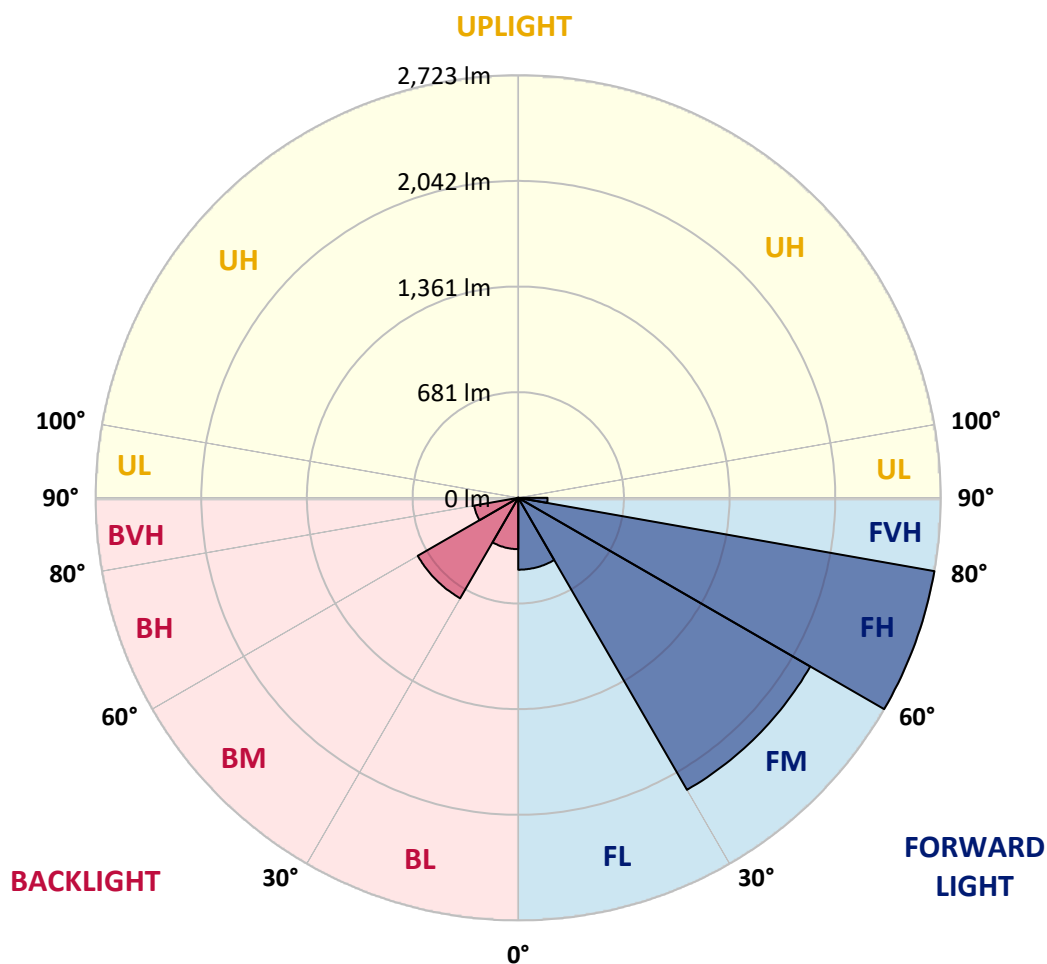
CATALOG NUMBER: NAV-SB1D-827-U-SLL-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	463.3	6.7			
FM	(30°-60°)	2172.8	31.4			
FH	(60°-80°)	2722.7	39.3			G2/5000
FVH	(80°-90°)	188.9	2.7			G2/225
BL	(0°-30°)	330.9	4.8	B1/500		
BM	(30°-60°)	747.7	10.8	B1/1000		
BH	(60°-80°)	288.4	4.2	B1/500		G1/500
BVH	(80°-90°)	9.3	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°	958.8	958.8	958.8	958.8	958.8	958.8	958.8	958.8	958.8	958.8	958.8
2.5°	1074.2	1082.3	1100.4	1110.0	1124.7	1125.7	1125.7	1112.8	1112.3	1086.1	1083.2
5°	1200.6	1219.6	1262.6	1307.0	1316.5	1318.9	1314.0	1288.3	1269.3	1218.2	1207.2
7.5°	1326.0	1362.7	1428.1	1487.3	1506.3	1506.3	1494.9	1452.9	1413.8	1339.9	1312.2
10°	1430.0	1476.3	1565.0	1631.3	1653.2	1648.4	1625.0	1572.1	1518.2	1428.5	1392.4
12.5°	1498.7	1550.6	1648.0	1701.4	1723.8	1711.4	1684.7	1633.2	1576.4	1481.9	1440.9
15°	1533.0	1587.4	1671.8	1700.0	1693.8	1680.9	1677.5	1652.7	1609.9	1521.6	1476.7
17.5°	1547.9	1598.4	1657.0	1639.4	1586.9	1576.9	1610.3	1641.7	1631.3	1555.9	1513.9
20°	1561.7	1604.1	1621.8	1543.5	1451.9	1442.9	1506.7	1596.4	1642.3	1587.8	1549.3
22.5°	1580.8	1607.0	1570.7	1442.4	1343.7	1322.7	1393.3	1528.3	1645.6	1628.4	1589.8
25°	1607.0	1614.1	1514.4	1346.5	1247.3	1226.3	1292.1	1452.4	1639.9	1672.3	1639.4
27.5°	1638.5	1623.6	1460.5	1266.4	1170.6	1151.0	1216.8	1379.4	1623.6	1716.2	1692.8
30°	1679.5	1636.0	1407.1	1204.4	1115.7	1101.4	1164.8	1316.5	1603.6	1772.0	1759.1
32.5°	1721.0	1641.3	1357.5	1168.1	1103.3	1108.5	1160.5	1282.6	1581.7	1825.4	1831.6
35°	1765.8	1658.0	1333.2	1203.9	1206.7	1252.6	1274.0	1314.0	1578.3	1897.9	1922.3
37.5°	1826.9	1695.2	1362.2	1381.8	1481.0	1575.9	1558.3	1468.1	1616.9	2006.2	2051.5
40°	1914.6	1760.5	1489.1	1684.7	1888.4	2042.4	1975.2	1748.1	1735.2	2162.1	2229.9
42.5°	2042.4	1864.5	1714.3	2054.8	2400.1	2653.9	2473.6	2109.2	1942.3	2384.9	2471.3
45°	2231.3	2032.9	1986.7	2445.4	3031.2	3431.0	3056.0	2494.1	2232.2	2722.1	2789.8
47.5°	2493.2	2280.4	2241.8	2857.1	3798.2	4315.2	3701.9	2850.9	2562.4	3181.9	3197.7
50°	2840.9	2613.9	2483.7	3307.4	4639.2	5216.7	4347.2	3195.3	2940.6	3743.8	3725.7
52.5°	3299.8	3078.9	2765.6	3736.2	5503.9	6099.2	4995.4	3497.7	3410.0	4395.9	4358.7
55°	3925.5	3778.7	3151.0	4145.4	6368.2	6986.8	5618.3	3783.0	4030.0	5170.5	4945.3
57.5°	4702.1	4807.0	3706.6	4620.1	7145.2	7901.7	6244.2	4181.7	4835.1	6036.7	5285.9
60°	5202.9	6174.5	4770.8	5321.7	8028.1	8936.3	7101.8	4940.1	5681.4	6347.2	5221.0
62.5°	5081.7	6609.5	6045.2	6217.4	8839.9	9688.5	7942.2	5701.9	5840.7	5889.8	4721.2
65°	4710.2	6258.4	5785.3	6391.6	9045.5	9730.9	8166.9	5603.6	4954.4	4808.5	3794.9
67.5°	4198.9	5842.1	5167.6	5929.8	8674.0	9137.6	7748.6	4956.8	3828.8	3608.4	2753.1
70°	3647.1	5381.4	4762.2	5411.8	7965.6	8103.4	7037.4	4359.6	2816.1	2436.9	1766.8
72.5°	3123.3	4901.4	4484.6	4880.9	7020.7	6735.5	6111.6	3831.6	2050.5	1757.7	1255.9
75°	2587.6	4193.6	4089.1	4250.4	5778.1	5305.5	5078.0	3172.4	1609.4	1271.6	866.6
77.5°	1996.7	3276.8	3517.3	3403.7	4067.2	3940.8	3936.1	2383.9	1175.8	848.6	543.2
80°	1366.5	2283.8	2747.9	2401.2	2639.6	2575.2	2964.4	1599.3	852.8	510.9	302.4
82.5°	803.2	1390.4	1912.6	1162.5	1459.6	1498.2	1765.4	778.0	501.7	117.8	65.8
85°	325.7	549.0	747.9	455.0	704.1	593.9	670.1	218.4	139.7	2.9	0.0
87.5°	82.0	175.5	123.1	51.0	81.6	74.9	59.1	26.8	5.7	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°	958.8	958.8	958.8	958.8	958.8	958.8	958.8	958.8	958.8	958.8	958.8
2.5°	1064.7	1053.7	1026.4	999.3	977.3	947.7	928.2	904.9	882.4	862.4	858.5
5°	1177.2	1140.9	1091.3	1046.0	999.8	954.9	910.6	863.8	820.9	794.7	778.0
7.5°	1268.7	1204.9	1139.1	1081.3	1025.5	973.0	914.4	857.6	790.4	754.6	722.1
10°	1337.0	1253.1	1166.7	1100.4	1044.1	993.1	943.5	886.2	805.1	760.3	711.7
12.5°	1381.8	1282.2	1181.0	1105.2	1042.2	1002.7	980.7	958.3	877.6	825.2	754.6
15°	1412.9	1302.7	1191.0	1094.2	1016.9	987.8	1009.7	1035.6	984.0	923.4	831.4
17.5°	1446.7	1329.3	1195.4	1064.7	967.8	955.4	1012.2	1071.7	1069.4	1009.3	919.1
20°	1482.5	1352.7	1192.5	1016.9	908.2	919.1	991.7	1060.8	1089.9	1057.5	977.3
22.5°	1519.2	1375.1	1181.5	954.9	852.4	886.7	959.2	1019.8	1054.1	1044.1	983.1
25°	1565.5	1406.6	1165.2	888.2	806.1	853.8	921.6	970.7	994.6	994.0	952.0
27.5°	1620.8	1448.6	1156.7	834.2	773.2	816.6	876.7	920.6	937.3	937.3	903.8
30°	1685.2	1498.2	1147.2	799.0	754.1	778.0	824.7	867.7	884.4	884.4	856.2
32.5°	1756.7	1545.9	1124.2	777.5	739.8	740.3	769.9	808.9	829.0	831.9	811.8
35°	1842.5	1596.9	1074.2	760.3	723.1	703.6	717.9	750.3	774.2	780.3	767.9
37.5°	1955.2	1659.4	1002.7	735.0	697.3	664.9	668.3	693.1	719.2	728.9	720.7
40°	2106.4	1732.9	928.2	698.7	661.1	622.5	621.0	639.2	664.9	675.4	671.1
42.5°	2306.2	1821.1	857.1	664.0	617.3	577.6	575.2	589.6	611.9	622.9	621.0
45°	2561.9	1929.4	796.1	636.7	574.3	535.2	534.2	546.1	565.7	577.2	574.7
47.5°	2917.3	2037.7	754.6	622.5	540.4	500.4	502.2	512.8	530.4	538.5	535.2
50°	3380.3	2070.6	733.6	622.5	522.3	469.3	478.9	487.5	500.8	505.6	501.3
52.5°	3824.9	1961.8	714.5	626.3	524.7	443.1	463.6	469.9	481.2	483.2	476.9
55°	4042.9	1686.6	688.3	627.2	539.5	420.7	451.2	462.7	467.0	466.5	456.0
57.5°	3968.0	1363.7	643.9	623.4	549.5	406.4	435.9	457.9	460.7	456.4	437.0
60°	3705.2	1004.1	610.1	595.3	545.7	402.1	412.6	447.4	451.7	446.0	414.0
62.5°	3264.4	696.9	583.8	533.3	529.0	400.7	375.9	424.6	435.0	426.9	380.2
65°	2570.0	492.2	502.8	467.4	492.7	393.0	337.7	396.9	411.1	398.7	332.9
67.5°	1739.1	355.4	407.3	423.5	434.1	375.9	310.1	365.4	384.5	368.2	278.1
70°	939.2	249.5	269.1	356.8	368.7	346.2	285.3	333.4	355.4	337.7	226.5
72.5°	554.7	179.4	188.4	286.7	307.2	304.8	257.6	296.2	322.9	302.0	184.1
75°	305.8	121.2	134.5	208.0	249.5	235.1	221.3	250.9	278.1	257.6	142.2
77.5°	136.9	72.5	93.5	136.4	196.1	161.2	171.3	195.6	220.9	199.4	94.9
80°	53.0	40.6	62.0	74.4	142.6	89.2	110.2	144.0	162.2	145.0	57.7
82.5°	6.7	18.1	26.8	29.1	83.0	47.3	64.0	90.6	89.2	77.3	29.1
85°	0.0	3.4	3.8	1.9	35.8	17.2	21.0	29.6	27.7	21.0	2.4
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	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):

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	958.8	958.8	958.8	958.8	958.8	958.8	958.8	958.8	958.8	958.8	958.8
2.5°	835.2	818.1	809.4	802.3	808.9	812.8	812.8	829.0	838.6	842.3	869.1
5°	735.9	704.1	682.5	669.6	673.9	678.8	684.0	704.5	718.3	727.4	768.9
7.5°	657.7	609.2	579.0	563.3	565.7	569.1	573.3	593.4	607.2	619.1	665.4
10°	619.1	550.4	510.9	491.8	488.4	486.6	485.1	497.0	507.5	517.0	562.8
12.5°	621.0	525.1	476.9	453.6	443.6	432.1	423.1	425.0	431.6	443.6	472.7
15°	645.3	517.0	459.3	430.2	413.6	400.2	389.2	386.8	389.2	391.1	409.3
17.5°	678.2	516.1	444.0	407.8	390.6	379.7	369.6	366.3	366.8	369.2	373.9
20°	704.5	513.2	426.9	386.3	371.0	361.5	351.6	348.2	349.1	349.6	354.9
22.5°	718.3	508.9	407.8	364.9	352.0	342.5	333.4	332.9	332.9	335.8	339.6
25°	718.3	499.9	390.6	344.4	332.9	324.3	313.3	315.3	316.2	320.0	325.7
27.5°	701.2	482.7	376.8	326.8	314.8	306.3	296.2	298.6	300.0	304.3	311.5
30°	679.3	462.2	361.1	310.1	296.2	290.0	281.5	282.4	284.2	289.0	297.1
32.5°	655.9	437.9	348.2	293.4	279.5	274.7	265.2	266.6	268.5	273.8	282.9
35°	630.1	409.3	332.9	278.1	264.2	260.5	249.5	250.4	253.3	259.0	268.0
37.5°	602.9	385.9	317.6	263.3	249.0	245.2	233.7	234.7	238.0	244.7	253.3
40°	576.2	363.0	301.5	247.5	233.3	229.9	217.5	218.4	222.3	229.4	238.5
42.5°	547.1	345.3	280.4	231.3	216.1	212.7	201.3	202.7	207.0	214.1	223.2
45°	512.3	333.8	257.1	216.1	199.0	195.6	185.1	187.9	192.7	199.9	209.4
47.5°	476.5	329.1	237.5	199.9	181.2	178.4	169.8	174.6	179.8	185.5	196.1
50°	442.2	322.9	217.5	184.6	165.9	163.1	157.4	163.6	168.8	174.1	184.1
52.5°	403.0	309.5	199.4	171.3	153.1	152.1	149.3	155.0	159.8	164.5	173.1
55°	362.5	288.1	183.7	159.3	142.2	143.1	141.7	146.5	150.3	154.6	162.2
57.5°	327.2	260.9	171.3	146.5	132.6	135.5	133.6	135.9	138.4	143.6	149.8
60°	291.4	228.5	157.4	131.2	123.1	126.4	121.2	120.6	121.7	123.1	134.5
62.5°	243.2	194.6	140.2	117.8	112.5	114.0	103.9	96.4	96.4	97.8	114.9
65°	195.6	163.1	121.2	102.6	98.3	97.3	83.0	72.5	71.5	75.8	90.6
67.5°	160.7	135.5	102.1	85.4	82.5	83.4	73.0	62.5	61.5	66.3	77.3
70°	133.0	109.3	81.6	65.8	68.7	73.0	62.5	52.5	51.0	55.4	65.8
72.5°	105.9	85.4	62.5	48.7	56.8	62.0	51.0	41.5	40.6	44.4	54.3
75°	77.8	61.1	42.4	35.3	43.9	48.7	37.2	29.6	28.2	31.5	41.5
77.5°	48.2	34.3	26.8	21.0	30.0	32.4	19.6	17.2	16.7	19.1	26.2
80°	22.4	14.8	12.9	7.2	11.0	12.9	8.1	9.0	9.5	11.5	16.2
82.5°	6.1	2.4	0.5	0.0	0.0	3.8	1.9	3.8	4.8	7.2	10.5
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	2.4	4.3	7.6
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	3.8
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°	958.8	958.8	958.8	958.8	958.8	958.8	958.8	958.8
2.5°	889.1	908.2	938.7	970.2	1001.2	1032.7	1063.2	1074.2
5°	806.6	850.4	911.0	975.9	1042.7	1110.4	1172.4	1200.6
7.5°	714.5	777.5	868.6	970.2	1076.6	1183.0	1280.7	1326.0
10°	616.2	695.9	799.9	937.3	1089.9	1236.8	1371.3	1430.0
12.5°	522.8	606.3	721.2	885.8	1079.4	1267.8	1429.6	1498.7
15°	444.5	518.4	642.5	824.7	1045.5	1269.8	1457.1	1533.0
17.5°	385.9	434.1	562.3	757.0	1001.2	1252.0	1466.7	1547.9
20°	356.8	370.1	458.4	670.1	959.7	1235.4	1476.3	1561.7
22.5°	339.6	343.0	374.9	558.1	910.1	1230.1	1492.9	1580.8
25°	325.7	326.8	335.3	442.2	834.2	1226.8	1518.7	1607.0
27.5°	311.9	311.9	316.7	356.3	731.2	1212.5	1552.1	1638.5
30°	298.1	298.1	301.5	315.3	610.5	1184.4	1592.1	1679.5
32.5°	283.8	283.8	286.7	296.6	487.5	1149.0	1628.9	1721.0
35°	269.5	268.5	272.3	282.9	387.8	1104.2	1665.6	1765.8
37.5°	254.2	253.8	257.6	269.5	334.9	1052.3	1693.3	1826.9
40°	238.0	238.0	242.3	255.2	319.6	986.9	1737.2	1914.6
42.5°	223.2	222.3	227.0	242.8	308.1	924.3	1815.9	2042.4
45°	208.9	207.0	211.3	230.8	288.1	902.4	1962.8	2231.3
47.5°	195.6	190.8	194.6	216.6	270.0	984.5	2203.1	2493.2
50°	184.6	175.5	178.9	202.2	256.1	1162.5	2515.1	2840.9
52.5°	173.1	161.2	163.1	184.6	243.7	1331.8	2853.3	3299.8
55°	161.2	147.9	148.8	167.0	226.1	1357.0	3183.3	3925.5
57.5°	147.9	135.5	135.5	150.8	213.2	1176.3	3437.1	4702.1
60°	133.0	124.9	122.6	137.9	224.7	829.9	3466.8	5202.9
62.5°	116.8	112.5	109.3	125.5	233.3	491.8	3228.6	5081.7
65°	98.3	97.3	94.9	137.9	196.5	290.5	2771.7	4710.2
67.5°	82.5	81.1	81.1	144.5	149.3	182.7	2165.5	4198.9
70°	71.0	65.8	65.8	109.3	90.6	126.4	1512.1	3647.1
72.5°	59.7	53.9	50.1	87.3	67.8	92.6	944.9	3123.3
75°	47.7	43.4	38.6	57.7	50.5	70.1	549.0	2587.6
77.5°	34.3	32.4	27.2	42.4	36.7	50.5	326.8	1996.7
80°	17.6	18.1	17.2	24.3	24.8	34.3	186.0	1366.5
82.5°	10.5	8.1	9.0	11.9	14.3	19.6	70.1	803.2
85°	6.7	4.3	4.3	5.7	7.2	7.6	21.4	325.7
87.5°	3.4	1.4	1.9	2.9	2.4	1.9	0.9	82.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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