

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: P961834

Luminaire Tested: **NAV-SB2B-722-U-SLL-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P961834
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-SB2B-722-U-SLL-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 CRI, 2200K, 450mA 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: 7277.5 lumens
Efficiency: N/A
Efficacy: 98.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

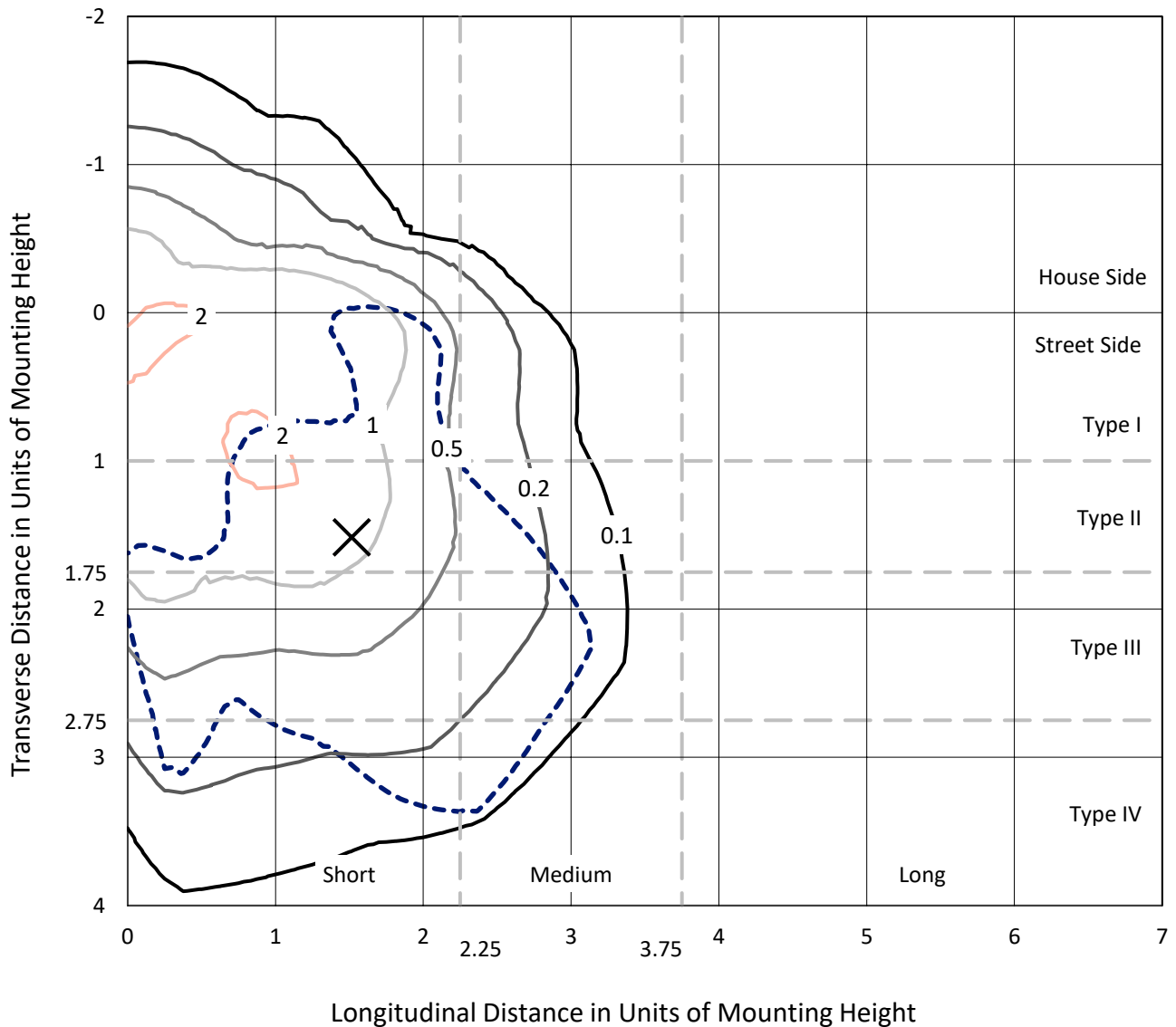
Input Watts (W): 73.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

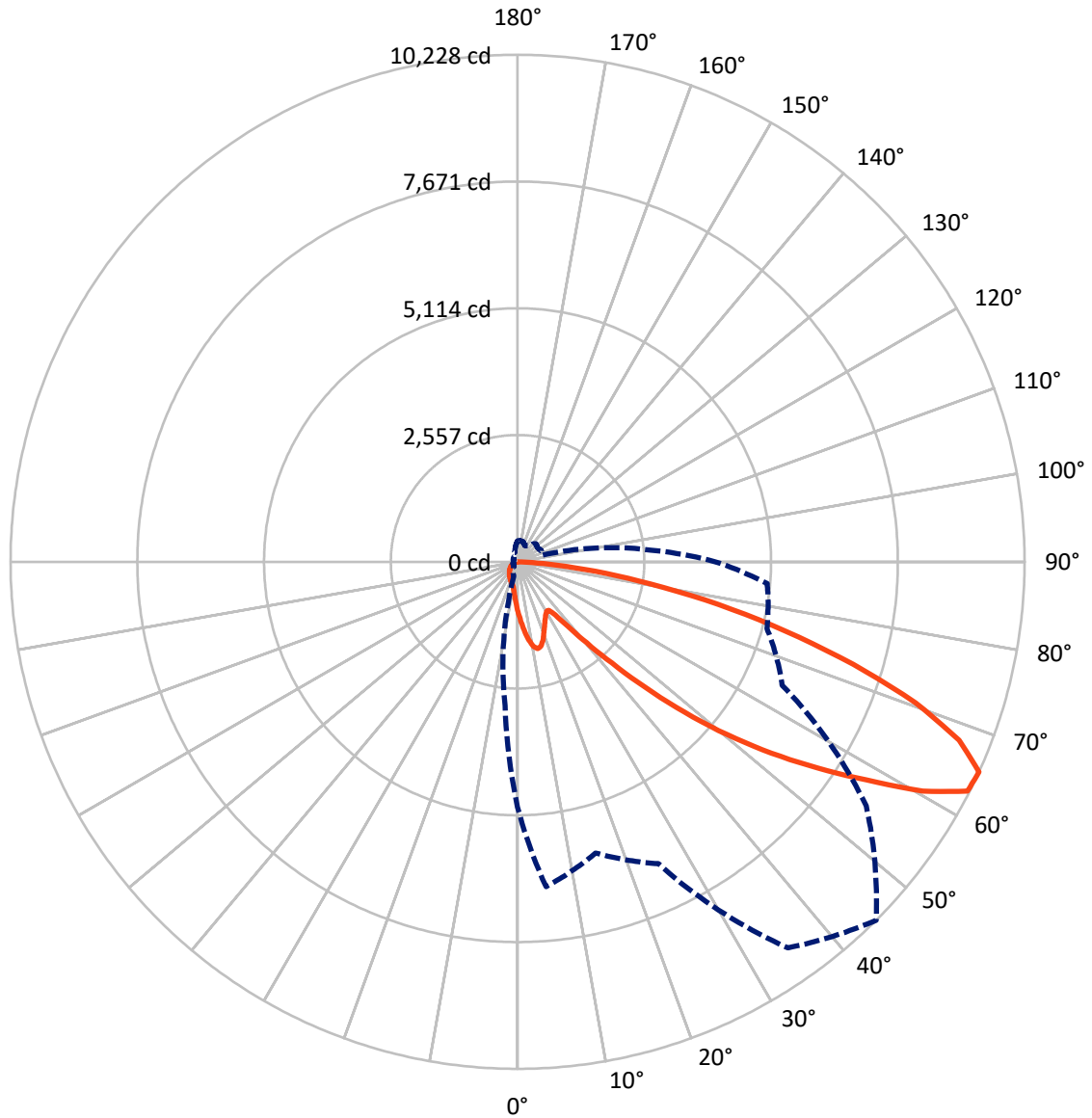
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.6 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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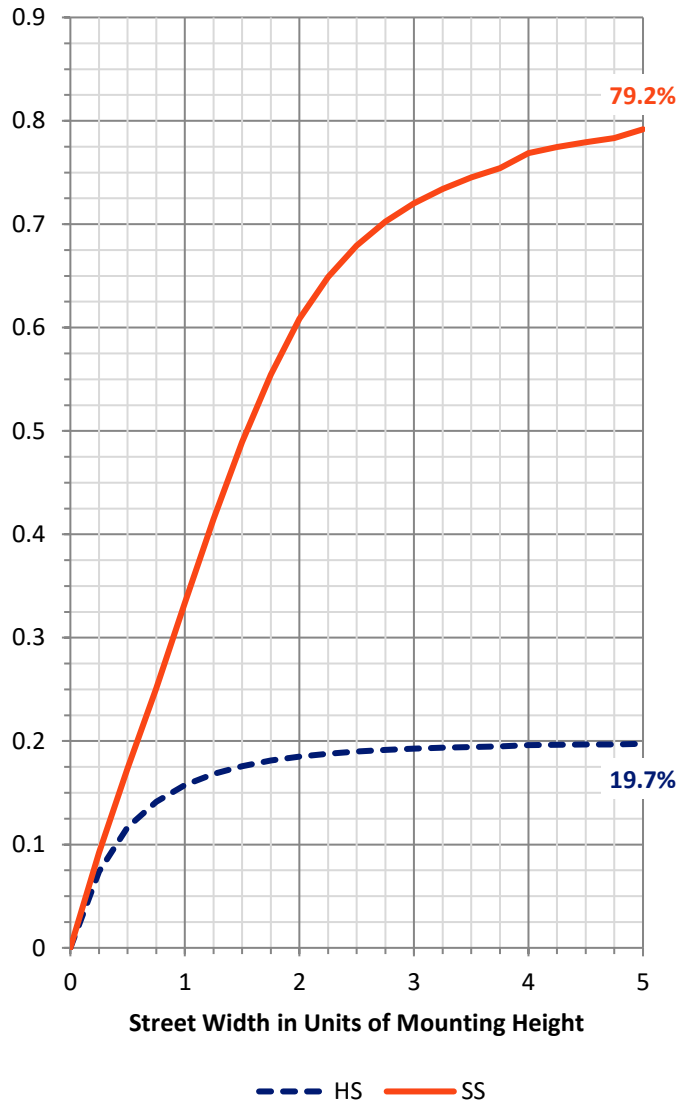
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1446.5	0.0	1446.5
	% Fixture	19.9	0.0	19.9
Street Side	Lumens	5831.0	0.0	5831.0
	% Fixture	80.1	0.0	80.1
Total	Lumens	7277.5	0.0	7277.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.2	1.4
10°-20°	297.4	4.1
20°-30°	438.1	6.0
30°-40°	562.9	7.7
40°-50°	910.4	12.5
50°-60°	1596.4	21.9
60°-70°	1997.5	27.4
70°-80°	1167.3	16.0
80°-90°	208.3	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°	7277.5	100.0
0°-180°	7277.5	100.0

Coefficient of Utilization

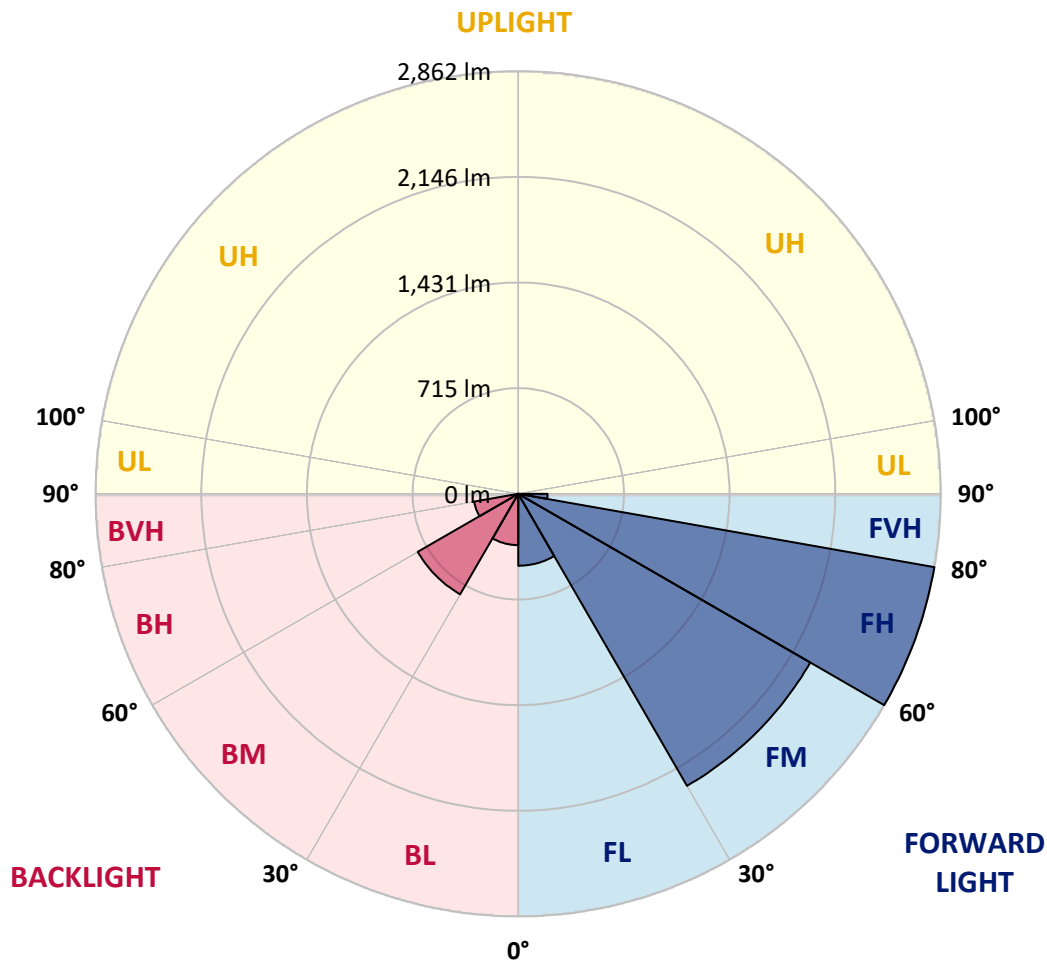


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	486.9	6.7			
FM (30°-60°)	2283.8	31.4			
FH (60°-80°)	2861.7	39.3			G2/5000
FVH (80°-90°)	198.5	2.7			G2/225
BL (0°-30°)	347.8	4.8	B1/500		
BM (30°-60°)	785.9	10.8	B1/1000		
BH (60°-80°)	303.1	4.2	B1/500		G1/500
BVH (80°-90°)	9.8	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°	1007.7	1007.7	1007.7	1007.7	1007.7	1007.7	1007.7	1007.7	1007.7	1007.7	1007.7
2.5°	1129.0	1137.5	1156.6	1166.7	1182.1	1183.2	1183.2	1169.6	1169.1	1141.5	1138.6
5°	1261.9	1282.0	1327.1	1373.7	1383.7	1386.2	1381.2	1354.1	1334.0	1280.4	1268.9
7.5°	1393.7	1432.3	1501.0	1563.2	1583.2	1583.2	1571.2	1527.0	1485.9	1408.2	1379.2
10°	1503.1	1551.6	1644.9	1714.6	1737.7	1732.7	1708.1	1652.4	1595.8	1501.5	1463.4
12.5°	1575.2	1629.9	1732.1	1788.3	1811.9	1798.8	1770.8	1716.6	1656.9	1557.7	1514.5
15°	1611.3	1668.5	1757.3	1786.8	1780.3	1766.7	1763.2	1737.2	1692.1	1599.3	1552.2
17.5°	1626.9	1680.0	1741.7	1723.1	1668.0	1657.4	1692.6	1725.6	1714.6	1635.4	1591.3
20°	1641.4	1686.0	1704.6	1622.4	1526.1	1516.6	1583.7	1678.0	1726.1	1669.0	1628.3
22.5°	1661.4	1689.0	1651.0	1516.1	1412.2	1390.2	1464.4	1606.3	1729.6	1711.5	1671.0
25°	1689.0	1696.6	1591.7	1415.3	1311.0	1288.9	1358.1	1526.6	1723.6	1757.7	1723.1
27.5°	1722.1	1706.6	1535.1	1331.1	1230.3	1209.7	1278.9	1449.9	1706.6	1803.8	1779.3
30°	1765.3	1719.6	1479.0	1265.9	1172.6	1157.6	1224.3	1383.7	1685.5	1862.5	1849.0
32.5°	1808.8	1725.1	1426.8	1227.7	1159.6	1165.1	1219.8	1348.1	1662.4	1918.6	1925.2
35°	1856.0	1742.7	1401.3	1265.4	1268.4	1316.5	1339.1	1381.2	1659.0	1994.9	2020.4
37.5°	1920.1	1781.8	1431.8	1452.4	1556.7	1656.4	1637.8	1543.1	1699.6	2108.6	2156.3
40°	2012.4	1850.4	1565.2	1770.8	1984.8	2146.8	2076.0	1837.4	1823.9	2272.6	2343.8
42.5°	2146.8	1959.8	1801.8	2159.8	2522.7	2789.4	2600.0	2217.0	2041.5	2506.7	2597.5
45°	2345.3	2136.7	2088.1	2570.4	3186.0	3606.2	3212.1	2621.5	2346.3	2861.2	2932.3
47.5°	2620.5	2397.0	2356.3	3003.0	3992.2	4535.6	3890.9	2996.5	2693.2	3344.5	3361.0
50°	2986.0	2747.4	2610.5	3476.3	4876.0	5483.2	4569.2	3358.5	3090.8	3935.1	3916.0
52.5°	3468.3	3236.1	2906.8	3927.0	5785.0	6410.7	5250.6	3676.4	3584.1	4620.4	4581.2
55°	4126.0	3971.7	3311.9	4357.2	6693.5	7343.7	5905.3	3976.2	4235.8	5434.5	5198.0
57.5°	4942.2	5052.5	3895.9	4856.0	7510.2	8305.3	6563.1	4395.3	5082.2	6345.0	5555.9
60°	5468.7	6489.9	5014.4	5593.5	8438.1	9392.7	7464.5	5192.4	5971.5	6671.4	5487.7
62.5°	5341.3	6947.1	6354.1	6535.0	9291.4	10183.3	8347.9	5993.1	6138.9	6190.6	4962.3
65°	4950.8	6578.1	6080.8	6718.1	9507.5	10228.0	8584.0	5889.8	5207.4	5054.1	3988.7
67.5°	4413.3	6140.5	5431.6	6232.7	9117.0	9604.2	8144.3	5210.0	4024.3	3792.7	2893.8
70°	3833.3	5656.2	5005.4	5688.2	8372.4	8517.3	7396.8	4582.3	2959.9	2561.4	1857.0
72.5°	3282.8	5151.9	4713.7	5130.2	7379.3	7079.5	6423.7	4027.3	2155.3	1847.5	1320.0
75°	2719.8	4407.8	4298.0	4467.5	6073.2	5576.4	5337.3	3334.4	1691.6	1336.6	910.9
77.5°	2098.6	3444.2	3696.9	3577.6	4275.0	4142.1	4137.1	2505.7	1235.8	891.9	571.0
80°	1436.3	2400.4	2888.2	2523.8	2774.5	2706.7	3115.9	1681.0	896.4	536.9	317.9
82.5°	844.3	1461.4	2010.4	1221.8	1534.1	1574.7	1855.5	817.6	527.4	123.8	69.2
85°	342.5	577.1	786.1	478.3	739.9	624.1	704.4	229.6	146.9	3.0	0.0
87.5°	86.2	184.5	129.4	53.6	85.7	78.7	62.2	28.1	6.0	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°	1007.7	1007.7	1007.7	1007.7	1007.7	1007.7	1007.7	1007.7	1007.7	1007.7	1007.7
2.5°	1119.0	1107.5	1078.9	1050.3	1027.3	996.2	975.6	951.1	927.5	906.4	902.4
5°	1237.3	1199.2	1147.1	1099.4	1050.8	1003.7	957.0	907.9	862.8	835.3	817.6
7.5°	1333.5	1266.4	1197.2	1136.5	1077.9	1022.7	961.0	901.4	830.8	793.1	759.0
10°	1405.3	1317.0	1226.3	1156.6	1097.5	1043.8	991.7	931.5	846.2	799.2	748.0
12.5°	1452.4	1347.6	1241.4	1161.6	1095.4	1053.8	1030.7	1007.2	922.5	867.4	793.1
15°	1485.0	1369.2	1251.8	1150.0	1068.9	1038.3	1061.4	1088.4	1034.2	970.6	873.8
17.5°	1520.6	1397.3	1256.3	1119.0	1017.2	1004.2	1063.8	1126.5	1124.0	1060.9	966.1
20°	1558.2	1421.8	1253.4	1068.9	954.6	966.1	1042.3	1115.0	1145.5	1111.5	1027.3
22.5°	1596.7	1445.4	1241.8	1003.7	895.8	932.0	1008.2	1071.8	1107.9	1097.5	1033.3
25°	1645.4	1478.5	1224.8	933.5	847.3	897.4	968.6	1020.3	1045.3	1044.8	1000.7
27.5°	1703.6	1522.5	1215.8	876.9	812.7	858.3	921.5	967.6	985.1	985.1	950.1
30°	1771.2	1574.7	1205.7	839.8	792.6	817.6	866.8	911.9	929.5	929.5	900.0
32.5°	1846.4	1624.8	1181.6	817.2	777.6	778.1	809.1	850.2	871.4	874.3	853.3
35°	1936.7	1678.5	1129.0	799.2	760.0	739.4	754.5	788.6	813.6	820.2	807.2
37.5°	2055.0	1744.1	1053.8	772.5	733.0	698.8	702.4	728.5	756.0	766.1	757.6
40°	2213.9	1821.4	975.6	734.5	694.8	654.3	652.7	671.8	698.8	709.9	705.4
42.5°	2424.0	1914.1	900.9	697.8	648.7	607.1	604.6	619.6	643.2	654.8	652.7
45°	2692.7	2028.0	836.7	669.3	603.6	562.5	561.5	574.0	594.6	606.6	604.1
47.5°	3066.2	2141.7	793.1	654.3	568.1	525.9	527.9	538.9	557.5	566.0	562.5
50°	3553.1	2176.4	771.1	654.3	549.0	493.3	503.4	512.4	526.4	531.5	527.0
52.5°	4020.3	2062.0	751.0	658.3	551.4	465.8	487.3	493.8	505.8	507.9	501.3
55°	4249.3	1772.7	723.4	659.3	567.0	442.2	474.3	486.3	490.8	490.4	479.3
57.5°	4170.7	1433.4	676.8	655.3	577.6	427.1	458.3	481.3	484.3	479.8	459.2
60°	3894.5	1055.3	641.2	625.7	573.5	422.6	433.7	470.3	474.8	468.7	435.2
62.5°	3431.2	732.5	613.7	560.5	556.0	421.2	395.0	446.2	457.3	448.7	399.5
65°	2701.3	517.4	528.4	491.3	517.9	413.1	355.0	417.1	432.1	419.1	349.9
67.5°	1827.9	373.5	428.1	445.2	456.2	395.0	325.8	384.1	404.1	387.0	292.3
70°	987.2	262.2	282.8	375.0	387.6	364.0	299.8	350.4	373.5	355.0	238.1
72.5°	583.0	188.5	198.0	301.3	322.9	320.3	270.7	311.3	339.4	317.3	193.5
75°	321.3	127.3	141.3	218.6	262.2	247.1	232.6	263.7	292.3	270.7	149.4
77.5°	143.9	76.2	98.3	143.4	206.0	169.4	180.0	205.5	232.2	209.6	99.7
80°	55.7	42.6	65.2	78.2	149.9	93.8	115.8	151.4	170.5	152.4	60.7
82.5°	7.0	19.1	28.1	30.5	87.2	49.6	67.1	95.2	93.8	81.2	30.5
85°	0.0	3.5	4.0	2.0	37.6	18.0	22.0	31.1	29.1	22.0	2.5
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	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):

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	1007.7	1007.7	1007.7	1007.7	1007.7	1007.7	1007.7	1007.7	1007.7	1007.7	1007.7
2.5°	877.8	859.8	850.7	843.3	850.2	854.3	854.3	871.4	881.4	885.4	913.5
5°	773.6	739.9	717.4	703.9	708.4	713.4	718.9	740.5	755.0	764.5	808.2
7.5°	691.4	640.2	608.6	592.0	594.6	598.1	602.6	623.7	638.2	650.8	699.4
10°	650.8	578.5	536.9	516.9	513.4	511.4	509.8	522.4	533.4	543.5	591.6
12.5°	652.7	552.0	501.3	476.7	466.3	454.2	444.6	446.7	453.7	466.3	496.8
15°	678.3	543.5	482.8	452.2	434.7	420.7	409.1	406.6	409.1	411.1	430.2
17.5°	712.9	542.4	466.8	428.7	410.6	399.0	388.6	385.0	385.5	388.1	393.1
20°	740.5	539.5	448.7	406.1	390.0	380.0	369.5	366.0	367.0	367.5	373.0
22.5°	755.0	534.9	428.7	383.6	370.0	360.0	350.4	349.9	349.9	352.9	357.0
25°	755.0	525.4	410.6	361.9	349.9	340.9	329.3	331.4	332.4	336.4	342.5
27.5°	737.0	507.4	396.1	343.4	330.9	321.8	311.3	313.9	315.4	319.9	327.4
30°	713.9	485.8	379.6	325.8	311.3	304.8	295.8	296.8	298.8	303.8	312.3
32.5°	689.3	460.2	366.0	308.3	293.8	288.7	278.7	280.2	282.3	287.8	297.2
35°	662.3	430.2	349.9	292.3	277.8	273.8	262.2	263.2	266.2	272.2	281.8
37.5°	633.7	405.6	333.9	276.8	261.7	257.7	245.7	246.6	250.2	257.2	266.2
40°	605.7	381.5	316.8	260.2	245.2	241.7	228.6	229.6	233.6	241.2	250.7
42.5°	575.0	363.0	294.8	243.1	227.1	223.6	211.6	213.1	217.6	225.1	234.6
45°	538.4	351.0	270.2	227.1	209.1	205.5	194.5	197.5	202.5	210.0	220.1
47.5°	500.8	345.9	249.7	210.0	190.5	187.5	178.5	183.5	189.0	195.1	206.0
50°	464.7	339.4	228.6	194.0	174.5	171.5	165.4	172.0	177.4	183.0	193.5
52.5°	423.6	325.3	209.6	180.0	160.9	159.9	156.9	163.0	168.0	172.9	181.9
55°	381.0	302.8	193.0	167.5	149.4	150.4	148.9	154.0	158.0	162.5	170.5
57.5°	343.9	274.2	180.0	154.0	139.4	142.4	140.4	142.9	145.3	150.9	157.4
60°	306.3	240.2	165.4	137.9	129.4	132.8	127.3	126.8	127.8	129.4	141.3
62.5°	255.6	204.6	147.4	123.8	118.3	119.8	109.3	101.3	101.3	102.8	120.8
65°	205.5	171.5	127.3	107.8	103.3	102.3	87.2	76.2	75.2	79.7	95.2
67.5°	168.9	142.4	107.3	89.8	86.7	87.7	76.7	65.7	64.7	69.7	81.2
70°	139.9	114.8	85.7	69.2	72.2	76.7	65.7	55.1	53.6	58.1	69.2
72.5°	111.3	89.8	65.7	51.1	59.7	65.2	53.6	43.7	42.6	46.6	57.2
75°	81.7	64.2	44.6	37.1	46.1	51.1	39.2	31.1	29.6	33.1	43.7
77.5°	50.6	36.1	28.1	22.0	31.6	34.1	20.6	18.0	17.5	20.1	27.6
80°	23.6	15.6	13.5	7.5	11.5	13.5	8.5	9.5	10.0	12.0	17.0
82.5°	6.6	2.5	0.5	0.0	0.0	4.0	2.0	4.0	5.0	7.5	11.1
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	2.5	4.5	8.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	4.0
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):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	1007.7	1007.7	1007.7	1007.7	1007.7	1007.7	1007.7	1007.7
2.5°	934.5	954.6	986.7	1019.8	1052.4	1085.4	1117.5	1129.0
5°	847.8	893.9	957.6	1025.7	1095.9	1167.2	1232.3	1261.9
7.5°	751.0	817.2	913.0	1019.8	1131.5	1243.3	1346.1	1393.7
10°	647.7	731.4	840.7	985.1	1145.5	1300.0	1441.4	1503.1
12.5°	549.5	637.2	758.0	931.0	1134.6	1332.6	1502.5	1575.2
15°	467.3	545.0	675.3	866.8	1098.9	1334.6	1531.6	1611.3
17.5°	405.6	456.2	591.1	795.6	1052.4	1316.0	1541.6	1626.9
20°	375.0	389.1	481.7	704.4	1008.7	1298.5	1551.6	1641.4
22.5°	357.0	360.5	394.0	586.6	956.5	1292.9	1569.2	1661.4
25°	342.5	343.4	352.4	464.7	876.9	1289.4	1596.2	1689.0
27.5°	327.9	327.9	332.9	374.5	768.5	1274.4	1631.4	1722.1
30°	313.3	313.3	316.8	331.4	641.8	1244.9	1673.5	1765.3
32.5°	298.3	298.3	301.3	311.8	512.4	1207.8	1712.1	1808.8
35°	283.3	282.3	286.3	297.2	407.6	1160.6	1750.7	1856.0
37.5°	267.2	266.7	270.7	283.3	352.0	1106.0	1779.8	1920.1
40°	250.2	250.2	254.7	268.2	335.9	1037.3	1825.9	2012.4
42.5°	234.6	233.6	238.6	255.2	323.9	971.6	1908.7	2146.8
45°	219.6	217.6	222.1	242.6	302.8	948.5	2063.0	2345.3
47.5°	205.5	200.5	204.6	227.7	283.7	1034.7	2315.7	2620.5
50°	194.0	184.5	188.0	212.6	269.3	1221.8	2643.6	2986.0
52.5°	181.9	169.4	171.5	194.0	256.1	1399.7	2999.0	3468.3
55°	169.4	155.4	156.4	175.5	237.6	1426.3	3346.0	4126.0
57.5°	155.4	142.4	142.4	158.5	224.1	1236.4	3612.7	4942.2
60°	139.9	131.3	128.8	144.9	236.2	872.4	3643.8	5468.7
62.5°	122.8	118.3	114.8	131.8	245.2	516.9	3393.6	5341.3
65°	103.3	102.3	99.7	144.9	206.5	305.3	2913.4	4950.8
67.5°	86.7	85.2	85.2	151.9	156.9	192.0	2276.1	4413.3
70°	74.7	69.2	69.2	114.8	95.2	132.8	1589.3	3833.3
72.5°	62.6	56.7	52.7	91.7	71.2	97.3	993.1	3282.8
75°	50.1	45.6	40.6	60.7	53.1	73.7	577.1	2719.8
77.5°	36.1	34.1	28.6	44.6	38.6	53.1	343.4	2098.6
80°	18.6	19.1	18.0	25.5	26.0	36.1	195.6	1436.3
82.5°	11.1	8.5	9.5	12.5	15.1	20.6	73.7	844.3
85°	7.0	4.5	4.5	6.0	7.5	8.0	22.5	342.5
87.5°	3.5	1.5	2.0	3.0	2.5	2.0	1.0	86.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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