

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: P963417

Luminaire Tested: **NAV-SB3A-722-U-SLR-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P963417
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-SB3A-722-U-SLR-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 70 CRI, 2200K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND SPILL LIGHT
ELIMINATOR RIGHT OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8697.1 lumens
Efficiency: N/A
Efficacy: 102.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G3

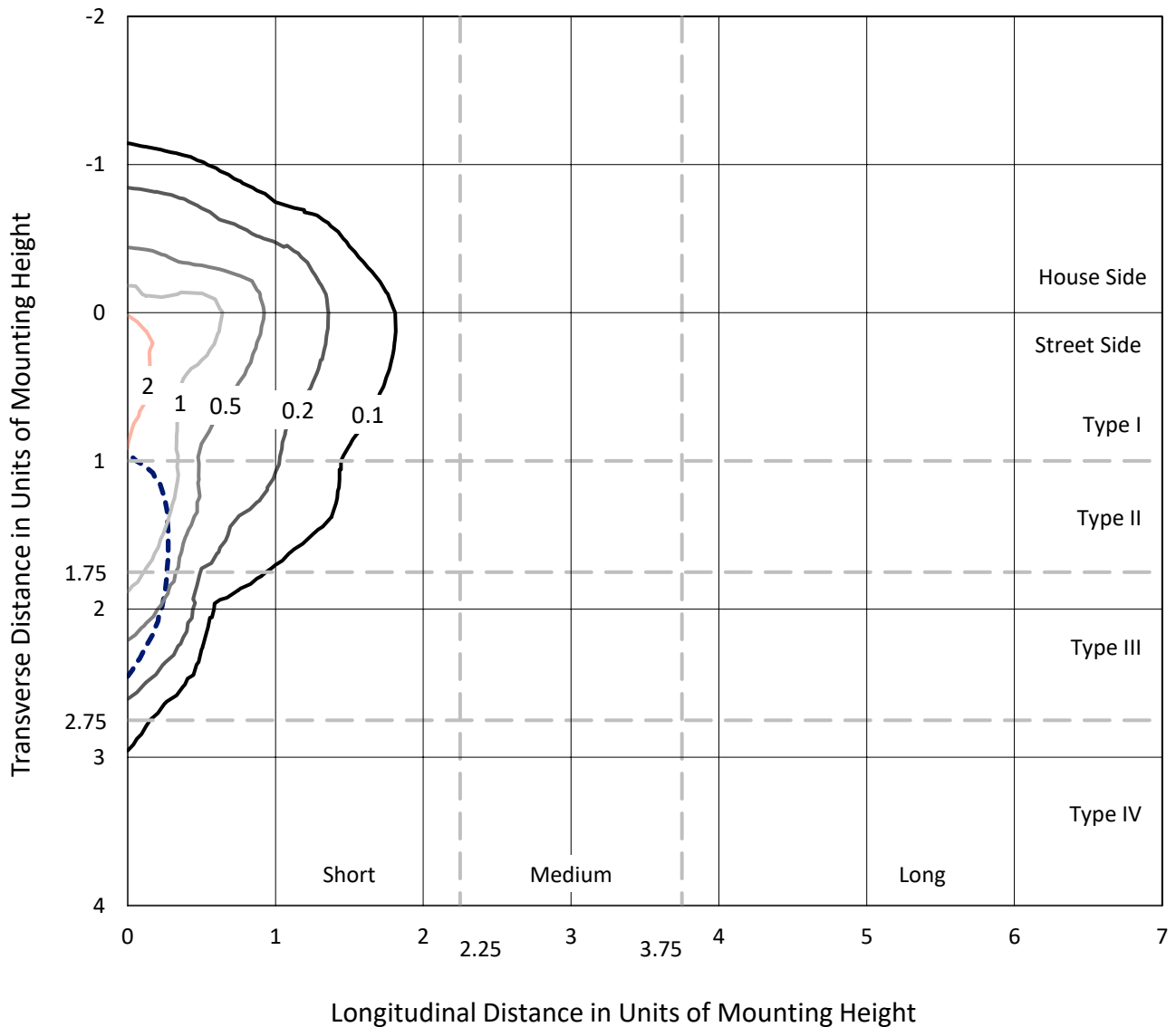
Input Watts (W): 84.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

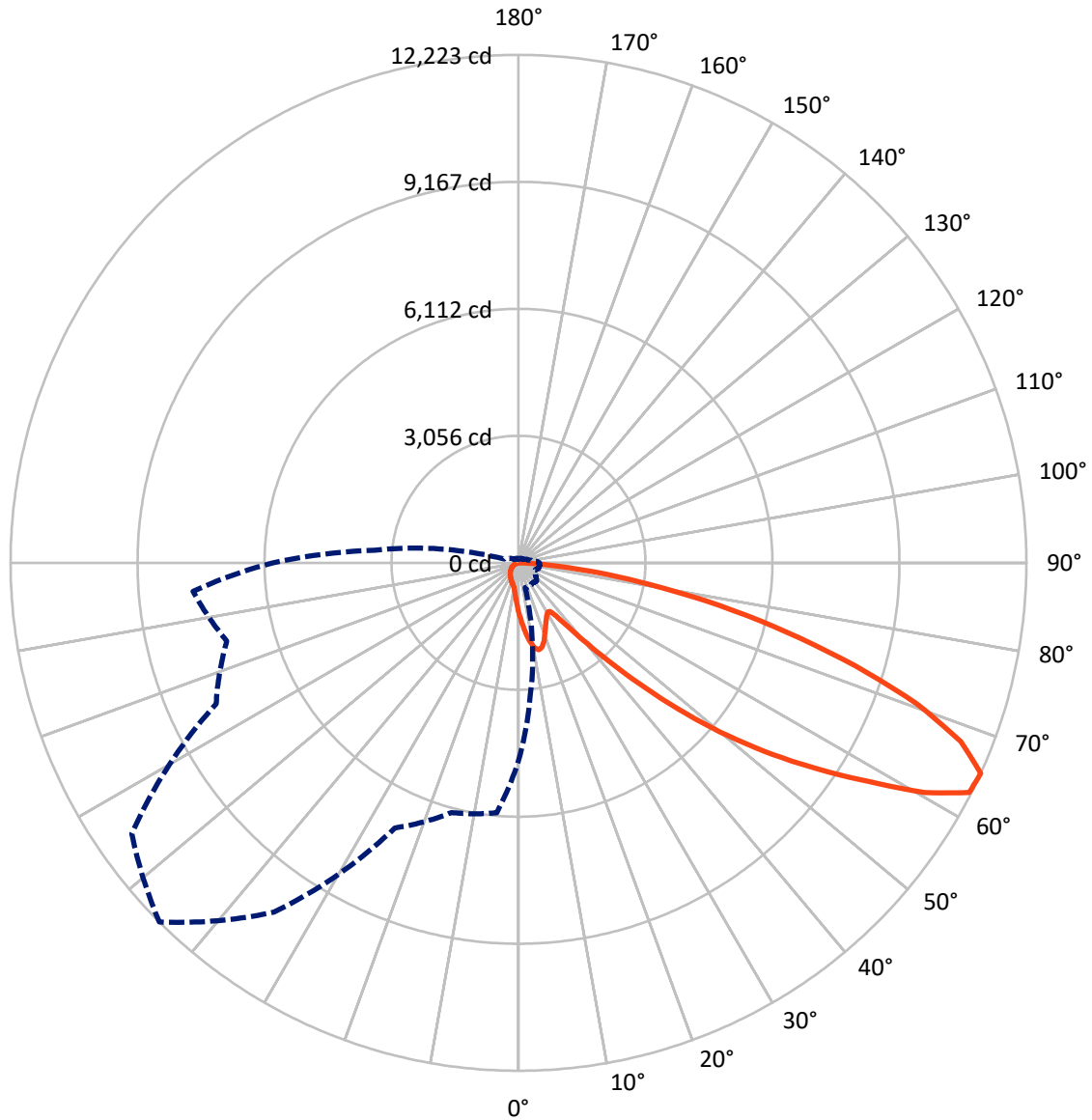
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.7 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 315-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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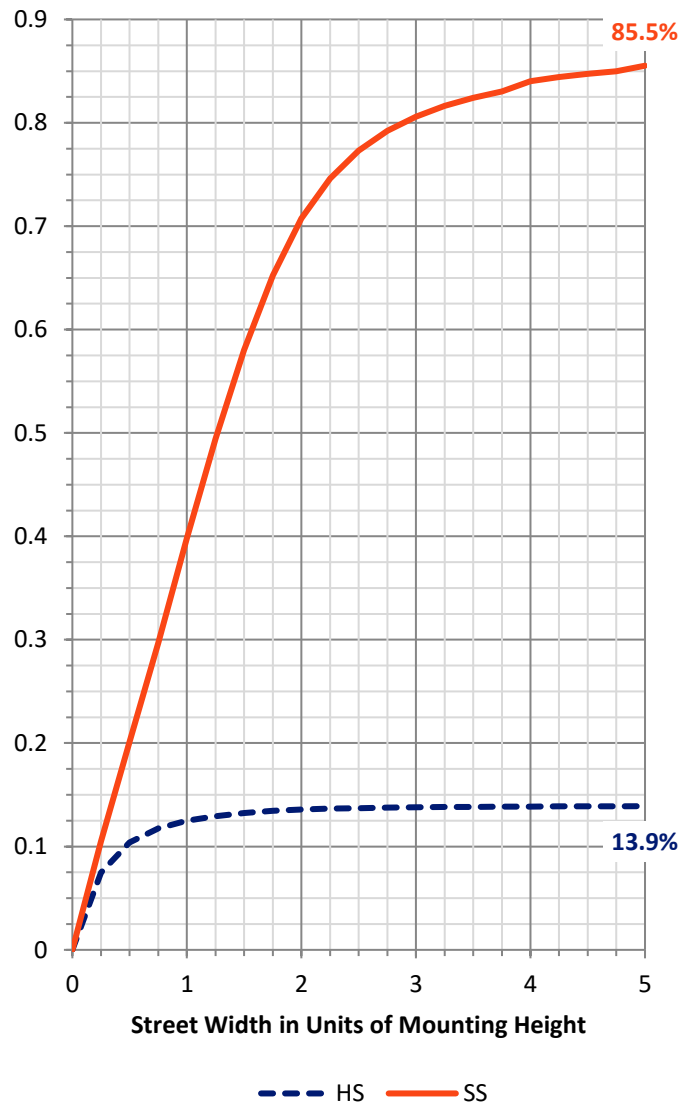
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1218.0	0.0	1218.0
	% Fixture	14.0	0.0	14.0
Street Side	Lumens	7479.2	0.0	7479.2
	% Fixture	86.0	0.0	86.0
Total	Lumens	8697.1	0.0	8697.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	118.6	1.4
10°-20°	355.4	4.1
20°-30°	523.6	6.0
30°-40°	672.7	7.7
40°-50°	1087.9	12.5
50°-60°	1907.8	21.9
60°-70°	2387.2	27.4
70°-80°	1395.0	16.0
80°-90°	248.9	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°	8697.1	100.0
0°-180°	8697.1	100.0

Coefficient of Utilization



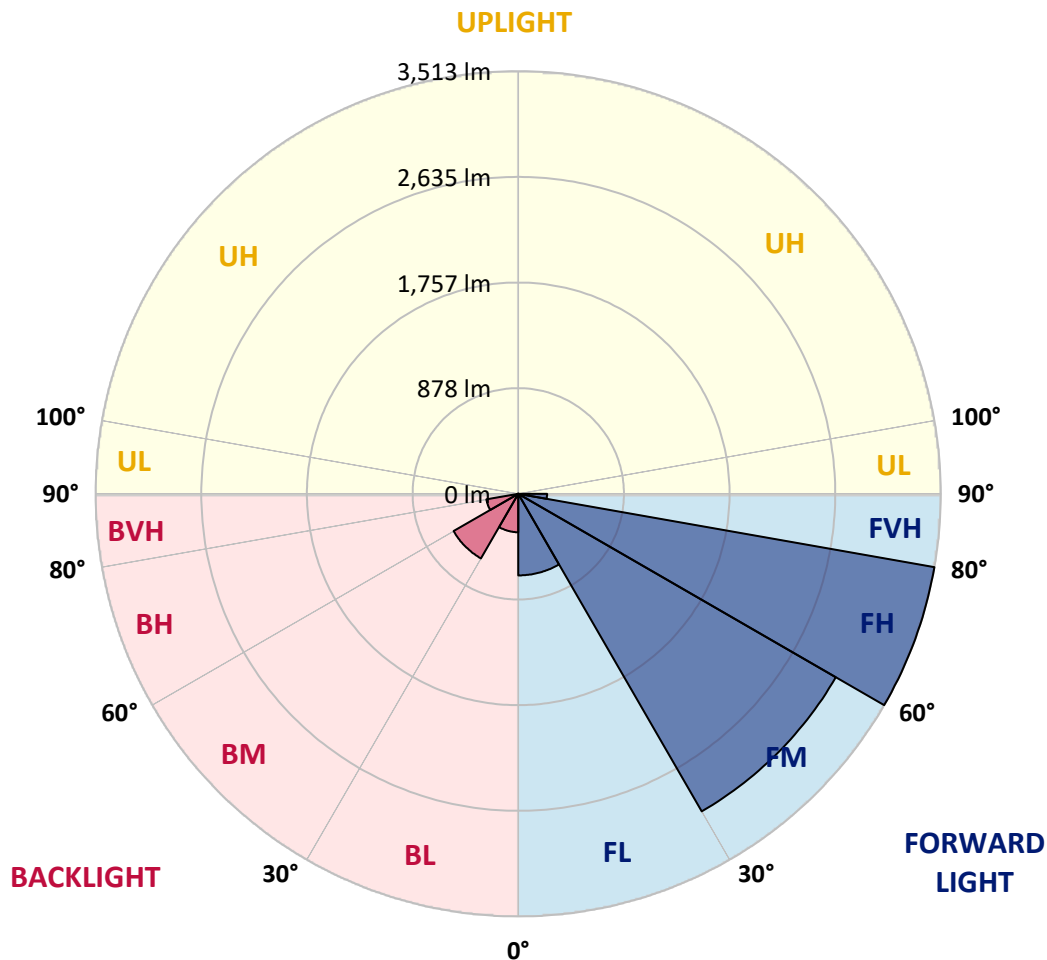
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	678.3	7.8			
FM (30°-60°)	3048.3	35.0			
FH (60°-80°)	3513.2	40.4			G2/5000
FVH (80°-90°)	239.3	2.8			G3/500
BL (0°-30°)	319.3	3.7	B1/500		
BM (30°-60°)	620.2	7.1	B1/1000		
BH (60°-80°)	268.9	3.1	B1/500		G1/500
BVH (80°-90°)	9.6	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-G3

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	1204.3	1204.3	1204.3	1204.3	1204.3	1204.3	1204.3	1204.3	1204.3	1204.3	1204.3
2.5°	1360.7	1337.3	1323.5	1289.3	1255.2	1227.6	1190.5	1165.9	1136.5	1108.4	1083.2
5°	1516.4	1478.7	1433.2	1370.8	1313.9	1255.8	1199.5	1143.8	1085.1	1031.1	998.1
7.5°	1648.2	1593.7	1513.4	1430.8	1358.2	1288.1	1222.2	1148.5	1077.3	992.8	947.8
10°	1748.9	1679.4	1574.0	1465.5	1382.2	1311.5	1247.4	1185.1	1113.3	1011.4	955.0
12.5°	1810.0	1735.7	1610.5	1483.5	1388.3	1309.1	1259.4	1231.8	1203.7	1102.4	1036.5
15°	1854.9	1774.7	1636.2	1496.1	1374.4	1277.4	1240.9	1268.3	1300.7	1236.0	1159.9
17.5°	1901.7	1817.2	1669.8	1501.4	1337.3	1215.6	1200.1	1271.4	1346.2	1343.3	1267.8
20°	1946.0	1862.1	1699.1	1497.8	1277.4	1140.7	1154.6	1245.6	1332.5	1369.0	1328.3
22.5°	1996.9	1908.2	1727.3	1484.1	1199.5	1070.7	1113.8	1204.9	1280.9	1324.1	1311.5
25°	2059.2	1966.4	1766.9	1463.7	1115.6	1012.6	1072.5	1157.5	1219.2	1249.2	1248.7
27.5°	2126.4	2035.9	1819.6	1452.9	1047.9	971.2	1025.7	1101.3	1156.3	1177.3	1177.3
30°	2209.6	2116.7	1881.9	1440.9	1003.6	947.2	977.2	1035.9	1089.9	1110.8	1110.8
32.5°	2300.7	2206.6	1941.9	1412.1	976.6	929.3	929.9	967.0	1016.2	1041.3	1044.9
35°	2414.5	2314.4	2005.9	1349.3	955.0	908.3	883.8	901.7	942.5	972.4	980.2
37.5°	2577.0	2455.9	2084.4	1259.4	923.3	876.0	835.2	839.4	870.5	903.5	915.5
40°	2801.0	2645.8	2176.7	1165.9	877.7	830.5	781.9	780.1	802.9	835.2	848.4
42.5°	3104.1	2896.9	2287.5	1076.7	834.0	775.3	725.6	722.5	740.6	768.6	782.5
45°	3504.4	3218.0	2423.5	1000.0	799.8	721.4	672.2	671.1	686.0	710.6	725.0
47.5°	4016.7	3664.4	2559.5	947.8	781.9	678.9	628.5	630.9	644.1	666.2	676.4
50°	4679.8	4246.1	2600.8	921.5	781.9	656.1	589.6	601.6	612.3	629.1	635.1
52.5°	5474.9	4804.5	2464.3	897.5	786.7	659.1	556.6	582.4	590.2	604.5	606.9
55°	6211.9	5078.4	2118.6	864.6	787.9	677.6	528.5	566.8	581.2	586.6	586.0
57.5°	6639.6	4984.3	1713.0	808.8	783.1	690.2	510.4	547.7	575.1	578.8	573.4
60°	6558.2	4654.1	1261.2	766.3	747.7	685.4	505.1	518.2	562.0	567.3	560.2
62.5°	5930.3	4100.5	875.4	733.4	669.8	664.4	503.3	472.1	533.2	546.4	536.3
65°	4766.8	3228.1	618.3	631.5	587.1	618.9	493.7	424.1	498.5	516.5	500.9
67.5°	3458.2	2184.5	446.4	511.7	532.1	545.2	472.1	389.4	458.9	482.9	462.6
70°	2219.2	1179.7	313.3	337.9	448.1	463.1	435.0	358.2	418.8	446.4	424.1
72.5°	1577.6	696.8	225.3	236.7	360.1	385.8	382.8	323.5	372.1	405.6	379.2
75°	1088.7	384.1	152.2	168.9	261.3	313.3	295.4	278.0	315.2	349.3	323.5
77.5°	682.4	172.0	91.0	117.5	171.4	246.2	202.5	215.0	245.7	277.4	250.4
80°	379.9	66.5	50.9	77.9	93.5	179.2	112.0	138.4	180.9	203.7	182.1
82.5°	82.7	8.4	22.8	33.5	36.6	104.2	59.3	80.3	113.9	112.0	97.1
85°	0.0	0.0	4.2	4.8	2.4	44.9	21.5	26.3	37.1	34.7	26.3
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	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°	1204.3	1204.3	1204.3	1204.3	1204.3	1204.3	1204.3	1204.3	1204.3	1204.3	1204.3
2.5°	1078.5	1049.1	1027.6	1016.7	1007.8	1016.2	1020.9	1020.9	1041.3	1053.3	1058.1
5°	977.2	924.4	884.4	857.4	841.2	846.5	852.6	859.2	884.9	902.3	913.7
7.5°	907.1	826.3	765.1	727.3	707.6	710.6	714.7	720.2	745.4	762.7	777.7
10°	893.9	777.7	691.4	641.6	617.7	613.6	611.1	609.4	624.3	637.4	649.4
12.5°	947.8	780.1	659.7	599.1	569.8	557.2	542.8	531.5	533.8	542.2	557.2
15°	1044.3	810.7	649.4	577.0	540.4	519.5	502.7	488.9	486.0	488.9	491.3
17.5°	1154.6	852.0	648.3	557.8	512.3	490.7	476.9	464.3	460.1	460.7	463.7
20°	1227.6	884.9	644.7	536.3	485.3	466.2	454.2	441.6	437.4	438.6	439.2
22.5°	1234.8	902.3	639.3	512.3	458.4	442.2	430.2	418.8	418.2	418.2	421.8
25°	1195.9	902.3	627.9	490.7	432.6	418.2	407.4	393.6	396.1	397.2	402.0
27.5°	1135.4	880.8	606.3	473.3	410.4	395.4	384.7	372.1	375.0	376.9	382.2
30°	1075.4	853.2	580.6	453.6	389.4	372.1	364.3	353.5	354.6	357.1	363.1
32.5°	1019.8	823.8	550.0	437.4	368.5	351.1	345.1	333.1	335.0	337.3	343.9
35°	964.6	791.5	514.0	418.2	349.3	331.9	327.2	313.3	314.6	318.2	325.3
37.5°	905.3	757.3	484.7	399.0	330.8	312.7	307.9	293.6	294.8	299.0	307.4
40°	843.0	723.8	455.9	378.6	311.0	292.9	288.7	273.2	274.4	279.2	288.2
42.5°	780.1	687.3	433.8	352.3	290.6	271.4	267.2	252.9	254.6	260.0	269.1
45°	722.0	643.5	419.4	323.0	271.4	249.8	245.7	232.5	236.1	242.0	251.0
47.5°	672.2	598.5	413.4	298.4	251.0	227.7	224.1	213.3	219.2	225.9	233.1
50°	629.7	555.4	405.6	273.2	231.9	208.5	204.9	197.7	205.5	212.1	218.7
52.5°	599.1	506.2	388.9	250.4	215.0	192.3	191.2	187.6	194.7	200.7	206.7
55°	572.8	455.3	361.9	230.6	200.1	178.6	179.8	177.9	184.0	188.7	194.1
57.5°	548.8	411.0	327.7	215.0	184.0	166.6	170.1	167.8	170.8	173.7	180.3
60°	520.1	366.0	287.0	197.7	164.7	154.6	158.8	152.2	151.6	152.8	154.6
62.5°	477.5	305.6	244.5	176.2	148.0	141.3	143.2	130.6	121.1	121.1	122.8
65°	418.2	245.7	204.9	152.2	128.8	123.4	122.2	104.2	91.0	89.9	95.2
67.5°	349.3	201.9	170.1	128.2	107.2	103.6	104.9	91.6	78.5	77.3	83.2
70°	284.6	167.2	137.2	102.5	82.7	86.3	91.6	78.5	65.9	64.1	69.5
72.5°	231.2	133.0	107.2	78.5	61.1	71.3	77.9	64.1	52.2	50.9	55.8
75°	178.6	97.7	76.7	53.3	44.4	55.1	61.1	46.7	37.1	35.4	39.6
77.5°	119.2	60.5	43.2	33.5	26.3	37.7	40.7	24.6	21.5	21.0	24.0
80°	72.5	28.2	18.6	16.2	9.0	13.7	16.2	10.1	11.4	12.0	14.3
82.5°	36.6	7.8	3.0	0.6	0.0	0.0	4.8	2.4	4.8	5.9	9.0
85°	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	3.0	5.4
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4
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):

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	1204.3	1204.3	1204.3	1204.3	1204.3	1204.3	1204.3	1204.3	1204.3	1204.3	1204.3
2.5°	1091.6	1116.8	1140.7	1179.2	1218.6	1257.6	1297.1	1335.5	1349.3	1359.5	1382.2
5°	965.9	1013.1	1068.3	1144.3	1225.8	1309.7	1394.8	1472.7	1508.1	1532.0	1585.9
7.5°	835.8	897.5	976.6	1091.0	1218.6	1352.3	1485.8	1608.7	1665.6	1711.7	1793.9
10°	706.9	774.1	874.1	1004.8	1177.3	1369.0	1553.6	1722.5	1796.2	1854.3	1965.7
12.5°	593.8	656.6	761.5	905.9	1112.6	1355.9	1592.5	1795.6	1882.5	1947.8	2070.0
15°	514.0	558.4	651.3	807.1	1035.9	1313.3	1594.9	1830.3	1925.7	1993.9	2100.0
17.5°	469.8	484.7	545.2	706.4	950.8	1257.6	1572.8	1842.3	1944.2	2007.8	2081.4
20°	445.8	448.1	464.9	575.7	841.8	1205.5	1551.7	1854.3	1961.5	2014.9	2037.1
22.5°	426.6	426.6	430.8	470.9	701.0	1143.2	1545.2	1875.3	1985.5	2018.5	1973.0
25°	409.2	409.2	410.4	421.2	555.4	1047.9	1541.0	1907.6	2018.5	2027.4	1902.3
27.5°	391.2	391.9	391.9	397.8	447.5	918.5	1523.0	1949.7	2058.1	2039.4	1834.5
30°	373.3	374.4	374.4	378.6	396.1	766.9	1487.7	2000.0	2109.6	2055.0	1767.5
32.5°	355.3	356.5	356.5	360.1	372.7	612.3	1443.3	2046.1	2161.7	2061.7	1705.2
35°	336.7	338.6	337.3	342.1	355.3	487.1	1387.0	2092.2	2218.0	2082.6	1674.6
37.5°	318.2	319.4	318.8	323.5	338.6	420.6	1321.7	2127.0	2294.7	2129.3	1711.1
40°	299.6	299.0	299.0	304.3	320.5	401.4	1239.6	2182.1	2405.0	2211.4	1870.5
42.5°	280.4	280.4	279.2	285.2	304.9	387.0	1161.1	2280.9	2565.5	2342.0	2153.3
45°	263.0	262.4	260.0	265.4	290.0	361.9	1133.5	2465.4	2802.8	2553.6	2495.5
47.5°	246.2	245.7	239.6	244.5	272.0	339.1	1236.7	2767.4	3131.7	2864.5	2816.0
50°	231.2	231.9	220.5	224.7	254.0	321.7	1460.1	3159.3	3568.4	3283.3	3119.7
52.5°	217.5	217.5	202.5	204.9	231.9	306.2	1672.8	3584.0	4144.9	3867.4	3473.8
55°	203.7	202.5	185.7	187.0	209.7	284.0	1704.6	3998.6	4931.0	4746.4	3957.9
57.5°	188.1	185.7	170.1	170.1	189.3	267.8	1477.4	4317.4	5906.4	6038.2	4656.0
60°	168.9	167.2	156.9	154.0	173.1	282.2	1042.5	4354.5	6535.4	7755.9	5992.6
62.5°	144.4	146.8	141.3	137.2	157.5	292.9	617.7	4055.6	6383.3	8302.3	7593.5
65°	113.9	123.4	122.2	119.2	173.1	246.8	364.9	3481.6	5916.5	7861.3	7266.9
67.5°	97.1	103.6	101.9	101.9	181.5	187.6	229.5	2720.1	5274.2	7338.3	6491.1
70°	82.7	89.3	82.7	82.7	137.2	113.9	158.8	1899.3	4581.0	6759.5	5981.8
72.5°	68.3	74.9	67.8	62.9	109.7	85.1	116.2	1186.8	3923.2	6156.8	5633.1
75°	52.2	60.0	54.5	48.5	72.5	63.6	88.0	689.6	3250.4	5267.7	5136.5
77.5°	32.9	43.2	40.7	34.1	53.3	46.1	63.6	410.4	2508.0	4116.1	4418.1
80°	20.4	22.1	22.8	21.5	30.5	31.2	43.2	233.7	1716.6	2868.7	3451.7
82.5°	13.2	13.2	10.1	11.4	15.0	17.9	24.6	88.0	1008.9	1746.5	2402.6
85°	9.6	8.4	5.4	5.4	7.2	9.0	9.6	27.0	409.2	689.6	939.4
87.5°	4.8	4.2	1.8	2.4	3.6	3.0	2.4	1.2	103.0	220.5	154.6
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°	1204.3	1204.3	1204.3	1204.3	1204.3	1204.3	1204.3	1204.3
2.5°	1394.2	1412.8	1414.0	1414.0	1397.8	1397.2	1364.3	1360.7
5°	1641.6	1653.6	1656.6	1650.7	1618.3	1594.3	1530.2	1516.4
7.5°	1868.2	1892.0	1892.0	1877.7	1825.0	1775.8	1682.9	1648.2
10°	2049.1	2076.6	2070.6	2041.3	1974.8	1907.1	1794.5	1748.9
12.5°	2137.1	2165.3	2149.7	2116.2	2051.4	1980.2	1861.5	1810.0
15°	2135.4	2127.6	2111.4	2107.2	2076.0	2022.1	1911.2	1854.9
17.5°	2059.2	1993.3	1980.7	2022.7	2062.2	2049.1	1954.4	1901.7
20°	1938.8	1823.8	1812.4	1892.7	2005.3	2062.8	1994.5	1946.0
22.5°	1811.8	1687.8	1661.4	1750.1	1919.6	2067.0	2045.5	1996.9
25°	1691.4	1566.7	1540.4	1623.1	1824.4	2059.8	2100.6	2059.2
27.5°	1590.7	1470.3	1445.8	1528.4	1732.8	2039.4	2155.7	2126.4
30°	1512.8	1401.4	1383.4	1463.1	1653.6	2014.3	2225.8	2209.6
32.5°	1467.3	1385.8	1392.4	1457.8	1611.1	1986.8	2292.9	2300.7
35°	1512.2	1515.9	1573.4	1600.3	1650.7	1982.6	2383.9	2414.5
37.5°	1735.7	1860.4	1979.6	1957.4	1844.2	2031.0	2520.0	2577.0
40°	2116.2	2372.0	2565.5	2481.0	2195.9	2179.7	2715.9	2801.0
42.5°	2581.1	3014.8	3333.6	3107.2	2649.4	2439.7	2995.7	3104.1
45°	3071.8	3807.6	4309.6	3838.7	3132.9	2804.0	3419.3	3504.4
47.5°	3588.8	4771.0	5420.4	4649.9	3581.0	3218.6	3996.9	4016.7
50°	4154.4	5827.2	6552.8	5460.6	4013.7	3693.7	4702.7	4679.8
52.5°	4693.1	6913.5	7661.3	6274.8	4393.5	4283.3	5521.7	5474.9
55°	5207.1	7999.1	8776.3	7057.3	4751.8	5062.2	6494.7	6211.9
57.5°	5803.2	8975.1	9925.4	7843.4	5252.7	6073.5	7582.7	6639.6
60°	6684.6	10084.2	11224.9	8920.6	6205.3	7136.4	7972.8	6558.2
62.5°	7809.8	11103.9	12169.7	9976.3	7162.1	7336.4	7398.2	5930.3
65°	8028.5	11362.1	12223.1	10258.5	7038.7	6223.3	6039.9	4766.8
67.5°	7448.6	10895.3	11477.7	9733.1	6226.3	4809.3	4532.5	3458.2
70°	6797.9	10005.6	10178.8	8839.7	5476.2	3537.4	3061.1	2219.2
72.5°	6131.0	8818.8	8460.5	7676.8	4812.9	2575.7	2207.8	1577.6
75°	5338.9	7258.0	6664.2	6378.5	3984.9	2021.5	1597.4	1088.7
77.5°	4275.5	5108.9	4950.1	4944.1	2994.5	1476.9	1065.9	682.4
80°	3016.1	3315.7	3234.8	3723.6	2008.9	1071.2	641.6	379.9
82.5°	1460.1	1833.4	1881.9	2217.4	977.2	630.3	148.0	82.7
85°	571.5	884.4	745.9	841.8	274.4	175.6	3.6	0.0
87.5°	64.1	102.5	94.1	74.3	33.5	7.2	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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