

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: EPHESUS

Report Number: P628593

Luminaire Tested: **EPH-VN-04-E-935-U-LAM**

Issue Date: 01/11/2023

Test Information

Test Method: LM-79-2019
Report Number: P628593
Test Lab: INNOVATION CENTER(G2)
Issue Date: 01/11/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: EPHESUS
Catalog Number: EPH-VN-04-E-935-U-LAM
Description: EPHESUS LUMAVISION FLOOD – Middle Tier Light Square Luminaire w/
LAMBERTIAN distribution lens
Light Source: (64) 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

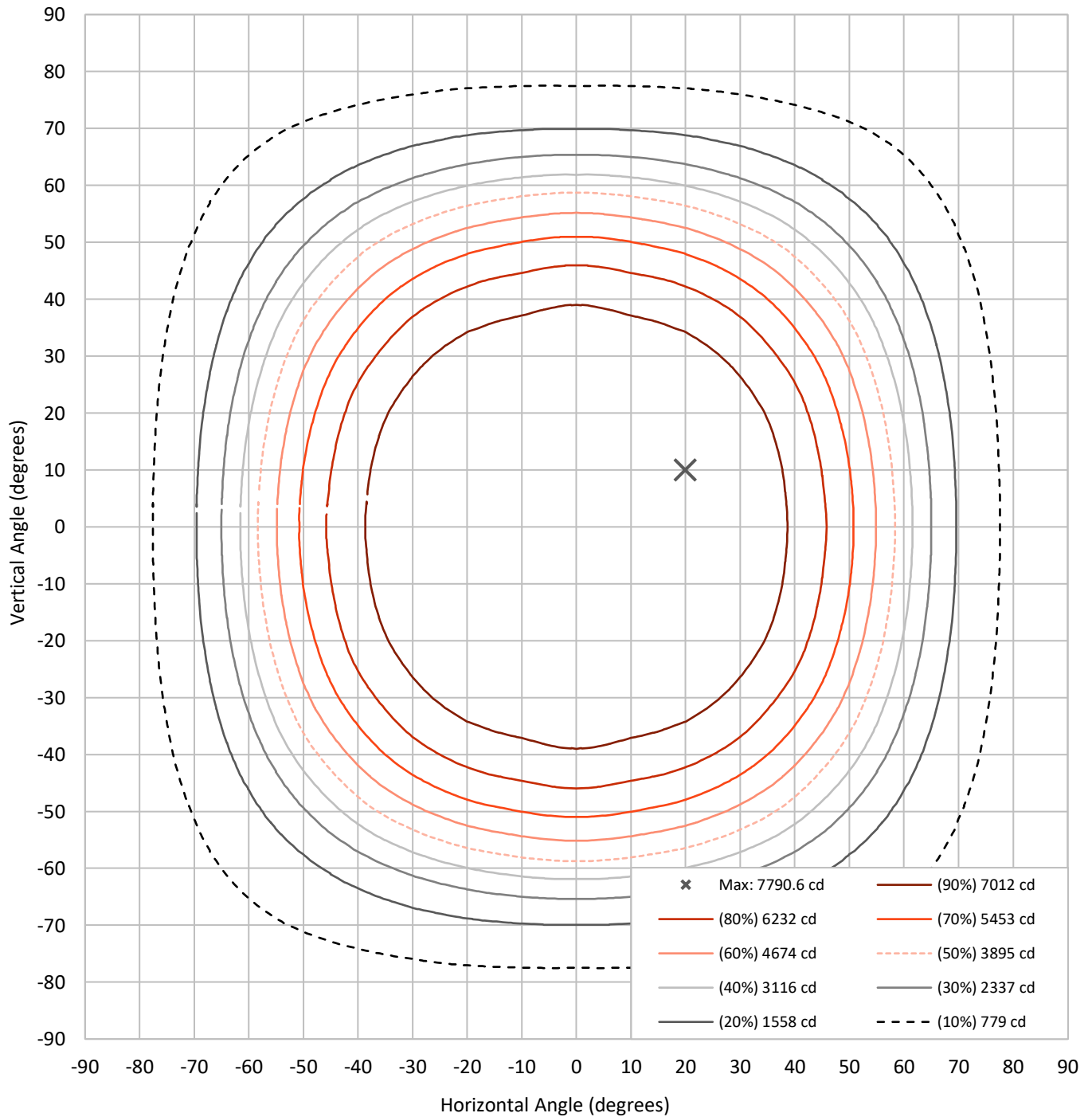
Lumens per Lamp:	N/A	NEMA Type:	7H x 7V
Luminaire Lumens:	23900.6 lumens	Max Intensity:	7790.6 candela
Efficiency:	N/A	Max Intensity Angle:	20°H x 10°V
Efficacy:	78.7 lumens/watt		
Luminous Opening:	Rectangular (W 2' x L: 0.5' x H: 0')		
Beam Angle (50%):	115.7°H x 112.9°V	Field Angle (10%):	154.7°H x 154°V
Beam Lumens:	14665.9 lumens	Field Lumens:	17581.9 lumens
Beam Efficiency:	61.4%	Field Efficiency:	73.6%

Input Watts (W): 303.8
Input Voltage (V): 120
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: 25 FT



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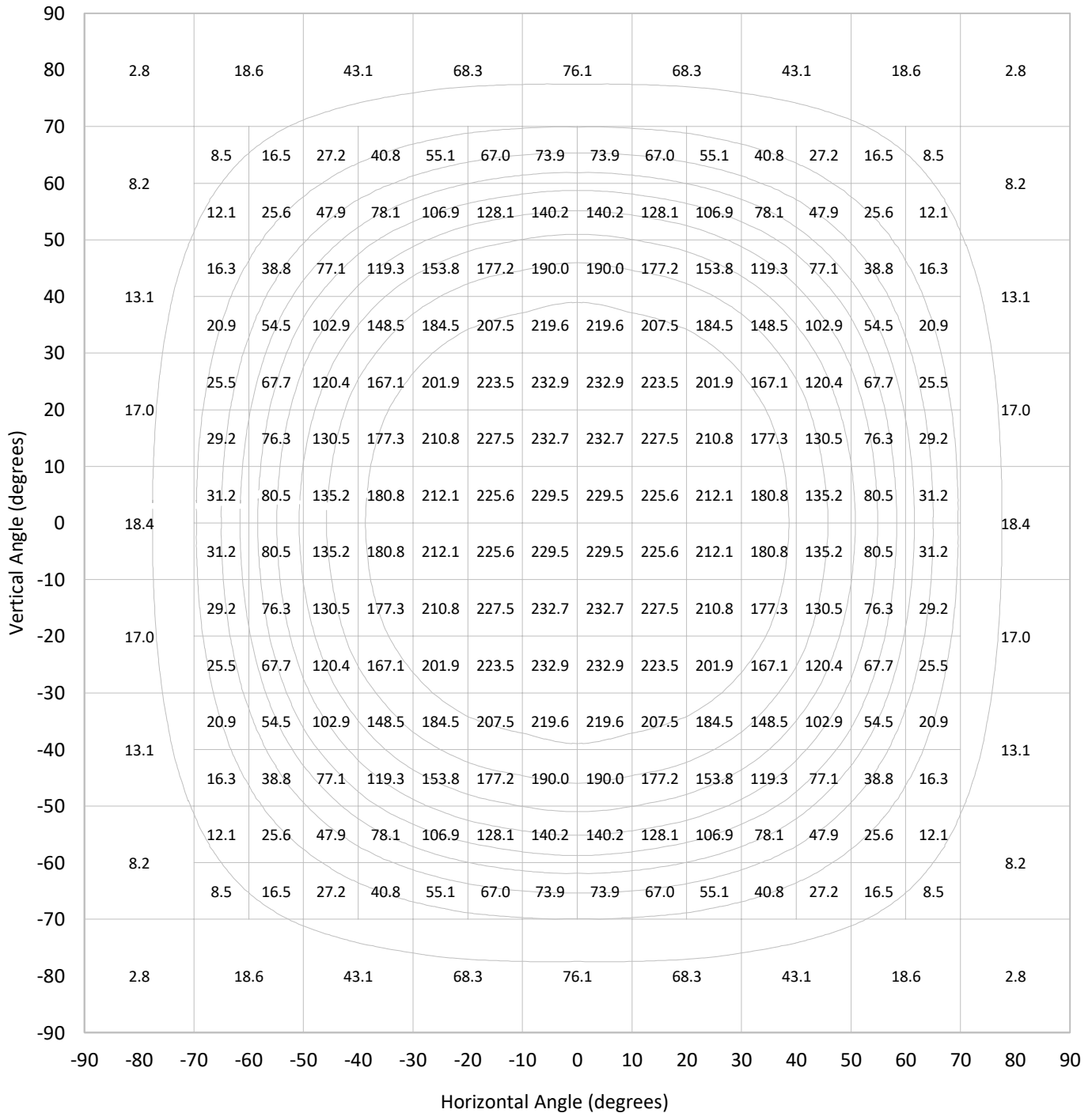
Iso-Candela Plot





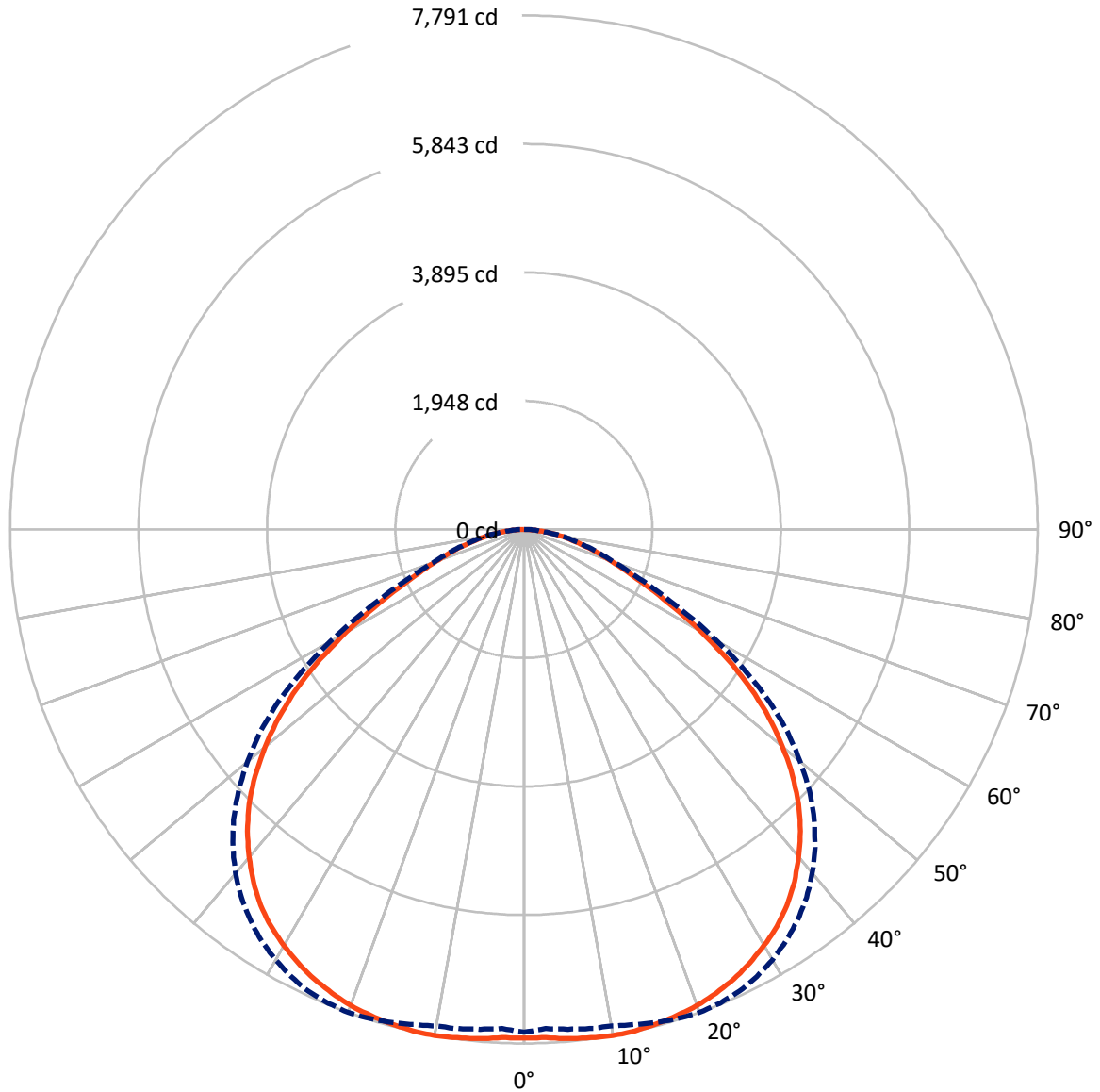
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Lumen Table



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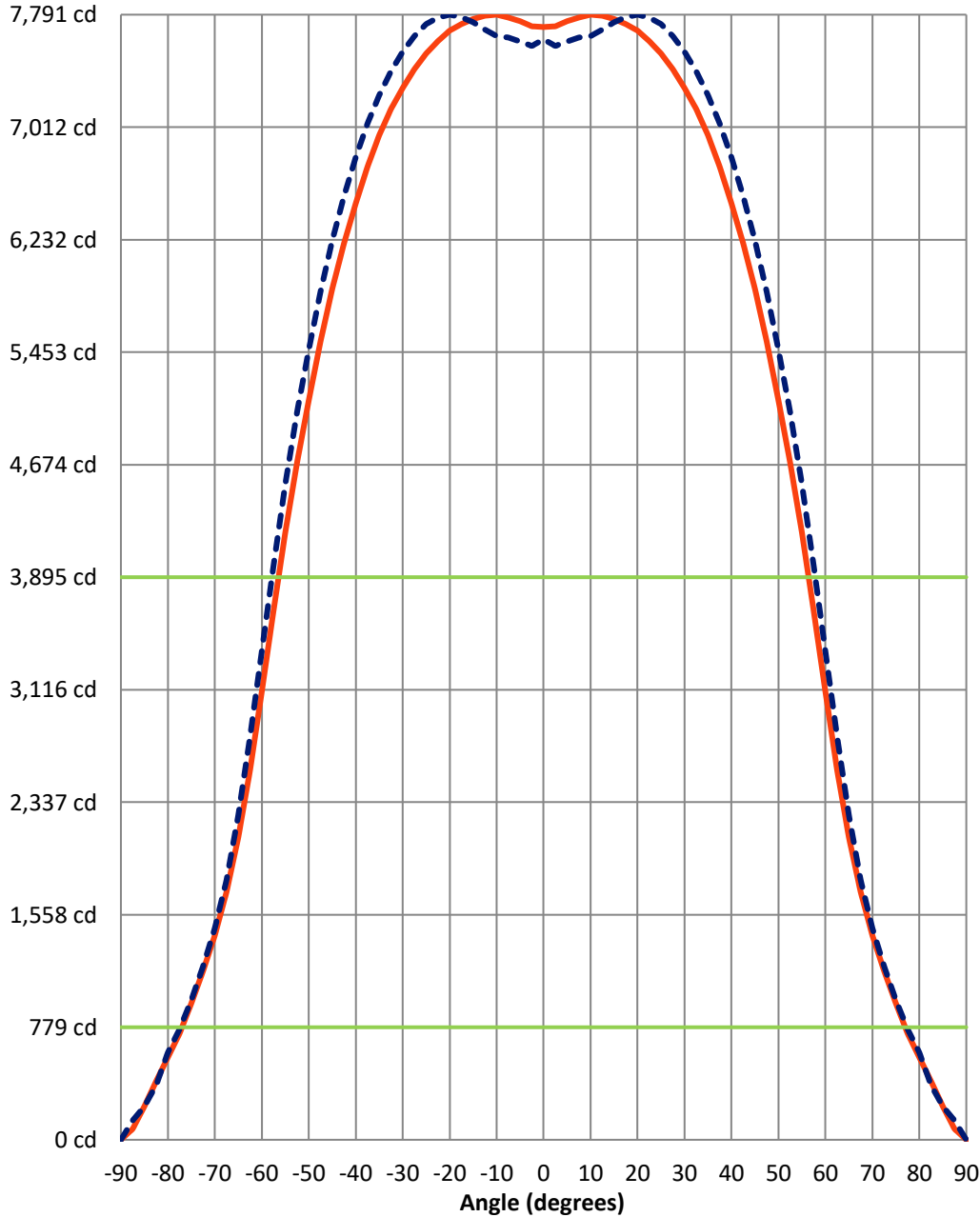
Luminous Intensity Polar Plot



— Vertical Distribution Through 20-Deg - - - Horizontal Distribution Through 10-Deg

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Luminous Intensity Plot



Beam:
H Angle: 115.7°
V Angle: 112.9°
Lumens: 14665.9
Efficiency: 61.4%

Field:
H Angle: 154.7°
V Angle: 154°
Lumens: 17581.9
Efficiency: 73.6%

Spill:
Lumens: 6318.7
Efficiency: 26.4%

- Vertical Distribution through 20-Deg
- - - Horizontal Distribution through 10-Deg



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FIELD
 BEAM

CANDELA DISTRIBUTION:

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	25°
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	62.9	67.9	70.4	72.9	75.4	78.0	80.5	78.0	75.4	75.4	72.9
85°	168.5	173.5	176.0	193.6	211.2	221.3	233.9	231.4	228.8	228.8	226.3
82.5°	337.0	352.1	364.6	382.2	392.3	407.4	417.4	409.9	394.8	394.8	387.3
80°	598.5	603.5	606.1	608.6	596.0	593.5	588.4	580.9	558.3	558.3	545.7
77.5°	762.0	767.0	772.0	767.0	764.5	762.0	754.4	746.9	726.8	726.8	711.7
75°	1008.4	1008.4	1008.4	1000.9	995.8	988.3	975.7	963.1	925.4	925.4	902.8
72.5°	1269.9	1267.4	1264.9	1249.8	1237.2	1222.2	1204.6	1189.5	1146.7	1146.7	1116.5
70°	1544.0	1549.1	1551.6	1531.5	1516.4	1496.3	1473.6	1446.0	1383.1	1383.1	1340.4
67.5°	1921.3	1916.2	1911.2	1883.5	1863.4	1835.8	1803.1	1762.8	1667.3	1667.3	1606.9
65°	2389.0	2396.5	2381.5	2353.8	2316.1	2270.8	2220.5	2162.7	2019.3	2019.3	1933.8
62.5°	2954.8	2967.4	2949.8	2914.6	2866.8	2806.4	2736.0	2653.0	2454.4	2454.4	2348.8
60°	3598.6	3596.1	3563.4	3515.6	3452.7	3377.3	3299.3	3208.8	2980.0	2980.0	2851.7
57.5°	4189.5	4184.5	4144.3	4096.5	4033.6	3953.2	3870.2	3774.6	3533.2	3533.2	3384.8
55°	4720.2	4715.1	4674.9	4624.6	4559.2	4478.7	4403.3	4312.8	4066.3	4066.3	3907.9
52.5°	5190.4	5192.9	5157.7	5102.4	5032.0	4954.0	4881.1	4790.6	4549.2	4549.2	4395.8
50°	5622.9	5620.4	5582.7	5532.4	5467.0	5391.6	5318.7	5228.1	4986.7	4986.7	4838.3
47.5°	6025.3	6020.3	5977.5	5922.2	5854.3	5788.9	5721.0	5640.5	5394.1	5394.1	5245.7
45°	6362.3	6352.2	6309.5	6256.7	6191.3	6133.4	6073.1	6012.7	5768.8	5768.8	5628.0
42.5°	6651.5	6649.0	6606.2	6553.4	6488.0	6437.7	6382.4	6306.9	6093.2	6093.2	5954.9
40°	6928.1	6908.0	6865.2	6814.9	6754.6	6711.8	6656.5	6581.1	6372.3	6372.3	6239.1
37.5°	7134.3	7136.8	7091.5	7036.2	6983.4	6943.2	6892.9	6822.5	6628.8	6628.8	6495.6
35°	7330.4	7317.9	7280.2	7232.4	7184.6	7139.3	7086.5	7026.2	6855.2	6855.2	6729.4
32.5°	7458.7	7476.3	7431.0	7380.7	7353.1	7317.9	7262.5	7199.7	7036.2	7036.2	6923.1
30°	7599.5	7584.4	7549.2	7506.5	7486.4	7463.7	7415.9	7355.6	7192.1	7192.1	7086.5
27.5°	7697.6	7690.1	7647.3	7607.1	7597.0	7576.9	7539.2	7486.4	7325.4	7325.4	7227.3
25°	7740.3	7745.4	7705.1	7682.5	7682.5	7669.9	7639.8	7594.5	7441.1	7441.1	7345.5
22.5°	7760.5	7755.4	7727.8	7722.7	7735.3	7725.3	7712.7	7672.4	7541.7	7541.7	7461.2
20°	7773.0	7737.8	7712.7	7732.8	7747.9	7745.4	7735.3	7710.2	7624.7	7624.7	7554.3
17.5°	7745.4	7722.7	7692.6	7722.7	7755.4	7757.9	7747.9	7732.8	7690.1	7690.1	7627.2
15°	7677.5	7659.9	7664.9	7695.1	7732.8	7745.4	7752.9	7770.5	7732.8	7732.8	7677.5
12.5°	7632.2	7609.6	7632.2	7662.4	7682.5	7690.1	7750.4	7783.1	7757.9	7757.9	7722.7
10°	7619.6	7574.4	7604.6	7632.2	7642.3	7687.5	7737.8	7773.0	7770.5	7770.5	7725.3
7.5°	7594.5	7564.3	7576.9	7589.5	7647.3	7680.0	7707.7	7745.4	7768.0	7768.0	7727.8
5°	7581.9	7544.2	7549.2	7602.0	7642.3	7664.9	7675.0	7707.7	7752.9	7752.9	7722.7
2.5°	7549.2	7531.6	7569.3	7574.4	7604.6	7622.2	7632.2	7662.4	7727.8	7727.8	7715.2
0°	7531.6	7506.5	7481.3	7501.4	7551.7	7589.5	7604.6	7649.8	7722.7	7722.7	7695.1



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CANDELA DISTRIBUTION (continued):

	27.5°	30°	32.5°	35°	37.5°	40°	42.5°	45°	47.5°	50°	52.5°
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	70.4	67.9	65.4	62.9	65.4	65.4	65.4	62.9	65.4	62.9	62.9
85°	218.8	208.7	201.2	191.1	181.1	173.5	163.5	153.4	150.9	148.4	143.3
82.5°	377.2	364.6	352.1	337.0	321.9	304.3	286.7	266.6	261.5	256.5	249.0
80°	530.6	513.0	495.4	477.8	462.7	445.1	425.0	402.4	387.3	374.7	359.6
77.5°	691.6	666.4	641.3	611.1	593.5	575.9	555.8	533.1	510.5	490.4	467.7
75°	875.1	847.5	822.3	792.1	759.4	726.8	694.1	663.9	631.2	601.0	570.8
72.5°	1078.8	1038.6	998.3	960.6	920.4	880.2	837.4	797.2	756.9	716.7	673.9
70°	1292.6	1242.3	1192.0	1141.7	1088.9	1036.1	985.8	935.5	885.2	832.4	784.6
67.5°	1544.0	1486.2	1420.8	1350.4	1272.5	1204.6	1139.2	1078.8	1018.5	958.1	897.8
65°	1858.4	1777.9	1689.9	1594.3	1503.8	1413.3	1317.7	1227.2	1156.8	1086.4	1018.5
62.5°	2245.7	2132.5	2009.3	1886.0	1775.4	1657.2	1546.6	1428.4	1317.7	1217.1	1134.1
60°	2708.4	2555.0	2404.1	2245.7	2092.3	1931.3	1790.5	1644.6	1506.3	1383.1	1262.4
57.5°	3218.9	3040.3	2859.3	2665.6	2456.9	2268.3	2077.2	1886.0	1722.6	1559.1	1423.3
55°	3736.9	3548.3	3344.6	3125.8	2897.0	2655.6	2396.5	2182.8	1959.0	1767.9	1591.8
52.5°	4229.8	4033.6	3822.4	3621.2	3347.1	3070.5	2786.3	2504.7	2243.1	1999.2	1785.5
50°	4669.9	4478.7	4275.0	4041.2	3787.2	3493.0	3176.1	2859.3	2549.9	2263.3	1996.7
47.5°	5072.2	4886.1	4682.4	4448.6	4217.2	3890.3	3570.9	3221.4	2876.9	2547.4	2235.6
45°	5449.4	5260.8	5049.6	4825.8	4559.2	4267.5	3938.1	3586.0	3216.3	2846.7	2487.1
42.5°	5791.4	5602.8	5389.1	5157.7	4893.7	4604.5	4285.1	3930.5	3558.3	3156.0	2761.2
40°	6090.7	5907.1	5700.9	5459.5	5213.0	4908.8	4594.4	4257.4	3872.7	3467.8	3032.8
37.5°	6352.2	6181.2	5977.5	5738.6	5477.1	5205.5	4881.1	4544.1	4197.1	3757.0	3311.9
35°	6583.6	6425.1	6216.4	5990.1	5733.6	5446.9	5142.6	4813.2	4438.5	4026.1	3593.6
32.5°	6784.7	6623.8	6432.7	6206.4	5957.4	5688.3	5376.5	5044.6	4690.0	4270.0	3799.8
30°	6955.7	6799.8	6618.8	6405.0	6166.1	5899.6	5595.3	5260.8	4898.7	4481.3	4016.0
27.5°	7104.1	6955.7	6779.7	6581.1	6352.2	6095.7	5788.9	5451.9	5082.3	4679.9	4214.7
25°	7232.4	7089.0	6925.6	6737.0	6510.6	6259.2	5970.0	5617.9	5248.2	4843.4	4383.2
22.5°	7348.0	7209.7	7046.3	6862.7	6656.5	6405.0	6113.3	5763.8	5389.1	4989.2	4536.6
20°	7451.2	7322.9	7162.0	6973.4	6767.1	6513.2	6224.0	5892.0	5514.8	5122.5	4674.9
17.5°	7534.1	7421.0	7260.0	7061.4	6855.2	6608.7	6327.1	6022.8	5622.9	5235.7	4790.6
15°	7592.0	7481.3	7335.5	7134.3	6933.1	6689.2	6407.5	6093.2	5721.0	5326.2	4886.1
12.5°	7632.2	7514.0	7378.2	7192.1	6991.0	6749.5	6475.4	6166.1	5804.0	5406.7	4969.1
10°	7642.3	7534.1	7398.3	7232.4	7036.2	6802.4	6533.3	6226.5	5871.9	5469.5	5037.0
7.5°	7647.3	7544.2	7421.0	7262.5	7068.9	6842.6	6576.0	6274.3	5922.2	5522.4	5087.3
5°	7644.8	7546.7	7436.1	7282.7	7089.0	6865.2	6603.7	6306.9	5957.4	5557.6	5125.0
2.5°	7637.2	7549.2	7446.1	7297.8	7111.7	6890.4	6631.3	6344.7	5995.1	5587.7	5155.2
0°	7657.4	7581.9	7451.2	7292.7	7116.7	6890.4	6628.8	6349.7	6000.2	5585.2	5152.7



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CANDELA DISTRIBUTION (continued):

	55°	57.5°	60°	62.5°	65°	67.5°	70°	72.5°	75°	77.5°	80°
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	62.9	60.4	60.4	57.8	55.3	52.8	47.8	45.3	40.2	32.7	25.1
85°	135.8	128.3	120.7	115.7	110.6	105.6	98.1	90.5	80.5	65.4	50.3
82.5°	238.9	223.8	208.7	191.1	176.0	160.9	148.4	135.8	120.7	98.1	75.4
80°	342.0	319.4	296.7	271.6	249.0	223.8	201.2	181.1	160.9	130.8	100.6
77.5°	445.1	414.9	382.2	352.1	319.4	286.7	254.0	226.3	196.1	160.9	125.7
75°	540.7	505.5	475.3	432.5	392.3	349.5	306.8	269.1	231.4	188.6	150.9
72.5°	636.2	591.0	548.2	508.0	462.7	409.9	362.1	314.3	266.6	216.3	171.0
70°	731.8	676.5	623.7	575.9	525.6	472.8	414.9	359.6	301.8	241.4	188.6
67.5°	829.9	767.0	706.6	646.3	588.4	528.1	467.7	404.9	337.0	266.6	208.7
65°	938.0	860.0	787.1	719.2	651.3	585.9	518.0	450.1	374.7	294.2	226.3
62.5°	1046.1	960.6	875.1	789.6	714.2	641.3	568.3	492.9	409.9	324.4	243.9
60°	1161.8	1063.7	965.7	870.1	777.1	696.6	616.1	535.6	447.6	352.1	261.5
57.5°	1290.1	1171.9	1061.2	953.1	847.5	751.9	663.9	578.4	480.3	379.7	281.7
55°	1435.9	1290.1	1159.3	1038.6	922.9	807.2	711.7	623.7	518.0	407.4	304.3
52.5°	1589.3	1420.8	1262.4	1126.6	1003.4	872.6	756.9	658.9	555.8	435.0	324.4
50°	1767.9	1554.1	1378.1	1212.1	1073.8	938.0	804.7	699.1	593.5	467.7	344.5
47.5°	1951.4	1715.0	1493.8	1312.7	1149.2	1000.9	860.0	734.3	628.7	497.9	364.6
45°	2165.2	1868.4	1624.5	1410.8	1222.2	1066.2	915.4	772.0	658.9	528.1	384.8
42.5°	2371.4	2049.5	1760.3	1518.9	1305.1	1129.1	965.7	812.3	689.0	558.3	402.4
40°	2615.3	2230.6	1891.1	1622.0	1388.1	1189.5	1016.0	855.0	716.7	585.9	420.0
37.5°	2849.2	2414.1	2049.5	1735.2	1468.6	1249.8	1066.2	895.2	741.8	613.6	442.6
35°	3080.5	2617.8	2200.4	1840.8	1551.6	1317.7	1116.5	933.0	767.0	636.2	462.7
32.5°	3301.8	2809.0	2353.8	1959.0	1642.1	1380.6	1161.8	968.2	792.1	656.3	482.8
30°	3508.1	2990.0	2504.7	2079.7	1725.1	1438.4	1204.6	1003.4	822.3	673.9	502.9
27.5°	3696.7	3166.0	2655.6	2192.8	1803.1	1491.2	1249.8	1036.1	847.5	691.6	520.5
25°	3867.7	3324.5	2793.9	2296.0	1873.5	1549.1	1292.6	1068.8	870.1	706.6	535.6
22.5°	4028.6	3470.3	2919.6	2399.1	1959.0	1606.9	1332.8	1098.9	892.7	721.7	550.7
20°	4169.4	3603.6	3040.3	2502.2	2034.4	1659.7	1368.0	1126.6	912.8	731.8	565.8
17.5°	4282.6	3721.8	3148.4	2592.7	2099.8	1705.0	1398.2	1151.7	930.5	744.4	575.9
15°	4383.2	3822.4	3239.0	2670.6	2157.6	1742.7	1425.9	1171.9	945.5	751.9	588.4
12.5°	4468.7	3907.9	3316.9	2738.5	2207.9	1775.4	1448.5	1187.0	958.1	759.4	596.0
10°	4539.1	3975.8	3382.3	2791.4	2248.2	1800.5	1466.1	1202.0	968.2	767.0	603.5
7.5°	4591.9	4026.1	3430.1	2836.6	2280.9	1818.2	1481.2	1212.1	978.2	772.0	616.1
5°	4632.1	4068.8	3467.8	2866.8	2306.0	1843.3	1498.8	1224.7	988.3	777.1	616.1
2.5°	4662.3	4104.0	3498.0	2891.9	2326.1	1838.3	1498.8	1222.2	988.3	777.1	613.6
0°	4657.3	4106.6	3495.5	2891.9	2326.1	1833.2	1498.8	1219.6	988.3	777.1	613.6



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CANDELA DISTRIBUTION (continued):

	82.5°	85°	87.5°	90°
90°	0.0	0.0	0.0	0.0
87.5°	17.6	12.6	5.0	0.0
85°	37.7	25.1	12.6	0.0
82.5°	55.3	35.2	17.6	0.0
80°	72.9	47.8	22.6	0.0
77.5°	93.0	60.4	30.2	0.0
75°	110.6	70.4	35.2	0.0
72.5°	128.3	83.0	40.2	0.0
70°	143.3	93.0	45.3	0.0
67.5°	158.4	105.6	52.8	0.0
65°	171.0	115.7	57.8	0.0
62.5°	181.1	128.3	62.9	0.0
60°	193.6	138.3	67.9	0.0
57.5°	203.7	145.9	72.9	0.0
55°	213.8	150.9	78.0	0.0
52.5°	223.8	158.4	83.0	0.0
50°	233.9	166.0	88.0	0.0
47.5°	243.9	171.0	90.5	0.0
45°	259.0	178.5	95.6	0.0
42.5°	271.6	183.6	100.6	0.0
40°	284.2	188.6	103.1	0.0
37.5°	296.7	193.6	108.1	0.0
35°	309.3	198.7	110.6	0.0
32.5°	319.4	203.7	113.2	0.0
30°	329.4	208.7	115.7	0.0
27.5°	339.5	211.2	118.2	0.0
25°	347.0	216.3	120.7	0.0
22.5°	354.6	218.8	123.2	0.0
20°	359.6	221.3	125.7	0.0
17.5°	367.2	223.8	128.3	0.0
15°	369.7	226.3	133.3	0.0
12.5°	374.7	228.8	133.3	0.0
10°	377.2	231.4	133.3	0.0
7.5°	382.2	231.4	133.3	0.0
5°	379.7	231.4	133.3	0.0
2.5°	379.7	231.4	133.3	0.0
0°	377.2	231.4	133.3	0.0

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