

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: P624187

Luminaire Tested: **EPH-VN-04-E-735-U-77**

Issue Date: 11/2/2022

Test Information

Test Method: LM-79-2019
Report Number: P624187
Test Lab: INNOVATION CENTER(G2)
Issue Date: 11/2/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: EPHESUS
Catalog Number: EPH-VN-04-E-735-U-77
Description: EPHESUS LUMAVISION FLOOD – Middle Tier Light Square Luminaire w/
Nema 7 distribution lens
Light Source: (64) 3500K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

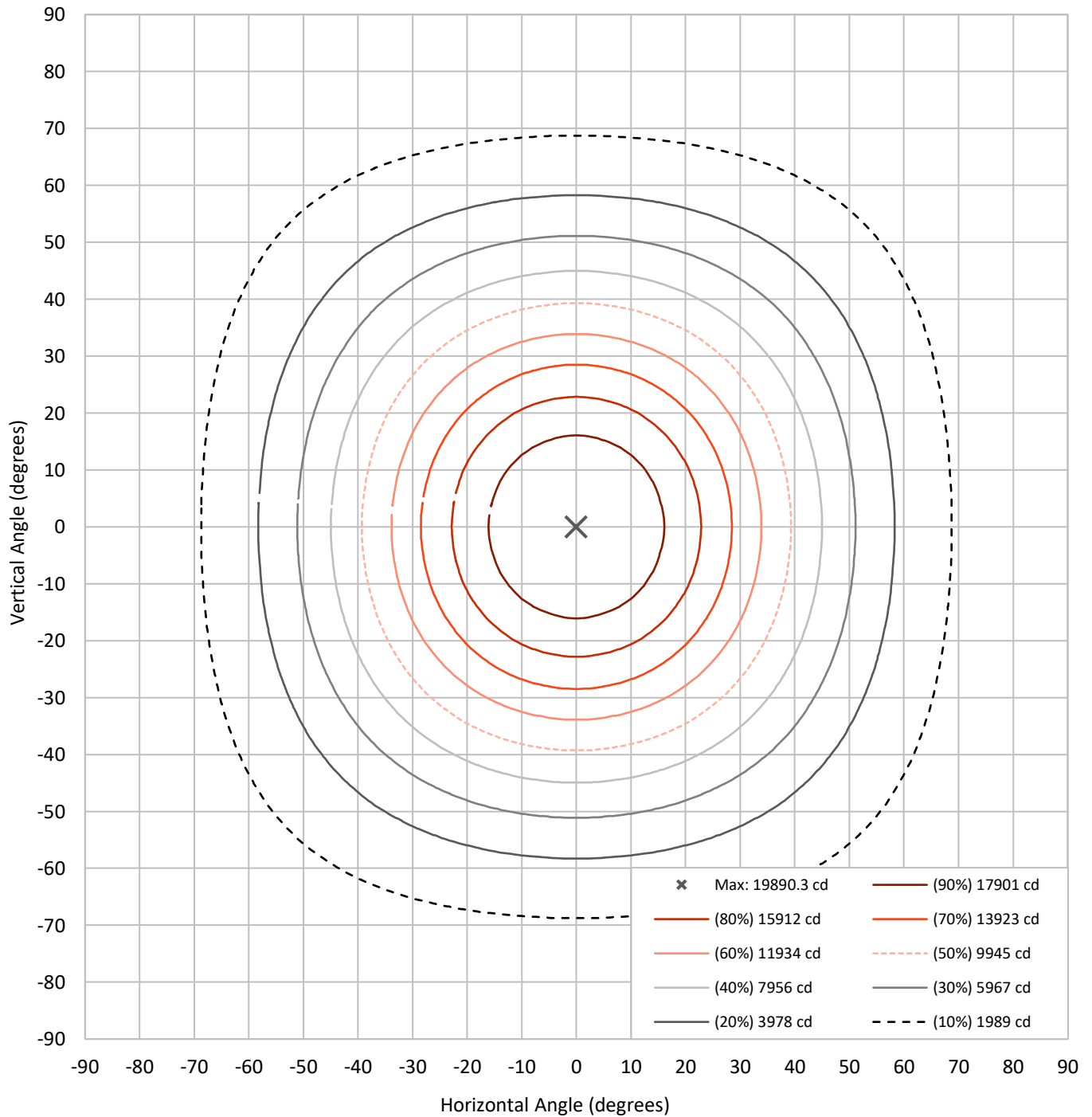
Lumens per Lamp:	N/A	NEMA Type:	7H x 7V
Luminaire Lumens:	35812.9 lumens	Max Intensity:	19890.3 candela
Efficiency:	N/A	Max Intensity Angle:	0°H x 0°V
Efficacy:	117.9 lumens/watt		
Luminous Opening:	Rectangular (W 2' x L: 0.5' x H: 0')		
Beam Angle (50%):	78.6°H x 78.6°V	Field Angle (10%):	137.5°H x 137.5°V
Beam Lumens:	15495.9 lumens	Field Lumens:	25374 lumens
Beam Efficiency:	43.3%	Field Efficiency:	70.9%

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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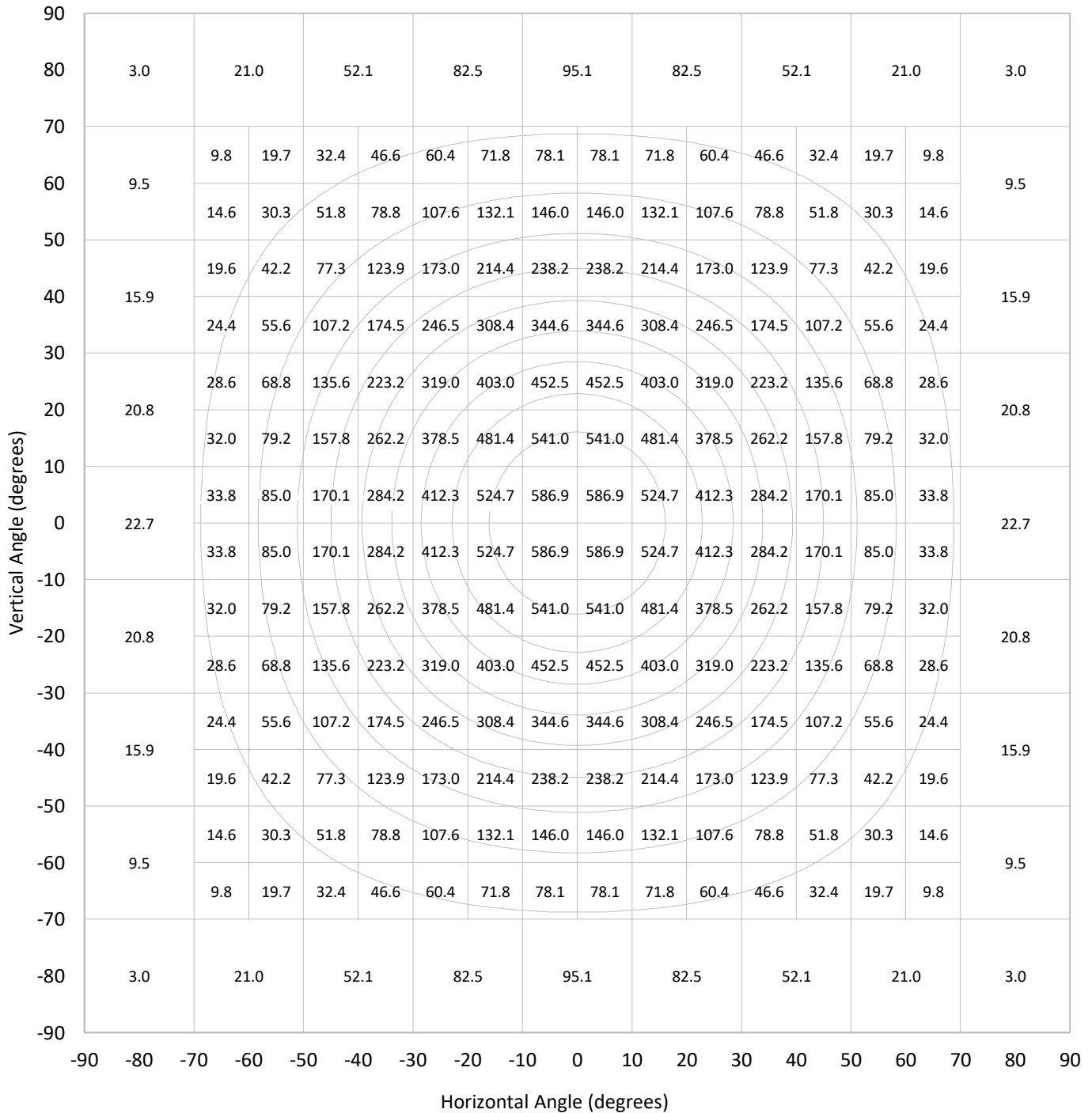
Iso-Candela Plot





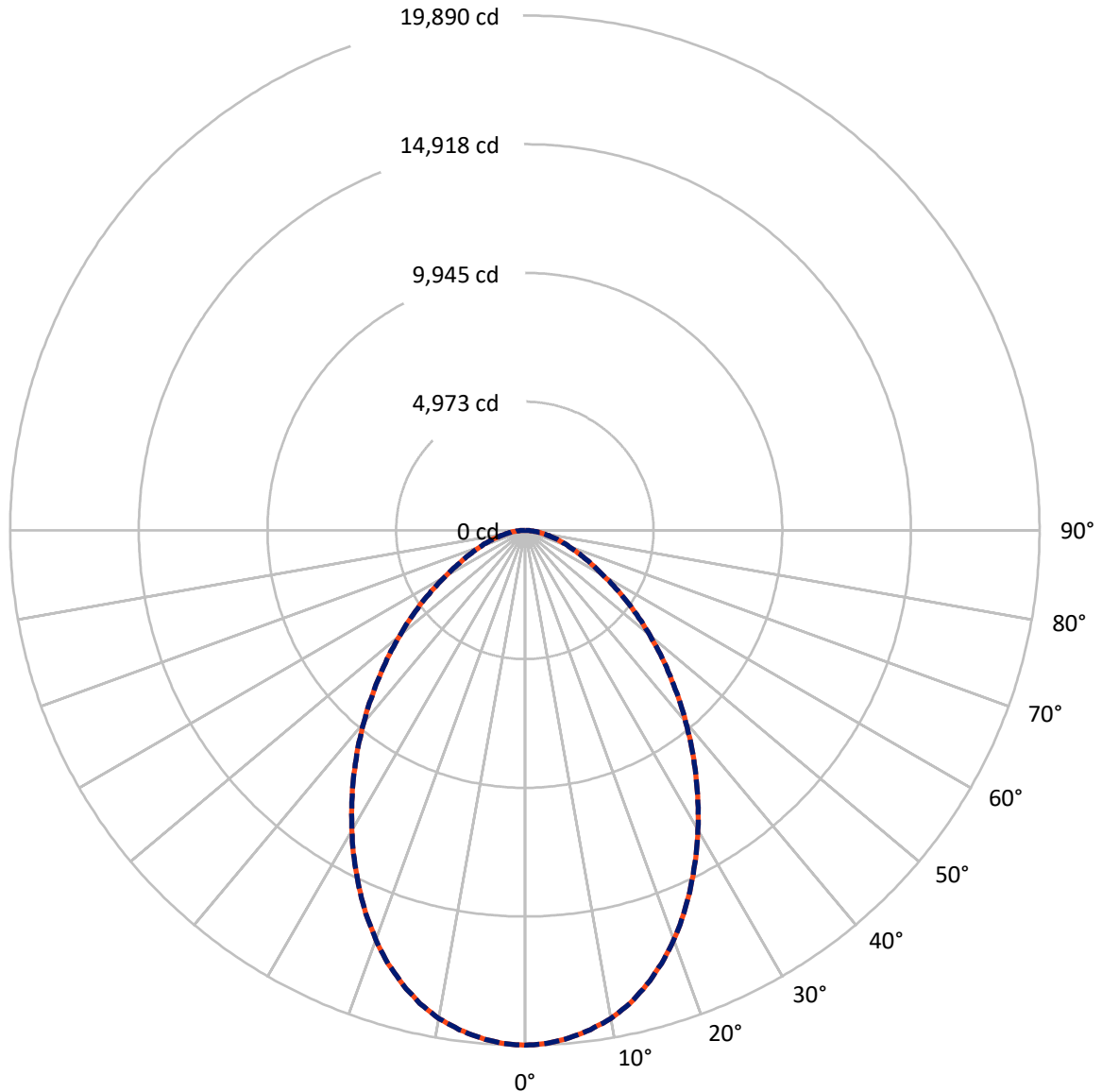
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Lumen Table



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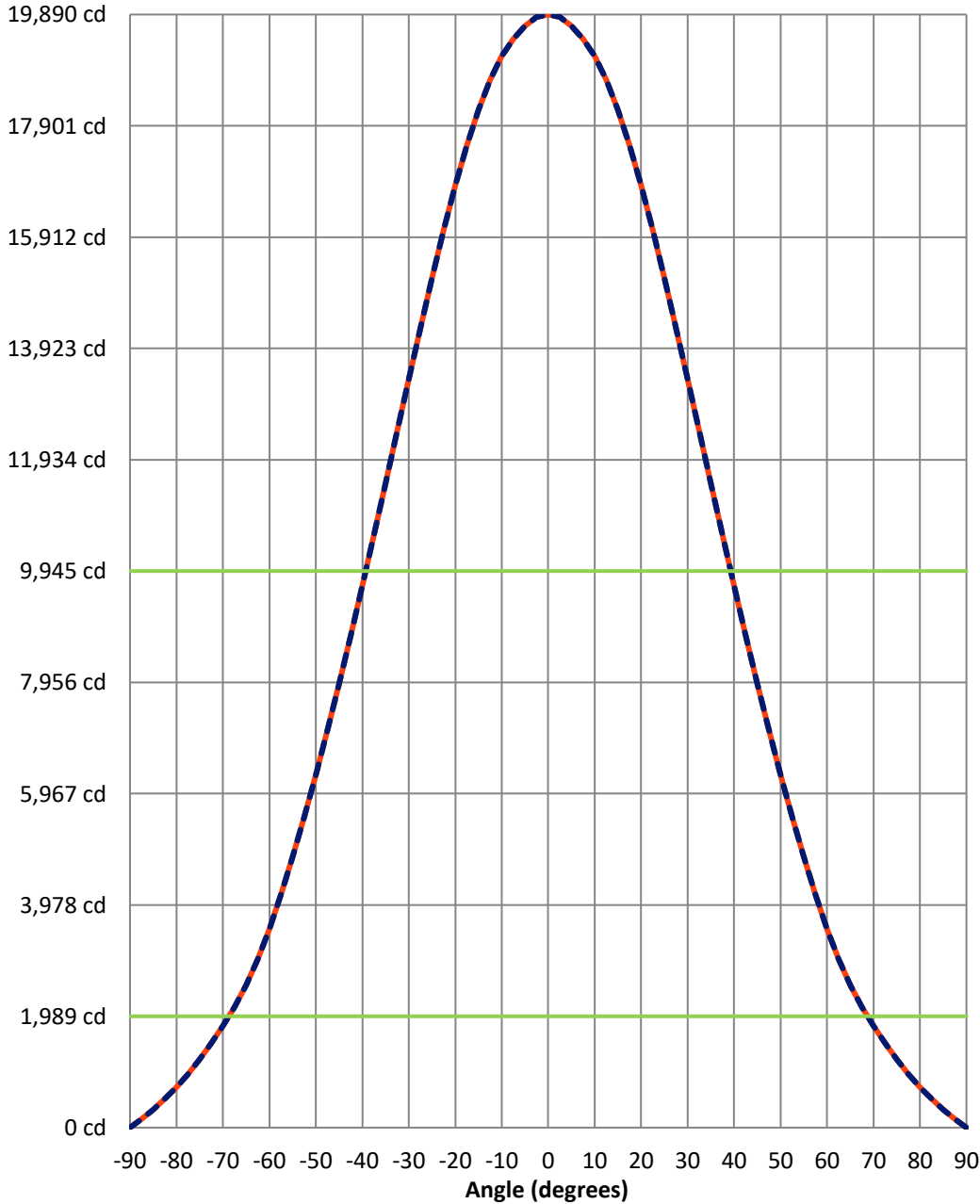
Luminous Intensity Polar Plot



— Vertical Distribution Through 0-Deg - - - Horizontal Distribution Through 0-Deg

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Luminous Intensity Plot



Beam:
 H Angle: 78.6°
 V Angle: 78.6°
 Lumens: 15495.9
 Efficiency: 43.3%

Field:
 H Angle: 137.5°
 V Angle: 137.5°
 Lumens: 25374
 Efficiency: 70.9%

Spill:
 Lumens: 10438.9
 Efficiency: 29.1%

- Vertical Distribution through 0-Deg
- - - Horizontal Distribution through 0-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°	153.1	153.1	153.1	153.1	153.1	153.1	153.1	145.6	145.6	141.9	138.2
85°	321.1	321.1	321.1	321.1	321.1	313.6	309.9	306.2	302.4	295.0	291.2
82.5°	515.3	515.3	515.3	515.3	507.8	500.3	496.6	489.1	481.7	470.5	459.3
80°	720.6	720.6	720.6	720.6	709.4	702.0	690.8	683.3	672.1	657.2	642.2
77.5°	955.9	955.9	955.9	944.7	937.2	926.0	914.8	899.9	884.9	866.3	843.9
75°	1221.0	1221.0	1221.0	1206.0	1194.8	1183.6	1165.0	1146.3	1123.9	1097.8	1067.9
72.5°	1508.5	1508.5	1508.5	1489.8	1478.6	1459.9	1437.5	1411.4	1385.3	1351.7	1314.3
70°	1818.4	1818.4	1818.4	1796.0	1777.3	1758.6	1728.8	1698.9	1661.6	1624.2	1579.4
67.5°	2154.4	2154.4	2154.4	2128.3	2105.9	2079.8	2046.2	2008.8	1964.0	1911.7	1859.5
65°	2546.5	2546.5	2531.6	2509.2	2483.0	2445.7	2404.6	2352.3	2296.3	2229.1	2158.2
62.5°	3009.5	3009.5	2987.1	2961.0	2927.3	2878.8	2822.8	2755.6	2677.2	2591.3	2505.4
60°	3547.2	3547.2	3521.0	3487.4	3438.9	3379.1	3304.5	3218.6	3121.5	3013.2	2908.7
57.5°	4167.0	4167.0	4133.4	4088.6	4028.8	3954.2	3860.8	3752.5	3629.3	3494.9	3364.2
55°	4839.1	4839.1	4798.0	4745.7	4674.8	4585.2	4473.2	4346.2	4196.9	4043.8	3875.7
52.5°	5552.3	5552.3	5503.7	5444.0	5361.8	5257.3	5130.3	4981.0	4809.2	4630.0	4432.1
50°	6302.8	6302.8	6246.8	6179.5	6086.2	5963.0	5817.4	5645.6	5455.2	5246.1	5018.3
47.5°	7105.5	7105.5	7042.1	6963.7	6851.6	6709.8	6538.0	6340.1	6123.5	5888.3	5630.7
45°	7930.7	7930.7	7859.8	7770.2	7647.0	7486.4	7296.0	7105.5	6829.2	6556.7	6258.0
42.5°	8789.5	8789.5	8707.4	8606.6	8464.7	8289.2	8072.6	7826.2	7553.6	7247.4	6922.6
40°	9681.9	9681.9	9588.6	9472.8	9316.0	9114.4	8871.7	8595.4	8289.2	7949.4	7590.9
37.5°	10593.0	10593.0	10488.4	10361.5	10186.0	9961.9	9689.4	9383.2	9039.7	8662.6	8266.8
35°	11511.5	11511.5	11395.7	11257.6	11063.4	10817.0	10522.0	10182.2	9801.4	9390.7	8946.3
32.5°	12448.7	12448.7	12321.7	12164.9	11944.6	11672.1	11347.2	10977.6	10593.0	10115.0	9629.6
30°	13374.7	13374.7	13236.5	13064.8	12829.6	12530.8	12176.1	11769.1	11317.3	10828.2	10305.5
27.5°	14285.8	14248.4	14132.7	13949.7	13692.1	13374.7	12990.1	12549.5	12060.4	11522.7	10962.6
25°	15181.9	15140.8	15013.9	14812.2	14535.9	14188.7	13774.2	13303.8	12777.3	12209.7	11597.4
22.5°	16040.7	15995.9	15861.4	15644.9	15349.9	14972.8	14528.5	14024.4	13464.3	12855.7	12209.7
20°	16836.0	16787.4	16649.3	16421.5	16115.3	15715.8	15245.4	14703.9	14106.5	13464.3	12777.3
17.5°	17552.9	17504.3	17358.7	17123.5	16836.0	16391.7	15906.3	15335.0	14703.9	14024.4	13303.8
15°	18183.9	18131.6	17982.3	17747.0	17418.5	17000.3	16488.7	15906.3	15245.4	14528.5	13774.2
12.5°	18721.6	18669.3	18516.2	18281.0	17941.2	17523.0	17000.3	16391.7	15715.8	14972.8	14188.7
10°	19147.2	19095.0	18949.4	18725.3	18374.3	17941.2	17418.5	16836.0	16115.3	15349.9	14535.9
7.5°	19453.4	19404.9	19270.5	19046.4	18725.3	18281.0	17747.0	17123.5	16421.5	15644.9	14812.2
5°	19684.9	19628.9	19494.5	19270.5	18949.4	18516.2	17982.3	17358.7	16649.3	15861.4	15013.9
2.5°	19845.5	19778.3	19628.9	19404.9	19095.0	18669.3	18131.6	17504.3	16787.4	15995.9	15140.8
0°	19890.3	19845.5	19684.9	19453.4	19147.2	18721.6	18183.9	17552.9	16836.0	16040.7	15181.9



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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°	134.4	134.4	130.7	127.0	123.2	115.7	112.0	108.3	104.5	97.1	93.3
85°	283.8	276.3	268.8	261.4	250.2	242.7	231.5	224.0	212.8	201.6	190.4
82.5°	448.1	436.9	421.9	410.7	395.8	377.1	362.2	343.5	324.8	309.9	291.2
80°	627.3	608.6	590.0	571.3	548.9	526.5	504.1	481.7	455.5	429.4	403.3
77.5°	821.4	795.3	769.2	739.3	713.2	683.3	653.4	623.6	590.0	556.3	522.7
75°	1038.0	1004.4	967.1	929.7	896.1	855.1	814.0	772.9	728.1	687.0	642.2
72.5°	1273.2	1232.2	1187.4	1142.6	1094.0	1041.7	989.5	933.5	881.2	828.9	772.9
70°	1527.1	1478.6	1422.6	1366.6	1306.9	1243.4	1179.9	1112.7	1045.5	978.3	911.1
67.5°	1799.7	1740.0	1672.8	1605.6	1530.9	1456.2	1381.5	1303.1	1221.0	1138.8	1060.4
65°	2091.0	2016.3	1937.9	1852.0	1766.1	1680.2	1590.6	1497.3	1403.9	1306.9	1221.0
62.5°	2415.8	2322.5	2221.6	2117.1	2020.0	1915.5	1818.4	1702.6	1590.6	1482.3	1374.1
60°	2792.9	2669.7	2546.5	2415.8	2292.6	2158.2	2038.7	1911.7	1784.8	1661.6	1534.6
57.5°	3214.9	3058.0	2908.7	2751.9	2587.6	2438.2	2285.1	2132.0	1990.1	1844.5	1706.4
55°	3692.8	3502.4	3315.7	3121.5	2931.1	2744.4	2550.2	2378.5	2203.0	2038.7	1878.1
52.5°	4215.5	3999.0	3767.5	3547.2	3304.5	3073.0	2856.4	2639.8	2434.5	2236.6	2053.6
50°	4775.6	4521.7	4256.6	3987.8	3711.5	3438.9	3177.5	2923.6	2684.6	2453.1	2236.6
47.5°	5358.1	5070.6	4768.1	4462.0	4167.0	3834.7	3521.0	3233.5	2946.0	2684.6	2434.5
45°	5955.5	5630.7	5298.4	4951.1	4603.9	4245.4	3898.2	3547.2	3233.5	2923.6	2639.8
42.5°	6571.6	6205.7	5836.0	5451.4	5066.9	4674.8	4282.7	3898.2	3521.0	3177.5	2856.4
40°	7206.4	6803.1	6381.2	5963.0	5552.3	5104.2	4674.8	4245.4	3834.7	3438.9	3073.0
37.5°	7841.1	7400.5	6945.0	6474.5	6004.1	5552.3	5066.9	4603.9	4167.0	3711.5	3304.5
35°	8479.6	7994.2	7501.3	6989.8	6474.5	5963.0	5451.4	4951.1	4462.0	3987.8	3547.2
32.5°	9121.8	8591.6	8046.5	7501.3	6945.0	6381.2	5836.0	5298.4	4768.1	4256.6	3767.5
30°	9752.8	9177.8	8591.6	7994.2	7400.5	6803.1	6205.7	5630.7	5070.6	4521.7	3999.0
27.5°	10368.9	9752.8	9121.8	8479.6	7841.1	7206.4	6571.6	5955.5	5358.1	4775.6	4215.5
25°	10962.6	10305.5	9629.6	8946.3	8266.8	7590.9	6922.6	6258.0	5630.7	5018.3	4432.1
22.5°	11522.7	10828.2	10115.0	9390.7	8662.6	7949.4	7247.4	6556.7	5888.3	5246.1	4630.0
20°	12060.4	11317.3	10593.0	9801.4	9039.7	8289.2	7553.6	6829.2	6123.5	5455.2	4809.2
17.5°	12549.5	11769.1	10977.6	10182.2	9383.2	8595.4	7826.2	7105.5	6340.1	5645.6	4981.0
15°	12990.1	12176.1	11347.2	10522.0	9689.4	8871.7	8072.6	7296.0	6538.0	5817.4	5130.3
12.5°	13374.7	12530.8	11672.1	10817.0	9961.9	9114.4	8289.2	7486.4	6709.8	5963.0	5257.3
10°	13692.1	12829.6	11944.6	11063.4	10186.0	9316.0	8464.7	7647.0	6851.6	6086.2	5361.8
7.5°	13949.7	13064.8	12164.9	11257.6	10361.5	9472.8	8606.6	7770.2	6963.7	6179.5	5444.0
5°	14132.7	13236.5	12321.7	11395.7	10488.4	9588.6	8707.4	7859.8	7042.1	6246.8	5503.7
2.5°	14248.4	13374.7	12448.7	11511.5	10593.0	9681.9	8789.5	7930.7	7105.5	6302.8	5552.3
0°	14285.8	13374.7	12448.7	11511.5	10593.0	9681.9	8789.5	7930.7	7105.5	6302.8	5552.3



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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°	89.6	82.1	74.7	70.9	63.5	59.7	52.3	44.8	41.1	33.6	26.1
85°	179.2	164.3	153.1	141.9	130.7	115.7	104.5	93.3	78.4	67.2	52.3
82.5°	272.6	253.9	235.2	216.6	197.9	179.2	156.8	138.2	119.5	100.8	78.4
80°	377.1	347.2	321.1	295.0	268.8	242.7	212.8	186.7	156.8	130.7	104.5
77.5°	485.4	451.8	414.5	377.1	339.8	306.2	268.8	235.2	201.6	164.3	130.7
75°	601.2	556.3	515.3	466.7	421.9	373.4	328.6	283.8	242.7	201.6	156.8
72.5°	720.6	664.6	608.6	556.3	500.3	444.3	392.1	336.0	283.8	235.2	186.7
70°	843.9	776.6	709.4	646.0	582.5	515.3	455.5	392.1	328.6	268.8	212.8
67.5°	974.5	896.1	817.7	735.6	664.6	590.0	515.3	444.3	373.4	306.2	242.7
65°	1116.4	1023.1	926.0	840.1	746.8	664.6	582.5	500.3	421.9	339.8	268.8
62.5°	1262.0	1153.8	1045.5	937.2	840.1	735.6	646.0	556.3	466.7	377.1	295.0
60°	1411.4	1288.2	1165.0	1045.5	926.0	817.7	709.4	608.6	515.3	414.5	321.1
57.5°	1564.5	1426.3	1288.2	1153.8	1023.1	896.1	776.6	664.6	556.3	451.8	347.2
55°	1721.3	1564.5	1411.4	1262.0	1116.4	974.5	843.9	720.6	601.2	485.4	377.1
52.5°	1878.1	1706.4	1534.6	1374.1	1221.0	1060.4	911.1	772.9	642.2	522.7	403.3
50°	2038.7	1844.5	1661.6	1482.3	1306.9	1138.8	978.3	828.9	687.0	556.3	429.4
47.5°	2203.0	1990.1	1784.8	1590.6	1403.9	1221.0	1045.5	881.2	728.1	590.0	455.5
45°	2378.5	2132.0	1911.7	1702.6	1497.3	1303.1	1112.7	933.5	772.9	623.6	481.7
42.5°	2550.2	2285.1	2038.7	1818.4	1590.6	1381.5	1179.9	989.5	814.0	653.4	504.1
40°	2744.4	2438.2	2158.2	1915.5	1680.2	1456.2	1243.4	1041.7	855.1	683.3	526.5
37.5°	2931.1	2587.6	2292.6	2020.0	1766.1	1530.9	1306.9	1094.0	896.1	713.2	548.9
35°	3121.5	2751.9	2415.8	2117.1	1852.0	1605.6	1366.6	1142.6	929.7	739.3	571.3
32.5°	3315.7	2908.7	2546.5	2221.6	1937.9	1672.8	1422.6	1187.4	967.1	769.2	590.0
30°	3502.4	3058.0	2669.7	2322.5	2016.3	1740.0	1478.6	1232.2	1004.4	795.3	608.6
27.5°	3692.8	3214.9	2792.9	2415.8	2091.0	1799.7	1527.1	1273.2	1038.0	821.4	627.3
25°	3875.7	3364.2	2908.7	2505.4	2158.2	1859.5	1579.4	1314.3	1067.9	843.9	642.2
22.5°	4043.8	3494.9	3013.2	2591.3	2229.1	1911.7	1624.2	1351.7	1097.8	866.3	657.2
20°	4196.9	3629.3	3121.5	2677.2	2296.3	1964.0	1661.6	1385.3	1123.9	884.9	672.1
17.5°	4346.2	3752.5	3218.6	2755.6	2352.3	2008.8	1698.9	1411.4	1146.3	899.9	683.3
15°	4473.2	3860.8	3304.5	2822.8	2404.6	2046.2	1728.8	1437.5	1165.0	914.8	690.8
12.5°	4585.2	3954.2	3379.1	2878.8	2445.7	2079.8	1758.6	1459.9	1183.6	926.0	702.0
10°	4674.8	4028.8	3438.9	2927.3	2483.0	2105.9	1777.3	1478.6	1194.8	937.2	709.4
7.5°	4745.7	4088.6	3487.4	2961.0	2509.2	2128.3	1796.0	1489.8	1206.0	944.7	720.6
5°	4798.0	4133.4	3521.0	2987.1	2531.6	2154.4	1818.4	1508.5	1221.0	955.9	720.6
2.5°	4839.1	4167.0	3547.2	3009.5	2546.5	2154.4	1818.4	1508.5	1221.0	955.9	720.6
0°	4839.1	4167.0	3547.2	3009.5	2546.5	2154.4	1818.4	1508.5	1221.0	955.9	720.6



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CANDELA DISTRIBUTION (continued):

	82.5°	85°	87.5°	90°
90°	0.0	0.0	0.0	0.0
87.5°	18.7	14.9	7.5	0.0
85°	41.1	26.1	14.9	0.0
82.5°	59.7	41.1	18.7	0.0
80°	78.4	52.3	26.1	0.0
77.5°	100.8	67.2	33.6	0.0
75°	119.5	78.4	41.1	0.0
72.5°	138.2	93.3	44.8	0.0
70°	156.8	104.5	52.3	0.0
67.5°	179.2	115.7	59.7	0.0
65°	197.9	130.7	63.5	0.0
62.5°	216.6	141.9	70.9	0.0
60°	235.2	153.1	74.7	0.0
57.5°	253.9	164.3	82.1	0.0
55°	272.6	179.2	89.6	0.0
52.5°	291.2	190.4	93.3	0.0
50°	309.9	201.6	97.1	0.0
47.5°	324.8	212.8	104.5	0.0
45°	343.5	224.0	108.3	0.0
42.5°	362.2	231.5	112.0	0.0
40°	377.1	242.7	115.7	0.0
37.5°	395.8	250.2	123.2	0.0
35°	410.7	261.4	127.0	0.0
32.5°	421.9	268.8	130.7	0.0
30°	436.9	276.3	134.4	0.0
27.5°	448.1	283.8	134.4	0.0
25°	459.3	291.2	138.2	0.0
22.5°	470.5	295.0	141.9	0.0
20°	481.7	302.4	145.6	0.0
17.5°	489.1	306.2	145.6	0.0
15°	496.6	309.9	153.1	0.0
12.5°	500.3	313.6	153.1	0.0
10°	507.8	321.1	153.1	0.0
7.5°	515.3	321.1	153.1	0.0
5°	515.3	321.1	153.1	0.0
2.5°	515.3	321.1	153.1	0.0
0°	515.3	321.1	153.1	0.0

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