

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: P624197

Luminaire Tested: **EPH-VN-08-E-740-U-77**

Issue Date: 11/2/2022

Test Information

Test Method: LM-79-2019
Report Number: P624197
Test Lab: INNOVATION CENTER(G2)
Issue Date: 11/2/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: EPHESUS
Catalog Number: EPH-VN-08-E-740-U-77
Description: EPHESUS LUMAVISION FLOOD – Middle Tier Light Square Luminaire w/
Nema 7 distribution lens
Light Source: (128) 4000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

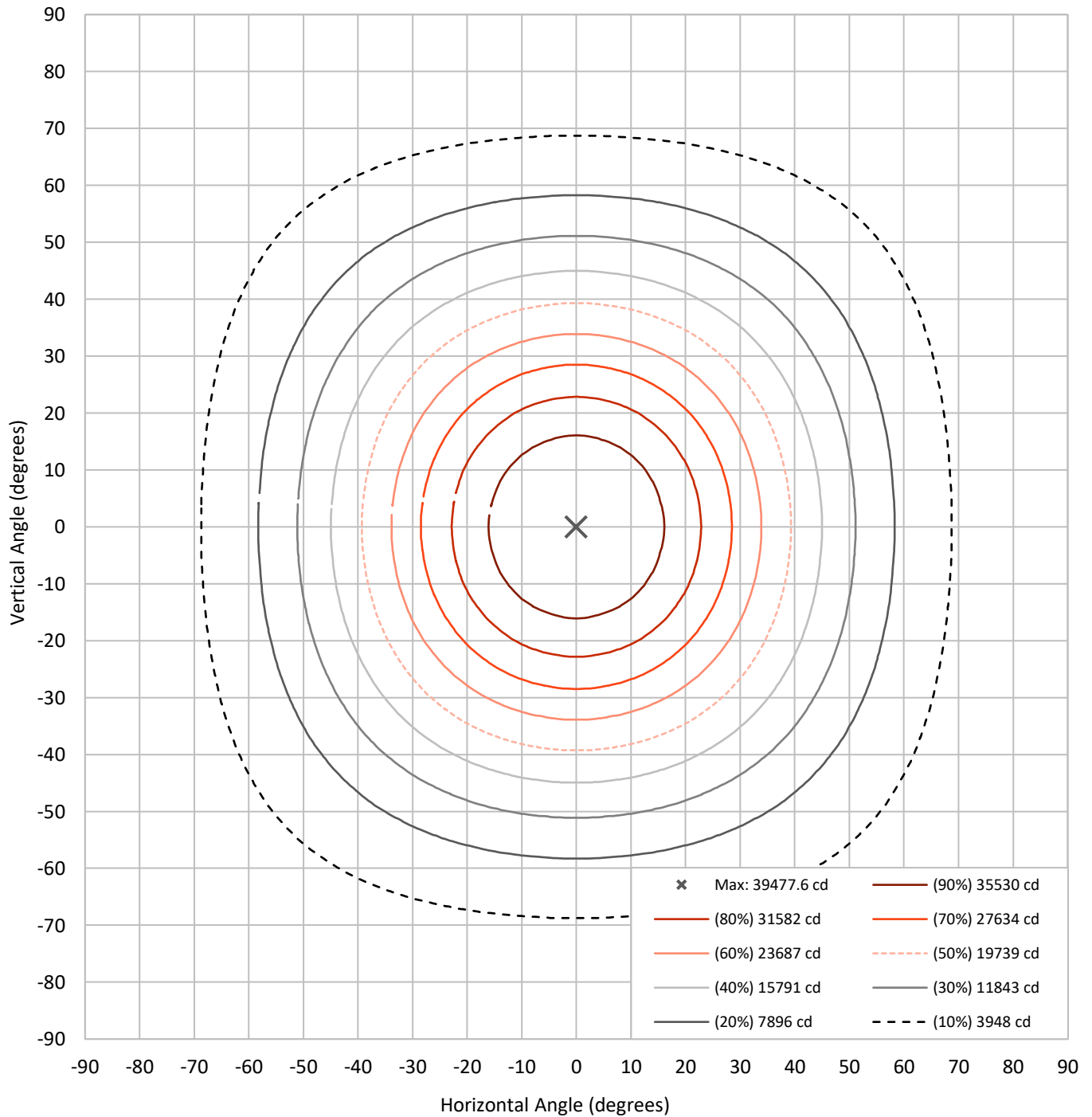
Summary

Lumens per Lamp:	N/A	NEMA Type:	7H x 7V
Luminaire Lumens:	71080.3 lumens	Max Intensity:	39477.6 candela
Efficiency:	N/A	Max Intensity Angle:	0°H x 0°V
Efficacy:	113.4 lumens/watt		
Luminous Opening:	Rectangular (W 2' x L: 1' 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:	30755.8 lumens	Field Lumens:	50361.5 lumens
Beam Efficiency:	43.3%	Field Efficiency:	70.9%
Input Watts (W):	626.8		
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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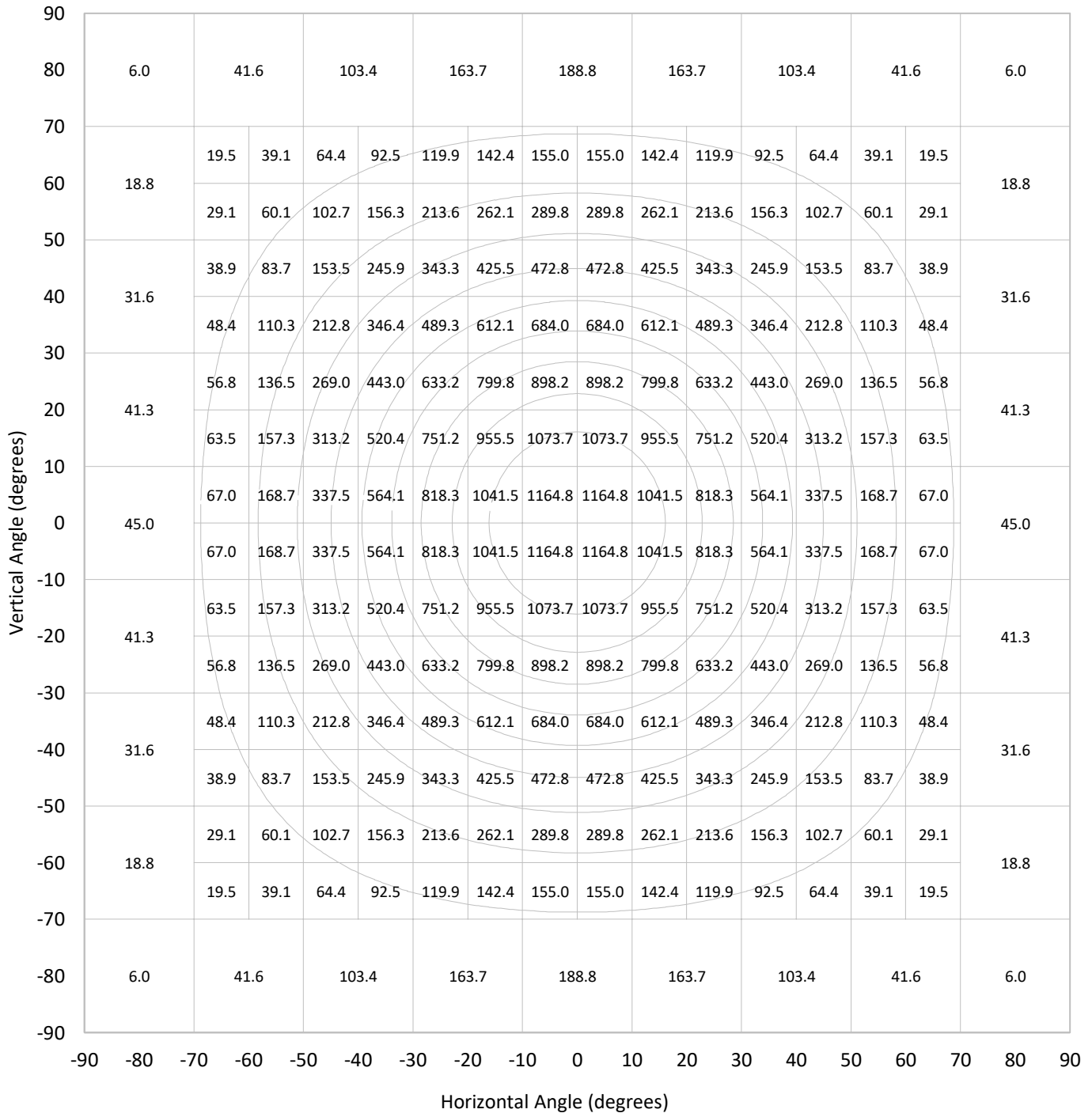
Iso-Candela Plot





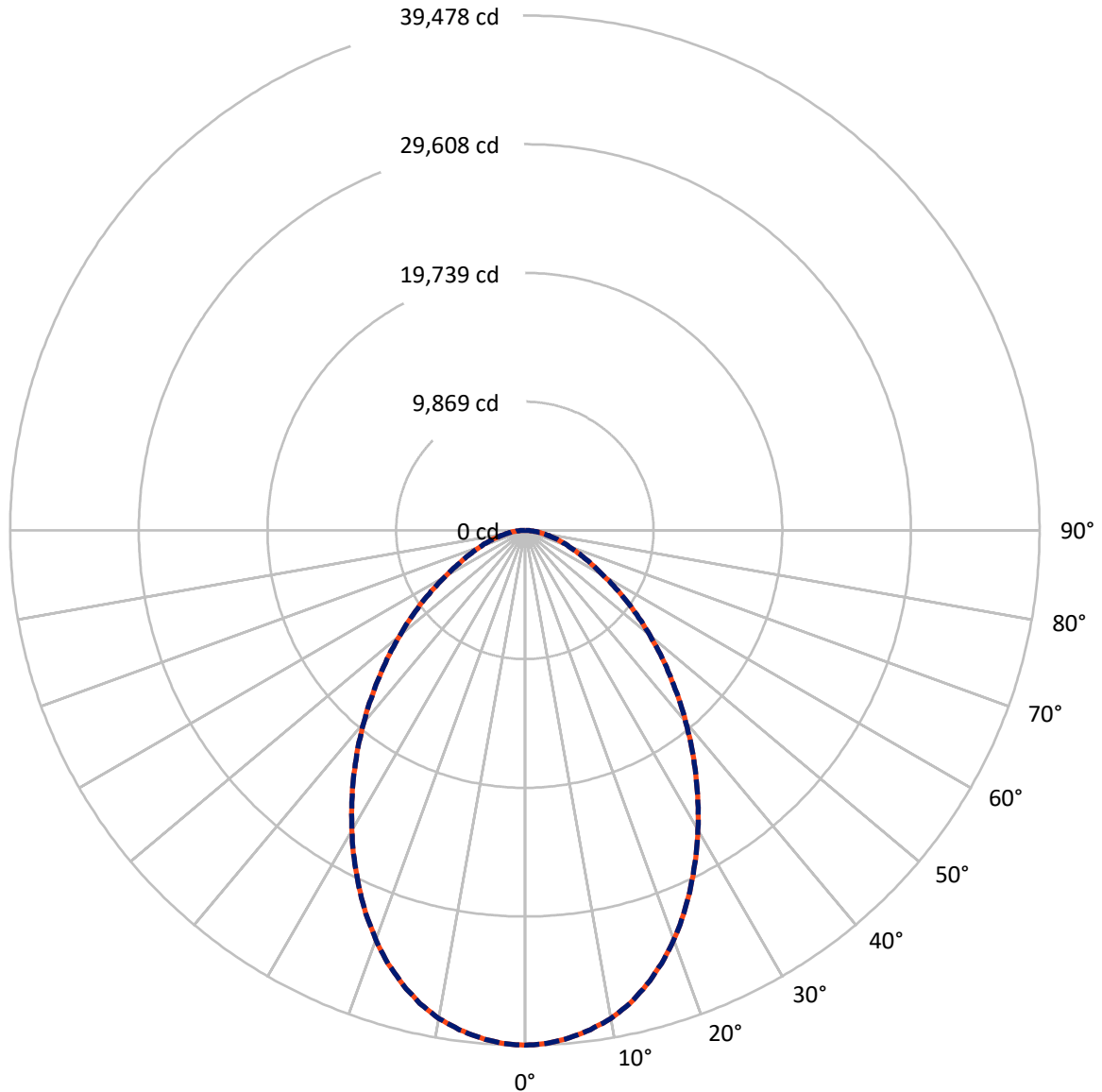
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Lumen Table



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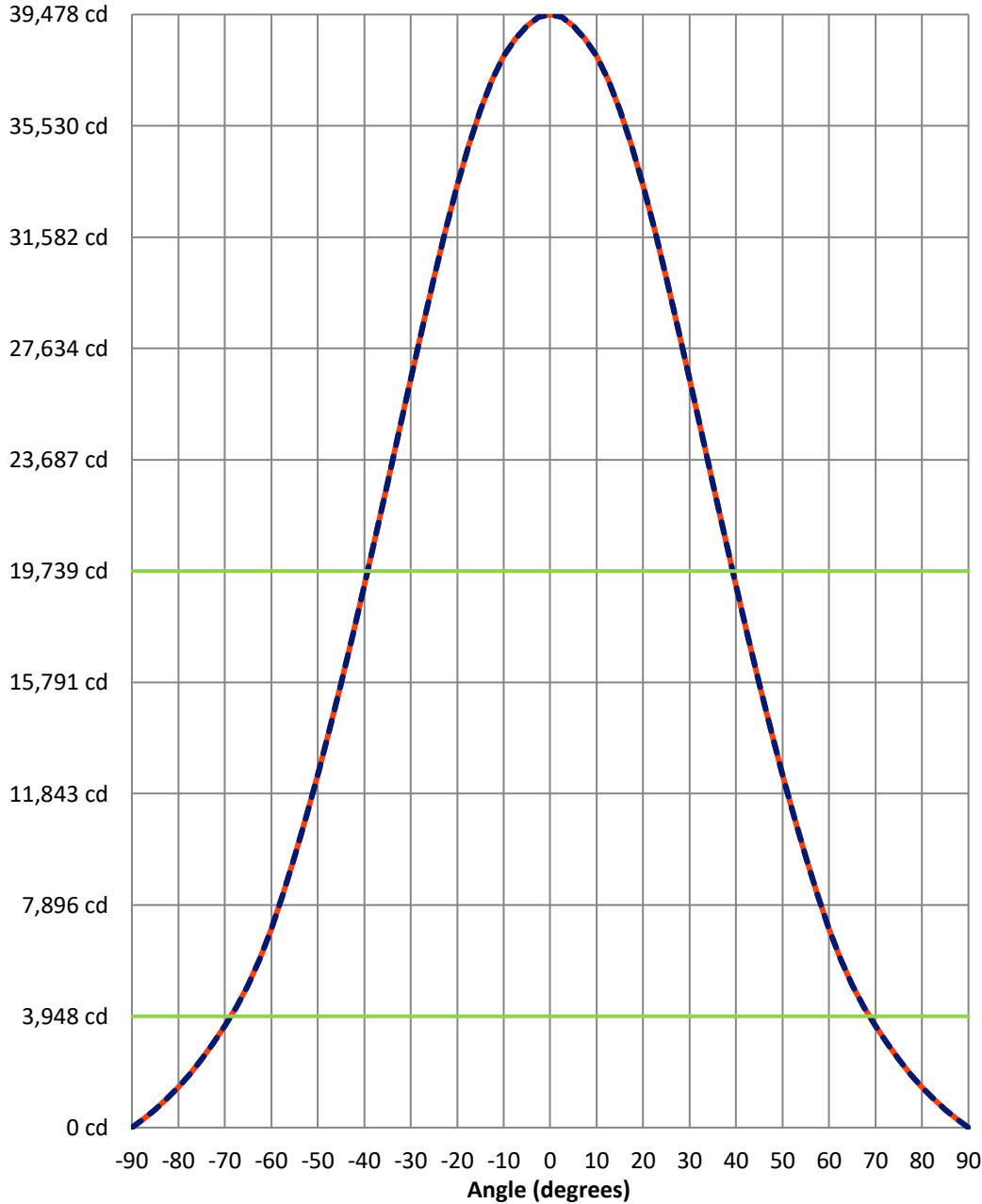
Luminous Intensity Polar Plot



— 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: 30755.8
 Efficiency: 43.3%

Field:
 H Angle: 137.5°
 V Angle: 137.5°
 Lumens: 50361.5
 Efficiency: 70.9%

Spill:
 Lumens: 20718.8
 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°	303.8	303.8	303.8	303.8	303.8	303.8	303.8	289.0	289.0	281.6	274.2
85°	637.3	637.3	637.3	637.3	637.3	622.5	615.1	607.7	600.3	585.5	578.0
82.5°	1022.7	1022.7	1022.7	1022.7	1007.9	993.1	985.6	970.8	956.0	933.8	911.5
80°	1430.3	1430.3	1430.3	1430.3	1408.1	1393.2	1371.0	1356.2	1334.0	1304.3	1274.7
77.5°	1897.2	1897.2	1897.2	1874.9	1860.1	1837.9	1815.7	1786.0	1756.4	1719.3	1674.9
75°	2423.3	2423.3	2423.3	2393.7	2371.5	2349.2	2312.2	2275.1	2230.7	2178.8	2119.5
72.5°	2994.0	2994.0	2994.0	2956.9	2934.7	2897.6	2853.2	2801.3	2749.4	2682.7	2608.6
70°	3609.1	3609.1	3609.1	3564.6	3527.6	3490.5	3431.2	3371.9	3297.8	3223.7	3134.8
67.5°	4276.1	4276.1	4276.1	4224.2	4179.7	4127.8	4061.1	3987.0	3898.1	3794.4	3690.6
65°	5054.2	5054.2	5024.6	4980.1	4928.2	4854.1	4772.6	4668.8	4557.7	4424.3	4283.5
62.5°	5973.1	5973.1	5928.7	5876.8	5810.1	5713.8	5602.6	5469.2	5313.6	5143.1	4972.7
60°	7040.3	7040.3	6988.4	6921.7	6825.4	6706.8	6558.6	6388.2	6195.5	5980.6	5773.1
57.5°	8270.5	8270.5	8203.8	8114.9	7996.3	7848.1	7662.8	7447.9	7203.3	6936.6	6677.2
55°	9604.5	9604.5	9522.9	9419.2	9278.4	9100.5	8878.2	8626.2	8329.8	8026.0	7692.5
52.5°	11019.9	11019.9	10923.6	10805.0	10642.0	10434.5	10182.5	9886.1	9545.2	9189.5	8796.7
50°	12509.5	12509.5	12398.4	12265.0	12079.7	11835.1	11546.1	11205.2	10827.3	10412.2	9960.2
47.5°	14102.9	14102.9	13976.9	13821.2	13598.9	13317.3	12976.4	12583.6	12153.8	11686.9	11175.6
45°	15740.7	15740.7	15599.8	15422.0	15177.4	14858.8	14480.8	14102.9	13554.5	13013.5	12420.6
42.5°	17445.1	17445.1	17282.1	17082.0	16800.4	16452.1	16022.3	15533.1	14992.2	14384.5	13739.7
40°	19216.3	19216.3	19031.1	18801.3	18490.1	18089.9	17608.2	17059.8	16452.1	15777.7	15066.3
37.5°	21024.6	21024.6	20817.1	20565.1	20216.8	19772.2	19231.2	18623.5	17941.7	17193.2	16407.6
35°	22847.7	22847.7	22617.9	22343.7	21958.4	21469.2	20883.8	20209.4	19453.5	18638.3	17756.4
32.5°	24707.8	24707.8	24455.8	24144.6	23707.3	23166.3	22521.6	21787.9	21024.6	20076.0	19112.6
30°	26545.7	26545.7	26271.5	25930.6	25463.7	24870.8	24166.8	23359.0	22462.3	21491.5	20454.0
27.5°	28353.9	28279.8	28050.1	27686.9	27175.6	26545.7	25782.4	24907.9	23937.1	22869.9	21758.3
25°	30132.5	30051.0	29799.0	29398.9	28850.5	28161.2	27338.6	26404.9	25359.9	24233.5	23018.1
22.5°	31837.0	31748.1	31481.3	31051.5	30466.0	29717.5	28835.6	27835.2	26723.5	25515.6	24233.5
20°	33415.5	33319.2	33045.0	32592.9	31985.2	31192.3	30258.5	29183.9	27998.2	26723.5	25359.9
17.5°	34838.4	34742.1	34453.1	33986.2	33415.5	32533.6	31570.2	30436.4	29183.9	27835.2	26404.9
15°	36090.9	35987.1	35690.7	35223.8	34571.6	33741.6	32726.3	31570.2	30258.5	28835.6	27338.6
12.5°	37158.0	37054.3	36750.4	36283.5	35609.2	34779.1	33741.6	32533.6	31192.3	29717.5	28161.2
10°	38002.9	37899.1	37610.1	37165.4	36468.8	35609.2	34571.6	33415.5	31985.2	30466.0	28850.5
7.5°	38610.5	38514.2	38247.4	37802.8	37165.4	36283.5	35223.8	33986.2	32592.9	31051.5	29398.9
5°	39070.0	38958.9	38692.1	38247.4	37610.1	36750.4	35690.7	34453.1	33045.0	31481.3	29799.0
2.5°	39388.7	39255.3	38958.9	38514.2	37899.1	37054.3	35987.1	34742.1	33319.2	31748.1	30051.0
0°	39477.6	39388.7	39070.0	38610.5	38002.9	37158.0	36090.9	34838.4	33415.5	31837.0	30132.5



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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°	266.8	266.8	259.4	252.0	244.6	229.7	222.3	214.9	207.5	192.7	185.3
85°	563.2	548.4	533.6	518.8	496.5	481.7	459.5	444.7	422.4	400.2	378.0
82.5°	889.3	867.1	837.4	815.2	785.6	748.5	718.9	681.8	644.7	615.1	578.0
80°	1245.0	1208.0	1170.9	1133.9	1089.4	1044.9	1000.5	956.0	904.1	852.2	800.4
77.5°	1630.4	1578.5	1526.6	1467.3	1415.5	1356.2	1296.9	1237.6	1170.9	1104.2	1037.5
75°	2060.2	1993.5	1919.4	1845.3	1778.6	1697.1	1615.6	1534.0	1445.1	1363.6	1274.7
72.5°	2527.1	2445.6	2356.7	2267.7	2171.4	2067.6	1963.9	1852.7	1749.0	1645.2	1534.0
70°	3031.0	2934.7	2823.5	2712.4	2593.8	2467.8	2341.8	2208.4	2075.0	1941.6	1808.2
67.5°	3572.0	3453.5	3320.1	3186.7	3038.4	2890.2	2742.0	2586.4	2423.3	2260.3	2104.7
65°	4150.1	4001.9	3846.2	3675.8	3505.3	3334.9	3157.0	2971.8	2786.5	2593.8	2423.3
62.5°	4794.8	4609.6	4409.5	4202.0	4009.3	3801.8	3609.1	3379.3	3157.0	2942.1	2727.2
60°	5543.3	5298.8	5054.2	4794.8	4550.3	4283.5	4046.3	3794.4	3542.4	3297.8	3045.9
57.5°	6380.7	6069.5	5773.1	5461.8	5135.7	4839.3	4535.4	4231.6	3950.0	3661.0	3386.8
55°	7329.3	6951.4	6580.8	6195.5	5817.5	5447.0	5061.6	4720.7	4372.4	4046.3	3727.7
52.5°	8366.9	7937.0	7477.6	7040.3	6558.6	6099.1	5669.3	5239.5	4831.9	4439.1	4076.0
50°	9478.5	8974.5	8448.4	7914.8	7366.4	6825.4	6306.6	5802.7	5328.4	4868.9	4439.1
47.5°	10634.6	10063.9	9463.7	8856.0	8270.5	7610.9	6988.4	6417.8	5847.2	5328.4	4831.9
45°	11820.3	11175.6	10516.0	9826.8	9137.6	8426.1	7736.9	7040.3	6417.8	5802.7	5239.5
42.5°	13043.1	12316.8	11583.2	10819.8	10056.5	9278.4	8500.2	7736.9	6988.4	6306.6	5669.3
40°	14302.9	13502.6	12665.1	11835.1	11019.9	10130.6	9278.4	8426.1	7610.9	6825.4	6099.1
37.5°	15562.8	14688.3	13784.2	12850.4	11916.7	11019.9	10056.5	9137.6	8270.5	7366.4	6558.6
35°	16830.0	15866.6	14888.4	13873.1	12850.4	11835.1	10819.8	9826.8	8856.0	7914.8	7040.3
32.5°	18104.7	17052.4	15970.4	14888.4	13784.2	12665.1	11583.2	10516.0	9463.7	8448.4	7477.6
30°	19357.1	18215.9	17052.4	15866.6	14688.3	13502.6	12316.8	11175.6	10063.9	8974.5	7937.0
27.5°	20579.9	19357.1	18104.7	16830.0	15562.8	14302.9	13043.1	11820.3	10634.6	9478.5	8366.9
25°	21758.3	20454.0	19112.6	17756.4	16407.6	15066.3	13739.7	12420.6	11175.6	9960.2	8796.7
22.5°	22869.9	21491.5	20076.0	18638.3	17193.2	15777.7	14384.5	13013.5	11686.9	10412.2	9189.5
20°	23937.1	22462.3	21024.6	19453.5	17941.7	16452.1	14992.2	13554.5	12153.8	10827.3	9545.2
17.5°	24907.9	23359.0	21787.9	20209.4	18623.5	17059.8	15533.1	14102.9	12583.6	11205.2	9886.1
15°	25782.4	24166.8	22521.6	20883.8	19231.2	17608.2	16022.3	14480.8	12976.4	11546.1	10182.5
12.5°	26545.7	24870.8	23166.3	21469.2	19772.2	18089.9	16452.1	14858.8	13317.3	11835.1	10434.5
10°	27175.6	25463.7	23707.3	21958.4	20216.8	18490.1	16800.4	15177.4	13598.9	12079.7	10642.0
7.5°	27686.9	25930.6	24144.6	22343.7	20565.1	18801.3	17082.0	15422.0	13821.2	12265.0	10805.0
5°	28050.1	26271.5	24455.8	22617.9	20817.1	19031.1	17282.1	15599.8	13976.9	12398.4	10923.6
2.5°	28279.8	26545.7	24707.8	22847.7	21024.6	19216.3	17445.1	15740.7	14102.9	12509.5	11019.9
0°	28353.9	26545.7	24707.8	22847.7	21024.6	19216.3	17445.1	15740.7	14102.9	12509.5	11019.9



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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°	177.9	163.0	148.2	140.8	126.0	118.6	103.8	88.9	81.5	66.7	51.9
85°	355.7	326.1	303.8	281.6	259.4	229.7	207.5	185.3	155.6	133.4	103.8
82.5°	541.0	503.9	466.9	429.8	392.8	355.7	311.3	274.2	237.1	200.1	155.6
80°	748.5	689.2	637.3	585.5	533.6	481.7	422.4	370.5	311.3	259.4	207.5
77.5°	963.4	896.7	822.6	748.5	674.4	607.7	533.6	466.9	400.2	326.1	259.4
75°	1193.1	1104.2	1022.7	926.4	837.4	741.1	652.2	563.2	481.7	400.2	311.3
72.5°	1430.3	1319.1	1208.0	1104.2	993.1	881.9	778.1	667.0	563.2	466.9	370.5
70°	1674.9	1541.5	1408.1	1282.1	1156.1	1022.7	904.1	778.1	652.2	533.6	422.4
67.5°	1934.2	1778.6	1623.0	1459.9	1319.1	1170.9	1022.7	881.9	741.1	607.7	481.7
65°	2215.8	2030.6	1837.9	1667.4	1482.2	1319.1	1156.1	993.1	837.4	674.4	533.6
62.5°	2504.9	2290.0	2075.0	1860.1	1667.4	1459.9	1282.1	1104.2	926.4	748.5	585.5
60°	2801.3	2556.7	2312.2	2075.0	1837.9	1623.0	1408.1	1208.0	1022.7	822.6	637.3
57.5°	3105.1	2830.9	2556.7	2290.0	2030.6	1778.6	1541.5	1319.1	1104.2	896.7	689.2
55°	3416.4	3105.1	2801.3	2504.9	2215.8	1934.2	1674.9	1430.3	1193.1	963.4	748.5
52.5°	3727.7	3386.8	3045.9	2727.2	2423.3	2104.7	1808.2	1534.0	1274.7	1037.5	800.4
50°	4046.3	3661.0	3297.8	2942.1	2593.8	2260.3	1941.6	1645.2	1363.6	1104.2	852.2
47.5°	4372.4	3950.0	3542.4	3157.0	2786.5	2423.3	2075.0	1749.0	1445.1	1170.9	904.1
45°	4720.7	4231.6	3794.4	3379.3	2971.8	2586.4	2208.4	1852.7	1534.0	1237.6	956.0
42.5°	5061.6	4535.4	4046.3	3609.1	3157.0	2742.0	2341.8	1963.9	1615.6	1296.9	1000.5
40°	5447.0	4839.3	4283.5	3801.8	3334.9	2890.2	2467.8	2067.6	1697.1	1356.2	1044.9
37.5°	5817.5	5135.7	4550.3	4009.3	3505.3	3038.4	2593.8	2171.4	1778.6	1415.5	1089.4
35°	6195.5	5461.8	4794.8	4202.0	3675.8	3186.7	2712.4	2267.7	1845.3	1467.3	1133.9
32.5°	6580.8	5773.1	5054.2	4409.5	3846.2	3320.1	2823.5	2356.7	1919.4	1526.6	1170.9
30°	6951.4	6069.5	5298.8	4609.6	4001.9	3453.5	2934.7	2445.6	1993.5	1578.5	1208.0
27.5°	7329.3	6380.7	5543.3	4794.8	4150.1	3572.0	3031.0	2527.1	2060.2	1630.4	1245.0
25°	7692.5	6677.2	5773.1	4972.7	4283.5	3690.6	3134.8	2608.6	2119.5	1674.9	1274.7
22.5°	8026.0	6936.6	5980.6	5143.1	4424.3	3794.4	3223.7	2682.7	2178.8	1719.3	1304.3
20°	8329.8	7203.3	6195.5	5313.6	4557.7	3898.1	3297.8	2749.4	2230.7	1756.4	1334.0
17.5°	8626.2	7447.9	6388.2	5469.2	4668.8	3987.0	3371.9	2801.3	2275.1	1786.0	1356.2
15°	8878.2	7662.8	6558.6	5602.6	4772.6	4061.1	3431.2	2853.2	2312.2	1815.7	1371.0
12.5°	9100.5	7848.1	6706.8	5713.8	4854.1	4127.8	3490.5	2897.6	2349.2	1837.9	1393.2
10°	9278.4	7996.3	6825.4	5810.1	4928.2	4179.7	3527.6	2934.7	2371.5	1860.1	1408.1
7.5°	9419.2	8114.9	6921.7	5876.8	4980.1	4224.2	3564.6	2956.9	2393.7	1874.9	1430.3
5°	9522.9	8203.8	6988.4	5928.7	5024.6	4276.1	3609.1	2994.0	2423.3	1897.2	1430.3
2.5°	9604.5	8270.5	7040.3	5973.1	5054.2	4276.1	3609.1	2994.0	2423.3	1897.2	1430.3
0°	9604.5	8270.5	7040.3	5973.1	5054.2	4276.1	3609.1	2994.0	2423.3	1897.2	1430.3



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CANDELA DISTRIBUTION (continued):

	82.5°	85°	87.5°	90°
90°	0.0	0.0	0.0	0.0
87.5°	37.1	29.6	14.8	0.0
85°	81.5	51.9	29.6	0.0
82.5°	118.6	81.5	37.1	0.0
80°	155.6	103.8	51.9	0.0
77.5°	200.1	133.4	66.7	0.0
75°	237.1	155.6	81.5	0.0
72.5°	274.2	185.3	88.9	0.0
70°	311.3	207.5	103.8	0.0
67.5°	355.7	229.7	118.6	0.0
65°	392.8	259.4	126.0	0.0
62.5°	429.8	281.6	140.8	0.0
60°	466.9	303.8	148.2	0.0
57.5°	503.9	326.1	163.0	0.0
55°	541.0	355.7	177.9	0.0
52.5°	578.0	378.0	185.3	0.0
50°	615.1	400.2	192.7	0.0
47.5°	644.7	422.4	207.5	0.0
45°	681.8	444.7	214.9	0.0
42.5°	718.9	459.5	222.3	0.0
40°	748.5	481.7	229.7	0.0
37.5°	785.6	496.5	244.6	0.0
35°	815.2	518.8	252.0	0.0
32.5°	837.4	533.6	259.4	0.0
30°	867.1	548.4	266.8	0.0
27.5°	889.3	563.2	266.8	0.0
25°	911.5	578.0	274.2	0.0
22.5°	933.8	585.5	281.6	0.0
20°	956.0	600.3	289.0	0.0
17.5°	970.8	607.7	289.0	0.0
15°	985.6	615.1	303.8	0.0
12.5°	993.1	622.5	303.8	0.0
10°	1007.9	637.3	303.8	0.0
7.5°	1022.7	637.3	303.8	0.0
5°	1022.7	637.3	303.8	0.0
2.5°	1022.7	637.3	303.8	0.0
0°	1022.7	637.3	303.8	0.0

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