

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: P624191

Luminaire Tested: **EPH-VN-08-E-735-U-77**

Issue Date: 11/2/2022

Test Information

Test Method: LM-79-2019
Report Number: P624191
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-735-U-77
Description: EPHESUS LUMAVISION FLOOD – Middle Tier Light Square Luminaire w/
Nema 7 distribution lens
Light Source: (128) 3500K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

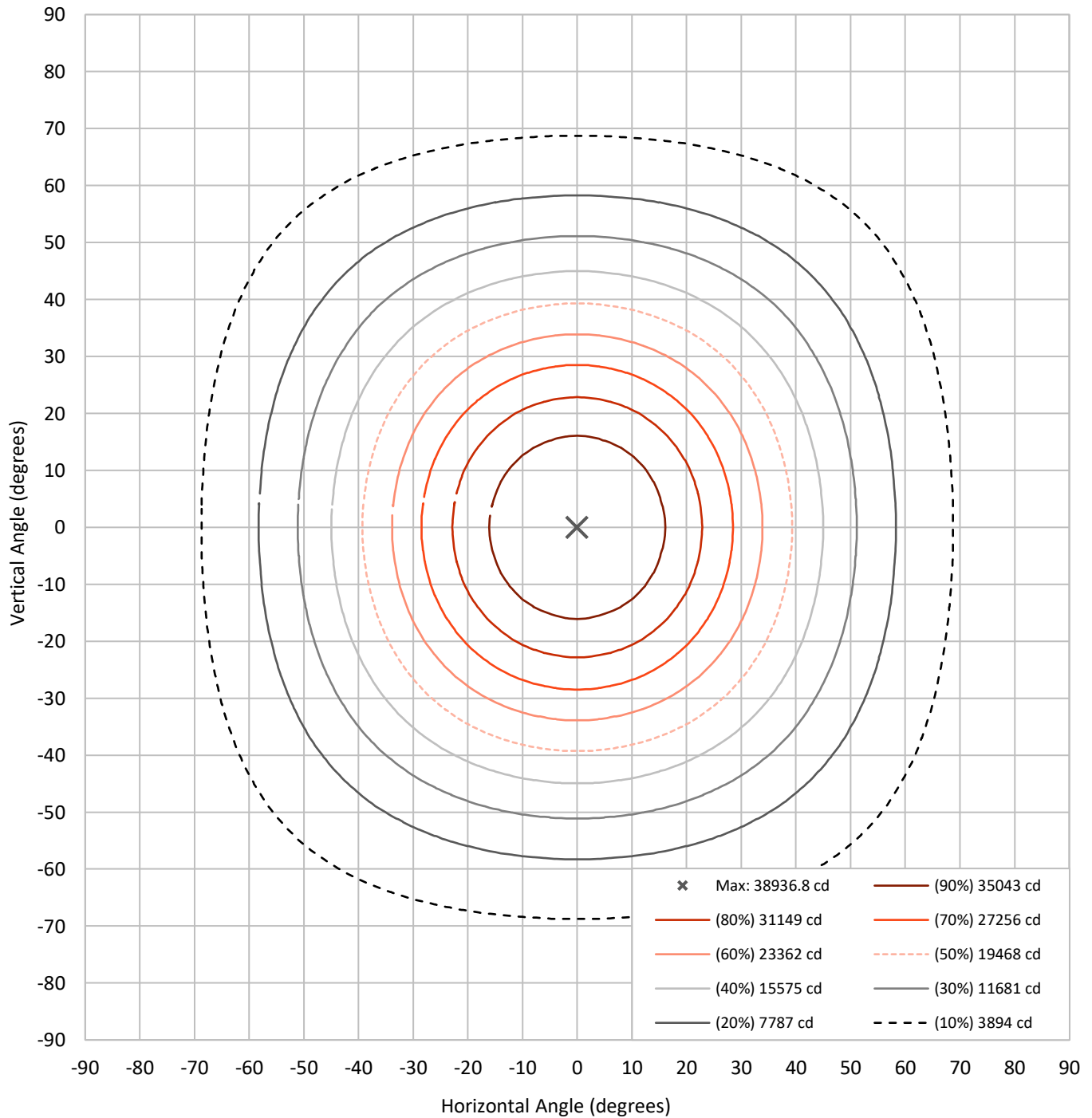
Lumens per Lamp:	N/A	NEMA Type:	7H x 7V
Luminaire Lumens:	70106.5 lumens	Max Intensity:	38936.8 candela
Efficiency:	N/A	Max Intensity Angle:	0°H x 0°V
Efficacy:	111.8 lumens/watt		
Luminous Opening:	Rectangular (W 2' x L: 1' x H: 0')		
Beam Angle (50%):	78.6°H x 78.6°V	Field Angle (10%):	137.5°H x 137.5°V
Beam Lumens:	30334.4 lumens	Field Lumens:	49671.5 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



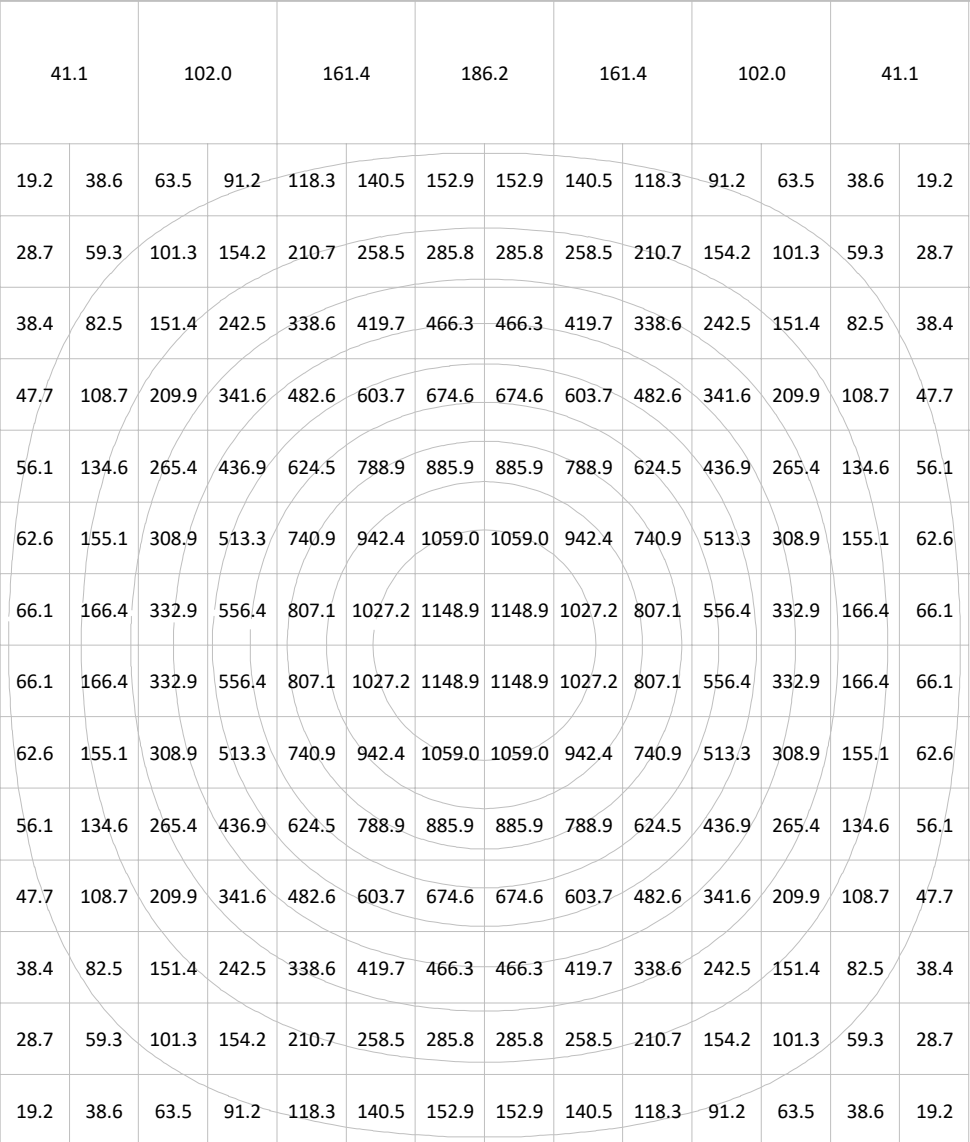
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Iso-Candela Plot



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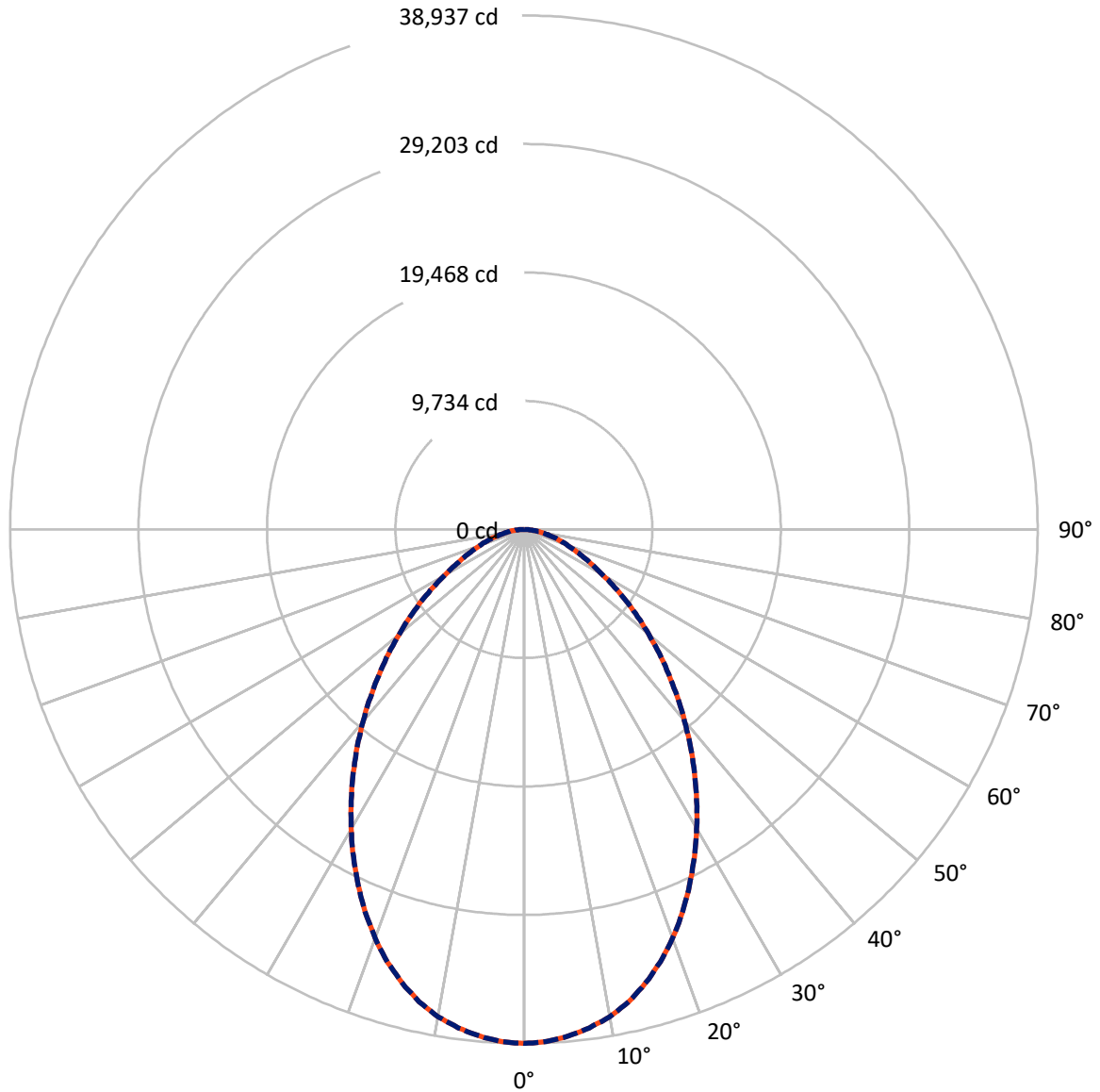
Lumen Table



90																
80	5.9	41.1	102.0	161.4	186.2	161.4	102.0	41.1	5.9							
70																
60	18.6	19.2	38.6	63.5	91.2	118.3	140.5	152.9	152.9	140.5	118.3	91.2	63.5	38.6	19.2	18.6
		28.7	59.3	101.3	154.2	210.7	258.5	285.8	285.8	258.5	210.7	154.2	101.3	59.3	28.7	
50																
40	31.1	38.4	82.5	151.4	242.5	338.6	419.7	466.3	466.3	419.7	338.6	242.5	151.4	82.5	38.4	31.1
		47.7	108.7	209.9	341.6	482.6	603.7	674.6	674.6	603.7	482.6	341.6	209.9	108.7	47.7	
30																
20	40.8	56.1	134.6	265.4	436.9	624.5	788.9	885.9	885.9	788.9	624.5	436.9	265.4	134.6	56.1	40.8
		62.6	155.1	308.9	513.3	740.9	942.4	1059.0	1059.0	942.4	740.9	513.3	308.9	155.1	62.6	
10																
0	44.4	66.1	166.4	332.9	556.4	807.1	1027.2	1148.9	1148.9	1027.2	807.1	556.4	332.9	166.4	66.1	44.4
		66.1	166.4	332.9	556.4	807.1	1027.2	1148.9	1148.9	1027.2	807.1	556.4	332.9	166.4	66.1	
-10																
-20	40.8	62.6	155.1	308.9	513.3	740.9	942.4	1059.0	1059.0	942.4	740.9	513.3	308.9	155.1	62.6	40.8
		56.1	134.6	265.4	436.9	624.5	788.9	885.9	885.9	788.9	624.5	436.9	265.4	134.6	56.1	
-30																
-40	31.1	47.7	108.7	209.9	341.6	482.6	603.7	674.6	674.6	603.7	482.6	341.6	209.9	108.7	47.7	31.1
		38.4	82.5	151.4	242.5	338.6	419.7	466.3	466.3	419.7	338.6	242.5	151.4	82.5	38.4	
-50																
-60	18.6	28.7	59.3	101.3	154.2	210.7	258.5	285.8	285.8	258.5	210.7	154.2	101.3	59.3	28.7	18.6
		19.2	38.6	63.5	91.2	118.3	140.5	152.9	152.9	140.5	118.3	91.2	63.5	38.6	19.2	
-70																
-80	5.9	41.1	102.0	161.4	186.2	161.4	102.0	41.1	5.9							
-90																
															-90	
															-80	
															-70	
															-60	
															-50	
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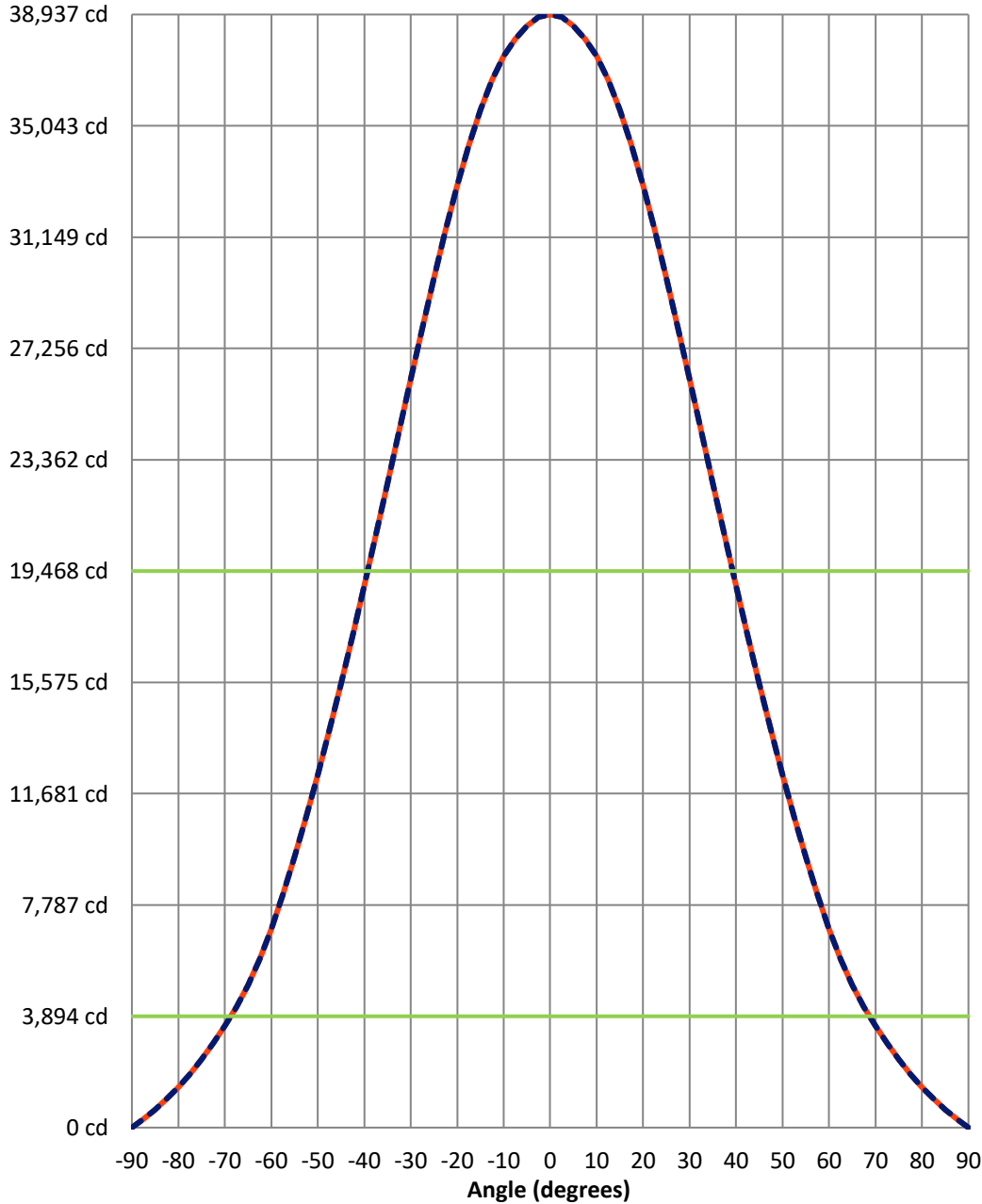
Luminous Intensity Polar Plot



— 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: 30334.4
Efficiency: 43.3%

Field:
H Angle: 137.5°
V Angle: 137.5°
Lumens: 49671.5
Efficiency: 70.9%

Spill:
Lumens: 20435
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°	299.7	299.7	299.7	299.7	299.7	299.7	299.7	285.1	285.1	277.8	270.4
85°	628.6	628.6	628.6	628.6	628.6	614.0	606.7	599.4	592.1	577.4	570.1
82.5°	1008.7	1008.7	1008.7	1008.7	994.1	979.4	972.1	957.5	942.9	921.0	899.0
80°	1410.7	1410.7	1410.7	1410.7	1388.8	1374.2	1352.2	1337.6	1315.7	1286.4	1257.2
77.5°	1871.2	1871.2	1871.2	1849.3	1834.6	1812.7	1790.8	1761.5	1732.3	1695.8	1651.9
75°	2390.1	2390.1	2390.1	2360.9	2339.0	2317.1	2280.5	2244.0	2200.1	2148.9	2090.5
72.5°	2953.0	2953.0	2953.0	2916.4	2894.5	2857.9	2814.1	2762.9	2711.8	2646.0	2572.9
70°	3559.6	3559.6	3559.6	3515.8	3479.2	3442.7	3384.2	3325.7	3252.6	3179.6	3091.8
67.5°	4217.5	4217.5	4217.5	4166.3	4122.5	4071.3	4005.5	3932.4	3844.7	3742.4	3640.0
65°	4985.0	4985.0	4955.7	4911.9	4860.7	4787.6	4707.2	4604.9	4495.2	4363.7	4224.8
62.5°	5891.3	5891.3	5847.5	5796.3	5730.5	5635.5	5525.8	5394.3	5240.8	5072.7	4904.6
60°	6943.9	6943.9	6892.7	6826.9	6731.9	6614.9	6468.8	6300.6	6110.6	5898.6	5694.0
57.5°	8157.2	8157.2	8091.4	8003.7	7886.8	7740.6	7557.8	7345.9	7104.7	6841.5	6585.7
55°	9472.9	9472.9	9392.5	9290.2	9151.3	8975.9	8756.6	8508.1	8215.7	7916.0	7587.1
52.5°	10869.0	10869.0	10773.9	10657.0	10496.2	10291.5	10043.0	9750.6	9414.4	9063.6	8676.2
50°	12338.1	12338.1	12228.5	12096.9	11914.2	11673.0	11387.9	11051.7	10678.9	10269.6	9823.7
47.5°	13909.6	13909.6	13785.4	13631.9	13412.6	13134.9	12798.6	12411.2	11987.3	11526.8	11022.5
45°	15525.0	15525.0	15386.1	15210.7	14969.5	14655.2	14282.4	13909.6	13368.8	12835.2	12250.4
42.5°	17206.2	17206.2	17045.3	16848.0	16570.2	16226.7	15802.8	15320.3	14786.8	14187.4	13551.5
40°	18953.1	18953.1	18770.3	18543.8	18236.8	17842.1	17367.0	16826.1	16226.7	15561.6	14859.9
37.5°	20736.6	20736.6	20531.9	20283.4	19939.8	19501.3	18967.7	18368.3	17695.9	16957.6	16182.8
35°	22534.6	22534.6	22308.1	22037.6	21657.5	21175.1	20597.7	19932.5	19187.0	18383.0	17513.1
32.5°	24369.3	24369.3	24120.8	23813.8	23382.5	22848.9	22213.0	21489.4	20736.6	19801.0	18850.7
30°	26182.0	26182.0	25911.6	25575.3	25114.8	24530.1	23835.7	23039.0	22154.6	21197.0	20173.7
27.5°	27965.5	27892.4	27665.8	27307.6	26803.3	26182.0	25429.1	24566.6	23609.1	22556.6	21460.2
25°	29719.7	29639.3	29390.8	28996.1	28455.2	27775.4	26964.1	26043.1	25012.5	23901.5	22702.8
22.5°	31400.9	31313.1	31050.0	30626.1	30048.6	29310.4	28440.6	27453.8	26357.4	25166.0	23901.5
20°	32957.7	32862.7	32592.3	32146.4	31547.0	30764.9	29844.0	28784.1	27614.6	26357.4	25012.5
17.5°	34361.1	34266.1	33981.1	33520.6	32957.7	32087.9	31137.7	30019.4	28784.1	27453.8	26043.1
15°	35596.4	35494.1	35201.7	34741.2	34098.0	33279.4	32278.0	31137.7	29844.0	28440.6	26964.1
12.5°	36649.0	36546.6	36246.9	35786.5	35121.3	34302.7	33279.4	32087.9	30764.9	29310.4	27775.4
10°	37482.2	37379.9	37094.8	36656.3	35969.2	35121.3	34098.0	32957.7	31547.0	30048.6	28455.2
7.5°	38081.6	37986.6	37723.4	37284.9	36656.3	35786.5	34741.2	33520.6	32146.4	30626.1	28996.1
5°	38534.8	38425.1	38162.0	37723.4	37094.8	36246.9	35201.7	33981.1	32592.3	31050.0	29390.8
2.5°	38849.1	38717.5	38425.1	37986.6	37379.9	36546.6	35494.1	34266.1	32862.7	31313.1	29639.3
0°	38936.8	38849.1	38534.8	38081.6	37482.2	36649.0	35596.4	34361.1	32957.7	31400.9	29719.7



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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°	263.1	263.1	255.8	248.5	241.2	226.6	219.3	212.0	204.7	190.0	182.7
85°	555.5	540.9	526.3	511.7	489.7	475.1	453.2	438.6	416.6	394.7	372.8
82.5°	877.1	855.2	826.0	804.0	774.8	738.2	709.0	672.5	635.9	606.7	570.1
80°	1228.0	1191.4	1154.9	1118.3	1074.5	1030.6	986.8	942.9	891.7	840.6	789.4
77.5°	1608.1	1556.9	1505.7	1447.2	1396.1	1337.6	1279.1	1220.7	1154.9	1089.1	1023.3
75°	2032.0	1966.2	1893.1	1820.0	1754.2	1673.8	1593.4	1513.0	1425.3	1344.9	1257.2
72.5°	2492.5	2412.1	2324.4	2236.7	2141.6	2039.3	1937.0	1827.3	1725.0	1622.7	1513.0
70°	2989.5	2894.5	2784.9	2675.2	2558.3	2434.0	2309.7	2178.2	2046.6	1915.0	1783.5
67.5°	3523.1	3406.1	3274.6	3143.0	2996.8	2850.6	2704.5	2551.0	2390.1	2229.3	2075.8
65°	4093.2	3947.0	3793.5	3625.4	3457.3	3289.2	3113.8	2931.0	2748.3	2558.3	2390.1
62.5°	4729.1	4546.4	4349.0	4144.4	3954.3	3749.7	3559.6	3333.1	3113.8	2901.8	2689.8
60°	5467.4	5226.2	4985.0	4729.1	4487.9	4224.8	3990.9	3742.4	3493.9	3252.6	3004.1
57.5°	6293.3	5986.3	5694.0	5387.0	5065.4	4773.0	4473.3	4173.6	3895.9	3610.8	3340.4
55°	7228.9	6856.1	6490.7	6110.6	5737.8	5372.4	4992.3	4656.0	4312.5	3990.9	3676.6
52.5°	8252.2	7828.3	7375.1	6943.9	6468.8	6015.6	5591.6	5167.7	4765.7	4378.3	4020.1
50°	9348.6	8851.6	8332.6	7806.4	7265.5	6731.9	6220.2	5723.2	5255.4	4802.2	4378.3
47.5°	10488.9	9926.1	9334.0	8734.6	8157.2	7506.7	6892.7	6329.9	5767.1	5255.4	4765.7
45°	11658.4	11022.5	10371.9	9692.2	9012.4	8310.7	7630.9	6943.9	6329.9	5723.2	5167.7
42.5°	12864.4	12148.1	11424.5	10671.6	9918.8	9151.3	8383.8	7630.9	6892.7	6220.2	5591.6
40°	14107.0	13317.6	12491.6	11673.0	10869.0	9991.8	9151.3	8310.7	7506.7	6731.9	6015.6
37.5°	15349.6	14487.1	13595.3	12674.4	11753.4	10869.0	9918.8	9012.4	8157.2	7265.5	6468.8
35°	16599.5	15649.3	14684.4	13683.1	12674.4	11673.0	10671.6	9692.2	8734.6	7806.4	6943.9
32.5°	17856.7	16818.8	15751.6	14684.4	13595.3	12491.6	11424.5	10371.9	9334.0	8332.6	7375.1
30°	19092.0	17966.3	16818.8	15649.3	14487.1	13317.6	12148.1	11022.5	9926.1	8851.6	7828.3
27.5°	20298.0	19092.0	17856.7	16599.5	15349.6	14107.0	12864.4	11658.4	10488.9	9348.6	8252.2
25°	21460.2	20173.7	18850.7	17513.1	16182.8	14859.9	13551.5	12250.4	11022.5	9823.7	8676.2
22.5°	22556.6	21197.0	19801.0	18383.0	16957.6	15561.6	14187.4	12835.2	11526.8	10269.6	9063.6
20°	23609.1	22154.6	20736.6	19187.0	17695.9	16226.7	14786.8	13368.8	11987.3	10678.9	9414.4
17.5°	24566.6	23039.0	21489.4	19932.5	18368.3	16826.1	15320.3	13909.6	12411.2	11051.7	9750.6
15°	25429.1	23835.7	22213.0	20597.7	18967.7	17367.0	15802.8	14282.4	12798.6	11387.9	10043.0
12.5°	26182.0	24530.1	22848.9	21175.1	19501.3	17842.1	16226.7	14655.2	13134.9	11673.0	10291.5
10°	26803.3	25114.8	23382.5	21657.5	19939.8	18236.8	16570.2	14969.5	13412.6	11914.2	10496.2
7.5°	27307.6	25575.3	23813.8	22037.6	20283.4	18543.8	16848.0	15210.7	13631.9	12096.9	10657.0
5°	27665.8	25911.6	24120.8	22308.1	20531.9	18770.3	17045.3	15386.1	13785.4	12228.5	10773.9
2.5°	27892.4	26182.0	24369.3	22534.6	20736.6	18953.1	17206.2	15525.0	13909.6	12338.1	10869.0
0°	27965.5	26182.0	24369.3	22534.6	20736.6	18953.1	17206.2	15525.0	13909.6	12338.1	10869.0



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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°	175.4	160.8	146.2	138.9	124.3	116.9	102.3	87.7	80.4	65.8	51.2
85°	350.8	321.6	299.7	277.8	255.8	226.6	204.7	182.7	153.5	131.6	102.3
82.5°	533.6	497.0	460.5	423.9	387.4	350.8	307.0	270.4	233.9	197.4	153.5
80°	738.2	679.8	628.6	577.4	526.3	475.1	416.6	365.5	307.0	255.8	204.7
77.5°	950.2	884.4	811.3	738.2	665.1	599.4	526.3	460.5	394.7	321.6	255.8
75°	1176.8	1089.1	1008.7	913.7	826.0	730.9	643.2	555.5	475.1	394.7	307.0
72.5°	1410.7	1301.1	1191.4	1089.1	979.4	869.8	767.5	657.8	555.5	460.5	365.5
70°	1651.9	1520.3	1388.8	1264.5	1140.3	1008.7	891.7	767.5	643.2	526.3	416.6
67.5°	1907.7	1754.2	1600.7	1439.9	1301.1	1154.9	1008.7	869.8	730.9	599.4	475.1
65°	2185.5	2002.8	1812.7	1644.6	1461.9	1301.1	1140.3	979.4	826.0	665.1	526.3
62.5°	2470.6	2258.6	2046.6	1834.6	1644.6	1439.9	1264.5	1089.1	913.7	738.2	577.4
60°	2762.9	2521.7	2280.5	2046.6	1812.7	1600.7	1388.8	1191.4	1008.7	811.3	628.6
57.5°	3062.6	2792.2	2521.7	2258.6	2002.8	1754.2	1520.3	1301.1	1089.1	884.4	679.8
55°	3369.6	3062.6	2762.9	2470.6	2185.5	1907.7	1651.9	1410.7	1176.8	950.2	738.2
52.5°	3676.6	3340.4	3004.1	2689.8	2390.1	2075.8	1783.5	1513.0	1257.2	1023.3	789.4
50°	3990.9	3610.8	3252.6	2901.8	2558.3	2229.3	1915.0	1622.7	1344.9	1089.1	840.6
47.5°	4312.5	3895.9	3493.9	3113.8	2748.3	2390.1	2046.6	1725.0	1425.3	1154.9	891.7
45°	4656.0	4173.6	3742.4	3333.1	2931.0	2551.0	2178.2	1827.3	1513.0	1220.7	942.9
42.5°	4992.3	4473.3	3990.9	3559.6	3113.8	2704.5	2309.7	1937.0	1593.4	1279.1	986.8
40°	5372.4	4773.0	4224.8	3749.7	3289.2	2850.6	2434.0	2039.3	1673.8	1337.6	1030.6
37.5°	5737.8	5065.4	4487.9	3954.3	3457.3	2996.8	2558.3	2141.6	1754.2	1396.1	1074.5
35°	6110.6	5387.0	4729.1	4144.4	3625.4	3143.0	2675.2	2236.7	1820.0	1447.2	1118.3
32.5°	6490.7	5694.0	4985.0	4349.0	3793.5	3274.6	2784.9	2324.4	1893.1	1505.7	1154.9
30°	6856.1	5986.3	5226.2	4546.4	3947.0	3406.1	2894.5	2412.1	1966.2	1556.9	1191.4
27.5°	7228.9	6293.3	5467.4	4729.1	4093.2	3523.1	2989.5	2492.5	2032.0	1608.1	1228.0
25°	7587.1	6585.7	5694.0	4904.6	4224.8	3640.0	3091.8	2572.9	2090.5	1651.9	1257.2
22.5°	7916.0	6841.5	5898.6	5072.7	4363.7	3742.4	3179.6	2646.0	2148.9	1695.8	1286.4
20°	8215.7	7104.7	6110.6	5240.8	4495.2	3844.7	3252.6	2711.8	2200.1	1732.3	1315.7
17.5°	8508.1	7345.9	6300.6	5394.3	4604.9	3932.4	3325.7	2762.9	2244.0	1761.5	1337.6
15°	8756.6	7557.8	6468.8	5525.8	4707.2	4005.5	3384.2	2814.1	2280.5	1790.8	1352.2
12.5°	8975.9	7740.6	6614.9	5635.5	4787.6	4071.3	3442.7	2857.9	2317.1	1812.7	1374.2
10°	9151.3	7886.8	6731.9	5730.5	4860.7	4122.5	3479.2	2894.5	2339.0	1834.6	1388.8
7.5°	9290.2	8003.7	6826.9	5796.3	4911.9	4166.3	3515.8	2916.4	2360.9	1849.3	1410.7
5°	9392.5	8091.4	6892.7	5847.5	4955.7	4217.5	3559.6	2953.0	2390.1	1871.2	1410.7
2.5°	9472.9	8157.2	6943.9	5891.3	4985.0	4217.5	3559.6	2953.0	2390.1	1871.2	1410.7
0°	9472.9	8157.2	6943.9	5891.3	4985.0	4217.5	3559.6	2953.0	2390.1	1871.2	1410.7



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CANDELA DISTRIBUTION (continued):

	82.5°	85°	87.5°	90°
90°	0.0	0.0	0.0	0.0
87.5°	36.5	29.2	14.6	0.0
85°	80.4	51.2	29.2	0.0
82.5°	116.9	80.4	36.5	0.0
80°	153.5	102.3	51.2	0.0
77.5°	197.4	131.6	65.8	0.0
75°	233.9	153.5	80.4	0.0
72.5°	270.4	182.7	87.7	0.0
70°	307.0	204.7	102.3	0.0
67.5°	350.8	226.6	116.9	0.0
65°	387.4	255.8	124.3	0.0
62.5°	423.9	277.8	138.9	0.0
60°	460.5	299.7	146.2	0.0
57.5°	497.0	321.6	160.8	0.0
55°	533.6	350.8	175.4	0.0
52.5°	570.1	372.8	182.7	0.0
50°	606.7	394.7	190.0	0.0
47.5°	635.9	416.6	204.7	0.0
45°	672.5	438.6	212.0	0.0
42.5°	709.0	453.2	219.3	0.0
40°	738.2	475.1	226.6	0.0
37.5°	774.8	489.7	241.2	0.0
35°	804.0	511.7	248.5	0.0
32.5°	826.0	526.3	255.8	0.0
30°	855.2	540.9	263.1	0.0
27.5°	877.1	555.5	263.1	0.0
25°	899.0	570.1	270.4	0.0
22.5°	921.0	577.4	277.8	0.0
20°	942.9	592.1	285.1	0.0
17.5°	957.5	599.4	285.1	0.0
15°	972.1	606.7	299.7	0.0
12.5°	979.4	614.0	299.7	0.0
10°	994.1	628.6	299.7	0.0
7.5°	1008.7	628.6	299.7	0.0
5°	1008.7	628.6	299.7	0.0
2.5°	1008.7	628.6	299.7	0.0
0°	1008.7	628.6	299.7	0.0

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