

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: P624199

Luminaire Tested: **EPH-VN-04-E-750-U-77**

Issue Date: 11/2/2022

**Test Information**

Test Method: LM-79-2019  
Report Number: P624199  
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-750-U-77  
Description: EPHESUS LUMAVISION FLOOD – Middle Tier Light Square Luminaire w/  
Nema 7 distribution lens  
Light Source: (64) 5000K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

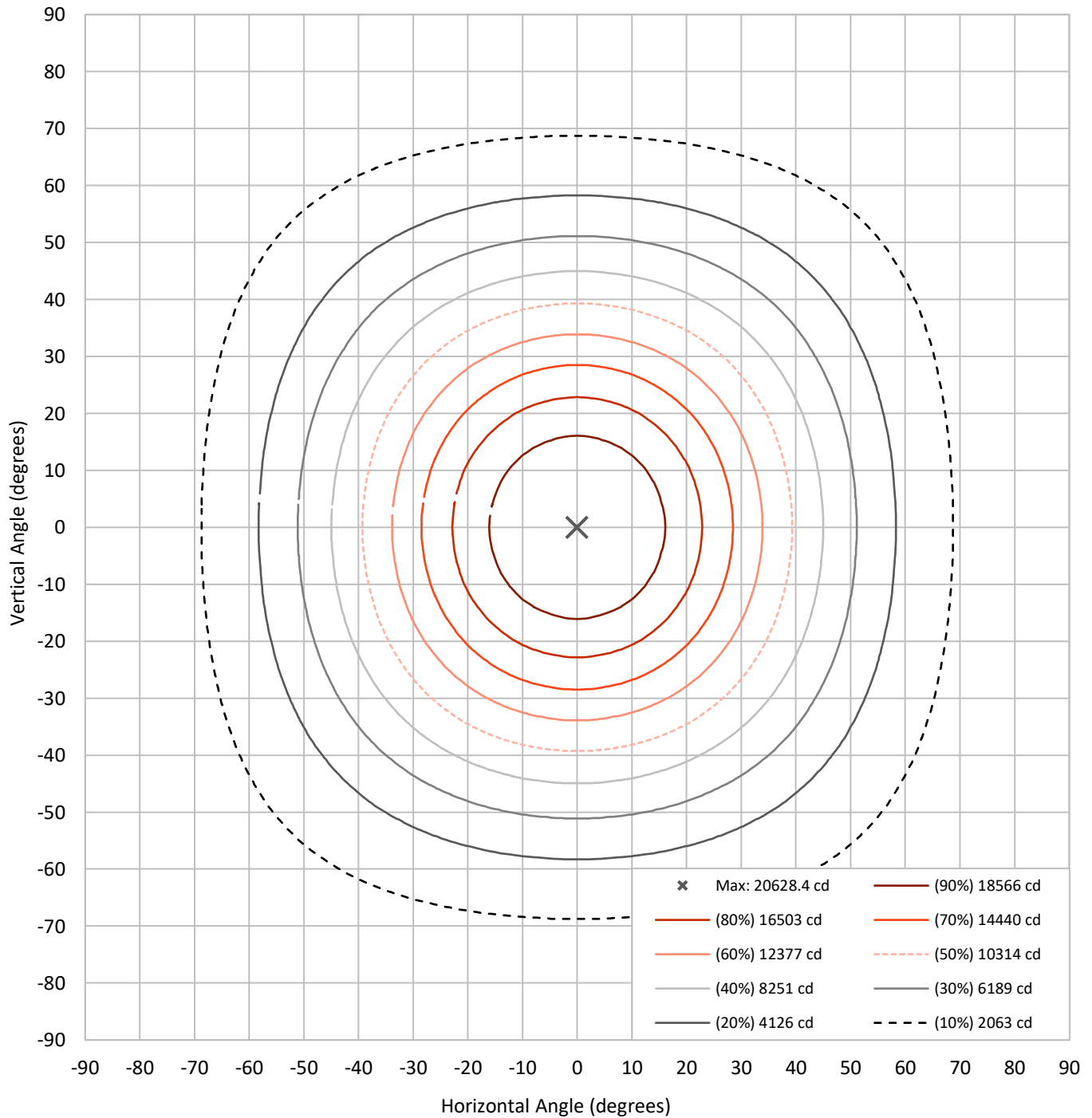
Lumens per Lamp:	N/A	NEMA Type:	7H x 7V
Luminaire Lumens:	37141.9 lumens	Max Intensity:	20628.4 candela
Efficiency:	N/A	Max Intensity Angle:	0°H x 0°V
Efficacy:	122.3 lumens/watt		
Luminous Opening:	Rectangular (W 2' x L: 0.5' x H: 0')		
Beam Angle (50%):	78.6°H x 78.6°V	Field Angle (10%):	137.5°H x 137.5°V
Beam Lumens:	16070.9 lumens	Field Lumens:	26315.6 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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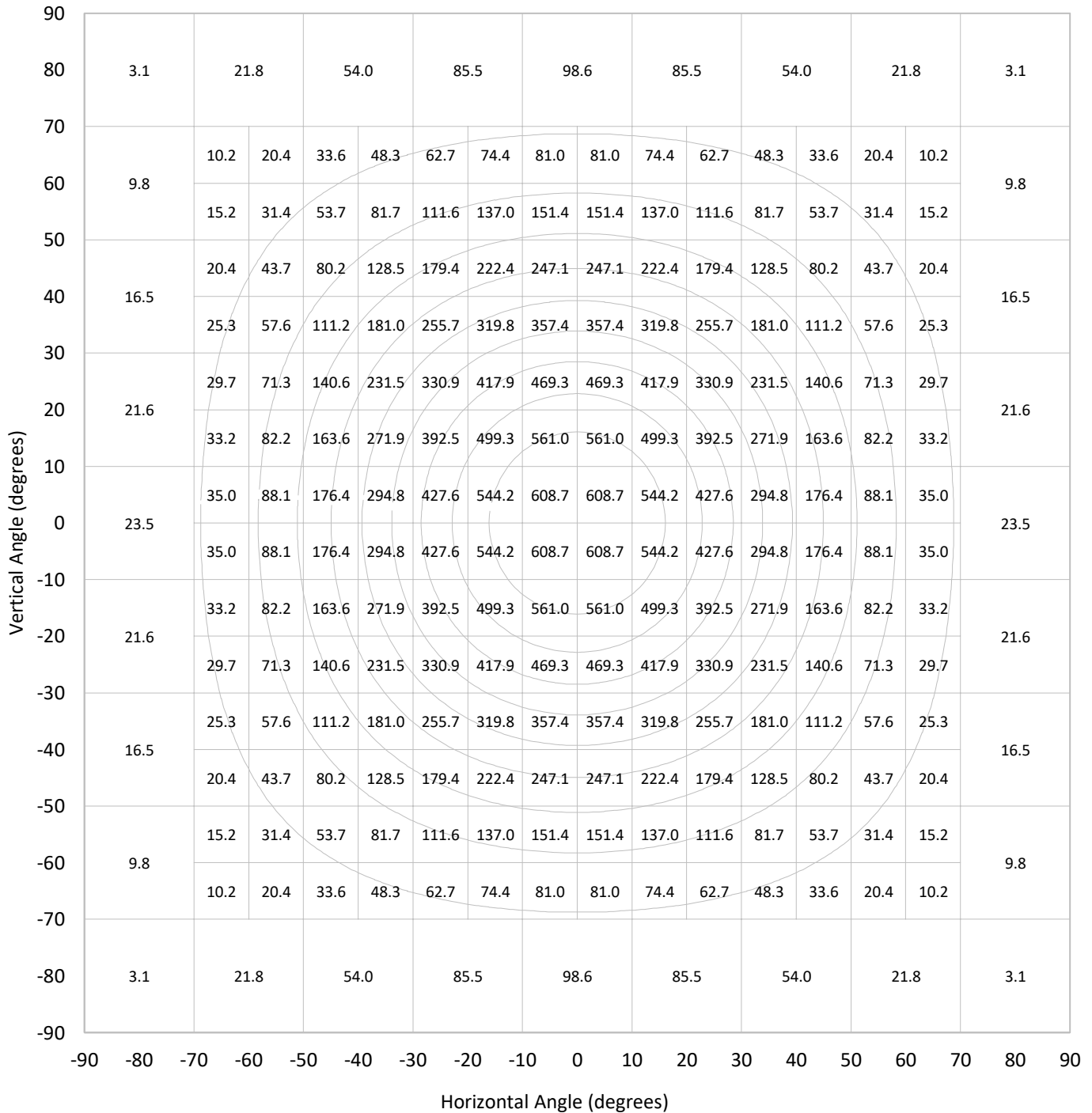
### Iso-Candela Plot





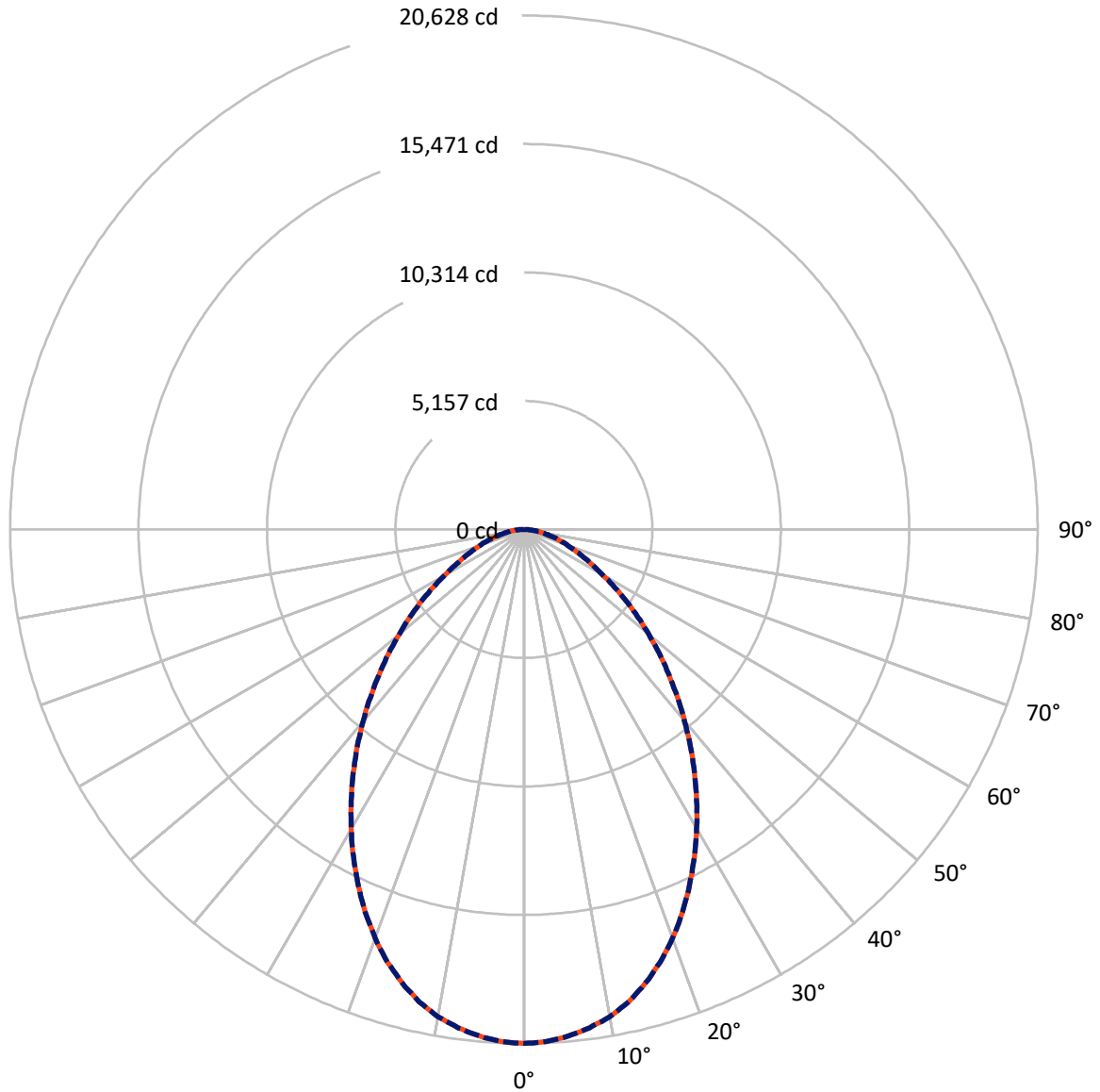
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### Lumen Table



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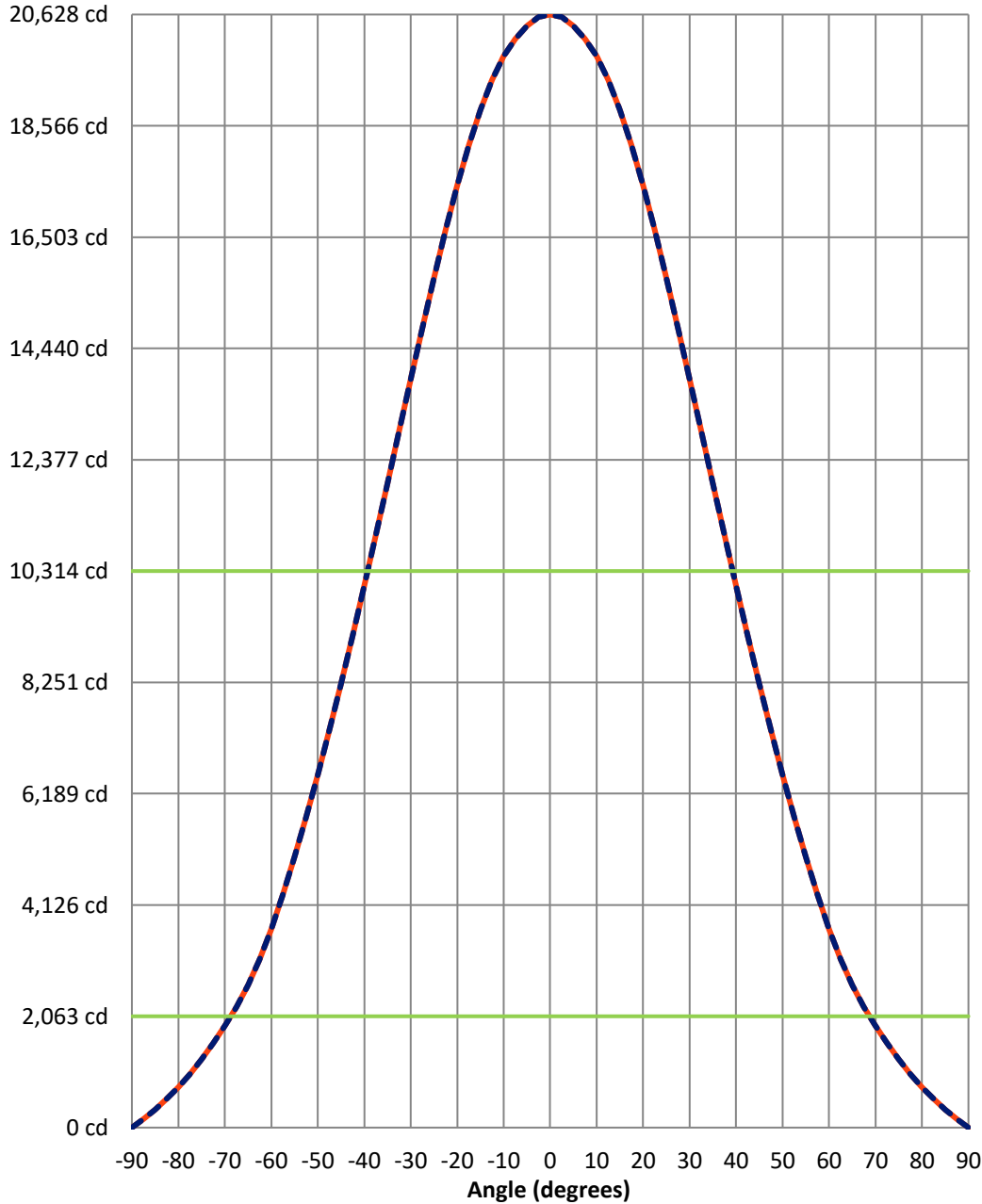
### Luminous Intensity Polar Plot



— 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: 16070.9  
 Efficiency: 43.3%

**Field:**  
 H Angle: 137.5°  
 V Angle: 137.5°  
 Lumens: 26315.6  
 Efficiency: 70.9%

**Spill:**  
 Lumens: 10826.3  
 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°	158.8	158.8	158.8	158.8	158.8	158.8	158.8	151.0	151.0	147.2	143.3
85°	333.0	333.0	333.0	333.0	333.0	325.3	321.4	317.5	313.7	305.9	302.0
82.5°	534.4	534.4	534.4	534.4	526.6	518.9	515.0	507.3	499.5	487.9	476.3
80°	747.4	747.4	747.4	747.4	735.8	728.0	716.4	708.7	697.0	681.5	666.1
77.5°	991.3	991.3	991.3	979.7	972.0	960.4	948.7	933.3	917.8	898.4	875.2
75°	1266.3	1266.3	1266.3	1250.8	1239.2	1227.6	1208.2	1188.8	1165.6	1138.5	1107.5
72.5°	1564.5	1564.5	1564.5	1545.1	1533.5	1514.1	1490.9	1463.8	1436.7	1401.8	1363.1
70°	1885.9	1885.9	1885.9	1862.6	1843.3	1823.9	1792.9	1762.0	1723.2	1684.5	1638.0
67.5°	2234.4	2234.4	2234.4	2207.3	2184.0	2156.9	2122.1	2083.4	2036.9	1982.7	1928.5
65°	2641.0	2641.0	2625.5	2602.3	2575.2	2536.4	2493.8	2439.6	2381.5	2311.8	2238.3
62.5°	3121.2	3121.2	3097.9	3070.8	3036.0	2985.6	2927.5	2857.8	2776.5	2687.5	2598.4
60°	3678.8	3678.8	3651.7	3616.8	3566.5	3504.5	3427.1	3338.0	3237.3	3125.0	3016.6
57.5°	4321.6	4321.6	4286.8	4240.3	4178.3	4100.9	4004.1	3891.8	3764.0	3624.6	3489.1
55°	5018.7	5018.7	4976.1	4921.8	4848.3	4755.3	4639.2	4507.5	4352.6	4193.8	4019.6
52.5°	5758.3	5758.3	5707.9	5646.0	5560.8	5452.4	5320.7	5165.8	4987.7	4801.8	4596.6
50°	6536.6	6536.6	6478.6	6408.9	6312.0	6184.3	6033.2	5855.1	5657.6	5440.8	5204.5
47.5°	7369.2	7369.2	7303.4	7222.1	7105.9	6958.7	6780.6	6575.4	6350.8	6106.8	5839.6
45°	8225.0	8225.0	8151.4	8058.5	7930.7	7764.2	7566.7	7369.2	7082.7	6800.0	6490.2
42.5°	9115.7	9115.7	9030.5	8925.9	8778.8	8596.8	8372.2	8116.6	7833.9	7516.4	7179.5
40°	10041.2	10041.2	9944.4	9824.3	9661.7	9452.6	9200.9	8914.3	8596.8	8244.4	7872.6
37.5°	10986.1	10986.1	10877.6	10746.0	10564.0	10331.6	10048.9	9731.4	9375.1	8984.0	8573.5
35°	11938.7	11938.7	11818.6	11675.3	11474.0	11218.4	10912.5	10560.1	10165.1	9739.1	9278.3
32.5°	12910.6	12910.6	12779.0	12616.3	12387.9	12105.2	11768.3	11384.9	10986.1	10490.4	9987.0
30°	13871.0	13871.0	13727.7	13549.6	13305.6	12995.8	12628.0	12205.9	11737.3	11230.0	10687.9
27.5°	14815.9	14777.2	14657.1	14467.4	14200.2	13871.0	13472.1	13015.2	12507.9	11950.3	11369.4
25°	15745.3	15702.7	15571.0	15361.9	15075.3	14715.2	14285.4	13797.4	13251.4	12662.8	12027.7
22.5°	16635.9	16589.4	16450.0	16225.4	15919.5	15528.4	15067.6	14544.8	13963.9	13332.7	12662.8
20°	17460.7	17410.4	17267.1	17030.9	16713.4	16299.0	15811.1	15249.6	14630.0	13963.9	13251.4
17.5°	18204.2	18153.9	18002.9	17758.9	17460.7	16999.9	16496.5	15904.0	15249.6	14544.8	13797.4
15°	18858.7	18804.5	18649.6	18405.6	18064.8	17631.1	17100.6	16496.5	15811.1	15067.6	14285.4
12.5°	19416.3	19362.1	19203.3	18959.4	18607.0	18173.3	17631.1	16999.9	16299.0	15528.4	14715.2
10°	19857.8	19803.6	19652.5	19420.2	19056.2	18607.0	18064.8	17460.7	16713.4	15919.5	15075.3
7.5°	20175.3	20125.0	19985.6	19753.2	19420.2	18959.4	18405.6	17758.9	17030.9	16225.4	15361.9
5°	20415.4	20357.3	20217.9	19985.6	19652.5	19203.3	18649.6	18002.9	17267.1	16450.0	15571.0
2.5°	20581.9	20512.2	20357.3	20125.0	19803.6	19362.1	18804.5	18153.9	17410.4	16589.4	15702.7
0°	20628.4	20581.9	20415.4	20175.3	19857.8	19416.3	18858.7	18204.2	17460.7	16635.9	15745.3



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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°	139.4	139.4	135.5	131.7	127.8	120.0	116.2	112.3	108.4	100.7	96.8
85°	294.3	286.6	278.8	271.1	259.5	251.7	240.1	232.3	220.7	209.1	197.5
82.5°	464.7	453.1	437.6	426.0	410.5	391.1	375.6	356.3	336.9	321.4	302.0
80°	650.6	631.2	611.8	592.5	569.2	546.0	522.8	499.5	472.4	445.3	418.2
77.5°	851.9	824.8	797.7	766.7	739.6	708.7	677.7	646.7	611.8	577.0	542.1
75°	1076.5	1041.7	1003.0	964.2	929.4	886.8	844.2	801.6	755.1	712.5	666.1
72.5°	1320.5	1277.9	1231.4	1185.0	1134.6	1080.4	1026.2	968.1	913.9	859.7	801.6
70°	1583.8	1533.5	1475.4	1417.3	1355.3	1289.5	1223.7	1154.0	1084.3	1014.6	944.9
67.5°	1866.5	1804.5	1734.8	1665.1	1587.7	1510.2	1432.8	1351.5	1266.3	1181.1	1099.8
65°	2168.6	2091.1	2009.8	1920.7	1831.7	1742.6	1649.7	1552.8	1456.0	1355.3	1266.3
62.5°	2505.5	2408.6	2304.1	2195.7	2095.0	1986.6	1885.9	1765.8	1649.7	1537.4	1425.1
60°	2896.6	2768.8	2641.0	2505.5	2377.7	2238.3	2114.3	1982.7	1851.0	1723.2	1591.6
57.5°	3334.2	3171.5	3016.6	2854.0	2683.6	2528.7	2369.9	2211.2	2064.0	1913.0	1769.7
55°	3829.8	3632.3	3438.7	3237.3	3039.8	2846.2	2644.9	2466.7	2284.7	2114.3	1947.8
52.5°	4372.0	4147.4	3907.3	3678.8	3427.1	3187.0	2962.4	2737.8	2524.8	2319.6	2129.8
50°	4952.8	4689.5	4414.6	4135.7	3849.2	3566.5	3295.4	3032.1	2784.3	2544.2	2319.6
47.5°	5556.9	5258.7	4945.1	4627.5	4321.6	3977.0	3651.7	3353.5	3055.3	2784.3	2524.8
45°	6176.5	5839.6	5495.0	5134.8	4774.7	4402.9	4042.8	3678.8	3353.5	3032.1	2737.8
42.5°	6815.5	6436.0	6052.6	5653.7	5254.9	4848.3	4441.7	4042.8	3651.7	3295.4	2962.4
40°	7473.8	7055.5	6618.0	6184.3	5758.3	5293.6	4848.3	4402.9	3977.0	3566.5	3187.0
37.5°	8132.1	7675.1	7202.7	6714.8	6226.9	5758.3	5254.9	4774.7	4321.6	3849.2	3427.1
35°	8794.3	8290.9	7779.7	7249.2	6714.8	6184.3	5653.7	5134.8	4627.5	4135.7	3678.8
32.5°	9460.3	8910.4	8345.1	7779.7	7202.7	6618.0	6052.6	5495.0	4945.1	4414.6	3907.3
30°	10114.8	9518.4	8910.4	8290.9	7675.1	7055.5	6436.0	5839.6	5258.7	4689.5	4147.4
27.5°	10753.7	10114.8	9460.3	8794.3	8132.1	7473.8	6815.5	6176.5	5556.9	4952.8	4372.0
25°	11369.4	10687.9	9987.0	9278.3	8573.5	7872.6	7179.5	6490.2	5839.6	5204.5	4596.6
22.5°	11950.3	11230.0	10490.4	9739.1	8984.0	8244.4	7516.4	6800.0	6106.8	5440.8	4801.8
20°	12507.9	11737.3	10986.1	10165.1	9375.1	8596.8	7833.9	7082.7	6350.8	5657.6	4987.7
17.5°	13015.2	12205.9	11384.9	10560.1	9731.4	8914.3	8116.6	7369.2	6575.4	5855.1	5165.8
15°	13472.1	12628.0	11768.3	10912.5	10048.9	9200.9	8372.2	7566.7	6780.6	6033.2	5320.7
12.5°	13871.0	12995.8	12105.2	11218.4	10331.6	9452.6	8596.8	7764.2	6958.7	6184.3	5452.4
10°	14200.2	13305.6	12387.9	11474.0	10564.0	9661.7	8778.8	7930.7	7105.9	6312.0	5560.8
7.5°	14467.4	13549.6	12616.3	11675.3	10746.0	9824.3	8925.9	8058.5	7222.1	6408.9	5646.0
5°	14657.1	13727.7	12779.0	11818.6	10877.6	9944.4	9030.5	8151.4	7303.4	6478.6	5707.9
2.5°	14777.2	13871.0	12910.6	11938.7	10986.1	10041.2	9115.7	8225.0	7369.2	6536.6	5758.3
0°	14815.9	13871.0	12910.6	11938.7	10986.1	10041.2	9115.7	8225.0	7369.2	6536.6	5758.3





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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°	92.9	85.2	77.4	73.6	65.8	62.0	54.2	46.5	42.6	34.9	27.1
85°	185.9	170.4	158.8	147.2	135.5	120.0	108.4	96.8	81.3	69.7	54.2
82.5°	282.7	263.3	244.0	224.6	205.2	185.9	162.6	143.3	123.9	104.6	81.3
80°	391.1	360.1	333.0	305.9	278.8	251.7	220.7	193.6	162.6	135.5	108.4
77.5°	503.4	468.6	429.8	391.1	352.4	317.5	278.8	244.0	209.1	170.4	135.5
75°	623.5	577.0	534.4	484.1	437.6	387.2	340.8	294.3	251.7	209.1	162.6
72.5°	747.4	689.3	631.2	577.0	518.9	460.8	406.6	348.5	294.3	244.0	193.6
70°	875.2	805.5	735.8	669.9	604.1	534.4	472.4	406.6	340.8	278.8	220.7
67.5°	1010.7	929.4	848.1	762.9	689.3	611.8	534.4	460.8	387.2	317.5	251.7
65°	1157.9	1061.0	960.4	871.3	774.5	689.3	604.1	518.9	437.6	352.4	278.8
62.5°	1308.9	1196.6	1084.3	972.0	871.3	762.9	669.9	577.0	484.1	391.1	305.9
60°	1463.8	1336.0	1208.2	1084.3	960.4	848.1	735.8	631.2	534.4	429.8	333.0
57.5°	1622.5	1479.3	1336.0	1196.6	1061.0	929.4	805.5	689.3	577.0	468.6	360.1
55°	1785.2	1622.5	1463.8	1308.9	1157.9	1010.7	875.2	747.4	623.5	503.4	391.1
52.5°	1947.8	1769.7	1591.6	1425.1	1266.3	1099.8	944.9	801.6	666.1	542.1	418.2
50°	2114.3	1913.0	1723.2	1537.4	1355.3	1181.1	1014.6	859.7	712.5	577.0	445.3
47.5°	2284.7	2064.0	1851.0	1649.7	1456.0	1266.3	1084.3	913.9	755.1	611.8	472.4
45°	2466.7	2211.2	1982.7	1765.8	1552.8	1351.5	1154.0	968.1	801.6	646.7	499.5
42.5°	2644.9	2369.9	2114.3	1885.9	1649.7	1432.8	1223.7	1026.2	844.2	677.7	522.8
40°	2846.2	2528.7	2238.3	1986.6	1742.6	1510.2	1289.5	1080.4	886.8	708.7	546.0
37.5°	3039.8	2683.6	2377.7	2095.0	1831.7	1587.7	1355.3	1134.6	929.4	739.6	569.2
35°	3237.3	2854.0	2505.5	2195.7	1920.7	1665.1	1417.3	1185.0	964.2	766.7	592.5
32.5°	3438.7	3016.6	2641.0	2304.1	2009.8	1734.8	1475.4	1231.4	1003.0	797.7	611.8
30°	3632.3	3171.5	2768.8	2408.6	2091.1	1804.5	1533.5	1277.9	1041.7	824.8	631.2
27.5°	3829.8	3334.2	2896.6	2505.5	2168.6	1866.5	1583.8	1320.5	1076.5	851.9	650.6
25°	4019.6	3489.1	3016.6	2598.4	2238.3	1928.5	1638.0	1363.1	1107.5	875.2	666.1
22.5°	4193.8	3624.6	3125.0	2687.5	2311.8	1982.7	1684.5	1401.8	1138.5	898.4	681.5
20°	4352.6	3764.0	3237.3	2776.5	2381.5	2036.9	1723.2	1436.7	1165.6	917.8	697.0
17.5°	4507.5	3891.8	3338.0	2857.8	2439.6	2083.4	1762.0	1463.8	1188.8	933.3	708.7
15°	4639.2	4004.1	3427.1	2927.5	2493.8	2122.1	1792.9	1490.9	1208.2	948.7	716.4
12.5°	4755.3	4100.9	3504.5	2985.6	2536.4	2156.9	1823.9	1514.1	1227.6	960.4	728.0
10°	4848.3	4178.3	3566.5	3036.0	2575.2	2184.0	1843.3	1533.5	1239.2	972.0	735.8
7.5°	4921.8	4240.3	3616.8	3070.8	2602.3	2207.3	1862.6	1545.1	1250.8	979.7	747.4
5°	4976.1	4286.8	3651.7	3097.9	2625.5	2234.4	1885.9	1564.5	1266.3	991.3	747.4
2.5°	5018.7	4321.6	3678.8	3121.2	2641.0	2234.4	1885.9	1564.5	1266.3	991.3	747.4
0°	5018.7	4321.6	3678.8	3121.2	2641.0	2234.4	1885.9	1564.5	1266.3	991.3	747.4



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**CANDELA DISTRIBUTION (continued):**

	82.5°	85°	87.5°	90°
90°	0.0	0.0	0.0	0.0
87.5°	19.4	15.5	7.7	0.0
85°	42.6	27.1	15.5	0.0
82.5°	62.0	42.6	19.4	0.0
80°	81.3	54.2	27.1	0.0
77.5°	104.6	69.7	34.9	0.0
75°	123.9	81.3	42.6	0.0
72.5°	143.3	96.8	46.5	0.0
70°	162.6	108.4	54.2	0.0
67.5°	185.9	120.0	62.0	0.0
65°	205.2	135.5	65.8	0.0
62.5°	224.6	147.2	73.6	0.0
60°	244.0	158.8	77.4	0.0
57.5°	263.3	170.4	85.2	0.0
55°	282.7	185.9	92.9	0.0
52.5°	302.0	197.5	96.8	0.0
50°	321.4	209.1	100.7	0.0
47.5°	336.9	220.7	108.4	0.0
45°	356.3	232.3	112.3	0.0
42.5°	375.6	240.1	116.2	0.0
40°	391.1	251.7	120.0	0.0
37.5°	410.5	259.5	127.8	0.0
35°	426.0	271.1	131.7	0.0
32.5°	437.6	278.8	135.5	0.0
30°	453.1	286.6	139.4	0.0
27.5°	464.7	294.3	139.4	0.0
25°	476.3	302.0	143.3	0.0
22.5°	487.9	305.9	147.2	0.0
20°	499.5	313.7	151.0	0.0
17.5°	507.3	317.5	151.0	0.0
15°	515.0	321.4	158.8	0.0
12.5°	518.9	325.3	158.8	0.0
10°	526.6	333.0	158.8	0.0
7.5°	534.4	333.0	158.8	0.0
5°	534.4	333.0	158.8	0.0
2.5°	534.4	333.0	158.8	0.0
0°	534.4	333.0	158.8	0.0

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