

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: P624193

Luminaire Tested: **EPH-VN-04-E-740-U-77**

Issue Date: 11/2/2022

**Test Information**

Test Method: LM-79-2019  
Report Number: P624193  
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-740-U-77  
Description: EPHESUS LUMAVISION FLOOD – Middle Tier Light Square Luminaire w/  
Nema 7 distribution lens  
Light Source: (64) 4000K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

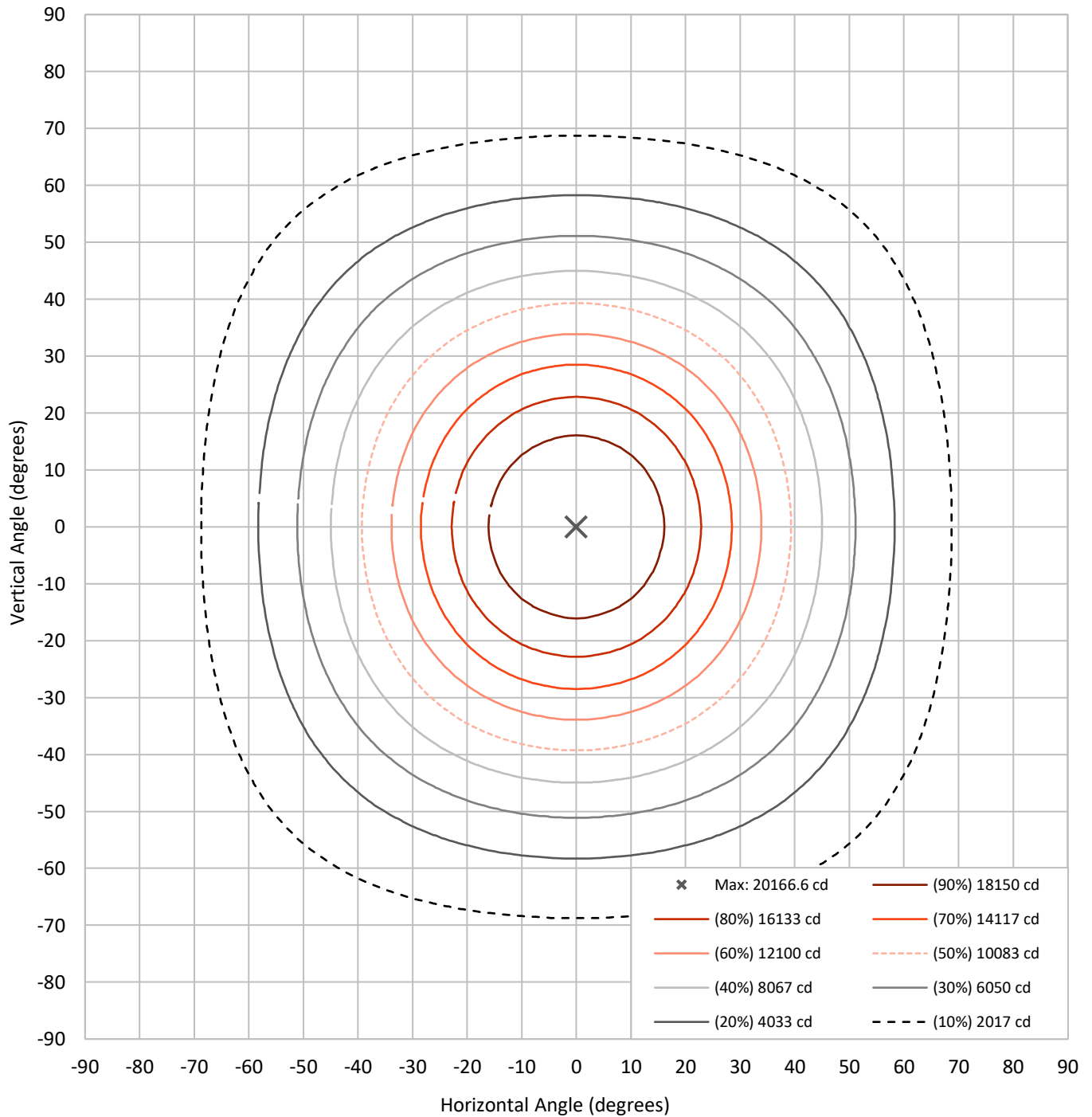
Lumens per Lamp:	N/A	NEMA Type:	7H x 7V
Luminaire Lumens:	36310.3 lumens	Max Intensity:	20166.6 candela
Efficiency:	N/A	Max Intensity Angle:	0°H x 0°V
Efficacy:	119.5 lumens/watt		
Luminous Opening:	Rectangular (W 2' x L: 0.5' x H: 0')		
Beam Angle (50%):	78.6°H x 78.6°V	Field Angle (10%):	137.5°H x 137.5°V
Beam Lumens:	15711.1 lumens	Field Lumens:	25726.4 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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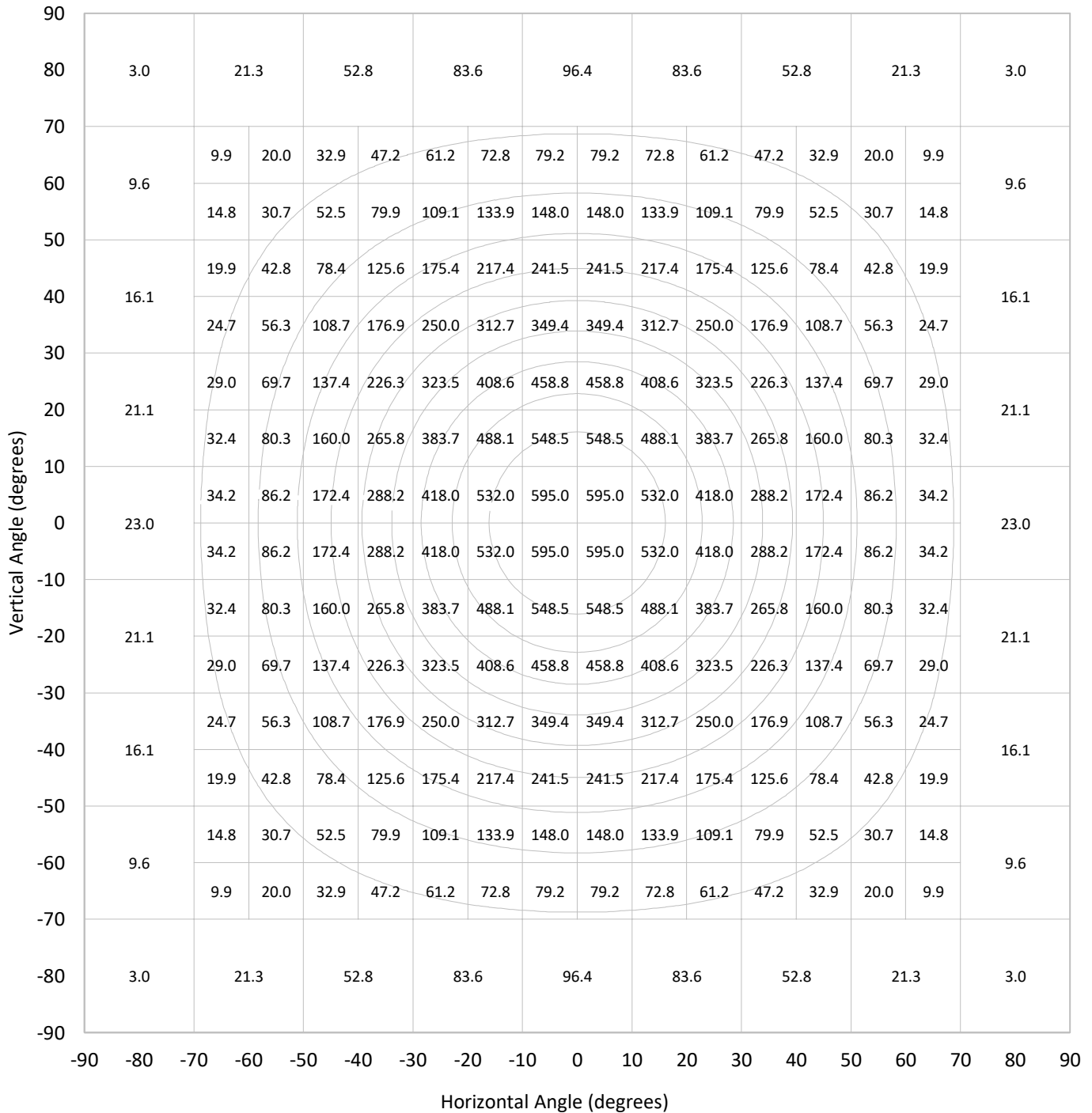
### Iso-Candela Plot





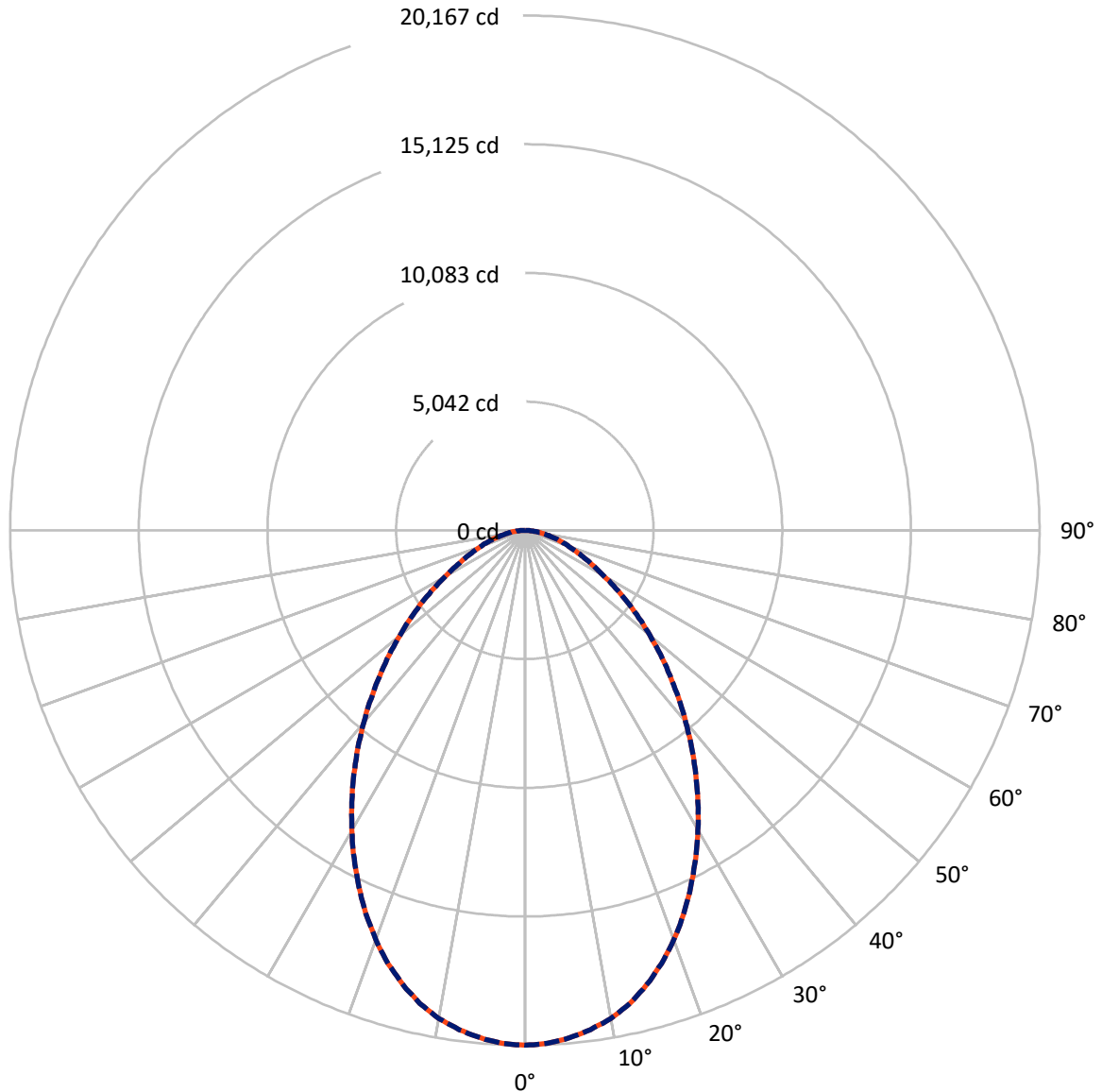
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### Lumen Table



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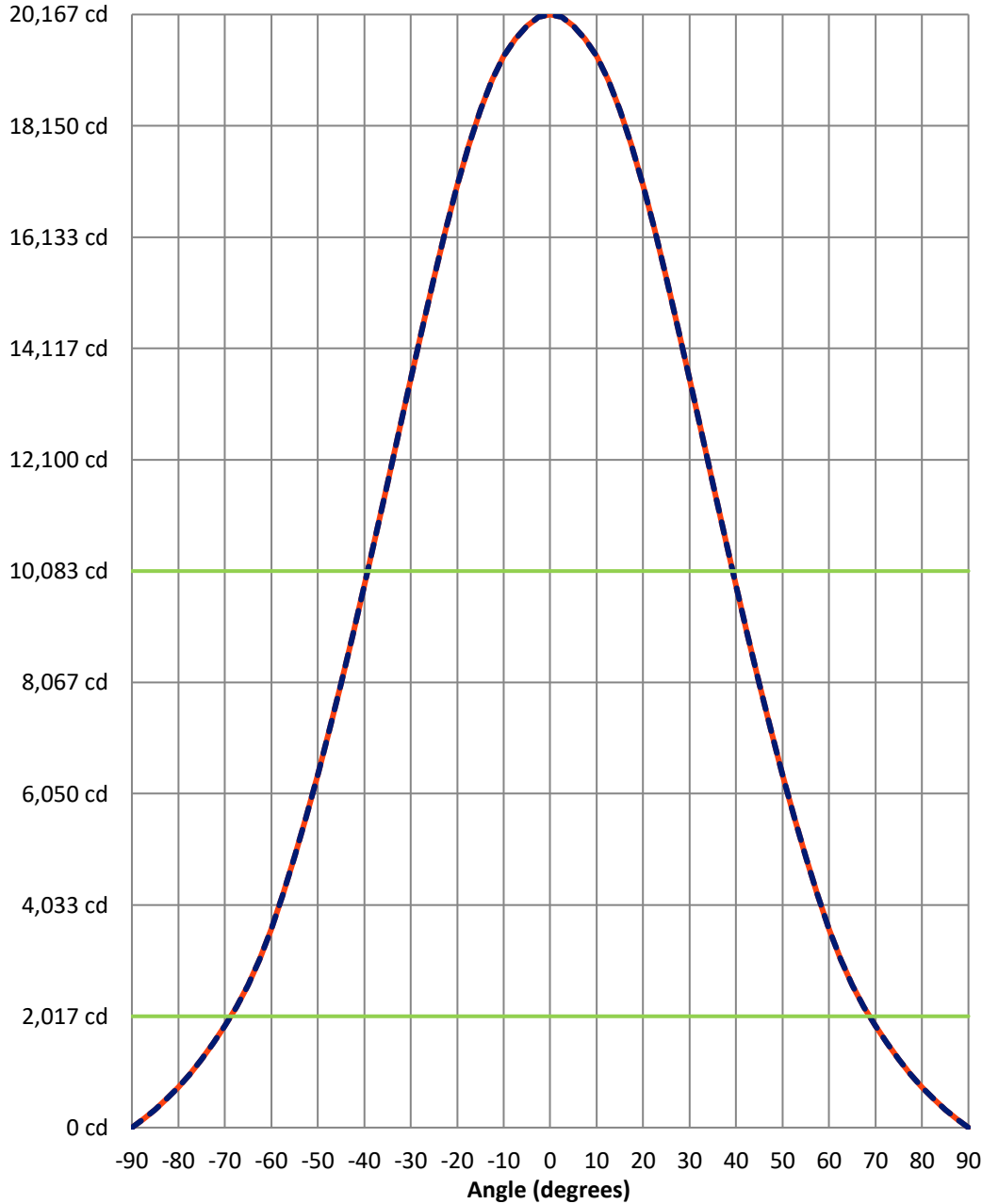
### Luminous Intensity Polar Plot



— 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: 15711.1  
 Efficiency: 43.3%

**Field:**  
 H Angle: 137.5°  
 V Angle: 137.5°  
 Lumens: 25726.4  
 Efficiency: 70.9%

**Spill:**  
 Lumens: 10583.9  
 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°	155.2	155.2	155.2	155.2	155.2	155.2	155.2	147.6	147.6	143.9	140.1
85°	325.6	325.6	325.6	325.6	325.6	318.0	314.2	310.4	306.6	299.1	295.3
82.5°	522.4	522.4	522.4	522.4	514.9	507.3	503.5	495.9	488.4	477.0	465.6
80°	730.6	730.6	730.6	730.6	719.3	711.7	700.4	692.8	681.4	666.3	651.1
77.5°	969.1	969.1	969.1	957.8	950.2	938.9	927.5	912.4	897.2	878.3	855.6
75°	1237.9	1237.9	1237.9	1222.8	1211.4	1200.1	1181.1	1162.2	1139.5	1113.0	1082.7
72.5°	1529.4	1529.4	1529.4	1510.5	1499.1	1480.2	1457.5	1431.0	1404.5	1370.4	1332.6
70°	1843.6	1843.6	1843.6	1820.9	1802.0	1783.1	1752.8	1722.5	1684.6	1646.8	1601.4
67.5°	2184.4	2184.4	2184.4	2157.9	2135.1	2108.6	2074.6	2036.7	1991.3	1938.3	1885.3
65°	2581.9	2581.9	2566.7	2544.0	2517.5	2479.7	2438.0	2385.0	2328.2	2260.1	2188.2
62.5°	3051.3	3051.3	3028.6	3002.1	2968.0	2918.8	2862.0	2793.9	2714.4	2627.3	2540.2
60°	3596.4	3596.4	3569.9	3535.9	3486.7	3426.1	3350.4	3263.3	3164.9	3055.1	2949.1
57.5°	4224.9	4224.9	4190.8	4145.4	4084.8	4009.1	3914.4	3804.7	3679.7	3543.4	3410.9
55°	4906.3	4906.3	4864.7	4811.7	4739.7	4648.9	4535.3	4406.6	4255.2	4099.9	3929.6
52.5°	5629.4	5629.4	5580.2	5519.6	5436.3	5330.3	5201.6	5050.2	4876.0	4694.3	4493.7
50°	6390.3	6390.3	6333.5	6265.4	6170.7	6045.8	5898.2	5724.0	5530.9	5318.9	5088.0
47.5°	7204.2	7204.2	7139.9	7060.4	6946.8	6803.0	6628.8	6428.2	6208.6	5970.1	5708.9
45°	8040.9	8040.9	7969.0	7878.1	7753.2	7590.4	7397.3	7204.2	6924.1	6647.7	6344.9
42.5°	8911.6	8911.6	8828.3	8726.1	8582.2	8404.3	8184.7	7934.9	7658.5	7348.1	7018.7
40°	9816.4	9816.4	9721.7	9604.4	9445.4	9241.0	8994.9	8714.7	8404.3	8059.8	7696.4
37.5°	10740.1	10740.1	10634.1	10505.4	10327.5	10100.3	9824.0	9513.5	9165.2	8782.9	8381.6
35°	11671.4	11671.4	11554.0	11414.0	11217.1	10967.3	10668.2	10323.7	9937.5	9521.1	9070.6
32.5°	12621.6	12621.6	12492.9	12333.9	12110.5	11834.2	11504.8	11130.0	10740.1	10255.5	9763.4
30°	13560.5	13560.5	13420.4	13246.3	13007.8	12704.9	12345.3	11932.6	11474.5	10978.6	10448.6
27.5°	14484.2	14446.3	14329.0	14143.5	13882.3	13560.5	13170.5	12723.8	12227.9	11682.8	11114.9
25°	15392.8	15351.1	15222.4	15018.0	14737.8	14385.8	13965.5	13488.5	12954.8	12379.3	11758.5
22.5°	16263.5	16218.1	16081.8	15862.2	15563.1	15180.8	14730.3	14219.2	13651.3	13034.3	12379.3
20°	17069.8	17020.6	16880.6	16649.6	16339.2	15934.1	15457.1	14908.2	14302.5	13651.3	12954.8
17.5°	17796.7	17747.5	17599.8	17361.3	17069.8	16619.3	16127.2	15548.0	14908.2	14219.2	13488.5
15°	18436.5	18383.5	18232.1	17993.6	17660.4	17236.4	16717.8	16127.2	15457.1	14730.3	13965.5
12.5°	18981.6	18928.6	18773.4	18534.9	18190.4	17766.4	17236.4	16619.3	15934.1	15180.8	14385.8
10°	19413.2	19360.2	19212.6	18985.4	18629.6	18190.4	17660.4	17069.8	16339.2	15563.1	14737.8
7.5°	19723.6	19674.4	19538.1	19311.0	18985.4	18534.9	17993.6	17361.3	16649.6	15862.2	15018.0
5°	19958.4	19901.6	19765.3	19538.1	19212.6	18773.4	18232.1	17599.8	16880.6	16081.8	15222.4
2.5°	20121.1	20053.0	19901.6	19674.4	19360.2	18928.6	18383.5	17747.5	17020.6	16218.1	15351.1
0°	20166.6	20121.1	19958.4	19723.6	19413.2	18981.6	18436.5	17796.7	17069.8	16263.5	15392.8



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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°	136.3	136.3	132.5	128.7	124.9	117.4	113.6	109.8	106.0	98.4	94.6
85°	287.7	280.1	272.6	265.0	253.6	246.1	234.7	227.1	215.8	204.4	193.1
82.5°	454.3	442.9	427.8	416.4	401.3	382.4	367.2	348.3	329.4	314.2	295.3
80°	636.0	617.1	598.1	579.2	556.5	533.8	511.1	488.4	461.9	435.4	408.9
77.5°	832.9	806.4	779.9	749.6	723.1	692.8	662.5	632.2	598.1	564.1	530.0
75°	1052.4	1018.4	980.5	942.6	908.6	866.9	825.3	783.6	738.2	696.6	651.1
72.5°	1290.9	1249.3	1203.9	1158.4	1109.2	1056.2	1003.2	946.4	893.4	840.4	783.6
70°	1548.4	1499.1	1442.4	1385.6	1325.0	1260.6	1196.3	1128.1	1060.0	991.9	923.7
67.5°	1824.7	1764.1	1696.0	1627.9	1552.1	1476.4	1400.7	1321.2	1237.9	1154.6	1075.1
65°	2120.0	2044.3	1964.8	1877.7	1790.6	1703.6	1612.7	1518.1	1423.4	1325.0	1237.9
62.5°	2449.4	2354.7	2252.5	2146.5	2048.1	1942.1	1843.6	1726.3	1612.7	1502.9	1393.1
60°	2831.7	2706.8	2581.9	2449.4	2324.4	2188.2	2067.0	1938.3	1809.6	1684.6	1555.9
57.5°	3259.5	3100.5	2949.1	2790.1	2623.5	2472.1	2316.9	2161.6	2017.8	1870.1	1730.1
55°	3744.1	3551.0	3361.7	3164.9	2971.8	2782.5	2585.7	2411.5	2233.6	2067.0	1904.2
52.5°	4274.1	4054.5	3819.8	3596.4	3350.4	3115.7	2896.1	2676.5	2468.3	2267.7	2082.1
50°	4841.9	4584.5	4315.7	4043.2	3763.0	3486.7	3221.7	2964.2	2721.9	2487.2	2267.7
47.5°	5432.5	5141.0	4834.4	4523.9	4224.9	3887.9	3569.9	3278.4	2986.9	2721.9	2468.3
45°	6038.2	5708.9	5371.9	5019.9	4667.8	4304.4	3952.3	3596.4	3278.4	2964.2	2676.5
42.5°	6662.9	6291.9	5917.1	5527.2	5137.2	4739.7	4342.2	3952.3	3569.9	3221.7	2896.1
40°	7306.5	6897.6	6469.8	6045.8	5629.4	5175.1	4739.7	4304.4	3887.9	3486.7	3115.7
37.5°	7950.0	7503.3	7041.5	6564.5	6087.4	5629.4	5137.2	4667.8	4224.9	3763.0	3350.4
35°	8597.4	8105.2	7605.5	7086.9	6564.5	6045.8	5527.2	5019.9	4523.9	4043.2	3596.4
32.5°	9248.5	8711.0	8158.2	7605.5	7041.5	6469.8	5917.1	5371.9	4834.4	4315.7	3819.8
30°	9888.3	9305.3	8711.0	8105.2	7503.3	6897.6	6291.9	5708.9	5141.0	4584.5	4054.5
27.5°	10513.0	9888.3	9248.5	8597.4	7950.0	7306.5	6662.9	6038.2	5432.5	4841.9	4274.1
25°	11114.9	10448.6	9763.4	9070.6	8381.6	7696.4	7018.7	6344.9	5708.9	5088.0	4493.7
22.5°	11682.8	10978.6	10255.5	9521.1	8782.9	8059.8	7348.1	6647.7	5970.1	5318.9	4694.3
20°	12227.9	11474.5	10740.1	9937.5	9165.2	8404.3	7658.5	6924.1	6208.6	5530.9	4876.0
17.5°	12723.8	11932.6	11130.0	10323.7	9513.5	8714.7	7934.9	7204.2	6428.2	5724.0	5050.2
15°	13170.5	12345.3	11504.8	10668.2	9824.0	8994.9	8184.7	7397.3	6628.8	5898.2	5201.6
12.5°	13560.5	12704.9	11834.2	10967.3	10100.3	9241.0	8404.3	7590.4	6803.0	6045.8	5330.3
10°	13882.3	13007.8	12110.5	11217.1	10327.5	9445.4	8582.2	7753.2	6946.8	6170.7	5436.3
7.5°	14143.5	13246.3	12333.9	11414.0	10505.4	9604.4	8726.1	7878.1	7060.4	6265.4	5519.6
5°	14329.0	13420.4	12492.9	11554.0	10634.1	9721.7	8828.3	7969.0	7139.9	6333.5	5580.2
2.5°	14446.3	13560.5	12621.6	11671.4	10740.1	9816.4	8911.6	8040.9	7204.2	6390.3	5629.4
0°	14484.2	13560.5	12621.6	11671.4	10740.1	9816.4	8911.6	8040.9	7204.2	6390.3	5629.4





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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°	90.9	83.3	75.7	71.9	64.4	60.6	53.0	45.4	41.6	34.1	26.5
85°	181.7	166.6	155.2	143.9	132.5	117.4	106.0	94.6	79.5	68.1	53.0
82.5°	276.4	257.4	238.5	219.6	200.6	181.7	159.0	140.1	121.1	102.2	79.5
80°	382.4	352.1	325.6	299.1	272.6	246.1	215.8	189.3	159.0	132.5	106.0
77.5°	492.1	458.1	420.2	382.4	344.5	310.4	272.6	238.5	204.4	166.6	132.5
75°	609.5	564.1	522.4	473.2	427.8	378.6	333.1	287.7	246.1	204.4	159.0
72.5°	730.6	673.9	617.1	564.1	507.3	450.5	397.5	340.7	287.7	238.5	189.3
70°	855.6	787.4	719.3	654.9	590.6	522.4	461.9	397.5	333.1	272.6	215.8
67.5°	988.1	908.6	829.1	745.8	673.9	598.1	522.4	450.5	378.6	310.4	246.1
65°	1131.9	1037.3	938.9	851.8	757.1	673.9	590.6	507.3	427.8	344.5	272.6
62.5°	1279.6	1169.8	1060.0	950.2	851.8	745.8	654.9	564.1	473.2	382.4	299.1
60°	1431.0	1306.1	1181.1	1060.0	938.9	829.1	719.3	617.1	522.4	420.2	325.6
57.5°	1586.2	1446.1	1306.1	1169.8	1037.3	908.6	787.4	673.9	564.1	458.1	352.1
55°	1745.2	1586.2	1431.0	1279.6	1131.9	988.1	855.6	730.6	609.5	492.1	382.4
52.5°	1904.2	1730.1	1555.9	1393.1	1237.9	1075.1	923.7	783.6	651.1	530.0	408.9
50°	2067.0	1870.1	1684.6	1502.9	1325.0	1154.6	991.9	840.4	696.6	564.1	435.4
47.5°	2233.6	2017.8	1809.6	1612.7	1423.4	1237.9	1060.0	893.4	738.2	598.1	461.9
45°	2411.5	2161.6	1938.3	1726.3	1518.1	1321.2	1128.1	946.4	783.6	632.2	488.4
42.5°	2585.7	2316.9	2067.0	1843.6	1612.7	1400.7	1196.3	1003.2	825.3	662.5	511.1
40°	2782.5	2472.1	2188.2	1942.1	1703.6	1476.4	1260.6	1056.2	866.9	692.8	533.8
37.5°	2971.8	2623.5	2324.4	2048.1	1790.6	1552.1	1325.0	1109.2	908.6	723.1	556.5
35°	3164.9	2790.1	2449.4	2146.5	1877.7	1627.9	1385.6	1158.4	942.6	749.6	579.2
32.5°	3361.7	2949.1	2581.9	2252.5	1964.8	1696.0	1442.4	1203.9	980.5	779.9	598.1
30°	3551.0	3100.5	2706.8	2354.7	2044.3	1764.1	1499.1	1249.3	1018.4	806.4	617.1
27.5°	3744.1	3259.5	2831.7	2449.4	2120.0	1824.7	1548.4	1290.9	1052.4	832.9	636.0
25°	3929.6	3410.9	2949.1	2540.2	2188.2	1885.3	1601.4	1332.6	1082.7	855.6	651.1
22.5°	4099.9	3543.4	3055.1	2627.3	2260.1	1938.3	1646.8	1370.4	1113.0	878.3	666.3
20°	4255.2	3679.7	3164.9	2714.4	2328.2	1991.3	1684.6	1404.5	1139.5	897.2	681.4
17.5°	4406.6	3804.7	3263.3	2793.9	2385.0	2036.7	1722.5	1431.0	1162.2	912.4	692.8
15°	4535.3	3914.4	3350.4	2862.0	2438.0	2074.6	1752.8	1457.5	1181.1	927.5	700.4
12.5°	4648.9	4009.1	3426.1	2918.8	2479.7	2108.6	1783.1	1480.2	1200.1	938.9	711.7
10°	4739.7	4084.8	3486.7	2968.0	2517.5	2135.1	1802.0	1499.1	1211.4	950.2	719.3
7.5°	4811.7	4145.4	3535.9	3002.1	2544.0	2157.9	1820.9	1510.5	1222.8	957.8	730.6
5°	4864.7	4190.8	3569.9	3028.6	2566.7	2184.4	1843.6	1529.4	1237.9	969.1	730.6
2.5°	4906.3	4224.9	3596.4	3051.3	2581.9	2184.4	1843.6	1529.4	1237.9	969.1	730.6
0°	4906.3	4224.9	3596.4	3051.3	2581.9	2184.4	1843.6	1529.4	1237.9	969.1	730.6



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**CANDELA DISTRIBUTION (continued):**

	82.5°	85°	87.5°	90°
90°	0.0	0.0	0.0	0.0
87.5°	18.9	15.1	7.6	0.0
85°	41.6	26.5	15.1	0.0
82.5°	60.6	41.6	18.9	0.0
80°	79.5	53.0	26.5	0.0
77.5°	102.2	68.1	34.1	0.0
75°	121.1	79.5	41.6	0.0
72.5°	140.1	94.6	45.4	0.0
70°	159.0	106.0	53.0	0.0
67.5°	181.7	117.4	60.6	0.0
65°	200.6	132.5	64.4	0.0
62.5°	219.6	143.9	71.9	0.0
60°	238.5	155.2	75.7	0.0
57.5°	257.4	166.6	83.3	0.0
55°	276.4	181.7	90.9	0.0
52.5°	295.3	193.1	94.6	0.0
50°	314.2	204.4	98.4	0.0
47.5°	329.4	215.8	106.0	0.0
45°	348.3	227.1	109.8	0.0
42.5°	367.2	234.7	113.6	0.0
40°	382.4	246.1	117.4	0.0
37.5°	401.3	253.6	124.9	0.0
35°	416.4	265.0	128.7	0.0
32.5°	427.8	272.6	132.5	0.0
30°	442.9	280.1	136.3	0.0
27.5°	454.3	287.7	136.3	0.0
25°	465.6	295.3	140.1	0.0
22.5°	477.0	299.1	143.9	0.0
20°	488.4	306.6	147.6	0.0
17.5°	495.9	310.4	147.6	0.0
15°	503.5	314.2	155.2	0.0
12.5°	507.3	318.0	155.2	0.0
10°	514.9	325.6	155.2	0.0
7.5°	522.4	325.6	155.2	0.0
5°	522.4	325.6	155.2	0.0
2.5°	522.4	325.6	155.2	0.0
0°	522.4	325.6	155.2	0.0

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