

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: P624192

Luminaire Tested: **EPH-VN-03-E-740-U-77**

Issue Date: 11/2/2022

**Test Information**

Test Method: LM-79-2019  
Report Number: P624192  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 11/2/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: EPHESUS  
Catalog Number: EPH-VN-03-E-740-U-77  
Description: EPHESUS LUMAVISION FLOOD – Middle Tier Light Square Luminaire w/  
Nema 7 distribution lens  
Light Source: (48) 4000K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

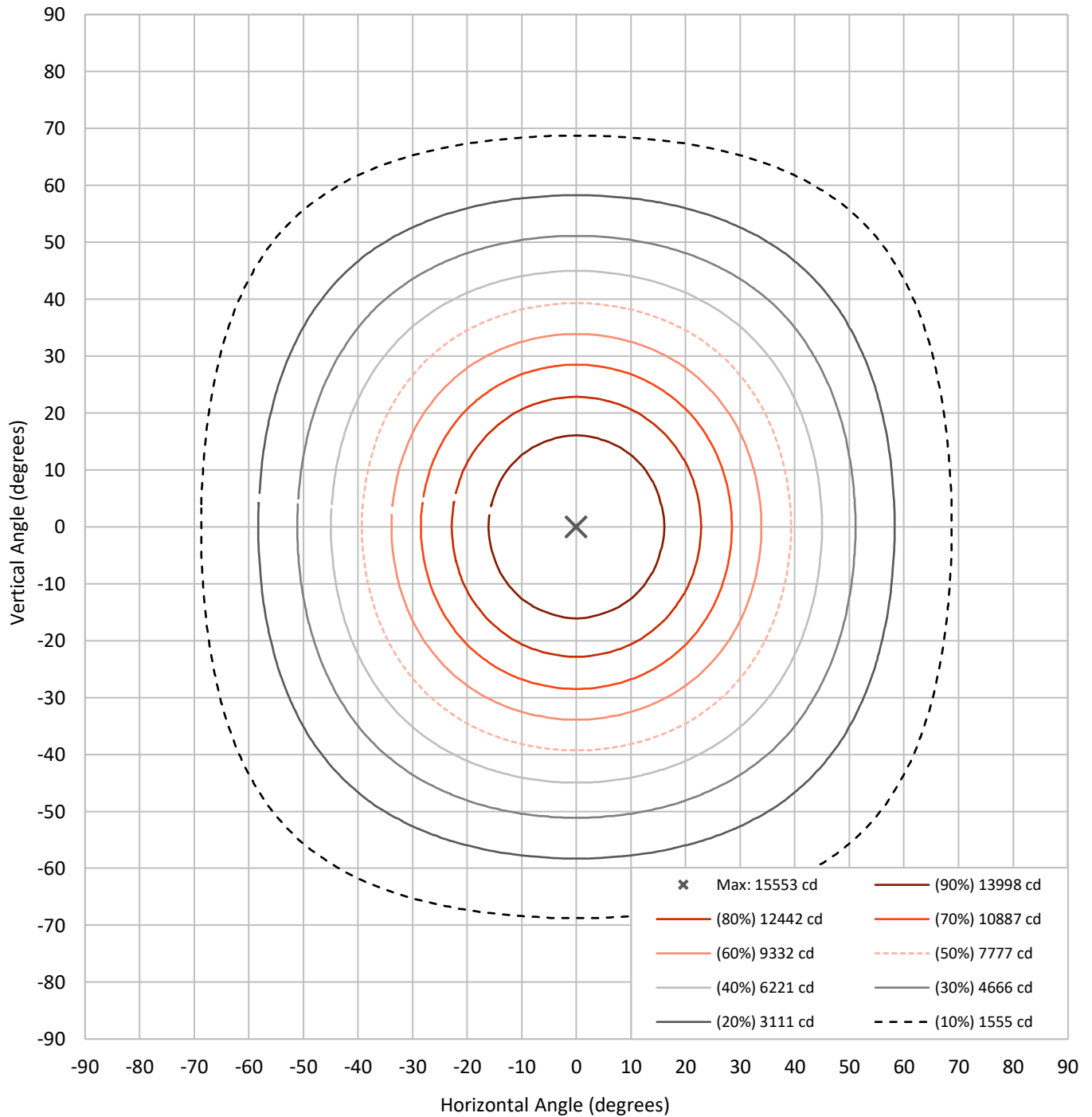
Lumens per Lamp:	N/A	NEMA Type:	7H x 7V
Luminaire Lumens:	28003.5 lumens	Max Intensity:	15553 candela
Efficiency:	N/A	Max Intensity Angle:	0°H x 0°V
Efficacy:	120.7 lumens/watt		
Luminous Opening:	Rectangular (W 1.5' x L: 0.5' x H: 0')		
Beam Angle (50%):	78.6°H x 78.6°V	Field Angle (10%):	137.5°H x 137.5°V
Beam Lumens:	12116.8 lumens	Field Lumens:	19840.9 lumens
Beam Efficiency:	43.3%	Field Efficiency:	70.9%

Input Watts (W): 232.1  
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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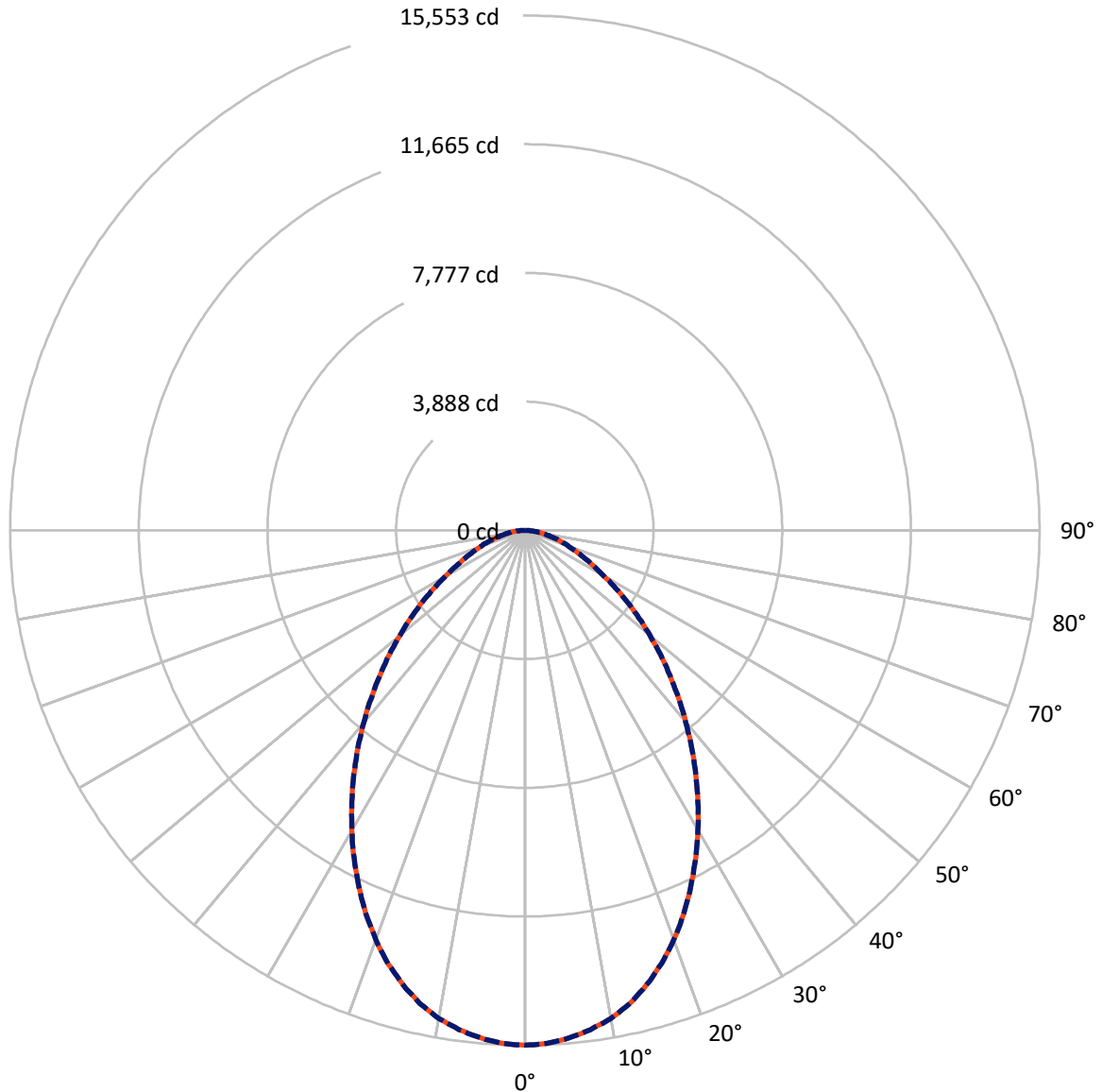
### Iso-Candela Plot





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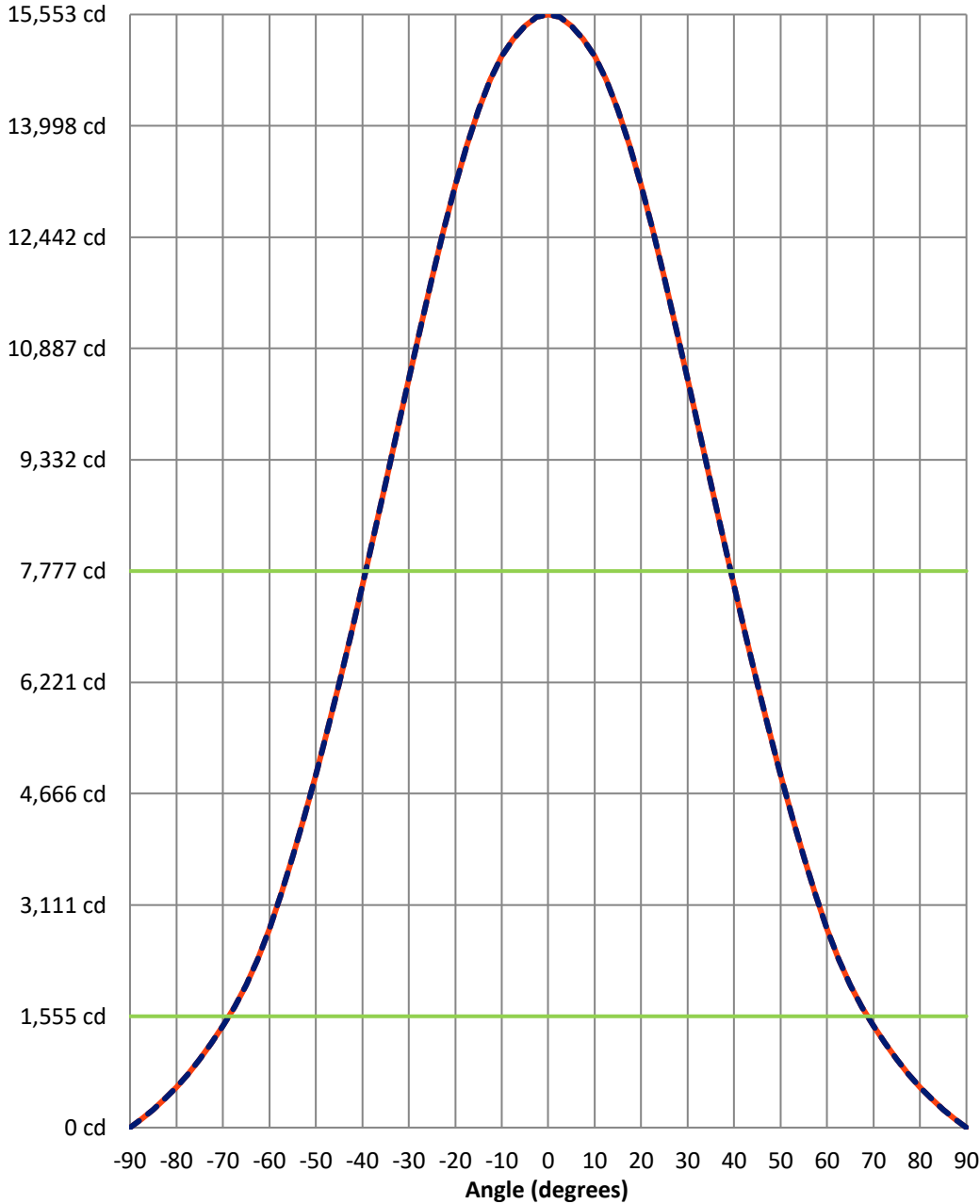
### Luminous Intensity Polar Plot



— 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: 12116.8  
Efficiency: 43.3%

**Field:**  
H Angle: 137.5°  
V Angle: 137.5°  
Lumens: 19840.9  
Efficiency: 70.9%

**Spill:**  
Lumens: 8162.6  
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°	119.7	119.7	119.7	119.7	119.7	119.7	119.7	113.9	113.9	110.9	108.0
85°	251.1	251.1	251.1	251.1	251.1	245.3	242.3	239.4	236.5	230.7	227.7
82.5°	402.9	402.9	402.9	402.9	397.1	391.2	388.3	382.5	376.6	367.9	359.1
80°	563.5	563.5	563.5	563.5	554.7	548.9	540.1	534.3	525.5	513.9	502.2
77.5°	747.4	747.4	747.4	738.7	732.8	724.1	715.3	703.6	692.0	677.4	659.8
75°	954.7	954.7	954.7	943.0	934.3	925.5	910.9	896.3	878.8	858.4	835.0
72.5°	1179.5	1179.5	1179.5	1164.9	1156.2	1141.6	1124.1	1103.6	1083.2	1056.9	1027.7
70°	1421.9	1421.9	1421.9	1404.4	1389.8	1375.2	1351.8	1328.4	1299.2	1270.0	1235.0
67.5°	1684.6	1684.6	1684.6	1664.2	1646.7	1626.2	1600.0	1570.8	1535.7	1494.9	1454.0
65°	1991.2	1991.2	1979.5	1962.0	1941.6	1912.4	1880.3	1839.4	1795.6	1743.0	1687.6
62.5°	2353.2	2353.2	2335.7	2315.3	2289.0	2251.0	2207.3	2154.7	2093.4	2026.2	1959.1
60°	2773.7	2773.7	2753.2	2727.0	2689.0	2642.3	2583.9	2516.7	2440.8	2356.2	2274.4
57.5°	3258.3	3258.3	3232.1	3197.0	3150.3	3091.9	3018.9	2934.2	2837.9	2732.8	2630.6
55°	3783.9	3783.9	3751.7	3710.9	3655.4	3585.3	3497.7	3398.5	3281.7	3162.0	3030.6
52.5°	4341.5	4341.5	4303.6	4256.8	4192.6	4110.9	4011.6	3894.8	3760.5	3620.4	3465.6
50°	4928.4	4928.4	4884.6	4832.0	4759.0	4662.7	4548.8	4414.5	4265.6	4102.1	3924.0
47.5°	5556.1	5556.1	5506.5	5445.1	5357.6	5246.6	5112.3	4957.6	4788.2	4604.3	4402.8
45°	6201.3	6201.3	6145.9	6075.8	5979.4	5853.9	5705.0	5556.1	5340.0	5126.9	4893.3
42.5°	6872.9	6872.9	6808.6	6729.8	6618.8	6481.6	6312.3	6119.6	5906.4	5667.0	5413.0
40°	7570.6	7570.6	7497.7	7407.1	7284.5	7126.9	6937.1	6721.0	6481.6	6215.9	5935.6
37.5°	8283.0	8283.0	8201.3	8102.0	7964.8	7789.6	7576.5	7337.1	7068.5	6773.6	6464.1
35°	9001.3	9001.3	8910.8	8802.7	8650.9	8458.2	8227.6	7961.9	7664.1	7342.9	6995.5
32.5°	9734.1	9734.1	9634.8	9512.2	9340.0	9126.8	8872.8	8583.8	8283.0	7909.3	7529.8
30°	10458.2	10458.2	10350.2	10215.8	10031.9	9798.3	9521.0	9202.7	8849.5	8467.0	8058.2
27.5°	11170.6	11141.4	11050.9	10907.8	10706.3	10458.2	10157.5	9812.9	9430.5	9010.0	8572.1
25°	11871.3	11839.2	11739.9	11582.2	11366.2	11094.7	10770.6	10402.7	9991.0	9547.2	9068.4
22.5°	12542.8	12507.8	12402.7	12233.3	12002.7	11707.8	11360.4	10966.2	10528.3	10052.3	9547.2
20°	13164.7	13126.7	13018.7	12840.6	12601.2	12288.8	11920.9	11497.6	11030.4	10528.3	9991.0
17.5°	13725.3	13687.3	13573.4	13389.5	13164.7	12817.3	12437.7	11991.0	11497.6	10966.2	10402.7
15°	14218.7	14177.8	14061.0	13877.1	13620.2	13293.2	12893.2	12437.7	11920.9	11360.4	10770.6
12.5°	14639.1	14598.2	14478.5	14294.6	14028.9	13701.9	13293.2	12817.3	12288.8	11707.8	11094.7
10°	14972.0	14931.1	14817.2	14642.0	14367.6	14028.9	13620.2	13164.7	12601.2	12002.7	11366.2
7.5°	15211.4	15173.4	15068.3	14893.1	14642.0	14294.6	13877.1	13389.5	12840.6	12233.3	11582.2
5°	15392.4	15348.6	15243.5	15068.3	14817.2	14478.5	14061.0	13573.4	13018.7	12402.7	11739.9
2.5°	15517.9	15465.4	15348.6	15173.4	14931.1	14598.2	14177.8	13687.3	13126.7	12507.8	11839.2
0°	15553.0	15517.9	15392.4	15211.4	14972.0	14639.1	14218.7	13725.3	13164.7	12542.8	11871.3



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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°	105.1	105.1	102.2	99.3	96.3	90.5	87.6	84.7	81.8	75.9	73.0
85°	221.9	216.1	210.2	204.4	195.6	189.8	181.0	175.2	166.4	157.7	148.9
82.5°	350.4	341.6	329.9	321.2	309.5	294.9	283.2	268.6	254.0	242.3	227.7
80°	490.5	475.9	461.3	446.7	429.2	411.7	394.2	376.6	356.2	335.8	315.3
77.5°	642.3	621.9	601.4	578.1	557.7	534.3	510.9	487.6	461.3	435.0	408.8
75°	811.7	785.4	756.2	727.0	700.7	668.6	636.5	604.4	569.3	537.2	502.2
72.5°	995.6	963.5	928.4	893.4	855.5	814.6	773.7	729.9	689.0	648.2	604.4
70°	1194.1	1156.2	1112.4	1068.6	1021.9	972.2	922.6	870.1	817.5	764.9	712.4
67.5°	1407.3	1360.6	1308.0	1255.4	1197.1	1138.7	1080.3	1019.0	954.7	890.5	829.2
65°	1635.0	1576.6	1515.3	1448.1	1381.0	1313.8	1243.8	1170.8	1097.8	1021.9	954.7
62.5°	1889.0	1816.0	1737.2	1655.4	1579.5	1497.8	1421.9	1331.4	1243.8	1159.1	1074.4
60°	2183.9	2087.5	1991.2	1889.0	1792.7	1687.6	1594.1	1494.9	1395.6	1299.2	1200.0
57.5°	2513.8	2391.2	2274.4	2151.8	2023.3	1906.5	1786.8	1667.1	1556.2	1442.3	1334.3
55°	2887.5	2738.6	2592.6	2440.8	2291.9	2145.9	1994.1	1859.8	1722.6	1594.1	1468.6
52.5°	3296.3	3126.9	2945.9	2773.7	2583.9	2402.9	2233.5	2064.2	1903.6	1748.9	1605.8
50°	3734.2	3535.7	3328.4	3118.2	2902.1	2689.0	2484.6	2286.1	2099.2	1918.2	1748.9
47.5°	4189.7	3964.9	3728.4	3489.0	3258.3	2998.5	2753.2	2528.4	2303.6	2099.2	1903.6
45°	4656.8	4402.8	4143.0	3871.5	3599.9	3319.6	3048.1	2773.7	2528.4	2286.1	2064.2
42.5°	5138.6	4852.5	4563.4	4262.7	3962.0	3655.4	3348.8	3048.1	2753.2	2484.6	2233.5
40°	5634.9	5319.6	4989.7	4662.7	4341.5	3991.2	3655.4	3319.6	2998.5	2689.0	2402.9
37.5°	6131.3	5786.7	5430.5	5062.7	4694.8	4341.5	3962.0	3599.9	3258.3	2902.1	2583.9
35°	6630.5	6251.0	5865.6	5465.6	5062.7	4662.7	4262.7	3871.5	3489.0	3118.2	2773.7
32.5°	7132.7	6718.1	6291.8	5865.6	5430.5	4989.7	4563.4	4143.0	3728.4	3328.4	2945.9
30°	7626.1	7176.5	6718.1	6251.0	5786.7	5319.6	4852.5	4402.8	3964.9	3535.7	3126.9
27.5°	8107.9	7626.1	7132.7	6630.5	6131.3	5634.9	5138.6	4656.8	4189.7	3734.2	3296.3
25°	8572.1	8058.2	7529.8	6995.5	6464.1	5935.6	5413.0	4893.3	4402.8	3924.0	3465.6
22.5°	9010.0	8467.0	7909.3	7342.9	6773.6	6215.9	5667.0	5126.9	4604.3	4102.1	3620.4
20°	9430.5	8849.5	8283.0	7664.1	7068.5	6481.6	5906.4	5340.0	4788.2	4265.6	3760.5
17.5°	9812.9	9202.7	8583.8	7961.9	7337.1	6721.0	6119.6	5556.1	4957.6	4414.5	3894.8
15°	10157.5	9521.0	8872.8	8227.6	7576.5	6937.1	6312.3	5705.0	5112.3	4548.8	4011.6
12.5°	10458.2	9798.3	9126.8	8458.2	7789.6	7126.9	6481.6	5853.9	5246.6	4662.7	4110.9
10°	10706.3	10031.9	9340.0	8650.9	7964.8	7284.5	6618.8	5979.4	5357.6	4759.0	4192.6
7.5°	10907.8	10215.8	9512.2	8802.7	8102.0	7407.1	6729.8	6075.8	5445.1	4832.0	4256.8
5°	11050.9	10350.2	9634.8	8910.8	8201.3	7497.7	6808.6	6145.9	5506.5	4884.6	4303.6
2.5°	11141.4	10458.2	9734.1	9001.3	8283.0	7570.6	6872.9	6201.3	5556.1	4928.4	4341.5
0°	11170.6	10458.2	9734.1	9001.3	8283.0	7570.6	6872.9	6201.3	5556.1	4928.4	4341.5





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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°	70.1	64.2	58.4	55.5	49.6	46.7	40.9	35.0	32.1	26.3	20.4
85°	140.1	128.5	119.7	110.9	102.2	90.5	81.8	73.0	61.3	52.6	40.9
82.5°	213.1	198.5	183.9	169.3	154.7	140.1	122.6	108.0	93.4	78.8	61.3
80°	294.9	271.5	251.1	230.7	210.2	189.8	166.4	146.0	122.6	102.2	81.8
77.5°	379.6	353.3	324.1	294.9	265.7	239.4	210.2	183.9	157.7	128.5	102.2
75°	470.1	435.0	402.9	365.0	329.9	292.0	256.9	221.9	189.8	157.7	122.6
72.5°	563.5	519.7	475.9	435.0	391.2	347.4	306.6	262.8	221.9	183.9	146.0
70°	659.8	607.3	554.7	505.1	455.5	402.9	356.2	306.6	256.9	210.2	166.4
67.5°	762.0	700.7	639.4	575.2	519.7	461.3	402.9	347.4	292.0	239.4	189.8
65°	873.0	800.0	724.1	656.9	583.9	519.7	455.5	391.2	329.9	265.7	210.2
62.5°	986.8	902.2	817.5	732.8	656.9	575.2	505.1	435.0	365.0	294.9	230.7
60°	1103.6	1007.3	910.9	817.5	724.1	639.4	554.7	475.9	402.9	324.1	251.1
57.5°	1223.3	1115.3	1007.3	902.2	800.0	700.7	607.3	519.7	435.0	353.3	271.5
55°	1346.0	1223.3	1103.6	986.8	873.0	762.0	659.8	563.5	470.1	379.6	294.9
52.5°	1468.6	1334.3	1200.0	1074.4	954.7	829.2	712.4	604.4	502.2	408.8	315.3
50°	1594.1	1442.3	1299.2	1159.1	1021.9	890.5	764.9	648.2	537.2	435.0	335.8
47.5°	1722.6	1556.2	1395.6	1243.8	1097.8	954.7	817.5	689.0	569.3	461.3	356.2
45°	1859.8	1667.1	1494.9	1331.4	1170.8	1019.0	870.1	729.9	604.4	487.6	376.6
42.5°	1994.1	1786.8	1594.1	1421.9	1243.8	1080.3	922.6	773.7	636.5	510.9	394.2
40°	2145.9	1906.5	1687.6	1497.8	1313.8	1138.7	972.2	814.6	668.6	534.3	411.7
37.5°	2291.9	2023.3	1792.7	1579.5	1381.0	1197.1	1021.9	855.5	700.7	557.7	429.2
35°	2440.8	2151.8	1889.0	1655.4	1448.1	1255.4	1068.6	893.4	727.0	578.1	446.7
32.5°	2592.6	2274.4	1991.2	1737.2	1515.3	1308.0	1112.4	928.4	756.2	601.4	461.3
30°	2738.6	2391.2	2087.5	1816.0	1576.6	1360.6	1156.2	963.5	785.4	621.9	475.9
27.5°	2887.5	2513.8	2183.9	1889.0	1635.0	1407.3	1194.1	995.6	811.7	642.3	490.5
25°	3030.6	2630.6	2274.4	1959.1	1687.6	1454.0	1235.0	1027.7	835.0	659.8	502.2
22.5°	3162.0	2732.8	2356.2	2026.2	1743.0	1494.9	1270.0	1056.9	858.4	677.4	513.9
20°	3281.7	2837.9	2440.8	2093.4	1795.6	1535.7	1299.2	1083.2	878.8	692.0	525.5
17.5°	3398.5	2934.2	2516.7	2154.7	1839.4	1570.8	1328.4	1103.6	896.3	703.6	534.3
15°	3497.7	3018.9	2583.9	2207.3	1880.3	1600.0	1351.8	1124.1	910.9	715.3	540.1
12.5°	3585.3	3091.9	2642.3	2251.0	1912.4	1626.2	1375.2	1141.6	925.5	724.1	548.9
10°	3655.4	3150.3	2689.0	2289.0	1941.6	1646.7	1389.8	1156.2	934.3	732.8	554.7
7.5°	3710.9	3197.0	2727.0	2315.3	1962.0	1664.2	1404.4	1164.9	943.0	738.7	563.5
5°	3751.7	3232.1	2753.2	2335.7	1979.5	1684.6	1421.9	1179.5	954.7	747.4	563.5
2.5°	3783.9	3258.3	2773.7	2353.2	1991.2	1684.6	1421.9	1179.5	954.7	747.4	563.5
0°	3783.9	3258.3	2773.7	2353.2	1991.2	1684.6	1421.9	1179.5	954.7	747.4	563.5



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**CANDELA DISTRIBUTION (continued):**

	82.5°	85°	87.5°	90°
90°	0.0	0.0	0.0	0.0
87.5°	14.6	11.7	5.8	0.0
85°	32.1	20.4	11.7	0.0
82.5°	46.7	32.1	14.6	0.0
80°	61.3	40.9	20.4	0.0
77.5°	78.8	52.6	26.3	0.0
75°	93.4	61.3	32.1	0.0
72.5°	108.0	73.0	35.0	0.0
70°	122.6	81.8	40.9	0.0
67.5°	140.1	90.5	46.7	0.0
65°	154.7	102.2	49.6	0.0
62.5°	169.3	110.9	55.5	0.0
60°	183.9	119.7	58.4	0.0
57.5°	198.5	128.5	64.2	0.0
55°	213.1	140.1	70.1	0.0
52.5°	227.7	148.9	73.0	0.0
50°	242.3	157.7	75.9	0.0
47.5°	254.0	166.4	81.8	0.0
45°	268.6	175.2	84.7	0.0
42.5°	283.2	181.0	87.6	0.0
40°	294.9	189.8	90.5	0.0
37.5°	309.5	195.6	96.3	0.0
35°	321.2	204.4	99.3	0.0
32.5°	329.9	210.2	102.2	0.0
30°	341.6	216.1	105.1	0.0
27.5°	350.4	221.9	105.1	0.0
25°	359.1	227.7	108.0	0.0
22.5°	367.9	230.7	110.9	0.0
20°	376.6	236.5	113.9	0.0
17.5°	382.5	239.4	113.9	0.0
15°	388.3	242.3	119.7	0.0
12.5°	391.2	245.3	119.7	0.0
10°	397.1	251.1	119.7	0.0
7.5°	402.9	251.1	119.7	0.0
5°	402.9	251.1	119.7	0.0
2.5°	402.9	251.1	119.7	0.0
0°	402.9	251.1	119.7	0.0

(END OF REPORT)