

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: P623243

Luminaire Tested: **EPH-VN-04-E-750-U-33**

Issue Date: 10/13/2022

**Test Information**

Test Method: LM-79-2019  
Report Number: P623243  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 10/13/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: EPHESUS  
Catalog Number: EPH-VN-04-E-750-U-33  
Description: EPHESUS LUMAVISION FLOOD – Middle Tier Light Square Luminaire w/  
Nema 3 distribution lens  
Light Source: (64) 5000K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp:	N/A	NEMA Type:	3H x 3V
Luminaire Lumens:	37225.1 lumens	Max Intensity:	346385.2 candela
Efficiency:	N/A	Max Intensity Angle:	0°H x 0°V
Efficacy:	122.5 lumens/watt		
Luminous Opening:	Rectangular (W 2' x L: 0.5' x H: 0')		

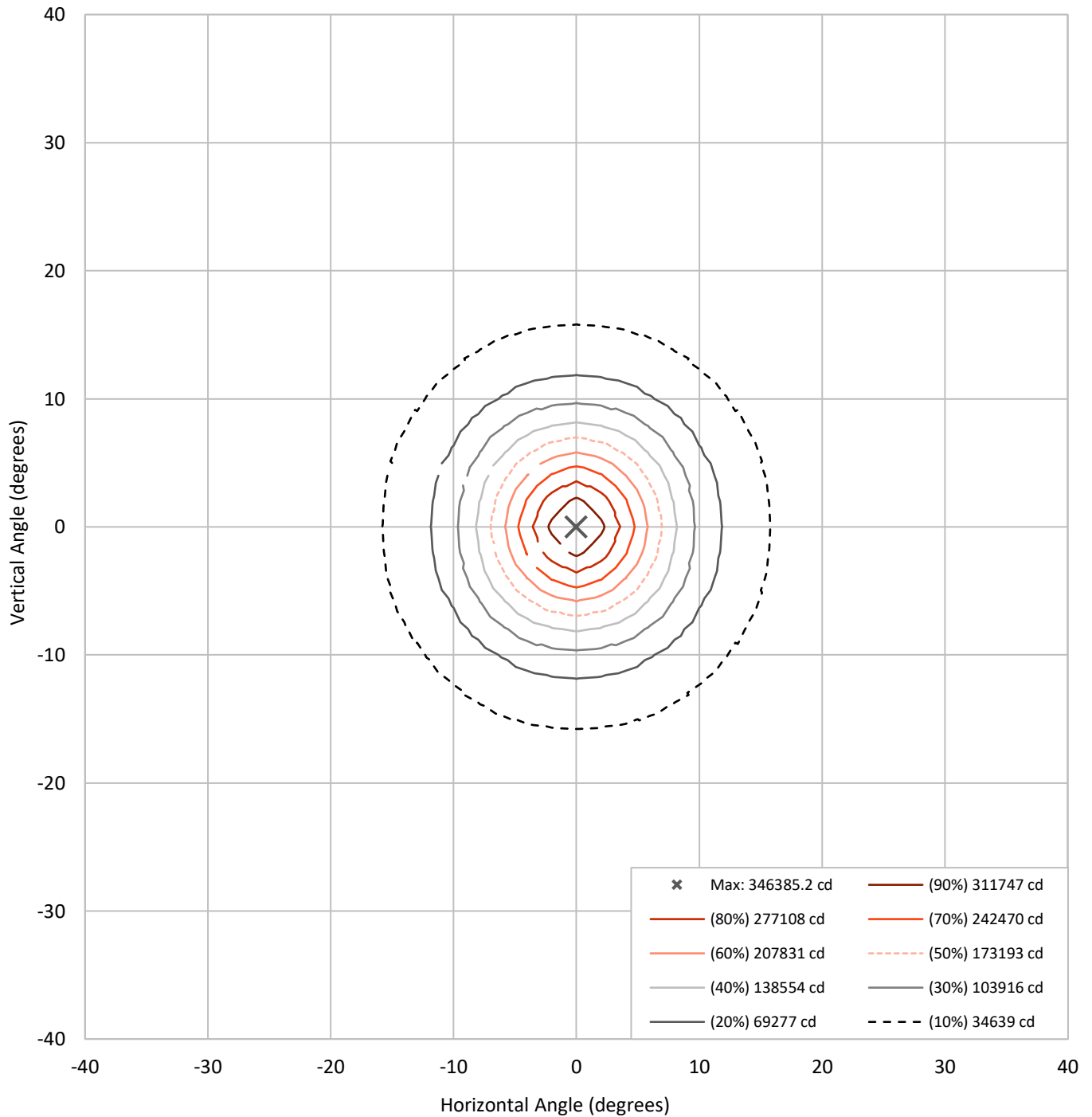
Beam Angle (50%):	13.8°H x 13.8°V	Field Angle (10%):	31.4°H x 31.4°V
Beam Lumens:	8140.1 lumens	Field Lumens:	18953.5 lumens
Beam Efficiency:	21.9%	Field Efficiency:	50.9%

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





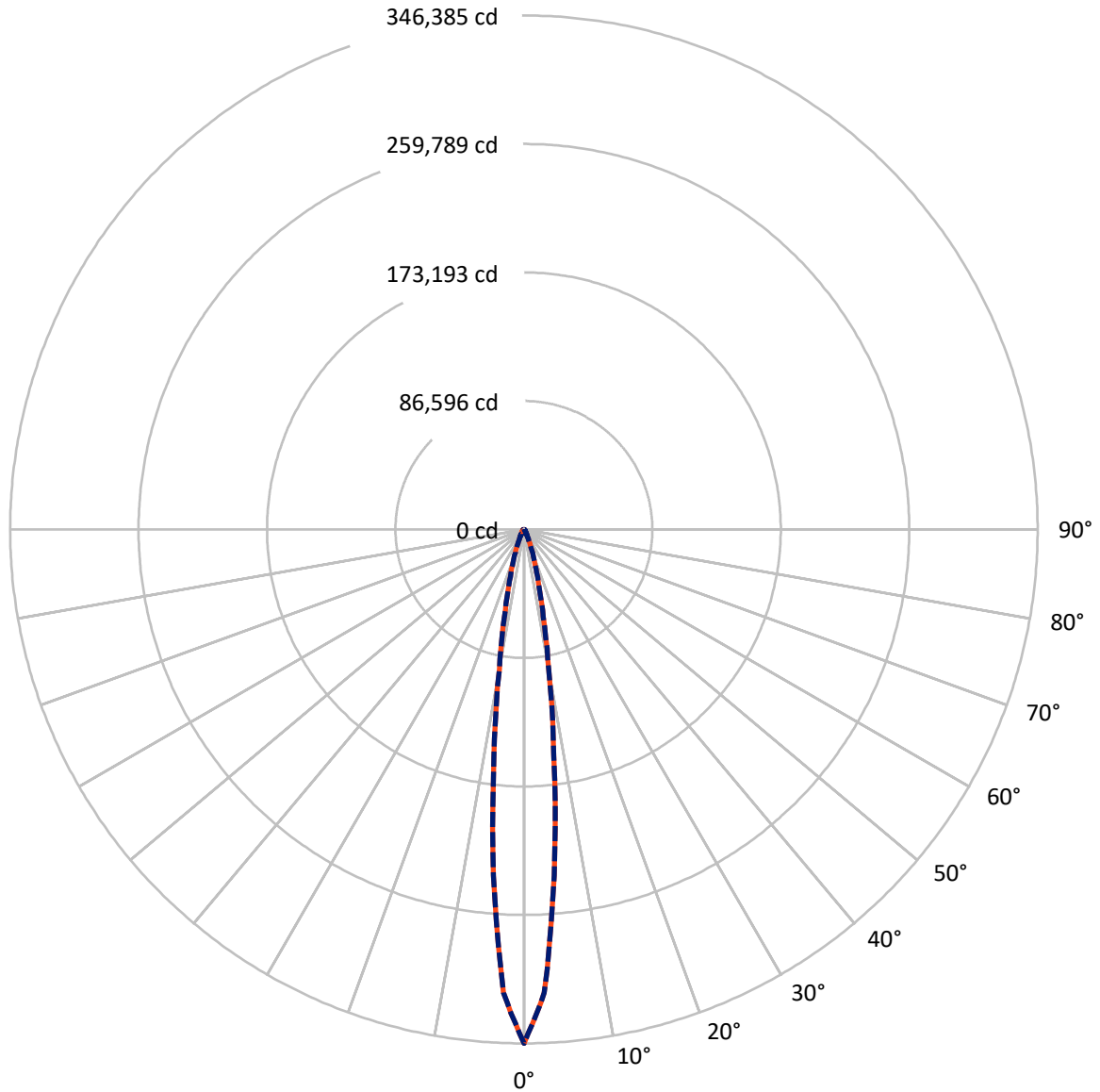
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### Lumen Table

90	0.6	4.8		12.8		20.8		24.2		20.8		12.8		4.8		0.6
80	0.6	4.8		12.8		20.8		24.2		20.8		12.8		4.8		0.6
70	2.2	2.4	5.1	8.6	12.1	15.3	17.7	19.0	19.0	17.7	15.3	12.1	8.6	5.1	2.4	2.2
60		3.8	8.0	12.9	17.8	22.1	25.5	27.3	27.3	25.5	22.1	17.8	12.9	8.0	3.8	
50	4.0	5.2	10.5	16.5	22.9	29.4	35.5	39.4	39.4	35.5	29.4	22.9	16.5	10.5	5.2	4.0
40		6.3	12.5	19.8	29.0	41.5	56.7	69.7	69.7	56.7	41.5	29.0	19.8	12.5	6.3	
30	5.4	7.2	14.1	23.0	37.6	66.3	135.4	231.6	231.6	135.4	66.3	37.6	23.0	14.1	7.2	5.4
20		7.8	15.2	26.1	48.3	127.6	459.0	1139.7	1139.7	459.0	127.6	48.3	26.1	15.2	7.8	
10	5.9	8.1	15.8	28.1	57.7	212.6	1110.5	4876.2	4876.2	1110.5	212.6	57.7	28.1	15.8	8.1	5.9
0		8.1	15.8	28.1	57.7	212.6	1110.5	4876.2	4876.2	1110.5	212.6	57.7	28.1	15.8	8.1	
-10	5.4	7.8	15.2	26.1	48.3	127.6	459.0	1139.7	1139.7	459.0	127.6	48.3	26.1	15.2	7.8	5.4
-20		7.2	14.1	23.0	37.6	66.3	135.4	231.6	231.6	135.4	66.3	37.6	23.0	14.1	7.2	
-30	4.0	6.3	12.5	19.8	29.0	41.5	56.7	69.7	69.7	56.7	41.5	29.0	19.8	12.5	6.3	4.0
-40		5.2	10.5	16.5	22.9	29.4	35.5	39.4	39.4	35.5	29.4	22.9	16.5	10.5	5.2	
-50	2.2	3.8	8.0	12.9	17.8	22.1	25.5	27.3	27.3	25.5	22.1	17.8	12.9	8.0	3.8	2.2
-60		2.4	5.1	8.6	12.1	15.3	17.7	19.0	19.0	17.7	15.3	12.1	8.6	5.1	2.4	
-70	0.6	4.8		12.8		20.8		24.2		20.8		12.8		4.8		0.6
-80		4.8		12.8		20.8		24.2		20.8		12.8		4.8		
-90	0.6	4.8		12.8		20.8		24.2		20.8		12.8		4.8		0.6

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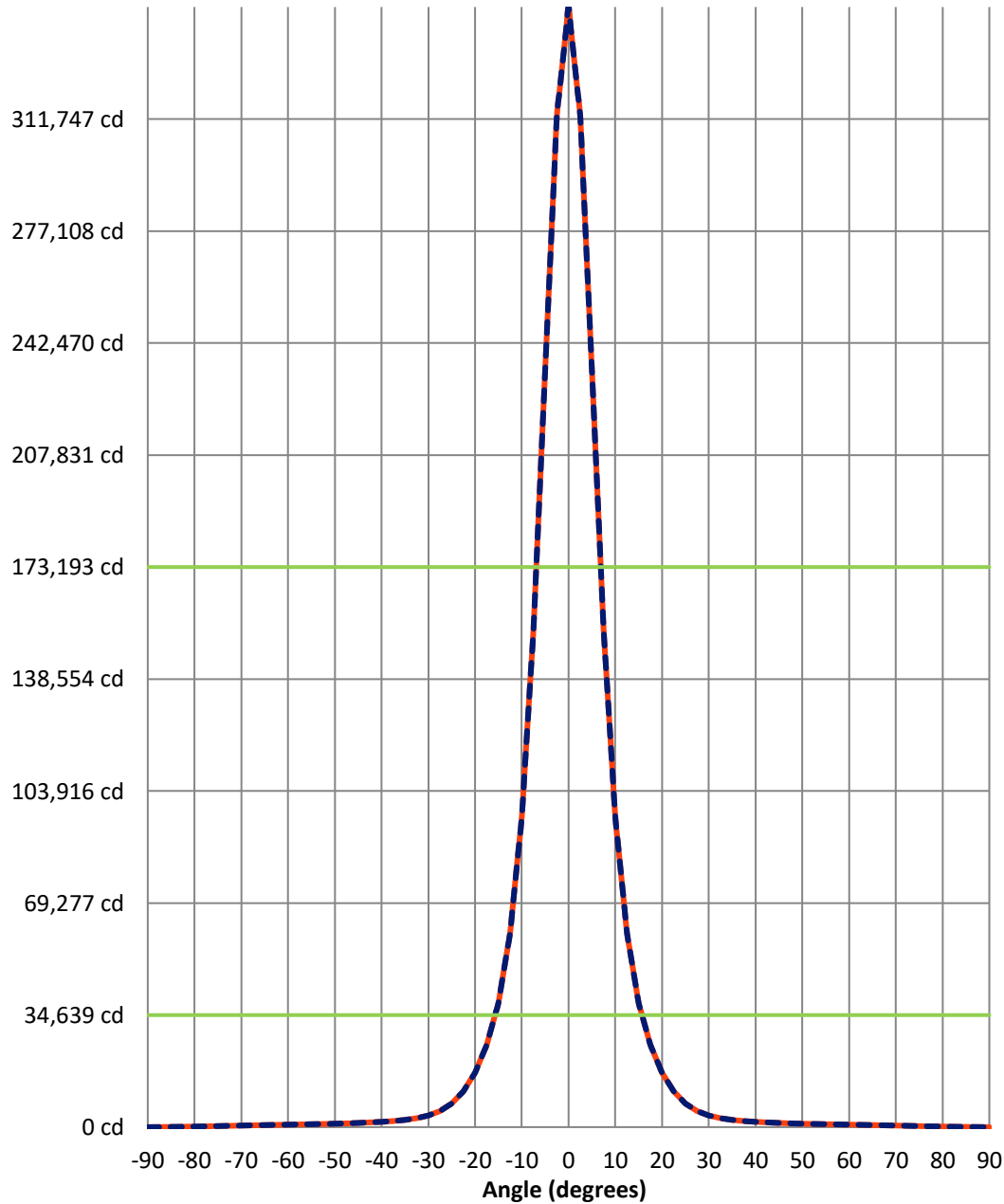
### Luminous Intensity Polar Plot



— Vertical Distribution Through 0-Deg      - - - Horizontal Distribution Through 0-Deg

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### Luminous Intensity Plot



**Beam:**  
H Angle: 13.8°  
V Angle: 13.8°  
Lumens: 8140.1  
Efficiency: 21.9%

**Field:**  
H Angle: 31.4°  
V Angle: 31.4°  
Lumens: 18953.5  
Efficiency: 50.9%

**Spill:**  
Lumens: 18271.5  
Efficiency: 49.1%

— 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°	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	27.1	27.1
85°	69.7	69.7	69.7	69.7	69.7	69.7	65.8	65.8	65.8	62.0	62.0
82.5°	116.2	116.2	116.2	116.2	112.3	112.3	112.3	108.4	108.4	104.6	104.6
80°	178.1	178.1	178.1	178.1	174.3	170.4	170.4	166.5	162.7	158.8	154.9
77.5°	244.0	244.0	244.0	240.1	240.1	236.2	232.4	228.5	224.6	216.9	213.0
75°	321.4	321.4	321.4	317.6	313.7	309.8	305.9	298.2	294.3	286.6	278.8
72.5°	402.8	402.8	402.8	398.9	395.0	387.3	383.4	375.6	367.9	356.3	348.5
70°	480.2	480.2	480.2	476.3	468.6	464.7	457.0	449.2	441.5	429.9	418.2
67.5°	557.7	557.7	557.7	549.9	546.0	542.2	534.4	522.8	515.1	503.4	488.0
65°	631.2	631.2	627.4	623.5	619.6	611.9	604.1	596.4	584.8	573.2	557.7
62.5°	704.8	704.8	700.9	697.1	693.2	685.5	673.8	666.1	650.6	639.0	623.5
60°	766.8	766.8	762.9	759.0	755.2	747.4	739.7	728.1	716.4	704.8	689.3
57.5°	832.6	832.6	828.7	824.9	817.1	809.4	801.6	790.0	774.5	759.0	747.4
55°	906.2	906.2	902.3	894.6	886.8	879.1	867.5	852.0	836.5	821.0	801.6
52.5°	975.9	975.9	972.0	964.3	956.5	948.8	933.3	921.7	902.3	883.0	859.7
50°	1061.1	1061.1	1053.4	1045.6	1037.9	1022.4	1006.9	987.5	968.2	944.9	925.6
47.5°	1157.9	1157.9	1150.2	1142.4	1126.9	1111.5	1088.2	1065.0	1041.7	1014.6	983.7
45°	1293.5	1293.5	1281.8	1266.4	1247.0	1219.9	1188.9	1157.9	1123.1	1092.1	1057.2
42.5°	1460.0	1460.0	1444.5	1425.1	1398.0	1363.2	1320.6	1278.0	1231.5	1181.2	1134.7
40°	1634.3	1634.3	1614.9	1595.5	1564.6	1522.0	1475.5	1421.3	1363.2	1297.3	1239.2
37.5°	1874.4	1874.4	1847.3	1812.4	1765.9	1707.8	1638.1	1576.2	1510.3	1436.8	1359.3
35°	2230.6	2230.6	2188.0	2130.0	2056.4	1959.6	1855.0	1765.9	1665.2	1576.2	1491.0
32.5°	2757.3	2757.3	2683.7	2598.5	2474.6	2319.7	2168.7	2025.4	1874.4	1746.6	1622.6
30°	3586.1	3586.1	3462.1	3307.2	3098.1	2830.9	2606.3	2373.9	2153.2	1967.3	1796.9
27.5°	4964.7	4906.6	4736.2	4453.5	4066.3	3586.1	3241.4	2850.3	2540.5	2238.4	2017.7
25°	7288.3	7179.9	6858.5	6327.9	5611.5	4817.6	4190.2	3524.1	3051.6	2621.8	2277.1
22.5°	11064.2	10866.7	10278.0	9317.6	8020.3	6750.0	5592.1	4565.9	3721.6	3121.4	2621.8
20°	16811.2	16466.5	15451.9	13809.9	11594.7	9631.3	7567.2	6045.2	4693.7	3721.6	3051.6
17.5°	25447.2	24850.8	23104.2	20288.8	16811.2	13612.4	10467.8	7962.2	6045.2	4565.9	3524.1
15°	38366.3	37320.7	34269.1	29416.6	23843.9	18770.7	14305.6	10467.8	7567.2	5592.1	4190.2
12.5°	60057.0	57942.6	51831.5	42300.9	33417.1	25079.3	18770.7	13612.4	9631.3	6750.0	4817.6
10°	95894.5	91526.2	79137.6	60386.2	46123.2	33417.1	23843.9	16811.2	11594.7	8020.3	5611.5
7.5°	153984.3	144608.6	118991.0	87417.3	60386.2	42300.9	29416.6	20288.8	13809.9	9317.6	6327.9
5°	234105.5	215237.9	167875.5	118991.0	79137.6	51831.5	34269.1	23104.2	15451.9	10278.0	6858.5
2.5°	312658.3	280139.7	215237.9	144608.6	91526.2	57942.6	37320.7	24850.8	16466.5	10866.7	7179.9
0°	346385.2	312658.3	234105.5	153984.3	95894.5	60057.0	38366.3	25447.2	16811.2	11064.2	7288.3



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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°	27.1	27.1	27.1	27.1	23.2	23.2	23.2	23.2	19.4	19.4	19.4
85°	62.0	58.1	58.1	54.2	54.2	50.3	50.3	46.5	46.5	42.6	38.7
82.5°	100.7	96.8	92.9	89.1	89.1	85.2	81.3	73.6	69.7	65.8	62.0
80°	151.0	143.3	139.4	131.7	127.8	120.1	112.3	108.4	100.7	96.8	89.1
77.5°	205.3	197.5	193.6	182.0	174.3	166.5	158.8	147.2	139.4	127.8	116.2
75°	267.2	259.5	247.8	236.2	228.5	216.9	205.3	193.6	178.1	166.5	154.9
72.5°	336.9	325.3	313.7	298.2	282.7	271.1	251.7	236.2	224.6	209.1	193.6
70°	406.6	395.0	379.5	364.0	344.7	329.2	309.8	290.4	271.1	251.7	232.4
67.5°	476.3	460.8	445.4	426.0	406.6	387.3	367.9	344.7	321.4	298.2	275.0
65°	542.2	526.7	507.3	488.0	468.6	445.4	422.1	398.9	371.8	344.7	321.4
62.5°	608.0	588.6	569.3	549.9	526.7	503.4	480.2	449.2	422.1	395.0	364.0
60°	670.0	650.6	631.2	608.0	584.8	557.7	530.6	503.4	472.5	441.5	410.5
57.5°	728.1	708.7	689.3	662.2	639.0	611.9	580.9	553.8	518.9	488.0	453.1
55°	782.3	762.9	739.7	716.4	693.2	662.2	631.2	600.3	565.4	530.6	491.8
52.5°	836.5	813.3	790.0	766.8	739.7	712.6	681.6	646.7	611.9	573.2	534.4
50°	898.5	871.3	840.4	813.3	782.3	755.2	724.2	689.3	654.5	611.9	573.2
47.5°	956.5	929.4	898.5	863.6	832.6	797.8	762.9	731.9	693.2	654.5	611.9
45°	1022.4	983.7	952.7	917.8	879.1	840.4	805.5	766.8	731.9	689.3	646.7
42.5°	1092.1	1049.5	1006.9	964.3	929.4	886.8	844.2	805.5	762.9	724.2	681.6
40°	1173.4	1123.1	1068.9	1022.4	975.9	933.3	886.8	840.4	797.8	755.2	712.6
37.5°	1278.0	1208.3	1138.6	1080.5	1026.3	975.9	929.4	879.1	832.6	782.3	739.7
35°	1401.9	1305.1	1223.8	1142.4	1080.5	1022.4	964.3	917.8	863.6	813.3	766.8
32.5°	1525.8	1421.3	1316.7	1223.8	1138.6	1068.9	1006.9	952.7	898.5	840.4	790.0
30°	1653.6	1537.4	1421.3	1305.1	1208.3	1123.1	1049.5	983.7	929.4	871.3	813.3
27.5°	1816.3	1653.6	1525.8	1401.9	1278.0	1173.4	1092.1	1022.4	956.5	898.5	836.5
25°	2017.7	1796.9	1622.6	1491.0	1359.3	1239.2	1134.7	1057.2	983.7	925.6	859.7
22.5°	2238.4	1967.3	1746.6	1576.2	1436.8	1297.3	1181.2	1092.1	1014.6	944.9	883.0
20°	2540.5	2153.2	1874.4	1665.2	1510.3	1363.2	1231.5	1123.1	1041.7	968.2	902.3
17.5°	2850.3	2373.9	2025.4	1765.9	1576.2	1421.3	1278.0	1157.9	1065.0	987.5	921.7
15°	3241.4	2606.3	2168.7	1855.0	1638.1	1475.5	1320.6	1188.9	1088.2	1006.9	933.3
12.5°	3586.1	2830.9	2319.7	1959.6	1707.8	1522.0	1363.2	1219.9	1111.5	1022.4	948.8
10°	4066.3	3098.1	2474.6	2056.4	1765.9	1564.6	1398.0	1247.0	1126.9	1037.9	956.5
7.5°	4453.5	3307.2	2598.5	2130.0	1812.4	1595.5	1425.1	1266.4	1142.4	1045.6	964.3
5°	4736.2	3462.1	2683.7	2188.0	1847.3	1614.9	1444.5	1281.8	1150.2	1053.4	972.0
2.5°	4906.6	3586.1	2757.3	2230.6	1874.4	1634.3	1460.0	1293.5	1157.9	1061.1	975.9
0°	4964.7	3586.1	2757.3	2230.6	1874.4	1634.3	1460.0	1293.5	1157.9	1061.1	975.9





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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°	19.4	15.5	15.5	15.5	11.6	11.6	11.6	7.7	7.7	7.7	3.9
85°	34.9	34.9	31.0	27.1	27.1	23.2	19.4	19.4	15.5	11.6	11.6
82.5°	58.1	54.2	50.3	46.5	42.6	34.9	31.0	27.1	23.2	19.4	15.5
80°	81.3	77.5	69.7	62.0	58.1	50.3	46.5	38.7	31.0	27.1	23.2
77.5°	108.4	100.7	92.9	85.2	73.6	65.8	58.1	50.3	42.6	34.9	27.1
75°	143.3	127.8	116.2	104.6	92.9	81.3	69.7	62.0	50.3	42.6	31.0
72.5°	178.1	162.7	143.3	127.8	112.3	100.7	85.2	73.6	62.0	50.3	38.7
70°	213.0	193.6	174.3	154.9	135.5	116.2	100.7	85.2	69.7	58.1	46.5
67.5°	247.8	228.5	205.3	182.0	162.7	139.4	116.2	100.7	81.3	65.8	50.3
65°	290.4	263.3	236.2	213.0	185.9	162.7	135.5	112.3	92.9	73.6	58.1
62.5°	333.0	302.1	271.1	240.1	213.0	182.0	154.9	127.8	104.6	85.2	62.0
60°	375.6	340.8	305.9	271.1	236.2	205.3	174.3	143.3	116.2	92.9	69.7
57.5°	418.2	379.5	340.8	302.1	263.3	228.5	193.6	162.7	127.8	100.7	77.5
55°	457.0	418.2	375.6	333.0	290.4	247.8	213.0	178.1	143.3	108.4	81.3
52.5°	491.8	453.1	410.5	364.0	321.4	275.0	232.4	193.6	154.9	116.2	89.1
50°	530.6	488.0	441.5	395.0	344.7	298.2	251.7	209.1	166.5	127.8	96.8
47.5°	565.4	518.9	472.5	422.1	371.8	321.4	271.1	224.6	178.1	139.4	100.7
45°	600.3	553.8	503.4	449.2	398.9	344.7	290.4	236.2	193.6	147.2	108.4
42.5°	631.2	580.9	530.6	480.2	422.1	367.9	309.8	251.7	205.3	158.8	112.3
40°	662.2	611.9	557.7	503.4	445.4	387.3	329.2	271.1	216.9	166.5	120.1
37.5°	693.2	639.0	584.8	526.7	468.6	406.6	344.7	282.7	228.5	174.3	127.8
35°	716.4	662.2	608.0	549.9	488.0	426.0	364.0	298.2	236.2	182.0	131.7
32.5°	739.7	689.3	631.2	569.3	507.3	445.4	379.5	313.7	247.8	193.6	139.4
30°	762.9	708.7	650.6	588.6	526.7	460.8	395.0	325.3	259.5	197.5	143.3
27.5°	782.3	728.1	670.0	608.0	542.2	476.3	406.6	336.9	267.2	205.3	151.0
25°	801.6	747.4	689.3	623.5	557.7	488.0	418.2	348.5	278.8	213.0	154.9
22.5°	821.0	759.0	704.8	639.0	573.2	503.4	429.9	356.3	286.6	216.9	158.8
20°	836.5	774.5	716.4	650.6	584.8	515.1	441.5	367.9	294.3	224.6	162.7
17.5°	852.0	790.0	728.1	666.1	596.4	522.8	449.2	375.6	298.2	228.5	166.5
15°	867.5	801.6	739.7	673.8	604.1	534.4	457.0	383.4	305.9	232.4	170.4
12.5°	879.1	809.4	747.4	685.5	611.9	542.2	464.7	387.3	309.8	236.2	170.4
10°	886.8	817.1	755.2	693.2	619.6	546.0	468.6	395.0	313.7	240.1	174.3
7.5°	894.6	824.9	759.0	697.1	623.5	549.9	476.3	398.9	317.6	240.1	178.1
5°	902.3	828.7	762.9	700.9	627.4	557.7	480.2	402.8	321.4	244.0	178.1
2.5°	906.2	832.6	766.8	704.8	631.2	557.7	480.2	402.8	321.4	244.0	178.1
0°	906.2	832.6	766.8	704.8	631.2	557.7	480.2	402.8	321.4	244.0	178.1



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**CANDELA DISTRIBUTION (continued):**

	82.5°	85°	87.5°	90°
90°	0.0	0.0	0.0	0.0
87.5°	3.9	3.9	0.0	0.0
85°	7.7	3.9	3.9	0.0
82.5°	11.6	7.7	3.9	0.0
80°	15.5	11.6	3.9	0.0
77.5°	19.4	11.6	7.7	0.0
75°	23.2	15.5	7.7	0.0
72.5°	27.1	19.4	7.7	0.0
70°	31.0	19.4	11.6	0.0
67.5°	34.9	23.2	11.6	0.0
65°	42.6	27.1	11.6	0.0
62.5°	46.5	27.1	15.5	0.0
60°	50.3	31.0	15.5	0.0
57.5°	54.2	34.9	15.5	0.0
55°	58.1	34.9	19.4	0.0
52.5°	62.0	38.7	19.4	0.0
50°	65.8	42.6	19.4	0.0
47.5°	69.7	46.5	19.4	0.0
45°	73.6	46.5	23.2	0.0
42.5°	81.3	50.3	23.2	0.0
40°	85.2	50.3	23.2	0.0
37.5°	89.1	54.2	23.2	0.0
35°	89.1	54.2	27.1	0.0
32.5°	92.9	58.1	27.1	0.0
30°	96.8	58.1	27.1	0.0
27.5°	100.7	62.0	27.1	0.0
25°	104.6	62.0	27.1	0.0
22.5°	104.6	62.0	27.1	0.0
20°	108.4	65.8	31.0	0.0
17.5°	108.4	65.8	31.0	0.0
15°	112.3	65.8	31.0	0.0
12.5°	112.3	69.7	31.0	0.0
10°	112.3	69.7	31.0	0.0
7.5°	116.2	69.7	31.0	0.0
5°	116.2	69.7	31.0	0.0
2.5°	116.2	69.7	31.0	0.0
0°	116.2	69.7	31.0	0.0

(END OF REPORT)