

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: P623231

Luminaire Tested: **EPH-VN-04-E-735-U-33**

Issue Date: 10/13/2022

**Test Information**

Test Method: LM-79-2019  
Report Number: P623231  
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-735-U-33  
Description: EPHESUS LUMAVISION FLOOD – Middle Tier Light Square Luminaire w/  
Nema 3 distribution lens  
Light Source: (64) 3500K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp:	N/A	NEMA Type:	3H x 3V
Luminaire Lumens:	35893.1 lumens	Max Intensity:	333991.3 candela
Efficiency:	N/A	Max Intensity Angle:	0°H x 0°V
Efficacy:	118.1 lumens/watt		
Luminous Opening:	Rectangular (W 2' x L: 0.5' x H: 0')		

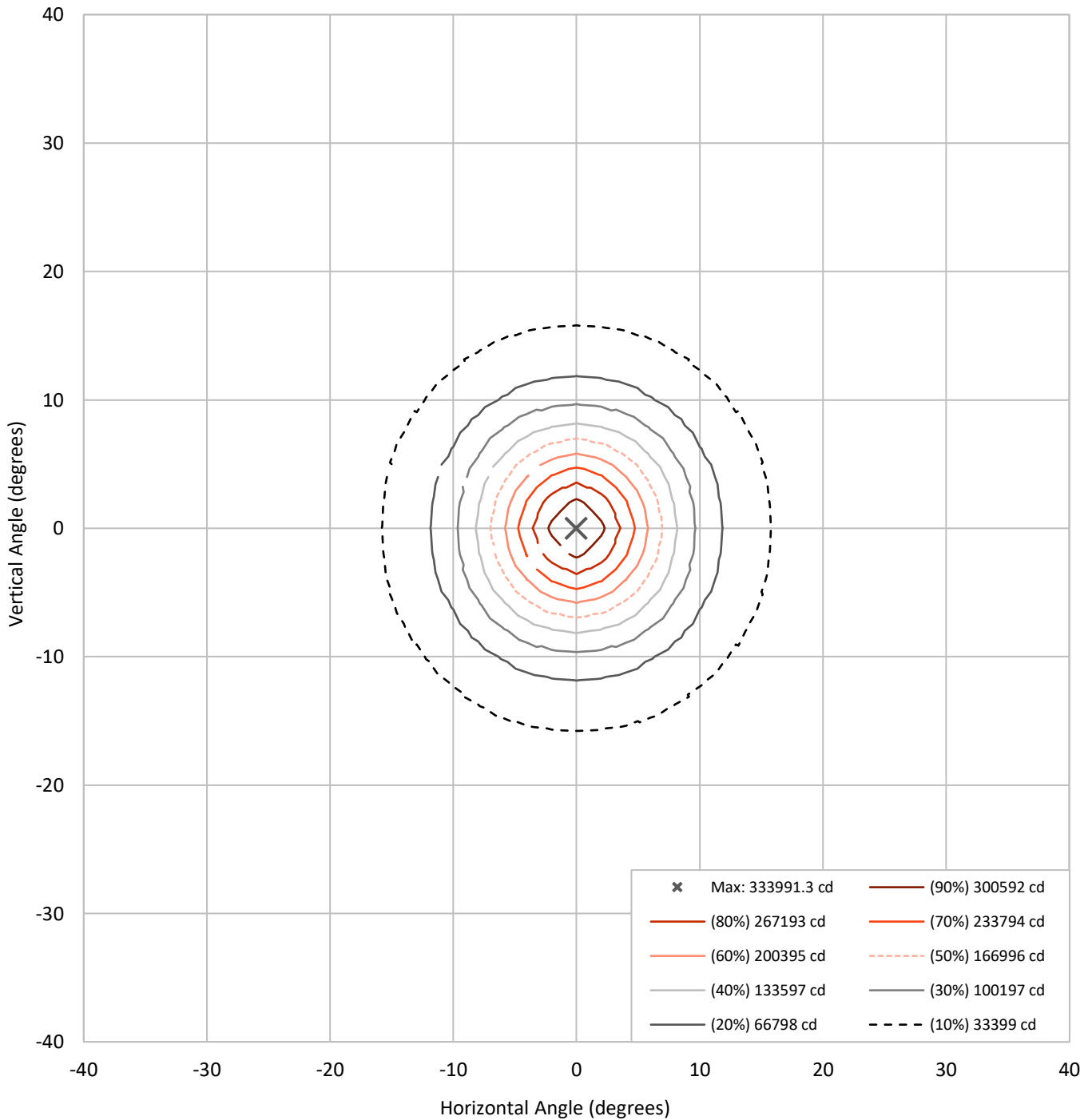
Beam Angle (50%):	13.8°H x 13.8°V	Field Angle (10%):	31.4°H x 31.4°V
Beam Lumens:	7848.8 lumens	Field Lumens:	18275.4 lumens
Beam Efficiency:	21.9%	Field Efficiency:	50.9%

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





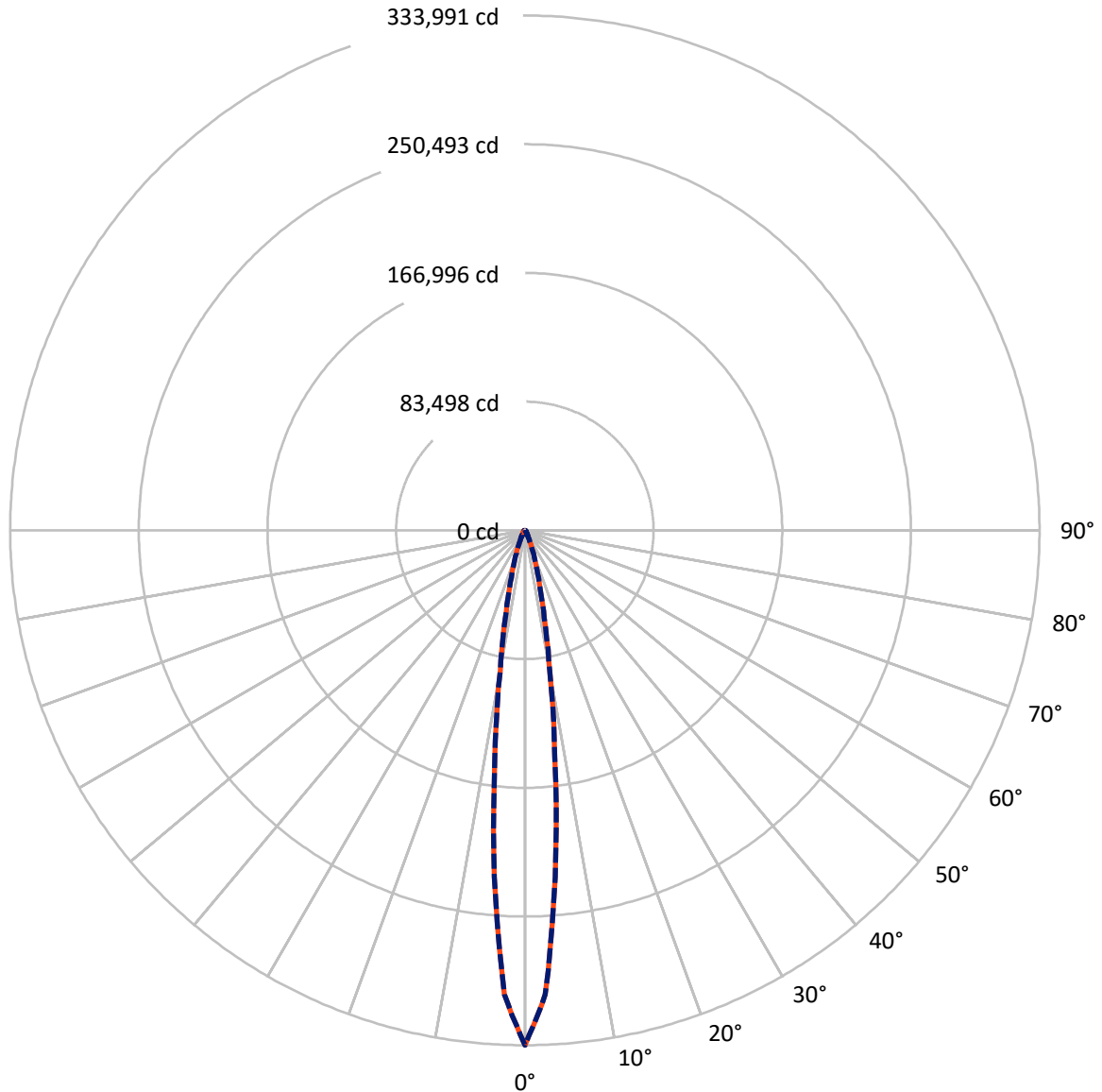
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### Lumen Table

90	0.6	4.6		12.3		20.1		23.3		20.1		12.3		4.6		0.6
80	0.6	4.6		12.3		20.1		23.3		20.1		12.3		4.6		0.6
70	2.1	2.4	5.0	8.3	11.7	14.8	17.1	18.3	18.3	17.1	14.8	11.7	8.3	5.0	2.4	2.1
60		3.7	7.7	12.4	17.2	21.3	24.6	26.3	26.3	24.6	21.3	17.2	12.4	7.7	3.7	
50	3.8	5.0	10.1	15.9	22.1	28.3	34.2	38.0	38.0	34.2	28.3	22.1	15.9	10.1	5.0	3.8
40		6.1	12.1	19.1	27.9	40.0	54.7	67.2	67.2	54.7	40.0	27.9	19.1	12.1	6.1	
30	5.2	7.0	13.6	22.2	36.2	63.9	130.5	223.4	223.4	130.5	63.9	36.2	22.2	13.6	7.0	5.2
20		7.6	14.7	25.2	46.6	123.0	442.6	1099.0	1099.0	442.6	123.0	46.6	25.2	14.7	7.6	
10	5.7	7.9	15.3	27.1	55.6	205.0	1070.8	4701.7	4701.7	1070.8	205.0	55.6	27.1	15.3	7.9	5.7
0		7.9	15.3	27.1	55.6	205.0	1070.8	4701.7	4701.7	1070.8	205.0	55.6	27.1	15.3	7.9	
-10	5.2	7.6	14.7	25.2	46.6	123.0	442.6	1099.0	1099.0	442.6	123.0	46.6	25.2	14.7	7.6	5.2
-20		7.0	13.6	22.2	36.2	63.9	130.5	223.4	223.4	130.5	63.9	36.2	22.2	13.6	7.0	
-30	3.8	6.1	12.1	19.1	27.9	40.0	54.7	67.2	67.2	54.7	40.0	27.9	19.1	12.1	6.1	3.8
-40		5.0	10.1	15.9	22.1	28.3	34.2	38.0	38.0	34.2	28.3	22.1	15.9	10.1	5.0	
-50	2.1	3.7	7.7	12.4	17.2	21.3	24.6	26.3	26.3	24.6	21.3	17.2	12.4	7.7	3.7	2.1
-60		2.4	5.0	8.3	11.7	14.8	17.1	18.3	18.3	17.1	14.8	11.7	8.3	5.0	2.4	
-70	0.6	4.6		12.3		20.1		23.3		20.1		12.3		4.6		0.6
-80		4.6		12.3		20.1		23.3		20.1		12.3		4.6		
-90	0.6	4.6		12.3		20.1		23.3		20.1		12.3		4.6		0.6

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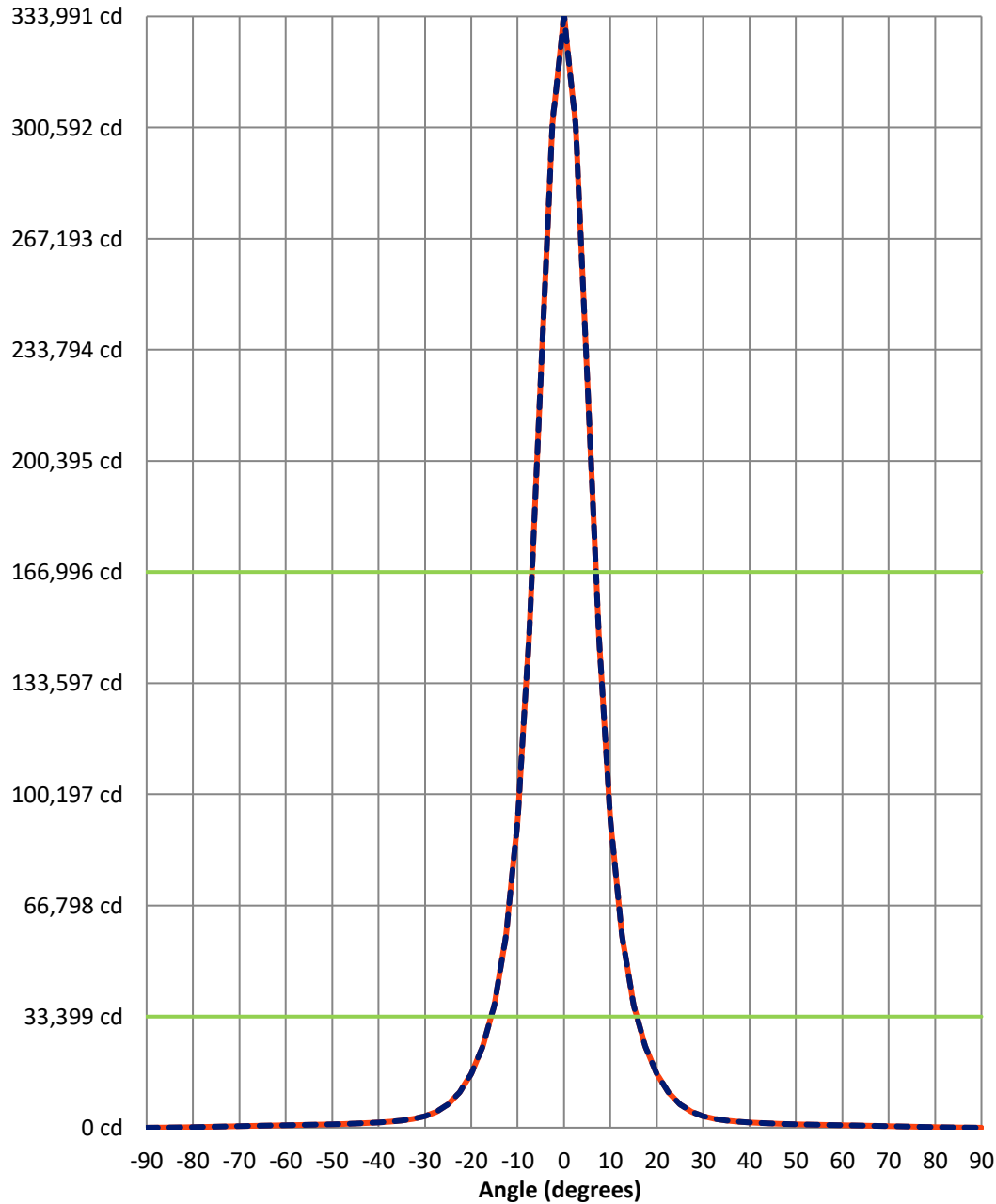
### Luminous Intensity Polar Plot



— 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: 7848.8  
 Efficiency: 21.9%

**Field:**  
 H Angle: 31.4°  
 V Angle: 31.4°  
 Lumens: 18275.4  
 Efficiency: 50.9%

**Spill:**  
 Lumens: 17617.8  
 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°	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9	26.1	26.1
85°	67.2	67.2	67.2	67.2	67.2	67.2	63.5	63.5	63.5	59.7	59.7
82.5°	112.0	112.0	112.0	112.0	108.3	108.3	108.3	104.6	104.6	100.8	100.8
80°	171.8	171.8	171.8	171.8	168.0	164.3	164.3	160.6	156.8	153.1	149.4
77.5°	235.2	235.2	235.2	231.5	231.5	227.8	224.0	220.3	216.6	209.1	205.4
75°	309.9	309.9	309.9	306.2	302.5	298.7	295.0	287.5	283.8	276.3	268.9
72.5°	388.3	388.3	388.3	384.6	380.9	373.4	369.7	362.2	354.7	343.5	336.1
70°	463.0	463.0	463.0	459.3	451.8	448.1	440.6	433.2	425.7	414.5	403.3
67.5°	537.7	537.7	537.7	530.2	526.5	522.8	515.3	504.1	496.6	485.4	470.5
65°	608.7	608.7	604.9	601.2	597.5	590.0	582.5	575.0	563.8	552.6	537.7
62.5°	679.6	679.6	675.9	672.1	668.4	660.9	649.7	642.3	627.3	616.1	601.2
60°	739.3	739.3	735.6	731.9	728.1	720.7	713.2	702.0	690.8	679.6	664.7
57.5°	802.8	802.8	799.1	795.4	787.9	780.4	773.0	761.8	746.8	731.9	720.7
55°	873.8	873.8	870.0	862.6	855.1	847.6	836.4	821.5	806.6	791.6	773.0
52.5°	941.0	941.0	937.3	929.8	922.3	914.9	899.9	888.7	870.0	851.4	829.0
50°	1023.1	1023.1	1015.7	1008.2	1000.7	985.8	970.9	952.2	933.5	911.1	892.4
47.5°	1116.5	1116.5	1109.0	1101.6	1086.6	1071.7	1049.3	1026.9	1004.5	978.3	948.5
45°	1247.2	1247.2	1236.0	1221.0	1202.4	1176.2	1146.4	1116.5	1082.9	1053.0	1019.4
42.5°	1407.7	1407.7	1392.8	1374.1	1348.0	1314.4	1273.3	1232.2	1187.4	1138.9	1094.1
40°	1575.8	1575.8	1557.1	1538.4	1508.6	1467.5	1422.7	1370.4	1314.4	1250.9	1194.9
37.5°	1807.3	1807.3	1781.2	1747.6	1702.7	1646.7	1579.5	1519.8	1456.3	1385.3	1310.7
35°	2150.8	2150.8	2109.8	2053.7	1982.8	1889.4	1788.6	1702.7	1605.7	1519.8	1437.6
32.5°	2658.7	2658.7	2587.7	2505.6	2386.1	2236.7	2091.1	1952.9	1807.3	1684.1	1564.6
30°	3457.8	3457.8	3338.3	3188.9	2987.3	2729.6	2513.0	2289.0	2076.2	1896.9	1732.6
27.5°	4787.1	4731.1	4566.8	4294.2	3920.8	3457.8	3125.4	2748.3	2449.6	2158.3	1945.5
25°	7027.5	6923.0	6613.1	6101.5	5410.7	4645.2	4040.3	3398.0	2942.5	2528.0	2195.6
22.5°	10668.3	10477.8	9910.3	8984.2	7733.3	6508.5	5392.0	4402.5	3588.5	3009.7	2528.0
20°	16209.7	15877.3	14899.0	13315.7	11179.8	9286.7	7296.4	5828.9	4525.7	3588.5	2942.5
17.5°	24536.7	23961.6	22277.5	19562.9	16209.7	13125.3	10093.2	7677.3	5828.9	4402.5	3398.0
15°	36993.6	35985.4	33042.9	28364.1	22990.7	18099.1	13793.7	10093.2	7296.4	5392.0	4040.3
12.5°	57908.2	55869.4	49977.0	40787.4	32221.4	24181.9	18099.1	13125.3	9286.7	6508.5	4645.2
10°	92463.4	88251.3	76306.0	58225.6	44472.9	32221.4	22990.7	16209.7	11179.8	7733.3	5410.7
7.5°	148474.6	139434.4	114733.4	84289.5	58225.6	40787.4	28364.1	19562.9	13315.7	8984.2	6101.5
5°	225729.1	207536.6	161868.8	114733.4	76306.0	49977.0	33042.9	22277.5	14899.0	9910.3	6613.1
2.5°	301471.2	270116.1	207536.6	139434.4	88251.3	55869.4	35985.4	23961.6	15877.3	10477.8	6923.0
0°	333991.3	301471.2	225729.1	148474.6	92463.4	57908.2	36993.6	24536.7	16209.7	10668.3	7027.5



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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°	26.1	26.1	26.1	26.1	22.4	22.4	22.4	22.4	18.7	18.7	18.7
85°	59.7	56.0	56.0	52.3	52.3	48.5	48.5	44.8	44.8	41.1	37.3
82.5°	97.1	93.4	89.6	85.9	85.9	82.1	78.4	70.9	67.2	63.5	59.7
80°	145.6	138.2	134.4	127.0	123.2	115.8	108.3	104.6	97.1	93.4	85.9
77.5°	197.9	190.4	186.7	175.5	168.0	160.6	153.1	141.9	134.4	123.2	112.0
75°	257.7	250.2	239.0	227.8	220.3	209.1	197.9	186.7	171.8	160.6	149.4
72.5°	324.9	313.7	302.5	287.5	272.6	261.4	242.7	227.8	216.6	201.6	186.7
70°	392.1	380.9	365.9	351.0	332.3	317.4	298.7	280.1	261.4	242.7	224.0
67.5°	459.3	444.4	429.4	410.7	392.1	373.4	354.7	332.3	309.9	287.5	265.1
65°	522.8	507.8	489.2	470.5	451.8	429.4	407.0	384.6	358.5	332.3	309.9
62.5°	586.3	567.6	548.9	530.2	507.8	485.4	463.0	433.2	407.0	380.9	351.0
60°	646.0	627.3	608.7	586.3	563.8	537.7	511.6	485.4	455.6	425.7	395.8
57.5°	702.0	683.3	664.7	638.5	616.1	590.0	560.1	534.0	500.4	470.5	436.9
55°	754.3	735.6	713.2	690.8	668.4	638.5	608.7	578.8	545.2	511.6	474.2
52.5°	806.6	784.2	761.8	739.3	713.2	687.1	657.2	623.6	590.0	552.6	515.3
50°	866.3	840.2	810.3	784.2	754.3	728.1	698.3	664.7	631.1	590.0	552.6
47.5°	922.3	896.2	866.3	832.7	802.8	769.2	735.6	705.7	668.4	631.1	590.0
45°	985.8	948.5	918.6	885.0	847.6	810.3	776.7	739.3	705.7	664.7	623.6
42.5°	1053.0	1011.9	970.9	929.8	896.2	855.1	814.0	776.7	735.6	698.3	657.2
40°	1131.4	1082.9	1030.6	985.8	941.0	899.9	855.1	810.3	769.2	728.1	687.1
37.5°	1232.2	1165.0	1097.8	1041.8	989.5	941.0	896.2	847.6	802.8	754.3	713.2
35°	1351.7	1258.4	1180.0	1101.6	1041.8	985.8	929.8	885.0	832.7	784.2	739.3
32.5°	1471.2	1370.4	1269.6	1180.0	1097.8	1030.6	970.9	918.6	866.3	810.3	761.8
30°	1594.5	1482.4	1370.4	1258.4	1165.0	1082.9	1011.9	948.5	896.2	840.2	784.2
27.5°	1751.3	1594.5	1471.2	1351.7	1232.2	1131.4	1053.0	985.8	922.3	866.3	806.6
25°	1945.5	1732.6	1564.6	1437.6	1310.7	1194.9	1094.1	1019.4	948.5	892.4	829.0
22.5°	2158.3	1896.9	1684.1	1519.8	1385.3	1250.9	1138.9	1053.0	978.3	911.1	851.4
20°	2449.6	2076.2	1807.3	1605.7	1456.3	1314.4	1187.4	1082.9	1004.5	933.5	870.0
17.5°	2748.3	2289.0	1952.9	1702.7	1519.8	1370.4	1232.2	1116.5	1026.9	952.2	888.7
15°	3125.4	2513.0	2091.1	1788.6	1579.5	1422.7	1273.3	1146.4	1049.3	970.9	899.9
12.5°	3457.8	2729.6	2236.7	1889.4	1646.7	1467.5	1314.4	1176.2	1071.7	985.8	914.9
10°	3920.8	2987.3	2386.1	1982.8	1702.7	1508.6	1348.0	1202.4	1086.6	1000.7	922.3
7.5°	4294.2	3188.9	2505.6	2053.7	1747.6	1538.4	1374.1	1221.0	1101.6	1008.2	929.8
5°	4566.8	3338.3	2587.7	2109.8	1781.2	1557.1	1392.8	1236.0	1109.0	1015.7	937.3
2.5°	4731.1	3457.8	2658.7	2150.8	1807.3	1575.8	1407.7	1247.2	1116.5	1023.1	941.0
0°	4787.1	3457.8	2658.7	2150.8	1807.3	1575.8	1407.7	1247.2	1116.5	1023.1	941.0





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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°	18.7	14.9	14.9	14.9	11.2	11.2	11.2	7.5	7.5	7.5	3.7
85°	33.6	33.6	29.9	26.1	26.1	22.4	18.7	18.7	14.9	11.2	11.2
82.5°	56.0	52.3	48.5	44.8	41.1	33.6	29.9	26.1	22.4	18.7	14.9
80°	78.4	74.7	67.2	59.7	56.0	48.5	44.8	37.3	29.9	26.1	22.4
77.5°	104.6	97.1	89.6	82.1	70.9	63.5	56.0	48.5	41.1	33.6	26.1
75°	138.2	123.2	112.0	100.8	89.6	78.4	67.2	59.7	48.5	41.1	29.9
72.5°	171.8	156.8	138.2	123.2	108.3	97.1	82.1	70.9	59.7	48.5	37.3
70°	205.4	186.7	168.0	149.4	130.7	112.0	97.1	82.1	67.2	56.0	44.8
67.5°	239.0	220.3	197.9	175.5	156.8	134.4	112.0	97.1	78.4	63.5	48.5
65°	280.1	253.9	227.8	205.4	179.2	156.8	130.7	108.3	89.6	70.9	56.0
62.5°	321.1	291.3	261.4	231.5	205.4	175.5	149.4	123.2	100.8	82.1	59.7
60°	362.2	328.6	295.0	261.4	227.8	197.9	168.0	138.2	112.0	89.6	67.2
57.5°	403.3	365.9	328.6	291.3	253.9	220.3	186.7	156.8	123.2	97.1	74.7
55°	440.6	403.3	362.2	321.1	280.1	239.0	205.4	171.8	138.2	104.6	78.4
52.5°	474.2	436.9	395.8	351.0	309.9	265.1	224.0	186.7	149.4	112.0	85.9
50°	511.6	470.5	425.7	380.9	332.3	287.5	242.7	201.6	160.6	123.2	93.4
47.5°	545.2	500.4	455.6	407.0	358.5	309.9	261.4	216.6	171.8	134.4	97.1
45°	578.8	534.0	485.4	433.2	384.6	332.3	280.1	227.8	186.7	141.9	104.6
42.5°	608.7	560.1	511.6	463.0	407.0	354.7	298.7	242.7	197.9	153.1	108.3
40°	638.5	590.0	537.7	485.4	429.4	373.4	317.4	261.4	209.1	160.6	115.8
37.5°	668.4	616.1	563.8	507.8	451.8	392.1	332.3	272.6	220.3	168.0	123.2
35°	690.8	638.5	586.3	530.2	470.5	410.7	351.0	287.5	227.8	175.5	127.0
32.5°	713.2	664.7	608.7	548.9	489.2	429.4	365.9	302.5	239.0	186.7	134.4
30°	735.6	683.3	627.3	567.6	507.8	444.4	380.9	313.7	250.2	190.4	138.2
27.5°	754.3	702.0	646.0	586.3	522.8	459.3	392.1	324.9	257.7	197.9	145.6
25°	773.0	720.7	664.7	601.2	537.7	470.5	403.3	336.1	268.9	205.4	149.4
22.5°	791.6	731.9	679.6	616.1	552.6	485.4	414.5	343.5	276.3	209.1	153.1
20°	806.6	746.8	690.8	627.3	563.8	496.6	425.7	354.7	283.8	216.6	156.8
17.5°	821.5	761.8	702.0	642.3	575.0	504.1	433.2	362.2	287.5	220.3	160.6
15°	836.4	773.0	713.2	649.7	582.5	515.3	440.6	369.7	295.0	224.0	164.3
12.5°	847.6	780.4	720.7	660.9	590.0	522.8	448.1	373.4	298.7	227.8	164.3
10°	855.1	787.9	728.1	668.4	597.5	526.5	451.8	380.9	302.5	231.5	168.0
7.5°	862.6	795.4	731.9	672.1	601.2	530.2	459.3	384.6	306.2	231.5	171.8
5°	870.0	799.1	735.6	675.9	604.9	537.7	463.0	388.3	309.9	235.2	171.8
2.5°	873.8	802.8	739.3	679.6	608.7	537.7	463.0	388.3	309.9	235.2	171.8
0°	873.8	802.8	739.3	679.6	608.7	537.7	463.0	388.3	309.9	235.2	171.8



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**CANDELA DISTRIBUTION (continued):**

	82.5°	85°	87.5°	90°
90°	0.0	0.0	0.0	0.0
87.5°	3.7	3.7	0.0	0.0
85°	7.5	3.7	3.7	0.0
82.5°	11.2	7.5	3.7	0.0
80°	14.9	11.2	3.7	0.0
77.5°	18.7	11.2	7.5	0.0
75°	22.4	14.9	7.5	0.0
72.5°	26.1	18.7	7.5	0.0
70°	29.9	18.7	11.2	0.0
67.5°	33.6	22.4	11.2	0.0
65°	41.1	26.1	11.2	0.0
62.5°	44.8	26.1	14.9	0.0
60°	48.5	29.9	14.9	0.0
57.5°	52.3	33.6	14.9	0.0
55°	56.0	33.6	18.7	0.0
52.5°	59.7	37.3	18.7	0.0
50°	63.5	41.1	18.7	0.0
47.5°	67.2	44.8	18.7	0.0
45°	70.9	44.8	22.4	0.0
42.5°	78.4	48.5	22.4	0.0
40°	82.1	48.5	22.4	0.0
37.5°	85.9	52.3	22.4	0.0
35°	85.9	52.3	26.1	0.0
32.5°	89.6	56.0	26.1	0.0
30°	93.4	56.0	26.1	0.0
27.5°	97.1	59.7	26.1	0.0
25°	100.8	59.7	26.1	0.0
22.5°	100.8	59.7	26.1	0.0
20°	104.6	63.5	29.9	0.0
17.5°	104.6	63.5	29.9	0.0
15°	108.3	63.5	29.9	0.0
12.5°	108.3	67.2	29.9	0.0
10°	108.3	67.2	29.9	0.0
7.5°	112.0	67.2	29.9	0.0
5°	112.0	67.2	29.9	0.0
2.5°	112.0	67.2	29.9	0.0
0°	112.0	67.2	29.9	0.0

(END OF REPORT)