

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: P623239

Luminaire Tested: **EPH-VN-07-E-740-U-33**

Issue Date: 10/13/2022

Test Information

Test Method: LM-79-2019
Report Number: P623239
Test Lab: INNOVATION CENTER(G2)
Issue Date: 10/13/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: EPHESUS
Catalog Number: EPH-VN-07-E-740-U-33
Description: EPHESUS LUMAVISION FLOOD – Middle Tier Light Square Luminaire w/
Nema 3 distribution lens
Light Source: (112) 4000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp:	N/A	NEMA Type:	3H x 3V
Luminaire Lumens:	58738.6 lumens	Max Intensity:	546572.2 candela
Efficiency:	N/A	Max Intensity Angle:	0°H x 0°V
Efficacy:	110.3 lumens/watt		
Luminous Opening:	Rectangular (W 2' x L: 1' x H: 0')		

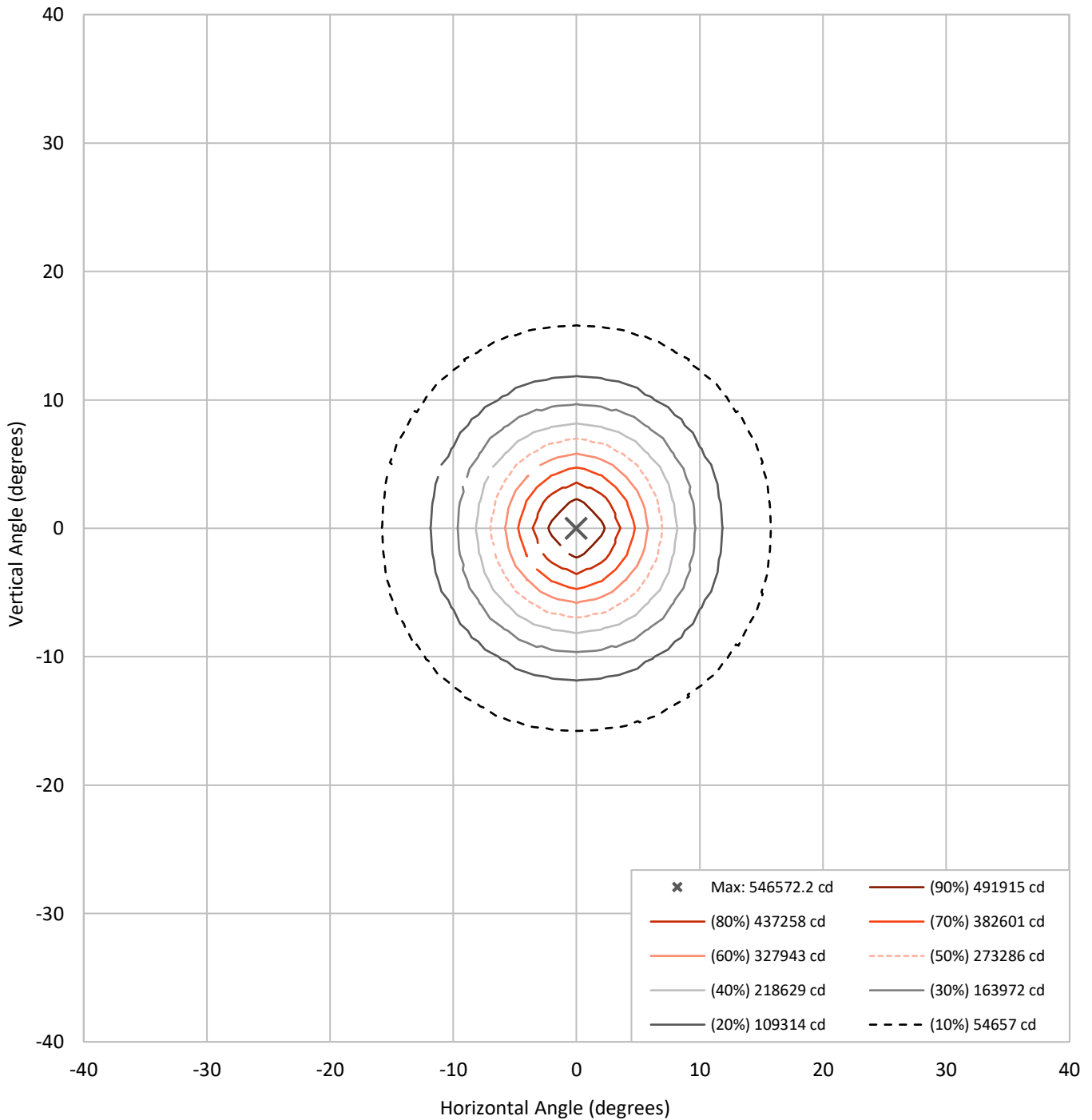
Beam Angle (50%):	13.8°H x 13.8°V	Field Angle (10%):	31.4°H x 31.4°V
Beam Lumens:	12844.5 lumens	Field Lumens:	29907.4 lumens
Beam Efficiency:	21.9%	Field Efficiency:	50.9%

Input Watts (W): 532.7
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





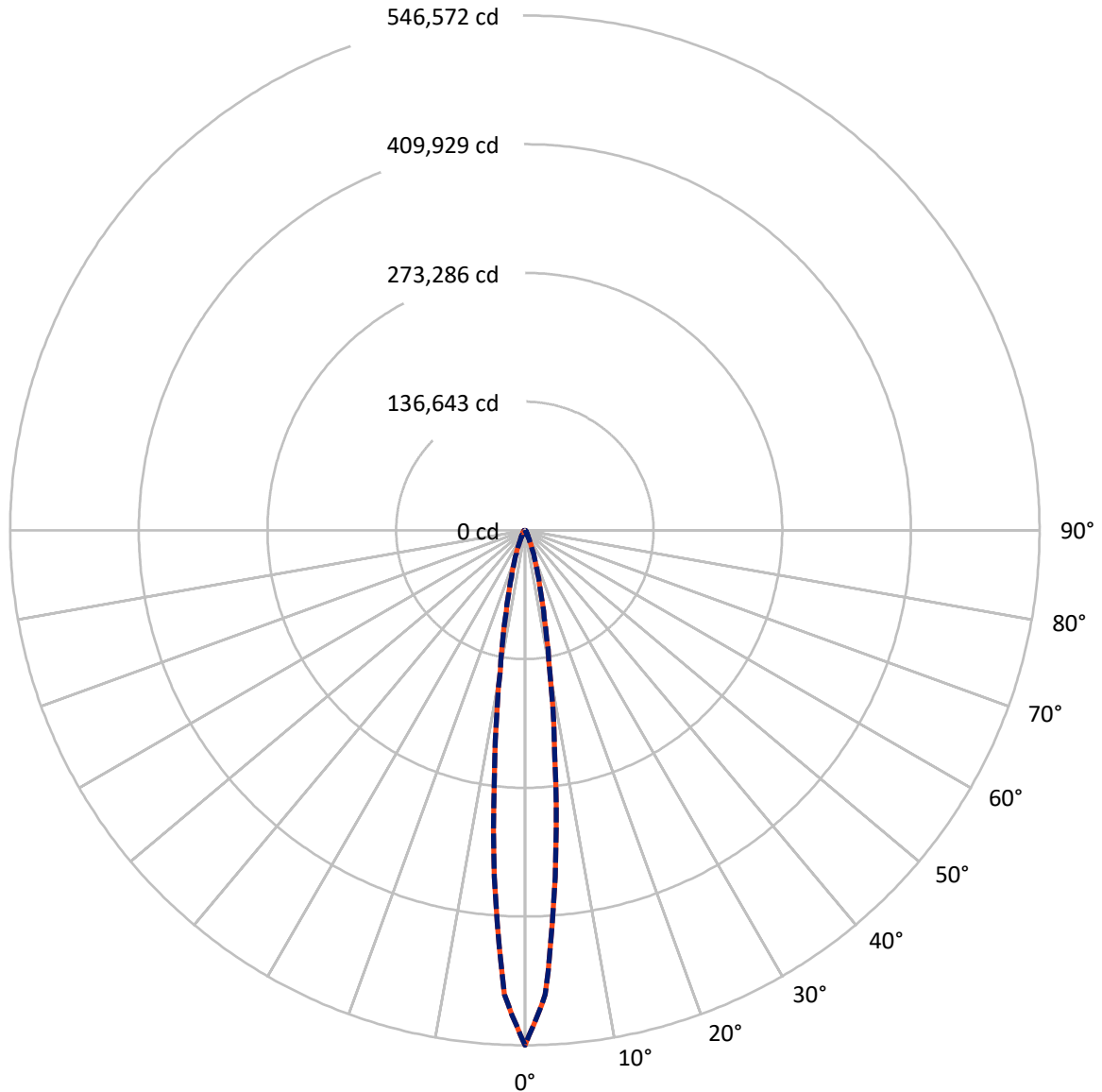
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Lumen Table

90	1.0	7.6	20.2	32.8	38.2	32.8	20.2	7.6	1.0										
80																			
70																			
60	3.5	3.9	8.1	13.5	19.2	24.2	27.9	29.9	29.9	27.9	24.2	19.2	13.5	8.1	3.9				3.5
50		6.0	12.6	20.3	28.1	34.9	40.2	43.1	43.1	40.2	34.9	28.1	20.3	12.6	6.0				
40	6.3	8.2	16.6	26.1	36.1	46.4	56.0	62.1	62.1	56.0	46.4	36.1	26.1	16.6	8.2				6.3
30		10.0	19.7	31.2	45.7	65.5	89.5	109.9	109.9	89.5	65.5	45.7	31.2	19.7	10.0				
20	8.5	11.4	22.2	36.3	59.3	104.6	213.6	365.5	365.5	213.6	104.6	59.3	36.3	22.2	11.4				8.5
10		12.4	24.0	41.2	76.2	201.4	724.2	1798.4	1798.4	724.2	201.4	76.2	41.2	24.0	12.4				
0	9.3	12.9	25.0	44.4	91.0	335.5	1752.3	7694.3	7694.3	1752.3	335.5	91.0	44.4	25.0	12.9				9.3
-10		12.9	25.0	44.4	91.0	335.5	1752.3	7694.3	7694.3	1752.3	335.5	91.0	44.4	25.0	12.9				
-20	8.5	12.4	24.0	41.2	76.2	201.4	724.2	1798.4	1798.4	724.2	201.4	76.2	41.2	24.0	12.4				8.5
-30		11.4	22.2	36.3	59.3	104.6	213.6	365.5	365.5	213.6	104.6	59.3	36.3	22.2	11.4				
-40	6.3	10.0	19.7	31.2	45.7	65.5	89.5	109.9	109.9	89.5	65.5	45.7	31.2	19.7	10.0				6.3
-50		8.2	16.6	26.1	36.1	46.4	56.0	62.1	62.1	56.0	46.4	36.1	26.1	16.6	8.2				
-60	3.5	6.0	12.6	20.3	28.1	34.9	40.2	43.1	43.1	40.2	34.9	28.1	20.3	12.6	6.0				3.5
-70		3.9	8.1	13.5	19.2	24.2	27.9	29.9	29.9	27.9	24.2	19.2	13.5	8.1	3.9				
-80	1.0	7.6	20.2	32.8	38.2	32.8	20.2	7.6	1.0										
-90																			
	-90	-80	-70	-60	-50	-40	-30	-20	-10	0	10	20	30	40	50	60	70	80	90

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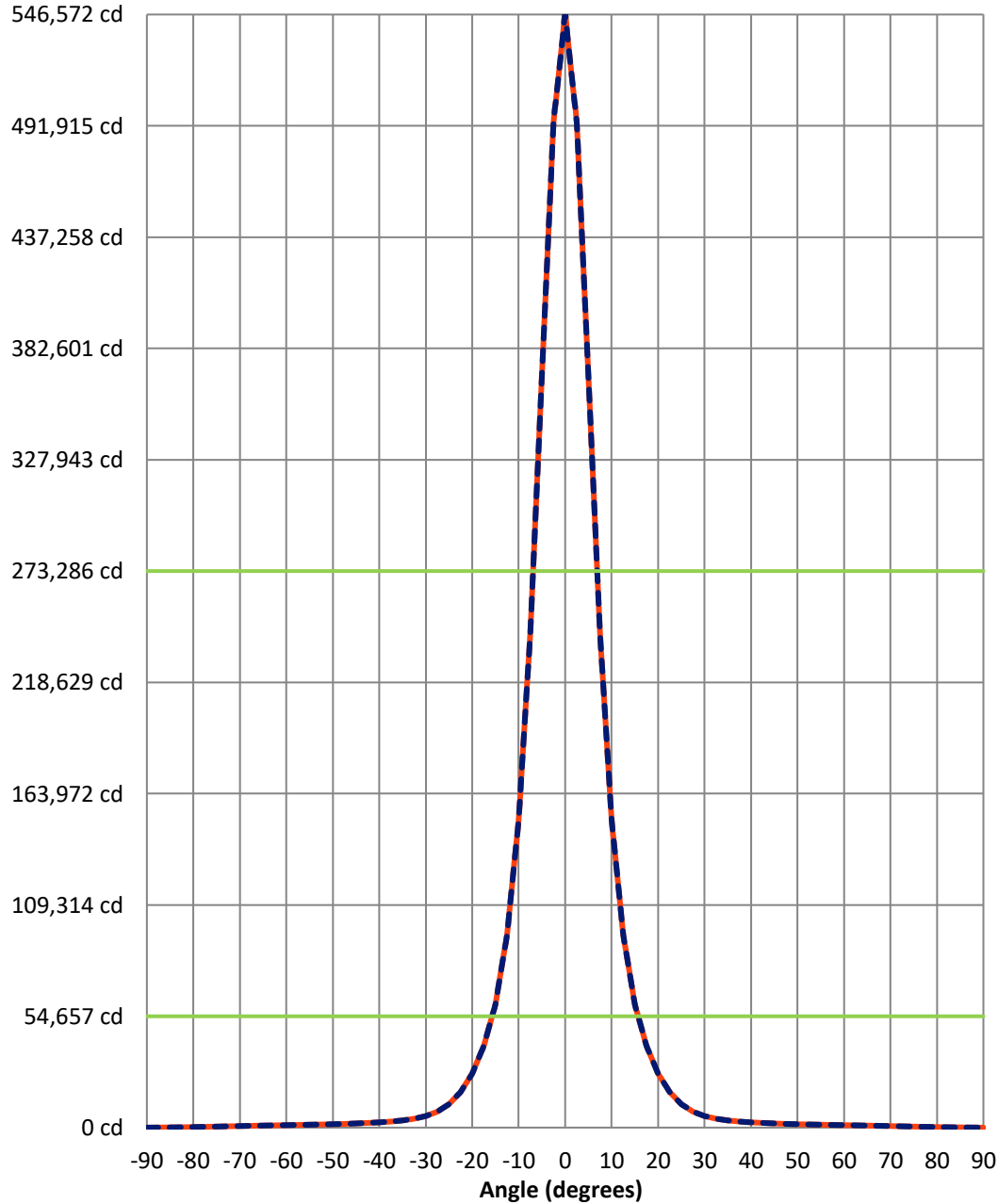
Luminous Intensity Polar Plot



— 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: 12844.5
Efficiency: 21.9%

Field:
H Angle: 31.4°
V Angle: 31.4°
Lumens: 29907.4
Efficiency: 50.9%

Spill:
Lumens: 28831.2
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°	48.9	48.9	48.9	48.9	48.9	48.9	48.9	48.9	48.9	42.8	42.8
85°	110.0	110.0	110.0	110.0	110.0	110.0	103.9	103.9	103.9	97.8	97.8
82.5°	183.3	183.3	183.3	183.3	177.2	177.2	177.2	171.1	171.1	165.0	165.0
80°	281.1	281.1	281.1	281.1	275.0	268.9	268.9	262.8	256.7	250.5	244.4
77.5°	385.0	385.0	385.0	378.9	378.9	372.8	366.6	360.5	354.4	342.2	336.1
75°	507.2	507.2	507.2	501.1	495.0	488.9	482.8	470.5	464.4	452.2	440.0
72.5°	635.5	635.5	635.5	629.4	623.3	611.1	605.0	592.7	580.5	562.2	550.0
70°	757.7	757.7	757.7	751.6	739.4	733.3	721.1	708.8	696.6	678.3	660.0
67.5°	880.0	880.0	880.0	867.7	861.6	855.5	843.3	825.0	812.7	794.4	770.0
65°	996.1	996.1	989.9	983.8	977.7	965.5	953.3	941.1	922.7	904.4	880.0
62.5°	1112.2	1112.2	1106.1	1099.9	1093.8	1081.6	1063.3	1051.1	1026.6	1008.3	983.8
60°	1209.9	1209.9	1203.8	1197.7	1191.6	1179.4	1167.2	1148.8	1130.5	1112.2	1087.7
57.5°	1313.8	1313.8	1307.7	1301.6	1289.4	1277.2	1264.9	1246.6	1222.2	1197.7	1179.4
55°	1429.9	1429.9	1423.8	1411.6	1399.4	1387.1	1368.8	1344.4	1319.9	1295.5	1264.9
52.5°	1539.9	1539.9	1533.8	1521.6	1509.4	1497.1	1472.7	1454.4	1423.8	1393.3	1356.6
50°	1674.4	1674.4	1662.1	1649.9	1637.7	1613.2	1588.8	1558.2	1527.7	1491.0	1460.5
47.5°	1827.1	1827.1	1814.9	1802.7	1778.2	1753.8	1717.1	1680.5	1643.8	1601.0	1552.1
45°	2041.0	2041.0	2022.7	1998.2	1967.7	1924.9	1876.0	1827.1	1772.1	1723.2	1668.2
42.5°	2303.8	2303.8	2279.3	2248.8	2206.0	2151.0	2083.8	2016.6	1943.2	1863.8	1790.5
40°	2578.7	2578.7	2548.2	2517.6	2468.8	2401.5	2328.2	2242.7	2151.0	2047.1	1955.4
37.5°	2957.6	2957.6	2914.8	2859.8	2786.5	2694.9	2584.9	2487.1	2383.2	2267.1	2144.9
35°	3519.8	3519.8	3452.6	3360.9	3244.8	3092.1	2927.1	2786.5	2627.6	2487.1	2352.6
32.5°	4350.9	4350.9	4234.8	4100.3	3904.8	3660.4	3422.0	3195.9	2957.6	2756.0	2560.4
30°	5658.6	5658.6	5463.0	5218.6	4888.6	4467.0	4112.6	3745.9	3397.6	3104.3	2835.4
27.5°	7834.0	7742.4	7473.5	7027.4	6416.3	5658.6	5114.7	4497.5	4008.7	3532.0	3183.7
25°	11500.5	11329.4	10822.2	9985.0	8854.5	7601.8	6611.9	5560.8	4815.3	4137.0	3593.1
22.5°	17458.5	17146.8	16218.0	14702.5	12655.4	10651.1	8824.0	7204.6	5872.5	4925.3	4137.0
20°	26526.9	25983.0	24382.0	21791.0	18295.7	15197.5	11940.5	9538.9	7406.3	5872.5	4815.3
17.5°	40153.9	39212.8	36456.9	32014.4	26526.9	21479.4	16517.4	12563.8	9538.9	7204.6	5560.8
15°	60539.5	58889.5	54074.3	46417.5	37624.0	29618.9	22573.2	16517.4	11940.5	8824.0	6611.9
12.5°	94765.9	91429.4	81786.6	66748.0	52729.9	39573.4	29618.9	21479.4	15197.5	10651.1	7601.8
10°	151315.0	144422.1	124873.7	95285.3	72779.3	52729.9	37624.0	26526.9	18295.7	12655.4	8854.5
7.5°	242976.7	228182.5	187759.7	137938.5	95285.3	66748.0	46417.5	32014.4	21791.0	14702.5	9985.0
5°	369402.5	339630.8	264896.0	187759.7	124873.7	81786.6	54074.3	36456.9	24382.0	16218.0	10822.2
2.5°	493353.5	442041.3	339630.8	228182.5	144422.1	91429.4	58889.5	39212.8	25983.0	17146.8	11329.4
0°	546572.2	493353.5	369402.5	242976.7	151315.0	94765.9	60539.5	40153.9	26526.9	17458.5	11500.5



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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°	42.8	42.8	42.8	42.8	36.7	36.7	36.7	36.7	30.6	30.6	30.6
85°	97.8	91.7	91.7	85.6	85.6	79.4	79.4	73.3	73.3	67.2	61.1
82.5°	158.9	152.8	146.7	140.5	140.5	134.4	128.3	116.1	110.0	103.9	97.8
80°	238.3	226.1	220.0	207.8	201.7	189.4	177.2	171.1	158.9	152.8	140.5
77.5°	323.9	311.6	305.5	287.2	275.0	262.8	250.5	232.2	220.0	201.7	183.3
75°	421.6	409.4	391.1	372.8	360.5	342.2	323.9	305.5	281.1	262.8	244.4
72.5°	531.6	513.3	495.0	470.5	446.1	427.8	397.2	372.8	354.4	330.0	305.5
70°	641.6	623.3	598.9	574.4	543.9	519.4	488.9	458.3	427.8	397.2	366.6
67.5°	751.6	727.2	702.7	672.2	641.6	611.1	580.5	543.9	507.2	470.5	433.9
65°	855.5	831.1	800.5	770.0	739.4	702.7	666.1	629.4	586.6	543.9	507.2
62.5°	959.4	928.8	898.3	867.7	831.1	794.4	757.7	708.8	666.1	623.3	574.4
60°	1057.2	1026.6	996.1	959.4	922.7	880.0	837.2	794.4	745.5	696.6	647.7
57.5°	1148.8	1118.3	1087.7	1044.9	1008.3	965.5	916.6	873.8	818.8	770.0	715.0
55°	1234.4	1203.8	1167.2	1130.5	1093.8	1044.9	996.1	947.2	892.2	837.2	776.1
52.5°	1319.9	1283.3	1246.6	1209.9	1167.2	1124.4	1075.5	1020.5	965.5	904.4	843.3
50°	1417.7	1374.9	1326.0	1283.3	1234.4	1191.6	1142.7	1087.7	1032.7	965.5	904.4
47.5°	1509.4	1466.6	1417.7	1362.7	1313.8	1258.8	1203.8	1154.9	1093.8	1032.7	965.5
45°	1613.2	1552.1	1503.3	1448.3	1387.1	1326.0	1271.0	1209.9	1154.9	1087.7	1020.5
42.5°	1723.2	1656.0	1588.8	1521.6	1466.6	1399.4	1332.1	1271.0	1203.8	1142.7	1075.5
40°	1851.6	1772.1	1686.6	1613.2	1539.9	1472.7	1399.4	1326.0	1258.8	1191.6	1124.4
37.5°	2016.6	1906.6	1796.6	1704.9	1619.4	1539.9	1466.6	1387.1	1313.8	1234.4	1167.2
35°	2212.1	2059.3	1931.0	1802.7	1704.9	1613.2	1521.6	1448.3	1362.7	1283.3	1209.9
32.5°	2407.6	2242.7	2077.7	1931.0	1796.6	1686.6	1588.8	1503.3	1417.7	1326.0	1246.6
30°	2609.3	2426.0	2242.7	2059.3	1906.6	1772.1	1656.0	1552.1	1466.6	1374.9	1283.3
27.5°	2866.0	2609.3	2407.6	2212.1	2016.6	1851.6	1723.2	1613.2	1509.4	1417.7	1319.9
25°	3183.7	2835.4	2560.4	2352.6	2144.9	1955.4	1790.5	1668.2	1552.1	1460.5	1356.6
22.5°	3532.0	3104.3	2756.0	2487.1	2267.1	2047.1	1863.8	1723.2	1601.0	1491.0	1393.3
20°	4008.7	3397.6	2957.6	2627.6	2383.2	2151.0	1943.2	1772.1	1643.8	1527.7	1423.8
17.5°	4497.5	3745.9	3195.9	2786.5	2487.1	2242.7	2016.6	1827.1	1680.5	1558.2	1454.4
15°	5114.7	4112.6	3422.0	2927.1	2584.9	2328.2	2083.8	1876.0	1717.1	1588.8	1472.7
12.5°	5658.6	4467.0	3660.4	3092.1	2694.9	2401.5	2151.0	1924.9	1753.8	1613.2	1497.1
10°	6416.3	4888.6	3904.8	3244.8	2786.5	2468.8	2206.0	1967.7	1778.2	1637.7	1509.4
7.5°	7027.4	5218.6	4100.3	3360.9	2859.8	2517.6	2248.8	1998.2	1802.7	1649.9	1521.6
5°	7473.5	5463.0	4234.8	3452.6	2914.8	2548.2	2279.3	2022.7	1814.9	1662.1	1533.8
2.5°	7742.4	5658.6	4350.9	3519.8	2957.6	2578.7	2303.8	2041.0	1827.1	1674.4	1539.9
0°	7834.0	5658.6	4350.9	3519.8	2957.6	2578.7	2303.8	2041.0	1827.1	1674.4	1539.9



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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°	30.6	24.4	24.4	24.4	18.3	18.3	18.3	12.2	12.2	12.2	6.1
85°	55.0	55.0	48.9	42.8	42.8	36.7	30.6	30.6	24.4	18.3	18.3
82.5°	91.7	85.6	79.4	73.3	67.2	55.0	48.9	42.8	36.7	30.6	24.4
80°	128.3	122.2	110.0	97.8	91.7	79.4	73.3	61.1	48.9	42.8	36.7
77.5°	171.1	158.9	146.7	134.4	116.1	103.9	91.7	79.4	67.2	55.0	42.8
75°	226.1	201.7	183.3	165.0	146.7	128.3	110.0	97.8	79.4	67.2	48.9
72.5°	281.1	256.7	226.1	201.7	177.2	158.9	134.4	116.1	97.8	79.4	61.1
70°	336.1	305.5	275.0	244.4	213.9	183.3	158.9	134.4	110.0	91.7	73.3
67.5°	391.1	360.5	323.9	287.2	256.7	220.0	183.3	158.9	128.3	103.9	79.4
65°	458.3	415.5	372.8	336.1	293.3	256.7	213.9	177.2	146.7	116.1	91.7
62.5°	525.5	476.6	427.8	378.9	336.1	287.2	244.4	201.7	165.0	134.4	97.8
60°	592.7	537.7	482.8	427.8	372.8	323.9	275.0	226.1	183.3	146.7	110.0
57.5°	660.0	598.9	537.7	476.6	415.5	360.5	305.5	256.7	201.7	158.9	122.2
55°	721.1	660.0	592.7	525.5	458.3	391.1	336.1	281.1	226.1	171.1	128.3
52.5°	776.1	715.0	647.7	574.4	507.2	433.9	366.6	305.5	244.4	183.3	140.5
50°	837.2	770.0	696.6	623.3	543.9	470.5	397.2	330.0	262.8	201.7	152.8
47.5°	892.2	818.8	745.5	666.1	586.6	507.2	427.8	354.4	281.1	220.0	158.9
45°	947.2	873.8	794.4	708.8	629.4	543.9	458.3	372.8	305.5	232.2	171.1
42.5°	996.1	916.6	837.2	757.7	666.1	580.5	488.9	397.2	323.9	250.5	177.2
40°	1044.9	965.5	880.0	794.4	702.7	611.1	519.4	427.8	342.2	262.8	189.4
37.5°	1093.8	1008.3	922.7	831.1	739.4	641.6	543.9	446.1	360.5	275.0	201.7
35°	1130.5	1044.9	959.4	867.7	770.0	672.2	574.4	470.5	372.8	287.2	207.8
32.5°	1167.2	1087.7	996.1	898.3	800.5	702.7	598.9	495.0	391.1	305.5	220.0
30°	1203.8	1118.3	1026.6	928.8	831.1	727.2	623.3	513.3	409.4	311.6	226.1
27.5°	1234.4	1148.8	1057.2	959.4	855.5	751.6	641.6	531.6	421.6	323.9	238.3
25°	1264.9	1179.4	1087.7	983.8	880.0	770.0	660.0	550.0	440.0	336.1	244.4
22.5°	1295.5	1197.7	1112.2	1008.3	904.4	794.4	678.3	562.2	452.2	342.2	250.5
20°	1319.9	1222.2	1130.5	1026.6	922.7	812.7	696.6	580.5	464.4	354.4	256.7
17.5°	1344.4	1246.6	1148.8	1051.1	941.1	825.0	708.8	592.7	470.5	360.5	262.8
15°	1368.8	1264.9	1167.2	1063.3	953.3	843.3	721.1	605.0	482.8	366.6	268.9
12.5°	1387.1	1277.2	1179.4	1081.6	965.5	855.5	733.3	611.1	488.9	372.8	268.9
10°	1399.4	1289.4	1191.6	1093.8	977.7	861.6	739.4	623.3	495.0	378.9	275.0
7.5°	1411.6	1301.6	1197.7	1099.9	983.8	867.7	751.6	629.4	501.1	378.9	281.1
5°	1423.8	1307.7	1203.8	1106.1	989.9	880.0	757.7	635.5	507.2	385.0	281.1
2.5°	1429.9	1313.8	1209.9	1112.2	996.1	880.0	757.7	635.5	507.2	385.0	281.1
0°	1429.9	1313.8	1209.9	1112.2	996.1	880.0	757.7	635.5	507.2	385.0	281.1



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CANDELA DISTRIBUTION (continued):

	82.5°	85°	87.5°	90°
90°	0.0	0.0	0.0	0.0
87.5°	6.1	6.1	0.0	0.0
85°	12.2	6.1	6.1	0.0
82.5°	18.3	12.2	6.1	0.0
80°	24.4	18.3	6.1	0.0
77.5°	30.6	18.3	12.2	0.0
75°	36.7	24.4	12.2	0.0
72.5°	42.8	30.6	12.2	0.0
70°	48.9	30.6	18.3	0.0
67.5°	55.0	36.7	18.3	0.0
65°	67.2	42.8	18.3	0.0
62.5°	73.3	42.8	24.4	0.0
60°	79.4	48.9	24.4	0.0
57.5°	85.6	55.0	24.4	0.0
55°	91.7	55.0	30.6	0.0
52.5°	97.8	61.1	30.6	0.0
50°	103.9	67.2	30.6	0.0
47.5°	110.0	73.3	30.6	0.0
45°	116.1	73.3	36.7	0.0
42.5°	128.3	79.4	36.7	0.0
40°	134.4	79.4	36.7	0.0
37.5°	140.5	85.6	36.7	0.0
35°	140.5	85.6	42.8	0.0
32.5°	146.7	91.7	42.8	0.0
30°	152.8	91.7	42.8	0.0
27.5°	158.9	97.8	42.8	0.0
25°	165.0	97.8	42.8	0.0
22.5°	165.0	97.8	42.8	0.0
20°	171.1	103.9	48.9	0.0
17.5°	171.1	103.9	48.9	0.0
15°	177.2	103.9	48.9	0.0
12.5°	177.2	110.0	48.9	0.0
10°	177.2	110.0	48.9	0.0
7.5°	183.3	110.0	48.9	0.0
5°	183.3	110.0	48.9	0.0
2.5°	183.3	110.0	48.9	0.0
0°	183.3	110.0	48.9	0.0

(END OF REPORT)