

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: P624137

Luminaire Tested: **EPH-VN-08-E-735-U-55**

Issue Date: 11/2/2022

Test Information

Test Method: LM-79-2019
Report Number: P624137
Test Lab: INNOVATION CENTER(G2)
Issue Date: 11/2/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: EPHESUS
Catalog Number: EPH-VN-08-E-735-U-55
Description: EPHESUS LUMAVISION FLOOD – Middle Tier Light Square Luminaire w/
Nema 5 distribution lens
Light Source: (128) 3500K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp:	N/A	NEMA Type:	5H x 5V
Luminaire Lumens:	70409.5 lumens	Max Intensity:	86043.3 candela
Efficiency:	N/A	Max Intensity Angle:	0°H x 10°V
Efficacy:	112.3 lumens/watt		
Luminous Opening:	Rectangular (W 2' x L: 1' x H: 0')		

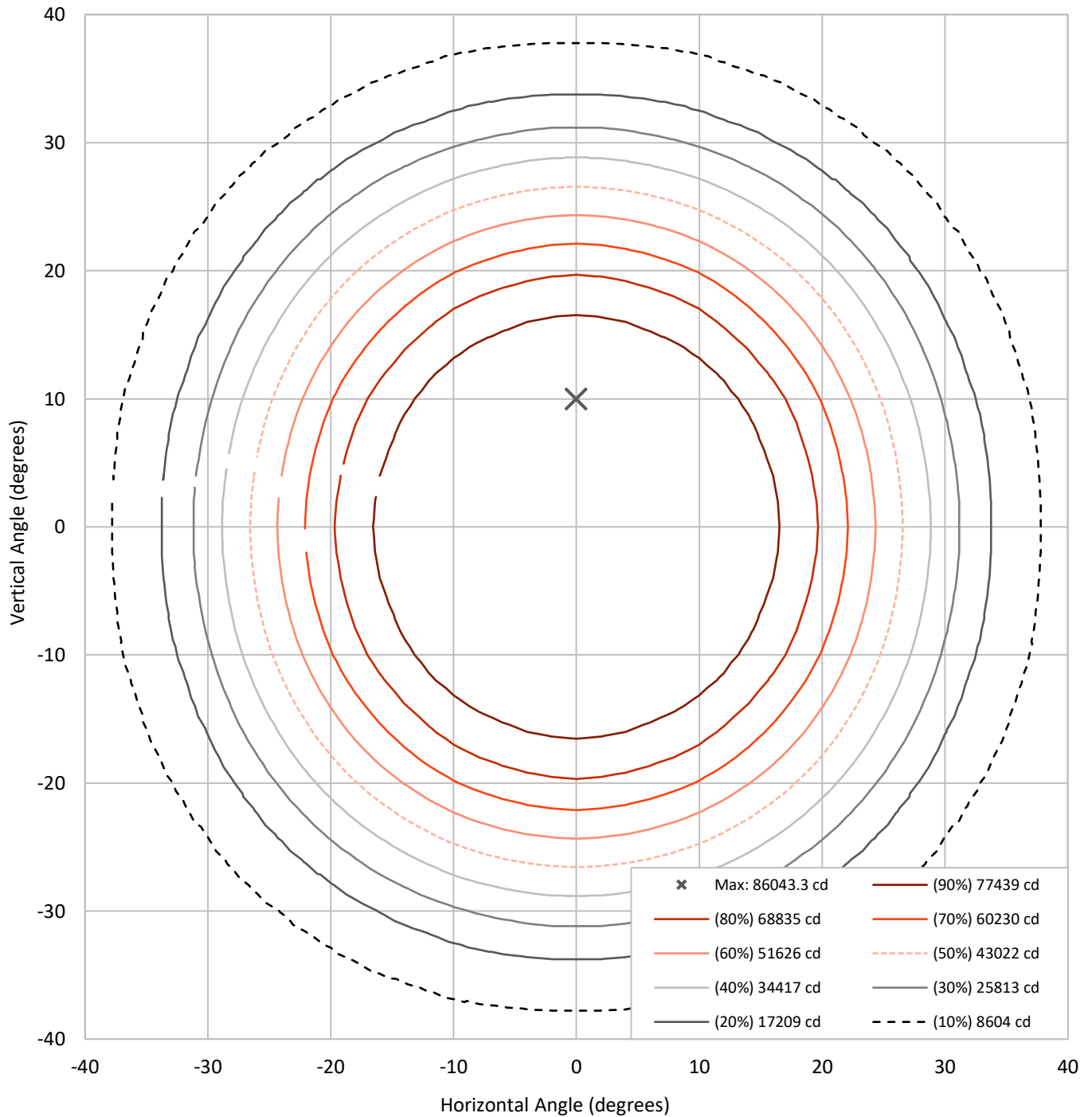
Beam Angle (50%):	49.5°H x 53.1°V	Field Angle (10%):	73.6°H x 75.3°V
Beam Lumens:	34995.3 lumens	Field Lumens:	45512.4 lumens
Beam Efficiency:	49.7%	Field Efficiency:	64.6%

Input Watts (W): 626.8
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





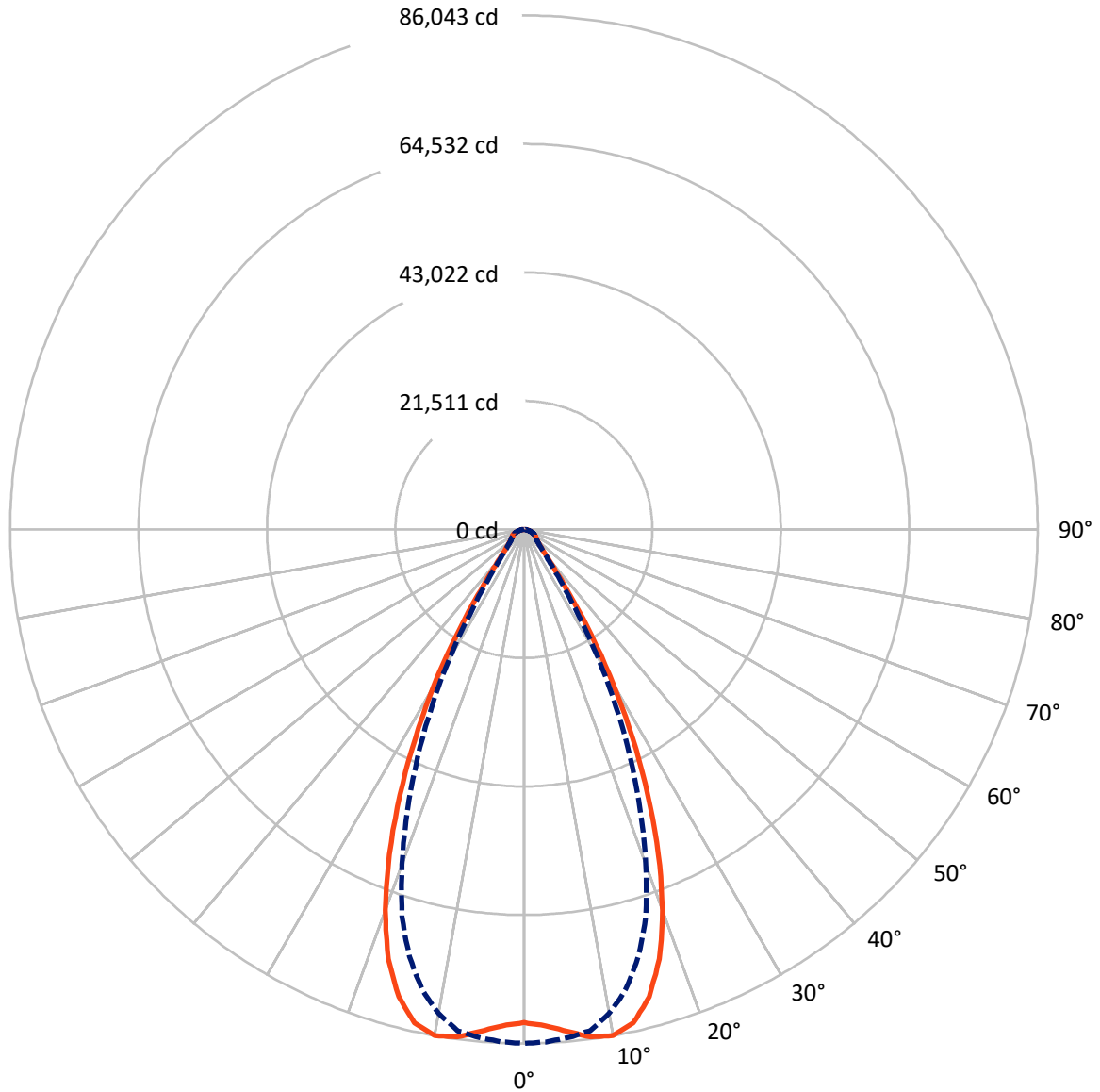
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Lumen Table

90	2.0		15.4		40.3		65.0		75.2		65.0		40.3		15.4		2.0	
80	2.0		15.4		40.3		65.0		75.2		65.0		40.3		15.4		2.0	
70	7.1	7.6	15.9	26.3	36.9	46.2	52.8	56.4	56.4	52.8	46.2	36.9	26.3	15.9	7.6	7.1		
60		11.8	24.4	38.6	51.9	63.0	71.6	76.3	76.3	71.6	63.0	51.9	38.6	24.4	11.8			
50	12.5	15.9	31.4	47.5	63.7	82.5	104.5	121.3	121.3	104.5	82.5	63.7	47.5	31.4	15.9	12.5		
40		19.3	36.5	55.1	83.5	148.8	290.7	438.4	438.4	290.7	148.8	83.5	55.1	36.5	19.3			
30	16.6	21.8	40.1	64.6	135.0	430.2	996.8	1414.8	1414.8	996.8	430.2	135.0	64.6	40.1	21.8	16.6		
20		23.4	42.7	77.0	249.2	938.9	1837.1	2341.9	2341.9	1837.1	938.9	249.2	77.0	42.7	23.4			
10	18.2	24.2	44.2	86.9	365.7	1293.4	2272.7	2577.3	2577.3	2272.7	1293.4	365.7	86.9	44.2	24.2	18.2		
0		24.2	44.2	86.9	365.7	1293.4	2272.7	2577.3	2577.3	2272.7	1293.4	365.7	86.9	44.2	24.2			
-10	16.6	23.4	42.7	77.0	249.2	938.9	1837.1	2341.9	2341.9	1837.1	938.9	249.2	77.0	42.7	23.4	16.6		
-20		21.8	40.1	64.6	135.0	430.2	996.8	1414.8	1414.8	996.8	430.2	135.0	64.6	40.1	21.8			
-30	12.5	19.3	36.5	55.1	83.5	148.8	290.7	438.4	438.4	290.7	148.8	83.5	55.1	36.5	19.3	12.5		
-40		15.9	31.4	47.5	63.7	82.5	104.5	121.3	121.3	104.5	82.5	63.7	47.5	31.4	15.9			
-50	7.1	11.8	24.4	38.6	51.9	63.0	71.6	76.3	76.3	71.6	63.0	51.9	38.6	24.4	11.8	7.1		
-60		7.6	15.9	26.3	36.9	46.2	52.8	56.4	56.4	52.8	46.2	36.9	26.3	15.9	7.6			
-70	2.0		15.4		40.3		65.0		75.2		65.0		40.3		15.4		2.0	
-80	2.0		15.4		40.3		65.0		75.2		65.0		40.3		15.4		2.0	
-90	2.0		15.4		40.3		65.0		75.2		65.0		40.3		15.4		2.0	

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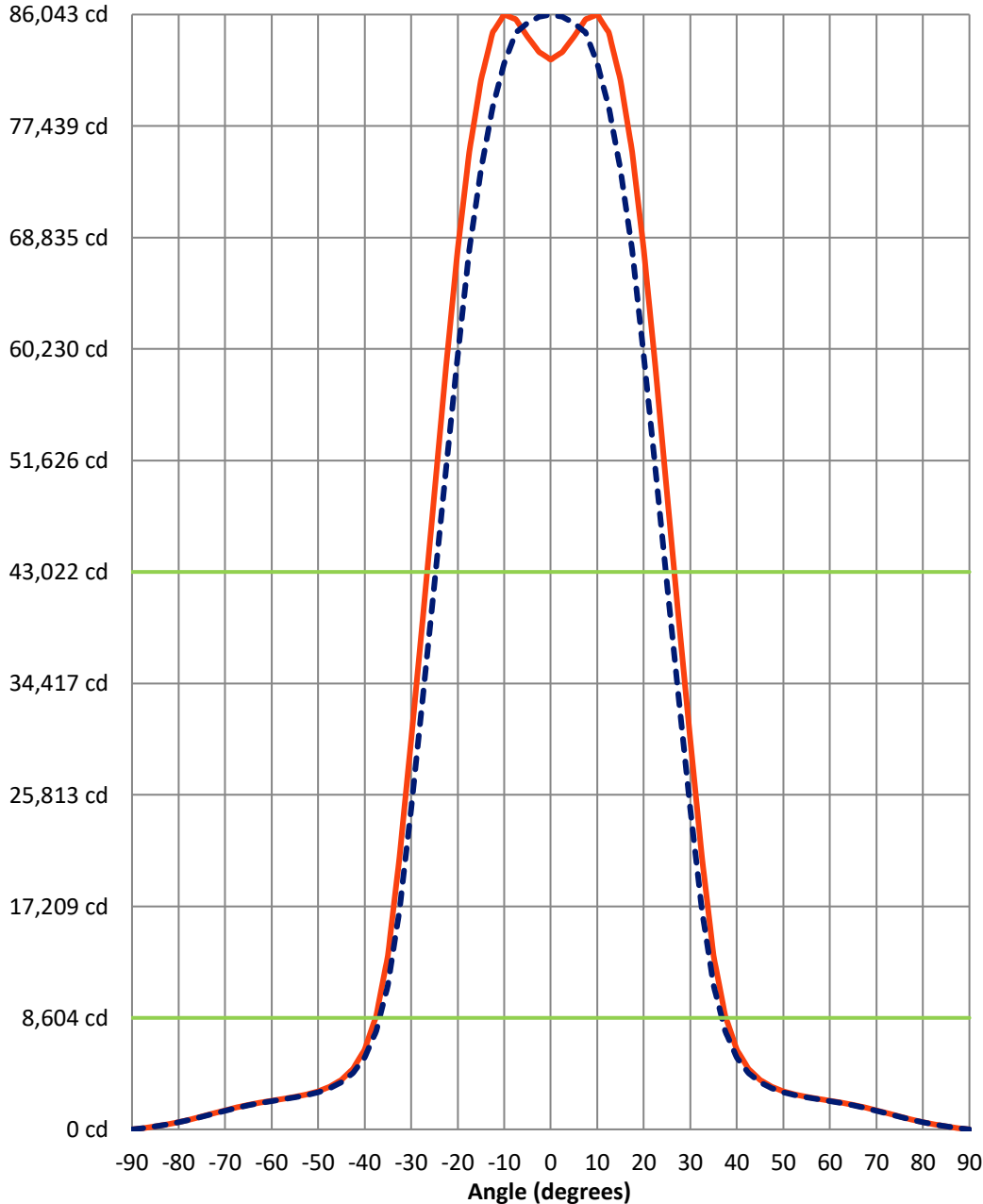
Luminous Intensity Polar Plot



— Vertical Distribution Through 0-Deg - - - Horizontal Distribution Through 10-Deg

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Luminous Intensity Plot



Beam:
 H Angle: 49.5°
 V Angle: 53.1°
 Lumens: 34995.3
 Efficiency: 49.7%

Field:
 H Angle: 73.6°
 V Angle: 75.3°
 Lumens: 45512.4
 Efficiency: 64.6%

Spill:
 Lumens: 24897.1
 Efficiency: 35.4%

— Vertical Distribution through 0-Deg
 - - Horizontal Distribution through 10-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°	95.1	95.1	95.1	95.1	95.1	95.1	95.1	87.8	87.8	87.8	87.8
85°	234.1	234.1	234.1	234.1	234.1	226.7	226.7	219.4	219.4	212.1	204.8
82.5°	380.3	380.3	380.3	380.3	373.0	373.0	365.7	358.4	351.1	343.8	336.4
80°	555.9	555.9	555.9	555.9	548.6	541.2	533.9	526.6	512.0	504.7	490.0
77.5°	760.7	760.7	760.7	753.4	746.0	738.7	724.1	709.5	694.8	680.2	665.6
75°	994.7	994.7	994.7	980.1	972.8	958.1	943.5	928.9	907.0	885.0	863.1
72.5°	1236.1	1236.1	1236.1	1221.5	1206.8	1192.2	1177.6	1155.6	1133.7	1104.4	1075.2
70°	1462.8	1462.8	1462.8	1448.2	1433.6	1418.9	1397.0	1375.1	1345.8	1316.5	1287.3
67.5°	1696.9	1696.9	1696.9	1674.9	1660.3	1645.7	1623.7	1594.5	1565.2	1528.7	1492.1
65°	1887.0	1887.0	1879.7	1872.4	1857.8	1835.8	1821.2	1792.0	1762.7	1733.4	1696.9
62.5°	2062.6	2062.6	2055.3	2048.0	2033.3	2011.4	1989.4	1967.5	1938.2	1901.7	1865.1
60°	2208.9	2208.9	2201.5	2194.2	2179.6	2165.0	2143.0	2121.1	2091.8	2062.6	2026.0
57.5°	2355.1	2355.1	2347.8	2340.5	2325.9	2303.9	2282.0	2260.1	2230.8	2194.2	2157.7
55°	2508.7	2508.7	2501.4	2486.8	2472.2	2450.2	2428.3	2399.0	2362.5	2325.9	2289.3
52.5°	2691.6	2691.6	2677.0	2662.3	2640.4	2618.5	2581.9	2545.3	2501.4	2457.5	2413.7
50°	2933.0	2933.0	2918.3	2896.4	2859.8	2823.3	2779.4	2720.9	2669.7	2611.1	2552.6
47.5°	3291.4	3291.4	3262.1	3225.5	3174.3	3115.8	3035.4	2947.6	2874.4	2801.3	2713.5
45°	3818.0	3818.0	3774.1	3715.6	3635.1	3532.7	3415.7	3291.4	3167.0	3042.7	2918.3
42.5°	4673.7	4673.7	4593.3	4490.9	4351.9	4176.4	3956.9	3752.1	3576.6	3379.1	3210.9
40°	6151.2	6151.2	5997.6	5807.4	5544.1	5207.7	4805.4	4483.6	4176.4	3832.6	3598.5
37.5°	8776.9	8776.9	8477.1	8111.4	7599.4	6955.7	6180.4	5661.1	5090.6	4549.4	4154.4
35°	13414.1	13414.1	12836.3	12126.8	11139.4	9896.0	8572.1	7592.1	6502.3	5668.4	4929.7
32.5°	21020.8	21020.8	19982.2	18702.2	16939.5	14708.7	12587.6	10722.5	8776.9	7394.6	6063.4
30°	30061.0	30061.0	28700.6	27025.7	24729.0	21832.6	18811.9	15498.6	12426.7	9961.8	7950.4
27.5°	39408.5	39020.8	37850.6	35941.6	33323.1	30061.0	26294.3	22015.5	17861.1	13516.5	10642.0
25°	49077.7	48624.3	47285.8	45091.5	42092.8	38399.1	34156.9	29373.5	24246.3	19067.9	14094.3
22.5°	58849.4	58337.4	56816.1	54336.6	50972.1	46832.3	42026.9	36709.6	30982.6	24999.7	19067.9
20°	67882.3	67341.1	65746.6	63164.7	59683.2	55141.1	49801.8	43906.7	37572.6	30982.6	24246.3
17.5°	75445.1	74925.8	73389.9	70925.0	67882.3	62857.5	57306.1	50825.8	43906.7	36709.6	29373.5
15°	80967.3	80521.1	79211.9	77142.0	74040.8	69593.8	63940.0	57306.1	49801.8	42026.9	34156.9
12.5°	84631.7	84273.3	83242.0	81632.9	78853.5	75123.3	69593.8	62857.5	55141.1	46832.3	38399.1
10°	86043.3	85867.8	85385.0	84646.3	82276.5	78853.5	74040.8	67882.3	59683.2	50972.1	42092.8
7.5°	85670.3	85728.8	85897.0	85706.9	84646.3	81632.9	77142.0	70925.0	63164.7	54336.6	45091.5
5°	84339.1	84653.6	85436.2	85897.0	85385.0	83242.0	79211.9	73389.9	65746.6	56816.1	47285.8
2.5°	83154.2	83644.3	84653.6	85728.8	85867.8	84273.3	80521.1	74925.8	67341.1	58337.4	48624.3
0°	82569.1	83154.2	84339.1	85670.3	86043.3	84631.7	80967.3	75445.1	67882.3	58849.4	49077.7



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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°	87.8	80.5	80.5	80.5	73.1	73.1	73.1	65.8	65.8	58.5	58.5
85°	204.8	197.5	190.2	182.9	175.5	168.2	160.9	153.6	146.3	131.7	124.3
82.5°	329.1	321.8	314.5	299.9	292.6	277.9	263.3	248.7	234.1	226.7	212.1
80°	475.4	460.8	446.2	431.5	409.6	387.6	373.0	351.1	336.4	314.5	299.9
77.5°	643.6	621.7	599.8	570.5	548.6	526.6	497.4	475.4	446.2	416.9	387.6
75°	833.8	804.6	768.0	738.7	709.5	672.9	636.3	599.8	563.2	526.6	490.0
72.5°	1038.6	1002.0	965.5	928.9	885.0	833.8	789.9	738.7	694.8	651.0	599.8
70°	1250.7	1206.8	1162.9	1119.1	1067.9	1009.3	958.1	899.6	841.1	782.6	724.1
67.5°	1448.2	1404.3	1353.1	1309.2	1250.7	1192.2	1126.4	1060.5	994.7	921.6	848.4
65°	1653.0	1601.8	1543.3	1484.8	1426.3	1360.4	1294.6	1228.8	1148.3	1067.9	994.7
62.5°	1821.2	1777.3	1726.1	1667.6	1601.8	1528.7	1462.8	1375.1	1294.6	1214.1	1119.1
60°	1982.1	1930.9	1887.0	1821.2	1762.7	1696.9	1616.4	1528.7	1440.9	1345.8	1258.0
57.5°	2121.1	2077.2	2026.0	1967.5	1901.7	1835.8	1762.7	1682.2	1579.8	1484.8	1382.4
55°	2245.4	2194.2	2143.0	2091.8	2033.3	1960.2	1887.0	1806.6	1718.8	1616.4	1506.7
52.5°	2369.8	2318.6	2260.1	2208.9	2143.0	2077.2	2004.1	1923.6	1835.8	1740.8	1623.7
50°	2494.1	2435.6	2377.1	2311.3	2245.4	2179.6	2106.5	2033.3	1938.2	1843.2	1740.8
47.5°	2640.4	2567.3	2494.1	2421.0	2355.1	2274.7	2201.5	2121.1	2040.6	1938.2	1835.8
45°	2823.3	2713.5	2625.8	2538.0	2457.5	2377.1	2289.3	2208.9	2121.1	2033.3	1923.6
42.5°	3050.0	2903.7	2786.7	2669.7	2567.3	2472.2	2384.4	2289.3	2201.5	2106.5	2004.1
40°	3357.2	3159.7	2969.5	2823.3	2691.6	2574.6	2472.2	2377.1	2274.7	2179.6	2077.2
37.5°	3759.5	3481.5	3218.2	3006.1	2837.9	2691.6	2567.3	2457.5	2355.1	2245.4	2143.0
35°	4366.5	3883.8	3547.3	3240.2	3006.1	2823.3	2669.7	2538.0	2421.0	2311.3	2208.9
32.5°	5222.3	4476.2	3935.0	3547.3	3218.2	2969.5	2786.7	2625.8	2494.1	2377.1	2260.1
30°	6348.7	5317.4	4476.2	3883.8	3481.5	3159.7	2903.7	2713.5	2567.3	2435.6	2318.6
27.5°	8133.3	6348.7	5222.3	4366.5	3759.5	3357.2	3050.0	2823.3	2640.4	2494.1	2369.8
25°	10642.0	7950.4	6063.4	4929.7	4154.4	3598.5	3210.9	2918.3	2713.5	2552.6	2413.7
22.5°	13516.5	9961.8	7394.6	5668.4	4549.4	3832.6	3379.1	3042.7	2801.3	2611.1	2457.5
20°	17861.1	12426.7	8776.9	6502.3	5090.6	4176.4	3576.6	3167.0	2874.4	2669.7	2501.4
17.5°	22015.5	15498.6	10722.5	7592.1	5661.1	4483.6	3752.1	3291.4	2947.6	2720.9	2545.3
15°	26294.3	18811.9	12587.6	8572.1	6180.4	4805.4	3956.9	3415.7	3035.4	2779.4	2581.9
12.5°	30061.0	21832.6	14708.7	9896.0	6955.7	5207.7	4176.4	3532.7	3115.8	2823.3	2618.5
10°	33323.1	24729.0	16939.5	11139.4	7599.4	5544.1	4351.9	3635.1	3174.3	2859.8	2640.4
7.5°	35941.6	27025.7	18702.2	12126.8	8111.4	5807.4	4490.9	3715.6	3225.5	2896.4	2662.3
5°	37850.6	28700.6	19982.2	12836.3	8477.1	5997.6	4593.3	3774.1	3262.1	2918.3	2677.0
2.5°	39020.8	30061.0	21020.8	13414.1	8776.9	6151.2	4673.7	3818.0	3291.4	2933.0	2691.6
0°	39408.5	30061.0	21020.8	13414.1	8776.9	6151.2	4673.7	3818.0	3291.4	2933.0	2691.6



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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°	51.2	51.2	43.9	43.9	36.6	36.6	29.3	29.3	21.9	21.9	14.6
85°	117.0	102.4	95.1	87.8	80.5	73.1	65.8	58.5	51.2	43.9	36.6
82.5°	197.5	182.9	160.9	146.3	131.7	117.0	95.1	87.8	73.1	58.5	51.2
80°	277.9	256.0	234.1	212.1	190.2	168.2	146.3	124.3	102.4	80.5	65.8
77.5°	358.4	329.1	307.2	277.9	248.7	219.4	190.2	160.9	131.7	102.4	80.5
75°	453.5	416.9	380.3	343.8	307.2	270.6	241.4	204.8	168.2	131.7	102.4
72.5°	555.9	504.7	460.8	416.9	365.7	329.1	285.3	248.7	204.8	160.9	124.3
70°	665.6	607.1	548.6	490.0	438.8	380.3	336.4	285.3	241.4	190.2	146.3
67.5°	775.3	709.5	643.6	570.5	504.7	446.2	380.3	329.1	270.6	219.4	168.2
65°	907.0	819.2	738.7	658.3	577.8	504.7	438.8	365.7	307.2	248.7	190.2
62.5°	1031.3	936.2	841.1	746.0	658.3	570.5	490.0	416.9	343.8	277.9	212.1
60°	1155.6	1053.2	943.5	841.1	738.7	643.6	548.6	460.8	380.3	307.2	234.1
57.5°	1280.0	1162.9	1053.2	936.2	819.2	709.5	607.1	504.7	416.9	329.1	256.0
55°	1389.7	1280.0	1155.6	1031.3	907.0	775.3	665.6	555.9	453.5	358.4	277.9
52.5°	1506.7	1382.4	1258.0	1119.1	994.7	848.4	724.1	599.8	490.0	387.6	299.9
50°	1616.4	1484.8	1345.8	1214.1	1067.9	921.6	782.6	651.0	526.6	416.9	314.5
47.5°	1718.8	1579.8	1440.9	1294.6	1148.3	994.7	841.1	694.8	563.2	446.2	336.4
45°	1806.6	1682.2	1528.7	1375.1	1228.8	1060.5	899.6	738.7	599.8	475.4	351.1
42.5°	1887.0	1762.7	1616.4	1462.8	1294.6	1126.4	958.1	789.9	636.3	497.4	373.0
40°	1960.2	1835.8	1696.9	1528.7	1360.4	1192.2	1009.3	833.8	672.9	526.6	387.6
37.5°	2033.3	1901.7	1762.7	1601.8	1426.3	1250.7	1067.9	885.0	709.5	548.6	409.6
35°	2091.8	1967.5	1821.2	1667.6	1484.8	1309.2	1119.1	928.9	738.7	570.5	431.5
32.5°	2143.0	2026.0	1887.0	1726.1	1543.3	1353.1	1162.9	965.5	768.0	599.8	446.2
30°	2194.2	2077.2	1930.9	1777.3	1601.8	1404.3	1206.8	1002.0	804.6	621.7	460.8
27.5°	2245.4	2121.1	1982.1	1821.2	1653.0	1448.2	1250.7	1038.6	833.8	643.6	475.4
25°	2289.3	2157.7	2026.0	1865.1	1696.9	1492.1	1287.3	1075.2	863.1	665.6	490.0
22.5°	2325.9	2194.2	2062.6	1901.7	1733.4	1528.7	1316.5	1104.4	885.0	680.2	504.7
20°	2362.5	2230.8	2091.8	1938.2	1762.7	1565.2	1345.8	1133.7	907.0	694.8	512.0
17.5°	2399.0	2260.1	2121.1	1967.5	1792.0	1594.5	1375.1	1155.6	928.9	709.5	526.6
15°	2428.3	2282.0	2143.0	1989.4	1821.2	1623.7	1397.0	1177.6	943.5	724.1	533.9
12.5°	2450.2	2303.9	2165.0	2011.4	1835.8	1645.7	1418.9	1192.2	958.1	738.7	541.2
10°	2472.2	2325.9	2179.6	2033.3	1857.8	1660.3	1433.6	1206.8	972.8	746.0	548.6
7.5°	2486.8	2340.5	2194.2	2048.0	1872.4	1674.9	1448.2	1221.5	980.1	753.4	555.9
5°	2501.4	2347.8	2201.5	2055.3	1879.7	1696.9	1462.8	1236.1	994.7	760.7	555.9
2.5°	2508.7	2355.1	2208.9	2062.6	1887.0	1696.9	1462.8	1236.1	994.7	760.7	555.9
0°	2508.7	2355.1	2208.9	2062.6	1887.0	1696.9	1462.8	1236.1	994.7	760.7	555.9



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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	7.3	7.3	0.0
85°	21.9	14.6	7.3	0.0
82.5°	36.6	21.9	14.6	0.0
80°	51.2	36.6	14.6	0.0
77.5°	58.5	43.9	21.9	0.0
75°	73.1	51.2	21.9	0.0
72.5°	87.8	58.5	29.3	0.0
70°	95.1	65.8	29.3	0.0
67.5°	117.0	73.1	36.6	0.0
65°	131.7	80.5	36.6	0.0
62.5°	146.3	87.8	43.9	0.0
60°	160.9	95.1	43.9	0.0
57.5°	182.9	102.4	51.2	0.0
55°	197.5	117.0	51.2	0.0
52.5°	212.1	124.3	58.5	0.0
50°	226.7	131.7	58.5	0.0
47.5°	234.1	146.3	65.8	0.0
45°	248.7	153.6	65.8	0.0
42.5°	263.3	160.9	73.1	0.0
40°	277.9	168.2	73.1	0.0
37.5°	292.6	175.5	73.1	0.0
35°	299.9	182.9	80.5	0.0
32.5°	314.5	190.2	80.5	0.0
30°	321.8	197.5	80.5	0.0
27.5°	329.1	204.8	87.8	0.0
25°	336.4	204.8	87.8	0.0
22.5°	343.8	212.1	87.8	0.0
20°	351.1	219.4	87.8	0.0
17.5°	358.4	219.4	87.8	0.0
15°	365.7	226.7	95.1	0.0
12.5°	373.0	226.7	95.1	0.0
10°	373.0	234.1	95.1	0.0
7.5°	380.3	234.1	95.1	0.0
5°	380.3	234.1	95.1	0.0
2.5°	380.3	234.1	95.1	0.0
0°	380.3	234.1	95.1	0.0

(END OF REPORT)