

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: P623241

Luminaire Tested: **EPH-VN-08-E-740-U-33**

Issue Date: 10/13/2022

Test Information

Test Method: LM-79-2019
Report Number: P623241
Test Lab: INNOVATION CENTER(G2)
Issue Date: 10/13/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: EPHESUS
Catalog Number: EPH-VN-08-E-740-U-33
Description: EPHESUS LUMAVISION FLOOD – Middle Tier Light Square Luminaire w/
Nema 3 distribution lens
Light Source: (128) 4000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp:	N/A	NEMA Type:	3H x 3V
Luminaire Lumens:	71239.6 lumens	Max Intensity:	662895.6 candela
Efficiency:	N/A	Max Intensity Angle:	0°H x 0°V
Efficacy:	113.7 lumens/watt		
Luminous Opening:	Rectangular (W 2' x L: 1' x H: 0')		

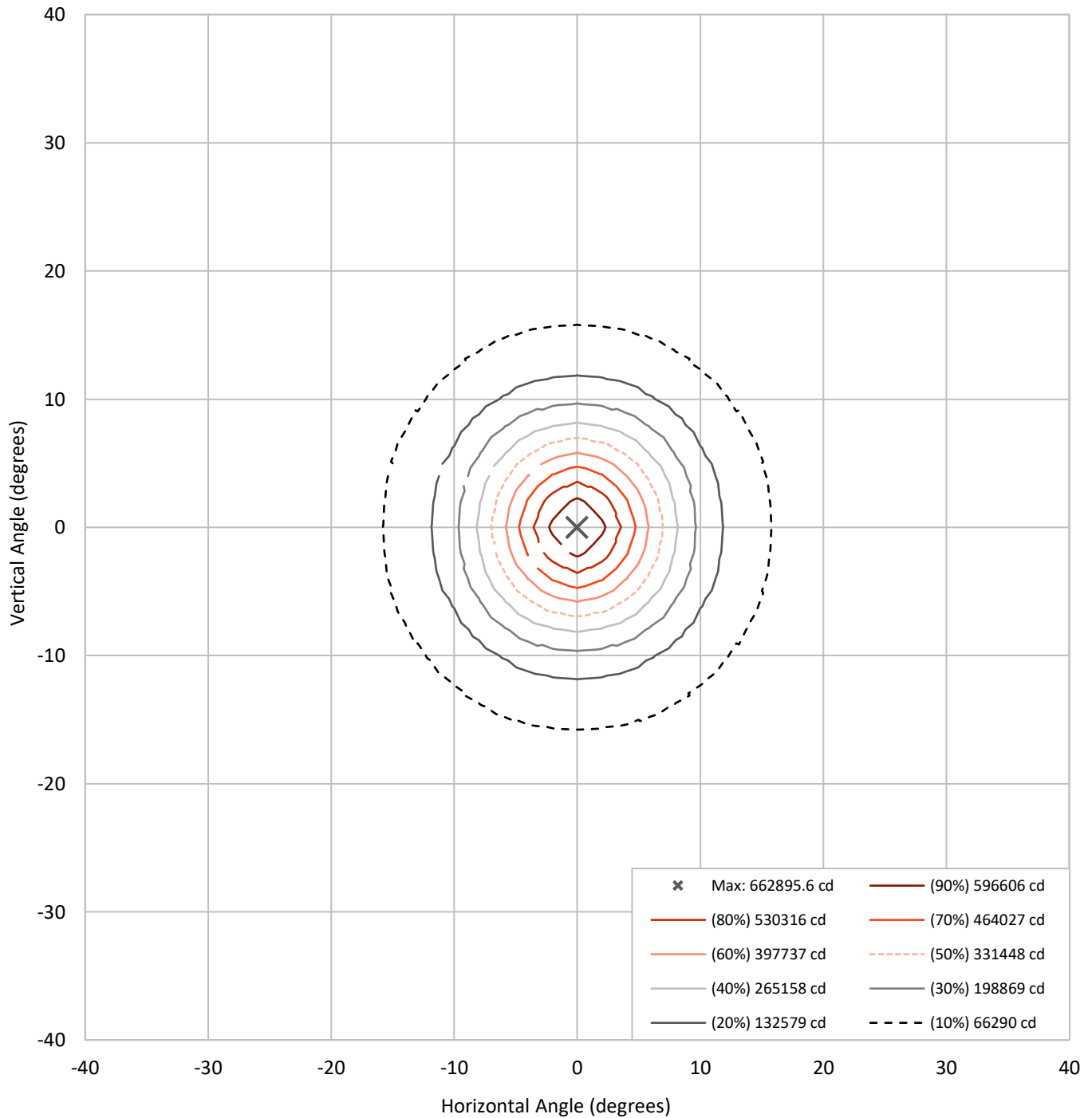
Beam Angle (50%):	13.8°H x 13.8°V	Field Angle (10%):	31.4°H x 31.4°V
Beam Lumens:	15578.1 lumens	Field Lumens:	36272.4 lumens
Beam Efficiency:	21.9%	Field Efficiency:	50.9%

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





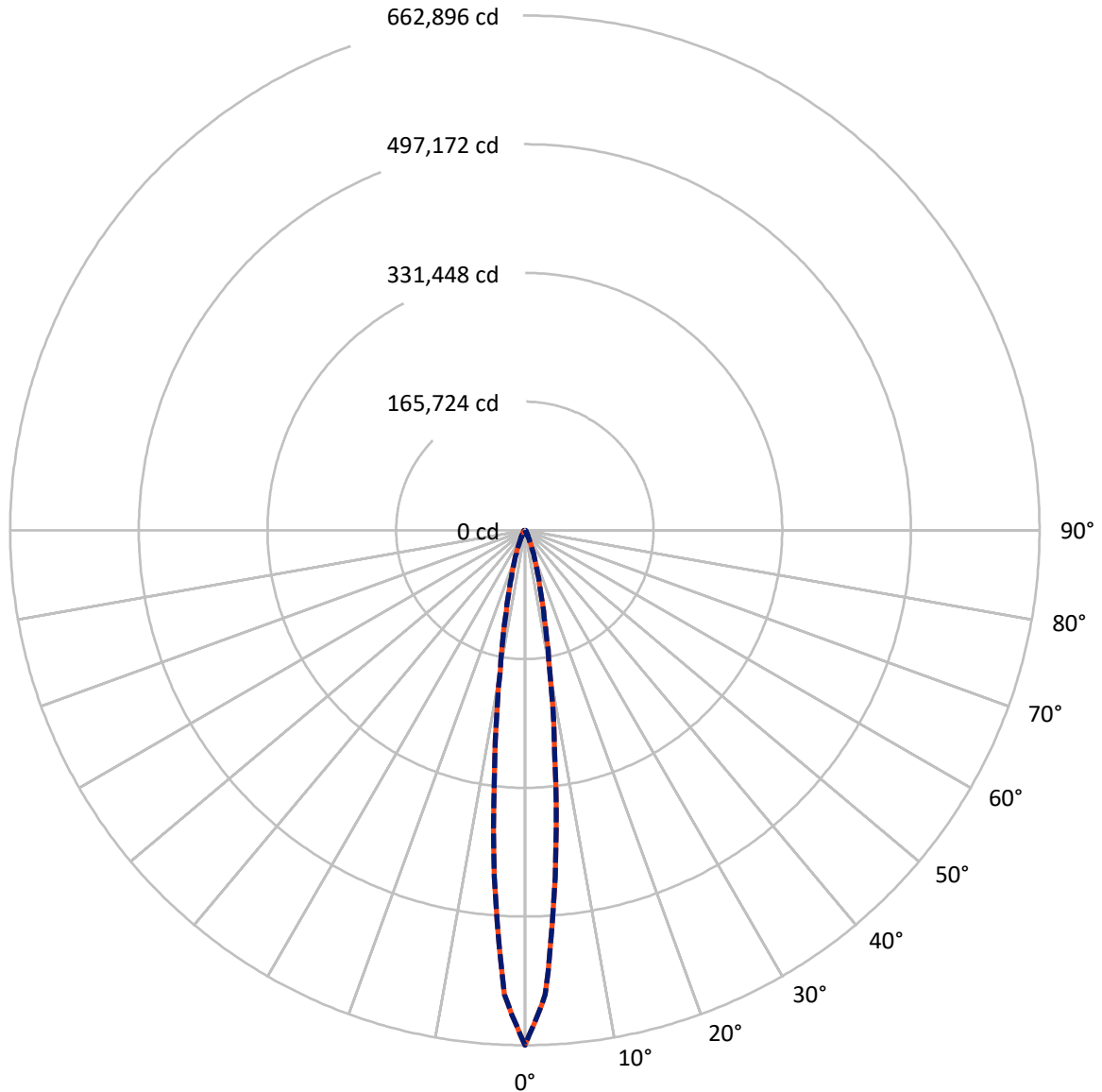
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Lumen Table

90	1.2	9.2	24.5	39.8	46.3	39.8	24.5	9.2	1.2							
80	1.2	9.2	24.5	39.8	46.3	39.8	24.5	9.2	1.2							
70	4.2	4.7	9.8	16.4	23.2	29.3	33.9	36.3	36.3	33.9	29.3	23.2	16.4	9.8	4.7	4.2
60		7.3	15.3	24.7	34.1	42.4	48.8	52.3	52.3	48.8	42.4	34.1	24.7	15.3	7.3	
50	7.6	9.9	20.1	31.6	43.8	56.2	68.0	75.4	75.4	68.0	56.2	43.8	31.6	20.1	9.9	7.6
40		12.1	23.9	37.8	55.4	79.4	108.5	133.3	133.3	108.5	79.4	55.4	37.8	23.9	12.1	
30	10.3	13.9	26.9	44.0	71.9	126.9	259.1	443.3	443.3	259.1	126.9	71.9	44.0	26.9	13.9	10.3
20		15.0	29.1	50.0	92.5	244.2	878.4	2181.2	2181.2	878.4	244.2	92.5	50.0	29.1	15.0	
10	11.2	15.6	30.3	53.8	110.4	406.9	2125.3	9331.8	9331.8	2125.3	406.9	110.4	53.8	30.3	15.6	11.2
0		15.6	30.3	53.8	110.4	406.9	2125.3	9331.8	9331.8	2125.3	406.9	110.4	53.8	30.3	15.6	
-10	10.3	15.0	29.1	50.0	92.5	244.2	878.4	2181.2	2181.2	878.4	244.2	92.5	50.0	29.1	15.0	10.3
-20		13.9	26.9	44.0	71.9	126.9	259.1	443.3	443.3	259.1	126.9	71.9	44.0	26.9	13.9	
-30	7.6	12.1	23.9	37.8	55.4	79.4	108.5	133.3	133.3	108.5	79.4	55.4	37.8	23.9	12.1	7.6
-40		9.9	20.1	31.6	43.8	56.2	68.0	75.4	75.4	68.0	56.2	43.8	31.6	20.1	9.9	
-50	4.2	7.3	15.3	24.7	34.1	42.4	48.8	52.3	52.3	48.8	42.4	34.1	24.7	15.3	7.3	4.2
-60		4.7	9.8	16.4	23.2	29.3	33.9	36.3	36.3	33.9	29.3	23.2	16.4	9.8	4.7	
-70	1.2	9.2	24.5	39.8	46.3	39.8	24.5	9.2	1.2							
-80		1.2	9.2	24.5	39.8	46.3	39.8	24.5	9.2	1.2						
-90	1.2	9.2	24.5	39.8	46.3	39.8	24.5	9.2	1.2							

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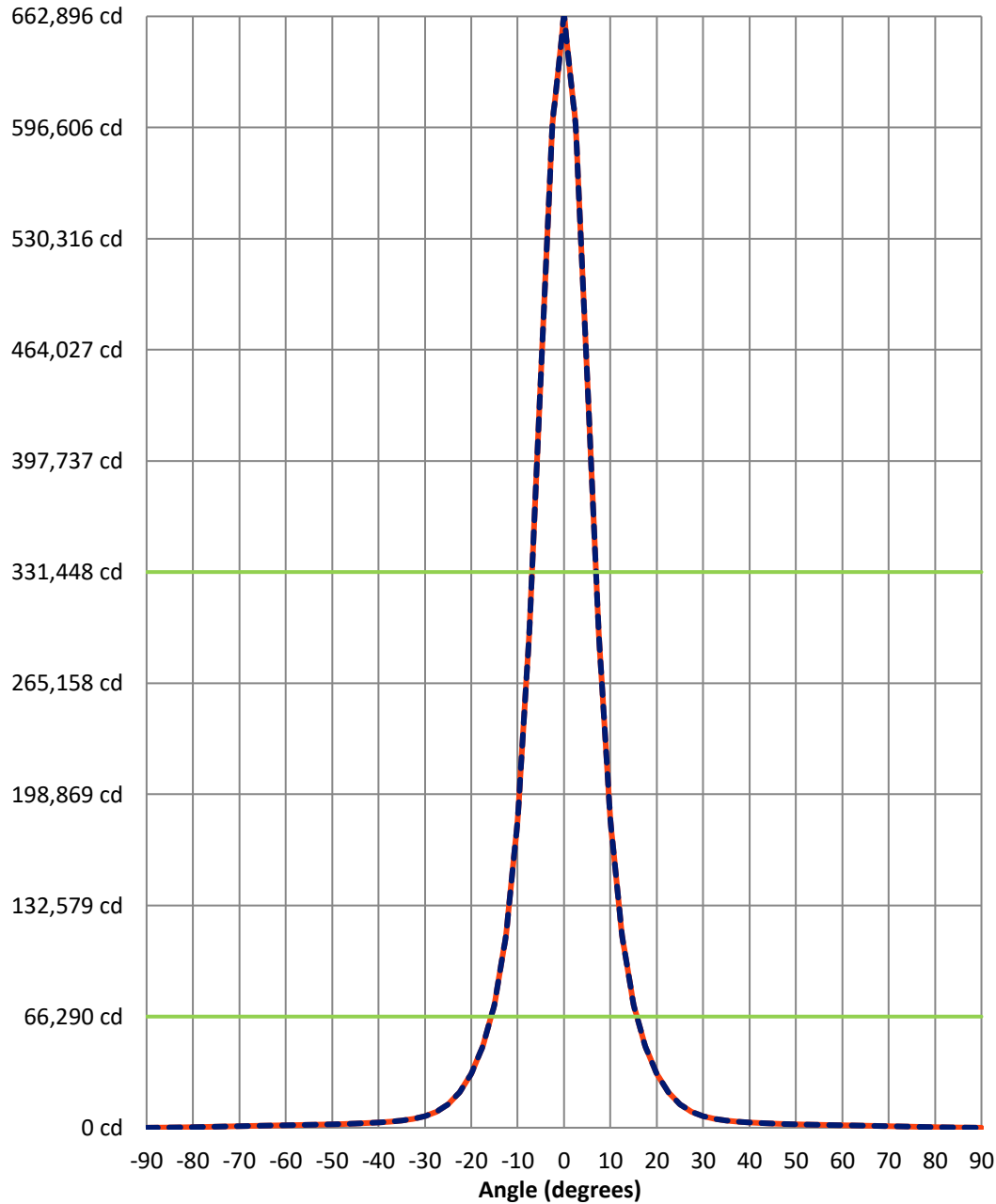
Luminous Intensity Polar Plot



— 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: 15578.1
Efficiency: 21.9%

Field:
H Angle: 31.4°
V Angle: 31.4°
Lumens: 36272.4
Efficiency: 50.9%

Spill:
Lumens: 34967.2
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°	59.3	59.3	59.3	59.3	59.3	59.3	59.3	59.3	59.3	51.9	51.9
85°	133.4	133.4	133.4	133.4	133.4	133.4	126.0	126.0	126.0	118.6	118.6
82.5°	222.3	222.3	222.3	222.3	214.9	214.9	214.9	207.5	207.5	200.1	200.1
80°	340.9	340.9	340.9	340.9	333.5	326.1	326.1	318.7	311.3	303.9	296.5
77.5°	466.9	466.9	466.9	459.5	459.5	452.1	444.7	437.3	429.9	415.0	407.6
75°	615.1	615.1	615.1	607.7	600.3	592.9	585.5	570.7	563.3	548.4	533.6
72.5°	770.8	770.8	770.8	763.4	756.0	741.1	733.7	718.9	704.1	681.8	667.0
70°	919.0	919.0	919.0	911.6	896.8	889.4	874.5	859.7	844.9	822.7	800.4
67.5°	1067.2	1067.2	1067.2	1052.4	1045.0	1037.6	1022.8	1000.5	985.7	963.5	933.8
65°	1208.0	1208.0	1200.6	1193.2	1185.8	1171.0	1156.2	1141.3	1119.1	1096.9	1067.2
62.5°	1348.9	1348.9	1341.4	1334.0	1326.6	1311.8	1289.6	1274.7	1245.1	1222.9	1193.2
60°	1467.4	1467.4	1460.0	1452.6	1445.2	1430.4	1415.6	1393.3	1371.1	1348.9	1319.2
57.5°	1593.4	1593.4	1586.0	1578.6	1563.8	1549.0	1534.1	1511.9	1482.3	1452.6	1430.4
55°	1734.2	1734.2	1726.8	1712.0	1697.2	1682.4	1660.1	1630.5	1600.8	1571.2	1534.1
52.5°	1867.6	1867.6	1860.2	1845.4	1830.6	1815.8	1786.1	1763.9	1726.8	1689.8	1645.3
50°	2030.7	2030.7	2015.9	2001.0	1986.2	1956.6	1926.9	1889.9	1852.8	1808.4	1771.3
47.5°	2216.0	2216.0	2201.2	2186.3	2156.7	2127.0	2082.6	2038.1	1993.6	1941.8	1882.5
45°	2475.4	2475.4	2453.1	2423.5	2386.4	2334.6	2275.3	2216.0	2149.3	2090.0	2023.3
42.5°	2794.1	2794.1	2764.4	2727.4	2675.5	2608.8	2527.3	2445.7	2356.8	2260.4	2171.5
40°	3127.6	3127.6	3090.5	3053.5	2994.2	2912.6	2823.7	2719.9	2608.8	2482.8	2371.6
37.5°	3587.1	3587.1	3535.2	3468.5	3379.5	3268.4	3135.0	3016.4	2890.4	2749.6	2601.4
35°	4268.9	4268.9	4187.4	4076.2	3935.4	3750.1	3550.0	3379.5	3186.9	3016.4	2853.3
32.5°	5276.8	5276.8	5136.0	4973.0	4735.8	4439.4	4150.3	3876.1	3587.1	3342.5	3105.3
30°	6862.9	6862.9	6625.7	6329.2	5929.0	5417.7	4987.8	4543.1	4120.7	3764.9	3438.8
27.5°	9501.3	9390.1	9064.0	8523.0	7781.9	6862.9	6203.3	5454.7	4861.8	4283.7	3861.3
25°	13948.1	13740.5	13125.4	12110.1	10739.0	9219.6	8019.0	6744.3	5840.1	5017.4	4357.8
22.5°	21174.1	20796.1	19669.6	17831.6	15348.8	12917.9	10701.9	8737.9	7122.3	5973.5	5017.4
20°	32172.4	31512.8	29571.1	26428.7	22189.4	18431.9	14481.7	11569.0	8982.5	7122.3	5840.1
17.5°	48699.6	47558.3	44215.8	38827.8	32172.4	26050.7	20032.7	15237.6	11569.0	8737.9	6744.3
15°	73423.7	71422.6	65582.5	56296.2	45631.3	35922.5	27377.3	20032.7	14481.7	10701.9	8019.0
12.5°	114934.3	110887.7	99192.7	80953.5	63952.0	47995.5	35922.5	26050.7	18431.9	12917.9	9219.6
10°	183518.4	175158.5	151449.7	115564.3	88268.5	63952.0	45631.3	32172.4	22189.4	15348.8	10739.0
7.5°	294687.8	276745.0	227719.3	167295.1	115564.3	80953.5	56296.2	38827.8	26428.7	17831.6	12110.1
5°	448020.0	411912.2	321272.1	227719.3	151449.7	99192.7	65582.5	44215.8	29571.1	19669.6	13125.4
2.5°	598350.6	536118.0	411912.2	276745.0	175158.5	110887.7	71422.6	47558.3	31512.8	20796.1	13740.5
0°	662895.6	598350.6	448020.0	294687.8	183518.4	114934.3	73423.7	48699.6	32172.4	21174.1	13948.1



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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°	51.9	51.9	51.9	51.9	44.5	44.5	44.5	44.5	37.1	37.1	37.1
85°	118.6	111.2	111.2	103.8	103.8	96.3	96.3	88.9	88.9	81.5	74.1
82.5°	192.7	185.3	177.9	170.5	170.5	163.0	155.6	140.8	133.4	126.0	118.6
80°	289.0	274.2	266.8	252.0	244.6	229.8	214.9	207.5	192.7	185.3	170.5
77.5°	392.8	378.0	370.6	348.3	333.5	318.7	303.9	281.6	266.8	244.6	222.3
75°	511.4	496.6	474.3	452.1	437.3	415.0	392.8	370.6	340.9	318.7	296.5
72.5°	644.8	622.5	600.3	570.7	541.0	518.8	481.7	452.1	429.9	400.2	370.6
70°	778.2	756.0	726.3	696.7	659.6	630.0	592.9	555.8	518.8	481.7	444.7
67.5°	911.6	881.9	852.3	815.2	778.2	741.1	704.1	659.6	615.1	570.7	526.2
65°	1037.6	1007.9	970.9	933.8	896.8	852.3	807.8	763.4	711.5	659.6	615.1
62.5°	1163.6	1126.5	1089.5	1052.4	1007.9	963.5	919.0	859.7	807.8	756.0	696.7
60°	1282.2	1245.1	1208.0	1163.6	1119.1	1067.2	1015.3	963.5	904.2	844.9	785.6
57.5°	1393.3	1356.3	1319.2	1267.3	1222.9	1171.0	1111.7	1059.8	993.1	933.8	867.1
55°	1497.1	1460.0	1415.6	1371.1	1326.6	1267.3	1208.0	1148.8	1082.0	1015.3	941.2
52.5°	1600.8	1556.4	1511.9	1467.4	1415.6	1363.7	1304.4	1237.7	1171.0	1096.9	1022.8
50°	1719.4	1667.5	1608.3	1556.4	1497.1	1445.2	1385.9	1319.2	1252.5	1171.0	1096.9
47.5°	1830.6	1778.7	1719.4	1652.7	1593.4	1526.7	1460.0	1400.7	1326.6	1252.5	1171.0
45°	1956.6	1882.5	1823.2	1756.5	1682.4	1608.3	1541.5	1467.4	1400.7	1319.2	1237.7
42.5°	2090.0	2008.5	1926.9	1845.4	1778.7	1697.2	1615.7	1541.5	1460.0	1385.9	1304.4
40°	2245.6	2149.3	2045.5	1956.6	1867.6	1786.1	1697.2	1608.3	1526.7	1445.2	1363.7
37.5°	2445.7	2312.3	2178.9	2067.8	1964.0	1867.6	1778.7	1682.4	1593.4	1497.1	1415.6
35°	2682.9	2497.6	2342.0	2186.3	2067.8	1956.6	1845.4	1756.5	1652.7	1556.4	1467.4
32.5°	2920.0	2719.9	2519.8	2342.0	2178.9	2045.5	1926.9	1823.2	1719.4	1608.3	1511.9
30°	3164.6	2942.3	2719.9	2497.6	2312.3	2149.3	2008.5	1882.5	1778.7	1667.5	1556.4
27.5°	3475.9	3164.6	2920.0	2682.9	2445.7	2245.6	2090.0	1956.6	1830.6	1719.4	1600.8
25°	3861.3	3438.8	3105.3	2853.3	2601.4	2371.6	2171.5	2023.3	1882.5	1771.3	1645.3
22.5°	4283.7	3764.9	3342.5	3016.4	2749.6	2482.8	2260.4	2090.0	1941.8	1808.4	1689.8
20°	4861.8	4120.7	3587.1	3186.9	2890.4	2608.8	2356.8	2149.3	1993.6	1852.8	1726.8
17.5°	5454.7	4543.1	3876.1	3379.5	3016.4	2719.9	2445.7	2216.0	2038.1	1889.9	1763.9
15°	6203.3	4987.8	4150.3	3550.0	3135.0	2823.7	2527.3	2275.3	2082.6	1926.9	1786.1
12.5°	6862.9	5417.7	4439.4	3750.1	3268.4	2912.6	2608.8	2334.6	2127.0	1956.6	1815.8
10°	7781.9	5929.0	4735.8	3935.4	3379.5	2994.2	2675.5	2386.4	2156.7	1986.2	1830.6
7.5°	8523.0	6329.2	4973.0	4076.2	3468.5	3053.5	2727.4	2423.5	2186.3	2001.0	1845.4
5°	9064.0	6625.7	5136.0	4187.4	3535.2	3090.5	2764.4	2453.1	2201.2	2015.9	1860.2
2.5°	9390.1	6862.9	5276.8	4268.9	3587.1	3127.6	2794.1	2475.4	2216.0	2030.7	1867.6
0°	9501.3	6862.9	5276.8	4268.9	3587.1	3127.6	2794.1	2475.4	2216.0	2030.7	1867.6



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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°	37.1	29.6	29.6	29.6	22.2	22.2	22.2	14.8	14.8	14.8	7.4
85°	66.7	66.7	59.3	51.9	51.9	44.5	37.1	37.1	29.6	22.2	22.2
82.5°	111.2	103.8	96.3	88.9	81.5	66.7	59.3	51.9	44.5	37.1	29.6
80°	155.6	148.2	133.4	118.6	111.2	96.3	88.9	74.1	59.3	51.9	44.5
77.5°	207.5	192.7	177.9	163.0	140.8	126.0	111.2	96.3	81.5	66.7	51.9
75°	274.2	244.6	222.3	200.1	177.9	155.6	133.4	118.6	96.3	81.5	59.3
72.5°	340.9	311.3	274.2	244.6	214.9	192.7	163.0	140.8	118.6	96.3	74.1
70°	407.6	370.6	333.5	296.5	259.4	222.3	192.7	163.0	133.4	111.2	88.9
67.5°	474.3	437.3	392.8	348.3	311.3	266.8	222.3	192.7	155.6	126.0	96.3
65°	555.8	504.0	452.1	407.6	355.7	311.3	259.4	214.9	177.9	140.8	111.2
62.5°	637.4	578.1	518.8	459.5	407.6	348.3	296.5	244.6	200.1	163.0	118.6
60°	718.9	652.2	585.5	518.8	452.1	392.8	333.5	274.2	222.3	177.9	133.4
57.5°	800.4	726.3	652.2	578.1	504.0	437.3	370.6	311.3	244.6	192.7	148.2
55°	874.5	800.4	718.9	637.4	555.8	474.3	407.6	340.9	274.2	207.5	155.6
52.5°	941.2	867.1	785.6	696.7	615.1	526.2	444.7	370.6	296.5	222.3	170.5
50°	1015.3	933.8	844.9	756.0	659.6	570.7	481.7	400.2	318.7	244.6	185.3
47.5°	1082.0	993.1	904.2	807.8	711.5	615.1	518.8	429.9	340.9	266.8	192.7
45°	1148.8	1059.8	963.5	859.7	763.4	659.6	555.8	452.1	370.6	281.6	207.5
42.5°	1208.0	1111.7	1015.3	919.0	807.8	704.1	592.9	481.7	392.8	303.9	214.9
40°	1267.3	1171.0	1067.2	963.5	852.3	741.1	630.0	518.8	415.0	318.7	229.8
37.5°	1326.6	1222.9	1119.1	1007.9	896.8	778.2	659.6	541.0	437.3	333.5	244.6
35°	1371.1	1267.3	1163.6	1052.4	933.8	815.2	696.7	570.7	452.1	348.3	252.0
32.5°	1415.6	1319.2	1208.0	1089.5	970.9	852.3	726.3	600.3	474.3	370.6	266.8
30°	1460.0	1356.3	1245.1	1126.5	1007.9	881.9	756.0	622.5	496.6	378.0	274.2
27.5°	1497.1	1393.3	1282.2	1163.6	1037.6	911.6	778.2	644.8	511.4	392.8	289.0
25°	1534.1	1430.4	1319.2	1193.2	1067.2	933.8	800.4	667.0	533.6	407.6	296.5
22.5°	1571.2	1452.6	1348.9	1222.9	1096.9	963.5	822.7	681.8	548.4	415.0	303.9
20°	1600.8	1482.3	1371.1	1245.1	1119.1	985.7	844.9	704.1	563.3	429.9	311.3
17.5°	1630.5	1511.9	1393.3	1274.7	1141.3	1000.5	859.7	718.9	570.7	437.3	318.7
15°	1660.1	1534.1	1415.6	1289.6	1156.2	1022.8	874.5	733.7	585.5	444.7	326.1
12.5°	1682.4	1549.0	1430.4	1311.8	1171.0	1037.6	889.4	741.1	592.9	452.1	326.1
10°	1697.2	1563.8	1445.2	1326.6	1185.8	1045.0	896.8	756.0	600.3	459.5	333.5
7.5°	1712.0	1578.6	1452.6	1334.0	1193.2	1052.4	911.6	763.4	607.7	459.5	340.9
5°	1726.8	1586.0	1460.0	1341.4	1200.6	1067.2	919.0	770.8	615.1	466.9	340.9
2.5°	1734.2	1593.4	1467.4	1348.9	1208.0	1067.2	919.0	770.8	615.1	466.9	340.9
0°	1734.2	1593.4	1467.4	1348.9	1208.0	1067.2	919.0	770.8	615.1	466.9	340.9



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CANDELA DISTRIBUTION (continued):

	82.5°	85°	87.5°	90°
90°	0.0	0.0	0.0	0.0
87.5°	7.4	7.4	0.0	0.0
85°	14.8	7.4	7.4	0.0
82.5°	22.2	14.8	7.4	0.0
80°	29.6	22.2	7.4	0.0
77.5°	37.1	22.2	14.8	0.0
75°	44.5	29.6	14.8	0.0
72.5°	51.9	37.1	14.8	0.0
70°	59.3	37.1	22.2	0.0
67.5°	66.7	44.5	22.2	0.0
65°	81.5	51.9	22.2	0.0
62.5°	88.9	51.9	29.6	0.0
60°	96.3	59.3	29.6	0.0
57.5°	103.8	66.7	29.6	0.0
55°	111.2	66.7	37.1	0.0
52.5°	118.6	74.1	37.1	0.0
50°	126.0	81.5	37.1	0.0
47.5°	133.4	88.9	37.1	0.0
45°	140.8	88.9	44.5	0.0
42.5°	155.6	96.3	44.5	0.0
40°	163.0	96.3	44.5	0.0
37.5°	170.5	103.8	44.5	0.0
35°	170.5	103.8	51.9	0.0
32.5°	177.9	111.2	51.9	0.0
30°	185.3	111.2	51.9	0.0
27.5°	192.7	118.6	51.9	0.0
25°	200.1	118.6	51.9	0.0
22.5°	200.1	118.6	51.9	0.0
20°	207.5	126.0	59.3	0.0
17.5°	207.5	126.0	59.3	0.0
15°	214.9	126.0	59.3	0.0
12.5°	214.9	133.4	59.3	0.0
10°	214.9	133.4	59.3	0.0
7.5°	222.3	133.4	59.3	0.0
5°	222.3	133.4	59.3	0.0
2.5°	222.3	133.4	59.3	0.0
0°	222.3	133.4	59.3	0.0

(END OF REPORT)