

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: P624077

Luminaire Tested: **EPH-VN-08-E-730-U-44**

Issue Date: 11/2/2022

Test Information

Test Method: LM-79-2019
Report Number: P624077
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-730-U-44
Description: EPHESUS LUMAVISION FLOOD – Middle Tier Light Square Luminaire w/
Nema 4 distribution lens
Light Source: (128) 3000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp:	N/A	NEMA Type:	4H x 4V
Luminaire Lumens:	64734.7 lumens	Max Intensity:	209322.8 candela
Efficiency:	N/A	Max Intensity Angle:	0°H x 0°V
Efficacy:	103.3 lumens/watt		
Luminous Opening:	Rectangular (W 2' x L: 1' x H: 0')		

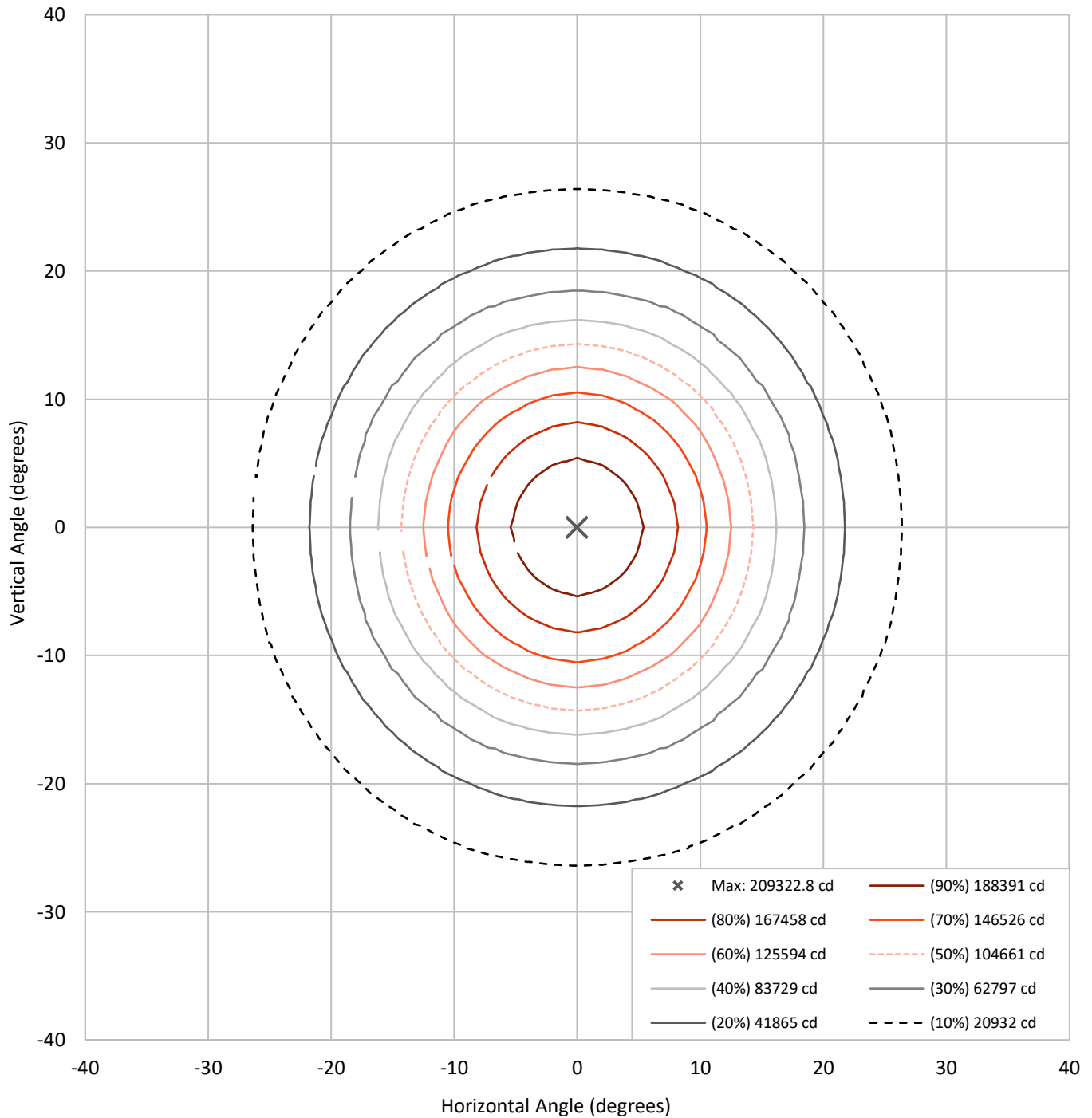
Beam Angle (50%):	28.6°H x 28.6°V	Field Angle (10%):	52.7°H x 52.7°V
Beam Lumens:	23357.5 lumens	Field Lumens:	39442.3 lumens
Beam Efficiency:	36.1%	Field Efficiency:	60.9%

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





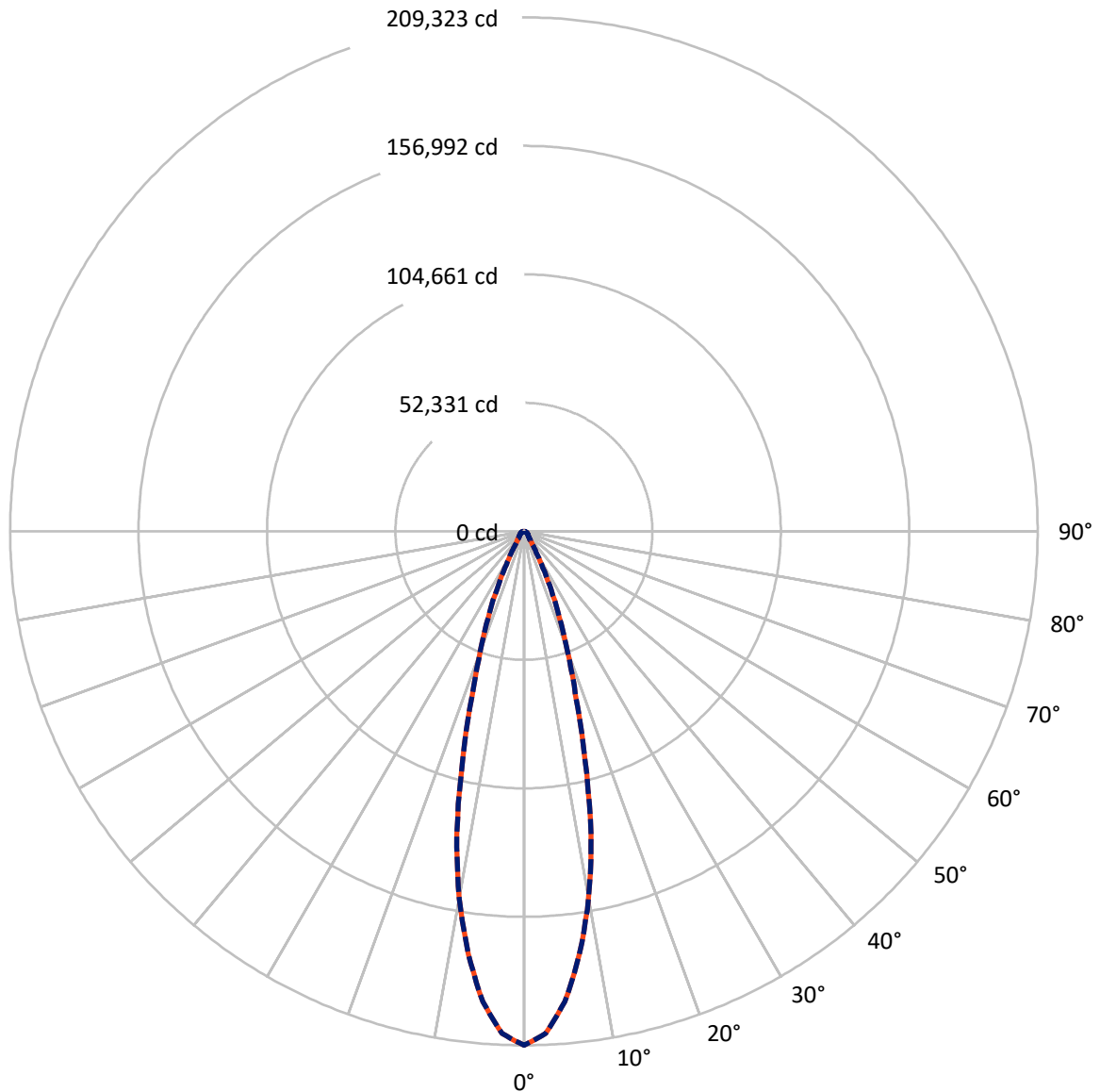
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Lumen Table

90	1.5	11.0				27.9				44.5				51.4				44.5				27.9				11.0				1.5
80	1.5	11.0				27.9				44.5				51.4				44.5				27.9				11.0				1.5
70	5.0	5.3	10.8	17.7	24.9	31.3	36.1	38.7	38.7	36.1	31.3	24.9	17.7	10.8	5.3	5.0														
60		8.0	16.4	26.3	36.3	45.1	51.8	55.4	55.4	51.8	45.1	36.3	26.3	16.4	8.0															
50	8.6	10.7	21.4	33.8	46.3	58.9	70.2	77.4	77.4	70.2	58.9	46.3	33.8	21.4	10.7	8.6														
40		13.0	25.6	40.0	57.5	81.9	119.5	159.1	159.1	119.5	81.9	57.5	40.0	25.6	13.0															
30	11.3	14.8	28.7	46.0	74.2	155.3	425.9	771.4	771.4	425.9	155.3	74.2	46.0	28.7	14.8	11.3														
20		16.0	30.9	51.6	102.0	402.0	1382.6	2667.0	2667.0	1382.6	402.0	102.0	51.6	30.9	16.0															
10	12.3	16.6	32.1	55.2	132.2	708.2	2594.7	5115.4	5115.4	2594.7	708.2	132.2	55.2	32.1	16.6	12.3														
0		16.6	32.1	55.2	132.2	708.2	2594.7	5115.4	5115.4	2594.7	708.2	132.2	55.2	32.1	16.6															
-10	11.3	16.0	30.9	51.6	102.0	402.0	1382.6	2667.0	2667.0	1382.6	402.0	102.0	51.6	30.9	16.0	11.3														
-20		14.8	28.7	46.0	74.2	155.3	425.9	771.4	771.4	425.9	155.3	74.2	46.0	28.7	14.8															
-30	8.6	13.0	25.6	40.0	57.5	81.9	119.5	159.1	159.1	119.5	81.9	57.5	40.0	25.6	13.0	8.6														
-40		10.7	21.4	33.8	46.3	58.9	70.2	77.4	77.4	70.2	58.9	46.3	33.8	21.4	10.7															
-50	5.0	8.0	16.4	26.3	36.3	45.1	51.8	55.4	55.4	51.8	45.1	36.3	26.3	16.4	8.0	5.0														
-60		5.3	10.8	17.7	24.9	31.3	36.1	38.7	38.7	36.1	31.3	24.9	17.7	10.8	5.3															
-70	1.5	11.0				27.9				44.5				51.4				44.5				27.9				11.0				1.5
-80	1.5	11.0				27.9				44.5				51.4				44.5				27.9				11.0				1.5
-90	1.5	11.0				27.9				44.5				51.4				44.5				27.9				11.0				1.5

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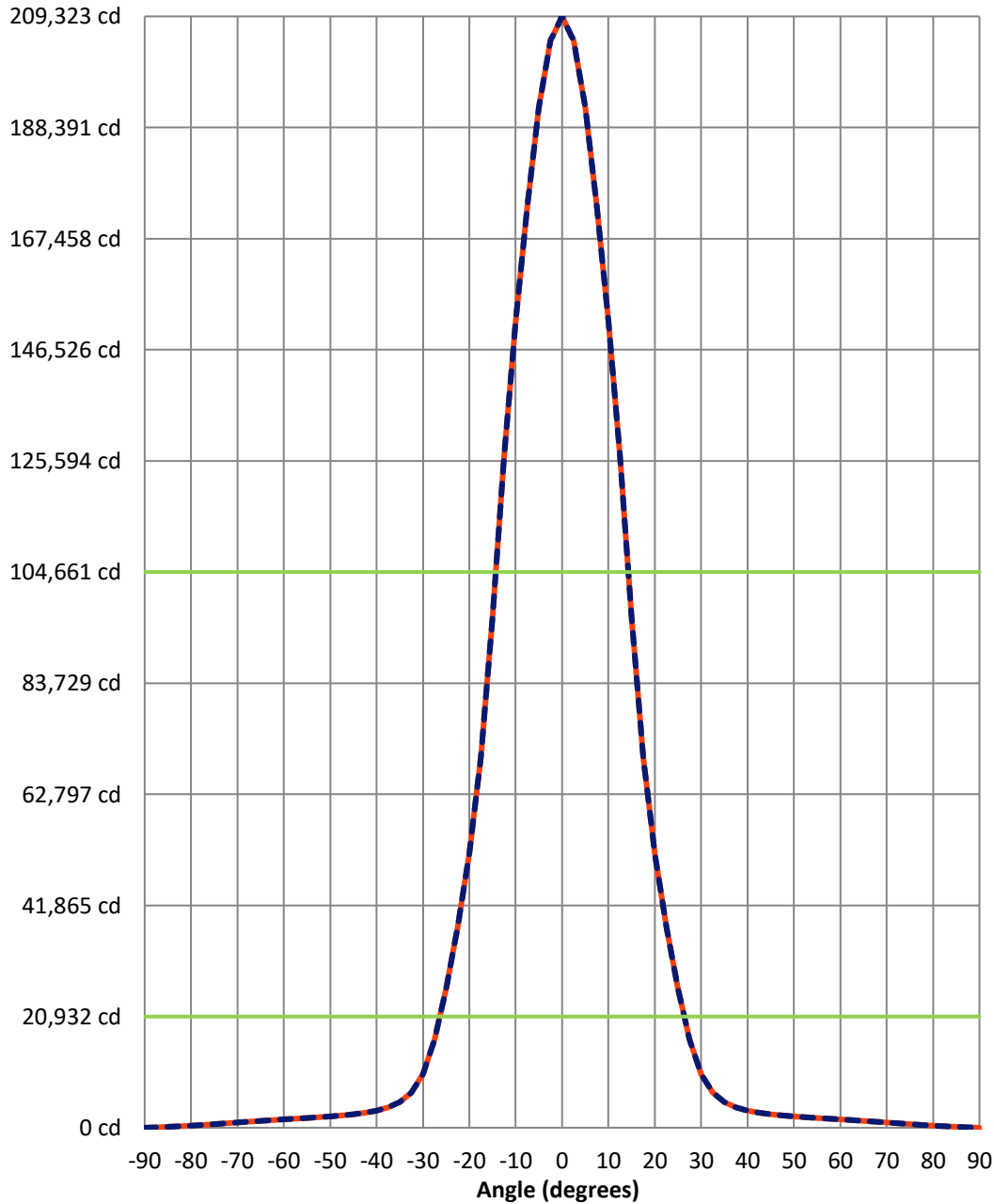
Luminous Intensity Polar Plot



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

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Luminous Intensity Plot



Beam:
 H Angle: 28.6°
 V Angle: 28.6°
 Lumens: 23357.5
 Efficiency: 36.1%

Field:
 H Angle: 52.7°
 V Angle: 52.7°
 Lumens: 39442.3
 Efficiency: 60.9%

Spill:
 Lumens: 25292.4
 Efficiency: 39.1%

— 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°	74.2	74.2	74.2	74.2	74.2	74.2	74.2	67.5	67.5	67.5	67.5
85°	168.7	168.7	168.7	168.7	168.7	162.0	162.0	162.0	155.2	155.2	148.5
82.5°	270.0	270.0	270.0	270.0	263.2	263.2	256.5	256.5	249.7	249.7	243.0
80°	384.7	384.7	384.7	384.7	378.0	371.2	371.2	364.5	357.7	351.0	344.2
77.5°	519.7	519.7	519.7	512.9	506.2	506.2	499.4	485.9	479.2	465.7	459.0
75°	668.2	668.2	668.2	661.4	654.7	647.9	634.4	627.7	614.2	600.7	580.4
72.5°	830.2	830.2	830.2	823.4	809.9	803.2	789.7	776.2	762.7	742.4	722.2
70°	985.4	985.4	985.4	971.9	965.1	951.7	938.2	924.7	904.4	884.2	863.9
67.5°	1140.6	1140.6	1140.6	1127.1	1120.4	1106.9	1093.4	1073.1	1052.9	1025.9	1005.6
65°	1282.4	1282.4	1275.6	1268.9	1262.1	1248.6	1228.4	1214.9	1194.6	1167.6	1140.6
62.5°	1430.9	1430.9	1424.1	1417.4	1403.9	1390.4	1370.1	1349.9	1322.9	1295.9	1268.9
60°	1579.3	1579.3	1572.6	1565.8	1552.3	1532.1	1511.8	1491.6	1464.6	1430.9	1397.1
57.5°	1700.8	1700.8	1694.1	1687.3	1673.8	1660.3	1640.1	1619.8	1592.8	1565.8	1525.3
55°	1829.1	1829.1	1822.3	1808.8	1795.3	1781.8	1761.6	1734.6	1707.6	1673.8	1646.8
52.5°	1977.5	1977.5	1970.8	1957.3	1937.0	1916.8	1889.8	1856.1	1822.3	1788.6	1748.1
50°	2126.0	2126.0	2112.5	2099.0	2085.5	2058.5	2031.5	1997.8	1957.3	1916.8	1869.6
47.5°	2308.3	2308.3	2294.8	2274.5	2247.5	2220.5	2180.0	2132.8	2092.3	2045.0	1991.0
45°	2531.0	2531.0	2510.7	2490.5	2456.7	2409.5	2362.3	2308.3	2247.5	2186.8	2119.3
42.5°	2821.2	2821.2	2794.2	2760.5	2713.2	2652.5	2578.2	2504.0	2429.7	2348.8	2267.8
40°	3212.7	3212.7	3172.2	3124.9	3050.7	2962.9	2855.0	2753.7	2652.5	2537.7	2436.5
37.5°	3826.9	3826.9	3759.4	3671.6	3550.1	3401.6	3219.4	3084.4	2929.2	2780.7	2645.7
35°	4832.5	4832.5	4711.0	4555.8	4339.8	4069.8	3779.6	3550.1	3293.7	3084.4	2888.7
32.5°	6621.1	6621.1	6378.1	6074.4	5662.7	5136.2	4650.3	4245.3	3826.9	3502.9	3192.4
30°	10083.5	10083.5	9563.8	8922.6	8038.4	6931.5	6101.4	5325.2	4616.5	4083.3	3631.1
27.5°	16583.0	16313.1	15503.1	14173.5	12351.2	10083.5	8639.1	6999.0	5878.6	4859.5	4231.8
25°	26180.5	25735.1	24398.7	22218.7	19249.0	15881.1	12931.7	9820.2	7856.2	6162.1	4994.5
22.5°	37843.3	37229.1	35413.6	32450.6	28434.8	23953.3	19181.5	14706.7	10724.6	8146.4	6162.1
20°	51652.4	50829.0	48392.5	44437.4	39118.9	33415.8	27044.4	21051.1	15307.4	10724.6	7856.2
17.5°	69882.3	68626.9	64935.0	58995.6	51652.4	43964.9	36000.8	28266.1	21051.1	14706.7	9820.2
15°	96089.8	93970.5	87774.6	77934.2	66500.9	55783.0	45625.3	36000.8	27044.4	19181.5	12931.7
12.5°	126387.4	123438.0	114900.1	101583.7	86046.8	69099.3	55783.0	43964.9	33415.8	23953.3	15881.1
10°	151913.2	148801.8	139980.5	126623.6	106922.4	86046.8	66500.9	51652.4	39118.9	28434.8	19249.0
7.5°	173477.3	169994.6	160484.9	145872.6	126623.6	101583.7	77934.2	58995.6	44437.4	32450.6	22218.7
5°	192206.6	187792.5	176723.7	160484.9	139980.5	114900.1	87774.6	64935.0	48392.5	35413.6	24398.7
2.5°	204719.8	199536.3	187792.5	169994.6	148801.8	123438.0	93970.5	68626.9	50829.0	37229.1	25735.1
0°	209322.8	204719.8	192206.6	173477.3	151913.2	126387.4	96089.8	69882.3	51652.4	37843.3	26180.5



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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°	67.5	67.5	60.7	60.7	60.7	54.0	54.0	54.0	47.2	47.2	47.2
85°	148.5	141.7	141.7	135.0	128.2	121.5	121.5	114.7	108.0	101.2	94.5
82.5°	236.2	229.5	222.7	216.0	209.2	195.7	189.0	182.2	168.7	162.0	155.2
80°	330.7	324.0	310.5	303.7	290.2	276.7	263.2	249.7	236.2	222.7	209.2
77.5°	445.5	425.2	411.7	398.2	378.0	364.5	344.2	330.7	310.5	290.2	270.0
75°	566.9	546.7	526.4	506.2	485.9	459.0	438.7	411.7	391.5	364.5	344.2
72.5°	701.9	674.9	647.9	620.9	593.9	566.9	539.9	506.2	479.2	445.5	411.7
70°	836.9	809.9	782.9	749.2	715.4	681.7	647.9	607.4	573.7	533.2	492.7
67.5°	978.6	944.9	911.2	877.4	843.7	803.2	755.9	715.4	668.2	620.9	580.4
65°	1113.6	1079.9	1039.4	998.9	958.4	917.9	870.7	823.4	769.4	715.4	668.2
62.5°	1235.1	1201.4	1167.6	1120.4	1079.9	1032.6	985.4	924.7	870.7	816.7	755.9
60°	1363.4	1322.9	1282.4	1235.1	1187.9	1140.6	1086.6	1025.9	971.9	904.4	843.7
57.5°	1484.8	1444.4	1397.1	1349.9	1295.9	1241.9	1187.9	1127.1	1066.4	998.9	931.4
55°	1606.3	1565.8	1518.6	1464.6	1403.9	1343.1	1282.4	1221.6	1160.9	1086.6	1012.4
52.5°	1707.6	1667.1	1619.8	1579.3	1511.8	1451.1	1383.6	1309.4	1241.9	1167.6	1093.4
50°	1815.6	1768.3	1714.3	1667.1	1613.1	1552.3	1478.1	1403.9	1322.9	1248.6	1167.6
47.5°	1937.0	1876.3	1815.6	1754.8	1700.8	1633.3	1572.6	1491.6	1410.6	1322.9	1241.9
45°	2058.5	1991.0	1923.6	1849.3	1781.8	1714.3	1646.8	1579.3	1491.6	1403.9	1309.4
42.5°	2186.8	2105.8	2031.5	1957.3	1876.3	1795.3	1721.1	1646.8	1572.6	1478.1	1383.6
40°	2335.3	2240.8	2146.3	2058.5	1977.5	1883.1	1795.3	1714.3	1633.3	1552.3	1451.1
37.5°	2504.0	2389.3	2274.5	2166.5	2065.3	1977.5	1876.3	1781.8	1700.8	1613.1	1511.8
35°	2720.0	2551.2	2416.2	2281.3	2166.5	2058.5	1957.3	1849.3	1754.8	1667.1	1579.3
32.5°	2962.9	2753.7	2571.5	2416.2	2274.5	2146.3	2031.5	1923.6	1815.6	1714.3	1619.8
30°	3259.9	2989.9	2753.7	2551.2	2389.3	2240.8	2105.8	1991.0	1876.3	1768.3	1667.1
27.5°	3678.4	3259.9	2962.9	2720.0	2504.0	2335.3	2186.8	2058.5	1937.0	1815.6	1707.6
25°	4231.8	3631.1	3192.4	2888.7	2645.7	2436.5	2267.8	2119.3	1991.0	1869.6	1748.1
22.5°	4859.5	4083.3	3502.9	3084.4	2780.7	2537.7	2348.8	2186.8	2045.0	1916.8	1788.6
20°	5878.6	4616.5	3826.9	3293.7	2929.2	2652.5	2429.7	2247.5	2092.3	1957.3	1822.3
17.5°	6999.0	5325.2	4245.3	3550.1	3084.4	2753.7	2504.0	2308.3	2132.8	1997.8	1856.1
15°	8639.1	6101.4	4650.3	3779.6	3219.4	2855.0	2578.2	2362.3	2180.0	2031.5	1889.8
12.5°	10083.5	6931.5	5136.2	4069.8	3401.6	2962.9	2652.5	2409.5	2220.5	2058.5	1916.8
10°	12351.2	8038.4	5662.7	4339.8	3550.1	3050.7	2713.2	2456.7	2247.5	2085.5	1937.0
7.5°	14173.5	8922.6	6074.4	4555.8	3671.6	3124.9	2760.5	2490.5	2274.5	2099.0	1957.3
5°	15503.1	9563.8	6378.1	4711.0	3759.4	3172.2	2794.2	2510.7	2294.8	2112.5	1970.8
2.5°	16313.1	10083.5	6621.1	4832.5	3826.9	3212.7	2821.2	2531.0	2308.3	2126.0	1977.5
0°	16583.0	10083.5	6621.1	4832.5	3826.9	3212.7	2821.2	2531.0	2308.3	2126.0	1977.5



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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°	40.5	40.5	33.7	33.7	33.7	27.0	27.0	20.2	20.2	13.5	13.5
85°	87.7	81.0	74.2	67.5	60.7	54.0	54.0	47.2	40.5	33.7	27.0
82.5°	141.7	135.0	121.5	108.0	101.2	87.7	74.2	67.5	60.7	47.2	40.5
80°	195.7	182.2	168.7	155.2	141.7	121.5	108.0	94.5	74.2	60.7	54.0
77.5°	256.5	236.2	216.0	195.7	175.5	162.0	141.7	121.5	101.2	81.0	60.7
75°	317.2	290.2	270.0	243.0	222.7	195.7	168.7	148.5	128.2	101.2	74.2
72.5°	384.7	351.0	324.0	290.2	263.2	236.2	202.5	175.5	148.5	121.5	94.5
70°	459.0	418.5	378.0	344.2	310.5	270.0	236.2	202.5	168.7	141.7	108.0
67.5°	533.2	485.9	438.7	391.5	351.0	310.5	270.0	236.2	195.7	162.0	121.5
65°	607.4	553.4	506.2	452.2	398.2	351.0	310.5	263.2	222.7	175.5	141.7
62.5°	688.4	627.7	566.9	506.2	452.2	391.5	344.2	290.2	243.0	195.7	155.2
60°	776.2	708.7	634.4	566.9	506.2	438.7	378.0	324.0	270.0	216.0	168.7
57.5°	857.2	782.9	708.7	627.7	553.4	485.9	418.5	351.0	290.2	236.2	182.2
55°	938.2	857.2	776.2	688.4	607.4	533.2	459.0	384.7	317.2	256.5	195.7
52.5°	1012.4	931.4	843.7	755.9	668.2	580.4	492.7	411.7	344.2	270.0	209.2
50°	1086.6	998.9	904.4	816.7	715.4	620.9	533.2	445.5	364.5	290.2	222.7
47.5°	1160.9	1066.4	971.9	870.7	769.4	668.2	573.7	479.2	391.5	310.5	236.2
45°	1221.6	1127.1	1025.9	924.7	823.4	715.4	607.4	506.2	411.7	330.7	249.7
42.5°	1282.4	1187.9	1086.6	985.4	870.7	755.9	647.9	539.9	438.7	344.2	263.2
40°	1343.1	1241.9	1140.6	1032.6	917.9	803.2	681.7	566.9	459.0	364.5	276.7
37.5°	1403.9	1295.9	1187.9	1079.9	958.4	843.7	715.4	593.9	485.9	378.0	290.2
35°	1464.6	1349.9	1235.1	1120.4	998.9	877.4	749.2	620.9	506.2	398.2	303.7
32.5°	1518.6	1397.1	1282.4	1167.6	1039.4	911.2	782.9	647.9	526.4	411.7	310.5
30°	1565.8	1444.4	1322.9	1201.4	1079.9	944.9	809.9	674.9	546.7	425.2	324.0
27.5°	1606.3	1484.8	1363.4	1235.1	1113.6	978.6	836.9	701.9	566.9	445.5	330.7
25°	1646.8	1525.3	1397.1	1268.9	1140.6	1005.6	863.9	722.2	580.4	459.0	344.2
22.5°	1673.8	1565.8	1430.9	1295.9	1167.6	1025.9	884.2	742.4	600.7	465.7	351.0
20°	1707.6	1592.8	1464.6	1322.9	1194.6	1052.9	904.4	762.7	614.2	479.2	357.7
17.5°	1734.6	1619.8	1491.6	1349.9	1214.9	1073.1	924.7	776.2	627.7	485.9	364.5
15°	1761.6	1640.1	1511.8	1370.1	1228.4	1093.4	938.2	789.7	634.4	499.4	371.2
12.5°	1781.8	1660.3	1532.1	1390.4	1248.6	1106.9	951.7	803.2	647.9	506.2	371.2
10°	1795.3	1673.8	1552.3	1403.9	1262.1	1120.4	965.1	809.9	654.7	506.2	378.0
7.5°	1808.8	1687.3	1565.8	1417.4	1268.9	1127.1	971.9	823.4	661.4	512.9	384.7
5°	1822.3	1694.1	1572.6	1424.1	1275.6	1140.6	985.4	830.2	668.2	519.7	384.7
2.5°	1829.1	1700.8	1579.3	1430.9	1282.4	1140.6	985.4	830.2	668.2	519.7	384.7
0°	1829.1	1700.8	1579.3	1430.9	1282.4	1140.6	985.4	830.2	668.2	519.7	384.7



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CANDELA DISTRIBUTION (continued):

	82.5°	85°	87.5°	90°
90°	0.0	0.0	0.0	0.0
87.5°	6.7	6.7	0.0	0.0
85°	20.2	13.5	6.7	0.0
82.5°	27.0	20.2	6.7	0.0
80°	40.5	27.0	13.5	0.0
77.5°	47.2	33.7	13.5	0.0
75°	60.7	40.5	20.2	0.0
72.5°	67.5	47.2	20.2	0.0
70°	74.2	54.0	27.0	0.0
67.5°	87.7	54.0	27.0	0.0
65°	101.2	60.7	33.7	0.0
62.5°	108.0	67.5	33.7	0.0
60°	121.5	74.2	33.7	0.0
57.5°	135.0	81.0	40.5	0.0
55°	141.7	87.7	40.5	0.0
52.5°	155.2	94.5	47.2	0.0
50°	162.0	101.2	47.2	0.0
47.5°	168.7	108.0	47.2	0.0
45°	182.2	114.7	54.0	0.0
42.5°	189.0	121.5	54.0	0.0
40°	195.7	121.5	54.0	0.0
37.5°	209.2	128.2	60.7	0.0
35°	216.0	135.0	60.7	0.0
32.5°	222.7	141.7	60.7	0.0
30°	229.5	141.7	67.5	0.0
27.5°	236.2	148.5	67.5	0.0
25°	243.0	148.5	67.5	0.0
22.5°	249.7	155.2	67.5	0.0
20°	249.7	155.2	67.5	0.0
17.5°	256.5	162.0	67.5	0.0
15°	256.5	162.0	74.2	0.0
12.5°	263.2	162.0	74.2	0.0
10°	263.2	168.7	74.2	0.0
7.5°	270.0	168.7	74.2	0.0
5°	270.0	168.7	74.2	0.0
2.5°	270.0	168.7	74.2	0.0
0°	270.0	168.7	74.2	0.0

(END OF REPORT)