

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: P624081

Luminaire Tested: **EPH-VN-07-E-735-U-44**

Issue Date: 11/2/2022

Test Information

Test Method: LM-79-2019
Report Number: P624081
Test Lab: INNOVATION CENTER(G2)
Issue Date: 11/2/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: EPHESUS
Catalog Number: EPH-VN-07-E-735-U-44
Description: EPHESUS LUMAVISION FLOOD – Middle Tier Light Square Luminaire w/
Nema 4 distribution lens
Light Source: (112) 3500K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp:	N/A	NEMA Type:	4H x 4V
Luminaire Lumens:	57812.4 lumens	Max Intensity:	186939.2 candela
Efficiency:	N/A	Max Intensity Angle:	0°H x 0°V
Efficacy:	108.5 lumens/watt		
Luminous Opening:	Rectangular (W 2' x L: 1' x H: 0')		

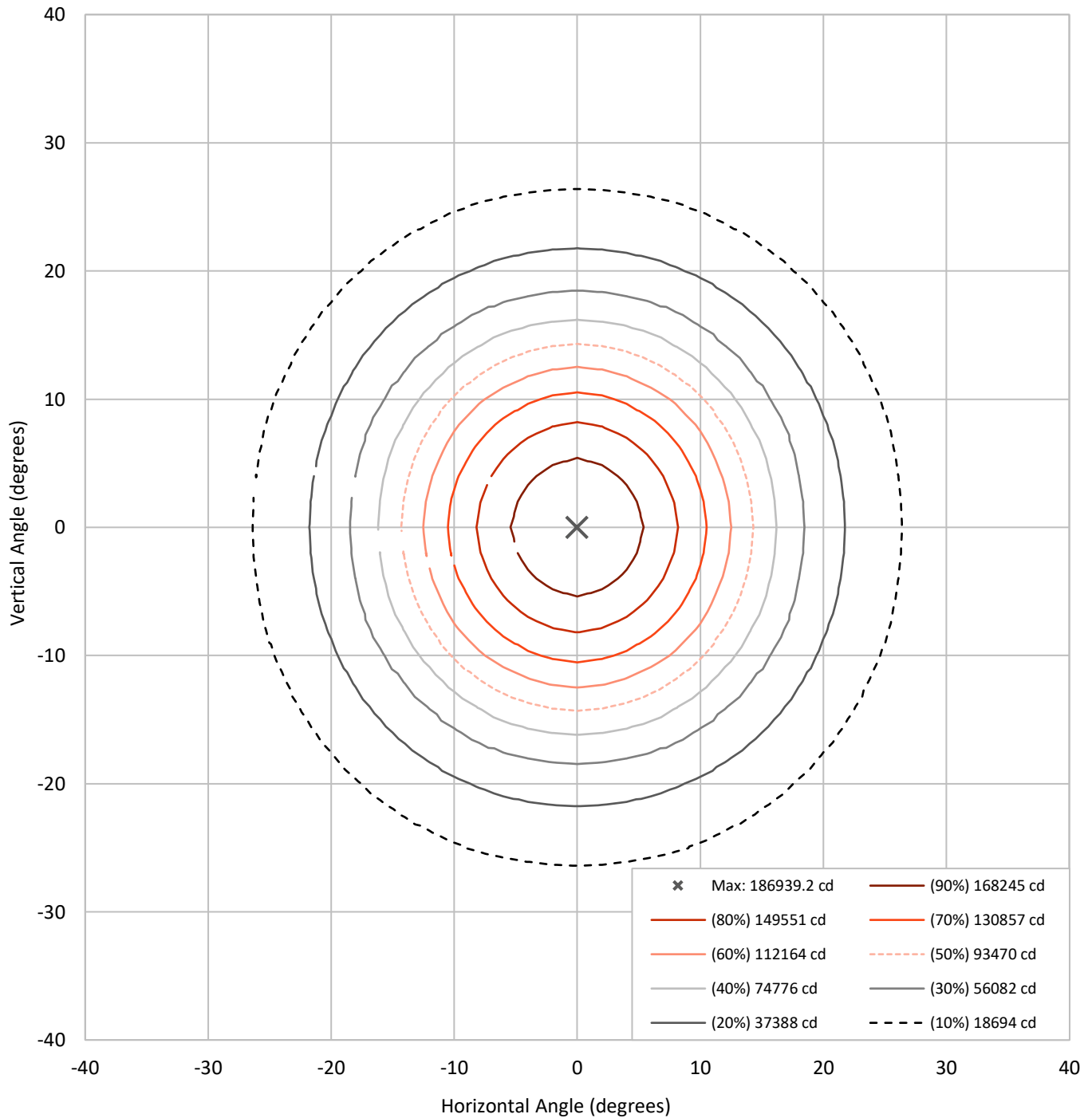
Beam Angle (50%):	28.6°H x 28.6°V	Field Angle (10%):	52.7°H x 52.7°V
Beam Lumens:	20859.8 lumens	Field Lumens:	35224.6 lumens
Beam Efficiency:	36.1%	Field Efficiency:	60.9%

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





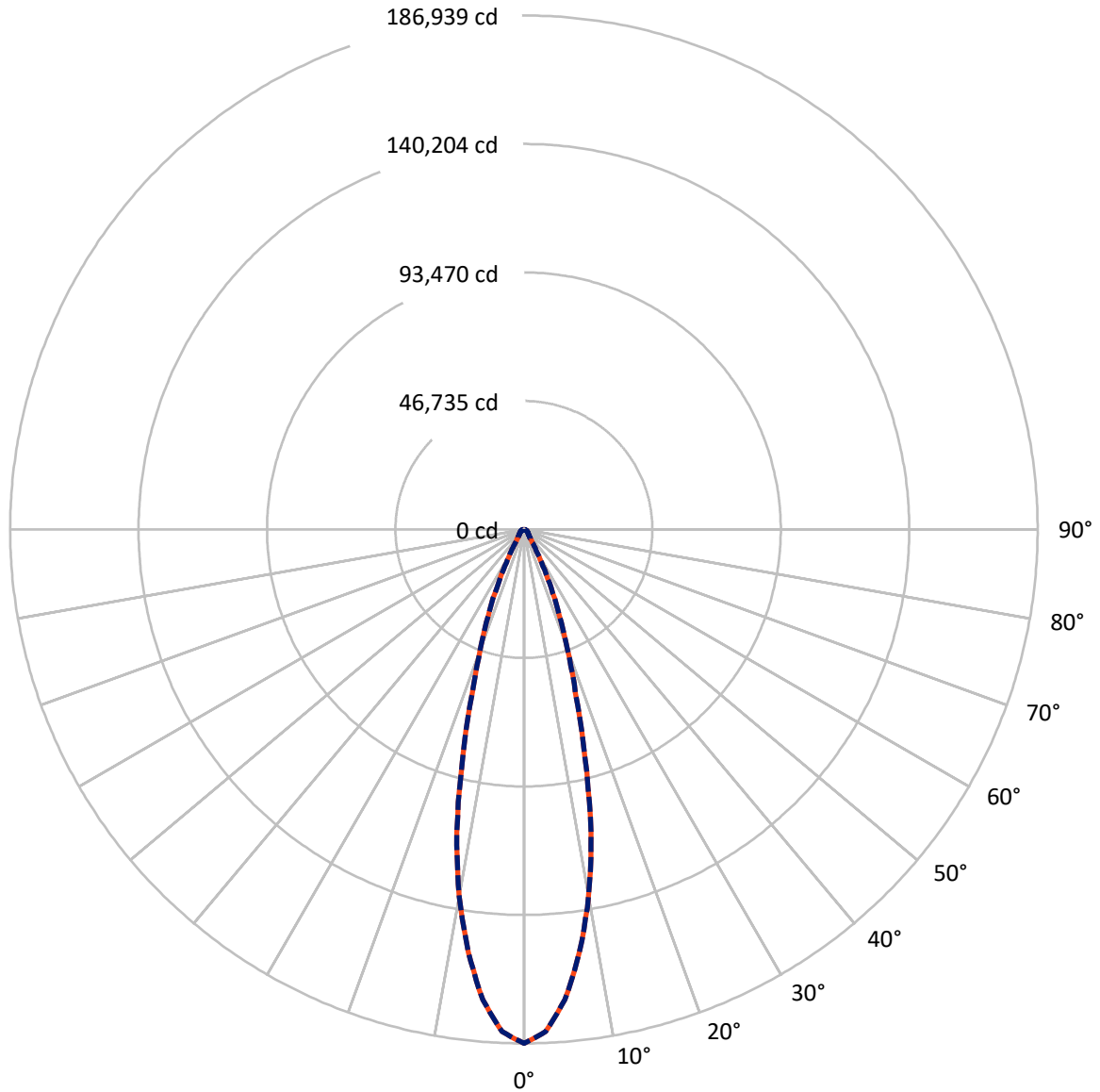
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Lumen Table

90	1.4	9.8	24.9	39.8	45.9	39.8	24.9	9.8	1.4										
80																			
70																			
60	4.5	4.7	9.6	15.8	22.2	27.9	32.2	34.6	34.6	32.2	27.9	22.2	15.8	9.6	4.7	4.5			
50		7.1	14.6	23.5	32.4	40.3	46.3	49.5	49.5	46.3	40.3	32.4	23.5	14.6	7.1				
40	7.7	9.5	19.1	30.1	41.4	52.6	62.7	69.1	69.1	62.7	52.6	41.4	30.1	19.1	9.5	7.7			
30		11.6	22.8	35.8	51.4	73.1	106.7	142.1	142.1	106.7	73.1	51.4	35.8	22.8	11.6				
20	10.1	13.2	25.6	41.1	66.2	138.7	380.3	688.9	688.9	380.3	138.7	66.2	41.1	25.6	13.2	10.1			
10		14.3	27.6	46.1	91.1	359.0	1234.7	2381.8	2381.8	1234.7	359.0	91.1	46.1	27.6	14.3				
0	11.0	14.9	28.7	49.3	118.0	632.5	2317.2	4568.4	4568.4	2317.2	632.5	118.0	49.3	28.7	14.9	11.0			
-10		14.9	28.7	49.3	118.0	632.5	2317.2	4568.4	4568.4	2317.2	632.5	118.0	49.3	28.7	14.9				
-20	10.1	14.3	27.6	46.1	91.1	359.0	1234.7	2381.8	2381.8	1234.7	359.0	91.1	46.1	27.6	14.3	10.1			
-30		13.2	25.6	41.1	66.2	138.7	380.3	688.9	688.9	380.3	138.7	66.2	41.1	25.6	13.2				
-40	7.7	11.6	22.8	35.8	51.4	73.1	106.7	142.1	142.1	106.7	73.1	51.4	35.8	22.8	11.6	7.7			
-50		9.5	19.1	30.1	41.4	52.6	62.7	69.1	69.1	62.7	52.6	41.4	30.1	19.1	9.5				
-60	4.5	7.1	14.6	23.5	32.4	40.3	46.3	49.5	49.5	46.3	40.3	32.4	23.5	14.6	7.1	4.5			
-70		4.7	9.6	15.8	22.2	27.9	32.2	34.6	34.6	32.2	27.9	22.2	15.8	9.6	4.7				
-80	1.4	9.8	24.9	39.8	45.9	39.8	24.9	9.8	1.4										
-90																			

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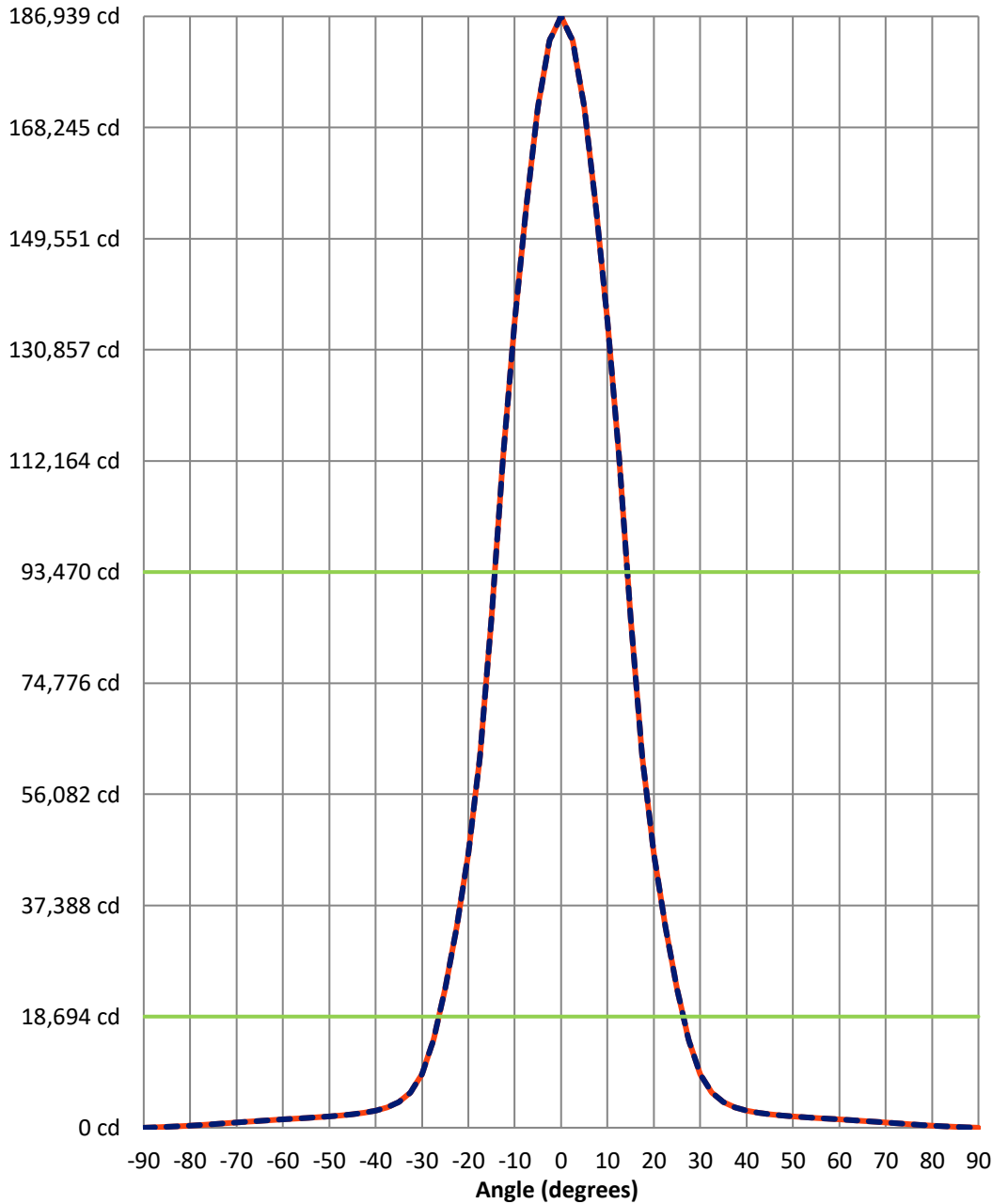
Luminous Intensity Polar Plot



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

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Luminous Intensity Plot



Beam:
 H Angle: 28.6°
 V Angle: 28.6°
 Lumens: 20859.8
 Efficiency: 36.1%

Field:
 H Angle: 52.7°
 V Angle: 52.7°
 Lumens: 35224.6
 Efficiency: 60.9%

Spill:
 Lumens: 22587.8
 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°	66.3	66.3	66.3	66.3	66.3	66.3	66.3	60.3	60.3	60.3	60.3
85°	150.7	150.7	150.7	150.7	150.7	144.7	144.7	144.7	138.6	138.6	132.6
82.5°	241.1	241.1	241.1	241.1	235.1	235.1	229.0	229.0	223.0	223.0	217.0
80°	343.6	343.6	343.6	343.6	337.5	331.5	331.5	325.5	319.5	313.4	307.4
77.5°	464.1	464.1	464.1	458.1	452.1	452.1	446.0	434.0	428.0	415.9	409.9
75°	596.7	596.7	596.7	590.7	584.7	578.6	566.6	560.6	548.5	536.5	518.4
72.5°	741.4	741.4	741.4	735.4	723.3	717.3	705.2	693.2	681.1	663.0	645.0
70°	880.0	880.0	880.0	868.0	861.9	849.9	837.8	825.8	807.7	789.6	771.5
67.5°	1018.7	1018.7	1018.7	1006.6	1000.6	988.5	976.5	958.4	940.3	916.2	898.1
65°	1145.2	1145.2	1139.2	1133.2	1127.2	1115.1	1097.0	1085.0	1066.9	1042.8	1018.7
62.5°	1277.8	1277.8	1271.8	1265.8	1253.7	1241.7	1223.6	1205.5	1181.4	1157.3	1133.2
60°	1410.5	1410.5	1404.4	1398.4	1386.3	1368.3	1350.2	1332.1	1308.0	1277.8	1247.7
57.5°	1518.9	1518.9	1512.9	1506.9	1494.8	1482.8	1464.7	1446.6	1422.5	1398.4	1362.2
55°	1633.5	1633.5	1627.4	1615.4	1603.3	1591.3	1573.2	1549.1	1525.0	1494.8	1470.7
52.5°	1766.1	1766.1	1760.1	1748.0	1729.9	1711.8	1687.7	1657.6	1627.4	1597.3	1561.1
50°	1898.7	1898.7	1886.6	1874.6	1862.5	1838.4	1814.3	1784.2	1748.0	1711.8	1669.6
47.5°	2061.4	2061.4	2049.4	2031.3	2007.2	1983.1	1946.9	1904.7	1868.5	1826.4	1778.1
45°	2260.3	2260.3	2242.3	2224.2	2194.0	2151.8	2109.7	2061.4	2007.2	1952.9	1892.7
42.5°	2519.5	2519.5	2495.4	2465.3	2423.1	2368.8	2302.5	2236.2	2169.9	2097.6	2025.3
40°	2869.1	2869.1	2833.0	2790.8	2724.5	2646.1	2549.7	2459.3	2368.8	2266.4	2176.0
37.5°	3417.6	3417.6	3357.4	3279.0	3170.5	3037.9	2875.2	2754.6	2616.0	2483.4	2362.8
35°	4315.7	4315.7	4207.2	4068.6	3875.7	3634.6	3375.4	3170.5	2941.5	2754.6	2579.8
32.5°	5913.1	5913.1	5696.1	5424.8	5057.1	4587.0	4153.0	3791.3	3417.6	3128.3	2851.0
30°	9005.2	9005.2	8541.1	7968.5	7178.8	6190.3	5448.9	4755.8	4122.9	3646.7	3242.8
27.5°	14809.8	14568.6	13845.3	12657.9	11030.5	9005.2	7715.3	6250.6	5250.0	4339.9	3779.3
25°	23381.0	22983.1	21789.7	19842.8	17190.6	14182.9	11548.8	8770.1	7016.1	5503.2	4460.4
22.5°	33796.6	33248.1	31626.7	28980.6	25394.2	21391.9	17130.4	13134.1	9577.8	7275.3	5503.2
20°	46129.0	45393.7	43217.7	39685.6	34935.8	29842.5	24152.5	18800.0	13670.5	9577.8	7016.1
17.5°	62409.5	61288.4	57991.3	52687.0	46129.0	39263.6	32151.1	25243.5	18800.0	13134.1	8770.1
15°	85814.6	83921.9	78388.6	69600.4	59389.7	49817.9	40746.4	32151.1	24152.5	17130.4	11548.8
12.5°	112872.4	110238.3	102613.4	90721.0	76845.5	61710.3	49817.9	39263.6	29842.5	21391.9	14182.9
10°	135668.6	132889.9	125011.9	113083.3	95488.8	76845.5	59389.7	46129.0	34935.8	25394.2	17190.6
7.5°	154926.7	151816.5	143323.7	130274.0	113083.3	90721.0	69600.4	52687.0	39685.6	28980.6	19842.8
5°	171653.3	167711.2	157826.0	143323.7	125011.9	102613.4	78388.6	57991.3	43217.7	31626.7	21789.7
2.5°	182828.4	178199.2	167711.2	151816.5	132889.9	110238.3	83921.9	61288.4	45393.7	33248.1	22983.1
0°	186939.2	182828.4	171653.3	154926.7	135668.6	112872.4	85814.6	62409.5	46129.0	33796.6	23381.0



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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°	60.3	60.3	54.2	54.2	54.2	48.2	48.2	48.2	42.2	42.2	42.2
85°	132.6	126.6	126.6	120.6	114.5	108.5	108.5	102.5	96.4	90.4	84.4
82.5°	211.0	204.9	198.9	192.9	186.9	174.8	168.8	162.7	150.7	144.7	138.6
80°	295.4	289.3	277.3	271.2	259.2	247.1	235.1	223.0	211.0	198.9	186.9
77.5°	397.8	379.7	367.7	355.6	337.5	325.5	307.4	295.4	277.3	259.2	241.1
75°	506.3	488.2	470.2	452.1	434.0	409.9	391.8	367.7	349.6	325.5	307.4
72.5°	626.9	602.8	578.6	554.5	530.4	506.3	482.2	452.1	428.0	397.8	367.7
70°	747.4	723.3	699.2	669.1	638.9	608.8	578.6	542.5	512.3	476.2	440.0
67.5°	874.0	843.9	813.7	783.6	753.4	717.3	675.1	638.9	596.7	554.5	518.4
65°	994.5	964.4	928.2	892.1	855.9	819.8	777.6	735.4	687.1	638.9	596.7
62.5°	1103.0	1072.9	1042.8	1000.6	964.4	922.2	880.0	825.8	777.6	729.3	675.1
60°	1217.6	1181.4	1145.2	1103.0	1060.9	1018.7	970.4	916.2	868.0	807.7	753.4
57.5°	1326.1	1289.9	1247.7	1205.5	1157.3	1109.1	1060.9	1006.6	952.4	892.1	831.8
55°	1434.6	1398.4	1356.2	1308.0	1253.7	1199.5	1145.2	1091.0	1036.7	970.4	904.1
52.5°	1525.0	1488.8	1446.6	1410.5	1350.2	1295.9	1235.7	1169.3	1109.1	1042.8	976.5
50°	1621.4	1579.2	1531.0	1488.8	1440.6	1386.3	1320.0	1253.7	1181.4	1115.1	1042.8
47.5°	1729.9	1675.7	1621.4	1567.2	1518.9	1458.7	1404.4	1332.1	1259.8	1181.4	1109.1
45°	1838.4	1778.1	1717.9	1651.6	1591.3	1531.0	1470.7	1410.5	1332.1	1253.7	1169.3
42.5°	1952.9	1880.6	1814.3	1748.0	1675.7	1603.3	1537.0	1470.7	1404.4	1320.0	1235.7
40°	2085.5	2001.2	1916.8	1838.4	1766.1	1681.7	1603.3	1531.0	1458.7	1386.3	1295.9
37.5°	2236.2	2133.8	2031.3	1934.9	1844.4	1766.1	1675.7	1591.3	1518.9	1440.6	1350.2
35°	2429.1	2278.4	2157.9	2037.3	1934.9	1838.4	1748.0	1651.6	1567.2	1488.8	1410.5
32.5°	2646.1	2459.3	2296.5	2157.9	2031.3	1916.8	1814.3	1717.9	1621.4	1531.0	1446.6
30°	2911.3	2670.2	2459.3	2278.4	2133.8	2001.2	1880.6	1778.1	1675.7	1579.2	1488.8
27.5°	3285.0	2911.3	2646.1	2429.1	2236.2	2085.5	1952.9	1838.4	1729.9	1621.4	1525.0
25°	3779.3	3242.8	2851.0	2579.8	2362.8	2176.0	2025.3	1892.7	1778.1	1669.6	1561.1
22.5°	4339.9	3646.7	3128.3	2754.6	2483.4	2266.4	2097.6	1952.9	1826.4	1711.8	1597.3
20°	5250.0	4122.9	3417.6	2941.5	2616.0	2368.8	2169.9	2007.2	1868.5	1748.0	1627.4
17.5°	6250.6	4755.8	3791.3	3170.5	2754.6	2459.3	2236.2	2061.4	1904.7	1784.2	1657.6
15°	7715.3	5448.9	4153.0	3375.4	2875.2	2549.7	2302.5	2109.7	1946.9	1814.3	1687.7
12.5°	9005.2	6190.3	4587.0	3634.6	3037.9	2646.1	2368.8	2151.8	1983.1	1838.4	1711.8
10°	11030.5	7178.8	5057.1	3875.7	3170.5	2724.5	2423.1	2194.0	2007.2	1862.5	1729.9
7.5°	12657.9	7968.5	5424.8	4068.6	3279.0	2790.8	2465.3	2224.2	2031.3	1874.6	1748.0
5°	13845.3	8541.1	5696.1	4207.2	3357.4	2833.0	2495.4	2242.3	2049.4	1886.6	1760.1
2.5°	14568.6	9005.2	5913.1	4315.7	3417.6	2869.1	2519.5	2260.3	2061.4	1898.7	1766.1
0°	14809.8	9005.2	5913.1	4315.7	3417.6	2869.1	2519.5	2260.3	2061.4	1898.7	1766.1



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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°	36.2	36.2	30.1	30.1	30.1	24.1	24.1	18.1	18.1	12.1	12.1
85°	78.4	72.3	66.3	60.3	54.2	48.2	48.2	42.2	36.2	30.1	24.1
82.5°	126.6	120.6	108.5	96.4	90.4	78.4	66.3	60.3	54.2	42.2	36.2
80°	174.8	162.7	150.7	138.6	126.6	108.5	96.4	84.4	66.3	54.2	48.2
77.5°	229.0	211.0	192.9	174.8	156.7	144.7	126.6	108.5	90.4	72.3	54.2
75°	283.3	259.2	241.1	217.0	198.9	174.8	150.7	132.6	114.5	90.4	66.3
72.5°	343.6	313.4	289.3	259.2	235.1	211.0	180.8	156.7	132.6	108.5	84.4
70°	409.9	373.7	337.5	307.4	277.3	241.1	211.0	180.8	150.7	126.6	96.4
67.5°	476.2	434.0	391.8	349.6	313.4	277.3	241.1	211.0	174.8	144.7	108.5
65°	542.5	494.3	452.1	403.8	355.6	313.4	277.3	235.1	198.9	156.7	126.6
62.5°	614.8	560.6	506.3	452.1	403.8	349.6	307.4	259.2	217.0	174.8	138.6
60°	693.2	632.9	566.6	506.3	452.1	391.8	337.5	289.3	241.1	192.9	150.7
57.5°	765.5	699.2	632.9	560.6	494.3	434.0	373.7	313.4	259.2	211.0	162.7
55°	837.8	765.5	693.2	614.8	542.5	476.2	409.9	343.6	283.3	229.0	174.8
52.5°	904.1	831.8	753.4	675.1	596.7	518.4	440.0	367.7	307.4	241.1	186.9
50°	970.4	892.1	807.7	729.3	638.9	554.5	476.2	397.8	325.5	259.2	198.9
47.5°	1036.7	952.4	868.0	777.6	687.1	596.7	512.3	428.0	349.6	277.3	211.0
45°	1091.0	1006.6	916.2	825.8	735.4	638.9	542.5	452.1	367.7	295.4	223.0
42.5°	1145.2	1060.9	970.4	880.0	777.6	675.1	578.6	482.2	391.8	307.4	235.1
40°	1199.5	1109.1	1018.7	922.2	819.8	717.3	608.8	506.3	409.9	325.5	247.1
37.5°	1253.7	1157.3	1060.9	964.4	855.9	753.4	638.9	530.4	434.0	337.5	259.2
35°	1308.0	1205.5	1103.0	1000.6	892.1	783.6	669.1	554.5	452.1	355.6	271.2
32.5°	1356.2	1247.7	1145.2	1042.8	928.2	813.7	699.2	578.6	470.2	367.7	277.3
30°	1398.4	1289.9	1181.4	1072.9	964.4	843.9	723.3	602.8	488.2	379.7	289.3
27.5°	1434.6	1326.1	1217.6	1103.0	994.5	874.0	747.4	626.9	506.3	397.8	295.4
25°	1470.7	1362.2	1247.7	1133.2	1018.7	898.1	771.5	645.0	518.4	409.9	307.4
22.5°	1494.8	1398.4	1277.8	1157.3	1042.8	916.2	789.6	663.0	536.5	415.9	313.4
20°	1525.0	1422.5	1308.0	1181.4	1066.9	940.3	807.7	681.1	548.5	428.0	319.5
17.5°	1549.1	1446.6	1332.1	1205.5	1085.0	958.4	825.8	693.2	560.6	434.0	325.5
15°	1573.2	1464.7	1350.2	1223.6	1097.0	976.5	837.8	705.2	566.6	446.0	331.5
12.5°	1591.3	1482.8	1368.3	1241.7	1115.1	988.5	849.9	717.3	578.6	452.1	331.5
10°	1603.3	1494.8	1386.3	1253.7	1127.2	1000.6	861.9	723.3	584.7	452.1	337.5
7.5°	1615.4	1506.9	1398.4	1265.8	1133.2	1006.6	868.0	735.4	590.7	458.1	343.6
5°	1627.4	1512.9	1404.4	1271.8	1139.2	1018.7	880.0	741.4	596.7	464.1	343.6
2.5°	1633.5	1518.9	1410.5	1277.8	1145.2	1018.7	880.0	741.4	596.7	464.1	343.6
0°	1633.5	1518.9	1410.5	1277.8	1145.2	1018.7	880.0	741.4	596.7	464.1	343.6



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CANDELA DISTRIBUTION (continued):

	82.5°	85°	87.5°	90°
90°	0.0	0.0	0.0	0.0
87.5°	6.0	6.0	0.0	0.0
85°	18.1	12.1	6.0	0.0
82.5°	24.1	18.1	6.0	0.0
80°	36.2	24.1	12.1	0.0
77.5°	42.2	30.1	12.1	0.0
75°	54.2	36.2	18.1	0.0
72.5°	60.3	42.2	18.1	0.0
70°	66.3	48.2	24.1	0.0
67.5°	78.4	48.2	24.1	0.0
65°	90.4	54.2	30.1	0.0
62.5°	96.4	60.3	30.1	0.0
60°	108.5	66.3	30.1	0.0
57.5°	120.6	72.3	36.2	0.0
55°	126.6	78.4	36.2	0.0
52.5°	138.6	84.4	42.2	0.0
50°	144.7	90.4	42.2	0.0
47.5°	150.7	96.4	42.2	0.0
45°	162.7	102.5	48.2	0.0
42.5°	168.8	108.5	48.2	0.0
40°	174.8	108.5	48.2	0.0
37.5°	186.9	114.5	54.2	0.0
35°	192.9	120.6	54.2	0.0
32.5°	198.9	126.6	54.2	0.0
30°	204.9	126.6	60.3	0.0
27.5°	211.0	132.6	60.3	0.0
25°	217.0	132.6	60.3	0.0
22.5°	223.0	138.6	60.3	0.0
20°	223.0	138.6	60.3	0.0
17.5°	229.0	144.7	60.3	0.0
15°	229.0	144.7	66.3	0.0
12.5°	235.1	144.7	66.3	0.0
10°	235.1	150.7	66.3	0.0
7.5°	241.1	150.7	66.3	0.0
5°	241.1	150.7	66.3	0.0
2.5°	241.1	150.7	66.3	0.0
0°	241.1	150.7	66.3	0.0

(END OF REPORT)