

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: P624088

Luminaire Tested: **EPH-VN-08-D-740-U-44**

Issue Date: 11/2/2022

Test Information

Test Method: LM-79-2019
Report Number: P624088
Test Lab: INNOVATION CENTER(G2)
Issue Date: 11/2/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: EPHESUS
Catalog Number: EPH-VN-08-D-740-U-44
Description: EPHESUS LUMAVISION FLOOD – Middle Tier Light Square Luminaire w/
Nema 4 distribution lens
Light Source: (128) 4000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp:	N/A	NEMA Type:	4H x 4V
Luminaire Lumens:	57884.7 lumens	Max Intensity:	187172.9 candela
Efficiency:	N/A	Max Intensity Angle:	0°H x 0°V
Efficacy:	118.5 lumens/watt		
Luminous Opening:	Rectangular (W 2' x L: 1' x H: 0')		

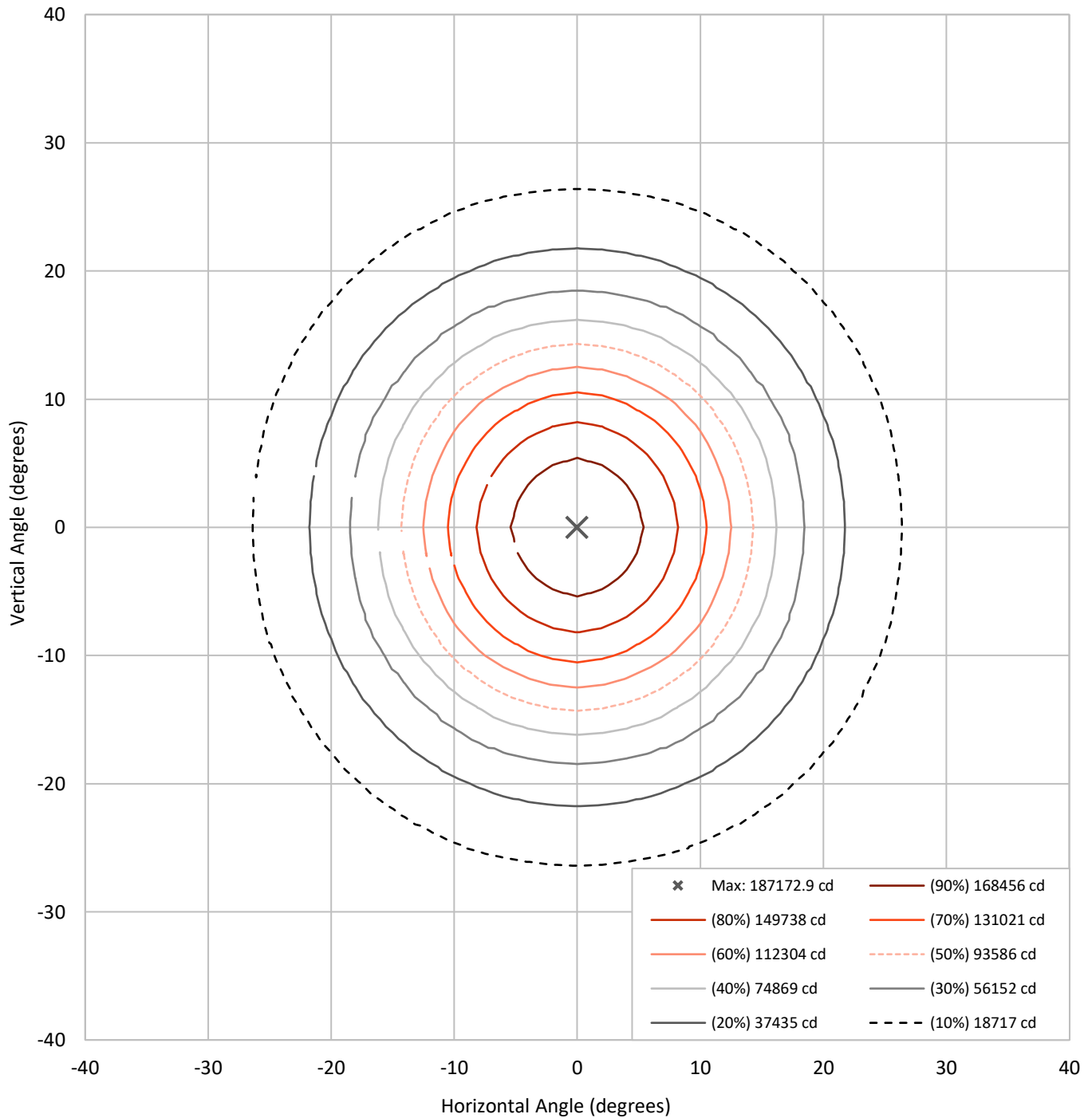
Beam Angle (50%):	28.6°H x 28.6°V	Field Angle (10%):	52.7°H x 52.7°V
Beam Lumens:	20885.9 lumens	Field Lumens:	35268.7 lumens
Beam Efficiency:	36.1%	Field Efficiency:	60.9%

Input Watts (W): 488.3
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





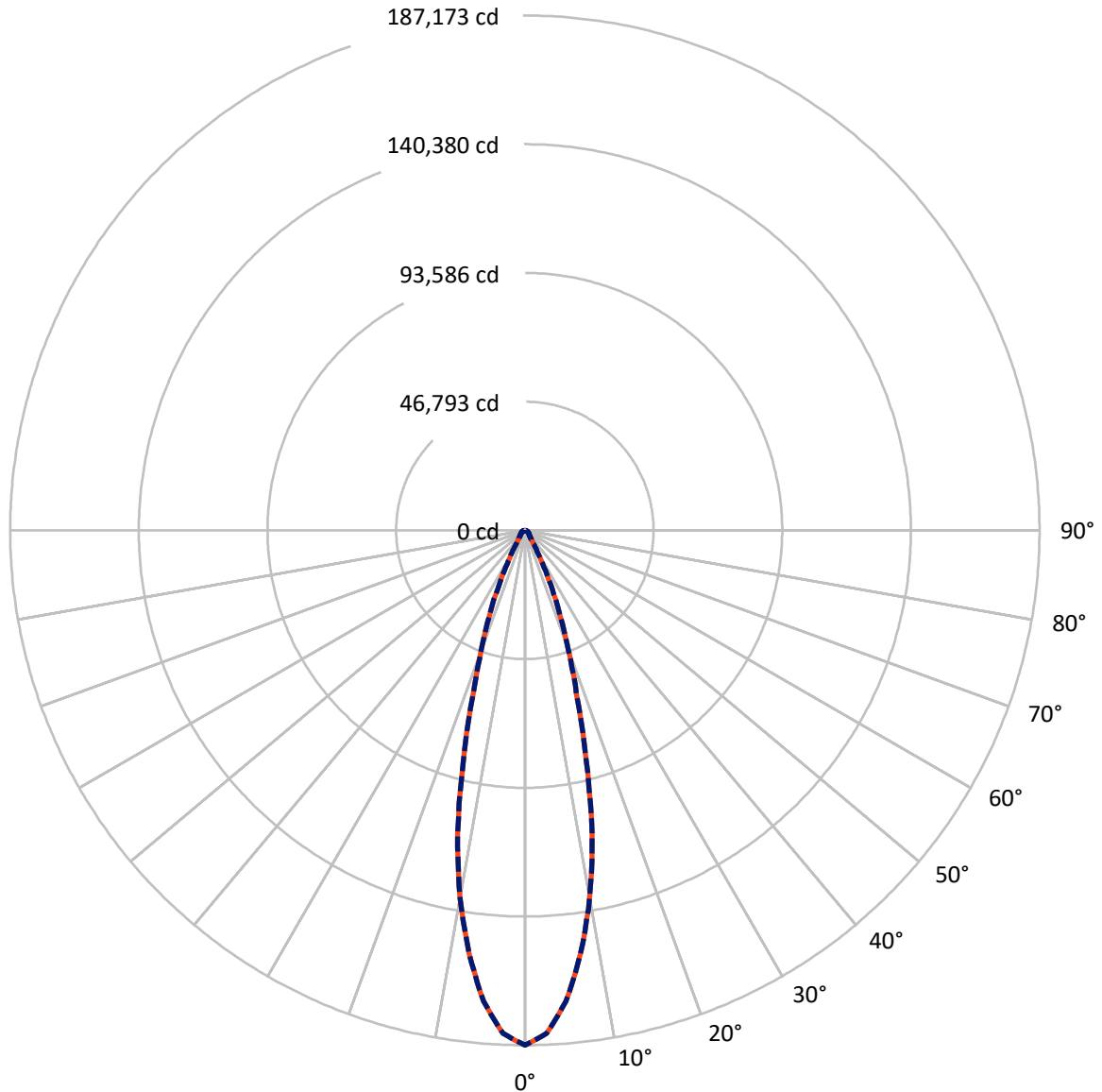
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Lumen Table

90	1.4	9.8	24.9	39.8	46.0	39.8	24.9	9.8	1.4										
80																			
70	4.5	4.7	9.6	15.8	22.3	28.0	32.3	34.6	34.6	32.3	28.0	22.3	15.8	9.6	4.7	4.5			
60		7.1	14.6	23.5	32.5	40.4	46.3	49.6	49.6	46.3	40.4	32.5	23.5	14.6	7.1				
50	7.7	9.6	19.1	30.2	41.4	52.6	62.8	69.2	69.2	62.8	52.6	41.4	30.2	19.1	9.6	7.7			
40		11.6	22.8	35.8	51.4	73.2	106.9	142.3	142.3	106.9	73.2	51.4	35.8	22.8	11.6				
30	10.1	13.2	25.7	41.2	66.3	138.9	380.8	689.8	689.8	380.8	138.9	66.3	41.2	25.7	13.2	10.1			
20		14.3	27.7	46.1	91.2	359.5	1236.3	2384.8	2384.8	1236.3	359.5	91.2	46.1	27.7	14.3				
10	11.0	14.9	28.7	49.4	118.2	633.3	2320.1	4574.1	4574.1	2320.1	633.3	118.2	49.4	28.7	14.9	11.0			
0		14.9	28.7	49.4	118.2	633.3	2320.1	4574.1	4574.1	2320.1	633.3	118.2	49.4	28.7	14.9				
-10	10.1	14.3	27.7	46.1	91.2	359.5	1236.3	2384.8	2384.8	1236.3	359.5	91.2	46.1	27.7	14.3	10.1			
-20		13.2	25.7	41.2	66.3	138.9	380.8	689.8	689.8	380.8	138.9	66.3	41.2	25.7	13.2				
-30	7.7	11.6	22.8	35.8	51.4	73.2	106.9	142.3	142.3	106.9	73.2	51.4	35.8	22.8	11.6	7.7			
-40		9.6	19.1	30.2	41.4	52.6	62.8	69.2	69.2	62.8	52.6	41.4	30.2	19.1	9.6				
-50	4.5	7.1	14.6	23.5	32.5	40.4	46.3	49.6	49.6	46.3	40.4	32.5	23.5	14.6	7.1	4.5			
-60		4.7	9.6	15.8	22.3	28.0	32.3	34.6	34.6	32.3	28.0	22.3	15.8	9.6	4.7				
-70	1.4															1.4			
-80		9.8	24.9	39.8	46.0	39.8	24.9	9.8											
-90																			

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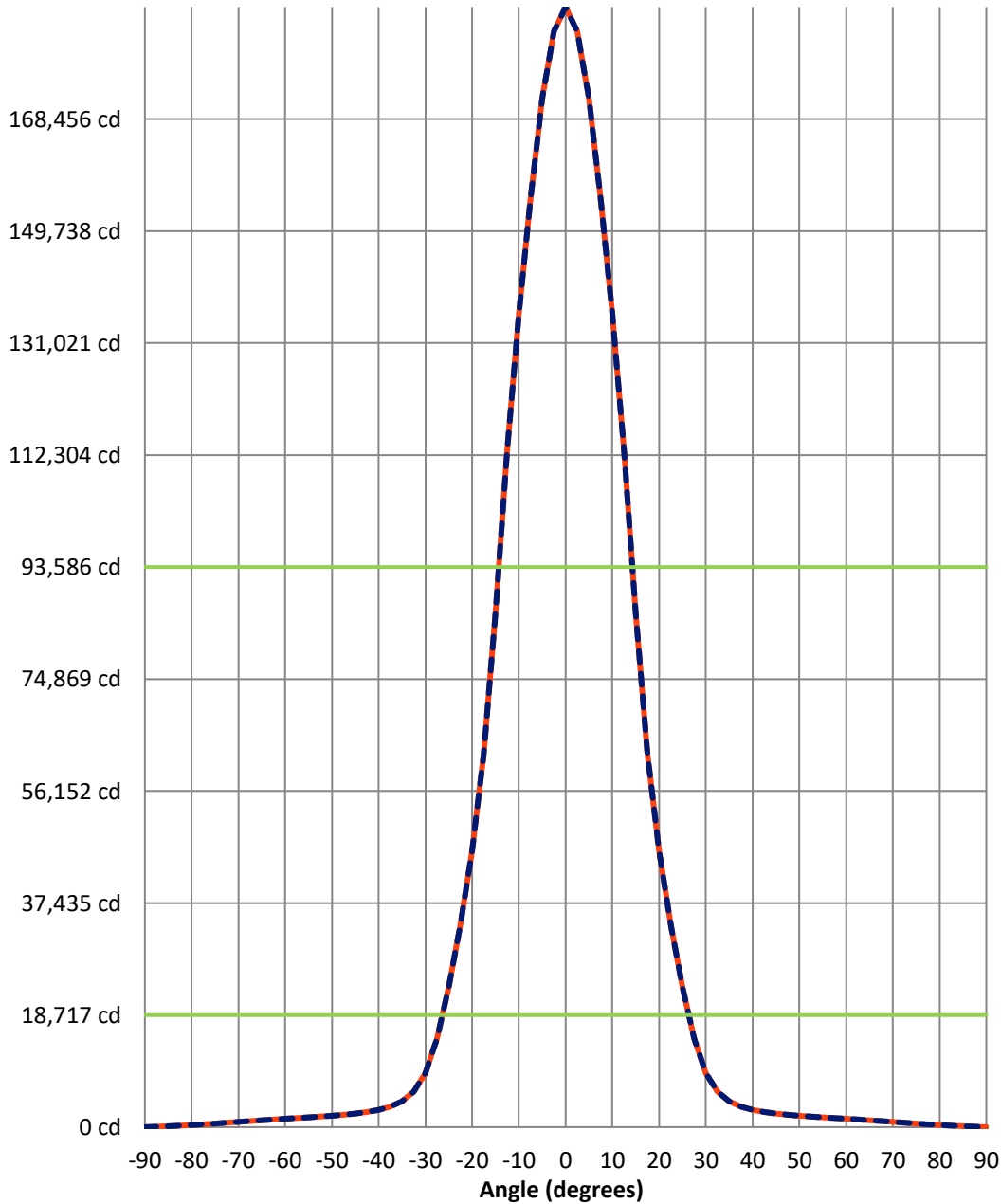
Luminous Intensity Polar Plot



— 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: 20885.9
Efficiency: 36.1%

Field:
H Angle: 52.7°
V Angle: 52.7°
Lumens: 35268.7
Efficiency: 60.9%

Spill:
Lumens: 22616
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°	66.4	66.4	66.4	66.4	66.4	66.4	66.4	60.4	60.4	60.4	60.4
85°	150.9	150.9	150.9	150.9	150.9	144.8	144.8	144.8	138.8	138.8	132.8
82.5°	241.4	241.4	241.4	241.4	235.4	235.4	229.3	229.3	223.3	223.3	217.3
80°	344.0	344.0	344.0	344.0	338.0	331.9	331.9	325.9	319.9	313.8	307.8
77.5°	464.7	464.7	464.7	458.7	452.6	452.6	446.6	434.5	428.5	416.4	410.4
75°	597.5	597.5	597.5	591.4	585.4	579.4	567.3	561.3	549.2	537.1	519.0
72.5°	742.3	742.3	742.3	736.3	724.2	718.2	706.1	694.0	682.0	663.9	645.8
70°	881.1	881.1	881.1	869.1	863.0	851.0	838.9	826.8	808.7	790.6	772.5
67.5°	1019.9	1019.9	1019.9	1007.9	1001.8	989.8	977.7	959.6	941.5	917.3	899.2
65°	1146.7	1146.7	1140.6	1134.6	1128.6	1116.5	1098.4	1086.3	1068.2	1044.1	1019.9
62.5°	1279.4	1279.4	1273.4	1267.4	1255.3	1243.2	1225.1	1207.0	1182.9	1158.7	1134.6
60°	1412.2	1412.2	1406.2	1400.1	1388.1	1370.0	1351.9	1333.8	1309.6	1279.4	1249.3
57.5°	1520.8	1520.8	1514.8	1508.8	1496.7	1484.6	1466.5	1448.4	1424.3	1400.1	1363.9
55°	1635.5	1635.5	1629.5	1617.4	1605.3	1593.3	1575.2	1551.0	1526.9	1496.7	1472.6
52.5°	1768.3	1768.3	1762.3	1750.2	1732.1	1714.0	1689.8	1659.7	1629.5	1599.3	1563.1
50°	1901.1	1901.1	1889.0	1876.9	1864.8	1840.7	1816.6	1786.4	1750.2	1714.0	1671.7
47.5°	2064.0	2064.0	2051.9	2033.8	2009.7	1985.6	1949.3	1907.1	1870.9	1828.6	1780.4
45°	2263.2	2263.2	2245.1	2227.0	2196.8	2154.5	2112.3	2064.0	2009.7	1955.4	1895.0
42.5°	2522.7	2522.7	2498.5	2468.4	2426.1	2371.8	2305.4	2239.0	2172.6	2100.2	2027.8
40°	2872.7	2872.7	2836.5	2794.3	2727.9	2649.4	2552.9	2462.3	2371.8	2269.2	2178.7
37.5°	3421.9	3421.9	3361.6	3283.1	3174.5	3041.7	2878.7	2758.0	2619.2	2486.5	2365.8
35°	4321.1	4321.1	4212.5	4073.7	3880.6	3639.2	3379.7	3174.5	2945.1	2758.0	2583.0
32.5°	5920.4	5920.4	5703.2	5431.6	5063.5	4592.7	4158.2	3796.1	3421.9	3132.2	2854.6
30°	9016.5	9016.5	8551.7	7978.4	7187.8	6198.1	5455.7	4761.7	4128.0	3651.2	3246.9
27.5°	14828.3	14586.9	13862.6	12673.7	11044.2	9016.5	7724.9	6258.4	5256.6	4345.3	3784.0
25°	23410.2	23011.9	21816.9	19867.6	17212.1	14200.6	11563.3	8781.1	7024.9	5510.1	4466.0
22.5°	33838.9	33289.7	31666.2	29016.8	25425.9	21418.6	17151.8	13150.5	9589.8	7284.4	5510.1
20°	46186.7	45450.4	43271.7	39735.2	34979.5	29879.8	24182.7	18823.5	13687.6	9589.8	7024.9
17.5°	62487.5	61365.0	58063.8	52752.9	46186.7	39312.7	32191.3	25275.0	18823.5	13150.5	8781.1
15°	85921.8	84026.8	78486.6	69687.4	59463.9	49880.2	40797.3	32191.3	24182.7	17151.8	11563.3
12.5°	113013.4	110376.1	102741.7	90834.4	76941.6	61787.4	49880.2	39312.7	29879.8	21418.6	14200.6
10°	135838.2	133056.0	125168.2	113224.7	95608.2	76941.6	59463.9	46186.7	34979.5	25425.9	17212.1
7.5°	155120.4	152006.3	143502.8	130436.8	113224.7	90834.4	69687.4	52752.9	39735.2	29016.8	19867.6
5°	171867.8	167920.9	158023.3	143502.8	125168.2	102741.7	78486.6	58063.8	43271.7	31666.2	21816.9
2.5°	183056.9	178422.0	167920.9	152006.3	133056.0	110376.1	84026.8	61365.0	45450.4	33289.7	23011.9
0°	187172.9	183056.9	171867.8	155120.4	135838.2	113013.4	85921.8	62487.5	46186.7	33838.9	23410.2



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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°	60.4	60.4	54.3	54.3	54.3	48.3	48.3	48.3	42.2	42.2	42.2
85°	132.8	126.7	126.7	120.7	114.7	108.6	108.6	102.6	96.6	90.5	84.5
82.5°	211.2	205.2	199.2	193.1	187.1	175.0	169.0	162.9	150.9	144.8	138.8
80°	295.7	289.7	277.6	271.6	259.5	247.4	235.4	223.3	211.2	199.2	187.1
77.5°	398.3	380.2	368.1	356.1	338.0	325.9	307.8	295.7	277.6	259.5	241.4
75°	506.9	488.8	470.7	452.6	434.5	410.4	392.3	368.1	350.0	325.9	307.8
72.5°	627.7	603.5	579.4	555.2	531.1	506.9	482.8	452.6	428.5	398.3	368.1
70°	748.4	724.2	700.1	669.9	639.7	609.5	579.4	543.2	513.0	476.8	440.6
67.5°	875.1	844.9	814.7	784.6	754.4	718.2	675.9	639.7	597.5	555.2	519.0
65°	995.8	965.6	929.4	893.2	857.0	820.8	778.5	736.3	688.0	639.7	597.5
62.5°	1104.4	1074.2	1044.1	1001.8	965.6	923.4	881.1	826.8	778.5	730.2	675.9
60°	1219.1	1182.9	1146.7	1104.4	1062.2	1019.9	971.7	917.3	869.1	808.7	754.4
57.5°	1327.7	1291.5	1249.3	1207.0	1158.7	1110.5	1062.2	1007.9	953.5	893.2	832.8
55°	1436.4	1400.1	1357.9	1309.6	1255.3	1201.0	1146.7	1092.4	1038.0	971.7	905.3
52.5°	1526.9	1490.7	1448.4	1412.2	1351.9	1297.5	1237.2	1170.8	1110.5	1044.1	977.7
50°	1623.4	1581.2	1532.9	1490.7	1442.4	1388.1	1321.7	1255.3	1182.9	1116.5	1044.1
47.5°	1732.1	1677.8	1623.4	1569.1	1520.8	1460.5	1406.2	1333.8	1261.3	1182.9	1110.5
45°	1840.7	1780.4	1720.0	1653.6	1593.3	1532.9	1472.6	1412.2	1333.8	1255.3	1170.8
42.5°	1955.4	1883.0	1816.6	1750.2	1677.8	1605.3	1539.0	1472.6	1406.2	1321.7	1237.2
40°	2088.1	2003.7	1919.2	1840.7	1768.3	1683.8	1605.3	1532.9	1460.5	1388.1	1297.5
37.5°	2239.0	2136.4	2033.8	1937.3	1846.7	1768.3	1677.8	1593.3	1520.8	1442.4	1351.9
35°	2432.1	2281.3	2160.6	2039.9	1937.3	1840.7	1750.2	1653.6	1569.1	1490.7	1412.2
32.5°	2649.4	2462.3	2299.4	2160.6	2033.8	1919.2	1816.6	1720.0	1623.4	1532.9	1448.4
30°	2915.0	2673.6	2462.3	2281.3	2136.4	2003.7	1883.0	1780.4	1677.8	1581.2	1490.7
27.5°	3289.1	2915.0	2649.4	2432.1	2239.0	2088.1	1955.4	1840.7	1732.1	1623.4	1526.9
25°	3784.0	3246.9	2854.6	2583.0	2365.8	2178.7	2027.8	1895.0	1780.4	1671.7	1563.1
22.5°	4345.3	3651.2	3132.2	2758.0	2486.5	2269.2	2100.2	1955.4	1828.6	1714.0	1599.3
20°	5256.6	4128.0	3421.9	2945.1	2619.2	2371.8	2172.6	2009.7	1870.9	1750.2	1629.5
17.5°	6258.4	4761.7	3796.1	3174.5	2758.0	2462.3	2239.0	2064.0	1907.1	1786.4	1659.7
15°	7724.9	5455.7	4158.2	3379.7	2878.7	2552.9	2305.4	2112.3	1949.3	1816.6	1689.8
12.5°	9016.5	6198.1	4592.7	3639.2	3041.7	2649.4	2371.8	2154.5	1985.6	1840.7	1714.0
10°	11044.2	7187.8	5063.5	3880.6	3174.5	2727.9	2426.1	2196.8	2009.7	1864.8	1732.1
7.5°	12673.7	7978.4	5431.6	4073.7	3283.1	2794.3	2468.4	2227.0	2033.8	1876.9	1750.2
5°	13862.6	8551.7	5703.2	4212.5	3361.6	2836.5	2498.5	2245.1	2051.9	1889.0	1762.3
2.5°	14586.9	9016.5	5920.4	4321.1	3421.9	2872.7	2522.7	2263.2	2064.0	1901.1	1768.3
0°	14828.3	9016.5	5920.4	4321.1	3421.9	2872.7	2522.7	2263.2	2064.0	1901.1	1768.3



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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	30.2	30.2	30.2	24.1	24.1	18.1	18.1	12.1	12.1
85°	78.5	72.4	66.4	60.4	54.3	48.3	48.3	42.2	36.2	30.2	24.1
82.5°	126.7	120.7	108.6	96.6	90.5	78.5	66.4	60.4	54.3	42.2	36.2
80°	175.0	162.9	150.9	138.8	126.7	108.6	96.6	84.5	66.4	54.3	48.3
77.5°	229.3	211.2	193.1	175.0	156.9	144.8	126.7	108.6	90.5	72.4	54.3
75°	283.7	259.5	241.4	217.3	199.2	175.0	150.9	132.8	114.7	90.5	66.4
72.5°	344.0	313.8	289.7	259.5	235.4	211.2	181.1	156.9	132.8	108.6	84.5
70°	410.4	374.2	338.0	307.8	277.6	241.4	211.2	181.1	150.9	126.7	96.6
67.5°	476.8	434.5	392.3	350.0	313.8	277.6	241.4	211.2	175.0	144.8	108.6
65°	543.2	494.9	452.6	404.4	356.1	313.8	277.6	235.4	199.2	156.9	126.7
62.5°	615.6	561.3	506.9	452.6	404.4	350.0	307.8	259.5	217.3	175.0	138.8
60°	694.0	633.7	567.3	506.9	452.6	392.3	338.0	289.7	241.4	193.1	150.9
57.5°	766.5	700.1	633.7	561.3	494.9	434.5	374.2	313.8	259.5	211.2	162.9
55°	838.9	766.5	694.0	615.6	543.2	476.8	410.4	344.0	283.7	229.3	175.0
52.5°	905.3	832.8	754.4	675.9	597.5	519.0	440.6	368.1	307.8	241.4	187.1
50°	971.7	893.2	808.7	730.2	639.7	555.2	476.8	398.3	325.9	259.5	199.2
47.5°	1038.0	953.5	869.1	778.5	688.0	597.5	513.0	428.5	350.0	277.6	211.2
45°	1092.4	1007.9	917.3	826.8	736.3	639.7	543.2	452.6	368.1	295.7	223.3
42.5°	1146.7	1062.2	971.7	881.1	778.5	675.9	579.4	482.8	392.3	307.8	235.4
40°	1201.0	1110.5	1019.9	923.4	820.8	718.2	609.5	506.9	410.4	325.9	247.4
37.5°	1255.3	1158.7	1062.2	965.6	857.0	754.4	639.7	531.1	434.5	338.0	259.5
35°	1309.6	1207.0	1104.4	1001.8	893.2	784.6	669.9	555.2	452.6	356.1	271.6
32.5°	1357.9	1249.3	1146.7	1044.1	929.4	814.7	700.1	579.4	470.7	368.1	277.6
30°	1400.1	1291.5	1182.9	1074.2	965.6	844.9	724.2	603.5	488.8	380.2	289.7
27.5°	1436.4	1327.7	1219.1	1104.4	995.8	875.1	748.4	627.7	506.9	398.3	295.7
25°	1472.6	1363.9	1249.3	1134.6	1019.9	899.2	772.5	645.8	519.0	410.4	307.8
22.5°	1496.7	1400.1	1279.4	1158.7	1044.1	917.3	790.6	663.9	537.1	416.4	313.8
20°	1526.9	1424.3	1309.6	1182.9	1068.2	941.5	808.7	682.0	549.2	428.5	319.9
17.5°	1551.0	1448.4	1333.8	1207.0	1086.3	959.6	826.8	694.0	561.3	434.5	325.9
15°	1575.2	1466.5	1351.9	1225.1	1098.4	977.7	838.9	706.1	567.3	446.6	331.9
12.5°	1593.3	1484.6	1370.0	1243.2	1116.5	989.8	851.0	718.2	579.4	452.6	331.9
10°	1605.3	1496.7	1388.1	1255.3	1128.6	1001.8	863.0	724.2	585.4	452.6	338.0
7.5°	1617.4	1508.8	1400.1	1267.4	1134.6	1007.9	869.1	736.3	591.4	458.7	344.0
5°	1629.5	1514.8	1406.2	1273.4	1140.6	1019.9	881.1	742.3	597.5	464.7	344.0
2.5°	1635.5	1520.8	1412.2	1279.4	1146.7	1019.9	881.1	742.3	597.5	464.7	344.0
0°	1635.5	1520.8	1412.2	1279.4	1146.7	1019.9	881.1	742.3	597.5	464.7	344.0



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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	30.2	12.1	0.0
75°	54.3	36.2	18.1	0.0
72.5°	60.4	42.2	18.1	0.0
70°	66.4	48.3	24.1	0.0
67.5°	78.5	48.3	24.1	0.0
65°	90.5	54.3	30.2	0.0
62.5°	96.6	60.4	30.2	0.0
60°	108.6	66.4	30.2	0.0
57.5°	120.7	72.4	36.2	0.0
55°	126.7	78.5	36.2	0.0
52.5°	138.8	84.5	42.2	0.0
50°	144.8	90.5	42.2	0.0
47.5°	150.9	96.6	42.2	0.0
45°	162.9	102.6	48.3	0.0
42.5°	169.0	108.6	48.3	0.0
40°	175.0	108.6	48.3	0.0
37.5°	187.1	114.7	54.3	0.0
35°	193.1	120.7	54.3	0.0
32.5°	199.2	126.7	54.3	0.0
30°	205.2	126.7	60.4	0.0
27.5°	211.2	132.8	60.4	0.0
25°	217.3	132.8	60.4	0.0
22.5°	223.3	138.8	60.4	0.0
20°	223.3	138.8	60.4	0.0
17.5°	229.3	144.8	60.4	0.0
15°	229.3	144.8	66.4	0.0
12.5°	235.4	144.8	66.4	0.0
10°	235.4	150.9	66.4	0.0
7.5°	241.4	150.9	66.4	0.0
5°	241.4	150.9	66.4	0.0
2.5°	241.4	150.9	66.4	0.0
0°	241.4	150.9	66.4	0.0

(END OF REPORT)