

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: P624223

Luminaire Tested: **EPH-VN-04-E-940-U-77**

Issue Date: 11/2/2022

Test Information

Test Method: LM-79-2019
Report Number: P624223
Test Lab: INNOVATION CENTER(G2)
Issue Date: 11/2/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: EPHESUS
Catalog Number: EPH-VN-04-E-940-U-77
Description: EPHESUS LUMAVISION FLOOD – Middle Tier Light Square Luminaire w/
Nema 7 distribution lens
Light Source: (64) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

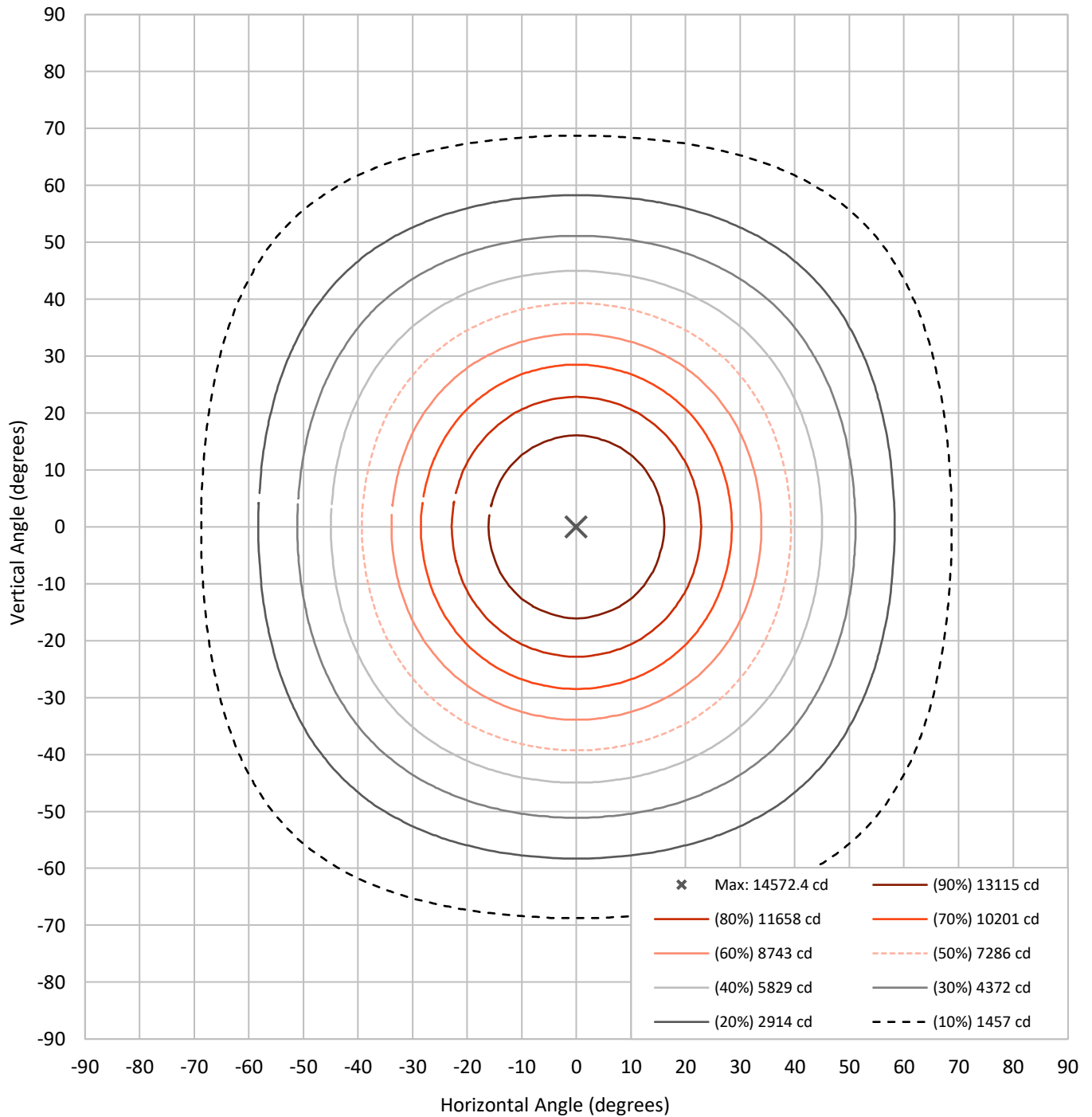
Lumens per Lamp:	N/A	NEMA Type:	7H x 7V
Luminaire Lumens:	26237.9 lumens	Max Intensity:	14572.4 candela
Efficiency:	N/A	Max Intensity Angle:	0°H x 0°V
Efficacy:	86.4 lumens/watt		
Luminous Opening:	Rectangular (W 2' x L: 0.5' x H: 0')		
Beam Angle (50%):	78.6°H x 78.6°V	Field Angle (10%):	137.5°H x 137.5°V
Beam Lumens:	11352.9 lumens	Field Lumens:	18589.9 lumens
Beam Efficiency:	43.3%	Field Efficiency:	70.9%

Input Watts (W): 303.8
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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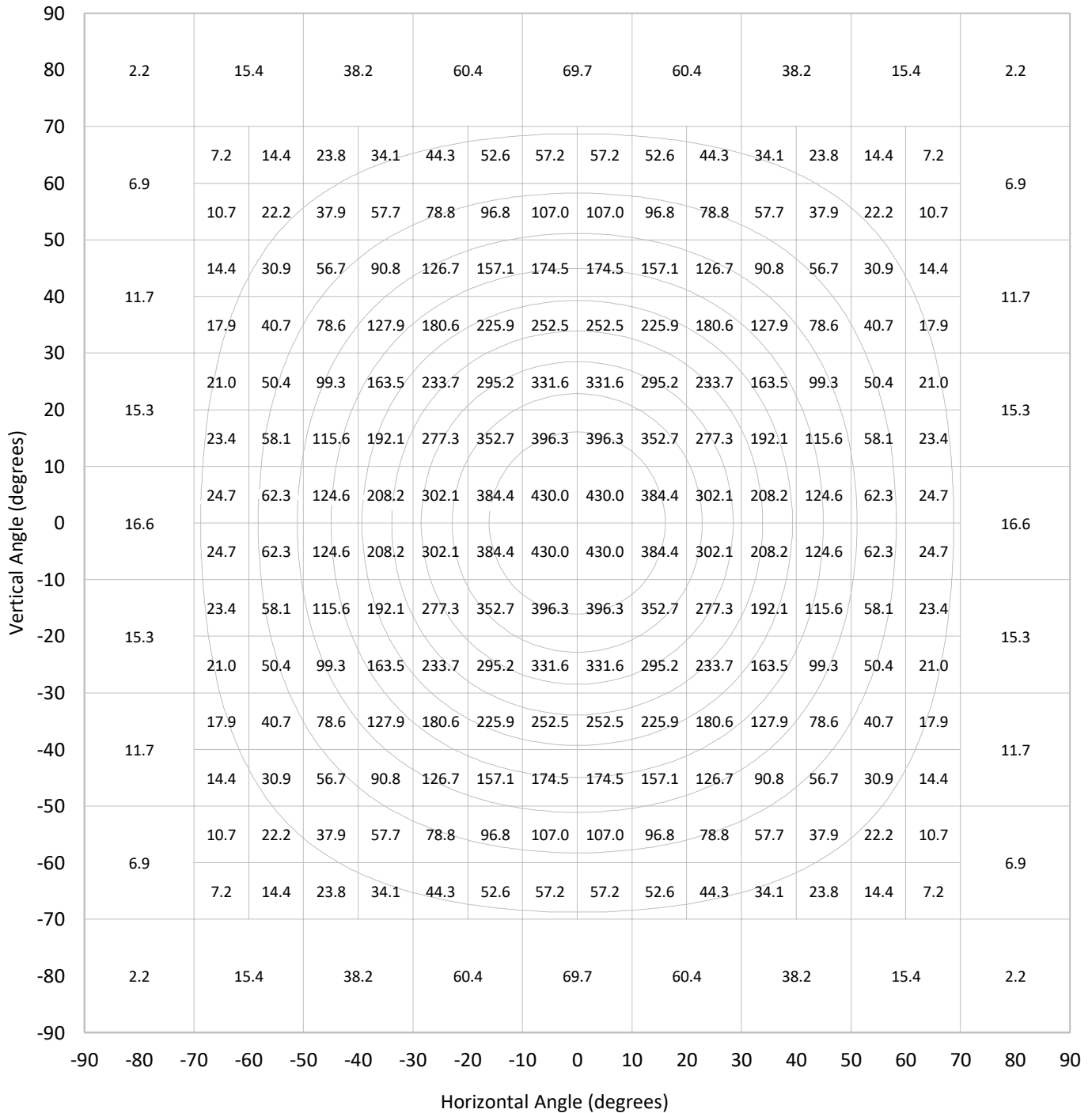
Iso-Candela Plot





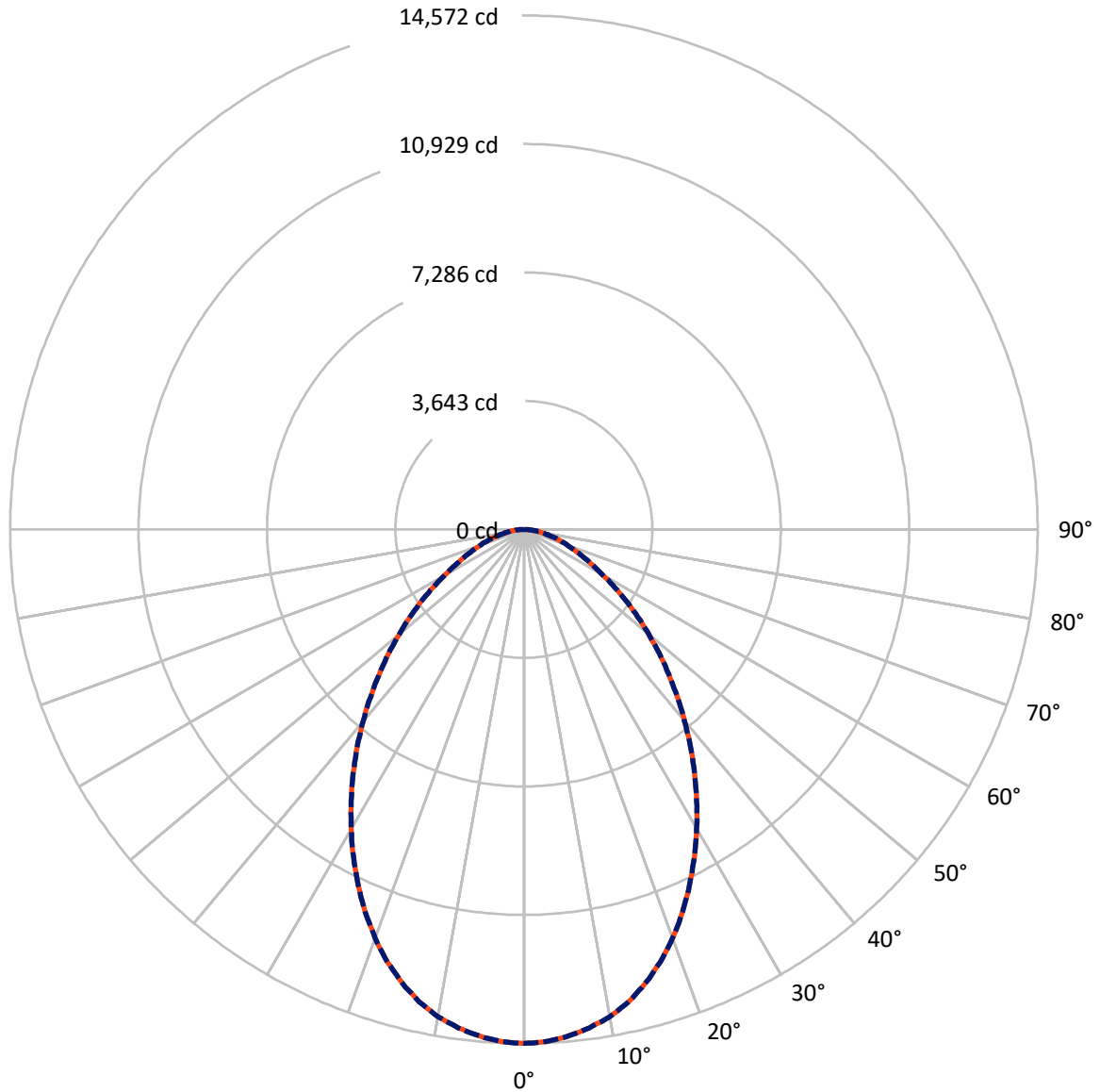
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Lumen Table



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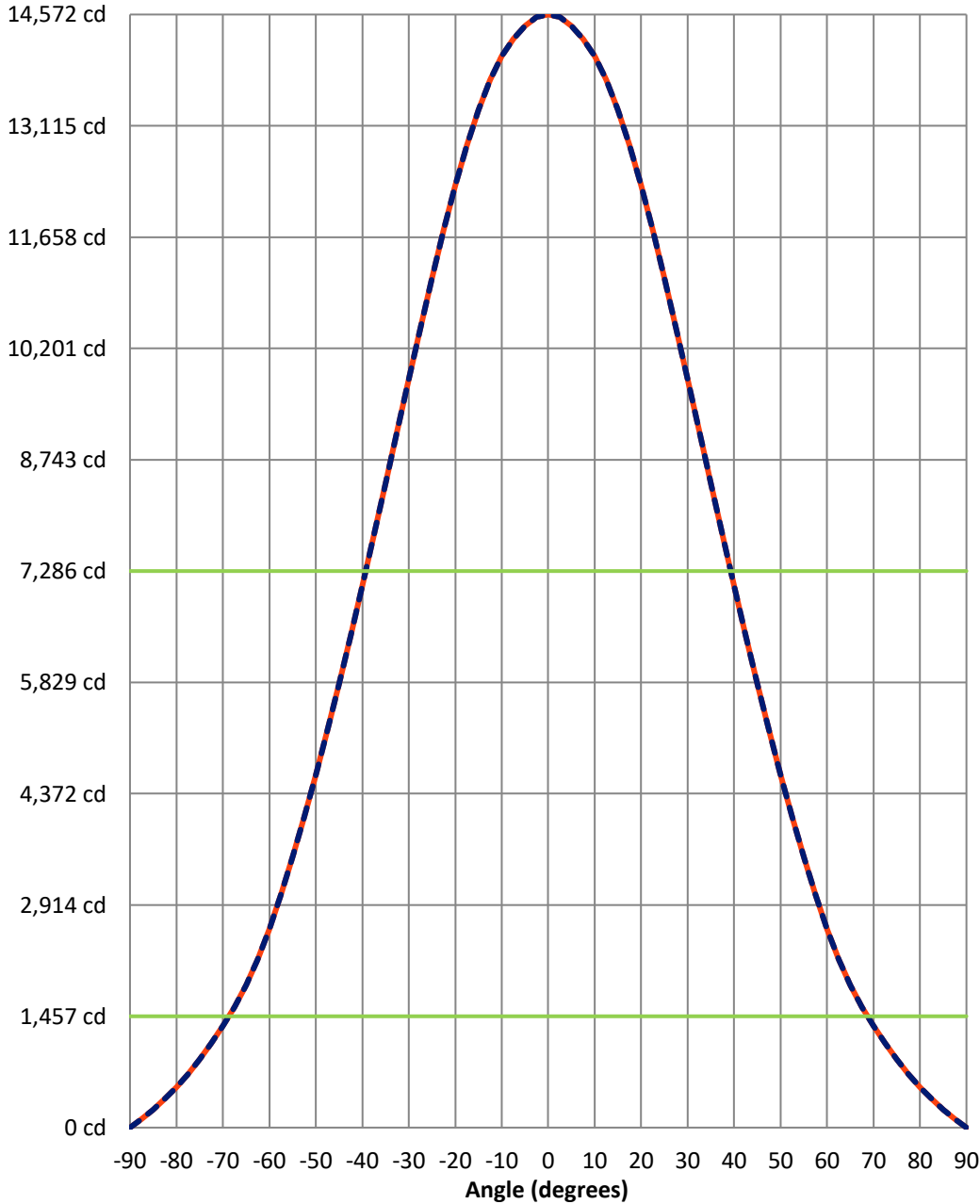
Luminous Intensity Polar Plot



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

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Luminous Intensity Plot



Beam:
H Angle: 78.6°
V Angle: 78.6°
Lumens: 11352.9
Efficiency: 43.3%

Field:
H Angle: 137.5°
V Angle: 137.5°
Lumens: 18589.9
Efficiency: 70.9%

Spill:
Lumens: 7647.9
Efficiency: 29.1%

— 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°	112.2	112.2	112.2	112.2	112.2	112.2	112.2	106.7	106.7	104.0	101.2
85°	235.3	235.3	235.3	235.3	235.3	229.8	227.1	224.3	221.6	216.1	213.4
82.5°	377.5	377.5	377.5	377.5	372.0	366.6	363.8	358.4	352.9	344.7	336.5
80°	528.0	528.0	528.0	528.0	519.8	514.3	506.1	500.6	492.4	481.5	470.5
77.5°	700.3	700.3	700.3	692.1	686.6	678.4	670.2	659.3	648.3	634.7	618.2
75°	894.5	894.5	894.5	883.6	875.4	867.2	853.5	839.8	823.4	804.3	782.4
72.5°	1105.2	1105.2	1105.2	1091.5	1083.3	1069.6	1053.2	1034.0	1014.9	990.3	962.9
70°	1332.2	1332.2	1332.2	1315.8	1302.1	1288.5	1266.6	1244.7	1217.3	1190.0	1157.1
67.5°	1578.4	1578.4	1578.4	1559.3	1542.9	1523.7	1499.1	1471.7	1438.9	1400.6	1362.3
65°	1865.7	1865.7	1854.7	1838.3	1819.2	1791.8	1761.7	1723.4	1682.4	1633.1	1581.2
62.5°	2204.9	2204.9	2188.5	2169.3	2144.7	2109.1	2068.1	2018.8	1961.4	1898.5	1835.6
60°	2598.8	2598.8	2579.6	2555.0	2519.5	2475.7	2421.0	2358.1	2286.9	2207.6	2131.0
57.5°	3052.9	3052.9	3028.3	2995.4	2951.7	2897.0	2828.6	2749.2	2659.0	2560.5	2464.7
55°	3545.3	3545.3	3515.2	3476.9	3424.9	3359.3	3277.2	3184.2	3074.8	2962.6	2839.5
52.5°	4067.8	4067.8	4032.2	3988.5	3928.3	3851.7	3758.7	3649.2	3523.4	3392.1	3247.1
50°	4617.6	4617.6	4576.6	4527.4	4459.0	4368.7	4262.0	4136.2	3996.7	3843.5	3676.6
47.5°	5205.8	5205.8	5159.3	5101.8	5019.8	4915.8	4790.0	4645.0	4486.3	4314.0	4125.2
45°	5810.3	5810.3	5758.4	5692.7	5602.4	5484.8	5345.3	5205.8	5003.4	4803.7	4584.8
42.5°	6439.5	6439.5	6379.3	6305.5	6201.5	6073.0	5914.3	5733.7	5534.1	5309.7	5071.7
40°	7093.3	7093.3	7024.9	6940.1	6825.2	6677.5	6499.7	6297.3	6073.0	5824.0	5561.4
37.5°	7760.8	7760.8	7684.2	7591.2	7462.6	7298.5	7098.8	6874.5	6622.8	6346.5	6056.5
35°	8433.8	8433.8	8348.9	8247.7	8105.5	7924.9	7708.8	7459.9	7180.9	6879.9	6554.4
32.5°	9120.4	9120.4	9027.4	8912.5	8751.1	8551.4	8313.4	8042.6	7760.8	7410.6	7055.0
30°	9798.8	9798.8	9697.6	9571.7	9399.4	9180.6	8920.7	8622.5	8291.5	7933.1	7550.2
27.5°	10466.3	10438.9	10354.1	10220.1	10031.3	9798.8	9517.0	9194.2	8835.9	8442.0	8031.6
25°	11122.8	11092.7	10999.7	10852.0	10649.6	10395.2	10091.5	9746.8	9361.1	8945.3	8496.7
22.5°	11752.0	11719.2	11620.7	11462.0	11245.9	10969.6	10644.1	10274.8	9864.5	9418.6	8945.3
20°	12334.7	12299.1	12197.9	12031.0	11806.7	11514.0	11169.3	10772.7	10335.0	9864.5	9361.1
17.5°	12859.9	12824.3	12717.6	12545.3	12334.7	12009.1	11653.5	11235.0	10772.7	10274.8	9746.8
15°	13322.2	13283.9	13174.5	13002.1	12761.4	12455.0	12080.3	11653.5	11169.3	10644.1	10091.5
12.5°	13716.1	13677.8	13565.7	13393.3	13144.4	12838.0	12455.0	12009.1	11514.0	10969.6	10395.2
10°	14028.0	13989.7	13883.0	13718.9	13461.7	13144.4	12761.4	12334.7	11806.7	11245.9	10649.6
7.5°	14252.3	14216.7	14118.3	13954.1	13718.9	13393.3	13002.1	12545.3	12031.0	11462.0	10852.0
5°	14421.9	14380.9	14282.4	14118.3	13883.0	13565.7	13174.5	12717.6	12197.9	11620.7	10999.7
2.5°	14539.5	14490.3	14380.9	14216.7	13989.7	13677.8	13283.9	12824.3	12299.1	11719.2	11092.7
0°	14572.4	14539.5	14421.9	14252.3	14028.0	13716.1	13322.2	12859.9	12334.7	11752.0	11122.8



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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°	98.5	98.5	95.7	93.0	90.3	84.8	82.1	79.3	76.6	71.1	68.4
85°	207.9	202.4	197.0	191.5	183.3	177.8	169.6	164.1	155.9	147.7	139.5
82.5°	328.3	320.1	309.1	300.9	290.0	276.3	265.3	251.7	238.0	227.1	213.4
80°	459.6	445.9	432.2	418.5	402.1	385.7	369.3	352.9	333.7	314.6	295.4
77.5°	601.8	582.7	563.5	541.6	522.5	500.6	478.7	456.8	432.2	407.6	383.0
75°	760.5	735.9	708.5	681.2	656.5	626.4	596.4	566.3	533.4	503.3	470.5
72.5°	932.8	902.7	869.9	837.1	801.5	763.2	724.9	683.9	645.6	607.3	566.3
70°	1118.8	1083.3	1042.3	1001.2	957.4	910.9	864.4	815.2	766.0	716.7	667.5
67.5°	1318.5	1274.8	1225.5	1176.3	1121.6	1066.9	1012.2	954.7	894.5	834.3	776.9
65°	1531.9	1477.2	1419.8	1356.8	1293.9	1231.0	1165.4	1097.0	1028.6	957.4	894.5
62.5°	1769.9	1701.5	1627.7	1551.1	1479.9	1403.3	1332.2	1247.4	1165.4	1086.0	1006.7
60°	2046.2	1955.9	1865.7	1769.9	1679.6	1581.2	1493.6	1400.6	1307.6	1217.3	1124.3
57.5°	2355.3	2240.4	2131.0	2016.1	1895.7	1786.3	1674.2	1562.0	1458.1	1351.4	1250.2
55°	2705.5	2566.0	2429.2	2286.9	2147.4	2010.6	1868.4	1742.6	1614.0	1493.6	1376.0
52.5°	3088.5	2929.8	2760.2	2598.8	2421.0	2251.4	2092.7	1934.0	1783.6	1638.6	1504.6
50°	3498.8	3312.8	3118.5	2921.6	2719.2	2519.5	2328.0	2141.9	1966.9	1797.3	1638.6
47.5°	3925.5	3714.9	3493.3	3269.0	3052.9	2809.4	2579.6	2369.0	2158.4	1966.9	1783.6
45°	4363.2	4125.2	3881.8	3627.4	3373.0	3110.3	2855.9	2598.8	2369.0	2141.9	1934.0
42.5°	4814.6	4546.5	4275.7	3993.9	3712.2	3424.9	3137.7	2855.9	2579.6	2328.0	2092.7
40°	5279.6	4984.2	4675.1	4368.7	4067.8	3739.5	3424.9	3110.3	2809.4	2519.5	2251.4
37.5°	5744.7	5421.9	5088.2	4743.5	4398.8	4067.8	3712.2	3373.0	3052.9	2719.2	2421.0
35°	6212.5	5856.8	5495.8	5121.0	4743.5	4368.7	3993.9	3627.4	3269.0	2921.6	2598.8
32.5°	6683.0	6294.5	5895.1	5495.8	5088.2	4675.1	4275.7	3881.8	3493.3	3118.5	2760.2
30°	7145.3	6724.0	6294.5	5856.8	5421.9	4984.2	4546.5	4125.2	3714.9	3312.8	2929.8
27.5°	7596.7	7145.3	6683.0	6212.5	5744.7	5279.6	4814.6	4363.2	3925.5	3498.8	3088.5
25°	8031.6	7550.2	7055.0	6554.4	6056.5	5561.4	5071.7	4584.8	4125.2	3676.6	3247.1
22.5°	8442.0	7933.1	7410.6	6879.9	6346.5	5824.0	5309.7	4803.7	4314.0	3843.5	3392.1
20°	8835.9	8291.5	7760.8	7180.9	6622.8	6073.0	5534.1	5003.4	4486.3	3996.7	3523.4
17.5°	9194.2	8622.5	8042.6	7459.9	6874.5	6297.3	5733.7	5205.8	4645.0	4136.2	3649.2
15°	9517.0	8920.7	8313.4	7708.8	7098.8	6499.7	5914.3	5345.3	4790.0	4262.0	3758.7
12.5°	9798.8	9180.6	8551.4	7924.9	7298.5	6677.5	6073.0	5484.8	4915.8	4368.7	3851.7
10°	10031.3	9399.4	8751.1	8105.5	7462.6	6825.2	6201.5	5602.4	5019.8	4459.0	3928.3
7.5°	10220.1	9571.7	8912.5	8247.7	7591.2	6940.1	6305.5	5692.7	5101.8	4527.4	3988.5
5°	10354.1	9697.6	9027.4	8348.9	7684.2	7024.9	6379.3	5758.4	5159.3	4576.6	4032.2
2.5°	10438.9	9798.8	9120.4	8433.8	7760.8	7093.3	6439.5	5810.3	5205.8	4617.6	4067.8
0°	10466.3	9798.8	9120.4	8433.8	7760.8	7093.3	6439.5	5810.3	5205.8	4617.6	4067.8



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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°	65.7	60.2	54.7	52.0	46.5	43.8	38.3	32.8	30.1	24.6	19.1
85°	131.3	120.4	112.2	104.0	95.7	84.8	76.6	68.4	57.4	49.2	38.3
82.5°	199.7	186.0	172.3	158.7	145.0	131.3	114.9	101.2	87.5	73.9	57.4
80°	276.3	254.4	235.3	216.1	197.0	177.8	155.9	136.8	114.9	95.7	76.6
77.5°	355.6	331.0	303.6	276.3	248.9	224.3	197.0	172.3	147.7	120.4	95.7
75°	440.4	407.6	377.5	341.9	309.1	273.6	240.7	207.9	177.8	147.7	114.9
72.5°	528.0	486.9	445.9	407.6	366.6	325.5	287.2	246.2	207.9	172.3	136.8
70°	618.2	569.0	519.8	473.3	426.7	377.5	333.7	287.2	240.7	197.0	155.9
67.5°	714.0	656.5	599.1	538.9	486.9	432.2	377.5	325.5	273.6	224.3	177.8
65°	817.9	749.5	678.4	615.5	547.1	486.9	426.7	366.6	309.1	248.9	197.0
62.5°	924.6	845.3	766.0	686.6	615.5	538.9	473.3	407.6	341.9	276.3	216.1
60°	1034.0	943.8	853.5	766.0	678.4	599.1	519.8	445.9	377.5	303.6	235.3
57.5°	1146.2	1045.0	943.8	845.3	749.5	656.5	569.0	486.9	407.6	331.0	254.4
55°	1261.1	1146.2	1034.0	924.6	817.9	714.0	618.2	528.0	440.4	355.6	276.3
52.5°	1376.0	1250.2	1124.3	1006.7	894.5	776.9	667.5	566.3	470.5	383.0	295.4
50°	1493.6	1351.4	1217.3	1086.0	957.4	834.3	716.7	607.3	503.3	407.6	314.6
47.5°	1614.0	1458.1	1307.6	1165.4	1028.6	894.5	766.0	645.6	533.4	432.2	333.7
45°	1742.6	1562.0	1400.6	1247.4	1097.0	954.7	815.2	683.9	566.3	456.8	352.9
42.5°	1868.4	1674.2	1493.6	1332.2	1165.4	1012.2	864.4	724.9	596.4	478.7	369.3
40°	2010.6	1786.3	1581.2	1403.3	1231.0	1066.9	910.9	763.2	626.4	500.6	385.7
37.5°	2147.4	1895.7	1679.6	1479.9	1293.9	1121.6	957.4	801.5	656.5	522.5	402.1
35°	2286.9	2016.1	1769.9	1551.1	1356.8	1176.3	1001.2	837.1	681.2	541.6	418.5
32.5°	2429.2	2131.0	1865.7	1627.7	1419.8	1225.5	1042.3	869.9	708.5	563.5	432.2
30°	2566.0	2240.4	1955.9	1701.5	1477.2	1274.8	1083.3	902.7	735.9	582.7	445.9
27.5°	2705.5	2355.3	2046.2	1769.9	1531.9	1318.5	1118.8	932.8	760.5	601.8	459.6
25°	2839.5	2464.7	2131.0	1835.6	1581.2	1362.3	1157.1	962.9	782.4	618.2	470.5
22.5°	2962.6	2560.5	2207.6	1898.5	1633.1	1400.6	1190.0	990.3	804.3	634.7	481.5
20°	3074.8	2659.0	2286.9	1961.4	1682.4	1438.9	1217.3	1014.9	823.4	648.3	492.4
17.5°	3184.2	2749.2	2358.1	2018.8	1723.4	1471.7	1244.7	1034.0	839.8	659.3	500.6
15°	3277.2	2828.6	2421.0	2068.1	1761.7	1499.1	1266.6	1053.2	853.5	670.2	506.1
12.5°	3359.3	2897.0	2475.7	2109.1	1791.8	1523.7	1288.5	1069.6	867.2	678.4	514.3
10°	3424.9	2951.7	2519.5	2144.7	1819.2	1542.9	1302.1	1083.3	875.4	686.6	519.8
7.5°	3476.9	2995.4	2555.0	2169.3	1838.3	1559.3	1315.8	1091.5	883.6	692.1	528.0
5°	3515.2	3028.3	2579.6	2188.5	1854.7	1578.4	1332.2	1105.2	894.5	700.3	528.0
2.5°	3545.3	3052.9	2598.8	2204.9	1865.7	1578.4	1332.2	1105.2	894.5	700.3	528.0
0°	3545.3	3052.9	2598.8	2204.9	1865.7	1578.4	1332.2	1105.2	894.5	700.3	528.0



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CANDELA DISTRIBUTION (continued):

	82.5°	85°	87.5°	90°
90°	0.0	0.0	0.0	0.0
87.5°	13.7	10.9	5.5	0.0
85°	30.1	19.1	10.9	0.0
82.5°	43.8	30.1	13.7	0.0
80°	57.4	38.3	19.1	0.0
77.5°	73.9	49.2	24.6	0.0
75°	87.5	57.4	30.1	0.0
72.5°	101.2	68.4	32.8	0.0
70°	114.9	76.6	38.3	0.0
67.5°	131.3	84.8	43.8	0.0
65°	145.0	95.7	46.5	0.0
62.5°	158.7	104.0	52.0	0.0
60°	172.3	112.2	54.7	0.0
57.5°	186.0	120.4	60.2	0.0
55°	199.7	131.3	65.7	0.0
52.5°	213.4	139.5	68.4	0.0
50°	227.1	147.7	71.1	0.0
47.5°	238.0	155.9	76.6	0.0
45°	251.7	164.1	79.3	0.0
42.5°	265.3	169.6	82.1	0.0
40°	276.3	177.8	84.8	0.0
37.5°	290.0	183.3	90.3	0.0
35°	300.9	191.5	93.0	0.0
32.5°	309.1	197.0	95.7	0.0
30°	320.1	202.4	98.5	0.0
27.5°	328.3	207.9	98.5	0.0
25°	336.5	213.4	101.2	0.0
22.5°	344.7	216.1	104.0	0.0
20°	352.9	221.6	106.7	0.0
17.5°	358.4	224.3	106.7	0.0
15°	363.8	227.1	112.2	0.0
12.5°	366.6	229.8	112.2	0.0
10°	372.0	235.3	112.2	0.0
7.5°	377.5	235.3	112.2	0.0
5°	377.5	235.3	112.2	0.0
2.5°	377.5	235.3	112.2	0.0
0°	377.5	235.3	112.2	0.0

(END OF REPORT)