

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: P628587

Luminaire Tested: **EPH-VN-04-E-930-U-LAM**

Issue Date: 01/11/2023

Test Information

Test Method: LM-79-2019
Report Number: P628587
Test Lab: INNOVATION CENTER(G2)
Issue Date: 01/11/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: EPHESUS
Catalog Number: EPH-VN-04-E-930-U-LAM
Description: EPHESUS LUMAVISION FLOOD – Middle Tier Light Square Luminaire w/
LAMBERTIAN distribution lens
Light Source: (64) 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

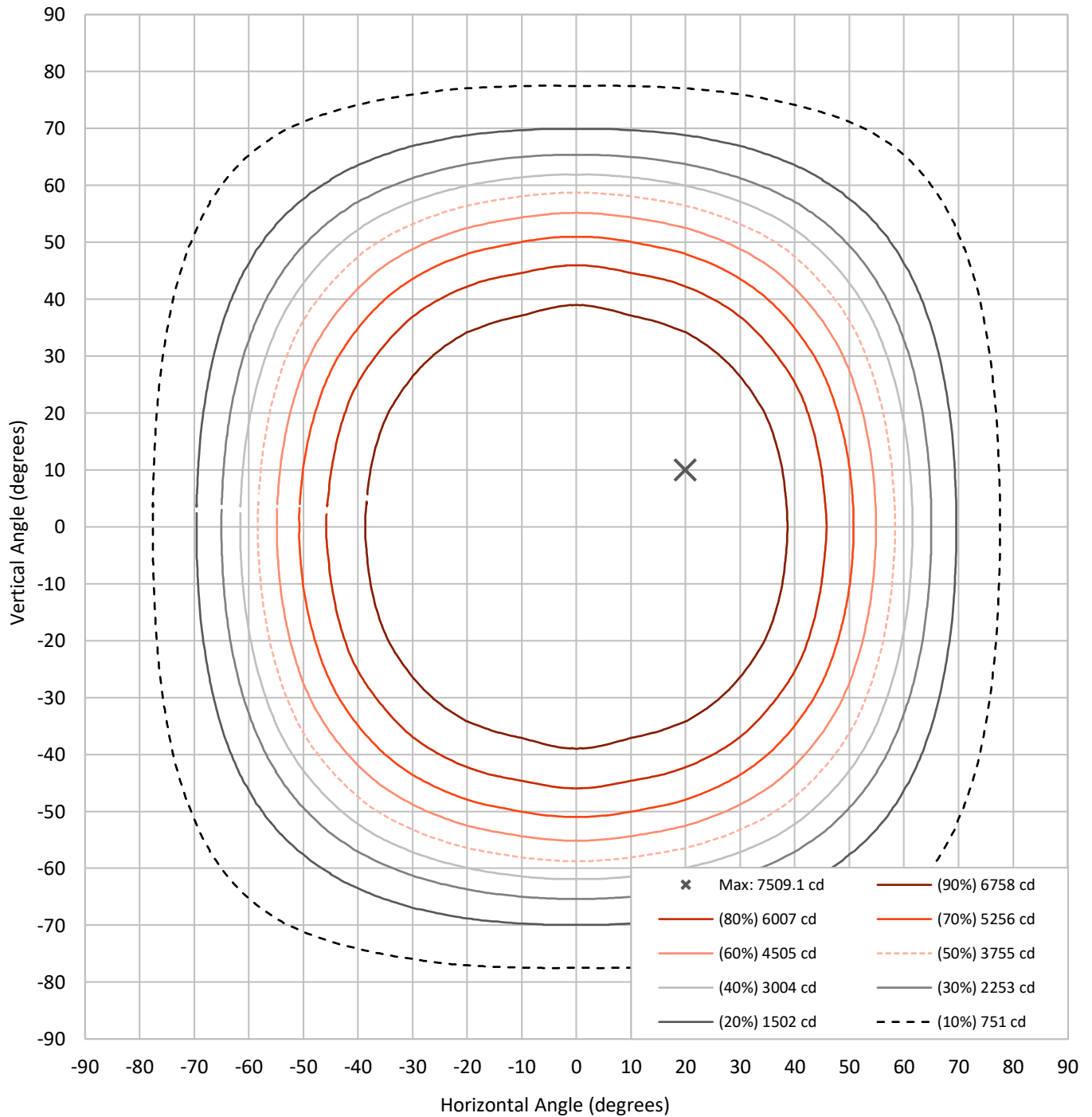
Lumens per Lamp:	N/A	NEMA Type:	7H x 7V
Luminaire Lumens:	23036.7 lumens	Max Intensity:	7509.1 candela
Efficiency:	N/A	Max Intensity Angle:	20°H x 10°V
Efficacy:	75.8 lumens/watt		
Luminous Opening:	Rectangular (W 2' x L: 0.5' x H: 0')		
Beam Angle (50%):	115.7°H x 112.9°V	Field Angle (10%):	154.7°H x 154°V
Beam Lumens:	14135.8 lumens	Field Lumens:	16946.4 lumens
Beam Efficiency:	61.4%	Field Efficiency:	73.6%

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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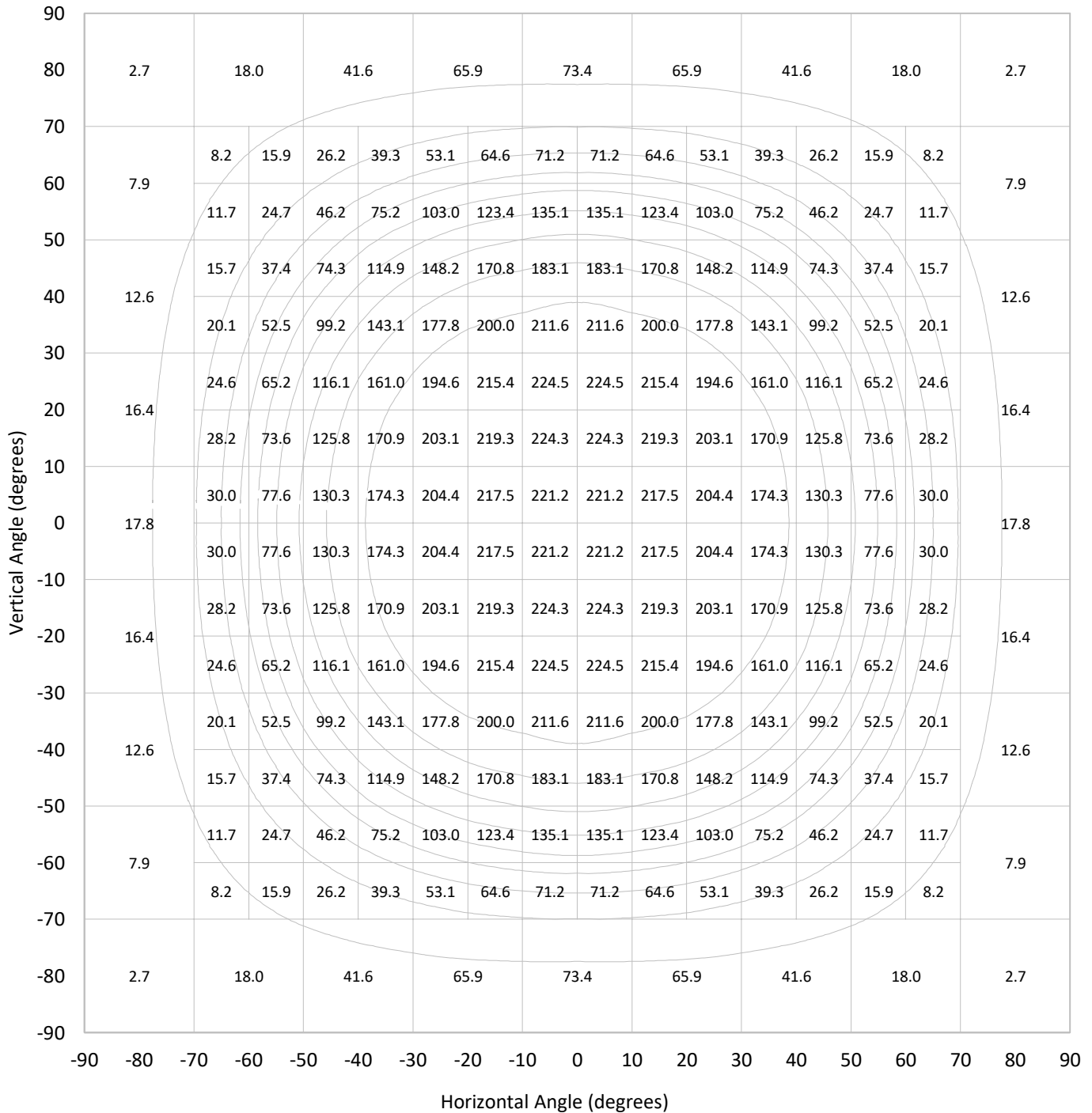
Iso-Candela Plot





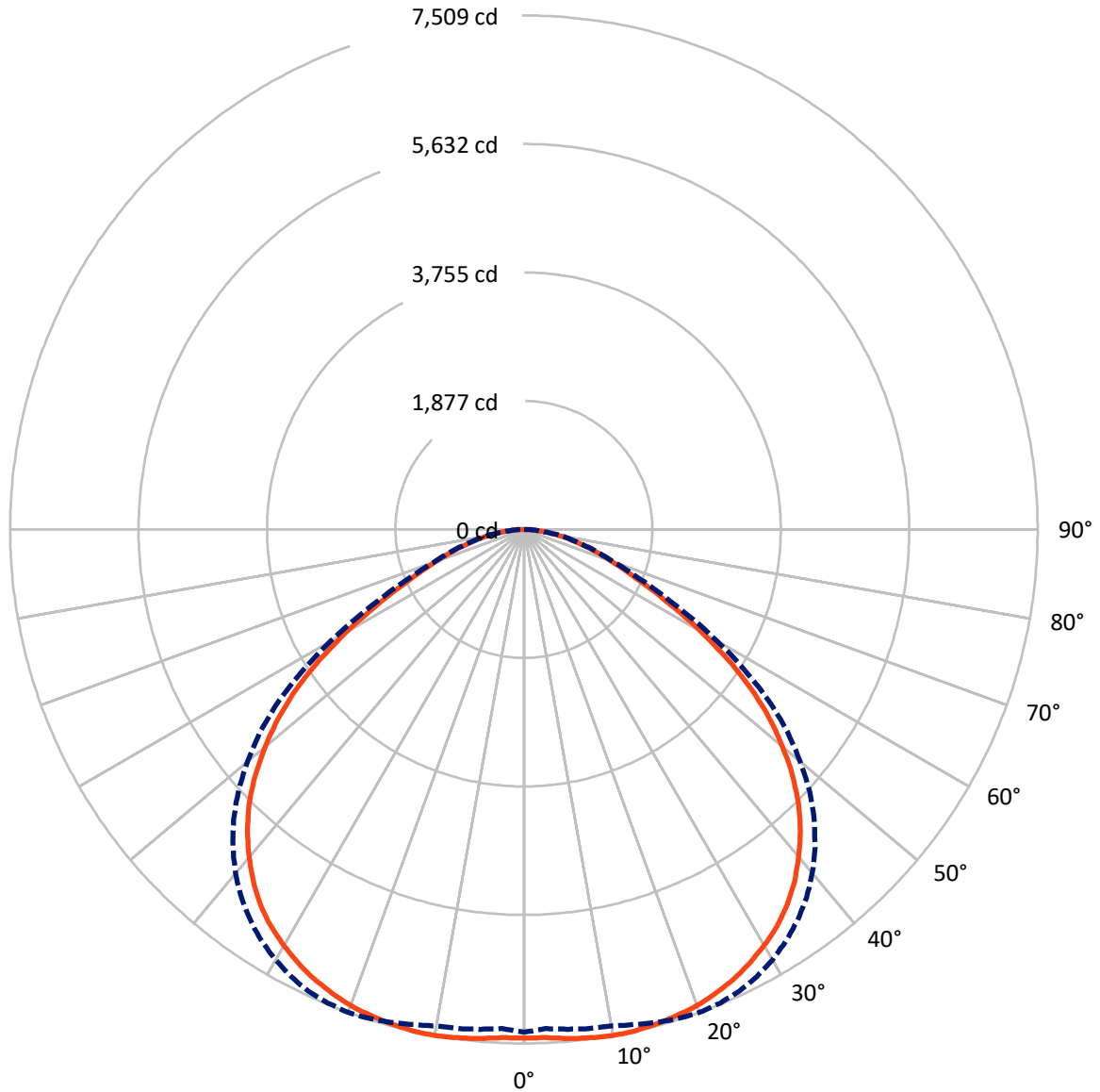
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Lumen Table



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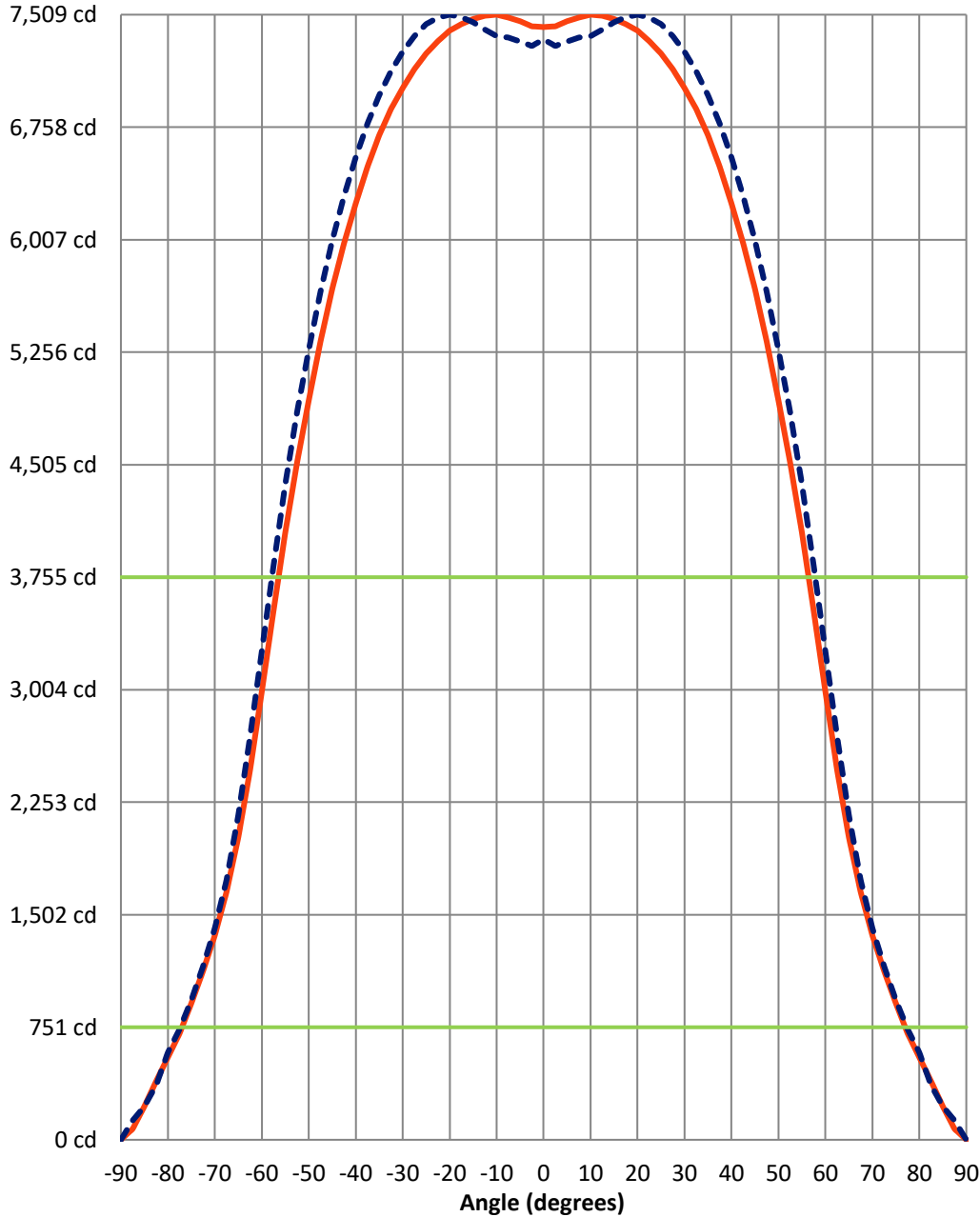
Luminous Intensity Polar Plot



— Vertical Distribution Through 20-Deg - - - Horizontal Distribution Through 10-Deg

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Luminous Intensity Plot



Beam:
 H Angle: 115.7°
 V Angle: 112.9°
 Lumens: 14135.8
 Efficiency: 61.4%

Field:
 H Angle: 154.7°
 V Angle: 154°
 Lumens: 16946.4
 Efficiency: 73.6%

Spill:
 Lumens: 6090.3
 Efficiency: 26.4%

- Vertical Distribution through 20-Deg
- - - Horizontal Distribution through 10-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°	60.6	65.4	67.9	70.3	72.7	75.1	77.6	75.1	72.7	72.7	70.3
85°	162.4	167.2	169.7	186.6	203.6	213.3	225.4	223.0	223.0	220.6	218.1
82.5°	324.8	339.3	351.5	368.4	378.1	392.7	402.4	395.1	390.2	380.5	373.3
80°	576.9	581.7	584.1	586.6	574.4	572.0	567.2	559.9	550.2	538.1	526.0
77.5°	734.4	739.3	744.1	739.3	736.8	734.4	727.2	719.9	710.2	700.5	685.9
75°	972.0	972.0	972.0	964.7	959.8	952.6	940.4	928.3	911.4	892.0	870.2
72.5°	1224.0	1221.6	1219.2	1204.6	1192.5	1178.0	1161.0	1146.5	1127.1	1105.3	1076.2
70°	1488.2	1493.1	1495.5	1476.1	1461.6	1442.2	1420.4	1393.7	1364.6	1333.1	1291.9
67.5°	1851.8	1847.0	1842.1	1815.5	1796.1	1769.4	1737.9	1699.1	1655.5	1607.0	1548.8
65°	2302.6	2309.9	2295.4	2268.7	2232.4	2188.7	2140.2	2084.5	2019.1	1946.3	1863.9
62.5°	2848.0	2860.1	2843.2	2809.2	2763.2	2705.0	2637.1	2557.1	2467.5	2365.7	2263.9
60°	3468.5	3466.1	3434.6	3388.5	3327.9	3255.2	3180.1	3092.8	2991.0	2872.2	2748.6
57.5°	4038.1	4033.3	3994.5	3948.4	3887.8	3810.3	3730.3	3638.2	3531.5	3405.5	3262.5
55°	4549.5	4544.7	4505.9	4457.4	4394.4	4316.9	4244.1	4156.9	4052.7	3919.3	3766.6
52.5°	5002.8	5005.2	4971.3	4918.0	4850.1	4775.0	4704.7	4617.4	4518.0	4384.7	4236.9
50°	5419.7	5417.3	5380.9	5332.4	5269.4	5196.7	5126.4	5039.2	4934.9	4806.5	4663.5
47.5°	5807.5	5802.7	5761.5	5708.1	5642.7	5579.7	5514.2	5436.7	5327.6	5199.1	5056.1
45°	6132.3	6122.6	6081.4	6030.5	5967.5	5911.7	5853.6	5795.4	5679.1	5560.3	5424.6
42.5°	6411.1	6408.6	6367.4	6316.5	6253.5	6205.0	6151.7	6079.0	5982.0	5873.0	5739.6
40°	6677.7	6658.3	6617.1	6568.6	6510.4	6469.2	6415.9	6343.2	6248.7	6142.0	6013.5
37.5°	6876.4	6878.9	6835.2	6781.9	6731.0	6692.2	6643.7	6575.9	6493.5	6389.2	6260.8
35°	7065.5	7053.4	7017.0	6971.0	6924.9	6881.3	6830.4	6772.2	6704.3	6607.4	6486.2
32.5°	7189.1	7206.1	7162.4	7114.0	7087.3	7053.4	7000.0	6939.4	6878.9	6781.9	6672.8
30°	7324.8	7310.3	7276.4	7235.2	7215.8	7194.0	7147.9	7089.7	7019.4	6932.2	6830.4
27.5°	7419.4	7412.1	7370.9	7332.1	7322.4	7303.0	7266.7	7215.8	7145.5	7060.6	6966.1
25°	7460.6	7465.4	7426.6	7404.8	7404.8	7392.7	7363.6	7320.0	7249.7	7172.1	7080.0
22.5°	7480.0	7475.1	7448.5	7443.6	7455.7	7446.0	7433.9	7395.1	7332.1	7269.1	7191.5
20°	7492.1	7458.2	7433.9	7453.3	7467.8	7465.4	7455.7	7431.5	7402.4	7349.1	7281.2
17.5°	7465.4	7443.6	7414.5	7443.6	7475.1	7477.5	7467.8	7453.3	7446.0	7412.1	7351.5
15°	7400.0	7383.0	7387.9	7416.9	7453.3	7465.4	7472.7	7489.7	7480.0	7453.3	7400.0
12.5°	7356.3	7334.5	7356.3	7385.4	7404.8	7412.1	7470.3	7501.8	7501.8	7477.5	7443.6
10°	7344.2	7300.6	7329.7	7356.3	7366.0	7409.7	7458.2	7492.1	7509.1	7489.7	7446.0
7.5°	7320.0	7290.9	7303.0	7315.1	7370.9	7402.4	7429.1	7465.4	7489.7	7487.2	7448.5
5°	7307.9	7271.5	7276.4	7327.3	7366.0	7387.9	7397.6	7429.1	7465.4	7472.7	7443.6
2.5°	7276.4	7259.4	7295.8	7300.6	7329.7	7346.7	7356.3	7385.4	7431.5	7448.5	7436.3
0°	7259.4	7235.2	7210.9	7230.3	7278.8	7315.1	7329.7	7373.3	7426.6	7443.6	7416.9



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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°	67.9	65.4	63.0	60.6	63.0	63.0	63.0	60.6	63.0	60.6	60.6
85°	210.9	201.2	193.9	184.2	174.5	167.2	157.5	147.9	145.4	143.0	138.2
82.5°	363.6	351.5	339.3	324.8	310.3	293.3	276.3	256.9	252.1	247.2	240.0
80°	511.4	494.5	477.5	460.5	446.0	429.0	409.6	387.8	373.3	361.2	346.6
77.5°	666.6	642.3	618.1	589.0	572.0	555.1	535.7	513.9	492.0	472.6	450.8
75°	843.5	816.8	792.6	763.5	732.0	700.5	669.0	639.9	608.4	579.3	550.2
72.5°	1039.8	1001.0	962.3	925.9	887.1	848.3	807.1	768.4	729.6	690.8	649.6
70°	1245.9	1197.4	1148.9	1100.4	1049.5	998.6	950.1	901.7	853.2	802.3	756.2
67.5°	1488.2	1432.5	1369.5	1301.6	1226.5	1161.0	1098.0	1039.8	981.7	923.5	865.3
65°	1791.2	1713.7	1628.8	1536.7	1449.5	1362.2	1270.1	1182.8	1115.0	1047.1	981.7
62.5°	2164.5	2055.4	1936.6	1817.9	1711.2	1597.3	1490.7	1376.7	1270.1	1173.1	1093.2
60°	2610.5	2462.6	2317.2	2164.5	2016.6	1861.5	1725.8	1585.2	1451.9	1333.1	1216.8
57.5°	3102.5	2930.4	2755.9	2569.3	2368.1	2186.3	2002.1	1817.9	1660.3	1502.8	1371.9
55°	3601.8	3420.0	3223.7	3012.8	2792.3	2559.6	2309.9	2103.9	1888.2	1704.0	1534.3
52.5°	4076.9	3887.8	3684.2	3490.3	3226.1	2959.5	2685.6	2414.1	2162.1	1927.0	1720.9
50°	4501.1	4316.9	4120.5	3895.1	3650.3	3366.7	3061.3	2755.9	2457.8	2181.5	1924.5
47.5°	4888.9	4709.5	4513.2	4287.8	4064.8	3749.7	3441.9	3104.9	2772.9	2455.3	2154.8
45°	5252.5	5070.7	4867.1	4651.3	4394.4	4113.3	3795.7	3456.4	3100.1	2743.8	2397.2
42.5°	5582.1	5400.3	5194.3	4971.3	4716.8	4438.0	4130.2	3788.5	3429.7	3041.9	2661.4
40°	5870.5	5693.6	5494.8	5262.2	5024.6	4731.3	4428.4	4103.6	3732.7	3342.5	2923.1
37.5°	6122.6	5957.8	5761.5	5531.2	5279.1	5017.3	4704.7	4379.9	4045.4	3621.2	3192.2
35°	6345.6	6192.9	5991.7	5773.6	5526.4	5250.0	4956.7	4639.2	4278.1	3880.6	3463.7
32.5°	6539.5	6384.4	6200.2	5982.0	5742.1	5482.7	5182.2	4862.2	4520.5	4115.7	3662.4
30°	6704.3	6554.1	6379.5	6173.5	5943.3	5686.3	5393.0	5070.7	4721.6	4319.3	3870.9
27.5°	6847.3	6704.3	6534.7	6343.2	6122.6	5875.4	5579.7	5254.9	4898.6	4510.8	4062.4
25°	6971.0	6832.8	6675.3	6493.5	6275.3	6032.9	5754.2	5414.9	5058.6	4668.3	4224.8
22.5°	7082.5	6949.1	6791.6	6614.7	6415.9	6173.5	5892.4	5555.4	5194.3	4808.9	4372.6
20°	7181.8	7058.2	6903.1	6721.3	6522.5	6277.7	5999.0	5679.1	5315.5	4937.4	4505.9
17.5°	7261.8	7152.7	6997.6	6806.1	6607.4	6369.8	6098.4	5805.1	5419.7	5046.4	4617.4
15°	7317.6	7210.9	7070.3	6876.4	6682.5	6447.4	6175.9	5873.0	5514.2	5133.7	4709.5
12.5°	7356.3	7242.4	7111.5	6932.2	6738.3	6505.6	6241.4	5943.3	5594.2	5211.3	4789.5
10°	7366.0	7261.8	7130.9	6971.0	6781.9	6556.5	6297.1	6001.4	5659.7	5271.8	4854.9
7.5°	7370.9	7271.5	7152.7	7000.0	6813.4	6595.3	6338.3	6047.5	5708.1	5322.7	4903.4
5°	7368.5	7273.9	7167.3	7019.4	6832.8	6617.1	6365.0	6079.0	5742.1	5356.7	4939.8
2.5°	7361.2	7276.4	7177.0	7034.0	6854.6	6641.3	6391.7	6115.3	5778.4	5385.8	4968.9
0°	7380.6	7307.9	7181.8	7029.1	6859.5	6641.3	6389.2	6120.2	5783.3	5383.3	4966.4



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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°	60.6	58.2	58.2	55.7	53.3	50.9	46.1	43.6	38.8	31.5	24.2
85°	130.9	123.6	116.3	111.5	106.6	101.8	94.5	87.3	77.6	63.0	48.5
82.5°	230.3	215.7	201.2	184.2	169.7	155.1	143.0	130.9	116.3	94.5	72.7
80°	329.6	307.8	286.0	261.8	240.0	215.7	193.9	174.5	155.1	126.0	97.0
77.5°	429.0	399.9	368.4	339.3	307.8	276.3	244.8	218.1	189.1	155.1	121.2
75°	521.1	487.2	458.1	416.9	378.1	336.9	295.7	259.4	223.0	181.8	145.4
72.5°	613.2	569.6	528.4	489.6	446.0	395.1	349.0	303.0	256.9	208.5	164.8
70°	705.3	652.0	601.1	555.1	506.6	455.7	399.9	346.6	290.9	232.7	181.8
67.5°	799.9	739.3	681.1	622.9	567.2	509.0	450.8	390.2	324.8	256.9	201.2
65°	904.1	829.0	758.7	693.2	627.8	564.8	499.3	433.9	361.2	283.6	218.1
62.5°	1008.3	925.9	843.5	761.1	688.4	618.1	547.8	475.1	395.1	312.7	235.1
60°	1119.8	1025.3	930.8	838.6	749.0	671.4	593.8	516.3	431.4	339.3	252.1
57.5°	1243.4	1129.5	1022.9	918.6	816.8	724.7	639.9	557.5	463.0	366.0	271.5
55°	1384.0	1243.4	1117.4	1001.0	889.5	778.1	685.9	601.1	499.3	392.7	293.3
52.5°	1531.9	1369.5	1216.8	1085.9	967.1	841.1	729.6	635.0	535.7	419.3	312.7
50°	1704.0	1497.9	1328.3	1168.3	1035.0	904.1	775.6	673.8	572.0	450.8	332.1
47.5°	1880.9	1653.1	1439.8	1265.2	1107.7	964.7	829.0	707.8	606.0	479.9	351.5
45°	2086.9	1800.9	1565.8	1359.8	1178.0	1027.7	882.3	744.1	635.0	509.0	370.8
42.5°	2285.7	1975.4	1696.7	1464.0	1258.0	1088.3	930.8	782.9	664.1	538.1	387.8
40°	2520.8	2149.9	1822.7	1563.4	1338.0	1146.5	979.2	824.1	690.8	564.8	404.8
37.5°	2746.2	2326.9	1975.4	1672.4	1415.5	1204.6	1027.7	862.9	715.0	591.4	426.6
35°	2969.2	2523.2	2120.9	1774.2	1495.5	1270.1	1076.2	899.2	739.3	613.2	446.0
32.5°	3182.5	2707.4	2268.7	1888.2	1582.8	1330.7	1119.8	933.2	763.5	632.6	465.4
30°	3381.3	2881.9	2414.1	2004.5	1662.8	1386.4	1161.0	967.1	792.6	649.6	484.8
27.5°	3563.0	3051.6	2559.6	2113.6	1737.9	1437.3	1204.6	998.6	816.8	666.6	501.7
25°	3727.9	3204.3	2692.9	2213.0	1805.8	1493.1	1245.9	1030.1	838.6	681.1	516.3
22.5°	3883.0	3344.9	2814.1	2312.3	1888.2	1548.8	1284.6	1059.2	860.5	695.6	530.8
20°	4018.7	3473.4	2930.4	2411.7	1960.9	1599.7	1318.6	1085.9	879.9	705.3	545.4
17.5°	4127.8	3587.3	3034.6	2499.0	2023.9	1643.4	1347.7	1110.1	896.8	717.5	555.1
15°	4224.8	3684.2	3121.9	2574.1	2079.7	1679.7	1374.3	1129.5	911.4	724.7	567.2
12.5°	4307.2	3766.6	3197.0	2639.6	2128.1	1711.2	1396.1	1144.1	923.5	732.0	574.4
10°	4375.0	3832.1	3260.1	2690.5	2166.9	1735.5	1413.1	1158.6	933.2	739.3	581.7
7.5°	4425.9	3880.6	3306.1	2734.1	2198.4	1752.4	1427.6	1168.3	942.9	744.1	593.8
5°	4464.7	3921.8	3342.5	2763.2	2222.7	1776.7	1444.6	1180.4	952.6	749.0	593.8
2.5°	4493.8	3955.7	3371.6	2787.4	2242.1	1771.8	1444.6	1178.0	952.6	749.0	591.4
0°	4488.9	3958.1	3369.1	2787.4	2242.1	1767.0	1444.6	1175.6	952.6	749.0	591.4



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CANDELA DISTRIBUTION (continued):

	82.5°	85°	87.5°	90°
90°	0.0	0.0	0.0	0.0
87.5°	17.0	12.1	4.8	0.0
85°	36.4	24.2	12.1	0.0
82.5°	53.3	33.9	17.0	0.0
80°	70.3	46.1	21.8	0.0
77.5°	89.7	58.2	29.1	0.0
75°	106.6	67.9	33.9	0.0
72.5°	123.6	80.0	38.8	0.0
70°	138.2	89.7	43.6	0.0
67.5°	152.7	101.8	50.9	0.0
65°	164.8	111.5	55.7	0.0
62.5°	174.5	123.6	60.6	0.0
60°	186.6	133.3	65.4	0.0
57.5°	196.3	140.6	70.3	0.0
55°	206.0	145.4	75.1	0.0
52.5°	215.7	152.7	80.0	0.0
50°	225.4	160.0	84.8	0.0
47.5°	235.1	164.8	87.3	0.0
45°	249.7	172.1	92.1	0.0
42.5°	261.8	176.9	97.0	0.0
40°	273.9	181.8	99.4	0.0
37.5°	286.0	186.6	104.2	0.0
35°	298.1	191.5	106.6	0.0
32.5°	307.8	196.3	109.1	0.0
30°	317.5	201.2	111.5	0.0
27.5°	327.2	203.6	113.9	0.0
25°	334.5	208.5	116.3	0.0
22.5°	341.8	210.9	118.8	0.0
20°	346.6	213.3	121.2	0.0
17.5°	353.9	215.7	123.6	0.0
15°	356.3	218.1	128.5	0.0
12.5°	361.2	220.6	128.5	0.0
10°	363.6	223.0	128.5	0.0
7.5°	368.4	223.0	128.5	0.0
5°	366.0	223.0	128.5	0.0
2.5°	366.0	223.0	128.5	0.0
0°	363.6	223.0	128.5	0.0

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