

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: P628599

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

Issue Date: 01/11/2023

Test Information

Test Method: LM-79-2019
Report Number: P628599
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-940-U-LAM
Description: EPHESUS LUMAVISION FLOOD – Middle Tier Light Square Luminaire w/
LAMBERTIAN distribution lens
Light Source: (64) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

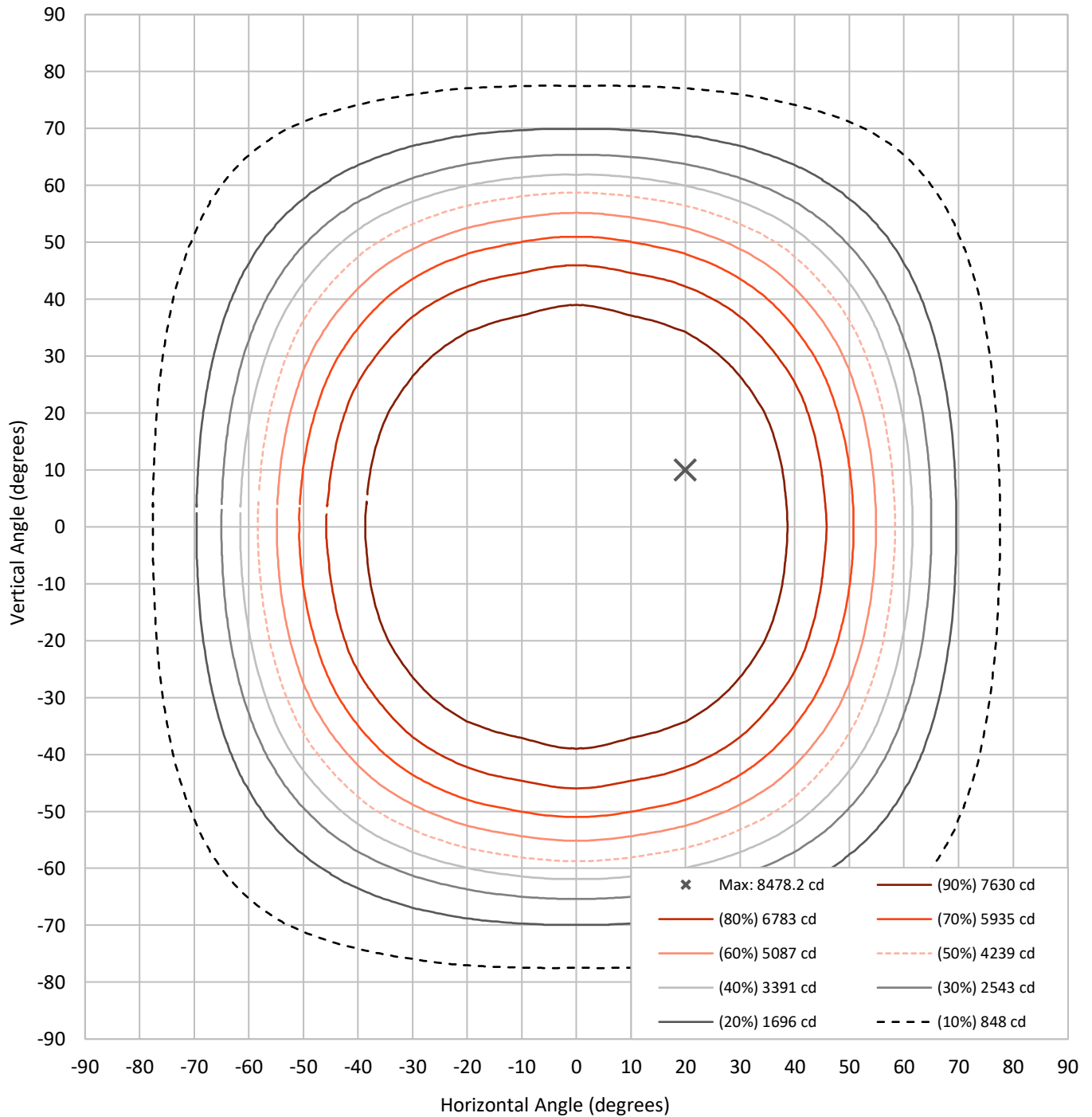
Lumens per Lamp:	N/A	NEMA Type:	7H x 7V
Luminaire Lumens:	26009.9 lumens	Max Intensity:	8478.2 candela
Efficiency:	N/A	Max Intensity Angle:	20°H x 10°V
Efficacy:	85.6 lumens/watt		
Luminous Opening:	Rectangular (W 2' x L: 0.5' x H: 0')		
Beam Angle (50%):	115.7°H x 112.9°V	Field Angle (10%):	154.7°H x 154°V
Beam Lumens:	15960.2 lumens	Field Lumens:	19133.6 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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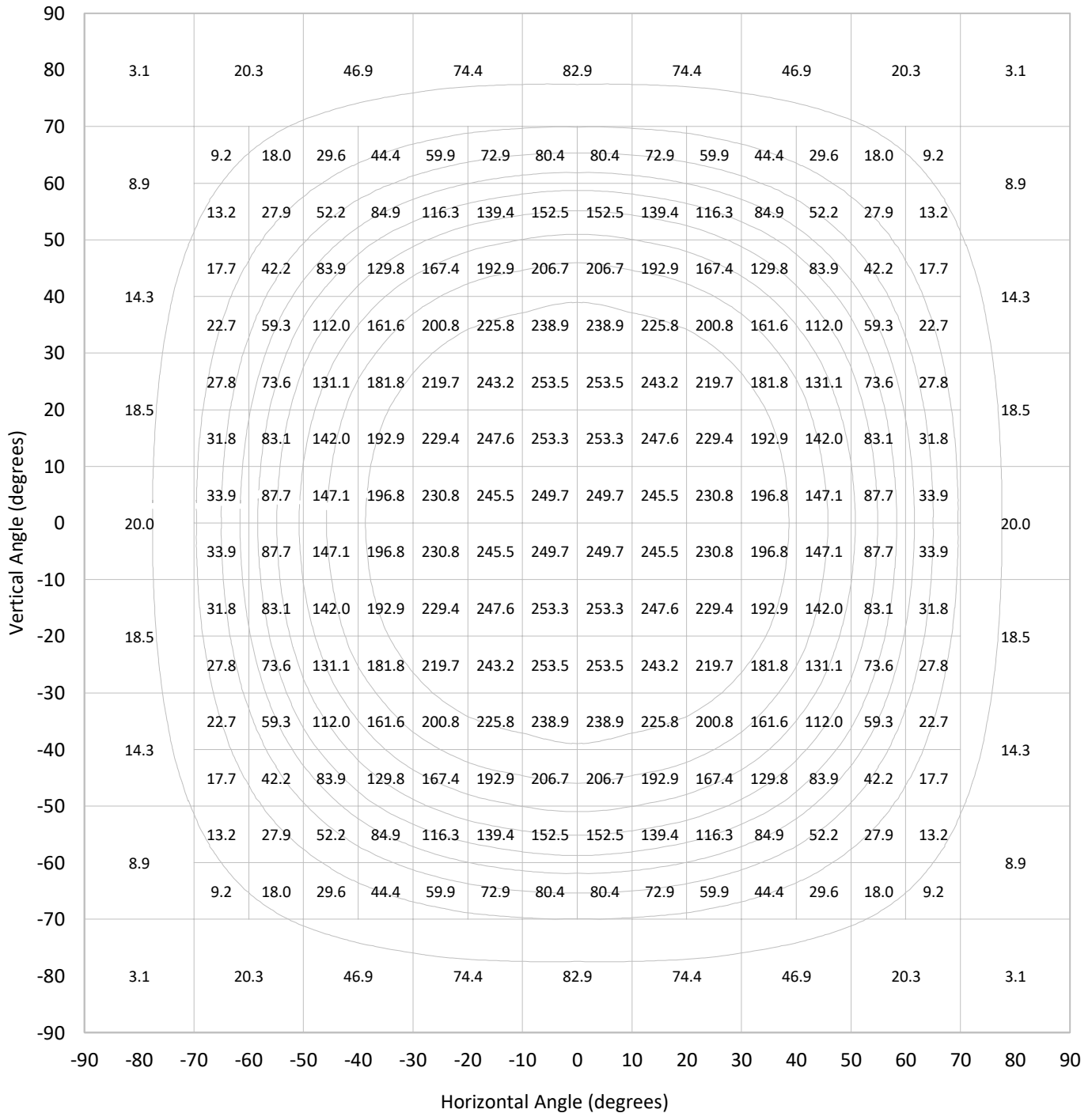
Iso-Candela Plot





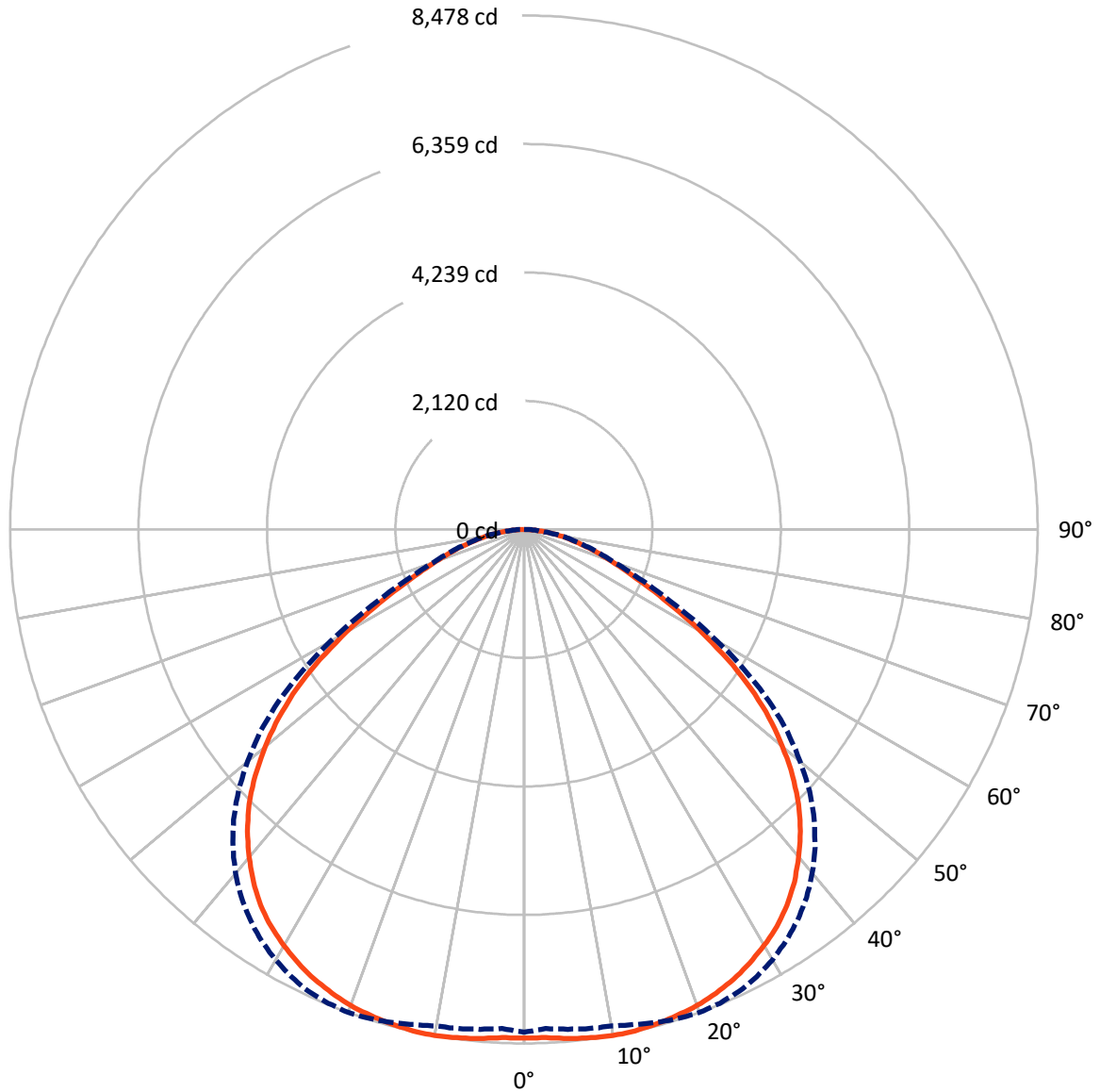
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Lumen Table



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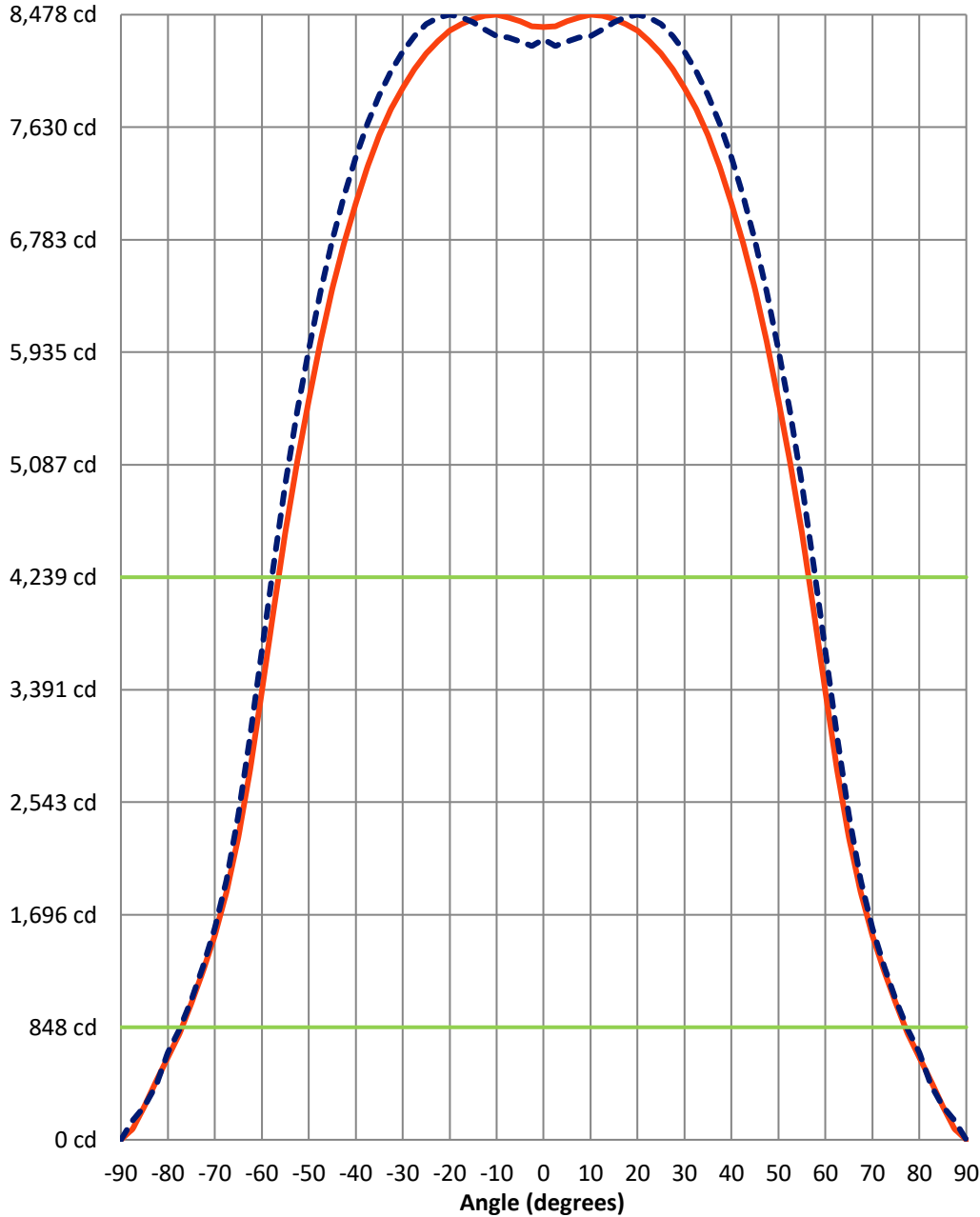
Luminous Intensity Polar Plot



— 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: 15960.2
 Efficiency: 61.4%

Field:
 H Angle: 154.7°
 V Angle: 154°
 Lumens: 19133.6
 Efficiency: 73.6%

Spill:
 Lumens: 6876.3
 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°	68.4	73.9	76.6	79.4	82.1	84.8	87.6	84.8	82.1	82.1	79.4
85°	183.4	188.8	191.6	210.7	229.9	240.8	254.5	251.8	251.8	249.0	246.3
82.5°	366.7	383.1	396.8	416.0	426.9	443.3	454.3	446.1	440.6	429.7	421.4
80°	651.3	656.8	659.5	662.3	648.6	645.9	640.4	632.2	621.2	607.5	593.9
77.5°	829.2	834.7	840.2	834.7	831.9	829.2	821.0	812.8	801.8	790.9	774.5
75°	1097.4	1097.4	1097.4	1089.2	1083.7	1075.5	1061.8	1048.1	1029.0	1007.1	982.5
72.5°	1382.0	1379.3	1376.5	1360.1	1346.4	1330.0	1310.9	1294.4	1272.5	1247.9	1215.1
70°	1680.3	1685.8	1688.5	1666.6	1650.2	1628.3	1603.7	1573.6	1540.7	1505.2	1458.6
67.5°	2090.8	2085.3	2079.9	2049.8	2027.9	1997.8	1962.2	1918.4	1869.1	1814.4	1748.7
65°	2599.8	2608.0	2591.6	2561.5	2520.5	2471.2	2416.5	2353.5	2279.6	2197.5	2104.5
62.5°	3215.6	3229.3	3210.1	3171.8	3119.8	3054.1	2977.5	2887.2	2785.9	2671.0	2556.0
60°	3916.2	3913.4	3877.9	3825.9	3757.4	3675.3	3590.5	3492.0	3377.0	3242.9	3103.4
57.5°	4559.3	4553.8	4510.0	4458.0	4389.6	4302.0	4211.7	4107.7	3987.3	3845.0	3683.6
55°	5136.7	5131.2	5087.5	5032.7	4961.6	4874.0	4791.9	4693.4	4575.7	4425.2	4252.8
52.5°	5648.5	5651.2	5612.9	5552.7	5476.1	5391.2	5311.9	5213.3	5101.1	4950.6	4783.7
50°	6119.2	6116.4	6075.4	6020.7	5949.5	5867.4	5788.0	5689.5	5571.9	5426.8	5265.3
47.5°	6557.0	6551.6	6505.1	6444.8	6371.0	6299.8	6225.9	6138.3	6015.2	5870.1	5708.7
45°	6923.8	6912.8	6866.3	6808.8	6737.7	6674.7	6609.0	6543.4	6412.0	6277.9	6124.7
42.5°	7238.5	7235.7	7189.2	7131.7	7060.6	7005.9	6945.7	6863.6	6754.1	6630.9	6480.4
40°	7539.5	7517.6	7471.1	7416.4	7350.7	7304.2	7244.0	7161.9	7055.1	6934.7	6789.7
37.5°	7763.9	7766.7	7717.4	7657.2	7599.7	7555.9	7501.2	7424.6	7331.5	7213.8	7068.8
35°	7977.4	7963.7	7922.6	7870.6	7818.7	7769.4	7711.9	7646.2	7569.6	7460.1	7323.3
32.5°	8116.9	8136.1	8086.8	8032.1	8002.0	7963.7	7903.5	7835.1	7766.7	7657.2	7534.0
30°	8270.2	8253.8	8215.5	8168.9	8147.1	8122.4	8070.4	8004.7	7925.4	7826.9	7711.9
27.5°	8376.9	8368.7	8322.2	8278.4	8267.5	8245.6	8204.5	8147.1	8067.7	7971.9	7865.2
25°	8423.5	8428.9	8385.1	8360.5	8360.5	8346.8	8314.0	8264.7	8185.4	8097.8	7993.8
22.5°	8445.3	8439.9	8409.8	8404.3	8418.0	8407.0	8393.4	8349.6	8278.4	8207.3	8119.7
20°	8459.0	8420.7	8393.4	8415.2	8431.7	8428.9	8418.0	8390.6	8357.8	8297.6	8220.9
17.5°	8428.9	8404.3	8371.5	8404.3	8439.9	8442.6	8431.7	8415.2	8407.0	8368.7	8300.3
15°	8355.0	8335.9	8341.4	8374.2	8415.2	8428.9	8437.1	8456.3	8445.3	8415.2	8355.0
12.5°	8305.8	8281.1	8305.8	8338.6	8360.5	8368.7	8434.4	8470.0	8470.0	8442.6	8404.3
10°	8292.1	8242.8	8275.7	8305.8	8316.7	8366.0	8420.7	8459.0	8478.2	8456.3	8407.0
7.5°	8264.7	8231.9	8245.6	8259.3	8322.2	8357.8	8387.9	8428.9	8456.3	8453.6	8409.8
5°	8251.0	8210.0	8215.5	8272.9	8316.7	8341.4	8352.3	8387.9	8428.9	8437.1	8404.3
2.5°	8215.5	8196.3	8237.4	8242.8	8275.7	8294.8	8305.8	8338.6	8390.6	8409.8	8396.1
0°	8196.3	8168.9	8141.6	8163.5	8218.2	8259.3	8275.7	8324.9	8385.1	8404.3	8374.2



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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°	76.6	73.9	71.2	68.4	71.2	71.2	71.2	68.4	71.2	68.4	68.4
85°	238.1	227.1	218.9	208.0	197.0	188.8	177.9	166.9	164.2	161.5	156.0
82.5°	410.5	396.8	383.1	366.7	350.3	331.1	312.0	290.1	284.6	279.1	270.9
80°	577.4	558.3	539.1	520.0	503.5	484.4	462.5	437.9	421.4	407.8	391.3
77.5°	752.6	725.2	697.8	665.0	645.9	626.7	604.8	580.2	555.5	533.6	509.0
75°	952.4	922.3	894.9	862.0	826.5	790.9	755.3	722.5	686.9	654.1	621.2
72.5°	1174.0	1130.2	1086.5	1045.4	1001.6	957.8	911.3	867.5	823.7	779.9	733.4
70°	1406.6	1351.9	1297.2	1242.4	1185.0	1127.5	1072.8	1018.0	963.3	905.8	853.8
67.5°	1680.3	1617.4	1546.2	1469.6	1384.8	1310.9	1239.7	1174.0	1108.3	1042.7	977.0
65°	2022.4	1934.8	1839.0	1735.0	1636.5	1538.0	1434.0	1335.5	1258.9	1182.2	1108.3
62.5°	2443.8	2320.7	2186.6	2052.5	1932.1	1803.5	1683.0	1554.4	1434.0	1324.5	1234.2
60°	2947.4	2780.5	2616.3	2443.8	2276.9	2101.8	1948.5	1789.8	1639.3	1505.2	1373.8
57.5°	3502.9	3308.6	3111.6	2900.9	2673.7	2468.5	2260.5	2052.5	1874.6	1696.7	1549.0
55°	4066.7	3861.4	3639.8	3401.7	3152.6	2889.9	2608.0	2375.4	2131.9	1923.9	1732.3
52.5°	4603.1	4389.6	4159.7	3940.8	3642.5	3341.5	3032.2	2725.7	2441.1	2175.6	1943.0
50°	5082.0	4874.0	4652.3	4397.8	4121.4	3801.2	3456.4	3111.6	2775.0	2463.0	2172.9
47.5°	5519.9	5317.3	5095.7	4841.2	4589.4	4233.6	3886.1	3505.7	3130.7	2772.2	2432.9
45°	5930.4	5725.1	5495.2	5251.7	4961.6	4644.1	4285.6	3902.5	3500.2	3097.9	2706.6
42.5°	6302.5	6097.3	5864.7	5612.9	5325.6	5010.8	4663.3	4277.4	3872.4	3434.5	3004.9
40°	6628.2	6428.4	6204.0	5941.3	5673.1	5342.0	4999.9	4633.2	4214.5	3773.9	3300.4
37.5°	6912.8	6726.7	6505.1	6245.1	5960.5	5664.9	5311.9	4945.2	4567.5	4088.6	3604.2
35°	7164.6	6992.2	6765.0	6518.7	6239.6	5927.6	5596.5	5238.0	4830.2	4381.4	3910.7
32.5°	7383.5	7208.4	7000.4	6754.1	6483.2	6190.3	5851.0	5489.8	5103.9	4646.9	4135.1
30°	7569.6	7399.9	7202.9	6970.3	6710.3	6420.2	6089.1	5725.1	5331.0	4876.7	4370.5
27.5°	7731.1	7569.6	7378.0	7161.9	6912.8	6633.7	6299.8	5933.1	5530.8	5092.9	4586.7
25°	7870.6	7714.7	7536.8	7331.5	7085.2	6811.6	6496.8	6113.7	5711.4	5270.8	4770.0
22.5°	7996.5	7846.0	7668.1	7468.4	7244.0	6970.3	6652.8	6272.4	5864.7	5429.5	4936.9
20°	8108.7	7969.2	7794.0	7588.8	7364.4	7088.0	6773.2	6412.0	6001.5	5574.6	5087.5
17.5°	8199.0	8075.9	7900.8	7684.6	7460.1	7192.0	6885.4	6554.3	6119.2	5697.7	5213.3
15°	8262.0	8141.6	7982.9	7763.9	7545.0	7279.5	6973.0	6630.9	6225.9	5796.3	5317.3
12.5°	8305.8	8177.2	8029.4	7826.9	7607.9	7345.2	7046.9	6710.3	6316.2	5883.8	5407.7
10°	8316.7	8199.0	8051.3	7870.6	7657.2	7402.7	7109.9	6776.0	6390.1	5952.2	5481.5
7.5°	8322.2	8210.0	8075.9	7903.5	7692.8	7446.5	7156.4	6828.0	6444.8	6009.7	5536.3
5°	8319.5	8212.7	8092.3	7925.4	7714.7	7471.1	7186.5	6863.6	6483.2	6048.0	5577.3
2.5°	8311.3	8215.5	8103.3	7941.8	7739.3	7498.5	7216.6	6904.6	6524.2	6080.9	5610.2
0°	8333.1	8251.0	8108.7	7936.3	7744.8	7498.5	7213.8	6910.1	6529.7	6078.1	5607.4



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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°	68.4	65.7	65.7	62.9	60.2	57.5	52.0	49.3	43.8	35.6	27.4
85°	147.8	139.6	131.4	125.9	120.4	114.9	106.7	98.5	87.6	71.2	54.7
82.5°	260.0	243.6	227.1	208.0	191.6	175.1	161.5	147.8	131.4	106.7	82.1
80°	372.2	347.6	322.9	295.6	270.9	243.6	218.9	197.0	175.1	142.3	109.5
77.5°	484.4	451.5	416.0	383.1	347.6	312.0	276.4	246.3	213.5	175.1	136.8
75°	588.4	550.1	517.2	470.7	426.9	380.4	333.9	292.8	251.8	205.2	164.2
72.5°	692.4	643.1	596.6	552.8	503.5	446.1	394.1	342.1	290.1	235.4	186.1
70°	796.4	736.2	678.7	626.7	572.0	514.5	451.5	391.3	328.4	262.7	205.2
67.5°	903.1	834.7	769.0	703.3	640.4	574.7	509.0	440.6	366.7	290.1	227.1
65°	1020.8	935.9	856.6	782.7	708.8	637.6	563.8	489.9	407.8	320.2	246.3
62.5°	1138.5	1045.4	952.4	859.3	777.2	697.8	618.5	536.4	446.1	353.0	265.5
60°	1264.3	1157.6	1050.9	946.9	845.6	758.1	670.5	582.9	487.1	383.1	284.6
57.5°	1403.9	1275.3	1154.9	1037.2	922.3	818.3	722.5	629.4	522.7	413.2	306.5
55°	1562.6	1403.9	1261.6	1130.2	1004.4	878.5	774.5	678.7	563.8	443.3	331.1
52.5°	1729.6	1546.2	1373.8	1226.0	1091.9	949.6	823.7	717.0	604.8	473.4	353.0
50°	1923.9	1691.3	1499.7	1319.1	1168.6	1020.8	875.7	760.8	645.9	509.0	374.9
47.5°	2123.7	1866.4	1625.6	1428.5	1250.7	1089.2	935.9	799.1	684.2	541.9	396.8
45°	2356.3	2033.3	1767.9	1535.3	1330.0	1160.3	996.1	840.2	717.0	574.7	418.7
42.5°	2580.7	2230.4	1915.7	1652.9	1420.3	1228.8	1050.9	883.9	749.8	607.5	437.9
40°	2846.1	2427.4	2058.0	1765.1	1510.6	1294.4	1105.6	930.5	779.9	637.6	457.0
37.5°	3100.6	2627.2	2230.4	1888.3	1598.2	1360.1	1160.3	974.3	807.3	667.7	481.7
35°	3352.4	2848.9	2394.6	2003.2	1688.5	1434.0	1215.1	1015.3	834.7	692.4	503.5
32.5°	3593.2	3056.9	2561.5	2131.9	1787.0	1502.4	1264.3	1053.6	862.0	714.3	525.4
30°	3817.6	3253.9	2725.7	2263.2	1877.4	1565.4	1310.9	1091.9	894.9	733.4	547.3
27.5°	4022.9	3445.5	2889.9	2386.4	1962.2	1622.8	1360.1	1127.5	922.3	752.6	566.5
25°	4209.0	3617.9	3040.4	2498.6	2038.8	1685.8	1406.6	1163.1	946.9	769.0	582.9
22.5°	4384.1	3776.6	3177.3	2610.8	2131.9	1748.7	1450.4	1195.9	971.5	785.4	599.3
20°	4537.4	3921.6	3308.6	2723.0	2214.0	1806.2	1488.7	1226.0	993.4	796.4	615.7
17.5°	4660.5	4050.3	3426.3	2821.5	2285.1	1855.5	1521.6	1253.4	1012.6	810.1	626.7
15°	4770.0	4159.7	3524.8	2906.3	2348.1	1896.5	1551.7	1275.3	1029.0	818.3	640.4
12.5°	4863.1	4252.8	3609.7	2980.2	2402.8	1932.1	1576.3	1291.7	1042.7	826.5	648.6
10°	4939.7	4326.7	3680.8	3037.7	2446.6	1959.5	1595.5	1308.1	1053.6	834.7	656.8
7.5°	4997.2	4381.4	3732.8	3087.0	2482.2	1978.6	1611.9	1319.1	1064.6	840.2	670.5
5°	5040.9	4427.9	3773.9	3119.8	2509.5	2006.0	1631.1	1332.8	1075.5	845.6	670.5
2.5°	5073.8	4466.2	3806.7	3147.2	2531.4	2000.5	1631.1	1330.0	1075.5	845.6	667.7
0°	5068.3	4469.0	3804.0	3147.2	2531.4	1995.0	1631.1	1327.3	1075.5	845.6	667.7



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CANDELA DISTRIBUTION (continued):

	82.5°	85°	87.5°	90°
90°	0.0	0.0	0.0	0.0
87.5°	19.2	13.7	5.5	0.0
85°	41.0	27.4	13.7	0.0
82.5°	60.2	38.3	19.2	0.0
80°	79.4	52.0	24.6	0.0
77.5°	101.3	65.7	32.8	0.0
75°	120.4	76.6	38.3	0.0
72.5°	139.6	90.3	43.8	0.0
70°	156.0	101.3	49.3	0.0
67.5°	172.4	114.9	57.5	0.0
65°	186.1	125.9	62.9	0.0
62.5°	197.0	139.6	68.4	0.0
60°	210.7	150.5	73.9	0.0
57.5°	221.7	158.7	79.4	0.0
55°	232.6	164.2	84.8	0.0
52.5°	243.6	172.4	90.3	0.0
50°	254.5	180.6	95.8	0.0
47.5°	265.5	186.1	98.5	0.0
45°	281.9	194.3	104.0	0.0
42.5°	295.6	199.8	109.5	0.0
40°	309.2	205.2	112.2	0.0
37.5°	322.9	210.7	117.7	0.0
35°	336.6	216.2	120.4	0.0
32.5°	347.6	221.7	123.1	0.0
30°	358.5	227.1	125.9	0.0
27.5°	369.4	229.9	128.6	0.0
25°	377.7	235.4	131.4	0.0
22.5°	385.9	238.1	134.1	0.0
20°	391.3	240.8	136.8	0.0
17.5°	399.6	243.6	139.6	0.0
15°	402.3	246.3	145.0	0.0
12.5°	407.8	249.0	145.0	0.0
10°	410.5	251.8	145.0	0.0
7.5°	416.0	251.8	145.0	0.0
5°	413.2	251.8	145.0	0.0
2.5°	413.2	251.8	145.0	0.0
0°	410.5	251.8	145.0	0.0

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