

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: P624189

Luminaire Tested: **EPH-VN-07-E-735-U-77**

Issue Date: 11/2/2022

Test Information

Test Method: LM-79-2019
Report Number: P624189
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-77
Description: EPHESUS LUMAVISION FLOOD – Middle Tier Light Square Luminaire w/
Nema 7 distribution lens
Light Source: (112) 3500K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

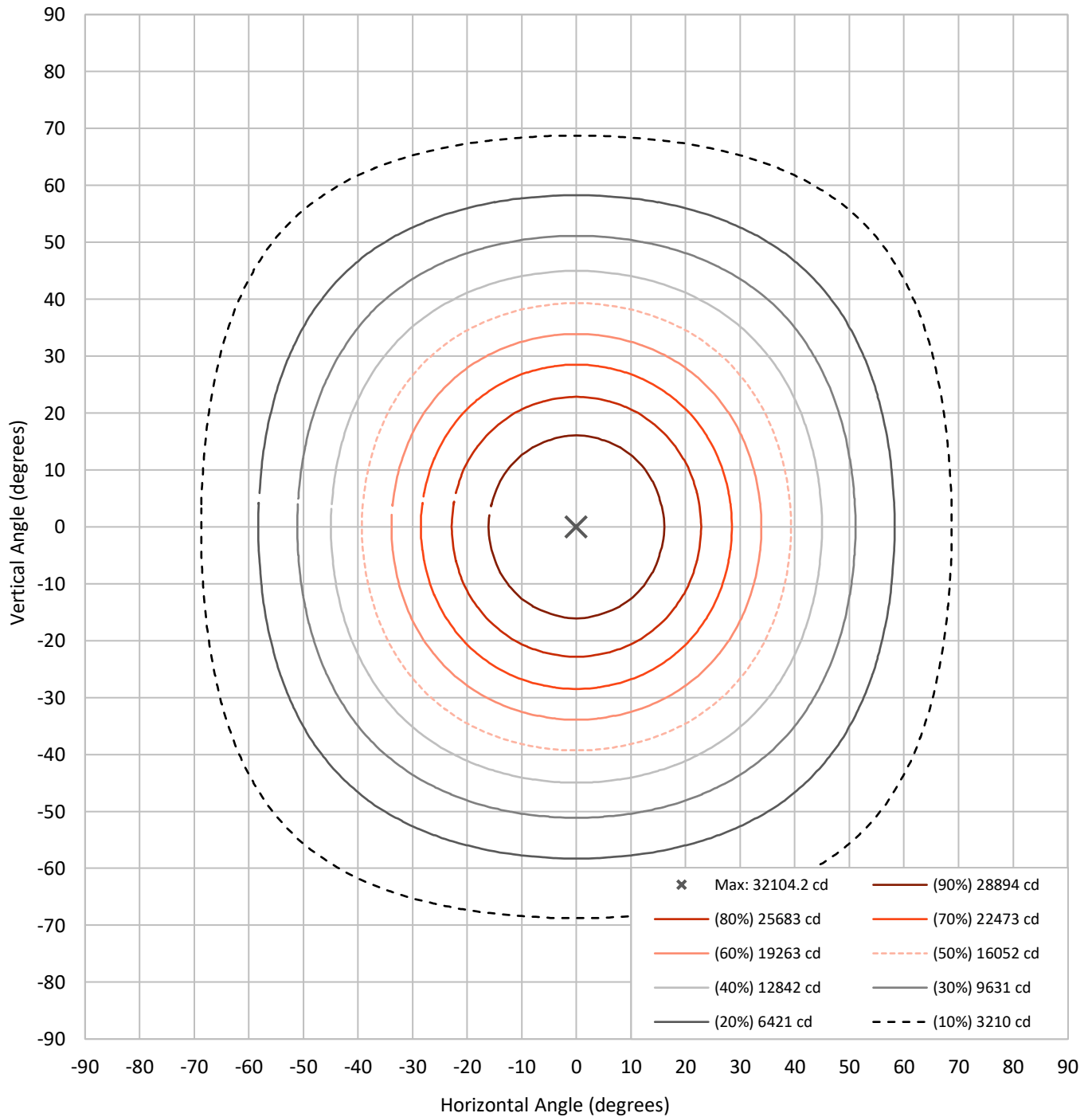
Lumens per Lamp:	N/A	NEMA Type:	7H x 7V
Luminaire Lumens:	57804.4 lumens	Max Intensity:	32104.2 candela
Efficiency:	N/A	Max Intensity Angle:	0°H x 0°V
Efficacy:	108.5 lumens/watt		
Luminous Opening:	Rectangular (W 2' x L: 1' x H: 0')		
Beam Angle (50%):	78.6°H x 78.6°V	Field Angle (10%):	137.5°H x 137.5°V
Beam Lumens:	25011.4 lumens	Field Lumens:	40955.3 lumens
Beam Efficiency:	43.3%	Field Efficiency:	70.9%

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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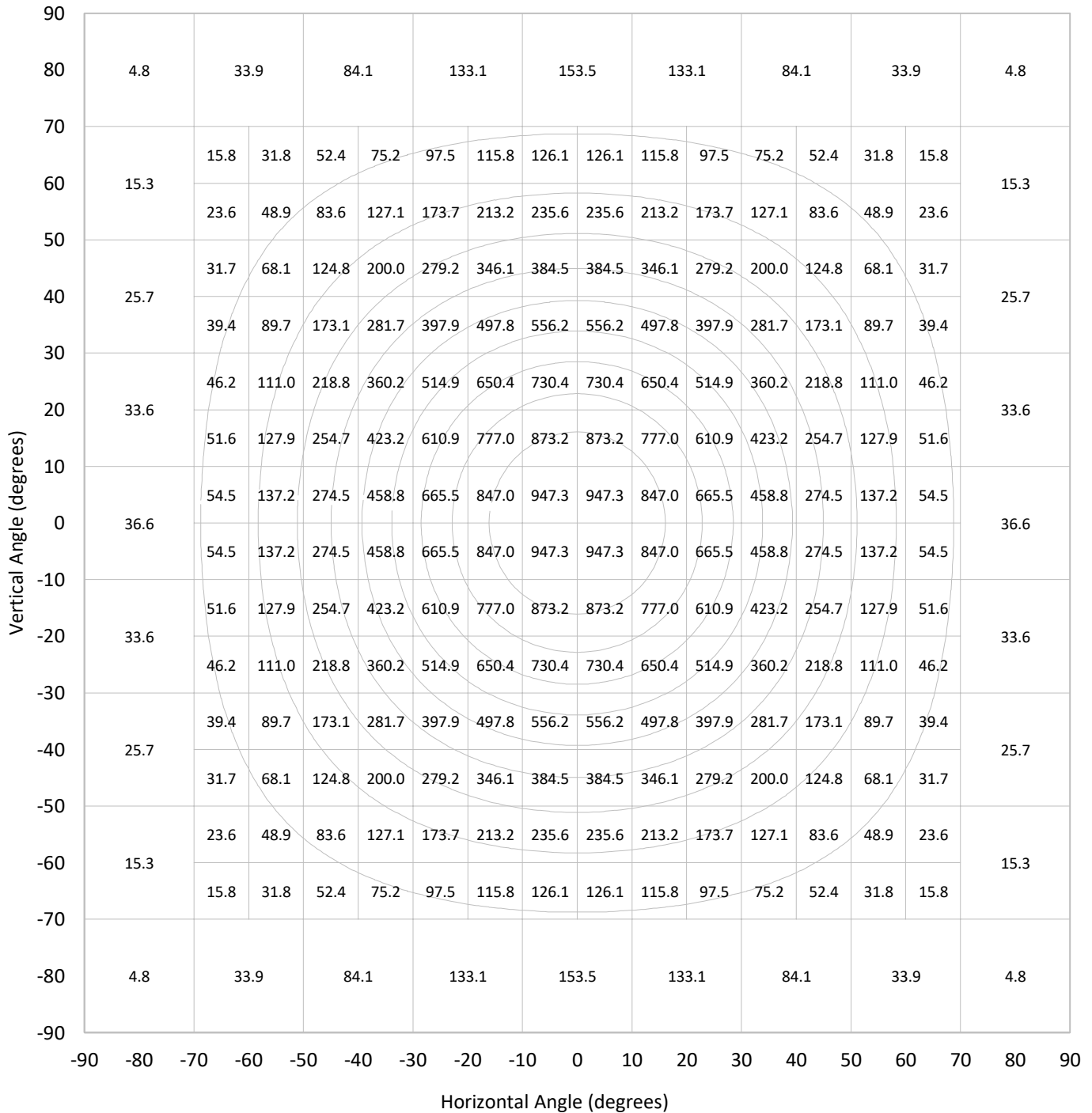
Iso-Candela Plot





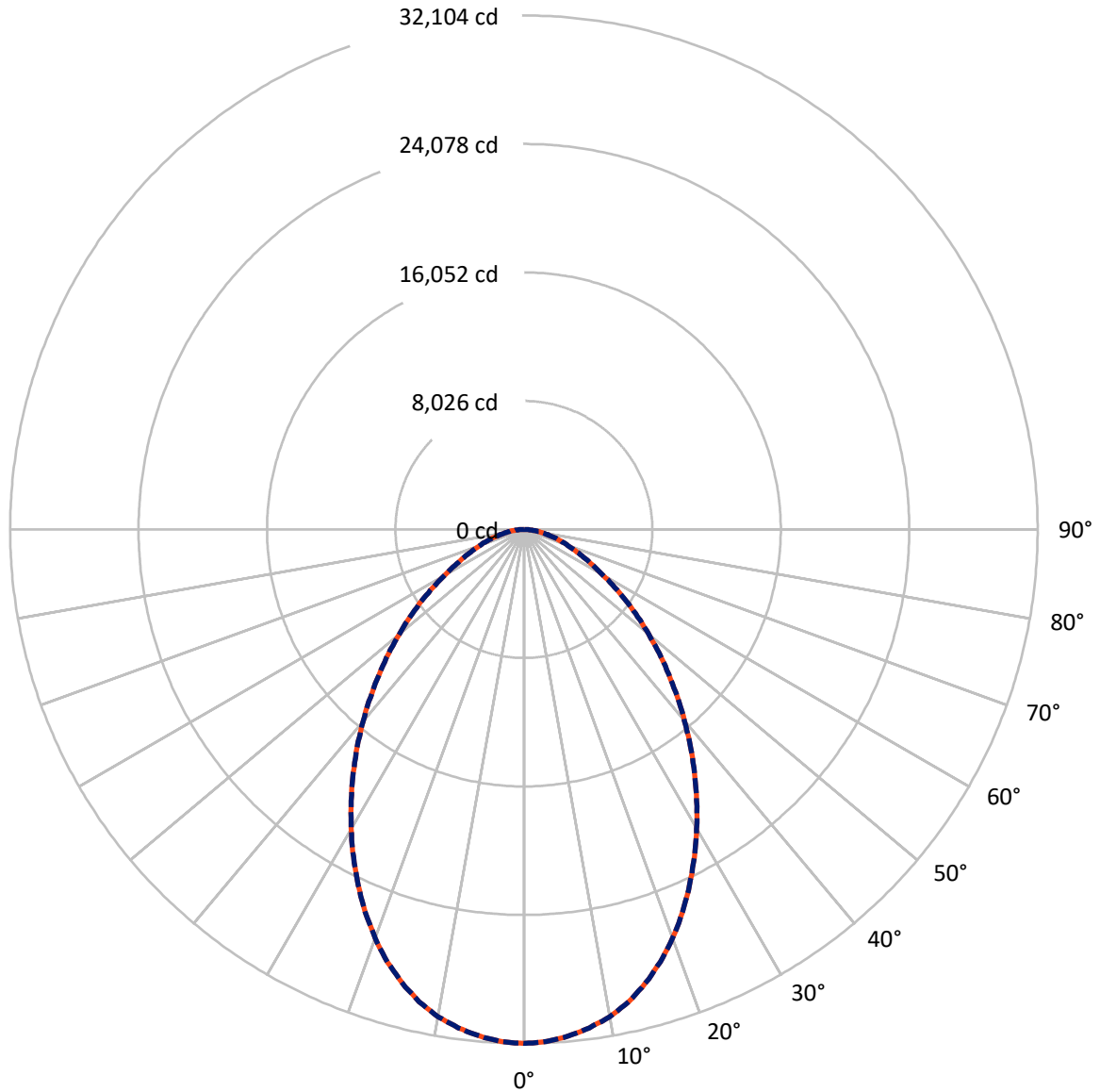
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Lumen Table



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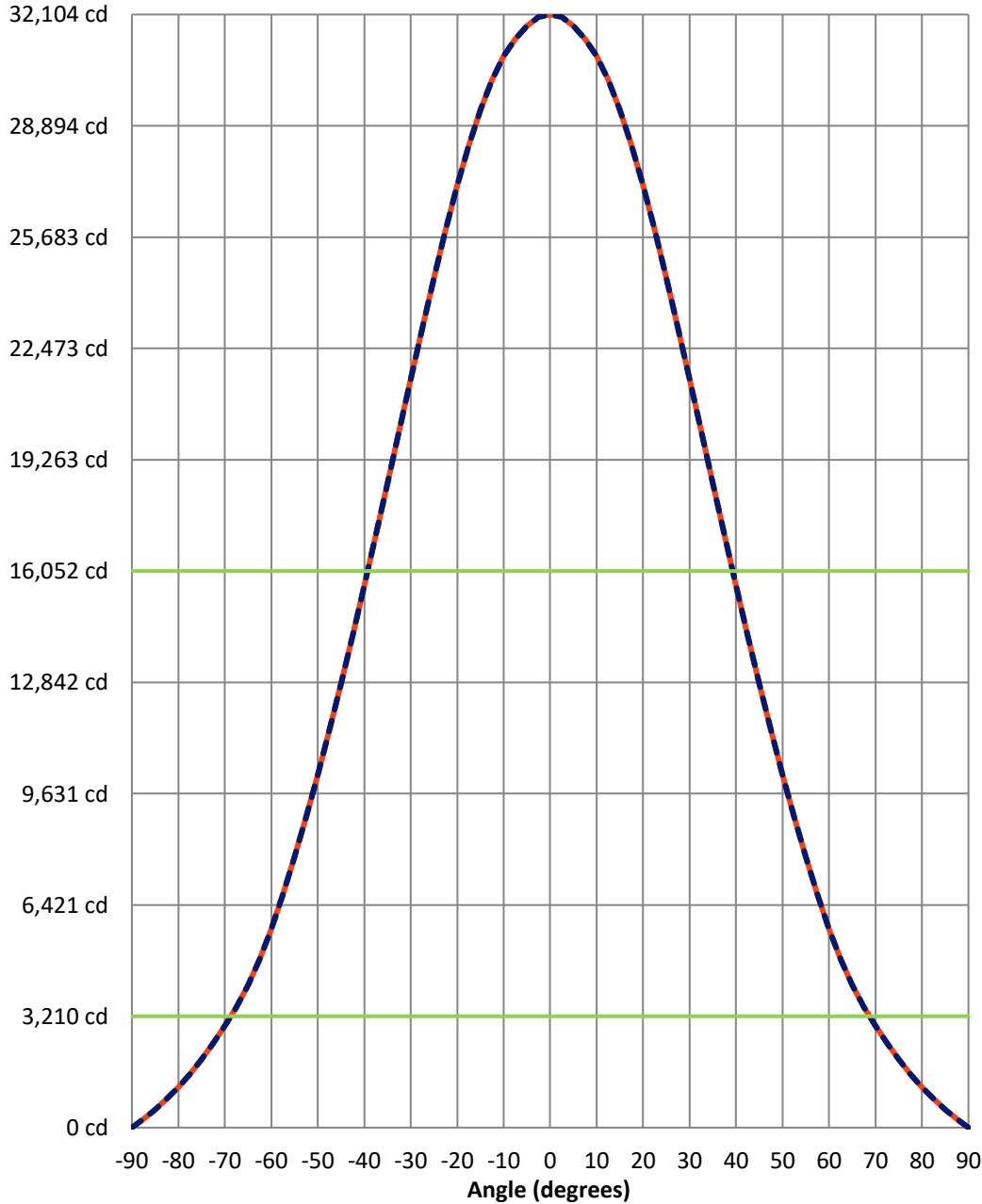
Luminous Intensity Polar Plot



— 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: 25011.4
 Efficiency: 43.3%

Field:
 H Angle: 137.5°
 V Angle: 137.5°
 Lumens: 40955.3
 Efficiency: 70.9%

Spill:
 Lumens: 16849.1
 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°	247.1	247.1	247.1	247.1	247.1	247.1	247.1	235.0	235.0	229.0	223.0
85°	518.3	518.3	518.3	518.3	518.3	506.2	500.2	494.2	488.2	476.1	470.1
82.5°	831.7	831.7	831.7	831.7	819.6	807.6	801.6	789.5	777.4	759.4	741.3
80°	1163.2	1163.2	1163.2	1163.2	1145.1	1133.0	1114.9	1102.9	1084.8	1060.7	1036.6
77.5°	1542.8	1542.8	1542.8	1524.8	1512.7	1494.6	1476.5	1452.4	1428.3	1398.2	1362.0
75°	1970.7	1970.7	1970.7	1946.6	1928.5	1910.5	1880.3	1850.2	1814.0	1771.9	1723.6
72.5°	2434.8	2434.8	2434.8	2404.7	2386.6	2356.4	2320.3	2278.1	2235.9	2181.7	2121.4
70°	2935.0	2935.0	2935.0	2898.8	2868.7	2838.6	2790.4	2742.1	2681.9	2621.6	2549.3
67.5°	3477.4	3477.4	3477.4	3435.2	3399.1	3356.9	3302.6	3242.4	3170.0	3085.7	3001.3
65°	4110.2	4110.2	4086.1	4049.9	4007.8	3947.5	3881.2	3796.8	3706.4	3597.9	3483.4
62.5°	4857.5	4857.5	4821.4	4779.2	4724.9	4646.6	4556.2	4447.7	4321.1	4182.5	4043.9
60°	5725.4	5725.4	5683.2	5628.9	5550.6	5454.2	5333.6	5195.0	5038.3	4863.5	4694.8
57.5°	6725.8	6725.8	6671.6	6599.2	6502.8	6382.3	6231.6	6056.8	5858.0	5641.0	5430.1
55°	7810.6	7810.6	7744.3	7659.9	7545.4	7400.8	7220.0	7015.1	6774.0	6526.9	6255.7
52.5°	8961.7	8961.7	8883.4	8786.9	8654.3	8485.6	8280.7	8039.6	7762.4	7473.1	7153.7
50°	10173.1	10173.1	10082.7	9974.2	9823.5	9624.6	9389.6	9112.4	8805.0	8467.5	8099.9
47.5°	11468.8	11468.8	11366.4	11239.8	11059.0	10830.0	10552.8	10233.3	9883.8	9504.1	9088.3
45°	12800.7	12800.7	12686.2	12541.6	12342.7	12083.5	11776.2	11468.8	11022.8	10582.9	10100.8
42.5°	14186.9	14186.9	14054.3	13891.5	13662.5	13379.3	13029.7	12632.0	12192.0	11697.8	11173.5
40°	15627.2	15627.2	15476.6	15289.7	15036.6	14711.2	14319.4	13873.5	13379.3	12830.8	12252.3
37.5°	17097.8	17097.8	16929.0	16724.1	16440.8	16079.2	15639.3	15145.1	14590.6	13981.9	13343.1
35°	18580.3	18580.3	18393.5	18170.5	17857.1	17459.4	16983.2	16434.8	15820.1	15157.2	14440.0
32.5°	20093.0	20093.0	19888.1	19635.0	19279.4	18839.5	18315.1	17718.5	17097.8	16326.3	15542.9
30°	21587.6	21587.6	21364.7	21087.4	20707.7	20225.6	19653.1	18996.2	18266.9	17477.4	16633.7
27.5°	23058.2	22997.9	22811.1	22515.8	22099.9	21587.6	20966.9	20255.7	19466.2	18598.4	17694.4
25°	24504.6	24438.3	24233.4	23907.9	23462.0	22901.5	22232.5	21473.1	20623.4	19707.3	18718.9
22.5°	25890.7	25818.4	25601.4	25251.9	24775.8	24167.1	23449.9	22636.3	21732.3	20749.9	19707.3
20°	27174.4	27096.1	26873.1	26505.4	26011.2	25366.4	24607.0	23733.2	22768.9	21732.3	20623.4
17.5°	28331.5	28253.2	28018.1	27638.5	27174.4	26457.2	25673.7	24751.7	23733.2	22636.3	21473.1
15°	29350.0	29265.7	29024.6	28644.9	28114.6	27439.6	26613.9	25673.7	24607.0	23449.9	22232.5
12.5°	30217.9	30133.5	29886.4	29506.7	28958.3	28283.3	27439.6	26457.2	25366.4	24167.1	22901.5
10°	30904.9	30820.6	30585.5	30223.9	29657.4	28958.3	28114.6	27174.4	26011.2	24775.8	23462.0
7.5°	31399.1	31320.8	31103.8	30742.2	30223.9	29506.7	28644.9	27638.5	26505.4	25251.9	23907.9
5°	31772.8	31682.4	31465.4	31103.8	30585.5	29886.4	29024.6	28018.1	26873.1	25601.4	24233.4
2.5°	32031.9	31923.4	31682.4	31320.8	30820.6	30133.5	29265.7	28253.2	27096.1	25818.4	24438.3
0°	32104.2	32031.9	31772.8	31399.1	30904.9	30217.9	29350.0	28331.5	27174.4	25890.7	24504.6



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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°	217.0	217.0	210.9	204.9	198.9	186.8	180.8	174.8	168.7	156.7	150.7
85°	458.0	446.0	433.9	421.9	403.8	391.7	373.7	361.6	343.5	325.4	307.4
82.5°	723.2	705.1	681.0	662.9	638.8	608.7	584.6	554.5	524.3	500.2	470.1
80°	1012.5	982.4	952.2	922.1	885.9	849.8	813.6	777.4	735.3	693.1	650.9
77.5°	1325.9	1283.7	1241.5	1193.3	1151.1	1102.9	1054.7	1006.5	952.2	898.0	843.7
75°	1675.4	1621.2	1560.9	1500.6	1446.4	1380.1	1313.8	1247.5	1175.2	1108.9	1036.6
72.5°	2055.1	1988.8	1916.5	1844.2	1765.8	1681.4	1597.1	1506.7	1422.3	1337.9	1247.5
70°	2464.9	2386.6	2296.2	2205.8	2109.3	2006.9	1904.4	1796.0	1687.5	1579.0	1470.5
67.5°	2904.9	2808.4	2700.0	2591.5	2470.9	2350.4	2229.9	2103.3	1970.7	1838.1	1711.6
65°	3375.0	3254.4	3127.9	2989.2	2850.6	2712.0	2567.4	2416.7	2266.0	2109.3	1970.7
62.5°	3899.3	3748.6	3585.9	3417.1	3260.4	3091.7	2935.0	2748.2	2567.4	2392.6	2217.8
60°	4508.0	4309.1	4110.2	3899.3	3700.4	3483.4	3290.6	3085.7	2880.8	2681.9	2477.0
57.5°	5189.0	4935.9	4694.8	4441.7	4176.5	3935.4	3688.3	3441.2	3212.2	2977.2	2754.2
55°	5960.4	5653.0	5351.7	5038.3	4731.0	4429.6	4116.2	3839.0	3555.8	3290.6	3031.4
52.5°	6804.1	6454.6	6080.9	5725.4	5333.6	4960.0	4610.4	4260.9	3929.4	3610.0	3314.7
50°	7708.2	7298.3	6870.4	6436.5	5990.5	5550.6	5128.7	4718.9	4333.2	3959.5	3610.0
47.5°	8648.3	8184.3	7696.1	7201.9	6725.8	6189.4	5683.2	5219.1	4755.1	4333.2	3929.4
45°	9612.6	9088.3	8551.9	7991.4	7430.9	6852.4	6291.9	5725.4	5219.1	4718.9	4260.9
42.5°	10607.0	10016.4	9419.7	8799.0	8178.2	7545.4	6912.6	6291.9	5683.2	5128.7	4610.4
40°	11631.5	10980.7	10299.6	9624.6	8961.7	8238.5	7545.4	6852.4	6189.4	5550.6	4960.0
37.5°	12656.1	11944.9	11209.7	10450.3	9690.9	8961.7	8178.2	7430.9	6725.8	5990.5	5333.6
35°	13686.6	12903.2	12107.6	11282.0	10450.3	9624.6	8799.0	7991.4	7201.9	6436.5	5725.4
32.5°	14723.2	13867.4	12987.5	12107.6	11209.7	10299.6	9419.7	8551.9	7696.1	6870.4	6080.9
30°	15741.7	14813.6	13867.4	12903.2	11944.9	10980.7	10016.4	9088.3	8184.3	7298.3	6454.6
27.5°	16736.2	15741.7	14723.2	13686.6	12656.1	11631.5	10607.0	9612.6	8648.3	7708.2	6804.1
25°	17694.4	16633.7	15542.9	14440.0	13343.1	12252.3	11173.5	10100.8	9088.3	8099.9	7153.7
22.5°	18598.4	17477.4	16326.3	15157.2	13981.9	12830.8	11697.8	10582.9	9504.1	8467.5	7473.1
20°	19466.2	18266.9	17097.8	15820.1	14590.6	13379.3	12192.0	11022.8	9883.8	8805.0	7762.4
17.5°	20255.7	18996.2	17718.5	16434.8	15145.1	13873.5	12632.0	11468.8	10233.3	9112.4	8039.6
15°	20966.9	19653.1	18315.1	16983.2	15639.3	14319.4	13029.7	11776.2	10552.8	9389.6	8280.7
12.5°	21587.6	20225.6	18839.5	17459.4	16079.2	14711.2	13379.3	12083.5	10830.0	9624.6	8485.6
10°	22099.9	20707.7	19279.4	17857.1	16440.8	15036.6	13662.5	12342.7	11059.0	9823.5	8654.3
7.5°	22515.8	21087.4	19635.0	18170.5	16724.1	15289.7	13891.5	12541.6	11239.8	9974.2	8786.9
5°	22811.1	21364.7	19888.1	18393.5	16929.0	15476.6	14054.3	12686.2	11366.4	10082.7	8883.4
2.5°	22997.9	21587.6	20093.0	18580.3	17097.8	15627.2	14186.9	12800.7	11468.8	10173.1	8961.7
0°	23058.2	21587.6	20093.0	18580.3	17097.8	15627.2	14186.9	12800.7	11468.8	10173.1	8961.7



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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°	144.6	132.6	120.5	114.5	102.5	96.4	84.4	72.3	66.3	54.2	42.2
85°	289.3	265.2	247.1	229.0	210.9	186.8	168.7	150.7	126.6	108.5	84.4
82.5°	439.9	409.8	379.7	349.5	319.4	289.3	253.1	223.0	192.9	162.7	126.6
80°	608.7	560.5	518.3	476.1	433.9	391.7	343.5	301.3	253.1	210.9	168.7
77.5°	783.5	729.2	669.0	608.7	548.4	494.2	433.9	379.7	325.4	265.2	210.9
75°	970.3	898.0	831.7	753.3	681.0	602.7	530.3	458.0	391.7	325.4	253.1
72.5°	1163.2	1072.8	982.4	898.0	807.6	717.2	632.8	542.4	458.0	379.7	301.3
70°	1362.0	1253.6	1145.1	1042.6	940.2	831.7	735.3	632.8	530.3	433.9	343.5
67.5°	1573.0	1446.4	1319.8	1187.3	1072.8	952.2	831.7	717.2	602.7	494.2	391.7
65°	1802.0	1651.3	1494.6	1356.0	1205.3	1072.8	940.2	807.6	681.0	548.4	433.9
62.5°	2037.0	1862.3	1687.5	1512.7	1356.0	1187.3	1042.6	898.0	753.3	608.7	476.1
60°	2278.1	2079.2	1880.3	1687.5	1494.6	1319.8	1145.1	982.4	831.7	669.0	518.3
57.5°	2525.2	2302.2	2079.2	1862.3	1651.3	1446.4	1253.6	1072.8	898.0	729.2	560.5
55°	2778.3	2525.2	2278.1	2037.0	1802.0	1573.0	1362.0	1163.2	970.3	783.5	608.7
52.5°	3031.4	2754.2	2477.0	2217.8	1970.7	1711.6	1470.5	1247.5	1036.6	843.7	650.9
50°	3290.6	2977.2	2681.9	2392.6	2109.3	1838.1	1579.0	1337.9	1108.9	898.0	693.1
47.5°	3555.8	3212.2	2880.8	2567.4	2266.0	1970.7	1687.5	1422.3	1175.2	952.2	735.3
45°	3839.0	3441.2	3085.7	2748.2	2416.7	2103.3	1796.0	1506.7	1247.5	1006.5	777.4
42.5°	4116.2	3688.3	3290.6	2935.0	2567.4	2229.9	1904.4	1597.1	1313.8	1054.7	813.6
40°	4429.6	3935.4	3483.4	3091.7	2712.0	2350.4	2006.9	1681.4	1380.1	1102.9	849.8
37.5°	4731.0	4176.5	3700.4	3260.4	2850.6	2470.9	2109.3	1765.8	1446.4	1151.1	885.9
35°	5038.3	4441.7	3899.3	3417.1	2989.2	2591.5	2205.8	1844.2	1500.6	1193.3	922.1
32.5°	5351.7	4694.8	4110.2	3585.9	3127.9	2700.0	2296.2	1916.5	1560.9	1241.5	952.2
30°	5653.0	4935.9	4309.1	3748.6	3254.4	2808.4	2386.6	1988.8	1621.2	1283.7	982.4
27.5°	5960.4	5189.0	4508.0	3899.3	3375.0	2904.9	2464.9	2055.1	1675.4	1325.9	1012.5
25°	6255.7	5430.1	4694.8	4043.9	3483.4	3001.3	2549.3	2121.4	1723.6	1362.0	1036.6
22.5°	6526.9	5641.0	4863.5	4182.5	3597.9	3085.7	2621.6	2181.7	1771.9	1398.2	1060.7
20°	6774.0	5858.0	5038.3	4321.1	3706.4	3170.0	2681.9	2235.9	1814.0	1428.3	1084.8
17.5°	7015.1	6056.8	5195.0	4447.7	3796.8	3242.4	2742.1	2278.1	1850.2	1452.4	1102.9
15°	7220.0	6231.6	5333.6	4556.2	3881.2	3302.6	2790.4	2320.3	1880.3	1476.5	1114.9
12.5°	7400.8	6382.3	5454.2	4646.6	3947.5	3356.9	2838.6	2356.4	1910.5	1494.6	1133.0
10°	7545.4	6502.8	5550.6	4724.9	4007.8	3399.1	2868.7	2386.6	1928.5	1512.7	1145.1
7.5°	7659.9	6599.2	5628.9	4779.2	4049.9	3435.2	2898.8	2404.7	1946.6	1524.8	1163.2
5°	7744.3	6671.6	5683.2	4821.4	4086.1	3477.4	2935.0	2434.8	1970.7	1542.8	1163.2
2.5°	7810.6	6725.8	5725.4	4857.5	4110.2	3477.4	2935.0	2434.8	1970.7	1542.8	1163.2
0°	7810.6	6725.8	5725.4	4857.5	4110.2	3477.4	2935.0	2434.8	1970.7	1542.8	1163.2



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CANDELA DISTRIBUTION (continued):

	82.5°	85°	87.5°	90°
90°	0.0	0.0	0.0	0.0
87.5°	30.1	24.1	12.1	0.0
85°	66.3	42.2	24.1	0.0
82.5°	96.4	66.3	30.1	0.0
80°	126.6	84.4	42.2	0.0
77.5°	162.7	108.5	54.2	0.0
75°	192.9	126.6	66.3	0.0
72.5°	223.0	150.7	72.3	0.0
70°	253.1	168.7	84.4	0.0
67.5°	289.3	186.8	96.4	0.0
65°	319.4	210.9	102.5	0.0
62.5°	349.5	229.0	114.5	0.0
60°	379.7	247.1	120.5	0.0
57.5°	409.8	265.2	132.6	0.0
55°	439.9	289.3	144.6	0.0
52.5°	470.1	307.4	150.7	0.0
50°	500.2	325.4	156.7	0.0
47.5°	524.3	343.5	168.7	0.0
45°	554.5	361.6	174.8	0.0
42.5°	584.6	373.7	180.8	0.0
40°	608.7	391.7	186.8	0.0
37.5°	638.8	403.8	198.9	0.0
35°	662.9	421.9	204.9	0.0
32.5°	681.0	433.9	210.9	0.0
30°	705.1	446.0	217.0	0.0
27.5°	723.2	458.0	217.0	0.0
25°	741.3	470.1	223.0	0.0
22.5°	759.4	476.1	229.0	0.0
20°	777.4	488.2	235.0	0.0
17.5°	789.5	494.2	235.0	0.0
15°	801.6	500.2	247.1	0.0
12.5°	807.6	506.2	247.1	0.0
10°	819.6	518.3	247.1	0.0
7.5°	831.7	518.3	247.1	0.0
5°	831.7	518.3	247.1	0.0
2.5°	831.7	518.3	247.1	0.0
0°	831.7	518.3	247.1	0.0

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