

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: P624190

Luminaire Tested: **EPH-VN-08-D-735-U-77**

Issue Date: 11/2/2022

Test Information

Test Method: LM-79-2019
Report Number: P624190
Test Lab: INNOVATION CENTER(G2)
Issue Date: 11/2/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: EPHEBUS
Catalog Number: EPH-VN-08-D-735-U-77
Description: EPHEBUS LUMAVISION FLOOD – Middle Tier Light Square Luminaire w/
Nema 7 distribution lens
Light Source: (128) 3500K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

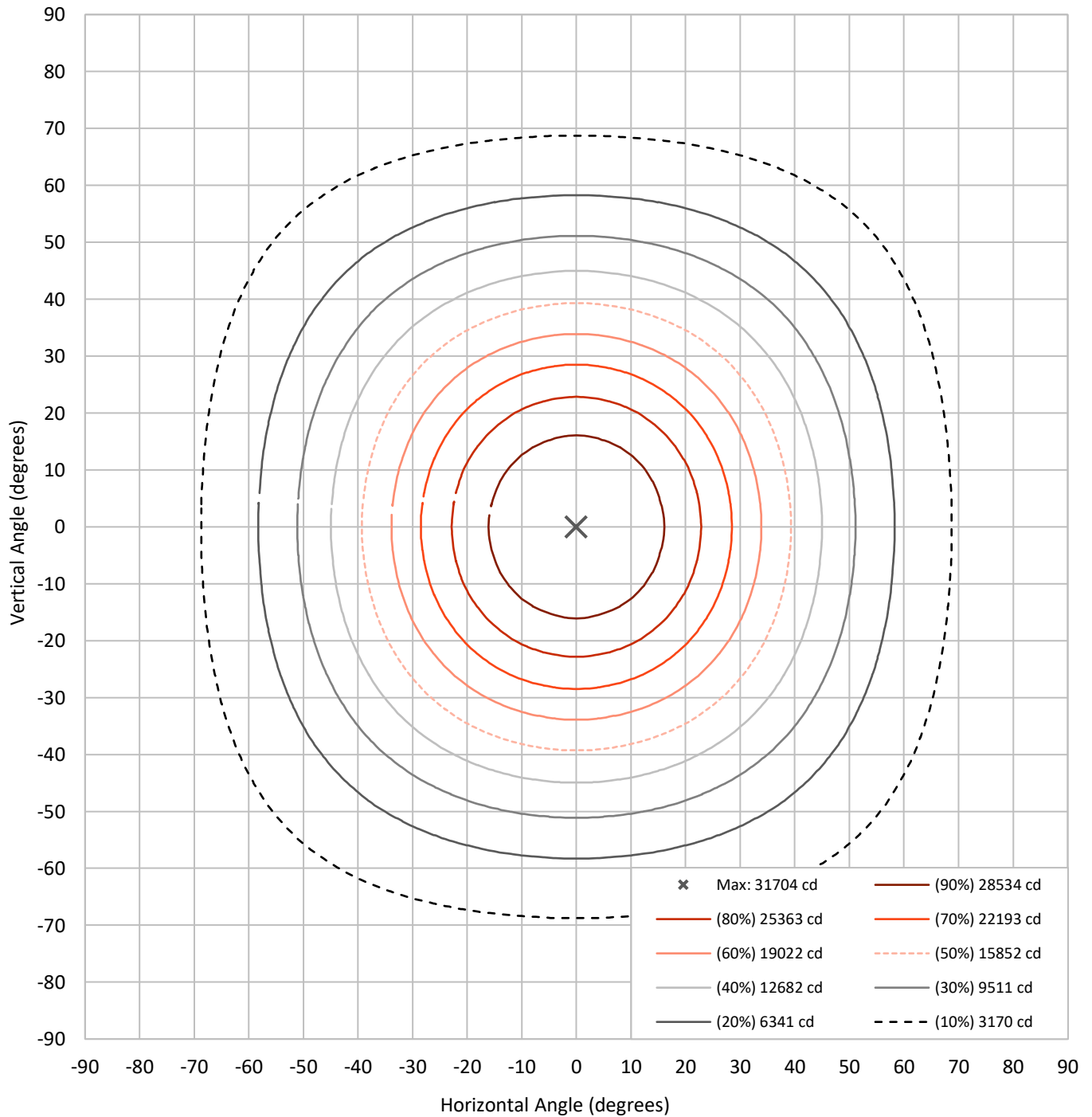
Summary

Lumens per Lamp:	N/A	NEMA Type:	7H x 7V
Luminaire Lumens:	57083.8 lumens	Max Intensity:	31704 candela
Efficiency:	N/A	Max Intensity Angle:	0°H x 0°V
Efficacy:	116.9 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:	24699.6 lumens	Field Lumens:	40444.7 lumens
Beam Efficiency:	43.3%	Field Efficiency:	70.9%
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		



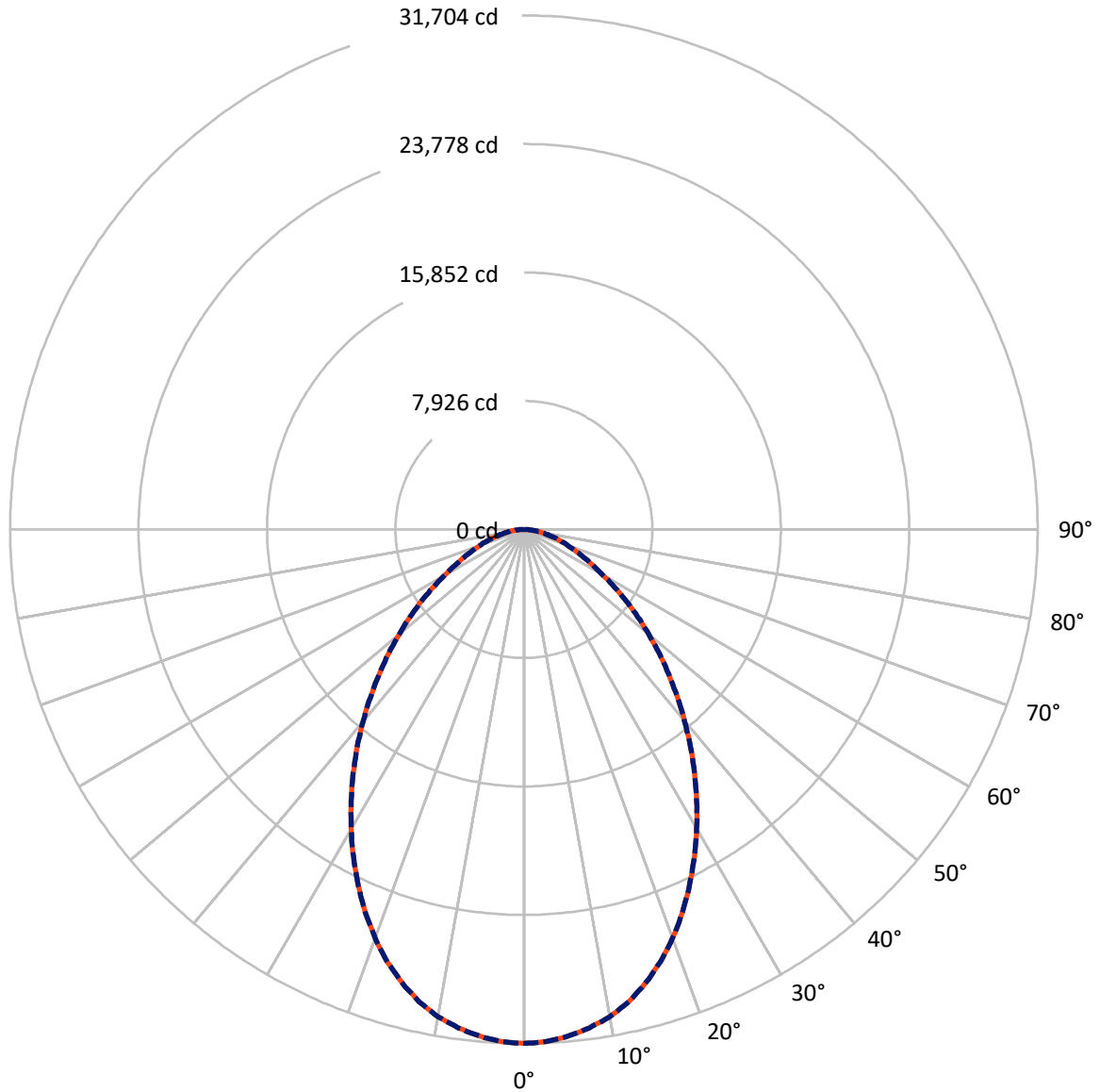
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Iso-Candela Plot



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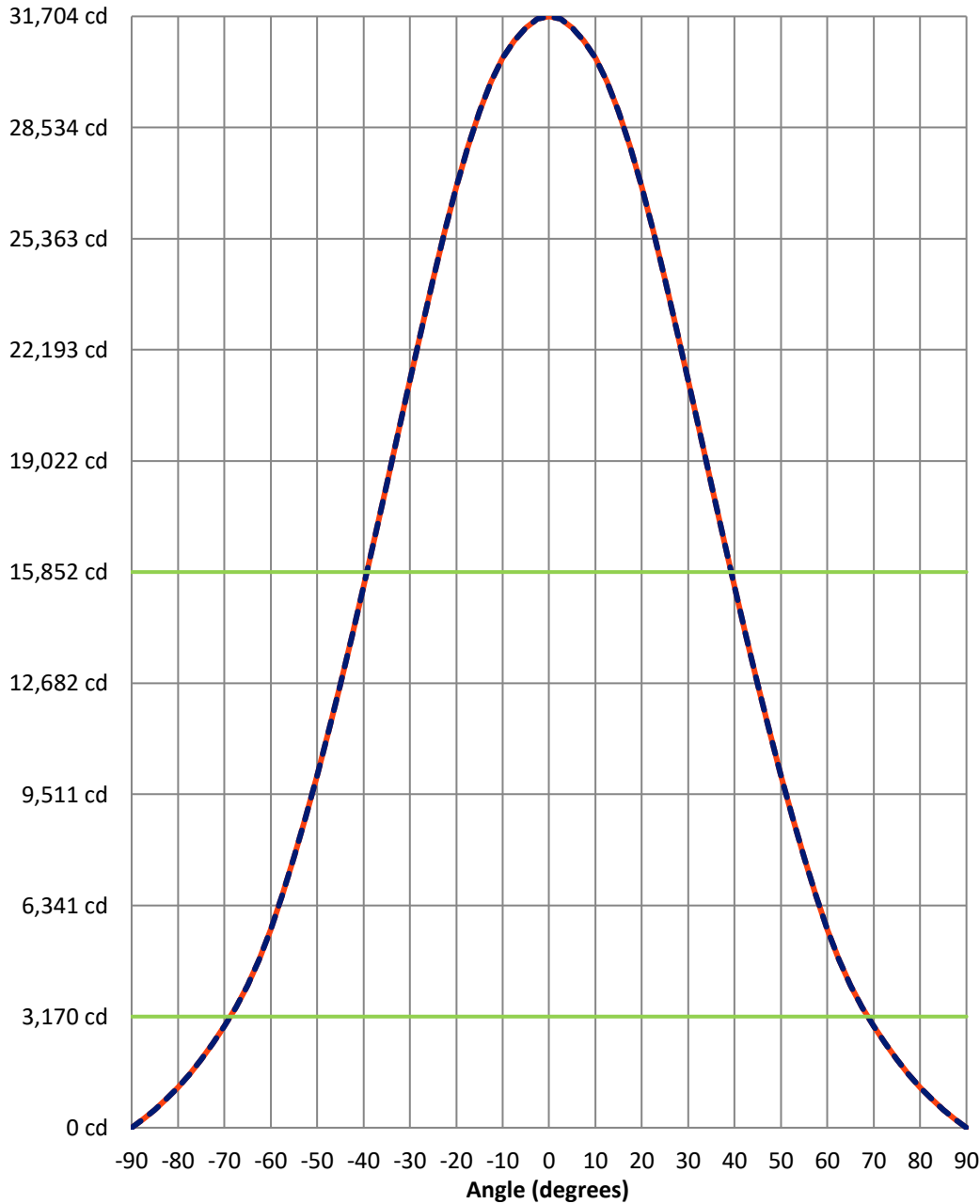
Luminous Intensity Polar Plot



— 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: 24699.6
 Efficiency: 43.3%

Field:
 H Angle: 137.5°
 V Angle: 137.5°
 Lumens: 40444.7
 Efficiency: 70.9%

Spill:
 Lumens: 16639
 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°	244.0	244.0	244.0	244.0	244.0	244.0	244.0	232.1	232.1	226.2	220.2
85°	511.8	511.8	511.8	511.8	511.8	499.9	494.0	488.0	482.1	470.2	464.2
82.5°	821.3	821.3	821.3	821.3	809.4	797.5	791.6	779.7	767.8	749.9	732.0
80°	1148.7	1148.7	1148.7	1148.7	1130.8	1118.9	1101.0	1089.1	1071.3	1047.5	1023.7
77.5°	1523.6	1523.6	1523.6	1505.7	1493.8	1476.0	1458.1	1434.3	1410.5	1380.8	1345.1
75°	1946.2	1946.2	1946.2	1922.4	1904.5	1886.6	1856.9	1827.1	1791.4	1749.8	1702.1
72.5°	2404.4	2404.4	2404.4	2374.7	2356.8	2327.1	2291.4	2249.7	2208.0	2154.5	2095.0
70°	2898.4	2898.4	2898.4	2862.7	2832.9	2803.2	2755.6	2708.0	2648.4	2588.9	2517.5
67.5°	3434.1	3434.1	3434.1	3392.4	3356.7	3315.0	3261.5	3201.9	3130.5	3047.2	2963.9
65°	4059.0	4059.0	4035.2	3999.5	3957.8	3898.3	3832.8	3749.5	3660.2	3553.1	3440.0
62.5°	4797.0	4797.0	4761.3	4719.6	4666.0	4588.7	4499.4	4392.3	4267.3	4130.4	3993.5
60°	5654.0	5654.0	5612.3	5558.8	5481.4	5386.2	5267.1	5130.2	4975.5	4802.9	4636.3
57.5°	6641.9	6641.9	6588.4	6517.0	6421.7	6302.7	6153.9	5981.3	5784.9	5570.7	5362.4
55°	7713.2	7713.2	7647.8	7564.4	7451.4	7308.5	7130.0	6927.6	6689.6	6445.5	6177.7
52.5°	8850.0	8850.0	8772.6	8677.4	8546.4	8379.8	8177.5	7939.4	7665.6	7379.9	7064.5
50°	10046.2	10046.2	9957.0	9849.8	9701.1	9504.7	9272.5	8998.8	8695.2	8362.0	7998.9
47.5°	11325.8	11325.8	11224.7	11099.7	10921.1	10695.0	10421.2	10105.8	9760.6	9385.6	8975.0
45°	12641.1	12641.1	12528.0	12385.2	12188.8	11932.9	11629.4	11325.8	10885.4	10450.9	9974.8
42.5°	14010.0	14010.0	13879.1	13718.4	13492.2	13212.5	12867.3	12474.5	12040.0	11552.0	11034.2
40°	15432.4	15432.4	15283.6	15099.1	14849.2	14527.8	14140.9	13700.5	13212.5	12670.9	12099.5
37.5°	16884.6	16884.6	16717.9	16515.6	16235.9	15878.8	15444.3	14956.3	14408.7	13807.6	13176.8
35°	18348.7	18348.7	18164.2	17944.0	17634.5	17241.7	16771.5	16229.9	15622.9	14968.2	14260.0
32.5°	19842.5	19842.5	19640.2	19390.2	19039.1	18604.6	18086.8	17497.6	16884.6	16122.8	15349.1
30°	21318.5	21318.5	21098.3	20824.5	20449.6	19973.5	19408.1	18759.3	18039.2	17259.5	16426.3
27.5°	22770.7	22711.2	22526.7	22235.1	21824.4	21318.5	20705.5	20003.2	19223.6	18366.5	17473.8
25°	24199.1	24133.6	23931.2	23609.9	23169.4	22616.0	21955.3	21205.4	20366.3	19461.6	18485.6
22.5°	25567.9	25496.5	25282.3	24937.1	24466.9	23865.8	23157.5	22354.1	21461.3	20491.2	19461.6
20°	26835.6	26758.2	26538.0	26175.0	25687.0	25050.1	24300.2	23437.3	22485.0	21461.3	20366.3
17.5°	27978.3	27900.9	27668.8	27293.9	26835.6	26127.4	25353.7	24443.1	23437.3	22354.1	21205.4
15°	28984.1	28900.8	28662.7	28287.8	27764.1	27097.5	26282.1	25353.7	24300.2	23157.5	21955.3
12.5°	29841.2	29757.8	29513.8	29138.9	28597.3	27930.7	27097.5	26127.4	25050.1	23865.8	22616.0
10°	30519.6	30436.3	30204.2	29847.1	29287.7	28597.3	27764.1	26835.6	25687.0	24466.9	23169.4
7.5°	31007.7	30930.3	30716.0	30358.9	29847.1	29138.9	28287.8	27293.9	26175.0	24937.1	23609.9
5°	31376.7	31287.4	31073.1	30716.0	30204.2	29513.8	28662.7	27668.8	26538.0	25282.3	23931.2
2.5°	31632.6	31525.4	31287.4	30930.3	30436.3	29757.8	28900.8	27900.9	26758.2	25496.5	24133.6
0°	31704.0	31632.6	31376.7	31007.7	30519.6	29841.2	28984.1	27978.3	26835.6	25567.9	24199.1



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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°	214.3	214.3	208.3	202.4	196.4	184.5	178.5	172.6	166.6	154.7	148.8
85°	452.3	440.4	428.5	416.6	398.8	386.9	369.0	357.1	339.2	321.4	303.5
82.5°	714.2	696.3	672.5	654.7	630.9	601.1	577.3	547.5	517.8	494.0	464.2
80°	999.9	970.1	940.3	910.6	874.9	839.2	803.5	767.8	726.1	684.4	642.8
77.5°	1309.3	1267.7	1226.0	1178.4	1136.7	1089.1	1041.5	993.9	940.3	886.8	833.2
75°	1654.5	1601.0	1541.5	1481.9	1428.4	1362.9	1297.4	1232.0	1160.6	1095.1	1023.7
72.5°	2029.5	1964.0	1892.6	1821.2	1743.8	1660.5	1577.2	1487.9	1404.6	1321.2	1232.0
70°	2434.2	2356.8	2267.5	2178.3	2083.0	1981.9	1880.7	1773.6	1666.4	1559.3	1452.2
67.5°	2868.7	2773.4	2666.3	2559.2	2440.1	2321.1	2202.1	2077.1	1946.2	1815.2	1690.2
65°	3332.9	3213.8	3088.9	2952.0	2815.1	2678.2	2535.4	2386.6	2237.8	2083.0	1946.2
62.5°	3850.7	3701.9	3541.2	3374.5	3219.8	3053.2	2898.4	2713.9	2535.4	2362.8	2190.2
60°	4451.8	4255.4	4059.0	3850.7	3654.3	3440.0	3249.6	3047.2	2844.8	2648.4	2446.1
57.5°	5124.3	4874.3	4636.3	4386.3	4124.4	3886.4	3642.4	3398.3	3172.2	2940.1	2719.9
55°	5886.1	5582.6	5285.0	4975.5	4672.0	4374.4	4064.9	3791.1	3511.4	3249.6	2993.6
52.5°	6719.3	6374.1	6005.1	5654.0	5267.1	4898.1	4552.9	4207.8	3880.4	3565.0	3273.4
50°	7612.1	7207.3	6784.8	6356.3	5915.9	5481.4	5064.8	4660.1	4279.2	3910.2	3565.0
47.5°	8540.5	8082.2	7600.1	7112.1	6641.9	6112.3	5612.3	5154.1	4695.8	4279.2	3880.4
45°	9492.7	8975.0	8445.3	7891.8	7338.3	6766.9	6213.4	5654.0	5154.1	4660.1	4207.8
42.5°	10474.8	9891.5	9302.3	8689.3	8076.3	7451.4	6826.4	6213.4	5612.3	5064.8	4552.9
40°	11486.5	10843.8	10171.2	9504.7	8850.0	8135.8	7451.4	6766.9	6112.3	5481.4	4898.1
37.5°	12498.3	11796.0	11069.9	10320.0	9570.1	8850.0	8076.3	7338.3	6641.9	5915.9	5267.1
35°	13516.0	12742.3	11956.7	11141.3	10320.0	9504.7	8689.3	7891.8	7112.1	6356.3	5654.0
32.5°	14539.7	13694.6	12825.6	11956.7	11069.9	10171.2	9302.3	8445.3	7600.1	6784.8	6005.1
30°	15545.5	14628.9	13694.6	12742.3	11796.0	10843.8	9891.5	8975.0	8082.2	7207.3	6374.1
27.5°	16527.5	15545.5	14539.7	13516.0	12498.3	11486.5	10474.8	9492.7	8540.5	7612.1	6719.3
25°	17473.8	16426.3	15349.1	14260.0	13176.8	12099.5	11034.2	9974.8	8975.0	7998.9	7064.5
22.5°	18366.5	17259.5	16122.8	14968.2	13807.6	12670.9	11552.0	10450.9	9385.6	8362.0	7379.9
20°	19223.6	18039.2	16884.6	15622.9	14408.7	13212.5	12040.0	10885.4	9760.6	8695.2	7665.6
17.5°	20003.2	18759.3	17497.6	16229.9	14956.3	13700.5	12474.5	11325.8	10105.8	8998.8	7939.4
15°	20705.5	19408.1	18086.8	16771.5	15444.3	14140.9	12867.3	11629.4	10421.2	9272.5	8177.5
12.5°	21318.5	19973.5	18604.6	17241.7	15878.8	14527.8	13212.5	11932.9	10695.0	9504.7	8379.8
10°	21824.4	20449.6	19039.1	17634.5	16235.9	14849.2	13492.2	12188.8	10921.1	9701.1	8546.4
7.5°	22235.1	20824.5	19390.2	17944.0	16515.6	15099.1	13718.4	12385.2	11099.7	9849.8	8677.4
5°	22526.7	21098.3	19640.2	18164.2	16717.9	15283.6	13879.1	12528.0	11224.7	9957.0	8772.6
2.5°	22711.2	21318.5	19842.5	18348.7	16884.6	15432.4	14010.0	12641.1	11325.8	10046.2	8850.0
0°	22770.7	21318.5	19842.5	18348.7	16884.6	15432.4	14010.0	12641.1	11325.8	10046.2	8850.0



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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°	142.8	130.9	119.0	113.1	101.2	95.2	83.3	71.4	65.5	53.6	41.7
85°	285.7	261.9	244.0	226.2	208.3	184.5	166.6	148.8	125.0	107.1	83.3
82.5°	434.5	404.7	374.9	345.2	315.4	285.7	250.0	220.2	190.5	160.7	125.0
80°	601.1	553.5	511.8	470.2	428.5	386.9	339.2	297.6	250.0	208.3	166.6
77.5°	773.7	720.1	660.6	601.1	541.6	488.0	428.5	374.9	321.4	261.9	208.3
75°	958.2	886.8	821.3	743.9	672.5	595.2	523.7	452.3	386.9	321.4	250.0
72.5°	1148.7	1059.4	970.1	886.8	797.5	708.2	624.9	535.6	452.3	374.9	297.6
70°	1345.1	1237.9	1130.8	1029.6	928.4	821.3	726.1	624.9	523.7	428.5	339.2
67.5°	1553.4	1428.4	1303.4	1172.5	1059.4	940.3	821.3	708.2	595.2	488.0	386.9
65°	1779.5	1630.7	1476.0	1339.1	1190.3	1059.4	928.4	797.5	672.5	541.6	428.5
62.5°	2011.6	1839.0	1666.4	1493.8	1339.1	1172.5	1029.6	886.8	743.9	601.1	470.2
60°	2249.7	2053.3	1856.9	1666.4	1476.0	1303.4	1130.8	970.1	821.3	660.6	511.8
57.5°	2493.7	2273.5	2053.3	1839.0	1630.7	1428.4	1237.9	1059.4	886.8	720.1	553.5
55°	2743.7	2493.7	2249.7	2011.6	1779.5	1553.4	1345.1	1148.7	958.2	773.7	601.1
52.5°	2993.6	2719.9	2446.1	2190.2	1946.2	1690.2	1452.2	1232.0	1023.7	833.2	642.8
50°	3249.6	2940.1	2648.4	2362.8	2083.0	1815.2	1559.3	1321.2	1095.1	886.8	684.4
47.5°	3511.4	3172.2	2844.8	2535.4	2237.8	1946.2	1666.4	1404.6	1160.6	940.3	726.1
45°	3791.1	3398.3	3047.2	2713.9	2386.6	2077.1	1773.6	1487.9	1232.0	993.9	767.8
42.5°	4064.9	3642.4	3249.6	2898.4	2535.4	2202.1	1880.7	1577.2	1297.4	1041.5	803.5
40°	4374.4	3886.4	3440.0	3053.2	2678.2	2321.1	1981.9	1660.5	1362.9	1089.1	839.2
37.5°	4672.0	4124.4	3654.3	3219.8	2815.1	2440.1	2083.0	1743.8	1428.4	1136.7	874.9
35°	4975.5	4386.3	3850.7	3374.5	2952.0	2559.2	2178.3	1821.2	1481.9	1178.4	910.6
32.5°	5285.0	4636.3	4059.0	3541.2	3088.9	2666.3	2267.5	1892.6	1541.5	1226.0	940.3
30°	5582.6	4874.3	4255.4	3701.9	3213.8	2773.4	2356.8	1964.0	1601.0	1267.7	970.1
27.5°	5886.1	5124.3	4451.8	3850.7	3332.9	2868.7	2434.2	2029.5	1654.5	1309.3	999.9
25°	6177.7	5362.4	4636.3	3993.5	3440.0	2963.9	2517.5	2095.0	1702.1	1345.1	1023.7
22.5°	6445.5	5570.7	4802.9	4130.4	3553.1	3047.2	2588.9	2154.5	1749.8	1380.8	1047.5
20°	6689.6	5784.9	4975.5	4267.3	3660.2	3130.5	2648.4	2208.0	1791.4	1410.5	1071.3
17.5°	6927.6	5981.3	5130.2	4392.3	3749.5	3201.9	2708.0	2249.7	1827.1	1434.3	1089.1
15°	7130.0	6153.9	5267.1	4499.4	3832.8	3261.5	2755.6	2291.4	1856.9	1458.1	1101.0
12.5°	7308.5	6302.7	5386.2	4588.7	3898.3	3315.0	2803.2	2327.1	1886.6	1476.0	1118.9
10°	7451.4	6421.7	5481.4	4666.0	3957.8	3356.7	2832.9	2356.8	1904.5	1493.8	1130.8
7.5°	7564.4	6517.0	5558.8	4719.6	3999.5	3392.4	2862.7	2374.7	1922.4	1505.7	1148.7
5°	7647.8	6588.4	5612.3	4761.3	4035.2	3434.1	2898.4	2404.4	1946.2	1523.6	1148.7
2.5°	7713.2	6641.9	5654.0	4797.0	4059.0	3434.1	2898.4	2404.4	1946.2	1523.6	1148.7
0°	7713.2	6641.9	5654.0	4797.0	4059.0	3434.1	2898.4	2404.4	1946.2	1523.6	1148.7



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CANDELA DISTRIBUTION (continued):

	82.5°	85°	87.5°	90°
90°	0.0	0.0	0.0	0.0
87.5°	29.8	23.8	11.9	0.0
85°	65.5	41.7	23.8	0.0
82.5°	95.2	65.5	29.8	0.0
80°	125.0	83.3	41.7	0.0
77.5°	160.7	107.1	53.6	0.0
75°	190.5	125.0	65.5	0.0
72.5°	220.2	148.8	71.4	0.0
70°	250.0	166.6	83.3	0.0
67.5°	285.7	184.5	95.2	0.0
65°	315.4	208.3	101.2	0.0
62.5°	345.2	226.2	113.1	0.0
60°	374.9	244.0	119.0	0.0
57.5°	404.7	261.9	130.9	0.0
55°	434.5	285.7	142.8	0.0
52.5°	464.2	303.5	148.8	0.0
50°	494.0	321.4	154.7	0.0
47.5°	517.8	339.2	166.6	0.0
45°	547.5	357.1	172.6	0.0
42.5°	577.3	369.0	178.5	0.0
40°	601.1	386.9	184.5	0.0
37.5°	630.9	398.8	196.4	0.0
35°	654.7	416.6	202.4	0.0
32.5°	672.5	428.5	208.3	0.0
30°	696.3	440.4	214.3	0.0
27.5°	714.2	452.3	214.3	0.0
25°	732.0	464.2	220.2	0.0
22.5°	749.9	470.2	226.2	0.0
20°	767.8	482.1	232.1	0.0
17.5°	779.7	488.0	232.1	0.0
15°	791.6	494.0	244.0	0.0
12.5°	797.5	499.9	244.0	0.0
10°	809.4	511.8	244.0	0.0
7.5°	821.3	511.8	244.0	0.0
5°	821.3	511.8	244.0	0.0
2.5°	821.3	511.8	244.0	0.0
0°	821.3	511.8	244.0	0.0

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