

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: P624226

Luminaire Tested: **EPH-VN-08-D-940-U-77**

Issue Date: 11/2/2022

Test Information

Test Method: LM-79-2019
Report Number: P624226
Test Lab: INNOVATION CENTER(G2)
Issue Date: 11/2/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: EPHESUS
Catalog Number: EPH-VN-08-D-940-U-77
Description: EPHESUS LUMAVISION FLOOD – Middle Tier Light Square Luminaire w/
Nema 7 distribution lens
Light Source: (128) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

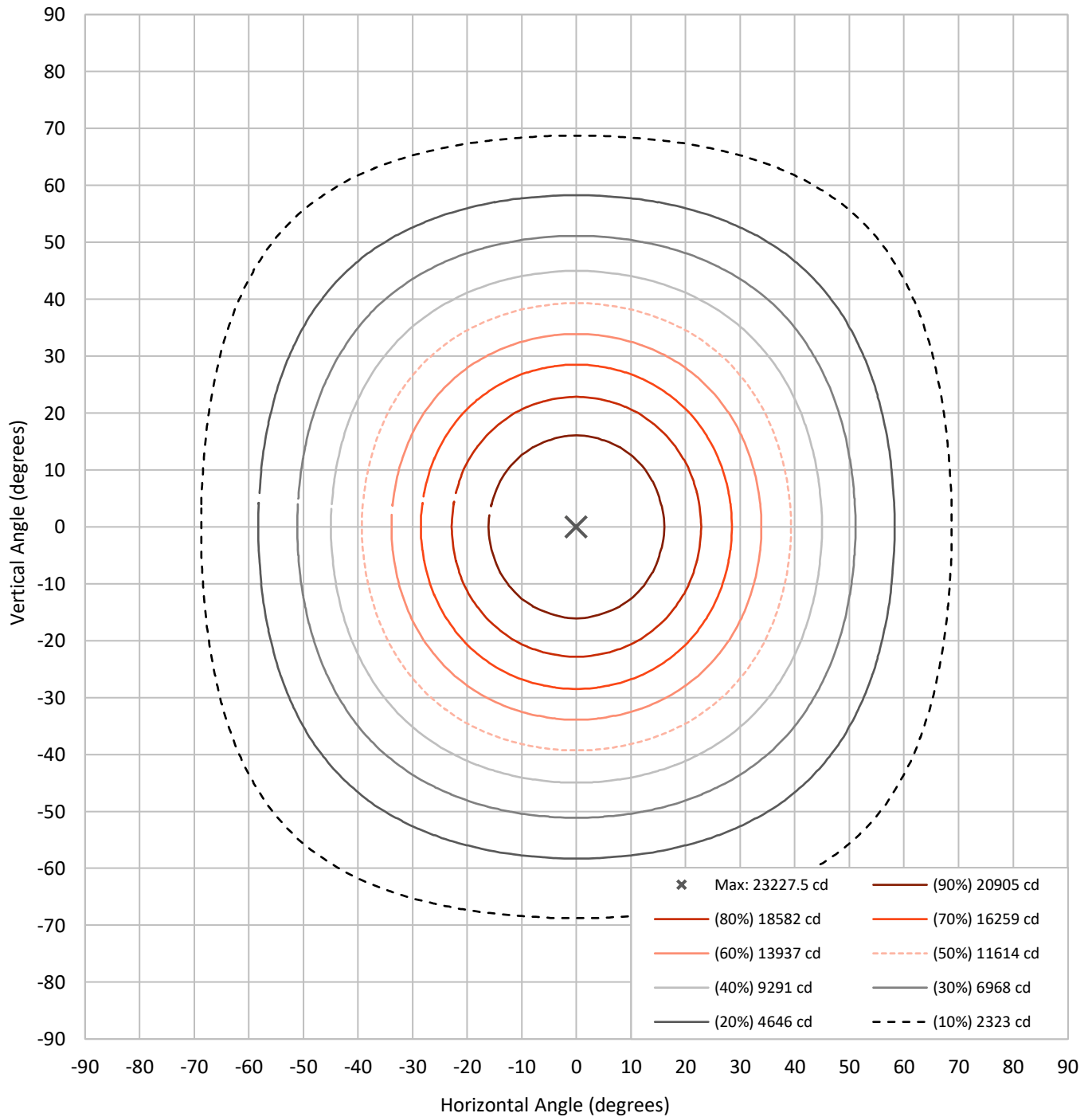
Lumens per Lamp:	N/A	NEMA Type:	7H x 7V
Luminaire Lumens:	41821.7 lumens	Max Intensity:	23227.5 candela
Efficiency:	N/A	Max Intensity Angle:	0°H x 0°V
Efficacy:	85.6 lumens/watt		
Luminous Opening:	Rectangular (W 2' x L: 1' x H: 0')		
Beam Angle (50%):	78.6°H x 78.6°V	Field Angle (10%):	137.5°H x 137.5°V
Beam Lumens:	18095.8 lumens	Field Lumens:	29631.3 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



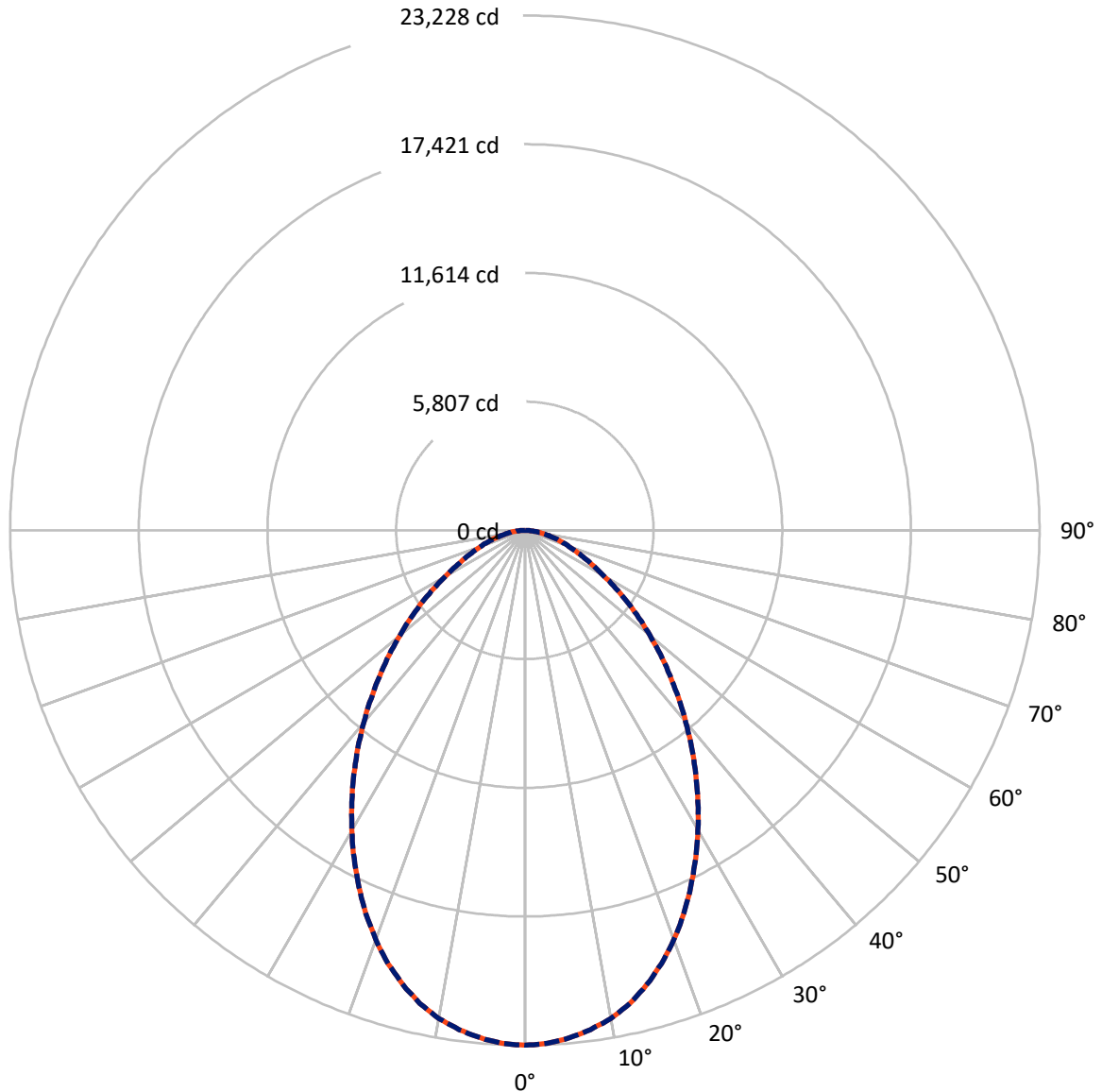
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Iso-Candela Plot



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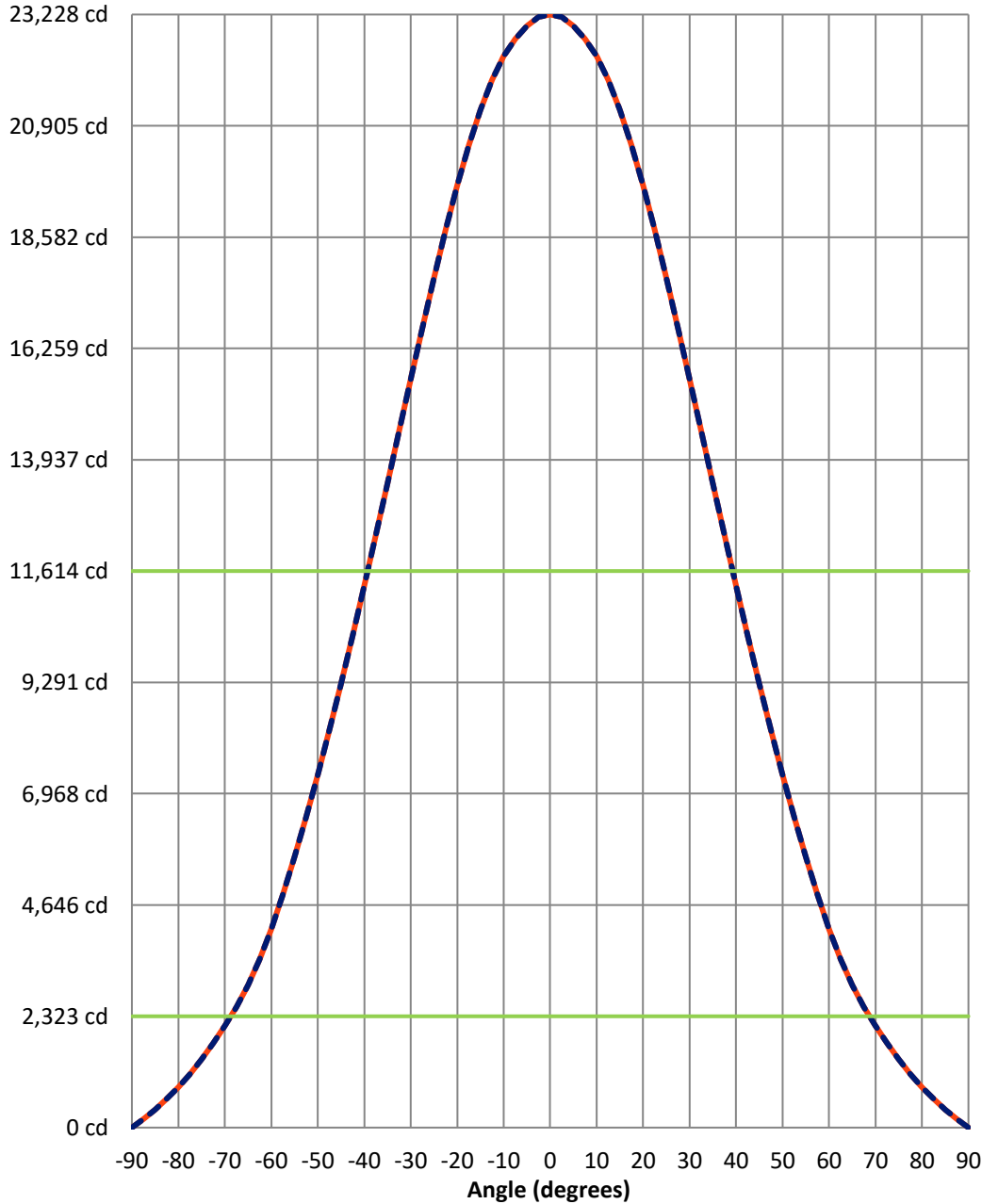
Luminous Intensity Polar Plot



— 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: 18095.8
 Efficiency: 43.3%

Field:
 H Angle: 137.5°
 V Angle: 137.5°
 Lumens: 29631.3
 Efficiency: 70.9%

Spill:
 Lumens: 12190.4
 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°	178.8	178.8	178.8	178.8	178.8	178.8	178.8	170.1	170.1	165.7	161.3
85°	375.0	375.0	375.0	375.0	375.0	366.3	361.9	357.5	353.2	344.5	340.1
82.5°	601.7	601.7	601.7	601.7	593.0	584.3	579.9	571.2	562.5	549.4	536.3
80°	841.5	841.5	841.5	841.5	828.5	819.7	806.7	797.9	784.9	767.4	750.0
77.5°	1116.2	1116.2	1116.2	1103.2	1094.4	1081.4	1068.3	1050.8	1033.4	1011.6	985.4
75°	1425.8	1425.8	1425.8	1408.4	1395.3	1382.2	1360.4	1338.6	1312.5	1281.9	1247.1
72.5°	1761.6	1761.6	1761.6	1739.8	1726.7	1704.9	1678.7	1648.2	1617.7	1578.4	1534.8
70°	2123.5	2123.5	2123.5	2097.3	2075.5	2053.7	2018.8	1984.0	1940.4	1896.7	1844.4
67.5°	2515.9	2515.9	2515.9	2485.4	2459.2	2428.7	2389.5	2345.9	2293.5	2232.5	2171.4
65°	2973.8	2973.8	2956.3	2930.1	2899.6	2856.0	2808.1	2747.0	2681.6	2603.1	2520.3
62.5°	3514.4	3514.4	3488.3	3457.7	3418.5	3361.8	3296.4	3217.9	3126.4	3026.1	2925.8
60°	4142.3	4142.3	4111.8	4072.6	4015.9	3946.1	3858.9	3758.6	3645.2	3518.8	3396.7
57.5°	4866.1	4866.1	4826.9	4774.6	4704.8	4617.6	4508.6	4382.1	4238.2	4081.3	3928.7
55°	5651.0	5651.0	5603.0	5542.0	5459.1	5354.5	5223.7	5075.4	4901.0	4722.2	4526.0
52.5°	6483.8	6483.8	6427.1	6357.4	6261.4	6139.4	5991.1	5816.7	5616.1	5406.8	5175.7
50°	7360.3	7360.3	7294.8	7216.4	7107.4	6963.5	6793.4	6592.8	6370.5	6126.3	5860.3
47.5°	8297.7	8297.7	8223.6	8132.0	8001.2	7835.5	7635.0	7403.9	7151.0	6876.3	6575.4
45°	9261.4	9261.4	9178.5	9073.9	8930.0	8742.5	8520.1	8297.7	7975.1	7656.8	7307.9
42.5°	10264.2	10264.2	10168.3	10050.6	9884.9	9680.0	9427.1	9139.3	8821.0	8463.4	8084.1
40°	11306.4	11306.4	11197.3	11062.2	10879.0	10643.6	10360.2	10037.5	9680.0	9283.2	8864.6
37.5°	12370.3	12370.3	12248.2	12099.9	11895.0	11633.4	11315.1	10957.5	10556.4	10116.0	9653.8
35°	13442.9	13442.9	13307.8	13146.4	12919.7	12631.9	12287.4	11890.6	11445.9	10966.3	10447.4
32.5°	14537.4	14537.4	14389.1	14206.0	13948.7	13630.4	13251.1	12819.4	12370.3	11812.2	11245.3
30°	15618.7	15618.7	15457.4	15256.8	14982.1	14633.3	14219.1	13743.8	13216.2	12645.0	12034.5
27.5°	16682.7	16639.1	16503.9	16290.2	15989.4	15618.7	15169.6	14655.1	14083.9	13456.0	12802.0
25°	17729.1	17681.2	17532.9	17297.5	16974.8	16569.3	16085.3	15535.9	14921.1	14258.3	13543.2
22.5°	18732.0	18679.7	18522.7	18269.8	17925.4	17485.0	16966.1	16377.4	15723.4	15012.6	14258.3
20°	19660.8	19604.1	19442.7	19176.8	18819.2	18352.7	17803.3	17171.0	16473.4	15723.4	14921.1
17.5°	20498.0	20441.3	20271.2	19996.5	19660.8	19141.9	18575.0	17907.9	17171.0	16377.4	15535.9
15°	21234.8	21173.8	20999.4	20724.7	20341.0	19852.6	19255.3	18575.0	17803.3	16966.1	16085.3
12.5°	21862.7	21801.7	21622.9	21348.2	20951.4	20463.1	19852.6	19141.9	18352.7	17485.0	16569.3
10°	22359.8	22298.8	22128.7	21867.1	21457.2	20951.4	20341.0	19660.8	18819.2	17925.4	16974.8
7.5°	22717.4	22660.7	22503.7	22242.1	21867.1	21348.2	20724.7	19996.5	19176.8	18269.8	17297.5
5°	22987.7	22922.3	22765.3	22503.7	22128.7	21622.9	20999.4	20271.2	19442.7	18522.7	17532.9
2.5°	23175.2	23096.7	22922.3	22660.7	22298.8	21801.7	21173.8	20441.3	19604.1	18679.7	17681.2
0°	23227.5	23175.2	22987.7	22717.4	22359.8	21862.7	21234.8	20498.0	19660.8	18732.0	17729.1



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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°	157.0	157.0	152.6	148.3	143.9	135.2	130.8	126.4	122.1	113.4	109.0
85°	331.4	322.7	313.9	305.2	292.1	283.4	270.3	261.6	248.5	235.5	222.4
82.5°	523.2	510.2	492.7	479.6	462.2	440.4	423.0	401.2	379.3	361.9	340.1
80°	732.5	710.7	688.9	667.1	641.0	614.8	588.6	562.5	532.0	501.4	470.9
77.5°	959.3	928.8	898.2	863.3	832.8	797.9	763.1	728.2	688.9	649.7	610.4
75°	1212.2	1172.9	1129.3	1085.7	1046.5	998.5	950.6	902.6	850.3	802.3	750.0
72.5°	1486.9	1438.9	1386.6	1334.3	1277.6	1216.5	1155.5	1090.1	1029.0	968.0	902.6
70°	1783.4	1726.7	1661.3	1595.9	1526.1	1452.0	1377.9	1299.4	1220.9	1142.4	1063.9
67.5°	2101.7	2031.9	1953.4	1874.9	1787.7	1700.5	1613.3	1521.8	1425.8	1329.9	1238.3
65°	2441.8	2354.6	2263.0	2162.7	2062.4	1962.2	1857.5	1748.5	1639.5	1526.1	1425.8
62.5°	2821.1	2712.1	2594.4	2472.3	2358.9	2236.9	2123.5	1988.3	1857.5	1731.1	1604.6
60°	3261.5	3117.6	2973.8	2821.1	2677.2	2520.3	2380.7	2232.5	2084.2	1940.4	1792.1
57.5°	3754.3	3571.1	3396.7	3213.6	3021.7	2847.3	2668.5	2489.8	2324.1	2154.0	1992.7
55°	4312.4	4090.0	3872.0	3645.2	3422.9	3204.8	2978.1	2777.5	2572.6	2380.7	2193.3
52.5°	4922.8	4669.9	4399.6	4142.3	3858.9	3588.6	3335.7	3082.8	2842.9	2611.8	2398.2
50°	5576.9	5280.4	4970.8	4656.8	4334.2	4015.9	3710.6	3414.1	3135.1	2864.7	2611.8
47.5°	6257.1	5921.3	5568.2	5210.6	4866.1	4478.1	4111.8	3776.1	3440.3	3135.1	2842.9
45°	6954.7	6575.4	6187.3	5781.8	5376.3	4957.7	4552.2	4142.3	3776.1	3414.1	3082.8
42.5°	7674.2	7246.9	6815.2	6366.1	5917.0	5459.1	5001.3	4552.2	4111.8	3710.6	3335.7
40°	8415.5	7944.5	7451.8	6963.5	6483.8	5960.6	5459.1	4957.7	4478.1	4015.9	3588.6
37.5°	9156.7	8642.2	8110.2	7560.8	7011.4	6483.8	5917.0	5376.3	4866.1	4334.2	3858.9
35°	9902.3	9335.5	8759.9	8162.6	7560.8	6963.5	6366.1	5781.8	5210.6	4656.8	4142.3
32.5°	10652.3	10033.1	9396.5	8759.9	8110.2	7451.8	6815.2	6187.3	5568.2	4970.8	4399.6
30°	11389.2	10717.7	10033.1	9335.5	8642.2	7944.5	7246.9	6575.4	5921.3	5280.4	4669.9
27.5°	12108.7	11389.2	10652.3	9902.3	9156.7	8415.5	7674.2	6954.7	6257.1	5576.9	4922.8
25°	12802.0	12034.5	11245.3	10447.4	9653.8	8864.6	8084.1	7307.9	6575.4	5860.3	5175.7
22.5°	13456.0	12645.0	11812.2	10966.3	10116.0	9283.2	8463.4	7656.8	6876.3	6126.3	5406.8
20°	14083.9	13216.2	12370.3	11445.9	10556.4	9680.0	8821.0	7975.1	7151.0	6370.5	5616.1
17.5°	14655.1	13743.8	12819.4	11890.6	10957.5	10037.5	9139.3	8297.7	7403.9	6592.8	5816.7
15°	15169.6	14219.1	13251.1	12287.4	11315.1	10360.2	9427.1	8520.1	7635.0	6793.4	5991.1
12.5°	15618.7	14633.3	13630.4	12631.9	11633.4	10643.6	9680.0	8742.5	7835.5	6963.5	6139.4
10°	15989.4	14982.1	13948.7	12919.7	11895.0	10879.0	9884.9	8930.0	8001.2	7107.4	6261.4
7.5°	16290.2	15256.8	14206.0	13146.4	12099.9	11062.2	10050.6	9073.9	8132.0	7216.4	6357.4
5°	16503.9	15457.4	14389.1	13307.8	12248.2	11197.3	10168.3	9178.5	8223.6	7294.8	6427.1
2.5°	16639.1	15618.7	14537.4	13442.9	12370.3	11306.4	10264.2	9261.4	8297.7	7360.3	6483.8
0°	16682.7	15618.7	14537.4	13442.9	12370.3	11306.4	10264.2	9261.4	8297.7	7360.3	6483.8



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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°	104.6	95.9	87.2	82.8	74.1	69.8	61.0	52.3	48.0	39.2	30.5
85°	209.3	191.9	178.8	165.7	152.6	135.2	122.1	109.0	91.6	78.5	61.0
82.5°	318.3	296.5	274.7	252.9	231.1	209.3	183.1	161.3	139.5	117.7	91.6
80°	440.4	405.5	375.0	344.5	313.9	283.4	248.5	218.0	183.1	152.6	122.1
77.5°	566.8	527.6	484.0	440.4	396.8	357.5	313.9	274.7	235.5	191.9	152.6
75°	702.0	649.7	601.7	545.0	492.7	436.0	383.7	331.4	283.4	235.5	183.1
72.5°	841.5	776.1	710.7	649.7	584.3	518.9	457.8	392.4	331.4	274.7	218.0
70°	985.4	907.0	828.5	754.3	680.2	601.7	532.0	457.8	383.7	313.9	248.5
67.5°	1138.0	1046.5	954.9	859.0	776.1	688.9	601.7	518.9	436.0	357.5	283.4
65°	1303.7	1194.7	1081.4	981.1	872.1	776.1	680.2	584.3	492.7	396.8	313.9
62.5°	1473.8	1347.3	1220.9	1094.4	981.1	859.0	754.3	649.7	545.0	440.4	344.5
60°	1648.2	1504.3	1360.4	1220.9	1081.4	954.9	828.5	710.7	601.7	484.0	375.0
57.5°	1827.0	1665.6	1504.3	1347.3	1194.7	1046.5	907.0	776.1	649.7	527.6	405.5
55°	2010.1	1827.0	1648.2	1473.8	1303.7	1138.0	985.4	841.5	702.0	566.8	440.4
52.5°	2193.3	1992.7	1792.1	1604.6	1425.8	1238.3	1063.9	902.6	750.0	610.4	470.9
50°	2380.7	2154.0	1940.4	1731.1	1526.1	1329.9	1142.4	968.0	802.3	649.7	501.4
47.5°	2572.6	2324.1	2084.2	1857.5	1639.5	1425.8	1220.9	1029.0	850.3	688.9	532.0
45°	2777.5	2489.8	2232.5	1988.3	1748.5	1521.8	1299.4	1090.1	902.6	728.2	562.5
42.5°	2978.1	2668.5	2380.7	2123.5	1857.5	1613.3	1377.9	1155.5	950.6	763.1	588.6
40°	3204.8	2847.3	2520.3	2236.9	1962.2	1700.5	1452.0	1216.5	998.5	797.9	614.8
37.5°	3422.9	3021.7	2677.2	2358.9	2062.4	1787.7	1526.1	1277.6	1046.5	832.8	641.0
35°	3645.2	3213.6	2821.1	2472.3	2162.7	1874.9	1595.9	1334.3	1085.7	863.3	667.1
32.5°	3872.0	3396.7	2973.8	2594.4	2263.0	1953.4	1661.3	1386.6	1129.3	898.2	688.9
30°	4090.0	3571.1	3117.6	2712.1	2354.6	2031.9	1726.7	1438.9	1172.9	928.8	710.7
27.5°	4312.4	3754.3	3261.5	2821.1	2441.8	2101.7	1783.4	1486.9	1212.2	959.3	732.5
25°	4526.0	3928.7	3396.7	2925.8	2520.3	2171.4	1844.4	1534.8	1247.1	985.4	750.0
22.5°	4722.2	4081.3	3518.8	3026.1	2603.1	2232.5	1896.7	1578.4	1281.9	1011.6	767.4
20°	4901.0	4238.2	3645.2	3126.4	2681.6	2293.5	1940.4	1617.7	1312.5	1033.4	784.9
17.5°	5075.4	4382.1	3758.6	3217.9	2747.0	2345.9	1984.0	1648.2	1338.6	1050.8	797.9
15°	5223.7	4508.6	3858.9	3296.4	2808.1	2389.5	2018.8	1678.7	1360.4	1068.3	806.7
12.5°	5354.5	4617.6	3946.1	3361.8	2856.0	2428.7	2053.7	1704.9	1382.2	1081.4	819.7
10°	5459.1	4704.8	4015.9	3418.5	2899.6	2459.2	2075.5	1726.7	1395.3	1094.4	828.5
7.5°	5542.0	4774.6	4072.6	3457.7	2930.1	2485.4	2097.3	1739.8	1408.4	1103.2	841.5
5°	5603.0	4826.9	4111.8	3488.3	2956.3	2515.9	2123.5	1761.6	1425.8	1116.2	841.5
2.5°	5651.0	4866.1	4142.3	3514.4	2973.8	2515.9	2123.5	1761.6	1425.8	1116.2	841.5
0°	5651.0	4866.1	4142.3	3514.4	2973.8	2515.9	2123.5	1761.6	1425.8	1116.2	841.5



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CANDELA DISTRIBUTION (continued):

	82.5°	85°	87.5°	90°
90°	0.0	0.0	0.0	0.0
87.5°	21.8	17.4	8.7	0.0
85°	48.0	30.5	17.4	0.0
82.5°	69.8	48.0	21.8	0.0
80°	91.6	61.0	30.5	0.0
77.5°	117.7	78.5	39.2	0.0
75°	139.5	91.6	48.0	0.0
72.5°	161.3	109.0	52.3	0.0
70°	183.1	122.1	61.0	0.0
67.5°	209.3	135.2	69.8	0.0
65°	231.1	152.6	74.1	0.0
62.5°	252.9	165.7	82.8	0.0
60°	274.7	178.8	87.2	0.0
57.5°	296.5	191.9	95.9	0.0
55°	318.3	209.3	104.6	0.0
52.5°	340.1	222.4	109.0	0.0
50°	361.9	235.5	113.4	0.0
47.5°	379.3	248.5	122.1	0.0
45°	401.2	261.6	126.4	0.0
42.5°	423.0	270.3	130.8	0.0
40°	440.4	283.4	135.2	0.0
37.5°	462.2	292.1	143.9	0.0
35°	479.6	305.2	148.3	0.0
32.5°	492.7	313.9	152.6	0.0
30°	510.2	322.7	157.0	0.0
27.5°	523.2	331.4	157.0	0.0
25°	536.3	340.1	161.3	0.0
22.5°	549.4	344.5	165.7	0.0
20°	562.5	353.2	170.1	0.0
17.5°	571.2	357.5	170.1	0.0
15°	579.9	361.9	178.8	0.0
12.5°	584.3	366.3	178.8	0.0
10°	593.0	375.0	178.8	0.0
7.5°	601.7	375.0	178.8	0.0
5°	601.7	375.0	178.8	0.0
2.5°	601.7	375.0	178.8	0.0
0°	601.7	375.0	178.8	0.0

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