

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: STREETWORKS

Report Number: P628372

Luminaire Tested: **IFLD-M-SA4E-827-U-LAM**

Issue Date: 01/11/2023

Test Information

Test Method: LM-79-2019
Report Number: P628372
Test Lab: INNOVATION CENTER(G2)
Issue Date: 01/11/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: IFLD-M-SA4E-827-U-LAM
Description: Infrastructure Flood – Middle Tier Light Square Luminaire w/
Lambertian distribution lens
Light Source: (64) 2700K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

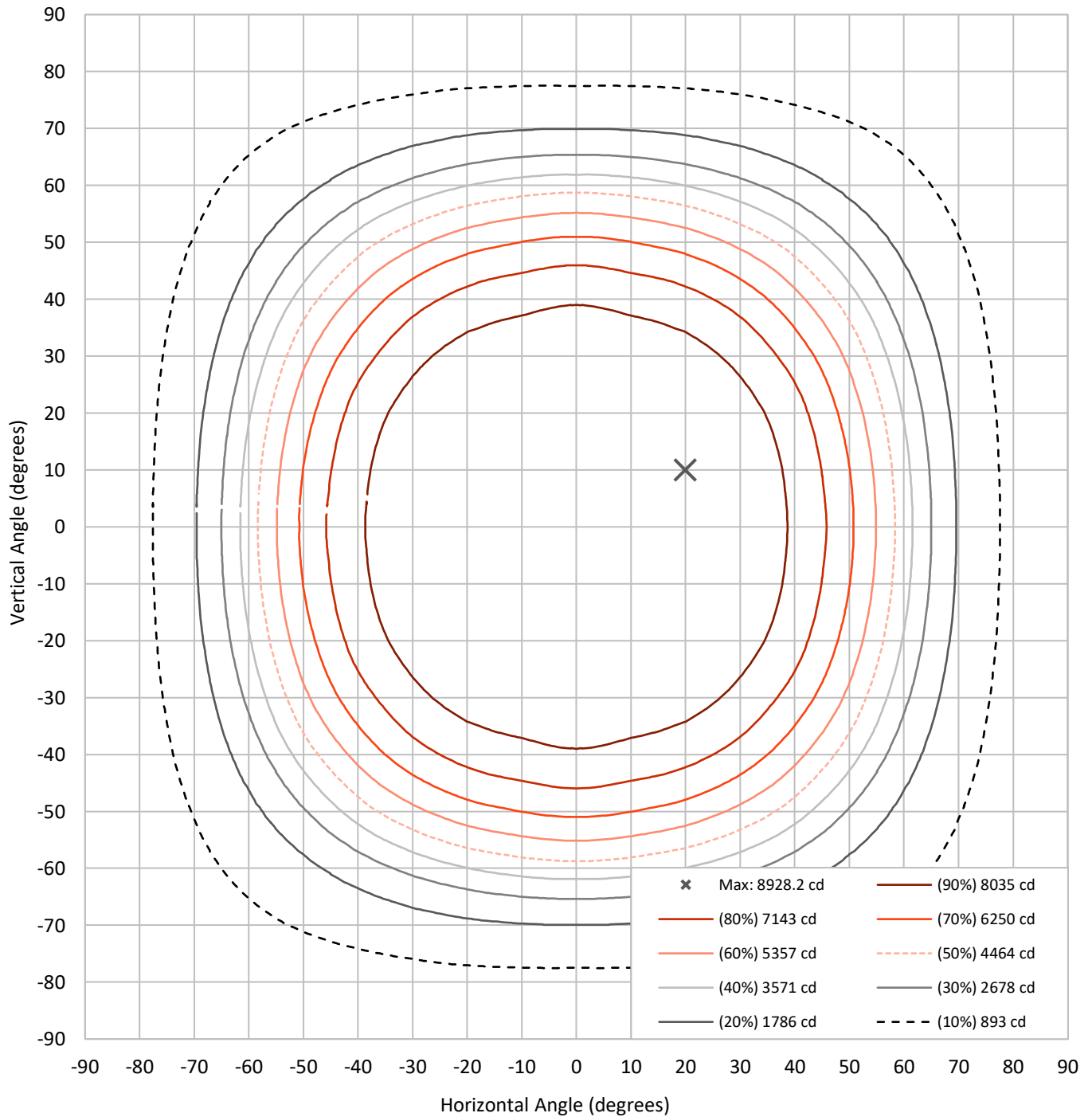
Lumens per Lamp:	N/A	NEMA Type:	7H x 7V
Luminaire Lumens:	27390.4 lumens	Max Intensity:	8928.2 candela
Efficiency:	N/A	Max Intensity Angle:	20°H x 10°V
Efficacy:	87.0 lumens/watt		
Luminous Opening:	Rectangular (W 2' x L: 0.5' x H: 0')		
Beam Angle (50%):	115.7°H x 112.9°V	Field Angle (10%):	154.7°H x 154°V
Beam Lumens:	16807.3 lumens	Field Lumens:	20149.1 lumens
Beam Efficiency:	61.4%	Field Efficiency:	73.6%

Input Watts (W): 314.8
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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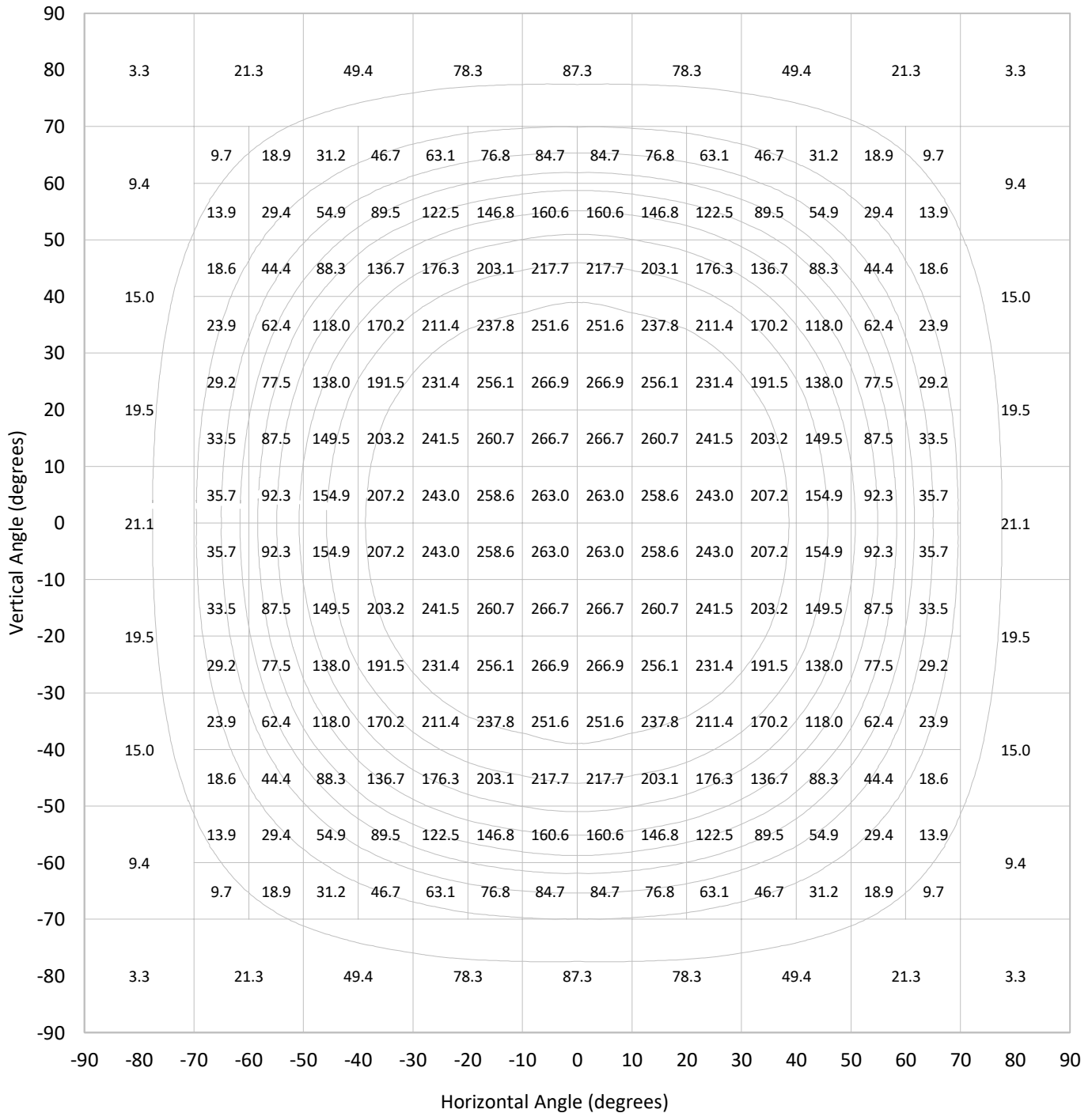
Iso-Candela Plot





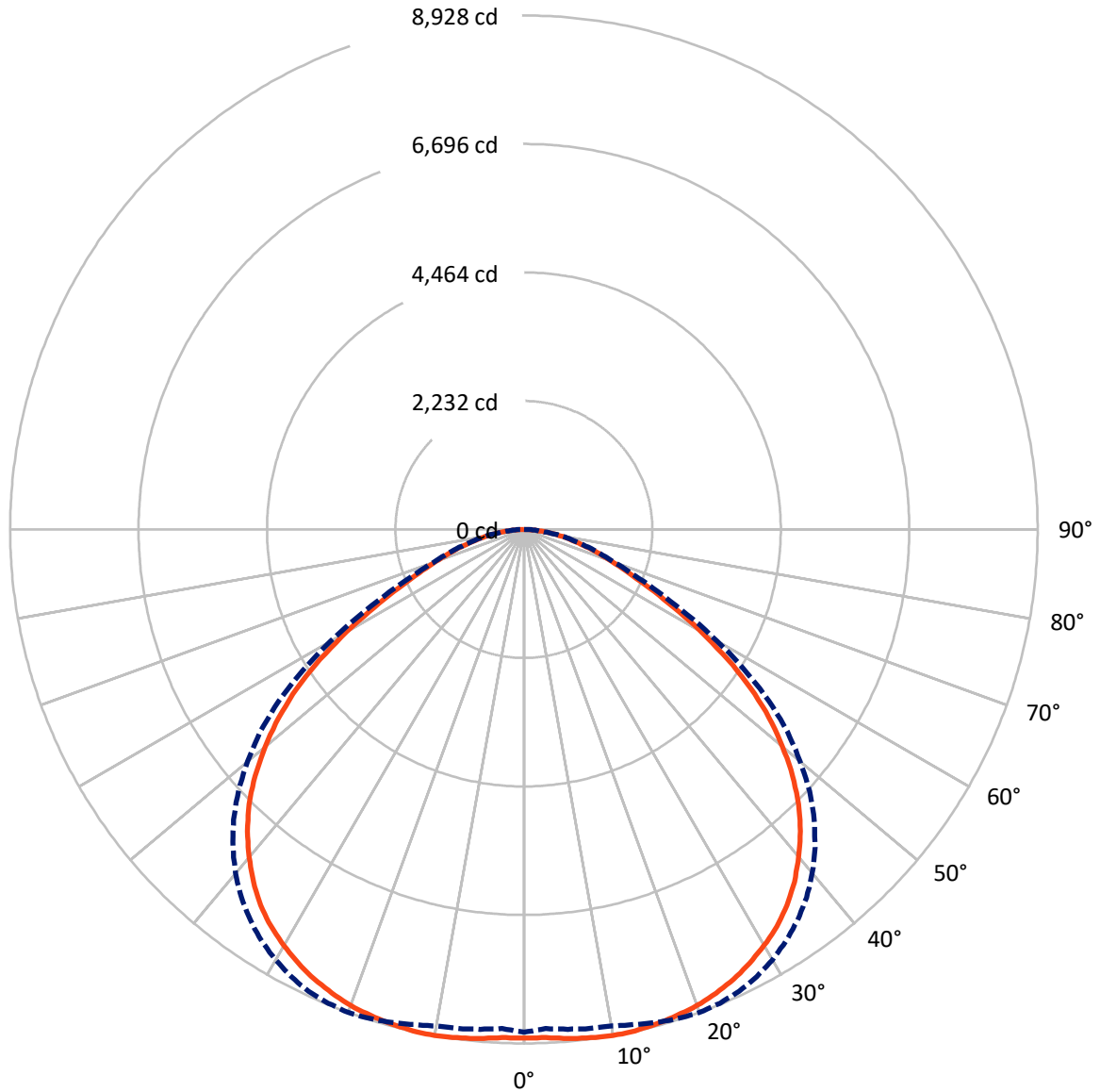
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Lumen Table



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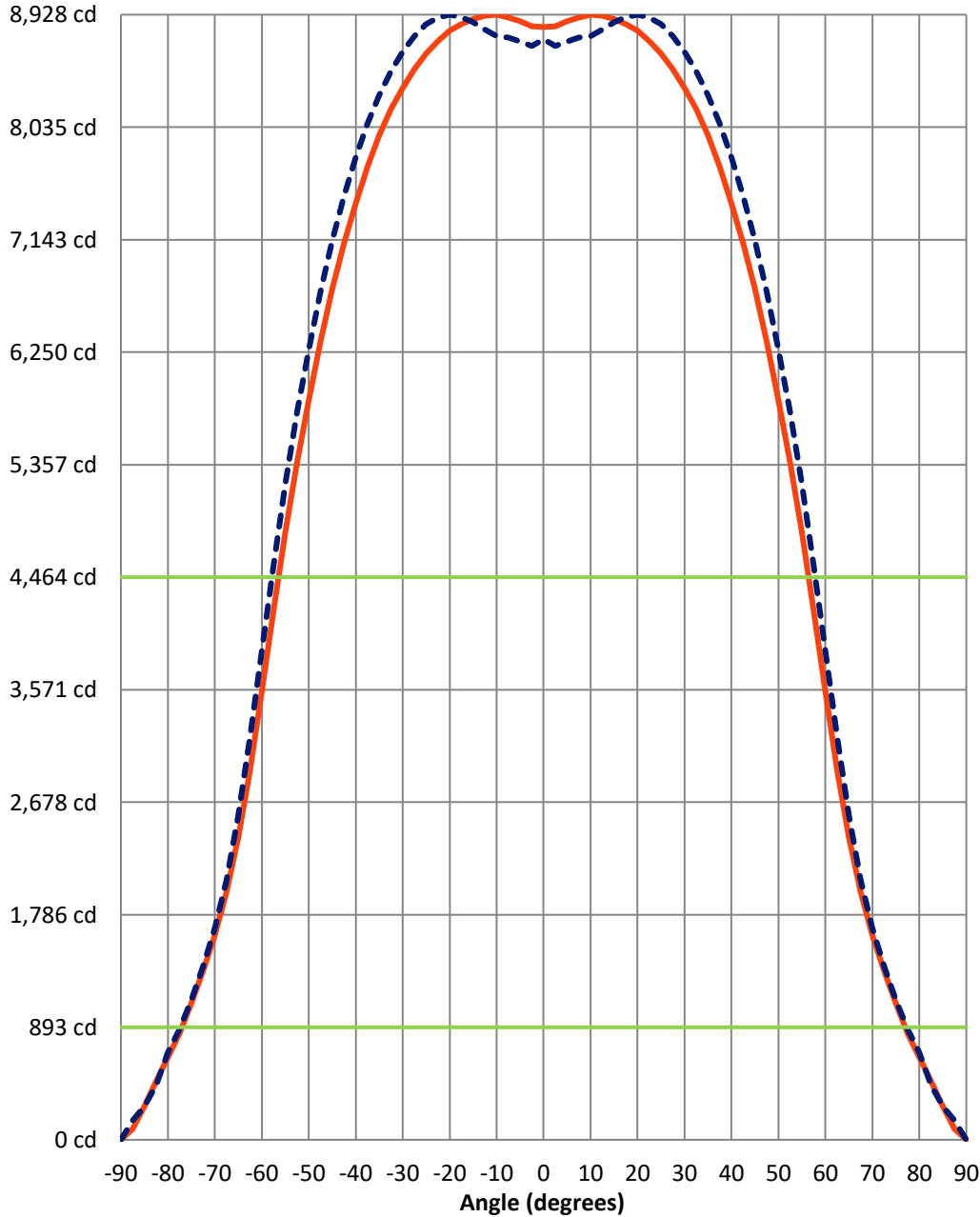
Luminous Intensity Polar Plot



— 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: 16807.3
 Efficiency: 61.4%

Field:
 H Angle: 154.7°
 V Angle: 154°
 Lumens: 20149.1
 Efficiency: 73.6%

Spill:
 Lumens: 7241.3
 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°	72.0	77.8	80.7	83.6	86.5	89.3	92.2	89.3	86.5	86.5	83.6
85°	193.1	198.9	201.7	221.9	242.1	253.6	268.0	265.1	265.1	262.3	259.4
82.5°	386.2	403.5	417.9	438.1	449.6	466.9	478.4	469.8	464.0	452.5	443.8
80°	685.9	691.7	694.5	697.4	683.0	680.1	674.4	665.7	654.2	639.8	625.4
77.5°	873.2	879.0	884.7	879.0	876.1	873.2	864.6	855.9	844.4	832.9	815.6
75°	1155.6	1155.6	1155.6	1147.0	1141.2	1132.6	1118.2	1103.8	1083.6	1060.5	1034.6
72.5°	1455.4	1452.5	1449.6	1432.3	1417.9	1400.6	1380.4	1363.1	1340.1	1314.2	1279.6
70°	1769.5	1775.3	1778.1	1755.1	1737.8	1714.7	1688.8	1657.1	1622.5	1585.0	1536.1
67.5°	2201.8	2196.0	2190.3	2158.5	2135.5	2103.8	2066.3	2020.2	1968.3	1910.7	1841.5
65°	2737.8	2746.5	2729.2	2697.5	2654.2	2602.4	2544.7	2478.4	2400.6	2314.2	2216.2
62.5°	3386.2	3400.7	3380.5	3340.1	3285.4	3216.2	3135.5	3040.4	2933.8	2812.7	2691.7
60°	4124.0	4121.1	4083.7	4028.9	3956.9	3870.4	3781.1	3677.3	3556.3	3415.1	3268.1
57.5°	4801.3	4795.5	4749.4	4694.6	4622.6	4530.4	4435.3	4325.7	4198.9	4049.1	3879.0
55°	5409.3	5403.6	5357.5	5299.8	5224.9	5132.7	5046.2	4942.5	4818.6	4660.0	4478.5
52.5°	5948.3	5951.1	5910.8	5847.4	5766.7	5677.4	5593.8	5490.0	5371.9	5213.4	5037.6
50°	6443.9	6441.1	6397.8	6340.2	6265.3	6178.8	6095.2	5991.5	5867.6	5714.8	5544.8
47.5°	6905.1	6899.3	6850.3	6786.9	6709.1	6634.2	6556.3	6464.1	6334.4	6181.7	6011.7
45°	7291.2	7279.7	7230.7	7170.2	7095.3	7029.0	6959.8	6890.6	6752.3	6611.1	6449.7
42.5°	7622.6	7619.8	7570.8	7510.3	7435.3	7377.7	7314.3	7227.8	7112.5	6982.9	6824.4
40°	7939.7	7916.6	7867.6	7810.0	7740.8	7691.8	7628.4	7542.0	7429.6	7302.8	7150.0
37.5°	8176.0	8178.9	8127.0	8063.6	8003.1	7956.9	7899.3	7818.6	7720.6	7596.7	7444.0
35°	8400.8	8386.4	8343.1	8288.4	8233.6	8181.7	8121.2	8052.1	7971.4	7856.1	7712.0
32.5°	8547.7	8567.9	8516.0	8458.4	8426.7	8386.4	8323.0	8250.9	8178.9	8063.6	7933.9
30°	8709.1	8691.8	8651.5	8602.5	8579.4	8553.5	8498.7	8429.6	8346.0	8242.3	8121.2
27.5°	8821.5	8812.9	8763.9	8717.8	8706.2	8683.2	8640.0	8579.4	8495.9	8395.0	8282.6
25°	8870.5	8876.3	8830.2	8804.2	8804.2	8789.8	8755.2	8703.4	8619.8	8527.6	8418.1
22.5°	8893.6	8887.8	8856.1	8850.3	8864.7	8853.2	8838.8	8792.7	8717.8	8642.8	8550.6
20°	8908.0	8867.6	8838.8	8861.9	8879.2	8876.3	8864.7	8835.9	8801.3	8737.9	8657.3
17.5°	8876.3	8850.3	8815.8	8850.3	8887.8	8890.7	8879.2	8861.9	8853.2	8812.9	8740.8
15°	8798.5	8778.3	8784.1	8818.6	8861.9	8876.3	8884.9	8905.1	8893.6	8861.9	8798.5
12.5°	8746.6	8720.7	8746.6	8781.2	8804.2	8812.9	8882.0	8919.5	8919.5	8890.7	8850.3
10°	8732.2	8680.3	8714.9	8746.6	8758.1	8810.0	8867.6	8908.0	8928.2	8905.1	8853.2
7.5°	8703.4	8668.8	8683.2	8697.6	8763.9	8801.3	8833.0	8876.3	8905.1	8902.2	8856.1
5°	8689.0	8645.7	8651.5	8712.0	8758.1	8784.1	8795.6	8833.0	8876.3	8884.9	8850.3
2.5°	8651.5	8631.3	8674.5	8680.3	8714.9	8735.1	8746.6	8781.2	8835.9	8856.1	8841.7
0°	8631.3	8602.5	8573.7	8596.7	8654.4	8697.6	8714.9	8766.8	8830.2	8850.3	8818.6



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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°	80.7	77.8	74.9	72.0	74.9	74.9	74.9	72.0	74.9	72.0	72.0
85°	250.7	239.2	230.6	219.0	207.5	198.9	187.3	175.8	172.9	170.0	164.3
82.5°	432.3	417.9	403.5	386.2	368.9	348.7	328.5	305.5	299.7	294.0	285.3
80°	608.1	587.9	567.7	547.6	530.3	510.1	487.0	461.1	443.8	429.4	412.1
77.5°	792.5	763.7	734.9	700.3	680.1	660.0	636.9	611.0	585.0	562.0	536.0
75°	1002.9	971.2	942.4	907.8	870.3	832.9	795.4	760.8	723.4	688.8	654.2
72.5°	1236.3	1190.2	1144.1	1100.9	1054.8	1008.7	959.7	913.6	867.5	821.3	772.4
70°	1481.3	1423.7	1366.0	1308.4	1247.9	1187.3	1129.7	1072.1	1014.4	953.9	899.2
67.5°	1769.5	1703.2	1628.3	1547.6	1458.2	1380.4	1305.5	1236.3	1167.2	1098.0	1028.8
65°	2129.7	2037.5	1936.6	1827.1	1723.4	1619.6	1510.1	1406.4	1325.7	1245.0	1167.2
62.5°	2573.5	2443.9	2302.6	2161.4	2034.6	1899.2	1772.4	1636.9	1510.1	1394.8	1299.7
60°	3103.8	2928.0	2755.1	2573.5	2397.7	2213.3	2051.9	1884.8	1726.3	1585.0	1446.7
57.5°	3688.8	3484.2	3276.7	3054.8	2815.6	2599.5	2380.5	2161.4	1974.1	1786.8	1631.2
55°	4282.5	4066.4	3832.9	3582.2	3320.0	3043.3	2746.5	2501.5	2245.0	2026.0	1824.2
52.5°	4847.4	4622.6	4380.5	4149.9	3835.8	3518.8	3193.2	2870.4	2570.7	2291.1	2046.2
50°	5351.7	5132.7	4899.2	4631.2	4340.2	4003.0	3639.9	3276.7	2922.3	2593.7	2288.2
47.5°	5812.8	5599.5	5366.1	5098.1	4833.0	4458.3	4092.3	3691.7	3296.9	2919.4	2562.0
45°	6245.1	6029.0	5786.9	5530.4	5224.9	4890.6	4513.1	4109.6	3686.0	3262.3	2850.2
42.5°	6637.0	6420.9	6175.9	5910.8	5608.2	5276.8	4910.8	4504.4	4077.9	3616.8	3164.3
40°	6980.0	6769.6	6533.3	6256.6	5974.2	5625.5	5265.2	4879.1	4438.1	3974.2	3475.6
37.5°	7279.7	7083.7	6850.3	6576.5	6276.8	5965.6	5593.8	5207.6	4809.9	4305.6	3795.5
35°	7544.8	7363.3	7124.1	6864.7	6570.8	6242.2	5893.5	5516.0	5086.6	4613.9	4118.2
32.5°	7775.4	7590.9	7371.9	7112.5	6827.2	6518.9	6161.5	5781.1	5374.8	4893.5	4354.6
30°	7971.4	7792.7	7585.2	7340.2	7066.4	6761.0	6412.2	6029.0	5614.0	5135.6	4602.4
27.5°	8141.4	7971.4	7769.6	7542.0	7279.7	6985.7	6634.2	6248.0	5824.3	5363.2	4830.1
25°	8288.4	8124.1	7936.8	7720.6	7461.3	7173.1	6841.7	6438.2	6014.5	5550.6	5023.2
22.5°	8420.9	8262.4	8075.1	7864.7	7628.4	7340.2	7005.9	6605.3	6175.9	5717.7	5199.0
20°	8539.1	8392.1	8207.7	7991.5	7755.2	7464.1	7132.7	6752.3	6320.0	5870.4	5357.5
17.5°	8634.2	8504.5	8320.1	8092.4	7856.1	7573.7	7250.9	6902.2	6443.9	6000.1	5490.0
15°	8700.5	8573.7	8406.5	8176.0	7945.4	7665.9	7343.1	6982.9	6556.3	6103.9	5599.5
12.5°	8746.6	8611.1	8455.5	8242.3	8011.7	7735.0	7420.9	7066.4	6651.4	6196.1	5694.7
10°	8758.1	8634.2	8478.6	8288.4	8063.6	7795.6	7487.2	7135.6	6729.3	6268.2	5772.5
7.5°	8763.9	8645.7	8504.5	8323.0	8101.0	7841.7	7536.2	7190.4	6786.9	6328.7	5830.1
5°	8761.0	8648.6	8521.8	8346.0	8124.1	7867.6	7567.9	7227.8	6827.2	6369.0	5873.3
2.5°	8752.4	8651.5	8533.3	8363.3	8150.0	7896.4	7599.6	7271.1	6870.5	6403.6	5907.9
0°	8775.4	8689.0	8539.1	8357.5	8155.8	7896.4	7596.7	7276.8	6876.2	6400.7	5905.0



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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°	72.0	69.2	69.2	66.3	63.4	60.5	54.8	51.9	46.1	37.5	28.8
85°	155.6	147.0	138.3	132.6	126.8	121.0	112.4	103.7	92.2	74.9	57.6
82.5°	273.8	256.5	239.2	219.0	201.7	184.4	170.0	155.6	138.3	112.4	86.5
80°	391.9	366.0	340.1	311.2	285.3	256.5	230.6	207.5	184.4	149.9	115.3
77.5°	510.1	475.5	438.1	403.5	366.0	328.5	291.1	259.4	224.8	184.4	144.1
75°	619.6	579.3	544.7	495.7	449.6	400.6	351.6	308.4	265.1	216.1	172.9
72.5°	729.1	677.2	628.3	582.1	530.3	469.8	415.0	360.2	305.5	247.8	196.0
70°	838.6	775.2	714.7	660.0	602.3	541.8	475.5	412.1	345.8	276.7	216.1
67.5°	951.0	879.0	809.8	740.7	674.4	605.2	536.0	464.0	386.2	305.5	239.2
65°	1075.0	985.6	902.0	824.2	746.4	671.5	593.7	515.9	429.4	337.2	259.4
62.5°	1198.9	1100.9	1002.9	904.9	818.5	734.9	651.3	564.9	469.8	371.8	279.5
60°	1331.4	1219.0	1106.7	997.1	890.5	798.3	706.1	613.8	513.0	403.5	299.7
57.5°	1478.4	1343.0	1216.2	1092.2	971.2	861.7	760.8	662.8	550.4	435.2	322.8
55°	1645.6	1478.4	1328.6	1190.2	1057.7	925.1	815.6	714.7	593.7	466.9	348.7
52.5°	1821.4	1628.3	1446.7	1291.1	1149.9	1000.0	867.5	755.1	636.9	498.6	371.8
50°	2026.0	1781.0	1579.3	1389.1	1230.6	1075.0	922.2	801.2	680.1	536.0	394.8
47.5°	2236.4	1965.5	1711.9	1504.4	1317.0	1147.0	985.6	841.5	720.5	570.6	417.9
45°	2481.3	2141.3	1861.7	1616.8	1400.6	1221.9	1049.0	884.7	755.1	605.2	440.9
42.5°	2717.6	2348.8	2017.3	1740.7	1495.7	1294.0	1106.7	930.9	789.6	639.8	461.1
40°	2997.2	2556.3	2167.2	1858.8	1590.8	1363.1	1164.3	979.8	821.3	671.5	481.3
37.5°	3265.2	2766.6	2348.8	1988.5	1683.0	1432.3	1221.9	1026.0	850.2	703.2	507.2
35°	3530.3	3000.1	2521.7	2109.6	1778.1	1510.1	1279.6	1069.2	879.0	729.1	530.3
32.5°	3783.9	3219.1	2697.5	2245.0	1881.9	1582.2	1331.4	1109.5	907.8	752.2	553.3
30°	4020.3	3426.6	2870.4	2383.3	1977.0	1648.5	1380.4	1149.9	942.4	772.4	576.4
27.5°	4236.4	3628.3	3043.3	2513.0	2066.3	1709.0	1432.3	1187.3	971.2	792.5	596.6
25°	4432.4	3809.9	3201.8	2631.2	2147.0	1775.3	1481.3	1224.8	997.1	809.8	613.8
22.5°	4616.8	3977.0	3345.9	2749.3	2245.0	1841.5	1527.4	1259.4	1023.1	827.1	631.1
20°	4778.2	4129.8	3484.2	2867.5	2331.5	1902.1	1567.8	1291.1	1046.1	838.6	648.4
17.5°	4907.9	4265.2	3608.1	2971.2	2406.4	1953.9	1602.3	1319.9	1066.3	853.0	660.0
15°	5023.2	4380.5	3711.9	3060.6	2472.7	1997.2	1634.0	1343.0	1083.6	861.7	674.4
12.5°	5121.2	4478.5	3801.2	3138.4	2530.3	2034.6	1660.0	1360.3	1098.0	870.3	683.0
10°	5201.8	4556.3	3876.2	3198.9	2576.4	2063.4	1680.2	1377.6	1109.5	879.0	691.7
7.5°	5262.4	4613.9	3930.9	3250.8	2613.9	2083.6	1697.4	1389.1	1121.1	884.7	706.1
5°	5308.5	4662.9	3974.2	3285.4	2642.7	2112.4	1717.6	1403.5	1132.6	890.5	706.1
2.5°	5343.1	4703.3	4008.7	3314.2	2665.8	2106.7	1717.6	1400.6	1132.6	890.5	703.2
0°	5337.3	4706.2	4005.9	3314.2	2665.8	2100.9	1717.6	1397.7	1132.6	890.5	703.2



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CANDELA DISTRIBUTION (continued):

	82.5°	85°	87.5°	90°
90°	0.0	0.0	0.0	0.0
87.5°	20.2	14.4	5.8	0.0
85°	43.2	28.8	14.4	0.0
82.5°	63.4	40.3	20.2	0.0
80°	83.6	54.8	25.9	0.0
77.5°	106.6	69.2	34.6	0.0
75°	126.8	80.7	40.3	0.0
72.5°	147.0	95.1	46.1	0.0
70°	164.3	106.6	51.9	0.0
67.5°	181.6	121.0	60.5	0.0
65°	196.0	132.6	66.3	0.0
62.5°	207.5	147.0	72.0	0.0
60°	221.9	158.5	77.8	0.0
57.5°	233.4	167.2	83.6	0.0
55°	245.0	172.9	89.3	0.0
52.5°	256.5	181.6	95.1	0.0
50°	268.0	190.2	100.9	0.0
47.5°	279.5	196.0	103.7	0.0
45°	296.8	204.6	109.5	0.0
42.5°	311.2	210.4	115.3	0.0
40°	325.7	216.1	118.2	0.0
37.5°	340.1	221.9	123.9	0.0
35°	354.5	227.7	126.8	0.0
32.5°	366.0	233.4	129.7	0.0
30°	377.5	239.2	132.6	0.0
27.5°	389.1	242.1	135.4	0.0
25°	397.7	247.8	138.3	0.0
22.5°	406.3	250.7	141.2	0.0
20°	412.1	253.6	144.1	0.0
17.5°	420.8	256.5	147.0	0.0
15°	423.6	259.4	152.7	0.0
12.5°	429.4	262.3	152.7	0.0
10°	432.3	265.1	152.7	0.0
7.5°	438.1	265.1	152.7	0.0
5°	435.2	265.1	152.7	0.0
2.5°	435.2	265.1	152.7	0.0
0°	432.3	265.1	152.7	0.0

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