

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: P624062

Luminaire Tested: **IFLD-M-SA4E-830-U-77**

Issue Date: 11/2/2022

Test Information

Test Method: LM-79-2019
Report Number: P624062
Test Lab: INNOVATION CENTER(G2)
Issue Date: 11/2/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: IFLD-M-SA4E-830-U-77
Description: Infrastructure Flood – Middle Tier Light Square Luminaire w/ Nema 7 distribution lens
Light Source: (64) 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

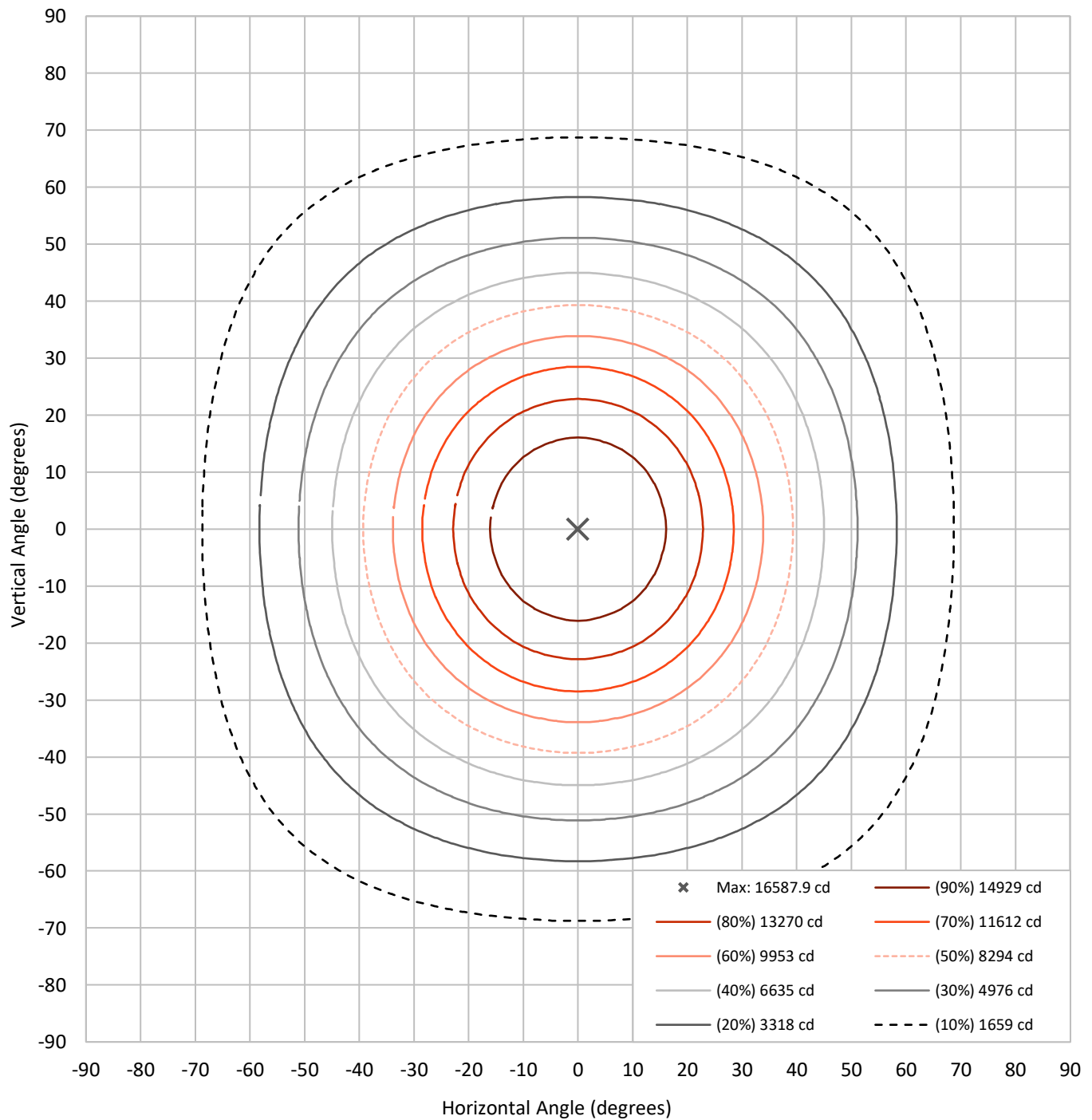
Lumens per Lamp:	N/A	NEMA Type:	7H x 7V
Luminaire Lumens:	29866.8 lumens	Max Intensity:	16587.9 candela
Efficiency:	N/A	Max Intensity Angle:	0°H x 0°V
Efficacy:	94.9 lumens/watt		
Luminous Opening:	Rectangular (W 2' x L: 0.5' x H: 0')		
Beam Angle (50%):	78.6°H x 78.6°V	Field Angle (10%):	137.5°H x 137.5°V
Beam Lumens:	12923.1 lumens	Field Lumens:	21161.1 lumens
Beam Efficiency:	43.3%	Field Efficiency:	70.9%
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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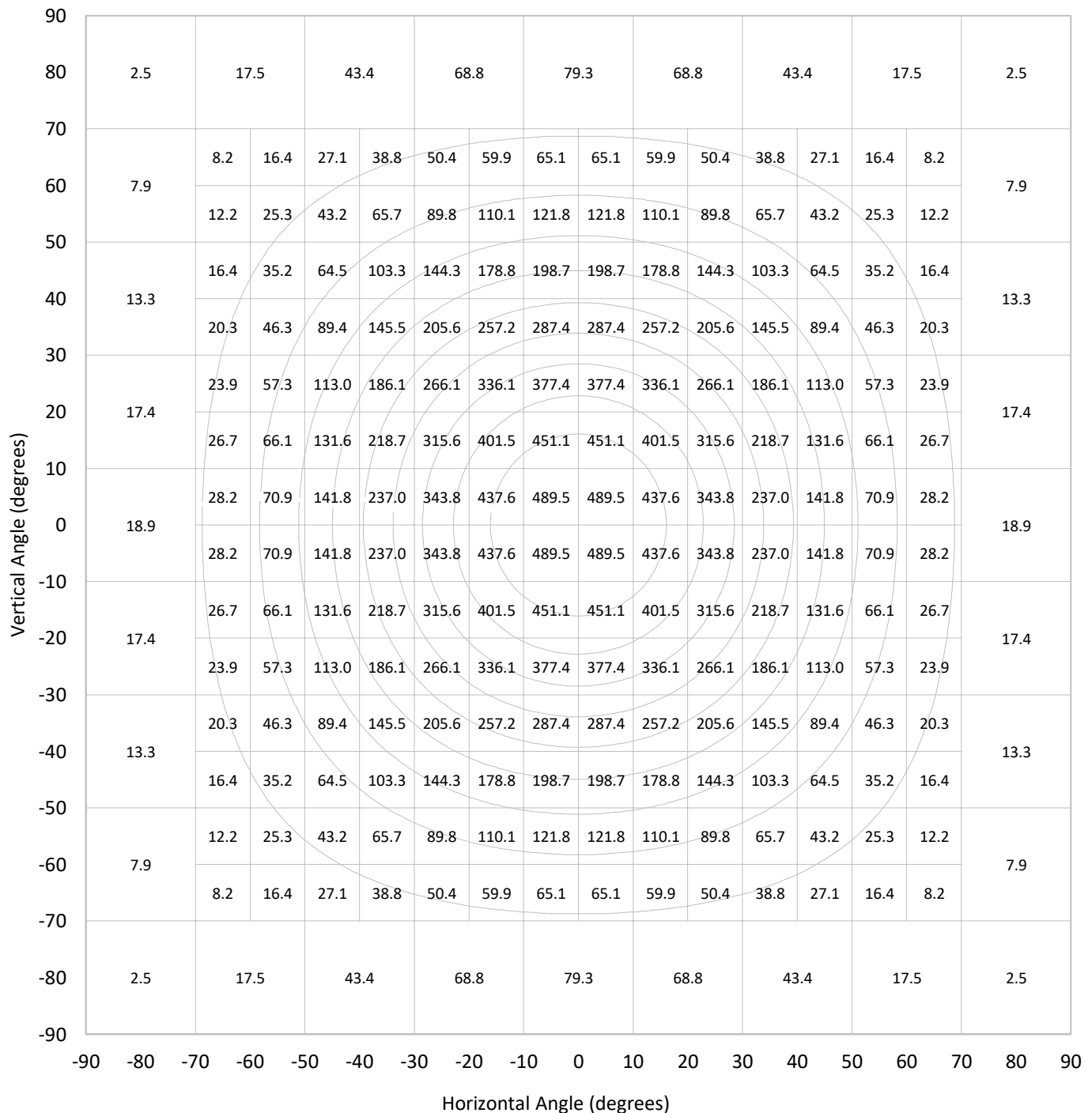
CATALOG NUMBER: IFLD-M-SA4E-830-U-77

Iso-Candela Plot



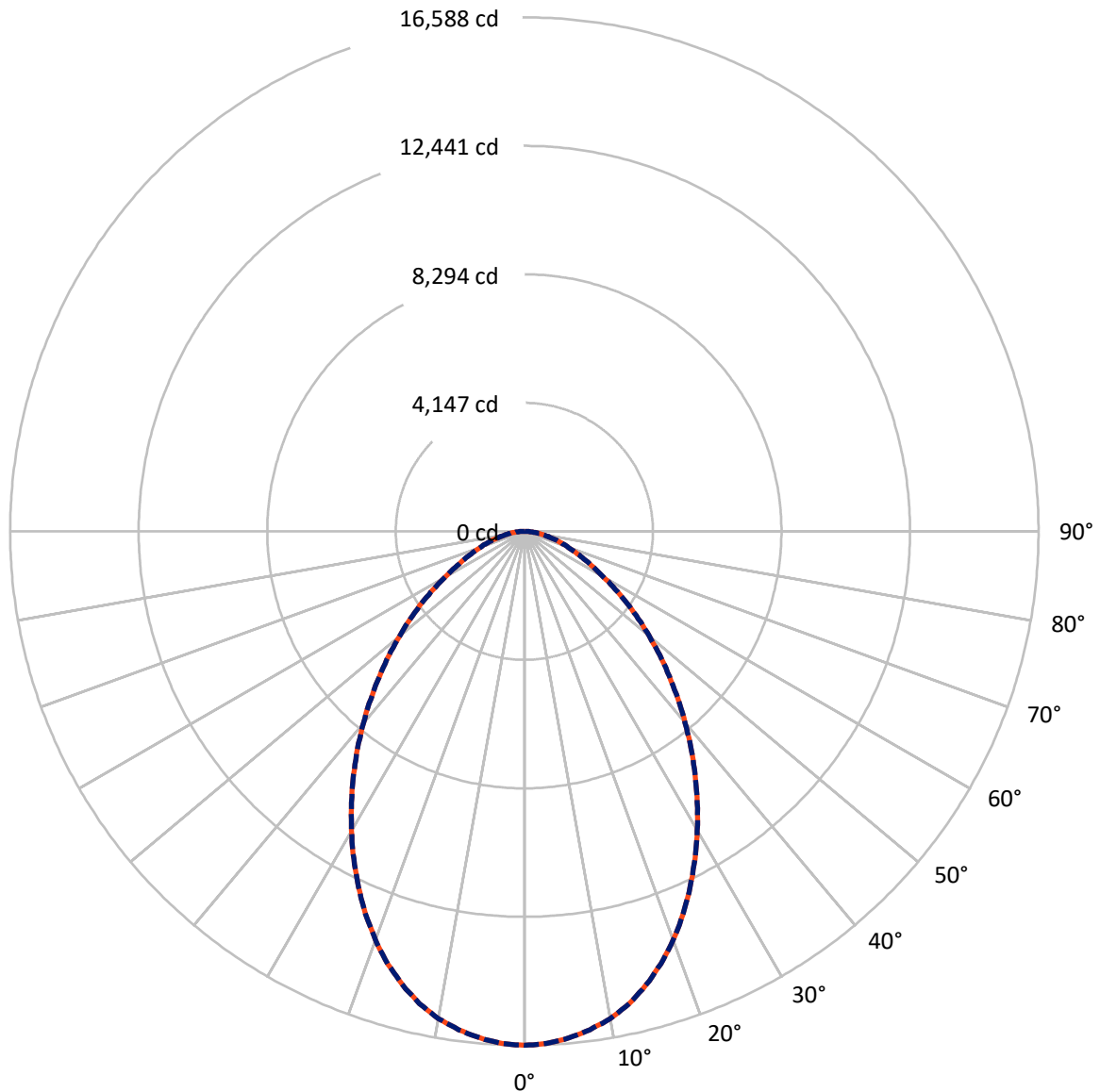
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Lumen Table



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Luminous Intensity Polar Plot

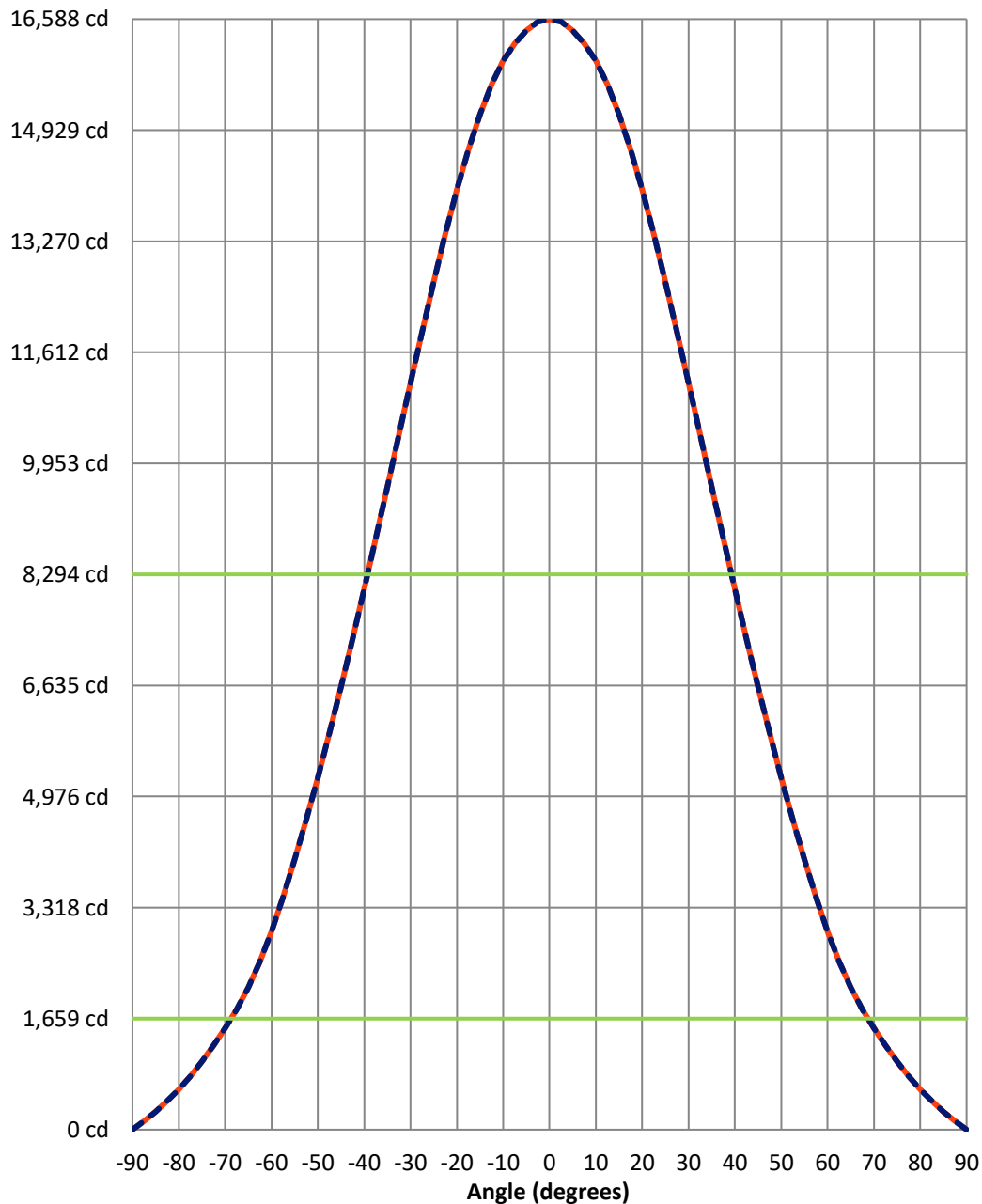


— Vertical Distribution Through 0-Deg - - - Horizontal Distribution Through 0-Deg

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Luminous Intensity Plot



Beam:

H Angle: 78.6°
V Angle: 78.6°
Lumens: 12923.1
Efficiency: 43.3%

Field:

H Angle: 137.5°
V Angle: 137.5°
Lumens: 21161.1
Efficiency: 70.9%

Spill:

Lumens: 8705.7
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°	127.7	127.7	127.7	127.7	127.7	127.7	127.7	121.4	121.4	118.3	115.2
85°	267.8	267.8	267.8	267.8	267.8	261.6	258.5	255.3	252.2	246.0	242.9
82.5°	429.7	429.7	429.7	429.7	423.5	417.3	414.2	407.9	401.7	392.4	383.0
80°	601.0	601.0	601.0	601.0	591.6	585.4	576.1	569.8	560.5	548.1	535.6
77.5°	797.2	797.2	797.2	787.8	781.6	772.3	762.9	750.5	738.0	722.4	703.7
75°	1018.3	1018.3	1018.3	1005.8	996.5	987.1	971.5	956.0	937.3	915.5	890.6
72.5°	1258.0	1258.0	1258.0	1242.5	1233.1	1217.5	1198.9	1177.1	1155.3	1127.2	1096.1
70°	1516.5	1516.5	1516.5	1497.8	1482.2	1466.7	1441.7	1416.8	1385.7	1354.6	1317.2
67.5°	1796.7	1796.7	1796.7	1774.9	1756.3	1734.5	1706.4	1675.3	1637.9	1594.3	1550.7
65°	2123.7	2123.7	2111.2	2092.6	2070.8	2039.6	2005.4	1961.8	1915.1	1859.0	1799.8
62.5°	2509.8	2509.8	2491.1	2469.3	2441.3	2400.8	2354.1	2298.1	2232.7	2161.1	2089.4
60°	2958.2	2958.2	2936.4	2908.4	2867.9	2818.1	2755.8	2684.2	2603.2	2512.9	2425.7
57.5°	3475.1	3475.1	3447.1	3409.7	3359.9	3297.6	3219.8	3129.5	3026.7	2914.6	2805.6
55°	4035.6	4035.6	4001.4	3957.8	3898.6	3823.9	3730.5	3624.6	3500.0	3372.4	3232.3
52.5°	4630.4	4630.4	4589.9	4540.1	4471.6	4384.4	4278.5	4154.0	4010.7	3861.3	3696.2
50°	5256.3	5256.3	5209.6	5153.5	5075.7	4972.9	4851.5	4708.3	4549.4	4375.1	4185.1
47.5°	5925.8	5925.8	5872.9	5807.5	5714.0	5595.7	5452.5	5287.4	5106.8	4910.7	4695.8
45°	6614.0	6614.0	6554.8	6480.1	6377.3	6243.4	6084.6	5925.8	5695.4	5468.0	5218.9
42.5°	7330.2	7330.2	7261.7	7177.6	7059.3	6912.9	6732.3	6526.8	6299.5	6044.1	5773.2
40°	8074.4	8074.4	7996.6	7900.0	7769.2	7601.1	7398.7	7168.3	6912.9	6629.5	6330.6
37.5°	8834.2	8834.2	8747.0	8641.1	8494.8	8307.9	8080.6	7825.3	7538.8	7224.3	6894.2
35°	9600.2	9600.2	9503.7	9388.5	9226.6	9021.0	8775.0	8491.7	8174.0	7831.5	7461.0
32.5°	10381.8	10381.8	10275.9	10145.2	9961.4	9734.1	9463.2	9154.9	8834.2	8435.6	8030.8
30°	11154.1	11154.1	11038.9	10895.6	10699.4	10450.3	10154.5	9815.1	9438.3	9030.4	8594.4
27.5°	11913.9	11882.7	11786.2	11633.6	11418.8	11154.1	10833.3	10465.9	10058.0	9609.6	9142.5
25°	12661.2	12627.0	12521.1	12352.9	12122.5	11832.9	11487.3	11094.9	10655.8	10182.5	9671.8
22.5°	13377.4	13340.0	13227.9	13047.3	12801.3	12486.8	12116.3	11695.9	11228.8	10721.2	10182.5
20°	14040.7	14000.2	13885.0	13695.0	13439.7	13106.5	12714.1	12262.6	11764.4	11228.8	10655.8
17.5°	14638.6	14598.1	14476.6	14280.5	14040.7	13670.1	13265.3	12788.9	12262.6	11695.9	11094.9
15°	15164.8	15121.2	14996.7	14800.5	14526.5	14177.7	13751.1	13265.3	12714.1	12116.3	11487.3
12.5°	15613.2	15569.6	15441.9	15245.8	14962.4	14613.6	14177.7	13670.1	13106.5	12486.8	11832.9
10°	15968.2	15924.6	15803.2	15616.3	15323.6	14962.4	14526.5	14040.7	13439.7	12801.3	12122.5
7.5°	16223.5	16183.1	16071.0	15884.1	15616.3	15245.8	14800.5	14280.5	13695.0	13047.3	12352.9
5°	16416.6	16369.9	16257.8	16071.0	15803.2	15441.9	14996.7	14476.6	13885.0	13227.9	12521.1
2.5°	16550.5	16494.4	16369.9	16183.1	15924.6	15569.6	15121.2	14598.1	14000.2	13340.0	12627.0
0°	16587.9	16550.5	16416.6	16223.5	15968.2	15613.2	15164.8	14638.6	14040.7	13377.4	12661.2

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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°	112.1	112.1	109.0	105.9	102.8	96.5	93.4	90.3	87.2	81.0	77.8
85°	236.7	230.4	224.2	218.0	208.6	202.4	193.1	186.8	177.5	168.2	158.8
82.5°	373.7	364.3	351.9	342.5	330.1	314.5	302.1	286.5	270.9	258.5	242.9
80°	523.1	507.6	492.0	476.4	457.7	439.1	420.4	401.7	379.9	358.1	336.3
77.5°	685.1	663.3	641.5	616.6	594.8	569.8	544.9	520.0	492.0	464.0	435.9
75°	865.7	837.6	806.5	775.4	747.3	713.1	678.8	644.6	607.2	573.0	535.6
72.5°	1061.8	1027.6	990.2	952.9	912.4	868.8	825.2	778.5	734.9	691.3	644.6
70°	1273.6	1233.1	1186.4	1139.7	1089.9	1036.9	984.0	927.9	871.9	815.8	759.8
67.5°	1500.9	1451.1	1395.0	1339.0	1276.7	1214.4	1152.2	1086.8	1018.3	949.7	884.4
65°	1743.8	1681.5	1616.1	1544.5	1472.9	1401.3	1326.5	1248.7	1170.8	1089.9	1018.3
62.5°	2014.7	1936.9	1852.8	1765.6	1684.6	1597.4	1516.5	1419.9	1326.5	1236.2	1145.9
60°	2329.2	2226.5	2123.7	2014.7	1911.9	1799.8	1700.2	1594.3	1488.5	1385.7	1279.8
57.5°	2681.1	2550.3	2425.7	2295.0	2157.9	2033.4	1905.7	1778.0	1659.7	1538.3	1423.1
55°	3079.7	2920.9	2765.2	2603.2	2444.4	2288.7	2126.8	1983.6	1837.2	1700.2	1566.3
52.5°	3515.6	3335.0	3141.9	2958.2	2755.8	2562.8	2382.2	2201.5	2030.3	1865.2	1712.7
50°	3982.7	3771.0	3549.9	3325.7	3095.2	2867.9	2649.9	2438.2	2238.9	2045.8	1865.2
47.5°	4468.5	4228.7	3976.5	3721.1	3475.1	3198.0	2936.4	2696.7	2456.9	2238.9	2030.3
45°	4966.7	4695.8	4418.7	4129.1	3839.5	3540.5	3250.9	2958.2	2696.7	2438.2	2201.5
42.5°	5480.5	5175.3	4867.1	4546.3	4225.6	3898.6	3571.7	3250.9	2936.4	2649.9	2382.2
40°	6009.9	5673.6	5321.7	4972.9	4630.4	4256.7	3898.6	3540.5	3198.0	2867.9	2562.8
37.5°	6539.2	6171.8	5791.9	5399.5	5007.2	4630.4	4225.6	3839.5	3475.1	3095.2	2755.8
35°	7071.7	6666.9	6255.9	5829.3	5399.5	4972.9	4546.3	4129.1	3721.1	3325.7	2958.2
32.5°	7607.3	7165.1	6710.5	6255.9	5791.9	5321.7	4867.1	4418.7	3976.5	3549.9	3141.9
30°	8133.6	7654.0	7165.1	6666.9	6171.8	5673.6	5175.3	4695.8	4228.7	3771.0	3335.0
27.5°	8647.4	8133.6	7607.3	7071.7	6539.2	6009.9	5480.5	4966.7	4468.5	3982.7	3515.6
25°	9142.5	8594.4	8030.8	7461.0	6894.2	6330.6	5773.2	5218.9	4695.8	4185.1	3696.2
22.5°	9609.6	9030.4	8435.6	7831.5	7224.3	6629.5	6044.1	5468.0	4910.7	4375.1	3861.3
20°	10058.0	9438.3	8834.2	8174.0	7538.8	6912.9	6299.5	5695.4	5106.8	4549.4	4010.7
17.5°	10465.9	9815.1	9154.9	8491.7	7825.3	7168.3	6526.8	5925.8	5287.4	4708.3	4154.0
15°	10833.3	10154.5	9463.2	8775.0	8080.6	7398.7	6732.3	6084.6	5452.5	4851.5	4278.5
12.5°	11154.1	10450.3	9734.1	9021.0	8307.9	7601.1	6912.9	6243.4	5595.7	4972.9	4384.4
10°	11418.8	10699.4	9961.4	9226.6	8494.8	7769.2	7059.3	6377.3	5714.0	5075.7	4471.6
7.5°	11633.6	10895.6	10145.2	9388.5	8641.1	7900.0	7177.6	6480.1	5807.5	5153.5	4540.1
5°	11786.2	11038.9	10275.9	9503.7	8747.0	7996.6	7261.7	6554.8	5872.9	5209.6	4589.9
2.5°	11882.7	11154.1	10381.8	9600.2	8834.2	8074.4	7330.2	6614.0	5925.8	5256.3	4630.4
0°	11913.9	11154.1	10381.8	9600.2	8834.2	8074.4	7330.2	6614.0	5925.8	5256.3	4630.4

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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°	74.7	68.5	62.3	59.2	52.9	49.8	43.6	37.4	34.3	28.0	21.8
85°	149.5	137.0	127.7	118.3	109.0	96.5	87.2	77.8	65.4	56.1	43.6
82.5°	227.3	211.7	196.2	180.6	165.0	149.5	130.8	115.2	99.6	84.1	65.4
80°	314.5	289.6	267.8	246.0	224.2	202.4	177.5	155.7	130.8	109.0	87.2
77.5°	404.8	376.8	345.6	314.5	283.4	255.3	224.2	196.2	168.2	137.0	109.0
75°	501.3	464.0	429.7	389.2	351.9	311.4	274.0	236.7	202.4	168.2	130.8
72.5°	601.0	554.3	507.6	464.0	417.3	370.6	327.0	280.3	236.7	196.2	155.7
70°	703.7	647.7	591.6	538.7	485.8	429.7	379.9	327.0	274.0	224.2	177.5
67.5°	812.7	747.3	681.9	613.4	554.3	492.0	429.7	370.6	311.4	255.3	202.4
65°	931.1	853.2	772.3	700.6	622.8	554.3	485.8	417.3	351.9	283.4	224.2
62.5°	1052.5	962.2	871.9	781.6	700.6	613.4	538.7	464.0	389.2	314.5	246.0
60°	1177.1	1074.3	971.5	871.9	772.3	681.9	591.6	507.6	429.7	345.6	267.8
57.5°	1304.7	1189.5	1074.3	962.2	853.2	747.3	647.7	554.3	464.0	376.8	289.6
55°	1435.5	1304.7	1177.1	1052.5	931.1	812.7	703.7	601.0	501.3	404.8	314.5
52.5°	1566.3	1423.1	1279.8	1145.9	1018.3	884.4	759.8	644.6	535.6	435.9	336.3
50°	1700.2	1538.3	1385.7	1236.2	1089.9	949.7	815.8	691.3	573.0	464.0	358.1
47.5°	1837.2	1659.7	1488.5	1326.5	1170.8	1018.3	871.9	734.9	607.2	492.0	379.9
45°	1983.6	1778.0	1594.3	1419.9	1248.7	1086.8	927.9	778.5	644.6	520.0	401.7
42.5°	2126.8	1905.7	1700.2	1516.5	1326.5	1152.2	984.0	825.2	678.8	544.9	420.4
40°	2288.7	2033.4	1799.8	1597.4	1401.3	1214.4	1036.9	868.8	713.1	569.8	439.1
37.5°	2444.4	2157.9	1911.9	1684.6	1472.9	1276.7	1089.9	912.4	747.3	594.8	457.7
35°	2603.2	2295.0	2014.7	1765.6	1544.5	1339.0	1139.7	952.9	775.4	616.6	476.4
32.5°	2765.2	2425.7	2123.7	1852.8	1616.1	1395.0	1186.4	990.2	806.5	641.5	492.0
30°	2920.9	2550.3	2226.5	1936.9	1681.5	1451.1	1233.1	1027.6	837.6	663.3	507.6
27.5°	3079.7	2681.1	2329.2	2014.7	1743.8	1500.9	1273.6	1061.8	865.7	685.1	523.1
25°	3232.3	2805.6	2425.7	2089.4	1799.8	1550.7	1317.2	1096.1	890.6	703.7	535.6
22.5°	3372.4	2914.6	2512.9	2161.1	1859.0	1594.3	1354.6	1127.2	915.5	722.4	548.1
20°	3500.0	3026.7	2603.2	2232.7	1915.1	1637.9	1385.7	1155.3	937.3	738.0	560.5
17.5°	3624.6	3129.5	2684.2	2298.1	1961.8	1675.3	1416.8	1177.1	956.0	750.5	569.8
15°	3730.5	3219.8	2755.8	2354.1	2005.4	1706.4	1441.7	1198.9	971.5	762.9	576.1
12.5°	3823.9	3297.6	2818.1	2400.8	2039.6	1734.5	1466.7	1217.5	987.1	772.3	585.4
10°	3898.6	3359.9	2867.9	2441.3	2070.8	1756.3	1482.2	1233.1	996.5	781.6	591.6
7.5°	3957.8	3409.7	2908.4	2469.3	2092.6	1774.9	1497.8	1242.5	1005.8	787.8	601.0
5°	4001.4	3447.1	2936.4	2491.1	2111.2	1796.7	1516.5	1258.0	1018.3	797.2	601.0
2.5°	4035.6	3475.1	2958.2	2509.8	2123.7	1796.7	1516.5	1258.0	1018.3	797.2	601.0
0°	4035.6	3475.1	2958.2	2509.8	2123.7	1796.7	1516.5	1258.0	1018.3	797.2	601.0

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CANDELA DISTRIBUTION (continued):

	82.5°	85°	87.5°	90°
90°	0.0	0.0	0.0	0.0
87.5°	15.6	12.5	6.2	0.0
85°	34.3	21.8	12.5	0.0
82.5°	49.8	34.3	15.6	0.0
80°	65.4	43.6	21.8	0.0
77.5°	84.1	56.1	28.0	0.0
75°	99.6	65.4	34.3	0.0
72.5°	115.2	77.8	37.4	0.0
70°	130.8	87.2	43.6	0.0
67.5°	149.5	96.5	49.8	0.0
65°	165.0	109.0	52.9	0.0
62.5°	180.6	118.3	59.2	0.0
60°	196.2	127.7	62.3	0.0
57.5°	211.7	137.0	68.5	0.0
55°	227.3	149.5	74.7	0.0
52.5°	242.9	158.8	77.8	0.0
50°	258.5	168.2	81.0	0.0
47.5°	270.9	177.5	87.2	0.0
45°	286.5	186.8	90.3	0.0
42.5°	302.1	193.1	93.4	0.0
40°	314.5	202.4	96.5	0.0
37.5°	330.1	208.6	102.8	0.0
35°	342.5	218.0	105.9	0.0
32.5°	351.9	224.2	109.0	0.0
30°	364.3	230.4	112.1	0.0
27.5°	373.7	236.7	112.1	0.0
25°	383.0	242.9	115.2	0.0
22.5°	392.4	246.0	118.3	0.0
20°	401.7	252.2	121.4	0.0
17.5°	407.9	255.3	121.4	0.0
15°	414.2	258.5	127.7	0.0
12.5°	417.3	261.6	127.7	0.0
10°	423.5	267.8	127.7	0.0
7.5°	429.7	267.8	127.7	0.0
5°	429.7	267.8	127.7	0.0
2.5°	429.7	267.8	127.7	0.0
0°	429.7	267.8	127.7	0.0

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