

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: P623859

Luminaire Tested: **IFLD-M-SA4E-727-U-77**

Issue Date: 11/2/2022

Test Information

Test Method: LM-79-2019
Report Number: P623859
Test Lab: INNOVATION CENTER(G2)
Issue Date: 11/2/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: IFLD-M-SA4E-727-U-77
Description: Infrastructure Flood – Middle Tier Light Square Luminaire w/ Nema 7 distribution lens
Light Source: (64) 2700K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

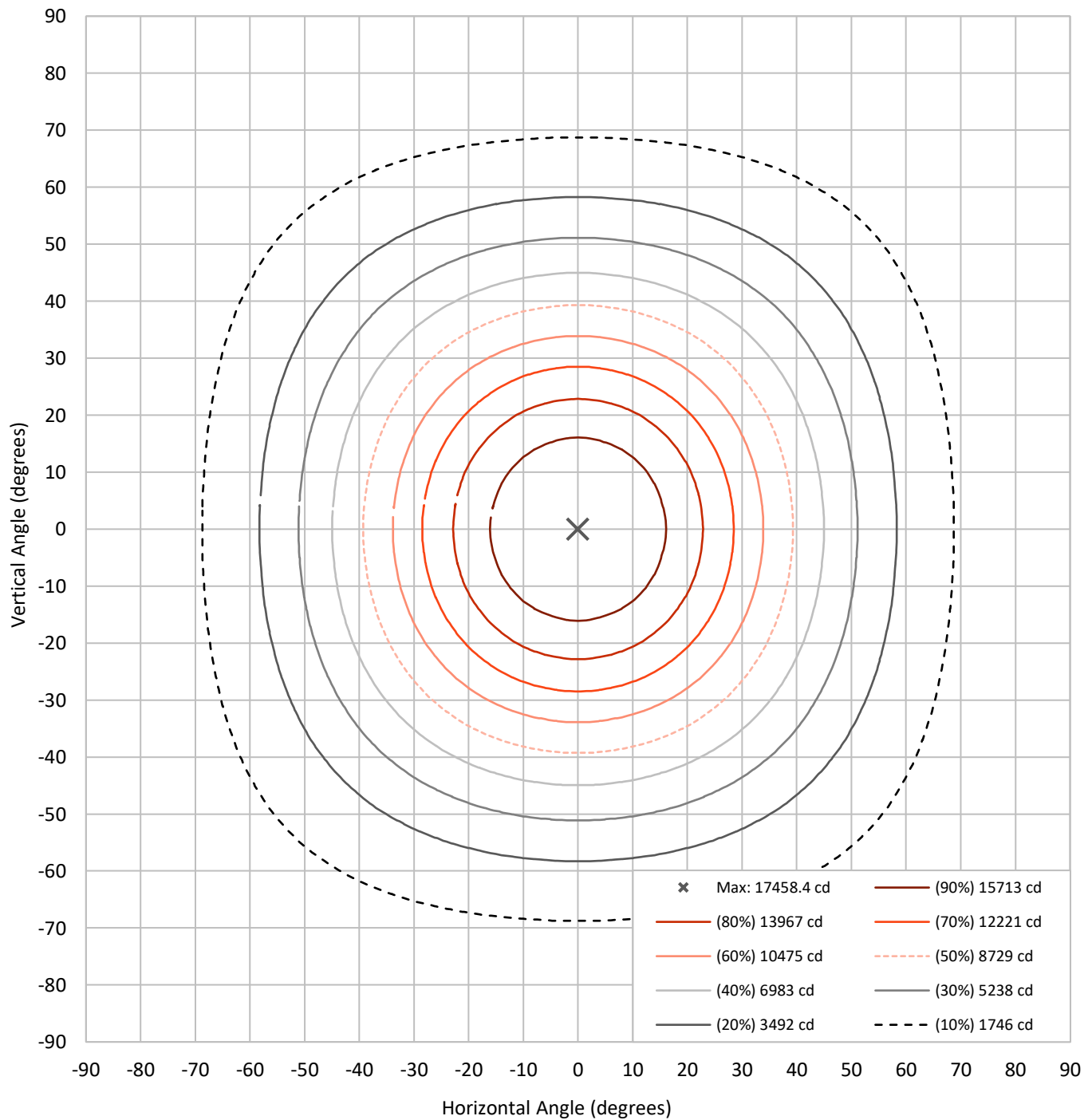
Lumens per Lamp:	N/A	NEMA Type:	7H x 7V
Luminaire Lumens:	31434.2 lumens	Max Intensity:	17458.4 candela
Efficiency:	N/A	Max Intensity Angle:	0°H x 0°V
Efficacy:	99.9 lumens/watt		
Luminous Opening:	Rectangular (W 2' x L: 0.5' x H: 0')		
Beam Angle (50%):	78.6°H x 78.6°V	Field Angle (10%):	137.5°H x 137.5°V
Beam Lumens:	13601.3 lumens	Field Lumens:	22271.6 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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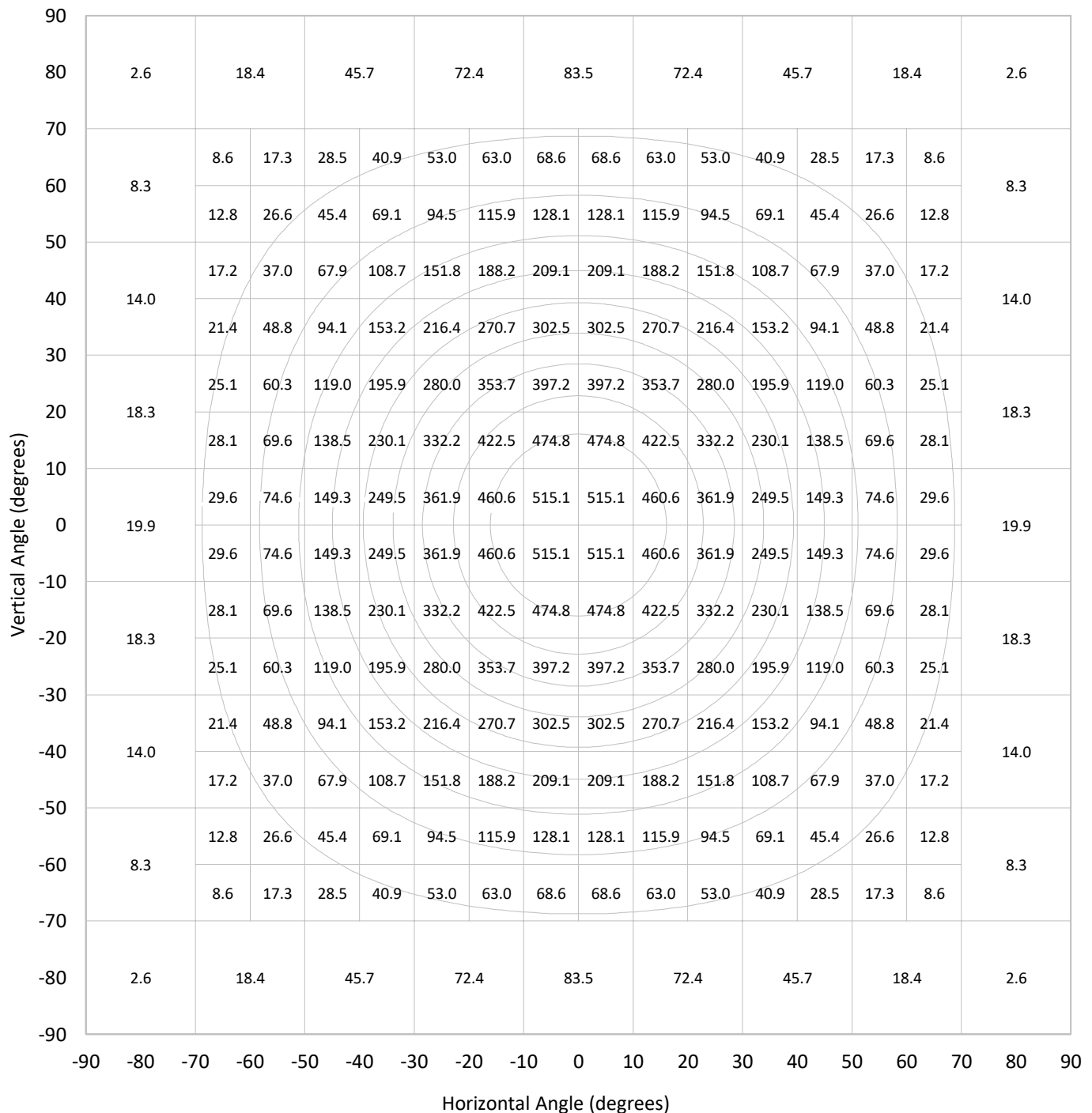
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Iso-Candela Plot



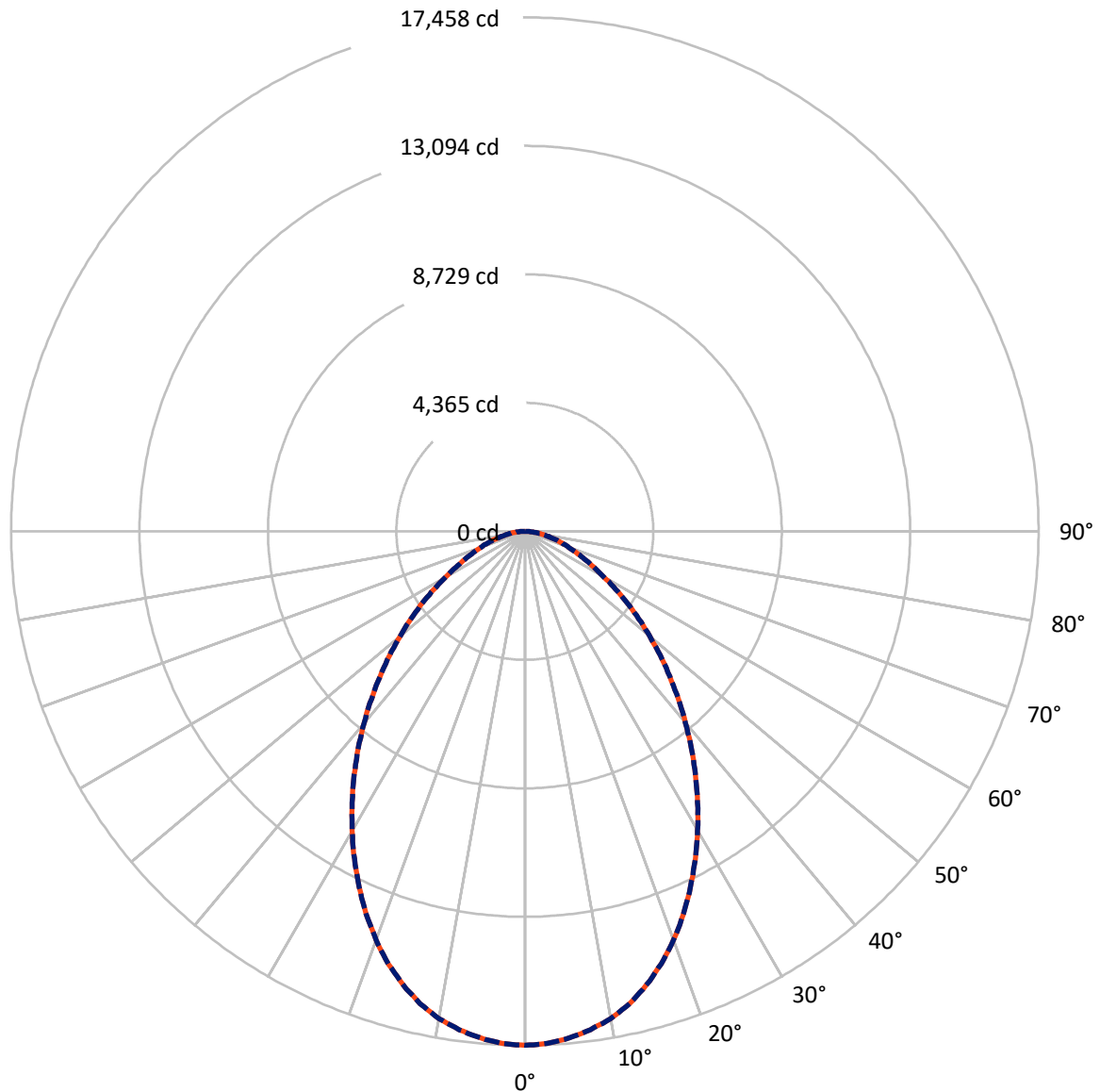
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Lumen Table



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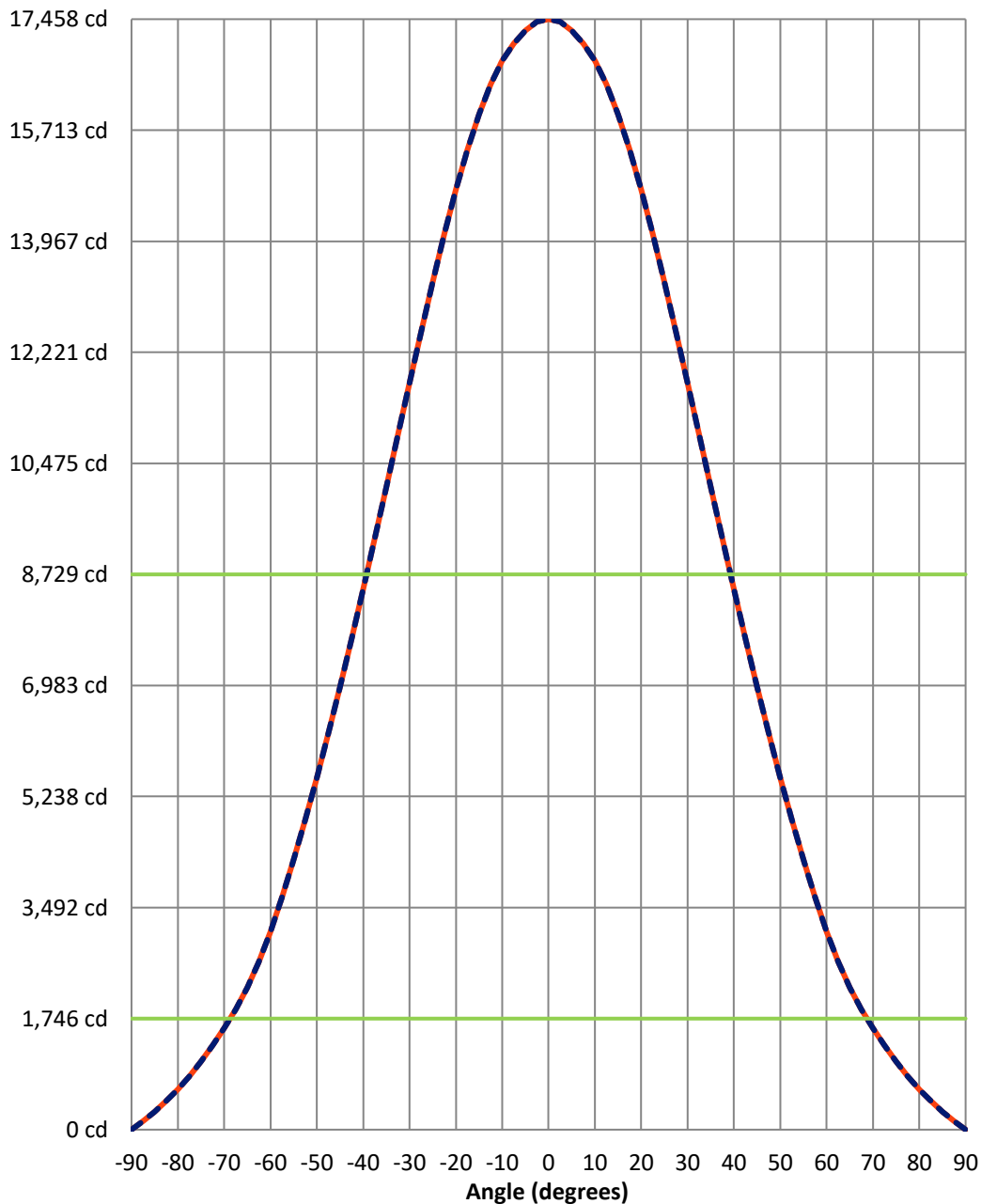
Luminous Intensity Polar Plot



— 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: 13601.3
Efficiency: 43.3%

Field:

H Angle: 137.5°
V Angle: 137.5°
Lumens: 22271.6
Efficiency: 70.9%

Spill:

Lumens: 9162.6
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°	134.4	134.4	134.4	134.4	134.4	134.4	134.4	127.8	127.8	124.5	121.3
85°	281.9	281.9	281.9	281.9	281.9	275.3	272.0	268.7	265.5	258.9	255.6
82.5°	452.3	452.3	452.3	452.3	445.7	439.2	435.9	429.3	422.8	412.9	403.1
80°	632.5	632.5	632.5	632.5	622.7	616.1	606.3	599.8	589.9	576.8	563.7
77.5°	839.0	839.0	839.0	829.2	822.6	812.8	802.9	789.8	776.7	760.3	740.7
75°	1071.7	1071.7	1071.7	1058.6	1048.7	1038.9	1022.5	1006.1	986.5	963.5	937.3
72.5°	1324.0	1324.0	1324.0	1307.7	1297.8	1281.4	1261.8	1238.8	1215.9	1186.4	1153.6
70°	1596.1	1596.1	1596.1	1576.4	1560.0	1543.6	1517.4	1491.2	1458.4	1425.6	1386.3
67.5°	1891.0	1891.0	1891.0	1868.1	1848.4	1825.5	1796.0	1763.2	1723.9	1678.0	1632.1
65°	2235.1	2235.1	2222.0	2202.4	2179.4	2146.7	2110.6	2064.7	2015.6	1956.6	1894.3
62.5°	2641.5	2641.5	2621.9	2598.9	2569.4	2526.8	2477.7	2418.7	2349.9	2274.5	2199.1
60°	3113.5	3113.5	3090.5	3061.0	3018.4	2966.0	2900.4	2825.1	2739.9	2644.8	2553.0
57.5°	3657.5	3657.5	3628.0	3588.7	3536.2	3470.7	3388.8	3293.7	3185.6	3067.6	2952.9
55°	4247.4	4247.4	4211.4	4165.5	4103.2	4024.6	3926.3	3814.8	3683.7	3549.4	3401.9
52.5°	4873.4	4873.4	4830.8	4778.4	4706.3	4614.5	4503.1	4372.0	4221.2	4063.9	3890.2
50°	5532.1	5532.1	5483.0	5424.0	5342.1	5233.9	5106.1	4955.3	4788.2	4604.7	4404.7
47.5°	6236.8	6236.8	6181.1	6112.2	6013.9	5889.4	5738.6	5564.9	5374.8	5168.4	4942.2
45°	6961.1	6961.1	6898.8	6820.1	6712.0	6571.1	6403.9	6236.8	5994.3	5755.0	5492.8
42.5°	7714.9	7714.9	7642.8	7554.3	7429.7	7275.7	7085.6	6869.3	6630.1	6361.3	6076.2
40°	8498.1	8498.1	8416.2	8314.6	8177.0	8000.0	7787.0	7544.4	7275.7	6977.5	6662.8
37.5°	9297.8	9297.8	9206.0	9094.6	8940.6	8743.9	8504.7	8236.0	7934.4	7603.4	7256.0
35°	10104.0	10104.0	10002.4	9881.2	9710.8	9494.5	9235.5	8937.3	8603.0	8242.5	7852.5
32.5°	10926.6	10926.6	10815.2	10677.6	10484.2	10245.0	9959.8	9635.4	9297.8	8878.3	8452.3
30°	11739.4	11739.4	11618.2	11467.4	11260.9	10998.8	10687.4	10330.2	9933.6	9504.3	9045.5
27.5°	12539.1	12506.3	12404.7	12244.1	12018.0	11739.4	11401.9	11015.1	10585.8	10113.9	9622.3
25°	13325.7	13289.6	13178.2	13001.2	12758.7	12453.9	12090.1	11677.2	11215.1	10716.9	10179.4
22.5°	14079.4	14040.1	13922.1	13732.1	13473.1	13142.1	12752.1	12309.7	11818.1	11283.9	10716.9
20°	14777.5	14734.9	14613.7	14413.7	14145.0	13794.3	13381.4	12906.2	12381.8	11818.1	11215.1
17.5°	15406.8	15364.2	15236.3	15029.9	14777.5	14387.5	13961.5	13460.0	12906.2	12309.7	11677.2
15°	15960.6	15914.8	15783.7	15577.2	15288.8	14921.7	14472.7	13961.5	13381.4	12752.1	12090.1
12.5°	16432.6	16386.7	16252.3	16045.9	15747.6	15380.6	14921.7	14387.5	13794.3	13142.1	12453.9
10°	16806.2	16760.3	16632.5	16435.9	16127.8	15747.6	15288.8	14777.5	14145.0	13473.1	12758.7
7.5°	17074.9	17032.3	16914.3	16717.7	16435.9	16045.9	15577.2	15029.9	14413.7	13732.1	13001.2
5°	17278.1	17229.0	17111.0	16914.3	16632.5	16252.3	15783.7	15236.3	14613.7	13922.1	13178.2
2.5°	17419.1	17360.1	17229.0	17032.3	16760.3	16386.7	15914.8	15364.2	14734.9	14040.1	13289.6
0°	17458.4	17419.1	17278.1	17074.9	16806.2	16432.6	15960.6	15406.8	14777.5	14079.4	13325.7

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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°	118.0	118.0	114.7	111.4	108.2	101.6	98.3	95.0	91.8	85.2	81.9
85°	249.1	242.5	236.0	229.4	219.6	213.0	203.2	196.6	186.8	177.0	167.1
82.5°	393.3	383.4	370.3	360.5	347.4	331.0	317.9	301.5	285.1	272.0	255.6
80°	550.6	534.2	517.8	501.4	481.8	462.1	442.4	422.8	399.8	376.9	354.0
77.5°	721.0	698.1	675.1	648.9	626.0	599.8	573.5	547.3	517.8	488.3	458.8
75°	911.1	881.6	848.8	816.1	786.6	750.5	714.5	678.4	639.1	603.0	563.7
72.5°	1117.6	1081.5	1042.2	1002.9	960.3	914.4	868.5	819.3	773.5	727.6	678.4
70°	1340.4	1297.8	1248.7	1199.5	1147.1	1091.4	1035.6	976.6	917.7	858.7	799.7
67.5°	1579.7	1527.2	1468.2	1409.3	1343.7	1278.2	1212.6	1143.8	1071.7	999.6	930.8
65°	1835.3	1769.8	1700.9	1625.6	1550.2	1474.8	1396.1	1314.2	1232.3	1147.1	1071.7
62.5°	2120.4	2038.5	1950.0	1858.3	1773.0	1681.3	1596.1	1494.5	1396.1	1301.1	1206.1
60°	2451.4	2343.3	2235.1	2120.4	2012.3	1894.3	1789.4	1678.0	1566.6	1458.4	1347.0
57.5°	2821.8	2684.1	2553.0	2415.4	2271.2	2140.1	2005.7	1871.4	1746.8	1619.0	1497.7
55°	3241.3	3074.1	2910.3	2739.9	2572.7	2408.8	2238.4	2087.7	1933.6	1789.4	1648.5
52.5°	3700.1	3510.0	3306.8	3113.5	2900.4	2697.3	2507.2	2317.1	2136.8	1963.1	1802.5
50°	4191.7	3968.9	3736.2	3500.2	3257.7	3018.4	2789.0	2566.2	2356.4	2153.2	1963.1
47.5°	4703.0	4450.6	4185.2	3916.4	3657.5	3365.8	3090.5	2838.2	2585.8	2356.4	2136.8
45°	5227.4	4942.2	4650.5	4345.8	4041.0	3726.3	3421.5	3113.5	2838.2	2566.2	2317.1
42.5°	5768.1	5446.9	5122.5	4784.9	4447.3	4103.2	3759.1	3421.5	3090.5	2789.0	2507.2
40°	6325.3	5971.3	5601.0	5233.9	4873.4	4480.1	4103.2	3726.3	3365.8	3018.4	2697.3
37.5°	6882.4	6495.7	6095.9	5682.9	5270.0	4873.4	4447.3	4041.0	3657.5	3257.7	2900.4
35°	7442.8	7016.8	6584.2	6135.2	5682.9	5233.9	4784.9	4345.8	3916.4	3500.2	3113.5
32.5°	8006.5	7541.2	7062.7	6584.2	6095.9	5601.0	5122.5	4650.5	4185.2	3736.2	3306.8
30°	8560.4	8055.7	7541.2	7016.8	6495.7	5971.3	5446.9	4942.2	4450.6	3968.9	3510.0
27.5°	9101.2	8560.4	8006.5	7442.8	6882.4	6325.3	5768.1	5227.4	4703.0	4191.7	3700.1
25°	9622.3	9045.5	8452.3	7852.5	7256.0	6662.8	6076.2	5492.8	4942.2	4404.7	3890.2
22.5°	10113.9	9504.3	8878.3	8242.5	7603.4	6977.5	6361.3	5755.0	5168.4	4604.7	4063.9
20°	10585.8	9933.6	9297.8	8603.0	7934.4	7275.7	6630.1	5994.3	5374.8	4788.2	4221.2
17.5°	11015.1	10330.2	9635.4	8937.3	8236.0	7544.4	6869.3	6236.8	5564.9	4955.3	4372.0
15°	11401.9	10687.4	9959.8	9235.5	8504.7	7787.0	7085.6	6403.9	5738.6	5106.1	4503.1
12.5°	11739.4	10998.8	10245.0	9494.5	8743.9	8000.0	7275.7	6571.1	5889.4	5233.9	4614.5
10°	12018.0	11260.9	10484.2	9710.8	8940.6	8177.0	7429.7	6712.0	6013.9	5342.1	4706.3
7.5°	12244.1	11467.4	10677.6	9881.2	9094.6	8314.6	7554.3	6820.1	6112.2	5424.0	4778.4
5°	12404.7	11618.2	10815.2	10002.4	9206.0	8416.2	7642.8	6898.8	6181.1	5483.0	4830.8
2.5°	12506.3	11739.4	10926.6	10104.0	9297.8	8498.1	7714.9	6961.1	6236.8	5532.1	4873.4
0°	12539.1	11739.4	10926.6	10104.0	9297.8	8498.1	7714.9	6961.1	6236.8	5532.1	4873.4

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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°	78.7	72.1	65.5	62.3	55.7	52.4	45.9	39.3	36.1	29.5	22.9
85°	157.3	144.2	134.4	124.5	114.7	101.6	91.8	81.9	68.8	59.0	45.9
82.5°	239.2	222.9	206.5	190.1	173.7	157.3	137.6	121.3	104.9	88.5	68.8
80°	331.0	304.8	281.9	258.9	236.0	213.0	186.8	163.9	137.6	114.7	91.8
77.5°	426.1	396.6	363.8	331.0	298.2	268.7	236.0	206.5	177.0	144.2	114.7
75°	527.7	488.3	452.3	409.7	370.3	327.7	288.4	249.1	213.0	177.0	137.6
72.5°	632.5	583.4	534.2	488.3	439.2	390.0	344.1	295.0	249.1	206.5	163.9
70°	740.7	681.7	622.7	567.0	511.3	452.3	399.8	344.1	288.4	236.0	186.8
67.5°	855.4	786.6	717.7	645.6	583.4	517.8	452.3	390.0	327.7	268.7	213.0
65°	979.9	898.0	812.8	737.4	655.5	583.4	511.3	439.2	370.3	298.2	236.0
62.5°	1107.7	1012.7	917.7	822.6	737.4	645.6	567.0	488.3	409.7	331.0	258.9
60°	1238.8	1130.7	1022.5	917.7	812.8	717.7	622.7	534.2	452.3	363.8	281.9
57.5°	1373.2	1251.9	1130.7	1012.7	898.0	786.6	681.7	583.4	488.3	396.6	304.8
55°	1510.9	1373.2	1238.8	1107.7	979.9	855.4	740.7	632.5	527.7	426.1	331.0
52.5°	1648.5	1497.7	1347.0	1206.1	1071.7	930.8	799.7	678.4	563.7	458.8	354.0
50°	1789.4	1619.0	1458.4	1301.1	1147.1	999.6	858.7	727.6	603.0	488.3	376.9
47.5°	1933.6	1746.8	1566.6	1396.1	1232.3	1071.7	917.7	773.5	639.1	517.8	399.8
45°	2087.7	1871.4	1678.0	1494.5	1314.2	1143.8	976.6	819.3	678.4	547.3	422.8
42.5°	2238.4	2005.7	1789.4	1596.1	1396.1	1212.6	1035.6	868.5	714.5	573.5	442.4
40°	2408.8	2140.1	1894.3	1681.3	1474.8	1278.2	1091.4	914.4	750.5	599.8	462.1
37.5°	2572.7	2271.2	2012.3	1773.0	1550.2	1343.7	1147.1	960.3	786.6	626.0	481.8
35°	2739.9	2415.4	2120.4	1858.3	1625.6	1409.3	1199.5	1002.9	816.1	648.9	501.4
32.5°	2910.3	2553.0	2235.1	1950.0	1700.9	1468.2	1248.7	1042.2	848.8	675.1	517.8
30°	3074.1	2684.1	2343.3	2038.5	1769.8	1527.2	1297.8	1081.5	881.6	698.1	534.2
27.5°	3241.3	2821.8	2451.4	2120.4	1835.3	1579.7	1340.4	1117.6	911.1	721.0	550.6
25°	3401.9	2952.9	2553.0	2199.1	1894.3	1632.1	1386.3	1153.6	937.3	740.7	563.7
22.5°	3549.4	3067.6	2644.8	2274.5	1956.6	1678.0	1425.6	1186.4	963.5	760.3	576.8
20°	3683.7	3185.6	2739.9	2349.9	2015.6	1723.9	1458.4	1215.9	986.5	776.7	589.9
17.5°	3814.8	3293.7	2825.1	2418.7	2064.7	1763.2	1491.2	1238.8	1006.1	789.8	599.8
15°	3926.3	3388.8	2900.4	2477.7	2110.6	1796.0	1517.4	1261.8	1022.5	802.9	606.3
12.5°	4024.6	3470.7	2966.0	2526.8	2146.7	1825.5	1543.6	1281.4	1038.9	812.8	616.1
10°	4103.2	3536.2	3018.4	2569.4	2179.4	1848.4	1560.0	1297.8	1048.7	822.6	622.7
7.5°	4165.5	3588.7	3061.0	2598.9	2202.4	1868.1	1576.4	1307.7	1058.6	829.2	632.5
5°	4211.4	3628.0	3090.5	2621.9	2222.0	1891.0	1596.1	1324.0	1071.7	839.0	632.5
2.5°	4247.4	3657.5	3113.5	2641.5	2235.1	1891.0	1596.1	1324.0	1071.7	839.0	632.5
0°	4247.4	3657.5	3113.5	2641.5	2235.1	1891.0	1596.1	1324.0	1071.7	839.0	632.5

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CANDELA DISTRIBUTION (continued):

	82.5°	85°	87.5°	90°
90°	0.0	0.0	0.0	0.0
87.5°	16.4	13.1	6.6	0.0
85°	36.1	22.9	13.1	0.0
82.5°	52.4	36.1	16.4	0.0
80°	68.8	45.9	22.9	0.0
77.5°	88.5	59.0	29.5	0.0
75°	104.9	68.8	36.1	0.0
72.5°	121.3	81.9	39.3	0.0
70°	137.6	91.8	45.9	0.0
67.5°	157.3	101.6	52.4	0.0
65°	173.7	114.7	55.7	0.0
62.5°	190.1	124.5	62.3	0.0
60°	206.5	134.4	65.5	0.0
57.5°	222.9	144.2	72.1	0.0
55°	239.2	157.3	78.7	0.0
52.5°	255.6	167.1	81.9	0.0
50°	272.0	177.0	85.2	0.0
47.5°	285.1	186.8	91.8	0.0
45°	301.5	196.6	95.0	0.0
42.5°	317.9	203.2	98.3	0.0
40°	331.0	213.0	101.6	0.0
37.5°	347.4	219.6	108.2	0.0
35°	360.5	229.4	111.4	0.0
32.5°	370.3	236.0	114.7	0.0
30°	383.4	242.5	118.0	0.0
27.5°	393.3	249.1	118.0	0.0
25°	403.1	255.6	121.3	0.0
22.5°	412.9	258.9	124.5	0.0
20°	422.8	265.5	127.8	0.0
17.5°	429.3	268.7	127.8	0.0
15°	435.9	272.0	134.4	0.0
12.5°	439.2	275.3	134.4	0.0
10°	445.7	281.9	134.4	0.0
7.5°	452.3	281.9	134.4	0.0
5°	452.3	281.9	134.4	0.0
2.5°	452.3	281.9	134.4	0.0
0°	452.3	281.9	134.4	0.0

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