

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: P628198

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

Issue Date: 01/11/2023

Test Information

Test Method: LM-79-2019
Report Number: P628198
Test Lab: INNOVATION CENTER(G2)
Issue Date: 01/11/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: IFLD-M-SA4E-727-U-LAM
Description: Infrastructure Flood – Middle Tier Light Square Luminaire w/
Lambertian 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:	31161.1 lumens	Max Intensity:	10157.3 candela
Efficiency:	N/A	Max Intensity Angle:	20°H x 10°V
Efficacy:	99.0 lumens/watt		
Luminous Opening:	Rectangular (W 2' x L: 0.5' x H: 0')		

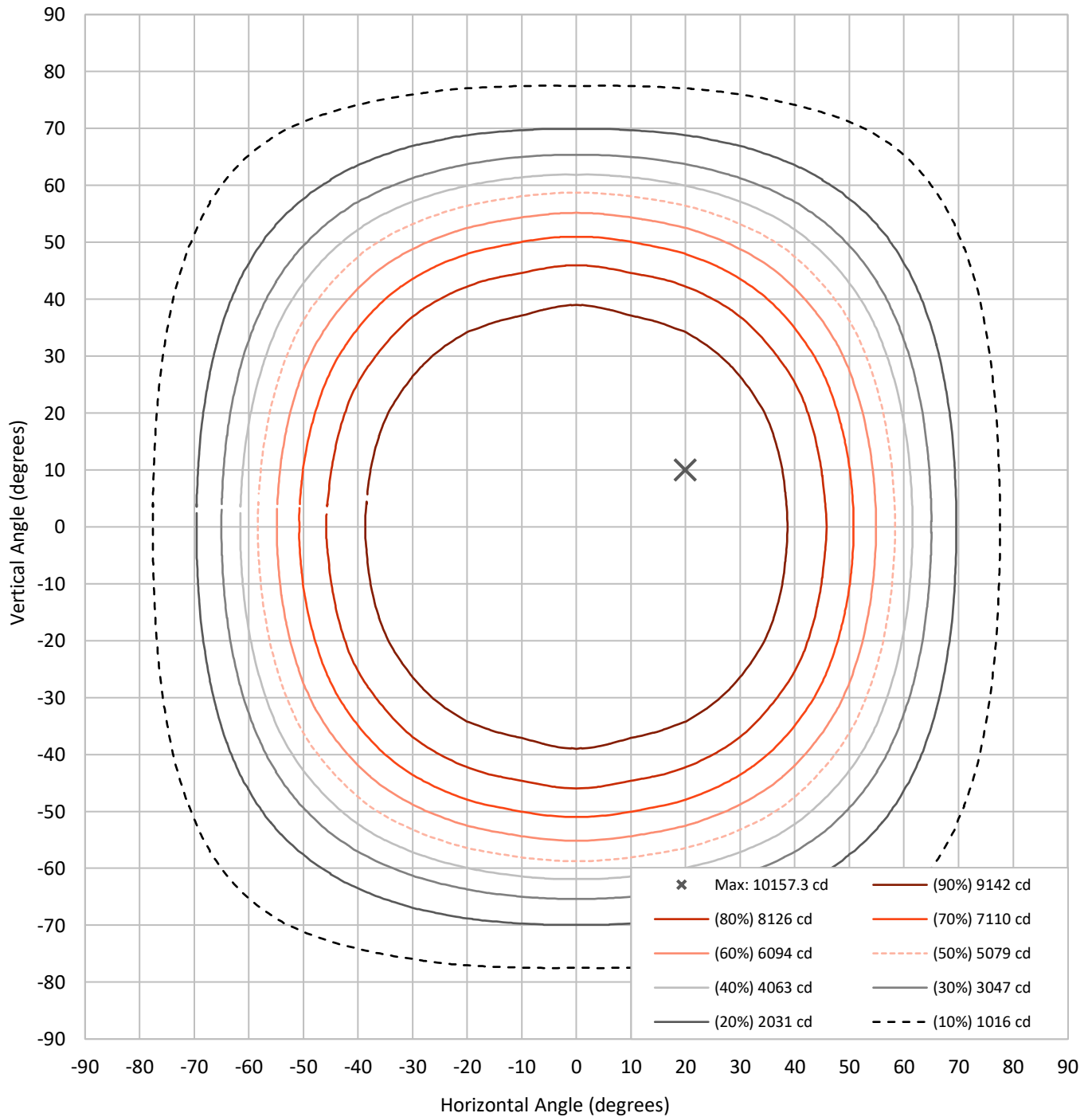
Beam Angle (50%):	115.7°H x 112.9°V	Field Angle (10%):	154.7°H x 154°V
Beam Lumens:	19121.1 lumens	Field Lumens:	22923 lumens
Beam Efficiency:	61.4%	Field Efficiency:	73.6%

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



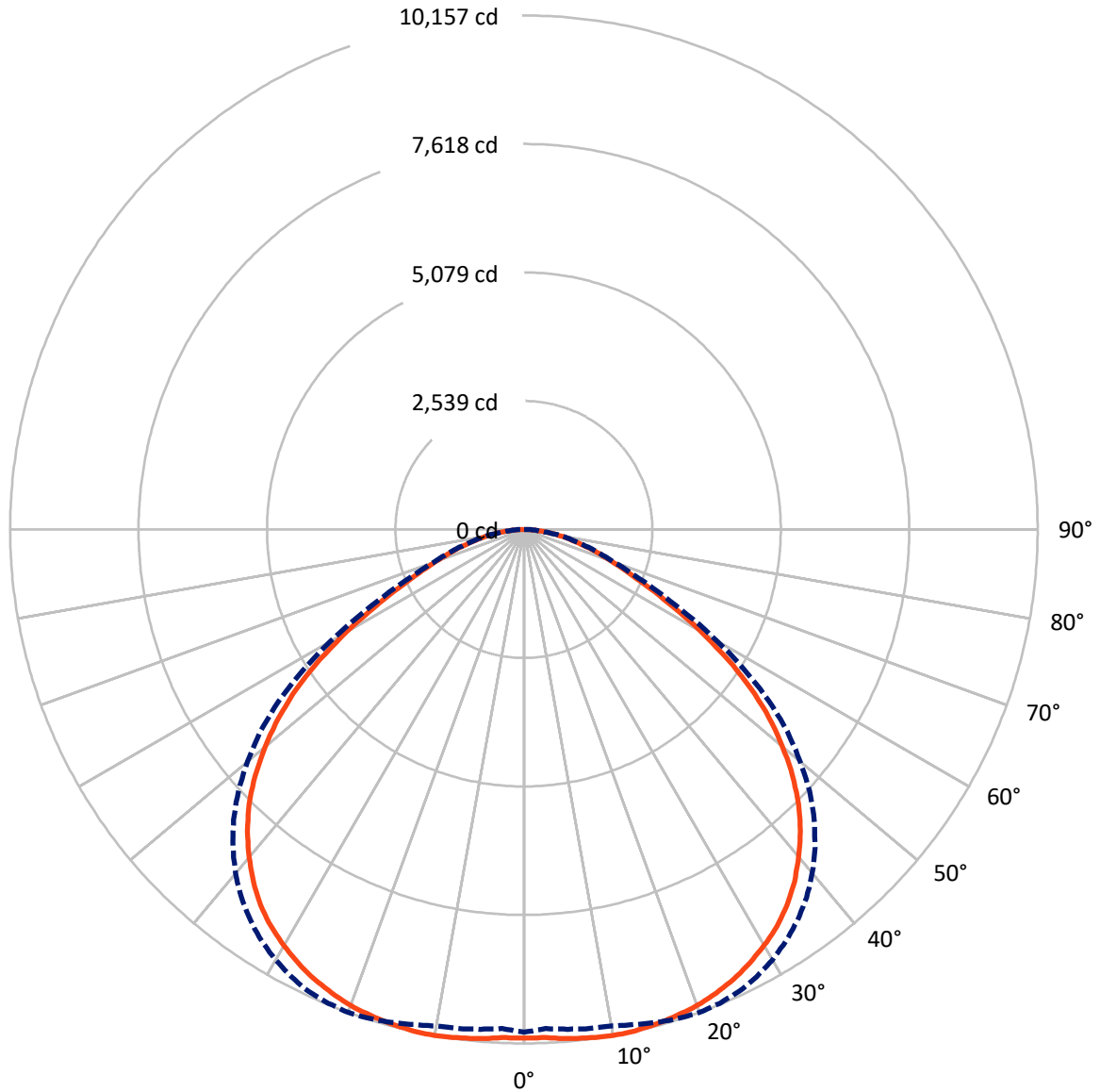
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Iso-Candela Plot



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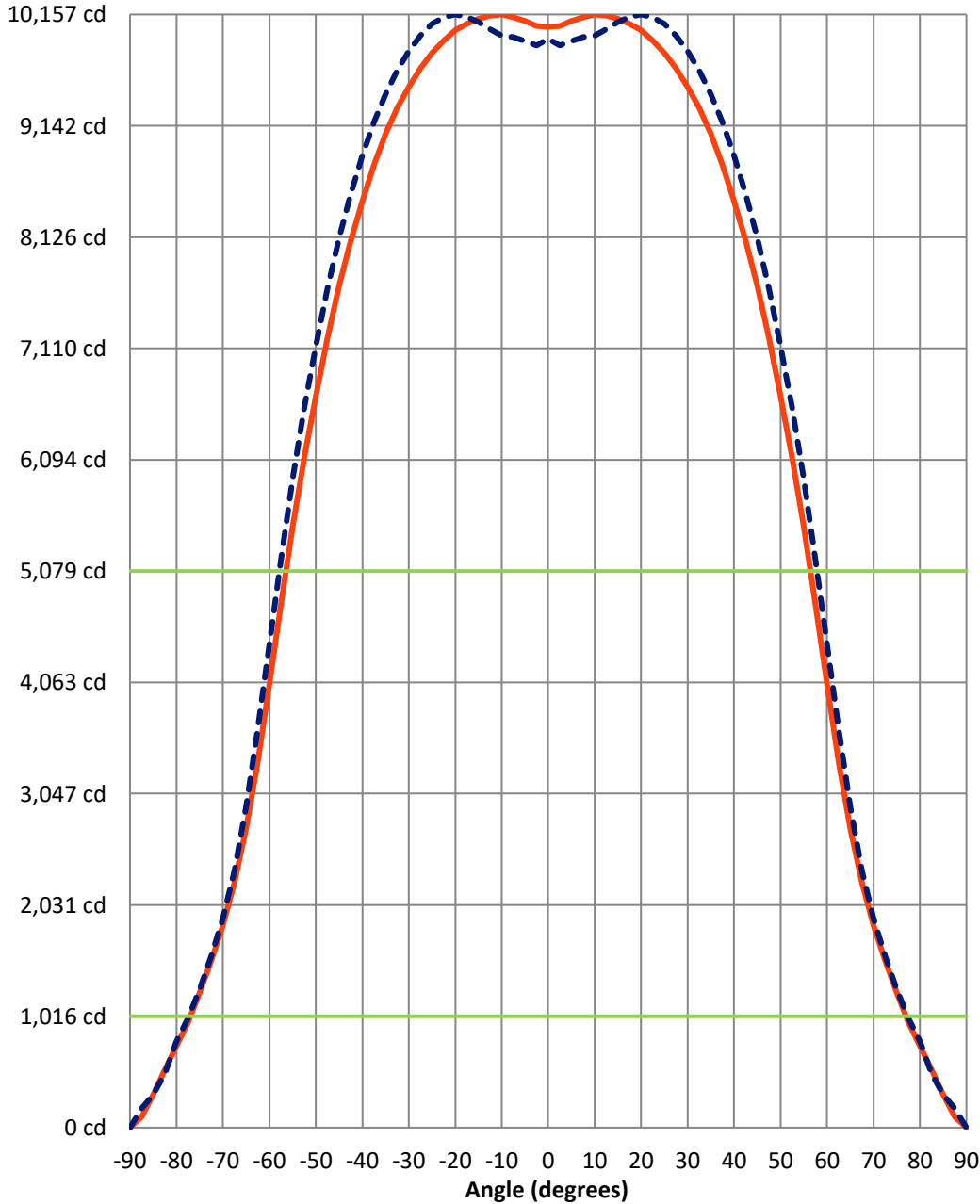
Luminous Intensity Polar Plot



— 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: 19121.1
Efficiency: 61.4%

Field:
H Angle: 154.7°
V Angle: 154°
Lumens: 22923
Efficiency: 73.6%

Spill:
Lumens: 8238.2
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°	82.0	88.5	91.8	95.1	98.4	101.6	104.9	101.6	98.4	98.4	95.1
85°	219.7	226.2	229.5	252.5	275.4	288.5	304.9	301.6	301.6	298.4	295.1
82.5°	439.3	459.0	475.4	498.4	511.5	531.1	544.3	534.4	527.9	514.7	504.9
80°	780.3	786.9	790.2	793.4	777.0	773.8	767.2	757.4	744.3	727.9	711.5
77.5°	993.4	1000.0	1006.5	1000.0	996.7	993.4	983.6	973.8	960.6	947.5	927.9
75°	1314.7	1314.7	1314.7	1304.9	1298.3	1288.5	1272.1	1255.7	1232.8	1206.5	1177.0
72.5°	1655.7	1652.4	1649.2	1629.5	1613.1	1593.4	1570.5	1550.8	1524.6	1495.1	1455.7
70°	2013.1	2019.7	2022.9	1996.7	1977.0	1950.8	1921.3	1885.2	1845.9	1803.3	1747.5
67.5°	2504.9	2498.3	2491.8	2455.7	2429.5	2393.4	2350.8	2298.3	2239.3	2173.7	2095.1
65°	3114.7	3124.6	3104.9	3068.8	3019.6	2960.6	2895.1	2819.6	2731.1	2632.8	2521.3
62.5°	3852.4	3868.8	3845.9	3800.0	3737.7	3659.0	3567.2	3459.0	3337.7	3200.0	3062.3
60°	4691.8	4688.5	4645.9	4583.6	4501.6	4403.2	4301.6	4183.6	4045.9	3885.2	3718.0
57.5°	5462.2	5455.7	5403.2	5340.9	5259.0	5154.0	5045.9	4921.3	4777.0	4606.5	4413.1
55°	6154.0	6147.5	6095.0	6029.4	5944.2	5839.3	5740.9	5622.9	5481.9	5301.6	5095.0
52.5°	6767.1	6770.4	6724.5	6652.4	6560.6	6459.0	6363.9	6245.8	6111.4	5931.1	5731.1
50°	7331.1	7327.8	7278.6	7213.0	7127.8	7029.4	6934.4	6816.3	6675.3	6501.6	6308.1
47.5°	7855.7	7849.1	7793.4	7721.2	7632.7	7547.5	7458.9	7354.0	7206.5	7032.7	6839.3
45°	8295.0	8281.9	8226.1	8157.3	8072.1	7996.6	7918.0	7839.3	7681.9	7521.2	7337.6
42.5°	8672.0	8668.8	8613.0	8544.2	8458.9	8393.4	8321.2	8222.9	8091.7	7944.2	7763.9
40°	9032.7	9006.5	8950.7	8885.2	8806.5	8750.7	8678.6	8580.2	8452.4	8308.1	8134.3
37.5°	9301.5	9304.8	9245.8	9173.7	9104.8	9052.4	8986.8	8895.0	8783.5	8642.5	8468.8
35°	9557.3	9540.9	9491.7	9429.4	9367.1	9308.1	9239.3	9160.6	9068.8	8937.6	8773.7
32.5°	9724.5	9747.4	9688.4	9622.9	9586.8	9540.9	9468.8	9386.8	9304.8	9173.7	9026.1
30°	9908.1	9888.4	9842.5	9786.8	9760.6	9731.1	9668.8	9590.1	9495.0	9377.0	9239.3
27.5°	10036.0	10026.1	9970.4	9917.9	9904.8	9878.6	9829.4	9760.6	9665.5	9550.7	9422.9
25°	10091.7	10098.3	10045.8	10016.3	10016.3	9999.9	9960.6	9901.5	9806.5	9701.5	9577.0
22.5°	10117.9	10111.4	10075.3	10068.8	10085.1	10072.0	10055.6	10003.2	9917.9	9832.7	9727.8
20°	10134.3	10088.4	10055.6	10081.9	10101.5	10098.3	10085.1	10052.4	10013.0	9940.9	9849.1
17.5°	10098.3	10068.8	10029.4	10068.8	10111.4	10114.7	10101.5	10081.9	10072.0	10026.1	9944.2
15°	10009.7	9986.8	9993.3	10032.7	10081.9	10098.3	10108.1	10131.0	10117.9	10081.9	10009.7
12.5°	9950.7	9921.2	9950.7	9990.1	10016.3	10026.1	10104.8	10147.4	10147.4	10114.7	10068.8
10°	9934.3	9875.3	9914.7	9950.7	9963.8	10022.9	10088.4	10134.3	10157.3	10131.0	10072.0
7.5°	9901.5	9862.2	9878.6	9895.0	9970.4	10013.0	10049.1	10098.3	10131.0	10127.8	10075.3
5°	9885.1	9836.0	9842.5	9911.4	9963.8	9993.3	10006.5	10049.1	10098.3	10108.1	10068.8
2.5°	9842.5	9819.6	9868.8	9875.3	9914.7	9937.6	9950.7	9990.1	10052.4	10075.3	10058.9
0°	9819.6	9786.8	9754.0	9780.2	9845.8	9895.0	9914.7	9973.7	10045.8	10068.8	10032.7



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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°	91.8	88.5	85.2	82.0	85.2	85.2	85.2	82.0	85.2	82.0	82.0
85°	285.2	272.1	262.3	249.2	236.1	226.2	213.1	200.0	196.7	193.4	186.9
82.5°	491.8	475.4	459.0	439.3	419.7	396.7	373.8	347.5	341.0	334.4	324.6
80°	691.8	668.8	645.9	622.9	603.3	580.3	554.1	524.6	504.9	488.5	468.8
77.5°	901.6	868.8	836.1	796.7	773.8	750.8	724.6	695.1	665.6	639.3	609.8
75°	1141.0	1104.9	1072.1	1032.8	990.2	947.5	904.9	865.6	822.9	783.6	744.3
72.5°	1406.5	1354.1	1301.6	1252.4	1200.0	1147.5	1091.8	1039.3	986.9	934.4	878.7
70°	1685.2	1619.7	1554.1	1488.5	1419.7	1350.8	1285.2	1219.7	1154.1	1085.2	1022.9
67.5°	2013.1	1937.7	1852.4	1760.6	1659.0	1570.5	1485.2	1406.5	1327.9	1249.2	1170.5
65°	2422.9	2318.0	2203.3	2078.7	1960.6	1842.6	1718.0	1600.0	1508.2	1416.4	1327.9
62.5°	2927.8	2780.3	2619.6	2459.0	2314.7	2160.6	2016.4	1862.3	1718.0	1586.9	1478.7
60°	3531.1	3331.1	3134.4	2927.8	2727.8	2518.0	2334.4	2144.2	1963.9	1803.3	1645.9
57.5°	4196.7	3963.9	3727.8	3475.4	3203.2	2957.3	2708.2	2459.0	2245.9	2032.8	1855.7
55°	4872.1	4626.2	4360.6	4075.4	3777.0	3462.3	3124.6	2845.9	2554.1	2304.9	2075.4
52.5°	5514.7	5259.0	4983.6	4721.3	4363.9	4003.2	3632.8	3265.5	2924.6	2606.5	2327.8
50°	6088.5	5839.3	5573.7	5268.8	4937.7	4554.1	4140.9	3727.8	3324.6	2950.8	2603.3
47.5°	6613.0	6370.4	6104.9	5799.9	5498.3	5072.1	4655.7	4200.0	3750.8	3321.3	2914.7
45°	7104.8	6858.9	6583.5	6291.7	5944.2	5563.9	5134.4	4675.4	4193.4	3711.4	3242.6
42.5°	7550.7	7304.8	7026.2	6724.5	6380.3	6003.2	5586.8	5124.5	4639.3	4114.7	3600.0
40°	7940.9	7701.6	7432.7	7118.0	6796.7	6399.9	5990.1	5550.8	5049.1	4521.3	3954.1
37.5°	8281.9	8058.9	7793.4	7481.9	7140.9	6786.8	6363.9	5924.5	5472.1	4898.3	4318.0
35°	8583.5	8377.0	8104.8	7809.8	7475.3	7101.6	6704.9	6275.3	5786.8	5249.1	4685.2
32.5°	8845.8	8636.0	8386.8	8091.7	7767.1	7416.3	7009.8	6577.0	6114.7	5567.2	4954.0
30°	9068.8	8865.5	8629.4	8350.7	8039.3	7691.7	7295.0	6858.9	6386.8	5842.6	5236.0
27.5°	9262.2	9068.8	8839.3	8580.2	8281.9	7947.5	7547.5	7108.1	6626.2	6101.6	5495.0
25°	9429.4	9242.5	9029.4	8783.5	8488.4	8160.6	7783.5	7324.5	6842.6	6314.7	5714.7
22.5°	9580.2	9399.9	9186.8	8947.5	8678.6	8350.7	7970.4	7514.7	7026.2	6504.9	5914.7
20°	9714.7	9547.4	9337.6	9091.7	8822.9	8491.7	8114.7	7681.9	7190.1	6678.6	6095.0
17.5°	9822.9	9675.3	9465.5	9206.5	8937.6	8616.3	8249.1	7852.4	7331.1	6826.2	6245.8
15°	9898.3	9754.0	9563.8	9301.5	9039.3	8721.2	8354.0	7944.2	7458.9	6944.2	6370.4
12.5°	9950.7	9796.6	9619.6	9377.0	9114.7	8799.9	8442.5	8039.3	7567.1	7049.1	6478.6
10°	9963.8	9822.9	9645.8	9429.4	9173.7	8868.8	8517.9	8118.0	7655.7	7131.1	6567.1
7.5°	9970.4	9836.0	9675.3	9468.8	9216.3	8921.2	8573.7	8180.2	7721.2	7199.9	6632.7
5°	9967.1	9839.2	9695.0	9495.0	9242.5	8950.7	8609.7	8222.9	7767.1	7245.8	6681.9
2.5°	9957.3	9842.5	9708.1	9514.7	9272.0	8983.5	8645.8	8272.0	7816.3	7285.2	6721.2
0°	9983.5	9885.1	9714.7	9508.1	9278.6	8983.5	8642.5	8278.6	7822.9	7281.9	6718.0



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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°	82.0	78.7	78.7	75.4	72.1	68.9	62.3	59.0	52.5	42.6	32.8
85°	177.0	167.2	157.4	150.8	144.3	137.7	127.9	118.0	104.9	85.2	65.6
82.5°	311.5	291.8	272.1	249.2	229.5	209.8	193.4	177.0	157.4	127.9	98.4
80°	445.9	416.4	386.9	354.1	324.6	291.8	262.3	236.1	209.8	170.5	131.1
77.5°	580.3	541.0	498.4	459.0	416.4	373.8	331.1	295.1	255.7	209.8	163.9
75°	704.9	659.0	619.7	563.9	511.5	455.7	400.0	350.8	301.6	245.9	196.7
72.5°	829.5	770.5	714.7	662.3	603.3	534.4	472.1	409.8	347.5	282.0	222.9
70°	954.1	882.0	813.1	750.8	685.2	616.4	541.0	468.8	393.4	314.8	245.9
67.5°	1082.0	1000.0	921.3	842.6	767.2	688.5	609.8	527.9	439.3	347.5	272.1
65°	1222.9	1121.3	1026.2	937.7	849.2	763.9	675.4	586.9	488.5	383.6	295.1
62.5°	1363.9	1252.4	1141.0	1029.5	931.1	836.1	741.0	642.6	534.4	422.9	318.0
60°	1514.7	1386.9	1259.0	1134.4	1013.1	908.2	803.3	698.4	583.6	459.0	341.0
57.5°	1682.0	1527.9	1383.6	1242.6	1104.9	980.3	865.6	754.1	626.2	495.1	367.2
55°	1872.1	1682.0	1511.5	1354.1	1203.3	1052.4	927.9	813.1	675.4	531.1	396.7
52.5°	2072.1	1852.4	1645.9	1468.8	1308.2	1137.7	986.9	859.0	724.6	567.2	422.9
50°	2304.9	2026.2	1796.7	1580.3	1400.0	1222.9	1049.2	911.5	773.8	609.8	449.2
47.5°	2544.2	2236.0	1947.5	1711.5	1498.3	1304.9	1121.3	957.4	819.7	649.2	475.4
45°	2822.9	2436.0	2118.0	1839.3	1593.4	1390.2	1193.4	1006.5	859.0	688.5	501.6
42.5°	3091.8	2672.1	2295.1	1980.3	1701.6	1472.1	1259.0	1059.0	898.4	727.9	524.6
40°	3409.8	2908.2	2465.5	2114.7	1809.8	1550.8	1324.6	1114.7	934.4	763.9	547.5
37.5°	3714.7	3147.5	2672.1	2262.3	1914.7	1629.5	1390.2	1167.2	967.2	800.0	577.0
35°	4016.4	3413.1	2868.8	2400.0	2022.9	1718.0	1455.7	1216.4	1000.0	829.5	603.3
32.5°	4304.9	3662.3	3068.8	2554.1	2141.0	1800.0	1514.7	1262.3	1032.8	855.7	629.5
30°	4573.7	3898.3	3265.5	2711.4	2249.2	1875.4	1570.5	1308.2	1072.1	878.7	655.7
27.5°	4819.6	4127.8	3462.3	2859.0	2350.8	1944.2	1629.5	1350.8	1104.9	901.6	678.7
25°	5042.6	4334.4	3642.6	2993.4	2442.6	2019.7	1685.2	1393.4	1134.4	921.3	698.4
22.5°	5252.4	4524.5	3806.5	3127.8	2554.1	2095.1	1737.7	1432.8	1163.9	941.0	718.0
20°	5436.0	4698.3	3963.9	3262.3	2652.4	2163.9	1783.6	1468.8	1190.2	954.1	737.7
17.5°	5583.6	4852.4	4104.9	3380.3	2737.7	2222.9	1822.9	1501.6	1213.1	970.5	750.8
15°	5714.7	4983.6	4222.9	3481.9	2813.1	2272.1	1859.0	1527.9	1232.8	980.3	767.2
12.5°	5826.2	5095.0	4324.5	3570.5	2878.7	2314.7	1888.5	1547.5	1249.2	990.2	777.0
10°	5918.0	5183.6	4409.8	3639.3	2931.1	2347.5	1911.5	1567.2	1262.3	1000.0	786.9
7.5°	5986.8	5249.1	4472.1	3698.3	2973.7	2370.5	1931.1	1580.3	1275.4	1006.5	803.3
5°	6039.3	5304.9	4521.3	3737.7	3006.5	2403.3	1954.1	1596.7	1288.5	1013.1	803.3
2.5°	6078.6	5350.8	4560.6	3770.5	3032.8	2396.7	1954.1	1593.4	1288.5	1013.1	800.0
0°	6072.1	5354.0	4557.3	3770.5	3032.8	2390.1	1954.1	1590.1	1288.5	1013.1	800.0



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CANDELA DISTRIBUTION (continued):

	82.5°	85°	87.5°	90°
90°	0.0	0.0	0.0	0.0
87.5°	23.0	16.4	6.6	0.0
85°	49.2	32.8	16.4	0.0
82.5°	72.1	45.9	23.0	0.0
80°	95.1	62.3	29.5	0.0
77.5°	121.3	78.7	39.3	0.0
75°	144.3	91.8	45.9	0.0
72.5°	167.2	108.2	52.5	0.0
70°	186.9	121.3	59.0	0.0
67.5°	206.6	137.7	68.9	0.0
65°	222.9	150.8	75.4	0.0
62.5°	236.1	167.2	82.0	0.0
60°	252.5	180.3	88.5	0.0
57.5°	265.6	190.2	95.1	0.0
55°	278.7	196.7	101.6	0.0
52.5°	291.8	206.6	108.2	0.0
50°	304.9	216.4	114.8	0.0
47.5°	318.0	222.9	118.0	0.0
45°	337.7	232.8	124.6	0.0
42.5°	354.1	239.3	131.1	0.0
40°	370.5	245.9	134.4	0.0
37.5°	386.9	252.5	141.0	0.0
35°	403.3	259.0	144.3	0.0
32.5°	416.4	265.6	147.5	0.0
30°	429.5	272.1	150.8	0.0
27.5°	442.6	275.4	154.1	0.0
25°	452.5	282.0	157.4	0.0
22.5°	462.3	285.2	160.7	0.0
20°	468.8	288.5	163.9	0.0
17.5°	478.7	291.8	167.2	0.0
15°	482.0	295.1	173.8	0.0
12.5°	488.5	298.4	173.8	0.0
10°	491.8	301.6	173.8	0.0
7.5°	498.4	301.6	173.8	0.0
5°	495.1	301.6	173.8	0.0
2.5°	495.1	301.6	173.8	0.0
0°	491.8	301.6	173.8	0.0

(END OF REPORT)