

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: P723043

Luminaire Tested: **IFLD-M-SA4E-830-U-11**

Issue Date: 01/11/2023

Test Information

Test Method: LM-79-2019
Report Number: P723043
Test Lab: INNOVATION CENTER(G2)
Issue Date: 01/11/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: IFLD-M-SA4E-830-U-11
Description: Infrastructure Flood – Middle Tier Light Square Luminaire w/ Nema 1 distribution lens
Light Source: (64) 3000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

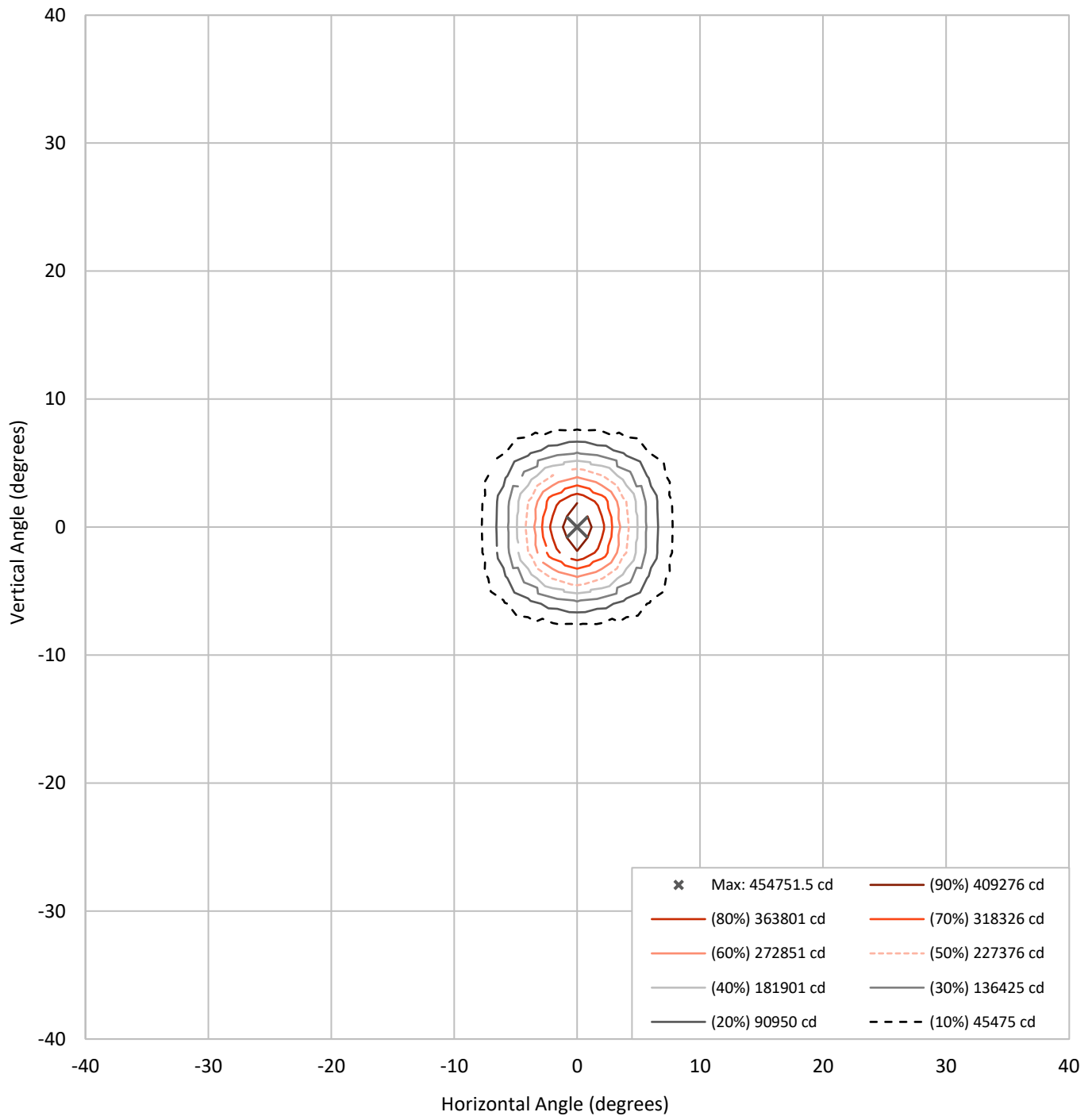
Lumens per Lamp: N/A	NEMA Type: 1H x 1V
Luminaire Lumens: 15172.8 lumens	Max Intensity: 454751.5 candela
Efficiency: N/A	Max Intensity Angle: 0°H x 0°V
Efficacy: 48.2 lumens/watt	
Luminous Opening: Rectangular (W 2' x L: 0.5' x H: 0')	
Beam Angle (50%): 8.3°H x 8.9°V	Field Angle (10%): 14.9°H x 14.6°V
Beam Lumens: 5111.7 lumens	Field Lumens: 8074.3 lumens
Beam Efficiency: 33.7%	Field Efficiency: 53.2%

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: 28.75 FT



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Iso-Candela Plot





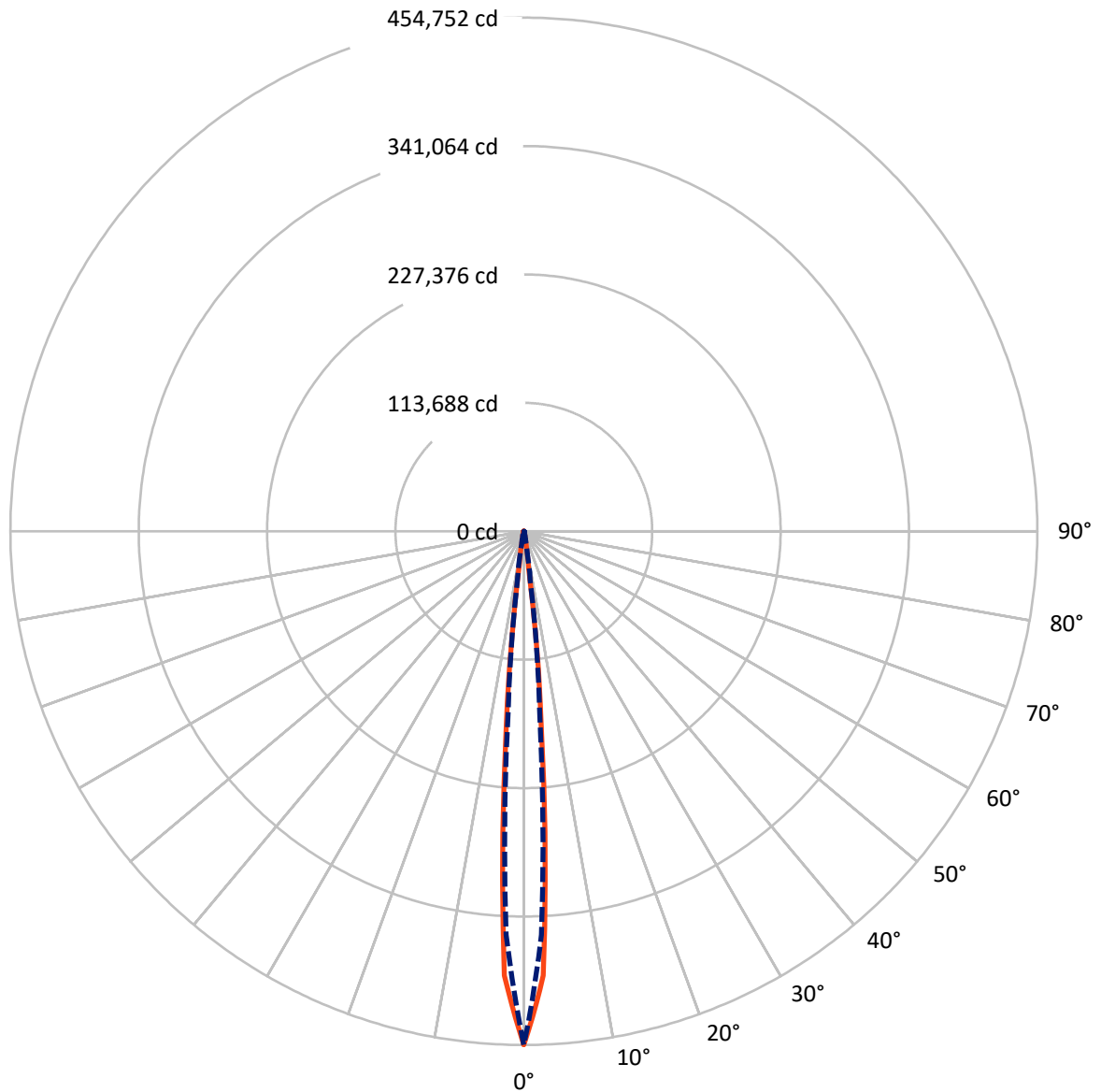
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Lumen Table

90	0.1	0.6		2.1		4.7		8.3		4.7		2.1		0.6		0.1			
80	0.1	0.6		2.1		4.7		8.3		4.7		2.1		0.6		0.1			
70	0.3	0.4	1.0	2.1	3.2	4.0	6.6	12.2	12.2	6.6	4.0	3.2	2.1	1.0	0.4	0.3			
60		0.8	1.9	3.9	6.0	7.8	10.5	14.8	14.8	10.5	7.8	6.0	3.9	1.9	0.8				
50	1.1	1.4	2.9	5.9	9.9	14.6	19.0	23.3	23.3	19.0	14.6	9.9	5.9	2.9	1.4	1.1			
40		2.1	4.0	8.5	15.3	20.5	22.7	24.2	24.2	22.7	20.5	15.3	8.5	4.0	2.1				
30	2.1	3.1	5.6	11.9	18.7	21.5	28.5	37.9	37.9	28.5	21.5	18.7	11.9	5.6	3.1	2.1			
20		4.2	7.8	15.7	20.6	27.6	55.4	106.4	106.4	55.4	27.6	20.6	15.7	7.8	4.2				
10	2.4	4.7	9.5	17.7	21.6	36.3	110.2	2962.4	2962.4	110.2	36.3	21.6	17.7	9.5	4.7	2.4			
0		4.7	9.5	17.7	21.6	36.3	110.2	2962.4	2962.4	110.2	36.3	21.6	17.7	9.5	4.7				
-10	2.1	4.2	7.8	15.7	20.6	27.6	55.4	106.4	106.4	55.4	27.6	20.6	15.7	7.8	4.2	2.1			
-20		3.1	5.6	11.9	18.7	21.5	28.5	37.9	37.9	28.5	21.5	18.7	11.9	5.6	3.1				
-30	1.1	2.1	4.0	8.5	15.3	20.5	22.7	24.2	24.2	22.7	20.5	15.3	8.5	4.0	2.1	1.1			
-40		1.4	2.9	5.9	9.9	14.6	19.0	23.3	23.3	19.0	14.6	9.9	5.9	2.9	1.4				
-50	0.3	0.8	1.9	3.9	6.0	7.8	10.5	14.8	14.8	10.5	7.8	6.0	3.9	1.9	0.8	0.3			
-60		0.4	1.0	2.1	3.2	4.0	6.6	12.2	12.2	6.6	4.0	3.2	2.1	1.0	0.4				
-70	0.1	0.6		2.1		4.7		8.3		4.7		2.1		0.6		0.1			
-80		0.6		2.1		4.7		8.3		4.7		2.1		0.6					
-90	0.1	0.6		2.1		4.7		8.3		4.7		2.1		0.6		0.1			
	-90	-80	-70	-60	-50	-40	-30	-20	-10	0	10	20	30	40	50	60	70	80	90

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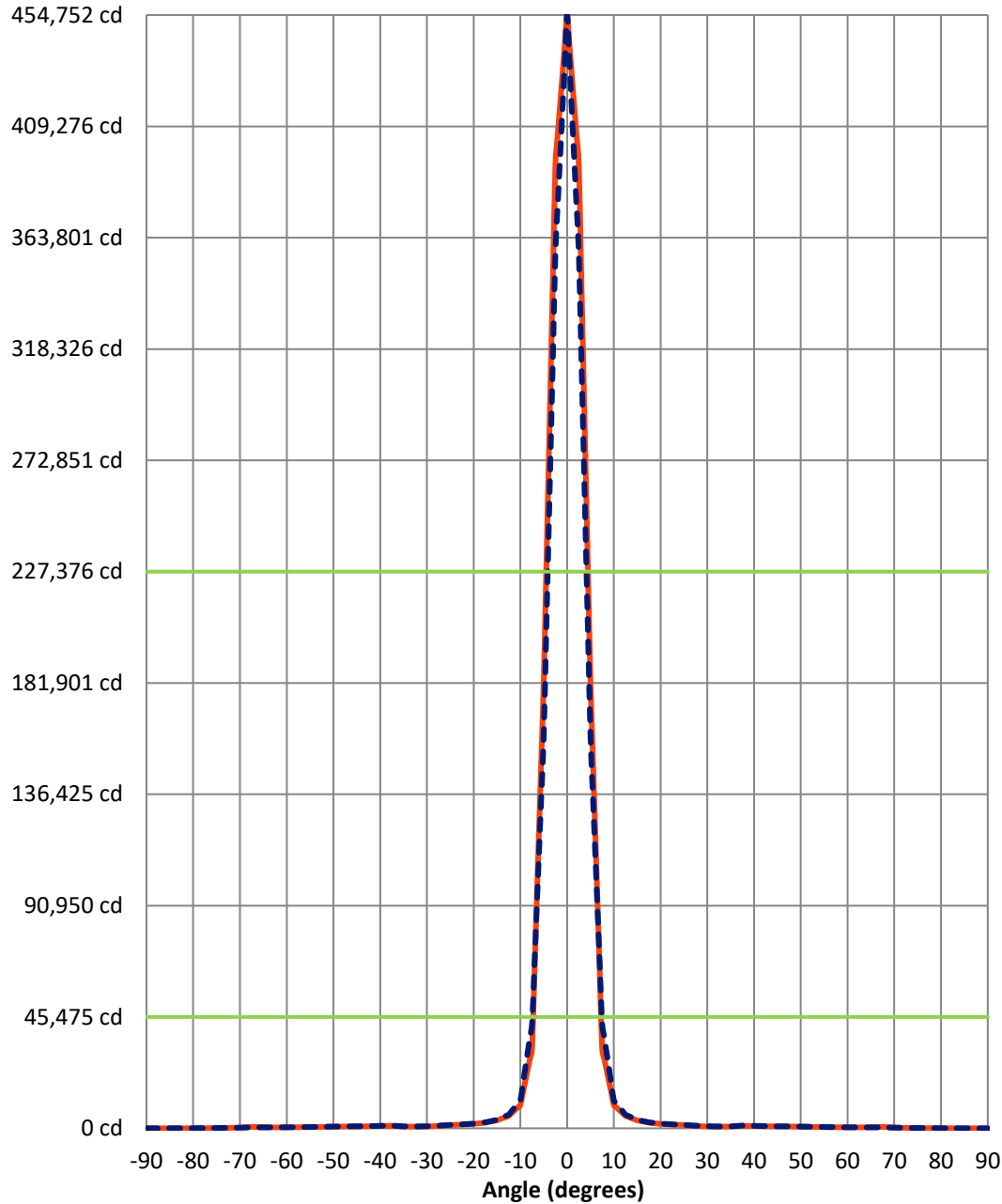
Luminous Intensity Polar Plot



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

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Luminous Intensity Plot



Beam:
H Angle: 8.3°
V Angle: 8.9°
Lumens: 5111.7
Efficiency: 33.7%

Field:
H Angle: 14.9°
V Angle: 14.6°
Lumens: 8074.3
Efficiency: 53.2%

Spill:
Lumens: 7098.5
Efficiency: 46.8%

— 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°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
82.5°	11.9	11.9	11.9	11.9	11.9	11.9	11.9	7.9	7.9	7.9	7.9
80°	31.7	31.7	31.7	31.7	31.7	31.7	27.7	27.7	23.8	19.8	19.8
77.5°	59.4	63.4	67.4	63.4	59.4	59.4	55.5	47.6	43.6	35.7	31.7
75°	99.1	107.0	111.0	107.0	103.0	99.1	91.2	79.3	67.4	55.5	47.6
72.5°	178.3	182.3	182.3	174.4	162.5	154.6	142.7	118.9	99.1	79.3	67.4
70°	309.1	321.0	325.0	285.4	249.7	218.0	186.3	158.5	126.8	99.1	87.2
67.5°	594.5	578.6	550.9	443.9	344.8	257.6	198.2	174.4	146.6	118.9	111.0
65°	447.8	436.0	420.1	364.6	309.1	249.7	210.1	186.3	166.5	142.7	138.7
62.5°	376.5	376.5	368.6	332.9	297.2	253.6	225.9	210.1	190.2	170.4	170.4
60°	392.4	400.3	392.4	356.7	317.1	277.4	253.6	237.8	218.0	206.1	206.1
57.5°	443.9	447.8	436.0	396.3	356.7	313.1	289.3	269.5	249.7	237.8	237.8
55°	511.3	507.3	491.4	451.8	412.2	368.6	344.8	317.1	289.3	277.4	277.4
52.5°	574.7	578.6	562.8	527.1	483.5	439.9	412.2	376.5	344.8	332.9	325.0
50°	665.8	669.8	657.9	622.2	586.6	543.0	499.4	451.8	416.1	400.3	384.4
47.5°	745.1	745.1	733.2	709.4	681.7	642.0	594.5	550.9	511.3	483.5	455.8
45°	780.8	780.8	772.8	760.9	745.1	709.4	661.9	614.3	586.6	570.7	546.9
42.5°	844.2	844.2	824.4	800.6	780.8	745.1	701.5	650.0	642.0	626.2	610.3
40°	947.2	911.5	879.8	852.1	820.4	780.8	741.1	705.5	689.6	669.8	653.9
37.5°	1042.3	994.8	947.2	903.6	868.0	836.2	784.7	757.0	737.2	713.4	697.5
35°	717.3	701.5	721.3	745.1	780.8	836.2	871.9	832.3	788.7	760.9	741.1
32.5°	685.6	685.6	689.6	689.6	681.7	677.7	713.4	796.6	879.8	836.2	796.6
30°	760.9	776.8	780.8	772.8	745.1	709.4	689.6	685.6	725.3	840.2	871.9
27.5°	982.9	994.8	986.8	959.1	899.7	816.4	764.9	709.4	697.5	697.5	824.4
25°	1331.7	1327.7	1296.0	1232.6	1141.4	1030.4	919.5	804.5	745.1	709.4	705.5
22.5°	1529.8	1529.8	1506.0	1470.4	1410.9	1299.9	1145.4	990.8	844.2	760.9	713.4
20°	1799.3	1807.2	1779.5	1712.1	1605.1	1506.0	1391.1	1208.8	1018.6	852.1	757.0
17.5°	2306.6	2298.7	2235.3	2096.6	1910.3	1739.9	1561.5	1422.8	1220.7	1006.7	828.3
15°	3234.0	3210.2	3031.9	2710.9	2362.1	2060.9	1799.3	1569.4	1410.9	1169.2	951.2
12.5°	5057.1	4989.7	4506.2	3745.3	3075.5	2461.2	2072.8	1763.6	1529.8	1327.7	1070.1
10°	9488.0	9416.7	7930.5	5477.2	4209.0	3083.4	2378.0	1949.9	1644.7	1442.6	1185.0
7.5°	32601.7	28190.6	17450.2	10684.9	5564.4	3820.6	2770.3	2156.0	1771.6	1514.0	1284.1
5°	182519.7	151047.5	80204.3	21893.0	8822.2	4740.1	3146.8	2326.4	1858.8	1565.5	1343.5
2.5°	393745.2	325260.2	156445.4	39676.1	10871.2	5338.5	3364.8	2405.7	1902.4	1589.3	1379.2
0°	454751.5	357568.6	159782.5	42941.8	11390.4	5576.3	3459.9	2441.4	1922.2	1605.1	1391.1



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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°	0.0	0.0	0.0	0.0	0.0	0.0	4.0	4.0	4.0	4.0	4.0
85°	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
82.5°	7.9	7.9	7.9	7.9	7.9	7.9	4.0	4.0	4.0	4.0	4.0
80°	15.9	15.9	15.9	15.9	15.9	11.9	11.9	11.9	7.9	7.9	7.9
77.5°	31.7	31.7	27.7	27.7	23.8	23.8	23.8	19.8	15.9	15.9	11.9
75°	47.6	47.6	47.6	43.6	39.6	35.7	35.7	31.7	27.7	23.8	23.8
72.5°	67.4	67.4	67.4	63.4	59.4	55.5	47.6	43.6	39.6	35.7	31.7
70°	87.2	87.2	87.2	83.2	83.2	79.3	71.3	63.4	55.5	47.6	43.6
67.5°	111.0	111.0	111.0	103.0	99.1	95.1	91.2	83.2	75.3	63.4	55.5
65°	138.7	138.7	138.7	126.8	118.9	114.9	107.0	99.1	87.2	79.3	67.4
62.5°	174.4	174.4	166.5	154.6	142.7	130.8	122.9	114.9	103.0	91.2	79.3
60°	206.1	206.1	202.1	186.3	170.4	150.6	142.7	130.8	118.9	107.0	91.2
57.5°	237.8	237.8	229.9	214.0	198.2	182.3	166.5	154.6	138.7	122.9	107.0
55°	273.5	269.5	257.6	241.8	225.9	210.1	198.2	182.3	166.5	146.6	122.9
52.5°	317.1	305.2	285.4	269.5	249.7	233.8	221.9	206.1	190.2	166.5	138.7
50°	368.6	348.8	321.0	297.2	277.4	261.6	245.7	229.9	214.0	186.3	158.5
47.5°	432.0	400.3	368.6	336.9	309.1	289.3	269.5	253.6	229.9	202.1	174.4
45°	507.3	459.7	424.1	384.4	352.7	321.0	297.2	277.4	245.7	214.0	186.3
42.5°	582.6	543.0	491.4	439.9	400.3	360.7	328.9	297.2	265.5	229.9	198.2
40°	634.1	602.4	566.7	511.3	455.8	408.2	364.6	321.0	281.4	245.7	210.1
37.5°	673.8	650.0	618.3	578.6	523.1	463.7	404.3	348.8	301.2	261.6	225.9
35°	717.3	689.6	657.9	626.2	582.6	519.2	443.9	380.5	325.0	277.4	245.7
32.5°	764.9	725.3	693.6	657.9	626.2	574.7	495.4	416.1	348.8	301.2	269.5
30°	820.4	768.9	725.3	689.6	653.9	606.4	546.9	455.8	384.4	332.9	293.3
27.5°	879.8	804.5	757.0	717.3	681.7	638.1	582.6	503.3	428.0	364.6	317.1
25°	824.4	864.0	788.7	745.1	705.5	661.9	614.3	562.8	475.6	404.3	348.8
22.5°	709.4	848.1	844.2	780.8	733.2	693.6	665.8	610.3	531.1	443.9	376.5
20°	717.3	757.0	903.6	816.4	768.9	741.1	713.4	661.9	582.6	479.6	404.3
17.5°	741.1	725.3	832.3	871.9	816.4	780.8	760.9	713.4	630.2	527.1	447.8
15°	804.5	737.2	768.9	919.5	860.0	820.4	808.5	749.1	673.8	578.6	491.4
12.5°	860.0	757.0	741.1	887.8	899.7	856.1	828.3	776.8	709.4	622.2	531.1
10°	951.2	804.5	753.0	852.1	939.3	887.8	844.2	800.6	737.2	661.9	570.7
7.5°	1022.5	832.3	757.0	824.4	978.9	911.5	860.0	812.5	760.9	693.6	602.4
5°	1054.2	844.2	753.0	800.6	1022.5	939.3	879.8	824.4	776.8	713.4	618.3
2.5°	1070.1	848.1	749.1	780.8	1066.1	975.0	887.8	824.4	776.8	717.3	618.3
0°	1078.0	840.2	749.1	792.7	1097.8	1010.6	891.7	824.4	772.8	713.4	610.3



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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°	4.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	0.0	0.0
82.5°	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
80°	7.9	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
77.5°	11.9	11.9	7.9	7.9	4.0	4.0	4.0	4.0	4.0	4.0	4.0
75°	19.8	15.9	15.9	11.9	11.9	7.9	4.0	4.0	4.0	4.0	4.0
72.5°	27.7	23.8	19.8	15.9	15.9	11.9	7.9	4.0	4.0	4.0	4.0
70°	35.7	31.7	23.8	19.8	19.8	15.9	11.9	7.9	4.0	4.0	4.0
67.5°	47.6	39.6	31.7	23.8	23.8	19.8	15.9	11.9	7.9	4.0	4.0
65°	59.4	47.6	39.6	31.7	27.7	23.8	19.8	15.9	11.9	4.0	4.0
62.5°	67.4	59.4	47.6	39.6	35.7	27.7	23.8	19.8	11.9	7.9	4.0
60°	79.3	67.4	55.5	47.6	43.6	35.7	27.7	23.8	15.9	11.9	4.0
57.5°	91.2	75.3	63.4	55.5	51.5	43.6	35.7	27.7	19.8	11.9	7.9
55°	103.0	87.2	71.3	67.4	59.4	51.5	43.6	31.7	23.8	15.9	7.9
52.5°	114.9	95.1	83.2	79.3	71.3	59.4	47.6	39.6	27.7	19.8	11.9
50°	130.8	107.0	95.1	91.2	79.3	67.4	55.5	47.6	35.7	23.8	11.9
47.5°	146.6	118.9	111.0	103.0	91.2	79.3	63.4	55.5	39.6	27.7	15.9
45°	158.5	138.7	126.8	118.9	103.0	91.2	75.3	63.4	43.6	31.7	15.9
42.5°	166.5	154.6	146.6	134.8	118.9	99.1	83.2	71.3	51.5	35.7	19.8
40°	186.3	174.4	162.5	150.6	134.8	111.0	95.1	79.3	59.4	39.6	19.8
37.5°	206.1	190.2	178.3	166.5	150.6	126.8	111.0	87.2	67.4	43.6	23.8
35°	225.9	210.1	194.2	182.3	166.5	146.6	122.9	99.1	75.3	47.6	27.7
32.5°	245.7	225.9	210.1	194.2	186.3	162.5	134.8	107.0	83.2	51.5	27.7
30°	265.5	241.8	225.9	214.0	206.1	182.3	150.6	118.9	91.2	59.4	31.7
27.5°	285.4	257.6	237.8	237.8	229.9	202.1	162.5	130.8	99.1	63.4	35.7
25°	305.2	273.5	265.5	261.6	257.6	221.9	178.3	142.7	103.0	71.3	35.7
22.5°	325.0	301.2	289.3	285.4	277.4	241.8	194.2	150.6	111.0	75.3	39.6
20°	356.7	332.9	317.1	305.2	301.2	265.5	210.1	162.5	118.9	75.3	39.6
17.5°	396.3	360.7	340.8	328.9	321.0	285.4	225.9	174.4	122.9	75.3	39.6
15°	432.0	392.4	364.6	348.8	340.8	309.1	237.8	178.3	126.8	75.3	39.6
12.5°	467.7	420.1	388.4	372.5	360.7	332.9	249.7	182.3	126.8	75.3	39.6
10°	499.4	447.8	416.1	392.4	376.5	340.8	253.6	186.3	126.8	75.3	39.6
7.5°	527.1	471.6	428.0	392.4	376.5	348.8	253.6	190.2	126.8	75.3	43.6
5°	531.1	471.6	424.1	392.4	380.5	352.7	257.6	190.2	126.8	71.3	39.6
2.5°	535.0	471.6	424.1	392.4	380.5	352.7	257.6	190.2	126.8	71.3	39.6
0°	531.1	467.7	420.1	392.4	380.5	352.7	257.6	190.2	122.9	67.4	39.6



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CANDELA DISTRIBUTION (continued):

	82.5°	85°	87.5°	90°
90°	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0
80°	4.0	0.0	0.0	0.0
77.5°	4.0	0.0	0.0	0.0
75°	4.0	4.0	0.0	0.0
72.5°	4.0	4.0	0.0	0.0
70°	4.0	4.0	0.0	0.0
67.5°	4.0	4.0	0.0	0.0
65°	4.0	4.0	0.0	0.0
62.5°	4.0	4.0	0.0	0.0
60°	4.0	4.0	0.0	0.0
57.5°	4.0	4.0	4.0	0.0
55°	4.0	4.0	4.0	0.0
52.5°	4.0	4.0	4.0	0.0
50°	4.0	4.0	4.0	0.0
47.5°	4.0	4.0	4.0	0.0
45°	4.0	4.0	4.0	0.0
42.5°	7.9	4.0	4.0	0.0
40°	7.9	4.0	4.0	0.0
37.5°	11.9	4.0	4.0	0.0
35°	11.9	4.0	4.0	0.0
32.5°	11.9	4.0	4.0	0.0
30°	11.9	4.0	4.0	0.0
27.5°	15.9	4.0	4.0	0.0
25°	15.9	4.0	4.0	0.0
22.5°	15.9	4.0	4.0	0.0
20°	15.9	4.0	4.0	0.0
17.5°	15.9	4.0	4.0	0.0
15°	19.8	4.0	4.0	0.0
12.5°	19.8	4.0	4.0	0.0
10°	19.8	4.0	4.0	0.0
7.5°	19.8	4.0	4.0	0.0
5°	19.8	4.0	4.0	0.0
2.5°	19.8	4.0	4.0	0.0
0°	19.8	4.0	4.0	0.0

(END OF REPORT)