

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: EPHESUS

Report Number: P624121

Luminaire Tested: **EPH-VN-04-E-950-U-44**

Issue Date: 11/2/2022

**Test Information**

Test Method: LM-79-2019  
Report Number: P624121  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 11/2/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: EPHESUS  
Catalog Number: EPH-VN-04-E-950-U-44  
Description: EPHESUS LUMAVISION FLOOD – Middle Tier Light Square Luminaire w/  
Nema 4 distribution lens  
Light Source: (64) 5000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp:	N/A	NEMA Type:	4H x 4V
Luminaire Lumens:	26241.5 lumens	Max Intensity:	84853.1 candela
Efficiency:	N/A	Max Intensity Angle:	0°H x 0°V
Efficacy:	86.4 lumens/watt		
Luminous Opening:	Rectangular (W 2' x L: 0.5' x H: 0')		

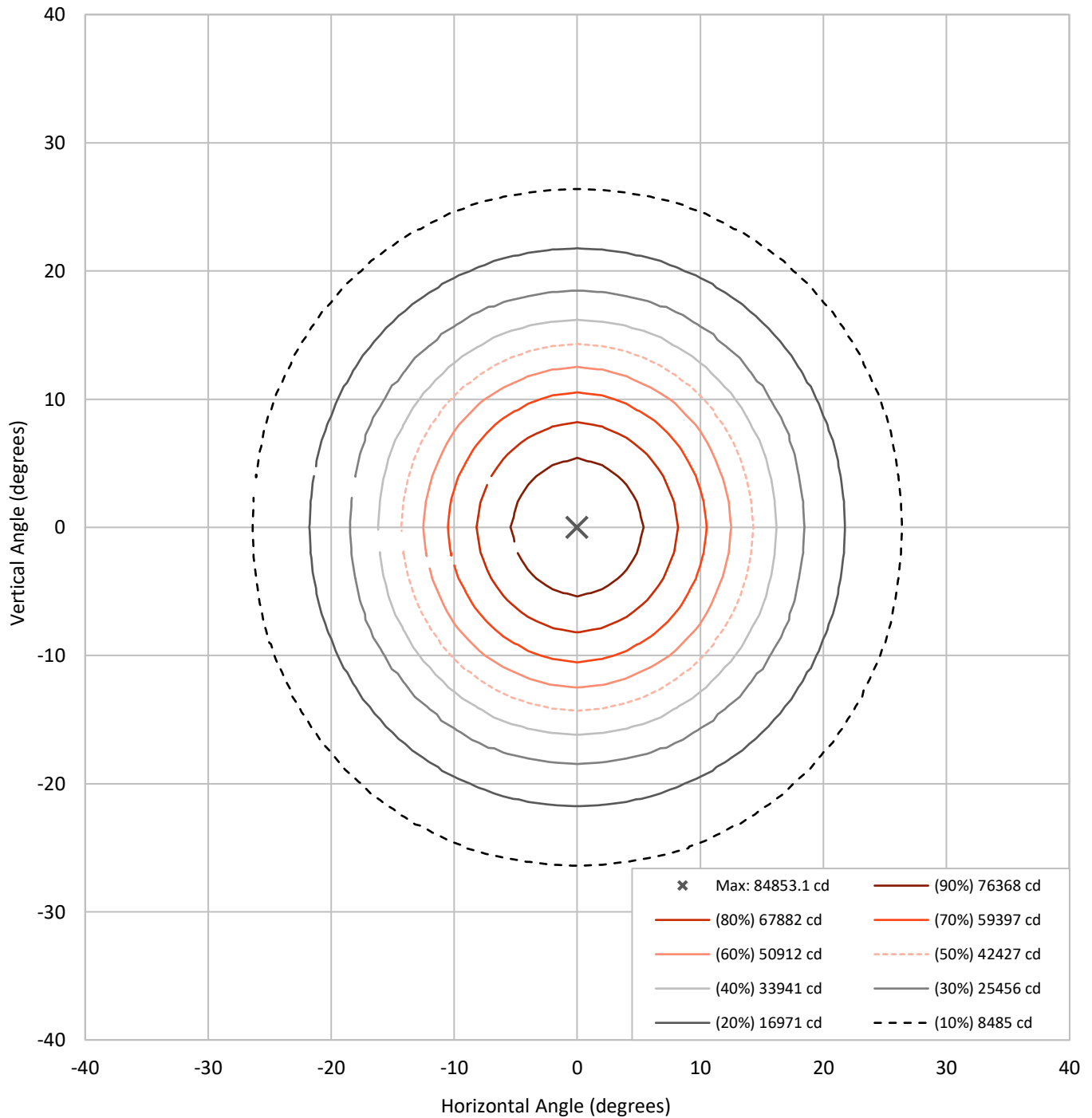
Beam Angle (50%):	28.6°H x 28.6°V	Field Angle (10%):	52.7°H x 52.7°V
Beam Lumens:	9468.4 lumens	Field Lumens:	15988.7 lumens
Beam Efficiency:	36.1%	Field Efficiency:	60.9%

Input Watts (W): 303.8  
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





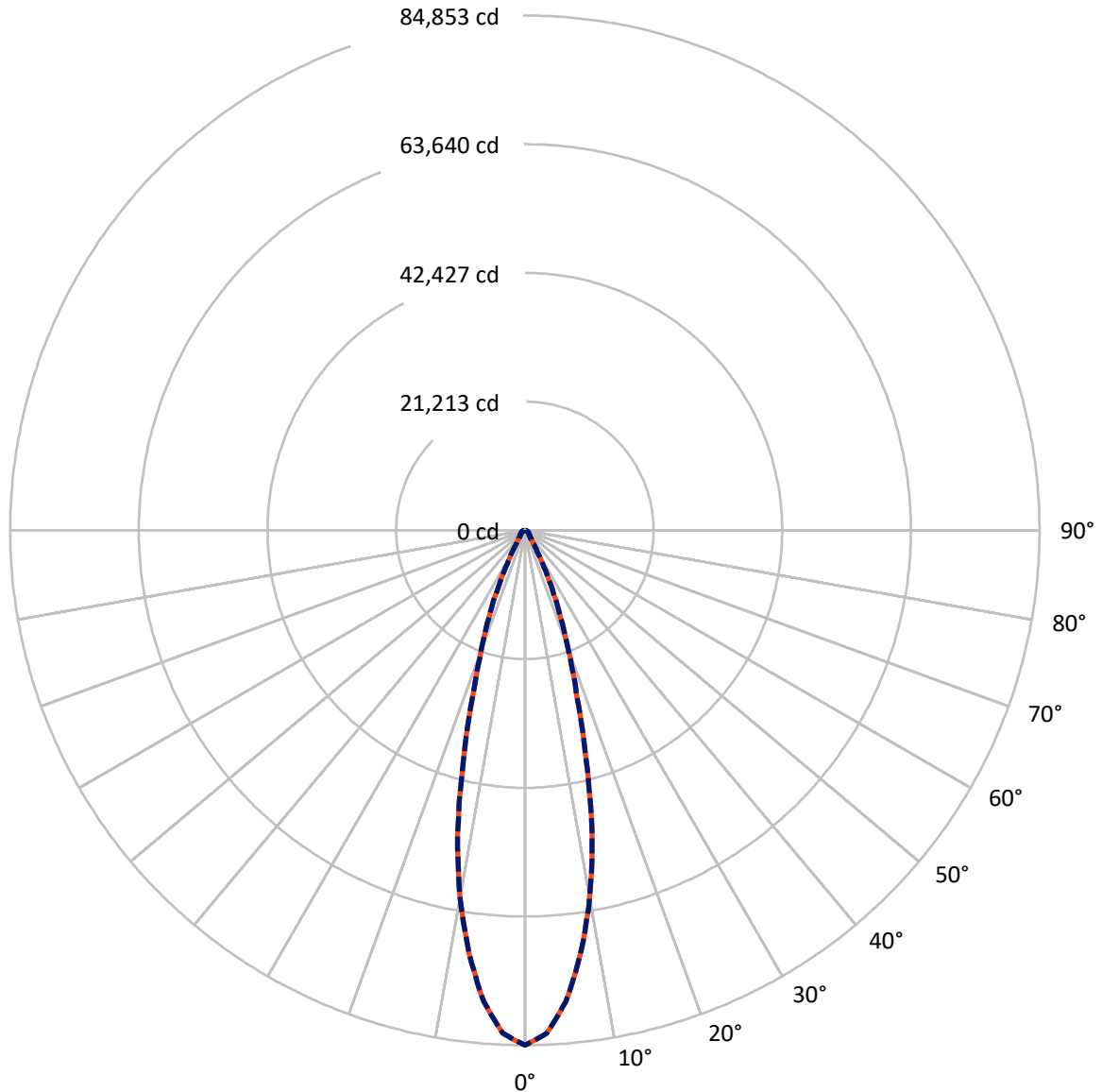
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### Lumen Table

90	0.6	4.5	11.3	18.0	20.8	18.0	11.3	4.5	0.6
80									
70									
60	2.0	2.1 4.4	7.2 10.1	12.7 14.6	15.7 15.7	14.6 12.7	10.1 7.2	4.4 2.1	2.0
50									
40	3.5	3.2 6.6	10.6 14.7	18.3 21.0	22.5 22.5	21.0 18.3	14.7 10.6	6.6 3.2	3.5
30									
20	4.6	4.3 8.7	13.7 18.8	23.9 28.5	31.4 31.4	28.5 23.9	18.8 13.7	8.7 4.3	4.6
10									
0	5.0	5.3 10.4	16.2 23.3	33.2 48.4	64.5 64.5	48.4 33.2	23.3 16.2	10.4 5.3	5.0
-10									
-20	4.6	6.0 11.6	18.7 30.1	63.0 172.6	312.7 312.7	172.6 63.0	30.1 18.7	11.6 6.0	4.6
-30									
-40	3.5	6.5 12.5	20.9 41.3	163.0 560.5	1081.1 1081.1	560.5 163.0	41.3 20.9	12.5 6.5	3.5
-50									
-60	2.0	6.7 13.0	22.4 53.6	287.1 1051.8	2073.6 2073.6	1051.8 287.1	53.6 22.4	13.0 6.7	2.0
-70									
-80	0.6	6.7 13.0	22.4 53.6	287.1 1051.8	2073.6 2073.6	1051.8 287.1	53.6 22.4	13.0 6.7	0.6
-90									

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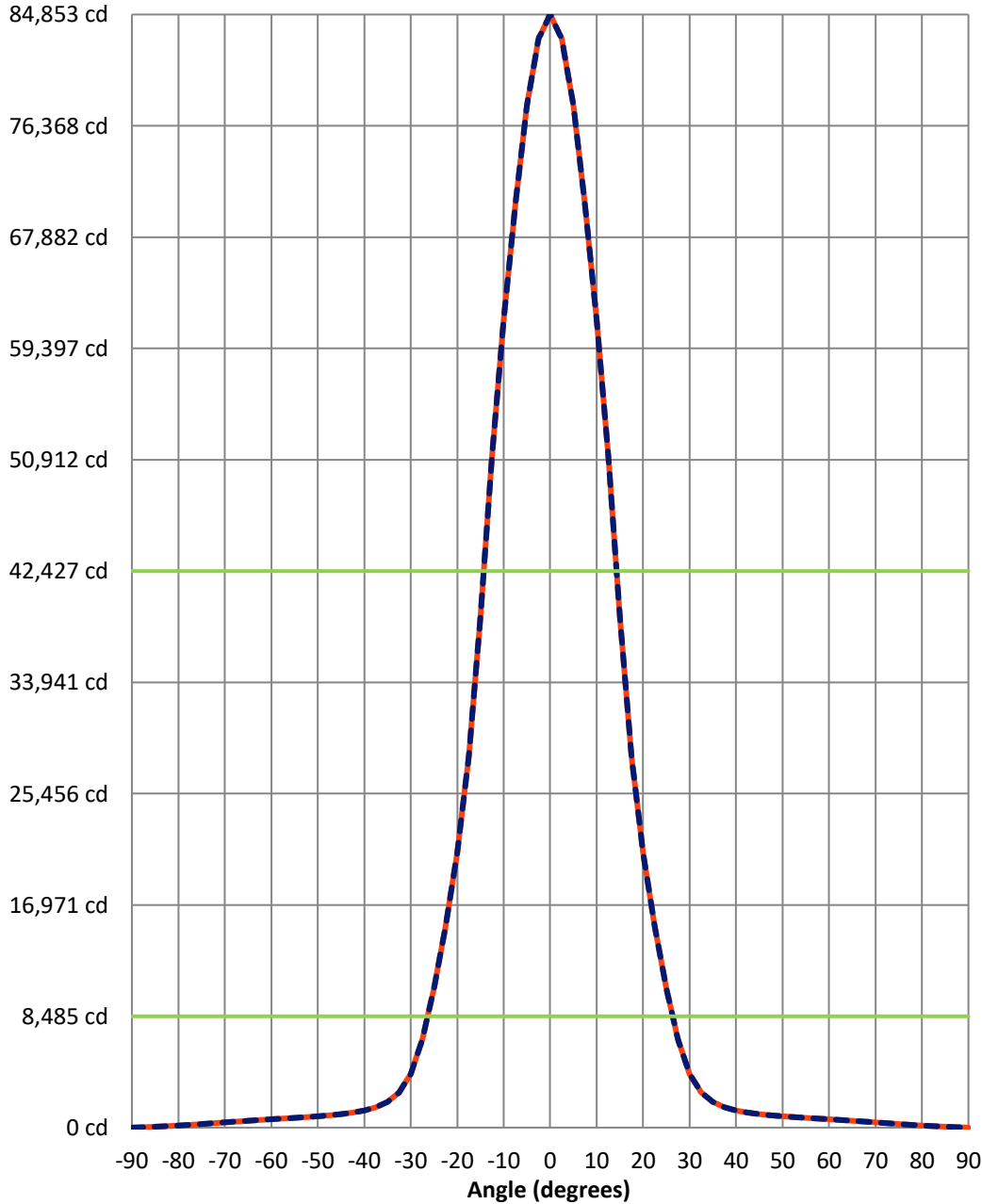
### Luminous Intensity Polar Plot



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

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### Luminous Intensity Plot



**Beam:**  
H Angle: 28.6°  
V Angle: 28.6°  
Lumens: 9468.4  
Efficiency: 36.1%

**Field:**  
H Angle: 52.7°  
V Angle: 52.7°  
Lumens: 15988.7  
Efficiency: 60.9%

**Spill:**  
Lumens: 10252.8  
Efficiency: 39.1%

— 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°	30.1	30.1	30.1	30.1	30.1	30.1	30.1	27.4	27.4	27.4	27.4
85°	68.4	68.4	68.4	68.4	68.4	65.7	65.7	65.7	62.9	62.9	60.2
82.5°	109.4	109.4	109.4	109.4	106.7	106.7	104.0	104.0	101.2	101.2	98.5
80°	155.9	155.9	155.9	155.9	153.2	150.5	150.5	147.7	145.0	142.3	139.5
77.5°	210.7	210.7	210.7	207.9	205.2	205.2	202.5	197.0	194.3	188.8	186.0
75°	270.9	270.9	270.9	268.1	265.4	262.7	257.2	254.4	249.0	243.5	235.3
72.5°	336.5	336.5	336.5	333.8	328.3	325.6	320.1	314.6	309.2	301.0	292.7
70°	399.5	399.5	399.5	394.0	391.2	385.8	380.3	374.8	366.6	358.4	350.2
67.5°	462.4	462.4	462.4	456.9	454.2	448.7	443.2	435.0	426.8	415.9	407.7
65°	519.8	519.8	517.1	514.4	511.6	506.2	497.9	492.5	484.3	473.3	462.4
62.5°	580.0	580.0	577.3	574.6	569.1	563.6	555.4	547.2	536.2	525.3	514.4
60°	640.2	640.2	637.5	634.7	629.3	621.1	612.9	604.6	593.7	580.0	566.3
57.5°	689.5	689.5	686.7	684.0	678.5	673.0	664.8	656.6	645.7	634.7	618.3
55°	741.4	741.4	738.7	733.2	727.8	722.3	714.1	703.1	692.2	678.5	667.6
52.5°	801.6	801.6	798.9	793.4	785.2	777.0	766.1	752.4	738.7	725.0	708.6
50°	861.8	861.8	856.4	850.9	845.4	834.5	823.5	809.8	793.4	777.0	757.9
47.5°	935.7	935.7	930.2	922.0	911.1	900.1	883.7	864.6	848.1	829.0	807.1
45°	1026.0	1026.0	1017.8	1009.6	995.9	976.7	957.6	935.7	911.1	886.5	859.1
42.5°	1143.6	1143.6	1132.7	1119.0	1099.9	1075.2	1045.1	1015.0	984.9	952.1	919.3
40°	1302.3	1302.3	1285.9	1266.8	1236.7	1201.1	1157.3	1116.3	1075.2	1028.7	987.7
37.5°	1551.3	1551.3	1523.9	1488.4	1439.1	1378.9	1305.1	1250.3	1187.4	1127.2	1072.5
35°	1958.9	1958.9	1909.7	1846.8	1759.2	1649.8	1532.1	1439.1	1335.1	1250.3	1171.0
32.5°	2684.0	2684.0	2585.5	2462.4	2295.5	2082.1	1885.1	1720.9	1551.3	1420.0	1294.1
30°	4087.5	4087.5	3876.9	3616.9	3258.5	2809.8	2473.3	2158.7	1871.4	1655.3	1471.9
27.5°	6722.3	6612.8	6284.5	5745.5	5006.8	4087.5	3502.0	2837.2	2383.0	1969.9	1715.4
25°	10612.8	10432.2	9890.5	9006.8	7803.0	6437.7	5242.1	3980.8	3184.7	2497.9	2024.6
22.5°	15340.5	15091.6	14355.6	13154.5	11526.6	9709.9	7775.6	5961.7	4347.4	3302.3	2497.9
20°	20938.3	20604.5	19616.8	18013.6	15857.6	13545.7	10963.0	8533.5	6205.2	4347.4	3184.7
17.5°	28328.2	27819.3	26322.7	23915.0	20938.3	17822.1	14593.6	11458.2	8533.5	5961.7	3980.8
15°	38951.9	38092.8	35581.2	31592.2	26957.4	22612.7	18495.1	14593.6	10963.0	7775.6	5242.1
12.5°	51233.6	50038.0	46577.0	41179.0	34880.8	28010.8	22612.7	17822.1	13545.7	9709.9	6437.7
10°	61581.0	60319.8	56743.9	51329.4	43343.1	34880.8	26957.4	20938.3	15857.6	11526.6	7803.0
7.5°	70322.4	68910.7	65055.7	59132.4	51329.4	41179.0	31592.2	23915.0	18013.6	13154.5	9006.8
5°	77914.7	76125.4	71638.4	65055.7	56743.9	46577.0	35581.2	26322.7	19616.8	14355.6	9890.5
2.5°	82987.2	80886.0	76125.4	68910.7	60319.8	50038.0	38092.8	27819.3	20604.5	15091.6	10432.2
0°	84853.1	82987.2	77914.7	70322.4	61581.0	51233.6	38951.9	28328.2	20938.3	15340.5	10612.8



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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°	27.4	27.4	24.6	24.6	24.6	21.9	21.9	21.9	19.2	19.2	19.2
85°	60.2	57.5	57.5	54.7	52.0	49.2	49.2	46.5	43.8	41.0	38.3
82.5°	95.8	93.0	90.3	87.6	84.8	79.3	76.6	73.9	68.4	65.7	62.9
80°	134.1	131.3	125.9	123.1	117.6	112.2	106.7	101.2	95.8	90.3	84.8
77.5°	180.6	172.4	166.9	161.4	153.2	147.7	139.5	134.1	125.9	117.6	109.4
75°	229.8	221.6	213.4	205.2	197.0	186.0	177.8	166.9	158.7	147.7	139.5
72.5°	284.5	273.6	262.7	251.7	240.8	229.8	218.9	205.2	194.3	180.6	166.9
70°	339.3	328.3	317.4	303.7	290.0	276.3	262.7	246.2	232.6	216.1	199.7
67.5°	396.7	383.0	369.4	355.7	342.0	325.6	306.4	290.0	270.9	251.7	235.3
65°	451.4	437.8	421.3	404.9	388.5	372.1	352.9	333.8	311.9	290.0	270.9
62.5°	500.7	487.0	473.3	454.2	437.8	418.6	399.5	374.8	352.9	331.1	306.4
60°	552.7	536.2	519.8	500.7	481.5	462.4	440.5	415.9	394.0	366.6	342.0
57.5°	601.9	585.5	566.3	547.2	525.3	503.4	481.5	456.9	432.3	404.9	377.6
55°	651.2	634.7	615.6	593.7	569.1	544.5	519.8	495.2	470.6	440.5	410.4
52.5°	692.2	675.8	656.6	640.2	612.9	588.2	560.9	530.8	503.4	473.3	443.2
50°	736.0	716.8	694.9	675.8	653.9	629.3	599.2	569.1	536.2	506.2	473.3
47.5°	785.2	760.6	736.0	711.4	689.5	662.1	637.5	604.6	571.8	536.2	503.4
45°	834.5	807.1	779.7	749.7	722.3	694.9	667.6	640.2	604.6	569.1	530.8
42.5°	886.5	853.6	823.5	793.4	760.6	727.8	697.7	667.6	637.5	599.2	560.9
40°	946.6	908.3	870.0	834.5	801.6	763.3	727.8	694.9	662.1	629.3	588.2
37.5°	1015.0	968.5	922.0	878.2	837.2	801.6	760.6	722.3	689.5	653.9	612.9
35°	1102.6	1034.2	979.5	924.8	878.2	834.5	793.4	749.7	711.4	675.8	640.2
32.5°	1201.1	1116.3	1042.4	979.5	922.0	870.0	823.5	779.7	736.0	694.9	656.6
30°	1321.5	1212.0	1116.3	1034.2	968.5	908.3	853.6	807.1	760.6	716.8	675.8
27.5°	1491.1	1321.5	1201.1	1102.6	1015.0	946.6	886.5	834.5	785.2	736.0	692.2
25°	1715.4	1471.9	1294.1	1171.0	1072.5	987.7	919.3	859.1	807.1	757.9	708.6
22.5°	1969.9	1655.3	1420.0	1250.3	1127.2	1028.7	952.1	886.5	829.0	777.0	725.0
20°	2383.0	1871.4	1551.3	1335.1	1187.4	1075.2	984.9	911.1	848.1	793.4	738.7
17.5°	2837.2	2158.7	1720.9	1439.1	1250.3	1116.3	1015.0	935.7	864.6	809.8	752.4
15°	3502.0	2473.3	1885.1	1532.1	1305.1	1157.3	1045.1	957.6	883.7	823.5	766.1
12.5°	4087.5	2809.8	2082.1	1649.8	1378.9	1201.1	1075.2	976.7	900.1	834.5	777.0
10°	5006.8	3258.5	2295.5	1759.2	1439.1	1236.7	1099.9	995.9	911.1	845.4	785.2
7.5°	5745.5	3616.9	2462.4	1846.8	1488.4	1266.8	1119.0	1009.6	922.0	850.9	793.4
5°	6284.5	3876.9	2585.5	1909.7	1523.9	1285.9	1132.7	1017.8	930.2	856.4	798.9
2.5°	6612.8	4087.5	2684.0	1958.9	1551.3	1302.3	1143.6	1026.0	935.7	861.8	801.6
0°	6722.3	4087.5	2684.0	1958.9	1551.3	1302.3	1143.6	1026.0	935.7	861.8	801.6





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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°	16.4	16.4	13.7	13.7	13.7	10.9	10.9	8.2	8.2	5.5	5.5
85°	35.6	32.8	30.1	27.4	24.6	21.9	21.9	19.2	16.4	13.7	10.9
82.5°	57.5	54.7	49.2	43.8	41.0	35.6	30.1	27.4	24.6	19.2	16.4
80°	79.3	73.9	68.4	62.9	57.5	49.2	43.8	38.3	30.1	24.6	21.9
77.5°	104.0	95.8	87.6	79.3	71.1	65.7	57.5	49.2	41.0	32.8	24.6
75°	128.6	117.6	109.4	98.5	90.3	79.3	68.4	60.2	52.0	41.0	30.1
72.5°	155.9	142.3	131.3	117.6	106.7	95.8	82.1	71.1	60.2	49.2	38.3
70°	186.0	169.6	153.2	139.5	125.9	109.4	95.8	82.1	68.4	57.5	43.8
67.5°	216.1	197.0	177.8	158.7	142.3	125.9	109.4	95.8	79.3	65.7	49.2
65°	246.2	224.3	205.2	183.3	161.4	142.3	125.9	106.7	90.3	71.1	57.5
62.5°	279.1	254.4	229.8	205.2	183.3	158.7	139.5	117.6	98.5	79.3	62.9
60°	314.6	287.3	257.2	229.8	205.2	177.8	153.2	131.3	109.4	87.6	68.4
57.5°	347.5	317.4	287.3	254.4	224.3	197.0	169.6	142.3	117.6	95.8	73.9
55°	380.3	347.5	314.6	279.1	246.2	216.1	186.0	155.9	128.6	104.0	79.3
52.5°	410.4	377.6	342.0	306.4	270.9	235.3	199.7	166.9	139.5	109.4	84.8
50°	440.5	404.9	366.6	331.1	290.0	251.7	216.1	180.6	147.7	117.6	90.3
47.5°	470.6	432.3	394.0	352.9	311.9	270.9	232.6	194.3	158.7	125.9	95.8
45°	495.2	456.9	415.9	374.8	333.8	290.0	246.2	205.2	166.9	134.1	101.2
42.5°	519.8	481.5	440.5	399.5	352.9	306.4	262.7	218.9	177.8	139.5	106.7
40°	544.5	503.4	462.4	418.6	372.1	325.6	276.3	229.8	186.0	147.7	112.2
37.5°	569.1	525.3	481.5	437.8	388.5	342.0	290.0	240.8	197.0	153.2	117.6
35°	593.7	547.2	500.7	454.2	404.9	355.7	303.7	251.7	205.2	161.4	123.1
32.5°	615.6	566.3	519.8	473.3	421.3	369.4	317.4	262.7	213.4	166.9	125.9
30°	634.7	585.5	536.2	487.0	437.8	383.0	328.3	273.6	221.6	172.4	131.3
27.5°	651.2	601.9	552.7	500.7	451.4	396.7	339.3	284.5	229.8	180.6	134.1
25°	667.6	618.3	566.3	514.4	462.4	407.7	350.2	292.7	235.3	186.0	139.5
22.5°	678.5	634.7	580.0	525.3	473.3	415.9	358.4	301.0	243.5	188.8	142.3
20°	692.2	645.7	593.7	536.2	484.3	426.8	366.6	309.2	249.0	194.3	145.0
17.5°	703.1	656.6	604.6	547.2	492.5	435.0	374.8	314.6	254.4	197.0	147.7
15°	714.1	664.8	612.9	555.4	497.9	443.2	380.3	320.1	257.2	202.5	150.5
12.5°	722.3	673.0	621.1	563.6	506.2	448.7	385.8	325.6	262.7	205.2	150.5
10°	727.8	678.5	629.3	569.1	511.6	454.2	391.2	328.3	265.4	205.2	153.2
7.5°	733.2	684.0	634.7	574.6	514.4	456.9	394.0	333.8	268.1	207.9	155.9
5°	738.7	686.7	637.5	577.3	517.1	462.4	399.5	336.5	270.9	210.7	155.9
2.5°	741.4	689.5	640.2	580.0	519.8	462.4	399.5	336.5	270.9	210.7	155.9
0°	741.4	689.5	640.2	580.0	519.8	462.4	399.5	336.5	270.9	210.7	155.9



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**CANDELA DISTRIBUTION (continued):**

	82.5°	85°	87.5°	90°
90°	0.0	0.0	0.0	0.0
87.5°	2.7	2.7	0.0	0.0
85°	8.2	5.5	2.7	0.0
82.5°	10.9	8.2	2.7	0.0
80°	16.4	10.9	5.5	0.0
77.5°	19.2	13.7	5.5	0.0
75°	24.6	16.4	8.2	0.0
72.5°	27.4	19.2	8.2	0.0
70°	30.1	21.9	10.9	0.0
67.5°	35.6	21.9	10.9	0.0
65°	41.0	24.6	13.7	0.0
62.5°	43.8	27.4	13.7	0.0
60°	49.2	30.1	13.7	0.0
57.5°	54.7	32.8	16.4	0.0
55°	57.5	35.6	16.4	0.0
52.5°	62.9	38.3	19.2	0.0
50°	65.7	41.0	19.2	0.0
47.5°	68.4	43.8	19.2	0.0
45°	73.9	46.5	21.9	0.0
42.5°	76.6	49.2	21.9	0.0
40°	79.3	49.2	21.9	0.0
37.5°	84.8	52.0	24.6	0.0
35°	87.6	54.7	24.6	0.0
32.5°	90.3	57.5	24.6	0.0
30°	93.0	57.5	27.4	0.0
27.5°	95.8	60.2	27.4	0.0
25°	98.5	60.2	27.4	0.0
22.5°	101.2	62.9	27.4	0.0
20°	101.2	62.9	27.4	0.0
17.5°	104.0	65.7	27.4	0.0
15°	104.0	65.7	30.1	0.0
12.5°	106.7	65.7	30.1	0.0
10°	106.7	68.4	30.1	0.0
7.5°	109.4	68.4	30.1	0.0
5°	109.4	68.4	30.1	0.0
2.5°	109.4	68.4	30.1	0.0
0°	109.4	68.4	30.1	0.0

(END OF REPORT)