

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: P624079

Luminaire Tested: **EPH-VN-04-E-735-U-44**

Issue Date: 11/2/2022

**Test Information**

Test Method: LM-79-2019  
Report Number: P624079  
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-735-U-44  
Description: EPHESUS LUMAVISION FLOOD – Middle Tier Light Square Luminaire w/  
Nema 4 distribution lens  
Light Source: (64) 3500K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp:	N/A	NEMA Type:	4H x 4V
Luminaire Lumens:	35817.9 lumens	Max Intensity:	115818.8 candela
Efficiency:	N/A	Max Intensity Angle:	0°H x 0°V
Efficacy:	117.9 lumens/watt		
Luminous Opening:	Rectangular (W 2' x L: 0.5' x H: 0')		

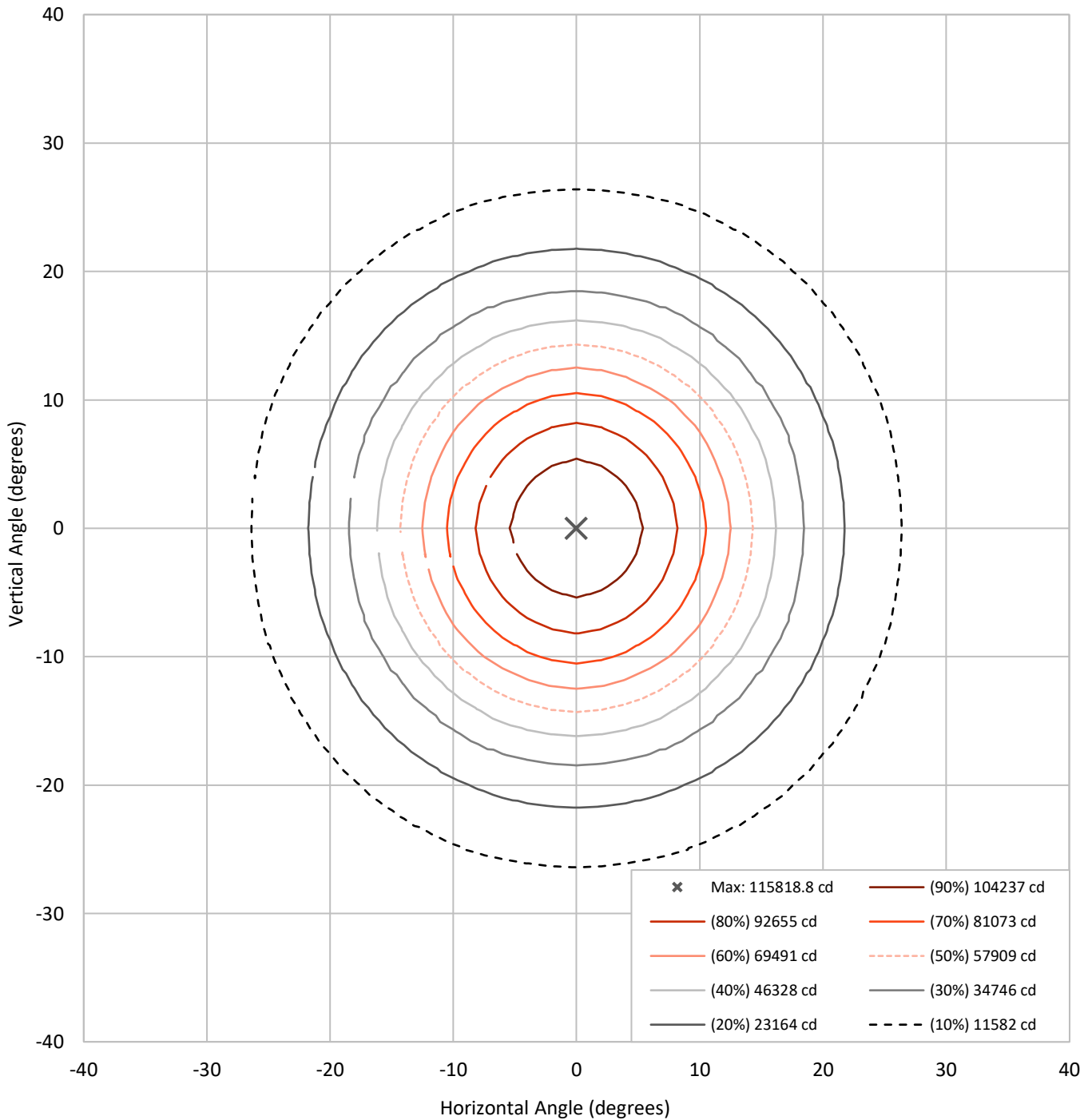
Beam Angle (50%):	28.6°H x 28.6°V	Field Angle (10%):	52.7°H x 52.7°V
Beam Lumens:	12923.8 lumens	Field Lumens:	21823.5 lumens
Beam Efficiency:	36.1%	Field Efficiency:	60.9%

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





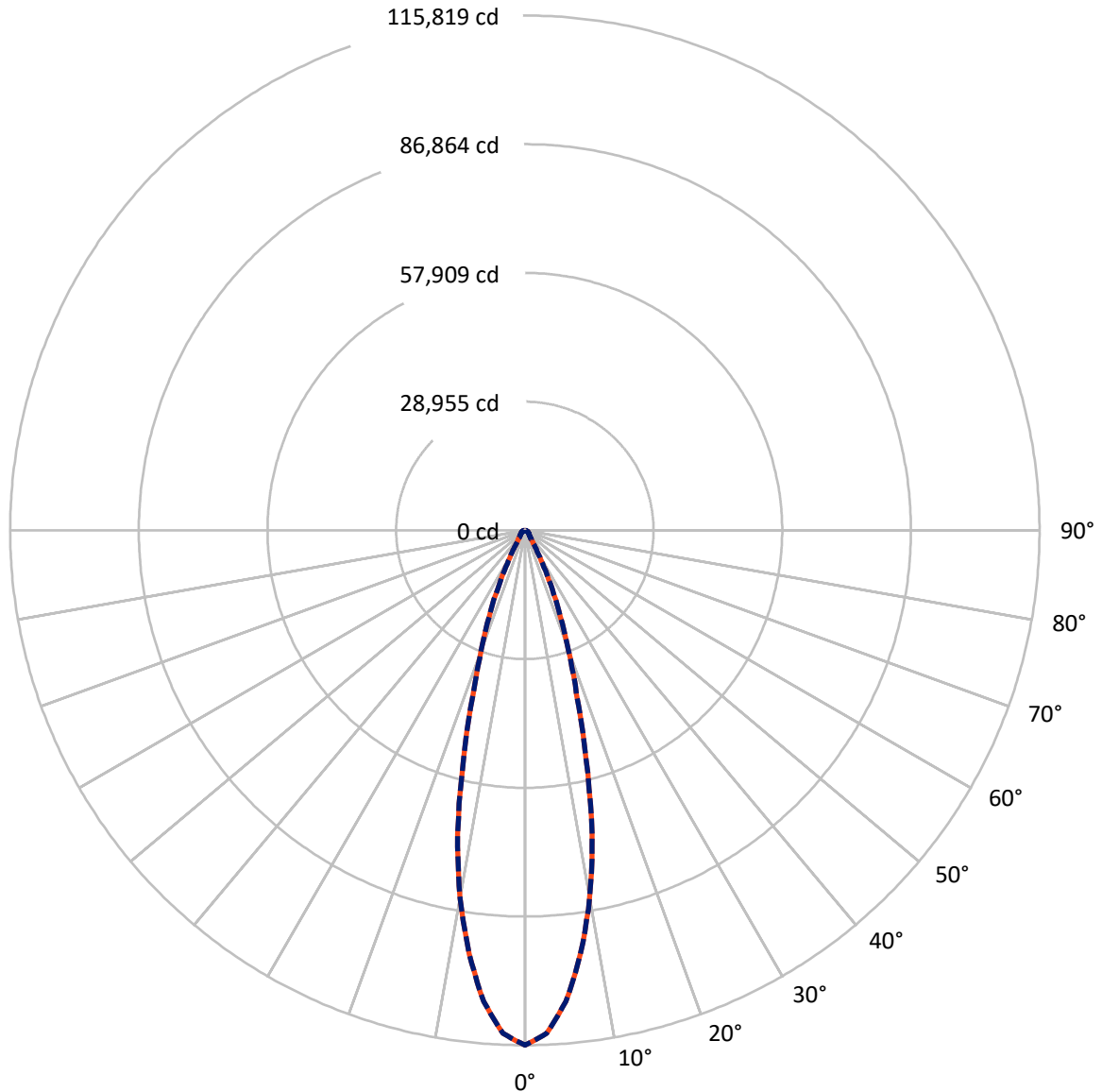
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### Lumen Table

90	0.8	6.1		15.4		24.6		28.4		24.6		15.4		6.1		0.8
80	0.8	6.1		15.4		24.6		28.4		24.6		15.4		6.1		0.8
70	2.8	2.9	6.0	9.8	13.8	17.3	20.0	21.4	21.4	20.0	17.3	13.8	9.8	6.0	2.9	2.8
60		4.4	9.1	14.5	20.1	25.0	28.7	30.7	30.7	28.7	25.0	20.1	14.5	9.1	4.4	
50	4.7	5.9	11.8	18.7	25.6	32.6	38.8	42.8	42.8	38.8	32.6	25.6	18.7	11.8	5.9	4.7
40		7.2	14.1	22.2	31.8	45.3	66.1	88.0	88.0	66.1	45.3	31.8	22.2	14.1	7.2	
30	6.3	8.2	15.9	25.5	41.0	85.9	235.6	426.8	426.8	235.6	85.9	41.0	25.5	15.9	8.2	6.3
20		8.9	17.1	28.6	56.4	222.4	765.0	1475.6	1475.6	765.0	222.4	56.4	28.6	17.1	8.9	
10	6.8	9.2	17.8	30.6	73.1	391.9	1435.6	2830.4	2830.4	1435.6	391.9	73.1	30.6	17.8	9.2	6.8
0		9.2	17.8	30.6	73.1	391.9	1435.6	2830.4	2830.4	1435.6	391.9	73.1	30.6	17.8	9.2	
-10	6.3	8.9	17.1	28.6	56.4	222.4	765.0	1475.6	1475.6	765.0	222.4	56.4	28.6	17.1	8.9	6.3
-20		8.2	15.9	25.5	41.0	85.9	235.6	426.8	426.8	235.6	85.9	41.0	25.5	15.9	8.2	
-30	4.7	7.2	14.1	22.2	31.8	45.3	66.1	88.0	88.0	66.1	45.3	31.8	22.2	14.1	7.2	4.7
-40		5.9	11.8	18.7	25.6	32.6	38.8	42.8	42.8	38.8	32.6	25.6	18.7	11.8	5.9	
-50	2.8	4.4	9.1	14.5	20.1	25.0	28.7	30.7	30.7	28.7	25.0	20.1	14.5	9.1	4.4	2.8
-60		2.9	6.0	9.8	13.8	17.3	20.0	21.4	21.4	20.0	17.3	13.8	9.8	6.0	2.9	
-70	0.8	6.1		15.4		24.6		28.4		24.6		15.4		6.1		0.8
-80		6.1		15.4		24.6		28.4		24.6		15.4		6.1		
-90	0.8	6.1		15.4		24.6		28.4		24.6		15.4		6.1		0.8

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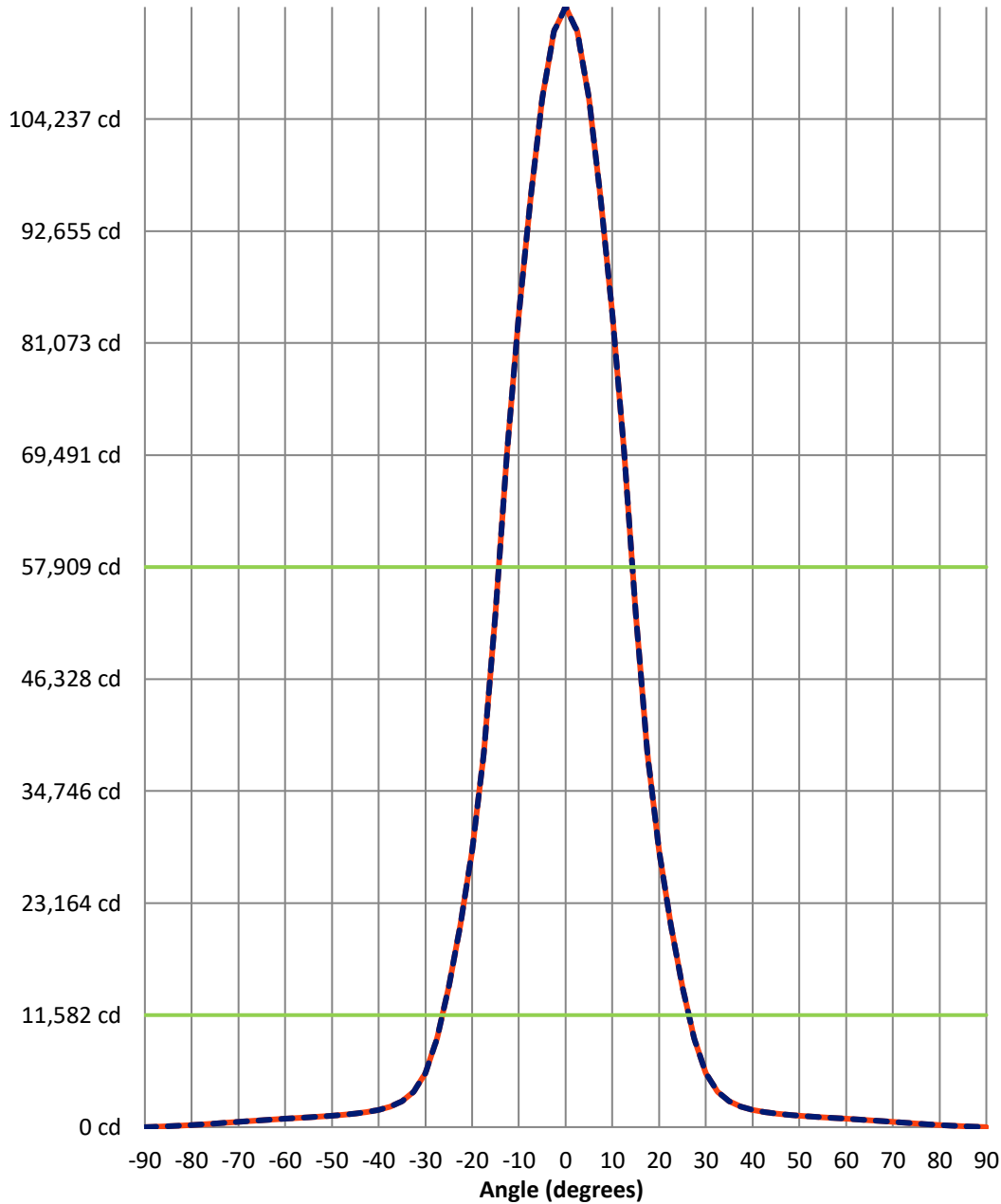
### Luminous Intensity Polar Plot



— 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: 12923.8  
Efficiency: 36.1%

**Field:**  
H Angle: 52.7°  
V Angle: 52.7°  
Lumens: 21823.5  
Efficiency: 60.9%

**Spill:**  
Lumens: 13994.3  
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°	41.1	41.1	41.1	41.1	41.1	41.1	41.1	37.3	37.3	37.3	37.3
85°	93.4	93.4	93.4	93.4	93.4	89.6	89.6	89.6	85.9	85.9	82.2
82.5°	149.4	149.4	149.4	149.4	145.6	145.6	141.9	141.9	138.2	138.2	134.4
80°	212.9	212.9	212.9	212.9	209.1	205.4	205.4	201.7	197.9	194.2	190.5
77.5°	287.5	287.5	287.5	283.8	280.1	280.1	276.3	268.9	265.1	257.7	253.9
75°	369.7	369.7	369.7	366.0	362.2	358.5	351.0	347.3	339.8	332.4	321.2
72.5°	459.3	459.3	459.3	455.6	448.1	444.4	436.9	429.5	422.0	410.8	399.6
70°	545.2	545.2	545.2	537.8	534.0	526.6	519.1	511.6	500.4	489.2	478.0
67.5°	631.1	631.1	631.1	623.6	619.9	612.4	605.0	593.8	582.6	567.6	556.4
65°	709.5	709.5	705.8	702.1	698.3	690.9	679.7	672.2	661.0	646.1	631.1
62.5°	791.7	791.7	788.0	784.2	776.8	769.3	758.1	746.9	731.9	717.0	702.1
60°	873.9	873.9	870.1	866.4	858.9	847.7	836.5	825.3	810.4	791.7	773.0
57.5°	941.1	941.1	937.3	933.6	926.1	918.7	907.5	896.3	881.3	866.4	844.0
55°	1012.0	1012.0	1008.3	1000.8	993.4	985.9	974.7	959.7	944.8	926.1	911.2
52.5°	1094.2	1094.2	1090.4	1083.0	1071.8	1060.6	1045.6	1027.0	1008.3	989.6	967.2
50°	1176.3	1176.3	1168.9	1161.4	1153.9	1139.0	1124.1	1105.4	1083.0	1060.6	1034.4
47.5°	1277.2	1277.2	1269.7	1258.5	1243.6	1228.6	1206.2	1180.1	1157.7	1131.5	1101.6
45°	1400.4	1400.4	1389.2	1378.0	1359.3	1333.2	1307.0	1277.2	1243.6	1209.9	1172.6
42.5°	1561.0	1561.0	1546.0	1527.4	1501.2	1467.6	1426.5	1385.5	1344.4	1299.6	1254.8
40°	1777.6	1777.6	1755.2	1729.0	1688.0	1639.4	1579.7	1523.6	1467.6	1404.1	1348.1
37.5°	2117.4	2117.4	2080.1	2031.5	1964.3	1882.1	1781.3	1706.6	1620.7	1538.6	1463.9
35°	2673.8	2673.8	2606.6	2520.7	2401.2	2251.8	2091.3	1964.3	1822.4	1706.6	1598.3
32.5°	3663.4	3663.4	3529.0	3361.0	3133.2	2841.9	2573.0	2348.9	2117.4	1938.2	1766.4
30°	5579.2	5579.2	5291.6	4936.9	4447.7	3835.2	3375.9	2946.4	2554.3	2259.3	2009.1
27.5°	9175.4	9026.1	8577.9	7842.2	6834.0	5579.2	4780.0	3872.6	3252.7	2688.8	2341.5
25°	14485.7	14239.3	13499.9	12293.7	10650.5	8787.1	7155.1	5433.6	4346.8	3409.5	2763.5
22.5°	20938.8	20599.0	19594.4	17955.0	15733.0	13253.4	10613.2	8137.3	5934.0	4507.4	3409.5
20°	28579.4	28123.8	26775.7	24587.3	21644.6	18489.0	14963.8	11647.6	8469.6	5934.0	4346.8
17.5°	38666.0	37971.4	35928.7	32642.4	28579.4	24325.9	19919.3	15639.7	11647.6	8137.3	5433.6
15°	53166.7	51994.1	48565.9	43121.2	36795.1	30864.8	25244.6	19919.3	14963.8	10613.2	7155.1
12.5°	69930.4	68298.5	63574.5	56206.5	47609.9	38232.8	30864.8	24325.9	18489.0	13253.4	8787.1
10°	84053.9	82332.4	77451.5	70061.1	59160.4	47609.9	36795.1	28579.4	21644.6	15733.0	10650.5
7.5°	95985.4	94058.4	88796.6	80711.7	70061.1	56206.5	43121.2	32642.4	24587.3	17955.0	12293.7
5°	106348.3	103906.0	97781.6	88796.6	77451.5	63574.5	48565.9	35928.7	26775.7	19594.4	13499.9
2.5°	113271.9	110403.9	103906.0	94058.4	82332.4	68298.5	51994.1	37971.4	28123.8	20599.0	14239.3
0°	115818.8	113271.9	106348.3	95985.4	84053.9	69930.4	53166.7	38666.0	28579.4	20938.8	14485.7



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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°	37.3	37.3	33.6	33.6	33.6	29.9	29.9	29.9	26.1	26.1	26.1
85°	82.2	78.4	78.4	74.7	71.0	67.2	67.2	63.5	59.8	56.0	52.3
82.5°	130.7	127.0	123.2	119.5	115.8	108.3	104.6	100.8	93.4	89.6	85.9
80°	183.0	179.3	171.8	168.0	160.6	153.1	145.6	138.2	130.7	123.2	115.8
77.5°	246.5	235.3	227.8	220.3	209.1	201.7	190.5	183.0	171.8	160.6	149.4
75°	313.7	302.5	291.3	280.1	268.9	253.9	242.7	227.8	216.6	201.7	190.5
72.5°	388.4	373.4	358.5	343.6	328.6	313.7	298.8	280.1	265.1	246.5	227.8
70°	463.1	448.1	433.2	414.5	395.8	377.2	358.5	336.1	317.4	295.0	272.6
67.5°	541.5	522.8	504.1	485.5	466.8	444.4	418.3	395.8	369.7	343.6	321.2
65°	616.2	597.5	575.1	552.7	530.3	507.9	481.7	455.6	425.7	395.8	369.7
62.5°	683.4	664.7	646.1	619.9	597.5	571.4	545.2	511.6	481.7	451.9	418.3
60°	754.3	731.9	709.5	683.4	657.3	631.1	601.2	567.6	537.8	500.4	466.8
57.5°	821.6	799.2	773.0	746.9	717.0	687.1	657.3	623.6	590.0	552.7	515.3
55°	888.8	866.4	840.2	810.4	776.8	743.1	709.5	675.9	642.3	601.2	560.2
52.5°	944.8	922.4	896.3	873.9	836.5	802.9	765.6	724.5	687.1	646.1	605.0
50°	1004.6	978.4	948.5	922.4	892.5	858.9	817.8	776.8	731.9	690.9	646.1
47.5°	1071.8	1038.2	1004.6	970.9	941.1	903.7	870.1	825.3	780.5	731.9	687.1
45°	1139.0	1101.6	1064.3	1023.2	985.9	948.5	911.2	873.9	825.3	776.8	724.5
42.5°	1209.9	1165.1	1124.1	1083.0	1038.2	993.4	952.3	911.2	870.1	817.8	765.6
40°	1292.1	1239.8	1187.5	1139.0	1094.2	1041.9	993.4	948.5	903.7	858.9	802.9
37.5°	1385.5	1322.0	1258.5	1198.7	1142.7	1094.2	1038.2	985.9	941.1	892.5	836.5
35°	1505.0	1411.6	1336.9	1262.2	1198.7	1139.0	1083.0	1023.2	970.9	922.4	873.9
32.5°	1639.4	1523.6	1422.8	1336.9	1258.5	1187.5	1124.1	1064.3	1004.6	948.5	896.3
30°	1803.7	1654.3	1523.6	1411.6	1322.0	1239.8	1165.1	1101.6	1038.2	978.4	922.4
27.5°	2035.2	1803.7	1639.4	1505.0	1385.5	1292.1	1209.9	1139.0	1071.8	1004.6	944.8
25°	2341.5	2009.1	1766.4	1598.3	1463.9	1348.1	1254.8	1172.6	1101.6	1034.4	967.2
22.5°	2688.8	2259.3	1938.2	1706.6	1538.6	1404.1	1299.6	1209.9	1131.5	1060.6	989.6
20°	3252.7	2554.3	2117.4	1822.4	1620.7	1467.6	1344.4	1243.6	1157.7	1083.0	1008.3
17.5°	3872.6	2946.4	2348.9	1964.3	1706.6	1523.6	1385.5	1277.2	1180.1	1105.4	1027.0
15°	4780.0	3375.9	2573.0	2091.3	1781.3	1579.7	1426.5	1307.0	1206.2	1124.1	1045.6
12.5°	5579.2	3835.2	2841.9	2251.8	1882.1	1639.4	1467.6	1333.2	1228.6	1139.0	1060.6
10°	6834.0	4447.7	3133.2	2401.2	1964.3	1688.0	1501.2	1359.3	1243.6	1153.9	1071.8
7.5°	7842.2	4936.9	3361.0	2520.7	2031.5	1729.0	1527.4	1378.0	1258.5	1161.4	1083.0
5°	8577.9	5291.6	3529.0	2606.6	2080.1	1755.2	1546.0	1389.2	1269.7	1168.9	1090.4
2.5°	9026.1	5579.2	3663.4	2673.8	2117.4	1777.6	1561.0	1400.4	1277.2	1176.3	1094.2
0°	9175.4	5579.2	3663.4	2673.8	2117.4	1777.6	1561.0	1400.4	1277.2	1176.3	1094.2





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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°	22.4	22.4	18.7	18.7	18.7	14.9	14.9	11.2	11.2	7.5	7.5
85°	48.5	44.8	41.1	37.3	33.6	29.9	29.9	26.1	22.4	18.7	14.9
82.5°	78.4	74.7	67.2	59.8	56.0	48.5	41.1	37.3	33.6	26.1	22.4
80°	108.3	100.8	93.4	85.9	78.4	67.2	59.8	52.3	41.1	33.6	29.9
77.5°	141.9	130.7	119.5	108.3	97.1	89.6	78.4	67.2	56.0	44.8	33.6
75°	175.5	160.6	149.4	134.4	123.2	108.3	93.4	82.2	71.0	56.0	41.1
72.5°	212.9	194.2	179.3	160.6	145.6	130.7	112.0	97.1	82.2	67.2	52.3
70°	253.9	231.5	209.1	190.5	171.8	149.4	130.7	112.0	93.4	78.4	59.8
67.5°	295.0	268.9	242.7	216.6	194.2	171.8	149.4	130.7	108.3	89.6	67.2
65°	336.1	306.2	280.1	250.2	220.3	194.2	171.8	145.6	123.2	97.1	78.4
62.5°	380.9	347.3	313.7	280.1	250.2	216.6	190.5	160.6	134.4	108.3	85.9
60°	429.5	392.1	351.0	313.7	280.1	242.7	209.1	179.3	149.4	119.5	93.4
57.5°	474.3	433.2	392.1	347.3	306.2	268.9	231.5	194.2	160.6	130.7	100.8
55°	519.1	474.3	429.5	380.9	336.1	295.0	253.9	212.9	175.5	141.9	108.3
52.5°	560.2	515.3	466.8	418.3	369.7	321.2	272.6	227.8	190.5	149.4	115.8
50°	601.2	552.7	500.4	451.9	395.8	343.6	295.0	246.5	201.7	160.6	123.2
47.5°	642.3	590.0	537.8	481.7	425.7	369.7	317.4	265.1	216.6	171.8	130.7
45°	675.9	623.6	567.6	511.6	455.6	395.8	336.1	280.1	227.8	183.0	138.2
42.5°	709.5	657.3	601.2	545.2	481.7	418.3	358.5	298.8	242.7	190.5	145.6
40°	743.1	687.1	631.1	571.4	507.9	444.4	377.2	313.7	253.9	201.7	153.1
37.5°	776.8	717.0	657.3	597.5	530.3	466.8	395.8	328.6	268.9	209.1	160.6
35°	810.4	746.9	683.4	619.9	552.7	485.5	414.5	343.6	280.1	220.3	168.0
32.5°	840.2	773.0	709.5	646.1	575.1	504.1	433.2	358.5	291.3	227.8	171.8
30°	866.4	799.2	731.9	664.7	597.5	522.8	448.1	373.4	302.5	235.3	179.3
27.5°	888.8	821.6	754.3	683.4	616.2	541.5	463.1	388.4	313.7	246.5	183.0
25°	911.2	844.0	773.0	702.1	631.1	556.4	478.0	399.6	321.2	253.9	190.5
22.5°	926.1	866.4	791.7	717.0	646.1	567.6	489.2	410.8	332.4	257.7	194.2
20°	944.8	881.3	810.4	731.9	661.0	582.6	500.4	422.0	339.8	265.1	197.9
17.5°	959.7	896.3	825.3	746.9	672.2	593.8	511.6	429.5	347.3	268.9	201.7
15°	974.7	907.5	836.5	758.1	679.7	605.0	519.1	436.9	351.0	276.3	205.4
12.5°	985.9	918.7	847.7	769.3	690.9	612.4	526.6	444.4	358.5	280.1	205.4
10°	993.4	926.1	858.9	776.8	698.3	619.9	534.0	448.1	362.2	280.1	209.1
7.5°	1000.8	933.6	866.4	784.2	702.1	623.6	537.8	455.6	366.0	283.8	212.9
5°	1008.3	937.3	870.1	788.0	705.8	631.1	545.2	459.3	369.7	287.5	212.9
2.5°	1012.0	941.1	873.9	791.7	709.5	631.1	545.2	459.3	369.7	287.5	212.9
0°	1012.0	941.1	873.9	791.7	709.5	631.1	545.2	459.3	369.7	287.5	212.9



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	82.5°	85°	87.5°	90°
90°	0.0	0.0	0.0	0.0
87.5°	3.7	3.7	0.0	0.0
85°	11.2	7.5	3.7	0.0
82.5°	14.9	11.2	3.7	0.0
80°	22.4	14.9	7.5	0.0
77.5°	26.1	18.7	7.5	0.0
75°	33.6	22.4	11.2	0.0
72.5°	37.3	26.1	11.2	0.0
70°	41.1	29.9	14.9	0.0
67.5°	48.5	29.9	14.9	0.0
65°	56.0	33.6	18.7	0.0
62.5°	59.8	37.3	18.7	0.0
60°	67.2	41.1	18.7	0.0
57.5°	74.7	44.8	22.4	0.0
55°	78.4	48.5	22.4	0.0
52.5°	85.9	52.3	26.1	0.0
50°	89.6	56.0	26.1	0.0
47.5°	93.4	59.8	26.1	0.0
45°	100.8	63.5	29.9	0.0
42.5°	104.6	67.2	29.9	0.0
40°	108.3	67.2	29.9	0.0
37.5°	115.8	71.0	33.6	0.0
35°	119.5	74.7	33.6	0.0
32.5°	123.2	78.4	33.6	0.0
30°	127.0	78.4	37.3	0.0
27.5°	130.7	82.2	37.3	0.0
25°	134.4	82.2	37.3	0.0
22.5°	138.2	85.9	37.3	0.0
20°	138.2	85.9	37.3	0.0
17.5°	141.9	89.6	37.3	0.0
15°	141.9	89.6	41.1	0.0
12.5°	145.6	89.6	41.1	0.0
10°	145.6	93.4	41.1	0.0
7.5°	149.4	93.4	41.1	0.0
5°	149.4	93.4	41.1	0.0
2.5°	149.4	93.4	41.1	0.0
0°	149.4	93.4	41.1	0.0

(END OF REPORT)