

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: P624089

Luminaire Tested: **EPH-VN-08-E-740-U-44**

Issue Date: 11/2/2022

**Test Information**

Test Method: LM-79-2019  
Report Number: P624089  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 11/2/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: EPHESUS  
Catalog Number: EPH-VN-08-E-740-U-44  
Description: EPHESUS LUMAVISION FLOOD – Middle Tier Light Square Luminaire w/  
Nema 4 distribution lens  
Light Source: (128) 4000K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp:	N/A	NEMA Type:	4H x 4V
Luminaire Lumens:	71090.2 lumens	Max Intensity:	229873.5 candela
Efficiency:	N/A	Max Intensity Angle:	0°H x 0°V
Efficacy:	113.4 lumens/watt		
Luminous Opening:	Rectangular (W 2' x L: 1' x H: 0')		

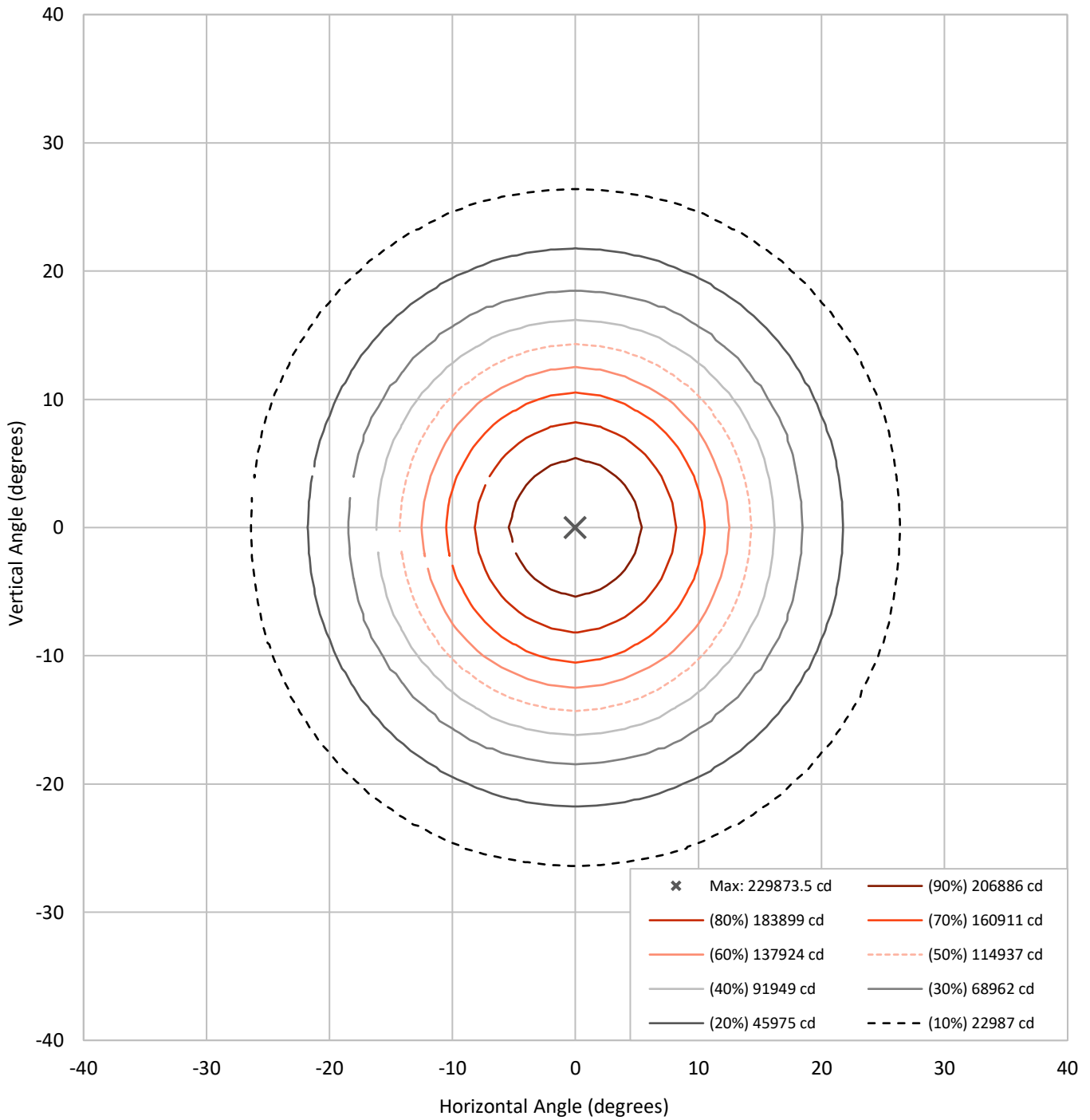
Beam Angle (50%):	28.6°H x 28.6°V	Field Angle (10%):	52.7°H x 52.7°V
Beam Lumens:	25650.7 lumens	Field Lumens:	43314.7 lumens
Beam Efficiency:	36.1%	Field Efficiency:	60.9%

Input Watts (W): 626.8  
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





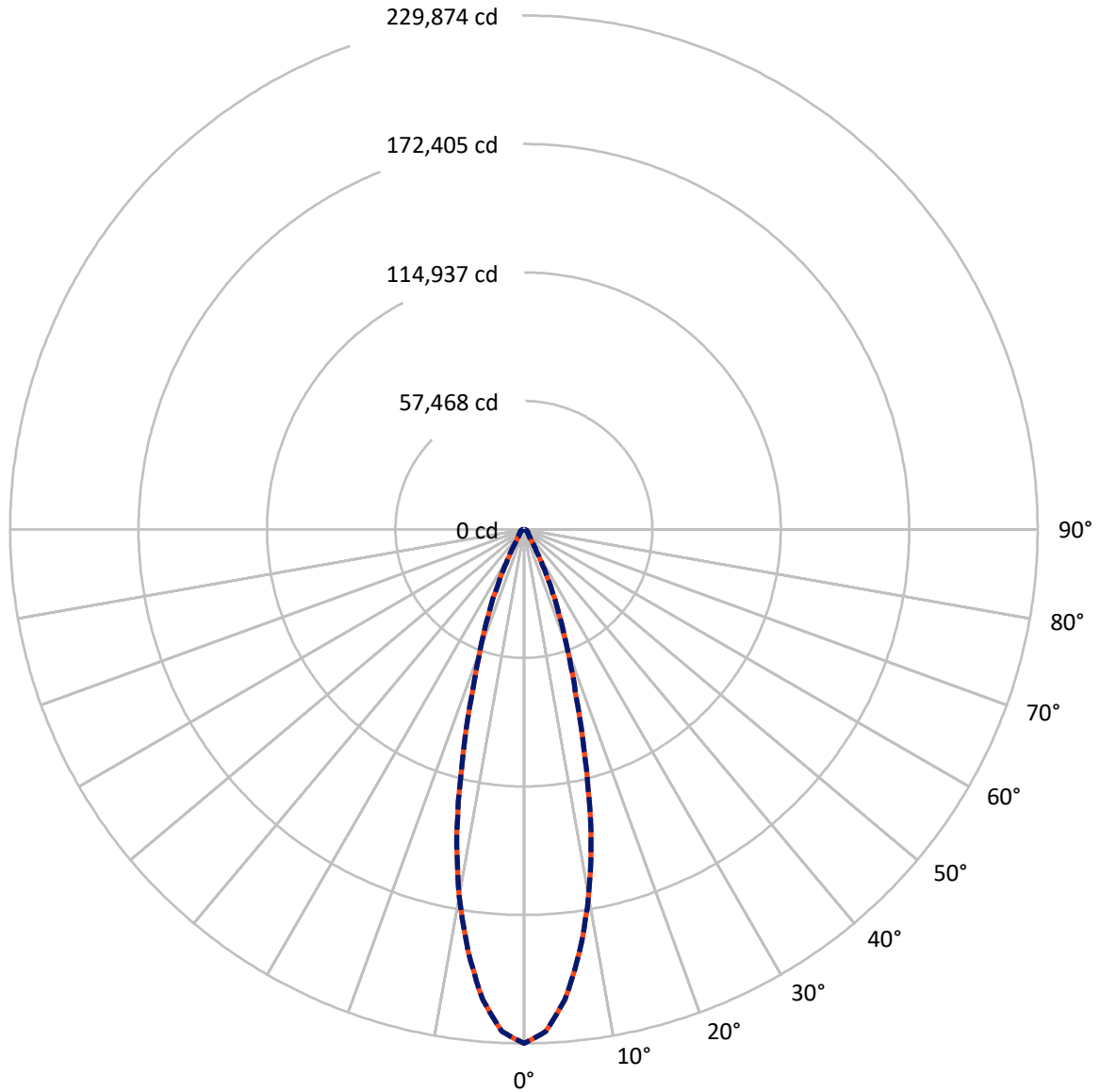
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### Lumen Table

90	1.7	12.1	30.6	48.9	56.5	48.9	30.6	12.1	1.7							
80	1.7	12.1	30.6	48.9	56.5	48.9	30.6	12.1	1.7							
70	5.5	5.8	11.8	19.4	27.3	34.4	39.6	42.5	42.5	39.6	34.4	27.3	19.4	11.8	5.8	5.5
60		8.8	18.0	28.8	39.9	49.6	56.9	60.9	60.9	56.9	49.6	39.9	28.8	18.0	8.8	
50	9.4	11.7	23.5	37.1	50.9	64.6	77.1	85.0	85.0	77.1	64.6	50.9	37.1	23.5	11.7	9.4
40		14.3	28.1	44.0	63.2	89.9	131.2	174.7	174.7	131.2	89.9	63.2	44.0	28.1	14.3	
30	12.4	16.2	31.5	50.6	81.4	170.6	467.7	847.1	847.1	467.7	170.6	81.4	50.6	31.5	16.2	12.4
20		17.6	34.0	56.7	112.0	441.5	1518.3	2928.8	2928.8	1518.3	441.5	112.0	56.7	34.0	17.6	
10	13.5	18.3	35.3	60.7	145.2	777.8	2849.4	5617.6	5617.6	2849.4	777.8	145.2	60.7	35.3	18.3	13.5
0		18.3	35.3	60.7	145.2	777.8	2849.4	5617.6	5617.6	2849.4	777.8	145.2	60.7	35.3	18.3	
-10	12.4	17.6	34.0	56.7	112.0	441.5	1518.3	2928.8	2928.8	1518.3	441.5	112.0	56.7	34.0	17.6	12.4
-20		16.2	31.5	50.6	81.4	170.6	467.7	847.1	847.1	467.7	170.6	81.4	50.6	31.5	16.2	
-30	9.4	14.3	28.1	44.0	63.2	89.9	131.2	174.7	174.7	131.2	89.9	63.2	44.0	28.1	14.3	9.4
-40		11.7	23.5	37.1	50.9	64.6	77.1	85.0	85.0	77.1	64.6	50.9	37.1	23.5	11.7	
-50	5.5	8.8	18.0	28.8	39.9	49.6	56.9	60.9	60.9	56.9	49.6	39.9	28.8	18.0	8.8	5.5
-60		5.8	11.8	19.4	27.3	34.4	39.6	42.5	42.5	39.6	34.4	27.3	19.4	11.8	5.8	
-70	1.7	12.1	30.6	48.9	56.5	48.9	30.6	12.1	1.7							
-80		1.7	12.1	30.6	48.9	56.5	48.9	30.6	12.1	1.7						
-90	1.7	12.1	30.6	48.9	56.5	48.9	30.6	12.1	1.7							

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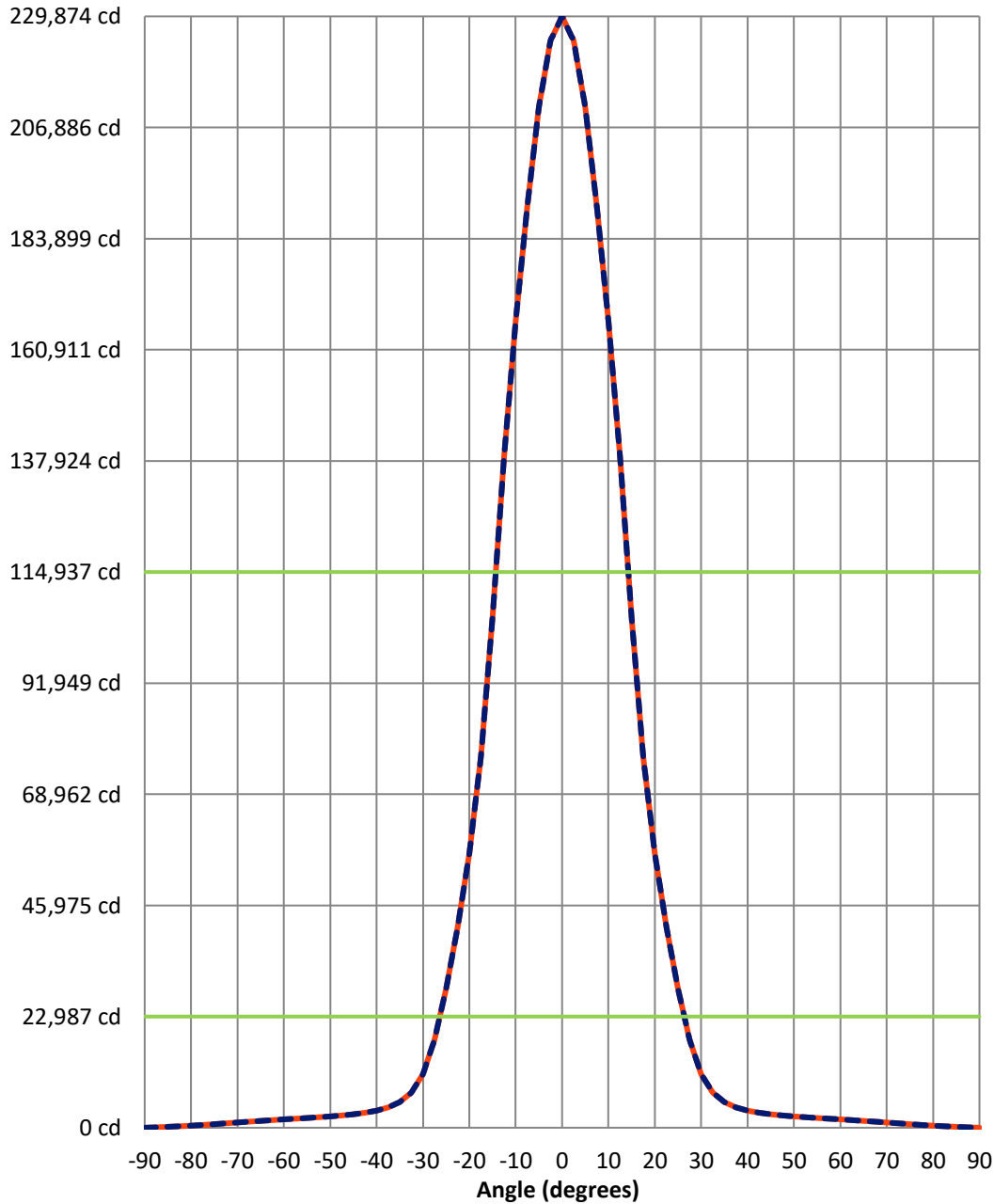
### Luminous Intensity Polar Plot



— 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: 25650.7  
 Efficiency: 36.1%

**Field:**  
 H Angle: 52.7°  
 V Angle: 52.7°  
 Lumens: 43314.7  
 Efficiency: 60.9%

**Spill:**  
 Lumens: 27775.5  
 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°	81.5	81.5	81.5	81.5	81.5	81.5	81.5	74.1	74.1	74.1	74.1
85°	185.3	185.3	185.3	185.3	185.3	177.9	177.9	177.9	170.5	170.5	163.1
82.5°	296.5	296.5	296.5	296.5	289.1	289.1	281.7	281.7	274.2	274.2	266.8
80°	422.5	422.5	422.5	422.5	415.1	407.7	407.7	400.2	392.8	385.4	378.0
77.5°	570.7	570.7	570.7	563.3	555.9	555.9	548.5	533.7	526.2	511.4	504.0
75°	733.8	733.8	733.8	726.4	719.0	711.5	696.7	689.3	674.5	659.7	637.4
72.5°	911.7	911.7	911.7	904.3	889.4	882.0	867.2	852.4	837.5	815.3	793.1
70°	1082.1	1082.1	1082.1	1067.3	1059.9	1045.1	1030.3	1015.4	993.2	971.0	948.7
67.5°	1252.6	1252.6	1252.6	1237.8	1230.4	1215.6	1200.7	1178.5	1156.3	1126.6	1104.4
65°	1408.3	1408.3	1400.9	1393.4	1386.0	1371.2	1349.0	1334.1	1311.9	1282.3	1252.6
62.5°	1571.3	1571.3	1563.9	1556.5	1541.7	1526.9	1504.6	1482.4	1452.7	1423.1	1393.4
60°	1734.4	1734.4	1727.0	1719.6	1704.7	1682.5	1660.3	1638.0	1608.4	1571.3	1534.3
57.5°	1867.8	1867.8	1860.4	1853.0	1838.2	1823.3	1801.1	1778.9	1749.2	1719.6	1675.1
55°	2008.6	2008.6	2001.2	1986.4	1971.6	1956.7	1934.5	1904.9	1875.2	1838.2	1808.5
52.5°	2171.7	2171.7	2164.3	2149.5	2127.2	2105.0	2075.3	2038.3	2001.2	1964.2	1919.7
50°	2334.8	2334.8	2319.9	2305.1	2290.3	2260.6	2231.0	2193.9	2149.5	2105.0	2053.1
47.5°	2534.9	2534.9	2520.1	2497.8	2468.2	2438.5	2394.1	2342.2	2297.7	2245.8	2186.5
45°	2779.5	2779.5	2757.2	2735.0	2697.9	2646.1	2594.2	2534.9	2468.2	2401.5	2327.3
42.5°	3098.2	3098.2	3068.5	3031.5	2979.6	2912.9	2831.4	2749.8	2668.3	2579.4	2490.4
40°	3528.1	3528.1	3483.6	3431.7	3350.2	3253.8	3135.2	3024.1	2912.9	2786.9	2675.7
37.5°	4202.6	4202.6	4128.4	4032.1	3898.7	3735.6	3535.5	3387.3	3216.8	3053.7	2905.5
35°	5306.9	5306.9	5173.5	5003.1	4765.9	4469.4	4150.7	3898.7	3617.0	3387.3	3172.3
32.5°	7271.1	7271.1	7004.3	6670.7	6218.6	5640.5	5106.8	4662.1	4202.6	3846.8	3505.8
30°	11073.4	11073.4	10502.7	9798.6	8827.6	7612.0	6700.4	5848.0	5069.8	4484.2	3987.6
27.5°	18211.1	17914.6	17025.2	15565.0	13563.8	11073.4	9487.3	7686.2	6455.8	5336.6	4647.3
25°	28750.9	28261.7	26794.1	24400.1	21138.8	17440.3	14201.3	10784.4	8627.5	6767.1	5484.8
22.5°	41558.7	40884.2	38890.4	35636.5	31226.4	26304.9	21064.7	16150.6	11777.6	8946.2	6767.1
20°	56723.5	55819.2	53143.5	48800.1	42959.5	36696.4	29699.6	23117.8	16810.2	11777.6	8627.5
17.5°	76743.1	75364.5	71310.1	64787.6	56723.5	48281.3	39535.2	31041.1	23117.8	16150.6	10784.4
15°	105523.6	103196.3	96392.1	85585.5	73029.7	61259.6	50104.6	39535.2	29699.6	21064.7	14201.3
12.5°	138795.7	135556.7	126180.6	111556.9	94494.7	75883.3	61259.6	48281.3	36696.4	26304.9	17440.3
10°	166827.6	163410.7	153723.4	139055.2	117419.7	94494.7	73029.7	56723.5	42959.5	31226.4	21138.8
7.5°	190508.7	186684.2	176240.8	160194.0	139055.2	111556.9	85585.5	64787.6	48800.1	35636.5	24400.1
5°	211076.8	206229.4	194073.9	176240.8	153723.4	126180.6	96392.1	71310.1	53143.5	38890.4	26794.1
2.5°	224818.6	219126.2	206229.4	186684.2	163410.7	135556.7	103196.3	75364.5	55819.2	40884.2	28261.7
0°	229873.5	224818.6	211076.8	190508.7	166827.6	138795.7	105523.6	76743.1	56723.5	41558.7	28750.9



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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°	74.1	74.1	66.7	66.7	66.7	59.3	59.3	59.3	51.9	51.9	51.9
85°	163.1	155.7	155.7	148.2	140.8	133.4	133.4	126.0	118.6	111.2	103.8
82.5°	259.4	252.0	244.6	237.2	229.8	214.9	207.5	200.1	185.3	177.9	170.5
80°	363.2	355.8	340.9	333.5	318.7	303.9	289.1	274.2	259.4	244.6	229.8
77.5°	489.2	467.0	452.1	437.3	415.1	400.2	378.0	363.2	340.9	318.7	296.5
75°	622.6	600.4	578.1	555.9	533.7	504.0	481.8	452.1	429.9	400.2	378.0
72.5°	770.8	741.2	711.5	681.9	652.2	622.6	593.0	555.9	526.2	489.2	452.1
70°	919.1	889.4	859.8	822.7	785.7	748.6	711.5	667.1	630.0	585.5	541.1
67.5°	1074.7	1037.7	1000.6	963.6	926.5	882.0	830.1	785.7	733.8	681.9	637.4
65°	1223.0	1185.9	1141.4	1097.0	1052.5	1008.0	956.1	904.3	845.0	785.7	733.8
62.5°	1356.4	1319.3	1282.3	1230.4	1185.9	1134.0	1082.1	1015.4	956.1	896.8	830.1
60°	1497.2	1452.7	1408.3	1356.4	1304.5	1252.6	1193.3	1126.6	1067.3	993.2	926.5
57.5°	1630.6	1586.2	1534.3	1482.4	1423.1	1363.8	1304.5	1237.8	1171.1	1097.0	1022.8
55°	1764.0	1719.6	1667.7	1608.4	1541.7	1475.0	1408.3	1341.6	1274.9	1193.3	1111.8
52.5°	1875.2	1830.7	1778.9	1734.4	1660.3	1593.6	1519.4	1437.9	1363.8	1282.3	1200.7
50°	1993.8	1941.9	1882.6	1830.7	1771.5	1704.7	1623.2	1541.7	1452.7	1371.2	1282.3
47.5°	2127.2	2060.5	1993.8	1927.1	1867.8	1793.7	1727.0	1638.0	1549.1	1452.7	1363.8
45°	2260.6	2186.5	2112.4	2030.9	1956.7	1882.6	1808.5	1734.4	1638.0	1541.7	1437.9
42.5°	2401.5	2312.5	2231.0	2149.5	2060.5	1971.6	1890.0	1808.5	1727.0	1623.2	1519.4
40°	2564.5	2460.8	2357.0	2260.6	2171.7	2067.9	1971.6	1882.6	1793.7	1704.7	1593.6
37.5°	2749.8	2623.8	2497.8	2379.2	2268.0	2171.7	2060.5	1956.7	1867.8	1771.5	1660.3
35°	2987.0	2801.7	2653.5	2505.2	2379.2	2260.6	2149.5	2030.9	1927.1	1830.7	1734.4
32.5°	3253.8	3024.1	2823.9	2653.5	2497.8	2357.0	2231.0	2112.4	1993.8	1882.6	1778.9
30°	3580.0	3283.5	3024.1	2801.7	2623.8	2460.8	2312.5	2186.5	2060.5	1941.9	1830.7
27.5°	4039.5	3580.0	3253.8	2987.0	2749.8	2564.5	2401.5	2260.6	2127.2	1993.8	1875.2
25°	4647.3	3987.6	3505.8	3172.3	2905.5	2675.7	2490.4	2327.3	2186.5	2053.1	1919.7
22.5°	5336.6	4484.2	3846.8	3387.3	3053.7	2786.9	2579.4	2401.5	2245.8	2105.0	1964.2
20°	6455.8	5069.8	4202.6	3617.0	3216.8	2912.9	2668.3	2468.2	2297.7	2149.5	2001.2
17.5°	7686.2	5848.0	4662.1	3898.7	3387.3	3024.1	2749.8	2534.9	2342.2	2193.9	2038.3
15°	9487.3	6700.4	5106.8	4150.7	3535.5	3135.2	2831.4	2594.2	2394.1	2231.0	2075.3
12.5°	11073.4	7612.0	5640.5	4469.4	3735.6	3253.8	2912.9	2646.1	2438.5	2260.6	2105.0
10°	13563.8	8827.6	6218.6	4765.9	3898.7	3350.2	2979.6	2697.9	2468.2	2290.3	2127.2
7.5°	15565.0	9798.6	6670.7	5003.1	4032.1	3431.7	3031.5	2735.0	2497.8	2305.1	2149.5
5°	17025.2	10502.7	7004.3	5173.5	4128.4	3483.6	3068.5	2757.2	2520.1	2319.9	2164.3
2.5°	17914.6	11073.4	7271.1	5306.9	4202.6	3528.1	3098.2	2779.5	2534.9	2334.8	2171.7
0°	18211.1	11073.4	7271.1	5306.9	4202.6	3528.1	3098.2	2779.5	2534.9	2334.8	2171.7





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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°	44.5	44.5	37.1	37.1	37.1	29.6	29.6	22.2	22.2	14.8	14.8
85°	96.4	88.9	81.5	74.1	66.7	59.3	59.3	51.9	44.5	37.1	29.6
82.5°	155.7	148.2	133.4	118.6	111.2	96.4	81.5	74.1	66.7	51.9	44.5
80°	214.9	200.1	185.3	170.5	155.7	133.4	118.6	103.8	81.5	66.7	59.3
77.5°	281.7	259.4	237.2	214.9	192.7	177.9	155.7	133.4	111.2	88.9	66.7
75°	348.4	318.7	296.5	266.8	244.6	214.9	185.3	163.1	140.8	111.2	81.5
72.5°	422.5	385.4	355.8	318.7	289.1	259.4	222.4	192.7	163.1	133.4	103.8
70°	504.0	459.5	415.1	378.0	340.9	296.5	259.4	222.4	185.3	155.7	118.6
67.5°	585.5	533.7	481.8	429.9	385.4	340.9	296.5	259.4	214.9	177.9	133.4
65°	667.1	607.8	555.9	496.6	437.3	385.4	340.9	289.1	244.6	192.7	155.7
62.5°	756.0	689.3	622.6	555.9	496.6	429.9	378.0	318.7	266.8	214.9	170.5
60°	852.4	778.3	696.7	622.6	555.9	481.8	415.1	355.8	296.5	237.2	185.3
57.5°	941.3	859.8	778.3	689.3	607.8	533.7	459.5	385.4	318.7	259.4	200.1
55°	1030.3	941.3	852.4	756.0	667.1	585.5	504.0	422.5	348.4	281.7	214.9
52.5°	1111.8	1022.8	926.5	830.1	733.8	637.4	541.1	452.1	378.0	296.5	229.8
50°	1193.3	1097.0	993.2	896.8	785.7	681.9	585.5	489.2	400.2	318.7	244.6
47.5°	1274.9	1171.1	1067.3	956.1	845.0	733.8	630.0	526.2	429.9	340.9	259.4
45°	1341.6	1237.8	1126.6	1015.4	904.3	785.7	667.1	555.9	452.1	363.2	274.2
42.5°	1408.3	1304.5	1193.3	1082.1	956.1	830.1	711.5	593.0	481.8	378.0	289.1
40°	1475.0	1363.8	1252.6	1134.0	1008.0	882.0	748.6	622.6	504.0	400.2	303.9
37.5°	1541.7	1423.1	1304.5	1185.9	1052.5	926.5	785.7	652.2	533.7	415.1	318.7
35°	1608.4	1482.4	1356.4	1230.4	1097.0	963.6	822.7	681.9	555.9	437.3	333.5
32.5°	1667.7	1534.3	1408.3	1282.3	1141.4	1000.6	859.8	711.5	578.1	452.1	340.9
30°	1719.6	1586.2	1452.7	1319.3	1185.9	1037.7	889.4	741.2	600.4	467.0	355.8
27.5°	1764.0	1630.6	1497.2	1356.4	1223.0	1074.7	919.1	770.8	622.6	489.2	363.2
25°	1808.5	1675.1	1534.3	1393.4	1252.6	1104.4	948.7	793.1	637.4	504.0	378.0
22.5°	1838.2	1719.6	1571.3	1423.1	1282.3	1126.6	971.0	815.3	659.7	511.4	385.4
20°	1875.2	1749.2	1608.4	1452.7	1311.9	1156.3	993.2	837.5	674.5	526.2	392.8
17.5°	1904.9	1778.9	1638.0	1482.4	1334.1	1178.5	1015.4	852.4	689.3	533.7	400.2
15°	1934.5	1801.1	1660.3	1504.6	1349.0	1200.7	1030.3	867.2	696.7	548.5	407.7
12.5°	1956.7	1823.3	1682.5	1526.9	1371.2	1215.6	1045.1	882.0	711.5	555.9	407.7
10°	1971.6	1838.2	1704.7	1541.7	1386.0	1230.4	1059.9	889.4	719.0	555.9	415.1
7.5°	1986.4	1853.0	1719.6	1556.5	1393.4	1237.8	1067.3	904.3	726.4	563.3	422.5
5°	2001.2	1860.4	1727.0	1563.9	1400.9	1252.6	1082.1	911.7	733.8	570.7	422.5
2.5°	2008.6	1867.8	1734.4	1571.3	1408.3	1252.6	1082.1	911.7	733.8	570.7	422.5
0°	2008.6	1867.8	1734.4	1571.3	1408.3	1252.6	1082.1	911.7	733.8	570.7	422.5



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12.5°	289.1	177.9	81.5	0.0
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7.5°	296.5	185.3	81.5	0.0
5°	296.5	185.3	81.5	0.0
2.5°	296.5	185.3	81.5	0.0
0°	296.5	185.3	81.5	0.0

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