

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: P624119

Luminaire Tested: **EPH-VN-08-E-940-U-44**

Issue Date: 11/2/2022

**Test Information**

Test Method: LM-79-2019  
Report Number: P624119  
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-940-U-44  
Description: EPHESUS LUMAVISION FLOOD – Middle Tier Light Square Luminaire w/  
Nema 4 distribution lens  
Light Source: (128) 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp:	N/A	NEMA Type:	4H x 4V
Luminaire Lumens:	51369.8 lumens	Max Intensity:	166106.6 candela
Efficiency:	N/A	Max Intensity Angle:	0°H x 0°V
Efficacy:	82.0 lumens/watt		
Luminous Opening:	Rectangular (W 2' x L: 1' x H: 0')		

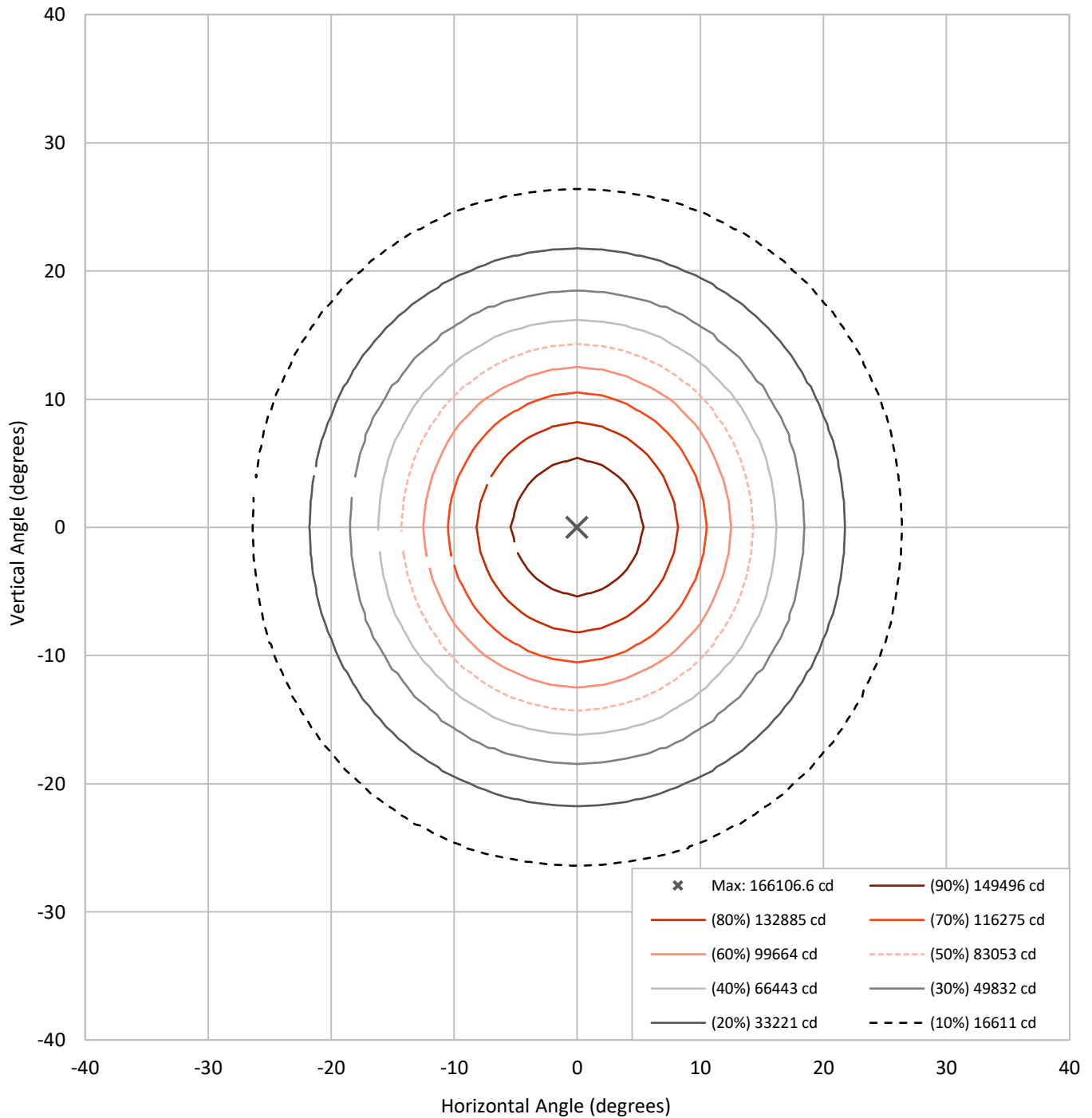
Beam Angle (50%):	28.6°H x 28.6°V	Field Angle (10%):	52.7°H x 52.7°V
Beam Lumens:	18535.2 lumens	Field Lumens:	31299.2 lumens
Beam Efficiency:	36.1%	Field Efficiency:	60.9%

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





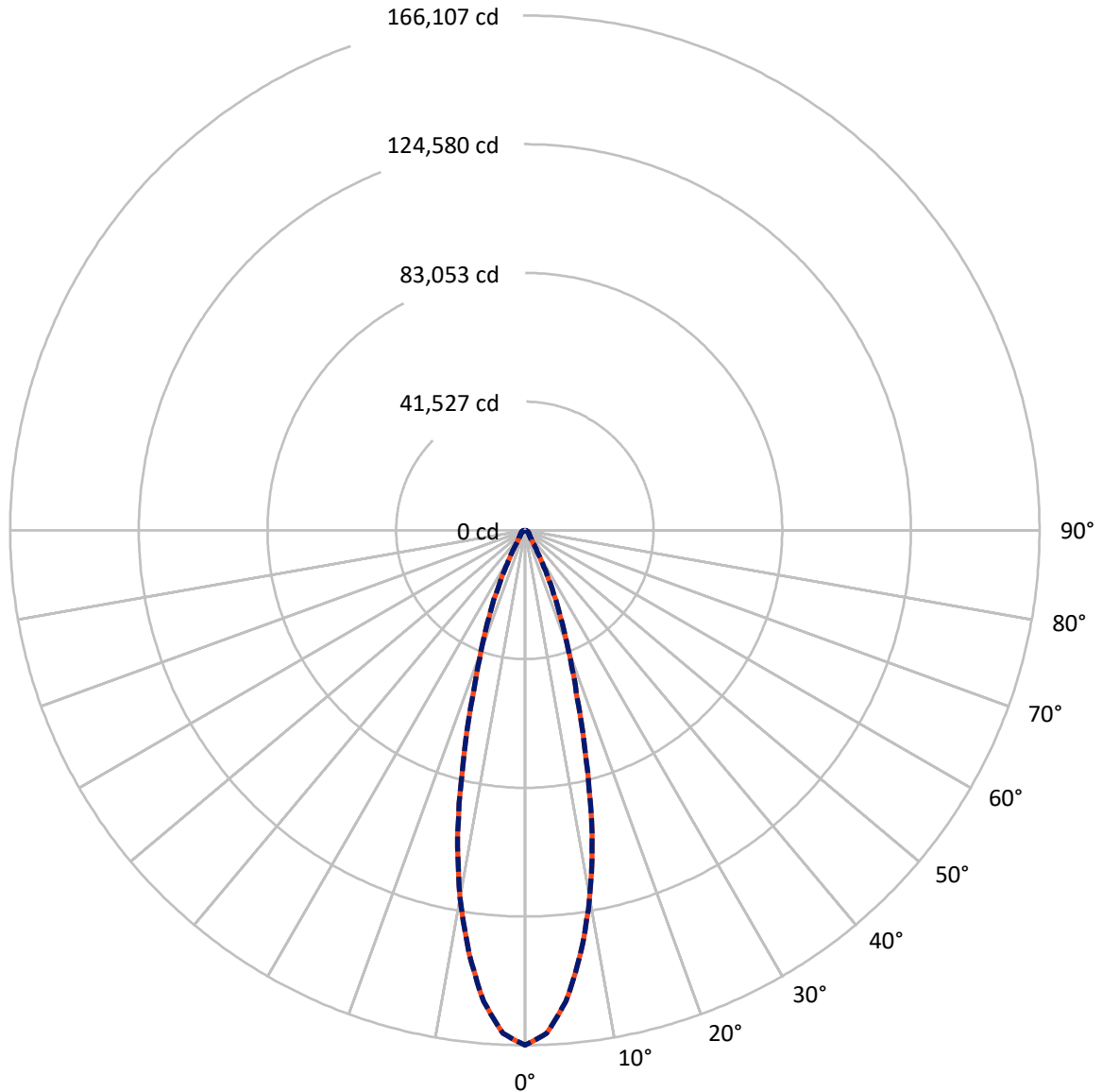
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### Lumen Table

90	1.2	8.7	22.1	35.3	40.8	35.3	22.1	8.7	1.2							
80	1.2	8.7	22.1	35.3	40.8	35.3	22.1	8.7	1.2							
70	4.0	4.2	8.5	14.0	19.7	24.8	28.6	30.7	30.7	28.6	24.8	19.7	14.0	8.5	4.2	4.0
60		6.3	13.0	20.8	28.8	35.8	41.1	44.0	44.0	41.1	35.8	28.8	20.8	13.0	6.3	
50	6.8	8.5	17.0	26.8	36.8	46.7	55.7	61.4	61.4	55.7	46.7	36.8	26.8	17.0	8.5	6.8
40		10.3	20.3	31.8	45.6	65.0	94.8	126.3	126.3	94.8	65.0	45.6	31.8	20.3	10.3	
30	9.0	11.7	22.8	36.5	58.8	123.2	337.9	612.1	612.1	337.9	123.2	58.8	36.5	22.8	11.7	9.0
20		12.7	24.5	41.0	80.9	319.0	1097.1	2116.4	2116.4	1097.1	319.0	80.9	41.0	24.5	12.7	
10	9.8	13.2	25.5	43.8	104.9	562.0	2059.0	4059.3	4059.3	2059.0	562.0	104.9	43.8	25.5	13.2	9.8
0		13.2	25.5	43.8	104.9	562.0	2059.0	4059.3	4059.3	2059.0	562.0	104.9	43.8	25.5	13.2	
-10	9.0	12.7	24.5	41.0	80.9	319.0	1097.1	2116.4	2116.4	1097.1	319.0	80.9	41.0	24.5	12.7	9.0
-20		11.7	22.8	36.5	58.8	123.2	337.9	612.1	612.1	337.9	123.2	58.8	36.5	22.8	11.7	
-30	6.8	10.3	20.3	31.8	45.6	65.0	94.8	126.3	126.3	94.8	65.0	45.6	31.8	20.3	10.3	6.8
-40		8.5	17.0	26.8	36.8	46.7	55.7	61.4	61.4	55.7	46.7	36.8	26.8	17.0	8.5	
-50	4.0	6.3	13.0	20.8	28.8	35.8	41.1	44.0	44.0	41.1	35.8	28.8	20.8	13.0	6.3	4.0
-60		4.2	8.5	14.0	19.7	24.8	28.6	30.7	30.7	28.6	24.8	19.7	14.0	8.5	4.2	
-70	1.2	8.7	22.1	35.3	40.8	35.3	22.1	8.7	1.2							
-80		1.2	8.7	22.1	35.3	40.8	35.3	22.1	8.7	1.2						
-90	1.2	8.7	22.1	35.3	40.8	35.3	22.1	8.7	1.2							

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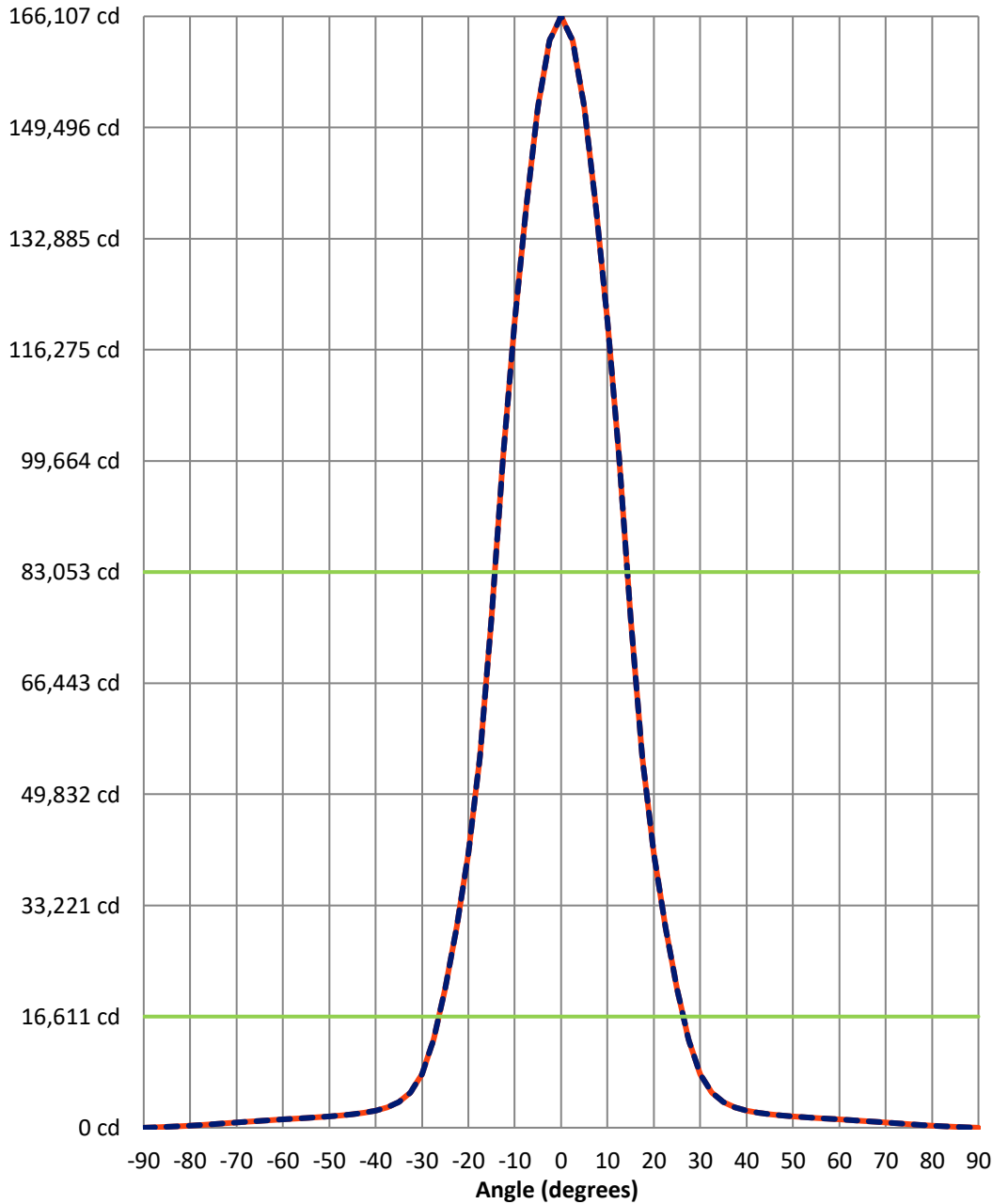
### Luminous Intensity Polar Plot



— 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: 18535.2  
 Efficiency: 36.1%

**Field:**  
 H Angle: 52.7°  
 V Angle: 52.7°  
 Lumens: 31299.2  
 Efficiency: 60.9%

**Spill:**  
 Lumens: 20070.6  
 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°	58.9	58.9	58.9	58.9	58.9	58.9	58.9	53.6	53.6	53.6	53.6
85°	133.9	133.9	133.9	133.9	133.9	128.5	128.5	128.5	123.2	123.2	117.8
82.5°	214.2	214.2	214.2	214.2	208.9	208.9	203.5	203.5	198.2	198.2	192.8
80°	305.3	305.3	305.3	305.3	299.9	294.6	294.6	289.2	283.9	278.5	273.1
77.5°	412.4	412.4	412.4	407.0	401.7	401.7	396.3	385.6	380.3	369.6	364.2
75°	530.2	530.2	530.2	524.9	519.5	514.2	503.5	498.1	487.4	476.7	460.6
72.5°	658.8	658.8	658.8	653.4	642.7	637.3	626.6	615.9	605.2	589.1	573.1
70°	782.0	782.0	782.0	771.2	765.9	755.2	744.5	733.8	717.7	701.6	685.5
67.5°	905.1	905.1	905.1	894.4	889.1	878.4	867.6	851.6	835.5	814.1	798.0
65°	1017.6	1017.6	1012.3	1006.9	1001.5	990.8	974.8	964.1	948.0	926.6	905.1
62.5°	1135.4	1135.4	1130.1	1124.7	1114.0	1103.3	1087.2	1071.2	1049.7	1028.3	1006.9
60°	1253.3	1253.3	1247.9	1242.6	1231.8	1215.8	1199.7	1183.6	1162.2	1135.4	1108.7
57.5°	1349.7	1349.7	1344.3	1339.0	1328.3	1317.5	1301.5	1285.4	1264.0	1242.6	1210.4
55°	1451.4	1451.4	1446.1	1435.4	1424.7	1413.9	1397.9	1376.5	1355.0	1328.3	1306.8
52.5°	1569.3	1569.3	1563.9	1553.2	1537.1	1521.1	1499.6	1472.9	1446.1	1419.3	1387.2
50°	1687.1	1687.1	1676.4	1665.7	1655.0	1633.5	1612.1	1585.3	1553.2	1521.1	1483.6
47.5°	1831.7	1831.7	1821.0	1804.9	1783.5	1762.1	1729.9	1692.5	1660.3	1622.8	1580.0
45°	2008.4	2008.4	1992.4	1976.3	1949.5	1912.0	1874.6	1831.7	1783.5	1735.3	1681.7
42.5°	2238.7	2238.7	2217.3	2190.5	2153.1	2104.9	2045.9	1987.0	1928.1	1863.8	1799.6
40°	2549.4	2549.4	2517.3	2479.8	2420.8	2351.2	2265.5	2185.2	2104.9	2013.8	1933.5
37.5°	3036.8	3036.8	2983.2	2913.6	2817.2	2699.4	2554.7	2447.6	2324.4	2206.6	2099.5
35°	3834.8	3834.8	3738.4	3615.2	3443.8	3229.6	2999.3	2817.2	2613.7	2447.6	2292.3
32.5°	5254.1	5254.1	5061.3	4820.3	4493.6	4075.8	3690.2	3368.8	3036.8	2779.7	2533.3
30°	8001.7	8001.7	7589.3	7080.4	6378.8	5500.5	4841.7	4225.8	3663.4	3240.3	2881.5
27.5°	13159.3	12945.1	12302.4	11247.3	9801.2	8001.7	6855.5	5554.0	4665.0	3856.2	3358.1
25°	20775.4	20421.9	19361.4	17631.5	15274.9	12602.3	10261.8	7792.8	6234.2	4889.9	3963.3
22.5°	30030.3	29542.9	28102.2	25751.0	22564.2	19007.9	15221.3	11670.4	8510.5	6464.5	4889.9
20°	40988.4	40335.0	38401.5	35263.0	31042.6	26516.9	21460.9	16704.9	12147.1	8510.5	6234.2
17.5°	55454.6	54458.4	51528.7	46815.6	40988.4	34888.1	28568.1	22430.3	16704.9	11670.4	7792.8
15°	76251.4	74569.6	69652.9	61844.1	52771.3	44266.2	36205.6	28568.1	21460.9	15221.3	10261.8
12.5°	100293.8	97953.3	91178.1	80611.0	68281.8	54833.3	44266.2	34888.1	26516.9	19007.9	12602.3
10°	120549.7	118080.6	111080.5	100481.3	84847.5	68281.8	52771.3	40988.4	31042.6	22564.2	15274.9
7.5°	137661.6	134898.0	127351.6	115756.2	100481.3	80611.0	61844.1	46815.6	35263.0	25751.0	17631.5
5°	152524.1	149021.4	140237.8	127351.6	111080.5	91178.1	69652.9	51528.7	38401.5	28102.2	19361.4
2.5°	162453.9	158340.6	149021.4	134898.0	118080.6	97953.3	74569.6	54458.4	40335.0	29542.9	20421.9
0°	166106.6	162453.9	152524.1	137661.6	120549.7	100293.8	76251.4	55454.6	40988.4	30030.3	20775.4



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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°	53.6	53.6	48.2	48.2	48.2	42.8	42.8	42.8	37.5	37.5	37.5
85°	117.8	112.5	112.5	107.1	101.8	96.4	96.4	91.0	85.7	80.3	75.0
82.5°	187.5	182.1	176.7	171.4	166.0	155.3	150.0	144.6	133.9	128.5	123.2
80°	262.4	257.1	246.4	241.0	230.3	219.6	208.9	198.2	187.5	176.7	166.0
77.5°	353.5	337.4	326.7	316.0	299.9	289.2	273.1	262.4	246.4	230.3	214.2
75°	449.9	433.8	417.8	401.7	385.6	364.2	348.1	326.7	310.6	289.2	273.1
72.5°	557.0	535.6	514.2	492.7	471.3	449.9	428.5	401.7	380.3	353.5	326.7
70°	664.1	642.7	621.3	594.5	567.7	540.9	514.2	482.0	455.2	423.1	391.0
67.5°	776.6	749.8	723.0	696.3	669.5	637.3	599.9	567.7	530.2	492.7	460.6
65°	883.7	856.9	824.8	792.7	760.5	728.4	690.9	653.4	610.6	567.7	530.2
62.5°	980.1	953.3	926.6	889.1	856.9	819.4	782.0	733.8	690.9	648.1	599.9
60°	1081.9	1049.7	1017.6	980.1	942.6	905.1	862.3	814.1	771.2	717.7	669.5
57.5°	1178.3	1146.2	1108.7	1071.2	1028.3	985.5	942.6	894.4	846.2	792.7	739.1
55°	1274.7	1242.6	1205.1	1162.2	1114.0	1065.8	1017.6	969.4	921.2	862.3	803.4
52.5°	1355.0	1322.9	1285.4	1253.3	1199.7	1151.5	1098.0	1039.0	985.5	926.6	867.6
50°	1440.7	1403.2	1360.4	1322.9	1280.1	1231.8	1172.9	1114.0	1049.7	990.8	926.6
47.5°	1537.1	1488.9	1440.7	1392.5	1349.7	1296.1	1247.9	1183.6	1119.4	1049.7	985.5
45°	1633.5	1580.0	1526.4	1467.5	1413.9	1360.4	1306.8	1253.3	1183.6	1114.0	1039.0
42.5°	1735.3	1671.0	1612.1	1553.2	1488.9	1424.7	1365.7	1306.8	1247.9	1172.9	1098.0
40°	1853.1	1778.1	1703.2	1633.5	1569.3	1494.3	1424.7	1360.4	1296.1	1231.8	1151.5
37.5°	1987.0	1896.0	1804.9	1719.2	1638.9	1569.3	1488.9	1413.9	1349.7	1280.1	1199.7
35°	2158.4	2024.5	1917.4	1810.3	1719.2	1633.5	1553.2	1467.5	1392.5	1322.9	1253.3
32.5°	2351.2	2185.2	2040.6	1917.4	1804.9	1703.2	1612.1	1526.4	1440.7	1360.4	1285.4
30°	2586.9	2372.6	2185.2	2024.5	1896.0	1778.1	1671.0	1580.0	1488.9	1403.2	1322.9
27.5°	2918.9	2586.9	2351.2	2158.4	1987.0	1853.1	1735.3	1633.5	1537.1	1440.7	1355.0
25°	3358.1	2881.5	2533.3	2292.3	2099.5	1933.5	1799.6	1681.7	1580.0	1483.6	1387.2
22.5°	3856.2	3240.3	2779.7	2447.6	2206.6	2013.8	1863.8	1735.3	1622.8	1521.1	1419.3
20°	4665.0	3663.4	3036.8	2613.7	2324.4	2104.9	1928.1	1783.5	1660.3	1553.2	1446.1
17.5°	5554.0	4225.8	3368.8	2817.2	2447.6	2185.2	1987.0	1831.7	1692.5	1585.3	1472.9
15°	6855.5	4841.7	3690.2	2999.3	2554.7	2265.5	2045.9	1874.6	1729.9	1612.1	1499.6
12.5°	8001.7	5500.5	4075.8	3229.6	2699.4	2351.2	2104.9	1912.0	1762.1	1633.5	1521.1
10°	9801.2	6378.8	4493.6	3443.8	2817.2	2420.8	2153.1	1949.5	1783.5	1655.0	1537.1
7.5°	11247.3	7080.4	4820.3	3615.2	2913.6	2479.8	2190.5	1976.3	1804.9	1665.7	1553.2
5°	12302.4	7589.3	5061.3	3738.4	2983.2	2517.3	2217.3	1992.4	1821.0	1676.4	1563.9
2.5°	12945.1	8001.7	5254.1	3834.8	3036.8	2549.4	2238.7	2008.4	1831.7	1687.1	1569.3
0°	13159.3	8001.7	5254.1	3834.8	3036.8	2549.4	2238.7	2008.4	1831.7	1687.1	1569.3





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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°	32.1	32.1	26.8	26.8	26.8	21.4	21.4	16.1	16.1	10.7	10.7
85°	69.6	64.3	58.9	53.6	48.2	42.8	42.8	37.5	32.1	26.8	21.4
82.5°	112.5	107.1	96.4	85.7	80.3	69.6	58.9	53.6	48.2	37.5	32.1
80°	155.3	144.6	133.9	123.2	112.5	96.4	85.7	75.0	58.9	48.2	42.8
77.5°	203.5	187.5	171.4	155.3	139.3	128.5	112.5	96.4	80.3	64.3	48.2
75°	251.7	230.3	214.2	192.8	176.7	155.3	133.9	117.8	101.8	80.3	58.9
72.5°	305.3	278.5	257.1	230.3	208.9	187.5	160.7	139.3	117.8	96.4	75.0
70°	364.2	332.1	299.9	273.1	246.4	214.2	187.5	160.7	133.9	112.5	85.7
67.5°	423.1	385.6	348.1	310.6	278.5	246.4	214.2	187.5	155.3	128.5	96.4
65°	482.0	439.2	401.7	358.8	316.0	278.5	246.4	208.9	176.7	139.3	112.5
62.5°	546.3	498.1	449.9	401.7	358.8	310.6	273.1	230.3	192.8	155.3	123.2
60°	615.9	562.4	503.5	449.9	401.7	348.1	299.9	257.1	214.2	171.4	133.9
57.5°	680.2	621.3	562.4	498.1	439.2	385.6	332.1	278.5	230.3	187.5	144.6
55°	744.5	680.2	615.9	546.3	482.0	423.1	364.2	305.3	251.7	203.5	155.3
52.5°	803.4	739.1	669.5	599.9	530.2	460.6	391.0	326.7	273.1	214.2	166.0
50°	862.3	792.7	717.7	648.1	567.7	492.7	423.1	353.5	289.2	230.3	176.7
47.5°	921.2	846.2	771.2	690.9	610.6	530.2	455.2	380.3	310.6	246.4	187.5
45°	969.4	894.4	814.1	733.8	653.4	567.7	482.0	401.7	326.7	262.4	198.2
42.5°	1017.6	942.6	862.3	782.0	690.9	599.9	514.2	428.5	348.1	273.1	208.9
40°	1065.8	985.5	905.1	819.4	728.4	637.3	540.9	449.9	364.2	289.2	219.6
37.5°	1114.0	1028.3	942.6	856.9	760.5	669.5	567.7	471.3	385.6	299.9	230.3
35°	1162.2	1071.2	980.1	889.1	792.7	696.3	594.5	492.7	401.7	316.0	241.0
32.5°	1205.1	1108.7	1017.6	926.6	824.8	723.0	621.3	514.2	417.8	326.7	246.4
30°	1242.6	1146.2	1049.7	953.3	856.9	749.8	642.7	535.6	433.8	337.4	257.1
27.5°	1274.7	1178.3	1081.9	980.1	883.7	776.6	664.1	557.0	449.9	353.5	262.4
25°	1306.8	1210.4	1108.7	1006.9	905.1	798.0	685.5	573.1	460.6	364.2	273.1
22.5°	1328.3	1242.6	1135.4	1028.3	926.6	814.1	701.6	589.1	476.7	369.6	278.5
20°	1355.0	1264.0	1162.2	1049.7	948.0	835.5	717.7	605.2	487.4	380.3	283.9
17.5°	1376.5	1285.4	1183.6	1071.2	964.1	851.6	733.8	615.9	498.1	385.6	289.2
15°	1397.9	1301.5	1199.7	1087.2	974.8	867.6	744.5	626.6	503.5	396.3	294.6
12.5°	1413.9	1317.5	1215.8	1103.3	990.8	878.4	755.2	637.3	514.2	401.7	294.6
10°	1424.7	1328.3	1231.8	1114.0	1001.5	889.1	765.9	642.7	519.5	401.7	299.9
7.5°	1435.4	1339.0	1242.6	1124.7	1006.9	894.4	771.2	653.4	524.9	407.0	305.3
5°	1446.1	1344.3	1247.9	1130.1	1012.3	905.1	782.0	658.8	530.2	412.4	305.3
2.5°	1451.4	1349.7	1253.3	1135.4	1017.6	905.1	782.0	658.8	530.2	412.4	305.3
0°	1451.4	1349.7	1253.3	1135.4	1017.6	905.1	782.0	658.8	530.2	412.4	305.3



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**CANDELA DISTRIBUTION (continued):**

	82.5°	85°	87.5°	90°
90°	0.0	0.0	0.0	0.0
87.5°	5.4	5.4	0.0	0.0
85°	16.1	10.7	5.4	0.0
82.5°	21.4	16.1	5.4	0.0
80°	32.1	21.4	10.7	0.0
77.5°	37.5	26.8	10.7	0.0
75°	48.2	32.1	16.1	0.0
72.5°	53.6	37.5	16.1	0.0
70°	58.9	42.8	21.4	0.0
67.5°	69.6	42.8	21.4	0.0
65°	80.3	48.2	26.8	0.0
62.5°	85.7	53.6	26.8	0.0
60°	96.4	58.9	26.8	0.0
57.5°	107.1	64.3	32.1	0.0
55°	112.5	69.6	32.1	0.0
52.5°	123.2	75.0	37.5	0.0
50°	128.5	80.3	37.5	0.0
47.5°	133.9	85.7	37.5	0.0
45°	144.6	91.0	42.8	0.0
42.5°	150.0	96.4	42.8	0.0
40°	155.3	96.4	42.8	0.0
37.5°	166.0	101.8	48.2	0.0
35°	171.4	107.1	48.2	0.0
32.5°	176.7	112.5	48.2	0.0
30°	182.1	112.5	53.6	0.0
27.5°	187.5	117.8	53.6	0.0
25°	192.8	117.8	53.6	0.0
22.5°	198.2	123.2	53.6	0.0
20°	198.2	123.2	53.6	0.0
17.5°	203.5	128.5	53.6	0.0
15°	203.5	128.5	58.9	0.0
12.5°	208.9	128.5	58.9	0.0
10°	208.9	133.9	58.9	0.0
7.5°	214.2	133.9	58.9	0.0
5°	214.2	133.9	58.9	0.0
2.5°	214.2	133.9	58.9	0.0
0°	214.2	133.9	58.9	0.0

(END OF REPORT)