

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: P624196

Luminaire Tested: **EPH-VN-08-D-740-U-77**

Issue Date: 11/2/2022

**Test Information**

Test Method: LM-79-2019  
Report Number: P624196  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 11/2/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: EPHESUS  
Catalog Number: EPH-VN-08-D-740-U-77  
Description: EPHESUS LUMAVISION FLOOD – Middle Tier Light Square Luminaire w/  
Nema 7 distribution lens  
Light Source: (128) 4000K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

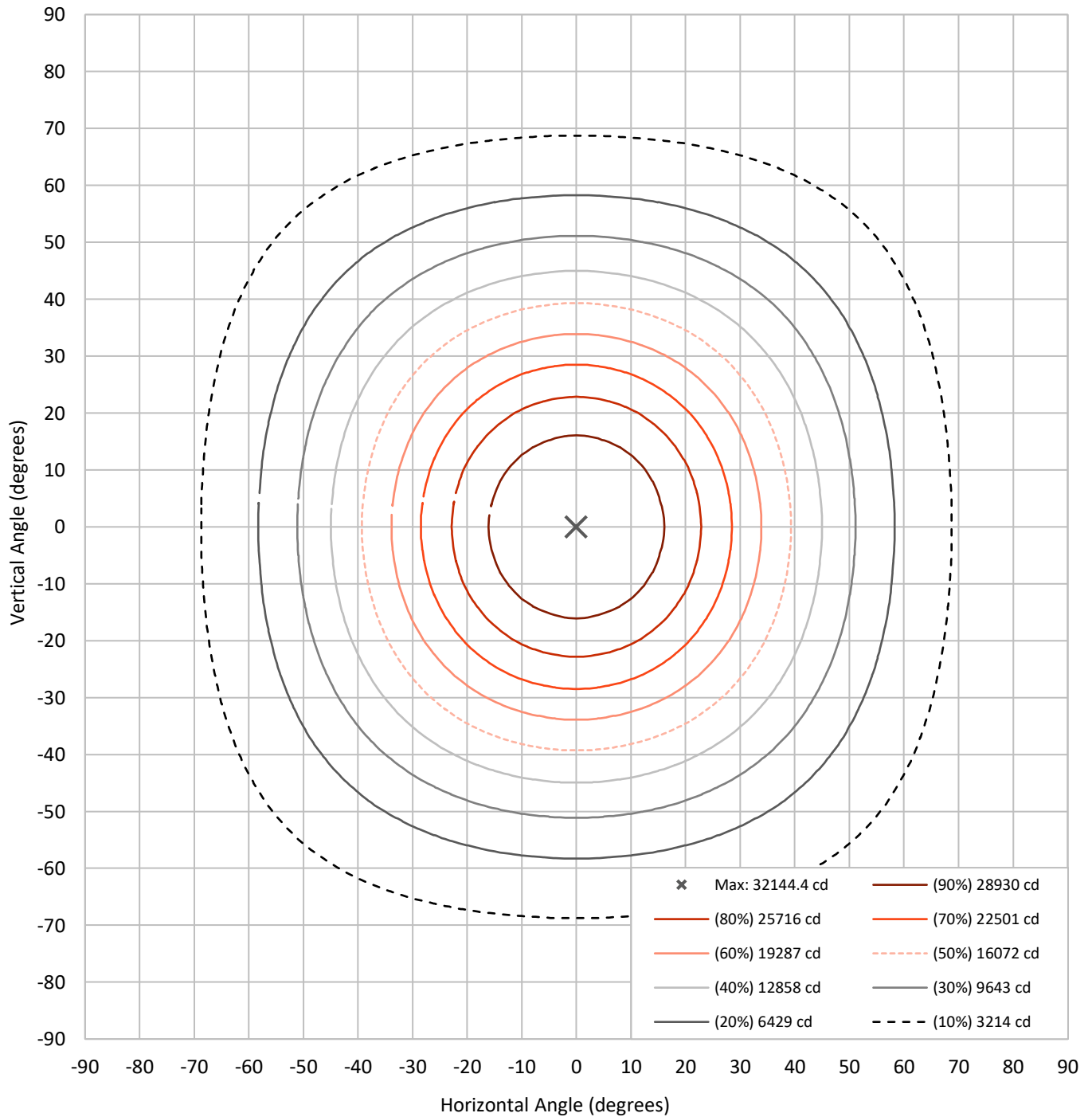
Lumens per Lamp:	N/A	NEMA Type:	7H x 7V
Luminaire Lumens:	57876.7 lumens	Max Intensity:	32144.4 candela
Efficiency:	N/A	Max Intensity Angle:	0°H x 0°V
Efficacy:	118.5 lumens/watt		
Luminous Opening:	Rectangular (W 2' x L: 1' x H: 0')		
Beam Angle (50%):	78.6°H x 78.6°V	Field Angle (10%):	137.5°H x 137.5°V
Beam Lumens:	25042.7 lumens	Field Lumens:	41006.5 lumens
Beam Efficiency:	43.3%	Field Efficiency:	70.9%

Input Watts (W): 488.3  
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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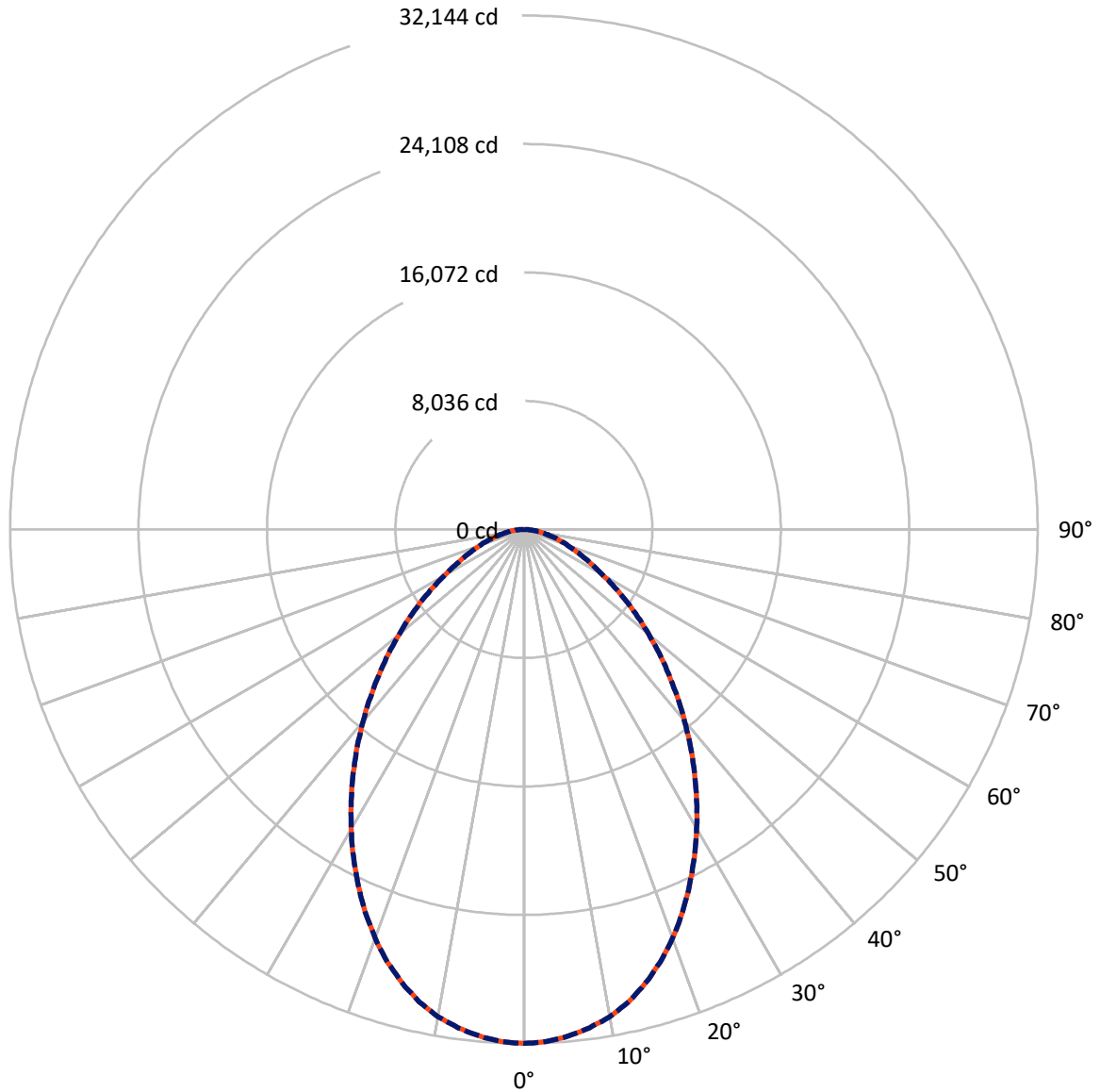
### Iso-Candela Plot





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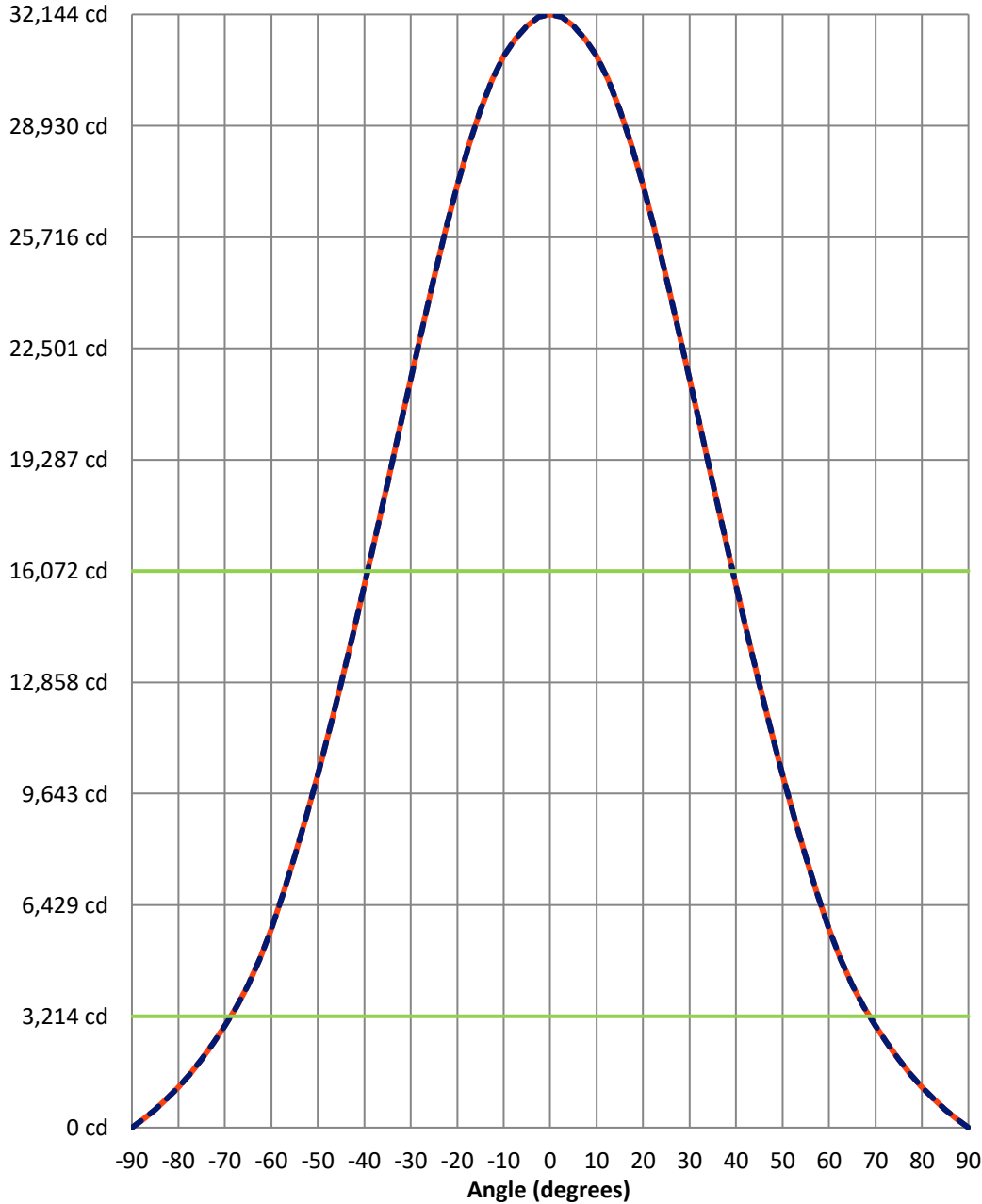
### Luminous Intensity Polar Plot



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

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### Luminous Intensity Plot



**Beam:**  
H Angle: 78.6°  
V Angle: 78.6°  
Lumens: 25042.7  
Efficiency: 43.3%

**Field:**  
H Angle: 137.5°  
V Angle: 137.5°  
Lumens: 41006.5  
Efficiency: 70.9%

**Spill:**  
Lumens: 16870.2  
Efficiency: 29.1%

— 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°	247.4	247.4	247.4	247.4	247.4	247.4	247.4	235.3	235.3	229.3	223.3
85°	518.9	518.9	518.9	518.9	518.9	506.9	500.8	494.8	488.8	476.7	470.7
82.5°	832.7	832.7	832.7	832.7	820.7	808.6	802.6	790.5	778.4	760.3	742.2
80°	1164.6	1164.6	1164.6	1164.6	1146.5	1134.4	1116.3	1104.3	1086.2	1062.0	1037.9
77.5°	1544.8	1544.8	1544.8	1526.7	1514.6	1496.5	1478.4	1454.3	1430.1	1399.9	1363.7
75°	1973.2	1973.2	1973.2	1949.1	1931.0	1912.9	1882.7	1852.5	1816.3	1774.1	1725.8
72.5°	2437.8	2437.8	2437.8	2407.7	2389.6	2359.4	2323.2	2280.9	2238.7	2184.4	2124.1
70°	2938.7	2938.7	2938.7	2902.5	2872.3	2842.1	2793.9	2745.6	2685.2	2624.9	2552.5
67.5°	3481.8	3481.8	3481.8	3439.5	3403.3	3361.1	3306.8	3246.4	3174.0	3089.5	3005.0
65°	4115.3	4115.3	4091.2	4055.0	4012.8	3952.4	3886.0	3801.6	3711.1	3602.4	3487.8
62.5°	4863.6	4863.6	4827.4	4785.1	4730.8	4652.4	4561.9	4453.3	4326.5	4187.8	4049.0
60°	5732.5	5732.5	5690.3	5636.0	5557.5	5461.0	5340.3	5201.5	5044.6	4869.6	4700.7
57.5°	6734.2	6734.2	6679.9	6607.5	6510.9	6390.3	6239.4	6064.4	5865.3	5648.0	5436.8
55°	7820.4	7820.4	7754.0	7669.5	7554.9	7410.0	7229.0	7023.8	6782.5	6535.1	6263.5
52.5°	8972.9	8972.9	8894.5	8797.9	8665.2	8496.2	8291.0	8049.7	7772.1	7482.5	7162.6
50°	10185.8	10185.8	10095.3	9986.7	9835.8	9636.7	9401.3	9123.8	8816.0	8478.1	8110.0
47.5°	11483.1	11483.1	11380.6	11253.8	11072.8	10843.5	10565.9	10246.1	9896.1	9516.0	9099.6
45°	12816.7	12816.7	12702.1	12557.2	12358.1	12098.6	11790.9	11483.1	11036.6	10596.1	10113.4
42.5°	14204.6	14204.6	14071.8	13908.9	13679.6	13396.0	13046.0	12647.8	12207.3	11712.5	11187.5
40°	15646.8	15646.8	15495.9	15308.9	15055.4	14729.6	14337.3	13890.8	13396.0	12846.9	12267.6
37.5°	17119.1	17119.1	16950.2	16745.0	16461.4	16099.3	15658.8	15164.0	14608.9	13999.4	13359.8
35°	18603.5	18603.5	18416.5	18193.2	17879.4	17481.2	17004.5	16455.4	15839.9	15176.1	14458.0
32.5°	20118.1	20118.1	19913.0	19659.5	19303.5	18863.0	18338.0	17740.7	17119.1	16346.7	15562.3
30°	21614.6	21614.6	21391.4	21113.8	20733.6	20250.9	19677.6	19019.9	18289.8	17499.3	16654.5
27.5°	23087.0	23026.6	22839.6	22543.9	22127.5	21614.6	20993.1	20281.1	19490.6	18621.6	17716.5
25°	24535.2	24468.8	24263.7	23937.8	23491.3	22930.1	22260.3	21500.0	20649.2	19731.9	18742.3
22.5°	25923.1	25850.7	25633.4	25283.4	24806.7	24197.3	23479.2	22664.6	21759.5	20775.9	19731.9
20°	27208.4	27129.9	26906.7	26538.6	26043.8	25398.1	24637.8	23762.8	22797.3	21759.5	20649.2
17.5°	28366.9	28288.5	28053.2	27673.0	27208.4	26490.3	25705.8	24782.6	23762.8	22664.6	21500.0
15°	29386.7	29302.2	29060.9	28680.7	28149.7	27473.9	26647.2	25705.8	24637.8	23479.2	22260.3
12.5°	30255.7	30171.2	29923.8	29543.6	28994.5	28318.7	27473.9	26490.3	25398.1	24197.3	22930.1
10°	30943.6	30859.1	30623.7	30261.7	29694.5	28994.5	28149.7	27208.4	26043.8	24806.7	23491.3
7.5°	31438.4	31359.9	31142.7	30780.6	30261.7	29543.6	28680.7	27673.0	26538.6	25283.4	23937.8
5°	31812.5	31722.0	31504.7	31142.7	30623.7	29923.8	29060.9	28053.2	26906.7	25633.4	24263.7
2.5°	32072.0	31963.3	31722.0	31359.9	30859.1	30171.2	29302.2	28288.5	27129.9	25850.7	24468.8
0°	32144.4	32072.0	31812.5	31438.4	30943.6	30255.7	29386.7	28366.9	27208.4	25923.1	24535.2



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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°	217.2	217.2	211.2	205.2	199.1	187.1	181.0	175.0	169.0	156.9	150.9
85°	458.6	446.5	434.5	422.4	404.3	392.2	374.1	362.1	344.0	325.8	307.7
82.5°	724.1	706.0	681.9	663.8	639.6	609.5	585.3	555.1	525.0	500.8	470.7
80°	1013.8	983.6	953.4	923.2	887.0	850.8	814.6	778.4	736.2	693.9	651.7
77.5°	1327.5	1285.3	1243.1	1194.8	1152.5	1104.3	1056.0	1007.7	953.4	899.1	844.8
75°	1677.5	1623.2	1562.9	1502.5	1448.2	1381.8	1315.5	1249.1	1176.7	1110.3	1037.9
72.5°	2057.7	1991.3	1918.9	1846.5	1768.0	1683.6	1599.1	1508.6	1424.1	1339.6	1249.1
70°	2468.0	2389.6	2299.0	2208.5	2112.0	2009.4	1906.8	1798.2	1689.6	1581.0	1472.4
67.5°	2908.5	2812.0	2703.3	2594.7	2474.0	2353.4	2232.7	2105.9	1973.2	1840.4	1713.7
65°	3379.2	3258.5	3131.8	2993.0	2854.2	2715.4	2570.6	2419.7	2268.9	2112.0	1973.2
62.5°	3904.2	3753.3	3590.4	3421.4	3264.5	3095.6	2938.7	2751.6	2570.6	2395.6	2220.6
60°	4513.6	4314.5	4115.3	3904.2	3705.0	3487.8	3294.7	3089.5	2884.4	2685.2	2480.1
57.5°	5195.5	4942.0	4700.7	4447.2	4181.7	3940.4	3693.0	3445.5	3216.2	2980.9	2757.6
55°	5967.9	5660.1	5358.4	5044.6	4736.9	4435.2	4121.4	3843.8	3560.2	3294.7	3035.2
52.5°	6812.7	6462.7	6088.5	5732.5	5340.3	4966.2	4616.2	4266.2	3934.3	3614.5	3318.8
50°	7717.8	7307.5	6879.0	6444.6	5998.0	5557.5	5135.1	4724.8	4338.6	3964.5	3614.5
47.5°	8659.1	8194.5	7705.7	7210.9	6734.2	6197.2	5690.3	5225.6	4761.0	4338.6	3934.3
45°	9624.6	9099.6	8562.6	8001.4	7440.2	6860.9	6299.7	5732.5	5225.6	4724.8	4266.2
42.5°	10620.3	10028.9	9431.5	8810.0	8188.5	7554.9	6921.3	6299.7	5690.3	5135.1	4616.2
40°	11646.1	10994.4	10312.5	9636.7	8972.9	8248.8	7554.9	6860.9	6197.2	5557.5	4966.2
37.5°	12671.9	11959.9	11223.7	10463.4	9703.0	8972.9	8188.5	7440.2	6734.2	5998.0	5340.3
35°	13703.7	12919.3	12122.8	11296.1	10463.4	9636.7	8810.0	8001.4	7210.9	6444.6	5732.5
32.5°	14741.6	13884.8	13003.8	12122.8	11223.7	10312.5	9431.5	8562.6	7705.7	6879.0	6088.5
30°	15761.4	14832.1	13884.8	12919.3	11959.9	10994.4	10028.9	9099.6	8194.5	7307.5	6462.7
27.5°	16757.1	15761.4	14741.6	13703.7	12671.9	11646.1	10620.3	9624.6	8659.1	7717.8	6812.7
25°	17716.5	16654.5	15562.3	14458.0	13359.8	12267.6	11187.5	10113.4	9099.6	8110.0	7162.6
22.5°	18621.6	17499.3	16346.7	15176.1	13999.4	12846.9	11712.5	10596.1	9516.0	8478.1	7482.5
20°	19490.6	18289.8	17119.1	15839.9	14608.9	13396.0	12207.3	11036.6	9896.1	8816.0	7772.1
17.5°	20281.1	19019.9	17740.7	16455.4	15164.0	13890.8	12647.8	11483.1	10246.1	9123.8	8049.7
15°	20993.1	19677.6	18338.0	17004.5	15658.8	14337.3	13046.0	11790.9	10565.9	9401.3	8291.0
12.5°	21614.6	20250.9	18863.0	17481.2	16099.3	14729.6	13396.0	12098.6	10843.5	9636.7	8496.2
10°	22127.5	20733.6	19303.5	17879.4	16461.4	15055.4	13679.6	12358.1	11072.8	9835.8	8665.2
7.5°	22543.9	21113.8	19659.5	18193.2	16745.0	15308.9	13908.9	12557.2	11253.8	9986.7	8797.9
5°	22839.6	21391.4	19913.0	18416.5	16950.2	15495.9	14071.8	12702.1	11380.6	10095.3	8894.5
2.5°	23026.6	21614.6	20118.1	18603.5	17119.1	15646.8	14204.6	12816.7	11483.1	10185.8	8972.9
0°	23087.0	21614.6	20118.1	18603.5	17119.1	15646.8	14204.6	12816.7	11483.1	10185.8	8972.9





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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°	144.8	132.8	120.7	114.7	102.6	96.5	84.5	72.4	66.4	54.3	42.2
85°	289.6	265.5	247.4	229.3	211.2	187.1	169.0	150.9	126.7	108.6	84.5
82.5°	440.5	410.3	380.2	350.0	319.8	289.6	253.4	223.3	193.1	162.9	126.7
80°	609.5	561.2	518.9	476.7	434.5	392.2	344.0	301.7	253.4	211.2	169.0
77.5°	784.5	730.1	669.8	609.5	549.1	494.8	434.5	380.2	325.8	265.5	211.2
75°	971.5	899.1	832.7	754.3	681.9	603.4	531.0	458.6	392.2	325.8	253.4
72.5°	1164.6	1074.1	983.6	899.1	808.6	718.1	633.6	543.1	458.6	380.2	301.7
70°	1363.7	1255.1	1146.5	1043.9	941.3	832.7	736.2	633.6	531.0	434.5	344.0
67.5°	1574.9	1448.2	1321.5	1188.7	1074.1	953.4	832.7	718.1	603.4	494.8	392.2
65°	1804.2	1653.4	1496.5	1357.7	1206.8	1074.1	941.3	808.6	681.9	549.1	434.5
62.5°	2039.6	1864.6	1689.6	1514.6	1357.7	1188.7	1043.9	899.1	754.3	609.5	476.7
60°	2280.9	2081.8	1882.7	1689.6	1496.5	1321.5	1146.5	983.6	832.7	669.8	518.9
57.5°	2528.3	2305.1	2081.8	1864.6	1653.4	1448.2	1255.1	1074.1	899.1	730.1	561.2
55°	2781.8	2528.3	2280.9	2039.6	1804.2	1574.9	1363.7	1164.6	971.5	784.5	609.5
52.5°	3035.2	2757.6	2480.1	2220.6	1973.2	1713.7	1472.4	1249.1	1037.9	844.8	651.7
50°	3294.7	2980.9	2685.2	2395.6	2112.0	1840.4	1581.0	1339.6	1110.3	899.1	693.9
47.5°	3560.2	3216.2	2884.4	2570.6	2268.9	1973.2	1689.6	1424.1	1176.7	953.4	736.2
45°	3843.8	3445.5	3089.5	2751.6	2419.7	2105.9	1798.2	1508.6	1249.1	1007.7	778.4
42.5°	4121.4	3693.0	3294.7	2938.7	2570.6	2232.7	1906.8	1599.1	1315.5	1056.0	814.6
40°	4435.2	3940.4	3487.8	3095.6	2715.4	2353.4	2009.4	1683.6	1381.8	1104.3	850.8
37.5°	4736.9	4181.7	3705.0	3264.5	2854.2	2474.0	2112.0	1768.0	1448.2	1152.5	887.0
35°	5044.6	4447.2	3904.2	3421.4	2993.0	2594.7	2208.5	1846.5	1502.5	1194.8	923.2
32.5°	5358.4	4700.7	4115.3	3590.4	3131.8	2703.3	2299.0	1918.9	1562.9	1243.1	953.4
30°	5660.1	4942.0	4314.5	3753.3	3258.5	2812.0	2389.6	1991.3	1623.2	1285.3	983.6
27.5°	5967.9	5195.5	4513.6	3904.2	3379.2	2908.5	2468.0	2057.7	1677.5	1327.5	1013.8
25°	6263.5	5436.8	4700.7	4049.0	3487.8	3005.0	2552.5	2124.1	1725.8	1363.7	1037.9
22.5°	6535.1	5648.0	4869.6	4187.8	3602.4	3089.5	2624.9	2184.4	1774.1	1399.9	1062.0
20°	6782.5	5865.3	5044.6	4326.5	3711.1	3174.0	2685.2	2238.7	1816.3	1430.1	1086.2
17.5°	7023.8	6064.4	5201.5	4453.3	3801.6	3246.4	2745.6	2280.9	1852.5	1454.3	1104.3
15°	7229.0	6239.4	5340.3	4561.9	3886.0	3306.8	2793.9	2323.2	1882.7	1478.4	1116.3
12.5°	7410.0	6390.3	5461.0	4652.4	3952.4	3361.1	2842.1	2359.4	1912.9	1496.5	1134.4
10°	7554.9	6510.9	5557.5	4730.8	4012.8	3403.3	2872.3	2389.6	1931.0	1514.6	1146.5
7.5°	7669.5	6607.5	5636.0	4785.1	4055.0	3439.5	2902.5	2407.7	1949.1	1526.7	1164.6
5°	7754.0	6679.9	5690.3	4827.4	4091.2	3481.8	2938.7	2437.8	1973.2	1544.8	1164.6
2.5°	7820.4	6734.2	5732.5	4863.6	4115.3	3481.8	2938.7	2437.8	1973.2	1544.8	1164.6
0°	7820.4	6734.2	5732.5	4863.6	4115.3	3481.8	2938.7	2437.8	1973.2	1544.8	1164.6



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**CANDELA DISTRIBUTION (continued):**

	82.5°	85°	87.5°	90°
90°	0.0	0.0	0.0	0.0
87.5°	30.2	24.1	12.1	0.0
85°	66.4	42.2	24.1	0.0
82.5°	96.5	66.4	30.2	0.0
80°	126.7	84.5	42.2	0.0
77.5°	162.9	108.6	54.3	0.0
75°	193.1	126.7	66.4	0.0
72.5°	223.3	150.9	72.4	0.0
70°	253.4	169.0	84.5	0.0
67.5°	289.6	187.1	96.5	0.0
65°	319.8	211.2	102.6	0.0
62.5°	350.0	229.3	114.7	0.0
60°	380.2	247.4	120.7	0.0
57.5°	410.3	265.5	132.8	0.0
55°	440.5	289.6	144.8	0.0
52.5°	470.7	307.7	150.9	0.0
50°	500.8	325.8	156.9	0.0
47.5°	525.0	344.0	169.0	0.0
45°	555.1	362.1	175.0	0.0
42.5°	585.3	374.1	181.0	0.0
40°	609.5	392.2	187.1	0.0
37.5°	639.6	404.3	199.1	0.0
35°	663.8	422.4	205.2	0.0
32.5°	681.9	434.5	211.2	0.0
30°	706.0	446.5	217.2	0.0
27.5°	724.1	458.6	217.2	0.0
25°	742.2	470.7	223.3	0.0
22.5°	760.3	476.7	229.3	0.0
20°	778.4	488.8	235.3	0.0
17.5°	790.5	494.8	235.3	0.0
15°	802.6	500.8	247.4	0.0
12.5°	808.6	506.9	247.4	0.0
10°	820.7	518.9	247.4	0.0
7.5°	832.7	518.9	247.4	0.0
5°	832.7	518.9	247.4	0.0
2.5°	832.7	518.9	247.4	0.0
0°	832.7	518.9	247.4	0.0

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