

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: P628603

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

Issue Date: 01/11/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P628603  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 01/11/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: EPHESUS  
Catalog Number: EPH-VN-08-E-940-U-LAM  
Description: EPHESUS LUMAVISION FLOOD – Middle Tier Light Square Luminaire w/  
LAMBERTIAN distribution lens  
Light Source: (128) 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

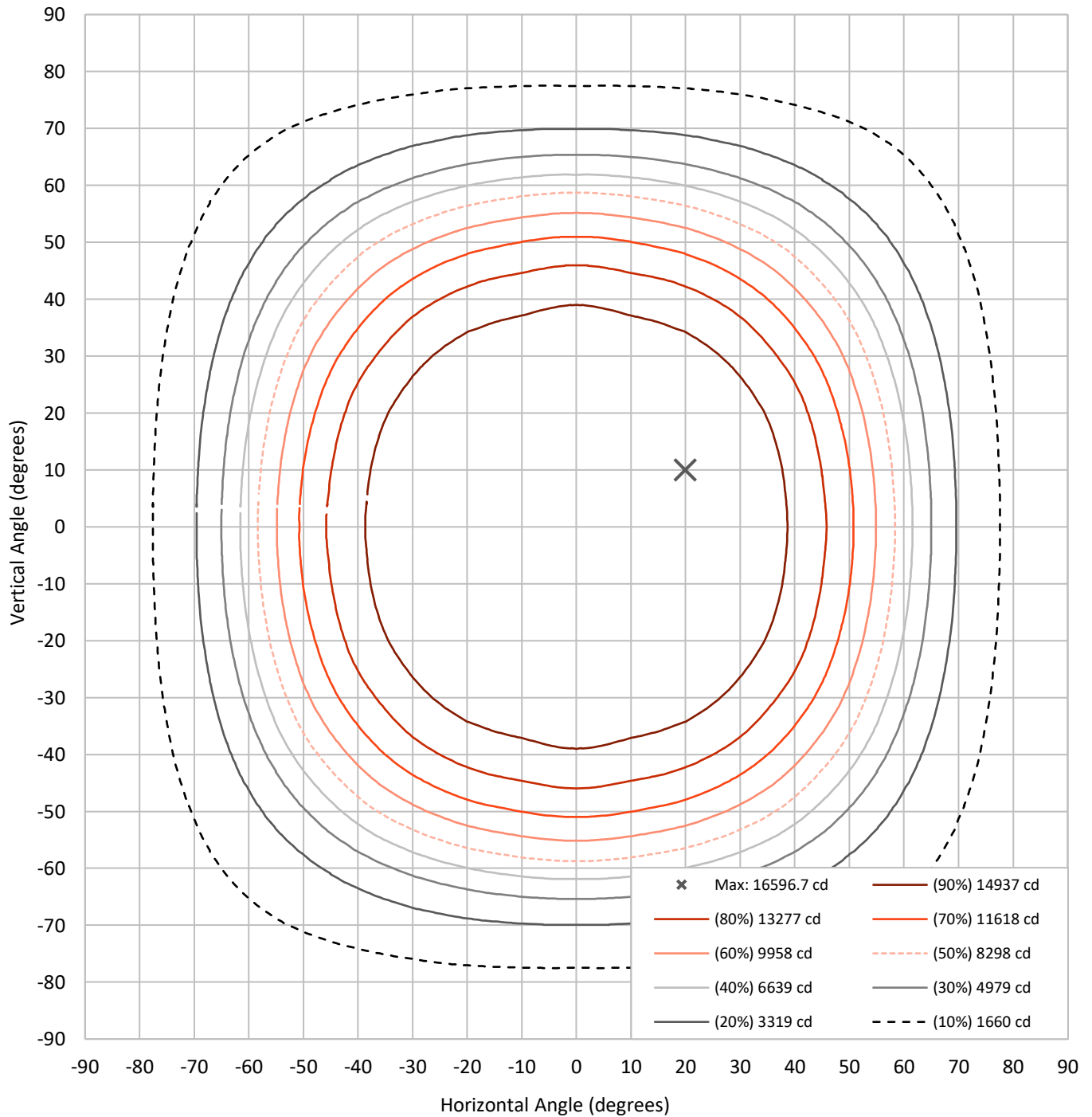
Lumens per Lamp:	N/A	NEMA Type:	7H x 7V
Luminaire Lumens:	50916.4 lumens	Max Intensity:	16596.7 candela
Efficiency:	N/A	Max Intensity Angle:	20°H x 10°V
Efficacy:	81.2 lumens/watt		
Luminous Opening:	Rectangular (W 2' x L: 1' x H: 0')		
Beam Angle (50%):	115.7°H x 112.9°V	Field Angle (10%):	154.7°H x 154°V
Beam Lumens:	31243.4 lumens	Field Lumens:	37455.5 lumens
Beam Efficiency:	61.4%	Field Efficiency:	73.6%

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





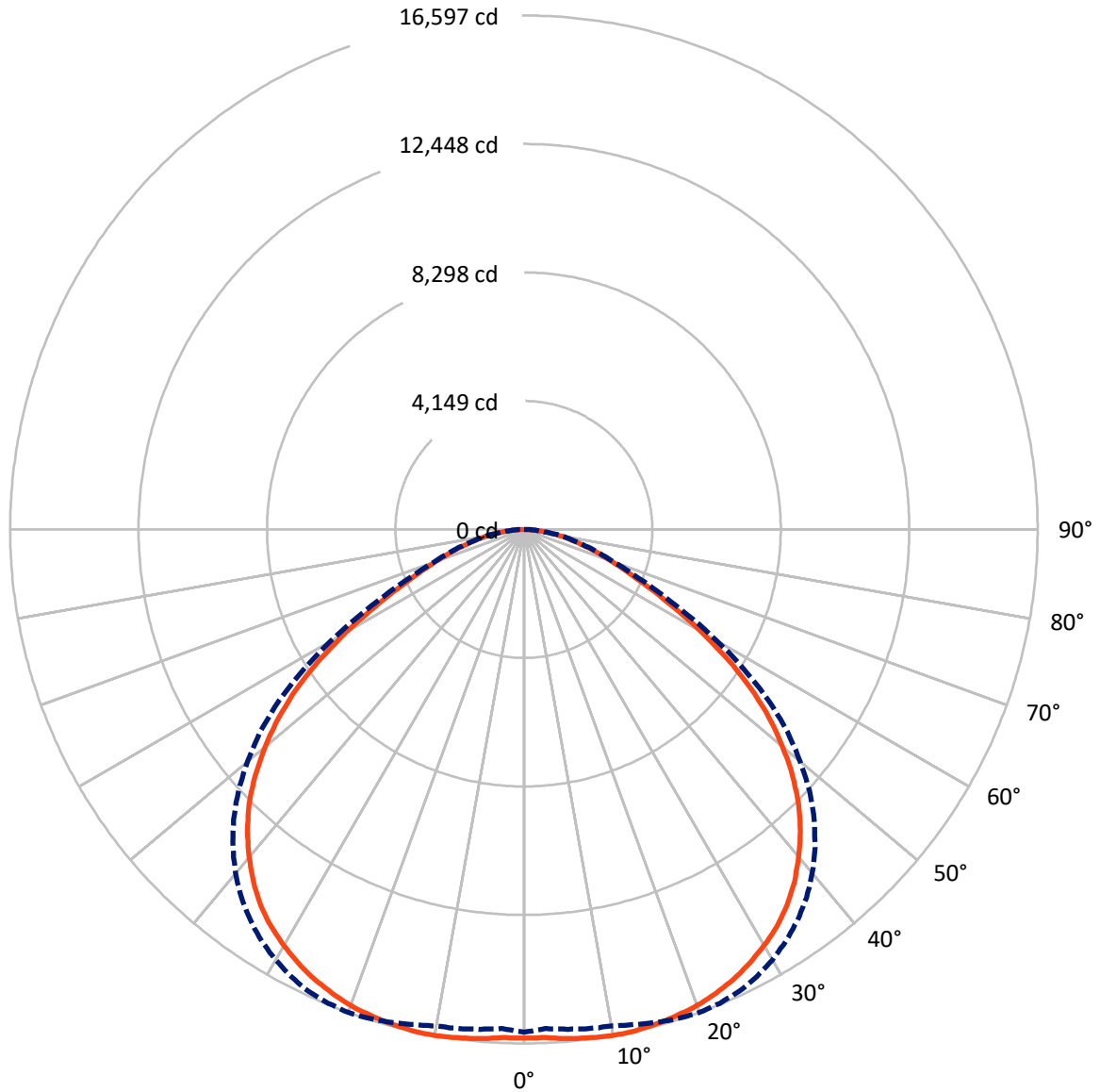
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### Lumen Table

90																				
80	6.1		39.7		91.9		145.6		162.2		145.6		91.9		39.7		6.1			
70																				
60	17.4		18.1	35.2	58.0	86.8	117.3	142.8	157.4	157.4	142.8	117.3	86.8	58.0	35.2	18.1				17.4
50																				
40	27.9		25.8	54.6	102.1	166.3	227.6	272.8	298.6	298.6	272.8	227.6	166.3	102.1	54.6	25.8				27.9
30																				
20	36.2		34.7	82.6	164.2	254.1	327.6	377.6	404.7	404.7	377.6	327.6	254.1	164.2	82.6	34.7				36.2
10																				
0	39.2		44.5	116.1	219.3	316.3	393.0	442.0	467.8	467.8	442.0	393.0	316.3	219.3	116.1	44.5				39.2
-10																				
-20	36.2		54.3	144.2	256.6	355.9	430.2	476.0	496.2	496.2	476.0	430.2	355.9	256.6	144.2	54.3				36.2
-30																				
-40	27.9		62.3	162.6	278.0	377.7	449.0	484.6	495.8	495.8	484.6	449.0	377.7	278.0	162.6	62.3				27.9
-50																				
-60	17.4		66.4	171.6	287.9	385.3	451.8	480.7	488.9	488.9	480.7	451.8	385.3	287.9	171.6	66.4				17.4
-70																				
-80	6.1		66.4	171.6	287.9	385.3	451.8	480.7	488.9	488.9	480.7	451.8	385.3	287.9	171.6	66.4				6.1
-90																				

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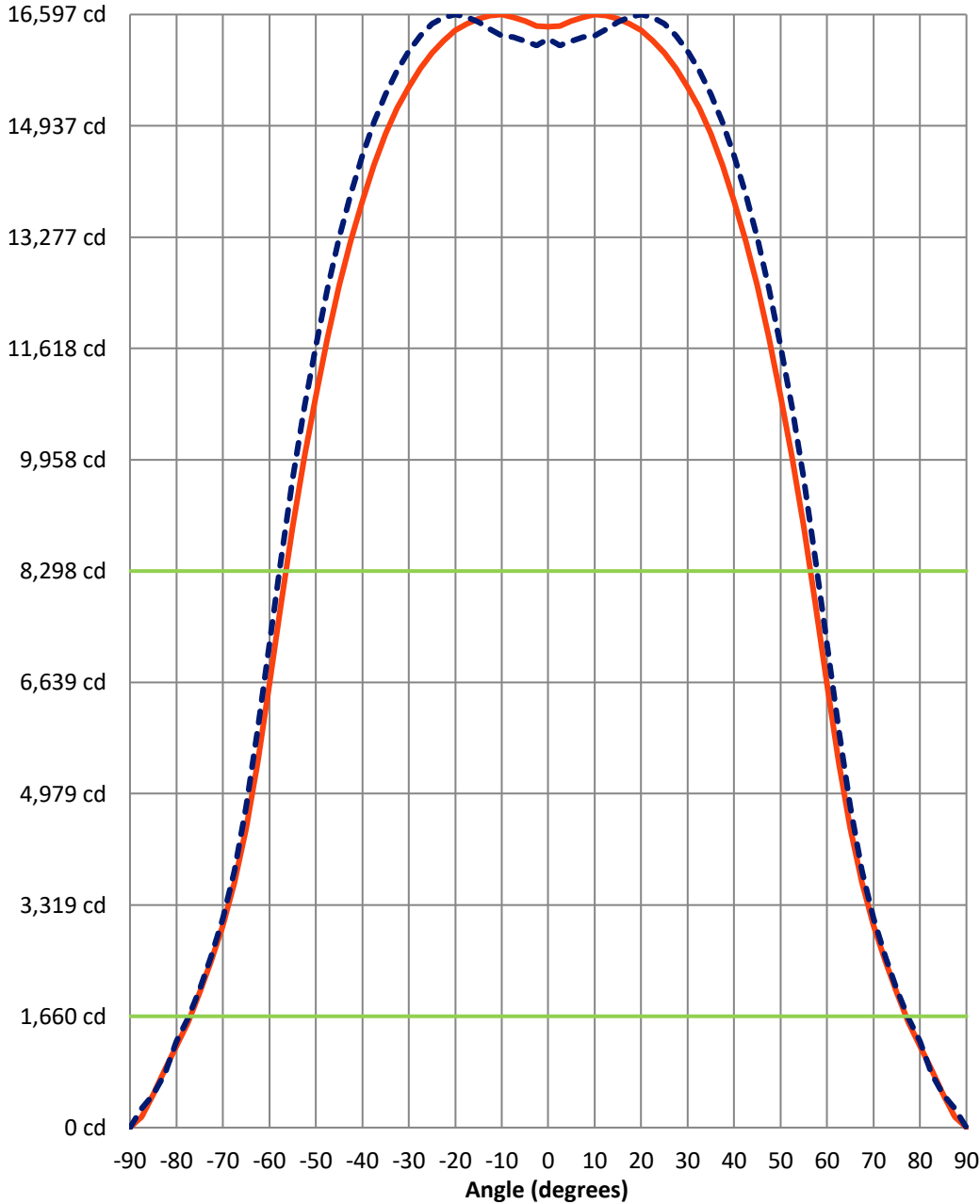
### Luminous Intensity Polar Plot



— Vertical Distribution Through 20-Deg    - - - Horizontal Distribution Through 10-Deg

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### Luminous Intensity Plot



**Beam:**  
 H Angle: 115.7°  
 V Angle: 112.9°  
 Lumens: 31243.4  
 Efficiency: 61.4%

**Field:**  
 H Angle: 154.7°  
 V Angle: 154°  
 Lumens: 37455.5  
 Efficiency: 73.6%

**Spill:**  
 Lumens: 13460.9  
 Efficiency: 26.4%

- Vertical Distribution through 20-Deg
- - - Horizontal Distribution through 10-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°	133.9	144.6	150.0	155.4	160.7	166.1	171.4	166.1	160.7	160.7	155.4
85°	358.9	369.6	375.0	412.5	450.0	471.4	498.2	492.9	492.9	487.5	482.2
82.5°	717.9	750.0	776.8	814.3	835.7	867.9	889.3	873.2	862.5	841.1	825.0
80°	1275.0	1285.7	1291.1	1296.5	1269.7	1264.3	1253.6	1237.5	1216.1	1189.3	1162.5
77.5°	1623.2	1634.0	1644.7	1634.0	1628.6	1623.2	1607.2	1591.1	1569.7	1548.2	1516.1
75°	2148.3	2148.3	2148.3	2132.2	2121.5	2105.4	2078.6	2051.8	2014.3	1971.5	1923.2
72.5°	2705.4	2700.0	2694.7	2662.5	2635.8	2603.6	2566.1	2534.0	2491.1	2442.9	2378.6
70°	3289.3	3300.1	3305.4	3262.6	3230.4	3187.6	3139.3	3080.4	3016.1	2946.5	2855.4
67.5°	4092.9	4082.2	4071.5	4012.6	3969.7	3910.8	3841.1	3755.4	3659.0	3551.8	3423.3
65°	5089.4	5105.4	5073.3	5014.4	4934.0	4837.6	4730.4	4607.2	4462.6	4301.9	4119.7
62.5°	6294.7	6321.5	6284.0	6209.0	6107.2	5978.7	5828.7	5651.9	5453.7	5228.7	5003.7
60°	7666.2	7660.8	7591.2	7489.4	7355.5	7194.8	7028.7	6835.8	6610.8	6348.3	6075.1
57.5°	8925.2	8914.4	8828.7	8726.9	8593.0	8421.6	8244.8	8041.2	7805.5	7526.9	7210.8
55°	10055.5	10044.8	9959.1	9852.0	9712.7	9541.2	9380.5	9187.7	8957.3	8662.6	8325.1
52.5°	11057.3	11062.7	10987.7	10869.8	10719.8	10553.8	10398.4	10205.5	9985.9	9691.2	9364.4
50°	11978.8	11973.4	11893.1	11785.9	11646.6	11485.9	11330.5	11137.7	10907.3	10623.4	10307.3
47.5°	12835.9	12825.2	12734.1	12616.3	12471.6	12332.4	12187.7	12016.3	11775.2	11491.3	11175.2
45°	13553.8	13532.4	13441.3	13328.8	13189.5	13066.3	12937.7	12809.1	12552.0	12289.5	11989.5
42.5°	14169.9	14164.5	14073.5	13961.0	13821.7	13714.5	13596.7	13435.9	13221.7	12980.6	12685.9
40°	14759.2	14716.3	14625.2	14518.1	14389.5	14298.5	14180.6	14019.9	13810.9	13575.2	13291.3
37.5°	15198.5	15203.8	15107.4	14989.5	14877.0	14791.3	14684.2	14534.2	14352.0	14121.7	13837.7
35°	15616.3	15589.6	15509.2	15407.4	15305.6	15209.2	15096.7	14968.1	14818.1	14603.8	14336.0
32.5°	15889.6	15927.1	15830.6	15723.5	15664.6	15589.6	15471.7	15337.8	15203.8	14989.5	14748.5
30°	16189.6	16157.4	16082.4	15991.3	15948.5	15900.3	15798.5	15669.9	15514.5	15321.7	15096.7
27.5°	16398.5	16382.4	16291.3	16205.6	16184.2	16141.3	16061.0	15948.5	15793.1	15605.6	15396.7
25°	16489.6	16500.3	16414.6	16366.3	16366.3	16339.6	16275.3	16178.8	16023.5	15852.1	15648.5
22.5°	16532.4	16521.7	16462.8	16452.1	16478.9	16457.4	16430.6	16344.9	16205.6	16066.3	15894.9
20°	16559.2	16484.2	16430.6	16473.5	16505.6	16500.3	16478.9	16425.3	16361.0	16243.1	16093.1
17.5°	16500.3	16452.1	16387.8	16452.1	16521.7	16527.1	16505.6	16473.5	16457.4	16382.4	16248.5
15°	16355.6	16318.1	16328.8	16393.1	16473.5	16500.3	16516.4	16553.9	16532.4	16473.5	16355.6
12.5°	16259.2	16211.0	16259.2	16323.5	16366.3	16382.4	16511.0	16580.6	16580.6	16527.1	16452.1
10°	16232.4	16136.0	16200.3	16259.2	16280.6	16377.1	16484.2	16559.2	16596.7	16553.9	16457.4
7.5°	16178.8	16114.6	16141.3	16168.1	16291.3	16361.0	16419.9	16500.3	16553.9	16548.5	16462.8
5°	16152.1	16071.7	16082.4	16194.9	16280.6	16328.8	16350.3	16419.9	16500.3	16516.4	16452.1
2.5°	16082.4	16044.9	16125.3	16136.0	16200.3	16237.8	16259.2	16323.5	16425.3	16462.8	16436.0
0°	16044.9	15991.3	15937.8	15980.6	16087.8	16168.1	16200.3	16296.7	16414.6	16452.1	16393.1



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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°	150.0	144.6	139.3	133.9	139.3	139.3	139.3	133.9	139.3	133.9	133.9
85°	466.1	444.7	428.6	407.1	385.7	369.6	348.2	326.8	321.4	316.1	305.4
82.5°	803.6	776.8	750.0	717.9	685.7	648.2	610.7	567.9	557.2	546.4	530.4
80°	1130.4	1092.9	1055.4	1017.9	985.7	948.2	905.4	857.2	825.0	798.2	766.1
77.5°	1473.2	1419.7	1366.1	1301.8	1264.3	1226.8	1183.9	1135.7	1087.5	1044.7	996.4
75°	1864.3	1805.4	1751.8	1687.5	1617.9	1548.2	1478.6	1414.3	1344.7	1280.4	1216.1
72.5°	2298.3	2212.5	2126.8	2046.5	1960.7	1875.0	1784.0	1698.2	1612.5	1526.8	1435.7
70°	2753.6	2646.5	2539.3	2432.2	2319.7	2207.2	2100.0	1992.9	1885.7	1773.2	1671.5
67.5°	3289.3	3166.1	3026.8	2876.8	2710.8	2566.1	2426.8	2298.3	2169.7	2041.1	1912.5
65°	3959.0	3787.6	3600.1	3396.5	3203.6	3010.8	2807.2	2614.3	2464.3	2314.3	2169.7
62.5°	4784.0	4542.9	4280.4	4017.9	3782.2	3530.4	3294.7	3042.9	2807.2	2592.9	2416.1
60°	5769.7	5442.9	5121.5	4784.0	4457.2	4114.4	3814.4	3503.6	3209.0	2946.5	2689.3
57.5°	6857.3	6476.9	6091.2	5678.7	5234.0	4832.2	4425.1	4017.9	3669.7	3321.5	3032.2
55°	7960.8	7559.1	7125.1	6659.0	6171.5	5657.2	5105.4	4650.1	4173.3	3766.1	3391.1
52.5°	9010.9	8593.0	8143.0	7714.4	7130.5	6541.2	5935.8	5335.8	4778.7	4259.0	3803.6
50°	9948.4	9541.2	9107.3	8609.1	8068.0	7441.2	6766.2	6091.2	5432.2	4821.5	4253.6
47.5°	10805.5	10409.1	9975.2	9476.9	8984.1	8287.6	7607.3	6862.6	6128.7	5426.9	4762.6
45°	11609.1	11207.3	10757.3	10280.5	9712.7	9091.2	8389.4	7639.4	6851.9	6064.4	5298.3
42.5°	12337.7	11935.9	11480.6	10987.7	10425.2	9809.1	9128.7	8373.4	7580.5	6723.3	5882.2
40°	12975.2	12584.1	12144.8	11630.6	11105.5	10457.3	9787.7	9069.8	8250.1	7387.6	6460.8
37.5°	13532.4	13168.1	12734.1	12225.2	11668.1	11089.5	10398.4	9680.5	8941.2	8003.7	7055.5
35°	14025.2	13687.7	13243.1	12760.9	12214.5	11603.8	10955.5	10253.7	9455.5	8576.9	7655.5
32.5°	14453.8	14111.0	13703.8	13221.7	12691.3	12118.1	11453.8	10746.6	9991.2	9096.6	8094.8
30°	14818.1	14486.0	14100.2	13644.9	13135.9	12568.1	11919.8	11207.3	10435.9	9546.6	8555.5
27.5°	15134.2	14818.1	14443.1	14019.9	13532.4	12985.9	12332.4	11614.5	10827.0	9969.8	8978.7
25°	15407.4	15102.0	14753.8	14352.0	13869.9	13334.2	12718.1	11968.1	11180.5	10318.0	9337.7
22.5°	15653.8	15359.2	15011.0	14619.9	14180.6	13644.9	13023.4	12278.8	11480.6	10628.8	9664.4
20°	15873.5	15600.3	15257.4	14855.6	14416.3	13875.2	13259.2	12552.0	11748.4	10912.7	9959.1
17.5°	16050.3	15809.2	15466.3	15043.1	14603.8	14078.8	13478.8	12830.6	11978.8	11153.8	10205.5
15°	16173.5	15937.8	15627.1	15198.5	14769.9	14250.2	13650.2	12980.6	12187.7	11346.6	10409.1
12.5°	16259.2	16007.4	15718.1	15321.7	14893.1	14378.8	13794.9	13135.9	12364.5	11518.1	10585.9
10°	16280.6	16050.3	15761.0	15407.4	14989.5	14491.3	13918.1	13264.5	12509.1	11652.0	10730.5
7.5°	16291.3	16071.7	15809.2	15471.7	15059.2	14577.0	14009.2	13366.3	12616.3	11764.5	10837.7
5°	16286.0	16077.1	15841.3	15514.5	15102.0	14625.2	14068.1	13435.9	12691.3	11839.5	10918.0
2.5°	16269.9	16082.4	15862.8	15546.7	15150.3	14678.8	14127.0	13516.3	12771.6	11903.8	10982.3
0°	16312.8	16152.1	15873.5	15536.0	15161.0	14678.8	14121.7	13527.0	12782.4	11898.4	10977.0





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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°	133.9	128.6	128.6	123.2	117.9	112.5	101.8	96.4	85.7	69.6	53.6
85°	289.3	273.2	257.1	246.4	235.7	225.0	208.9	192.9	171.4	139.3	107.1
82.5°	508.9	476.8	444.7	407.1	375.0	342.9	316.1	289.3	257.1	208.9	160.7
80°	728.6	680.4	632.2	578.6	530.4	476.8	428.6	385.7	342.9	278.6	214.3
77.5°	948.2	883.9	814.3	750.0	680.4	610.7	541.1	482.2	417.9	342.9	267.9
75°	1151.8	1076.8	1012.5	921.4	835.7	744.7	653.6	573.2	492.9	401.8	321.4
72.5°	1355.4	1258.9	1167.9	1082.2	985.7	873.2	771.4	669.7	567.9	460.7	364.3
70°	1559.0	1441.1	1328.6	1226.8	1119.7	1007.2	883.9	766.1	642.9	514.3	401.8
67.5°	1767.9	1634.0	1505.4	1376.8	1253.6	1125.0	996.4	862.5	717.9	567.9	444.7
65°	1998.2	1832.2	1676.8	1532.2	1387.5	1248.2	1103.6	958.9	798.2	626.8	482.2
62.5°	2228.6	2046.5	1864.3	1682.2	1521.5	1366.1	1210.7	1050.0	873.2	691.1	519.7
60°	2475.0	2266.1	2057.2	1853.6	1655.4	1484.0	1312.5	1141.1	953.6	750.0	557.2
57.5°	2748.3	2496.5	2260.8	2030.4	1805.4	1601.8	1414.3	1232.2	1023.2	808.9	600.0
55°	3059.0	2748.3	2469.7	2212.5	1966.1	1719.7	1516.1	1328.6	1103.6	867.9	648.2
52.5°	3385.8	3026.8	2689.3	2400.0	2137.5	1859.0	1612.5	1403.6	1183.9	926.8	691.1
50°	3766.1	3310.8	2935.8	2582.2	2287.5	1998.2	1714.3	1489.3	1264.3	996.4	733.9
47.5°	4157.2	3653.6	3182.2	2796.5	2448.3	2132.2	1832.2	1564.3	1339.3	1060.7	776.8
45°	4612.6	3980.4	3460.8	3005.4	2603.6	2271.5	1950.0	1644.7	1403.6	1125.0	819.7
42.5°	5051.9	4366.1	3750.1	3235.8	2780.4	2405.4	2057.2	1730.4	1467.9	1189.3	857.2
40°	5571.5	4751.9	4028.6	3455.4	2957.2	2534.0	2164.3	1821.5	1526.8	1248.2	894.7
37.5°	6069.7	5142.9	4366.1	3696.5	3128.6	2662.5	2271.5	1907.2	1580.4	1307.2	942.9
35°	6562.6	5576.9	4687.6	3921.5	3305.4	2807.2	2378.6	1987.5	1634.0	1355.4	985.7
32.5°	7034.0	5984.0	5014.4	4173.3	3498.3	2941.1	2475.0	2062.5	1687.5	1398.2	1028.6
30°	7473.3	6369.8	5335.8	4430.4	3675.1	3064.3	2566.1	2137.5	1751.8	1435.7	1071.4
27.5°	7875.1	6744.8	5657.2	4671.5	3841.1	3176.8	2662.5	2207.2	1805.4	1473.2	1108.9
25°	8239.4	7082.3	5951.9	4891.2	3991.1	3300.1	2753.6	2276.8	1853.6	1505.4	1141.1
22.5°	8582.3	7393.0	6219.7	5110.8	4173.3	3423.3	2839.3	2341.1	1901.8	1537.5	1173.2
20°	8882.3	7676.9	6476.9	5330.4	4334.0	3535.8	2914.3	2400.0	1944.7	1559.0	1205.4
17.5°	9123.4	7928.7	6707.3	5523.3	4473.3	3632.2	2978.6	2453.6	1982.2	1585.7	1226.8
15°	9337.7	8143.0	6900.1	5689.4	4596.5	3712.6	3037.6	2496.5	2014.3	1601.8	1253.6
12.5°	9519.8	8325.1	7066.2	5834.0	4703.7	3782.2	3085.8	2528.6	2041.1	1617.9	1269.7
10°	9669.8	8469.8	7205.5	5946.5	4789.4	3835.8	3123.3	2560.8	2062.5	1634.0	1285.7
7.5°	9782.3	8576.9	7307.3	6043.0	4859.0	3873.3	3155.4	2582.2	2084.0	1644.7	1312.5
5°	9868.0	8668.0	7387.6	6107.2	4912.6	3926.9	3192.9	2609.0	2105.4	1655.4	1312.5
2.5°	9932.3	8743.0	7451.9	6160.8	4955.4	3916.1	3192.9	2603.6	2105.4	1655.4	1307.2
0°	9921.6	8748.4	7446.6	6160.8	4955.4	3905.4	3192.9	2598.3	2105.4	1655.4	1307.2



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**CANDELA DISTRIBUTION (continued):**

	82.5°	85°	87.5°	90°
90°	0.0	0.0	0.0	0.0
87.5°	37.5	26.8	10.7	0.0
85°	80.4	53.6	26.8	0.0
82.5°	117.9	75.0	37.5	0.0
80°	155.4	101.8	48.2	0.0
77.5°	198.2	128.6	64.3	0.0
75°	235.7	150.0	75.0	0.0
72.5°	273.2	176.8	85.7	0.0
70°	305.4	198.2	96.4	0.0
67.5°	337.5	225.0	112.5	0.0
65°	364.3	246.4	123.2	0.0
62.5°	385.7	273.2	133.9	0.0
60°	412.5	294.6	144.6	0.0
57.5°	433.9	310.7	155.4	0.0
55°	455.4	321.4	166.1	0.0
52.5°	476.8	337.5	176.8	0.0
50°	498.2	353.6	187.5	0.0
47.5°	519.7	364.3	192.9	0.0
45°	551.8	380.4	203.6	0.0
42.5°	578.6	391.1	214.3	0.0
40°	605.4	401.8	219.6	0.0
37.5°	632.2	412.5	230.4	0.0
35°	658.9	423.2	235.7	0.0
32.5°	680.4	433.9	241.1	0.0
30°	701.8	444.7	246.4	0.0
27.5°	723.2	450.0	251.8	0.0
25°	739.3	460.7	257.1	0.0
22.5°	755.4	466.1	262.5	0.0
20°	766.1	471.4	267.9	0.0
17.5°	782.2	476.8	273.2	0.0
15°	787.5	482.2	283.9	0.0
12.5°	798.2	487.5	283.9	0.0
10°	803.6	492.9	283.9	0.0
7.5°	814.3	492.9	283.9	0.0
5°	808.9	492.9	283.9	0.0
2.5°	808.9	492.9	283.9	0.0
0°	803.6	492.9	283.9	0.0

(END OF REPORT)