

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: P624188

Luminaire Tested: **EPH-VN-06-E-735-U-77**

Issue Date: 11/2/2022

Test Information

Test Method: LM-79-2019
Report Number: P624188
Test Lab: INNOVATION CENTER(G2)
Issue Date: 11/2/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: EPHESUS
Catalog Number: EPH-VN-06-E-735-U-77
Description: EPHESUS LUMAVISION FLOOD – Middle Tier Light Square Luminaire w/
Nema 7 distribution lens
Light Source: (96) 3500K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

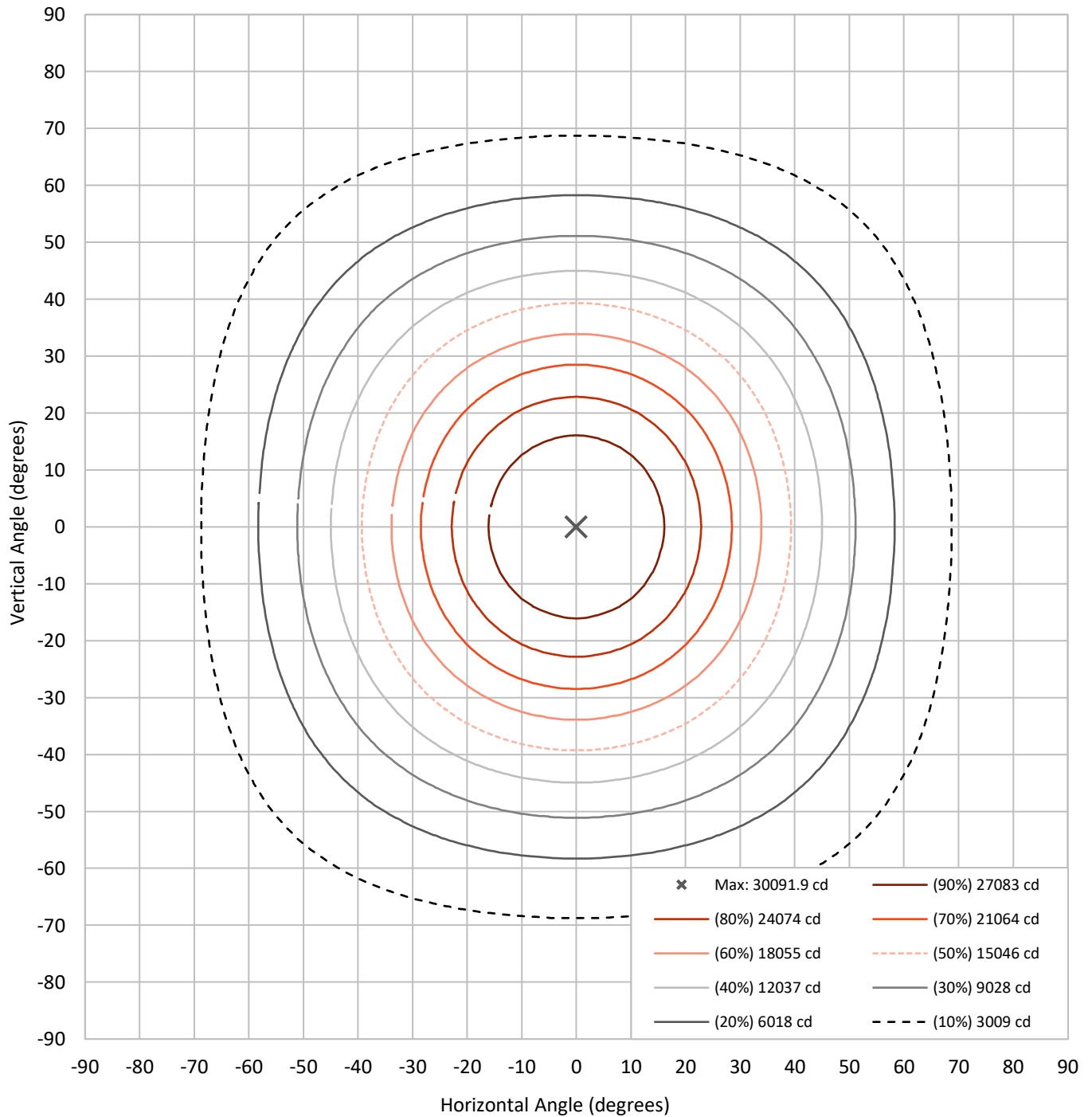
Lumens per Lamp:	N/A	NEMA Type:	7H x 7V
Luminaire Lumens:	54181.1 lumens	Max Intensity:	30091.9 candela
Efficiency:	N/A	Max Intensity Angle:	0°H x 0°V
Efficacy:	116.7 lumens/watt		
Luminous Opening:	Rectangular (W 1.5' x L: 1' x H: 0')		
Beam Angle (50%):	78.6°H x 78.6°V	Field Angle (10%):	137.5°H x 137.5°V
Beam Lumens:	23443.7 lumens	Field Lumens:	38388.2 lumens
Beam Efficiency:	43.3%	Field Efficiency:	70.9%

Input Watts (W): 464.2
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





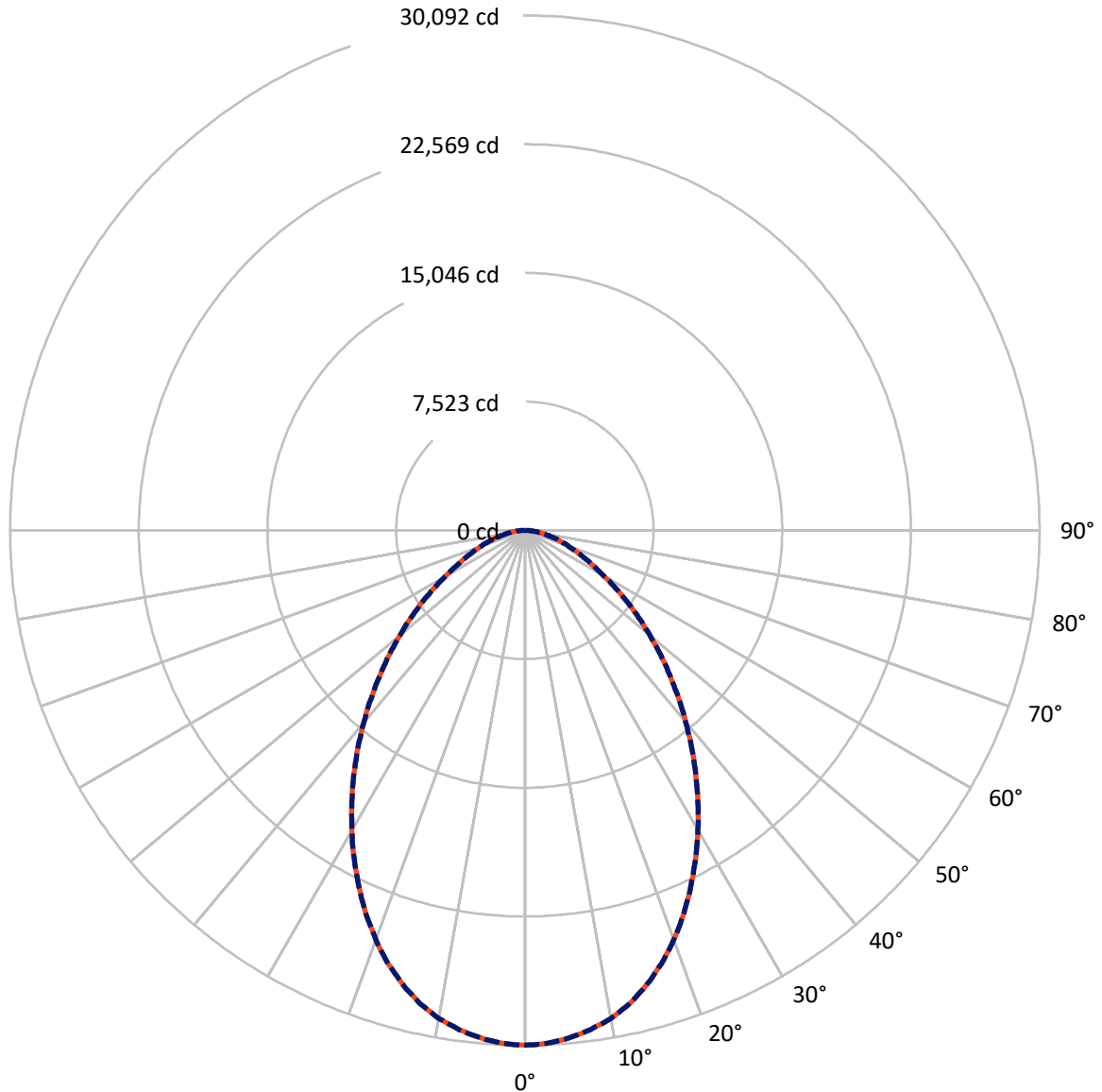
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Lumen Table

90	4.5	31.7	78.8	124.8	143.9	124.8	78.8	31.7	4.5							
80	4.5	31.7	78.8	124.8	143.9	124.8	78.8	31.7	4.5							
70	14.3	14.8	29.8	49.1	70.5	91.4	108.6	118.2	118.2	108.6	91.4	70.5	49.1	29.8	14.8	14.3
60		22.1	45.8	78.3	119.2	162.8	199.8	220.9	220.9	199.8	162.8	119.2	78.3	45.8	22.1	
50	24.1	29.7	63.8	117.0	187.4	261.7	324.4	360.4	360.4	324.4	261.7	187.4	117.0	63.8	29.7	24.1
40		36.9	84.0	162.2	264.0	373.0	466.6	521.4	521.4	466.6	373.0	264.0	162.2	84.0	36.9	
30	31.5	43.3	104.0	205.1	337.7	482.7	609.7	684.7	684.7	609.7	482.7	337.7	205.1	104.0	43.3	31.5
20		48.4	119.9	238.7	396.7	572.6	728.3	818.4	818.4	728.3	572.6	396.7	238.7	119.9	48.4	
10	34.3	51.1	128.6	257.3	430.0	623.8	793.9	887.9	887.9	793.9	623.8	430.0	257.3	128.6	51.1	34.3
0		51.1	128.6	257.3	430.0	623.8	793.9	887.9	887.9	793.9	623.8	430.0	257.3	128.6	51.1	
-10	31.5	48.4	119.9	238.7	396.7	572.6	728.3	818.4	818.4	728.3	572.6	396.7	238.7	119.9	48.4	31.5
-20		43.3	104.0	205.1	337.7	482.7	609.7	684.7	684.7	609.7	482.7	337.7	205.1	104.0	43.3	
-30	24.1	36.9	84.0	162.2	264.0	373.0	466.6	521.4	521.4	466.6	373.0	264.0	162.2	84.0	36.9	24.1
-40		29.7	63.8	117.0	187.4	261.7	324.4	360.4	360.4	324.4	261.7	187.4	117.0	63.8	29.7	
-50	14.3	22.1	45.8	78.3	119.2	162.8	199.8	220.9	220.9	199.8	162.8	119.2	78.3	45.8	22.1	14.3
-60		14.8	29.8	49.1	70.5	91.4	108.6	118.2	118.2	108.6	91.4	70.5	49.1	29.8	14.8	
-70	4.5	31.7	78.8	124.8	143.9	124.8	78.8	31.7	4.5							
-80		4.5	31.7	78.8	124.8	143.9	124.8	78.8	31.7	4.5						
-90	4.5	31.7	78.8	124.8	143.9	124.8	78.8	31.7	4.5							

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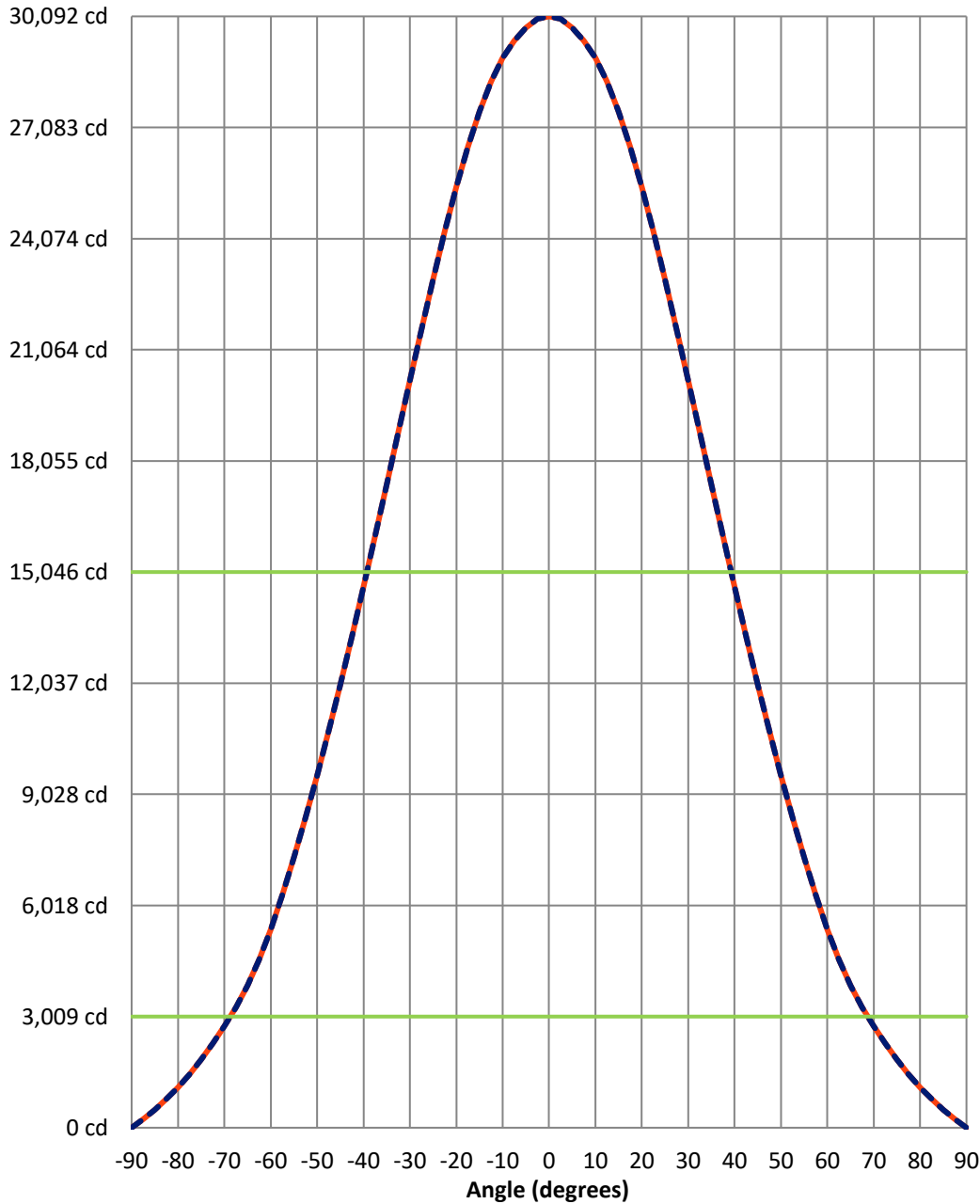
Luminous Intensity Polar Plot



— 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: 23443.7
 Efficiency: 43.3%

Field:
 H Angle: 137.5°
 V Angle: 137.5°
 Lumens: 38388.2
 Efficiency: 70.9%

Spill:
 Lumens: 15793
 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°	231.6	231.6	231.6	231.6	231.6	231.6	231.6	220.3	220.3	214.7	209.0
85°	485.8	485.8	485.8	485.8	485.8	474.5	468.9	463.2	457.6	446.3	440.6
82.5°	779.6	779.6	779.6	779.6	768.3	757.0	751.3	740.0	728.7	711.8	694.8
80°	1090.2	1090.2	1090.2	1090.2	1073.3	1062.0	1045.1	1033.8	1016.8	994.2	971.6
77.5°	1446.1	1446.1	1446.1	1429.2	1417.9	1400.9	1384.0	1361.4	1338.8	1310.6	1276.7
75°	1847.2	1847.2	1847.2	1824.6	1807.7	1790.7	1762.5	1734.2	1700.3	1660.8	1615.6
72.5°	2282.2	2282.2	2282.2	2253.9	2237.0	2208.7	2174.8	2135.3	2095.8	2044.9	1988.4
70°	2751.0	2751.0	2751.0	2717.1	2688.9	2660.7	2615.5	2570.3	2513.8	2457.3	2389.5
67.5°	3259.4	3259.4	3259.4	3219.9	3186.0	3146.5	3095.6	3039.1	2971.3	2892.3	2813.2
65°	3852.6	3852.6	3830.0	3796.1	3756.5	3700.1	3637.9	3558.8	3474.1	3372.4	3265.1
62.5°	4553.0	4553.0	4519.2	4479.6	4428.8	4355.3	4270.6	4168.9	4050.3	3920.4	3790.4
60°	5366.5	5366.5	5326.9	5276.1	5202.7	5112.3	4999.3	4869.4	4722.5	4558.7	4400.5
57.5°	6304.2	6304.2	6253.4	6185.6	6095.2	5982.2	5841.0	5677.2	5490.8	5287.4	5089.7
55°	7321.0	7321.0	7258.9	7179.8	7072.5	6936.9	6767.4	6575.4	6349.4	6117.8	5863.6
52.5°	8400.0	8400.0	8326.5	8236.2	8111.9	7953.7	7761.6	7535.7	7275.8	7004.7	6705.3
50°	9535.4	9535.4	9450.7	9349.0	9207.8	9021.4	8801.0	8541.2	8253.1	7936.8	7592.2
47.5°	10749.9	10749.9	10653.9	10535.3	10365.8	10151.1	9891.3	9591.9	9264.3	8908.4	8518.6
45°	11998.3	11998.3	11891.0	11755.4	11569.0	11326.1	11038.0	10749.9	10331.9	9919.5	9467.6
42.5°	13297.6	13297.6	13173.3	13020.8	12806.1	12540.6	12213.0	11840.2	11427.8	10964.6	10473.1
40°	14647.7	14647.7	14506.5	14331.4	14094.1	13789.1	13421.9	13003.9	12540.6	12026.6	11484.3
37.5°	16026.0	16026.0	15867.9	15675.8	15410.3	15071.4	14659.0	14195.8	13676.1	13105.5	12506.8
35°	17415.7	17415.7	17240.6	17031.6	16737.8	16365.0	15918.7	15404.7	14828.5	14207.1	13534.9
32.5°	18833.6	18833.6	18641.5	18404.2	18071.0	17658.6	17167.1	16607.9	16026.0	15303.0	14568.6
30°	20234.5	20234.5	20025.5	19765.6	19409.8	18957.8	18421.2	17805.5	17121.9	16381.9	15591.1
27.5°	21612.8	21556.4	21381.2	21104.4	20714.7	20234.5	19652.7	18986.1	18246.1	17432.6	16585.3
25°	22968.6	22906.4	22714.4	22409.3	21991.3	21466.0	20838.9	20127.2	19330.7	18472.0	17545.6
22.5°	24267.8	24200.1	23996.7	23669.1	23222.8	22652.2	21980.0	21217.4	20370.1	19449.3	18472.0
20°	25471.1	25397.6	25188.6	24844.0	24380.8	23776.4	23064.6	22245.5	21341.7	20370.1	19330.7
17.5°	26555.7	26482.2	26261.9	25906.0	25471.1	24798.8	24064.5	23200.2	22245.5	21217.4	20127.2
15°	27510.3	27431.2	27205.3	26849.4	26352.3	25719.6	24945.7	24064.5	23064.6	21980.0	20838.9
12.5°	28323.8	28244.7	28013.1	27657.2	27143.2	26510.5	25719.6	24798.8	23776.4	22652.2	21466.0
10°	28967.8	28888.7	28668.4	28329.4	27798.4	27143.2	26352.3	25471.1	24380.8	23222.8	21991.3
7.5°	29431.0	29357.5	29154.2	28815.2	28329.4	27657.2	26849.4	25906.0	24844.0	23669.1	22409.3
5°	29781.2	29696.5	29493.1	29154.2	28668.4	28013.1	27205.3	26261.9	25188.6	23996.7	22714.4
2.5°	30024.1	29922.4	29696.5	29357.5	28888.7	28244.7	27431.2	26482.2	25397.6	24200.1	22906.4
0°	30091.9	30024.1	29781.2	29431.0	28967.8	28323.8	27510.3	26555.7	25471.1	24267.8	22968.6



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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°	203.4	203.4	197.7	192.1	186.4	175.1	169.5	163.8	158.2	146.9	141.2
85°	429.3	418.0	406.7	395.4	378.5	367.2	350.2	338.9	322.0	305.0	288.1
82.5°	677.9	660.9	638.3	621.4	598.8	570.5	547.9	519.7	491.5	468.9	440.6
80°	949.0	920.8	892.5	864.3	830.4	796.5	762.6	728.7	689.2	649.6	610.1
77.5°	1242.8	1203.2	1163.7	1118.5	1078.9	1033.8	988.6	943.4	892.5	841.7	790.9
75°	1570.4	1519.6	1463.1	1406.6	1355.7	1293.6	1231.5	1169.3	1101.5	1039.4	971.6
72.5°	1926.3	1864.1	1796.4	1728.6	1655.1	1576.1	1497.0	1412.2	1333.1	1254.1	1169.3
70°	2310.4	2237.0	2152.2	2067.5	1977.1	1881.1	1785.1	1683.4	1581.7	1480.0	1378.3
67.5°	2722.8	2632.4	2530.7	2429.0	2316.1	2203.1	2090.1	1971.5	1847.2	1722.9	1604.3
65°	3163.4	3050.4	2931.8	2801.9	2671.9	2542.0	2406.4	2265.2	2124.0	1977.1	1847.2
62.5°	3654.9	3513.6	3361.1	3202.9	3056.1	2897.9	2751.0	2575.9	2406.4	2242.6	2078.8
60°	4225.4	4039.0	3852.6	3654.9	3468.4	3265.1	3084.3	2892.3	2700.2	2513.8	2321.7
57.5°	4863.7	4626.5	4400.5	4163.3	3914.7	3688.8	3457.2	3225.5	3010.9	2790.6	2581.6
55°	5586.8	5298.7	5016.3	4722.5	4434.4	4152.0	3858.2	3598.4	3332.9	3084.3	2841.4
52.5°	6377.7	6050.0	5699.8	5366.5	4999.3	4649.1	4321.4	3993.8	3683.1	3383.7	3106.9
50°	7225.0	6840.9	6439.8	6033.1	5615.0	5202.7	4807.2	4423.1	4061.6	3711.4	3383.7
47.5°	8106.2	7671.3	7213.7	6750.5	6304.2	5801.5	5326.9	4892.0	4457.0	4061.6	3683.1
45°	9010.1	8518.6	8015.8	7490.5	6965.1	6422.8	5897.5	5366.5	4892.0	4423.1	3993.8
42.5°	9942.1	9388.5	8829.3	8247.5	7665.6	7072.5	6479.3	5897.5	5326.9	4807.2	4321.4
40°	10902.5	10292.4	9654.0	9021.4	8400.0	7722.1	7072.5	6422.8	5801.5	5202.7	4649.1
37.5°	11862.8	11196.2	10507.0	9795.3	9083.5	8400.0	7665.6	6965.1	6304.2	5615.0	4999.3
35°	12828.7	12094.4	11348.7	10574.8	9795.3	9021.4	8247.5	7490.5	6750.5	6033.1	5366.5
32.5°	13800.4	12998.2	12173.5	11348.7	10507.0	9654.0	8829.3	8015.8	7213.7	6439.8	5699.8
30°	14755.0	13885.1	12998.2	12094.4	11196.2	10292.4	9388.5	8518.6	7671.3	6840.9	6050.0
27.5°	15687.1	14755.0	13800.4	12828.7	11862.8	10902.5	9942.1	9010.1	8106.2	7225.0	6377.7
25°	16585.3	15591.1	14568.6	13534.9	12506.8	11484.3	10473.1	9467.6	8518.6	7592.2	6705.3
22.5°	17432.6	16381.9	15303.0	14207.1	13105.5	12026.6	10964.6	9919.5	8908.4	7936.8	7004.7
20°	18246.1	17121.9	16026.0	14828.5	13676.1	12540.6	11427.8	10331.9	9264.3	8253.1	7275.8
17.5°	18986.1	17805.5	16607.9	15404.7	14195.8	13003.9	11840.2	10749.9	9591.9	8541.2	7535.7
15°	19652.7	18421.2	17167.1	15918.7	14659.0	13421.9	12213.0	11038.0	9891.3	8801.0	7761.6
12.5°	20234.5	18957.8	17658.6	16365.0	15071.4	13789.1	12540.6	11326.1	10151.1	9021.4	7953.7
10°	20714.7	19409.8	18071.0	16737.8	15410.3	14094.1	12806.1	11569.0	10365.8	9207.8	8111.9
7.5°	21104.4	19765.6	18404.2	17031.6	15675.8	14331.4	13020.8	11755.4	10535.3	9349.0	8236.2
5°	21381.2	20025.5	18641.5	17240.6	15867.9	14506.5	13173.3	11891.0	10653.9	9450.7	8326.5
2.5°	21556.4	20234.5	18833.6	17415.7	16026.0	14647.7	13297.6	11998.3	10749.9	9535.4	8400.0
0°	21612.8	20234.5	18833.6	17415.7	16026.0	14647.7	13297.6	11998.3	10749.9	9535.4	8400.0



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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°	135.6	124.3	113.0	107.3	96.0	90.4	79.1	67.8	62.1	50.8	39.5
85°	271.1	248.6	231.6	214.7	197.7	175.1	158.2	141.2	118.6	101.7	79.1
82.5°	412.4	384.1	355.9	327.6	299.4	271.1	237.3	209.0	180.8	152.5	118.6
80°	570.5	525.4	485.8	446.3	406.7	367.2	322.0	282.4	237.3	197.7	158.2
77.5°	734.4	683.5	627.0	570.5	514.1	463.2	406.7	355.9	305.0	248.6	197.7
75°	909.5	841.7	779.6	706.1	638.3	564.9	497.1	429.3	367.2	305.0	237.3
72.5°	1090.2	1005.5	920.8	841.7	757.0	672.2	593.1	508.4	429.3	355.9	282.4
70°	1276.7	1175.0	1073.3	977.3	881.2	779.6	689.2	593.1	497.1	406.7	322.0
67.5°	1474.4	1355.7	1237.1	1112.8	1005.5	892.5	779.6	672.2	564.9	463.2	367.2
65°	1689.0	1547.8	1400.9	1271.0	1129.8	1005.5	881.2	757.0	638.3	514.1	406.7
62.5°	1909.3	1745.5	1581.7	1417.9	1271.0	1112.8	977.3	841.7	706.1	570.5	446.3
60°	2135.3	1948.9	1762.5	1581.7	1400.9	1237.1	1073.3	920.8	779.6	627.0	485.8
57.5°	2366.9	2157.9	1948.9	1745.5	1547.8	1355.7	1175.0	1005.5	841.7	683.5	525.4
55°	2604.2	2366.9	2135.3	1909.3	1689.0	1474.4	1276.7	1090.2	909.5	734.4	570.5
52.5°	2841.4	2581.6	2321.7	2078.8	1847.2	1604.3	1378.3	1169.3	971.6	790.9	610.1
50°	3084.3	2790.6	2513.8	2242.6	1977.1	1722.9	1480.0	1254.1	1039.4	841.7	649.6
47.5°	3332.9	3010.9	2700.2	2406.4	2124.0	1847.2	1581.7	1333.1	1101.5	892.5	689.2
45°	3598.4	3225.5	2892.3	2575.9	2265.2	1971.5	1683.4	1412.2	1169.3	943.4	728.7
42.5°	3858.2	3457.2	3084.3	2751.0	2406.4	2090.1	1785.1	1497.0	1231.5	988.6	762.6
40°	4152.0	3688.8	3265.1	2897.9	2542.0	2203.1	1881.1	1576.1	1293.6	1033.8	796.5
37.5°	4434.4	3914.7	3468.4	3056.1	2671.9	2316.1	1977.1	1655.1	1355.7	1078.9	830.4
35°	4722.5	4163.3	3654.9	3202.9	2801.9	2429.0	2067.5	1728.6	1406.6	1118.5	864.3
32.5°	5016.3	4400.5	3852.6	3361.1	2931.8	2530.7	2152.2	1796.4	1463.1	1163.7	892.5
30°	5298.7	4626.5	4039.0	3513.6	3050.4	2632.4	2237.0	1864.1	1519.6	1203.2	920.8
27.5°	5586.8	4863.7	4225.4	3654.9	3163.4	2722.8	2310.4	1926.3	1570.4	1242.8	949.0
25°	5863.6	5089.7	4400.5	3790.4	3265.1	2813.2	2389.5	1988.4	1615.6	1276.7	971.6
22.5°	6117.8	5287.4	4558.7	3920.4	3372.4	2892.3	2457.3	2044.9	1660.8	1310.6	994.2
20°	6349.4	5490.8	4722.5	4050.3	3474.1	2971.3	2513.8	2095.8	1700.3	1338.8	1016.8
17.5°	6575.4	5677.2	4869.4	4168.9	3558.8	3039.1	2570.3	2135.3	1734.2	1361.4	1033.8
15°	6767.4	5841.0	4999.3	4270.6	3637.9	3095.6	2615.5	2174.8	1762.5	1384.0	1045.1
12.5°	6936.9	5982.2	5112.3	4355.3	3700.1	3146.5	2660.7	2208.7	1790.7	1400.9	1062.0
10°	7072.5	6095.2	5202.7	4428.8	3756.5	3186.0	2688.9	2237.0	1807.7	1417.9	1073.3
7.5°	7179.8	6185.6	5276.1	4479.6	3796.1	3219.9	2717.1	2253.9	1824.6	1429.2	1090.2
5°	7258.9	6253.4	5326.9	4519.2	3830.0	3259.4	2751.0	2282.2	1847.2	1446.1	1090.2
2.5°	7321.0	6304.2	5366.5	4553.0	3852.6	3259.4	2751.0	2282.2	1847.2	1446.1	1090.2
0°	7321.0	6304.2	5366.5	4553.0	3852.6	3259.4	2751.0	2282.2	1847.2	1446.1	1090.2



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CANDELA DISTRIBUTION (continued):

	82.5°	85°	87.5°	90°
90°	0.0	0.0	0.0	0.0
87.5°	28.2	22.6	11.3	0.0
85°	62.1	39.5	22.6	0.0
82.5°	90.4	62.1	28.2	0.0
80°	118.6	79.1	39.5	0.0
77.5°	152.5	101.7	50.8	0.0
75°	180.8	118.6	62.1	0.0
72.5°	209.0	141.2	67.8	0.0
70°	237.3	158.2	79.1	0.0
67.5°	271.1	175.1	90.4	0.0
65°	299.4	197.7	96.0	0.0
62.5°	327.6	214.7	107.3	0.0
60°	355.9	231.6	113.0	0.0
57.5°	384.1	248.6	124.3	0.0
55°	412.4	271.1	135.6	0.0
52.5°	440.6	288.1	141.2	0.0
50°	468.9	305.0	146.9	0.0
47.5°	491.5	322.0	158.2	0.0
45°	519.7	338.9	163.8	0.0
42.5°	547.9	350.2	169.5	0.0
40°	570.5	367.2	175.1	0.0
37.5°	598.8	378.5	186.4	0.0
35°	621.4	395.4	192.1	0.0
32.5°	638.3	406.7	197.7	0.0
30°	660.9	418.0	203.4	0.0
27.5°	677.9	429.3	203.4	0.0
25°	694.8	440.6	209.0	0.0
22.5°	711.8	446.3	214.7	0.0
20°	728.7	457.6	220.3	0.0
17.5°	740.0	463.2	220.3	0.0
15°	751.3	468.9	231.6	0.0
12.5°	757.0	474.5	231.6	0.0
10°	768.3	485.8	231.6	0.0
7.5°	779.6	485.8	231.6	0.0
5°	779.6	485.8	231.6	0.0
2.5°	779.6	485.8	231.6	0.0
0°	779.6	485.8	231.6	0.0

(END OF REPORT)