

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: P628601

Luminaire Tested: **EPH-VN-07-E-940-U-LAM**

Issue Date: 01/11/2023

Test Information

Test Method: LM-79-2019
Report Number: P628601
Test Lab: INNOVATION CENTER(G2)
Issue Date: 01/11/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: EPHESUS
Catalog Number: EPH-VN-07-E-940-U-LAM
Description: EPHESUS LUMAVISION FLOOD – Middle Tier Light Square Luminaire w/
LAMBERTIAN distribution lens
Light Source: (112) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp:	N/A	NEMA Type:	7H x 7V
Luminaire Lumens:	41981.7 lumens	Max Intensity:	13684.4 candela
Efficiency:	N/A	Max Intensity Angle:	20°H x 10°V
Efficacy:	78.8 lumens/watt		
Luminous Opening:	Rectangular (W 2' x L: 1' x H: 0')		

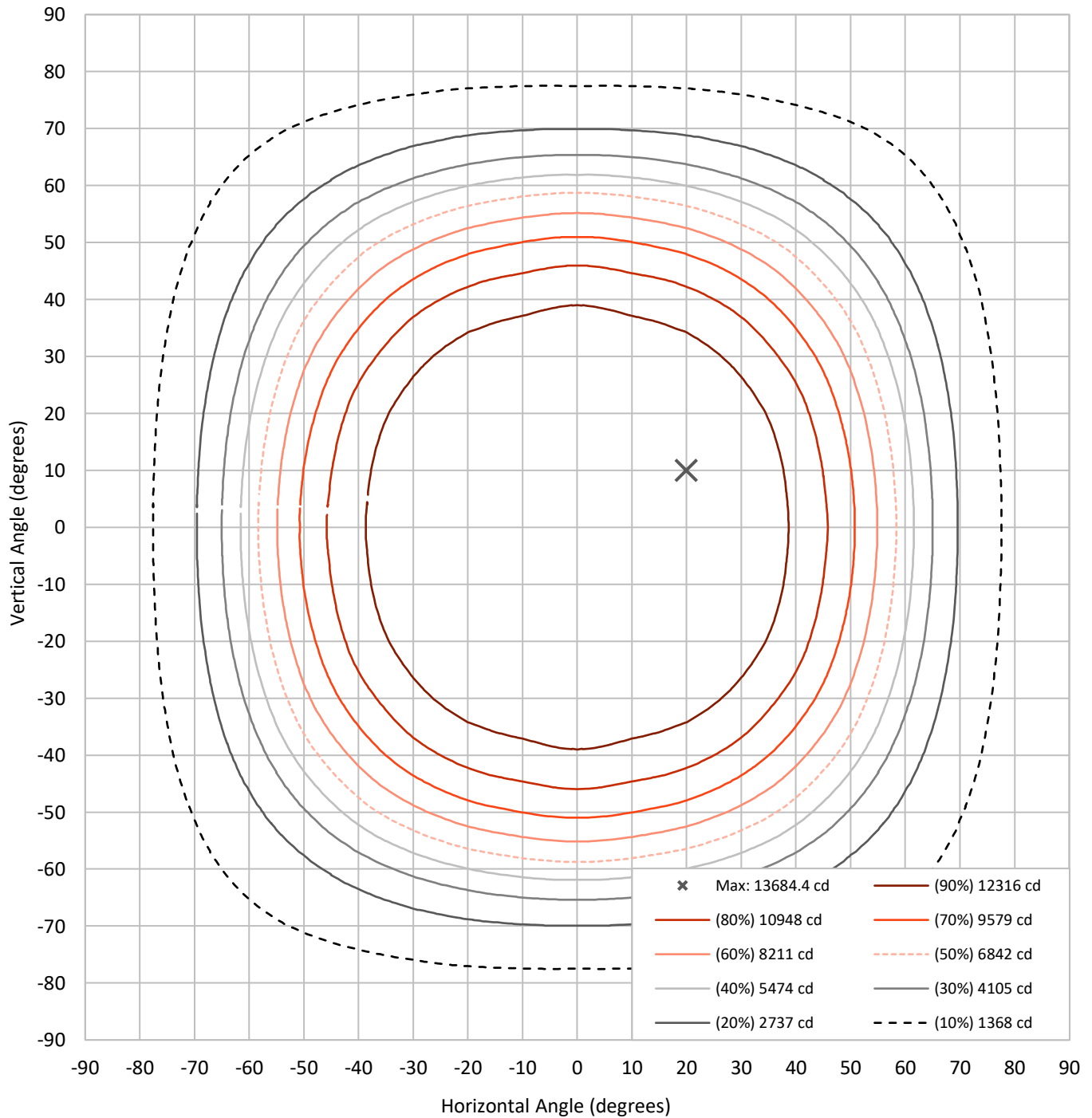
Beam Angle (50%):	115.7°H x 112.9°V	Field Angle (10%):	154.7°H x 154°V
Beam Lumens:	25760.9 lumens	Field Lumens:	30882.9 lumens
Beam Efficiency:	61.4%	Field Efficiency:	73.6%

Input Watts (W): 532.7
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



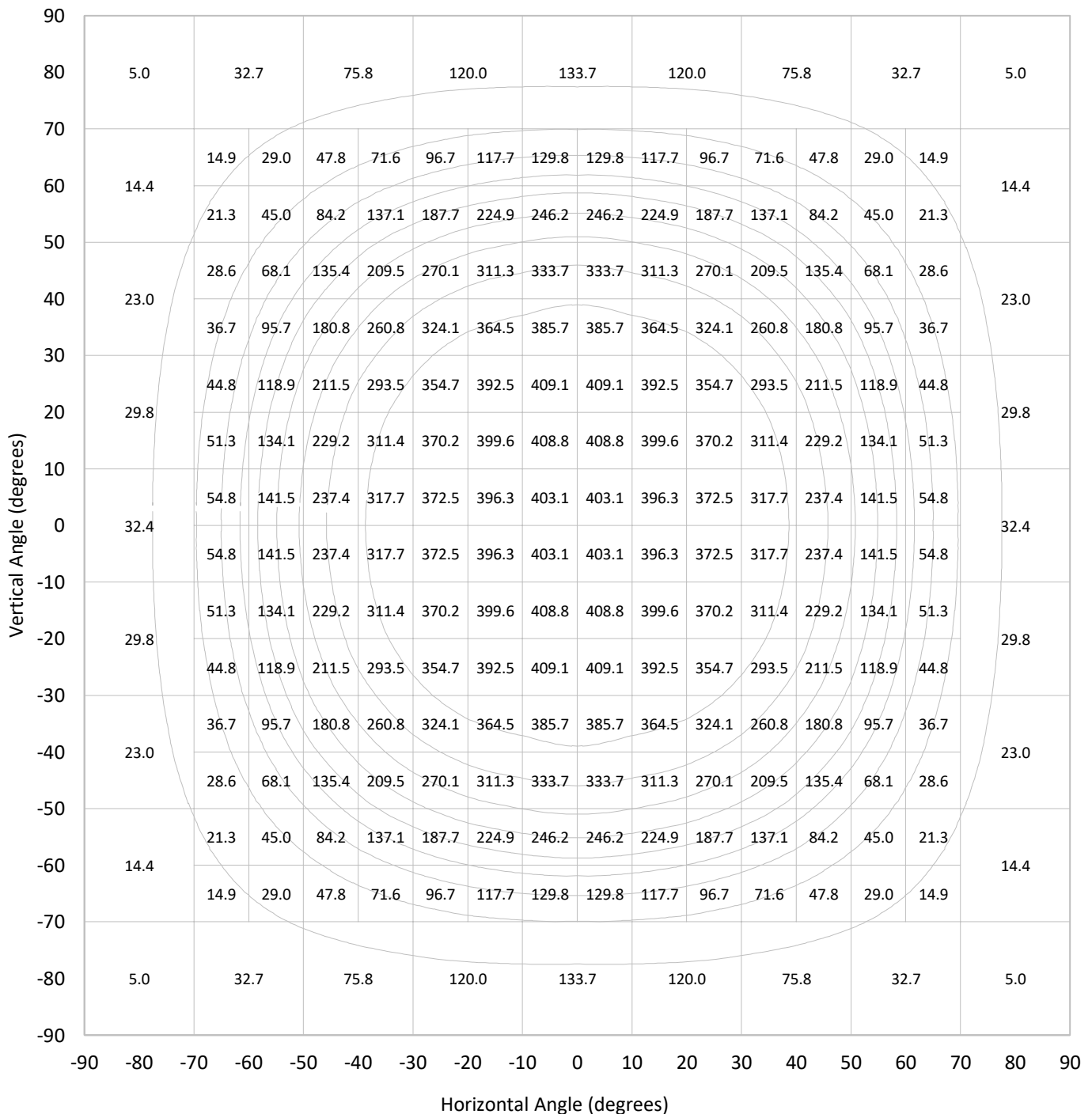
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Iso-Candela Plot



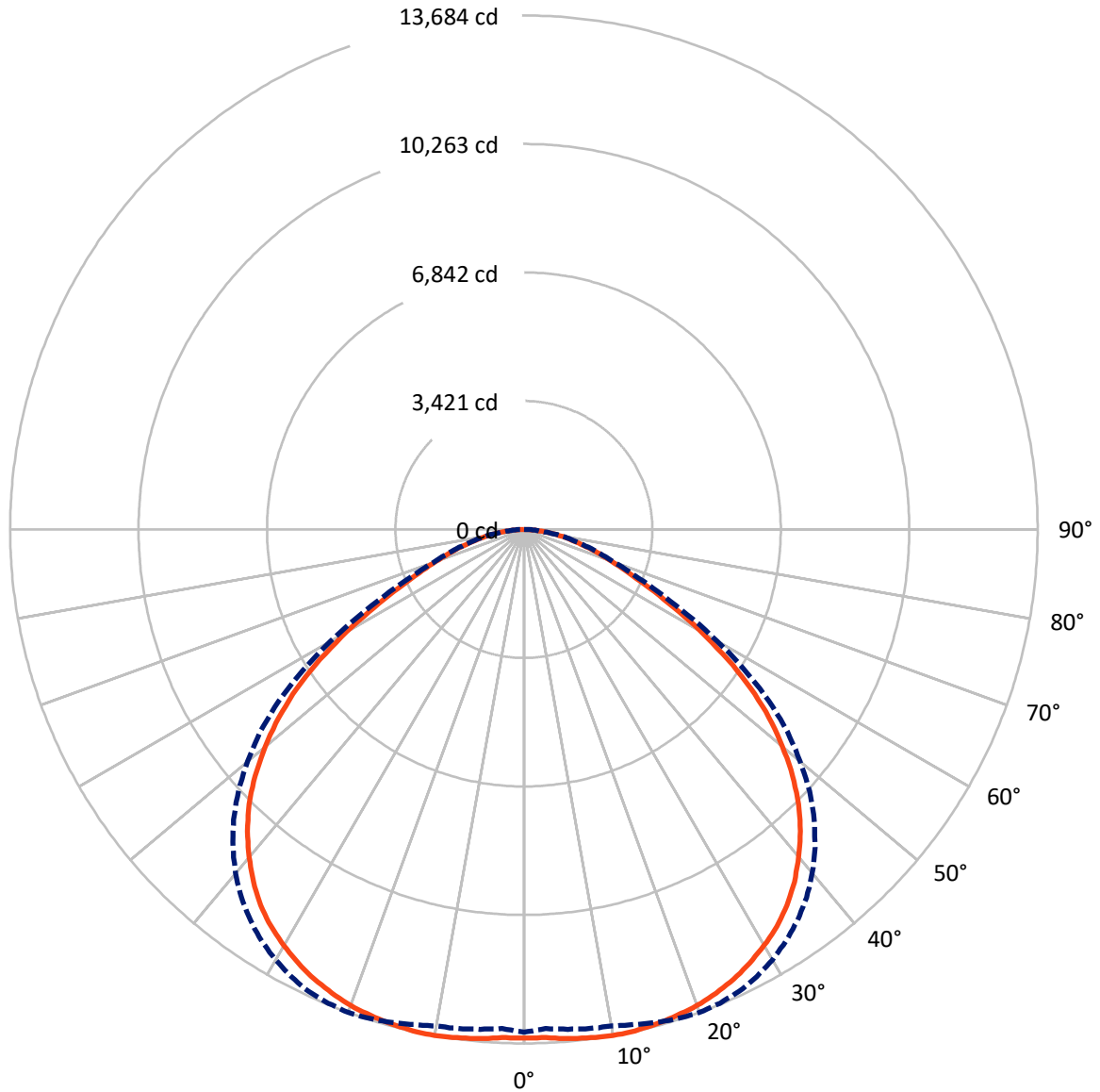
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Lumen Table



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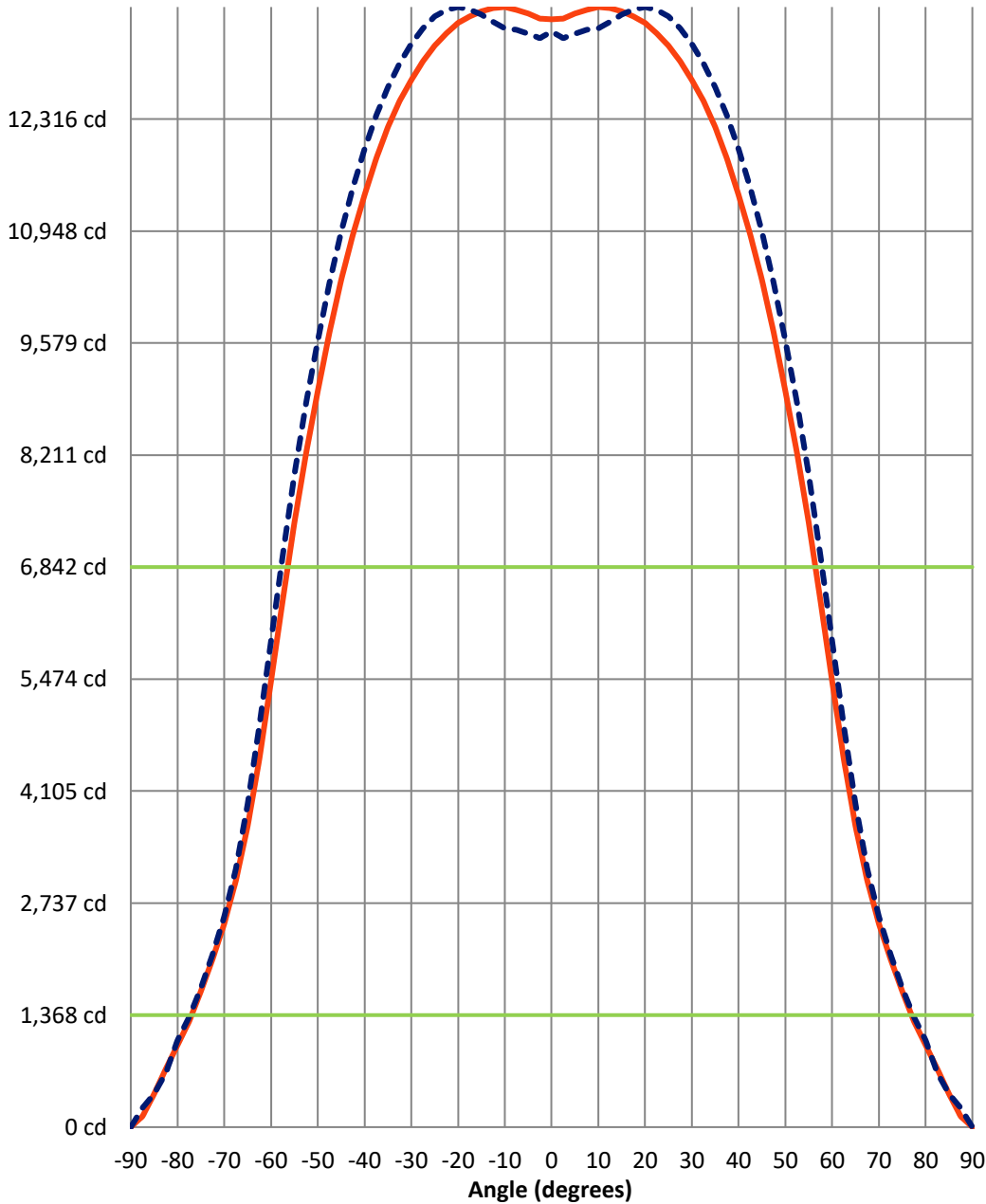
Luminous Intensity Polar Plot



— 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: 25760.9
 Efficiency: 61.4%

Field:
 H Angle: 154.7°
 V Angle: 154°
 Lumens: 30882.9
 Efficiency: 73.6%

Spill:
 Lumens: 11098.9
 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°	110.4	119.3	123.7	128.1	132.5	136.9	141.3	136.9	132.5	132.5	128.1
85°	295.9	304.8	309.2	340.1	371.0	388.7	410.8	406.4	406.4	402.0	397.5
82.5°	591.9	618.4	640.5	671.4	689.1	715.6	733.2	720.0	711.2	693.5	680.2
80°	1051.3	1060.1	1064.5	1069.0	1046.9	1042.4	1033.6	1020.4	1002.7	980.6	958.5
77.5°	1338.4	1347.2	1356.1	1347.2	1342.8	1338.4	1325.1	1311.9	1294.2	1276.6	1250.1
75°	1771.3	1771.3	1771.3	1758.0	1749.2	1735.9	1713.9	1691.8	1660.9	1625.5	1585.8
72.5°	2230.7	2226.2	2221.8	2195.3	2173.2	2146.7	2115.8	2089.3	2054.0	2014.2	1961.2
70°	2712.1	2721.0	2725.4	2690.0	2663.5	2628.2	2588.5	2539.9	2486.9	2429.4	2354.3
67.5°	3374.7	3365.9	3357.0	3308.5	3273.1	3224.5	3167.1	3096.4	3016.9	2928.6	2822.6
65°	4196.3	4209.6	4183.0	4134.5	4068.2	3988.7	3900.4	3798.8	3679.5	3547.0	3396.8
62.5°	5190.2	5212.2	5181.3	5119.5	5035.6	4929.5	4805.9	4660.1	4496.7	4311.1	4125.6
60°	6321.0	6316.5	6259.1	6175.2	6064.8	5932.2	5795.3	5636.3	5450.8	5234.3	5009.1
57.5°	7359.0	7350.2	7279.5	7195.6	7085.1	6943.8	6798.0	6630.2	6435.8	6206.1	5945.5
55°	8291.0	8282.2	8211.5	8123.2	8008.3	7867.0	7734.4	7575.4	7385.5	7142.5	6864.3
52.5°	9117.0	9121.4	9059.6	8962.4	8838.7	8701.8	8573.7	8414.7	8233.6	7990.6	7721.2
50°	9876.8	9872.4	9806.1	9717.8	9602.9	9470.4	9342.3	9183.3	8993.3	8759.2	8498.6
47.5°	10583.5	10574.7	10499.6	10402.4	10283.1	10168.3	10049.0	9907.7	9708.9	9474.8	9214.2
45°	11175.4	11157.7	11082.7	10989.9	10875.0	10773.5	10667.4	10561.4	10349.4	10133.0	9885.6
42.5°	11683.4	11679.0	11603.9	11511.1	11396.3	11307.9	11210.8	11078.2	10901.5	10702.8	10459.8
40°	12169.3	12133.9	12058.8	11970.5	11864.5	11789.4	11692.2	11559.7	11387.4	11193.1	10959.0
37.5°	12531.5	12535.9	12456.4	12359.2	12266.5	12195.8	12107.4	11983.8	11833.6	11643.6	11409.5
35°	12876.0	12853.9	12787.7	12703.8	12619.8	12540.3	12447.6	12341.5	12217.9	12041.2	11820.3
32.5°	13101.3	13132.2	13052.7	12964.4	12915.8	12853.9	12756.8	12646.3	12535.9	12359.2	12160.4
30°	13348.7	13322.2	13260.3	13185.2	13149.9	13110.1	13026.2	12920.2	12792.1	12633.1	12447.6
27.5°	13520.9	13507.7	13432.6	13361.9	13344.2	13308.9	13242.6	13149.9	13021.8	12867.2	12694.9
25°	13596.0	13604.9	13534.2	13494.4	13494.4	13472.3	13419.3	13339.8	13211.7	13070.4	12902.5
22.5°	13631.4	13622.5	13573.9	13565.1	13587.2	13569.5	13547.4	13476.8	13361.9	13247.1	13105.7
20°	13653.4	13591.6	13547.4	13582.8	13609.3	13604.9	13587.2	13543.0	13490.0	13392.8	13269.1
17.5°	13604.9	13565.1	13512.1	13565.1	13622.5	13626.9	13609.3	13582.8	13569.5	13507.7	13397.2
15°	13485.6	13454.7	13463.5	13516.5	13582.8	13604.9	13618.1	13649.0	13631.4	13582.8	13485.6
12.5°	13406.1	13366.3	13406.1	13459.1	13494.4	13507.7	13613.7	13671.1	13671.1	13626.9	13565.1
10°	13384.0	13304.5	13357.5	13406.1	13423.7	13503.3	13591.6	13653.4	13684.4	13649.0	13569.5
7.5°	13339.8	13286.8	13308.9	13331.0	13432.6	13490.0	13538.6	13604.9	13649.0	13644.6	13573.9
5°	13317.7	13251.5	13260.3	13353.1	13423.7	13463.5	13481.2	13538.6	13604.9	13618.1	13565.1
2.5°	13260.3	13229.4	13295.6	13304.5	13357.5	13388.4	13406.1	13459.1	13543.0	13573.9	13551.8
0°	13229.4	13185.2	13141.0	13176.4	13264.7	13331.0	13357.5	13437.0	13534.2	13565.1	13516.5



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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°	123.7	119.3	114.8	110.4	114.8	114.8	114.8	110.4	114.8	110.4	110.4
85°	384.3	366.6	353.4	335.7	318.0	304.8	287.1	269.4	265.0	260.6	251.8
82.5°	662.6	640.5	618.4	591.9	565.4	534.5	503.6	468.2	459.4	450.6	437.3
80°	932.0	901.1	870.2	839.3	812.8	781.8	746.5	706.7	680.2	658.2	631.7
77.5°	1214.7	1170.5	1126.4	1073.4	1042.4	1011.5	976.2	936.4	896.7	861.3	821.6
75°	1537.2	1488.6	1444.4	1391.4	1334.0	1276.6	1219.1	1166.1	1108.7	1055.7	1002.7
72.5°	1895.0	1824.3	1753.6	1687.4	1616.7	1546.0	1470.9	1400.2	1329.6	1258.9	1183.8
70°	2270.4	2182.1	2093.7	2005.4	1912.6	1819.9	1731.5	1643.2	1554.8	1462.1	1378.2
67.5°	2712.1	2610.5	2495.7	2372.0	2235.1	2115.8	2001.0	1895.0	1788.9	1682.9	1576.9
65°	3264.3	3122.9	2968.3	2800.5	2641.5	2482.4	2314.6	2155.6	2031.9	1908.2	1788.9
62.5°	3944.5	3745.8	3529.3	3312.9	3118.5	2910.9	2716.6	2508.9	2314.6	2137.9	1992.1
60°	4757.3	4487.8	4222.8	3944.5	3675.1	3392.4	3145.0	2888.8	2645.9	2429.4	2217.4
57.5°	5654.0	5340.3	5022.3	4682.2	4315.6	3984.3	3648.6	3312.9	3025.8	2738.6	2500.1
55°	6563.9	6232.6	5874.8	5490.5	5088.6	4664.5	4209.6	3834.1	3441.0	3105.3	2796.1
52.5°	7429.7	7085.1	6714.1	6360.7	5879.2	5393.4	4894.2	4399.5	3940.1	3511.6	3136.2
50°	8202.7	7867.0	7509.2	7098.4	6652.2	6135.4	5578.9	5022.3	4479.0	3975.4	3507.2
47.5°	8909.4	8582.5	8224.8	7814.0	7407.6	6833.3	6272.4	5658.4	5053.2	4474.6	3926.9
45°	9572.0	9240.7	8869.7	8476.5	8008.3	7495.9	6917.3	6298.9	5649.5	5000.2	4368.6
42.5°	10172.7	9841.4	9466.0	9059.6	8595.8	8087.8	7526.8	6904.0	6250.3	5543.5	4850.0
40°	10698.4	10375.9	10013.7	9589.7	9156.8	8622.3	8070.1	7478.3	6802.4	6091.3	5327.1
37.5°	11157.7	10857.4	10499.6	10080.0	9620.6	9143.5	8573.7	7981.8	7372.2	6599.2	5817.4
35°	11564.1	11285.8	10919.2	10521.7	10071.1	9567.6	9033.1	8454.4	7796.3	7071.9	6312.1
32.5°	11917.5	11634.8	11299.1	10901.5	10464.3	9991.6	9443.9	8860.8	8238.0	7500.3	6674.3
30°	12217.9	11944.0	11626.0	11250.5	10830.9	10362.7	9828.2	9240.7	8604.6	7871.4	7054.2
27.5°	12478.5	12217.9	11908.7	11559.7	11157.7	10707.2	10168.3	9576.4	8927.1	8220.3	7403.2
25°	12703.8	12452.0	12164.9	11833.6	11436.0	10994.3	10486.3	9867.9	9218.6	8507.4	7699.1
22.5°	12906.9	12664.0	12376.9	12054.4	11692.2	11250.5	10738.1	10124.1	9466.0	8763.6	7968.6
20°	13088.0	12862.8	12580.1	12248.8	11886.6	11440.4	10932.5	10349.4	9686.8	8997.8	8211.5
17.5°	13233.8	13035.0	12752.3	12403.4	12041.2	11608.3	11113.6	10579.1	9876.8	9196.5	8414.7
15°	13335.4	13141.0	12884.9	12531.5	12178.1	11749.6	11254.9	10702.8	10049.0	9355.5	8582.5
12.5°	13406.1	13198.5	12959.9	12633.1	12279.7	11855.7	11374.2	10830.9	10194.8	9496.9	8728.3
10°	13423.7	13233.8	12995.3	12703.8	12359.2	11948.4	11475.8	10936.9	10314.1	9607.3	8847.6
7.5°	13432.6	13251.5	13035.0	12756.8	12416.6	12019.1	11550.9	11020.8	10402.4	9700.1	8935.9
5°	13428.2	13255.9	13061.5	12792.1	12452.0	12058.8	11599.5	11078.2	10464.3	9761.9	9002.2
2.5°	13414.9	13260.3	13079.2	12818.6	12491.7	12103.0	11648.0	11144.5	10530.5	9814.9	9055.2
0°	13450.2	13317.7	13088.0	12809.8	12500.6	12103.0	11643.6	11153.3	10539.3	9810.5	9050.8



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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°	110.4	106.0	106.0	101.6	97.2	92.8	83.9	79.5	70.7	57.4	44.2
85°	238.5	225.3	212.0	203.2	194.4	185.5	172.3	159.0	141.3	114.8	88.3
82.5°	419.6	393.1	366.6	335.7	309.2	282.7	260.6	238.5	212.0	172.3	132.5
80°	600.7	561.0	521.2	477.1	437.3	393.1	353.4	318.0	282.7	229.7	176.7
77.5°	781.8	728.8	671.4	618.4	561.0	503.6	446.1	397.5	344.5	282.7	220.9
75°	949.7	887.8	834.8	759.8	689.1	614.0	538.9	472.6	406.4	331.3	265.0
72.5°	1117.5	1038.0	962.9	892.3	812.8	720.0	636.1	552.1	468.2	379.9	300.4
70°	1285.4	1188.2	1095.5	1011.5	923.2	830.4	728.8	631.7	530.1	424.0	331.3
67.5°	1457.7	1347.2	1241.2	1135.2	1033.6	927.6	821.6	711.2	591.9	468.2	366.6
65°	1647.6	1510.7	1382.6	1263.3	1144.0	1029.2	909.9	790.7	658.2	516.8	397.5
62.5°	1837.5	1687.4	1537.2	1387.0	1254.5	1126.4	998.3	865.8	720.0	569.8	428.5
60°	2040.7	1868.5	1696.2	1528.3	1364.9	1223.6	1082.2	940.9	786.3	618.4	459.4
57.5°	2266.0	2058.4	1864.0	1674.1	1488.6	1320.7	1166.1	1015.9	843.7	667.0	494.7
55°	2522.2	2266.0	2036.3	1824.3	1621.1	1417.9	1250.1	1095.5	909.9	715.6	534.5
52.5°	2791.6	2495.7	2217.4	1978.9	1762.4	1532.8	1329.6	1157.3	976.2	764.2	569.8
50°	3105.3	2729.8	2420.6	2129.1	1886.1	1647.6	1413.5	1228.0	1042.4	821.6	605.2
47.5°	3427.7	3012.5	2623.8	2305.8	2018.6	1758.0	1510.7	1289.8	1104.3	874.6	640.5
45°	3803.2	3281.9	2853.5	2478.0	2146.7	1872.9	1607.8	1356.1	1157.3	927.6	675.8
42.5°	4165.4	3600.0	3092.0	2668.0	2292.5	1983.3	1696.2	1426.7	1210.3	980.6	706.7
40°	4593.8	3918.0	3321.7	2849.1	2438.3	2089.3	1784.5	1501.8	1258.9	1029.2	737.7
37.5°	5004.6	4240.5	3600.0	3047.8	2579.6	2195.3	1872.9	1572.5	1303.1	1077.8	777.4
35°	5411.0	4598.3	3865.0	3233.4	2725.4	2314.6	1961.2	1638.8	1347.2	1117.5	812.8
32.5°	5799.7	4934.0	4134.5	3441.0	2884.4	2425.0	2040.7	1700.6	1391.4	1152.9	848.1
30°	6161.9	5252.0	4399.5	3653.0	3030.2	2526.6	2115.8	1762.4	1444.4	1183.8	883.4
27.5°	6493.2	5561.2	4664.5	3851.8	3167.1	2619.4	2195.3	1819.9	1488.6	1214.7	914.4
25°	6793.6	5839.5	4907.5	4032.9	3290.8	2721.0	2270.4	1877.3	1528.3	1241.2	940.9
22.5°	7076.3	6095.7	5128.3	4214.0	3441.0	2822.6	2341.1	1930.3	1568.1	1267.7	967.4
20°	7323.7	6329.8	5340.3	4395.1	3573.5	2915.3	2402.9	1978.9	1603.4	1285.4	993.9
17.5°	7522.4	6537.4	5530.3	4554.1	3688.3	2994.8	2455.9	2023.1	1634.3	1307.5	1011.5
15°	7699.1	6714.1	5689.3	4691.0	3789.9	3061.1	2504.5	2058.4	1660.9	1320.7	1033.6
12.5°	7849.3	6864.3	5826.2	4810.3	3878.3	3118.5	2544.3	2084.9	1682.9	1334.0	1046.9
10°	7973.0	6983.5	5941.1	4903.0	3948.9	3162.7	2575.2	2111.4	1700.6	1347.2	1060.1
7.5°	8065.7	7071.9	6025.0	4982.6	4006.4	3193.6	2601.7	2129.1	1718.3	1356.1	1082.2
5°	8136.4	7147.0	6091.3	5035.6	4050.5	3237.8	2632.6	2151.2	1735.9	1364.9	1082.2
2.5°	8189.4	7208.8	6144.3	5079.7	4085.9	3228.9	2632.6	2146.7	1735.9	1364.9	1077.8
0°	8180.6	7213.2	6139.9	5079.7	4085.9	3220.1	2632.6	2142.3	1735.9	1364.9	1077.8



REPORT NUMBER: P628601
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CANDELA DISTRIBUTION (continued):

	82.5°	85°	87.5°	90°
90°	0.0	0.0	0.0	0.0
87.5°	30.9	22.1	8.8	0.0
85°	66.3	44.2	22.1	0.0
82.5°	97.2	61.8	30.9	0.0
80°	128.1	83.9	39.8	0.0
77.5°	163.4	106.0	53.0	0.0
75°	194.4	123.7	61.8	0.0
72.5°	225.3	145.8	70.7	0.0
70°	251.8	163.4	79.5	0.0
67.5°	278.3	185.5	92.8	0.0
65°	300.4	203.2	101.6	0.0
62.5°	318.0	225.3	110.4	0.0
60°	340.1	242.9	119.3	0.0
57.5°	357.8	256.2	128.1	0.0
55°	375.5	265.0	136.9	0.0
52.5°	393.1	278.3	145.8	0.0
50°	410.8	291.5	154.6	0.0
47.5°	428.5	300.4	159.0	0.0
45°	455.0	313.6	167.9	0.0
42.5°	477.1	322.5	176.7	0.0
40°	499.1	331.3	181.1	0.0
37.5°	521.2	340.1	189.9	0.0
35°	543.3	349.0	194.4	0.0
32.5°	561.0	357.8	198.8	0.0
30°	578.6	366.6	203.2	0.0
27.5°	596.3	371.0	207.6	0.0
25°	609.6	379.9	212.0	0.0
22.5°	622.8	384.3	216.4	0.0
20°	631.7	388.7	220.9	0.0
17.5°	644.9	393.1	225.3	0.0
15°	649.3	397.5	234.1	0.0
12.5°	658.2	402.0	234.1	0.0
10°	662.6	406.4	234.1	0.0
7.5°	671.4	406.4	234.1	0.0
5°	667.0	406.4	234.1	0.0
2.5°	667.0	406.4	234.1	0.0
0°	662.6	406.4	234.1	0.0

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