

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: P628602

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

Issue Date: 01/11/2023

Test Information

Test Method: LM-79-2019
Report Number: P628602
Test Lab: INNOVATION CENTER(G2)
Issue Date: 01/11/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: EPHESUS
Catalog Number: EPH-VN-08-D-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

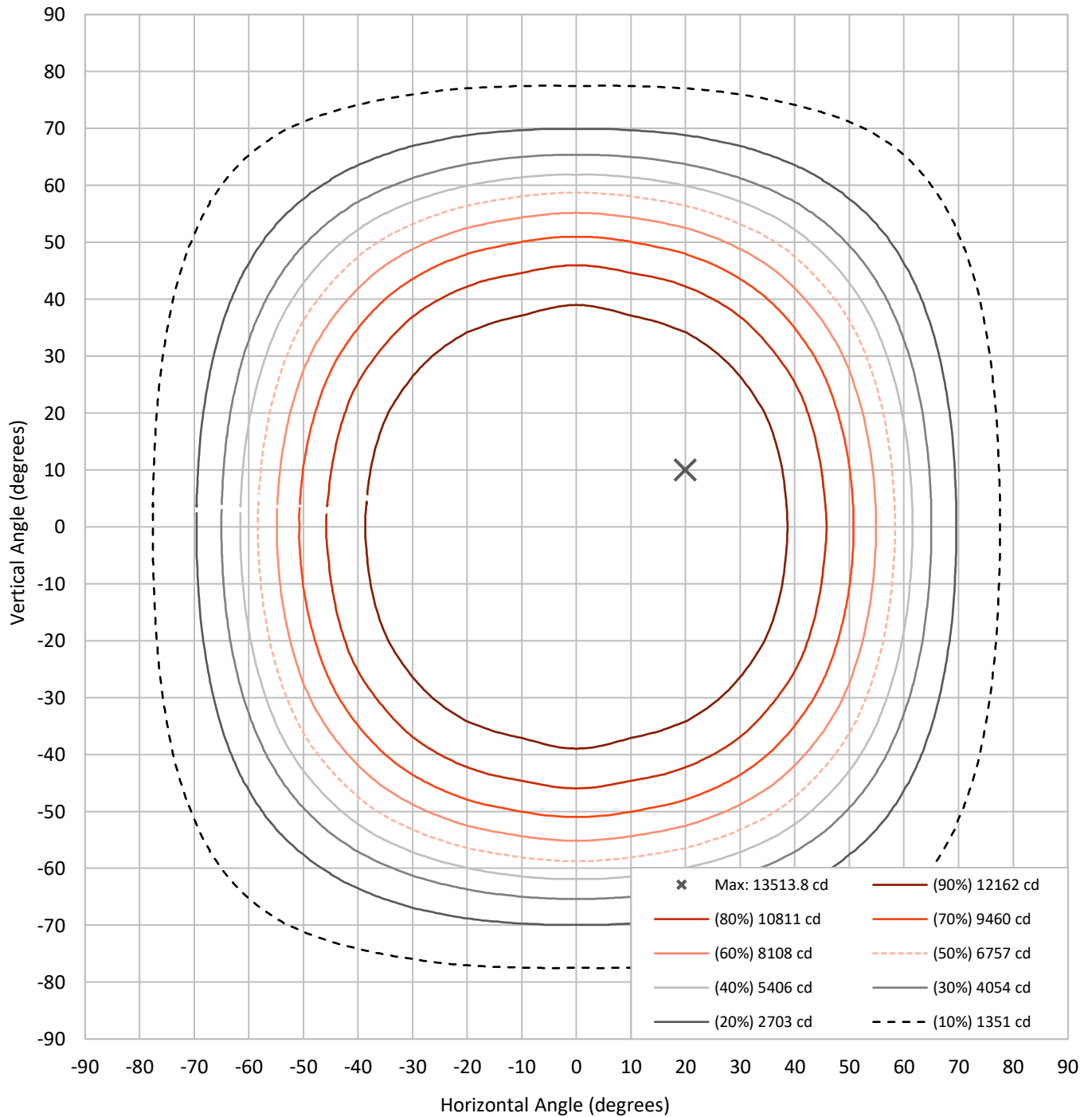
Lumens per Lamp:	N/A	NEMA Type:	7H x 7V
Luminaire Lumens:	41458.3 lumens	Max Intensity:	13513.8 candela
Efficiency:	N/A	Max Intensity Angle:	20°H x 10°V
Efficacy:	84.9 lumens/watt		
Luminous Opening:	Rectangular (W 2' x L: 1' x H: 0')		
Beam Angle (50%):	115.7°H x 112.9°V	Field Angle (10%):	154.7°H x 154°V
Beam Lumens:	25439.7 lumens	Field Lumens:	30497.9 lumens
Beam Efficiency:	61.4%	Field Efficiency:	73.6%

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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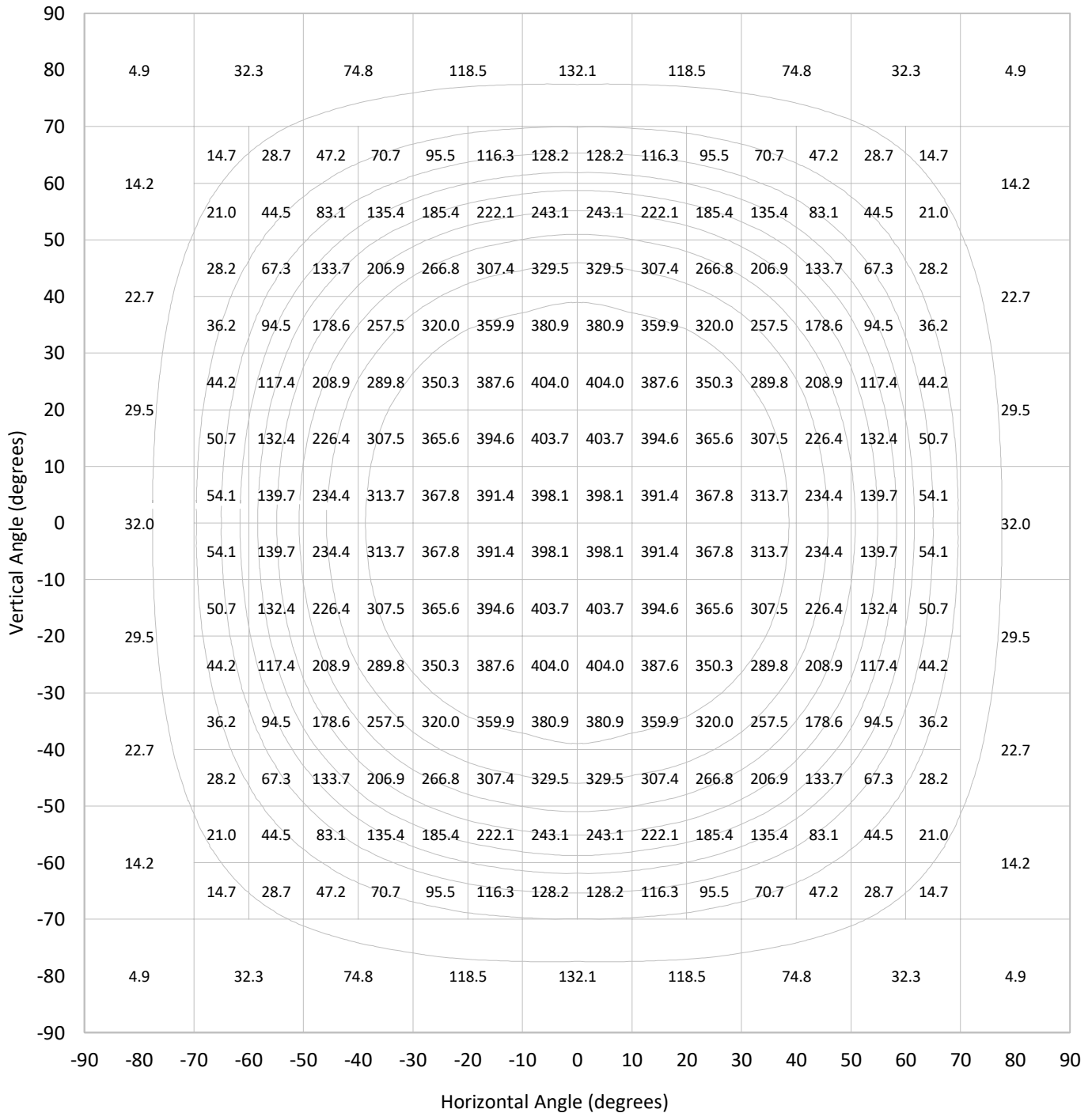
Iso-Candela Plot





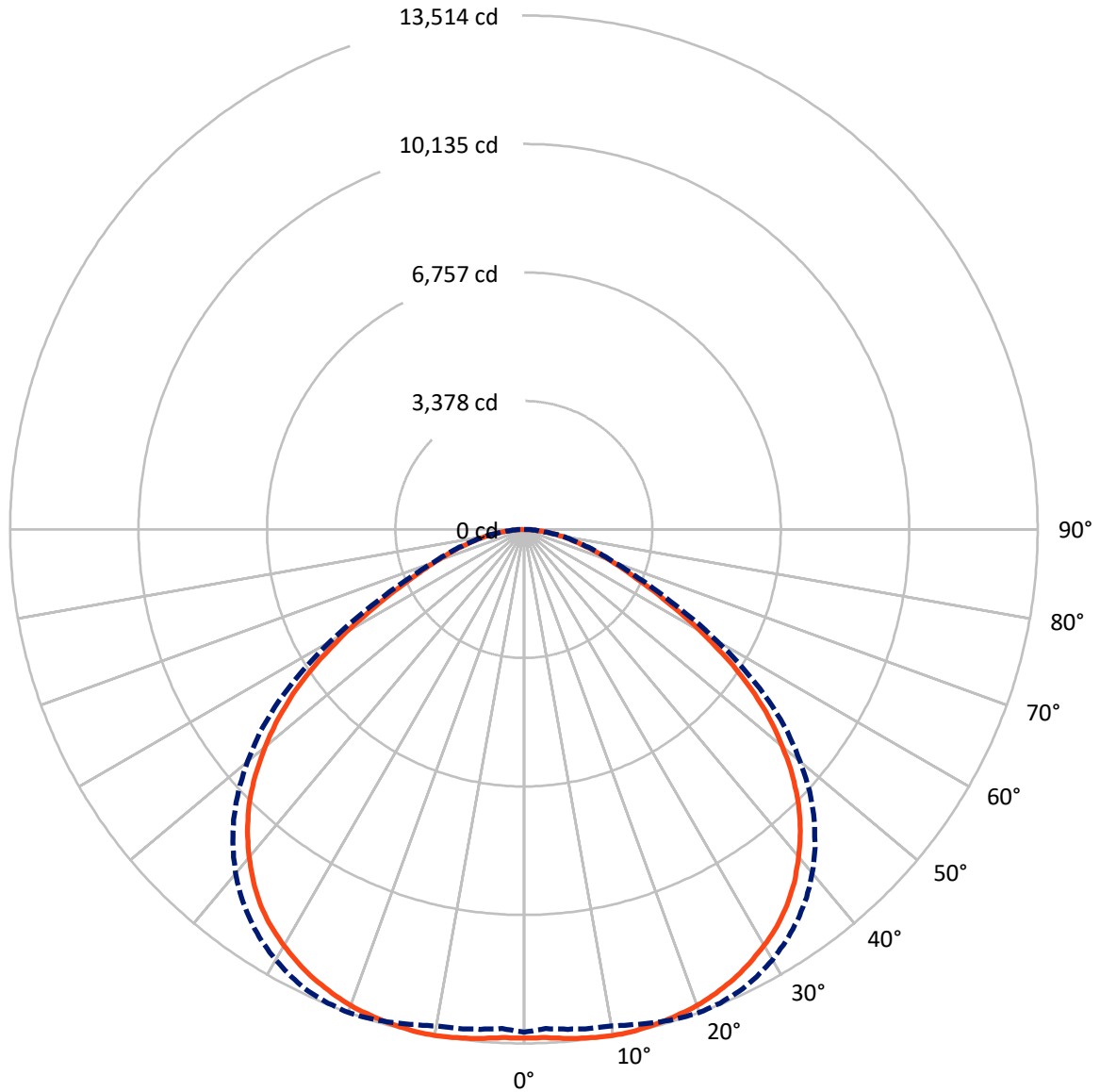
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Lumen Table



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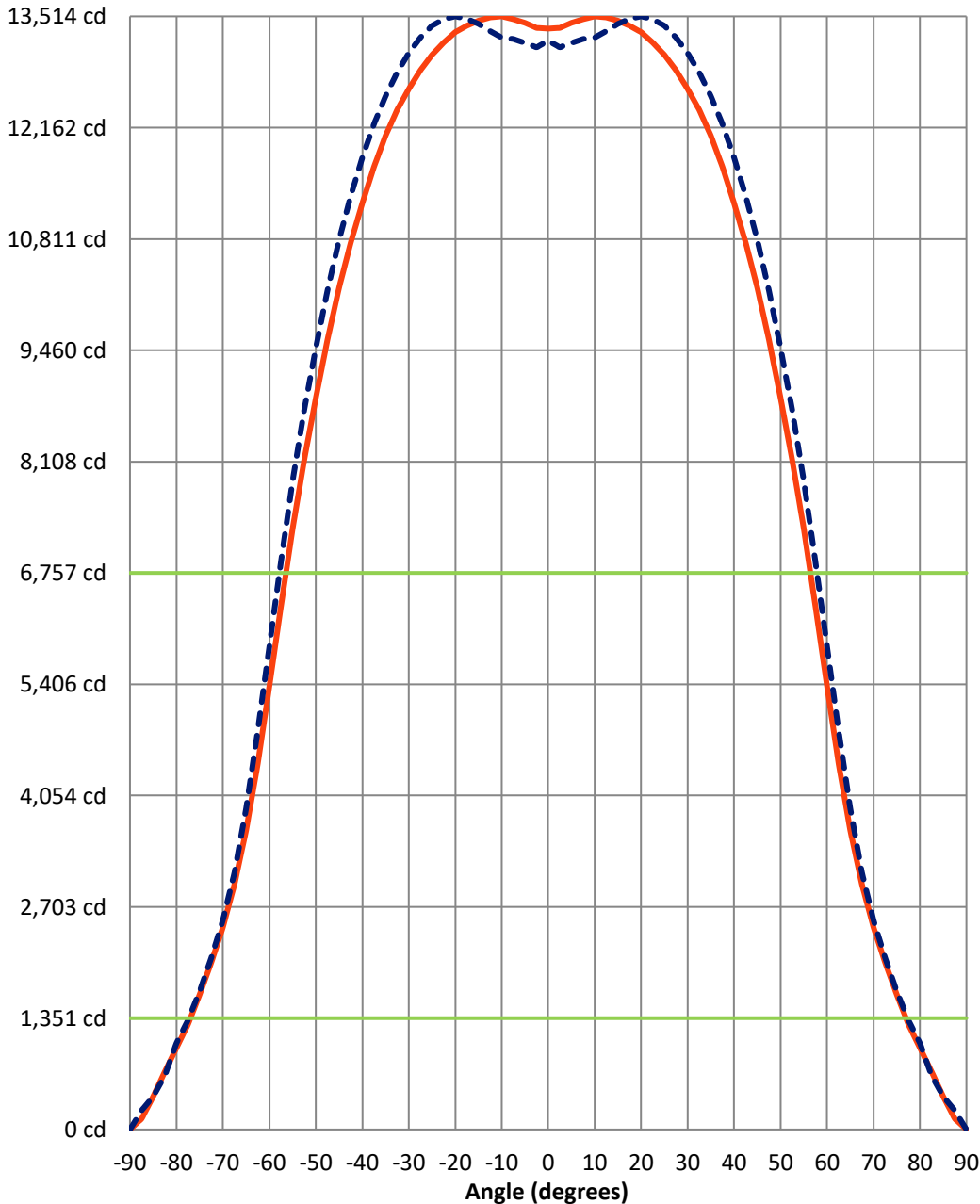
Luminous Intensity Polar Plot



— 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: 25439.7
 Efficiency: 61.4%

Field:
 H Angle: 154.7°
 V Angle: 154°
 Lumens: 30497.9
 Efficiency: 73.6%

Spill:
 Lumens: 10960.5
 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°	109.1	117.8	122.1	126.5	130.9	135.2	139.6	135.2	130.9	130.9	126.5
85°	292.3	301.0	305.3	335.9	366.4	383.9	405.7	401.3	401.3	397.0	392.6
82.5°	584.5	610.7	632.5	663.0	680.5	706.7	724.1	711.0	702.3	684.8	671.8
80°	1038.2	1046.9	1051.3	1055.6	1033.8	1029.5	1020.7	1007.6	990.2	968.4	946.6
77.5°	1321.7	1330.4	1339.2	1330.4	1326.1	1321.7	1308.6	1295.5	1278.1	1260.6	1234.5
75°	1749.2	1749.2	1749.2	1736.1	1727.4	1714.3	1692.5	1670.7	1640.1	1605.2	1566.0
72.5°	2202.9	2198.5	2194.1	2168.0	2146.1	2120.0	2089.4	2063.3	2028.4	1989.1	1936.8
70°	2678.3	2687.0	2691.4	2656.5	2630.3	2595.4	2556.2	2508.2	2455.9	2399.1	2325.0
67.5°	3332.6	3323.9	3315.2	3267.2	3232.3	3184.3	3127.6	3057.8	2979.3	2892.1	2787.4
65°	4144.0	4157.1	4130.9	4082.9	4017.5	3939.0	3851.7	3751.4	3633.6	3502.8	3354.4
62.5°	5125.5	5147.3	5116.7	5055.7	4972.8	4868.1	4746.0	4602.0	4440.6	4257.4	4074.2
60°	6242.2	6237.8	6181.1	6098.2	5989.1	5858.3	5723.1	5566.0	5382.8	5169.1	4946.6
57.5°	7267.2	7258.5	7188.7	7105.8	6996.8	6857.2	6713.3	6547.5	6355.6	6128.7	5871.4
55°	8187.6	8178.9	8109.1	8021.9	7908.5	7768.9	7638.0	7481.0	7293.4	7053.5	6778.7
52.5°	9003.4	9007.7	8946.6	8850.7	8728.5	8593.3	8466.8	8309.8	8130.9	7891.0	7624.9
50°	9753.6	9749.3	9683.8	9596.6	9483.2	9352.3	9225.8	9068.8	8881.2	8650.0	8392.7
47.5°	10451.6	10442.8	10368.7	10272.7	10154.9	10041.5	9923.8	9784.2	9587.9	9356.7	9099.3
45°	11036.1	11018.6	10944.5	10852.9	10739.5	10639.1	10534.4	10429.8	10220.4	10006.6	9762.4
42.5°	11537.7	11533.4	11459.2	11367.6	11254.2	11167.0	11071.0	10940.1	10765.6	10569.3	10329.4
40°	12017.6	11982.7	11908.5	11821.3	11716.6	11642.4	11546.5	11415.6	11245.5	11053.5	10822.3
37.5°	12375.2	12379.6	12301.1	12205.1	12113.5	12043.7	11956.5	11834.3	11686.0	11498.5	11267.3
35°	12715.5	12693.7	12628.3	12545.4	12462.5	12384.0	12292.4	12187.7	12065.5	11891.1	11673.0
32.5°	12938.0	12968.5	12890.0	12802.7	12754.8	12693.7	12597.7	12488.7	12379.6	12205.1	12008.8
30°	13182.2	13156.1	13095.0	13020.8	12985.9	12946.7	12863.8	12759.1	12632.6	12475.6	12292.4
27.5°	13352.4	13339.3	13265.1	13195.3	13177.9	13143.0	13077.5	12985.9	12859.4	12706.8	12536.6
25°	13426.5	13435.2	13365.4	13326.2	13326.2	13304.4	13252.0	13173.5	13047.0	12907.4	12741.7
22.5°	13461.4	13452.7	13404.7	13396.0	13417.8	13400.3	13378.5	13308.7	13195.3	13081.9	12942.3
20°	13483.2	13422.2	13378.5	13413.4	13439.6	13435.2	13417.8	13374.2	13321.8	13225.9	13103.7
17.5°	13435.2	13396.0	13343.6	13396.0	13452.7	13457.0	13439.6	13413.4	13400.3	13339.3	13230.2
15°	13317.5	13286.9	13295.6	13348.0	13413.4	13435.2	13448.3	13478.9	13461.4	13413.4	13317.5
12.5°	13238.9	13199.7	13238.9	13291.3	13326.2	13339.3	13444.0	13500.7	13500.7	13457.0	13396.0
10°	13217.1	13138.6	13191.0	13238.9	13256.4	13334.9	13422.2	13483.2	13513.8	13478.9	13400.3
7.5°	13173.5	13121.2	13143.0	13164.8	13265.1	13321.8	13369.8	13435.2	13478.9	13474.5	13404.7
5°	13151.7	13086.3	13095.0	13186.6	13256.4	13295.6	13313.1	13369.8	13435.2	13448.3	13396.0
2.5°	13095.0	13064.5	13129.9	13138.6	13191.0	13221.5	13238.9	13291.3	13374.2	13404.7	13382.9
0°	13064.5	13020.8	12977.2	13012.1	13099.4	13164.8	13191.0	13269.5	13365.4	13396.0	13348.0



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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°	122.1	117.8	113.4	109.1	113.4	113.4	113.4	109.1	113.4	109.1	109.1
85°	379.5	362.1	349.0	331.5	314.1	301.0	283.5	266.1	261.7	257.4	248.6
82.5°	654.3	632.5	610.7	584.5	558.3	527.8	497.3	462.4	453.7	444.9	431.8
80°	920.4	889.9	859.3	828.8	802.6	772.1	737.2	697.9	671.8	650.0	623.8
77.5°	1199.6	1156.0	1112.3	1060.0	1029.5	998.9	964.0	924.8	885.5	850.6	811.3
75°	1518.0	1470.0	1426.4	1374.1	1317.4	1260.6	1203.9	1151.6	1094.9	1042.5	990.2
72.5°	1871.3	1801.5	1731.7	1666.3	1596.5	1526.7	1452.6	1382.8	1313.0	1243.2	1169.0
70°	2242.1	2154.9	2067.6	1980.4	1888.8	1797.2	1709.9	1622.7	1535.5	1443.9	1361.0
67.5°	2678.3	2578.0	2464.6	2342.4	2207.2	2089.4	1976.0	1871.3	1766.6	1662.0	1557.3
65°	3223.6	3084.0	2931.3	2765.6	2608.5	2451.5	2285.7	2128.7	2006.6	1884.4	1766.6
62.5°	3895.3	3699.1	3485.3	3271.6	3079.6	2874.6	2682.7	2477.7	2285.7	2111.3	1967.3
60°	4698.0	4431.9	4170.2	3895.3	3629.3	3350.1	3105.8	2852.8	2612.9	2399.1	2189.8
57.5°	5583.5	5273.8	4959.7	4623.8	4261.8	3934.6	3603.1	3271.6	2988.0	2704.5	2468.9
55°	6482.1	6154.9	5801.6	5422.1	5025.1	4606.4	4157.1	3786.3	3398.1	3066.5	2761.2
52.5°	7337.0	6996.8	6630.4	6281.4	5805.9	5326.1	4833.2	4344.6	3891.0	3467.9	3097.1
50°	8100.4	7768.9	7415.6	7009.9	6569.3	6058.9	5509.3	4959.7	4423.2	3925.9	3463.5
47.5°	8798.3	8475.5	8122.2	7716.5	7315.2	6748.2	6194.2	5587.8	4990.2	4418.8	3877.9
45°	9452.6	9125.5	8759.1	8370.9	7908.5	7402.5	6831.0	6220.3	5579.1	4937.9	4314.1
42.5°	10045.9	9718.7	9348.0	8946.6	8488.6	7987.0	7433.0	6817.9	6172.4	5474.4	4789.6
40°	10565.0	10246.5	9888.9	9470.1	9042.6	8514.8	7969.5	7385.0	6717.6	6015.3	5260.7
37.5°	11018.6	10722.0	10368.7	9954.3	9500.6	9029.5	8466.8	7882.3	7280.3	6517.0	5744.9
35°	11420.0	11145.1	10783.1	10390.5	9945.6	9448.3	8920.5	8349.0	7699.1	6983.7	6233.4
32.5°	11768.9	11489.7	11158.2	10765.6	10333.8	9867.0	9326.1	8750.4	8135.3	7406.8	6591.1
30°	12065.5	11795.1	11481.0	11110.2	10695.8	10233.5	9705.6	9125.5	8497.4	7773.2	6966.3
27.5°	12322.9	12065.5	11760.2	11415.6	11018.6	10573.7	10041.5	9457.0	8815.8	8117.8	7310.9
25°	12545.4	12296.7	12013.2	11686.0	11293.5	10857.2	10355.6	9744.9	9103.7	8401.4	7603.1
22.5°	12746.0	12506.1	12222.6	11904.1	11546.5	11110.2	10604.2	9997.9	9348.0	8654.4	7869.2
20°	12924.9	12702.4	12423.2	12096.1	11738.4	11297.8	10796.2	10220.4	9566.1	8885.6	8109.1
17.5°	13068.8	12872.5	12593.4	12248.7	11891.1	11463.6	10975.0	10447.2	9753.6	9081.9	8309.8
15°	13169.1	12977.2	12724.2	12375.2	12026.3	11603.2	11114.6	10569.3	9923.8	9238.9	8475.5
12.5°	13238.9	13033.9	12798.4	12475.6	12126.6	11707.8	11232.4	10695.8	10067.7	9378.5	8619.5
10°	13256.4	13068.8	12833.3	12545.4	12205.1	11799.5	11332.7	10800.5	10185.5	9487.5	8737.3
7.5°	13265.1	13086.3	12872.5	12597.7	12261.8	11869.2	11406.9	10883.4	10272.7	9579.1	8824.5
5°	13260.8	13090.6	12898.7	12632.6	12296.7	11908.5	11454.8	10940.1	10333.8	9640.2	8889.9
2.5°	13247.7	13095.0	12916.1	12658.8	12336.0	11952.1	11502.8	11005.6	10399.2	9692.6	8942.3
0°	13282.6	13151.7	12924.9	12650.1	12344.7	11952.1	11498.5	11014.3	10407.9	9688.2	8937.9



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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°	109.1	104.7	104.7	100.3	96.0	91.6	82.9	78.5	69.8	56.7	43.6
85°	235.6	222.5	209.4	200.7	191.9	183.2	170.1	157.0	139.6	113.4	87.2
82.5°	414.4	388.2	362.1	331.5	305.3	279.2	257.4	235.6	209.4	170.1	130.9
80°	593.2	554.0	514.7	471.1	431.8	388.2	349.0	314.1	279.2	226.8	174.5
77.5°	772.1	719.7	663.0	610.7	554.0	497.3	440.6	392.6	340.2	279.2	218.1
75°	937.8	876.8	824.4	750.3	680.5	606.3	532.2	466.7	401.3	327.2	261.7
72.5°	1103.6	1025.1	950.9	881.1	802.6	711.0	628.1	545.3	462.4	375.1	296.6
70°	1269.4	1173.4	1081.8	998.9	911.7	820.1	719.7	623.8	523.5	418.8	327.2
67.5°	1439.5	1330.4	1225.7	1121.1	1020.7	916.0	811.3	702.3	584.5	462.4	362.1
65°	1627.1	1491.8	1365.3	1247.6	1129.8	1016.4	898.6	780.8	650.0	510.4	392.6
62.5°	1814.6	1666.3	1518.0	1369.7	1238.8	1112.3	985.8	855.0	711.0	562.7	423.1
60°	2015.3	1845.2	1675.0	1509.3	1347.9	1208.3	1068.7	929.1	776.5	610.7	453.7
57.5°	2237.8	2032.7	1840.8	1653.2	1470.0	1304.3	1151.6	1003.3	833.2	658.7	488.6
55°	2490.8	2237.8	2010.9	1801.5	1600.9	1400.2	1234.5	1081.8	898.6	706.7	527.8
52.5°	2756.8	2464.6	2189.8	1954.2	1740.5	1513.6	1313.0	1142.9	964.0	754.6	562.7
50°	3066.5	2695.8	2390.4	2102.5	1862.6	1627.1	1395.9	1212.7	1029.5	811.3	597.6
47.5°	3385.0	2974.9	2591.1	2277.0	1993.5	1736.1	1491.8	1273.7	1090.5	863.7	632.5
45°	3755.8	3241.0	2817.9	2447.1	2120.0	1849.5	1587.8	1339.2	1142.9	916.0	667.4
42.5°	4113.5	3555.1	3053.5	2634.7	2263.9	1958.6	1675.0	1409.0	1195.2	968.4	697.9
40°	4536.6	3869.2	3280.3	2813.5	2407.9	2063.3	1762.3	1483.1	1243.2	1016.4	728.5
37.5°	4942.2	4187.6	3555.1	3009.8	2547.5	2168.0	1849.5	1552.9	1286.8	1064.3	767.7
35°	5343.6	4540.9	3816.8	3193.0	2691.4	2285.7	1936.8	1618.3	1330.4	1103.6	802.6
32.5°	5727.4	4872.5	4082.9	3398.1	2848.4	2394.8	2015.3	1679.4	1374.1	1138.5	837.5
30°	6085.1	5186.5	4344.6	3607.4	2992.4	2495.1	2089.4	1740.5	1426.4	1169.0	872.4
27.5°	6412.3	5491.9	4606.4	3803.7	3127.6	2586.7	2168.0	1797.2	1470.0	1199.6	903.0
25°	6708.9	5766.7	4846.3	3982.6	3249.8	2687.0	2242.1	1853.9	1509.3	1225.7	929.1
22.5°	6988.1	6019.7	5064.4	4161.4	3398.1	2787.4	2311.9	1906.2	1548.5	1251.9	955.3
20°	7232.3	6250.9	5273.8	4340.3	3528.9	2879.0	2373.0	1954.2	1583.4	1269.4	981.5
17.5°	7428.6	6455.9	5461.3	4497.3	3642.3	2957.5	2425.3	1997.8	1614.0	1291.2	998.9
15°	7603.1	6630.4	5618.4	4632.5	3742.7	3022.9	2473.3	2032.7	1640.1	1304.3	1020.7
12.5°	7751.4	6778.7	5753.6	4750.3	3829.9	3079.6	2512.6	2058.9	1662.0	1317.4	1033.8
10°	7873.6	6896.5	5867.0	4841.9	3899.7	3123.3	2543.1	2085.1	1679.4	1330.4	1046.9
7.5°	7965.2	6983.7	5949.9	4920.4	3956.4	3153.8	2569.3	2102.5	1696.9	1339.2	1068.7
5°	8035.0	7057.9	6015.3	4972.8	4000.0	3197.4	2599.8	2124.3	1714.3	1347.9	1068.7
2.5°	8087.3	7118.9	6067.7	5016.4	4034.9	3188.7	2599.8	2120.0	1714.3	1347.9	1064.3
0°	8078.6	7123.3	6063.3	5016.4	4034.9	3180.0	2599.8	2115.6	1714.3	1347.9	1064.3



REPORT NUMBER: P628602
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CANDELA DISTRIBUTION (continued):

	82.5°	85°	87.5°	90°
90°	0.0	0.0	0.0	0.0
87.5°	30.5	21.8	8.7	0.0
85°	65.4	43.6	21.8	0.0
82.5°	96.0	61.1	30.5	0.0
80°	126.5	82.9	39.3	0.0
77.5°	161.4	104.7	52.3	0.0
75°	191.9	122.1	61.1	0.0
72.5°	222.5	143.9	69.8	0.0
70°	248.6	161.4	78.5	0.0
67.5°	274.8	183.2	91.6	0.0
65°	296.6	200.7	100.3	0.0
62.5°	314.1	222.5	109.1	0.0
60°	335.9	239.9	117.8	0.0
57.5°	353.3	253.0	126.5	0.0
55°	370.8	261.7	135.2	0.0
52.5°	388.2	274.8	143.9	0.0
50°	405.7	287.9	152.7	0.0
47.5°	423.1	296.6	157.0	0.0
45°	449.3	309.7	165.8	0.0
42.5°	471.1	318.4	174.5	0.0
40°	492.9	327.2	178.8	0.0
37.5°	514.7	335.9	187.6	0.0
35°	536.5	344.6	191.9	0.0
32.5°	554.0	353.3	196.3	0.0
30°	571.4	362.1	200.7	0.0
27.5°	588.9	366.4	205.0	0.0
25°	602.0	375.1	209.4	0.0
22.5°	615.1	379.5	213.7	0.0
20°	623.8	383.9	218.1	0.0
17.5°	636.9	388.2	222.5	0.0
15°	641.2	392.6	231.2	0.0
12.5°	650.0	397.0	231.2	0.0
10°	654.3	401.3	231.2	0.0
7.5°	663.0	401.3	231.2	0.0
5°	658.7	401.3	231.2	0.0
2.5°	658.7	401.3	231.2	0.0
0°	654.3	401.3	231.2	0.0

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