

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: P628562

Luminaire Tested: **EPH-VN-03-E-735-U-LAM**

Issue Date: 01/11/2023

Test Information

Test Method: LM-79-2019
Report Number: P628562
Test Lab: INNOVATION CENTER(G2)
Issue Date: 01/11/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: EPHESUS
Catalog Number: EPH-VN-03-E-735-U-LAM
Description: EPHESUS LUMAVISION FLOOD – Middle Tier Light Square Luminaire w/
LAMBERTIAN distribution lens
Light Source: (48) 3500K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

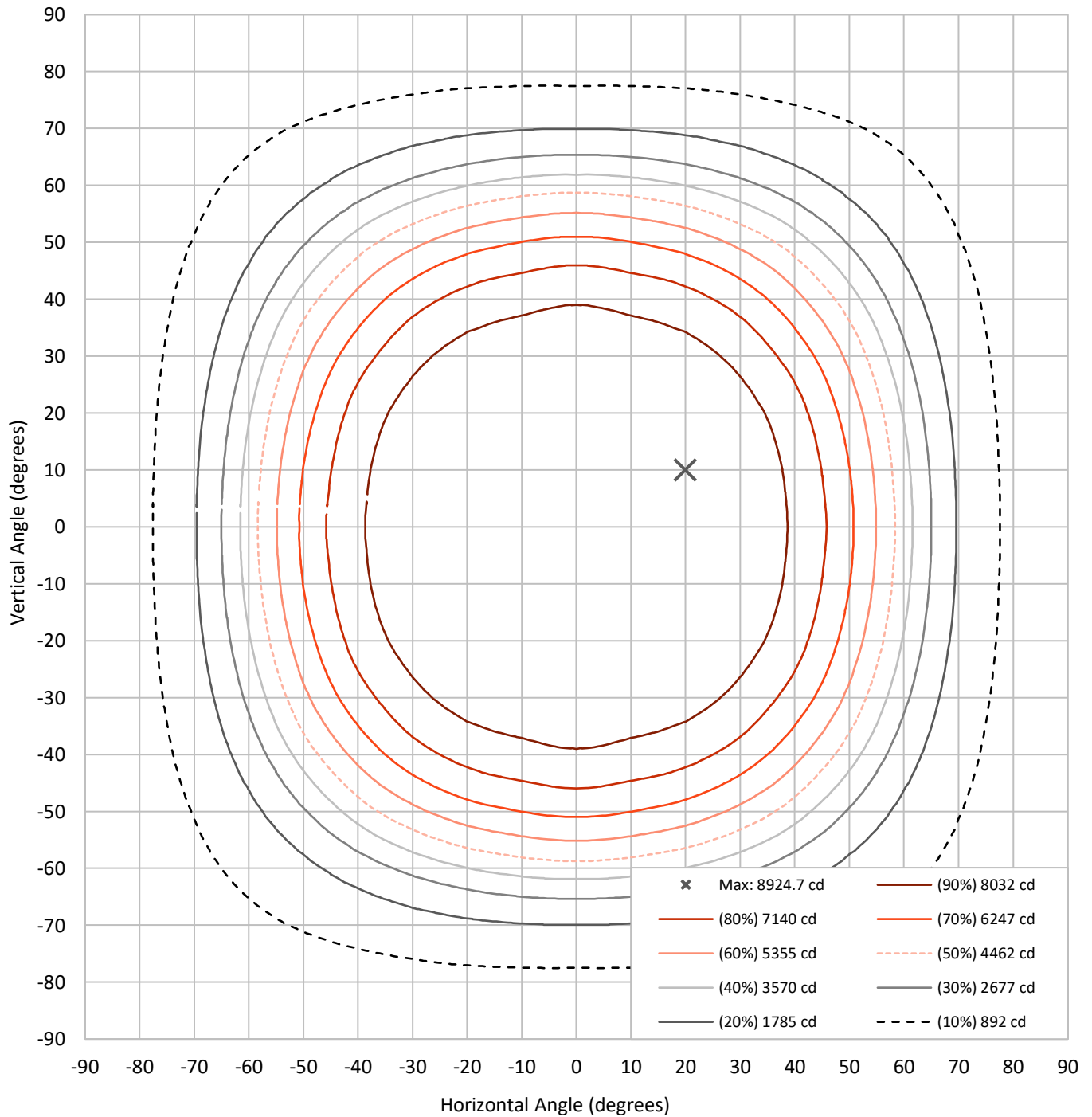
Lumens per Lamp:	N/A	NEMA Type:	7H x 7V
Luminaire Lumens:	27379.9 lumens	Max Intensity:	8924.7 candela
Efficiency:	N/A	Max Intensity Angle:	20°H x 10°V
Efficacy:	118.0 lumens/watt		
Luminous Opening:	Rectangular (W 1.5' x L: 0.5' x H: 0')		
Beam Angle (50%):	115.7°H x 112.9°V	Field Angle (10%):	154.7°H x 154°V
Beam Lumens:	16800.9 lumens	Field Lumens:	20141.4 lumens
Beam Efficiency:	61.4%	Field Efficiency:	73.6%

Input Watts (W): 232.1
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





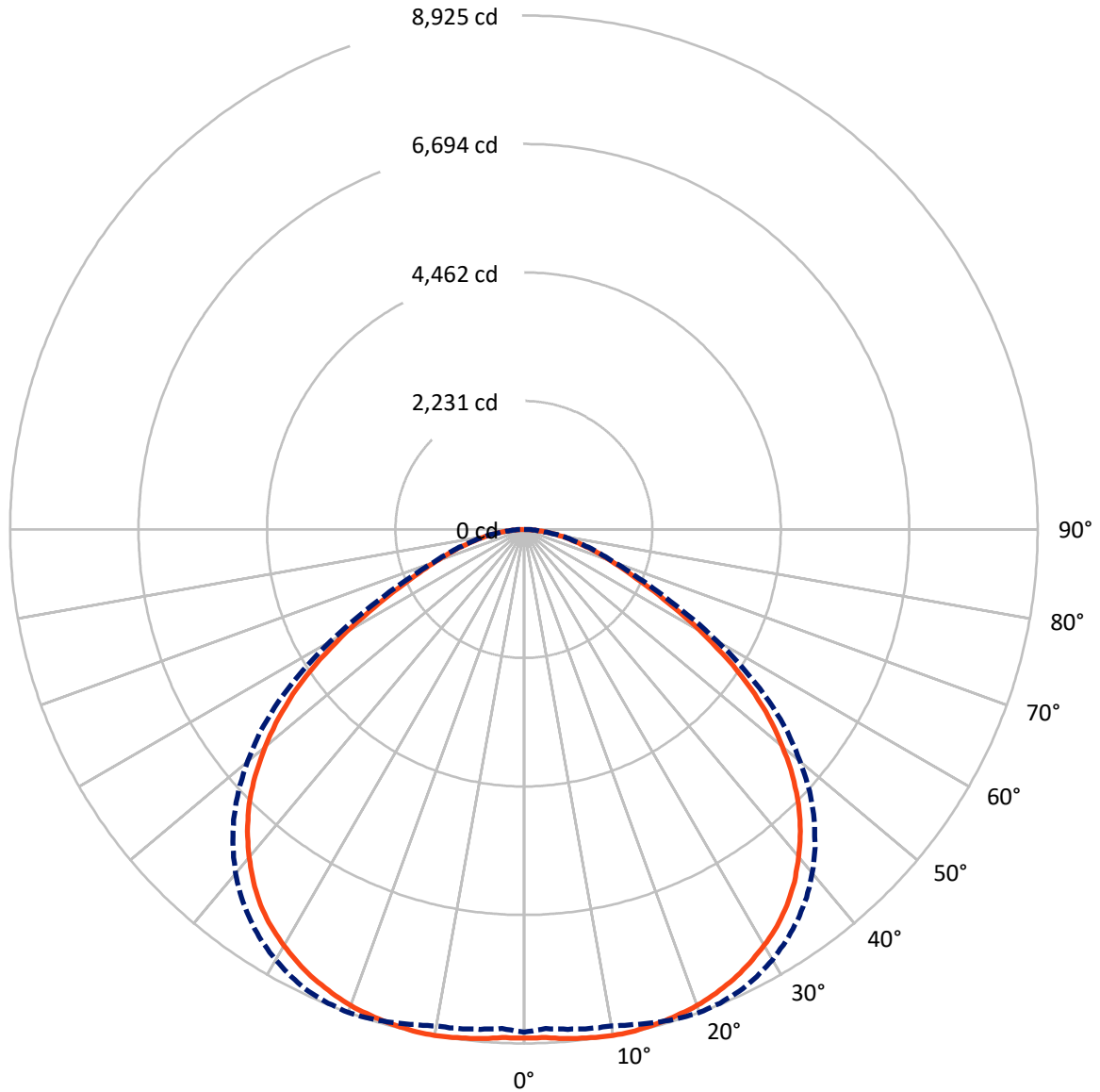
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Lumen Table

Vertical Angle (degrees)	-90	-80	-70	-60	-50	-40	-30	-20	-10	0	10	20	30	40	50	60	70	80	90
90																			
80	3.3		21.3		49.4		78.3		87.2		78.3		49.4		21.3		3.3		
70			9.7	18.9	31.2	46.7	63.1	76.8	84.7	84.7	76.8	63.1	46.7	31.2	18.9	9.7			
60	9.4		13.9	29.4	54.9	89.4	122.4	146.7	160.6	160.6	146.7	122.4	89.4	54.9	29.4	13.9		9.4	
50			18.6	44.4	88.3	136.6	176.2	203.0	217.6	217.6	203.0	176.2	136.6	88.3	44.4	18.6			
40	15.0		23.9	62.4	117.9	170.1	211.4	237.7	251.5	251.5	237.7	211.4	170.1	117.9	62.4	23.9		15.0	
30			29.2	77.5	138.0	191.4	231.3	256.0	266.8	266.8	256.0	231.3	191.4	138.0	77.5	29.2			
20	19.5		33.5	87.4	149.5	203.1	241.4	260.6	266.6	266.6	260.6	241.4	203.1	149.5	87.4	33.5		19.5	
10			35.7	92.3	154.8	207.2	242.9	258.5	262.9	262.9	258.5	242.9	207.2	154.8	92.3	35.7			
0	21.1		35.7	92.3	154.8	207.2	242.9	258.5	262.9	262.9	258.5	242.9	207.2	154.8	92.3	35.7		21.1	
-10			33.5	87.4	149.5	203.1	241.4	260.6	266.6	266.6	260.6	241.4	203.1	149.5	87.4	33.5			
-20	19.5		29.2	77.5	138.0	191.4	231.3	256.0	266.8	266.8	256.0	231.3	191.4	138.0	77.5	29.2		19.5	
-30			23.9	62.4	117.9	170.1	211.4	237.7	251.5	251.5	237.7	211.4	170.1	117.9	62.4	23.9			
-40	15.0		18.6	44.4	88.3	136.6	176.2	203.0	217.6	217.6	203.0	176.2	136.6	88.3	44.4	18.6		15.0	
-50			13.9	29.4	54.9	89.4	122.4	146.7	160.6	160.6	146.7	122.4	89.4	54.9	29.4	13.9			
-60	9.4		9.7	18.9	31.2	46.7	63.1	76.8	84.7	84.7	76.8	63.1	46.7	31.2	18.9	9.7		9.4	
-70																			
-80	3.3		21.3		49.4		78.3		87.2		78.3		49.4		21.3		3.3		
-90																			

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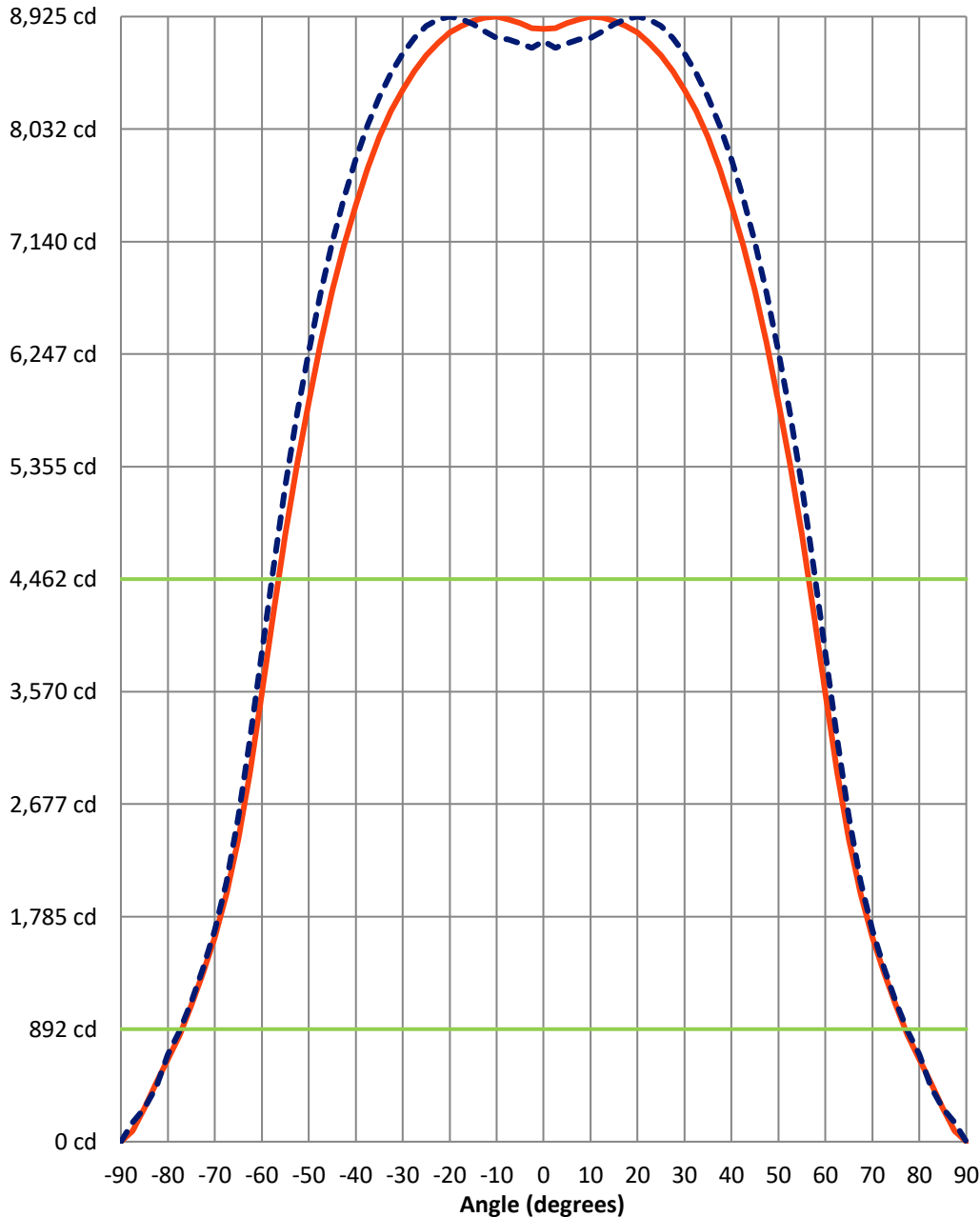
Luminous Intensity Polar Plot



— 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: 16800.9
 Efficiency: 61.4%

Field:
 H Angle: 154.7°
 V Angle: 154°
 Lumens: 20141.4
 Efficiency: 73.6%

Spill:
 Lumens: 7238.5
 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°	72.0	77.8	80.7	83.5	86.4	89.3	92.2	89.3	86.4	86.4	83.5
85°	193.0	198.8	201.7	221.8	242.0	253.5	267.9	265.0	262.2	262.2	259.3
82.5°	386.0	403.3	417.7	437.9	449.4	466.7	478.2	469.6	452.3	452.3	443.6
80°	685.6	691.4	694.3	697.2	682.8	679.9	674.1	665.5	639.5	639.5	625.1
77.5°	872.9	878.6	884.4	878.6	875.8	872.9	864.2	855.6	832.6	832.6	815.3
75°	1155.2	1155.2	1155.2	1146.6	1140.8	1132.2	1117.8	1103.3	1060.1	1060.1	1034.2
72.5°	1454.8	1451.9	1449.0	1431.8	1417.4	1400.1	1379.9	1362.6	1313.6	1313.6	1279.1
70°	1768.8	1774.6	1777.5	1754.4	1737.1	1714.1	1688.2	1656.5	1584.4	1584.4	1535.5
67.5°	2200.9	2195.2	2189.4	2157.7	2134.7	2103.0	2065.5	2019.4	1910.0	1910.0	1840.8
65°	2736.8	2745.4	2728.1	2696.4	2653.2	2601.4	2543.8	2477.5	2313.3	2313.3	2215.3
62.5°	3384.9	3399.4	3379.2	3338.9	3284.1	3215.0	3134.3	3039.2	2811.7	2811.7	2690.7
60°	4122.4	4119.6	4082.1	4027.4	3955.3	3868.9	3779.6	3675.9	3413.8	3413.8	3266.8
57.5°	4799.4	4793.7	4747.6	4692.8	4620.8	4528.6	4433.6	4324.1	4047.5	4047.5	3877.6
55°	5407.3	5401.5	5355.4	5297.8	5222.9	5130.7	5044.3	4940.6	4658.3	4658.3	4476.8
52.5°	5946.0	5948.9	5908.5	5845.2	5764.5	5675.2	5591.6	5487.9	5211.4	5211.4	5035.6
50°	6441.5	6438.6	6395.4	6337.8	6262.9	6176.4	6092.9	5989.2	5712.6	5712.6	5542.7
47.5°	6902.4	6896.6	6847.7	6784.3	6706.5	6631.6	6553.8	6461.6	6179.3	6179.3	6009.4
45°	7288.4	7276.9	7227.9	7167.4	7092.5	7026.3	6957.1	6888.0	6608.6	6608.6	6447.2
42.5°	7619.7	7616.9	7567.9	7507.4	7432.5	7374.9	7311.5	7225.1	6980.2	6980.2	6821.7
40°	7936.6	7913.6	7864.6	7807.0	7737.8	7688.9	7625.5	7539.1	7300.0	7300.0	7147.3
37.5°	8172.8	8175.7	8123.9	8060.5	8000.0	7953.9	7896.3	7815.6	7593.8	7593.8	7441.1
35°	8397.5	8383.1	8339.9	8285.2	8230.5	8178.6	8118.1	8049.0	7853.1	7853.1	7709.0
32.5°	8544.5	8564.6	8512.8	8455.2	8423.5	8383.1	8319.8	8247.7	8060.5	8060.5	7930.9
30°	8705.8	8688.5	8648.2	8599.2	8576.2	8550.2	8495.5	8426.4	8239.1	8239.1	8118.1
27.5°	8818.1	8809.5	8760.5	8714.4	8702.9	8679.9	8636.7	8576.2	8391.8	8391.8	8279.4
25°	8867.1	8872.9	8826.8	8800.9	8800.9	8786.5	8751.9	8700.0	8524.3	8524.3	8414.8
22.5°	8890.2	8884.4	8852.7	8847.0	8861.4	8849.8	8835.4	8789.3	8639.5	8639.5	8547.4
20°	8904.6	8864.2	8835.4	8858.5	8875.8	8872.9	8861.4	8832.6	8734.6	8734.6	8653.9
17.5°	8872.9	8847.0	8812.4	8847.0	8884.4	8887.3	8875.8	8858.5	8809.5	8809.5	8737.5
15°	8795.1	8774.9	8780.7	8815.3	8858.5	8872.9	8881.5	8901.7	8858.5	8858.5	8795.1
12.5°	8743.2	8717.3	8743.2	8777.8	8800.9	8809.5	8878.6	8916.1	8887.3	8887.3	8847.0
10°	8728.8	8677.0	8711.6	8743.2	8754.8	8806.6	8864.2	8904.6	8891.7	8891.7	8849.8
7.5°	8700.0	8665.5	8679.9	8694.3	8760.5	8798.0	8829.7	8872.9	8898.8	8898.8	8852.7
5°	8685.6	8642.4	8648.2	8708.7	8754.8	8780.7	8792.2	8829.7	8881.5	8881.5	8847.0
2.5°	8648.2	8628.0	8671.2	8677.0	8711.6	8731.7	8743.2	8777.8	8852.7	8852.7	8838.3
0°	8628.0	8599.2	8570.4	8593.4	8651.1	8694.3	8711.6	8763.4	8847.0	8847.0	8815.3



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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°	80.7	77.8	74.9	72.0	74.9	74.9	74.9	72.0	74.9	72.0	72.0
85°	250.6	239.1	230.5	218.9	207.4	198.8	187.3	175.7	172.8	170.0	164.2
82.5°	432.1	417.7	403.3	386.0	368.7	348.6	328.4	305.4	299.6	293.8	285.2
80°	607.8	587.7	567.5	547.4	530.1	509.9	486.9	460.9	443.6	429.2	412.0
77.5°	792.2	763.4	734.6	700.0	679.9	659.7	636.7	610.7	584.8	561.8	535.8
75°	1002.5	970.8	942.0	907.5	870.0	832.6	795.1	760.5	723.1	688.5	653.9
72.5°	1235.9	1189.8	1143.7	1100.5	1054.4	1008.3	959.3	913.2	867.1	821.0	772.1
70°	1480.7	1423.1	1365.5	1307.9	1247.4	1186.9	1129.3	1071.7	1014.0	953.5	898.8
67.5°	1768.8	1702.6	1627.7	1547.0	1457.7	1379.9	1305.0	1235.9	1166.7	1097.6	1028.4
65°	2128.9	2036.7	1935.9	1826.4	1722.7	1619.0	1509.5	1405.8	1325.2	1244.5	1166.7
62.5°	2572.6	2442.9	2301.8	2160.6	2033.8	1898.5	1771.7	1636.3	1509.5	1394.3	1299.2
60°	3102.6	2926.9	2754.1	2572.6	2396.8	2212.5	2051.1	1884.0	1725.6	1584.4	1446.2
57.5°	3687.4	3482.9	3275.5	3053.7	2814.5	2598.5	2379.5	2160.6	1973.4	1786.1	1630.5
55°	4280.9	4064.8	3831.5	3580.8	3318.7	3042.1	2745.4	2500.5	2244.1	2025.2	1823.5
52.5°	4845.5	4620.8	4378.8	4148.4	3834.4	3517.5	3191.9	2869.3	2569.7	2290.2	2045.4
50°	5349.7	5130.7	4897.4	4629.5	4338.5	4001.4	3638.5	3275.5	2921.1	2592.7	2287.4
47.5°	5810.6	5597.4	5364.1	5096.1	4831.1	4456.6	4090.7	3690.3	3295.6	2918.3	2561.0
45°	6242.7	6026.6	5784.7	5528.3	5222.9	4888.7	4511.3	4108.0	3684.6	3261.1	2849.1
42.5°	6634.5	6418.4	6173.6	5908.5	5606.0	5274.8	4908.9	4502.7	4076.3	3615.4	3163.1
40°	6977.3	6767.0	6530.8	6254.2	5971.9	5623.3	5263.2	4877.2	4436.4	3972.6	3474.3
37.5°	7276.9	7081.0	6847.7	6574.0	6274.4	5963.3	5591.6	5205.6	4808.1	4303.9	3794.0
35°	7541.9	7360.5	7121.4	6862.1	6568.2	6239.8	5891.2	5513.9	5084.6	4612.2	4116.7
32.5°	7772.4	7588.0	7369.1	7109.8	6824.6	6516.4	6159.2	5778.9	5372.7	4891.6	4352.9
30°	7968.3	7789.7	7582.3	7337.4	7063.7	6758.4	6409.8	6026.6	5611.8	5133.6	4600.6
27.5°	8138.3	7968.3	7766.7	7539.1	7276.9	6983.1	6631.6	6245.6	5822.1	5361.2	4828.2
25°	8285.2	8121.0	7933.7	7717.7	7458.4	7170.3	6839.0	6435.7	6012.2	5548.4	5021.2
22.5°	8417.7	8259.3	8072.0	7861.7	7625.5	7337.4	7003.2	6602.8	6173.6	5715.5	5197.0
20°	8535.8	8388.9	8204.5	7988.5	7752.2	7461.3	7130.0	6749.7	6317.6	5868.2	5355.4
17.5°	8630.9	8501.3	8316.9	8089.3	7853.1	7570.8	7248.1	6899.5	6441.5	5997.8	5487.9
15°	8697.2	8570.4	8403.3	8172.8	7942.4	7662.9	7340.3	6980.2	6553.8	6101.5	5597.4
12.5°	8743.2	8607.8	8452.3	8239.1	8008.6	7732.1	7418.1	7063.7	6648.9	6193.7	5692.5
10°	8754.8	8630.9	8475.3	8285.2	8060.5	7792.6	7484.3	7132.9	6726.7	6265.8	5770.3
7.5°	8760.5	8642.4	8501.3	8319.8	8097.9	7838.7	7533.3	7187.6	6784.3	6326.2	5827.9
5°	8757.6	8645.3	8518.5	8342.8	8121.0	7864.6	7565.0	7225.1	6824.6	6366.6	5871.1
2.5°	8749.0	8648.2	8530.1	8360.1	8146.9	7893.4	7596.7	7268.3	6867.8	6401.2	5905.7
0°	8772.1	8685.6	8535.8	8354.3	8152.7	7893.4	7593.8	7274.0	6873.6	6398.3	5902.8



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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°	72.0	69.1	69.1	66.3	63.4	60.5	54.7	51.9	46.1	37.5	28.8
85°	155.6	146.9	138.3	132.5	126.8	121.0	112.4	103.7	92.2	74.9	57.6
82.5°	273.7	256.4	239.1	218.9	201.7	184.4	170.0	155.6	138.3	112.4	86.4
80°	391.8	365.9	339.9	311.1	285.2	256.4	230.5	207.4	184.4	149.8	115.2
77.5°	509.9	475.3	437.9	403.3	365.9	328.4	291.0	259.3	224.7	184.4	144.0
75°	619.4	579.0	544.5	495.5	449.4	400.4	351.5	308.2	265.0	216.1	172.8
72.5°	728.8	677.0	628.0	581.9	530.1	469.6	414.8	360.1	305.4	247.7	195.9
70°	838.3	774.9	714.4	659.7	602.1	541.6	475.3	412.0	345.7	276.6	216.1
67.5°	950.7	878.6	809.5	740.4	674.1	605.0	535.8	463.8	386.0	305.4	239.1
65°	1074.5	985.2	901.7	823.9	746.1	671.2	593.4	515.7	429.2	337.1	259.3
62.5°	1198.4	1100.5	1002.5	904.6	818.1	734.6	651.1	564.6	469.6	371.6	279.4
60°	1330.9	1218.6	1106.2	996.8	890.2	798.0	705.8	613.6	512.8	403.3	299.6
57.5°	1477.9	1342.5	1215.7	1091.8	970.8	861.4	760.5	662.6	550.2	435.0	322.7
55°	1644.9	1477.9	1328.1	1189.8	1057.3	924.7	815.3	714.4	593.4	466.7	348.6
52.5°	1820.7	1627.7	1446.2	1290.6	1149.4	999.6	867.1	754.8	636.7	498.4	371.6
50°	2025.2	1780.3	1578.7	1388.5	1230.1	1074.5	921.9	800.9	679.9	535.8	394.7
47.5°	2235.5	1964.7	1711.2	1503.8	1316.5	1146.6	985.2	841.2	720.2	570.4	417.7
45°	2480.4	2140.4	1861.0	1616.1	1400.1	1221.5	1048.6	884.4	754.8	605.0	440.8
42.5°	2716.6	2347.9	2016.6	1740.0	1495.1	1293.5	1106.2	930.5	789.3	639.5	460.9
40°	2996.0	2555.3	2166.4	1858.1	1590.2	1362.6	1163.8	979.5	821.0	671.2	481.1
37.5°	3264.0	2765.6	2347.9	1987.8	1682.4	1431.8	1221.5	1025.6	849.8	702.9	507.0
35°	3529.0	2998.9	2520.7	2108.7	1777.5	1509.5	1279.1	1068.8	878.6	728.8	530.1
32.5°	3782.5	3217.9	2696.4	2244.1	1881.2	1581.6	1330.9	1109.1	907.5	751.9	553.1
30°	4018.7	3425.3	2869.3	2382.4	1976.2	1647.8	1379.9	1149.4	942.0	772.1	576.2
27.5°	4234.8	3626.9	3042.1	2512.1	2065.5	1708.3	1431.8	1186.9	970.8	792.2	596.3
25°	4430.7	3808.4	3200.6	2630.2	2146.2	1774.6	1480.7	1224.3	996.8	809.5	613.6
22.5°	4615.1	3975.5	3344.6	2748.3	2244.1	1840.8	1526.8	1258.9	1022.7	826.8	630.9
20°	4776.4	4128.2	3482.9	2866.4	2330.6	1901.3	1567.2	1290.6	1045.7	838.3	648.2
17.5°	4906.0	4263.6	3606.8	2970.1	2405.5	1953.2	1601.7	1319.4	1065.9	852.7	659.7
15°	5021.2	4378.8	3710.5	3059.4	2471.7	1996.4	1633.4	1342.5	1083.2	861.4	674.1
12.5°	5119.2	4476.8	3799.8	3137.2	2529.3	2033.8	1659.3	1359.7	1097.6	870.0	682.8
10°	5199.9	4554.6	3874.7	3197.7	2575.4	2062.7	1679.5	1377.0	1109.1	878.6	691.4
7.5°	5260.4	4612.2	3929.4	3249.5	2612.9	2082.8	1696.8	1388.5	1120.6	884.4	705.8
5°	5306.4	4661.1	3972.6	3284.1	2641.7	2111.6	1717.0	1403.0	1132.2	890.2	705.8
2.5°	5341.0	4701.5	4007.2	3312.9	2664.7	2105.9	1717.0	1400.1	1132.2	890.2	702.9
0°	5335.3	4704.4	4004.3	3312.9	2664.7	2100.1	1717.0	1397.2	1132.2	890.2	702.9



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CANDELA DISTRIBUTION (continued):

	82.5°	85°	87.5°	90°
90°	0.0	0.0	0.0	0.0
87.5°	20.2	14.4	5.8	0.0
85°	43.2	28.8	14.4	0.0
82.5°	63.4	40.3	20.2	0.0
80°	83.5	54.7	25.9	0.0
77.5°	106.6	69.1	34.6	0.0
75°	126.8	80.7	40.3	0.0
72.5°	146.9	95.1	46.1	0.0
70°	164.2	106.6	51.9	0.0
67.5°	181.5	121.0	60.5	0.0
65°	195.9	132.5	66.3	0.0
62.5°	207.4	146.9	72.0	0.0
60°	221.8	158.4	77.8	0.0
57.5°	233.3	167.1	83.5	0.0
55°	244.9	172.8	89.3	0.0
52.5°	256.4	181.5	95.1	0.0
50°	267.9	190.1	100.8	0.0
47.5°	279.4	195.9	103.7	0.0
45°	296.7	204.5	109.5	0.0
42.5°	311.1	210.3	115.2	0.0
40°	325.5	216.1	118.1	0.0
37.5°	339.9	221.8	123.9	0.0
35°	354.3	227.6	126.8	0.0
32.5°	365.9	233.3	129.6	0.0
30°	377.4	239.1	132.5	0.0
27.5°	388.9	242.0	135.4	0.0
25°	397.6	247.7	138.3	0.0
22.5°	406.2	250.6	141.2	0.0
20°	412.0	253.5	144.0	0.0
17.5°	420.6	256.4	146.9	0.0
15°	423.5	259.3	152.7	0.0
12.5°	429.2	262.2	152.7	0.0
10°	432.1	265.0	152.7	0.0
7.5°	437.9	265.0	152.7	0.0
5°	435.0	265.0	152.7	0.0
2.5°	435.0	265.0	152.7	0.0
0°	432.1	265.0	152.7	0.0

(END OF REPORT)