

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: P624202

Luminaire Tested: **EPH-VN-08-D-750-U-77**

Issue Date: 11/2/2022

Test Information

Test Method: LM-79-2019
Report Number: P624202
Test Lab: INNOVATION CENTER(G2)
Issue Date: 11/2/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: EPHESUS
Catalog Number: EPH-VN-08-D-750-U-77
Description: EPHESUS LUMAVISION FLOOD – Middle Tier Light Square Luminaire w/
Nema 7 distribution lens
Light Source: (128) 5000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

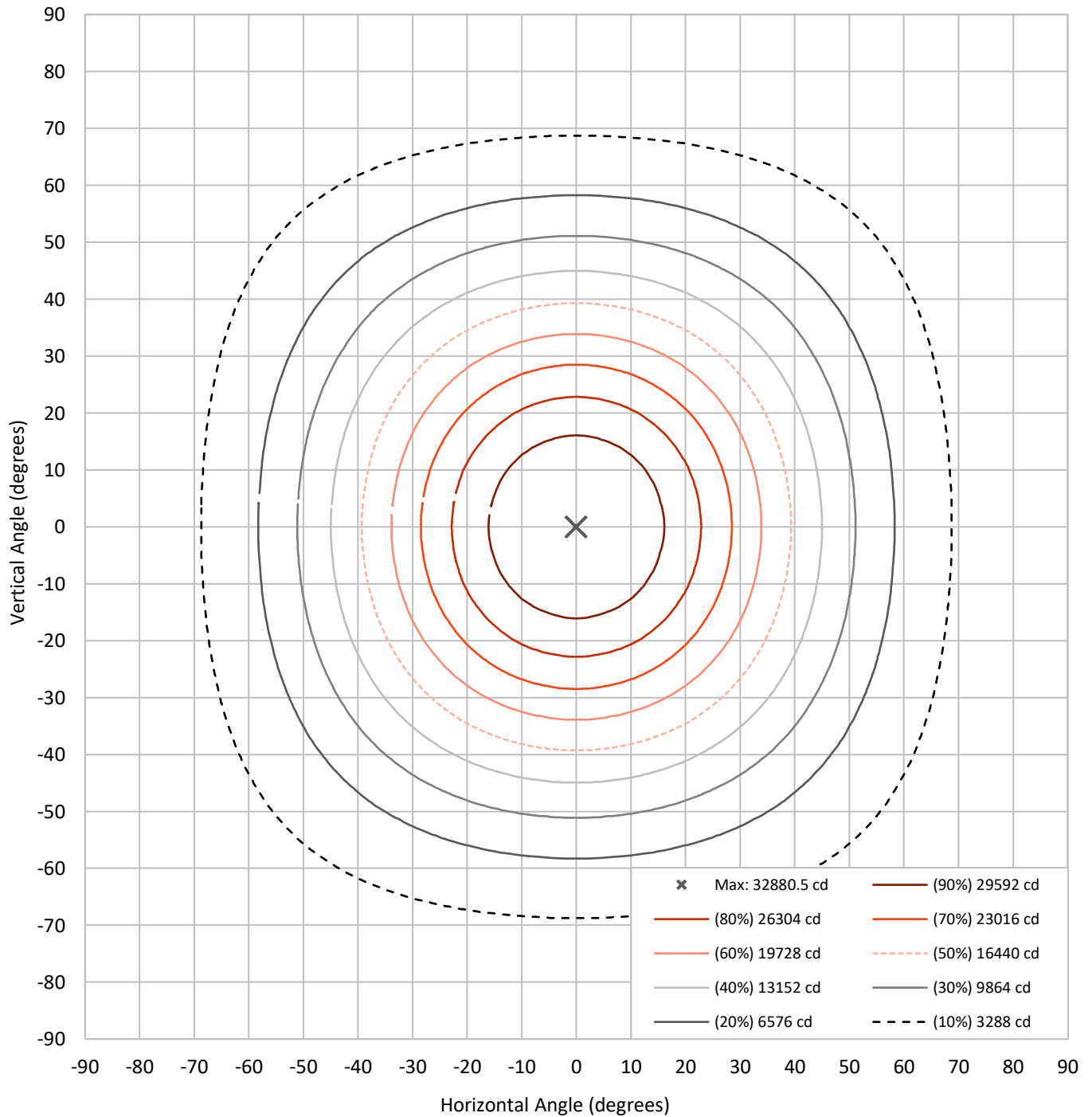
Lumens per Lamp:	N/A	NEMA Type:	7H x 7V
Luminaire Lumens:	59202 lumens	Max Intensity:	32880.5 candela
Efficiency:	N/A	Max Intensity Angle:	0°H x 0°V
Efficacy:	121.2 lumens/watt		
Luminous Opening:	Rectangular (W 2' x L: 1' x H: 0')		
Beam Angle (50%):	78.6°H x 78.6°V	Field Angle (10%):	137.5°H x 137.5°V
Beam Lumens:	25616.1 lumens	Field Lumens:	41945.5 lumens
Beam Efficiency:	43.3%	Field Efficiency:	70.9%

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





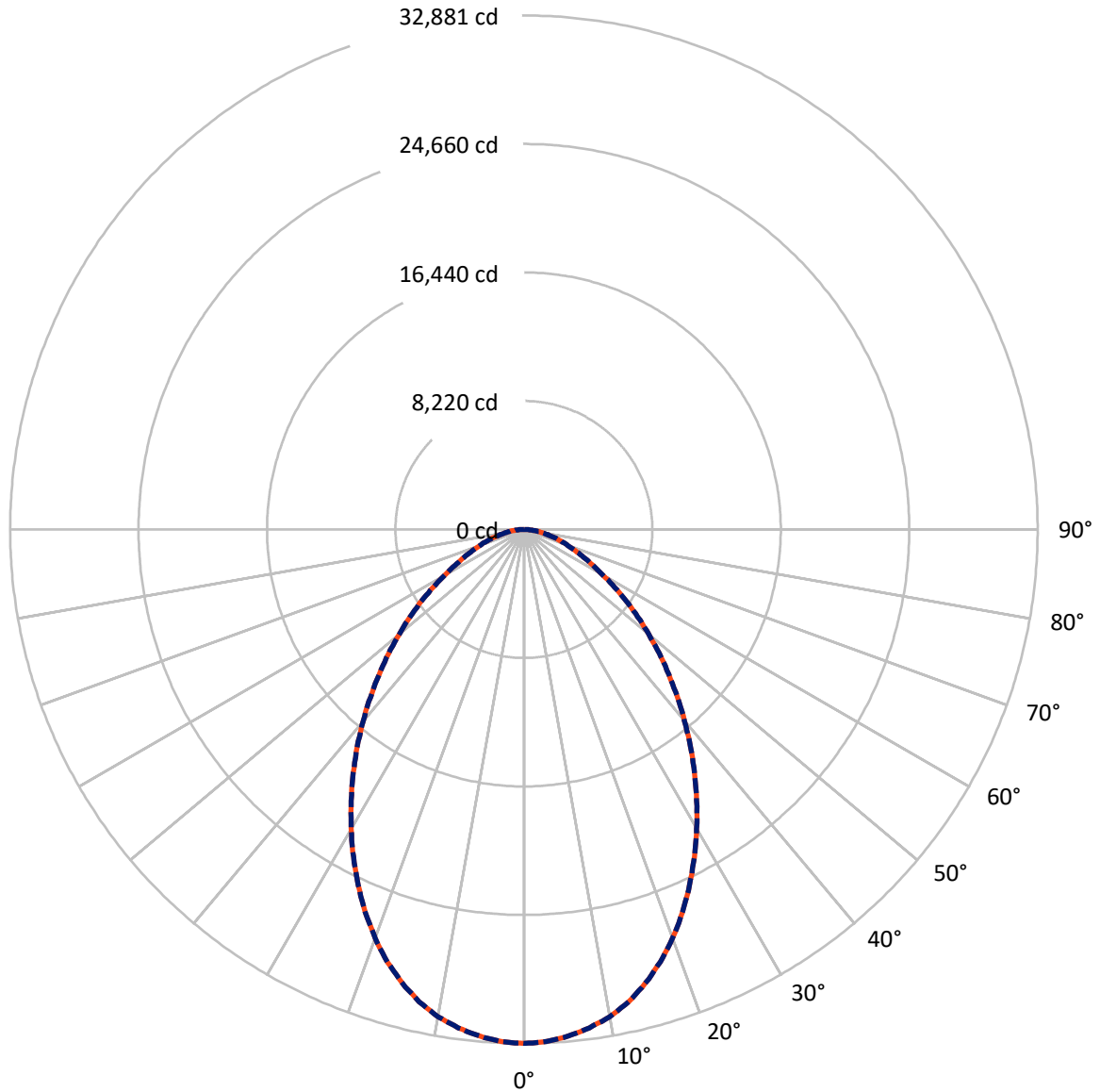
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Lumen Table

90																				
80	5.0	34.7	86.1	136.3	157.2	136.3	86.1	34.7	5.0											
70																				
60	15.7	16.2	32.6	53.6	77.0	99.9	118.6	129.1	129.1	118.6	99.9	77.0	53.6	32.6	16.2	15.7				
50		24.2	50.1	85.6	130.2	177.9	218.3	241.3	241.3	218.3	177.9	130.2	85.6	50.1	24.2					
40	26.3	32.4	69.7	127.8	204.8	286.0	354.4	393.8	393.8	354.4	286.0	204.8	127.8	69.7	32.4	26.3				
30		40.3	91.8	177.3	288.5	407.6	509.8	569.7	569.7	509.8	407.6	288.5	177.3	91.8	40.3					
20	34.4	47.3	113.7	224.1	369.0	527.4	666.2	748.1	748.1	666.2	527.4	369.0	224.1	113.7	47.3	34.4				
10		52.9	131.0	260.8	433.4	625.6	795.8	894.3	894.3	795.8	625.6	433.4	260.8	131.0	52.9					
0	37.5	55.8	140.5	281.1	469.9	681.6	867.5	970.2	970.2	867.5	681.6	469.9	281.1	140.5	55.8	37.5				
-10		55.8	140.5	281.1	469.9	681.6	867.5	970.2	970.2	867.5	681.6	469.9	281.1	140.5	55.8					
-20	34.4	52.9	131.0	260.8	433.4	625.6	795.8	894.3	894.3	795.8	625.6	433.4	260.8	131.0	52.9	34.4				
-30		47.3	113.7	224.1	369.0	527.4	666.2	748.1	748.1	666.2	527.4	369.0	224.1	113.7	47.3					
-40	26.3	40.3	91.8	177.3	288.5	407.6	509.8	569.7	569.7	509.8	407.6	288.5	177.3	91.8	40.3	26.3				
-50		32.4	69.7	127.8	204.8	286.0	354.4	393.8	393.8	354.4	286.0	204.8	127.8	69.7	32.4					
-60	15.7	24.2	50.1	85.6	130.2	177.9	218.3	241.3	241.3	218.3	177.9	130.2	85.6	50.1	24.2	15.7				
-70		16.2	32.6	53.6	77.0	99.9	118.6	129.1	129.1	118.6	99.9	77.0	53.6	32.6	16.2					
-80	5.0	34.7	86.1	136.3	157.2	136.3	86.1	34.7	5.0											
-90																				

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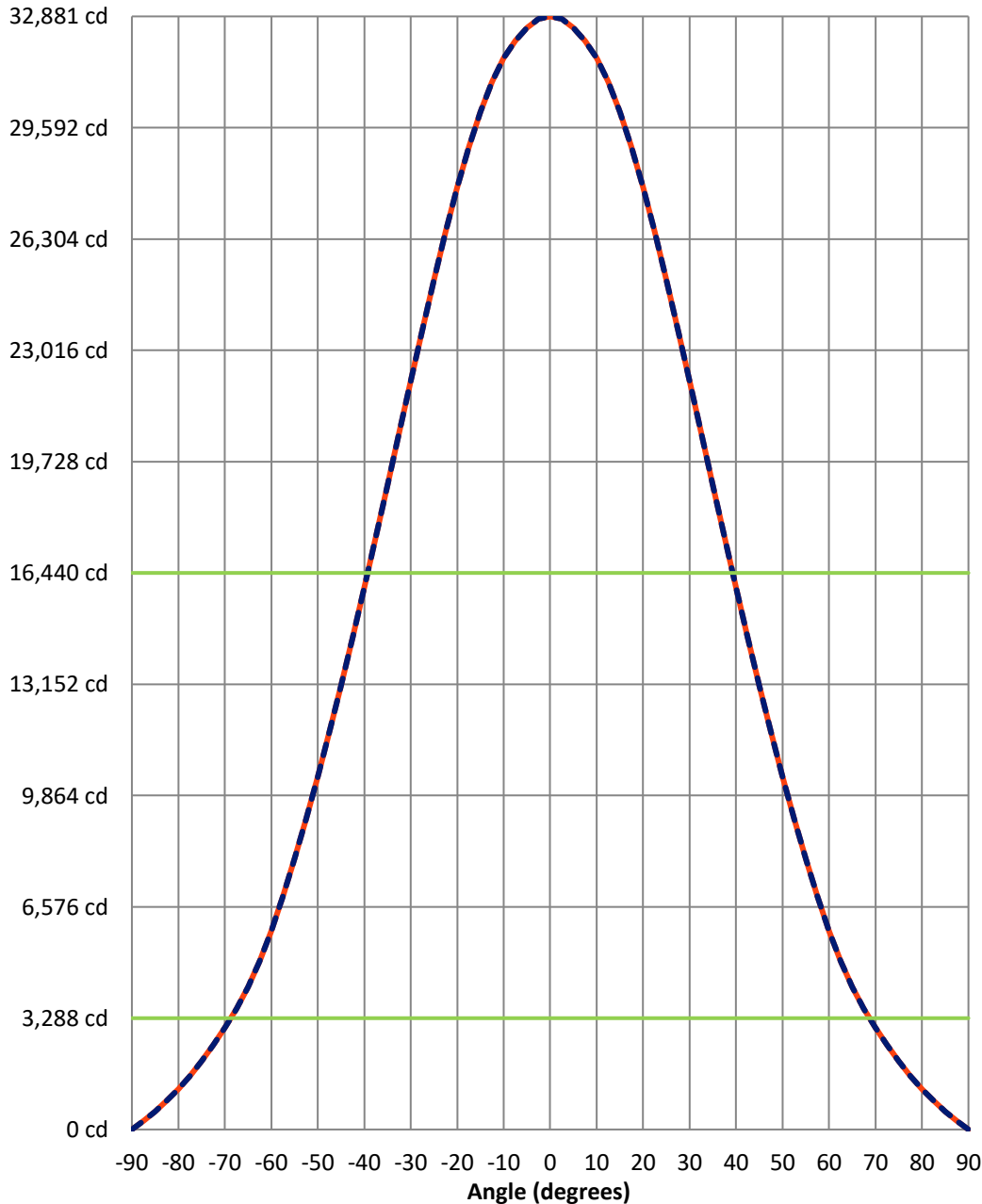
Luminous Intensity Polar Plot



— 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: 25616.1
Efficiency: 43.3%

Field:
H Angle: 137.5°
V Angle: 137.5°
Lumens: 41945.5
Efficiency: 70.9%

Spill:
Lumens: 17256.5
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°	253.1	253.1	253.1	253.1	253.1	253.1	253.1	240.7	240.7	234.6	228.4
85°	530.8	530.8	530.8	530.8	530.8	518.5	512.3	506.1	500.0	487.6	481.4
82.5°	851.8	851.8	851.8	851.8	839.4	827.1	820.9	808.6	796.2	777.7	759.2
80°	1191.3	1191.3	1191.3	1191.3	1172.8	1160.4	1141.9	1129.6	1111.0	1086.3	1061.7
77.5°	1580.1	1580.1	1580.1	1561.6	1549.3	1530.8	1512.2	1487.6	1462.9	1432.0	1395.0
75°	2018.4	2018.4	2018.4	1993.7	1975.2	1956.7	1925.8	1894.9	1857.9	1814.7	1765.3
72.5°	2493.7	2493.7	2493.7	2462.8	2444.3	2413.4	2376.4	2333.2	2290.0	2234.4	2172.7
70°	3006.0	3006.0	3006.0	2968.9	2938.1	2907.2	2857.8	2808.5	2746.7	2685.0	2610.9
67.5°	3561.5	3561.5	3561.5	3518.3	3481.2	3438.0	3382.5	3320.8	3246.7	3160.3	3073.9
65°	4209.6	4209.6	4184.9	4147.9	4104.7	4042.9	3975.0	3888.6	3796.0	3684.9	3567.7
62.5°	4975.0	4975.0	4937.9	4894.7	4839.2	4758.9	4666.3	4555.2	4425.6	4283.7	4141.7
60°	5863.8	5863.8	5820.6	5765.0	5684.8	5586.0	5462.6	5320.6	5160.1	4981.1	4808.3
57.5°	6888.4	6888.4	6832.9	6758.8	6660.0	6536.6	6382.3	6203.3	5999.6	5777.4	5561.3
55°	7999.5	7999.5	7931.6	7845.1	7727.9	7579.7	7394.6	7184.7	6937.8	6684.7	6407.0
52.5°	9178.4	9178.4	9098.1	8999.4	8863.6	8690.8	8480.9	8234.0	7950.1	7653.8	7326.7
50°	10419.0	10419.0	10326.5	10215.4	10061.0	9857.4	9616.6	9332.7	9017.9	8672.2	8295.7
47.5°	11746.1	11746.1	11641.2	11511.6	11326.4	11091.8	10807.9	10480.8	10122.8	9733.9	9308.0
45°	13110.2	13110.2	12992.9	12844.8	12641.1	12375.7	12060.9	11746.1	11289.4	10838.8	10345.0
42.5°	14529.9	14529.9	14394.1	14227.4	13992.9	13702.8	13344.8	12937.4	12486.8	11980.7	11443.7
40°	16005.1	16005.1	15850.8	15659.4	15400.2	15066.9	14665.7	14208.9	13702.8	13141.1	12548.5
37.5°	17511.2	17511.2	17338.3	17128.5	16838.4	16468.0	16017.4	15511.3	14943.4	14320.0	13665.7
35°	19029.6	19029.6	18838.2	18609.8	18288.9	17881.5	17393.9	16832.2	16202.6	15523.6	14789.1
32.5°	20578.8	20578.8	20369.0	20109.7	19745.6	19295.0	18758.0	18146.9	17511.2	16721.1	15918.7
30°	22109.6	22109.6	21881.2	21597.3	21208.4	20714.6	20128.3	19455.5	18708.6	17900.0	17035.9
27.5°	23615.7	23554.0	23362.6	23060.2	22634.3	22109.6	21473.8	20745.5	19936.9	19048.1	18122.2
25°	25097.1	25029.2	24819.3	24486.0	24029.2	23455.2	22770.1	21992.3	21122.0	20183.8	19171.5
22.5°	26516.7	26442.6	26220.4	25862.4	25374.8	24751.4	24016.9	23183.6	22257.7	21251.6	20183.8
20°	27831.4	27751.2	27522.8	27146.3	26640.2	25979.7	25202.0	24307.0	23319.4	22257.7	21122.0
17.5°	29016.5	28936.3	28695.6	28306.7	27831.4	27096.9	26294.5	25350.1	24307.0	23183.6	21992.3
15°	30059.7	29973.3	29726.4	29337.5	28794.3	28103.0	27257.4	26294.5	25202.0	24016.9	22770.1
12.5°	30948.5	30862.1	30609.0	30220.2	29658.5	28967.2	28103.0	27096.9	25979.7	24751.4	23455.2
10°	31652.2	31565.8	31325.0	30954.7	30374.5	29658.5	28794.3	27831.4	26640.2	25374.8	24029.2
7.5°	32158.3	32078.1	31855.9	31485.5	30954.7	30220.2	29337.5	28306.7	27146.3	25862.4	24486.0
5°	32541.0	32448.4	32226.2	31855.9	31325.0	30609.0	29726.4	28695.6	27522.8	26220.4	24819.3
2.5°	32806.4	32695.3	32448.4	32078.1	31565.8	30862.1	29973.3	28936.3	27751.2	26442.6	25029.2
0°	32880.5	32806.4	32541.0	32158.3	31652.2	30948.5	30059.7	29016.5	27831.4	26516.7	25097.1



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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°	222.2	222.2	216.0	209.9	203.7	191.3	185.2	179.0	172.8	160.5	154.3
85°	469.1	456.8	444.4	432.1	413.6	401.2	382.7	370.3	351.8	333.3	314.8
82.5°	740.7	722.2	697.5	679.0	654.3	623.4	598.7	567.9	537.0	512.3	481.4
80°	1037.0	1006.1	975.2	944.4	907.3	870.3	833.3	796.2	753.0	709.8	666.6
77.5°	1357.9	1314.7	1271.5	1222.1	1178.9	1129.6	1080.2	1030.8	975.2	919.7	864.1
75°	1715.9	1660.4	1598.7	1536.9	1481.4	1413.5	1345.6	1277.7	1203.6	1135.7	1061.7
72.5°	2104.8	2036.9	1962.8	1888.8	1808.5	1722.1	1635.7	1543.1	1456.7	1370.3	1277.7
70°	2524.5	2444.3	2351.7	2259.1	2160.3	2055.4	1950.5	1839.4	1728.3	1617.2	1506.1
67.5°	2975.1	2876.3	2765.2	2654.1	2530.7	2407.2	2283.8	2154.2	2018.4	1882.6	1753.0
65°	3456.6	3333.1	3203.5	3061.5	2919.6	2777.6	2629.5	2475.1	2320.8	2160.3	2018.4
62.5°	3993.6	3839.2	3672.6	3499.8	3339.3	3166.5	3006.0	2814.6	2629.5	2450.5	2271.5
60°	4617.0	4413.3	4209.6	3993.6	3789.9	3567.7	3370.1	3160.3	2950.4	2746.7	2536.9
57.5°	5314.5	5055.2	4808.3	4549.1	4277.5	4030.6	3777.5	3524.5	3289.9	3049.2	2820.8
55°	6104.5	5789.7	5481.1	5160.1	4845.3	4536.7	4215.8	3931.8	3641.7	3370.1	3104.7
52.5°	6968.7	6610.7	6228.0	5863.8	5462.6	5079.9	4721.9	4363.9	4024.4	3697.3	3394.8
50°	7894.5	7474.8	7036.6	6592.1	6135.4	5684.8	5252.7	4833.0	4438.0	4055.3	3697.3
47.5°	8857.4	8382.1	7882.2	7376.0	6888.4	6339.1	5820.6	5345.3	4870.0	4438.0	4024.4
45°	9845.0	9308.0	8758.7	8184.6	7610.6	7018.0	6444.0	5863.8	5345.3	4833.0	4363.9
42.5°	10863.5	10258.6	9647.5	9011.7	8376.0	7727.9	7079.8	6444.0	5820.6	5252.7	4721.9
40°	11912.8	11246.1	10548.7	9857.4	9178.4	8437.7	7727.9	7018.0	6339.1	5684.8	5079.9
37.5°	12962.1	12233.7	11480.7	10703.0	9925.2	9178.4	8376.0	7610.6	6888.4	6135.4	5462.6
35°	14017.6	13215.1	12400.4	11554.8	10703.0	9857.4	9011.7	8184.6	7376.0	6592.1	5863.8
32.5°	15079.2	14202.7	13301.6	12400.4	11480.7	10548.7	9647.5	8758.7	7882.2	7036.6	6228.0
30°	16122.4	15171.8	14202.7	13215.1	12233.7	11246.1	10258.6	9308.0	8382.1	7474.8	6610.7
27.5°	17140.8	16122.4	15079.2	14017.6	12962.1	11912.8	10863.5	9845.0	8857.4	7894.5	6968.7
25°	18122.2	17035.9	15918.7	14789.1	13665.7	12548.5	11443.7	10345.0	9308.0	8295.7	7326.7
22.5°	19048.1	17900.0	16721.1	15523.6	14320.0	13141.1	11980.7	10838.8	9733.9	8672.2	7653.8
20°	19936.9	18708.6	17511.2	16202.6	14943.4	13702.8	12486.8	11289.4	10122.8	9017.9	7950.1
17.5°	20745.5	19455.5	18146.9	16832.2	15511.3	14208.9	12937.4	11746.1	10480.8	9332.7	8234.0
15°	21473.8	20128.3	18758.0	17393.9	16017.4	14665.7	13344.8	12060.9	10807.9	9616.6	8480.9
12.5°	22109.6	20714.6	19295.0	17881.5	16468.0	15066.9	13702.8	12375.7	11091.8	9857.4	8690.8
10°	22634.3	21208.4	19745.6	18288.9	16838.4	15400.2	13992.9	12641.1	11326.4	10061.0	8863.6
7.5°	23060.2	21597.3	20109.7	18609.8	17128.5	15659.4	14227.4	12844.8	11511.6	10215.4	8999.4
5°	23362.6	21881.2	20369.0	18838.2	17338.3	15850.8	14394.1	12992.9	11641.2	10326.5	9098.1
2.5°	23554.0	22109.6	20578.8	19029.6	17511.2	16005.1	14529.9	13110.2	11746.1	10419.0	9178.4
0°	23615.7	22109.6	20578.8	19029.6	17511.2	16005.1	14529.9	13110.2	11746.1	10419.0	9178.4



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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°	148.1	135.8	123.4	117.3	104.9	98.8	86.4	74.1	67.9	55.6	43.2
85°	296.3	271.6	253.1	234.6	216.0	191.3	172.8	154.3	129.6	111.1	86.4
82.5°	450.6	419.7	388.9	358.0	327.1	296.3	259.2	228.4	197.5	166.7	129.6
80°	623.4	574.0	530.8	487.6	444.4	401.2	351.8	308.6	259.2	216.0	172.8
77.5°	802.4	746.9	685.1	623.4	561.7	506.1	444.4	388.9	333.3	271.6	216.0
75°	993.8	919.7	851.8	771.6	697.5	617.2	543.2	469.1	401.2	333.3	259.2
72.5°	1191.3	1098.7	1006.1	919.7	827.1	734.5	648.1	555.5	469.1	388.9	308.6
70°	1395.0	1283.9	1172.8	1067.8	962.9	851.8	753.0	648.1	543.2	444.4	351.8
67.5°	1611.0	1481.4	1351.8	1216.0	1098.7	975.2	851.8	734.5	617.2	506.1	401.2
65°	1845.6	1691.2	1530.8	1388.8	1234.5	1098.7	962.9	827.1	697.5	561.7	444.4
62.5°	2086.3	1907.3	1728.3	1549.3	1388.8	1216.0	1067.8	919.7	771.6	623.4	487.6
60°	2333.2	2129.5	1925.8	1728.3	1530.8	1351.8	1172.8	1006.1	851.8	685.1	530.8
57.5°	2586.2	2357.9	2129.5	1907.3	1691.2	1481.4	1283.9	1098.7	919.7	746.9	574.0
55°	2845.5	2586.2	2333.2	2086.3	1845.6	1611.0	1395.0	1191.3	993.8	802.4	623.4
52.5°	3104.7	2820.8	2536.9	2271.5	2018.4	1753.0	1506.1	1277.7	1061.7	864.1	666.6
50°	3370.1	3049.2	2746.7	2450.5	2160.3	1882.6	1617.2	1370.3	1135.7	919.7	709.8
47.5°	3641.7	3289.9	2950.4	2629.5	2320.8	2018.4	1728.3	1456.7	1203.6	975.2	753.0
45°	3931.8	3524.5	3160.3	2814.6	2475.1	2154.2	1839.4	1543.1	1277.7	1030.8	796.2
42.5°	4215.8	3777.5	3370.1	3006.0	2629.5	2283.8	1950.5	1635.7	1345.6	1080.2	833.3
40°	4536.7	4030.6	3567.7	3166.5	2777.6	2407.2	2055.4	1722.1	1413.5	1129.6	870.3
37.5°	4845.3	4277.5	3789.9	3339.3	2919.6	2530.7	2160.3	1808.5	1481.4	1178.9	907.3
35°	5160.1	4549.1	3993.6	3499.8	3061.5	2654.1	2259.1	1888.8	1536.9	1222.1	944.4
32.5°	5481.1	4808.3	4209.6	3672.6	3203.5	2765.2	2351.7	1962.8	1598.7	1271.5	975.2
30°	5789.7	5055.2	4413.3	3839.2	3333.1	2876.3	2444.3	2036.9	1660.4	1314.7	1006.1
27.5°	6104.5	5314.5	4617.0	3993.6	3456.6	2975.1	2524.5	2104.8	1715.9	1357.9	1037.0
25°	6407.0	5561.3	4808.3	4141.7	3567.7	3073.9	2610.9	2172.7	1765.3	1395.0	1061.7
22.5°	6684.7	5777.4	4981.1	4283.7	3684.9	3160.3	2685.0	2234.4	1814.7	1432.0	1086.3
20°	6937.8	5999.6	5160.1	4425.6	3796.0	3246.7	2746.7	2290.0	1857.9	1462.9	1111.0
17.5°	7184.7	6203.3	5320.6	4555.2	3888.6	3320.8	2808.5	2333.2	1894.9	1487.6	1129.6
15°	7394.6	6382.3	5462.6	4666.3	3975.0	3382.5	2857.8	2376.4	1925.8	1512.2	1141.9
12.5°	7579.7	6536.6	5586.0	4758.9	4042.9	3438.0	2907.2	2413.4	1956.7	1530.8	1160.4
10°	7727.9	6660.0	5684.8	4839.2	4104.7	3481.2	2938.1	2444.3	1975.2	1549.3	1172.8
7.5°	7845.1	6758.8	5765.0	4894.7	4147.9	3518.3	2968.9	2462.8	1993.7	1561.6	1191.3
5°	7931.6	6832.9	5820.6	4937.9	4184.9	3561.5	3006.0	2493.7	2018.4	1580.1	1191.3
2.5°	7999.5	6888.4	5863.8	4975.0	4209.6	3561.5	3006.0	2493.7	2018.4	1580.1	1191.3
0°	7999.5	6888.4	5863.8	4975.0	4209.6	3561.5	3006.0	2493.7	2018.4	1580.1	1191.3



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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	24.7	12.3	0.0
85°	67.9	43.2	24.7	0.0
82.5°	98.8	67.9	30.9	0.0
80°	129.6	86.4	43.2	0.0
77.5°	166.7	111.1	55.6	0.0
75°	197.5	129.6	67.9	0.0
72.5°	228.4	154.3	74.1	0.0
70°	259.2	172.8	86.4	0.0
67.5°	296.3	191.3	98.8	0.0
65°	327.1	216.0	104.9	0.0
62.5°	358.0	234.6	117.3	0.0
60°	388.9	253.1	123.4	0.0
57.5°	419.7	271.6	135.8	0.0
55°	450.6	296.3	148.1	0.0
52.5°	481.4	314.8	154.3	0.0
50°	512.3	333.3	160.5	0.0
47.5°	537.0	351.8	172.8	0.0
45°	567.9	370.3	179.0	0.0
42.5°	598.7	382.7	185.2	0.0
40°	623.4	401.2	191.3	0.0
37.5°	654.3	413.6	203.7	0.0
35°	679.0	432.1	209.9	0.0
32.5°	697.5	444.4	216.0	0.0
30°	722.2	456.8	222.2	0.0
27.5°	740.7	469.1	222.2	0.0
25°	759.2	481.4	228.4	0.0
22.5°	777.7	487.6	234.6	0.0
20°	796.2	500.0	240.7	0.0
17.5°	808.6	506.1	240.7	0.0
15°	820.9	512.3	253.1	0.0
12.5°	827.1	518.5	253.1	0.0
10°	839.4	530.8	253.1	0.0
7.5°	851.8	530.8	253.1	0.0
5°	851.8	530.8	253.1	0.0
2.5°	851.8	530.8	253.1	0.0
0°	851.8	530.8	253.1	0.0

(END OF REPORT)