

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: P624076

Luminaire Tested: **EPH-VN-08-D-730-U-44**

Issue Date: 11/2/2022

Test Information

Test Method: LM-79-2019
Report Number: P624076
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-730-U-44
Description: EPHESUS LUMAVISION FLOOD – Middle Tier Light Square Luminaire w/
Nema 4 distribution lens
Light Source: (128) 3000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp:	N/A	NEMA Type:	4H x 4V
Luminaire Lumens:	52709.8 lumens	Max Intensity:	170439.6 candela
Efficiency:	N/A	Max Intensity Angle:	0°H x 0°V
Efficacy:	107.9 lumens/watt		
Luminous Opening:	Rectangular (W 2' x L: 1' x H: 0')		

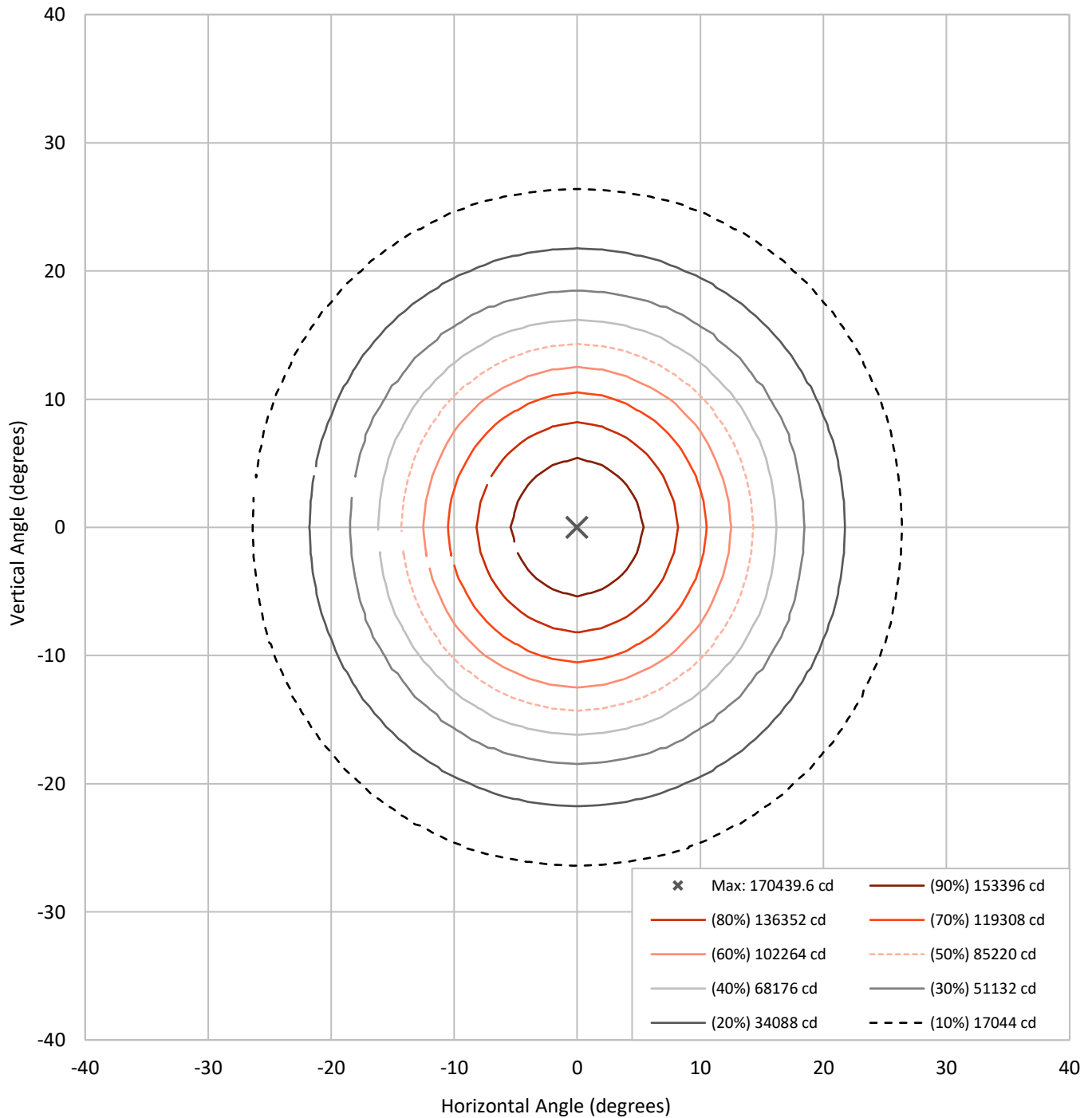
Beam Angle (50%):	28.6°H x 28.6°V	Field Angle (10%):	52.7°H x 52.7°V
Beam Lumens:	19018.7 lumens	Field Lumens:	32115.6 lumens
Beam Efficiency:	36.1%	Field Efficiency:	60.9%

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





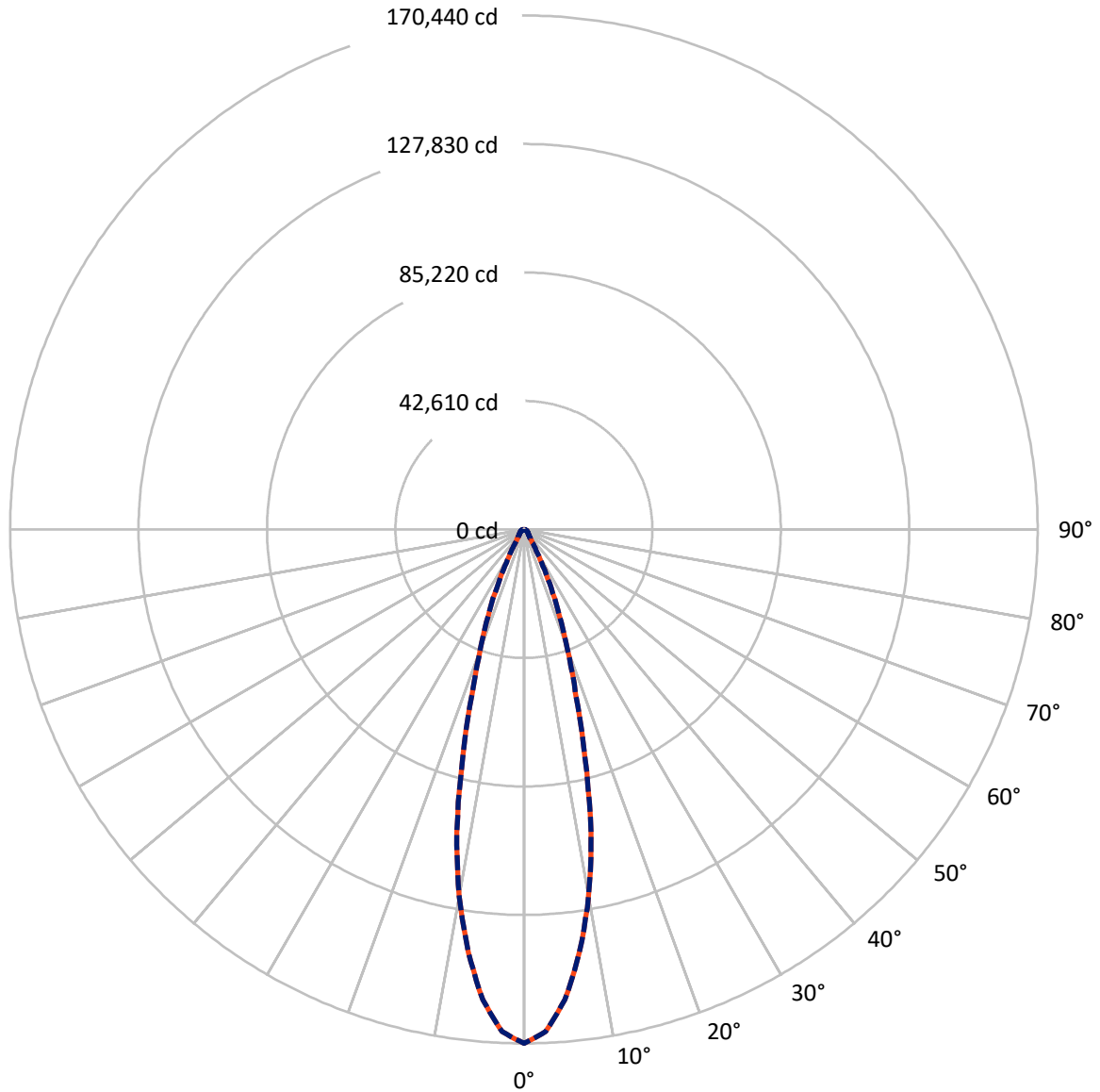
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Lumen Table

90	1.2	8.9	22.7	36.2	41.9	36.2	22.7	8.9	1.2							
80	1.2	8.9	22.7	36.2	41.9	36.2	22.7	8.9	1.2							
70	4.1	4.3	8.8	14.4	20.3	25.5	29.4	31.5	31.5	29.4	25.5	20.3	14.4	8.8	4.3	4.1
60		6.5	13.3	21.4	29.6	36.7	42.2	45.1	45.1	42.2	36.7	29.6	21.4	13.3	6.5	
50	7.0	8.7	17.4	27.5	37.7	47.9	57.2	63.0	63.0	57.2	47.9	37.7	27.5	17.4	8.7	7.0
40		10.6	20.8	32.6	46.8	66.7	97.3	129.6	129.6	97.3	66.7	46.8	32.6	20.8	10.6	
30	9.2	12.0	23.4	37.5	60.4	126.5	346.8	628.1	628.1	346.8	126.5	60.4	37.5	23.4	12.0	9.2
20		13.0	25.2	42.0	83.0	327.3	1125.8	2171.6	2171.6	1125.8	327.3	83.0	42.0	25.2	13.0	
10	10.0	13.5	26.1	45.0	107.6	576.7	2112.7	4165.2	4165.2	2112.7	576.7	107.6	45.0	26.1	13.5	10.0
0		13.5	26.1	45.0	107.6	576.7	2112.7	4165.2	4165.2	2112.7	576.7	107.6	45.0	26.1	13.5	
-10	9.2	13.0	25.2	42.0	83.0	327.3	1125.8	2171.6	2171.6	1125.8	327.3	83.0	42.0	25.2	13.0	9.2
-20		12.0	23.4	37.5	60.4	126.5	346.8	628.1	628.1	346.8	126.5	60.4	37.5	23.4	12.0	
-30	7.0	10.6	20.8	32.6	46.8	66.7	97.3	129.6	129.6	97.3	66.7	46.8	32.6	20.8	10.6	7.0
-40		8.7	17.4	27.5	37.7	47.9	57.2	63.0	63.0	57.2	47.9	37.7	27.5	17.4	8.7	
-50	4.1	6.5	13.3	21.4	29.6	36.7	42.2	45.1	45.1	42.2	36.7	29.6	21.4	13.3	6.5	4.1
-60		4.3	8.8	14.4	20.3	25.5	29.4	31.5	31.5	29.4	25.5	20.3	14.4	8.8	4.3	
-70	1.2	8.9	22.7	36.2	41.9	36.2	22.7	8.9	1.2							
-80		1.2	8.9	22.7	36.2	41.9	36.2	22.7	8.9	1.2						
-90	1.2	8.9	22.7	36.2	41.9	36.2	22.7	8.9	1.2							

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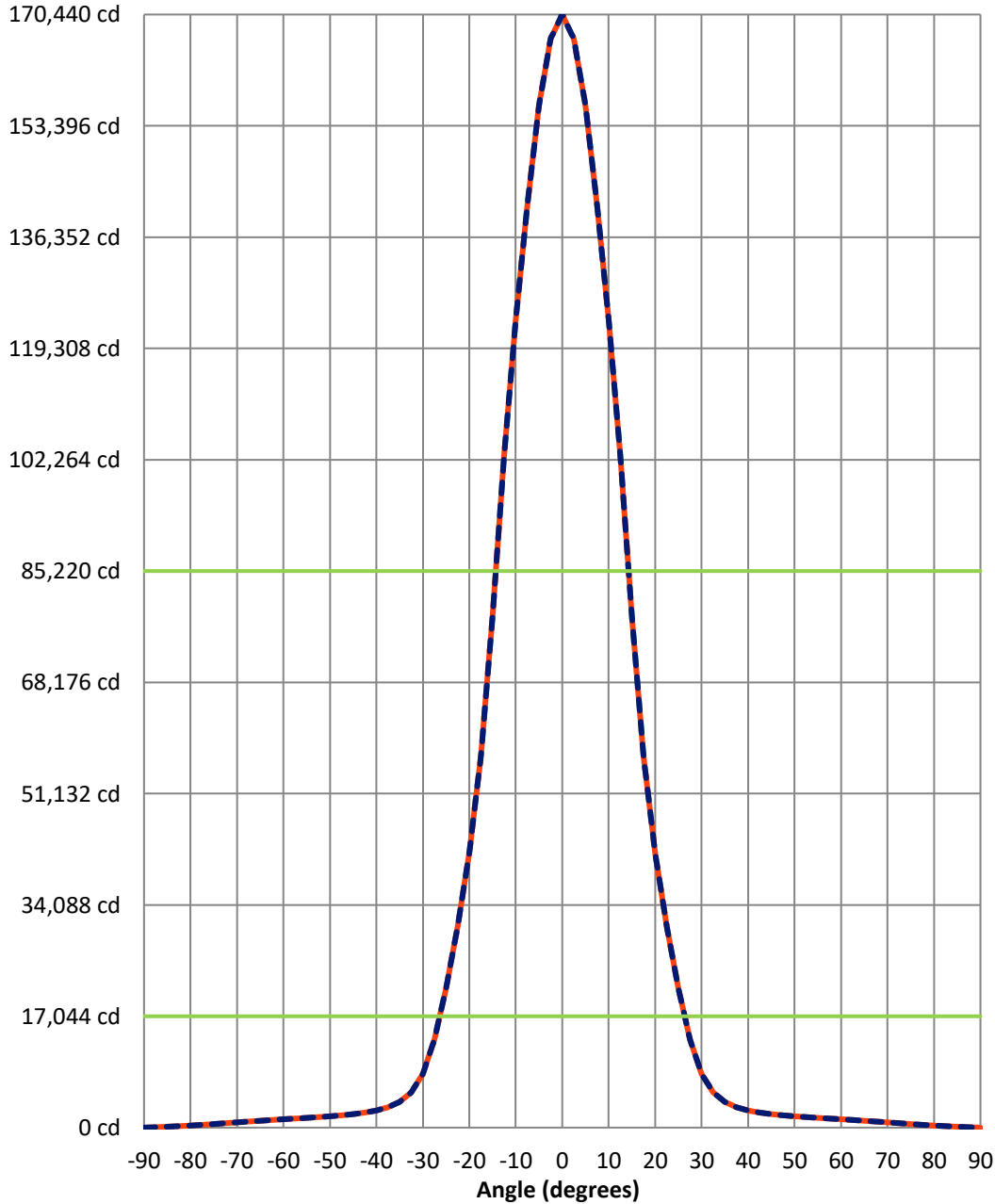
Luminous Intensity Polar Plot



— Vertical Distribution Through 0-Deg - - - Horizontal Distribution Through 0-Deg

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Luminous Intensity Plot



Beam:
H Angle: 28.6°
V Angle: 28.6°
Lumens: 19018.7
Efficiency: 36.1%

Field:
H Angle: 52.7°
V Angle: 52.7°
Lumens: 32115.6
Efficiency: 60.9%

Spill:
Lumens: 20594.2
Efficiency: 39.1%

— 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°	60.5	60.5	60.5	60.5	60.5	60.5	60.5	55.0	55.0	55.0	55.0
85°	137.4	137.4	137.4	137.4	137.4	131.9	131.9	131.9	126.4	126.4	120.9
82.5°	219.8	219.8	219.8	219.8	214.3	214.3	208.8	208.8	203.3	203.3	197.8
80°	313.2	313.2	313.2	313.2	307.8	302.3	302.3	296.8	291.3	285.8	280.3
77.5°	423.2	423.2	423.2	417.7	412.2	412.2	406.7	395.7	390.2	379.2	373.7
75°	544.1	544.1	544.1	538.6	533.1	527.6	516.6	511.1	500.1	489.1	472.6
72.5°	676.0	676.0	676.0	670.5	659.5	654.0	643.0	632.0	621.0	604.5	588.0
70°	802.4	802.4	802.4	791.4	785.9	774.9	763.9	752.9	736.4	719.9	703.4
67.5°	928.8	928.8	928.8	917.8	912.3	901.3	890.3	873.8	857.3	835.3	818.8
65°	1044.2	1044.2	1038.7	1033.2	1027.7	1016.7	1000.2	989.2	972.7	950.7	928.8
62.5°	1165.1	1165.1	1159.6	1154.1	1143.1	1132.1	1115.6	1099.1	1077.1	1055.1	1033.2
60°	1286.0	1286.0	1280.5	1275.0	1264.0	1247.5	1231.0	1214.5	1192.5	1165.1	1137.6
57.5°	1384.9	1384.9	1379.4	1373.9	1362.9	1351.9	1335.4	1318.9	1297.0	1275.0	1242.0
55°	1489.3	1489.3	1483.8	1472.8	1461.8	1450.8	1434.3	1412.4	1390.4	1362.9	1340.9
52.5°	1610.2	1610.2	1604.7	1593.7	1577.2	1560.7	1538.8	1511.3	1483.8	1456.3	1423.4
50°	1731.1	1731.1	1720.1	1709.1	1698.1	1676.1	1654.2	1626.7	1593.7	1560.7	1522.3
47.5°	1879.5	1879.5	1868.5	1852.0	1830.0	1808.0	1775.1	1736.6	1703.6	1665.2	1621.2
45°	2060.8	2060.8	2044.4	2027.9	2000.4	1961.9	1923.4	1879.5	1830.0	1780.6	1725.6
42.5°	2297.1	2297.1	2275.2	2247.7	2209.2	2159.8	2099.3	2038.9	1978.4	1912.5	1846.5
40°	2615.9	2615.9	2582.9	2544.4	2484.0	2412.6	2324.6	2242.2	2159.8	2066.3	1983.9
37.5°	3116.0	3116.0	3061.0	2989.6	2890.7	2769.8	2621.4	2511.5	2385.1	2264.2	2154.3
35°	3934.8	3934.8	3835.9	3709.5	3533.7	3313.8	3077.5	2890.7	2681.8	2511.5	2352.1
32.5°	5391.2	5391.2	5193.3	4946.0	4610.8	4182.1	3786.4	3456.7	3116.0	2852.2	2599.4
30°	8210.4	8210.4	7787.2	7265.1	6545.2	5644.0	4968.0	4336.0	3759.0	3324.8	2956.6
27.5°	13502.6	13282.8	12623.3	11540.7	10056.9	8210.4	7034.3	5698.9	4786.6	3956.8	3445.7
25°	21317.3	20954.6	19866.5	18091.4	15673.4	12931.1	10529.5	7996.1	6396.8	5017.5	4066.7
22.5°	30813.7	30313.6	28835.3	26422.7	23152.8	19503.8	15618.4	11974.8	8732.5	6633.2	5017.5
20°	42057.6	41387.1	39403.2	36182.8	31852.3	27208.6	22020.7	17140.7	12464.0	8732.5	6396.8
17.5°	56901.1	55879.0	52872.9	48036.8	42057.6	35798.1	29313.4	23015.4	17140.7	11974.8	7996.1
15°	78240.4	76514.8	71469.9	63457.3	54147.9	45420.9	37150.1	29313.4	22020.7	15618.4	10529.5
12.5°	102910.0	100508.5	93556.6	82713.8	70063.0	56263.6	45420.9	35798.1	27208.6	19503.8	12931.1
10°	123694.3	121160.8	113978.1	103102.4	87060.8	70063.0	54147.9	42057.6	31852.3	23152.8	15673.4
7.5°	141252.6	138416.9	130673.7	118775.8	103102.4	82713.8	63457.3	48036.8	36182.8	26422.7	18091.4
5°	156502.8	152908.7	143896.0	130673.7	113978.1	93556.6	71469.9	52872.9	39403.2	28835.3	19866.5
2.5°	166691.6	162471.0	152908.7	138416.9	121160.8	100508.5	76514.8	55879.0	41387.1	30313.6	20954.6
0°	170439.6	166691.6	156502.8	141252.6	123694.3	102910.0	78240.4	56901.1	42057.6	30813.7	21317.3



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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°	55.0	55.0	49.5	49.5	49.5	44.0	44.0	44.0	38.5	38.5	38.5
85°	120.9	115.4	115.4	109.9	104.4	98.9	98.9	93.4	87.9	82.4	76.9
82.5°	192.3	186.8	181.4	175.9	170.4	159.4	153.9	148.4	137.4	131.9	126.4
80°	269.3	263.8	252.8	247.3	236.3	225.3	214.3	203.3	192.3	181.4	170.4
77.5°	362.7	346.2	335.2	324.2	307.8	296.8	280.3	269.3	252.8	236.3	219.8
75°	461.6	445.1	428.7	412.2	395.7	373.7	357.2	335.2	318.7	296.8	280.3
72.5°	571.5	549.6	527.6	505.6	483.6	461.6	439.6	412.2	390.2	362.7	335.2
70°	681.5	659.5	637.5	610.0	582.5	555.1	527.6	494.6	467.1	434.2	401.2
67.5°	796.9	769.4	741.9	714.4	686.9	654.0	615.5	582.5	544.1	505.6	472.6
65°	906.8	879.3	846.3	813.3	780.4	747.4	708.9	670.5	626.5	582.5	544.1
62.5°	1005.7	978.2	950.7	912.3	879.3	840.8	802.4	752.9	708.9	665.0	615.5
60°	1110.1	1077.1	1044.2	1005.7	967.2	928.8	884.8	835.3	791.4	736.4	686.9
57.5°	1209.0	1176.1	1137.6	1099.1	1055.1	1011.2	967.2	917.8	868.3	813.3	758.4
55°	1307.9	1275.0	1236.5	1192.5	1143.1	1093.6	1044.2	994.7	945.2	884.8	824.3
52.5°	1390.4	1357.4	1318.9	1286.0	1231.0	1181.5	1126.6	1066.1	1011.2	950.7	890.3
50°	1478.3	1439.8	1395.9	1357.4	1313.4	1264.0	1203.5	1143.1	1077.1	1016.7	950.7
47.5°	1577.2	1527.8	1478.3	1428.8	1384.9	1329.9	1280.5	1214.5	1148.6	1077.1	1011.2
45°	1676.1	1621.2	1566.2	1505.8	1450.8	1395.9	1340.9	1286.0	1214.5	1143.1	1066.1
42.5°	1780.6	1714.6	1654.2	1593.7	1527.8	1461.8	1401.4	1340.9	1280.5	1203.5	1126.6
40°	1901.5	1824.5	1747.6	1676.1	1610.2	1533.3	1461.8	1395.9	1329.9	1264.0	1181.5
37.5°	2038.9	1945.4	1852.0	1764.1	1681.6	1610.2	1527.8	1450.8	1384.9	1313.4	1231.0
35°	2214.7	2077.3	1967.4	1857.5	1764.1	1676.1	1593.7	1505.8	1428.8	1357.4	1286.0
32.5°	2412.6	2242.2	2093.8	1967.4	1852.0	1747.6	1654.2	1566.2	1478.3	1395.9	1318.9
30°	2654.4	2434.5	2242.2	2077.3	1945.4	1824.5	1714.6	1621.2	1527.8	1439.8	1357.4
27.5°	2995.1	2654.4	2412.6	2214.7	2038.9	1901.5	1780.6	1676.1	1577.2	1478.3	1390.4
25°	3445.7	2956.6	2599.4	2352.1	2154.3	1983.9	1846.5	1725.6	1621.2	1522.3	1423.4
22.5°	3956.8	3324.8	2852.2	2511.5	2264.2	2066.3	1912.5	1780.6	1665.2	1560.7	1456.3
20°	4786.6	3759.0	3116.0	2681.8	2385.1	2159.8	1978.4	1830.0	1703.6	1593.7	1483.8
17.5°	5698.9	4336.0	3456.7	2890.7	2511.5	2242.2	2038.9	1879.5	1736.6	1626.7	1511.3
15°	7034.3	4968.0	3786.4	3077.5	2621.4	2324.6	2099.3	1923.4	1775.1	1654.2	1538.8
12.5°	8210.4	5644.0	4182.1	3313.8	2769.8	2412.6	2159.8	1961.9	1808.0	1676.1	1560.7
10°	10056.9	6545.2	4610.8	3533.7	2890.7	2484.0	2209.2	2000.4	1830.0	1698.1	1577.2
7.5°	11540.7	7265.1	4946.0	3709.5	2989.6	2544.4	2247.7	2027.9	1852.0	1709.1	1593.7
5°	12623.3	7787.2	5193.3	3835.9	3061.0	2582.9	2275.2	2044.4	1868.5	1720.1	1604.7
2.5°	13282.8	8210.4	5391.2	3934.8	3116.0	2615.9	2297.1	2060.8	1879.5	1731.1	1610.2
0°	13502.6	8210.4	5391.2	3934.8	3116.0	2615.9	2297.1	2060.8	1879.5	1731.1	1610.2



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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°	33.0	33.0	27.5	27.5	27.5	22.0	22.0	16.5	16.5	11.0	11.0
85°	71.4	65.9	60.5	55.0	49.5	44.0	44.0	38.5	33.0	27.5	22.0
82.5°	115.4	109.9	98.9	87.9	82.4	71.4	60.5	55.0	49.5	38.5	33.0
80°	159.4	148.4	137.4	126.4	115.4	98.9	87.9	76.9	60.5	49.5	44.0
77.5°	208.8	192.3	175.9	159.4	142.9	131.9	115.4	98.9	82.4	65.9	49.5
75°	258.3	236.3	219.8	197.8	181.4	159.4	137.4	120.9	104.4	82.4	60.5
72.5°	313.2	285.8	263.8	236.3	214.3	192.3	164.9	142.9	120.9	98.9	76.9
70°	373.7	340.7	307.8	280.3	252.8	219.8	192.3	164.9	137.4	115.4	87.9
67.5°	434.2	395.7	357.2	318.7	285.8	252.8	219.8	192.3	159.4	131.9	98.9
65°	494.6	450.6	412.2	368.2	324.2	285.8	252.8	214.3	181.4	142.9	115.4
62.5°	560.5	511.1	461.6	412.2	368.2	318.7	280.3	236.3	197.8	159.4	126.4
60°	632.0	577.0	516.6	461.6	412.2	357.2	307.8	263.8	219.8	175.9	137.4
57.5°	697.9	637.5	577.0	511.1	450.6	395.7	340.7	285.8	236.3	192.3	148.4
55°	763.9	697.9	632.0	560.5	494.6	434.2	373.7	313.2	258.3	208.8	159.4
52.5°	824.3	758.4	686.9	615.5	544.1	472.6	401.2	335.2	280.3	219.8	170.4
50°	884.8	813.3	736.4	665.0	582.5	505.6	434.2	362.7	296.8	236.3	181.4
47.5°	945.2	868.3	791.4	708.9	626.5	544.1	467.1	390.2	318.7	252.8	192.3
45°	994.7	917.8	835.3	752.9	670.5	582.5	494.6	412.2	335.2	269.3	203.3
42.5°	1044.2	967.2	884.8	802.4	708.9	615.5	527.6	439.6	357.2	280.3	214.3
40°	1093.6	1011.2	928.8	840.8	747.4	654.0	555.1	461.6	373.7	296.8	225.3
37.5°	1143.1	1055.1	967.2	879.3	780.4	686.9	582.5	483.6	395.7	307.8	236.3
35°	1192.5	1099.1	1005.7	912.3	813.3	714.4	610.0	505.6	412.2	324.2	247.3
32.5°	1236.5	1137.6	1044.2	950.7	846.3	741.9	637.5	527.6	428.7	335.2	252.8
30°	1275.0	1176.1	1077.1	978.2	879.3	769.4	659.5	549.6	445.1	346.2	263.8
27.5°	1307.9	1209.0	1110.1	1005.7	906.8	796.9	681.5	571.5	461.6	362.7	269.3
25°	1340.9	1242.0	1137.6	1033.2	928.8	818.8	703.4	588.0	472.6	373.7	280.3
22.5°	1362.9	1275.0	1165.1	1055.1	950.7	835.3	719.9	604.5	489.1	379.2	285.8
20°	1390.4	1297.0	1192.5	1077.1	972.7	857.3	736.4	621.0	500.1	390.2	291.3
17.5°	1412.4	1318.9	1214.5	1099.1	989.2	873.8	752.9	632.0	511.1	395.7	296.8
15°	1434.3	1335.4	1231.0	1115.6	1000.2	890.3	763.9	643.0	516.6	406.7	302.3
12.5°	1450.8	1351.9	1247.5	1132.1	1016.7	901.3	774.9	654.0	527.6	412.2	302.3
10°	1461.8	1362.9	1264.0	1143.1	1027.7	912.3	785.9	659.5	533.1	412.2	307.8
7.5°	1472.8	1373.9	1275.0	1154.1	1033.2	917.8	791.4	670.5	538.6	417.7	313.2
5°	1483.8	1379.4	1280.5	1159.6	1038.7	928.8	802.4	676.0	544.1	423.2	313.2
2.5°	1489.3	1384.9	1286.0	1165.1	1044.2	928.8	802.4	676.0	544.1	423.2	313.2
0°	1489.3	1384.9	1286.0	1165.1	1044.2	928.8	802.4	676.0	544.1	423.2	313.2



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CANDELA DISTRIBUTION (continued):

	82.5°	85°	87.5°	90°
90°	0.0	0.0	0.0	0.0
87.5°	5.5	5.5	0.0	0.0
85°	16.5	11.0	5.5	0.0
82.5°	22.0	16.5	5.5	0.0
80°	33.0	22.0	11.0	0.0
77.5°	38.5	27.5	11.0	0.0
75°	49.5	33.0	16.5	0.0
72.5°	55.0	38.5	16.5	0.0
70°	60.5	44.0	22.0	0.0
67.5°	71.4	44.0	22.0	0.0
65°	82.4	49.5	27.5	0.0
62.5°	87.9	55.0	27.5	0.0
60°	98.9	60.5	27.5	0.0
57.5°	109.9	65.9	33.0	0.0
55°	115.4	71.4	33.0	0.0
52.5°	126.4	76.9	38.5	0.0
50°	131.9	82.4	38.5	0.0
47.5°	137.4	87.9	38.5	0.0
45°	148.4	93.4	44.0	0.0
42.5°	153.9	98.9	44.0	0.0
40°	159.4	98.9	44.0	0.0
37.5°	170.4	104.4	49.5	0.0
35°	175.9	109.9	49.5	0.0
32.5°	181.4	115.4	49.5	0.0
30°	186.8	115.4	55.0	0.0
27.5°	192.3	120.9	55.0	0.0
25°	197.8	120.9	55.0	0.0
22.5°	203.3	126.4	55.0	0.0
20°	203.3	126.4	55.0	0.0
17.5°	208.8	131.9	55.0	0.0
15°	208.8	131.9	60.5	0.0
12.5°	214.3	131.9	60.5	0.0
10°	214.3	137.4	60.5	0.0
7.5°	219.8	137.4	60.5	0.0
5°	219.8	137.4	60.5	0.0
2.5°	219.8	137.4	60.5	0.0
0°	219.8	137.4	60.5	0.0

(END OF REPORT)