

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: P624171

Luminaire Tested: **EPH-VN-07-E-940-U-55**

Issue Date: 11/2/2022

Test Information

Test Method: LM-79-2019
Report Number: P624171
Test Lab: INNOVATION CENTER(G2)
Issue Date: 11/2/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: EPHESUS
Catalog Number: EPH-VN-07-E-940-U-55
Description: EPHESUS LUMAVISION FLOOD – Middle Tier Light Square Luminaire w/
Nema 5 distribution lens
Light Source: (112) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

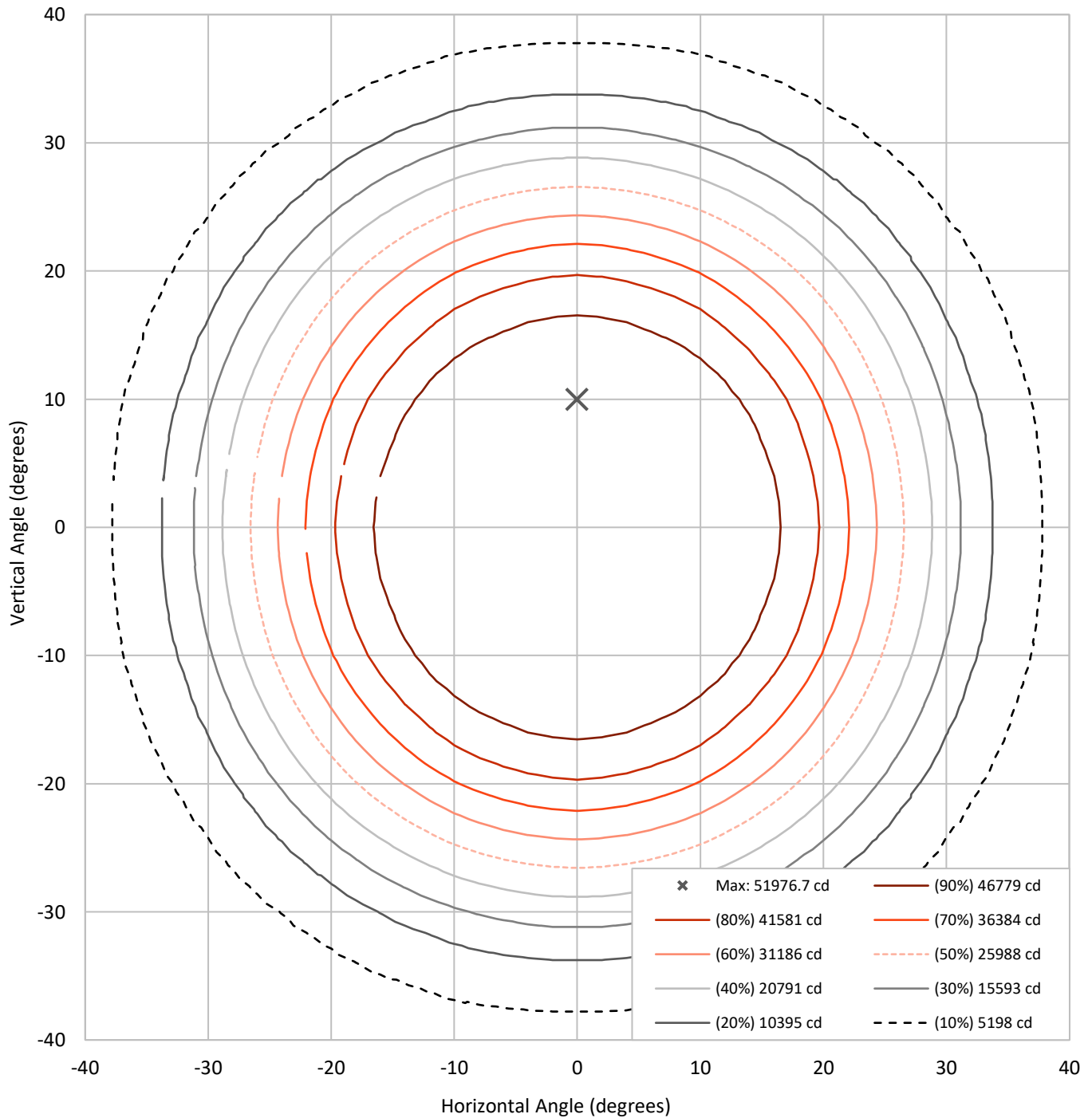
Lumens per Lamp:	N/A	NEMA Type:	5H x 5V
Luminaire Lumens:	42532.6 lumens	Max Intensity:	51976.7 candela
Efficiency:	N/A	Max Intensity Angle:	0°H x 10°V
Efficacy:	79.8 lumens/watt		
Luminous Opening:	Rectangular (W 2' x L: 1' x H: 0')		
Beam Angle (50%):	49.5°H x 53.1°V	Field Angle (10%):	73.6°H x 75.3°V
Beam Lumens:	21139.8 lumens	Field Lumens:	27492.9 lumens
Beam Efficiency:	49.7%	Field Efficiency:	64.6%

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





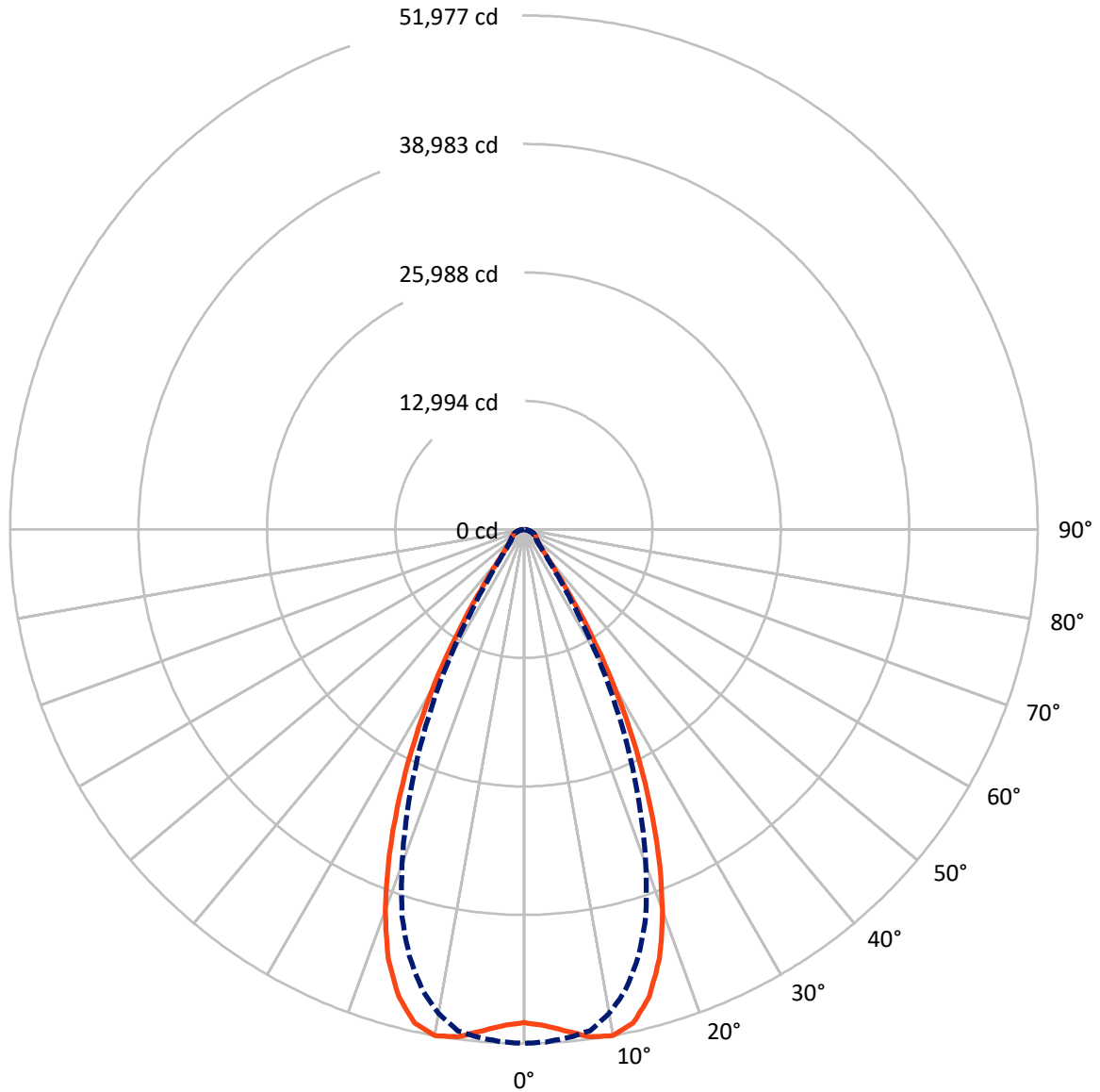
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Lumen Table

90	1.2	9.3	24.3	39.2	45.5	39.2	24.3	9.3	1.2							
80	1.2	9.3	24.3	39.2	45.5	39.2	24.3	9.3	1.2							
70	4.3	4.6	9.6	15.9	22.3	27.9	31.9	34.1	34.1	31.9	27.9	22.3	15.9	9.6	4.6	4.3
60		7.1	14.7	23.3	31.3	38.1	43.2	46.1	46.1	43.2	38.1	31.3	23.3	14.7	7.1	
50	7.5	9.6	19.0	28.7	38.5	49.8	63.1	73.3	73.3	63.1	49.8	38.5	28.7	19.0	9.6	7.5
40		11.7	22.0	33.3	50.4	89.9	175.6	264.8	264.8	175.6	89.9	50.4	33.3	22.0	11.7	
30	10.1	13.2	24.2	39.0	81.6	259.9	602.2	854.7	854.7	602.2	259.9	81.6	39.0	24.2	13.2	10.1
20		14.1	25.8	46.5	150.5	567.2	1109.7	1414.7	1414.7	1109.7	567.2	150.5	46.5	25.8	14.1	
10	11.0	14.6	26.7	52.5	220.9	781.3	1372.9	1556.9	1556.9	1372.9	781.3	220.9	52.5	26.7	14.6	11.0
0		14.6	26.7	52.5	220.9	781.3	1372.9	1556.9	1556.9	1372.9	781.3	220.9	52.5	26.7	14.6	
-10	10.1	14.1	25.8	46.5	150.5	567.2	1109.7	1414.7	1414.7	1109.7	567.2	150.5	46.5	25.8	14.1	10.1
-20		13.2	24.2	39.0	81.6	259.9	602.2	854.7	854.7	602.2	259.9	81.6	39.0	24.2	13.2	
-30	7.5	11.7	22.0	33.3	50.4	89.9	175.6	264.8	264.8	175.6	89.9	50.4	33.3	22.0	11.7	7.5
-40		9.6	19.0	28.7	38.5	49.8	63.1	73.3	73.3	63.1	49.8	38.5	28.7	19.0	9.6	
-50	4.3	7.1	14.7	23.3	31.3	38.1	43.2	46.1	46.1	43.2	38.1	31.3	23.3	14.7	7.1	4.3
-60		4.6	9.6	15.9	22.3	27.9	31.9	34.1	34.1	31.9	27.9	22.3	15.9	9.6	4.6	
-70	1.2	9.3	24.3	39.2	45.5	39.2	24.3	9.3	1.2							
-80		1.2	9.3	24.3	39.2	45.5	39.2	24.3	9.3	1.2						
-90	1.2	9.3	24.3	39.2	45.5	39.2	24.3	9.3	1.2							

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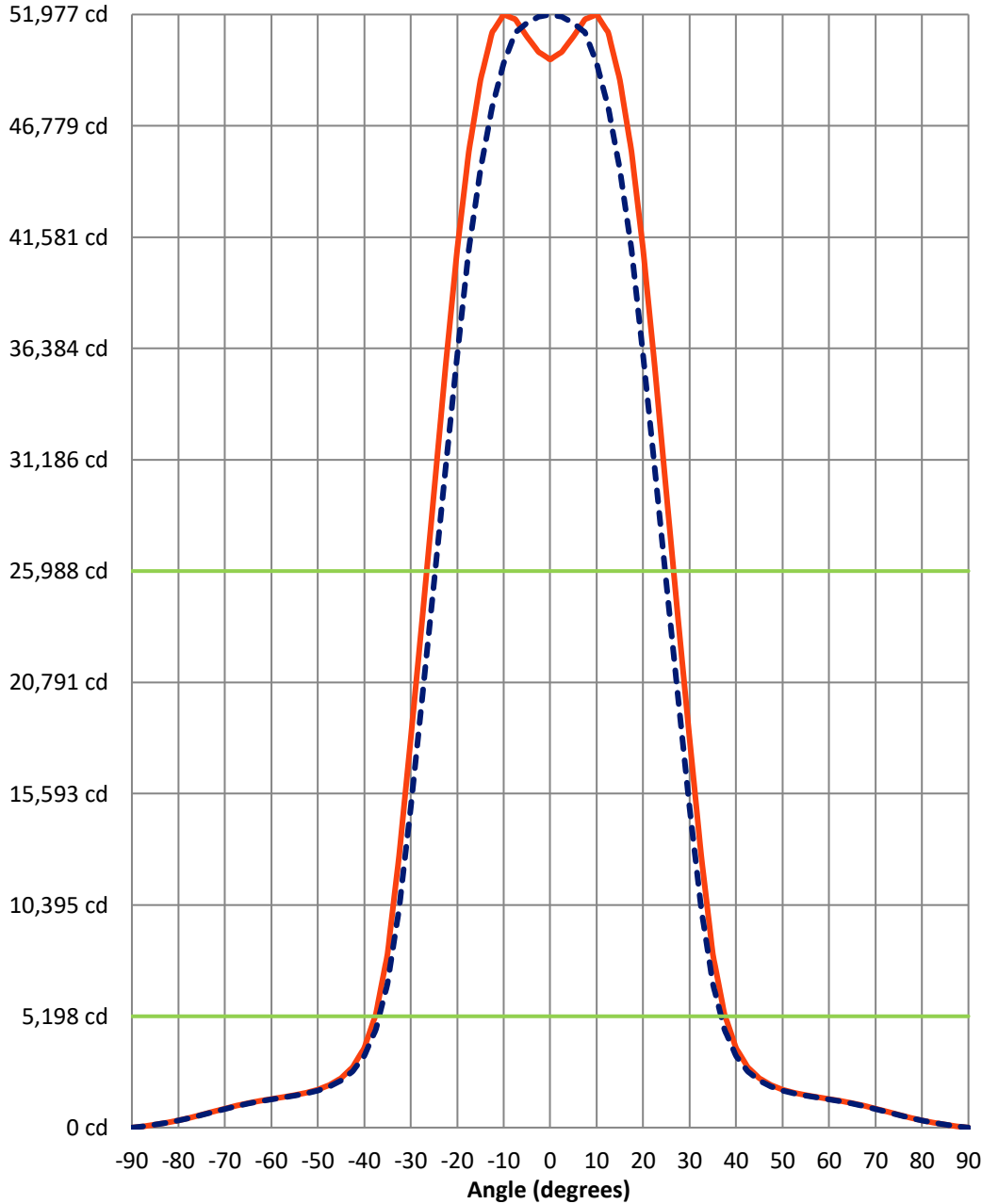
Luminous Intensity Polar Plot



— Vertical Distribution Through 0-Deg - - - Horizontal Distribution Through 10-Deg

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Luminous Intensity Plot



Beam:
 H Angle: 49.5°
 V Angle: 53.1°
 Lumens: 21139.8
 Efficiency: 49.7%

Field:
 H Angle: 73.6°
 V Angle: 75.3°
 Lumens: 27492.9
 Efficiency: 64.6%

Spill:
 Lumens: 15039.7
 Efficiency: 35.4%

- Vertical Distribution through 0-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°	57.4	57.4	57.4	57.4	57.4	57.4	57.4	53.0	53.0	53.0	53.0
85°	141.4	141.4	141.4	141.4	141.4	137.0	137.0	132.5	132.5	128.1	123.7
82.5°	229.8	229.8	229.8	229.8	225.3	225.3	220.9	216.5	212.1	207.7	203.2
80°	335.8	335.8	335.8	335.8	331.4	327.0	322.5	318.1	309.3	304.9	296.0
77.5°	459.5	459.5	459.5	455.1	450.7	446.2	437.4	428.6	419.7	410.9	402.1
75°	600.9	600.9	600.9	592.0	587.6	578.8	570.0	561.1	547.9	534.6	521.4
72.5°	746.7	746.7	746.7	737.9	729.0	720.2	711.3	698.1	684.8	667.2	649.5
70°	883.7	883.7	883.7	874.8	866.0	857.1	843.9	830.6	813.0	795.3	777.6
67.5°	1025.0	1025.0	1025.0	1011.8	1003.0	994.1	980.9	963.2	945.5	923.4	901.3
65°	1139.9	1139.9	1135.5	1131.1	1122.2	1109.0	1100.2	1082.5	1064.8	1047.1	1025.0
62.5°	1246.0	1246.0	1241.5	1237.1	1228.3	1215.0	1201.8	1188.5	1170.8	1148.8	1126.7
60°	1334.3	1334.3	1329.9	1325.5	1316.6	1307.8	1294.6	1281.3	1263.6	1246.0	1223.9
57.5°	1422.7	1422.7	1418.3	1413.9	1405.0	1391.8	1378.5	1365.2	1347.6	1325.5	1303.4
55°	1515.5	1515.5	1511.1	1502.2	1493.4	1480.1	1466.9	1449.2	1427.1	1405.0	1382.9
52.5°	1625.9	1625.9	1617.1	1608.3	1595.0	1581.7	1559.7	1537.6	1511.1	1484.5	1458.0
50°	1771.7	1771.7	1762.9	1749.6	1727.5	1705.5	1678.9	1643.6	1612.7	1577.3	1542.0
47.5°	1988.2	1988.2	1970.6	1948.5	1917.5	1882.2	1833.6	1780.6	1736.4	1692.2	1639.2
45°	2306.3	2306.3	2279.8	2244.5	2195.9	2134.0	2063.3	1988.2	1913.1	1838.0	1762.9
42.5°	2823.3	2823.3	2774.7	2712.8	2628.9	2522.8	2390.3	2266.6	2160.5	2041.2	1939.6
40°	3715.8	3715.8	3623.0	3508.1	3349.1	3145.8	2902.8	2708.4	2522.8	2315.2	2173.8
37.5°	5301.9	5301.9	5120.8	4899.9	4590.6	4201.8	3733.4	3419.8	3075.1	2748.2	2509.6
35°	8103.1	8103.1	7754.1	7325.5	6729.0	5977.9	5178.2	4586.2	3927.9	3424.2	2977.9
32.5°	12698.1	12698.1	12070.7	11297.5	10232.7	8885.2	7603.9	6477.2	5301.9	4466.9	3662.8
30°	18159.1	18159.1	17337.3	16325.6	14938.2	13188.6	11363.8	9362.3	7506.7	6017.7	4802.7
27.5°	23805.7	23571.5	22864.6	21711.4	20129.7	18159.1	15883.7	13299.0	10789.4	8165.0	6428.6
25°	29646.7	29372.7	28564.2	27238.7	25427.2	23196.0	20633.4	17743.8	14646.6	11518.5	8514.0
22.5°	35549.5	35240.2	34321.2	32823.4	30791.0	28290.3	25387.4	22175.4	18715.8	15101.7	11518.5
20°	41006.1	40679.1	39715.9	38156.3	36053.2	33309.4	30084.1	26522.9	22696.7	18715.8	14646.6
17.5°	45574.6	45260.9	44333.0	42844.1	41006.1	37970.7	34617.2	30702.6	26522.9	22175.4	17743.8
15°	48910.4	48640.9	47850.0	46599.6	44726.3	42040.0	38624.6	34617.2	30084.1	25387.4	20633.4
12.5°	51123.9	50907.4	50284.5	49312.4	47633.5	45380.2	42040.0	37970.7	33309.4	28290.3	23196.0
10°	51976.7	51870.6	51579.0	51132.8	49701.3	47633.5	44726.3	41006.1	36053.2	30791.0	25427.2
7.5°	51751.3	51786.7	51888.3	51773.4	51132.8	49312.4	46599.6	42844.1	38156.3	32823.4	27238.7
5°	50947.2	51137.2	51610.0	51888.3	51579.0	50284.5	47850.0	44333.0	39715.9	34321.2	28564.2
2.5°	50231.4	50527.5	51137.2	51786.7	51870.6	50907.4	48640.9	45260.9	40679.1	35240.2	29372.7
0°	49878.0	50231.4	50947.2	51751.3	51976.7	51123.9	48910.4	45574.6	41006.1	35549.5	29646.7



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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°	53.0	48.6	48.6	48.6	44.2	44.2	44.2	39.8	39.8	35.3	35.3
85°	123.7	119.3	114.9	110.5	106.0	101.6	97.2	92.8	88.4	79.5	75.1
82.5°	198.8	194.4	190.0	181.1	176.7	167.9	159.1	150.2	141.4	137.0	128.1
80°	287.2	278.4	269.5	260.7	247.4	234.2	225.3	212.1	203.2	190.0	181.1
77.5°	388.8	375.6	362.3	344.6	331.4	318.1	300.4	287.2	269.5	251.8	234.2
75°	503.7	486.0	463.9	446.2	428.6	406.5	384.4	362.3	340.2	318.1	296.0
72.5°	627.4	605.3	583.2	561.1	534.6	503.7	477.2	446.2	419.7	393.2	362.3
70°	755.5	729.0	702.5	676.0	645.1	609.7	578.8	543.4	508.1	472.8	437.4
67.5°	874.8	848.3	817.4	790.9	755.5	720.2	680.4	640.7	600.9	556.7	512.5
65°	998.5	967.6	932.3	896.9	861.6	821.8	782.0	742.3	693.7	645.1	600.9
62.5°	1100.2	1073.6	1042.7	1007.4	967.6	923.4	883.7	830.6	782.0	733.4	676.0
60°	1197.4	1166.4	1139.9	1100.2	1064.8	1025.0	976.4	923.4	870.4	813.0	759.9
57.5°	1281.3	1254.8	1223.9	1188.5	1148.8	1109.0	1064.8	1016.2	954.3	896.9	835.1
55°	1356.4	1325.5	1294.6	1263.6	1228.3	1184.1	1139.9	1091.3	1038.3	976.4	910.2
52.5°	1431.5	1400.6	1365.2	1334.3	1294.6	1254.8	1210.6	1162.0	1109.0	1051.6	980.9
50°	1506.6	1471.3	1435.9	1396.2	1356.4	1316.6	1272.5	1228.3	1170.8	1113.4	1051.6
47.5°	1595.0	1550.8	1506.6	1462.5	1422.7	1374.1	1329.9	1281.3	1232.7	1170.8	1109.0
45°	1705.5	1639.2	1586.2	1533.1	1484.5	1435.9	1382.9	1334.3	1281.3	1228.3	1162.0
42.5°	1842.4	1754.1	1683.4	1612.7	1550.8	1493.4	1440.4	1382.9	1329.9	1272.5	1210.6
40°	2028.0	1908.7	1793.8	1705.5	1625.9	1555.2	1493.4	1435.9	1374.1	1316.6	1254.8
37.5°	2271.0	2103.1	1944.0	1815.9	1714.3	1625.9	1550.8	1484.5	1422.7	1356.4	1294.6
35°	2637.7	2346.1	2142.9	1957.3	1815.9	1705.5	1612.7	1533.1	1462.5	1396.2	1334.3
32.5°	3154.7	2704.0	2377.0	2142.9	1944.0	1793.8	1683.4	1586.2	1506.6	1435.9	1365.2
30°	3835.1	3212.1	2704.0	2346.1	2103.1	1908.7	1754.1	1639.2	1550.8	1471.3	1400.6
27.5°	4913.1	3835.1	3154.7	2637.7	2271.0	2028.0	1842.4	1705.5	1595.0	1506.6	1431.5
25°	6428.6	4802.7	3662.8	2977.9	2509.6	2173.8	1939.6	1762.9	1639.2	1542.0	1458.0
22.5°	8165.0	6017.7	4466.9	3424.2	2748.2	2315.2	2041.2	1838.0	1692.2	1577.3	1484.5
20°	10789.4	7506.7	5301.9	3927.9	3075.1	2522.8	2160.5	1913.1	1736.4	1612.7	1511.1
17.5°	13299.0	9362.3	6477.2	4586.2	3419.8	2708.4	2266.6	1988.2	1780.6	1643.6	1537.6
15°	15883.7	11363.8	7603.9	5178.2	3733.4	2902.8	2390.3	2063.3	1833.6	1678.9	1559.7
12.5°	18159.1	13188.6	8885.2	5977.9	4201.8	3145.8	2522.8	2134.0	1882.2	1705.5	1581.7
10°	20129.7	14938.2	10232.7	6729.0	4590.6	3349.1	2628.9	2195.9	1917.5	1727.5	1595.0
7.5°	21711.4	16325.6	11297.5	7325.5	4899.9	3508.1	2712.8	2244.5	1948.5	1749.6	1608.3
5°	22864.6	17337.3	12070.7	7754.1	5120.8	3623.0	2774.7	2279.8	1970.6	1762.9	1617.1
2.5°	23571.5	18159.1	12698.1	8103.1	5301.9	3715.8	2823.3	2306.3	1988.2	1771.7	1625.9
0°	23805.7	18159.1	12698.1	8103.1	5301.9	3715.8	2823.3	2306.3	1988.2	1771.7	1625.9



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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°	30.9	30.9	26.5	26.5	22.1	22.1	17.7	17.7	13.3	13.3	8.8
85°	70.7	61.9	57.4	53.0	48.6	44.2	39.8	35.3	30.9	26.5	22.1
82.5°	119.3	110.5	97.2	88.4	79.5	70.7	57.4	53.0	44.2	35.3	30.9
80°	167.9	154.6	141.4	128.1	114.9	101.6	88.4	75.1	61.9	48.6	39.8
77.5°	216.5	198.8	185.6	167.9	150.2	132.5	114.9	97.2	79.5	61.9	48.6
75°	273.9	251.8	229.8	207.7	185.6	163.5	145.8	123.7	101.6	79.5	61.9
72.5°	335.8	304.9	278.4	251.8	220.9	198.8	172.3	150.2	123.7	97.2	75.1
70°	402.1	366.7	331.4	296.0	265.1	229.8	203.2	172.3	145.8	114.9	88.4
67.5°	468.3	428.6	388.8	344.6	304.9	269.5	229.8	198.8	163.5	132.5	101.6
65°	547.9	494.8	446.2	397.6	349.0	304.9	265.1	220.9	185.6	150.2	114.9
62.5°	623.0	565.5	508.1	450.7	397.6	344.6	296.0	251.8	207.7	167.9	128.1
60°	698.1	636.2	570.0	508.1	446.2	388.8	331.4	278.4	229.8	185.6	141.4
57.5°	773.2	702.5	636.2	565.5	494.8	428.6	366.7	304.9	251.8	198.8	154.6
55°	839.5	773.2	698.1	623.0	547.9	468.3	402.1	335.8	273.9	216.5	167.9
52.5°	910.2	835.1	759.9	676.0	600.9	512.5	437.4	362.3	296.0	234.2	181.1
50°	976.4	896.9	813.0	733.4	645.1	556.7	472.8	393.2	318.1	251.8	190.0
47.5°	1038.3	954.3	870.4	782.0	693.7	600.9	508.1	419.7	340.2	269.5	203.2
45°	1091.3	1016.2	923.4	830.6	742.3	640.7	543.4	446.2	362.3	287.2	212.1
42.5°	1139.9	1064.8	976.4	883.7	782.0	680.4	578.8	477.2	384.4	300.4	225.3
40°	1184.1	1109.0	1025.0	923.4	821.8	720.2	609.7	503.7	406.5	318.1	234.2
37.5°	1228.3	1148.8	1064.8	967.6	861.6	755.5	645.1	534.6	428.6	331.4	247.4
35°	1263.6	1188.5	1100.2	1007.4	896.9	790.9	676.0	561.1	446.2	344.6	260.7
32.5°	1294.6	1223.9	1139.9	1042.7	932.3	817.4	702.5	583.2	463.9	362.3	269.5
30°	1325.5	1254.8	1166.4	1073.6	967.6	848.3	729.0	605.3	486.0	375.6	278.4
27.5°	1356.4	1281.3	1197.4	1100.2	998.5	874.8	755.5	627.4	503.7	388.8	287.2
25°	1382.9	1303.4	1223.9	1126.7	1025.0	901.3	777.6	649.5	521.4	402.1	296.0
22.5°	1405.0	1325.5	1246.0	1148.8	1047.1	923.4	795.3	667.2	534.6	410.9	304.9
20°	1427.1	1347.6	1263.6	1170.8	1064.8	945.5	813.0	684.8	547.9	419.7	309.3
17.5°	1449.2	1365.2	1281.3	1188.5	1082.5	963.2	830.6	698.1	561.1	428.6	318.1
15°	1466.9	1378.5	1294.6	1201.8	1100.2	980.9	843.9	711.3	570.0	437.4	322.5
12.5°	1480.1	1391.8	1307.8	1215.0	1109.0	994.1	857.1	720.2	578.8	446.2	327.0
10°	1493.4	1405.0	1316.6	1228.3	1122.2	1003.0	866.0	729.0	587.6	450.7	331.4
7.5°	1502.2	1413.9	1325.5	1237.1	1131.1	1011.8	874.8	737.9	592.0	455.1	335.8
5°	1511.1	1418.3	1329.9	1241.5	1135.5	1025.0	883.7	746.7	600.9	459.5	335.8
2.5°	1515.5	1422.7	1334.3	1246.0	1139.9	1025.0	883.7	746.7	600.9	459.5	335.8
0°	1515.5	1422.7	1334.3	1246.0	1139.9	1025.0	883.7	746.7	600.9	459.5	335.8



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CANDELA DISTRIBUTION (continued):

	82.5°	85°	87.5°	90°
90°	0.0	0.0	0.0	0.0
87.5°	8.8	4.4	4.4	0.0
85°	13.3	8.8	4.4	0.0
82.5°	22.1	13.3	8.8	0.0
80°	30.9	22.1	8.8	0.0
77.5°	35.3	26.5	13.3	0.0
75°	44.2	30.9	13.3	0.0
72.5°	53.0	35.3	17.7	0.0
70°	57.4	39.8	17.7	0.0
67.5°	70.7	44.2	22.1	0.0
65°	79.5	48.6	22.1	0.0
62.5°	88.4	53.0	26.5	0.0
60°	97.2	57.4	26.5	0.0
57.5°	110.5	61.9	30.9	0.0
55°	119.3	70.7	30.9	0.0
52.5°	128.1	75.1	35.3	0.0
50°	137.0	79.5	35.3	0.0
47.5°	141.4	88.4	39.8	0.0
45°	150.2	92.8	39.8	0.0
42.5°	159.1	97.2	44.2	0.0
40°	167.9	101.6	44.2	0.0
37.5°	176.7	106.0	44.2	0.0
35°	181.1	110.5	48.6	0.0
32.5°	190.0	114.9	48.6	0.0
30°	194.4	119.3	48.6	0.0
27.5°	198.8	123.7	53.0	0.0
25°	203.2	123.7	53.0	0.0
22.5°	207.7	128.1	53.0	0.0
20°	212.1	132.5	53.0	0.0
17.5°	216.5	132.5	53.0	0.0
15°	220.9	137.0	57.4	0.0
12.5°	225.3	137.0	57.4	0.0
10°	225.3	141.4	57.4	0.0
7.5°	229.8	141.4	57.4	0.0
5°	229.8	141.4	57.4	0.0
2.5°	229.8	141.4	57.4	0.0
0°	229.8	141.4	57.4	0.0

(END OF REPORT)