

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: INVUE

Report Number: P95432

Luminaire Tested: **VFS-K-B20-7-LED-E1-WST**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P95432
REPORT SCALED FROM IESNA LM79-08 TEST DATA (P22641)
Test Lab: INNOVATION CENTER
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: VFS-K-B20-7-LED-E1-WST
Description: ARCHITECTURAL FLOOD LUMINAIRE
WIDE SYMMETRIC RECTANGULAR DISTRIBUTION
WITH 20 LED'S, 700mA DRIVE CURRENT
Light Source: -
Ballast/Driver: -

Summary

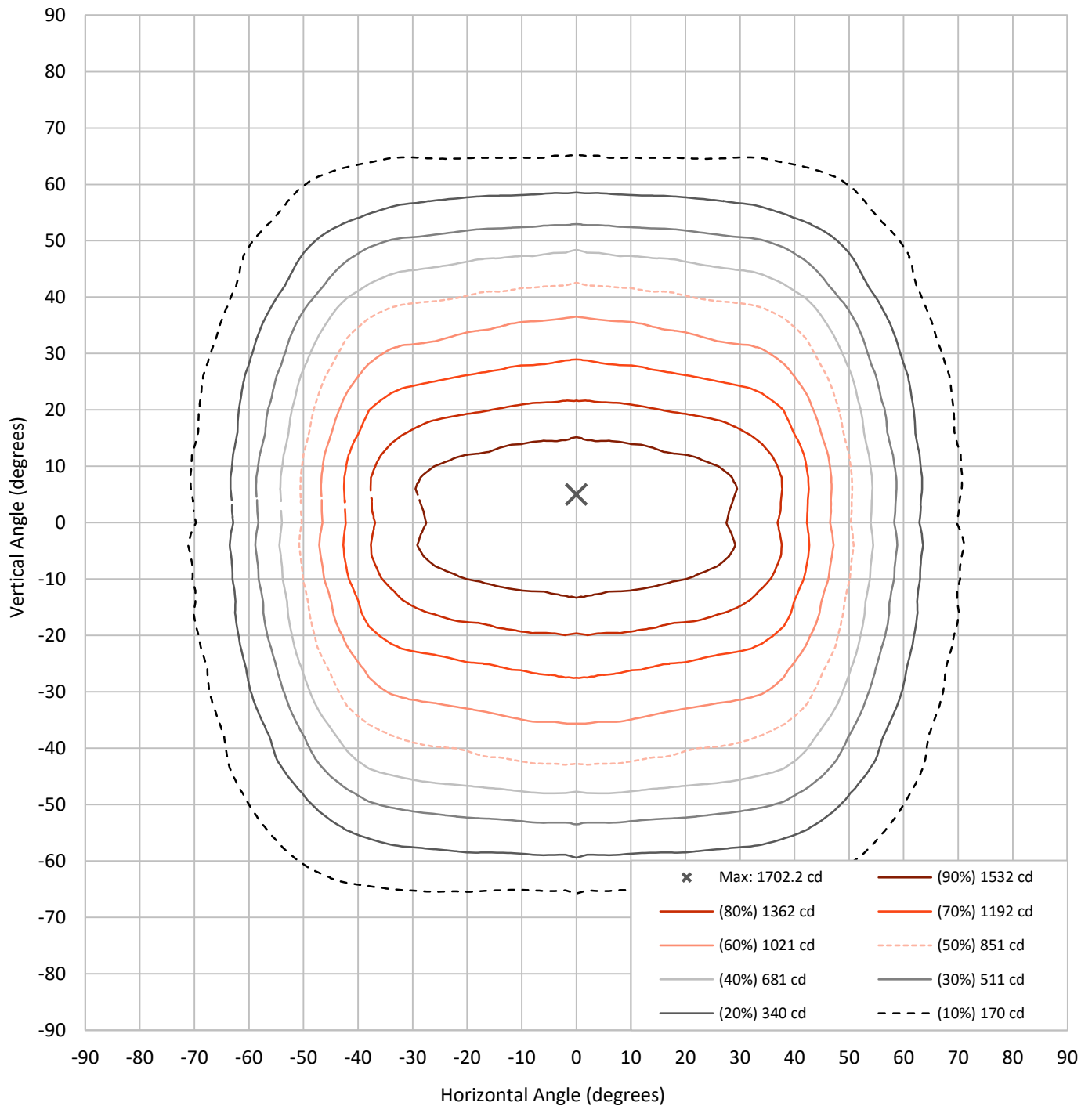
Lumens per Lamp:	N/A	NEMA Type:	7H x 7V
Luminaire Lumens:	3624.2 lumens	Max Intensity:	1702.2 candela
Efficiency:	N/A	Max Intensity Angle:	0°H x 5°V
Efficacy:	74.6 lumens/watt		
Luminous Opening:	(L: 0.83 ' x W: 0 ' x H: 0.5 ')		
Beam Angle (50%):	101.1°H x 85.4°V	Field Angle (10%):	140.9°H x 130.5°V
Beam Lumens:	2535 lumens	Field Lumens:	3496.3 lumens
Beam Efficiency:	69.9%	Field Efficiency:	96.5%
Input Watts (W):	48.6		
Input Voltage (V):	NR		
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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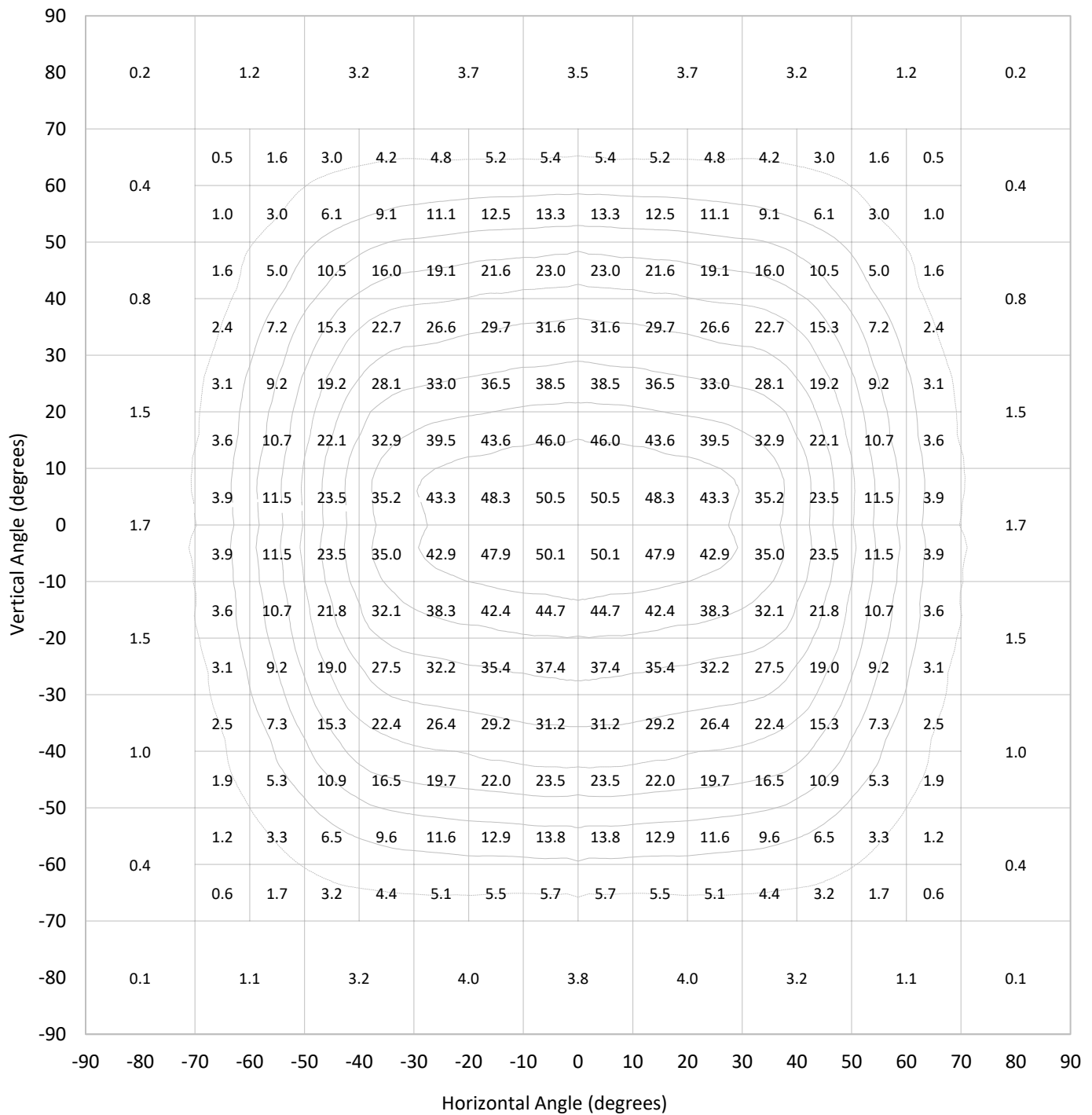
Iso-Candela Plot





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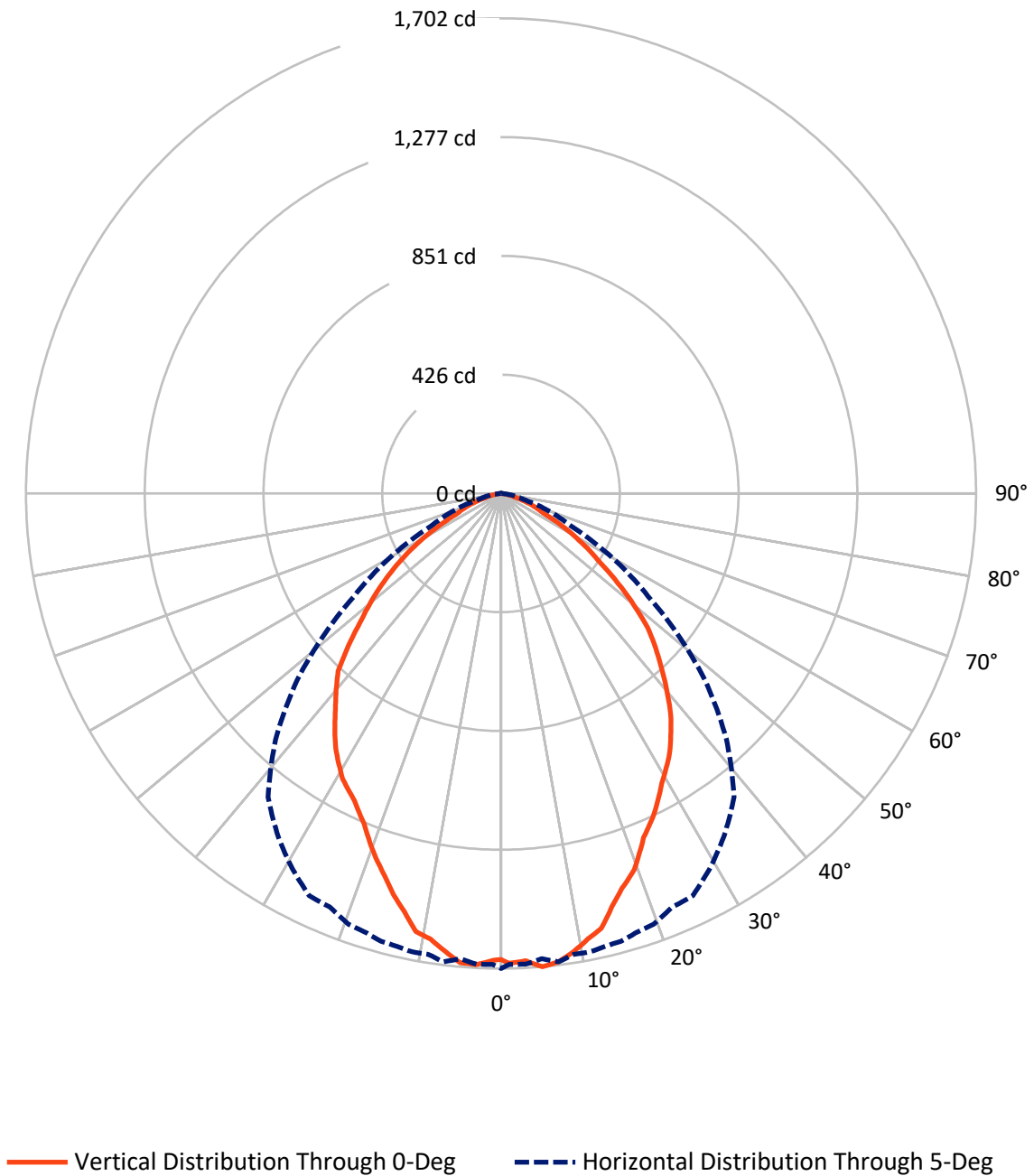
Lumen Table



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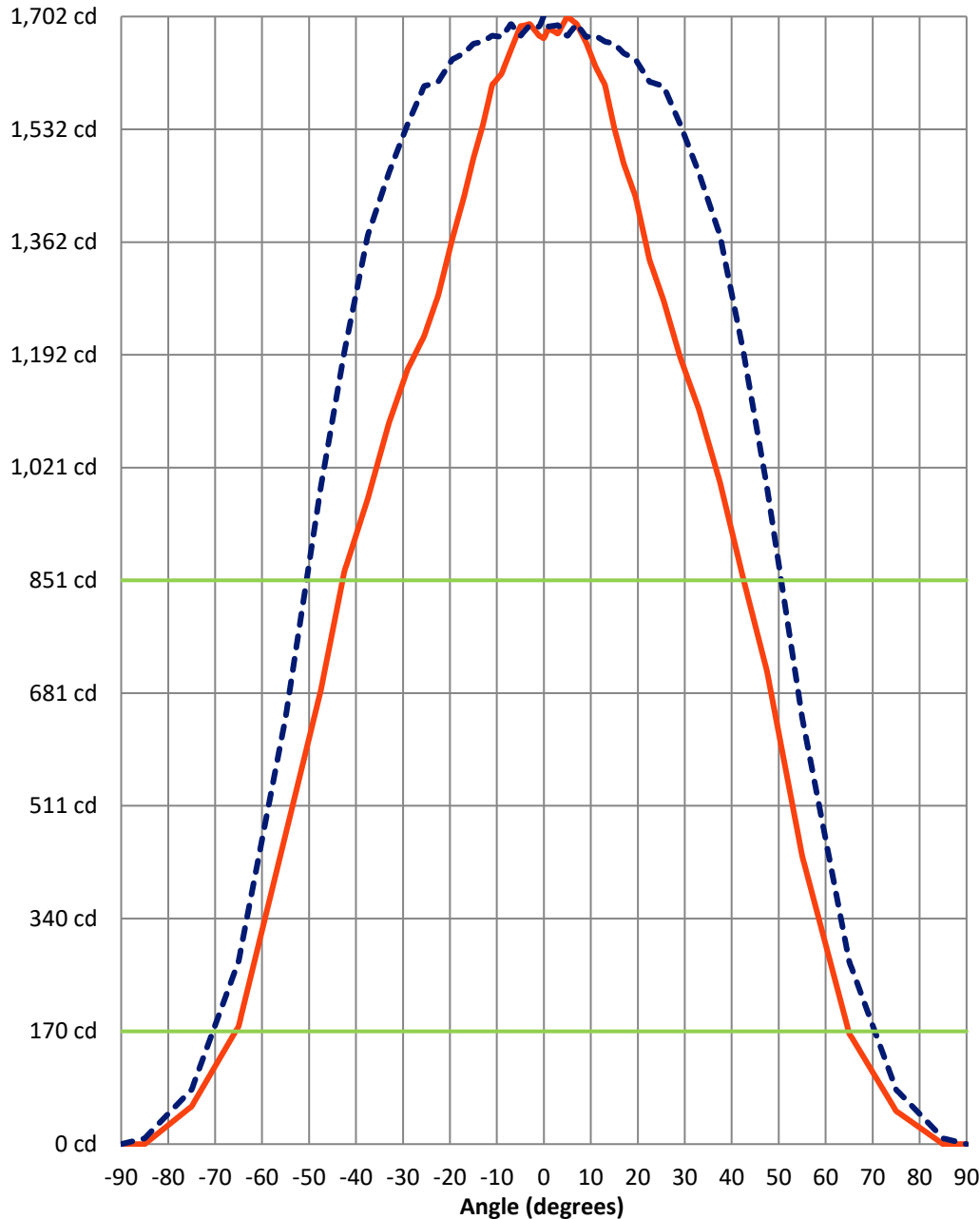
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Luminous Intensity Polar Plot



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Luminous Intensity Plot



Beam:
 H Angle: 101.1°
 V Angle: 85.4°
 Lumens: 2535
 Efficiency: 69.9%

Field:
 H Angle: 140.9°
 V Angle: 130.5°
 Lumens: 3496.3
 Efficiency: 96.5%

Spill:
 Lumens: 127.8
 Efficiency: 3.5%

— Vertical Distribution through 0-Deg
 - - Horizontal Distribution through 5-Deg



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FIELD
BEAM

CANDELA DISTRIBUTION:

	0°	1°	3°	5°	7°	9°	11°	13°	15°	17°	19.5°
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	5.3	8.8	1.8
75°	50.0	37.7	51.7	39.5	43.0	41.2	48.2	44.7	46.5	50.0	48.2
65°	167.5	158.7	167.5	162.2	150.0	160.5	155.2	157.0	157.0	157.0	157.0
55°	435.0	431.5	433.2	433.2	431.5	422.7	422.7	417.4	420.9	415.7	410.4
47.5°	713.8	695.4	693.7	693.7	674.4	676.1	677.9	667.4	663.9	662.1	651.6
42.5°	852.4	841.9	834.9	836.6	827.8	824.3	824.3	802.4	805.9	813.8	784.9
37.5°	998.9	997.1	986.6	983.1	979.6	979.6	972.5	957.6	950.6	947.1	936.6
33°	1109.3	1107.6	1098.8	1090.1	1088.3	1079.5	1086.5	1074.3	1052.3	1047.1	1041.8
29°	1188.3	1190.0	1184.8	1172.5	1168.1	1164.6	1168.1	1152.3	1141.8	1136.5	1116.4
25.5°	1273.3	1261.1	1259.3	1250.5	1254.0	1245.3	1245.3	1234.8	1226.0	1221.6	1211.1
22.5°	1334.7	1343.5	1333.0	1326.8	1329.5	1325.1	1314.6	1309.3	1300.5	1290.0	1281.2
19.5°	1430.3	1416.3	1419.8	1414.5	1411.0	1405.8	1397.0	1388.2	1376.8	1368.0	1359.3
17°	1480.3	1471.5	1471.5	1478.5	1476.8	1455.7	1459.3	1457.5	1434.7	1423.3	1419.8
15°	1533.8	1525.0	1516.3	1512.7	1521.5	1502.2	1493.5	1491.7	1471.5	1457.5	1455.7
13°	1598.7	1580.3	1573.3	1571.5	1573.3	1564.5	1562.7	1562.7	1535.5	1523.3	1519.8
11°	1626.8	1616.2	1607.5	1596.9	1605.7	1596.9	1591.7	1585.5	1568.0	1557.5	1550.5
9°	1662.7	1653.9	1652.2	1641.7	1653.9	1652.2	1639.0	1637.3	1625.0	1603.9	1595.2
7°	1690.8	1685.5	1680.2	1664.5	1673.2	1661.0	1666.2	1661.0	1648.7	1635.5	1635.5
5°	1702.2	1687.3	1689.0	1673.2	1690.8	1671.5	1673.2	1664.5	1661.0	1646.9	1637.3
3°	1676.7	1675.0	1671.5	1664.5	1678.5	1664.5	1664.5	1659.2	1653.9	1637.3	1632.0
1°	1683.8	1675.0	1673.2	1652.2	1666.2	1661.0	1669.7	1650.4	1645.2	1633.8	1630.3
0°	1669.7	1668.0	1662.7	1643.4	1659.2	1662.7	1653.9	1652.2	1639.0	1623.2	1625.0
-1°	1673.2	1666.2	1659.2	1652.2	1666.2	1653.9	1659.2	1662.7	1646.9	1628.5	1619.7
-3°	1690.8	1678.5	1673.2	1680.2	1682.0	1680.2	1668.0	1669.7	1666.2	1643.4	1637.3
-5°	1687.3	1683.8	1676.7	1680.2	1680.2	1683.8	1673.2	1669.7	1653.9	1639.0	1625.0
-7°	1652.2	1641.7	1643.4	1632.0	1639.0	1633.8	1632.0	1626.8	1623.2	1589.9	1585.5
-9°	1616.2	1616.2	1612.7	1611.0	1619.7	1607.5	1600.4	1595.2	1591.7	1568.0	1557.5
-11°	1598.7	1580.3	1575.0	1566.2	1561.0	1566.2	1555.7	1546.9	1539.9	1523.3	1514.5
-13°	1538.2	1530.3	1533.8	1511.0	1507.5	1507.5	1500.5	1497.0	1476.8	1462.8	1462.8
-15°	1488.2	1480.3	1486.4	1478.5	1480.3	1476.8	1468.0	1459.3	1441.7	1423.3	1421.5
-17°	1430.3	1434.7	1438.2	1425.1	1430.3	1428.6	1421.5	1421.5	1402.3	1381.2	1376.8
-19.5°	1366.3	1376.8	1369.8	1361.0	1364.5	1362.8	1348.8	1340.0	1333.0	1321.6	1321.6
-22.5°	1281.2	1297.0	1288.2	1281.2	1283.0	1283.0	1269.8	1264.6	1254.0	1243.5	1240.0
-25.5°	1219.8	1229.5	1218.1	1212.8	1216.3	1204.1	1202.3	1200.6	1183.0	1179.5	1177.7
-29°	1169.9	1166.3	1164.6	1159.3	1155.8	1150.6	1138.3	1138.3	1109.3	1114.6	1109.3
-33°	1088.3	1091.8	1079.5	1074.3	1083.0	1072.5	1062.9	1055.9	1041.8	1034.8	1024.3
-37.5°	974.3	977.8	970.8	965.5	970.8	962.9	954.1	938.3	931.3	926.1	912.0
-42.5°	863.8	870.8	867.3	857.7	867.3	854.2	847.1	833.1	833.1	833.1	813.8
-47.5°	684.9	693.7	697.2	697.2	697.2	686.7	683.1	672.6	669.1	660.3	655.1
-55°	467.4	455.1	446.4	455.1	449.9	451.6	436.7	440.2	431.5	433.2	431.5
-65°	178.0	165.7	165.7	171.0	165.7	164.0	164.0	164.0	167.5	167.5	172.8
-75°	57.0	41.2	53.5	41.2	46.5	51.7	55.2	51.7	53.5	55.2	51.7
-85°	0.0	0.0	0.0	0.0	1.8	0.0	0.0	1.8	1.8	0.0	0.0
-90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	22.5°	25.5°	29°	33°	37.5°	42.5°	47.5°	55°	65°	75°	85°
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	3.5	3.5	1.8	5.3	5.3	10.5	8.8	10.5	8.8	8.8	12.3
75°	50.0	48.2	53.5	57.0	53.5	46.5	46.5	34.2	14.0	10.5	10.5
65°	155.2	155.2	160.5	162.2	151.7	137.7	122.8	94.7	32.4	15.8	7.0
55°	399.9	392.9	378.0	367.4	333.2	294.7	251.7	160.5	67.5	15.8	3.5
47.5°	636.7	622.6	608.6	603.3	556.9	477.9	392.9	251.7	115.8	32.4	8.8
42.5°	767.3	758.6	747.2	729.6	683.1	595.5	467.4	296.4	117.5	17.5	0.0
37.5°	919.0	902.4	898.9	881.3	831.4	738.4	583.2	371.0	155.2	48.2	7.0
33°	1026.0	1004.1	990.1	984.8	940.1	838.4	676.1	424.4	181.5	60.5	8.8
29°	1107.6	1093.6	1088.3	1072.5	1014.6	907.6	743.7	462.2	201.7	65.8	8.8
25.5°	1198.8	1183.0	1168.1	1150.6	1091.8	967.3	812.1	508.6	226.3	67.5	8.8
22.5°	1268.1	1255.8	1236.5	1214.6	1148.8	1020.8	847.1	531.4	233.3	67.5	5.3
19.5°	1348.8	1336.5	1316.3	1284.7	1216.3	1062.9	884.8	565.6	241.2	72.8	8.8
17°	1405.8	1390.0	1368.0	1326.8	1245.3	1102.3	909.4	576.2	244.7	72.8	7.0
15°	1447.0	1418.0	1393.5	1357.5	1273.3	1122.5	924.3	577.9	244.7	69.3	1.8
13°	1507.5	1476.8	1452.2	1400.5	1325.1	1161.1	959.4	612.1	265.7	89.4	8.8
11°	1538.2	1521.5	1486.4	1421.5	1336.5	1171.6	977.8	620.9	269.2	89.4	7.0
9°	1569.7	1554.0	1512.7	1457.5	1368.0	1190.0	984.8	638.4	276.2	87.7	10.5
7°	1593.4	1585.5	1543.4	1469.8	1373.3	1198.8	997.1	647.2	287.6	85.9	12.3
5°	1603.9	1596.9	1539.9	1466.3	1371.6	1195.3	991.8	643.7	276.2	82.4	8.8
3°	1598.7	1575.0	1514.5	1455.7	1364.5	1184.8	986.6	638.4	267.5	74.5	5.3
1°	1598.7	1575.0	1514.5	1452.2	1366.3	1191.8	993.6	636.7	274.5	74.5	7.0
0°	1582.0	1562.7	1509.2	1436.5	1354.0	1184.8	983.1	631.4	262.2	67.5	3.5
-1°	1582.0	1566.2	1512.7	1445.2	1359.3	1191.8	991.8	634.9	272.7	74.5	5.3
-3°	1600.4	1576.8	1539.9	1466.3	1364.5	1198.8	1009.4	651.6	287.6	96.5	17.5
-5°	1595.2	1580.3	1535.5	1464.5	1376.8	1204.1	1011.1	648.9	287.6	96.5	22.8
-7°	1555.7	1541.7	1504.0	1445.2	1357.5	1183.0	981.3	629.7	265.7	78.9	12.3
-9°	1538.2	1523.3	1480.3	1419.8	1336.5	1176.0	981.3	629.7	274.5	84.2	17.5
-11°	1497.0	1475.0	1436.5	1393.5	1319.8	1154.1	961.1	624.4	264.0	84.2	15.8
-13°	1438.2	1419.8	1391.7	1352.3	1275.1	1116.4	931.3	593.7	249.9	71.0	5.3
-15°	1411.0	1390.0	1371.6	1343.5	1259.3	1102.3	920.8	590.2	260.5	85.9	8.8
-17°	1371.6	1350.5	1331.2	1300.5	1233.0	1093.6	904.1	584.9	258.7	85.9	10.5
-19.5°	1312.8	1291.8	1271.6	1245.3	1183.0	1041.8	874.3	567.4	242.9	74.5	7.0
-22.5°	1226.0	1211.1	1202.3	1183.0	1122.5	1000.6	850.6	536.7	231.5	67.5	5.3
-25.5°	1164.6	1148.8	1136.5	1120.7	1061.1	948.9	795.4	505.1	210.5	58.8	1.8
-29°	1095.3	1081.3	1070.8	1064.6	1007.6	900.6	741.9	474.4	205.2	64.0	10.5
-33°	1014.6	1002.4	995.3	970.8	931.3	834.9	681.4	424.4	189.4	55.2	8.8
-37.5°	898.9	893.6	884.8	863.8	817.3	729.6	583.2	369.2	158.7	41.2	1.8
-42.5°	800.7	800.7	788.4	760.3	724.4	633.2	508.6	331.5	150.0	53.5	19.3
-47.5°	648.9	638.4	624.4	599.8	570.9	493.7	399.9	255.2	122.8	32.4	7.0
-55°	420.9	410.4	401.6	392.9	365.7	324.5	265.7	181.5	82.4	22.8	8.8
-65°	169.3	172.8	169.3	165.7	157.0	150.0	128.0	93.0	43.0	12.3	5.3
-75°	57.0	57.0	55.2	58.8	64.0	53.5	44.7	27.2	19.3	8.8	5.3
-85°	1.8	1.8	0.0	1.8	5.3	0.0	1.8	8.8	8.8	1.8	5.3
-90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	90°
90°	0.0
85°	0.0
75°	0.0
65°	0.0
55°	0.0
47.5°	0.0
42.5°	0.0
37.5°	0.0
33°	0.0
29°	0.0
25.5°	0.0
22.5°	0.0
19.5°	0.0
17°	0.0
15°	0.0
13°	0.0
11°	0.0
9°	0.0
7°	0.0
5°	0.0
3°	0.0
1°	0.0
0°	0.0
-1°	0.0
-3°	0.0
-5°	0.0
-7°	0.0
-9°	0.0
-11°	0.0
-13°	0.0
-15°	0.0
-17°	0.0
-19.5°	0.0
-22.5°	0.0
-25.5°	0.0
-29°	0.0
-33°	0.0
-37.5°	0.0
-42.5°	0.0
-47.5°	0.0
-55°	0.0
-65°	0.0
-75°	0.0
-85°	0.0
-90°	0.0

(END OF REPORT)