

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: P180868

Luminaire Tested: **ICM-E02-LED-E1-SL4**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P180868  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33680)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: ICM-E02-LED-E1-SL4  
Description: ICON SITE MEDIUM LED LUMINAIRE  
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL  
Light Source: (42) 4000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5496.1 lumens  
Efficiency: N/A  
Efficacy: 105.5 lumens/watt  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 1' x H: 0.1')  
IES Classification: Type IV - Short - Full Cutoff  
BUG Rating: B1 - U0 - G2

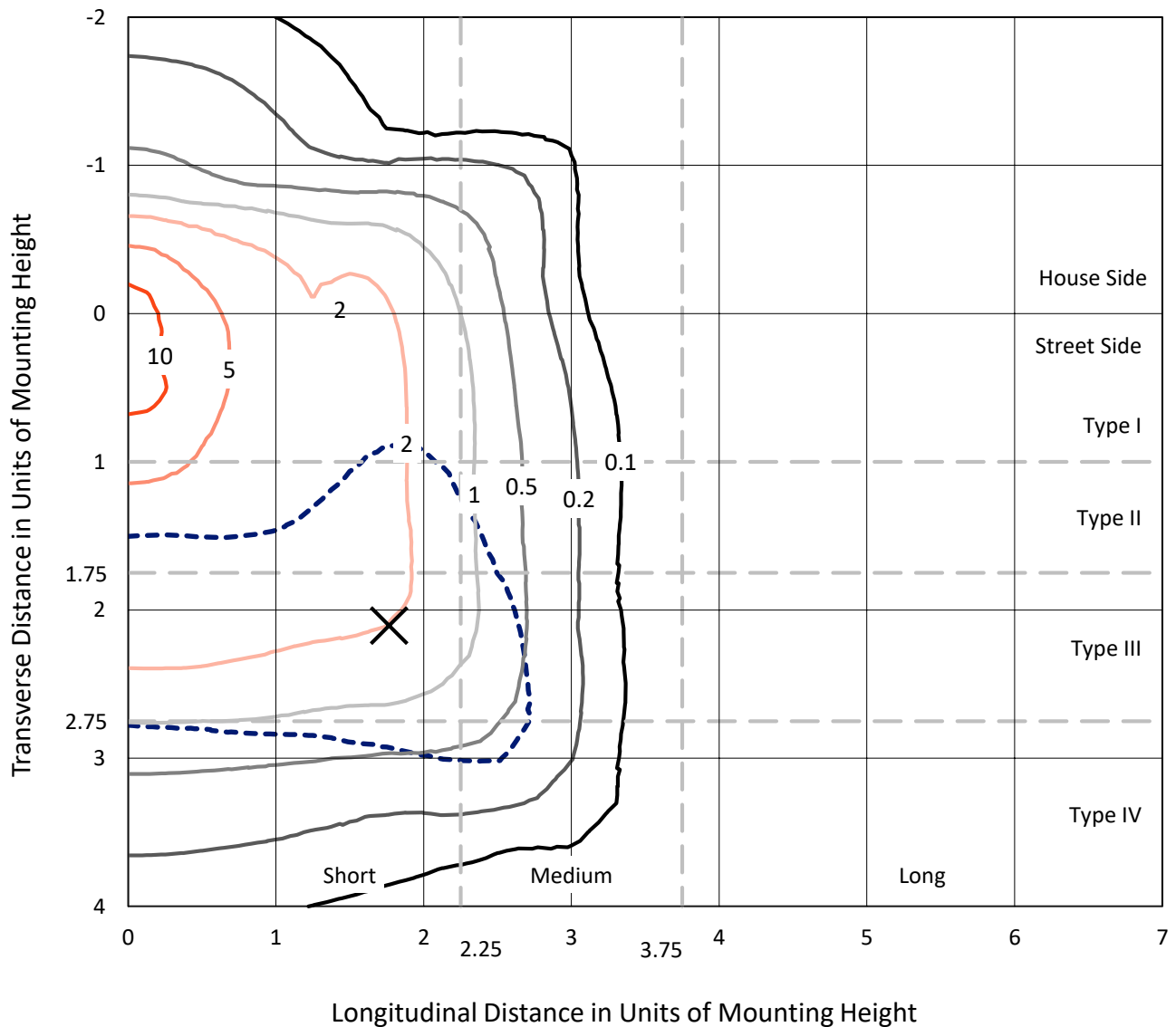
Input Watts (W): 52.1  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

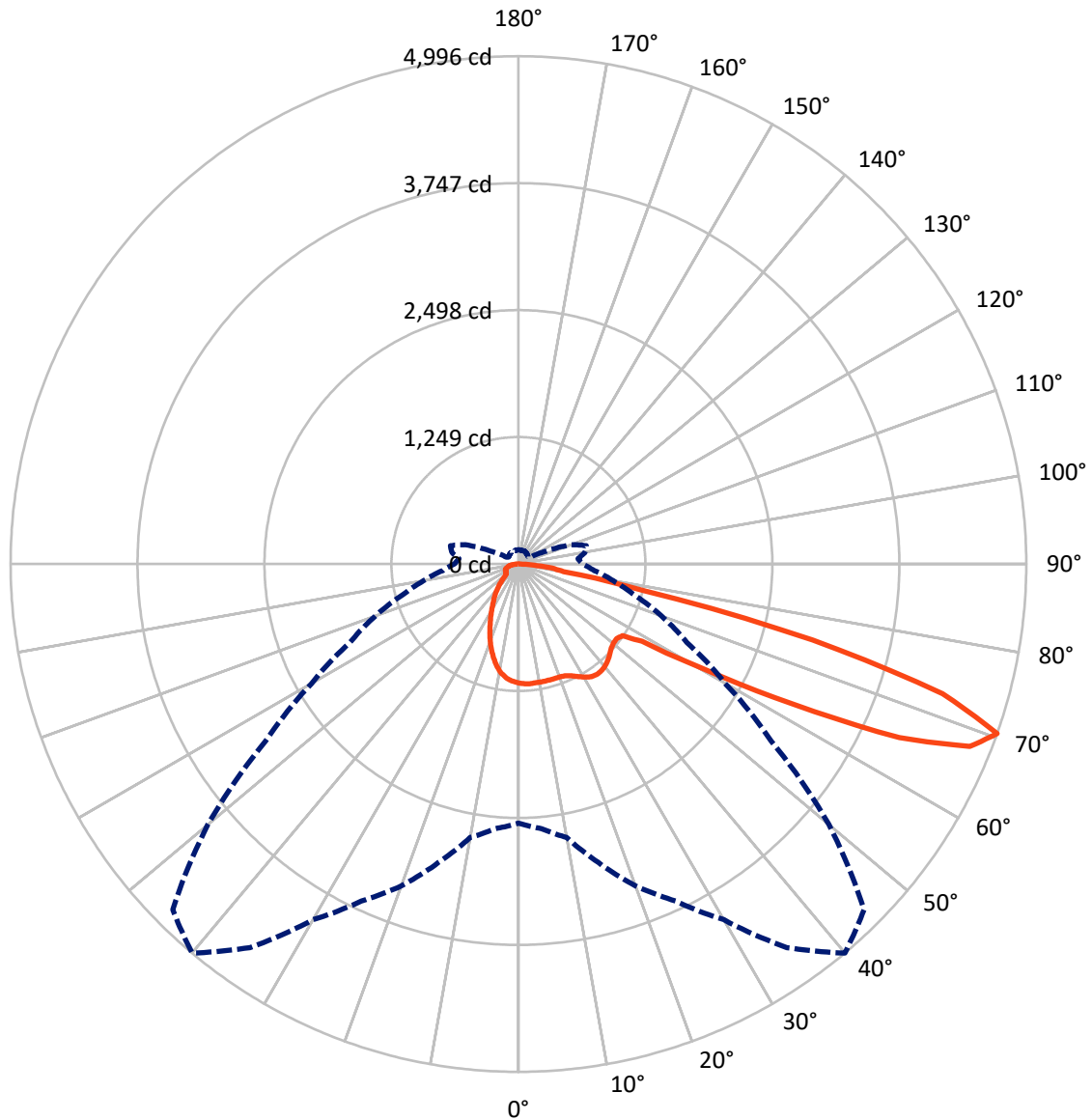
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 11.8 fc  
 Type IV - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral      - - - Horizontal Cone Through 70-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1140.9	0.0	1140.9
	% Fixture	20.8	0.0	20.8
<b>Street Side</b>	Lumens	4355.1	0.0	4355.1
	% Fixture	79.2	0.0	79.2
<b>Total</b>	Lumens	5496.1	0.0	5496.1
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	109.6	2.0
10°-20°	299.9	5.5
20°-30°	444.0	8.1
30°-40°	561.1	10.2
40°-50°	634.6	11.5
50°-60°	903.0	16.4
60°-70°	1681.7	30.6
70°-80°	770.7	14.0
80°-90°	91.5	1.7
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	5496.1	100.0
0°-180°	5496.1	100.0

**Coefficient of Utilization**



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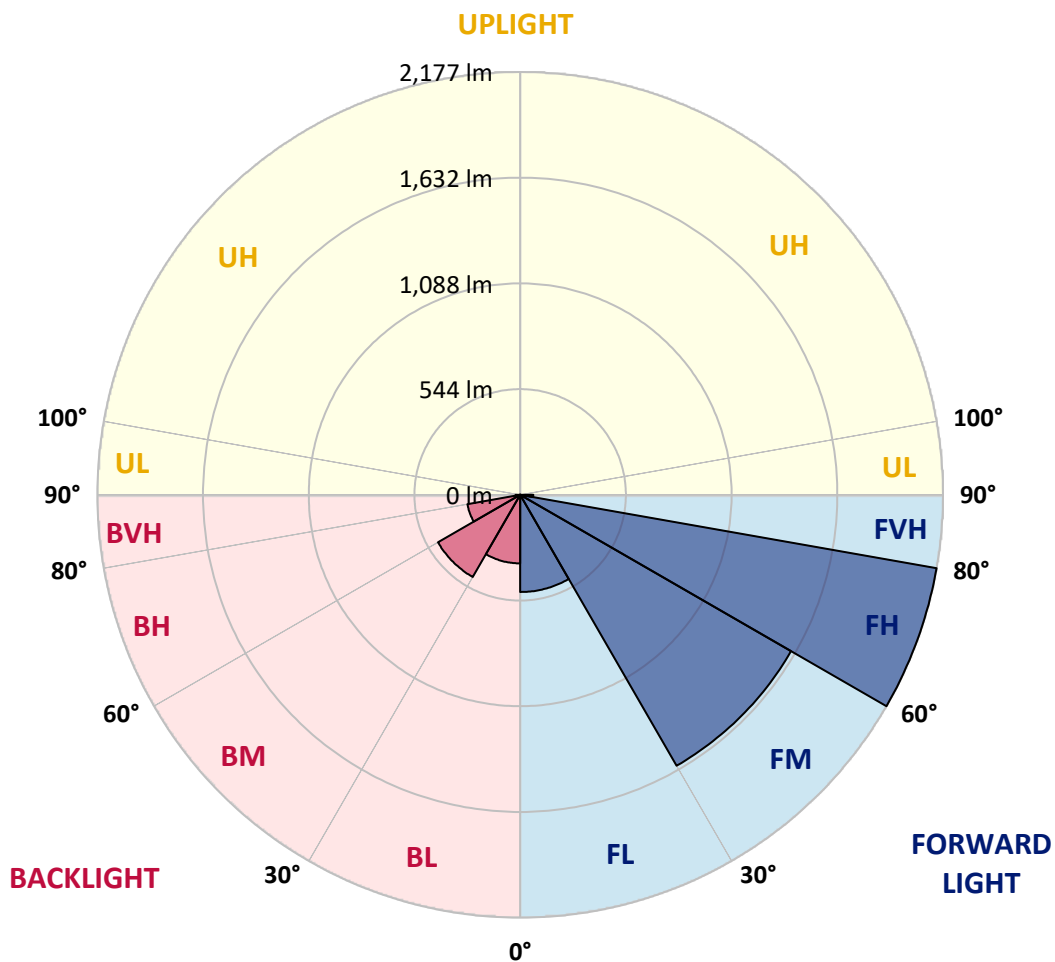
CATALOG NUMBER: ICM-E02-LED-E1-SL4

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	500.5	9.1			
FM	(30°-60°)	1610.2	29.3			
FH	(60°-80°)	2176.6	39.6			G2/5000
FVH	(80°-90°)	67.9	1.2			G1/100
BL	(0°-30°)	353.0	6.4	B1/500		
BM	(30°-60°)	488.5	8.9	B1/1000		
BH	(60°-80°)	275.8	5.0	B1/500		G1/500
BVH	(80°-90°)	23.6	0.4			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G2**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1172.8	1172.8	1172.8	1172.8	1172.8	1172.8	1172.8	1172.8	1172.8	1172.8	1172.8
2.5°	1190.7	1193.8	1190.1	1189.5	1189.5	1188.8	1185.1	1184.5	1179.5	1180.2	1181.4
5°	1199.4	1200.7	1198.1	1197.5	1196.3	1193.8	1190.7	1187.0	1183.3	1179.5	1176.5
7.5°	1208.1	1206.8	1204.9	1204.9	1203.1	1199.4	1193.2	1188.2	1180.2	1175.8	1170.2
10°	1220.5	1218.6	1216.1	1214.9	1211.8	1206.2	1197.5	1190.7	1180.8	1172.1	1162.8
12.5°	1232.3	1231.6	1227.9	1226.1	1221.1	1215.5	1204.9	1194.4	1181.4	1167.7	1155.4
15°	1253.3	1250.9	1247.2	1243.4	1235.4	1227.9	1211.8	1199.4	1180.8	1162.8	1143.5
17.5°	1290.0	1285.6	1281.9	1273.8	1263.9	1250.9	1227.3	1206.2	1180.8	1154.7	1133.0
20°	1356.9	1347.6	1342.6	1332.1	1314.7	1291.2	1254.6	1220.5	1182.6	1149.1	1120.0
22.5°	1432.6	1426.3	1419.5	1412.8	1385.4	1351.4	1301.7	1250.9	1193.8	1146.7	1109.5
25°	1517.5	1509.5	1505.8	1494.0	1468.6	1429.5	1361.9	1291.2	1219.3	1156.6	1109.5
27.5°	1593.2	1590.7	1590.1	1576.5	1552.3	1506.3	1426.3	1341.4	1254.0	1177.0	1118.8
30°	1662.1	1659.5	1658.3	1650.9	1623.0	1568.4	1481.6	1386.1	1291.8	1205.6	1136.1
32.5°	1735.2	1727.2	1723.5	1709.1	1677.5	1613.7	1514.4	1415.2	1321.6	1233.5	1155.4
35°	1794.7	1787.9	1780.5	1760.0	1715.4	1639.7	1528.7	1425.1	1333.3	1249.0	1165.3
37.5°	1838.2	1831.4	1820.8	1794.7	1739.5	1648.4	1528.1	1422.1	1329.0	1246.5	1167.2
40°	1857.4	1850.5	1839.4	1806.5	1743.9	1643.5	1516.3	1407.7	1316.0	1233.5	1159.7
42.5°	1850.0	1844.9	1830.7	1799.1	1730.2	1621.1	1492.8	1381.1	1291.2	1212.4	1143.0
45°	1821.4	1817.7	1804.0	1770.5	1699.3	1585.1	1458.0	1347.6	1261.4	1186.3	1120.7
47.5°	1778.6	1777.4	1763.7	1730.9	1660.2	1549.1	1422.1	1314.7	1231.6	1160.9	1102.1
50°	1731.5	1725.3	1718.4	1688.1	1623.5	1518.1	1396.0	1294.2	1214.9	1151.6	1094.0
52.5°	1701.7	1699.8	1693.7	1666.3	1604.4	1500.2	1384.2	1286.8	1213.7	1149.8	1089.6
55°	1965.9	1970.2	1913.2	1794.7	1690.5	1549.8	1419.5	1324.7	1244.0	1179.5	1135.5
57.5°	2907.9	2888.7	2790.7	2555.6	2290.2	1939.8	1687.5	1534.2	1434.4	1445.6	1467.9
60°	3387.9	3384.2	3366.3	3275.1	3098.3	2831.6	2535.8	2196.6	2088.7	2100.5	2109.1
62.5°	3602.5	3608.1	3621.7	3587.6	3541.1	3463.6	3316.0	3179.6	3035.1	2981.1	2836.6
65°	3701.7	3711.7	3742.6	3761.9	3779.8	3793.5	3851.8	4011.8	4117.2	3920.0	3461.1
67.5°	3496.5	3544.2	3646.5	3746.3	3835.7	3962.8	4160.0	4531.5	4790.1	4547.7	3882.2
70°	2548.9	2614.0	2731.2	3040.0	3370.0	3658.3	4040.3	4605.9	4996.0	4808.7	3986.3
72.5°	1598.1	1616.1	1668.2	1781.7	2026.7	2396.9	3064.9	3913.2	4363.5	4214.0	3369.3
75°	1014.0	1020.2	1018.3	1044.4	1085.9	1166.5	1430.7	2311.4	2989.1	2756.0	1877.9
77.5°	604.0	613.3	617.0	625.1	644.9	673.5	695.2	786.3	1253.3	1216.8	681.6
80°	506.0	513.5	507.3	505.4	493.0	484.4	494.9	484.4	449.6	432.8	398.8
82.5°	267.9	267.3	265.4	283.4	320.0	348.6	370.2	365.3	330.5	281.6	238.8
85°	147.0	151.9	151.9	158.1	152.6	153.2	158.1	166.8	154.4	129.0	105.4
87.5°	12.4	19.3	15.5	19.3	26.0	18.6	18.0	18.0	15.5	11.2	10.0
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):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1172.8	1172.8	1172.8	1172.8	1172.8	1172.8	1172.8	1172.8	1172.8	1172.8	1172.8
2.5°	1178.3	1177.0	1174.6	1172.8	1172.8	1169.6	1167.7	1166.5	1165.9	1163.4	1163.4
5°	1174.6	1170.2	1165.9	1162.8	1160.9	1157.9	1152.8	1150.4	1147.3	1144.8	1143.5
7.5°	1166.5	1158.4	1151.6	1146.7	1140.5	1135.5	1129.3	1123.7	1118.1	1115.6	1114.4
10°	1154.1	1143.5	1133.0	1123.7	1115.1	1106.3	1098.3	1090.2	1083.4	1078.4	1073.5
12.5°	1142.3	1126.2	1112.6	1098.9	1085.3	1074.7	1063.5	1051.8	1041.9	1032.6	1030.1
15°	1126.2	1107.6	1090.2	1073.5	1056.8	1039.4	1025.8	1012.8	996.6	986.1	978.0
17.5°	1111.4	1089.0	1067.9	1048.1	1027.6	1009.6	989.1	971.8	955.6	939.5	927.7
20°	1095.2	1071.0	1048.7	1026.3	1004.0	981.1	957.5	935.2	915.4	896.1	876.9
22.5°	1080.9	1056.1	1034.4	1010.2	985.4	959.4	932.1	904.2	881.2	856.5	834.1
25°	1072.3	1044.9	1022.6	999.1	971.8	943.3	912.3	879.4	851.4	823.0	796.3
27.5°	1072.3	1036.9	1014.0	990.4	962.5	932.1	898.0	862.1	830.4	798.8	765.9
30°	1081.6	1038.1	1007.2	982.3	953.8	920.9	883.1	845.3	810.5	773.3	741.7
32.5°	1090.2	1040.7	1002.1	970.5	937.7	905.4	867.0	826.7	788.2	752.8	719.4
35°	1095.8	1040.7	992.8	952.6	915.4	883.7	845.9	805.6	766.5	731.8	700.7
37.5°	1096.5	1035.6	978.0	932.1	893.0	860.2	824.2	786.3	749.1	716.9	690.9
40°	1090.2	1025.8	963.1	910.4	869.5	836.0	803.1	769.0	735.5	708.8	686.5
42.5°	1079.1	1015.2	948.8	893.0	850.2	815.5	785.1	756.0	726.8	703.9	685.3
45°	1062.3	1000.9	935.8	882.5	840.3	803.7	774.0	749.8	724.9	705.8	687.2
47.5°	1047.4	996.0	940.2	889.3	845.3	807.4	777.0	756.6	737.4	724.4	698.9
50°	1044.4	993.5	942.1	894.9	850.2	811.8	785.1	774.6	769.0	760.9	721.9
52.5°	1035.6	992.8	955.6	929.6	901.1	883.1	855.2	865.1	858.9	830.4	759.7
55°	1126.8	1139.3	1174.0	1223.5	1269.5	1280.0	1276.9	1265.1	1202.5	1034.4	850.9
57.5°	1549.1	1619.3	1684.9	1714.2	1710.4	1677.5	1654.0	1606.2	1515.6	1311.0	1030.7
60°	2135.8	2147.0	2112.3	2060.8	1974.0	1901.4	1823.9	1734.6	1603.1	1402.8	1141.1
62.5°	2676.0	2525.9	2371.5	2226.3	2094.2	1978.9	1871.0	1746.3	1575.2	1366.2	1126.8
65°	3057.4	2739.8	2496.1	2287.7	2101.1	1939.8	1805.3	1643.5	1450.5	1262.1	1044.4
67.5°	3254.0	2767.2	2393.2	2103.0	1838.2	1614.9	1435.6	1278.1	1134.9	1052.4	914.1
70°	3034.4	2348.6	1827.6	1499.5	1182.6	948.2	749.1	628.8	587.3	665.4	692.1
72.5°	2261.1	1528.7	1087.2	840.9	644.4	513.5	393.8	309.5	251.8	264.2	343.0
75°	1069.1	659.8	466.3	354.7	282.1	233.8	191.0	174.9	146.3	121.6	114.1
77.5°	416.1	303.3	250.5	183.5	130.2	104.8	89.3	86.2	88.1	85.6	84.4
80°	316.9	214.6	134.6	98.6	84.9	75.1	66.3	63.9	65.1	68.2	71.3
82.5°	176.7	110.4	81.9	71.3	63.9	54.6	49.6	45.9	46.5	50.2	57.0
85°	68.2	53.3	49.0	47.2	44.0	35.3	30.4	31.0	35.3	42.1	42.1
87.5°	7.4	7.4	10.0	7.4	7.4	7.4	6.8	8.1	8.7	11.2	13.0
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):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1172.8	1172.8	1172.8	1172.8	1172.8	1172.8	1172.8	1172.8	1172.8	1172.8	1172.8
2.5°	1162.1	1162.1	1162.1	1160.9	1161.6	1159.1	1159.1	1157.2	1160.3	1158.4	1157.9
5°	1144.2	1143.5	1141.1	1141.1	1141.1	1141.1	1143.0	1138.0	1141.7	1141.7	1139.8
7.5°	1113.8	1113.8	1107.0	1110.7	1109.5	1111.4	1113.8	1111.4	1115.1	1117.5	1115.6
10°	1071.6	1071.6	1066.1	1070.4	1068.6	1072.8	1077.2	1074.7	1077.2	1080.9	1082.1
12.5°	1025.1	1022.6	1017.7	1019.5	1019.5	1022.1	1023.9	1027.0	1030.1	1035.1	1037.5
15°	971.2	967.4	961.2	961.2	957.5	958.8	962.5	963.7	970.0	976.8	984.8
17.5°	916.0	906.7	899.8	891.8	885.6	890.5	894.9	898.0	903.0	913.5	919.1
20°	863.9	845.3	832.3	821.7	814.9	818.0	823.5	827.3	831.6	834.1	836.0
22.5°	812.4	791.4	773.3	760.3	749.1	752.3	749.8	747.9	751.0	743.0	742.3
25°	767.7	743.0	718.8	703.3	689.6	685.3	672.3	669.1	660.5	653.7	648.7
27.5°	735.5	703.3	676.6	658.6	636.9	620.7	604.0	587.3	578.0	566.8	561.2
30°	710.1	676.0	644.4	614.0	585.4	560.7	538.3	516.6	501.7	485.6	475.1
32.5°	686.5	654.9	616.5	574.9	536.5	508.6	479.4	454.6	431.0	410.0	394.4
35°	670.4	635.1	586.1	535.2	491.8	458.9	427.9	392.6	364.0	336.7	320.0
37.5°	661.7	618.3	558.1	501.7	453.3	416.1	377.7	336.7	302.0	276.6	251.2
40°	654.9	601.6	533.3	471.9	421.1	376.5	331.8	283.4	244.9	218.3	198.4
42.5°	647.4	583.0	511.6	448.4	391.9	339.8	285.9	234.4	197.9	179.3	170.5
45°	639.4	566.8	491.2	426.0	363.4	300.2	238.1	190.4	168.7	162.5	162.5
47.5°	637.5	556.3	476.3	404.4	331.2	254.2	194.1	164.4	158.1	159.3	161.9
50°	644.9	553.2	463.3	378.9	288.4	205.9	164.4	154.4	155.6	159.3	163.1
52.5°	663.0	555.6	449.6	343.5	237.5	170.0	151.9	151.3	155.1	160.7	164.4
55°	693.3	555.6	423.5	290.9	189.8	152.6	147.6	150.0	155.1	160.0	163.1
57.5°	758.4	550.0	377.7	232.6	158.8	146.3	146.3	149.5	153.8	158.8	161.2
60°	836.0	542.6	313.2	179.8	143.3	141.4	145.8	149.5	153.2	157.5	160.0
62.5°	840.9	523.4	248.1	148.8	135.2	138.3	145.1	150.0	151.3	154.4	157.5
65°	772.7	456.5	197.2	133.3	131.4	136.5	143.3	147.0	147.6	148.8	151.9
67.5°	676.6	372.1	159.3	125.9	127.7	133.3	137.0	140.2	142.0	145.1	145.8
70°	555.6	298.9	136.5	118.4	120.3	126.5	129.6	132.7	136.5	140.2	138.3
72.5°	393.8	232.6	119.7	110.4	112.8	118.4	122.1	124.7	127.7	131.4	129.0
75°	167.4	162.5	103.5	99.8	103.5	107.3	111.0	114.7	117.9	119.7	119.7
77.5°	85.6	95.5	89.3	89.3	91.8	95.5	98.6	102.3	104.2	106.0	108.6
80°	72.6	73.8	75.1	77.5	80.0	83.7	86.8	90.0	90.5	91.2	92.4
82.5°	60.2	62.6	63.9	67.6	69.5	70.7	72.6	72.6	73.8	73.8	71.9
85°	43.4	46.5	48.4	49.0	48.4	49.0	49.6	50.9	54.0	54.0	51.4
87.5°	12.4	11.8	14.9	15.5	16.7	19.3	21.7	26.0	27.3	28.6	28.6
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):**

	165°	170°	175°	180°
0°	1172.8	1172.8	1172.8	1172.8
2.5°	1157.2	1158.4	1156.0	1156.6
5°	1139.8	1142.3	1139.3	1143.0
7.5°	1117.5	1121.2	1120.7	1120.0
10°	1085.3	1090.2	1090.2	1092.1
12.5°	1044.4	1047.4	1050.0	1051.2
15°	989.1	994.7	997.9	997.9
17.5°	922.8	926.5	928.4	925.9
20°	838.4	837.2	837.9	831.6
22.5°	741.1	743.0	737.4	738.6
25°	645.6	642.5	644.9	641.2
27.5°	553.2	553.8	547.0	550.0
30°	465.1	462.0	453.3	457.7
32.5°	380.2	372.1	362.8	357.2
35°	300.2	287.7	283.4	281.6
37.5°	235.6	222.0	217.7	212.7
40°	187.3	182.3	180.5	181.7
42.5°	168.1	168.1	169.3	170.0
45°	163.1	164.9	166.8	167.4
47.5°	163.7	165.6	168.1	168.7
50°	164.9	166.8	168.7	169.3
52.5°	165.6	165.6	166.8	167.4
55°	164.4	163.7	164.4	164.9
57.5°	161.9	160.7	161.2	163.1
60°	160.7	158.8	160.0	161.2
62.5°	157.5	156.9	158.1	158.8
65°	150.7	151.3	153.2	153.2
67.5°	144.5	145.1	145.8	146.3
70°	137.0	137.7	138.9	139.5
72.5°	128.4	130.9	132.7	135.2
75°	121.6	124.0	127.7	130.2
77.5°	109.8	111.6	116.0	119.1
80°	93.0	92.4	93.0	94.9
82.5°	71.3	71.3	70.7	70.0
85°	50.2	49.6	47.7	47.7
87.5°	27.3	26.7	26.0	24.8
90°	0.0	0.0	0.0	0.0

(END OF REPORT)