

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: P140749

Luminaire Tested: **ECM-E02-LED-E1-RW-7030**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P140749  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33689)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: ECM-E02-LED-E1-RW-7030  
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE  
(2) LIGHTBARS WITH AccuLED OPTICS - RECTANGULAR WIDE  
Light Source: (42) 3000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5402.1 lumens  
Efficiency: N/A  
Efficacy: 103.7 lumens/watt  
Luminous Opening: Rectangular (W 0.33' x L: 1' x H: 0')  
IES Classification: Type I - Short - Full Cutoff  
BUG Rating: B3 - U0 - G3

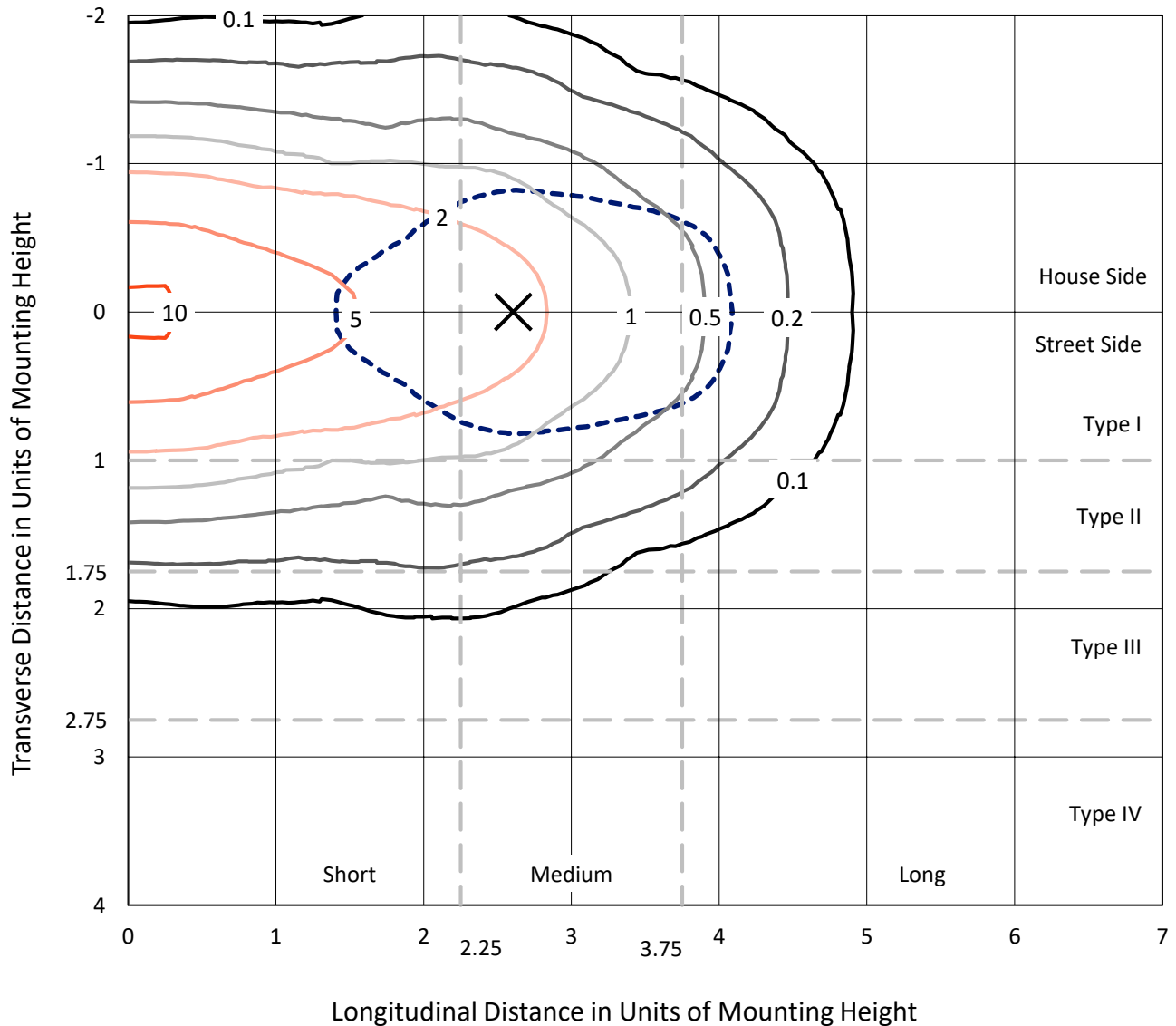
Input Watts (W): 52.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

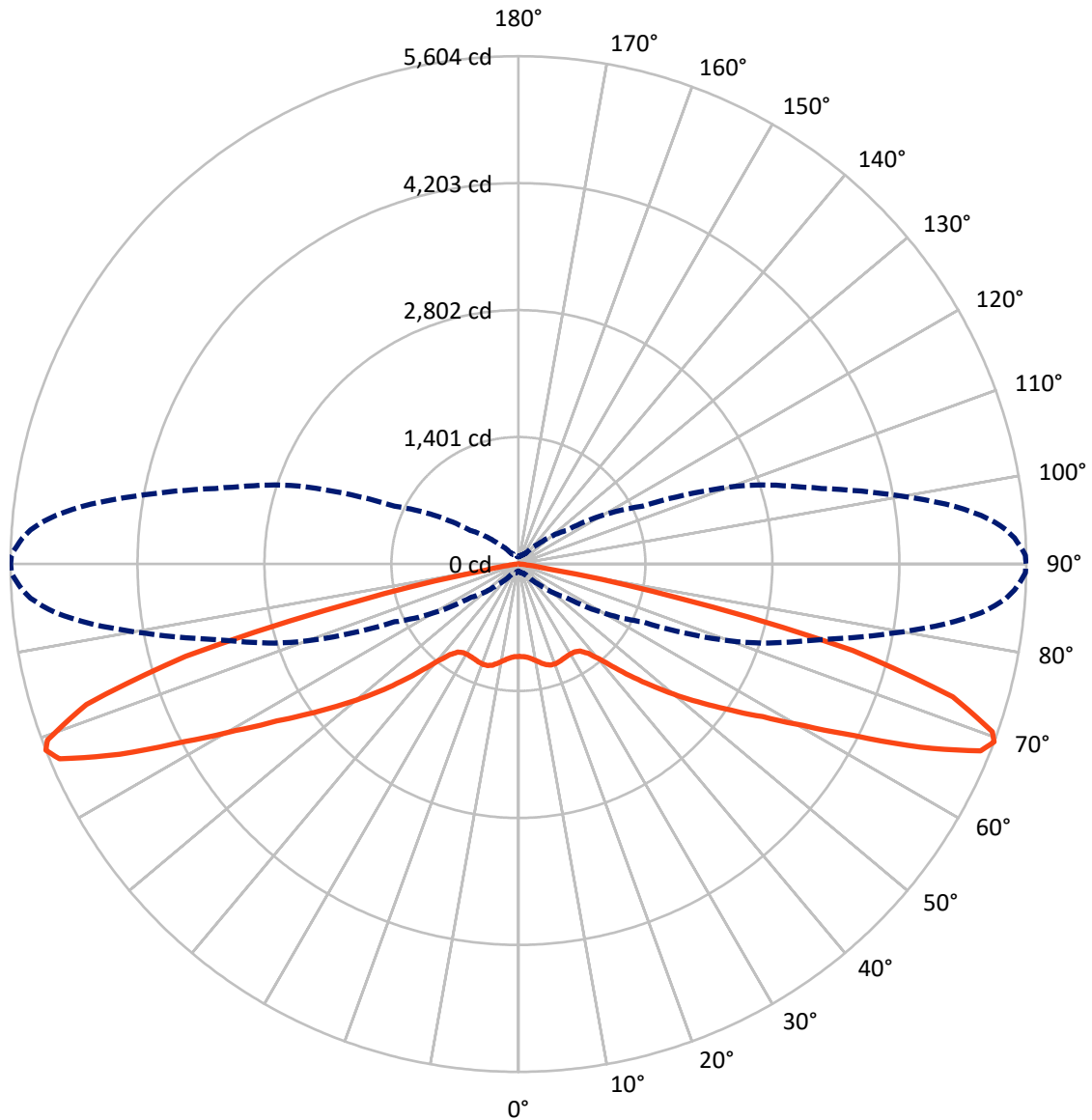
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 10.4 fc  
 Type I - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 90-Deg Lateral      - - - Horizontal Cone Through 69-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2701.1	0.0	2701.1
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	2701.1	0.0	2701.1
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	5402.1	0.0	5402.1
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	99.9	1.8
10°-20°	313.9	5.8
20°-30°	507.7	9.4
30°-40°	634.1	11.7
40°-50°	793.2	14.7
50°-60°	977.4	18.1
60°-70°	1210.0	22.4
70°-80°	790.8	14.6
80°-90°	75.1	1.4
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°	5402.1	100.0
0°-180°	5402.1	100.0



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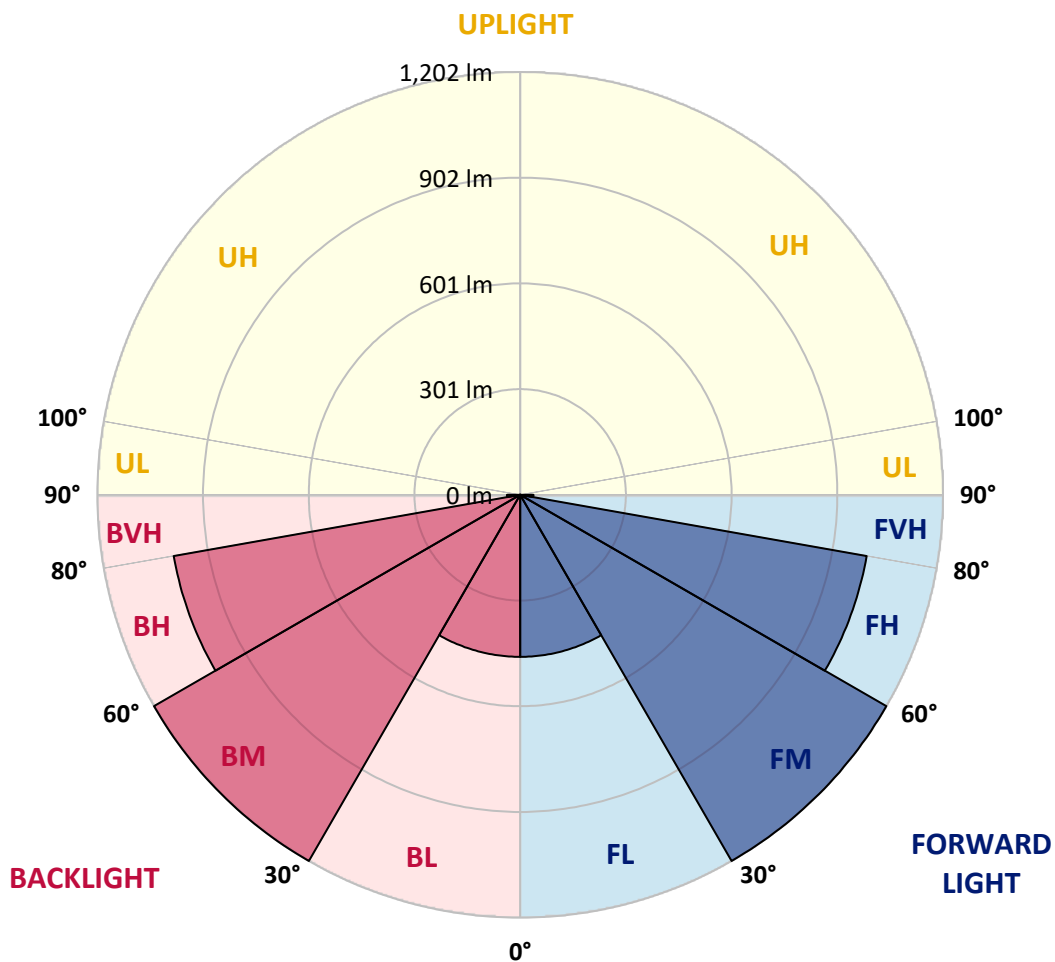
CATALOG NUMBER: ECM-E02-LED-E1-RW-7030

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	460.7	8.5			
FM	(30°-60°)	1202.3	22.3			
FH	(60°-80°)	1000.4	18.5			G1/1800
FVH	(80°-90°)	37.6	0.7			G1/100
BL	(0°-30°)	460.7	8.5	B1/500		
BM	(30°-60°)	1202.3	22.3	B2/2500		
BH	(60°-80°)	1000.4	18.5	B3/2500		G3/2500
BVH	(80°-90°)	37.6	0.7			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G3**

Type I Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	66°	67°	68°
0°	1019.9	1019.9	1019.9	1019.9	1019.9	1019.9	1019.9	1019.9	1019.9	1019.9	1019.9
2.5°	1026.6	1027.2	1025.4	1026.0	1026.6	1026.0	1025.1	1025.1	1024.8	1024.5	1024.2
5°	1033.3	1033.6	1032.7	1034.2	1034.5	1035.4	1035.4	1035.8	1035.6	1035.4	1035.2
7.5°	1042.8	1044.0	1043.0	1045.2	1047.4	1050.4	1051.9	1055.5	1055.4	1055.4	1055.3
10°	1051.6	1052.8	1052.8	1057.7	1062.8	1068.6	1074.7	1080.5	1080.9	1081.2	1081.6
12.5°	1058.3	1059.2	1060.7	1069.5	1081.1	1090.8	1101.5	1110.6	1111.0	1111.3	1111.7
15°	1055.6	1057.6	1064.6	1078.6	1099.1	1115.2	1128.3	1139.2	1140.0	1140.7	1141.4
17.5°	1046.0	1049.4	1059.5	1083.2	1114.6	1140.4	1156.0	1159.0	1159.5	1160.0	1160.5
20°	1025.7	1030.6	1046.4	1080.2	1126.4	1161.5	1177.0	1171.6	1171.1	1170.6	1170.1
22.5°	991.6	998.0	1017.8	1065.9	1127.4	1176.7	1192.0	1176.7	1175.0	1173.3	1171.6
25°	945.9	951.1	973.6	1030.6	1113.4	1179.4	1201.4	1180.0	1177.3	1174.6	1171.8
27.5°	890.5	894.8	922.8	983.4	1078.6	1165.4	1207.4	1185.8	1182.3	1178.8	1175.2
30°	828.1	831.8	862.5	927.0	1030.0	1134.7	1206.8	1198.9	1194.7	1190.5	1186.3
32.5°	766.0	767.5	794.9	865.9	975.8	1089.4	1196.8	1219.0	1214.9	1210.8	1206.8
35°	697.8	702.7	731.9	809.2	914.6	1039.4	1183.4	1247.0	1244.7	1242.4	1240.1
37.5°	643.0	644.5	675.8	756.2	865.0	994.0	1166.4	1283.0	1284.6	1286.2	1287.9
40°	588.2	588.2	619.2	702.7	815.4	953.2	1152.0	1327.1	1335.4	1343.8	1352.1
42.5°	528.2	532.5	562.9	646.0	767.2	918.6	1144.8	1380.0	1395.8	1411.5	1427.2
45°	472.2	475.0	506.0	587.3	707.2	879.0	1142.6	1439.2	1463.0	1486.9	1510.7
47.5°	417.1	421.0	450.6	525.2	641.8	826.2	1139.8	1506.4	1536.9	1567.4	1597.9
50°	366.0	368.4	401.2	469.2	577.2	758.1	1121.9	1581.6	1618.9	1656.2	1693.4
52.5°	311.8	316.6	343.8	413.8	512.1	684.7	1074.7	1663.5	1708.6	1753.6	1798.7
55°	255.1	254.0	286.4	352.2	455.2	614.4	987.6	1734.4	1788.8	1843.2	1897.6
57.5°	187.0	190.9	220.7	287.4	389.1	555.4	885.0	1771.3	1839.1	1907.0	1974.8
60°	134.0	139.4	165.3	218.0	323.4	497.4	780.3	1745.7	1835.6	1925.4	2015.3
62.5°	104.8	107.2	129.4	163.5	252.1	436.9	710.0	1679.4	1803.3	1927.2	2051.1
65°	91.3	94.1	113.9	131.6	191.5	379.4	667.7	1626.4	1789.9	1953.5	2117.0
67.5°	83.1	86.4	103.5	115.7	157.1	330.3	657.6	1583.1	1775.0	1966.9	2158.7
69°	79.2	82.5	98.4	109.6	145.8	314.8	646.0	1510.4	1705.1	1899.8	2094.6
70°	77.4	80.0	95.3	106.0	142.2	305.6	619.8	1427.2	1615.5	1803.7	1991.9
72.5°	71.2	72.8	86.8	97.1	134.6	255.7	491.1	1068.4	1225.6	1382.9	1540.2
75°	63.0	65.4	78.2	88.9	108.0	163.8	322.1	645.8	762.2	878.7	995.2
77.5°	54.2	56.3	67.3	85.0	83.1	99.2	185.1	360.8	423.7	486.7	549.6
80°	46.9	49.0	59.0	78.8	67.6	73.4	124.8	235.4	259.3	283.2	307.1
82.5°	36.8	38.4	49.6	64.2	52.4	54.4	93.4	205.5	219.9	234.4	248.8
85°	23.4	24.4	36.2	43.8	36.5	32.3	58.8	150.7	162.1	173.5	184.9
87.5°	8.2	11.6	16.2	15.2	15.2	11.6	20.7	55.7	60.2	64.6	69.0
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):**

	69°	70°	71°	72°	73°	74°	75°	76°	77°	78°	79°
0°	1019.9	1019.9	1019.9	1019.9	1019.9	1019.9	1019.9	1019.9	1019.9	1019.9	1019.9
2.5°	1023.9	1023.6	1023.8	1023.8	1023.6	1023.2	1023.2	1023.0	1022.4	1022.4	1022.0
5°	1035.0	1034.8	1035.4	1035.2	1035.4	1035.2	1035.1	1034.8	1035.1	1033.9	1033.6
7.5°	1055.3	1055.2	1055.2	1056.2	1055.6	1055.2	1055.8	1055.8	1055.8	1055.2	1055.2
10°	1081.9	1082.3	1082.9	1083.6	1083.6	1083.6	1084.8	1083.8	1085.6	1083.8	1084.8
12.5°	1112.1	1112.4	1114.0	1114.6	1115.2	1115.2	1115.2	1117.0	1118.2	1117.9	1118.2
15°	1142.2	1142.9	1143.2	1144.2	1144.2	1144.4	1145.6	1147.8	1147.2	1148.4	1148.4
17.5°	1161.0	1161.5	1161.2	1161.2	1161.8	1162.7	1163.9	1165.1	1164.8	1165.8	1166.4
20°	1169.6	1169.1	1168.2	1167.6	1167.2	1167.9	1167.9	1168.2	1168.8	1168.8	1168.8
22.5°	1169.9	1168.2	1166.0	1164.8	1163.3	1162.4	1163.0	1162.4	1162.4	1162.4	1161.8
25°	1169.1	1166.4	1163.0	1160.6	1158.2	1156.6	1155.1	1154.4	1153.2	1153.2	1153.2
27.5°	1171.7	1168.2	1164.8	1160.2	1156.9	1155.1	1153.0	1150.8	1149.6	1148.4	1148.4
30°	1182.1	1177.9	1173.6	1168.2	1163.6	1162.1	1158.1	1156.0	1152.9	1151.4	1150.8
32.5°	1202.7	1198.6	1192.8	1186.8	1183.1	1178.6	1175.2	1170.6	1167.2	1165.1	1162.4
35°	1237.8	1235.4	1230.6	1226.6	1221.2	1216.0	1209.3	1206.8	1199.8	1198.6	1195.2
37.5°	1289.6	1291.2	1290.2	1287.2	1283.6	1279.0	1276.2	1271.1	1268.3	1265.6	1262.6
40°	1360.5	1368.8	1371.6	1374.9	1375.8	1379.8	1375.2	1374.6	1371.0	1374.0	1372.2
42.5°	1442.9	1458.6	1467.2	1477.2	1488.2	1498.2	1506.1	1519.5	1518.0	1528.4	1535.6
45°	1534.6	1558.4	1580.4	1597.2	1618.2	1641.3	1661.6	1680.6	1701.8	1714.0	1732.0
47.5°	1628.4	1659.0	1690.3	1721.4	1751.2	1781.0	1817.6	1850.8	1883.0	1905.0	1932.6
50°	1730.7	1768.0	1805.7	1843.8	1886.0	1933.0	1973.8	2017.0	2061.4	2106.5	2138.1
52.5°	1843.7	1888.8	1929.9	1970.1	2022.5	2072.1	2125.0	2179.2	2246.6	2295.6	2339.1
55°	1952.0	2006.4	2051.4	2099.4	2154.3	2209.4	2274.2	2342.2	2413.4	2484.0	2548.0
57.5°	2042.6	2110.4	2164.0	2211.8	2270.6	2334.2	2403.9	2488.0	2569.2	2657.0	2739.4
60°	2105.2	2195.0	2259.6	2317.1	2385.4	2456.0	2547.0	2646.3	2753.1	2862.2	2968.1
62.5°	2175.0	2298.9	2387.2	2469.4	2550.1	2628.6	2731.2	2854.5	2999.4	3131.2	3271.6
65°	2280.6	2444.1	2574.4	2679.2	2793.6	2908.1	3027.8	3171.8	3336.5	3528.8	3692.4
67.5°	2350.6	2542.5	2708.1	2858.2	2991.8	3131.0	3282.0	3454.3	3653.1	3849.4	4052.8
69°	2289.3	2484.0	2659.0	2824.4	2970.8	3120.6	3274.0	3447.6	3650.6	3867.8	4082.4
70°	2180.1	2368.3	2549.2	2723.3	2866.4	3022.9	3173.9	3339.2	3545.0	3762.1	3995.6
72.5°	1697.4	1854.7	2040.4	2208.4	2379.3	2522.0	2658.4	2824.4	3032.0	3238.8	3466.2
75°	1111.7	1228.2	1398.0	1536.2	1683.9	1817.8	1916.8	2081.5	2207.6	2402.1	2613.4
77.5°	612.6	675.6	763.8	876.5	940.1	1015.6	1114.6	1174.6	1264.1	1400.2	1463.5
80°	331.1	355.0	392.1	415.6	434.4	415.8	405.8	423.8	416.2	414.0	393.7
82.5°	263.3	277.7	296.8	310.6	301.7	261.8	219.5	188.8	169.0	142.2	121.8
85°	196.3	207.6	215.0	224.0	222.6	201.2	161.0	124.5	97.7	78.0	67.9
87.5°	73.5	78.0	80.1	97.4	89.5	85.0	66.0	48.1	36.8	26.8	21.6
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):**

	80°	81°	82°	83°	84°	85°	86°	87°	88°	89°	90°
0°	1019.9	1019.9	1019.9	1019.9	1019.9	1019.9	1019.9	1019.9	1019.9	1019.9	1019.9
2.5°	1022.6	1022.4	1022.4	1022.4	1022.6	1022.0	1021.4	1022.0	1021.7	1021.7	1021.7
5°	1034.8	1034.6	1034.6	1034.8	1034.6	1034.8	1034.5	1033.3	1033.9	1034.2	1034.5
7.5°	1055.8	1055.5	1055.5	1057.0	1056.8	1056.4	1056.2	1056.8	1055.8	1055.8	1056.4
10°	1084.8	1086.0	1085.7	1086.6	1086.2	1085.6	1085.0	1085.7	1086.6	1086.9	1085.7
12.5°	1120.1	1120.4	1119.8	1121.3	1120.4	1122.6	1120.0	1121.3	1122.5	1120.7	1121.6
15°	1148.7	1148.6	1149.9	1150.2	1149.9	1150.5	1152.4	1151.4	1150.5	1152.0	1152.6
17.5°	1166.1	1167.0	1167.3	1167.6	1168.2	1168.8	1169.1	1168.8	1169.1	1169.7	1170.9
20°	1170.0	1169.7	1170.4	1170.6	1171.6	1171.6	1172.2	1171.8	1172.8	1173.0	1173.4
22.5°	1163.0	1163.3	1163.6	1164.5	1164.2	1164.8	1165.1	1166.0	1165.8	1166.4	1166.7
25°	1153.6	1154.2	1154.4	1154.2	1154.2	1154.4	1154.8	1154.5	1155.7	1156.3	1156.3
27.5°	1147.5	1147.4	1148.4	1148.0	1147.5	1148.1	1147.8	1147.8	1147.8	1148.0	1149.0
30°	1149.9	1149.0	1148.4	1148.4	1148.0	1147.4	1146.8	1146.0	1145.9	1146.2	1146.0
32.5°	1163.0	1161.2	1160.2	1159.4	1158.8	1157.2	1155.4	1154.8	1153.2	1153.2	1152.6
35°	1196.5	1194.4	1194.4	1191.0	1189.2	1188.2	1186.7	1182.2	1182.5	1180.7	1180.0
37.5°	1263.2	1259.5	1258.0	1261.0	1255.2	1257.7	1252.5	1250.4	1251.6	1248.2	1250.1
40°	1375.2	1381.0	1378.6	1381.9	1383.4	1384.0	1384.1	1378.8	1384.0	1375.8	1378.6
42.5°	1536.9	1552.1	1557.6	1559.4	1568.9	1566.4	1563.6	1563.4	1563.1	1567.0	1564.9
45°	1740.2	1742.4	1768.2	1773.1	1778.3	1784.1	1782.6	1789.2	1794.1	1787.4	1788.3
47.5°	1948.2	1969.8	1988.6	1999.0	2010.2	2004.5	2009.0	2011.8	2029.2	2027.3	2025.8
50°	2177.2	2213.4	2223.4	2234.6	2243.4	2261.1	2259.6	2270.3	2268.4	2282.8	2284.6
52.5°	2394.2	2434.1	2474.6	2492.2	2505.6	2526.0	2534.0	2545.5	2541.2	2540.0	2550.7
55°	2610.0	2676.8	2723.0	2768.4	2793.6	2820.7	2832.3	2848.8	2856.0	2859.4	2846.0
57.5°	2824.0	2904.2	2982.4	3038.4	3077.4	3118.2	3139.8	3157.8	3178.8	3185.8	3179.1
60°	3074.4	3191.6	3294.2	3369.0	3440.9	3485.4	3531.9	3566.0	3572.4	3601.4	3619.9
62.5°	3407.7	3550.5	3680.5	3789.4	3900.9	3984.0	4068.1	4101.6	4134.7	4157.2	4171.0
65°	3862.2	4050.4	4230.0	4385.0	4521.7	4659.9	4758.0	4809.4	4875.4	4888.5	4874.2
67.5°	4260.8	4482.7	4705.8	4903.2	5050.8	5194.2	5310.5	5395.8	5457.5	5488.0	5500.8
69°	4304.6	4530.2	4758.2	4954.9	5133.6	5276.7	5395.8	5480.4	5541.9	5594.5	5603.7
70°	4214.8	4468.1	4689.8	4888.2	5072.4	5218.2	5324.8	5421.6	5491.7	5532.2	5546.5
72.5°	3700.0	3927.7	4151.4	4380.2	4538.2	4713.2	4800.8	4878.5	4971.7	5024.6	5013.1
75°	2804.0	3001.0	3196.1	3367.2	3489.0	3553.6	3656.1	3731.4	3717.6	3806.8	3809.3
77.5°	1581.6	1607.2	1739.6	1722.0	1780.4	1782.0	1797.2	1823.6	1772.8	1877.2	1802.3
80°	383.6	378.5	405.8	373.6	370.8	368.1	359.0	376.9	379.3	360.8	364.1
82.5°	112.6	107.8	105.6	102.9	107.5	106.0	106.8	107.4	110.5	106.6	110.8
85°	61.8	58.2	57.8	56.4	56.0	52.6	52.4	52.4	50.2	50.8	50.5
87.5°	23.8	22.2	21.0	20.1	19.8	18.9	18.0	16.4	14.6	13.1	12.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)