

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: P148795

Luminaire Tested: **VWM-F02-LED-E1-RW**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P148795  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33677)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: VWM-F02-LED-E1-RW  
Description: VISION WALL MEDIUM LED LUMINAIRE  
(2) LIGHTBARS WITH AccuLED OPTICS - RECTANGULAR WIDE  
Light Source: (14) 4000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5157.8 lumens  
Efficiency: N/A  
Efficacy: 93.8 lumens/watt  
Luminous Opening: Rectangular (W 0.33' x L: 1' x H: 0')  
IES Classification: Type I - Short - Full Cutoff  
BUG Rating: B2 - U0 - G2

Input Watts (W): 55  
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

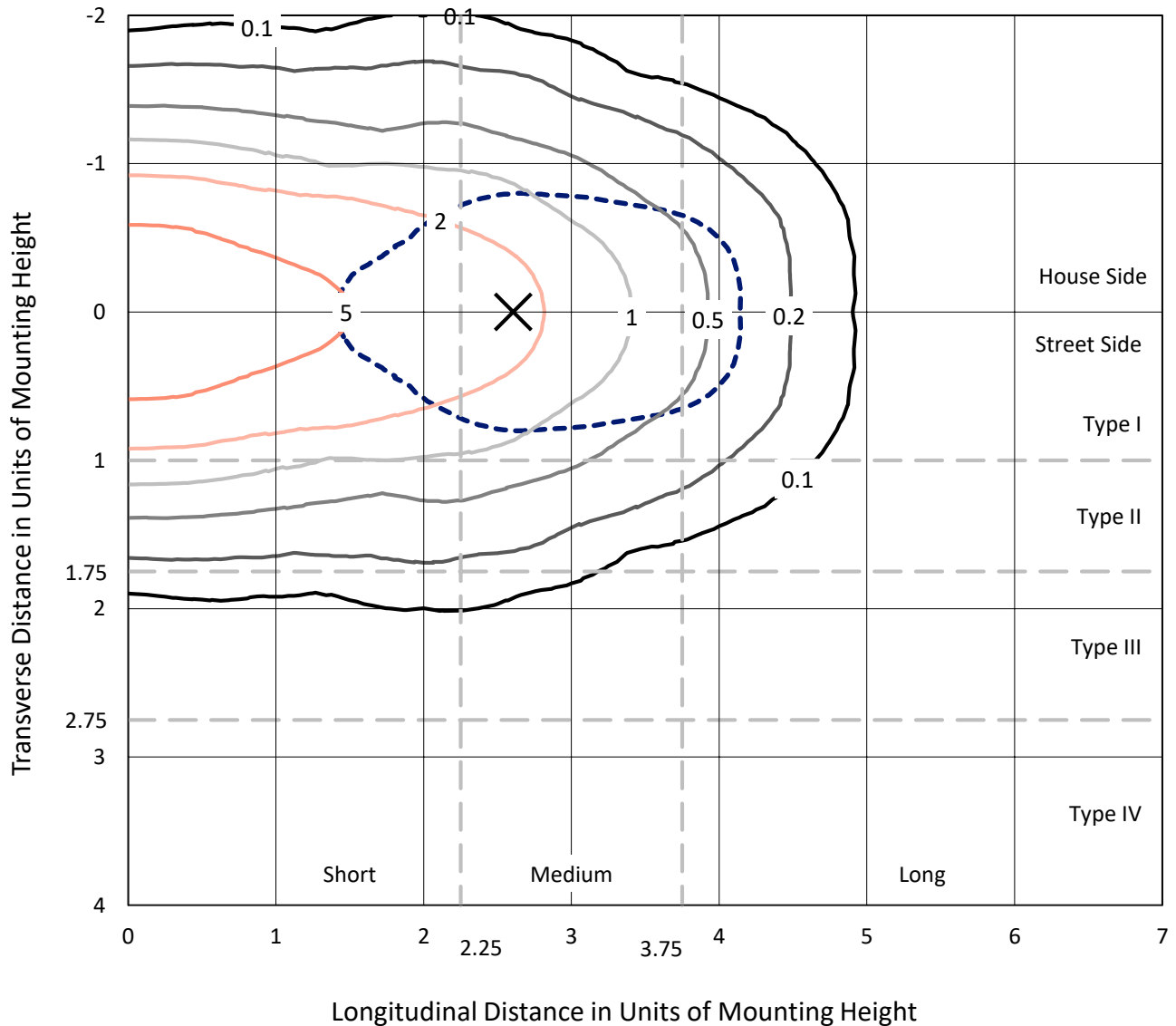


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

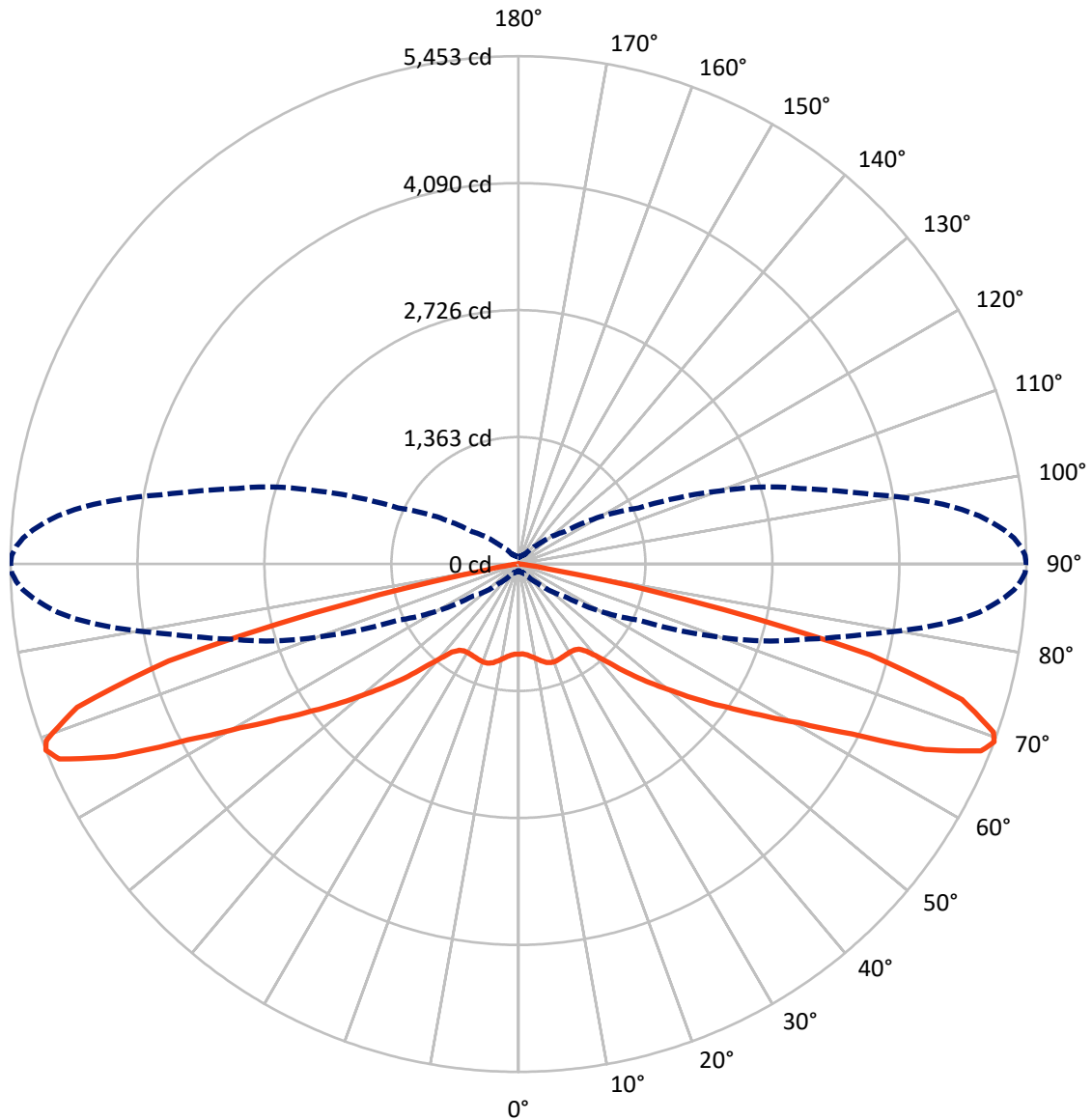


Based on 10 foot mounting height. Maximum calculated value = 9.9 fc  
 Type I - Short - Full Cutoff

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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	2578.9	0.0	2578.9
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	2578.9	0.0	2578.9
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	5157.8	0.0	5157.8
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	94.8	1.8
10°-20°	299.0	5.8
20°-30°	484.5	9.4
30°-40°	603.8	11.7
40°-50°	754.5	14.6
50°-60°	931.6	18.1
60°-70°	1157.6	22.4
70°-80°	768.5	14.9
80°-90°	63.5	1.2
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°	5157.8	100.0
0°-180°	5157.8	100.0



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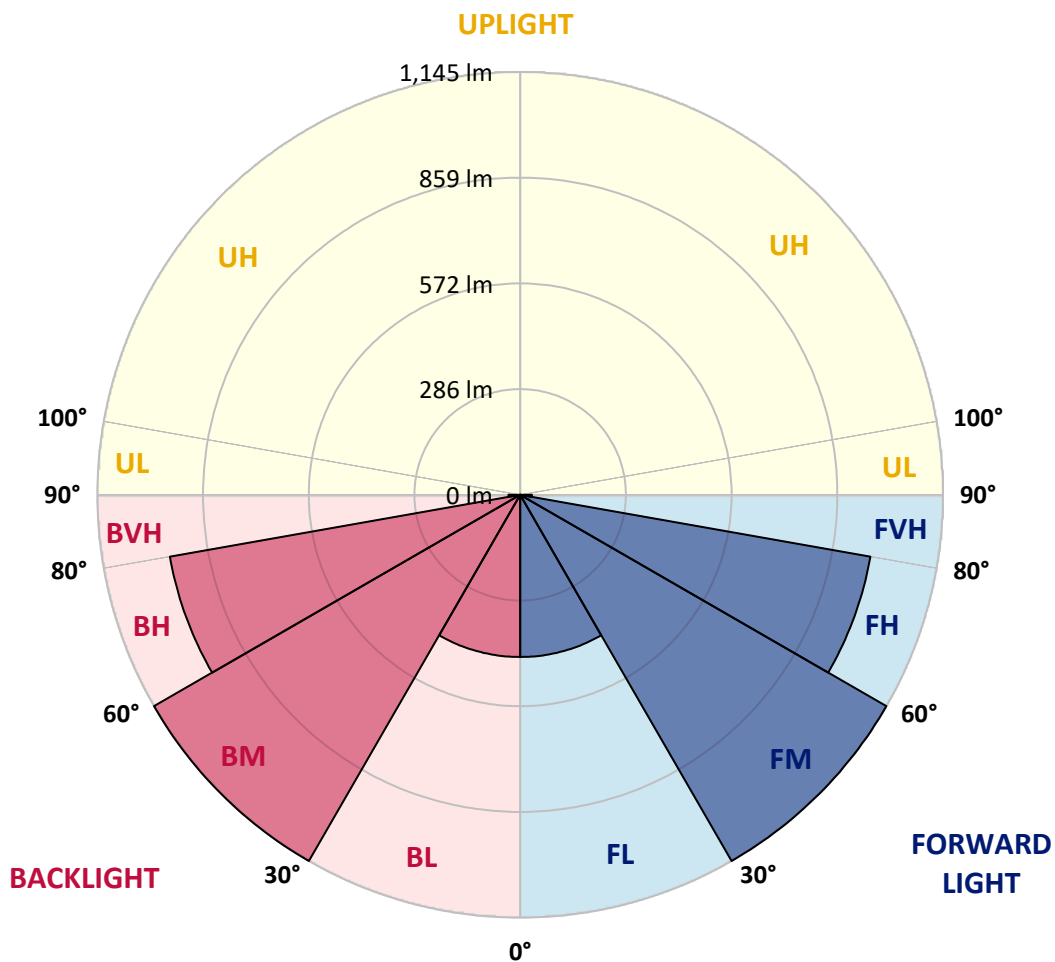
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	439.2	8.5			
FM (30°-60°)	1145.0	22.2			
FH (60°-80°)	963.1	18.7			G1/1800
FVH (80°-90°)	31.7	0.6			G1/100
BL (0°-30°)	439.2	8.5	B1/500		
BM (30°-60°)	1145.0	22.2	B2/2500		
BH (60°-80°)	963.1	18.7	B2/1000		G2/1000
BVH (80°-90°)	31.7	0.6			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G2**

Type I Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	66°	67°	68°
0°	966.4	966.4	966.4	966.4	966.4	966.4	966.4	966.4	966.4	966.4	966.4
2.5°	970.8	971.6	971.1	972.2	972.0	971.9	971.4	970.2	970.1	970.0	969.8
5°	980.2	979.0	980.8	982.4	981.8	982.1	981.8	981.8	981.7	981.6	981.5
7.5°	990.0	989.8	990.9	995.4	995.8	997.5	999.4	1000.8	1000.9	1000.9	1001.0
10°	998.6	998.9	1001.6	1008.0	1011.3	1016.5	1021.8	1025.8	1026.2	1026.5	1026.8
12.5°	1005.5	1005.8	1009.9	1019.8	1027.8	1037.7	1049.0	1055.3	1055.9	1056.4	1057.0
15°	1006.0	1006.9	1014.0	1030.2	1046.2	1062.4	1075.9	1084.4	1084.9	1085.3	1085.8
17.5°	998.9	999.4	1011.6	1035.5	1062.2	1087.5	1101.5	1105.4	1105.6	1105.7	1105.9
20°	980.2	981.6	998.6	1034.1	1074.8	1107.8	1122.4	1117.2	1116.7	1116.2	1115.6
22.5°	949.9	949.6	971.9	1019.8	1077.3	1123.8	1136.8	1123.0	1121.4	1119.8	1118.1
25°	900.9	904.2	930.4	987.6	1063.2	1127.4	1146.9	1126.0	1123.7	1121.3	1119.0
27.5°	847.8	849.8	877.6	938.9	1030.6	1115.0	1151.8	1132.1	1129.4	1126.8	1124.2
30°	785.9	788.4	818.1	882.2	978.0	1083.1	1150.5	1145.8	1142.8	1139.7	1136.7
32.5°	725.4	728.1	754.8	825.0	922.7	1039.3	1142.2	1165.4	1162.3	1159.1	1156.0
35°	662.6	666.8	699.2	770.2	869.3	990.6	1129.6	1190.4	1188.7	1186.9	1185.2
37.5°	610.7	611.4	642.8	717.4	819.8	944.1	1112.8	1222.1	1223.3	1224.6	1225.8
40°	552.6	557.8	589.2	667.8	774.9	904.8	1096.8	1265.0	1271.6	1278.1	1284.7
42.5°	500.6	501.1	533.0	614.2	726.2	873.2	1088.1	1316.7	1330.8	1344.8	1358.9
45°	445.8	448.0	476.9	555.3	670.0	835.8	1087.8	1376.4	1398.9	1421.4	1443.8
47.5°	394.0	394.9	425.4	498.4	605.7	783.4	1085.8	1440.5	1471.1	1501.6	1532.2
50°	344.6	343.7	373.7	443.8	542.1	714.9	1069.0	1513.2	1551.8	1590.4	1629.0
52.5°	287.8	291.7	322.8	390.0	484.3	645.3	1020.0	1592.7	1638.9	1685.1	1731.2
55°	232.2	233.9	267.2	329.9	425.7	580.3	934.8	1666.0	1720.4	1774.8	1829.2
57.5°	171.1	176.1	205.3	267.2	366.2	525.6	826.4	1703.8	1770.1	1836.3	1902.6
60°	120.8	124.6	150.6	202.6	301.0	468.0	733.0	1682.7	1768.8	1854.8	1940.9
62.5°	94.2	97.2	117.8	151.6	234.7	410.6	666.2	1614.2	1731.3	1848.4	1965.5
65°	82.6	85.4	104.0	121.4	175.3	352.0	629.6	1541.8	1696.6	1851.4	2006.2
67.5°	74.6	77.8	94.1	106.2	142.8	307.1	620.0	1496.1	1671.4	1846.8	2022.1
69°	71.0	74.2	88.9	99.1	132.6	291.2	603.4	1424.3	1598.6	1773.0	1947.3
70°	68.8	71.6	85.0	95.5	129.3	280.2	576.0	1334.6	1505.8	1677.0	1848.1
72.5°	63.8	65.2	77.1	87.2	120.0	226.4	443.0	991.2	1139.6	1288.0	1436.4
75°	56.4	58.0	69.0	79.0	93.6	140.6	280.4	613.1	723.9	834.7	945.5
77.5°	48.7	50.1	59.7	75.4	72.6	87.8	167.6	341.2	405.5	469.8	534.0
80°	39.0	40.7	49.2	74.8	60.0	68.2	120.6	238.6	255.9	273.2	290.6
82.5°	28.6	30.0	38.5	60.5	46.0	51.4	92.0	202.2	208.3	214.3	220.3
85°	14.6	14.9	24.5	36.9	29.2	26.7	51.8	138.4	142.2	146.1	150.0
87.5°	2.5	2.5	5.5	6.4	7.2	4.4	6.6	23.7	24.4	25.2	25.9
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°	966.4	966.4	966.4	966.4	966.4	966.4	966.4	966.4	966.4	966.4	966.4
2.5°	969.7	969.6	969.1	969.2	969.6	969.4	969.8	969.8	970.1	969.0	968.8
5°	981.4	981.2	981.2	981.1	981.4	981.3	981.6	982.0	981.9	981.2	981.1
7.5°	1001.0	1001.1	1001.4	1001.1	1001.6	1001.4	1000.8	1001.7	1002.3	1002.3	1003.0
10°	1027.1	1027.4	1028.3	1028.2	1029.2	1029.0	1029.2	1030.1	1030.8	1030.9	1031.6
12.5°	1057.5	1058.1	1058.6	1059.1	1060.1	1059.5	1060.8	1061.4	1062.2	1063.8	1063.0
15°	1086.2	1086.6	1088.2	1088.3	1089.2	1089.6	1090.8	1091.3	1091.5	1092.8	1093.0
17.5°	1106.0	1106.2	1106.8	1106.5	1107.3	1107.1	1107.8	1108.3	1109.0	1109.8	1111.0
20°	1115.1	1114.6	1114.3	1114.0	1113.4	1112.6	1112.8	1113.2	1113.3	1114.0	1114.9
22.5°	1116.5	1114.9	1113.2	1112.1	1110.4	1109.0	1107.6	1107.7	1107.8	1107.6	1108.3
25°	1116.7	1114.3	1111.7	1108.6	1106.2	1103.0	1100.4	1100.2	1099.5	1099.5	1099.8
27.5°	1121.6	1119.0	1115.3	1111.7	1106.7	1102.5	1098.2	1096.8	1095.3	1094.3	1093.9
30°	1133.6	1130.6	1126.2	1121.5	1116.0	1109.5	1103.4	1101.6	1099.5	1097.6	1096.0
32.5°	1152.8	1149.7	1144.8	1140.0	1132.7	1126.2	1120.2	1117.2	1114.2	1110.9	1107.9
35°	1183.5	1181.8	1177.5	1173.2	1167.8	1162.7	1157.4	1154.0	1148.9	1146.3	1142.7
37.5°	1227.1	1228.4	1228.4	1228.9	1227.3	1224.8	1220.9	1217.4	1215.7	1208.8	1204.4
40°	1291.3	1297.8	1303.9	1308.5	1312.7	1316.7	1320.3	1318.2	1318.9	1317.0	1314.4
42.5°	1373.0	1387.0	1399.9	1412.7	1422.0	1436.5	1446.6	1449.8	1457.9	1461.1	1467.0
45°	1466.2	1488.7	1510.3	1530.2	1548.7	1569.5	1589.7	1604.7	1621.1	1639.7	1658.3
47.5°	1562.8	1593.4	1625.2	1651.2	1678.0	1708.7	1735.6	1758.2	1787.7	1814.9	1845.0
50°	1667.6	1706.2	1742.4	1774.5	1809.0	1844.4	1881.1	1914.3	1954.2	1997.9	2045.2
52.5°	1777.4	1823.6	1865.5	1905.7	1946.2	1986.7	2025.8	2072.8	2121.9	2179.6	2238.7
55°	1883.6	1938.1	1985.6	2030.3	2076.7	2122.0	2162.4	2225.1	2285.4	2354.3	2431.4
57.5°	1968.8	2035.0	2089.8	2143.0	2195.3	2243.5	2293.0	2363.9	2440.7	2521.2	2619.0
60°	2027.0	2113.0	2183.0	2246.9	2311.0	2371.6	2428.7	2521.2	2612.7	2712.7	2834.4
62.5°	2082.6	2199.8	2291.0	2378.1	2464.7	2542.5	2613.4	2729.8	2849.3	2972.9	3117.7
65°	2161.1	2315.9	2450.3	2571.7	2691.6	2805.9	2911.9	3059.4	3210.3	3373.0	3545.9
67.5°	2197.5	2372.8	2547.9	2711.6	2863.8	3008.5	3144.7	3323.0	3500.6	3689.2	3898.1
69°	2121.6	2295.9	2483.0	2661.9	2830.0	2983.5	3131.0	3313.0	3497.6	3690.2	3901.0
70°	2019.3	2190.5	2379.4	2566.3	2727.1	2887.0	3039.9	3220.5	3407.6	3600.6	3821.2
72.5°	1584.8	1733.2	1917.4	2098.8	2260.1	2420.6	2569.0	2753.9	2942.2	3145.0	3353.8
75°	1056.2	1167.0	1304.3	1472.5	1620.5	1762.4	1906.2	2062.6	2246.2	2413.4	2604.4
77.5°	598.2	662.5	742.2	851.6	957.8	1042.7	1145.3	1218.8	1325.5	1417.5	1514.7
80°	307.9	325.2	349.0	375.3	390.2	387.9	403.1	388.0	391.4	379.1	365.9
82.5°	226.4	232.4	243.1	248.4	247.9	230.5	212.2	186.6	164.1	140.5	118.8
85°	153.8	157.6	160.4	164.4	163.3	155.8	139.2	117.1	95.4	76.5	61.3
87.5°	26.6	27.4	27.2	29.5	29.5	27.4	22.6	19.2	16.2	12.1	8.6
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°	966.4	966.4	966.4	966.4	966.4	966.4	966.4	966.4	966.4	966.4	966.4
2.5°	968.6	968.6	969.2	968.6	968.6	968.6	968.4	968.9	968.6	967.8	967.0
5°	981.3	980.4	980.2	980.8	981.3	980.2	981.0	981.8	980.4	980.7	980.2
7.5°	1002.4	1002.2	1001.9	1002.4	1002.4	1002.2	1002.4	1001.6	1001.1	1001.9	1002.7
10°	1030.8	1030.6	1031.1	1031.1	1032.2	1031.6	1031.4	1032.2	1031.6	1031.1	1031.4
12.5°	1064.1	1063.2	1064.6	1064.6	1065.4	1065.4	1065.2	1065.5	1065.2	1064.4	1063.8
15°	1093.8	1092.7	1093.0	1095.2	1094.9	1095.4	1095.4	1094.9	1094.6	1094.4	1094.6
17.5°	1111.8	1111.2	1111.2	1112.3	1113.1	1112.8	1112.8	1112.8	1112.6	1112.8	1113.4
20°	1115.0	1115.0	1115.3	1116.4	1117.8	1117.0	1117.0	1117.5	1116.9	1117.5	1117.8
22.5°	1108.7	1109.2	1109.8	1111.2	1111.4	1111.4	1111.4	1111.8	1112.2	1112.2	1112.8
25°	1099.8	1100.4	1101.2	1102.4	1103.4	1103.4	1103.4	1104.0	1104.0	1104.3	1104.6
27.5°	1093.2	1093.8	1094.6	1095.8	1097.1	1097.2	1097.2	1097.6	1097.7	1097.9	1098.5
30°	1094.1	1092.9	1093.8	1094.4	1095.2	1095.2	1094.9	1095.2	1095.5	1095.4	1095.7
32.5°	1106.0	1103.4	1102.6	1102.4	1102.6	1101.8	1101.5	1101.0	1100.4	1100.4	1100.1
35°	1137.3	1133.4	1133.2	1131.0	1128.8	1126.6	1126.8	1125.2	1125.8	1124.4	1123.3
37.5°	1201.7	1197.3	1200.0	1195.4	1192.4	1190.1	1187.6	1184.4	1182.4	1184.9	1184.9
40°	1317.0	1314.0	1313.1	1314.0	1311.2	1312.6	1306.5	1304.8	1301.3	1303.8	1307.1
42.5°	1476.3	1474.4	1484.8	1486.8	1487.8	1489.5	1490.6	1481.6	1481.2	1479.3	1473.8
45°	1673.0	1684.6	1684.1	1696.7	1697.3	1693.4	1695.1	1691.0	1689.3	1683.2	1690.7
47.5°	1875.4	1897.3	1905.6	1908.4	1918.8	1921.3	1911.4	1908.1	1913.8	1903.9	1905.3
50°	2092.4	2116.0	2135.4	2148.3	2155.7	2156.3	2148.9	2147.2	2152.4	2133.7	2142.5
52.5°	2306.0	2341.8	2378.1	2397.4	2411.1	2412.2	2418.0	2411.0	2413.9	2409.4	2418.2
55°	2516.4	2578.4	2621.0	2658.8	2682.7	2703.3	2705.2	2712.7	2713.2	2722.3	2713.2
57.5°	2722.3	2789.8	2864.0	2930.9	2968.0	2991.4	3013.5	3043.5	3050.0	3046.4	3052.2
60°	2965.2	3069.6	3170.6	3247.6	3311.8	3373.1	3406.1	3453.2	3460.6	3481.0	3463.4
62.5°	3272.4	3423.8	3560.8	3664.5	3761.9	3857.4	3929.5	3965.8	3987.8	4030.4	4016.5
65°	3743.4	3925.1	4106.4	4255.0	4391.5	4505.2	4614.6	4667.0	4724.8	4785.3	4796.3
67.5°	4131.5	4356.3	4560.8	4741.8	4907.2	5033.5	5147.4	5238.0	5308.4	5353.0	5356.6
69°	4149.1	4382.8	4604.8	4799.0	4971.6	5105.8	5225.8	5326.6	5395.1	5440.8	5452.9
70°	4064.9	4304.0	4540.6	4736.8	4913.5	5050.8	5178.0	5274.0	5350.5	5397.0	5413.2
72.5°	3591.3	3846.6	4099.6	4271.5	4452.0	4615.5	4717.3	4815.3	4923.2	4937.2	4981.8
75°	2831.0	3045.6	3241.8	3373.4	3524.2	3670.8	3770.7	3796.6	3853.0	3924.0	3898.7
77.5°	1640.6	1706.6	1833.2	1865.7	1838.2	1902.0	1923.2	1878.1	1875.8	1917.4	1834.9
80°	363.5	342.9	368.7	349.5	350.0	350.6	344.8	342.6	346.7	342.6	336.8
82.5°	100.7	97.4	97.9	96.9	98.8	97.4	96.6	98.8	98.6	98.2	100.2
85°	48.4	47.9	47.0	46.8	45.7	44.3	42.1	42.1	43.2	41.6	42.4
87.5°	6.4	6.1	6.0	7.2	6.4	5.2	5.2	5.2	5.0	5.0	5.0
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)