

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: P140751

Luminaire Tested: **ECM-E02-LED-E1-RW-7050**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P140751  
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-7050  
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE  
(2) LIGHTBARS WITH AccuLED OPTICS - RECTANGULAR WIDE  
Light Source: (42) 5000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6069 lumens  
Efficiency: N/A  
Efficacy: 116.5 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

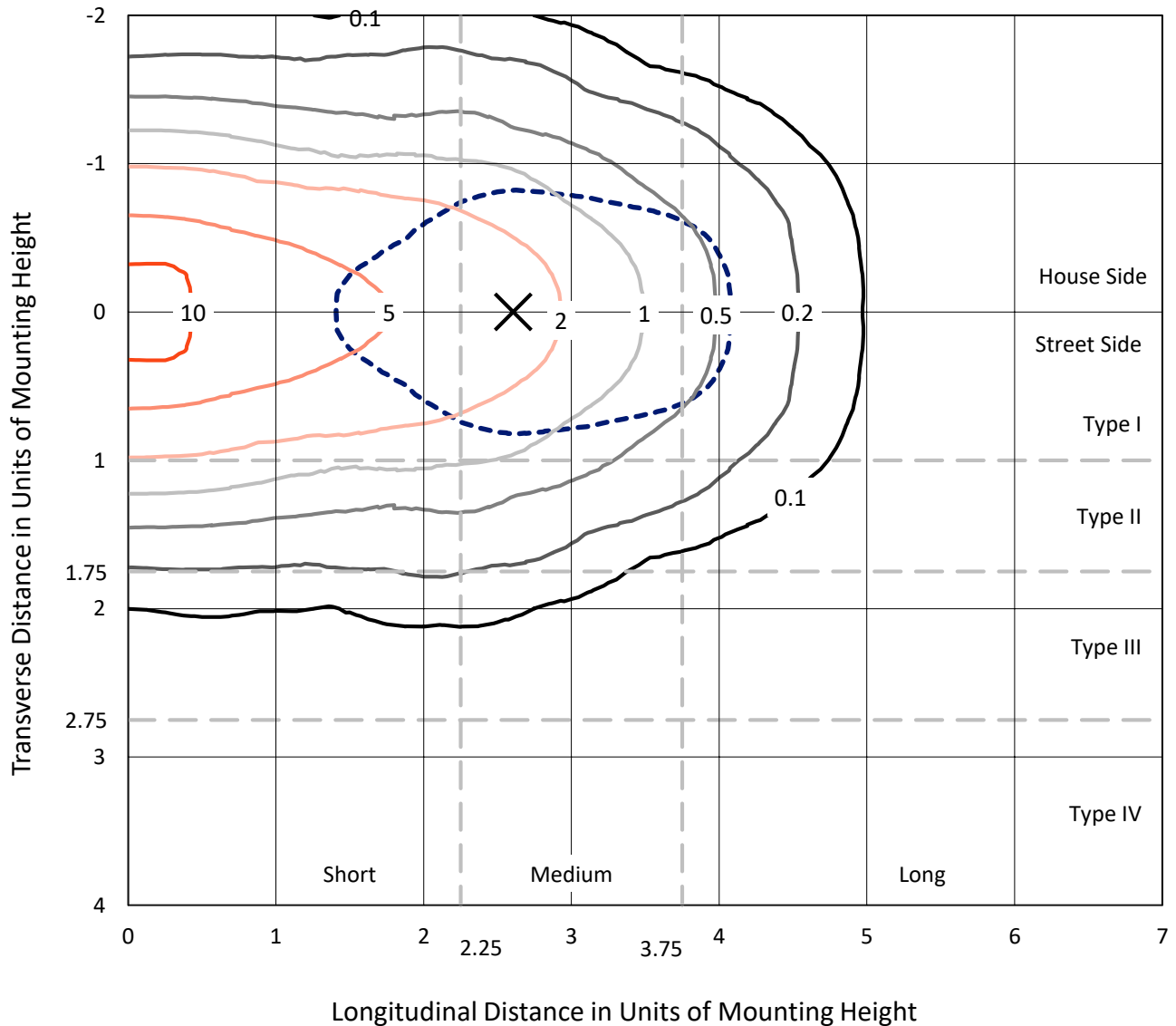
Input Watts (W): 52.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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 CATALOG NUMBER: ECM-E02-LED-E1-RW-7050

### Iso-Footcandle Lines of Horizontal Illumination

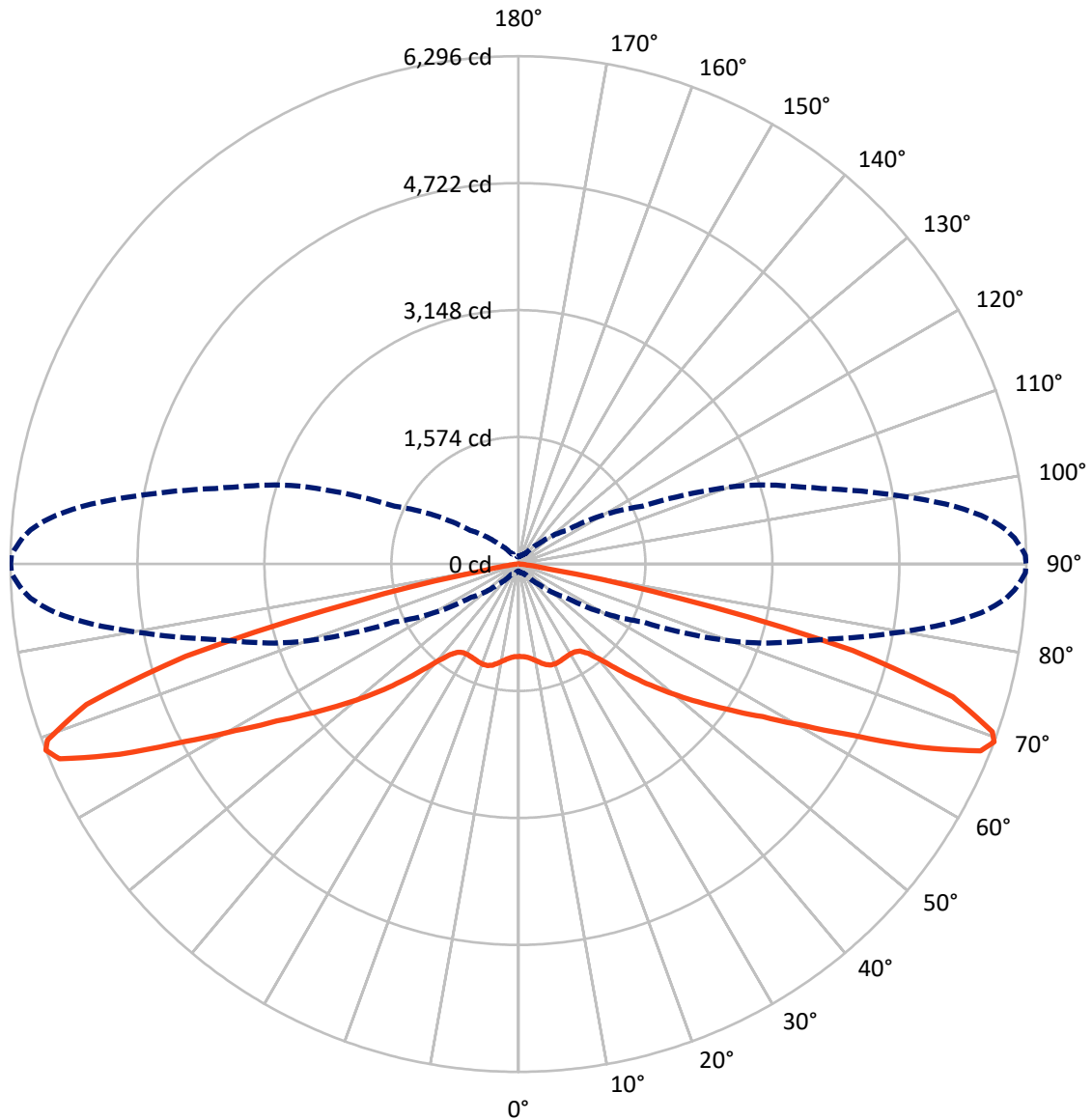
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 11.7 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	3034.5	0.0	3034.5
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	3034.5	0.0	3034.5
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	6069.0	0.0	6069.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	112.2	1.8
10°-20°	352.7	5.8
20°-30°	570.4	9.4
30°-40°	712.4	11.7
40°-50°	891.1	14.7
50°-60°	1098.0	18.1
60°-70°	1359.4	22.4
70°-80°	888.5	14.6
80°-90°	84.4	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°	6069.0	100.0
0°-180°	6069.0	100.0



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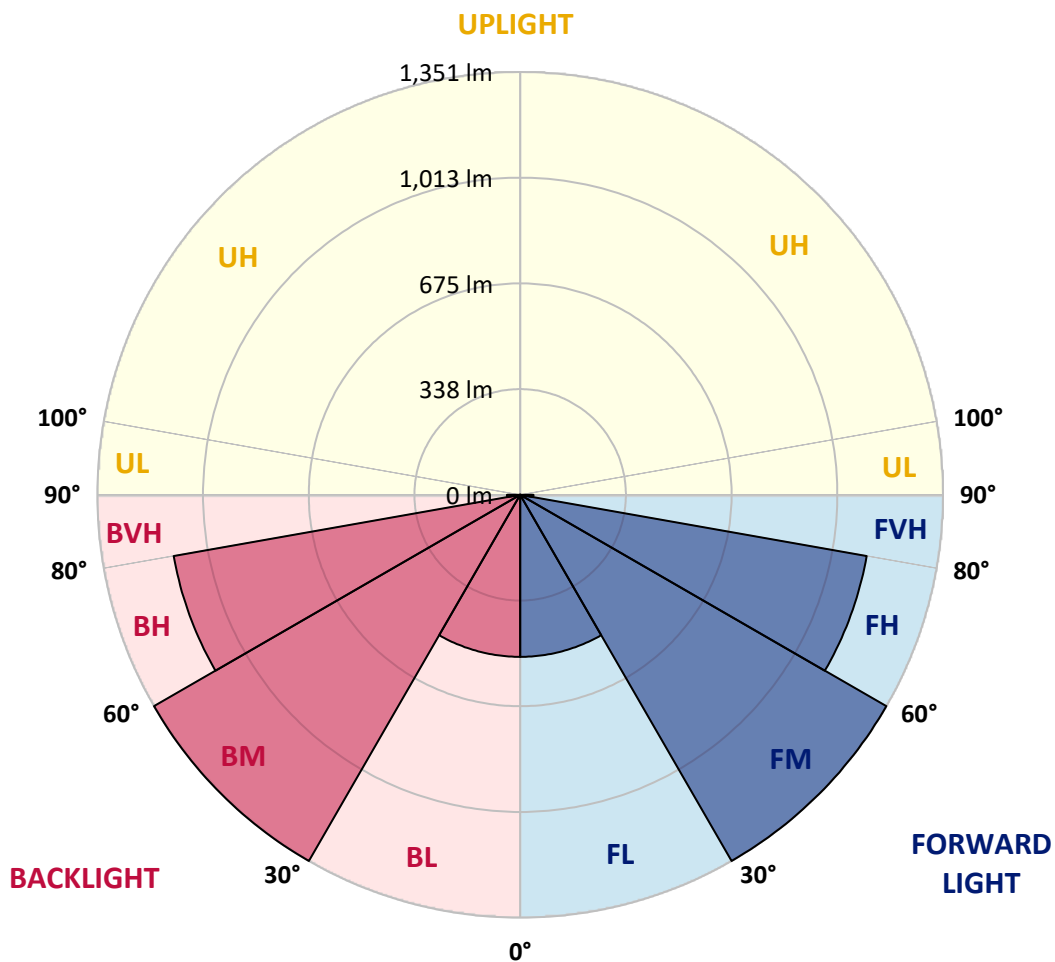
CATALOG NUMBER: ECM-E02-LED-E1-RW-7050

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	517.6	8.5			
FM (30°-60°)	1350.8	22.3			
FH (60°-80°)	1123.9	18.5			G1/1800
FVH (80°-90°)	42.2	0.7			G1/100
BL (0°-30°)	517.6	8.5	B2/1000		
BM (30°-60°)	1350.8	22.3	B2/2500		
BH (60°-80°)	1123.9	18.5	B3/2500		G3/2500
BVH (80°-90°)	42.2	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°	1145.8	1145.8	1145.8	1145.8	1145.8	1145.8	1145.8	1145.8	1145.8	1145.8	1145.8
2.5°	1153.4	1154.0	1152.0	1152.6	1153.4	1152.6	1151.6	1151.6	1151.3	1150.9	1150.6
5°	1160.9	1161.2	1160.2	1161.9	1162.2	1163.3	1163.2	1163.6	1163.4	1163.2	1163.0
7.5°	1171.4	1172.8	1171.8	1174.2	1176.6	1180.0	1181.8	1185.8	1185.8	1185.7	1185.6
10°	1181.4	1182.8	1182.8	1188.2	1194.0	1200.5	1207.4	1213.8	1214.3	1214.7	1215.1
12.5°	1188.9	1189.9	1191.6	1201.6	1214.6	1225.5	1237.5	1247.8	1248.2	1248.6	1249.0
15°	1185.8	1188.2	1196.1	1211.8	1234.7	1252.9	1267.6	1279.9	1280.7	1281.5	1282.4
17.5°	1175.2	1179.0	1190.3	1217.0	1252.2	1281.2	1298.7	1302.1	1302.6	1303.2	1303.8
20°	1152.4	1157.8	1175.6	1213.6	1265.6	1304.8	1322.3	1316.2	1315.6	1315.0	1314.5
22.5°	1114.0	1121.2	1143.4	1197.4	1266.6	1322.0	1339.1	1322.0	1320.0	1318.1	1316.2
25°	1062.7	1068.6	1093.8	1157.8	1250.8	1325.0	1349.7	1325.8	1322.7	1319.6	1316.5
27.5°	1000.4	1005.2	1036.7	1104.8	1211.8	1309.3	1356.5	1332.2	1328.3	1324.3	1320.3
30°	930.4	934.4	969.0	1041.5	1157.1	1274.8	1355.8	1346.9	1342.2	1337.5	1332.7
32.5°	860.6	862.3	893.0	972.8	1096.2	1223.8	1344.5	1369.5	1364.9	1360.3	1355.8
35°	784.0	789.4	822.2	909.1	1027.4	1167.8	1329.5	1401.0	1398.4	1395.8	1393.2
37.5°	722.4	724.1	759.3	849.6	971.8	1116.8	1310.4	1441.4	1443.2	1445.0	1446.9
40°	660.8	660.8	695.7	789.4	916.0	1070.9	1294.2	1490.9	1500.3	1509.7	1519.0
42.5°	593.4	598.2	632.4	725.8	861.9	1032.0	1286.0	1550.4	1568.1	1585.8	1603.4
45°	530.5	533.6	568.4	659.8	794.6	987.4	1283.6	1616.8	1643.6	1670.4	1697.2
47.5°	468.6	473.0	506.2	590.0	721.0	928.2	1280.6	1692.4	1726.7	1760.9	1795.2
50°	411.2	413.8	450.8	527.0	648.5	851.6	1260.4	1776.8	1818.7	1860.6	1902.5
52.5°	350.2	355.7	386.2	464.8	575.3	769.2	1207.4	1868.9	1919.5	1970.1	2020.8
55°	286.6	285.3	321.8	395.7	511.4	690.2	1109.6	1948.6	2009.7	2070.8	2131.8
57.5°	210.0	214.5	248.0	322.9	437.1	623.8	994.3	1990.0	2066.2	2142.4	2218.6
60°	150.5	156.6	185.7	244.9	363.2	558.8	876.6	1961.2	2062.2	2163.2	2264.1
62.5°	117.6	120.4	145.4	183.6	283.2	490.8	797.6	1886.6	2025.9	2165.1	2304.3
65°	102.6	105.6	127.9	147.8	215.2	426.2	750.1	1827.2	2010.9	2194.6	2378.4
67.5°	93.4	97.2	116.3	130.0	176.4	371.1	738.8	1778.6	1994.1	2209.7	2425.2
69°	89.0	92.7	110.5	123.1	163.9	353.7	725.8	1696.8	1915.6	2134.3	2353.1
70°	86.8	90.0	107.0	119.0	159.7	343.4	696.4	1603.4	1814.9	2026.3	2237.8
72.5°	80.0	81.8	97.5	109.2	151.2	287.3	551.7	1200.2	1376.9	1553.6	1730.3
75°	70.8	73.5	87.9	99.8	121.4	184.0	361.9	725.4	856.3	987.2	1118.1
77.5°	60.9	63.3	75.6	95.4	93.4	111.5	208.0	405.3	476.0	546.8	617.5
80°	52.7	55.0	66.4	88.6	75.9	82.4	140.2	264.4	291.3	318.2	345.1
82.5°	41.4	43.1	55.8	72.2	58.8	61.2	105.0	230.8	247.1	263.3	279.5
85°	26.4	27.4	40.7	49.2	41.0	36.2	66.0	169.3	182.1	194.9	207.7
87.5°	9.2	13.0	18.1	17.1	17.1	13.0	23.2	62.6	67.6	72.6	77.6
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):**

	69°	70°	71°	72°	73°	74°	75°	76°	77°	78°	79°
0°	1145.8	1145.8	1145.8	1145.8	1145.8	1145.8	1145.8	1145.8	1145.8	1145.8	1145.8
2.5°	1150.2	1149.9	1150.2	1150.2	1149.9	1149.6	1149.6	1149.2	1148.6	1148.6	1148.2
5°	1162.8	1162.6	1163.3	1162.9	1163.2	1162.9	1162.9	1162.6	1162.9	1161.6	1161.2
7.5°	1185.6	1185.5	1185.5	1186.6	1185.8	1185.5	1186.2	1186.2	1186.2	1185.5	1185.5
10°	1215.5	1216.0	1216.6	1217.3	1217.3	1217.3	1218.6	1217.6	1219.7	1217.6	1218.7
12.5°	1249.4	1249.8	1251.5	1252.2	1252.8	1252.8	1252.8	1254.9	1256.3	1256.0	1256.3
15°	1283.2	1284.0	1284.4	1285.4	1285.4	1285.7	1287.0	1289.5	1288.8	1290.2	1290.2
17.5°	1304.3	1304.8	1304.5	1304.6	1305.2	1306.2	1307.6	1309.0	1308.6	1309.6	1310.4
20°	1314.0	1313.4	1312.4	1311.7	1311.4	1312.0	1312.1	1312.4	1313.1	1313.0	1313.0
22.5°	1314.3	1312.4	1310.0	1308.6	1306.9	1305.9	1306.6	1305.9	1305.8	1305.9	1305.2
25°	1313.4	1310.4	1306.6	1303.8	1301.1	1299.4	1297.7	1297.0	1295.6	1295.6	1295.6
27.5°	1316.4	1312.4	1308.6	1303.5	1299.8	1297.7	1295.3	1292.9	1291.6	1290.2	1290.2
30°	1328.0	1323.3	1318.6	1312.4	1307.2	1305.6	1301.1	1298.8	1295.3	1293.6	1292.9
32.5°	1351.2	1346.6	1340.1	1333.2	1329.2	1324.0	1320.3	1315.1	1311.4	1309.0	1305.9
35°	1390.6	1388.0	1382.5	1378.1	1371.9	1366.1	1358.6	1355.8	1348.0	1346.6	1342.8
37.5°	1448.7	1450.6	1449.6	1446.2	1442.0	1436.9	1433.8	1428.0	1424.9	1421.8	1418.4
40°	1528.4	1537.8	1540.9	1544.6	1545.6	1550.1	1545.0	1544.2	1540.1	1543.6	1541.6
42.5°	1621.0	1638.7	1648.3	1659.6	1671.8	1683.2	1692.0	1707.1	1705.4	1717.0	1725.2
45°	1724.0	1750.8	1775.6	1794.3	1817.9	1843.9	1866.8	1888.0	1912.0	1925.6	1945.8
47.5°	1829.5	1863.8	1899.0	1933.8	1967.4	2000.9	2042.0	2079.2	2115.4	2140.1	2171.2
50°	1944.3	1986.2	2028.6	2071.4	2118.9	2171.6	2217.4	2266.0	2315.9	2366.6	2402.1
52.5°	2071.4	2122.0	2168.2	2213.3	2272.2	2327.9	2387.4	2448.3	2523.8	2579.0	2627.8
55°	2192.9	2254.0	2304.6	2358.7	2420.2	2482.1	2555.0	2631.2	2711.4	2790.6	2862.4
57.5°	2294.8	2371.0	2431.2	2484.9	2550.9	2622.4	2700.7	2795.1	2886.4	2985.0	3077.6
60°	2365.1	2466.1	2538.6	2603.2	2679.9	2759.2	2861.5	2973.0	3093.0	3215.4	3334.5
62.5°	2443.5	2582.7	2681.9	2774.2	2864.8	2953.2	3068.4	3207.0	3369.8	3517.8	3675.5
65°	2562.1	2745.9	2892.2	3009.9	3138.5	3267.1	3401.6	3563.4	3748.4	3964.6	4148.2
67.5°	2640.8	2856.4	3042.5	3211.0	3361.2	3517.5	3687.2	3880.8	4104.1	4324.7	4553.2
69°	2571.9	2790.6	2987.3	3173.1	3337.6	3505.8	3678.2	3873.2	4101.4	4345.2	4586.4
70°	2449.2	2660.6	2863.9	3059.5	3220.3	3396.0	3565.7	3751.4	3982.6	4226.6	4488.9
72.5°	1907.0	2083.7	2292.3	2481.2	2673.0	2833.4	2986.6	3173.0	3406.4	3638.6	3894.0
75°	1248.9	1379.8	1570.6	1725.9	1891.8	2042.3	2153.4	2338.5	2480.1	2698.6	2936.0
77.5°	688.3	759.0	858.2	984.7	1056.2	1141.0	1252.2	1319.6	1420.1	1573.0	1644.2
80°	372.0	398.8	440.5	466.8	488.1	467.2	456.0	476.1	467.6	465.2	442.3
82.5°	295.7	312.0	333.5	348.8	339.0	294.2	246.6	212.0	189.8	159.8	136.8
85°	220.5	233.2	241.5	251.8	250.0	226.0	181.0	139.8	109.8	87.6	76.2
87.5°	82.6	87.6	89.9	109.4	100.6	95.4	74.2	54.0	41.4	30.1	24.2
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°	1145.8	1145.8	1145.8	1145.8	1145.8	1145.8	1145.8	1145.8	1145.8	1145.8	1145.8
2.5°	1148.9	1148.6	1148.6	1148.6	1148.9	1148.2	1147.6	1148.2	1147.9	1147.9	1147.9
5°	1162.6	1162.2	1162.2	1162.6	1162.2	1162.6	1162.2	1160.9	1161.6	1161.9	1162.2
7.5°	1186.2	1185.8	1185.8	1187.6	1187.2	1186.8	1186.5	1187.2	1186.2	1186.2	1186.9
10°	1218.6	1220.1	1219.7	1220.7	1220.4	1219.7	1219.0	1219.7	1220.7	1221.1	1219.7
12.5°	1258.4	1258.7	1258.0	1259.7	1258.7	1261.0	1258.4	1259.7	1261.1	1259.1	1260.1
15°	1290.5	1290.5	1291.8	1292.2	1291.9	1292.6	1294.6	1293.6	1292.6	1294.2	1294.9
17.5°	1310.0	1311.0	1311.4	1311.7	1312.4	1313.1	1313.4	1313.1	1313.4	1314.1	1315.5
20°	1314.4	1314.1	1314.8	1315.2	1316.2	1316.2	1316.8	1316.5	1317.5	1317.8	1318.2
22.5°	1306.6	1306.9	1307.3	1308.2	1308.0	1308.6	1309.0	1310.0	1309.6	1310.3	1310.7
25°	1296.0	1296.6	1297.0	1296.6	1296.6	1297.0	1297.4	1297.0	1298.4	1299.0	1299.0
27.5°	1289.2	1289.2	1290.2	1289.8	1289.1	1289.8	1289.5	1289.4	1289.4	1289.8	1290.8
30°	1291.8	1290.8	1290.2	1290.2	1289.8	1289.2	1288.4	1287.4	1287.4	1287.8	1287.4
32.5°	1306.6	1304.5	1303.5	1302.5	1301.8	1300.1	1298.0	1297.3	1295.6	1295.6	1294.9
35°	1344.2	1341.8	1341.8	1338.0	1336.0	1334.9	1333.2	1328.1	1328.4	1326.4	1325.7
37.5°	1419.1	1415.0	1413.3	1416.7	1410.2	1412.9	1407.1	1404.8	1406.1	1402.4	1404.4
40°	1544.9	1551.5	1548.8	1552.5	1554.2	1554.9	1554.8	1549.0	1554.9	1545.6	1548.7
42.5°	1726.6	1743.7	1749.8	1751.9	1762.5	1759.8	1756.7	1756.4	1756.0	1760.5	1758.1
45°	1955.0	1957.4	1986.6	1992.0	1997.8	2004.3	2002.6	2010.2	2015.6	2008.0	2009.1
47.5°	2188.7	2213.0	2234.2	2245.8	2258.4	2252.0	2257.1	2260.2	2279.6	2277.6	2275.9
50°	2445.9	2486.6	2497.8	2510.6	2520.4	2540.3	2538.6	2550.6	2548.5	2564.6	2566.6
52.5°	2689.8	2734.5	2780.1	2799.9	2815.0	2837.9	2846.8	2859.8	2855.0	2853.6	2865.6
55°	2932.2	3007.2	3059.2	3110.1	3138.5	3169.0	3182.0	3200.4	3208.6	3212.4	3197.3
57.5°	3172.7	3262.7	3350.6	3413.5	3457.3	3503.2	3527.4	3547.6	3571.2	3579.0	3571.5
60°	3453.8	3585.6	3700.8	3785.0	3865.6	3915.6	3968.0	4006.3	4013.4	4046.0	4066.8
62.5°	3828.4	3988.8	4134.8	4257.3	4382.5	4475.8	4570.3	4607.9	4645.2	4670.5	4685.9
65°	4339.0	4550.4	4752.2	4926.3	5079.9	5235.2	5345.3	5403.1	5477.3	5492.0	5476.0
67.5°	4786.8	5036.2	5286.8	5508.4	5674.4	5835.5	5966.1	6061.8	6131.3	6165.5	6179.9
69°	4836.0	5089.5	5345.6	5566.6	5767.4	5928.2	6061.9	6157.0	6226.0	6285.2	6295.5
70°	4735.2	5019.8	5268.7	5491.7	5698.7	5862.5	5982.2	6091.0	6169.6	6215.1	6231.2
72.5°	4156.8	4412.6	4664.0	4920.9	5098.4	5295.0	5393.6	5480.8	5585.4	5645.0	5632.0
75°	3150.2	3371.4	3590.6	3783.0	3919.8	3992.2	4107.5	4192.0	4176.6	4276.8	4279.5
77.5°	1776.9	1805.6	1954.4	1934.6	2000.2	2002.0	2019.0	2048.8	1991.6	2109.0	2024.8
80°	431.0	425.2	455.9	419.7	416.6	413.5	403.2	423.4	426.2	405.3	409.1
82.5°	126.6	121.1	118.7	115.6	120.7	119.0	120.0	120.8	124.2	119.8	124.5
85°	69.4	65.4	65.0	63.2	62.9	59.2	58.8	58.8	56.4	57.1	56.8
87.5°	26.7	25.0	23.6	22.6	22.2	21.2	20.2	18.5	16.4	14.7	13.7
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)