

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: P141089

Luminaire Tested: **ECM-E04-LED-E1-SL3-7030**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P141089  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33691)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: ECM-E04-LED-E1-SL3-7030  
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE  
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 W/ SPILL LIGHT CONTROL  
Light Source: (84) 3000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 10572.5 lumens  
Efficiency: N/A  
Efficacy: 108.8 lumens/watt  
Luminous Opening: Rectangular (W 0.67' x L: 1' x H: 0')  
IES Classification: Type III - Short - Semi-Cutoff  
BUG Rating: B2 - U0 - G2

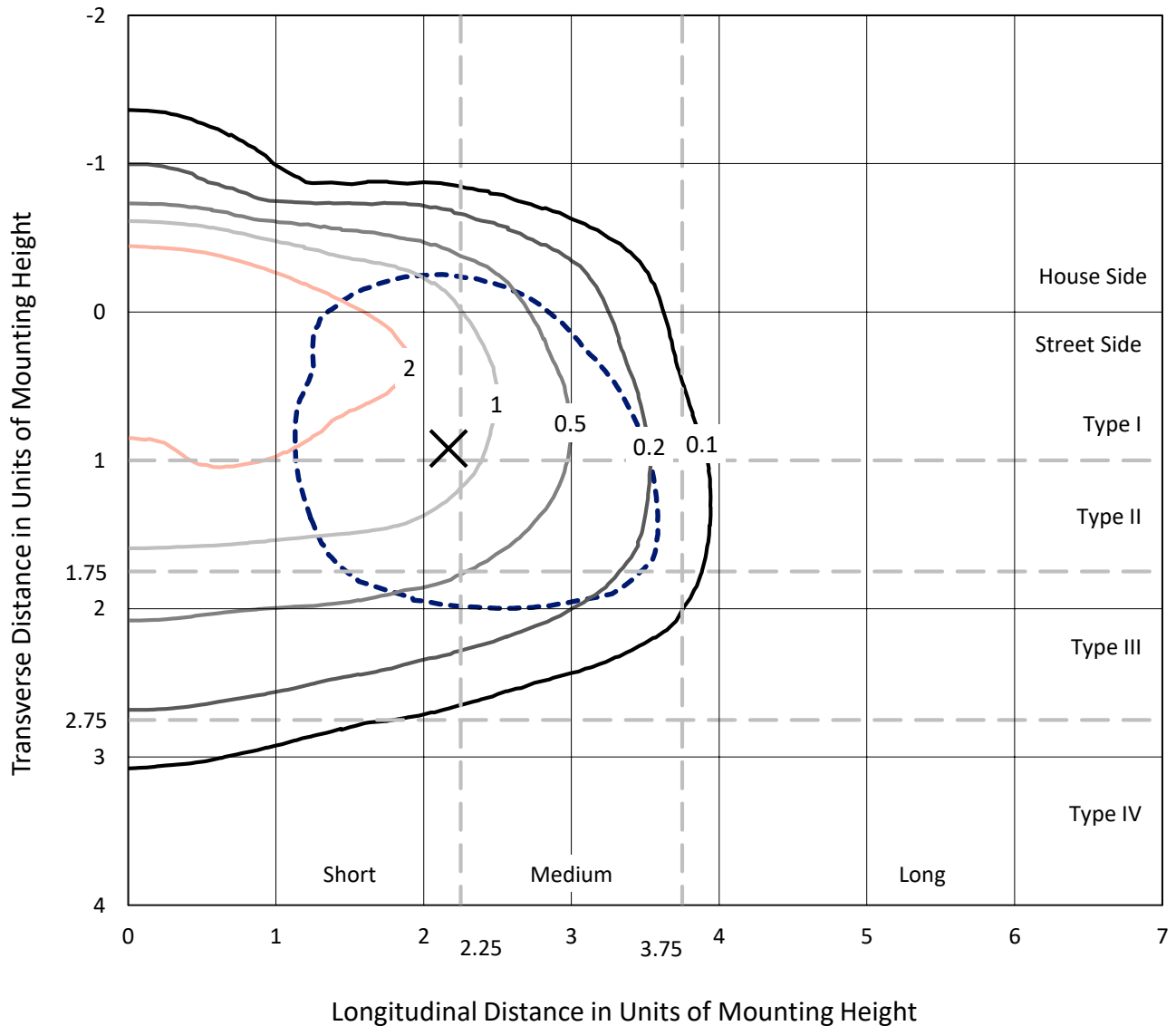
Input Watts (W): 97.2  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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 CATALOG NUMBER: ECM-E04-LED-E1-SL3-7030

### Iso-Footcandle Lines of Horizontal Illumination

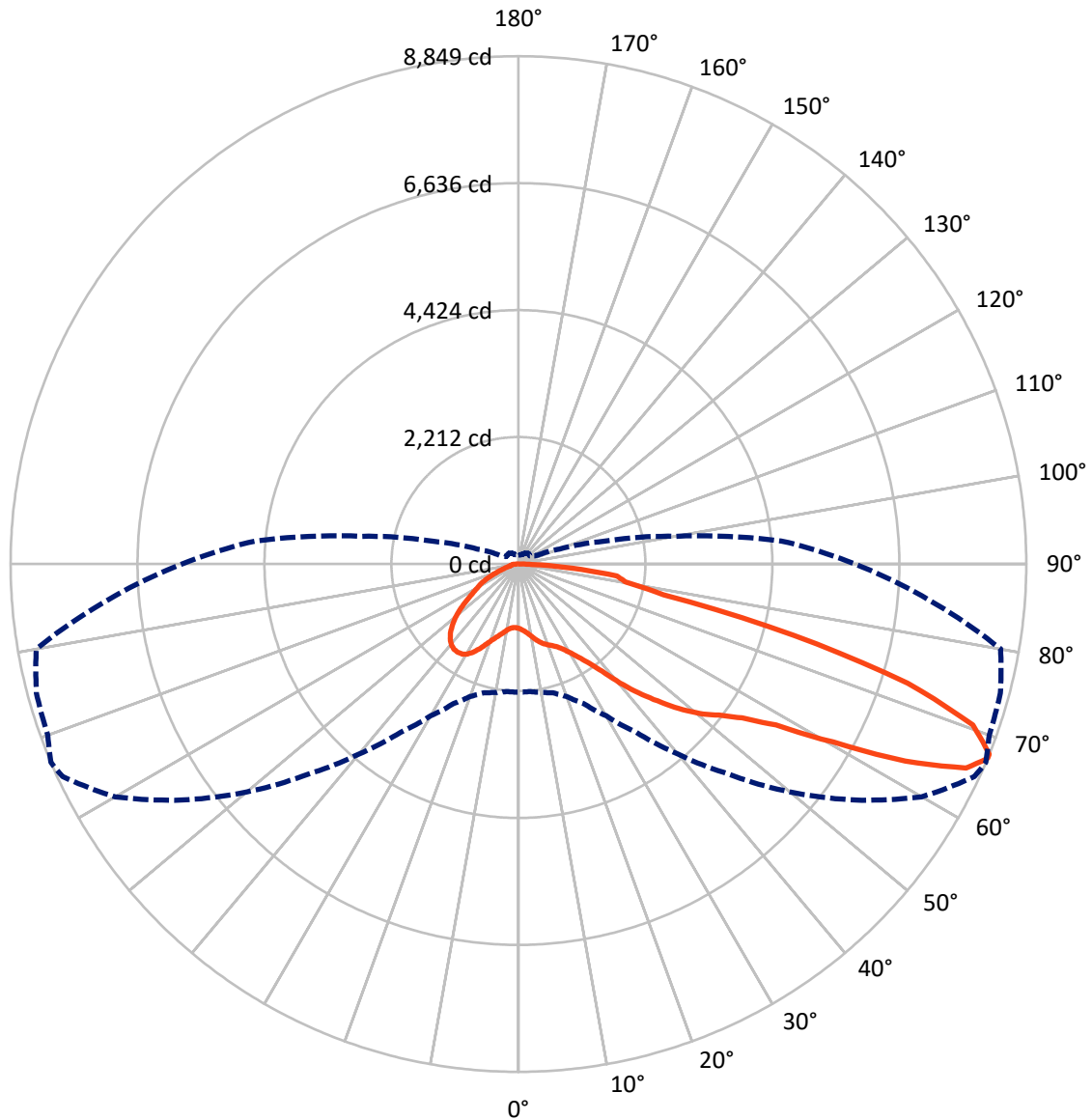
× Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 3.7 fc  
 Type III - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral    - - - Horizontal Cone Through 67-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2432.2	0.0	2432.2
	% Fixture	23.0	0.0	23.0
<b>Street Side</b>	Lumens	8140.3	0.0	8140.3
	% Fixture	77.0	0.0	77.0
<b>Total</b>	Lumens	10572.5	0.0	10572.5
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	112.4	1.1
10°-20°	388.8	3.7
20°-30°	692.0	6.5
30°-40°	994.9	9.4
40°-50°	1516.3	14.3
50°-60°	2214.9	20.9
60°-70°	2984.3	28.2
70°-80°	1465.2	13.9
80°-90°	203.8	1.9
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°	10572.5	100.0
0°-180°	10572.5	100.0



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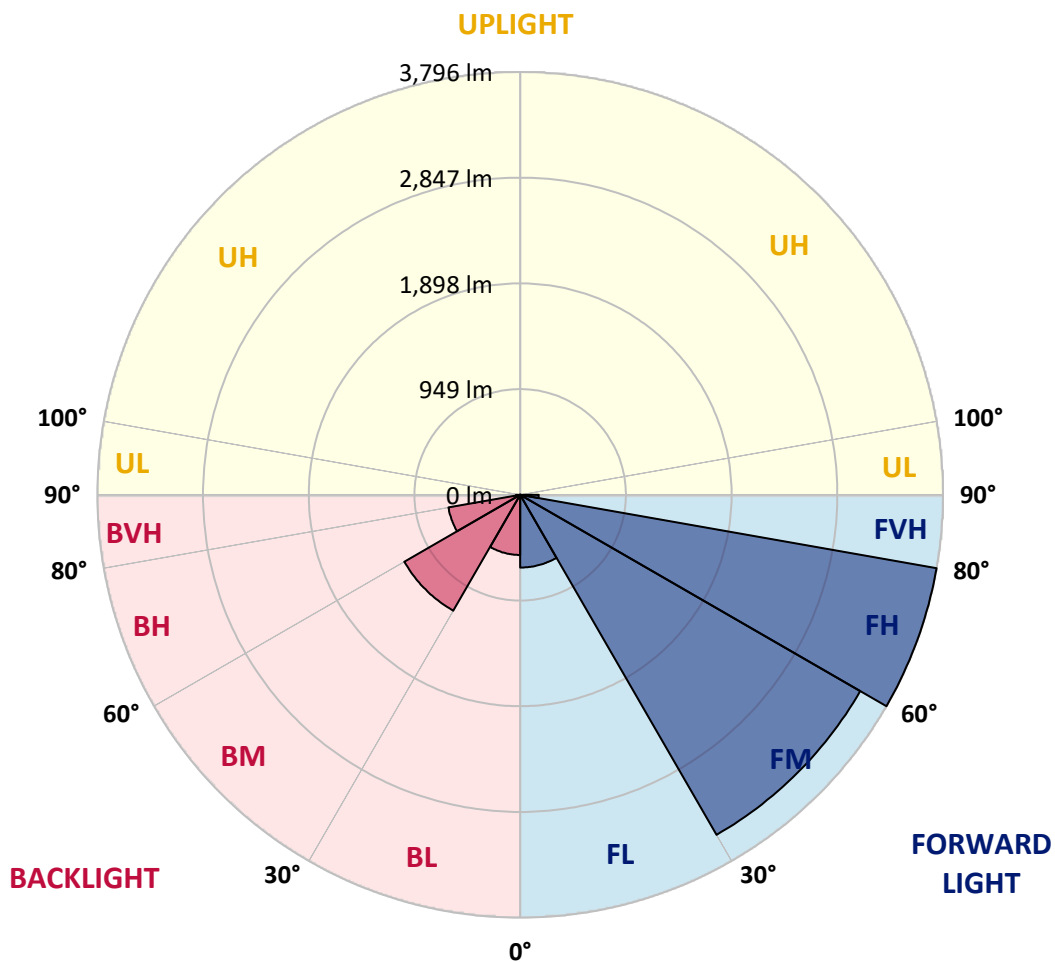
CATALOG NUMBER: ECM-E04-LED-E1-SL3-7030

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	653.1	6.2			
FM	(30°-60°)	3524.6	33.3			
FH	(60°-80°)	3795.5	35.9			G2/5000
FVH	(80°-90°)	167.0	1.6			G2/225
BL	(0°-30°)	540.1	5.1	B2/1000		
BM	(30°-60°)	1201.4	11.4	B2/2500		
BH	(60°-80°)	654.0	6.2	B2/1000		G2/1000
BVH	(80°-90°)	36.7	0.3			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 III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1121.6	1121.6	1121.6	1121.6	1121.6	1121.6	1121.6	1121.6	1121.6	1121.6	1121.6
2.5°	1180.0	1174.0	1178.8	1177.6	1174.0	1169.1	1171.5	1167.9	1165.4	1161.8	1158.1
5°	1256.8	1253.1	1250.7	1247.0	1244.6	1240.9	1238.5	1232.4	1223.9	1217.8	1212.9
7.5°	1332.3	1331.1	1327.4	1322.5	1312.8	1310.4	1301.8	1295.7	1288.4	1276.3	1266.5
10°	1421.2	1420.0	1413.9	1406.6	1395.6	1384.6	1374.9	1360.3	1345.7	1334.7	1326.2
12.5°	1528.3	1522.3	1510.1	1500.3	1488.2	1471.1	1455.3	1438.2	1417.5	1400.5	1390.7
15°	1635.5	1628.2	1618.5	1605.1	1586.8	1563.7	1540.5	1514.9	1483.3	1461.4	1448.0
17.5°	1723.2	1718.3	1707.4	1689.1	1670.8	1642.8	1612.4	1577.1	1538.1	1505.2	1484.5
20°	1786.5	1781.6	1764.6	1742.7	1718.3	1686.7	1653.8	1614.8	1568.5	1528.3	1505.2
22.5°	1813.3	1806.0	1786.5	1757.3	1724.4	1685.4	1650.1	1617.2	1574.6	1544.2	1519.8
25°	1821.8	1813.3	1787.7	1751.2	1708.6	1658.6	1618.5	1592.9	1567.3	1556.3	1547.8
27.5°	1817.0	1809.7	1781.6	1736.6	1679.3	1620.9	1578.3	1560.0	1561.2	1581.9	1591.7
30°	1799.9	1791.4	1765.8	1715.9	1655.0	1591.7	1553.9	1547.8	1575.8	1628.2	1667.2
32.5°	1771.9	1765.8	1745.1	1702.5	1647.7	1592.9	1566.1	1579.5	1628.2	1709.8	1776.8
35°	1764.6	1763.4	1753.6	1730.5	1690.3	1655.0	1644.0	1681.8	1762.2	1874.2	1959.4
37.5°	1763.4	1769.5	1774.3	1774.3	1765.8	1763.4	1796.3	1848.6	1968.0	2108.0	2246.8
40°	1787.7	1798.7	1823.0	1854.7	1885.2	1929.0	1996.0	2094.6	2218.8	2389.3	2562.3
42.5°	1863.2	1887.6	1929.0	1983.8	2063.0	2144.5	2252.9	2375.9	2535.5	2707.2	2878.9
45°	2010.6	2045.9	2076.3	2162.8	2267.5	2363.8	2505.0	2667.0	2842.3	3057.9	3243.0
47.5°	2205.4	2231.0	2294.3	2385.7	2513.5	2651.2	2787.5	2928.8	3139.5	3364.8	3588.9
50°	2400.3	2419.8	2486.7	2593.9	2762.0	2913.0	3068.9	3208.9	3390.4	3629.0	3848.2
52.5°	2545.2	2572.0	2630.4	2735.2	2923.9	3095.6	3273.4	3428.1	3632.7	3847.0	4076.0
55°	2645.1	2662.1	2715.7	2818.0	2995.8	3191.9	3392.8	3582.8	3826.3	4068.7	4296.4
57.5°	2660.9	2677.9	2726.7	2816.8	2989.7	3195.5	3425.7	3658.3	3953.0	4273.3	4571.6
60°	2642.6	2656.0	2698.6	2772.9	2936.1	3161.4	3435.4	3727.7	4090.6	4503.4	4929.7
62.5°	2561.0	2574.4	2613.4	2674.3	2819.2	3062.8	3406.2	3830.0	4286.7	4805.4	5430.2
65°	2407.6	2416.1	2452.7	2501.4	2647.5	2894.7	3273.4	3809.3	4441.3	5147.6	5956.3
67°	2233.4	2229.8	2271.2	2319.9	2453.9	2681.6	3051.8	3579.1	4318.3	5174.4	6176.7
67.5°	2179.9	2189.6	2229.8	2263.9	2394.2	2614.6	2969.0	3490.2	4213.6	5113.5	6173.0
70°	1799.9	1818.2	1840.1	1862.0	1976.5	2138.5	2399.1	2903.2	3487.8	4340.2	5604.3
72.5°	1234.8	1198.3	1214.1	1206.8	1242.2	1344.5	1525.9	1969.2	2433.2	3166.3	4160.0
75°	625.9	666.1	661.3	691.7	741.6	806.2	890.2	1055.8	1420.0	1851.1	2574.4
77.5°	350.7	341.0	375.1	382.4	411.6	479.8	628.4	846.4	1013.2	1189.8	1455.3
80°	159.5	176.6	187.5	170.5	176.6	191.2	248.4	389.7	655.2	997.4	1147.2
82.5°	88.9	95.0	110.8	112.0	116.9	120.6	130.3	151.0	203.4	411.6	809.8
85°	56.0	58.5	74.3	81.6	85.2	85.2	85.2	90.1	103.5	121.8	209.5
87.5°	20.7	21.9	34.1	45.1	46.3	43.8	41.4	47.5	43.8	45.1	68.2
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):**

	55°	60°	65°	67°	70°	75°	80°	85°	90°	95°	100°
0°	1121.6	1121.6	1121.6	1121.6	1121.6	1121.6	1121.6	1121.6	1121.6	1121.6	1121.6
2.5°	1155.7	1150.8	1146.0	1144.7	1141.1	1138.6	1132.6	1127.7	1122.8	1119.2	1115.5
5°	1202.0	1192.2	1183.7	1180.0	1175.2	1169.1	1156.9	1148.4	1141.1	1133.8	1126.5
7.5°	1254.3	1242.2	1230.0	1225.1	1217.8	1206.8	1193.4	1183.7	1171.5	1160.6	1150.8
10°	1312.8	1299.4	1289.7	1284.8	1278.7	1262.9	1254.3	1237.3	1223.9	1209.3	1197.1
12.5°	1376.1	1370.0	1356.6	1351.8	1345.7	1334.7	1322.5	1307.9	1290.9	1275.0	1260.4
15°	1433.4	1423.6	1415.1	1413.9	1410.2	1404.1	1388.3	1372.5	1357.8	1337.1	1325.0
17.5°	1468.7	1465.0	1463.8	1462.6	1460.1	1456.5	1449.2	1432.1	1418.7	1401.7	1384.6
20°	1490.6	1494.2	1500.3	1505.2	1507.6	1510.1	1506.4	1489.4	1476.0	1461.4	1446.7
22.5°	1513.7	1523.5	1539.3	1546.6	1555.1	1567.3	1564.9	1553.9	1546.6	1529.6	1518.6
25°	1546.6	1566.1	1592.9	1602.6	1618.5	1634.3	1637.9	1631.9	1624.5	1612.4	1612.4
27.5°	1602.6	1630.6	1666.0	1686.7	1702.5	1724.4	1731.7	1728.1	1729.3	1722.0	1739.0
30°	1690.3	1729.3	1776.8	1798.7	1818.2	1843.7	1848.6	1855.9	1851.1	1864.5	1885.2
32.5°	1823.0	1871.8	1920.5	1941.2	1958.2	1985.0	2000.8	1996.0	2013.0	2021.5	2050.8
35°	2027.6	2076.3	2114.1	2117.8	2137.2	2151.9	2166.5	2161.6	2207.9	2226.1	2242.0
37.5°	2310.2	2351.6	2374.7	2366.2	2343.0	2371.1	2390.5	2419.8	2449.0	2481.9	2423.4
40°	2676.7	2742.5	2732.7	2720.6	2676.7	2682.8	2691.3	2707.2	2755.9	2744.9	2578.1
42.5°	3025.0	3092.0	3081.0	3067.6	3009.2	2978.7	3001.9	3029.9	3056.7	2953.2	2704.7
45°	3377.0	3437.9	3385.5	3403.8	3351.4	3338.0	3383.0	3398.9	3368.4	3178.5	2811.9
47.5°	3742.3	3808.1	3782.5	3764.2	3726.5	3722.8	3748.4	3772.7	3652.2	3341.6	2892.3
50°	4022.4	4119.8	4106.4	4095.5	4054.1	4049.2	4110.1	4127.1	3910.4	3514.6	2972.7
52.5°	4237.9	4364.6	4389.0	4374.3	4364.6	4367.0	4542.4	4516.8	4217.2	3724.0	3066.4
55°	4492.5	4624.0	4712.9	4731.2	4755.5	4790.8	5137.9	5100.1	4641.0	4026.0	3165.1
57.5°	4829.8	5073.4	5207.3	5290.1	5357.1	5586.1	6026.9	5882.0	5228.0	4415.7	3282.0
60°	5326.7	5810.1	6087.8	6298.5	6431.2	6830.6	7365.3	6831.9	5910.0	4883.4	3435.4
62.5°	6124.3	6913.5	7444.4	7563.8	7619.8	7999.7	8382.1	7558.9	6402.0	5192.7	3459.8
65°	6897.6	7884.0	8503.9	8573.3	8531.9	8634.2	8741.4	7580.8	6287.5	5046.6	3174.8
67°	7170.4	8113.0	8764.5	8848.5	8726.8	8693.9	8530.7	7181.4	5860.1	4598.4	2777.8
67.5°	7155.8	8086.2	8762.1	8847.3	8726.8	8674.4	8434.5	7020.6	5692.0	4488.8	2701.1
70°	6595.6	7489.5	8242.1	8401.6	8334.6	8195.8	7557.7	5946.5	4716.5	3682.6	2082.4
72.5°	5354.7	6320.4	6917.1	7093.7	7141.2	6784.4	5628.7	4162.4	3400.1	2631.7	1510.1
75°	3594.9	4554.6	5042.9	4954.0	4665.4	4057.7	2971.4	2195.7	1863.2	1530.8	934.1
77.5°	2038.6	2779.0	2741.3	2587.8	2344.3	1735.4	842.7	456.7	436.0	509.0	395.8
80°	1361.5	1713.4	1830.4	1890.0	1876.6	1283.6	348.3	176.6	152.2	152.2	149.8
82.5°	1136.2	1480.8	1676.9	1729.3	1611.2	975.5	208.2	115.7	92.6	103.5	115.7
85°	478.6	746.5	987.6	949.9	755.0	380.0	105.9	60.9	60.9	80.4	101.1
87.5°	115.7	171.7	242.3	235.0	188.8	87.7	53.6	37.8	37.8	62.1	87.7
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):**

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	1121.6	1121.6	1121.6	1121.6	1121.6	1121.6	1121.6	1121.6	1121.6	1121.6	1121.6
2.5°	1114.3	1109.4	1109.4	1104.5	1102.1	1099.7	1098.5	1099.7	1096.0	1092.4	1093.6
5°	1120.4	1113.1	1109.4	1100.9	1096.0	1091.1	1087.5	1086.3	1080.2	1076.5	1076.5
7.5°	1141.1	1131.3	1124.0	1114.3	1104.5	1097.2	1091.1	1087.5	1079.0	1072.9	1071.7
10°	1183.7	1170.3	1159.3	1144.7	1131.3	1121.6	1110.6	1104.5	1094.8	1088.7	1086.3
12.5°	1247.0	1227.5	1210.5	1188.6	1172.7	1158.1	1152.0	1142.3	1138.6	1135.0	1136.2
15°	1306.7	1283.6	1267.7	1250.7	1232.4	1223.9	1211.7	1210.5	1211.7	1205.6	1205.6
17.5°	1367.6	1349.3	1331.1	1325.0	1307.9	1301.8	1293.3	1288.4	1277.5	1266.5	1253.1
20°	1430.9	1421.2	1413.9	1406.6	1402.9	1388.3	1366.4	1340.8	1305.5	1273.8	1247.0
22.5°	1512.5	1506.4	1507.6	1501.5	1482.1	1445.5	1395.6	1342.0	1284.8	1233.6	1193.4
25°	1616.0	1622.1	1614.8	1584.4	1528.3	1454.1	1377.3	1301.8	1226.3	1165.4	1110.6
27.5°	1747.5	1742.7	1708.6	1630.6	1534.4	1428.5	1329.8	1239.7	1149.6	1079.0	1010.8
30°	1891.2	1855.9	1767.0	1645.2	1510.1	1382.2	1260.4	1155.7	1051.0	968.2	891.4
32.5°	2036.2	1935.1	1791.4	1628.2	1467.4	1316.4	1180.0	1057.1	936.5	843.9	755.0
35°	2145.8	1983.8	1787.7	1591.7	1402.9	1230.0	1071.7	919.4	779.4	668.6	578.5
37.5°	2246.8	2010.6	1763.4	1535.6	1314.0	1115.5	918.2	753.8	612.6	501.7	423.8
40°	2308.9	2008.2	1715.9	1443.1	1191.0	947.4	733.1	563.8	439.6	358.0	315.4
42.5°	2345.5	1982.6	1634.3	1320.1	1021.7	758.7	540.7	388.5	313.0	277.7	258.2
45°	2363.8	1927.8	1533.2	1155.7	817.1	541.9	372.6	280.1	249.6	239.9	235.0
47.5°	2352.8	1851.1	1388.3	970.6	608.9	371.4	266.7	236.3	226.5	221.6	220.4
50°	2327.2	1751.2	1236.1	769.6	432.3	266.7	224.1	215.6	211.9	210.7	208.2
52.5°	2290.7	1633.1	1061.9	596.7	306.9	221.6	209.5	205.8	203.4	199.7	198.5
55°	2229.8	1486.9	884.1	439.6	246.0	209.5	203.4	202.2	197.3	193.6	191.2
57.5°	2156.7	1331.1	716.1	344.6	226.5	204.6	200.9	199.7	194.8	190.0	185.1
60°	2120.2	1221.5	589.4	298.4	222.9	207.0	204.6	202.2	196.1	188.8	182.7
62.5°	2030.1	1103.3	507.8	283.7	227.7	215.6	214.3	209.5	200.9	193.6	183.9
65°	1797.5	936.5	432.3	269.1	235.0	228.9	231.4	225.3	215.6	203.4	187.5
67°	1518.6	761.1	365.3	258.2	243.6	247.2	250.9	247.2	231.4	213.1	192.4
67.5°	1443.1	708.8	347.1	254.5	246.0	250.9	257.0	253.3	236.3	215.6	194.8
70°	1085.1	507.8	275.2	241.1	254.5	267.9	280.1	278.9	261.8	236.3	203.4
72.5°	750.2	347.1	222.9	225.3	247.2	271.6	287.4	294.7	277.7	247.2	208.2
75°	451.8	221.6	187.5	203.4	225.3	249.6	275.2	277.7	258.2	227.7	194.8
77.5°	221.6	159.5	154.7	160.7	181.5	202.2	213.1	199.7	187.5	166.8	154.7
80°	134.0	125.4	123.0	136.4	148.6	144.9	136.4	125.4	119.3	114.5	109.6
82.5°	112.0	113.3	115.7	118.1	115.7	102.3	87.7	80.4	75.5	75.5	76.7
85°	114.5	116.9	107.2	98.6	87.7	73.1	59.7	51.1	52.4	53.6	53.6
87.5°	88.9	85.2	75.5	62.1	49.9	36.5	29.2	24.4	26.8	25.6	28.0
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):**

	160°	165°	170°	175°	180°
0°	1121.6	1121.6	1121.6	1121.6	1121.6
2.5°	1093.6	1092.4	1093.6	1093.6	1094.8
5°	1074.1	1071.7	1071.7	1072.9	1072.9
7.5°	1069.2	1066.8	1066.8	1068.0	1066.8
10°	1086.3	1085.1	1087.5	1086.3	1086.3
12.5°	1137.4	1137.4	1142.3	1144.7	1142.3
15°	1206.8	1204.4	1208.1	1209.3	1210.5
17.5°	1245.8	1234.8	1231.2	1233.6	1228.8
20°	1223.9	1205.6	1198.3	1197.1	1188.6
22.5°	1161.8	1135.0	1124.0	1119.2	1109.4
25°	1074.1	1042.4	1027.8	1015.6	1009.6
27.5°	969.4	930.4	909.7	900.0	896.3
30°	837.8	800.1	769.6	753.8	748.9
32.5°	691.7	636.9	605.2	585.8	572.4
35°	516.3	464.0	440.8	426.2	409.2
37.5°	375.1	343.4	323.9	314.2	310.5
40°	289.8	274.0	264.3	263.0	261.8
42.5°	250.9	243.6	242.3	239.9	237.5
45°	231.4	228.9	230.2	226.5	224.1
47.5°	218.0	216.8	216.8	214.3	213.1
50°	207.0	207.0	205.8	204.6	204.6
52.5°	197.3	198.5	198.5	196.1	196.1
55°	188.8	188.8	190.0	188.8	188.8
57.5°	182.7	181.5	182.7	182.7	182.7
60°	179.0	176.6	175.4	176.6	176.6
62.5°	175.4	171.7	170.5	170.5	171.7
65°	175.4	169.3	166.8	166.8	165.6
67°	176.6	166.8	162.0	159.5	158.3
67.5°	176.6	165.6	159.5	158.3	157.1
70°	176.6	160.7	152.2	146.1	146.1
72.5°	175.4	155.9	142.5	136.4	134.0
75°	166.8	147.4	135.2	127.9	125.4
77.5°	140.0	127.9	121.8	115.7	114.5
80°	105.9	99.9	95.0	81.6	75.5
82.5°	75.5	71.9	63.3	58.5	54.8
85°	53.6	49.9	46.3	41.4	41.4
87.5°	29.2	28.0	26.8	24.4	21.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)