

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: P141242

Luminaire Tested: **ECM-E03-LED-E1-SL4-7060**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P141242  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33692)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: ECM-E03-LED-E1-SL4-7060  
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE  
(3) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL  
Light Source: (63) 5700K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8691.5 lumens  
Efficiency: N/A  
Efficacy: 115.6 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short - Semi-Cutoff  
BUG Rating: B2 - U0 - G2

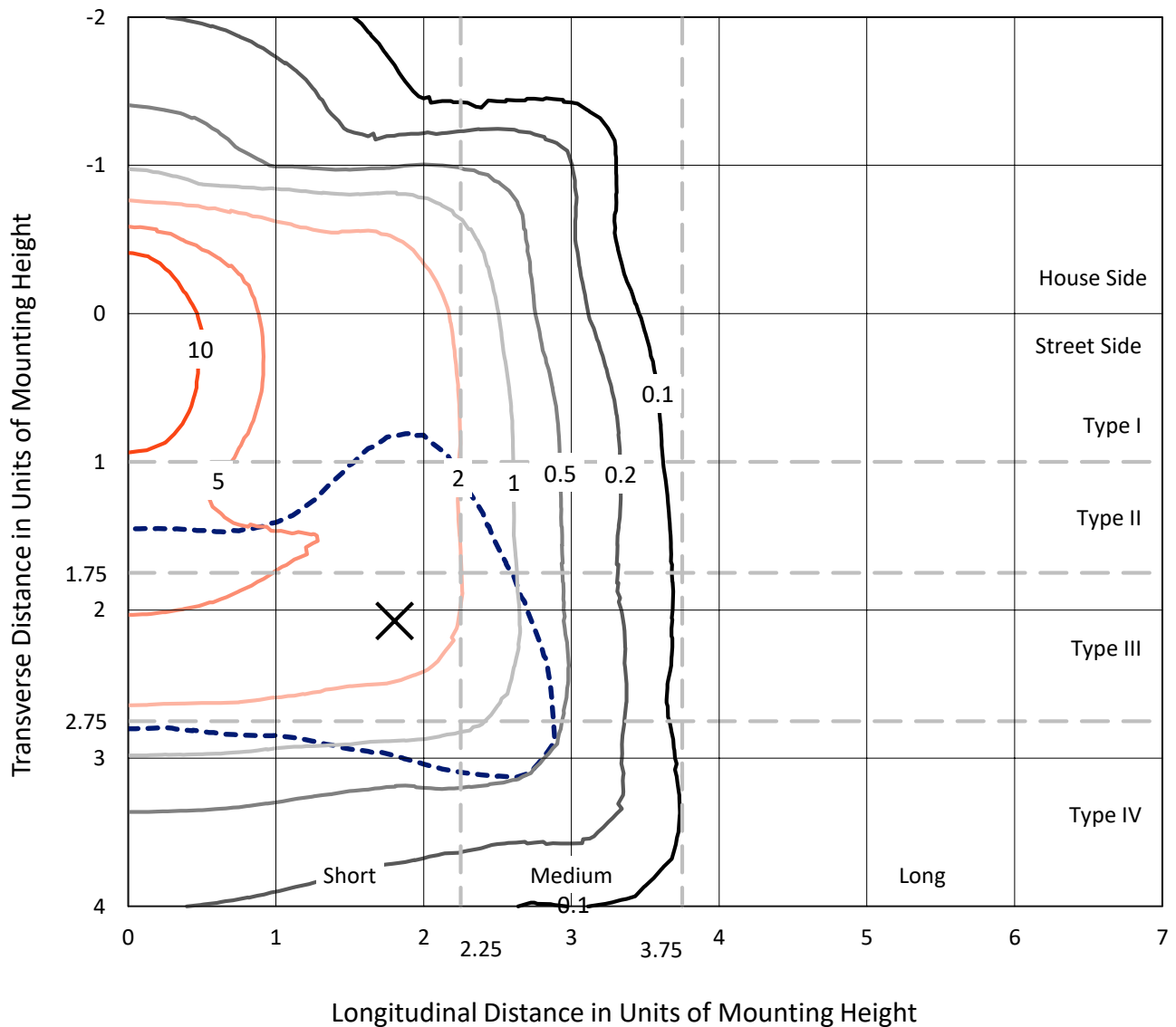
Input Watts (W): 75.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

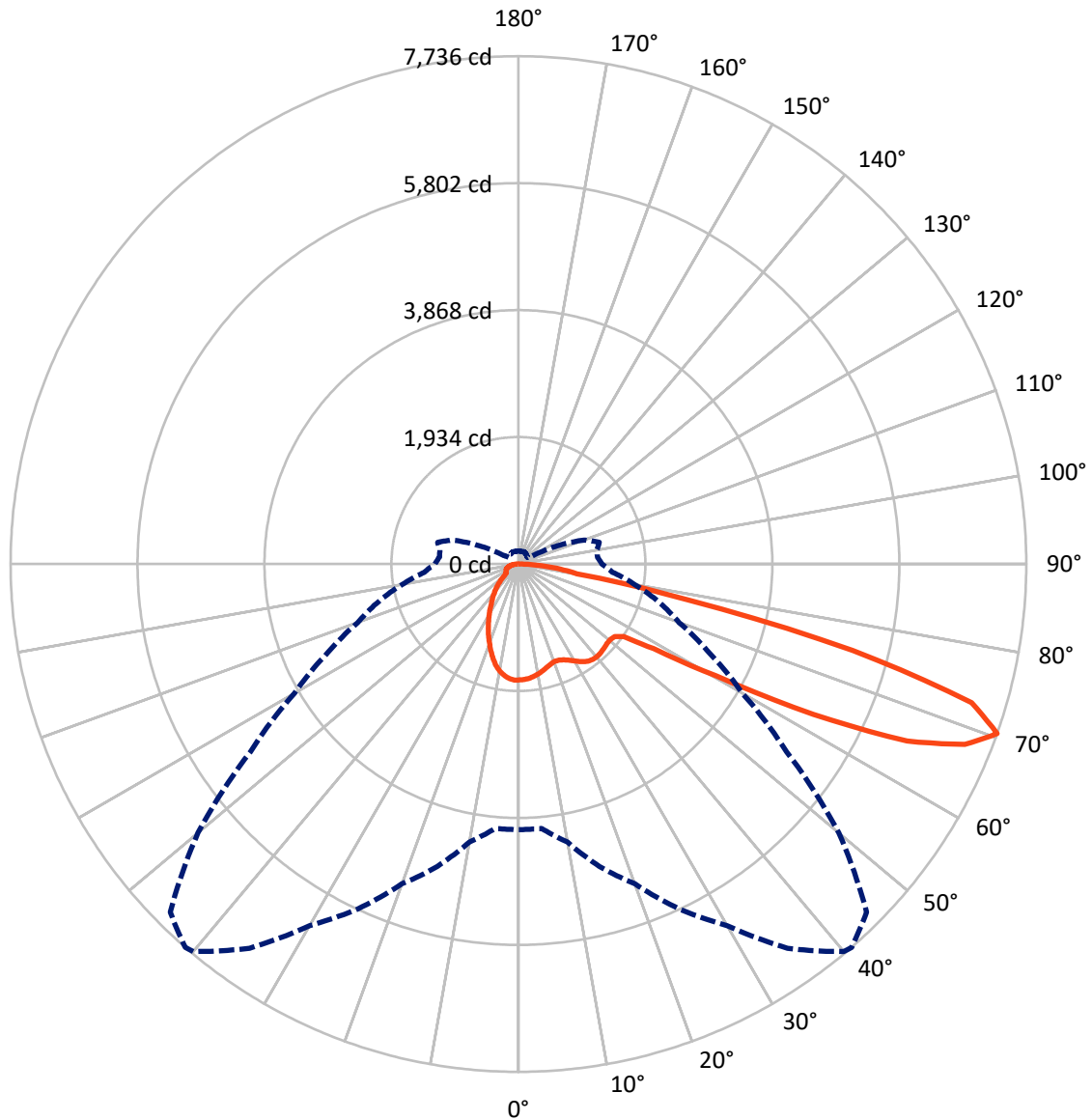
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 17.7 fc  
 Type IV - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 41-Deg Lateral      - - - Horizontal Cone Through 70-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1864.8	0.0	1864.8
	% Fixture	21.5	0.0	21.5
<b>Street Side</b>	Lumens	6826.8	0.0	6826.8
	% Fixture	78.5	0.0	78.5
<b>Total</b>	Lumens	8691.5	0.0	8691.5
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	164.3	1.9
10°-20°	440.5	5.1
20°-30°	636.8	7.3
30°-40°	810.5	9.3
40°-50°	955.1	11.0
50°-60°	1461.4	16.8
60°-70°	2716.2	31.3
70°-80°	1311.0	15.1
80°-90°	195.8	2.3
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°	8691.5	100.0
0°-180°	8691.5	100.0



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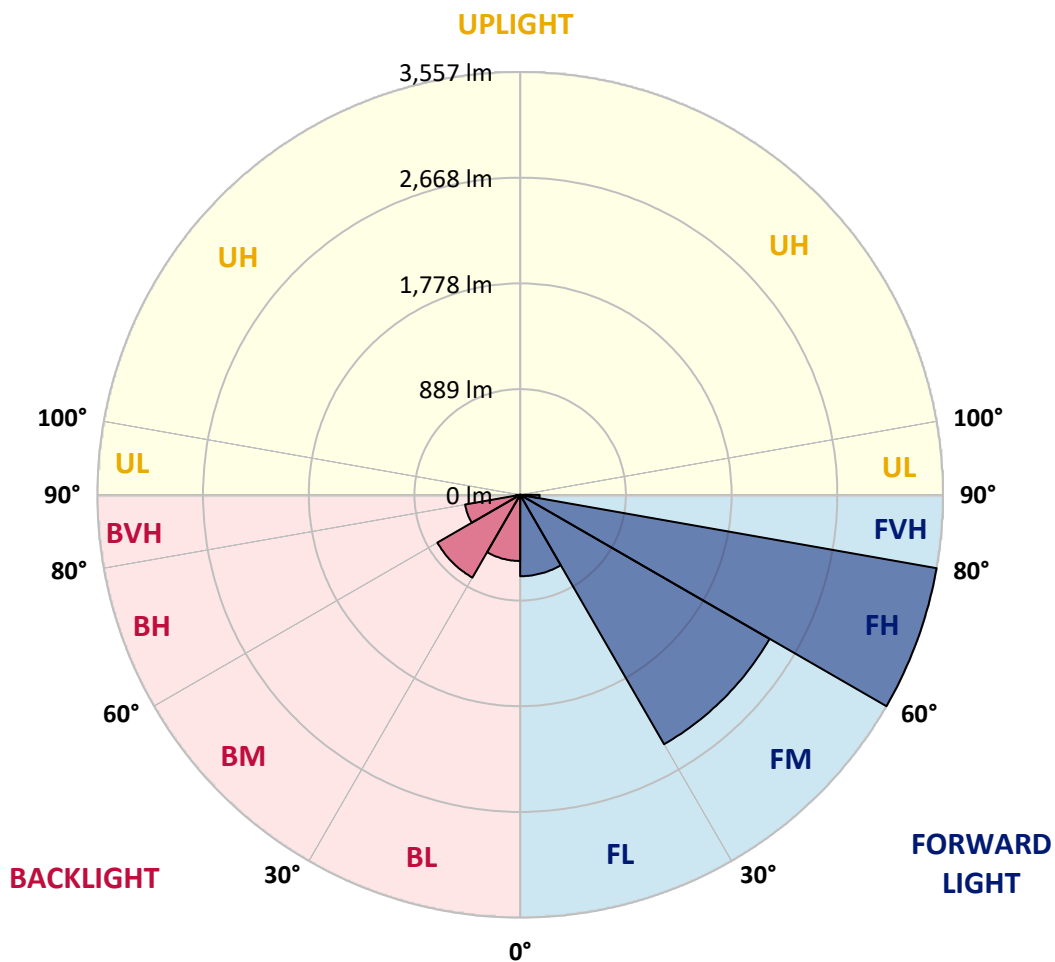
CATALOG NUMBER: ECM-E03-LED-E1-SL4-7060

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	684.6	7.9			
FM	(30°-60°)	2422.5	27.9			
FH	(60°-80°)	3556.9	40.9			G2/5000
FVH	(80°-90°)	162.7	1.9			G2/225
BL	(0°-30°)	557.0	6.4	B2/1000		
BM	(30°-60°)	804.5	9.3	B1/1000		
BH	(60°-80°)	470.2	5.4	B1/500		G1/500
BVH	(80°-90°)	33.0	0.4			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 IV Short



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	41°	45°
0°	1765.9	1765.9	1765.9	1765.9	1765.9	1765.9	1765.9	1765.9	1765.9	1765.9	1765.9
2.5°	1765.9	1768.0	1767.0	1764.9	1762.8	1763.9	1762.8	1761.8	1761.8	1760.8	1759.8
5°	1757.7	1761.8	1758.7	1756.7	1753.6	1753.6	1752.6	1750.5	1748.5	1747.5	1745.4
7.5°	1740.3	1744.4	1742.3	1740.3	1737.2	1735.1	1731.0	1729.0	1726.9	1725.9	1722.8
10°	1716.7	1718.7	1716.7	1712.6	1710.5	1709.5	1707.4	1703.3	1699.2	1697.2	1694.1
12.5°	1685.9	1686.9	1684.9	1682.8	1679.7	1679.7	1676.7	1673.6	1667.4	1665.4	1658.2
15°	1659.2	1656.1	1654.1	1653.1	1652.0	1646.9	1647.9	1642.8	1632.5	1629.5	1621.2
17.5°	1652.0	1649.0	1647.9	1644.8	1642.8	1636.6	1630.5	1620.2	1602.8	1599.7	1587.4
20°	1672.6	1672.6	1669.5	1667.4	1664.3	1653.1	1639.7	1620.2	1588.4	1581.2	1565.8
22.5°	1721.8	1716.7	1714.6	1714.6	1713.6	1697.2	1672.6	1641.8	1599.7	1590.5	1563.8
25°	1798.8	1789.5	1792.6	1791.6	1789.5	1765.9	1730.0	1685.9	1628.4	1616.1	1581.2
27.5°	1890.1	1892.1	1891.1	1887.0	1880.9	1855.2	1803.9	1744.4	1672.6	1660.2	1615.1
30°	1985.5	1987.6	1993.7	1990.6	1986.5	1947.5	1883.9	1819.3	1732.1	1715.6	1660.2
32.5°	2096.3	2103.5	2108.6	2109.7	2093.3	2039.9	1965.0	1882.9	1790.6	1774.1	1705.4
35°	2224.6	2220.5	2229.7	2225.6	2196.9	2124.0	2031.7	1934.2	1839.8	1818.3	1744.4
37.5°	2353.9	2359.0	2349.8	2332.3	2287.2	2191.8	2077.9	1968.1	1863.4	1842.9	1765.9
40°	2479.1	2476.0	2454.4	2424.7	2357.0	2234.9	2103.5	1983.5	1871.6	1850.1	1771.1
42.5°	2572.4	2564.2	2531.4	2483.2	2396.0	2255.4	2110.7	1983.5	1866.5	1843.9	1763.9
45°	2613.5	2605.3	2573.5	2511.9	2408.3	2251.3	2098.4	1966.0	1849.0	1829.5	1749.5
47.5°	2613.5	2610.4	2575.5	2516.0	2405.2	2240.0	2079.9	1944.5	1831.6	1812.1	1737.2
50°	2593.0	2590.9	2560.1	2501.6	2394.9	2233.8	2074.8	1940.4	1830.6	1811.1	1742.3
52.5°	2661.7	2648.4	2616.6	2548.8	2432.9	2259.5	2100.4	1960.9	1855.2	1835.7	1764.9
55°	3498.0	3486.7	3325.6	3042.4	2745.9	2475.0	2243.1	2083.0	1976.3	1946.5	1895.2
57.5°	4850.4	4834.0	4668.8	4411.2	3901.3	3321.5	2866.9	2600.2	2450.3	2428.8	2398.0
60°	5399.4	5393.2	5323.4	5218.8	5025.9	4726.2	4303.5	3860.2	3515.4	3460.0	3464.1
62.5°	5714.4	5699.0	5665.1	5639.5	5573.8	5451.7	5372.7	5248.5	5081.3	5043.3	4803.2
65°	5890.9	5888.8	5907.3	5928.8	5924.7	5961.7	6001.7	6238.7	6516.8	6504.5	6251.0
67.5°	5628.2	5645.6	5742.1	5889.8	6044.8	6209.0	6514.7	6989.8	7333.6	7333.6	7110.9
70°	4045.9	4042.9	4299.4	4767.3	5183.9	5797.5	6360.8	7143.7	7706.1	7735.8	7499.8
72.5°	2424.7	2481.1	2639.1	2851.5	3205.6	3948.5	4996.1	6402.9	7187.9	7219.7	6937.5
75°	1703.3	1661.3	1655.1	1667.4	1728.0	1910.6	2487.3	3930.0	5210.6	5259.8	4986.9
77.5°	1089.7	1080.5	1084.6	1097.9	1101.0	1118.5	1146.2	1347.3	2415.5	2651.5	2639.1
80°	939.9	936.8	937.9	922.5	892.7	881.4	916.3	888.6	863.0	898.9	849.6
82.5°	630.0	641.3	659.8	684.4	743.9	764.4	753.2	748.0	667.0	648.5	575.6
85°	466.9	460.7	467.9	467.9	452.5	437.1	448.4	437.1	386.8	362.2	320.1
87.5°	252.4	253.4	274.0	282.2	281.2	240.1	198.0	171.4	154.9	143.7	121.1
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):**

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	1765.9	1765.9	1765.9	1765.9	1765.9	1765.9	1765.9	1765.9	1765.9	1765.9	1765.9
2.5°	1760.8	1757.7	1758.7	1758.7	1757.7	1759.8	1756.7	1755.7	1756.7	1756.7	1756.7
5°	1743.4	1739.2	1739.2	1738.2	1736.2	1736.2	1732.1	1731.0	1729.0	1732.1	1730.0
7.5°	1718.7	1712.6	1707.4	1703.3	1701.3	1698.2	1693.1	1691.0	1689.0	1687.9	1685.9
10°	1689.0	1681.8	1671.5	1663.3	1659.2	1651.0	1644.8	1636.6	1636.6	1632.5	1628.4
12.5°	1653.1	1642.8	1632.5	1621.2	1614.1	1602.8	1592.5	1583.3	1576.1	1566.9	1560.7
15°	1617.1	1601.8	1590.5	1579.2	1565.8	1550.4	1538.1	1523.8	1510.4	1496.1	1492.0
17.5°	1578.2	1565.8	1555.6	1542.2	1527.9	1509.4	1493.0	1469.4	1453.0	1435.5	1422.2
20°	1552.5	1538.1	1526.8	1514.5	1499.1	1477.6	1456.0	1429.4	1404.7	1379.1	1359.6
22.5°	1539.2	1515.6	1505.3	1494.0	1478.6	1455.0	1430.4	1397.6	1366.8	1332.9	1302.1
25°	1544.3	1512.5	1492.0	1479.6	1466.3	1442.7	1410.9	1374.0	1339.1	1296.0	1261.1
27.5°	1566.9	1523.8	1492.0	1471.4	1457.1	1432.4	1399.6	1357.5	1315.5	1270.3	1228.2
30°	1596.6	1542.2	1501.2	1471.4	1449.9	1423.2	1387.3	1342.1	1296.0	1245.7	1197.5
32.5°	1630.5	1563.8	1514.5	1473.5	1438.6	1404.7	1367.8	1320.6	1272.4	1219.0	1171.8
35°	1657.2	1580.2	1523.8	1469.4	1423.2	1381.1	1338.0	1293.9	1245.7	1195.4	1145.1
37.5°	1672.6	1590.5	1523.8	1455.0	1398.6	1354.5	1309.3	1266.2	1220.0	1170.8	1126.7
40°	1678.7	1594.6	1517.6	1438.6	1372.9	1322.6	1280.6	1236.5	1195.4	1152.3	1113.3
42.5°	1675.6	1591.5	1509.4	1423.2	1352.4	1298.0	1251.8	1210.8	1176.9	1141.0	1108.2
45°	1663.3	1581.2	1501.2	1416.0	1345.2	1289.8	1242.6	1203.6	1171.8	1139.0	1113.3
47.5°	1653.1	1577.1	1506.3	1433.5	1365.7	1309.3	1258.0	1214.9	1188.2	1162.6	1146.2
50°	1661.3	1588.4	1517.6	1448.9	1383.2	1325.7	1273.4	1233.4	1218.0	1213.9	1208.8
52.5°	1683.8	1612.0	1552.5	1504.3	1474.5	1453.0	1399.6	1390.4	1377.0	1369.9	1352.4
55°	1830.6	1800.8	1854.2	1912.7	1922.9	1987.6	2013.2	2015.3	1992.7	1912.7	1725.9
57.5°	2427.8	2501.6	2524.2	2659.7	2696.6	2667.9	2628.9	2626.8	2557.1	2451.4	2179.4
60°	3494.9	3455.9	3407.7	3319.5	3236.3	3147.1	3023.9	2929.5	2840.3	2678.1	2391.9
62.5°	4611.3	4271.7	4024.4	3770.9	3565.7	3386.1	3207.6	3055.7	2911.1	2686.3	2379.5
65°	5580.0	4888.4	4386.6	4005.9	3687.8	3425.1	3188.1	2980.8	2798.2	2517.0	2206.1
67.5°	6210.0	5215.7	4465.6	3897.1	3447.7	3113.2	2764.3	2437.0	2257.4	2030.7	1872.6
70°	6371.1	4984.8	3938.2	3209.7	2604.3	2205.1	1793.6	1436.5	1271.3	1207.7	1212.9
72.5°	5747.2	3940.2	2792.0	2041.9	1598.7	1267.2	1030.2	792.2	618.7	519.2	506.9
75°	3754.5	2192.8	1325.7	923.5	734.7	584.9	460.7	387.9	334.5	269.9	225.7
77.5°	1419.1	835.2	595.1	485.3	359.1	250.4	195.0	164.2	150.8	146.7	132.4
80°	727.5	579.7	414.5	272.9	190.9	152.9	128.3	108.8	100.6	96.5	98.5
82.5°	490.5	365.3	228.8	164.2	132.4	113.9	90.3	75.9	67.7	66.7	71.8
85°	272.9	182.6	133.4	110.8	97.5	85.2	68.7	56.4	52.3	55.4	64.6
87.5°	85.2	84.1	60.5	49.3	51.3	44.1	32.8	24.6	24.6	31.8	45.1
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°	1765.9	1765.9	1765.9	1765.9	1765.9	1765.9	1765.9	1765.9	1765.9	1765.9	1765.9
2.5°	1756.7	1758.7	1762.8	1759.8	1760.8	1761.8	1764.9	1769.0	1765.9	1763.9	1770.0
5°	1732.1	1732.1	1737.2	1735.1	1739.2	1743.4	1745.4	1752.6	1750.5	1748.5	1756.7
7.5°	1686.9	1687.9	1695.1	1693.1	1701.3	1702.3	1710.5	1716.7	1716.7	1720.8	1728.0
10°	1629.5	1629.5	1635.6	1636.6	1641.8	1645.9	1655.1	1666.4	1668.4	1675.6	1685.9
12.5°	1564.8	1562.8	1567.9	1567.9	1572.0	1577.1	1587.4	1600.7	1602.8	1614.1	1627.4
15°	1484.8	1481.7	1479.6	1481.7	1483.7	1484.8	1500.2	1513.5	1521.7	1534.0	1547.4
17.5°	1407.8	1396.5	1391.4	1391.4	1392.4	1392.4	1398.6	1414.0	1425.3	1444.8	1464.3
20°	1339.1	1319.6	1312.4	1296.0	1292.9	1285.7	1290.8	1308.3	1328.8	1344.2	1359.6
22.5°	1274.4	1253.9	1233.4	1213.9	1198.5	1189.3	1198.5	1209.8	1217.0	1229.3	1233.4
25°	1225.2	1191.3	1162.6	1131.8	1115.4	1107.2	1106.1	1105.1	1099.0	1096.9	1096.9
27.5°	1186.2	1146.2	1103.1	1069.2	1046.6	1031.2	1013.8	1001.5	986.1	965.6	955.3
30°	1153.3	1110.2	1063.0	1023.0	994.3	964.5	928.6	900.9	873.2	848.6	827.0
32.5°	1123.6	1079.5	1033.3	991.2	942.0	890.7	845.5	812.7	764.4	731.6	703.9
35°	1101.0	1056.9	1013.8	958.4	890.7	825.0	766.5	718.3	669.0	625.9	589.0
37.5°	1084.6	1047.7	1001.5	926.6	841.4	762.4	700.8	643.4	584.9	526.4	480.2
40°	1079.5	1047.7	989.2	891.7	794.2	709.0	638.2	567.4	502.8	440.2	393.0
42.5°	1082.5	1048.7	969.7	860.9	755.2	662.9	582.8	500.7	423.8	357.1	309.9
45°	1093.8	1048.7	949.1	827.0	719.3	620.8	525.4	427.9	338.6	285.3	264.7
47.5°	1127.7	1055.9	932.7	802.4	687.5	574.6	460.7	349.9	274.0	251.4	251.4
50°	1180.0	1077.4	930.7	783.9	651.6	521.3	380.7	276.0	242.2	241.1	247.3
52.5°	1269.3	1115.4	940.9	771.6	613.6	449.4	296.5	238.1	230.9	237.0	246.3
55°	1442.7	1182.1	955.3	749.1	550.0	352.0	243.2	225.7	228.8	236.0	244.2
57.5°	1759.8	1316.5	970.7	700.8	445.3	266.8	220.6	221.6	226.8	234.0	241.1
60°	1978.3	1482.7	1001.5	619.8	331.4	220.6	211.4	219.6	225.7	230.9	237.0
62.5°	1996.8	1543.3	1024.1	528.4	246.3	201.1	203.2	215.5	223.7	225.7	228.8
65°	1886.0	1465.3	959.4	436.1	204.2	190.9	198.0	209.3	217.5	218.6	221.6
67.5°	1643.8	1302.1	818.8	331.4	186.8	183.7	191.9	199.1	205.2	210.4	214.5
70°	1273.4	1063.0	658.8	257.6	173.4	172.4	179.6	187.8	193.9	199.1	205.2
72.5°	671.1	755.2	490.5	206.2	159.0	160.1	167.3	174.4	178.5	183.7	189.8
75°	208.3	320.1	302.7	165.2	141.6	145.7	149.8	156.0	163.2	166.2	169.3
77.5°	123.1	130.3	158.0	129.3	123.1	126.2	131.3	136.5	141.6	145.7	148.8
80°	99.5	101.6	102.6	102.6	102.6	106.7	110.8	118.0	122.1	124.2	125.2
82.5°	78.0	83.1	84.1	82.1	85.2	89.3	91.3	95.4	96.5	98.5	100.6
85°	64.6	63.6	65.7	66.7	62.6	62.6	60.5	60.5	64.6	71.8	72.9
87.5°	50.3	44.1	35.9	33.9	31.8	29.8	27.7	27.7	28.7	32.8	35.9
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):**

	160°	165°	170°	175°	180°
0°	1765.9	1765.9	1765.9	1765.9	1765.9
2.5°	1770.0	1769.0	1771.1	1774.1	1772.1
5°	1757.7	1757.7	1761.8	1764.9	1762.8
7.5°	1733.1	1734.1	1740.3	1744.4	1742.3
10°	1694.1	1696.2	1703.3	1709.5	1712.6
12.5°	1635.6	1642.8	1652.0	1658.2	1658.2
15°	1561.7	1573.0	1583.3	1592.5	1587.4
17.5°	1477.6	1490.9	1504.3	1509.4	1504.3
20°	1376.0	1377.0	1385.2	1390.4	1388.3
22.5°	1237.5	1233.4	1237.5	1239.5	1242.6
25°	1095.9	1088.7	1084.6	1090.8	1093.8
27.5°	951.2	940.9	944.0	936.8	928.6
30°	810.6	801.4	790.1	787.0	792.2
32.5°	686.5	662.9	653.6	636.2	643.4
35°	555.1	531.5	508.9	502.8	498.7
37.5°	447.4	418.7	390.9	381.7	379.7
40°	349.9	326.3	307.8	302.7	300.6
42.5°	284.2	274.0	270.9	270.9	271.9
45°	259.6	260.6	263.7	265.8	266.8
47.5°	254.5	258.6	262.7	266.8	267.8
50°	254.5	257.6	260.6	264.7	265.8
52.5°	252.4	255.5	256.5	258.6	260.6
55°	250.4	251.4	251.4	252.4	254.5
57.5°	245.2	246.3	244.2	245.2	249.3
60°	240.1	241.1	239.1	241.1	242.2
62.5°	232.9	232.9	231.9	232.9	234.0
65°	224.7	221.6	223.7	222.7	223.7
67.5°	214.5	210.4	209.3	209.3	210.4
70°	200.1	197.0	196.0	198.0	200.1
72.5°	182.6	184.7	187.8	190.9	196.0
75°	170.3	173.4	177.5	187.8	195.0
77.5°	152.9	151.9	156.0	167.3	177.5
80°	127.2	128.3	127.2	130.3	132.4
82.5°	97.5	96.5	93.4	93.4	91.3
85°	68.7	65.7	61.6	60.5	59.5
87.5°	34.9	36.9	33.9	30.8	30.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)