

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: P140766

Luminaire Tested: **ECM-F03-LED-E1-RW-7050**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P140766  
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-F03-LED-E1-RW-7050  
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE  
(3) LIGHTBARS WITH AccuLED OPTICS - RECTANGULAR WIDE  
Light Source: (21) 5000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7515.2 lumens  
Efficiency: N/A  
Efficacy: 96.0 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type I - Short - Full Cutoff  
BUG Rating: B3 - U0 - G3

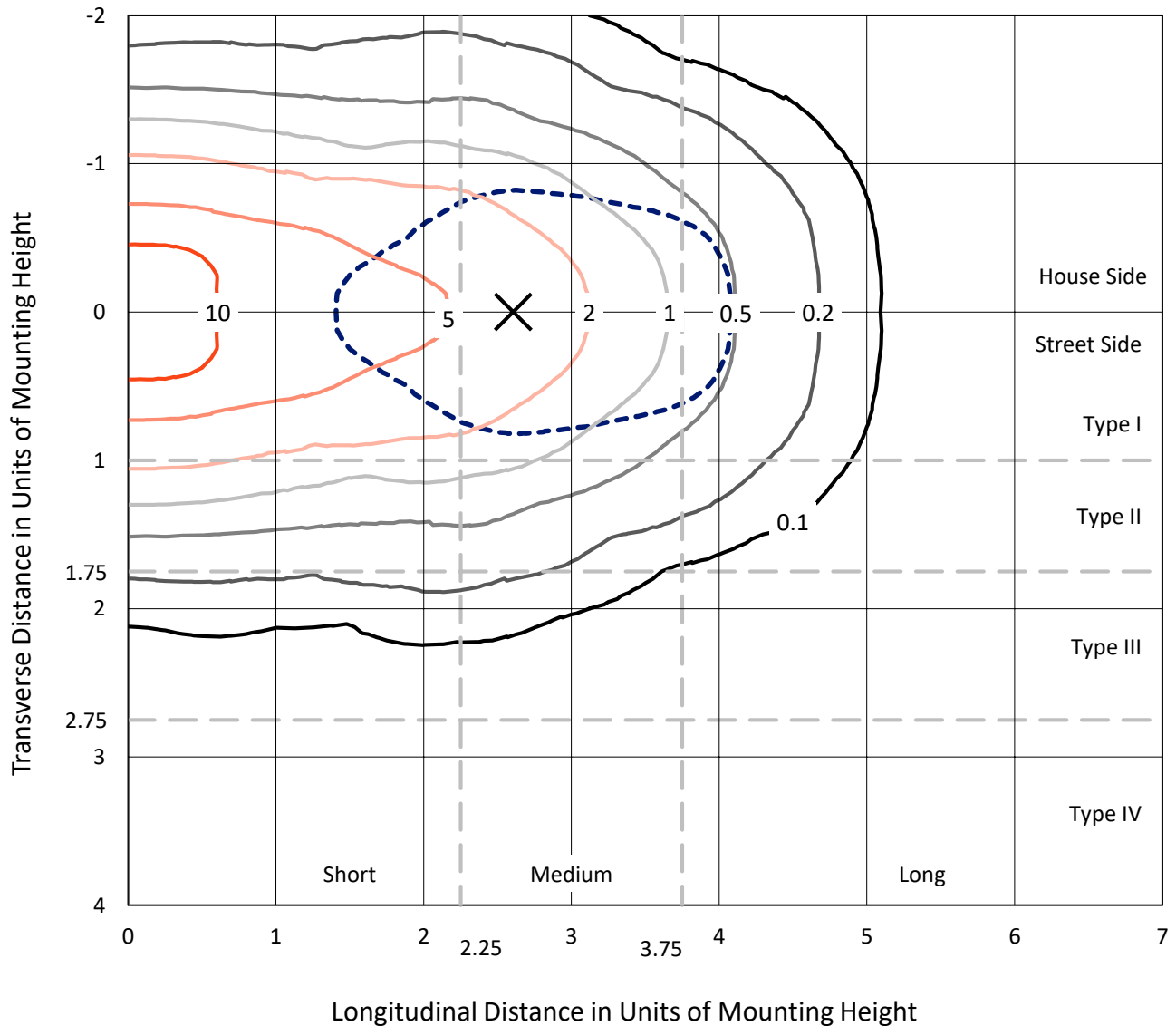
Input Watts (W): 78.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

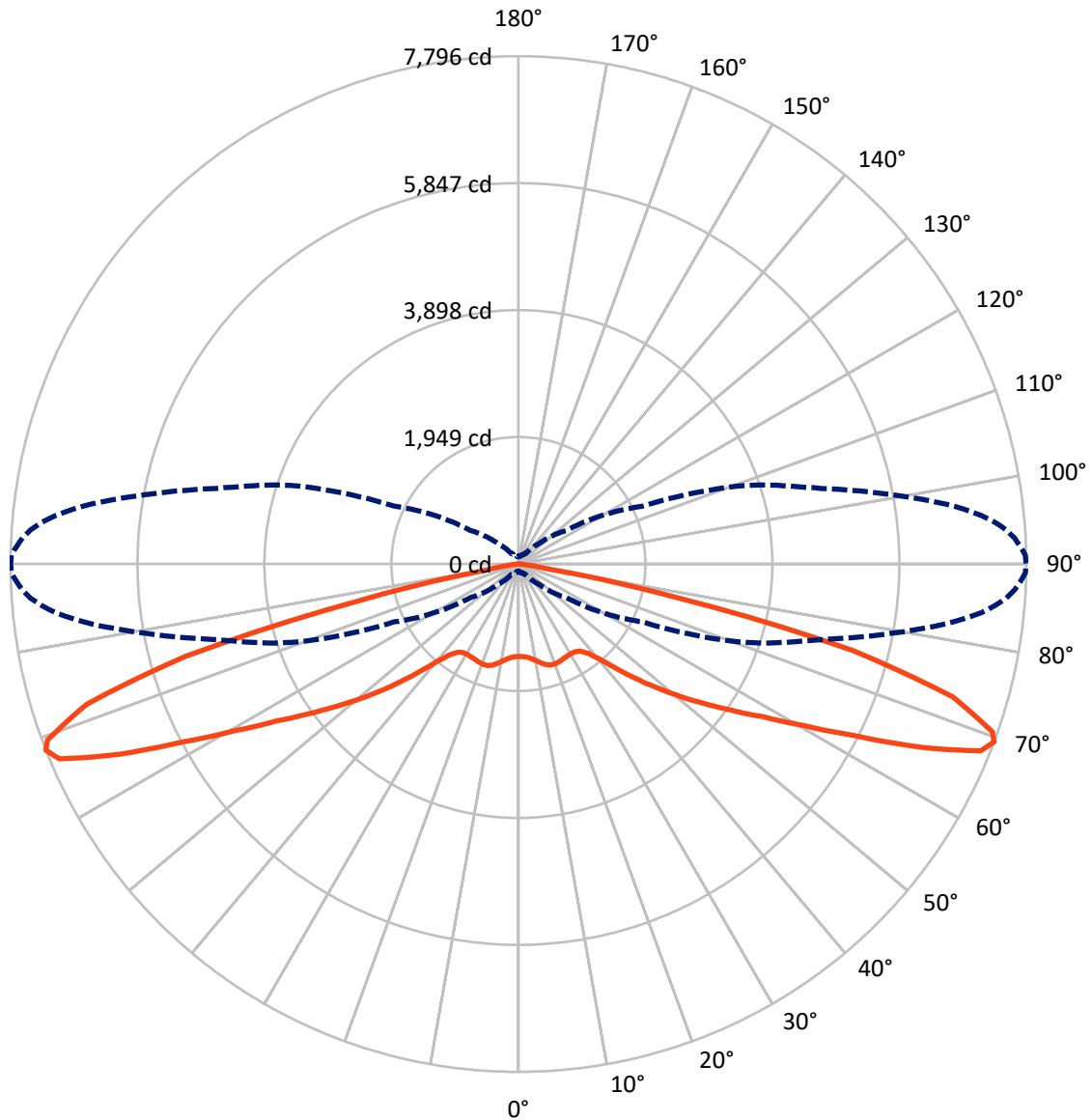
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 14.5 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	3757.6	0.0	3757.6
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	3757.6	0.0	3757.6
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	7515.2	0.0	7515.2
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	138.9	1.8
10°-20°	436.7	5.8
20°-30°	706.3	9.4
30°-40°	882.2	11.7
40°-50°	1103.4	14.7
50°-60°	1359.7	18.1
60°-70°	1683.3	22.4
70°-80°	1100.2	14.6
80°-90°	104.5	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°	7515.2	100.0
0°-180°	7515.2	100.0



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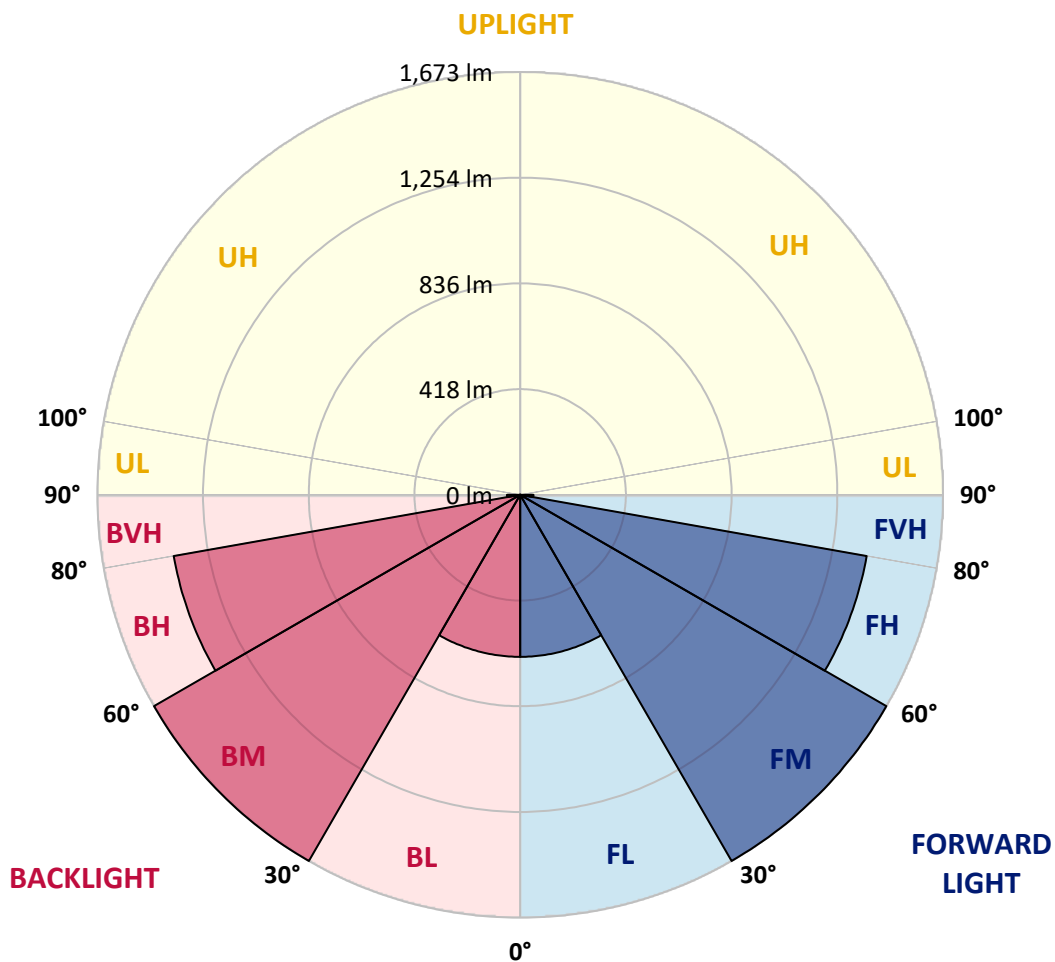
CATALOG NUMBER: ECM-F03-LED-E1-RW-7050

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	641.0	8.5			
FM (30°-60°)	1672.6	22.3			
FH (60°-80°)	1391.8	18.5			G1/1800
FVH (80°-90°)	52.3	0.7			G1/100
BL (0°-30°)	641.0	8.5	B2/1000		
BM (30°-60°)	1672.6	22.3	B2/2500		
BH (60°-80°)	1391.8	18.5	B3/2500		G3/2500
BVH (80°-90°)	52.3	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°	1418.9	1418.9	1418.9	1418.9	1418.9	1418.9	1418.9	1418.9	1418.9	1418.9	1418.9
2.5°	1428.2	1429.0	1426.4	1427.3	1428.2	1427.3	1426.0	1426.1	1425.7	1425.2	1424.8
5°	1437.5	1437.9	1436.6	1438.8	1439.2	1440.4	1440.5	1440.8	1440.6	1440.4	1440.1
7.5°	1450.6	1452.3	1451.0	1454.0	1457.0	1461.2	1463.4	1468.4	1468.3	1468.2	1468.2
10°	1462.9	1464.6	1464.6	1471.4	1478.6	1486.6	1495.1	1503.2	1503.6	1504.2	1504.6
12.5°	1472.2	1473.4	1475.6	1487.9	1504.0	1517.6	1532.4	1545.0	1545.6	1546.1	1546.6
15°	1468.4	1471.4	1481.1	1500.6	1529.0	1551.4	1569.6	1584.9	1585.9	1586.9	1587.9
17.5°	1455.2	1459.9	1473.9	1507.0	1550.6	1586.6	1608.2	1612.4	1613.1	1613.8	1614.4
20°	1426.9	1433.7	1455.7	1502.7	1567.1	1615.8	1637.4	1629.8	1629.1	1628.4	1627.8
22.5°	1379.4	1388.4	1415.9	1482.8	1568.4	1636.9	1658.2	1636.9	1634.6	1632.2	1629.8
25°	1315.9	1323.2	1354.4	1433.7	1548.9	1640.8	1671.3	1641.6	1637.8	1634.0	1630.2
27.5°	1238.8	1244.8	1283.8	1368.0	1500.6	1621.3	1679.8	1649.7	1644.8	1639.9	1634.9
30°	1152.0	1157.1	1199.9	1289.7	1432.8	1578.5	1678.9	1667.9	1662.0	1656.2	1650.4
32.5°	1065.6	1067.8	1105.9	1204.6	1357.4	1515.4	1665.0	1695.8	1690.2	1684.5	1678.8
35°	970.8	977.6	1018.2	1125.8	1272.3	1446.0	1646.3	1734.8	1731.6	1728.4	1725.2
37.5°	894.5	896.6	940.2	1052.0	1203.3	1382.8	1622.6	1784.8	1787.1	1789.4	1791.7
40°	818.3	818.2	861.5	977.6	1134.2	1326.1	1602.7	1846.2	1857.8	1869.4	1881.0
42.5°	734.8	740.8	783.1	898.8	1067.4	1277.8	1592.5	1919.9	1941.8	1963.6	1985.5
45°	656.9	660.7	703.9	817.1	983.9	1222.8	1589.6	2002.1	2035.3	2068.5	2101.7
47.5°	580.2	585.8	626.8	730.6	892.8	1149.5	1585.8	2095.7	2138.1	2180.6	2223.0
50°	509.1	512.4	558.2	652.7	803.0	1054.6	1560.8	2200.3	2252.1	2304.0	2355.8
52.5°	433.7	440.5	478.2	575.6	712.4	952.6	1495.1	2314.2	2376.9	2439.6	2502.3
55°	355.0	353.2	398.6	490.0	633.2	854.7	1373.9	2412.9	2488.5	2564.2	2639.8
57.5°	260.0	265.6	307.0	399.8	541.3	772.6	1231.2	2464.1	2558.5	2652.9	2747.2
60°	186.4	194.0	230.0	303.2	449.8	692.1	1085.6	2428.6	2553.6	2678.7	2803.7
62.5°	145.7	149.1	180.0	227.4	350.7	607.8	987.6	2336.2	2508.6	2681.0	2853.4
65°	127.1	130.9	158.4	183.0	266.5	527.8	928.9	2262.6	2490.1	2717.6	2945.1
67.5°	115.6	120.3	144.0	161.0	218.6	459.6	914.8	2202.4	2469.3	2736.2	3003.1
69°	110.1	114.8	136.8	152.4	202.9	438.0	898.8	2101.2	2372.0	2643.0	2913.9
70°	107.6	111.4	132.6	147.4	197.8	425.2	862.4	1985.5	2247.4	2509.2	2771.0
72.5°	99.1	101.2	120.7	135.1	187.2	355.8	683.2	1486.2	1705.0	1923.8	2142.6
75°	87.6	91.0	108.8	123.7	150.4	227.9	448.1	898.3	1060.4	1222.4	1384.4
77.5°	75.4	78.4	93.6	118.2	115.6	138.0	257.5	501.8	589.4	677.1	764.6
80°	65.2	68.2	82.2	109.6	94.0	102.1	173.6	327.3	360.6	393.9	427.2
82.5°	51.2	53.4	69.1	89.4	72.8	75.8	130.0	285.8	305.9	326.0	346.1
85°	32.6	33.8	50.4	61.0	50.8	44.9	81.7	209.6	225.5	241.3	257.2
87.5°	11.4	16.1	22.4	21.2	21.2	16.1	28.8	77.5	83.7	89.9	96.1
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):**

	69°	70°	71°	72°	73°	74°	75°	76°	77°	78°	79°
0°	1418.9	1418.9	1418.9	1418.9	1418.9	1418.9	1418.9	1418.9	1418.9	1418.9	1418.9
2.5°	1424.4	1424.0	1424.4	1424.4	1423.9	1423.6	1423.5	1423.1	1422.2	1422.2	1421.8
5°	1439.8	1439.6	1440.4	1440.1	1440.4	1440.1	1440.0	1439.6	1440.0	1438.4	1438.0
7.5°	1468.1	1468.0	1468.0	1469.2	1468.4	1468.0	1468.8	1468.8	1468.8	1468.0	1468.0
10°	1505.2	1505.6	1506.6	1507.4	1507.4	1507.4	1509.1	1507.8	1510.4	1507.8	1509.0
12.5°	1547.1	1547.6	1549.7	1550.6	1551.4	1551.4	1551.4	1553.9	1555.6	1555.2	1555.6
15°	1588.9	1589.9	1590.4	1591.7	1591.6	1592.0	1593.8	1596.8	1595.8	1597.6	1597.6
17.5°	1615.1	1615.8	1615.4	1615.4	1616.2	1617.5	1619.2	1620.8	1620.4	1621.7	1622.6
20°	1627.1	1626.4	1625.1	1624.2	1623.8	1624.7	1624.7	1625.2	1625.9	1626.0	1626.0
22.5°	1627.5	1625.1	1622.2	1620.4	1618.4	1617.1	1617.9	1617.0	1617.1	1617.1	1616.2
25°	1626.4	1622.6	1617.9	1614.6	1611.2	1609.1	1606.9	1606.0	1604.4	1604.4	1604.4
27.5°	1630.0	1625.1	1620.4	1614.1	1609.4	1606.9	1604.0	1601.0	1599.2	1597.6	1597.6
30°	1644.5	1638.6	1632.8	1625.1	1618.8	1616.6	1611.1	1608.2	1604.0	1601.8	1600.9
32.5°	1673.2	1667.5	1659.4	1651.0	1645.8	1639.5	1634.8	1628.5	1623.9	1620.9	1617.1
35°	1722.0	1718.8	1712.0	1706.4	1698.8	1691.6	1682.3	1678.9	1669.2	1667.4	1662.8
37.5°	1794.0	1796.2	1795.0	1790.8	1785.6	1779.3	1775.4	1768.3	1764.4	1760.6	1756.4
40°	1892.6	1904.2	1908.0	1912.7	1914.0	1919.4	1913.1	1912.3	1907.2	1911.4	1908.9
42.5°	2007.3	2029.2	2041.0	2055.0	2070.2	2084.2	2095.2	2113.9	2111.8	2126.2	2136.4
45°	2134.9	2168.1	2198.6	2221.9	2251.1	2283.3	2311.7	2338.0	2367.6	2384.5	2409.5
47.5°	2265.4	2307.8	2351.5	2394.7	2436.2	2477.7	2528.5	2574.6	2619.6	2650.1	2688.6
50°	2407.6	2459.4	2512.0	2565.0	2623.8	2689.0	2745.8	2806.0	2867.8	2930.4	2974.5
52.5°	2565.0	2627.6	2684.8	2740.7	2813.5	2882.6	2956.3	3031.7	3125.2	3193.5	3254.0
55°	2715.4	2791.1	2853.8	2920.8	2997.0	3073.6	3163.8	3258.3	3357.4	3455.6	3544.6
57.5°	2841.6	2936.0	3010.5	3077.0	3158.8	3247.2	3344.2	3461.2	3574.2	3696.2	3811.0
60°	2928.7	3053.8	3143.5	3223.6	3318.4	3416.7	3543.4	3681.4	3830.0	3981.7	4129.0
62.5°	3025.8	3198.2	3321.0	3435.3	3547.6	3656.8	3799.6	3971.0	4172.7	4356.1	4551.4
65°	3172.6	3400.2	3581.4	3727.2	3886.4	4045.6	4212.1	4412.4	4641.6	4909.2	5136.6
67.5°	3270.0	3537.0	3767.4	3976.2	4162.1	4355.6	4565.8	4805.5	5082.0	5355.2	5638.2
69°	3184.8	3455.6	3699.2	3929.2	4132.8	4341.2	4554.8	4796.2	5078.6	5380.6	5679.2
70°	3032.9	3294.7	3546.3	3788.5	3987.6	4205.3	4415.4	4645.4	4931.7	5233.7	5558.5
72.5°	2361.4	2580.2	2838.6	3072.4	3310.0	3508.6	3698.4	3929.2	4218.0	4505.6	4822.0
75°	1546.5	1708.6	1944.9	2137.2	2342.6	2528.9	2666.6	2895.8	3071.0	3341.7	3635.6
77.5°	852.2	939.9	1062.6	1219.4	1307.8	1413.0	1550.6	1634.0	1758.5	1947.8	2036.0
80°	460.6	493.8	545.5	578.1	604.4	578.6	564.6	589.6	579.0	576.0	547.6
82.5°	366.2	386.3	413.0	432.0	419.7	364.2	305.4	262.6	235.1	197.8	169.4
85°	273.0	288.8	299.0	311.7	309.6	280.0	224.0	173.2	136.0	108.4	94.4
87.5°	102.3	108.4	111.4	135.6	124.5	118.2	92.0	66.9	51.2	37.2	30.1
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):**

	80°	81°	82°	83°	84°	85°	86°	87°	88°	89°	90°
0°	1418.9	1418.9	1418.9	1418.9	1418.9	1418.9	1418.9	1418.9	1418.9	1418.9	1418.9
2.5°	1422.7	1422.2	1422.2	1422.2	1422.6	1421.8	1421.0	1421.8	1421.4	1421.4	1421.4
5°	1439.6	1439.2	1439.2	1439.6	1439.2	1439.6	1439.1	1437.4	1438.4	1438.8	1439.2
7.5°	1468.8	1468.4	1468.4	1470.6	1470.1	1469.6	1469.2	1470.1	1468.8	1468.8	1469.7
10°	1509.0	1510.8	1510.4	1511.6	1511.2	1510.4	1509.5	1510.3	1511.6	1512.0	1510.3
12.5°	1558.2	1558.6	1557.8	1559.8	1558.6	1561.6	1558.2	1559.9	1561.6	1559.0	1560.3
15°	1598.0	1598.0	1599.7	1600.1	1599.7	1600.6	1603.1	1601.8	1600.6	1602.6	1603.5
17.5°	1622.1	1623.4	1623.8	1624.2	1625.1	1625.9	1626.4	1625.9	1626.4	1627.2	1628.9
20°	1627.6	1627.2	1628.0	1628.5	1629.8	1629.8	1630.6	1630.2	1631.4	1631.9	1632.3
22.5°	1617.9	1618.4	1618.8	1620.0	1619.6	1620.4	1620.9	1622.1	1621.8	1622.6	1623.0
25°	1604.8	1605.6	1606.0	1605.6	1605.6	1606.0	1606.5	1606.0	1607.8	1608.6	1608.6
27.5°	1596.3	1596.4	1597.6	1597.2	1596.3	1597.2	1596.8	1596.8	1596.8	1597.2	1598.4
30°	1599.7	1598.4	1597.6	1597.6	1597.2	1596.3	1595.4	1594.2	1594.2	1594.6	1594.2
32.5°	1617.9	1615.4	1614.1	1612.8	1612.0	1609.9	1607.3	1606.4	1604.4	1604.4	1603.5
35°	1664.5	1661.6	1661.6	1656.9	1654.4	1653.1	1651.0	1644.6	1645.0	1642.5	1641.6
37.5°	1757.3	1752.2	1750.0	1754.3	1746.2	1749.6	1742.4	1739.4	1741.2	1736.5	1739.0
40°	1913.2	1921.2	1917.8	1922.4	1924.6	1925.4	1925.4	1918.2	1925.4	1914.0	1917.8
42.5°	2138.0	2159.2	2166.8	2169.4	2182.5	2179.1	2175.2	2174.8	2174.4	2180.0	2177.0
45°	2420.9	2423.9	2459.9	2466.6	2473.9	2482.0	2479.8	2489.1	2495.9	2486.6	2487.9
47.5°	2710.2	2740.3	2766.6	2781.0	2796.6	2788.5	2794.9	2798.8	2822.8	2820.3	2818.2
50°	3028.7	3079.1	3093.1	3108.8	3121.0	3145.6	3143.5	3158.3	3155.8	3175.7	3178.2
52.5°	3330.7	3386.2	3442.6	3467.1	3485.7	3514.1	3525.1	3541.2	3535.3	3533.6	3548.4
55°	3631.0	3723.8	3788.1	3851.2	3886.4	3924.0	3940.2	3963.0	3973.2	3977.8	3959.2
57.5°	3928.8	4040.1	4149.0	4226.9	4281.2	4337.8	4368.0	4392.9	4422.2	4431.9	4422.6
60°	4276.9	4440.0	4582.7	4686.8	4786.8	4848.6	4913.4	4960.9	4969.8	5010.0	5035.9
62.5°	4740.6	4939.3	5120.2	5271.8	5426.8	5542.4	5659.3	5705.9	5752.1	5783.4	5802.5
65°	5373.0	5634.8	5884.6	6100.2	6290.4	6482.6	6619.0	6690.6	6782.6	6800.8	6780.8
67.5°	5927.4	6236.2	6546.6	6821.1	7026.5	7226.0	7387.8	7506.4	7592.4	7634.6	7652.5
69°	5988.4	6302.2	6619.4	6893.1	7141.7	7340.8	7506.4	7624.2	7709.6	7783.0	7795.6
70°	5863.4	6215.8	6524.2	6800.3	7056.6	7259.4	7407.6	7542.4	7639.8	7696.1	7716.0
72.5°	5147.2	5464.0	5775.4	6093.5	6313.2	6556.8	6678.8	6786.8	6916.4	6990.0	6974.0
75°	3900.8	4174.8	4446.3	4684.4	4853.8	4943.5	5086.3	5190.9	5171.8	5295.9	5299.3
77.5°	2200.3	2235.8	2420.0	2395.5	2476.9	2479.0	2500.2	2537.0	2466.2	2611.6	2507.3
80°	533.6	526.4	564.6	519.7	515.8	512.0	499.4	524.4	527.7	501.9	506.6
82.5°	156.7	149.9	147.0	143.1	149.6	147.4	148.6	149.5	153.8	148.2	154.2
85°	86.0	80.8	80.4	78.4	78.0	73.3	72.8	72.8	69.9	70.7	70.3
87.5°	33.0	31.0	29.2	28.0	27.6	26.3	25.0	22.9	20.3	18.2	16.9
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)