

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: P141248

Luminaire Tested: **ECM-E04-LED-E1-SL4-8030**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P141248
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-E04-LED-E1-SL4-8030
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL
Light Source: (84) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9532 lumens
Efficiency: N/A
Efficacy: 98.1 lumens/watt
Luminous Opening: Rectangular (W 0.67' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B2 - U0 - G2

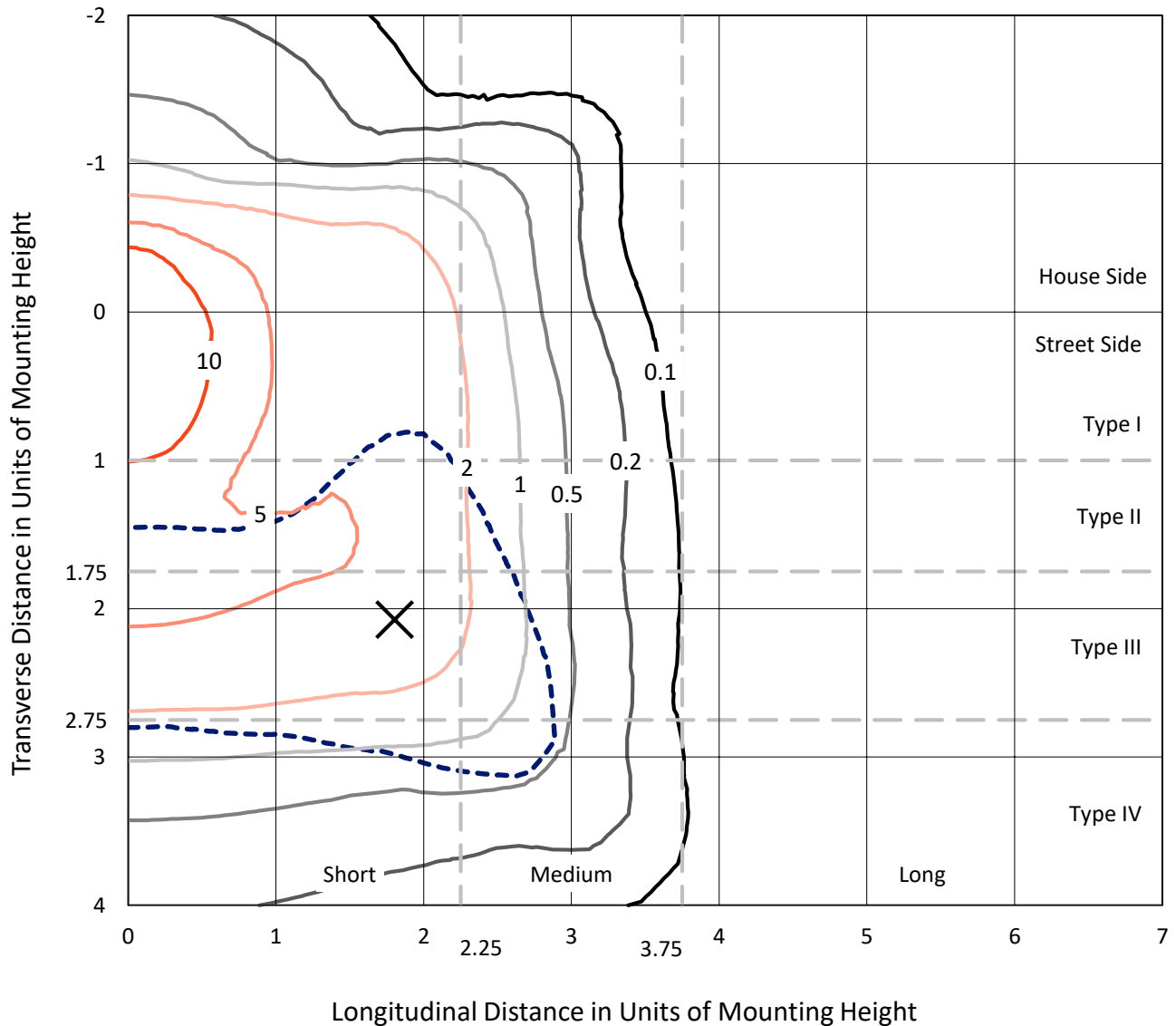
Input Watts (W): 97.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

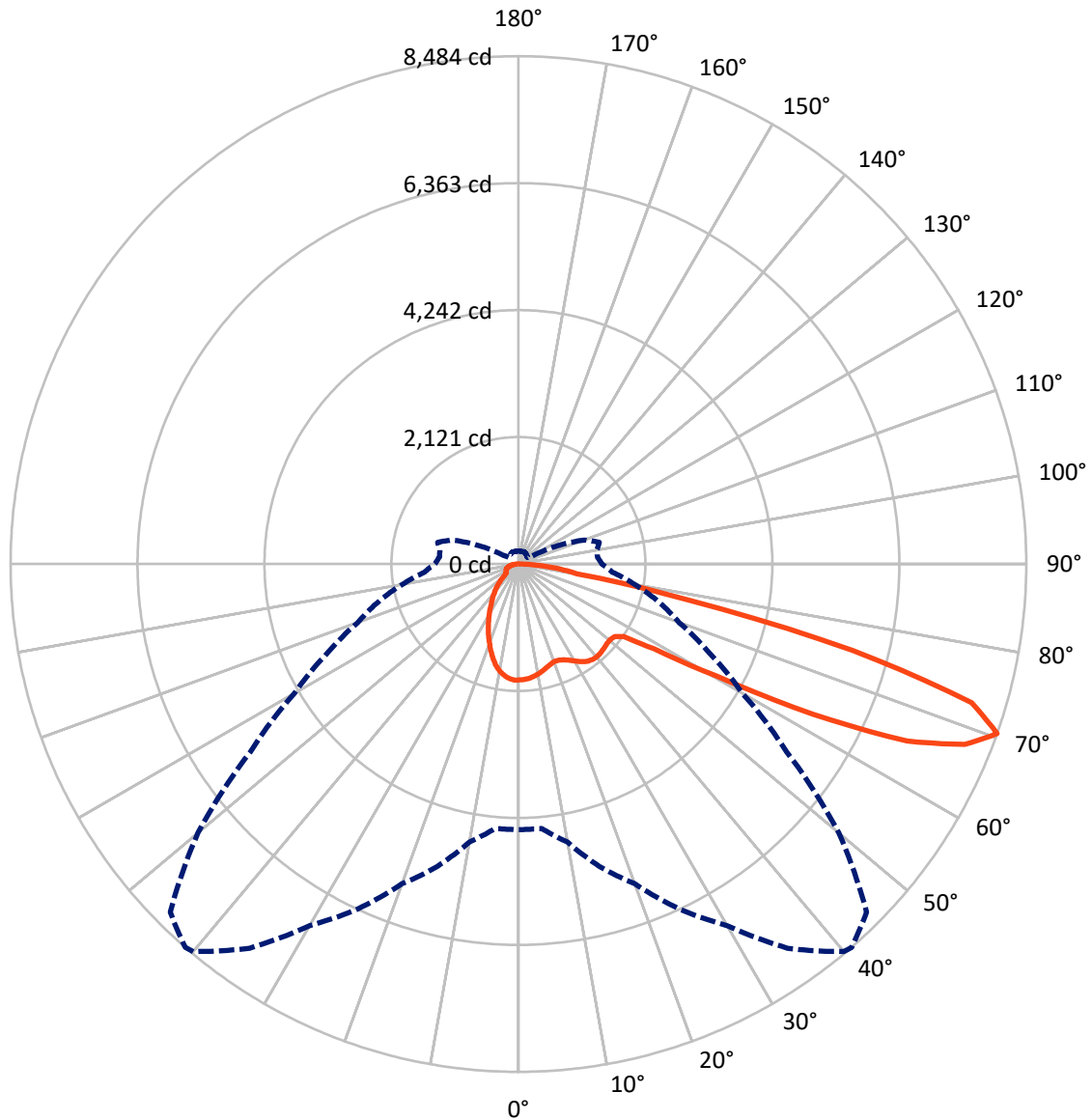
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 19.4 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
House Side	Lumens	2045.1	0.0	2045.1
	% Fixture	21.5	0.0	21.5
Street Side	Lumens	7486.9	0.0	7486.9
	% Fixture	78.5	0.0	78.5
Total	Lumens	9532.0	0.0	9532.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	180.2	1.9
10°-20°	483.1	5.1
20°-30°	698.4	7.3
30°-40°	888.9	9.3
40°-50°	1047.5	11.0
50°-60°	1602.7	16.8
60°-70°	2978.8	31.3
70°-80°	1437.7	15.1
80°-90°	214.7	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°	9532.0	100.0
0°-180°	9532.0	100.0

Coefficient of Utilization



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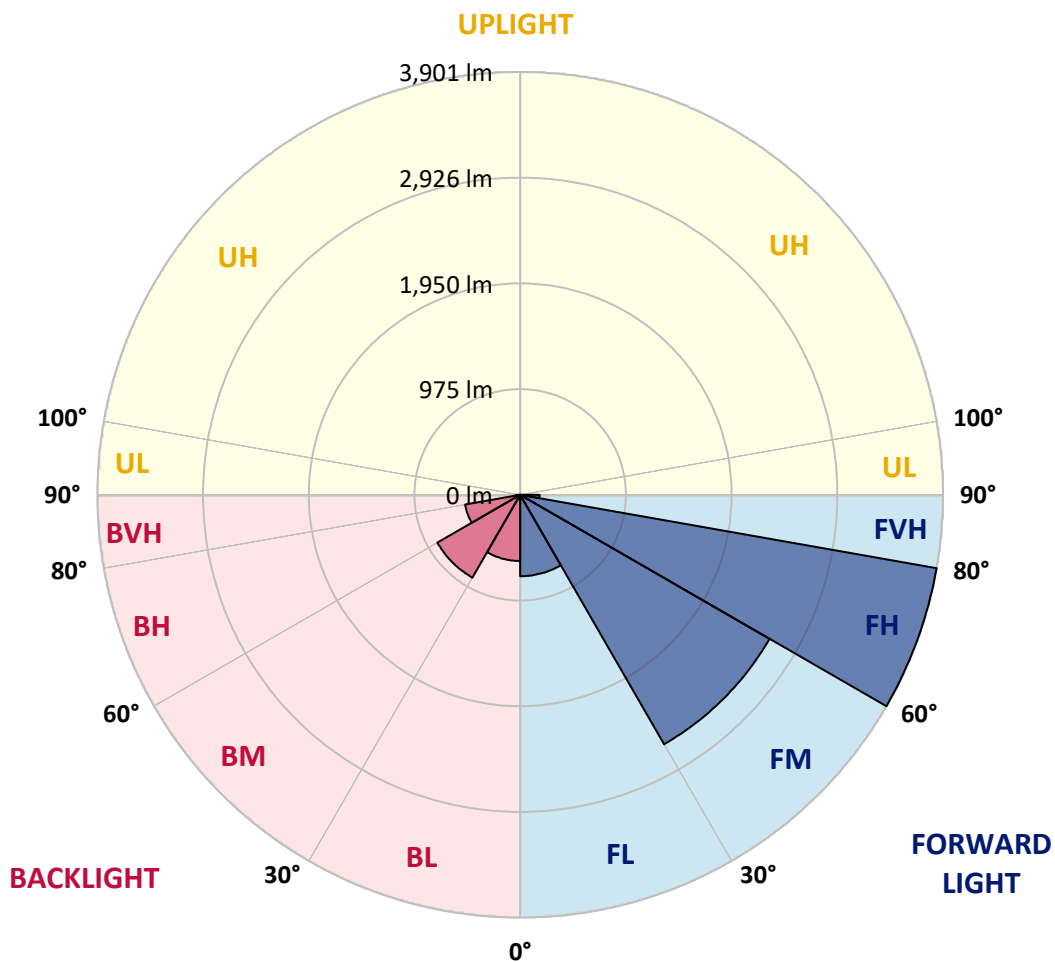
CATALOG NUMBER: ECM-E04-LED-E1-SL4-8030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	750.7	7.9			
FM (30°-60°)	2656.7	27.9			
FH (60°-80°)	3900.9	40.9			G2/5000
FVH (80°-90°)	178.5	1.9			G2/225
BL (0°-30°)	610.9	6.4	B2/1000		
BM (30°-60°)	882.3	9.3	B1/1000		
BH (60°-80°)	515.7	5.4	B2/1000		G2/1000
BVH (80°-90°)	36.2	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°	1936.7	1936.7	1936.7	1936.7	1936.7	1936.7	1936.7	1936.7	1936.7	1936.7	1936.7
2.5°	1936.7	1938.9	1937.8	1935.6	1933.3	1934.4	1933.3	1932.2	1932.2	1931.1	1929.9
5°	1927.7	1932.2	1928.8	1926.5	1923.2	1923.2	1922.0	1919.8	1917.5	1916.4	1914.2
7.5°	1908.5	1913.0	1910.8	1908.5	1905.2	1902.9	1898.4	1896.2	1893.9	1892.8	1889.4
10°	1882.7	1884.9	1882.7	1878.2	1875.9	1874.8	1872.5	1868.0	1863.5	1861.3	1857.9
12.5°	1848.9	1850.0	1847.8	1845.5	1842.2	1842.2	1838.8	1835.4	1828.6	1826.4	1818.5
15°	1819.6	1816.3	1814.0	1812.9	1811.8	1806.1	1807.3	1801.6	1790.4	1787.0	1778.0
17.5°	1811.8	1808.4	1807.3	1803.9	1801.6	1794.9	1788.1	1776.9	1757.8	1754.4	1740.9
20°	1834.3	1834.3	1830.9	1828.6	1825.3	1812.9	1798.3	1776.9	1742.0	1734.1	1717.2
22.5°	1888.3	1882.7	1880.4	1880.4	1879.3	1861.3	1834.3	1800.5	1754.4	1744.2	1715.0
25°	1972.7	1962.6	1965.9	1964.8	1962.6	1936.7	1897.3	1848.9	1785.9	1772.4	1734.1
27.5°	2072.8	2075.1	2074.0	2069.5	2062.7	2034.6	1978.3	1913.0	1834.3	1820.8	1771.3
30°	2177.5	2179.7	2186.5	2183.1	2178.6	2135.9	2066.1	1995.2	1899.5	1881.5	1820.8
32.5°	2299.0	2306.9	2312.5	2313.7	2295.7	2237.1	2155.0	2065.0	1963.7	1945.7	1870.3
35°	2439.7	2435.2	2445.3	2440.8	2409.3	2329.4	2228.1	2121.2	2017.7	1994.1	1913.0
37.5°	2581.5	2587.1	2577.0	2557.9	2508.3	2403.7	2278.8	2158.4	2043.6	2021.1	1936.7
40°	2718.8	2715.4	2691.8	2659.1	2584.9	2450.9	2306.9	2175.2	2052.6	2029.0	1942.3
42.5°	2821.2	2812.2	2776.2	2723.3	2627.6	2473.5	2314.8	2175.2	2047.0	2022.2	1934.4
45°	2866.2	2857.2	2822.3	2754.8	2641.1	2469.0	2301.3	2156.1	2027.8	2006.4	1918.7
47.5°	2866.2	2862.8	2824.6	2759.3	2637.8	2456.6	2281.0	2132.5	2008.7	1987.3	1905.2
50°	2843.7	2841.4	2807.7	2743.5	2626.5	2449.8	2275.4	2128.0	2007.6	1986.2	1910.8
52.5°	2919.1	2904.5	2869.6	2795.3	2668.1	2478.0	2303.5	2150.5	2034.6	2013.2	1935.6
55°	3836.2	3823.8	3647.2	3336.6	3011.4	2714.3	2460.0	2284.4	2167.4	2134.7	2078.5
57.5°	5319.4	5301.4	5120.2	4837.8	4278.5	3642.7	3144.1	2851.6	2687.3	2663.6	2629.9
60°	5921.4	5914.7	5838.2	5723.4	5511.8	5183.2	4719.6	4233.5	3855.4	3794.6	3799.1
62.5°	6266.9	6250.0	6212.9	6184.8	6112.7	5978.8	5892.2	5756.0	5572.6	5531.0	5267.6
65°	6460.5	6458.2	6478.5	6502.1	6497.6	6538.1	6582.0	6842.0	7146.9	7133.4	6855.5
67.5°	6172.4	6191.5	6297.3	6459.3	6629.3	6809.3	7144.7	7665.7	8042.7	8042.7	7798.5
70°	4437.1	4433.8	4715.1	5228.2	5685.1	6358.1	6975.9	7834.5	8451.2	8483.8	8225.0
72.5°	2659.1	2721.0	2894.3	3127.3	3515.5	4330.2	5479.2	7022.0	7882.9	7917.8	7608.3
75°	1868.0	1821.9	1815.1	1828.6	1895.0	2095.3	2727.8	4310.0	5714.4	5768.4	5469.1
77.5°	1195.1	1185.0	1189.5	1204.1	1207.5	1226.6	1257.0	1477.5	2649.0	2907.8	2894.3
80°	1030.8	1027.4	1028.5	1011.7	979.0	966.7	1004.9	974.5	946.4	985.8	931.8
82.5°	690.9	703.3	723.6	750.6	815.9	838.4	826.0	820.4	731.5	711.2	631.3
85°	512.0	505.3	513.1	513.1	496.3	479.4	491.8	479.4	424.2	397.2	351.1
87.5°	276.8	278.0	300.5	309.5	308.3	263.3	217.2	187.9	169.9	157.5	132.8
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°	1936.7	1936.7	1936.7	1936.7	1936.7	1936.7	1936.7	1936.7	1936.7	1936.7	1936.7
2.5°	1931.1	1927.7	1928.8	1928.8	1927.7	1929.9	1926.5	1925.4	1926.5	1926.5	1926.5
5°	1911.9	1907.4	1907.4	1906.3	1904.0	1904.0	1899.5	1898.4	1896.2	1899.5	1897.3
7.5°	1884.9	1878.2	1872.5	1868.0	1865.8	1862.4	1856.8	1854.5	1852.3	1851.2	1848.9
10°	1852.3	1844.4	1833.1	1824.1	1819.6	1810.6	1803.9	1794.9	1794.9	1790.4	1785.9
12.5°	1812.9	1801.6	1790.4	1778.0	1770.1	1757.8	1746.5	1736.4	1728.5	1718.4	1711.6
15°	1773.5	1756.6	1744.2	1731.9	1717.2	1700.4	1686.9	1671.1	1656.5	1640.7	1636.2
17.5°	1730.7	1717.2	1706.0	1691.4	1675.6	1655.3	1637.3	1611.5	1593.5	1574.3	1559.7
20°	1702.6	1686.9	1674.5	1661.0	1644.1	1620.5	1596.8	1567.6	1540.6	1512.4	1491.1
22.5°	1688.0	1662.1	1650.8	1638.5	1621.6	1595.7	1568.7	1532.7	1498.9	1461.8	1428.0
25°	1693.6	1658.7	1636.2	1622.7	1608.1	1582.2	1547.3	1506.8	1468.5	1421.3	1383.0
27.5°	1718.4	1671.1	1636.2	1613.7	1598.0	1570.9	1534.9	1488.8	1442.7	1393.1	1347.0
30°	1751.0	1691.4	1646.3	1613.7	1590.1	1560.8	1521.4	1471.9	1421.3	1366.1	1313.2
32.5°	1788.1	1715.0	1661.0	1616.0	1577.7	1540.6	1500.1	1448.3	1395.4	1336.9	1285.1
35°	1817.4	1733.0	1671.1	1611.5	1560.8	1514.7	1467.4	1419.0	1366.1	1311.0	1255.9
37.5°	1834.3	1744.2	1671.1	1595.7	1533.8	1485.4	1435.9	1388.6	1338.0	1284.0	1235.6
40°	1841.0	1748.7	1664.4	1577.7	1505.7	1450.5	1404.4	1356.0	1311.0	1263.7	1221.0
42.5°	1837.6	1745.4	1655.3	1560.8	1483.2	1423.5	1372.9	1327.9	1290.7	1251.4	1215.3
45°	1824.1	1734.1	1646.3	1552.9	1475.3	1414.5	1362.8	1320.0	1285.1	1249.1	1221.0
47.5°	1812.9	1729.6	1652.0	1572.1	1497.8	1435.9	1379.6	1332.4	1303.1	1275.0	1257.0
50°	1821.9	1742.0	1664.4	1589.0	1516.9	1453.9	1396.5	1352.6	1335.8	1331.3	1325.6
52.5°	1846.7	1767.9	1702.6	1649.7	1617.1	1593.5	1534.9	1524.8	1510.2	1502.3	1483.2
55°	2007.6	1974.9	2033.5	2097.6	2108.9	2179.7	2207.9	2210.1	2185.4	2097.6	1892.8
57.5°	2662.5	2743.5	2768.3	2916.8	2957.3	2925.8	2883.1	2880.8	2804.3	2688.4	2390.2
60°	3832.8	3790.1	3737.2	3640.4	3549.3	3451.4	3316.3	3212.8	3114.9	2937.1	2623.1
62.5°	5057.2	4684.7	4413.5	4135.6	3910.5	3713.6	3517.8	3351.2	3192.5	2946.1	2609.6
65°	6119.5	5361.0	4810.7	4393.3	4044.4	3756.3	3496.4	3269.1	3068.8	2760.4	2419.4
67.5°	6810.4	5720.0	4897.4	4274.0	3781.1	3414.2	3031.6	2672.6	2475.7	2227.0	2053.7
70°	6987.1	5466.8	4319.0	3520.0	2856.1	2418.3	1967.1	1575.4	1394.3	1324.5	1330.1
72.5°	6302.9	4321.2	3062.0	2239.4	1753.3	1389.8	1129.8	868.7	678.6	569.4	555.9
75°	4117.6	2404.8	1453.9	1012.8	805.7	641.4	505.3	425.4	366.9	296.0	247.6
77.5°	1556.3	916.0	652.7	532.3	393.9	274.6	213.8	180.1	165.4	160.9	145.2
80°	797.9	635.8	454.6	299.3	209.3	167.7	140.7	119.3	110.3	105.8	108.0
82.5°	537.9	400.6	250.9	180.1	145.2	124.9	99.0	83.3	74.3	73.1	78.8
85°	299.3	200.3	146.3	121.5	106.9	93.4	75.4	61.9	57.4	60.8	70.9
87.5°	93.4	92.3	66.4	54.0	56.3	48.4	36.0	27.0	27.0	34.9	49.5
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°	1936.7	1936.7	1936.7	1936.7	1936.7	1936.7	1936.7	1936.7	1936.7	1936.7	1936.7
2.5°	1926.5	1928.8	1933.3	1929.9	1931.1	1932.2	1935.6	1940.1	1936.7	1934.4	1941.2
5°	1899.5	1899.5	1905.2	1902.9	1907.4	1911.9	1914.2	1922.0	1919.8	1917.5	1926.5
7.5°	1850.0	1851.2	1859.0	1856.8	1865.8	1866.9	1875.9	1882.7	1882.7	1887.2	1895.0
10°	1787.0	1787.0	1793.8	1794.9	1800.5	1805.0	1815.1	1827.5	1829.8	1837.6	1848.9
12.5°	1716.1	1713.9	1719.5	1719.5	1724.0	1729.6	1740.9	1755.5	1757.8	1770.1	1784.8
15°	1628.3	1625.0	1622.7	1625.0	1627.2	1628.3	1645.2	1659.8	1668.9	1682.4	1697.0
17.5°	1543.9	1531.6	1525.9	1525.9	1527.1	1527.1	1533.8	1550.7	1563.1	1584.5	1605.8
20°	1468.5	1447.2	1439.3	1421.3	1417.9	1410.0	1415.7	1434.8	1457.3	1474.2	1491.1
22.5°	1397.6	1375.1	1352.6	1331.3	1314.4	1304.2	1314.4	1326.8	1334.6	1348.1	1352.6
25°	1343.6	1306.5	1275.0	1241.2	1223.2	1214.2	1213.1	1212.0	1205.2	1203.0	1203.0
27.5°	1300.9	1257.0	1209.7	1172.6	1147.8	1130.9	1111.8	1098.3	1081.4	1058.9	1047.7
30°	1264.9	1217.6	1165.8	1121.9	1090.4	1057.8	1018.4	988.0	957.6	930.6	907.0
32.5°	1232.2	1183.8	1133.2	1087.1	1033.0	976.8	927.3	891.3	838.4	802.4	772.0
35°	1207.5	1159.1	1111.8	1051.1	976.8	904.8	840.6	787.7	733.7	686.4	645.9
37.5°	1189.5	1149.0	1098.3	1016.2	922.8	836.1	768.6	705.6	641.4	577.3	526.7
40°	1183.8	1149.0	1084.8	977.9	871.0	777.6	699.9	622.3	551.4	482.8	431.0
42.5°	1187.2	1150.1	1063.4	944.1	828.2	727.0	639.2	549.2	464.8	391.6	339.8
45°	1199.6	1150.1	1040.9	907.0	788.9	680.8	576.2	469.3	371.4	312.8	290.3
47.5°	1236.7	1158.0	1022.9	880.0	754.0	630.2	505.3	383.7	300.5	275.7	275.7
50°	1294.1	1181.6	1020.7	859.7	714.6	571.7	417.5	302.7	265.6	264.5	271.2
52.5°	1392.0	1223.2	1031.9	846.2	672.9	492.9	325.2	261.1	253.2	259.9	270.1
55°	1582.2	1296.4	1047.7	821.5	603.2	386.0	266.7	247.6	250.9	258.8	267.8
57.5°	1929.9	1443.8	1064.6	768.6	488.4	292.6	241.9	243.1	248.7	256.6	264.5
60°	2169.6	1626.1	1098.3	679.7	363.5	241.9	231.8	240.8	247.6	253.2	259.9
62.5°	2189.9	1692.5	1123.1	579.5	270.1	220.6	222.8	236.3	245.3	247.6	250.9
65°	2068.3	1607.0	1052.2	478.3	223.9	209.3	217.2	229.6	238.6	239.7	243.1
67.5°	1802.8	1428.0	898.0	363.5	204.8	201.4	210.4	218.3	225.1	230.7	235.2
70°	1396.5	1165.8	722.5	282.5	190.2	189.1	196.9	205.9	212.7	218.3	225.1
72.5°	736.0	828.2	537.9	226.2	174.4	175.6	183.4	191.3	195.8	201.4	208.2
75°	228.4	351.1	332.0	181.2	155.3	159.8	164.3	171.0	178.9	182.3	185.7
77.5°	135.0	142.9	173.3	141.8	135.0	138.4	144.0	149.7	155.3	159.8	163.2
80°	109.2	111.4	112.5	112.5	112.5	117.0	121.5	129.4	133.9	136.2	137.3
82.5°	85.5	91.2	92.3	90.0	93.4	97.9	100.2	104.7	105.8	108.0	110.3
85°	70.9	69.8	72.0	73.1	68.6	68.6	66.4	66.4	70.9	78.8	79.9
87.5°	55.1	48.4	39.4	37.1	34.9	32.6	30.4	30.4	31.5	36.0	39.4
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°	1936.7	1936.7	1936.7	1936.7	1936.7
2.5°	1941.2	1940.1	1942.3	1945.7	1943.4
5°	1927.7	1927.7	1932.2	1935.6	1933.3
7.5°	1900.7	1901.8	1908.5	1913.0	1910.8
10°	1857.9	1860.2	1868.0	1874.8	1878.2
12.5°	1793.8	1801.6	1811.8	1818.5	1818.5
15°	1712.7	1725.1	1736.4	1746.5	1740.9
17.5°	1620.5	1635.1	1649.7	1655.3	1649.7
20°	1509.1	1510.2	1519.2	1524.8	1522.6
22.5°	1357.1	1352.6	1357.1	1359.4	1362.8
25°	1201.8	1194.0	1189.5	1196.2	1199.6
27.5°	1043.2	1031.9	1035.3	1027.4	1018.4
30°	889.0	878.9	866.5	863.1	868.7
32.5°	752.8	727.0	716.8	697.7	705.6
35°	608.8	582.9	558.2	551.4	546.9
37.5°	490.6	459.1	428.7	418.6	416.4
40°	383.7	357.9	337.6	332.0	329.7
42.5°	311.7	300.5	297.1	297.1	298.2
45°	284.7	285.8	289.2	291.5	292.6
47.5°	279.1	283.6	288.1	292.6	293.7
50°	279.1	282.5	285.8	290.3	291.5
52.5°	276.8	280.2	281.3	283.6	285.8
55°	274.6	275.7	275.7	276.8	279.1
57.5°	269.0	270.1	267.8	269.0	273.5
60°	263.3	264.5	262.2	264.5	265.6
62.5°	255.4	255.4	254.3	255.4	256.6
65°	246.4	243.1	245.3	244.2	245.3
67.5°	235.2	230.7	229.6	229.6	230.7
70°	219.4	216.1	214.9	217.2	219.4
72.5°	200.3	202.6	205.9	209.3	214.9
75°	186.8	190.2	194.7	205.9	213.8
77.5°	167.7	166.5	171.0	183.4	194.7
80°	139.5	140.7	139.5	142.9	145.2
82.5°	106.9	105.8	102.4	102.4	100.2
85°	75.4	72.0	67.5	66.4	65.3
87.5°	38.3	40.5	37.1	33.8	33.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)