

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: P180888

Luminaire Tested: **ICM-E04-LED-E1-SL4**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P180888
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33680)
Test Lab: INNOVATION CENTER-P3
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ICM-E04-LED-E1-SL4
Description: ICON SITE MEDIUM LED LUMINAIRE
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL
Light Source: (84) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10992.1 lumens
Efficiency: N/A
Efficacy: 113.1 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.67' x L: 1' x H: 0.1')
IES Classification: Type IV - Short - Full Cutoff
BUG Rating: B2 - U0 - G2

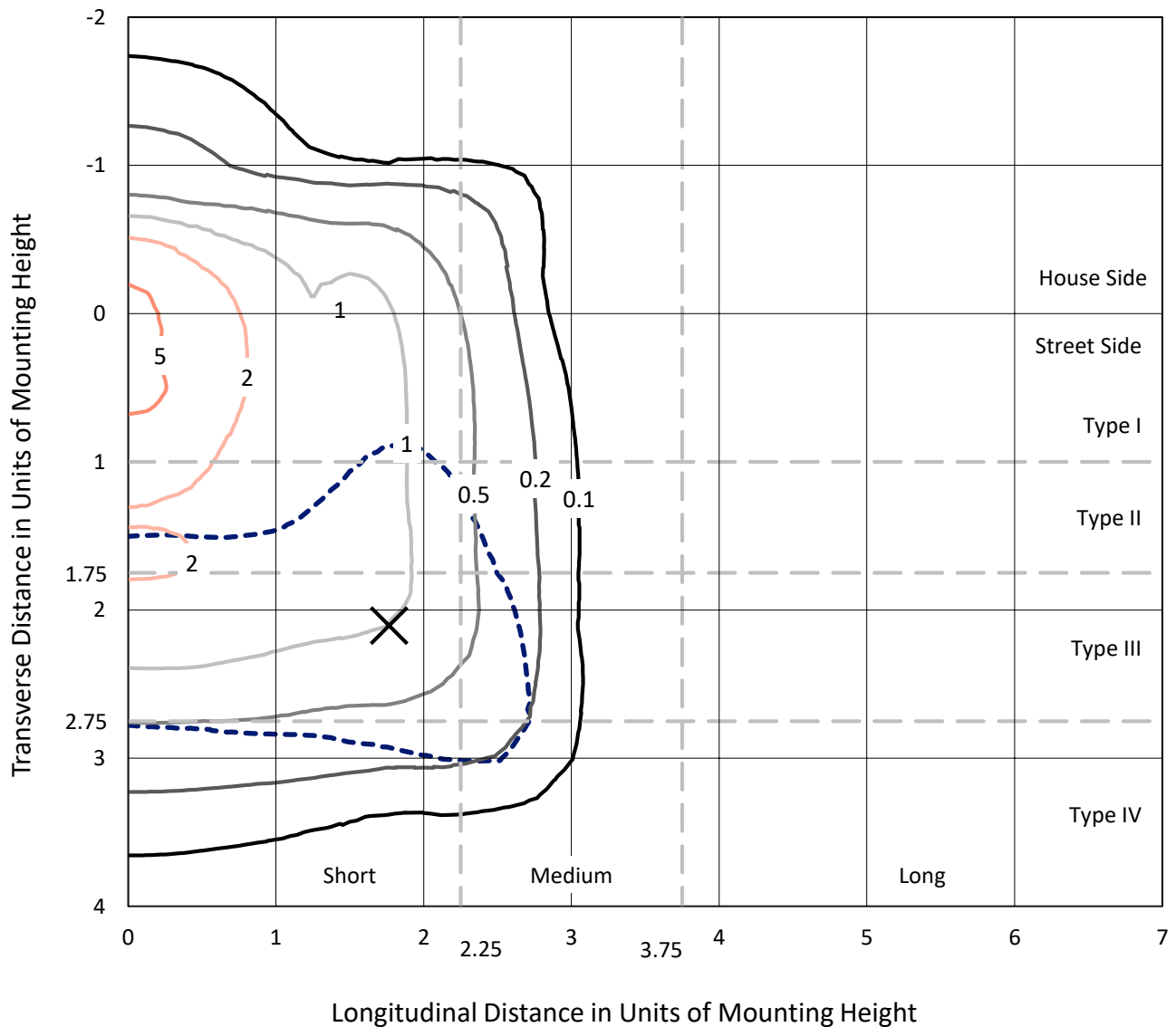
Input Watts (W): 97.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

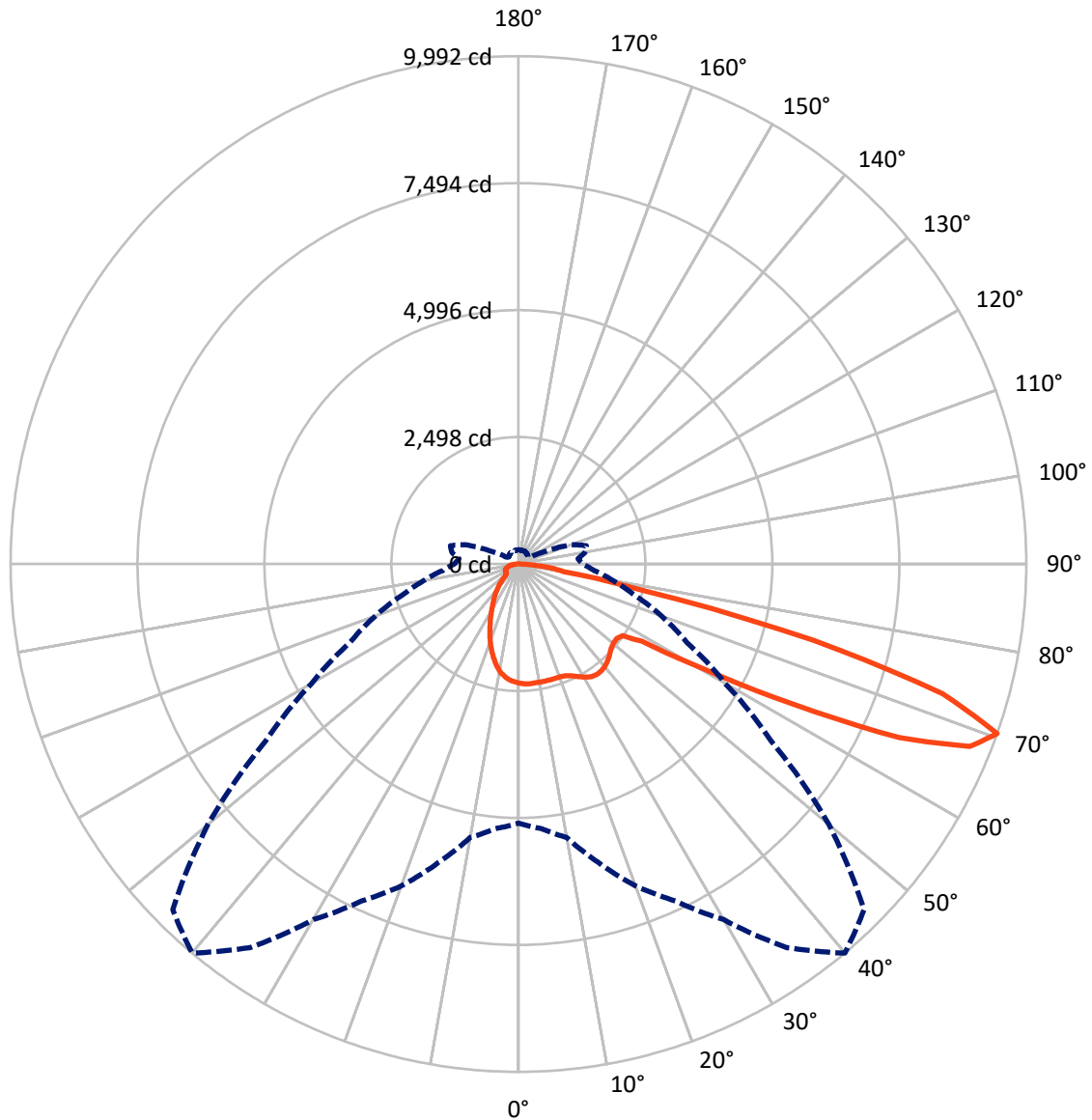
✕ Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 5.9 fc
 Type IV - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2281.9	0.0	2281.9
	% Fixture	20.8	0.0	20.8
Street Side	Lumens	8710.3	0.0	8710.3
	% Fixture	79.2	0.0	79.2
Total	Lumens	10992.1	0.0	10992.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	219.1	2.0
10°-20°	599.8	5.5
20°-30°	888.0	8.1
30°-40°	1122.2	10.2
40°-50°	1269.1	11.5
50°-60°	1806.0	16.4
60°-70°	3363.5	30.6
70°-80°	1541.5	14.0
80°-90°	183.0	1.7
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°	10992.1	100.0
0°-180°	10992.1	100.0



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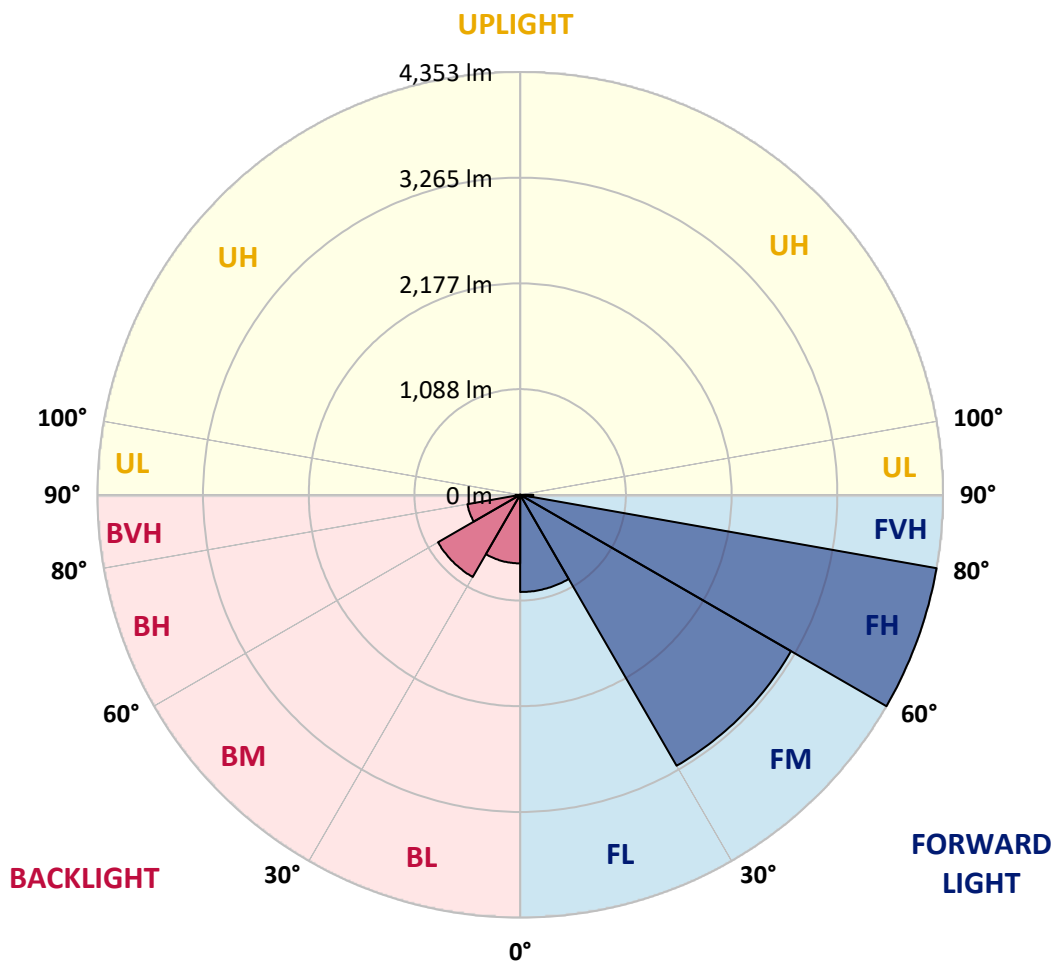
CATALOG NUMBER: ICM-E04-LED-E1-SL4

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1000.9	9.1			
FM	(30°-60°)	3220.3	29.3			
FH	(60°-80°)	4353.3	39.6			G2/5000
FVH	(80°-90°)	135.7	1.2			G2/225
BL	(0°-30°)	706.0	6.4	B2/1000		
BM	(30°-60°)	976.9	8.9	B1/1000		
BH	(60°-80°)	551.6	5.0	B2/1000		G2/1000
BVH	(80°-90°)	47.2	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°	45°	50°
0°	2345.4	2345.4	2345.4	2345.4	2345.4	2345.4	2345.4	2345.4	2345.4	2345.4	2345.4
2.5°	2381.4	2387.6	2380.2	2378.9	2378.9	2377.7	2370.2	2369.0	2359.1	2360.3	2362.8
5°	2398.8	2401.2	2396.3	2395.1	2392.6	2387.6	2381.4	2374.0	2366.5	2359.1	2352.9
7.5°	2416.1	2413.7	2410.0	2410.0	2406.2	2398.8	2386.3	2376.5	2360.3	2351.6	2340.5
10°	2440.9	2437.2	2432.3	2429.8	2423.5	2412.4	2395.1	2381.4	2361.6	2344.2	2325.6
12.5°	2464.5	2463.3	2455.8	2452.1	2442.2	2431.0	2410.0	2388.9	2362.8	2335.5	2310.7
15°	2506.7	2501.7	2494.2	2486.8	2470.7	2455.8	2423.5	2398.8	2361.6	2325.6	2287.2
17.5°	2579.8	2571.2	2563.7	2547.6	2527.7	2501.7	2454.6	2412.4	2361.6	2309.5	2266.1
20°	2713.8	2695.2	2685.3	2664.2	2629.5	2582.3	2509.1	2440.9	2365.3	2298.3	2240.0
22.5°	2865.1	2852.8	2839.1	2825.4	2770.9	2702.6	2603.5	2501.7	2387.6	2293.3	2218.9
25°	3035.1	3018.9	3011.5	2987.9	2937.0	2858.9	2723.7	2582.3	2438.4	2313.2	2218.9
27.5°	3186.3	3181.4	3180.2	3152.9	3104.5	3012.8	2852.8	2682.8	2507.9	2354.2	2237.5
30°	3324.0	3319.1	3316.6	3301.7	3245.9	3136.8	2963.1	2772.1	2583.6	2411.2	2272.3
32.5°	3470.4	3454.3	3446.8	3418.3	3355.1	3227.3	3028.9	2830.4	2643.1	2467.0	2310.7
35°	3589.5	3575.8	3561.0	3520.0	3430.7	3279.4	3057.4	2850.2	2666.7	2498.0	2330.5
37.5°	3676.3	3662.6	3641.6	3589.5	3479.1	3296.8	3056.1	2844.0	2658.0	2493.0	2334.2
40°	3714.7	3701.1	3678.8	3613.0	3487.7	3286.8	3032.6	2815.6	2631.9	2467.0	2319.4
42.5°	3699.8	3690.0	3661.4	3598.2	3460.5	3242.2	2985.4	2762.2	2582.3	2424.9	2285.9
45°	3642.8	3635.4	3608.1	3541.1	3398.4	3170.3	2916.0	2695.2	2522.8	2372.8	2241.2
47.5°	3557.2	3554.7	3527.5	3461.7	3320.3	3098.3	2844.0	2629.5	2463.3	2321.9	2204.0
50°	3463.0	3450.5	3437.0	3376.1	3247.2	3036.3	2791.9	2588.6	2429.8	2303.3	2187.9
52.5°	3403.5	3399.7	3387.3	3332.8	3208.7	3000.3	2768.4	2573.7	2427.3	2299.5	2179.3
55°	3931.8	3940.5	3826.3	3589.5	3381.1	3099.6	2839.1	2649.3	2488.1	2359.1	2271.0
57.5°	5815.8	5777.4	5581.4	5111.4	4580.5	3879.7	3374.9	3068.6	2868.9	2891.2	2935.8
60°	6775.9	6768.4	6732.4	6550.1	6196.6	5663.3	5071.7	4393.2	4177.4	4201.0	4218.4
62.5°	7205.0	7216.1	7243.5	7175.2	7082.2	6927.2	6631.9	6359.1	6070.1	5962.2	5673.2
65°	7403.5	7423.3	7485.3	7523.8	7559.8	7587.0	7703.6	8023.6	8234.5	7840.0	6922.2
67.5°	6992.9	7088.4	7293.1	7492.8	7671.4	7925.6	8320.1	9063.0	9580.2	9095.2	7764.4
70°	5097.7	5227.9	5462.4	6080.0	6739.9	7316.6	8080.7	9211.9	9992.0	9617.5	7972.8
72.5°	3196.3	3232.3	3336.5	3563.5	4053.3	4793.8	6129.6	7826.4	8726.8	8428.0	6738.6
75°	2027.9	2040.3	2036.6	2088.7	2171.8	2333.0	2861.4	4622.6	5978.4	5511.9	3755.7
77.5°	1208.1	1226.7	1234.1	1250.2	1290.0	1347.0	1390.4	1572.8	2506.7	2433.5	1363.1
80°	1012.1	1027.0	1014.6	1010.9	986.1	968.7	989.8	968.7	899.3	865.8	797.5
82.5°	535.8	534.6	530.9	566.8	640.0	697.0	740.5	730.5	661.1	563.1	477.5
85°	294.0	303.9	303.9	316.3	305.1	306.3	316.3	333.7	308.8	258.0	210.9
87.5°	24.8	38.4	31.0	38.4	52.1	37.2	36.0	36.0	31.0	22.3	19.8
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):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	2345.4	2345.4	2345.4	2345.4	2345.4	2345.4	2345.4	2345.4	2345.4	2345.4	2345.4
2.5°	2356.6	2354.2	2349.1	2345.4	2345.4	2339.3	2335.5	2333.0	2331.8	2326.8	2326.8
5°	2349.1	2340.5	2331.8	2325.6	2321.9	2315.6	2305.8	2300.8	2294.6	2289.6	2287.2
7.5°	2333.0	2316.9	2303.3	2293.3	2280.9	2271.0	2258.6	2247.5	2236.3	2231.4	2228.9
10°	2308.2	2287.2	2266.1	2247.5	2230.1	2212.8	2196.6	2180.5	2166.8	2156.9	2147.0
12.5°	2284.7	2252.4	2225.1	2197.9	2170.5	2149.5	2127.2	2103.5	2083.7	2065.1	2060.2
15°	2252.4	2215.2	2180.5	2147.0	2113.5	2078.8	2051.5	2025.4	1993.2	1972.1	1956.0
17.5°	2222.6	2178.0	2135.8	2096.1	2055.2	2019.3	1978.3	1943.5	1911.4	1879.1	1855.5
20°	2190.4	2142.1	2097.4	2052.8	2008.1	1962.2	1915.1	1870.4	1830.7	1792.3	1753.8
22.5°	2161.9	2112.3	2068.8	2020.5	1970.9	1918.8	1864.2	1808.4	1762.5	1712.8	1668.2
25°	2144.5	2090.0	2045.3	1998.2	1943.5	1886.5	1824.5	1758.8	1703.0	1645.9	1592.6
27.5°	2144.5	2073.8	2027.9	1980.8	1924.9	1864.2	1796.0	1724.0	1660.8	1597.5	1531.8
30°	2163.1	2076.3	2014.2	1964.7	1907.6	1841.9	1766.2	1690.5	1621.1	1546.7	1483.5
32.5°	2180.5	2081.2	2004.4	1941.1	1875.4	1810.9	1734.0	1653.3	1576.5	1505.8	1438.8
35°	2191.6	2081.2	1985.8	1905.1	1830.7	1767.5	1691.8	1611.2	1533.0	1463.5	1401.6
37.5°	2192.9	2071.4	1956.0	1864.2	1786.1	1720.3	1648.4	1572.8	1498.3	1433.8	1381.7
40°	2180.5	2051.5	1926.2	1820.8	1738.9	1671.9	1606.2	1538.0	1471.0	1417.7	1373.0
42.5°	2158.2	2030.4	1897.7	1786.1	1700.5	1631.0	1570.2	1511.9	1453.7	1407.7	1370.5
45°	2124.7	2001.9	1871.6	1764.9	1680.7	1607.5	1547.9	1499.5	1450.0	1411.5	1374.2
47.5°	2094.9	1991.9	1880.3	1778.6	1690.5	1614.9	1554.1	1513.2	1474.7	1448.7	1397.9
50°	2088.7	1987.0	1884.0	1789.8	1700.5	1623.5	1570.2	1549.1	1538.0	1521.9	1443.7
52.5°	2071.4	1985.8	1911.4	1859.3	1802.2	1766.2	1710.4	1730.2	1717.9	1660.8	1519.4
55°	2253.7	2278.4	2347.9	2447.2	2538.9	2560.0	2553.8	2530.2	2404.9	2068.8	1701.7
57.5°	3098.3	3238.4	3370.0	3428.2	3420.8	3355.1	3307.9	3212.4	3031.4	2622.1	2061.4
60°	4271.7	4294.0	4224.5	4121.6	3947.9	3802.8	3647.7	3469.1	3206.3	2805.6	2282.2
62.5°	5351.9	5051.8	4743.0	4452.8	4188.6	3957.9	3742.1	3492.8	3150.4	2732.4	2253.7
65°	6114.7	5479.8	4992.3	4575.6	4202.2	3879.7	3610.5	3286.8	2901.1	2524.0	2088.7
67.5°	6507.9	5534.3	4786.4	4205.9	3676.3	3229.8	2871.4	2556.3	2269.8	2104.9	1828.2
70°	6068.9	4697.1	3655.2	2999.1	2365.3	1896.5	1498.3	1257.7	1174.6	1330.9	1384.2
72.5°	4522.2	3057.4	2174.2	1681.9	1288.7	1027.0	787.6	618.9	503.5	528.4	685.9
75°	2138.3	1319.7	932.7	709.5	564.4	467.6	382.0	349.8	292.7	243.1	228.2
77.5°	832.3	606.5	501.1	367.2	260.5	209.6	178.6	172.4	176.1	171.2	168.7
80°	633.8	429.1	269.1	197.2	170.0	150.0	132.7	127.7	130.2	136.5	142.6
82.5°	353.5	220.7	163.7	142.6	127.7	109.1	99.3	91.8	93.0	100.5	114.1
85°	136.5	106.7	98.0	94.2	88.1	70.7	60.7	62.0	70.7	84.4	84.4
87.5°	14.9	14.9	19.8	14.9	14.9	14.9	13.7	16.1	17.4	22.3	26.0
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):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	2345.4	2345.4	2345.4	2345.4	2345.4	2345.4	2345.4	2345.4	2345.4	2345.4	2345.4
2.5°	2324.4	2324.4	2324.4	2321.9	2323.1	2318.2	2318.2	2314.4	2320.7	2316.9	2315.6
5°	2288.4	2287.2	2282.2	2282.2	2282.2	2282.2	2285.9	2276.0	2283.5	2283.5	2279.7
7.5°	2227.6	2227.6	2214.0	2221.4	2218.9	2222.6	2227.6	2222.6	2230.1	2235.1	2231.4
10°	2143.3	2143.3	2132.1	2140.8	2137.0	2145.8	2154.4	2149.5	2154.4	2161.9	2164.4
12.5°	2050.2	2045.3	2035.4	2039.1	2039.1	2044.0	2047.7	2054.0	2060.2	2070.1	2075.1
15°	1942.3	1934.9	1922.5	1922.5	1915.1	1917.5	1924.9	1927.5	1939.8	1953.5	1969.6
17.5°	1831.9	1813.3	1799.7	1783.5	1771.2	1781.1	1789.8	1796.0	1805.9	1827.0	1838.2
20°	1727.7	1690.5	1664.5	1643.5	1629.8	1636.0	1647.2	1654.6	1663.3	1668.2	1671.9
22.5°	1624.8	1582.6	1546.7	1520.7	1498.3	1504.5	1499.5	1495.8	1502.1	1485.9	1484.7
25°	1535.5	1485.9	1437.5	1406.5	1379.3	1370.5	1344.5	1338.3	1320.9	1307.3	1297.4
27.5°	1471.0	1406.5	1353.2	1317.2	1273.8	1241.6	1208.1	1174.6	1156.0	1133.7	1122.5
30°	1420.2	1351.9	1288.7	1227.9	1170.9	1121.2	1076.6	1033.2	1003.4	971.2	950.1
32.5°	1373.0	1309.8	1232.8	1149.8	1072.8	1017.0	958.8	909.1	862.1	819.8	788.8
35°	1340.8	1270.1	1172.1	1070.4	983.5	917.9	855.8	785.1	728.1	673.5	640.0
37.5°	1323.4	1236.6	1116.3	1003.4	906.7	832.3	755.4	673.5	604.0	553.2	502.3
40°	1309.8	1203.1	1066.7	943.9	842.1	752.8	663.5	566.8	490.0	436.6	396.9
42.5°	1294.9	1165.9	1023.3	896.7	783.9	679.7	571.8	468.8	395.6	358.4	341.1
45°	1278.8	1133.7	982.3	852.1	726.8	600.3	476.3	380.7	337.4	324.9	324.9
47.5°	1275.1	1112.6	952.6	808.7	662.3	508.6	388.2	328.7	316.3	318.8	323.7
50°	1290.0	1106.3	926.5	757.9	576.7	411.8	328.7	308.8	311.4	318.8	326.2
52.5°	1325.9	1111.4	899.3	687.2	475.1	339.8	303.9	302.6	310.0	321.2	328.7
55°	1386.7	1111.4	847.2	581.7	379.5	305.1	295.2	300.2	310.0	320.0	326.2
57.5°	1516.9	1100.2	755.4	465.1	317.5	292.7	292.7	298.9	307.6	317.5	322.5
60°	1671.9	1085.3	626.3	359.7	286.5	282.8	291.4	298.9	306.3	315.1	320.0
62.5°	1681.9	1046.8	496.1	297.7	270.4	276.6	290.2	300.2	302.6	308.8	315.1
65°	1545.4	912.8	394.4	266.7	263.0	272.8	286.5	294.0	295.2	297.7	303.9
67.5°	1353.2	744.2	318.8	251.8	255.5	266.7	274.1	280.3	284.0	290.2	291.4
70°	1111.4	597.9	272.8	236.9	240.7	253.0	259.3	265.4	272.8	280.3	276.6
72.5°	787.6	465.1	239.4	220.7	225.8	236.9	244.4	249.3	255.5	263.0	258.0
75°	334.9	324.9	207.2	199.7	207.2	214.6	222.0	229.5	235.6	239.4	239.4
77.5°	171.2	191.0	178.6	178.6	183.5	191.0	197.2	204.7	208.4	212.1	217.0
80°	145.1	147.6	150.0	155.1	160.0	167.4	173.7	179.8	181.1	182.3	184.8
82.5°	120.3	125.3	127.7	135.2	138.9	141.4	145.1	145.1	147.6	147.6	143.9
85°	86.8	93.0	96.7	98.0	96.7	98.0	99.3	101.7	107.9	107.9	103.0
87.5°	24.8	23.5	29.8	31.0	33.5	38.4	43.4	52.1	54.6	57.0	57.0
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):

	165°	170°	175°	180°
0°	2345.4	2345.4	2345.4	2345.4
2.5°	2314.4	2316.9	2311.9	2313.2
5°	2279.7	2284.7	2278.4	2285.9
7.5°	2235.1	2242.5	2241.2	2240.0
10°	2170.5	2180.5	2180.5	2184.2
12.5°	2088.7	2094.9	2099.8	2102.3
15°	1978.3	1989.5	1995.6	1995.6
17.5°	1845.6	1853.0	1856.8	1851.8
20°	1676.9	1674.4	1675.6	1663.3
22.5°	1482.1	1485.9	1474.7	1477.2
25°	1291.2	1284.9	1290.0	1282.5
27.5°	1106.3	1107.6	1094.0	1100.2
30°	930.2	924.0	906.7	915.4
32.5°	760.3	744.2	725.6	714.4
35°	600.3	575.5	566.8	563.1
37.5°	471.4	444.0	435.4	425.4
40°	374.6	364.7	360.9	363.4
42.5°	336.1	336.1	338.6	339.8
45°	326.2	330.0	333.7	334.9
47.5°	327.4	331.2	336.1	337.4
50°	330.0	333.7	337.4	338.6
52.5°	331.2	331.2	333.7	334.9
55°	328.7	327.4	328.7	330.0
57.5°	323.7	321.2	322.5	326.2
60°	321.2	317.5	320.0	322.5
62.5°	315.1	313.8	316.3	317.5
65°	301.4	302.6	306.3	306.3
67.5°	289.0	290.2	291.4	292.7
70°	274.1	275.4	277.9	279.1
72.5°	256.7	261.7	265.4	270.4
75°	243.1	248.1	255.5	260.5
77.5°	219.5	223.3	231.9	238.1
80°	186.0	184.8	186.0	189.8
82.5°	142.6	142.6	141.4	140.2
85°	100.5	99.3	95.5	95.5
87.5°	54.6	53.3	52.1	49.6
90°	0.0	0.0	0.0	0.0

(END OF REPORT)