

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: P152245

Luminaire Tested: **VWM-F05-LED-E1-SL4**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P152245
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: VWM-F05-LED-E1-SL4
Description: VISION WALL MEDIUM LED LUMINAIRE
(5) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL
Light Source: (35) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12193.5 lumens
Efficiency: N/A
Efficacy: 91.5 lumens/watt
Luminous Opening: Rectangular (W 0.83' x L: 1' x H: 0')
IES Classification: Type IV - Short - Full Cutoff
BUG Rating: B2 - U0 - G2

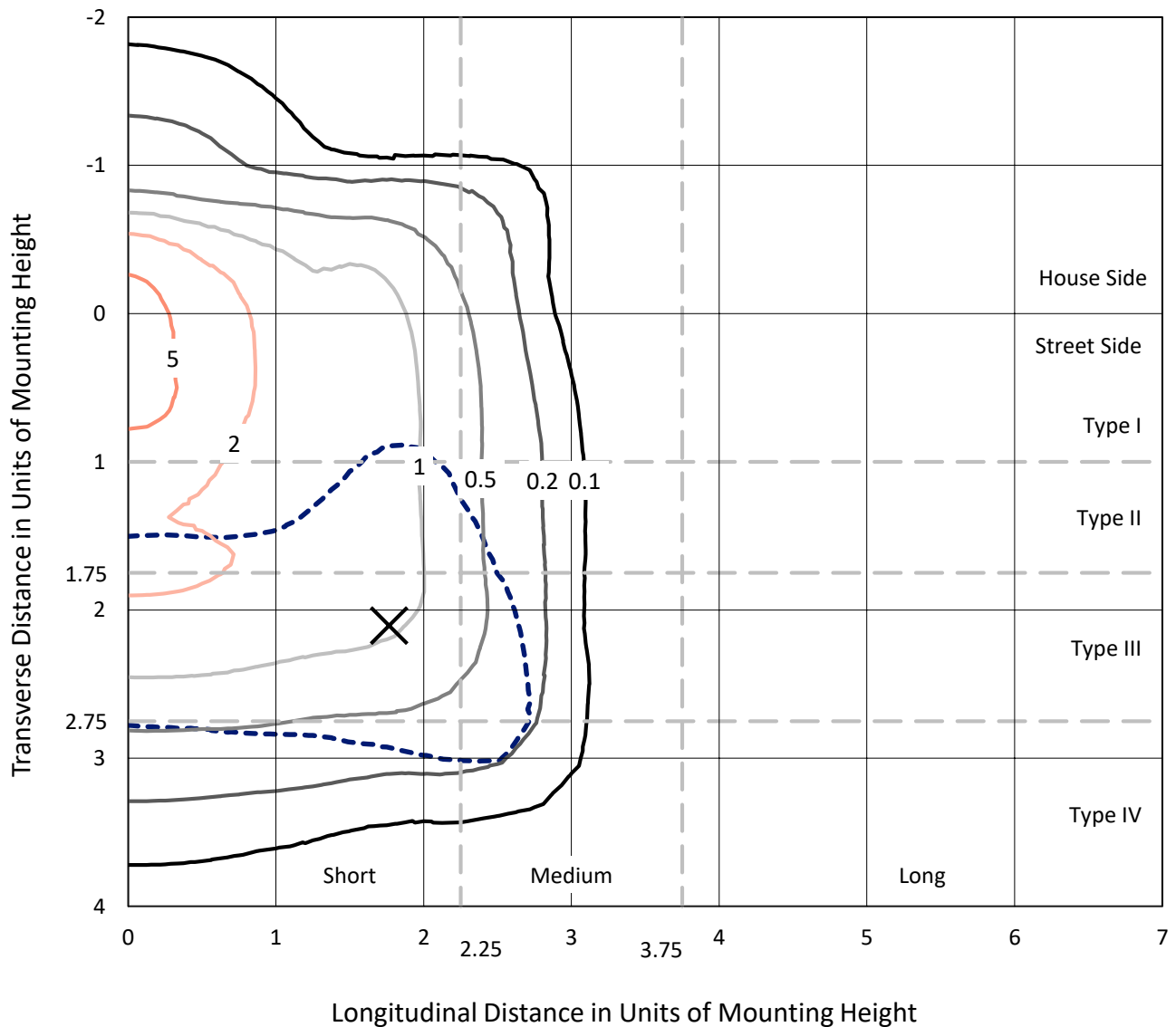
Input Watts (W): 133.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

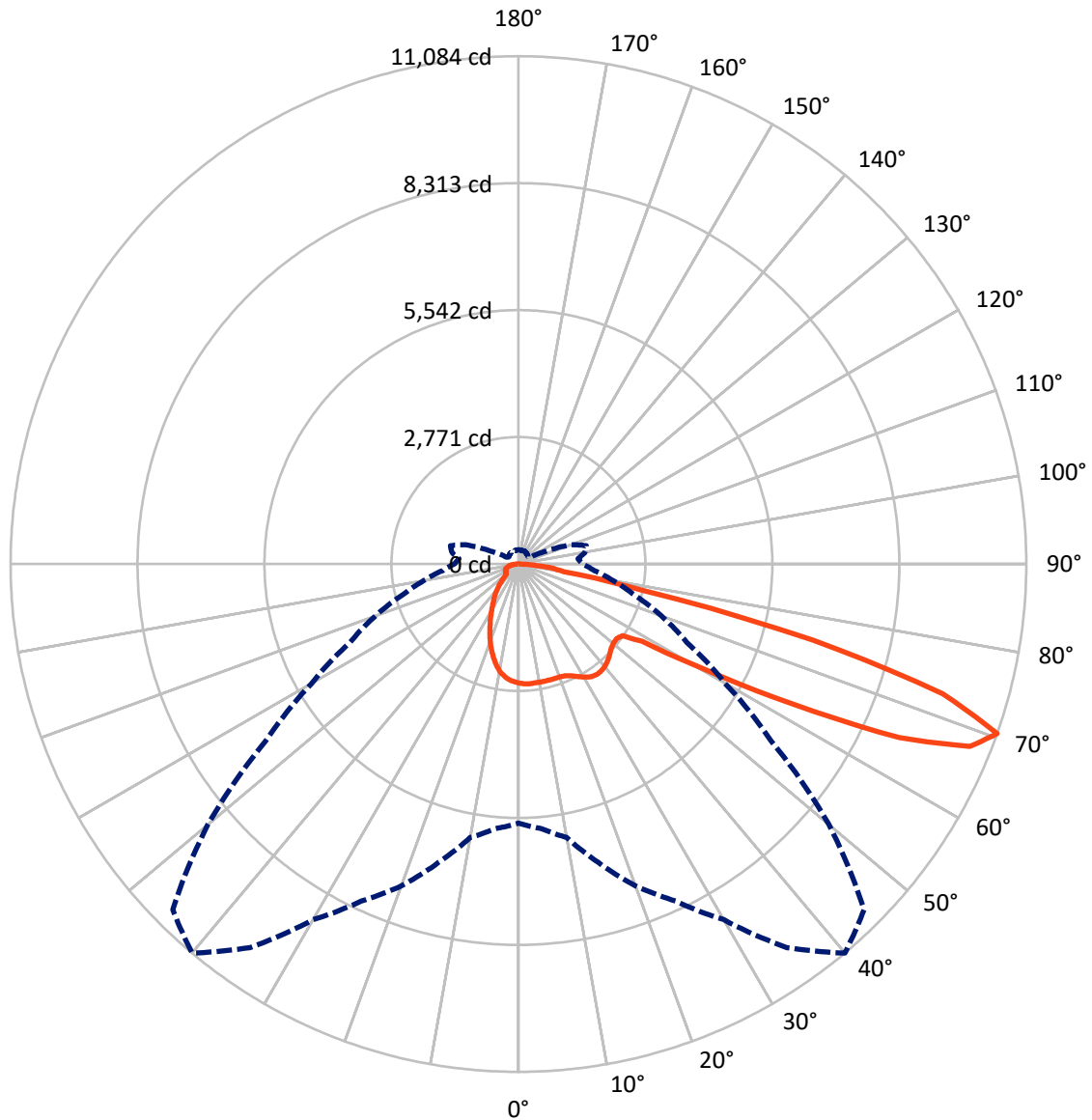
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 6.5 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	2531.2	0.0	2531.2
	% Fixture	20.8	0.0	20.8
Street Side	Lumens	9662.2	0.0	9662.2
	% Fixture	79.2	0.0	79.2
Total	Lumens	12193.5	0.0	12193.5
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	243.1	2.0
10°-20°	665.4	5.5
20°-30°	985.0	8.1
30°-40°	1244.8	10.2
40°-50°	1407.8	11.5
50°-60°	2003.3	16.4
60°-70°	3731.1	30.6
70°-80°	1710.0	14.0
80°-90°	203.0	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°	12193.5	100.0
0°-180°	12193.5	100.0



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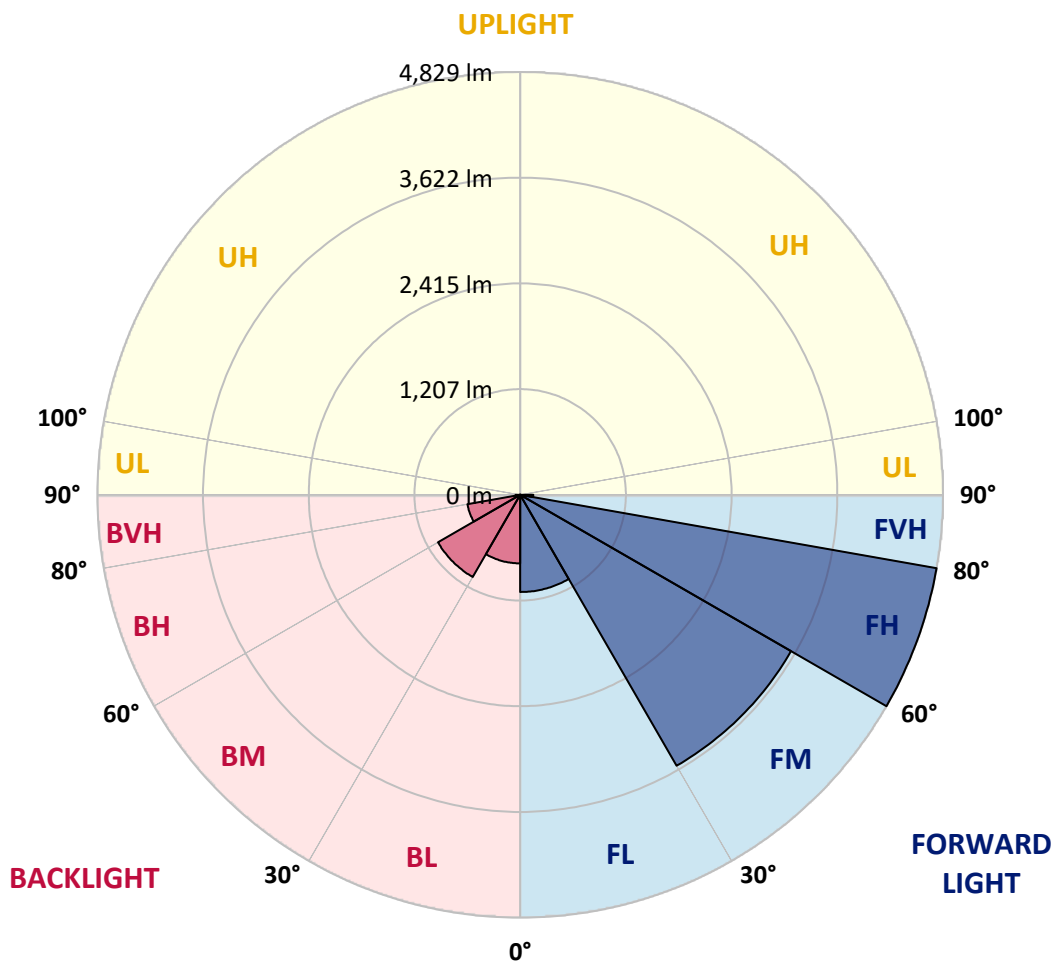
CATALOG NUMBER: VWM-F05-LED-E1-SL4

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1110.3	9.1			
FM	(30°-60°)	3572.3	29.3			
FH	(60°-80°)	4829.1	39.6			G2/5000
FVH	(80°-90°)	150.6	1.2			G2/225
BL	(0°-30°)	783.2	6.4	B2/1000		
BM	(30°-60°)	1083.7	8.9	B2/2500		
BH	(60°-80°)	611.9	5.0	B2/1000		G2/1000
BVH	(80°-90°)	52.4	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°	2601.8	2601.8	2601.8	2601.8	2601.8	2601.8	2601.8	2601.8	2601.8	2601.8	2601.8
2.5°	2641.7	2648.6	2640.3	2638.9	2638.9	2637.6	2629.3	2627.9	2616.9	2618.3	2621.0
5°	2660.9	2663.7	2658.2	2656.8	2654.1	2648.6	2641.7	2633.4	2625.2	2616.9	2610.0
7.5°	2680.2	2677.5	2673.3	2673.3	2669.2	2660.9	2647.2	2636.2	2618.3	2608.7	2596.3
10°	2707.7	2703.6	2698.1	2695.3	2688.5	2676.1	2656.8	2641.7	2619.7	2600.4	2579.8
12.5°	2733.9	2732.5	2724.2	2720.1	2709.1	2696.7	2673.3	2649.9	2621.0	2590.8	2563.3
15°	2780.6	2775.1	2766.9	2758.6	2740.7	2724.2	2688.5	2660.9	2619.7	2579.8	2537.1
17.5°	2861.8	2852.2	2843.9	2826.0	2804.0	2775.1	2722.9	2676.1	2619.7	2561.9	2513.7
20°	3010.4	2989.8	2978.8	2955.4	2916.9	2864.6	2783.4	2707.7	2623.8	2549.5	2484.8
22.5°	3178.3	3164.5	3149.4	3134.2	3073.7	2998.0	2888.0	2775.1	2648.6	2544.0	2461.4
25°	3366.8	3348.9	3340.6	3314.5	3258.1	3171.4	3021.4	2864.6	2705.0	2566.0	2461.4
27.5°	3534.6	3529.1	3527.7	3497.5	3443.8	3342.0	3164.5	2976.0	2782.0	2611.4	2482.1
30°	3687.3	3681.8	3679.1	3662.6	3600.7	3479.6	3287.0	3075.1	2865.9	2674.7	2520.6
32.5°	3849.7	3831.8	3823.6	3791.9	3721.7	3580.0	3359.9	3139.7	2932.0	2736.6	2563.3
35°	3981.8	3966.6	3950.1	3904.7	3805.7	3637.8	3391.5	3161.8	2958.1	2771.0	2585.3
37.5°	4078.1	4063.0	4039.6	3981.8	3859.3	3657.1	3390.2	3154.9	2948.5	2765.5	2589.4
40°	4120.7	4105.6	4080.8	4007.9	3869.0	3646.1	3364.0	3123.2	2919.6	2736.6	2572.9
42.5°	4104.2	4093.2	4061.6	3991.4	3838.7	3596.5	3311.7	3064.1	2864.6	2689.8	2535.7
45°	4040.9	4032.7	4002.4	3928.1	3769.9	3516.7	3234.7	2989.8	2798.5	2632.0	2486.2
47.5°	3946.0	3943.3	3913.0	3840.1	3683.2	3436.9	3154.9	2916.9	2732.5	2575.6	2444.9
50°	3841.4	3827.7	3812.5	3745.1	3602.0	3368.1	3097.1	2871.5	2695.3	2555.0	2427.0
52.5°	3775.4	3771.3	3757.5	3697.0	3559.4	3328.2	3071.0	2854.9	2692.6	2550.9	2417.4
55°	4361.5	4371.2	4244.6	3981.8	3750.6	3438.3	3149.4	2938.9	2760.0	2616.9	2519.2
57.5°	6451.5	6408.8	6191.4	5670.0	5081.1	4303.7	3743.8	3403.9	3182.4	3207.2	3256.7
60°	7516.4	7508.1	7468.2	7266.0	6873.9	6282.2	5626.0	4873.3	4633.9	4660.1	4679.4
62.5°	7992.5	8004.8	8035.1	7959.4	7856.2	7684.3	7356.8	7054.1	6733.5	6613.8	6293.3
65°	8212.6	8234.6	8303.4	8346.1	8386.0	8416.2	8545.6	8900.5	9134.4	8696.9	7678.8
67.5°	7757.2	7863.1	8090.1	8311.7	8509.8	8791.8	9229.4	10053.5	10627.3	10089.3	8613.0
70°	5654.8	5799.3	6059.4	6744.5	7476.5	8116.3	8963.8	10218.6	11084.0	10668.5	8844.1
72.5°	3545.6	3585.5	3701.1	3952.9	4496.4	5317.8	6799.6	8681.8	9680.7	9349.1	7475.1
75°	2249.6	2263.3	2259.2	2317.0	2409.2	2588.0	3174.1	5127.9	6631.7	6114.4	4166.1
77.5°	1340.1	1360.7	1369.0	1386.9	1430.9	1494.2	1542.4	1744.6	2780.6	2699.5	1512.1
80°	1122.7	1139.2	1125.5	1121.3	1093.8	1074.6	1097.9	1074.6	997.5	960.4	884.7
82.5°	594.4	593.0	588.9	628.8	710.0	773.2	821.4	810.4	733.3	624.6	529.7
85°	326.1	337.1	337.1	350.8	338.5	339.8	350.8	370.1	342.6	286.2	233.9
87.5°	27.5	42.7	34.4	42.7	57.8	41.3	39.9	39.9	34.4	24.8	22.0
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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CATALOG NUMBER: VWM-F05-LED-E1-SL4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	2601.8	2601.8	2601.8	2601.8	2601.8	2601.8	2601.8	2601.8	2601.8	2601.8	2601.8
2.5°	2614.2	2611.4	2605.9	2601.8	2601.8	2594.9	2590.8	2588.0	2586.6	2581.1	2581.1
5°	2605.9	2596.3	2586.6	2579.8	2575.6	2568.8	2557.8	2552.2	2545.4	2539.9	2537.1
7.5°	2588.0	2570.1	2555.0	2544.0	2530.2	2519.2	2505.5	2493.1	2480.7	2475.2	2472.4
10°	2560.5	2537.1	2513.7	2493.1	2473.8	2454.6	2436.7	2418.8	2403.7	2392.6	2381.6
12.5°	2534.4	2498.6	2468.3	2438.1	2407.8	2384.4	2359.6	2333.5	2311.5	2290.8	2285.3
15°	2498.6	2457.3	2418.8	2381.6	2344.5	2306.0	2275.7	2246.8	2211.0	2187.6	2169.8
17.5°	2465.6	2416.0	2369.3	2325.2	2279.8	2239.9	2194.5	2156.0	2120.2	2084.5	2058.3
20°	2429.8	2376.1	2326.6	2277.1	2227.5	2176.6	2124.4	2074.8	2030.8	1988.1	1945.5
22.5°	2398.1	2343.1	2295.0	2241.3	2186.3	2128.5	2067.9	2006.0	1955.1	1900.1	1850.6
25°	2378.9	2318.3	2268.8	2216.5	2156.0	2092.7	2023.9	1951.0	1889.1	1825.8	1766.6
27.5°	2378.9	2300.5	2249.6	2197.3	2135.4	2067.9	1992.3	1912.5	1842.3	1772.1	1699.2
30°	2399.5	2303.2	2234.4	2179.4	2116.1	2043.2	1959.2	1875.3	1798.3	1715.7	1645.5
32.5°	2418.8	2308.7	2223.4	2153.2	2080.3	2008.8	1923.5	1834.0	1748.7	1670.3	1596.0
35°	2431.2	2308.7	2202.8	2113.3	2030.8	1960.6	1876.7	1787.3	1700.6	1623.5	1554.7
37.5°	2432.5	2297.7	2169.8	2067.9	1981.3	1908.3	1828.5	1744.6	1662.1	1590.5	1532.7
40°	2418.8	2275.7	2136.7	2019.8	1929.0	1854.7	1781.8	1706.1	1631.8	1572.6	1523.1
42.5°	2394.0	2252.3	2105.1	1981.3	1886.3	1809.3	1741.9	1677.2	1612.5	1561.6	1520.3
45°	2356.9	2220.7	2076.2	1957.9	1864.3	1783.1	1717.1	1663.4	1608.4	1565.7	1524.5
47.5°	2323.9	2209.7	2085.8	1973.0	1875.3	1791.4	1724.0	1678.6	1635.9	1607.0	1550.6
50°	2317.0	2204.2	2090.0	1985.4	1886.3	1801.0	1741.9	1718.5	1706.1	1688.2	1601.5
52.5°	2297.7	2202.8	2120.2	2062.4	1999.1	1959.2	1897.3	1919.3	1905.6	1842.3	1685.4
55°	2500.0	2527.5	2604.5	2714.6	2816.4	2839.8	2832.9	2806.8	2667.8	2295.0	1887.7
57.5°	3436.9	3592.4	3738.3	3802.9	3794.7	3721.7	3669.5	3563.5	3362.6	2908.6	2286.7
60°	4738.5	4763.3	4686.2	4572.0	4379.4	4218.4	4046.4	3848.3	3556.6	3112.2	2531.6
62.5°	5936.9	5603.9	5261.3	4939.4	4646.3	4390.4	4151.0	3874.5	3494.7	3031.1	2500.0
65°	6783.1	6078.6	5537.9	5075.6	4661.5	4303.7	4005.2	3646.1	3218.2	2799.9	2317.0
67.5°	7219.2	6139.2	5309.5	4665.6	4078.1	3582.8	3185.2	2835.7	2517.9	2334.9	2028.0
70°	6732.2	5210.4	4054.7	3326.9	2623.8	2103.7	1662.1	1395.1	1303.0	1476.3	1535.5
72.5°	5016.4	3391.5	2411.9	1865.7	1429.5	1139.2	873.7	686.6	558.6	586.1	760.9
75°	2372.0	1463.9	1034.7	787.0	626.0	518.7	423.8	388.0	324.7	269.7	253.2
77.5°	923.2	672.8	555.9	407.3	288.9	232.5	198.1	191.2	195.4	189.9	187.1
80°	703.1	476.1	298.6	218.8	188.5	166.5	147.2	141.7	144.5	151.3	158.2
82.5°	392.1	244.9	181.6	158.2	141.7	121.1	110.1	101.8	103.2	111.4	126.6
85°	151.3	118.3	108.7	104.6	97.7	78.4	67.4	68.8	78.4	93.6	93.6
87.5°	16.5	16.5	22.0	16.5	16.5	16.5	15.1	17.9	19.3	24.8	28.9
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):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	2601.8	2601.8	2601.8	2601.8	2601.8	2601.8	2601.8	2601.8	2601.8	2601.8	2601.8
2.5°	2578.4	2578.4	2578.4	2575.6	2577.0	2571.5	2571.5	2567.4	2574.3	2570.1	2568.8
5°	2538.5	2537.1	2531.6	2531.6	2531.6	2531.6	2535.7	2524.7	2533.0	2533.0	2528.9
7.5°	2471.1	2471.1	2455.9	2464.2	2461.4	2465.6	2471.1	2465.6	2473.8	2479.3	2475.2
10°	2377.5	2377.5	2365.1	2374.8	2370.6	2380.3	2389.9	2384.4	2389.9	2398.1	2400.9
12.5°	2274.3	2268.8	2257.8	2261.9	2261.9	2267.4	2271.6	2278.4	2285.3	2296.3	2301.8
15°	2154.6	2146.4	2132.6	2132.6	2124.4	2127.1	2135.4	2138.1	2151.9	2167.0	2184.9
17.5°	2032.2	2011.5	1996.4	1978.5	1964.7	1975.8	1985.4	1992.3	2003.3	2026.7	2039.0
20°	1916.6	1875.3	1846.4	1823.0	1807.9	1814.8	1827.2	1835.4	1845.0	1850.6	1854.7
22.5°	1802.4	1755.6	1715.7	1686.8	1662.1	1668.9	1663.4	1659.3	1666.2	1648.3	1646.9
25°	1703.3	1648.3	1594.6	1560.2	1530.0	1520.3	1491.4	1484.6	1465.3	1450.2	1439.2
27.5°	1631.8	1560.2	1501.1	1461.2	1413.0	1377.3	1340.1	1303.0	1282.3	1257.5	1245.2
30°	1575.4	1499.7	1429.5	1362.1	1298.8	1243.8	1194.3	1146.1	1113.1	1077.3	1053.9
32.5°	1523.1	1452.9	1367.6	1275.4	1190.1	1128.2	1063.6	1008.5	956.2	909.5	875.1
35°	1487.3	1408.9	1300.2	1187.4	1091.1	1018.1	949.4	870.9	807.6	747.1	710.0
37.5°	1468.1	1371.7	1238.3	1113.1	1005.8	923.2	837.9	747.1	670.1	613.6	557.2
40°	1452.9	1334.6	1183.3	1047.0	934.2	835.2	736.1	628.8	543.5	484.3	440.3
42.5°	1436.4	1293.3	1135.1	994.8	869.6	754.0	634.3	520.1	438.9	397.6	378.4
45°	1418.5	1257.5	1089.7	945.2	806.3	665.9	528.3	422.4	374.2	360.5	360.5
47.5°	1414.4	1234.2	1056.7	897.1	734.7	564.1	430.6	364.6	350.8	353.6	359.1
50°	1430.9	1227.3	1027.8	840.7	639.8	456.8	364.6	342.6	345.3	353.6	361.9
52.5°	1470.8	1232.8	997.5	762.2	527.0	377.0	337.1	335.7	344.0	356.4	364.6
55°	1538.2	1232.8	939.7	645.3	421.0	338.5	327.5	333.0	344.0	355.0	361.9
57.5°	1682.7	1220.4	837.9	516.0	352.2	324.7	324.7	331.6	341.2	352.2	357.7
60°	1854.7	1203.9	694.8	399.0	317.8	313.7	323.3	331.6	339.8	349.5	355.0
62.5°	1865.7	1161.2	550.3	330.2	299.9	306.8	322.0	333.0	335.7	342.6	349.5
65°	1714.3	1012.6	437.5	295.8	291.7	302.7	317.8	326.1	327.5	330.2	337.1
67.5°	1501.1	825.5	353.6	279.3	283.4	295.8	304.1	310.9	315.1	322.0	323.3
70°	1232.8	663.2	302.7	262.8	266.9	280.7	287.6	294.4	302.7	310.9	306.8
72.5°	873.7	516.0	265.5	244.9	250.4	262.8	271.0	276.6	283.4	291.7	286.2
75°	371.5	360.5	229.8	221.5	229.8	238.0	246.3	254.5	261.4	265.5	265.5
77.5°	189.9	211.9	198.1	198.1	203.6	211.9	218.8	227.0	231.1	235.3	240.8
80°	161.0	163.7	166.5	172.0	177.5	185.7	192.6	199.5	200.9	202.3	205.0
82.5°	133.5	139.0	141.7	150.0	154.1	156.8	161.0	161.0	163.7	163.7	159.6
85°	96.3	103.2	107.3	108.7	107.3	108.7	110.1	112.8	119.7	119.7	114.2
87.5°	27.5	26.1	33.0	34.4	37.1	42.7	48.2	57.8	60.5	63.3	63.3
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°	2601.8	2601.8	2601.8	2601.8
2.5°	2567.4	2570.1	2564.6	2566.0
5°	2528.9	2534.4	2527.5	2535.7
7.5°	2479.3	2487.6	2486.2	2484.8
10°	2407.8	2418.8	2418.8	2422.9
12.5°	2317.0	2323.9	2329.4	2332.1
15°	2194.5	2206.9	2213.8	2213.8
17.5°	2047.3	2055.6	2059.7	2054.2
20°	1860.2	1857.4	1858.8	1845.0
22.5°	1644.2	1648.3	1635.9	1638.7
25°	1432.3	1425.4	1430.9	1422.7
27.5°	1227.3	1228.7	1213.5	1220.4
30°	1031.9	1025.0	1005.8	1015.4
32.5°	843.4	825.5	804.9	792.5
35°	665.9	638.4	628.8	624.6
37.5°	522.8	492.6	482.9	471.9
40°	415.5	404.5	400.4	403.1
42.5°	372.9	372.9	375.6	377.0
45°	361.9	366.0	370.1	371.5
47.5°	363.2	367.4	372.9	374.2
50°	366.0	370.1	374.2	375.6
52.5°	367.4	367.4	370.1	371.5
55°	364.6	363.2	364.6	366.0
57.5°	359.1	356.4	357.7	361.9
60°	356.4	352.2	355.0	357.7
62.5°	349.5	348.1	350.8	352.2
65°	334.3	335.7	339.8	339.8
67.5°	320.6	322.0	323.3	324.7
70°	304.1	305.4	308.2	309.6
72.5°	284.8	290.3	294.4	299.9
75°	269.7	275.2	283.4	288.9
77.5°	243.5	247.7	257.3	264.2
80°	206.4	205.0	206.4	210.5
82.5°	158.2	158.2	156.8	155.5
85°	111.4	110.1	105.9	105.9
87.5°	60.5	59.2	57.8	55.0
90°	0.0	0.0	0.0	0.0

(END OF REPORT)