

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: P140769

Luminaire Tested: **ECM-E04-LED-E1-RW-7030**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P140769
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-E04-LED-E1-RW-7030
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE
(4) LIGHTBARS WITH AccuLED OPTICS - RECTANGULAR WIDE
Light Source: (84) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10804.3 lumens
Efficiency: N/A
Efficacy: 111.2 lumens/watt
Luminous Opening: Rectangular (W 0.67' x L: 1' x H: 0')
IES Classification: Type I - Short - Full Cutoff
BUG Rating: B3 - U0 - G3

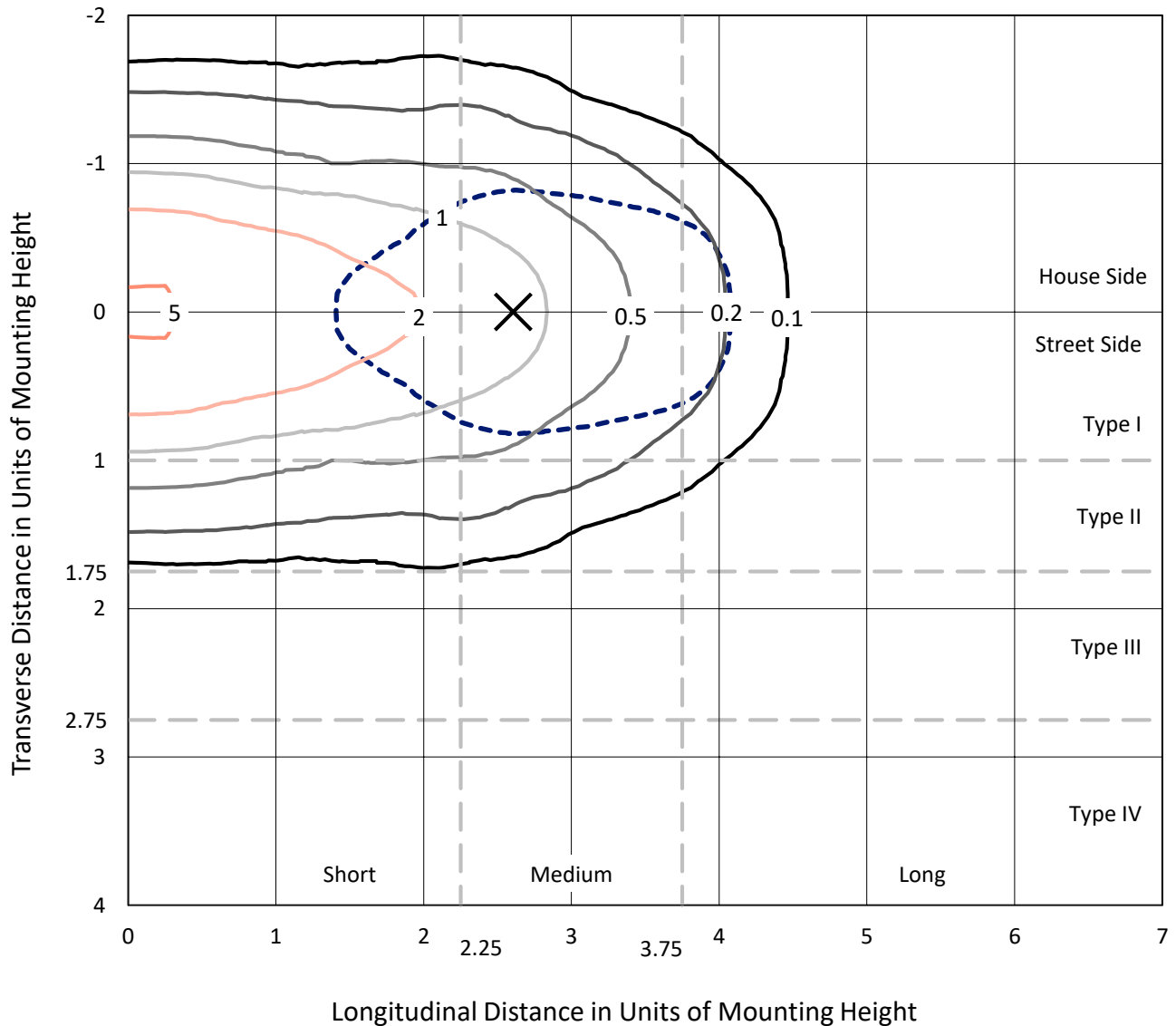
Input Watts (W): 97.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

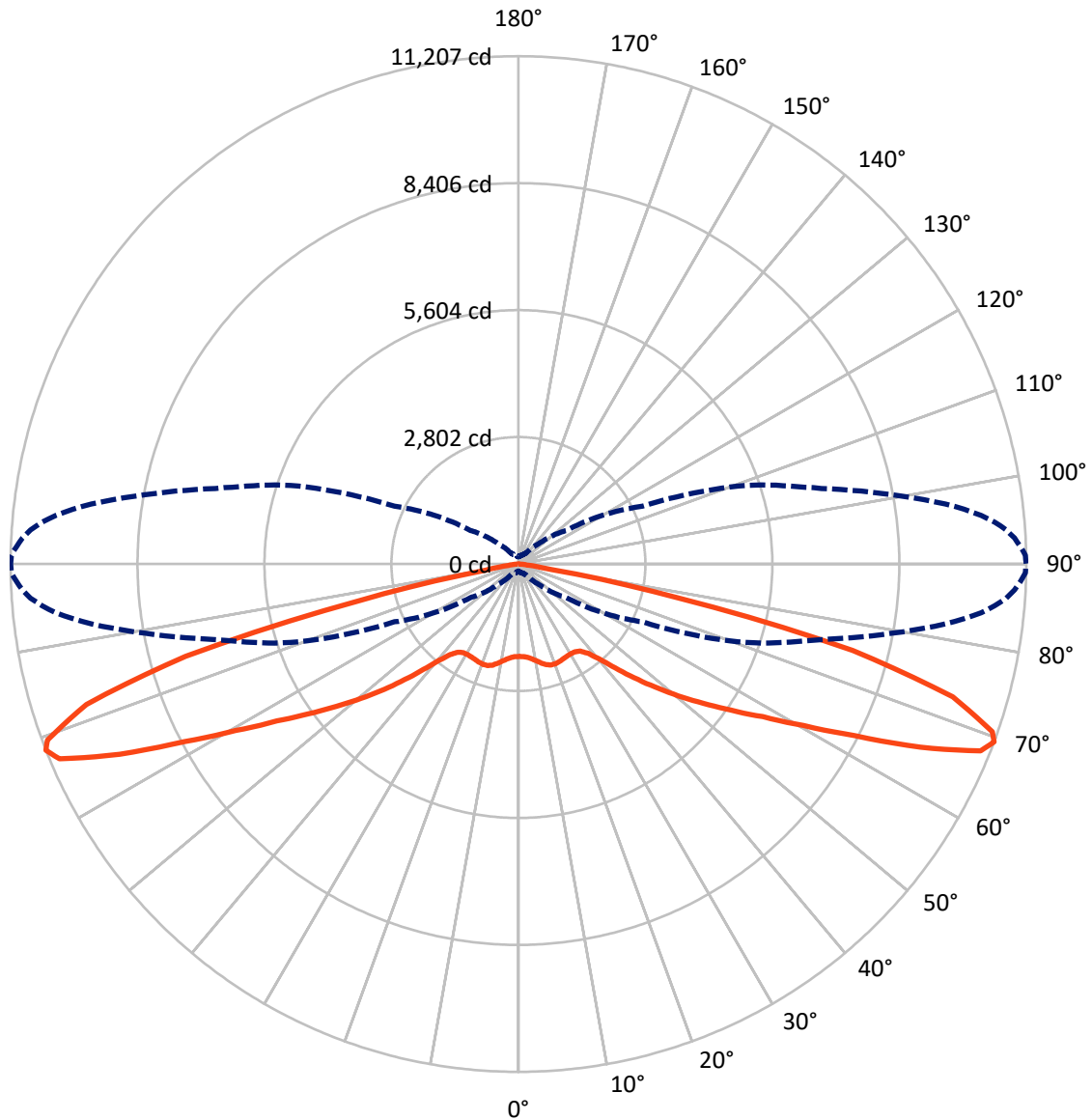
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 5.2 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
House Side	Lumens	5402.1	0.0	5402.1
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	5402.1	0.0	5402.1
	% Fixture	50.0	0.0	50.0
Total	Lumens	10804.3	0.0	10804.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	199.7	1.8
10°-20°	627.9	5.8
20°-30°	1015.4	9.4
30°-40°	1268.3	11.7
40°-50°	1586.3	14.7
50°-60°	1954.7	18.1
60°-70°	2420.0	22.4
70°-80°	1581.7	14.6
80°-90°	150.3	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°	10804.3	100.0
0°-180°	10804.3	100.0



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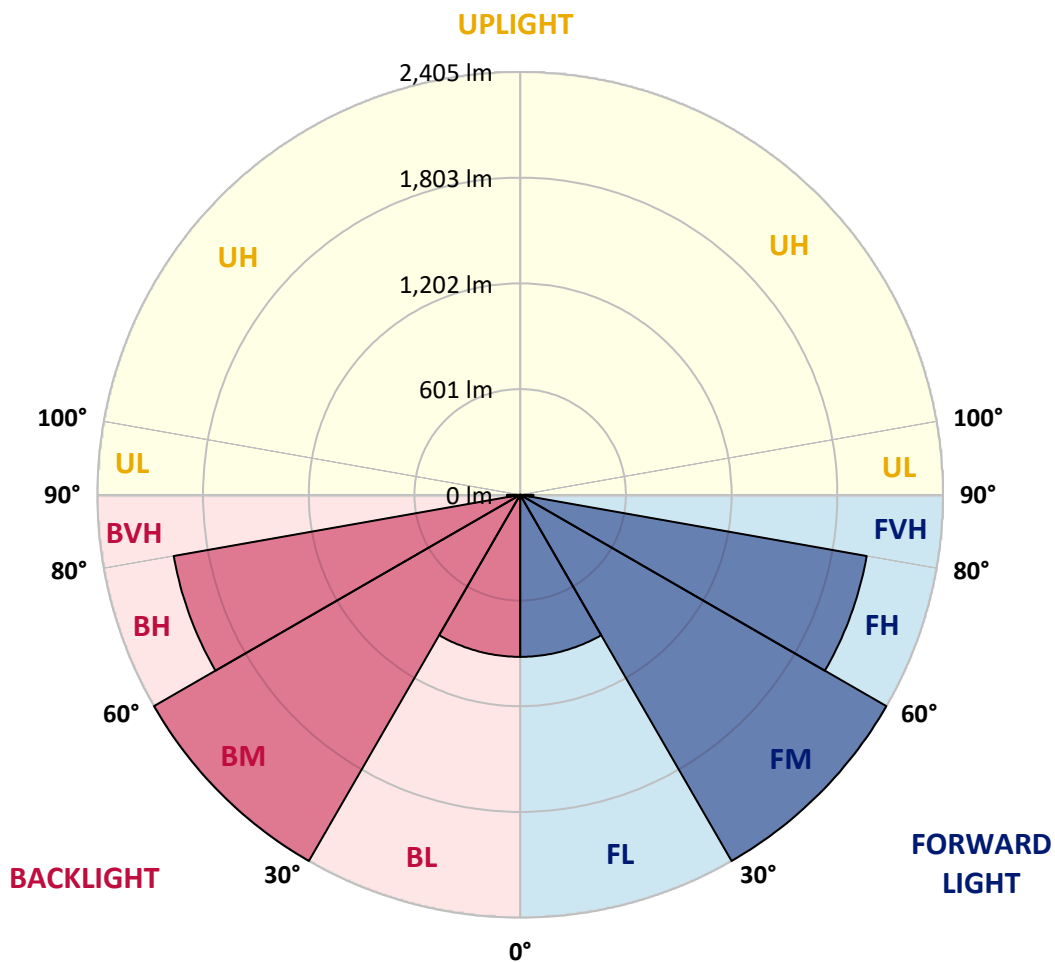
CATALOG NUMBER: ECM-E04-LED-E1-RW-7030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	921.5	8.5			
FM	(30°-60°)	2404.7	22.3			
FH	(60°-80°)	2000.8	18.5			G2/5000
FVH	(80°-90°)	75.2	0.7			G1/100
BL	(0°-30°)	921.5	8.5	B2/1000		
BM	(30°-60°)	2404.7	22.3	B2/2500		
BH	(60°-80°)	2000.8	18.5	B3/2500		G3/2500
BVH	(80°-90°)	75.2	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°	2039.8	2039.8	2039.8	2039.8	2039.8	2039.8	2039.8	2039.8	2039.8	2039.8	2039.8
2.5°	2053.2	2054.4	2050.8	2052.0	2053.2	2052.0	2050.2	2050.2	2049.6	2049.0	2048.4
5°	2066.6	2067.2	2065.4	2068.4	2069.0	2070.9	2070.8	2071.5	2071.1	2070.8	2070.4
7.5°	2085.5	2087.9	2086.1	2090.4	2094.6	2100.7	2103.8	2111.0	2110.9	2110.8	2110.7
10°	2103.2	2105.6	2105.6	2115.3	2125.6	2137.2	2149.4	2161.0	2161.7	2162.5	2163.2
12.5°	2116.6	2118.4	2121.4	2139.0	2162.2	2181.7	2203.0	2221.3	2222.0	2222.7	2223.5
15°	2111.0	2115.4	2129.3	2157.4	2198.1	2230.4	2256.6	2278.5	2280.0	2281.4	2282.9
17.5°	2092.2	2098.9	2119.0	2166.4	2229.2	2281.0	2312.0	2318.1	2319.1	2320.0	2321.0
20°	2051.4	2061.1	2092.8	2160.4	2253.0	2323.0	2354.0	2343.0	2342.1	2341.1	2340.1
22.5°	1983.2	1996.0	2035.6	2131.8	2254.8	2353.4	2383.9	2353.4	2350.0	2346.6	2343.2
25°	1891.8	1902.2	1947.2	2061.2	2226.7	2358.9	2402.7	2360.1	2354.6	2349.1	2343.7
27.5°	1781.0	1789.6	1845.6	1966.8	2157.4	2330.9	2414.9	2371.6	2364.6	2357.5	2350.5
30°	1656.2	1663.5	1725.0	1854.1	2060.0	2269.4	2413.7	2397.8	2389.4	2381.0	2372.6
32.5°	1532.0	1535.1	1589.8	1731.7	1951.6	2178.6	2393.6	2438.0	2429.9	2421.7	2413.5
35°	1395.6	1405.4	1463.8	1618.4	1829.1	2078.8	2366.8	2494.0	2489.4	2484.8	2480.2
37.5°	1286.0	1289.0	1351.8	1512.5	1729.9	1988.0	2332.7	2565.9	2569.2	2572.5	2575.8
40°	1176.4	1176.4	1238.5	1405.3	1630.6	1906.5	2304.1	2654.2	2670.9	2687.6	2704.2
42.5°	1056.4	1065.0	1125.8	1292.1	1534.4	1837.0	2289.5	2760.2	2791.6	2823.0	2854.4
45°	944.4	949.8	1012.0	1174.6	1414.4	1757.9	2285.2	2878.2	2926.0	2973.7	3021.5
47.5°	834.2	842.1	901.2	1050.4	1283.6	1652.6	2279.8	3012.8	3073.9	3134.9	3195.9
50°	731.9	736.8	802.5	938.3	1154.5	1516.2	2243.8	3163.2	3237.8	3312.3	3386.8
52.5°	623.6	633.2	687.4	827.5	1024.2	1369.4	2149.4	3327.0	3417.2	3507.3	3597.4
55°	510.3	507.8	573.0	704.5	910.3	1228.8	1975.2	3468.9	3577.6	3686.4	3795.2
57.5°	373.8	381.8	441.4	574.8	778.2	1110.6	1770.1	3542.6	3678.3	3813.9	3949.6
60°	267.9	278.9	330.6	436.0	646.6	995.0	1560.6	3491.4	3671.2	3851.0	4030.7
62.5°	209.4	214.3	258.8	327.0	504.2	873.8	1420.0	3358.7	3606.5	3854.3	4102.2
65°	182.7	188.1	227.7	263.0	383.0	758.7	1335.3	3252.8	3579.8	3907.0	4234.0
67.5°	166.2	173.0	207.0	231.4	314.2	660.7	1315.2	3166.3	3550.0	3933.7	4317.5
69°	158.3	165.0	196.6	219.2	291.6	629.6	1292.1	3020.8	3410.2	3799.6	4189.1
70°	154.6	160.1	190.6	211.9	284.4	611.4	1239.7	2854.6	3231.0	3607.4	3983.8
72.5°	142.4	145.6	173.5	194.2	269.2	511.5	982.2	2136.6	2451.2	2765.7	3080.3
75°	126.0	131.0	156.5	177.8	216.2	327.6	644.2	1291.4	1524.4	1757.4	1990.4
77.5°	108.4	112.6	134.6	169.8	166.2	198.5	370.2	721.6	847.5	973.4	1099.3
80°	93.8	98.0	118.2	157.7	135.1	146.8	249.7	470.6	518.5	566.4	614.2
82.5°	73.7	76.7	99.2	128.5	104.8	109.0	187.0	411.0	439.9	468.7	497.6
85°	46.9	48.7	72.4	87.6	73.1	64.6	117.5	301.4	324.2	346.9	369.7
87.5°	16.4	23.2	32.2	30.4	30.4	23.2	41.4	111.4	120.3	129.2	138.1
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°	2039.8	2039.8	2039.8	2039.8	2039.8	2039.8	2039.8	2039.8	2039.8	2039.8	2039.8
2.5°	2047.8	2047.2	2047.8	2047.8	2047.1	2046.5	2046.5	2045.9	2044.7	2044.7	2044.1
5°	2070.0	2069.6	2070.8	2070.2	2070.9	2070.2	2070.2	2069.6	2070.3	2067.9	2067.2
7.5°	2110.6	2110.4	2110.4	2112.2	2111.0	2110.4	2111.7	2111.6	2111.6	2110.4	2110.4
10°	2163.9	2164.6	2165.9	2167.0	2167.0	2167.1	2169.5	2167.7	2171.4	2167.6	2169.6
12.5°	2224.2	2224.9	2228.0	2229.2	2230.4	2230.4	2230.4	2234.0	2236.5	2235.8	2236.5
15°	2284.4	2285.8	2286.4	2288.2	2288.2	2288.8	2291.3	2295.6	2294.4	2296.8	2296.8
17.5°	2322.0	2323.0	2322.4	2322.4	2323.6	2325.4	2327.8	2330.2	2329.6	2331.5	2332.7
20°	2339.1	2338.2	2336.4	2335.1	2334.6	2335.8	2335.8	2336.4	2337.6	2337.6	2337.6
22.5°	2339.8	2336.4	2332.1	2329.6	2326.6	2324.8	2326.0	2324.8	2324.8	2324.8	2323.6
25°	2338.2	2332.7	2326.0	2321.2	2316.2	2313.2	2310.1	2309.0	2306.5	2306.5	2306.5
27.5°	2343.4	2336.4	2329.6	2320.5	2313.9	2310.2	2305.9	2301.6	2299.2	2296.8	2296.8
30°	2364.2	2355.9	2347.3	2336.4	2327.2	2324.1	2316.2	2312.0	2305.9	2302.9	2301.6
32.5°	2405.4	2397.2	2385.7	2373.5	2366.2	2357.0	2350.4	2341.2	2334.6	2330.2	2324.8
35°	2475.5	2470.9	2461.2	2453.2	2442.3	2432.0	2418.6	2413.6	2399.6	2397.2	2390.6
37.5°	2579.1	2582.4	2580.6	2574.4	2567.1	2558.0	2552.6	2542.2	2536.7	2531.2	2525.1
40°	2720.9	2737.6	2743.1	2749.8	2751.6	2759.6	2750.4	2749.2	2741.9	2748.0	2744.3
42.5°	2885.8	2917.2	2934.3	2954.4	2976.3	2996.4	3012.2	3039.0	3036.0	3056.6	3071.3
45°	3069.2	3117.0	3160.8	3194.3	3236.3	3282.6	3323.4	3361.2	3403.8	3428.1	3464.0
47.5°	3256.9	3317.9	3380.6	3442.7	3502.4	3562.0	3635.1	3701.5	3766.0	3809.9	3865.3
50°	3461.4	3535.9	3611.4	3687.5	3772.2	3866.0	3947.5	4034.0	4122.9	4213.0	4276.3
52.5°	3687.5	3777.6	3859.8	3940.2	4044.9	4144.2	4250.1	4358.5	4493.0	4591.1	4678.2
55°	3903.9	4012.7	4102.8	4199.0	4308.6	4418.8	4548.5	4684.2	4826.8	4968.0	5095.9
57.5°	4085.2	4220.9	4328.1	4423.6	4541.2	4668.4	4807.9	4975.9	5138.6	5313.8	5478.9
60°	4210.5	4390.2	4519.2	4634.4	4770.7	4912.0	5094.0	5292.6	5506.3	5724.3	5936.2
62.5°	4350.0	4597.8	4774.4	4938.8	5100.2	5257.2	5462.4	5709.0	5998.9	6262.6	6543.2
65°	4561.2	4888.2	5148.8	5358.4	5587.2	5816.2	6055.5	6343.5	6672.9	7057.8	7384.8
67.5°	4701.2	5084.9	5416.2	5716.4	5983.7	6261.9	6564.0	6908.6	7306.2	7698.9	8105.7
69°	4578.6	4968.0	5318.1	5648.8	5941.7	6241.2	6548.1	6895.2	7301.3	7735.4	8164.8
70°	4360.2	4736.6	5098.4	5446.6	5732.8	6045.8	6347.8	6678.4	7090.0	7524.2	7991.2
72.5°	3394.9	3709.4	4080.8	4417.0	4758.6	5044.2	5316.9	5648.8	6064.0	6477.5	6932.4
75°	2223.3	2456.3	2796.0	3072.5	3367.8	3635.8	3833.6	4163.0	4415.2	4804.2	5226.8
77.5°	1225.2	1351.1	1527.7	1753.0	1880.2	2031.3	2229.2	2349.1	2528.2	2800.4	2927.0
80°	662.1	710.0	784.2	831.1	868.9	831.8	811.7	847.6	832.4	828.1	787.3
82.5°	526.4	555.3	593.6	621.1	603.4	523.6	439.0	377.5	338.0	284.4	243.6
85°	392.5	415.2	429.9	448.2	445.1	402.5	322.1	249.0	195.4	155.8	135.8
87.5°	147.0	155.9	160.1	194.8	179.0	169.9	132.2	96.2	73.6	53.6	43.2
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°	2039.8	2039.8	2039.8	2039.8	2039.8	2039.8	2039.8	2039.8	2039.8	2039.8	2039.8
2.5°	2045.3	2044.7	2044.6	2044.6	2045.3	2044.0	2042.8	2044.1	2043.5	2043.5	2043.5
5°	2069.6	2069.0	2069.0	2069.6	2069.0	2069.6	2069.0	2066.6	2067.8	2068.4	2069.0
7.5°	2111.7	2111.0	2111.0	2114.1	2113.5	2112.9	2112.2	2113.4	2111.7	2111.6	2112.9
10°	2169.5	2172.0	2171.4	2173.2	2172.6	2171.4	2170.1	2171.4	2173.1	2173.8	2171.3
12.5°	2240.2	2240.8	2239.6	2242.6	2240.8	2245.0	2240.1	2242.6	2245.0	2241.4	2243.2
15°	2297.4	2297.4	2299.8	2300.4	2299.8	2301.0	2304.6	2302.8	2301.0	2304.1	2305.3
17.5°	2332.0	2334.0	2334.5	2335.1	2336.4	2337.6	2338.2	2337.6	2338.2	2339.4	2341.8
20°	2340.0	2339.4	2340.6	2341.2	2343.0	2343.0	2344.2	2343.6	2345.5	2346.1	2346.7
22.5°	2326.0	2326.6	2327.2	2329.0	2328.4	2329.6	2330.2	2332.1	2331.5	2332.7	2333.3
25°	2307.2	2308.4	2309.0	2308.4	2308.4	2309.0	2309.6	2309.0	2311.4	2312.6	2312.6
27.5°	2295.0	2295.0	2296.8	2296.1	2295.0	2296.2	2295.6	2295.6	2295.6	2296.1	2298.0
30°	2299.8	2298.0	2296.8	2296.8	2296.2	2295.0	2293.8	2291.9	2291.9	2292.5	2291.9
32.5°	2326.0	2322.4	2320.6	2318.7	2317.4	2314.4	2310.8	2309.6	2306.6	2306.5	2305.3
35°	2393.0	2388.7	2388.7	2382.0	2378.4	2376.6	2373.5	2364.4	2365.0	2361.3	2360.1
37.5°	2526.3	2519.0	2516.0	2522.0	2510.5	2515.4	2505.0	2500.8	2503.2	2496.5	2500.1
40°	2750.4	2762.0	2757.1	2763.8	2766.8	2768.0	2768.0	2757.8	2768.0	2751.6	2757.1
42.5°	3073.8	3104.2	3115.1	3118.8	3137.6	3132.8	3127.3	3126.7	3126.1	3134.0	3129.7
45°	3480.5	3484.7	3536.5	3546.2	3556.6	3568.2	3565.1	3578.5	3588.2	3574.8	3576.7
47.5°	3896.4	3939.6	3977.4	3998.0	4020.6	4009.0	4018.1	4023.6	4058.3	4054.7	4051.6
50°	4354.2	4426.7	4446.8	4469.4	4487.0	4522.3	4519.2	4540.6	4537.0	4565.6	4569.2
52.5°	4788.4	4868.2	4949.2	4984.5	5011.2	5052.0	5067.8	5091.0	5082.5	5080.0	5101.4
55°	5220.1	5353.5	5446.0	5536.8	5587.3	5641.4	5664.6	5697.5	5712.1	5718.8	5692.0
57.5°	5648.2	5808.3	5964.8	6076.8	6154.8	6236.4	6279.6	6315.5	6357.5	6371.5	6358.1
60°	6148.7	6383.1	6588.3	6738.1	6881.8	6970.6	7063.8	7132.0	7144.8	7202.7	7239.8
62.5°	6815.4	7101.0	7361.0	7579.0	7801.8	7968.1	8136.1	8203.1	8269.5	8314.6	8341.9
65°	7724.5	8100.8	8460.0	8770.0	9043.4	9319.8	9515.9	9618.8	9751.0	9777.2	9748.5
67.5°	8521.6	8965.4	9411.8	9806.4	10101.6	10388.4	10621.0	10791.6	10915.2	10976.0	11001.6
69°	8609.2	9060.4	9516.5	9909.8	10267.3	10553.4	10791.6	10960.8	11083.8	11189.2	11207.4
70°	8429.6	8936.2	9379.5	9776.5	10144.9	10436.6	10649.7	10843.3	10983.4	11064.3	11092.9
72.5°	7400.0	7855.4	8303.0	8760.2	9076.2	9426.4	9601.8	9757.0	9943.4	10049.3	10026.2
75°	5608.0	6002.0	6392.2	6734.4	6978.0	7107.1	7312.3	7462.7	7435.2	7613.7	7618.6
77.5°	3163.2	3214.4	3479.2	3443.9	3560.8	3563.9	3594.3	3647.3	3545.6	3754.5	3604.7
80°	767.2	756.8	811.6	747.2	741.6	736.2	717.8	753.8	758.7	721.6	728.2
82.5°	225.3	215.6	211.2	205.8	215.0	211.9	213.8	214.9	221.0	213.2	221.6
85°	123.6	116.3	115.7	112.6	112.0	105.4	104.8	104.7	100.4	101.6	101.1
87.5°	47.5	44.4	42.0	40.2	39.6	37.8	35.9	32.9	29.2	26.2	24.4
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)