

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: P142047

Luminaire Tested: **ECM-F03-LED-E1-T4-7060**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P142047
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33685)
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-T4-7060
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE
(3) LIGHTBARS WITH AccuLED OPTICS - TYPE 4
Light Source: (21) 5700K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7308 lumens
Efficiency: N/A
Efficacy: 93.3 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G2

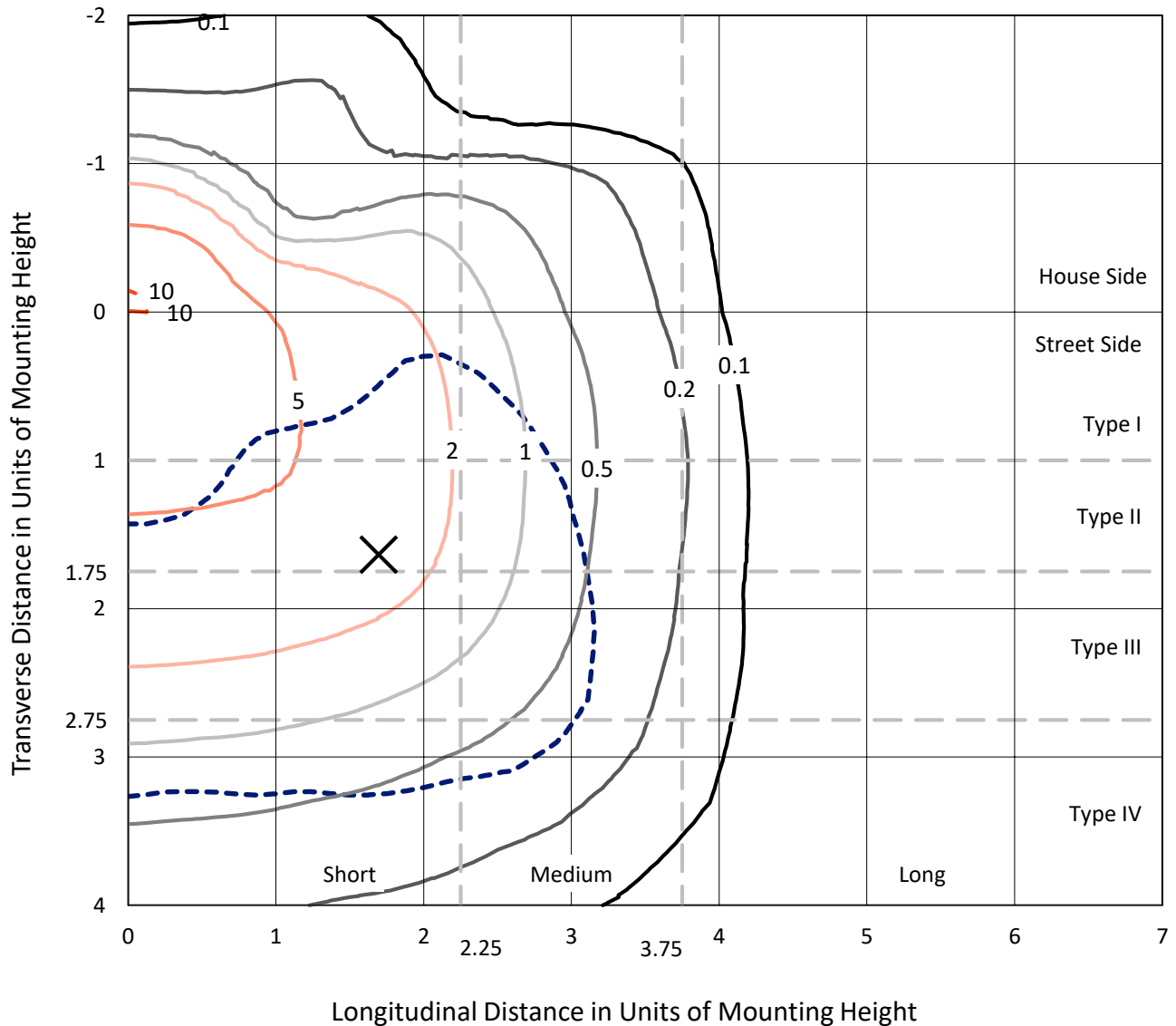
Input Watts (W): 78.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

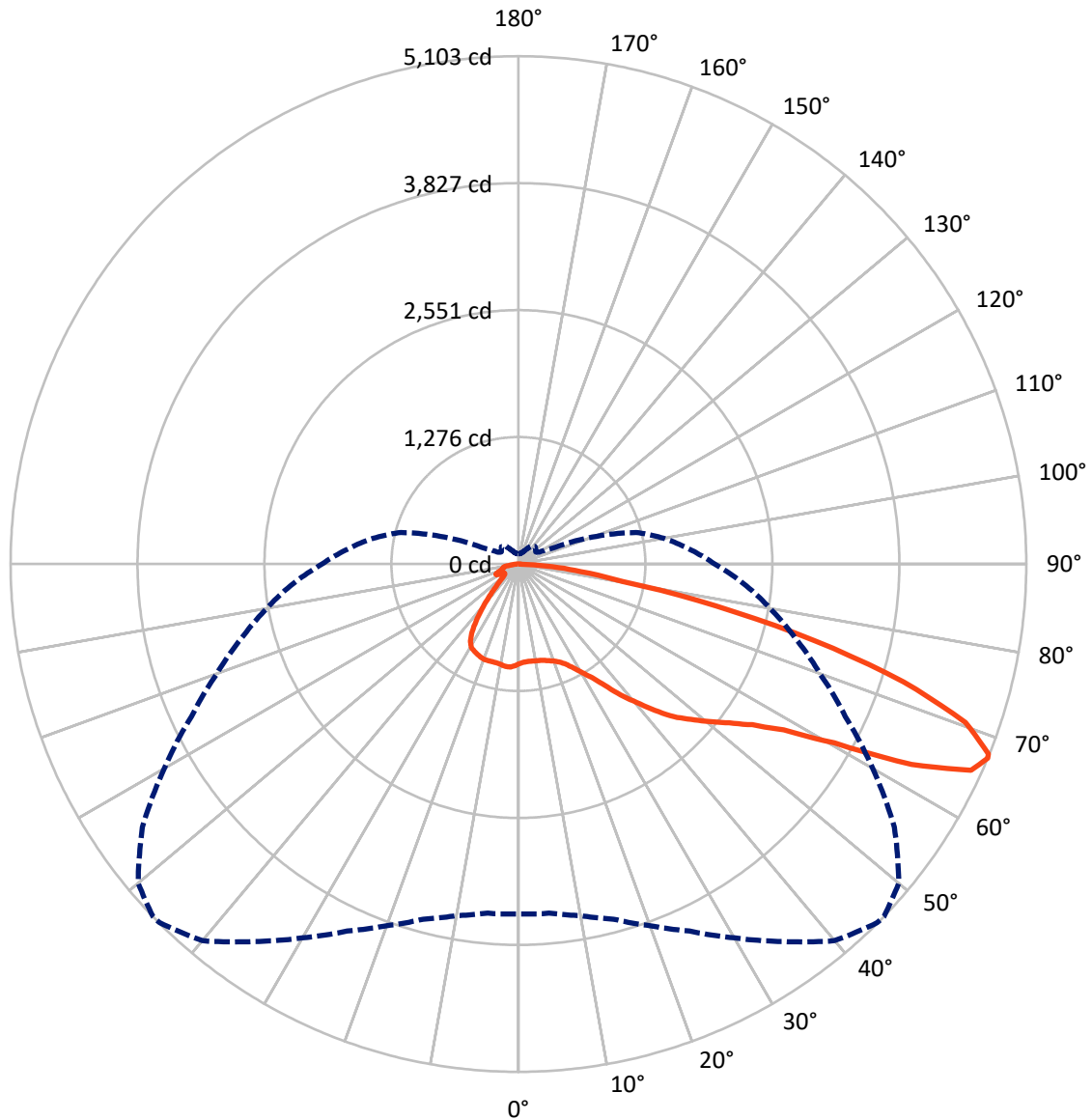
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 10.1 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 46-Deg Lateral - - - Horizontal Cone Through 67-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1452.2	0.0	1452.2
	% Fixture	19.9	0.0	19.9
Street Side	Lumens	5855.7	0.0	5855.7
	% Fixture	80.1	0.0	80.1
Total	Lumens	7308.0	0.0	7308.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	96.3	1.3
10°-20°	287.6	3.9
20°-30°	483.6	6.6
30°-40°	723.2	9.9
40°-50°	942.0	12.9
50°-60°	1290.1	17.7
60°-70°	2039.6	27.9
70°-80°	1265.1	17.3
80°-90°	180.3	2.5
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°	7308.0	100.0
0°-180°	7308.0	100.0



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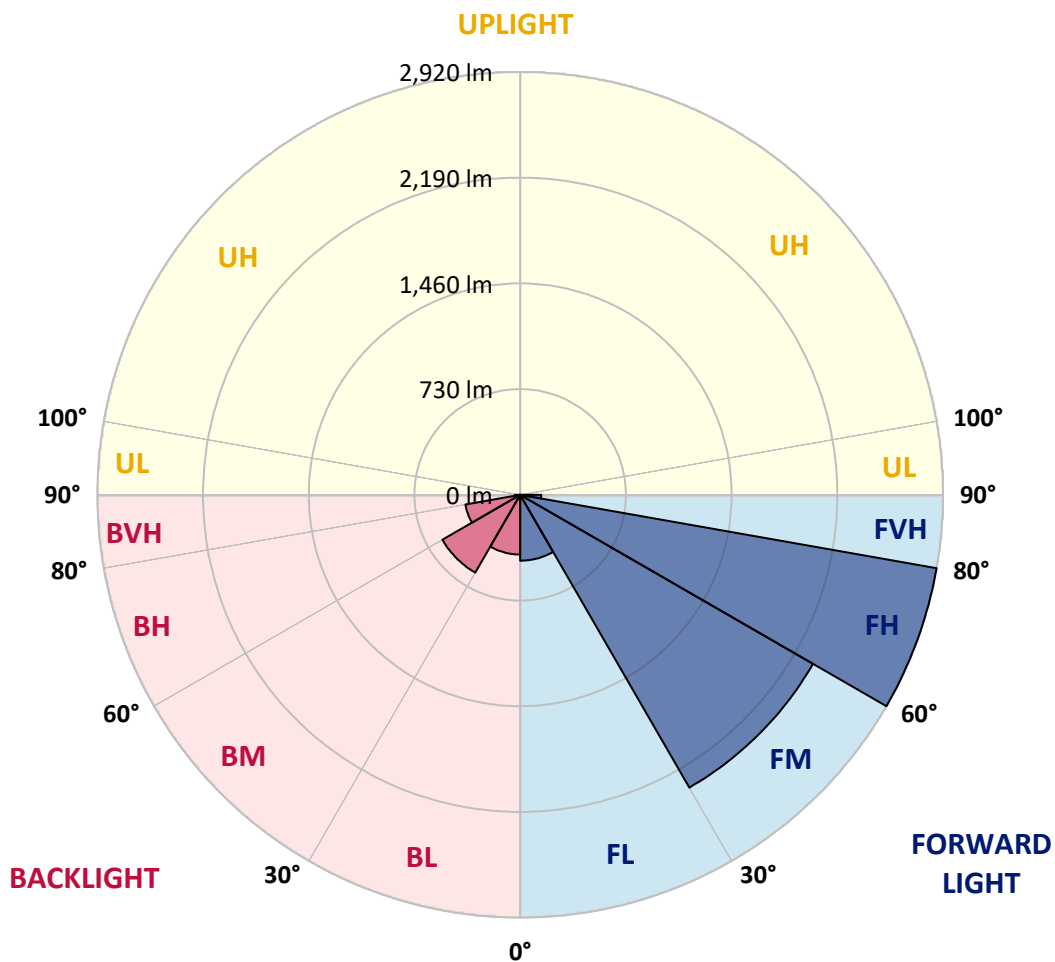
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	455.1	6.2			
FM	(30°-60°)	2335.2	32.0			
FH	(60°-80°)	2920.3	40.0			G2/5000
FVH	(80°-90°)	145.2	2.0			G2/225
BL	(0°-30°)	412.5	5.6	B1/500		
BM	(30°-60°)	620.2	8.5	B1/1000		
BH	(60°-80°)	384.4	5.3	B1/500		G1/500
BVH	(80°-90°)	35.1	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	46°
0°	1001.2	1001.2	1001.2	1001.2	1001.2	1001.2	1001.2	1001.2	1001.2	1001.2	1001.2
2.5°	979.2	981.8	980.9	980.1	980.9	981.8	982.6	985.1	986.0	986.8	987.7
5°	961.4	964.0	963.1	964.8	965.7	969.1	971.6	975.8	978.4	981.8	983.5
7.5°	956.3	958.0	958.0	959.7	960.6	964.0	968.2	973.3	978.4	983.5	985.1
10°	969.9	970.7	970.7	969.9	970.7	972.4	974.1	978.4	982.6	986.8	988.5
12.5°	1002.1	999.5	998.7	996.2	997.0	993.6	993.6	992.8	992.8	993.6	993.6
15°	1036.0	1034.3	1032.6	1028.3	1028.3	1023.3	1021.6	1018.2	1009.7	1006.3	1005.5
17.5°	1066.5	1064.8	1061.4	1058.0	1056.3	1049.5	1047.8	1041.9	1031.7	1024.1	1021.6
20°	1102.9	1098.7	1091.0	1089.3	1085.1	1077.5	1074.9	1067.3	1053.8	1042.8	1041.9
22.5°	1158.8	1152.0	1144.4	1138.5	1127.5	1119.8	1113.1	1102.9	1086.8	1074.1	1070.7
25°	1214.7	1212.2	1205.4	1196.9	1189.3	1180.8	1172.4	1157.1	1135.9	1119.8	1116.4
27.5°	1293.5	1287.6	1279.1	1265.5	1261.3	1246.9	1240.1	1227.4	1206.2	1185.9	1182.5
30°	1375.7	1369.7	1356.2	1344.3	1341.8	1326.5	1322.3	1308.7	1290.1	1269.8	1267.2
32.5°	1469.7	1463.7	1453.6	1446.8	1437.5	1429.0	1418.9	1406.1	1382.4	1365.5	1362.1
35°	1590.0	1584.9	1573.0	1578.1	1569.6	1567.1	1561.2	1540.0	1513.7	1493.4	1496.8
37.5°	1684.8	1684.0	1686.5	1684.0	1695.0	1706.0	1706.0	1707.7	1695.0	1673.0	1668.7
40°	1773.8	1772.9	1779.7	1787.3	1817.0	1834.8	1855.1	1862.7	1849.2	1832.2	1826.3
42.5°	1856.8	1855.1	1864.4	1892.4	1928.8	1961.8	1996.6	2026.2	2033.0	2014.3	2010.1
45°	1939.0	1941.5	1953.4	1984.7	2033.0	2076.2	2135.5	2170.2	2192.2	2182.1	2188.8
47.5°	2038.1	2040.6	2053.3	2090.6	2132.9	2187.1	2256.6	2315.9	2342.2	2342.2	2333.7
50°	2155.8	2167.7	2181.2	2206.6	2255.8	2309.1	2393.8	2453.1	2495.5	2493.8	2487.0
52.5°	2312.5	2315.1	2337.1	2357.4	2399.8	2454.0	2530.2	2611.5	2664.9	2659.8	2652.2
55°	2523.4	2513.3	2527.7	2547.2	2592.9	2640.3	2723.3	2817.4	2871.6	2855.5	2850.4
57.5°	2789.4	2780.9	2791.1	2814.8	2872.4	2911.4	2978.3	3064.7	3141.0	3154.5	3142.7
60°	3173.1	3173.1	3193.5	3244.3	3302.7	3361.2	3446.8	3550.9	3629.7	3649.2	3648.4
62.5°	3628.0	3656.8	3661.1	3727.1	3838.9	3939.7	4072.7	4256.6	4374.3	4458.2	4436.1
65°	3700.9	3710.2	3747.5	3850.0	4001.6	4180.3	4387.0	4628.4	4873.2	4994.4	4997.7
67°	3517.9	3521.3	3586.5	3694.1	3867.7	4069.4	4337.0	4631.0	4941.0	5097.7	5102.8
67.5°	3461.2	3454.4	3512.8	3625.5	3815.2	4042.2	4293.8	4603.0	4923.2	5090.9	5093.5
70°	3080.8	3084.2	3129.9	3255.3	3456.1	3668.7	3949.9	4267.6	4604.7	4758.0	4765.6
72.5°	2656.4	2634.4	2675.9	2809.7	2905.5	3113.0	3371.4	3611.1	3907.6	4052.4	4049.0
75°	2026.2	1965.2	2038.1	2116.0	2169.4	2375.2	2536.1	2701.3	2974.9	3085.0	3079.1
77.5°	1091.9	1089.3	1169.0	1230.0	1309.6	1495.1	1636.6	1740.7	1971.1	2025.4	2032.1
80°	593.0	615.0	662.4	730.2	794.6	883.5	965.7	1030.9	1106.3	1071.6	1063.9
82.5°	357.5	393.9	466.7	518.4	543.8	583.6	642.1	679.4	709.0	644.6	631.9
85°	56.8	102.5	263.4	315.1	342.2	360.9	373.6	398.1	363.4	340.5	346.5
87.5°	18.6	21.2	40.7	89.8	78.8	54.2	71.2	103.3	49.1	26.3	25.4
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):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	1001.2	1001.2	1001.2	1001.2	1001.2	1001.2	1001.2	1001.2	1001.2	1001.2	1001.2
2.5°	988.5	989.4	991.9	995.3	997.0	1001.2	1001.2	1004.6	1004.6	1007.2	1009.7
5°	986.0	990.2	993.6	998.7	1001.2	1007.2	1009.7	1014.8	1017.3	1020.7	1024.1
7.5°	990.2	996.2	1000.4	1006.3	1010.6	1016.5	1019.0	1023.3	1025.8	1030.0	1031.7
10°	993.6	999.5	1004.6	1011.4	1014.8	1019.0	1021.6	1025.0	1025.8	1028.3	1030.0
12.5°	997.9	1000.4	1004.6	1010.6	1013.9	1016.5	1019.0	1021.6	1024.1	1024.1	1024.1
15°	1003.8	1001.2	1002.1	1007.2	1010.6	1012.3	1014.8	1016.5	1017.3	1017.3	1015.6
17.5°	1016.5	1009.7	1005.5	1005.5	1007.2	1008.9	1008.9	1006.3	1004.6	1002.1	998.7
20°	1035.1	1024.1	1015.6	1011.4	1008.0	1003.8	997.0	988.5	980.9	974.1	969.9
22.5°	1061.4	1050.4	1040.2	1030.9	1019.9	1005.5	991.1	973.3	958.9	947.9	943.6
25°	1110.5	1094.4	1086.8	1072.4	1055.5	1032.6	1010.6	986.0	969.1	953.8	947.0
27.5°	1176.6	1163.9	1146.9	1139.3	1117.3	1091.0	1066.5	1036.8	1013.1	994.5	981.8
30°	1260.4	1252.0	1237.6	1224.9	1203.7	1180.0	1143.6	1110.5	1069.0	1036.0	1017.3
32.5°	1357.0	1344.3	1331.6	1315.5	1300.3	1268.9	1235.0	1185.1	1127.5	1070.7	1036.0
35°	1478.1	1465.4	1457.0	1431.6	1406.1	1372.3	1326.5	1267.2	1186.8	1110.5	1051.2
37.5°	1645.0	1617.9	1576.4	1540.0	1494.2	1442.6	1390.9	1319.7	1230.0	1130.8	1049.5
40°	1789.9	1750.1	1703.5	1640.8	1576.4	1508.6	1447.7	1370.6	1265.5	1147.8	1037.7
42.5°	1977.9	1909.3	1830.5	1747.5	1659.4	1578.1	1502.7	1414.6	1291.8	1148.6	1009.7
45°	2147.3	2062.6	1958.4	1845.8	1738.2	1639.1	1552.7	1455.3	1313.8	1145.2	977.5
47.5°	2298.1	2199.0	2071.9	1936.4	1809.4	1697.5	1602.7	1500.2	1342.6	1156.3	965.7
50°	2443.8	2330.3	2187.1	2022.8	1881.4	1759.4	1660.3	1550.1	1390.9	1193.5	984.3
52.5°	2599.7	2461.6	2299.8	2114.3	1960.1	1833.9	1723.0	1610.3	1448.5	1243.5	1018.2
55°	2790.3	2633.6	2448.9	2243.9	2066.9	1926.2	1800.9	1682.3	1517.1	1305.3	1058.0
57.5°	3044.4	2886.0	2673.4	2437.0	2251.5	2084.7	1933.9	1800.0	1621.3	1390.9	1117.3
60°	3534.0	3338.3	3055.4	2798.7	2598.0	2401.5	2219.3	2036.4	1821.2	1563.7	1269.8
62.5°	4320.1	4047.3	3696.6	3339.2	3068.1	2808.1	2567.5	2329.5	2060.9	1772.1	1451.0
65°	4863.9	4526.8	4086.3	3638.2	3271.4	2953.8	2666.6	2383.7	2084.7	1809.4	1529.8
67°	4988.4	4611.5	4110.0	3623.8	3224.8	2880.1	2567.5	2272.7	1972.0	1722.1	1483.2
67.5°	4983.3	4607.2	4091.4	3593.3	3193.5	2853.8	2538.7	2228.7	1933.0	1688.2	1460.4
70°	4681.8	4304.0	3785.6	3290.0	2904.6	2566.6	2249.0	1978.8	1677.2	1479.0	1307.9
72.5°	3966.9	3638.2	3219.7	2774.2	2443.8	2141.4	1887.3	1622.1	1360.4	1228.3	1093.6
75°	3016.4	2725.0	2341.3	2015.2	1763.6	1553.5	1298.6	1124.1	940.3	849.6	801.3
77.5°	1993.2	1658.6	1393.4	1082.6	897.9	732.7	577.7	458.3	382.9	402.4	439.6
80°	1054.6	836.9	619.2	479.4	370.2	288.0	228.7	171.1	124.5	145.7	183.0
82.5°	574.3	489.6	361.7	288.0	235.5	194.8	149.9	105.0	77.9	86.4	124.5
85°	327.8	288.0	223.6	174.5	152.5	124.5	85.6	57.6	55.9	60.1	77.1
87.5°	54.2	72.8	59.3	40.7	45.7	44.9	39.8	30.5	22.9	32.2	41.5
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°	1001.2	1001.2	1001.2	1001.2	1001.2	1001.2	1001.2	1001.2	1001.2	1001.2	1001.2
2.5°	1011.4	1013.9	1017.3	1018.2	1017.3	1019.9	1024.1	1027.5	1025.0	1023.3	1027.5
5°	1027.5	1029.2	1033.4	1033.4	1034.3	1036.0	1038.5	1041.1	1037.7	1037.7	1039.4
7.5°	1034.3	1034.3	1038.5	1036.8	1036.8	1036.0	1038.5	1039.4	1034.3	1033.4	1034.3
10°	1030.0	1030.0	1031.7	1028.3	1027.5	1026.7	1026.7	1027.5	1022.4	1020.7	1023.3
12.5°	1024.1	1024.1	1022.4	1020.7	1019.0	1017.3	1019.0	1019.9	1016.5	1016.5	1017.3
15°	1013.9	1011.4	1010.6	1010.6	1011.4	1012.3	1015.6	1018.2	1015.6	1013.9	1013.9
17.5°	997.0	995.3	997.9	1002.9	1008.9	1013.1	1018.2	1019.9	1013.9	1007.2	1002.1
20°	971.6	975.8	985.1	999.5	1012.3	1019.0	1019.0	1013.1	999.5	986.0	979.2
22.5°	945.3	957.2	977.5	999.5	1014.8	1017.3	1008.0	995.3	976.7	962.3	949.6
25°	948.7	963.1	983.5	1002.1	1012.3	1008.0	991.1	975.0	953.0	937.7	919.1
27.5°	984.3	997.9	1008.0	1013.9	1010.6	997.0	977.5	955.5	930.9	909.8	887.7
30°	1013.1	1019.0	1018.2	1013.1	1000.4	979.2	956.3	930.1	900.4	877.6	848.8
32.5°	1018.2	1007.2	990.2	971.6	954.7	930.9	904.7	874.2	841.1	811.5	782.7
35°	1008.9	967.4	930.1	892.8	867.4	837.8	814.9	779.3	742.9	717.5	696.3
37.5°	974.1	902.1	842.8	790.3	753.1	719.2	684.4	649.7	619.2	607.4	601.4
40°	930.1	821.7	731.0	658.2	618.4	585.3	549.8	521.8	507.4	496.4	492.2
42.5°	865.7	730.2	617.5	539.6	488.8	458.3	423.5	408.3	401.5	404.1	400.7
45°	805.6	634.5	493.0	406.6	371.9	343.1	326.1	319.3	316.0	314.3	316.8
47.5°	763.2	560.8	397.3	309.2	280.4	260.1	253.3	250.7	249.9	246.5	245.7
50°	753.1	517.6	325.3	240.6	218.5	207.5	204.1	201.6	199.9	197.4	191.4
52.5°	764.9	505.7	289.7	206.7	188.1	179.6	177.0	172.8	171.1	164.3	156.7
55°	785.2	509.9	278.7	197.4	178.7	169.4	166.0	164.3	158.4	150.8	141.5
57.5°	827.6	536.2	283.8	199.9	180.4	172.0	170.3	168.6	160.9	149.9	138.1
60°	950.4	612.4	310.0	217.7	194.0	188.1	188.9	185.5	174.5	160.1	142.3
62.5°	1140.2	731.0	358.3	239.7	216.0	216.0	221.1	218.5	201.6	177.9	152.5
65°	1238.4	802.2	378.6	246.5	222.8	233.8	249.9	247.3	222.8	187.2	153.3
67°	1223.2	788.6	366.8	236.3	210.1	224.5	240.6	241.4	214.3	178.7	146.5
67.5°	1208.8	779.3	360.9	232.1	206.7	221.1	236.3	233.8	210.9	175.3	144.8
70°	1086.0	684.4	321.9	216.9	191.4	195.7	199.9	196.5	178.7	155.0	133.8
72.5°	937.7	568.4	283.8	207.5	183.0	176.2	176.2	170.3	158.4	142.3	127.1
75°	714.9	442.2	249.0	197.4	172.8	162.6	160.9	156.7	146.5	134.7	121.1
77.5°	436.2	316.8	216.0	182.1	160.1	151.6	152.5	149.9	139.8	128.8	116.0
80°	218.5	205.0	181.3	158.4	144.8	136.4	137.2	132.1	123.7	115.2	105.0
82.5°	133.8	141.5	127.1	120.3	111.8	102.5	79.6	93.2	90.6	83.0	78.8
85°	88.9	88.1	79.6	70.3	64.4	55.9	50.0	50.8	55.9	57.6	57.6
87.5°	43.2	41.5	38.1	35.6	33.9	28.0	26.3	29.6	29.6	31.3	30.5
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):

	160°	165°	170°	175°	180°
0°	1001.2	1001.2	1001.2	1001.2	1001.2
2.5°	1028.3	1030.0	1029.2	1031.7	1029.2
5°	1040.2	1040.2	1041.1	1041.9	1041.1
7.5°	1034.3	1033.4	1035.1	1036.8	1036.0
10°	1023.3	1024.1	1025.8	1028.3	1028.3
12.5°	1019.0	1019.9	1023.3	1025.8	1025.8
15°	1015.6	1016.5	1018.2	1021.6	1019.0
17.5°	1000.4	997.0	997.0	999.5	997.0
20°	973.3	968.2	968.2	967.4	966.5
22.5°	941.1	928.4	925.0	920.8	921.6
25°	901.3	884.3	875.0	869.9	868.3
27.5°	869.1	849.6	840.3	832.7	830.1
30°	828.4	806.4	798.8	794.6	792.9
32.5°	769.1	749.7	739.5	737.0	731.9
35°	679.4	670.9	666.6	660.7	661.6
37.5°	589.6	587.0	576.9	580.2	576.9
40°	493.0	492.2	493.8	491.3	497.2
42.5°	402.4	399.8	404.1	401.5	404.1
45°	311.7	316.8	322.7	320.2	323.6
47.5°	238.9	239.7	238.0	239.7	241.4
50°	183.8	182.1	180.4	177.0	178.7
52.5°	151.6	145.7	141.5	138.9	138.1
55°	133.8	127.9	124.5	121.1	121.1
57.5°	128.8	121.1	116.0	113.5	112.7
60°	129.6	119.4	112.7	108.4	107.6
62.5°	133.0	119.4	110.1	105.9	104.2
65°	132.1	117.7	108.4	104.2	102.5
67°	127.9	115.2	107.6	103.3	102.5
67.5°	126.2	114.4	107.6	103.3	101.6
70°	120.3	111.8	105.9	101.6	100.0
72.5°	115.2	108.4	101.6	98.3	96.6
75°	110.1	103.3	97.4	94.0	93.2
77.5°	105.0	97.4	93.2	88.9	85.6
80°	95.7	87.2	81.3	74.5	72.8
82.5°	78.8	72.0	66.1	60.1	59.3
85°	58.4	55.9	50.8	45.7	45.7
87.5°	32.2	35.6	31.3	28.8	27.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)