

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: P142041

Luminaire Tested: **ECM-E03-LED-E1-T4-7050**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P142041  
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-E03-LED-E1-T4-7050  
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE  
(3) LIGHTBARS WITH AccuLED OPTICS - TYPE 4  
Light Source: (63) 5000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8852.5 lumens  
Efficiency: N/A  
Efficacy: 117.7 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

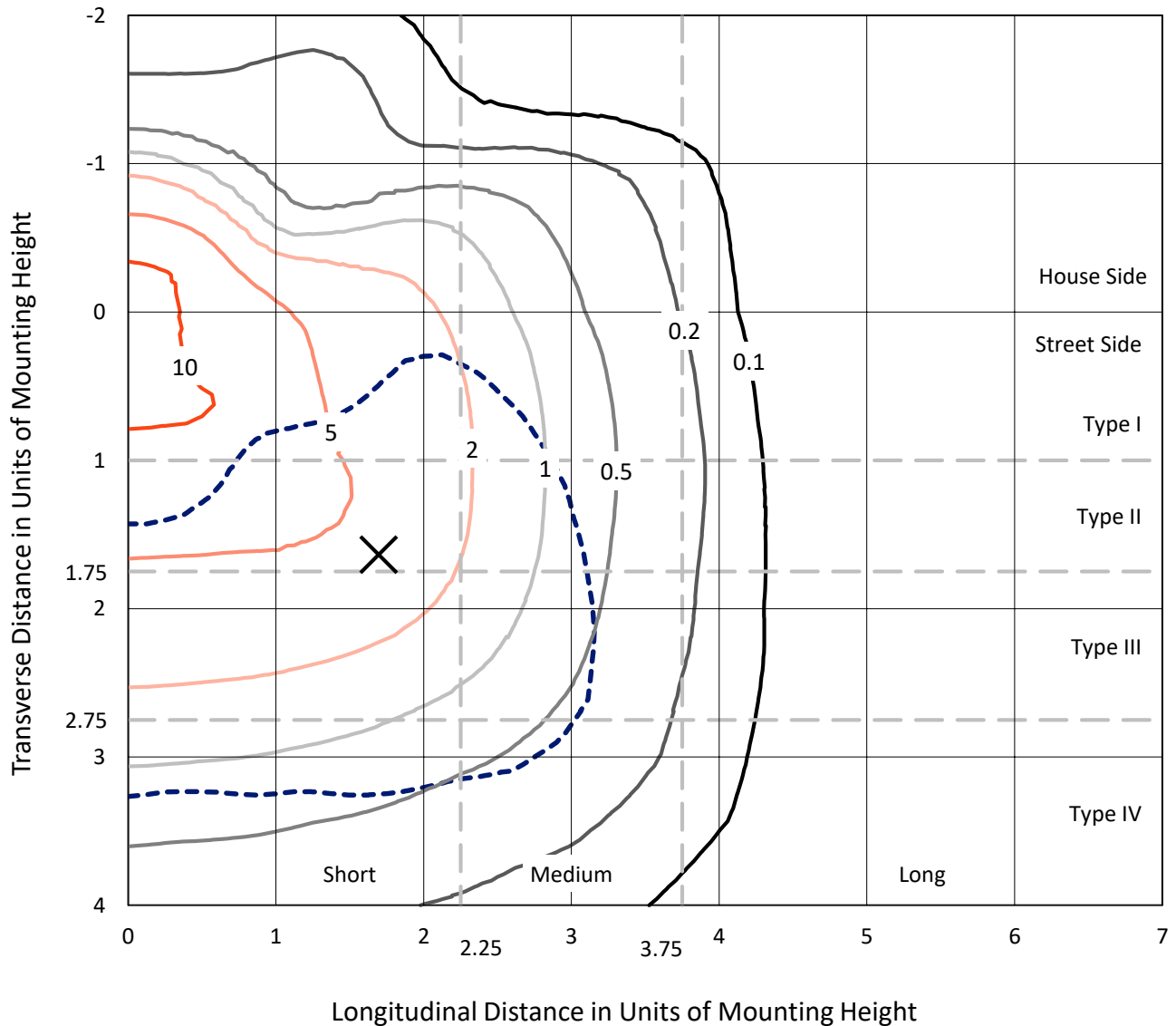
Input Watts (W): 75.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

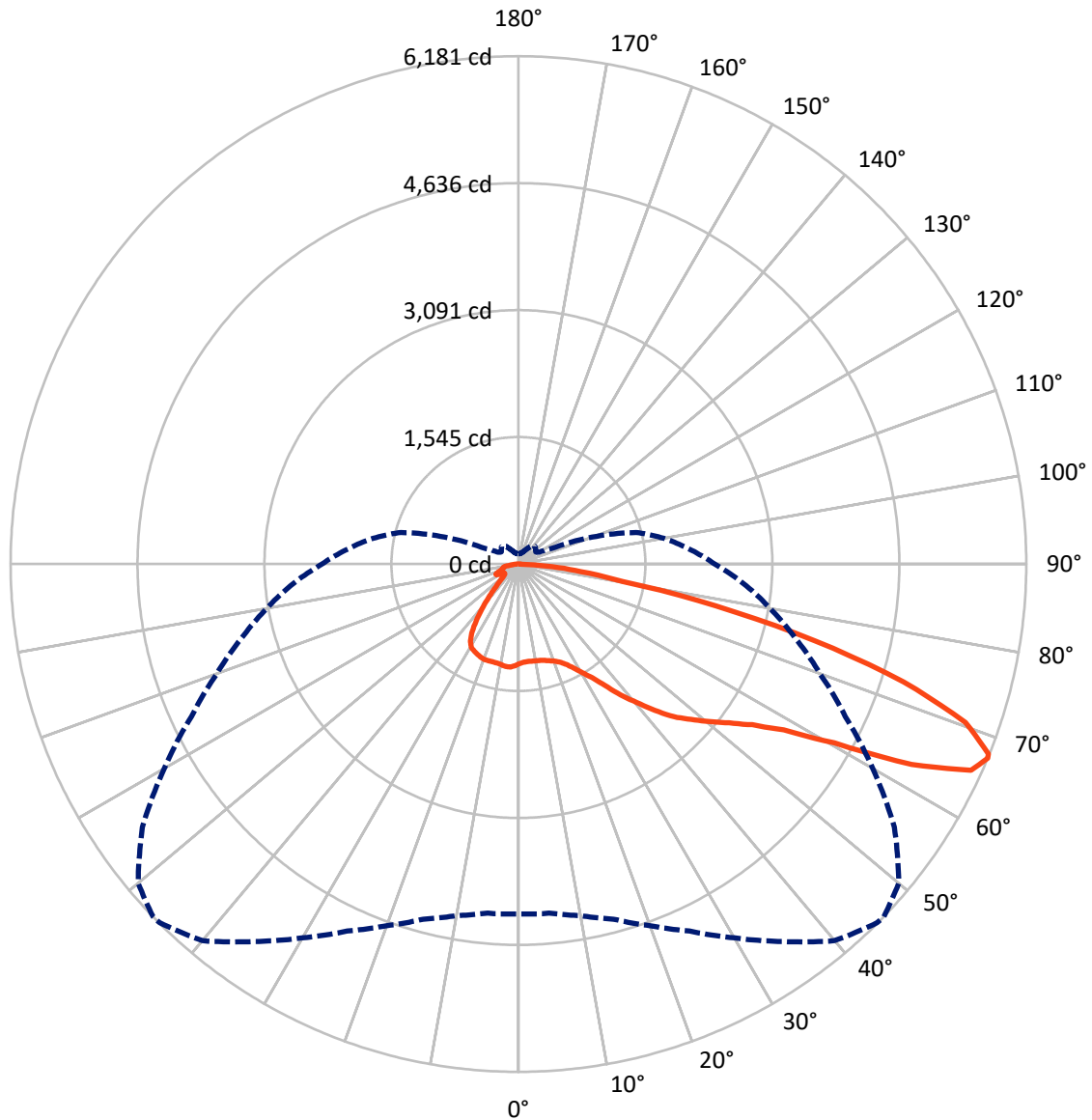
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 12.3 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
<b>House Side</b>	Lumens	1759.2	0.0	1759.2
	% Fixture	19.9	0.0	19.9
<b>Street Side</b>	Lumens	7093.3	0.0	7093.3
	% Fixture	80.1	0.0	80.1
<b>Total</b>	Lumens	8852.5	0.0	8852.5
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	116.7	1.3
10°-20°	348.4	3.9
20°-30°	585.8	6.6
30°-40°	876.1	9.9
40°-50°	1141.1	12.9
50°-60°	1562.8	17.7
60°-70°	2470.6	27.9
70°-80°	1532.5	17.3
80°-90°	218.4	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°	8852.5	100.0
0°-180°	8852.5	100.0



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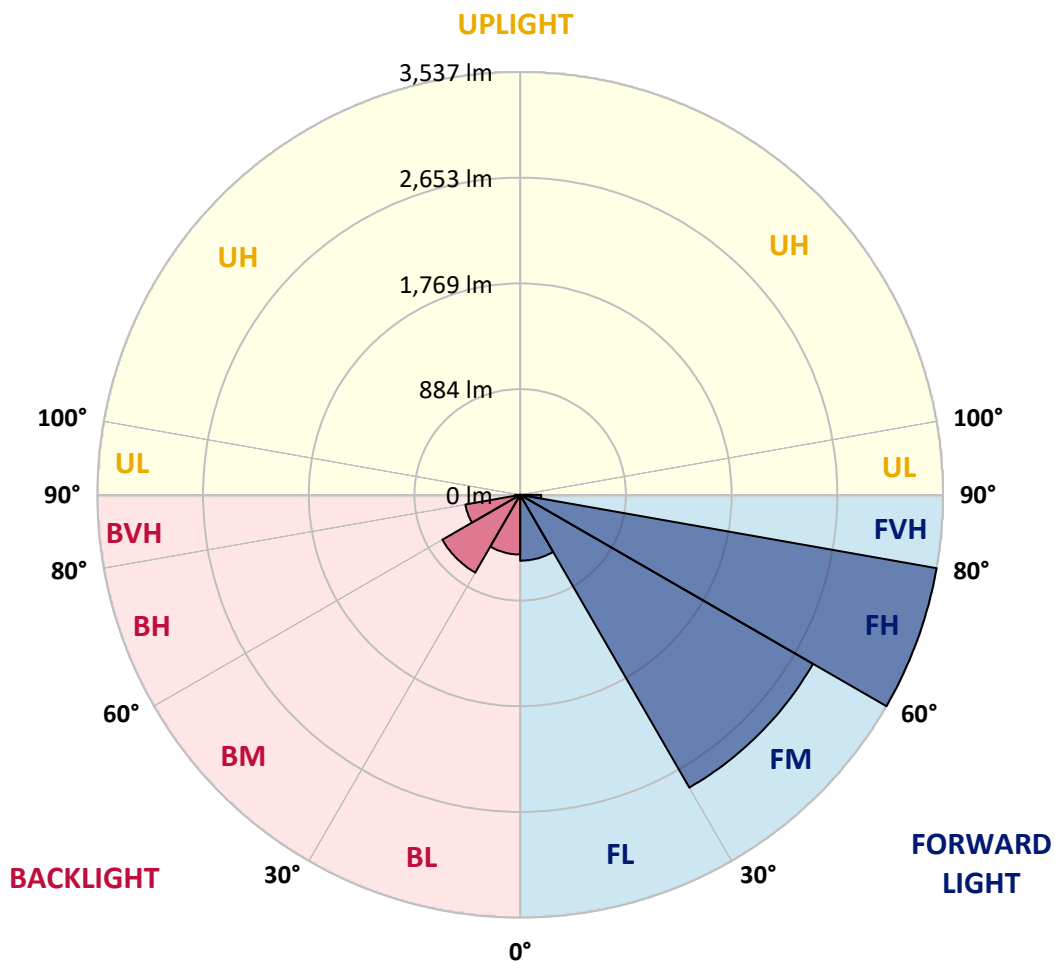
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	551.3	6.2			
FM	(30°-60°)	2828.7	32.0			
FH	(60°-80°)	3537.5	40.0			G2/5000
FVH	(80°-90°)	175.9	2.0			G2/225
BL	(0°-30°)	499.7	5.6	B1/500		
BM	(30°-60°)	751.3	8.5	B1/1000		
BH	(60°-80°)	465.7	5.3	B1/500		G1/500
BVH	(80°-90°)	42.5	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°	1212.9	1212.9	1212.9	1212.9	1212.9	1212.9	1212.9	1212.9	1212.9	1212.9	1212.9	1212.9
2.5°	1186.2	1189.3	1188.2	1187.2	1188.2	1189.3	1190.3	1193.4	1194.4	1195.4	1195.4	1196.4
5°	1164.6	1167.7	1166.7	1168.7	1169.8	1173.9	1176.9	1182.1	1185.2	1189.3	1189.3	1191.3
7.5°	1158.5	1160.5	1160.5	1162.6	1163.6	1167.7	1172.8	1179.0	1185.2	1191.3	1191.3	1193.4
10°	1174.9	1175.9	1175.9	1174.9	1175.9	1178.0	1180.0	1185.2	1190.3	1195.4	1195.4	1197.5
12.5°	1213.9	1210.8	1209.8	1206.7	1207.7	1203.6	1203.6	1202.6	1202.6	1203.6	1203.6	1203.6
15°	1254.9	1252.9	1250.8	1245.7	1245.7	1239.5	1237.5	1233.4	1223.1	1219.0	1219.0	1218.0
17.5°	1291.9	1289.8	1285.7	1281.6	1279.6	1271.3	1269.3	1262.1	1249.8	1240.6	1240.6	1237.5
20°	1336.0	1330.9	1321.6	1319.6	1314.4	1305.2	1302.1	1292.9	1276.5	1263.1	1263.1	1262.1
22.5°	1403.7	1395.5	1386.3	1379.1	1365.7	1356.5	1348.3	1336.0	1316.5	1301.1	1301.1	1297.0
25°	1471.4	1468.4	1460.1	1449.9	1440.7	1430.4	1420.1	1401.7	1376.0	1356.5	1356.5	1352.4
27.5°	1566.9	1559.7	1549.4	1533.0	1527.9	1510.4	1502.2	1486.8	1461.2	1436.5	1436.5	1432.4
30°	1666.4	1659.2	1642.8	1628.4	1625.4	1606.9	1601.8	1585.3	1562.8	1538.1	1538.1	1535.1
32.5°	1780.3	1773.1	1760.8	1752.6	1741.3	1731.0	1718.7	1703.3	1674.6	1654.1	1654.1	1650.0
35°	1926.0	1919.8	1905.5	1911.6	1901.4	1898.3	1891.1	1865.5	1833.7	1809.0	1809.0	1813.1
37.5°	2040.9	2039.9	2043.0	2039.9	2053.2	2066.6	2066.6	2068.6	2053.2	2026.6	2026.6	2021.4
40°	2148.7	2147.6	2155.8	2165.1	2201.0	2222.5	2247.2	2256.4	2240.0	2219.5	2219.5	2212.3
42.5°	2249.2	2247.2	2258.5	2292.3	2336.4	2376.5	2418.5	2454.4	2462.7	2440.1	2440.1	2434.9
45°	2348.8	2351.8	2366.2	2404.2	2462.7	2515.0	2586.8	2628.9	2655.6	2643.2	2643.2	2651.5
47.5°	2468.8	2471.9	2487.3	2532.4	2583.7	2649.4	2733.5	2805.4	2837.2	2837.2	2837.2	2826.9
50°	2611.4	2625.8	2642.2	2673.0	2732.5	2797.2	2899.8	2971.6	3022.9	3020.9	3020.9	3012.6
52.5°	2801.3	2804.3	2831.0	2855.7	2907.0	2972.6	3065.0	3163.5	3228.1	3222.0	3222.0	3212.7
55°	3056.8	3044.5	3061.9	3085.5	3140.9	3198.4	3298.9	3412.8	3478.5	3459.0	3459.0	3452.8
57.5°	3379.0	3368.7	3381.0	3409.7	3479.5	3526.7	3607.8	3712.4	3804.8	3821.2	3821.2	3806.9
60°	3843.8	3843.8	3868.4	3930.0	4000.8	4071.6	4175.2	4301.4	4396.9	4420.5	4420.5	4419.4
62.5°	4394.8	4429.7	4434.8	4514.9	4650.3	4772.4	4933.5	5156.2	5298.8	5400.4	5400.4	5373.7
65°	4483.1	4494.3	4539.5	4663.6	4847.3	5063.8	5314.2	5606.6	5903.2	6049.9	6049.9	6054.0
67°	4261.4	4265.5	4344.5	4474.8	4685.2	4929.4	5253.7	5609.7	5985.3	6175.1	6175.1	6181.3
67.5°	4192.7	4184.5	4255.3	4391.7	4621.6	4896.6	5201.3	5575.9	5963.7	6166.9	6166.9	6170.0
70°	3731.9	3736.0	3791.5	3943.3	4186.5	4444.1	4784.7	5169.5	5577.9	5763.6	5763.6	5772.9
72.5°	3217.9	3191.2	3241.5	3403.6	3519.5	3770.9	4083.9	4374.3	4733.4	4908.9	4908.9	4904.8
75°	2454.4	2380.6	2468.8	2563.2	2627.9	2877.2	3072.2	3272.3	3603.7	3737.1	3737.1	3729.9
77.5°	1322.6	1319.6	1416.0	1489.9	1586.4	1811.1	1982.4	2108.6	2387.7	2453.4	2453.4	2461.6
80°	718.3	745.0	802.4	884.5	962.5	1070.2	1169.8	1248.8	1340.1	1298.0	1298.0	1288.8
82.5°	433.0	477.1	565.4	628.0	658.8	707.0	777.8	822.9	858.9	780.9	780.9	765.5
85°	68.7	124.2	319.1	381.7	414.5	437.1	452.5	482.3	440.2	412.5	412.5	419.7
87.5°	22.6	25.7	49.3	108.8	95.4	65.7	86.2	125.2	59.5	31.8	31.8	30.8
90°	0.0	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°	1212.9	1212.9	1212.9	1212.9	1212.9	1212.9	1212.9	1212.9	1212.9	1212.9	1212.9
2.5°	1197.5	1198.5	1201.6	1205.7	1207.7	1212.9	1212.9	1217.0	1217.0	1220.0	1223.1
5°	1194.4	1199.5	1203.6	1209.8	1212.9	1220.0	1223.1	1229.3	1232.4	1236.5	1240.6
7.5°	1199.5	1206.7	1211.8	1219.0	1224.1	1231.3	1234.4	1239.5	1242.6	1247.7	1249.8
10°	1203.6	1210.8	1217.0	1225.2	1229.3	1234.4	1237.5	1241.6	1242.6	1245.7	1247.7
12.5°	1208.8	1211.8	1217.0	1224.1	1228.2	1231.3	1234.4	1237.5	1240.6	1240.6	1240.6
15°	1215.9	1212.9	1213.9	1220.0	1224.1	1226.2	1229.3	1231.3	1232.4	1232.4	1230.3
17.5°	1231.3	1223.1	1218.0	1218.0	1220.0	1222.1	1222.1	1219.0	1217.0	1213.9	1209.8
20°	1253.9	1240.6	1230.3	1225.2	1221.1	1215.9	1207.7	1197.5	1188.2	1180.0	1174.9
22.5°	1285.7	1272.4	1260.1	1248.8	1235.4	1218.0	1200.5	1179.0	1161.6	1148.2	1143.1
25°	1345.2	1325.7	1316.5	1299.0	1278.5	1250.8	1224.1	1194.4	1173.9	1155.4	1147.2
27.5°	1425.3	1409.9	1389.3	1380.1	1353.4	1321.6	1291.9	1256.0	1227.2	1204.6	1189.3
30°	1526.8	1516.6	1499.1	1483.7	1458.1	1429.4	1385.2	1345.2	1294.9	1254.9	1232.4
32.5°	1643.8	1628.4	1613.0	1593.5	1575.1	1537.1	1496.1	1435.5	1365.7	1297.0	1254.9
35°	1790.6	1775.2	1764.9	1734.1	1703.3	1662.3	1606.9	1535.1	1437.6	1345.2	1273.4
37.5°	1992.7	1959.9	1909.6	1865.5	1810.0	1747.5	1684.9	1598.7	1489.9	1369.9	1271.3
40°	2168.2	2119.9	2063.5	1987.6	1909.6	1827.5	1753.6	1660.2	1533.0	1390.4	1257.0
42.5°	2396.0	2312.8	2217.4	2116.9	2010.1	1911.6	1820.3	1713.6	1564.8	1391.4	1223.1
45°	2601.2	2498.6	2372.4	2235.9	2105.6	1985.5	1880.9	1762.8	1591.5	1387.3	1184.1
47.5°	2783.8	2663.8	2509.9	2345.7	2191.8	2056.3	1941.4	1817.2	1626.4	1400.6	1169.8
50°	2960.3	2822.8	2649.4	2450.3	2279.0	2131.2	2011.2	1877.8	1684.9	1445.8	1192.3
52.5°	3149.1	2981.9	2785.9	2561.2	2374.4	2221.5	2087.1	1950.6	1754.6	1506.3	1233.4
55°	3380.0	3190.2	2966.5	2718.2	2503.7	2333.4	2181.5	2037.8	1837.8	1581.2	1281.6
57.5°	3687.8	3495.9	3238.4	2952.1	2727.4	2525.2	2342.6	2180.5	1964.0	1684.9	1353.4
60°	4280.9	4043.9	3701.2	3390.3	3147.1	2909.0	2688.4	2466.8	2206.1	1894.2	1538.1
62.5°	5233.1	4902.7	4477.9	4044.9	3716.6	3401.5	3110.1	2821.8	2496.5	2146.6	1757.7
65°	5891.9	5483.5	4949.9	4407.1	3962.8	3578.0	3230.2	2887.5	2525.2	2191.8	1853.1
67°	6042.7	5586.1	4978.7	4389.7	3906.4	3488.8	3110.1	2753.0	2388.8	2086.1	1796.7
67.5°	6036.6	5581.0	4956.1	4352.7	3868.4	3456.9	3075.2	2699.7	2341.6	2045.0	1769.0
70°	5671.3	5213.6	4585.7	3985.4	3518.5	3109.1	2724.3	2397.0	2031.7	1791.6	1584.3
72.5°	4805.3	4407.1	3900.2	3360.5	2960.3	2594.0	2286.2	1965.0	1647.9	1487.9	1324.7
75°	3654.0	3301.0	2836.2	2441.1	2136.4	1881.9	1573.0	1361.6	1139.0	1029.2	970.7
77.5°	2414.4	2009.1	1687.9	1311.4	1087.7	887.6	699.8	555.1	463.8	487.4	532.5
80°	1277.5	1013.8	750.1	580.8	448.4	348.9	277.0	207.3	150.8	176.5	221.6
82.5°	695.7	593.1	438.1	348.9	285.3	236.0	181.6	127.2	94.4	104.7	150.8
85°	397.1	348.9	270.9	211.4	184.7	150.8	103.6	69.8	67.7	72.9	93.4
87.5°	65.7	88.2	71.8	49.3	55.4	54.4	48.2	36.9	27.7	39.0	50.3
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):**

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	1212.9	1212.9	1212.9	1212.9	1212.9	1212.9	1212.9	1212.9	1212.9	1212.9	1212.9
2.5°	1225.2	1228.2	1232.4	1233.4	1232.4	1235.4	1240.6	1244.7	1241.6	1239.5	1244.7
5°	1244.7	1246.7	1251.8	1251.8	1252.9	1254.9	1258.0	1261.1	1257.0	1257.0	1259.0
7.5°	1252.9	1252.9	1258.0	1256.0	1256.0	1254.9	1258.0	1259.0	1252.9	1251.8	1252.9
10°	1247.7	1247.7	1249.8	1245.7	1244.7	1243.6	1243.6	1244.7	1238.5	1236.5	1239.5
12.5°	1240.6	1240.6	1238.5	1236.5	1234.4	1232.4	1234.4	1235.4	1231.3	1231.3	1232.4
15°	1228.2	1225.2	1224.1	1224.1	1225.2	1226.2	1230.3	1233.4	1230.3	1228.2	1228.2
17.5°	1207.7	1205.7	1208.8	1214.9	1222.1	1227.2	1233.4	1235.4	1228.2	1220.0	1213.9
20°	1176.9	1182.1	1193.4	1210.8	1226.2	1234.4	1234.4	1227.2	1210.8	1194.4	1186.2
22.5°	1145.1	1159.5	1184.1	1210.8	1229.3	1232.4	1221.1	1205.7	1183.1	1165.7	1150.3
25°	1149.2	1166.7	1191.3	1213.9	1226.2	1221.1	1200.5	1181.0	1154.4	1135.9	1113.3
27.5°	1192.3	1208.8	1221.1	1228.2	1224.1	1207.7	1184.1	1157.4	1127.7	1102.0	1075.4
30°	1227.2	1234.4	1233.4	1227.2	1211.8	1186.2	1158.5	1126.7	1090.8	1063.0	1028.2
32.5°	1233.4	1220.0	1199.5	1176.9	1156.4	1127.7	1095.9	1058.9	1018.9	983.0	948.1
35°	1222.1	1171.8	1126.7	1081.5	1050.7	1014.8	987.1	944.0	899.9	869.1	843.5
37.5°	1180.0	1092.8	1021.0	957.4	912.2	871.2	829.1	787.0	750.1	735.7	728.5
40°	1126.7	995.3	885.5	797.3	749.1	709.0	665.9	632.1	614.6	601.3	596.2
42.5°	1048.7	884.5	748.0	653.6	592.1	555.1	513.1	494.6	486.4	489.5	485.3
45°	975.8	768.6	597.2	492.5	450.5	415.6	395.1	386.8	382.7	380.7	383.8
47.5°	924.5	679.3	481.2	374.5	339.6	315.0	306.8	303.7	302.7	298.6	297.6
50°	912.2	627.0	394.0	291.4	264.7	251.4	247.3	244.2	242.2	239.1	231.9
52.5°	926.6	612.6	350.9	250.4	227.8	217.5	214.5	209.3	207.3	199.1	189.8
55°	951.2	617.7	337.6	239.1	216.5	205.2	201.1	199.1	191.9	182.6	171.4
57.5°	1002.5	649.5	343.7	242.2	218.6	208.3	206.2	204.2	195.0	181.6	167.3
60°	1151.3	741.9	375.6	263.7	235.0	227.8	228.8	224.7	211.4	193.9	172.4
62.5°	1381.1	885.5	434.0	290.4	261.7	261.7	267.8	264.7	244.2	215.5	184.7
65°	1500.2	971.7	458.7	298.6	269.9	283.2	302.7	299.6	269.9	226.8	185.7
67°	1481.7	955.3	444.3	286.3	254.5	271.9	291.4	292.4	259.6	216.5	177.5
67.5°	1464.3	944.0	437.1	281.2	250.4	267.8	286.3	283.2	255.5	212.4	175.5
70°	1315.5	829.1	389.9	262.7	231.9	237.0	242.2	238.1	216.5	187.8	162.1
72.5°	1135.9	688.5	343.7	251.4	221.6	213.4	213.4	206.2	191.9	172.4	153.9
75°	866.0	535.6	301.7	239.1	209.3	197.0	195.0	189.8	177.5	163.2	146.7
77.5°	528.4	383.8	261.7	220.6	193.9	183.7	184.7	181.6	169.3	156.0	140.6
80°	264.7	248.3	219.6	191.9	175.5	165.2	166.2	160.1	149.8	139.6	127.2
82.5°	162.1	171.4	153.9	145.7	135.4	124.2	96.5	112.9	109.8	100.6	95.4
85°	107.7	106.7	96.5	85.2	78.0	67.7	60.5	61.6	67.7	69.8	69.8
87.5°	52.3	50.3	46.2	43.1	41.0	33.9	31.8	35.9	35.9	38.0	36.9
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):**

	160°	165°	170°	175°	180°
0°	1212.9	1212.9	1212.9	1212.9	1212.9
2.5°	1245.7	1247.7	1246.7	1249.8	1246.7
5°	1260.1	1260.1	1261.1	1262.1	1261.1
7.5°	1252.9	1251.8	1253.9	1256.0	1254.9
10°	1239.5	1240.6	1242.6	1245.7	1245.7
12.5°	1234.4	1235.4	1239.5	1242.6	1242.6
15°	1230.3	1231.3	1233.4	1237.5	1234.4
17.5°	1211.8	1207.7	1207.7	1210.8	1207.7
20°	1179.0	1172.8	1172.8	1171.8	1170.8
22.5°	1140.0	1124.6	1120.5	1115.4	1116.4
25°	1091.8	1071.3	1060.0	1053.8	1051.8
27.5°	1052.8	1029.2	1017.9	1008.7	1005.6
30°	1003.5	976.9	967.6	962.5	960.4
32.5°	931.7	908.1	895.8	892.7	886.6
35°	822.9	812.7	807.5	800.4	801.4
37.5°	714.2	711.1	698.8	702.9	698.8
40°	597.2	596.2	598.2	595.1	602.3
42.5°	487.4	484.3	489.5	486.4	489.5
45°	377.6	383.8	390.9	387.9	392.0
47.5°	289.4	290.4	288.3	290.4	292.4
50°	222.7	220.6	218.6	214.5	216.5
52.5°	183.7	176.5	171.4	168.3	167.3
55°	162.1	154.9	150.8	146.7	146.7
57.5°	156.0	146.7	140.6	137.5	136.5
60°	157.0	144.7	136.5	131.3	130.3
62.5°	161.1	144.7	133.4	128.3	126.2
65°	160.1	142.6	131.3	126.2	124.2
67°	154.9	139.6	130.3	125.2	124.2
67.5°	152.9	138.5	130.3	125.2	123.1
70°	145.7	135.4	128.3	123.1	121.1
72.5°	139.6	131.3	123.1	119.0	117.0
75°	133.4	125.2	118.0	113.9	112.9
77.5°	127.2	118.0	112.9	107.7	103.6
80°	115.9	105.7	98.5	90.3	88.2
82.5°	95.4	87.2	80.0	72.9	71.8
85°	70.8	67.7	61.6	55.4	55.4
87.5°	39.0	43.1	38.0	34.9	32.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)