

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: P141243

Luminaire Tested: **ECM-F03-LED-E1-SL4-8030**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P141243  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33692)  
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-SL4-8030  
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE  
(3) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL  
Light Source: (21) 3000K CCT, 80 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5901.6 lumens  
Efficiency: N/A  
Efficacy: 75.4 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

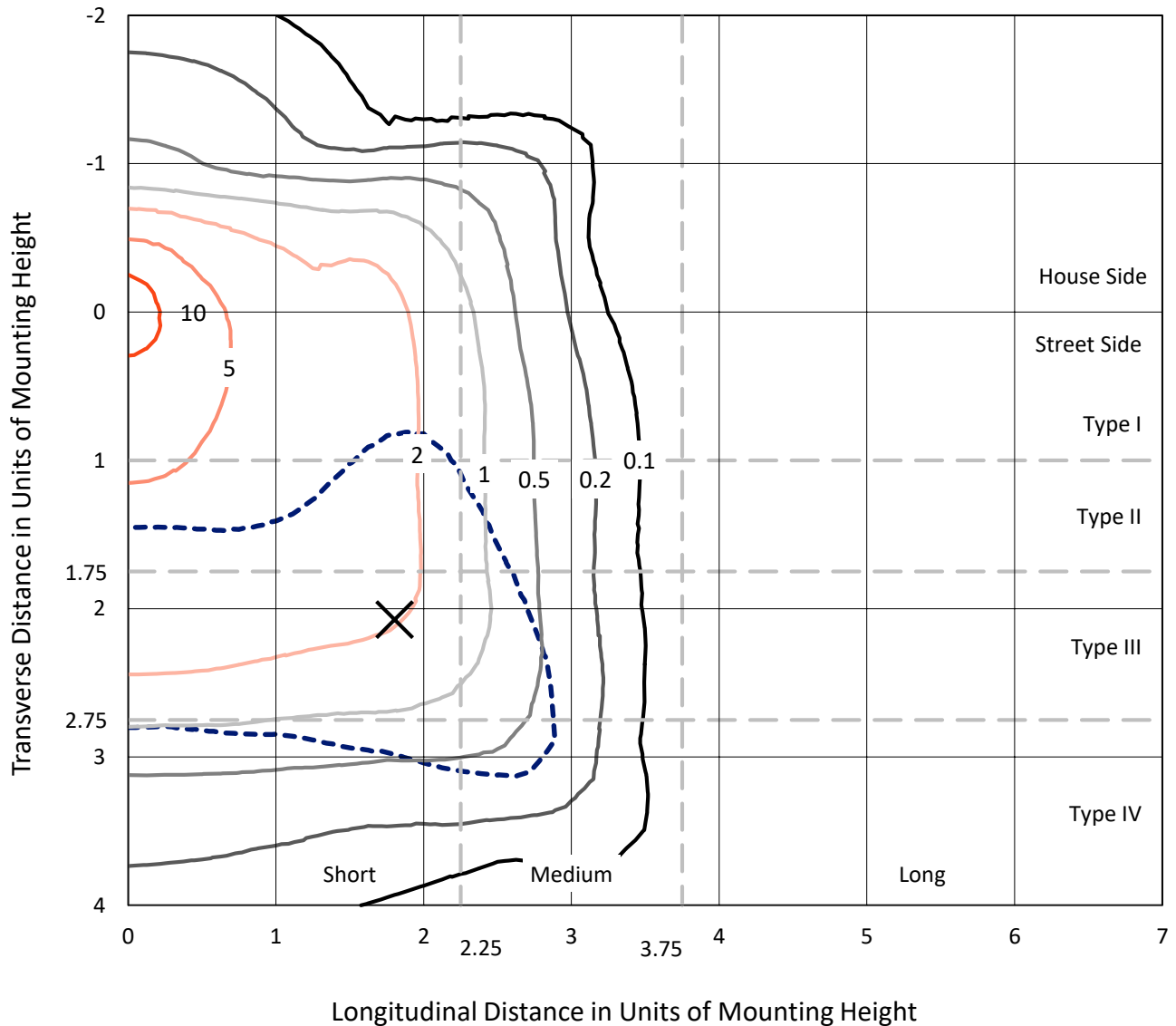
Input Watts (W): 78.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

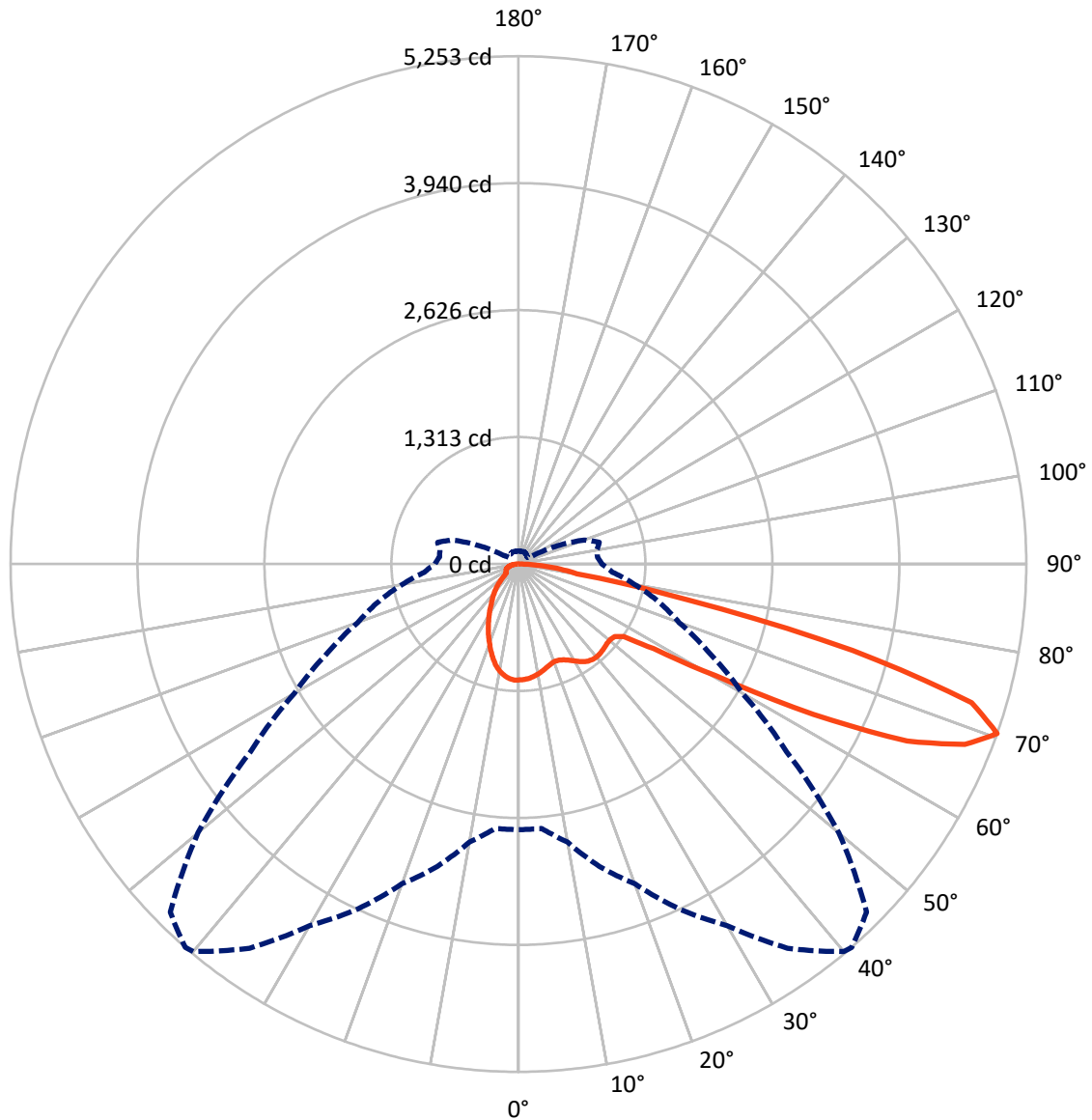
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 12 fc  
 Type IV - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 41-Deg Lateral    - - - Horizontal Cone Through 70-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1266.2	0.0	1266.2
	% Fixture	21.5	0.0	21.5
<b>Street Side</b>	Lumens	4635.4	0.0	4635.4
	% Fixture	78.5	0.0	78.5
<b>Total</b>	Lumens	5901.6	0.0	5901.6
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	111.6	1.9
10°-20°	299.1	5.1
20°-30°	432.4	7.3
30°-40°	550.3	9.3
40°-50°	648.5	11.0
50°-60°	992.3	16.8
60°-70°	1844.3	31.3
70°-80°	890.2	15.1
80°-90°	133.0	2.3
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°	5901.6	100.0
0°-180°	5901.6	100.0



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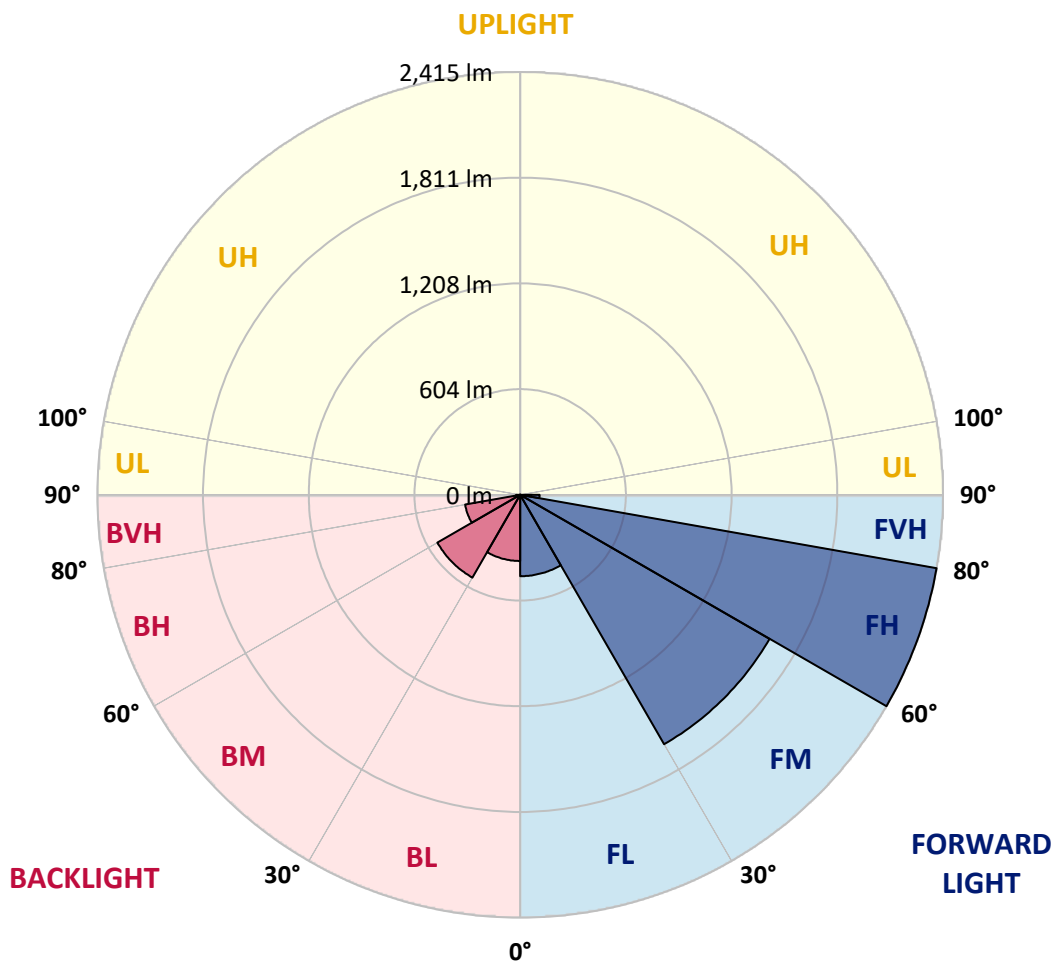
CATALOG NUMBER: ECM-F03-LED-E1-SL4-8030

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	464.8	7.9			
FM (30°-60°)	1644.9	27.9			
FH (60°-80°)	2415.2	40.9			G2/5000
FVH (80°-90°)	110.5	1.9			G2/225
BL (0°-30°)	378.2	6.4	B1/500		
BM (30°-60°)	546.3	9.3	B1/1000		
BH (60°-80°)	319.3	5.4	B1/500		G1/500
BVH (80°-90°)	22.4	0.4			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G2**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	41°	45°
0°	1199.1	1199.1	1199.1	1199.1	1199.1	1199.1	1199.1	1199.1	1199.1	1199.1	1199.1
2.5°	1199.1	1200.5	1199.8	1198.4	1197.0	1197.7	1197.0	1196.3	1196.3	1195.6	1194.9
5°	1193.5	1196.3	1194.2	1192.8	1190.7	1190.7	1190.0	1188.6	1187.2	1186.5	1185.1
7.5°	1181.7	1184.5	1183.1	1181.7	1179.6	1178.2	1175.4	1174.0	1172.6	1171.9	1169.8
10°	1165.6	1167.0	1165.6	1162.9	1161.5	1160.8	1159.4	1156.6	1153.8	1152.4	1150.3
12.5°	1144.7	1145.4	1144.0	1142.6	1140.6	1140.6	1138.5	1136.4	1132.2	1130.8	1125.9
15°	1126.6	1124.5	1123.1	1122.4	1121.7	1118.3	1119.0	1115.5	1108.5	1106.4	1100.8
17.5°	1121.7	1119.7	1119.0	1116.9	1115.5	1111.3	1107.1	1100.1	1088.3	1086.2	1077.8
20°	1135.7	1135.7	1133.6	1132.2	1130.1	1122.4	1113.4	1100.1	1078.5	1073.7	1063.2
22.5°	1169.1	1165.6	1164.2	1164.2	1163.5	1152.4	1135.7	1114.8	1086.2	1079.9	1061.8
25°	1221.4	1215.1	1217.2	1216.5	1215.1	1199.1	1174.7	1144.7	1105.7	1097.4	1073.7
27.5°	1283.4	1284.8	1284.1	1281.3	1277.1	1259.7	1224.9	1184.5	1135.7	1127.3	1096.7
30°	1348.2	1349.6	1353.8	1351.7	1348.9	1322.4	1279.2	1235.3	1176.1	1164.9	1127.3
32.5°	1423.4	1428.3	1431.8	1432.5	1421.3	1385.1	1334.2	1278.5	1215.8	1204.7	1158.0
35°	1510.5	1507.7	1514.0	1511.2	1491.7	1442.2	1379.5	1313.3	1249.2	1234.6	1184.5
37.5°	1598.3	1601.8	1595.5	1583.7	1553.0	1488.2	1410.9	1336.3	1265.3	1251.3	1199.1
40°	1683.3	1681.2	1666.6	1646.4	1600.4	1517.5	1428.3	1346.8	1270.8	1256.2	1202.6
42.5°	1746.7	1741.1	1718.8	1686.1	1626.9	1531.4	1433.2	1346.8	1267.4	1252.0	1197.7
45°	1774.6	1769.0	1747.4	1705.6	1635.2	1528.6	1424.8	1334.9	1255.5	1242.3	1187.9
47.5°	1774.6	1772.5	1748.8	1708.4	1633.1	1521.0	1412.3	1320.3	1243.7	1230.4	1179.6
50°	1760.7	1759.3	1738.4	1698.6	1626.2	1516.8	1408.8	1317.5	1243.0	1229.7	1183.1
52.5°	1807.3	1798.3	1776.7	1730.7	1652.0	1534.2	1426.2	1331.5	1259.7	1246.5	1198.4
55°	2375.2	2367.5	2258.1	2065.8	1864.5	1680.5	1523.1	1414.4	1341.9	1321.7	1286.9
57.5°	3293.5	3282.3	3170.1	2995.3	2649.0	2255.3	1946.7	1765.5	1663.8	1649.2	1628.3
60°	3666.2	3662.0	3614.7	3543.6	3412.6	3209.2	2922.1	2621.1	2387.0	2349.4	2352.2
62.5°	3880.1	3869.7	3846.7	3829.3	3784.7	3701.8	3648.1	3563.8	3450.2	3424.5	3261.4
65°	4000.0	3998.6	4011.1	4025.7	4023.0	4048.0	4075.2	4236.2	4425.0	4416.6	4244.5
67.5°	3821.6	3833.4	3898.9	3999.3	4104.5	4215.9	4423.6	4746.2	4979.6	4979.6	4828.4
70°	2747.2	2745.1	2919.3	3237.0	3519.9	3936.6	4319.1	4850.7	5232.5	5252.7	5092.4
72.5°	1646.4	1684.7	1792.0	1936.2	2176.6	2681.0	3392.4	4347.6	4880.6	4902.2	4710.6
75°	1156.6	1128.0	1123.8	1132.2	1173.3	1297.3	1688.9	2668.5	3538.0	3571.5	3386.1
77.5°	739.9	733.7	736.4	745.5	747.6	759.4	778.3	914.8	1640.1	1800.4	1792.0
80°	638.2	636.1	636.8	626.4	606.2	598.5	622.2	603.4	586.0	610.3	576.9
82.5°	427.8	435.5	448.0	464.7	505.1	519.1	511.4	507.9	452.9	440.3	390.9
85°	317.0	312.8	317.7	317.7	307.3	296.8	304.5	296.8	262.7	245.9	217.4
87.5°	171.4	172.1	186.0	191.6	190.9	163.0	134.5	116.4	105.2	97.5	82.2
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):**

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	1199.1	1199.1	1199.1	1199.1	1199.1	1199.1	1199.1	1199.1	1199.1	1199.1	1199.1
2.5°	1195.6	1193.5	1194.2	1194.2	1193.5	1194.9	1192.8	1192.1	1192.8	1192.8	1192.8
5°	1183.8	1181.0	1181.0	1180.3	1178.9	1178.9	1176.1	1175.4	1174.0	1176.1	1174.7
7.5°	1167.0	1162.9	1159.4	1156.6	1155.2	1153.1	1149.6	1148.2	1146.8	1146.1	1144.7
10°	1146.8	1141.9	1135.0	1129.4	1126.6	1121.0	1116.9	1111.3	1111.3	1108.5	1105.7
12.5°	1122.4	1115.5	1108.5	1100.8	1096.0	1088.3	1081.3	1075.1	1070.2	1063.9	1059.7
15°	1098.1	1087.6	1079.9	1072.3	1063.2	1052.8	1044.4	1034.7	1025.6	1015.8	1013.1
17.5°	1071.6	1063.2	1056.3	1047.2	1037.4	1024.9	1013.8	997.7	986.6	974.7	965.7
20°	1054.2	1044.4	1036.7	1028.4	1017.9	1003.3	988.7	970.6	953.8	936.4	923.2
22.5°	1045.1	1029.1	1022.1	1014.4	1004.0	988.0	971.2	949.0	928.1	905.1	884.2
25°	1048.6	1027.0	1013.1	1004.7	995.6	979.6	958.0	932.9	909.2	880.0	856.3
27.5°	1063.9	1034.7	1013.1	999.1	989.4	972.6	950.3	921.8	893.2	862.6	834.0
30°	1084.1	1047.2	1019.3	999.1	984.5	966.4	942.0	911.3	880.0	845.8	813.1
32.5°	1107.1	1061.8	1028.4	1000.5	976.8	953.8	928.7	896.7	864.0	827.7	795.7
35°	1125.2	1073.0	1034.7	997.7	966.4	937.8	908.5	878.6	845.8	811.7	777.6
37.5°	1135.7	1079.9	1034.7	988.0	949.7	919.7	889.0	859.8	828.4	795.0	765.0
40°	1139.9	1082.7	1030.5	976.8	932.2	898.1	869.5	839.6	811.7	782.4	756.0
42.5°	1137.8	1080.6	1024.9	966.4	918.3	881.4	850.0	822.1	799.2	774.8	752.5
45°	1129.4	1073.7	1019.3	961.5	913.4	875.8	843.7	817.3	795.7	773.4	756.0
47.5°	1122.4	1070.9	1022.8	973.3	927.4	889.0	854.2	824.9	806.8	789.4	778.3
50°	1128.0	1078.5	1030.5	983.8	939.2	900.2	864.6	837.5	827.0	824.2	820.8
52.5°	1143.3	1094.6	1054.2	1021.4	1001.2	986.6	950.3	944.1	935.0	930.1	918.3
55°	1243.0	1222.8	1259.0	1298.7	1305.7	1349.6	1367.0	1368.4	1353.1	1298.7	1171.9
57.5°	1648.5	1698.6	1714.0	1805.9	1831.0	1811.5	1785.0	1783.6	1736.3	1664.5	1479.9
60°	2373.1	2346.6	2313.9	2253.9	2197.5	2136.9	2053.3	1989.2	1928.6	1818.5	1624.1
62.5°	3131.1	2900.5	2732.6	2560.5	2421.2	2299.2	2178.0	2074.9	1976.6	1824.1	1615.7
65°	3788.8	3319.2	2978.5	2720.1	2504.1	2325.7	2164.8	2024.0	1900.0	1709.1	1498.0
67.5°	4216.6	3541.5	3032.2	2646.2	2341.0	2113.9	1877.0	1654.7	1532.8	1378.8	1271.5
70°	4326.0	3384.7	2674.1	2179.4	1768.3	1497.3	1217.9	975.4	863.3	820.1	823.5
72.5°	3902.4	2675.5	1895.8	1386.5	1085.5	860.5	699.5	537.9	420.1	352.5	344.2
75°	2549.4	1488.9	900.2	627.1	498.9	397.1	312.8	263.4	227.1	183.2	153.3
77.5°	963.6	567.1	404.1	329.6	243.9	170.0	132.4	111.5	102.4	99.6	89.9
80°	494.0	393.7	281.5	185.3	129.6	103.8	87.1	73.9	68.3	65.5	66.9
82.5°	333.0	248.0	155.4	111.5	89.9	77.3	61.3	51.6	46.0	45.3	48.8
85°	185.3	124.0	90.6	75.2	66.2	57.8	46.7	38.3	35.5	37.6	43.9
87.5°	57.8	57.1	41.1	33.4	34.8	30.0	22.3	16.7	16.7	21.6	30.7
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°	1199.1	1199.1	1199.1	1199.1	1199.1	1199.1	1199.1	1199.1	1199.1	1199.1	1199.1
2.5°	1192.8	1194.2	1197.0	1194.9	1195.6	1196.3	1198.4	1201.2	1199.1	1197.7	1201.9
5°	1176.1	1176.1	1179.6	1178.2	1181.0	1183.8	1185.1	1190.0	1188.6	1187.2	1192.8
7.5°	1145.4	1146.1	1151.0	1149.6	1155.2	1155.9	1161.5	1165.6	1165.6	1168.4	1173.3
10°	1106.4	1106.4	1110.6	1111.3	1114.8	1117.6	1123.8	1131.5	1132.9	1137.8	1144.7
12.5°	1062.5	1061.1	1064.6	1064.6	1067.4	1070.9	1077.8	1086.9	1088.3	1096.0	1105.0
15°	1008.2	1006.1	1004.7	1006.1	1007.5	1008.2	1018.6	1027.7	1033.3	1041.6	1050.7
17.5°	955.9	948.3	944.8	944.8	945.5	945.5	949.7	960.1	967.8	981.0	994.2
20°	909.2	896.0	891.1	880.0	877.9	873.0	876.5	888.3	902.3	912.7	923.2
22.5°	865.3	851.4	837.5	824.2	813.8	807.5	813.8	821.5	826.3	834.7	837.5
25°	831.9	808.9	789.4	768.5	757.4	751.8	751.1	750.4	746.2	744.8	744.8
27.5°	805.4	778.3	749.0	726.0	710.7	700.2	688.4	680.0	669.6	655.6	648.7
30°	783.1	753.9	721.8	694.6	675.1	654.9	630.5	611.7	592.9	576.2	561.6
32.5°	762.9	733.0	701.6	673.0	639.6	604.8	574.1	551.8	519.1	496.8	478.0
35°	747.6	717.6	688.4	650.8	604.8	560.2	520.5	487.7	454.3	425.0	399.9
37.5°	736.4	711.4	680.0	629.2	571.3	517.7	475.9	436.9	397.1	357.4	326.1
40°	733.0	711.4	671.7	605.5	539.3	481.4	433.4	385.3	341.4	298.9	266.8
42.5°	735.1	712.1	658.4	584.6	512.8	450.1	395.7	340.0	287.8	242.5	210.4
45°	742.7	712.1	644.5	561.6	488.4	421.5	356.7	290.5	229.9	193.7	179.8
47.5°	765.7	716.9	633.3	544.8	466.8	390.2	312.8	237.6	186.0	170.7	170.7
50°	801.2	731.6	631.9	532.3	442.4	353.9	258.5	187.4	164.4	163.7	167.9
52.5°	861.9	757.4	638.9	523.9	416.6	305.2	201.4	161.6	156.8	160.9	167.2
55°	979.6	802.6	648.7	508.6	373.5	239.0	165.1	153.3	155.4	160.2	165.8
57.5°	1194.9	893.9	659.1	475.9	302.4	181.2	149.8	150.5	154.0	158.9	163.7
60°	1343.3	1006.8	680.0	420.8	225.0	149.8	143.5	149.1	153.3	156.8	160.9
62.5°	1355.8	1047.9	695.3	358.8	167.2	136.6	138.0	146.3	151.9	153.3	155.4
65°	1280.6	994.9	651.4	296.1	138.7	129.6	134.5	142.1	147.7	148.4	150.5
67.5°	1116.2	884.2	556.0	225.0	126.8	124.7	130.3	135.2	139.3	142.8	145.6
70°	864.6	721.8	447.3	174.9	117.7	117.1	121.9	127.5	131.7	135.2	139.3
72.5°	455.7	512.8	333.0	140.0	108.0	108.7	113.6	118.4	121.2	124.7	128.9
75°	141.4	217.4	205.5	112.2	96.1	98.9	101.7	105.9	110.8	112.9	115.0
77.5°	83.6	88.5	107.3	87.8	83.6	85.7	89.2	92.7	96.1	98.9	101.0
80°	67.6	69.0	69.7	69.7	69.7	72.5	75.2	80.1	82.9	84.3	85.0
82.5°	53.0	56.4	57.1	55.7	57.8	60.6	62.0	64.8	65.5	66.9	68.3
85°	43.9	43.2	44.6	45.3	42.5	42.5	41.1	41.1	43.9	48.8	49.5
87.5°	34.1	30.0	24.4	23.0	21.6	20.2	18.8	18.8	19.5	22.3	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



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**CANDELA DISTRIBUTION (continued):**

	160°	165°	170°	175°	180°
0°	1199.1	1199.1	1199.1	1199.1	1199.1
2.5°	1201.9	1201.2	1202.6	1204.7	1203.3
5°	1193.5	1193.5	1196.3	1198.4	1197.0
7.5°	1176.8	1177.5	1181.7	1184.5	1183.1
10°	1150.3	1151.7	1156.6	1160.8	1162.9
12.5°	1110.6	1115.5	1121.7	1125.9	1125.9
15°	1060.4	1068.1	1075.1	1081.3	1077.8
17.5°	1003.3	1012.4	1021.4	1024.9	1021.4
20°	934.3	935.0	940.6	944.1	942.7
22.5°	840.3	837.5	840.3	841.7	843.7
25°	744.1	739.2	736.4	740.6	742.7
27.5°	645.9	638.9	641.0	636.1	630.5
30°	550.4	544.2	536.5	534.4	537.9
32.5°	466.1	450.1	443.8	432.0	436.9
35°	376.9	360.9	345.6	341.4	338.6
37.5°	303.8	284.3	265.5	259.2	257.8
40°	237.6	221.6	209.0	205.5	204.1
42.5°	193.0	186.0	183.9	183.9	184.6
45°	176.3	177.0	179.1	180.5	181.2
47.5°	172.8	175.6	178.4	181.2	181.8
50°	172.8	174.9	177.0	179.8	180.5
52.5°	171.4	173.5	174.2	175.6	177.0
55°	170.0	170.7	170.7	171.4	172.8
57.5°	166.5	167.2	165.8	166.5	169.3
60°	163.0	163.7	162.3	163.7	164.4
62.5°	158.2	158.2	157.5	158.2	158.9
65°	152.6	150.5	151.9	151.2	151.9
67.5°	145.6	142.8	142.1	142.1	142.8
70°	135.9	133.8	133.1	134.5	135.9
72.5°	124.0	125.4	127.5	129.6	133.1
75°	115.7	117.7	120.5	127.5	132.4
77.5°	103.8	103.1	105.9	113.6	120.5
80°	86.4	87.1	86.4	88.5	89.9
82.5°	66.2	65.5	63.4	63.4	62.0
85°	46.7	44.6	41.8	41.1	40.4
87.5°	23.7	25.1	23.0	20.9	20.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)