

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: P141888

Luminaire Tested: **ECM-E04-LED-E1-T3-8030**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P141888
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33683)
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-T3-8030
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 3
Light Source: (84) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9912.7 lumens
Efficiency: N/A
Efficacy: 102.0 lumens/watt
Luminous Opening: Rectangular (W 0.67' x L: 1' x H: 0')
IES Classification: Type III - Short - Semi-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

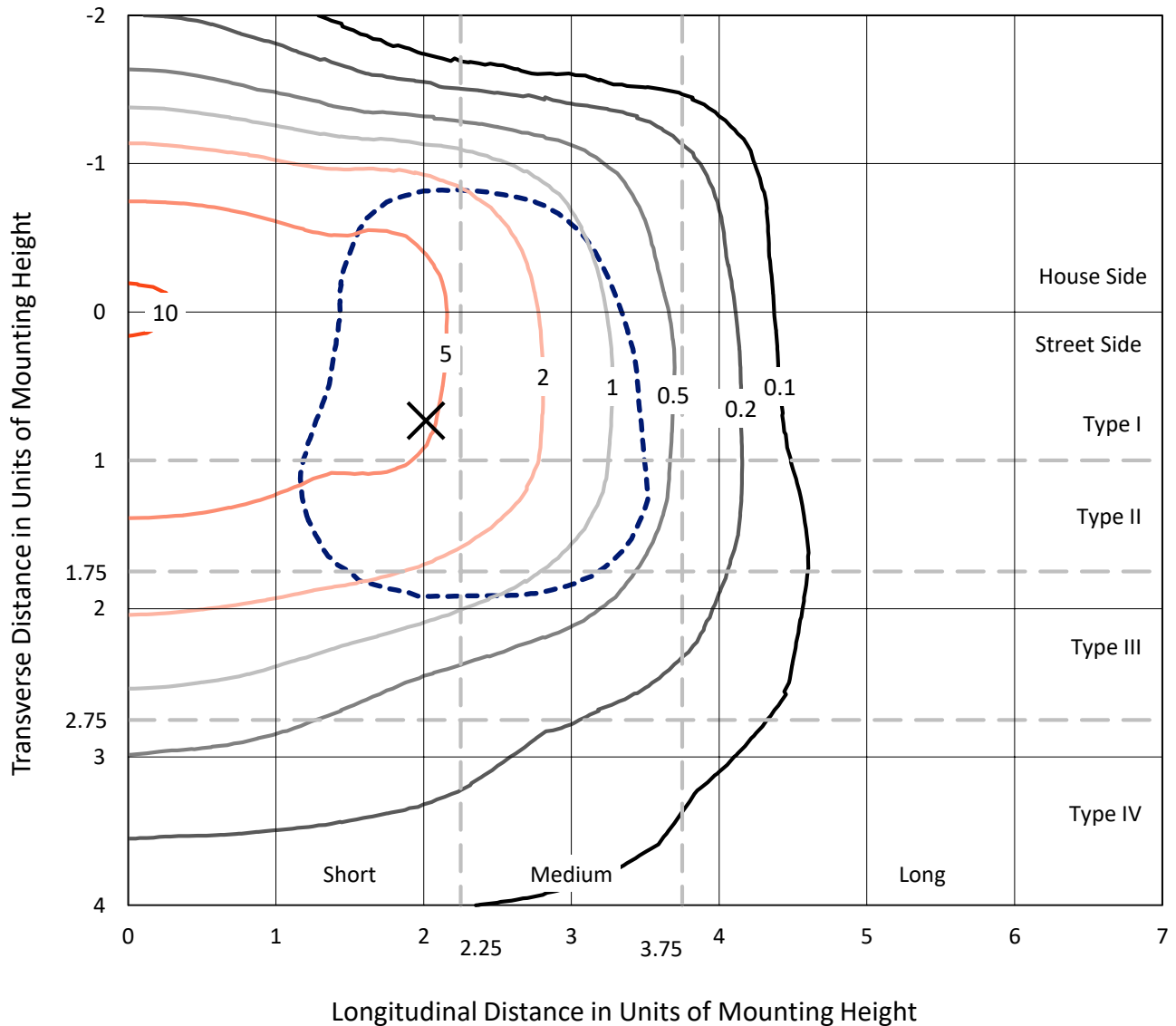


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

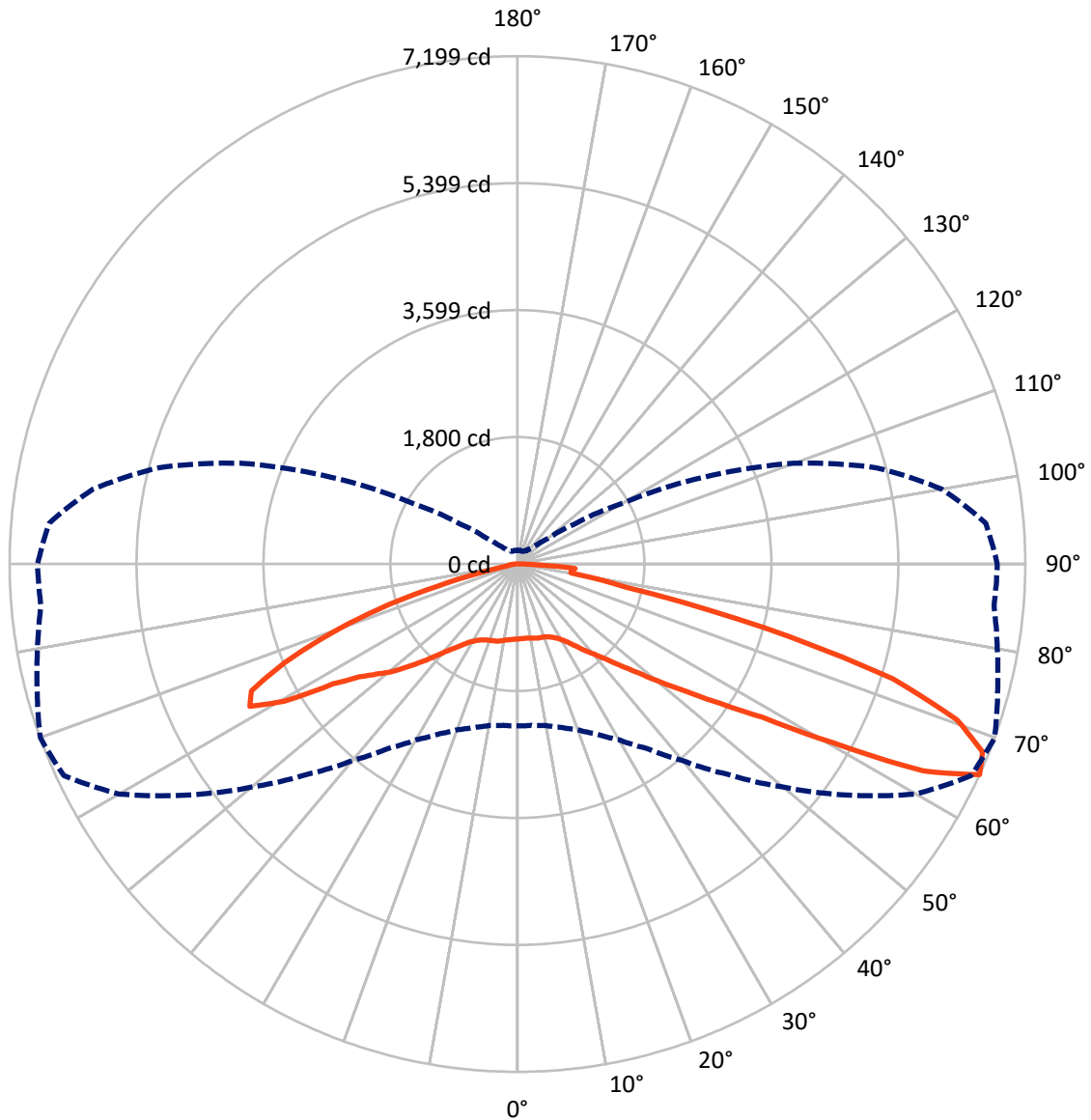


Based on 10 foot mounting height. Maximum calculated value = 10.7 fc
 Type III - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 70-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3346.2	0.0	3346.2
	% Fixture	33.8	0.0	33.8
Street Side	Lumens	6566.4	0.0	6566.4
	% Fixture	66.2	0.0	66.2
Total	Lumens	9912.7	0.0	9912.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	102.3	1.0
10°-20°	302.9	3.1
20°-30°	520.7	5.3
30°-40°	834.6	8.4
40°-50°	1366.5	13.8
50°-60°	2138.9	21.6
60°-70°	3005.9	30.3
70°-80°	1422.5	14.4
80°-90°	218.5	2.2
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°	9912.7	100.0
0°-180°	9912.7	100.0

Coefficient of Utilization



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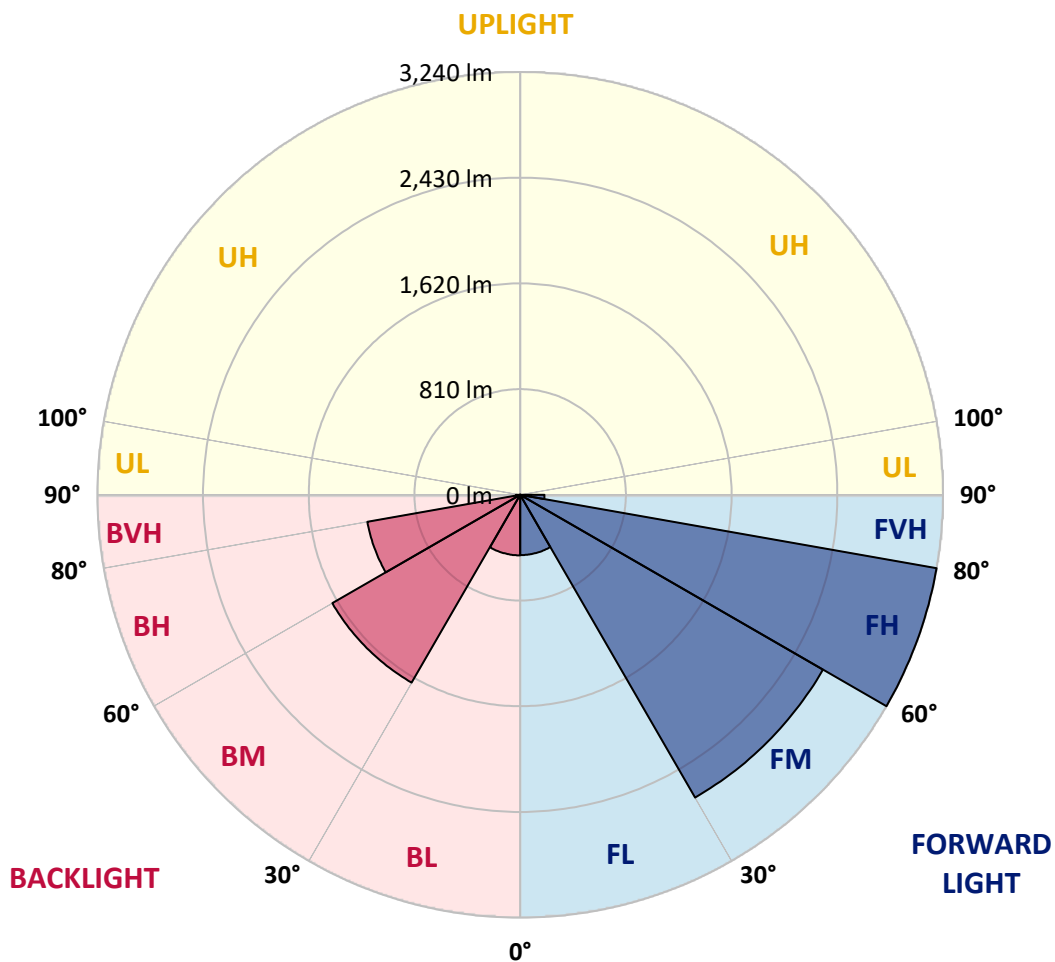
CATALOG NUMBER: ECM-E04-LED-E1-T3-8030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	461.8	4.7			
FM	(30°-60°)	2678.7	27.0			
FH	(60°-80°)	3239.7	32.7			G2/5000
FVH	(80°-90°)	186.3	1.9			G2/225
BL	(0°-30°)	464.0	4.7	B1/500		
BM	(30°-60°)	1661.3	16.8	B2/2500		
BH	(60°-80°)	1188.6	12.0	B3/2500		G3/2500
BVH	(80°-90°)	32.3	0.3			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 III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1062.3	1062.3	1062.3	1062.3	1062.3	1062.3	1062.3	1062.3	1062.3	1062.3	1062.3
2.5°	1056.7	1057.8	1057.8	1055.6	1055.6	1056.7	1056.7	1057.8	1057.8	1057.8	1058.9
5°	1056.7	1057.8	1057.8	1056.7	1055.6	1057.8	1056.7	1057.8	1057.8	1057.8	1057.8
7.5°	1054.4	1055.6	1055.6	1054.4	1055.6	1056.7	1056.7	1058.9	1060.1	1060.1	1061.2
10°	1043.2	1044.3	1045.4	1045.4	1047.7	1051.1	1052.2	1056.7	1057.8	1061.2	1063.4
12.5°	1022.9	1022.9	1025.2	1027.4	1030.8	1037.5	1040.9	1047.7	1053.3	1057.8	1065.7
15°	1004.9	1004.9	1007.2	1008.3	1015.0	1019.5	1026.3	1034.2	1044.3	1053.3	1065.7
17.5°	1013.9	1013.9	1012.8	1011.7	1012.8	1012.8	1018.4	1026.3	1035.3	1047.7	1063.4
20°	1048.8	1047.7	1043.2	1040.9	1039.8	1035.3	1031.9	1030.8	1035.3	1044.3	1060.1
22.5°	1079.2	1076.9	1075.8	1073.6	1076.9	1074.7	1070.2	1064.6	1057.8	1054.4	1063.4
25°	1097.2	1098.3	1098.3	1098.3	1105.1	1107.3	1109.6	1102.8	1094.9	1083.7	1084.8
27.5°	1121.9	1123.1	1120.8	1125.3	1133.2	1138.8	1144.5	1149.0	1144.5	1137.7	1129.8
30°	1174.8	1174.8	1171.5	1174.8	1181.6	1187.2	1195.1	1203.0	1203.0	1196.2	1188.3
32.5°	1230.0	1231.1	1231.1	1233.4	1243.5	1248.0	1259.2	1267.1	1272.7	1268.2	1272.7
35°	1296.4	1295.2	1298.6	1299.7	1315.5	1321.1	1343.6	1349.3	1358.3	1360.5	1363.9
37.5°	1406.7	1408.9	1402.2	1397.6	1411.2	1411.2	1440.4	1456.2	1453.9	1469.7	1480.9
40°	1584.5	1574.3	1570.9	1568.7	1576.6	1575.4	1574.3	1595.7	1605.8	1608.1	1613.7
42.5°	1781.4	1784.8	1781.4	1789.3	1789.3	1783.6	1779.1	1775.8	1794.9	1807.3	1809.5
45°	2012.1	2016.6	2009.8	2004.2	2018.8	2026.7	2026.7	2035.7	2051.5	2057.1	2053.7
47.5°	2196.6	2209.0	2203.4	2211.3	2234.9	2261.9	2297.9	2321.5	2338.4	2354.2	2378.9
50°	2363.2	2368.8	2382.3	2408.2	2443.1	2485.8	2544.4	2602.9	2636.6	2676.0	2705.3
52.5°	2464.5	2481.3	2501.6	2544.4	2602.9	2662.5	2752.5	2848.2	2933.7	2977.6	3012.5
55°	2525.2	2537.6	2564.6	2623.1	2705.3	2794.2	2906.7	3038.4	3152.0	3248.8	3324.2
57.5°	2523.0	2533.1	2570.2	2634.4	2732.3	2843.7	2984.4	3148.6	3316.3	3477.2	3619.0
60°	2474.6	2483.6	2520.7	2589.4	2696.3	2829.1	2997.9	3199.3	3426.6	3668.5	3917.2
62.5°	2400.3	2407.1	2439.7	2508.3	2616.4	2758.2	2956.2	3220.7	3543.6	3925.1	4407.9
65°	2295.7	2295.7	2326.0	2396.9	2500.5	2659.1	2877.4	3188.0	3634.8	4215.5	4917.7
67.5°	2141.5	2141.5	2166.2	2224.8	2305.8	2416.1	2634.4	2957.3	3428.9	4124.3	4945.8
70°	1850.0	1854.5	1854.5	1890.5	1926.5	1976.1	2079.6	2327.2	2769.4	3449.1	4257.1
72.5°	1356.0	1273.9	1338.0	1396.5	1437.0	1464.0	1523.7	1601.3	1824.1	2333.9	3065.4
75°	854.1	875.5	923.9	990.3	1090.4	1194.0	1307.6	1356.0	1335.8	1396.5	1888.3
77.5°	517.6	499.6	546.9	645.9	758.5	899.1	1111.8	1296.4	1402.2	1395.4	1336.9
80°	223.9	218.3	249.8	297.1	352.2	479.4	674.1	927.3	1208.6	1371.8	1347.0
82.5°	79.9	81.0	102.4	121.5	146.3	187.9	266.7	426.5	676.3	963.3	1190.6
85°	23.6	25.9	36.0	50.6	57.4	65.3	90.0	133.9	228.4	364.6	648.2
87.5°	6.8	7.9	10.1	18.0	16.9	15.8	18.0	28.1	21.4	18.0	90.0
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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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1062.3	1062.3	1062.3	1062.3	1062.3	1062.3	1062.3	1062.3	1062.3	1062.3	1062.3
2.5°	1057.8	1057.8	1057.8	1058.9	1057.8	1057.8	1058.9	1058.9	1060.1	1061.2	1063.4
5°	1056.7	1056.7	1057.8	1057.8	1057.8	1058.9	1060.1	1061.2	1063.4	1066.8	1070.2
7.5°	1060.1	1060.1	1058.9	1060.1	1060.1	1061.2	1063.4	1064.6	1069.1	1072.4	1078.1
10°	1063.4	1063.4	1064.6	1065.7	1065.7	1067.9	1071.3	1072.4	1076.9	1083.7	1089.3
12.5°	1067.9	1071.3	1075.8	1078.1	1080.3	1082.6	1085.9	1088.2	1093.8	1102.8	1109.6
15°	1071.3	1079.2	1083.7	1089.3	1092.7	1093.8	1097.2	1101.7	1107.3	1116.3	1124.2
17.5°	1071.3	1081.4	1088.2	1093.8	1099.4	1102.8	1106.2	1110.7	1118.6	1127.6	1135.4
20°	1070.2	1084.8	1093.8	1102.8	1112.9	1116.3	1121.9	1126.4	1135.4	1146.7	1152.3
22.5°	1075.8	1092.7	1105.1	1120.8	1132.1	1141.1	1147.8	1155.7	1162.5	1170.3	1172.6
25°	1092.7	1109.6	1129.8	1149.0	1164.7	1178.2	1187.2	1194.0	1201.8	1205.2	1200.7
27.5°	1120.8	1133.2	1161.3	1189.5	1214.2	1231.1	1241.2	1250.2	1252.5	1259.2	1242.4
30°	1171.5	1177.1	1206.3	1246.9	1275.0	1303.1	1316.6	1325.6	1326.8	1322.3	1293.0
32.5°	1254.7	1244.6	1270.5	1324.5	1367.3	1390.9	1412.3	1417.9	1414.5	1399.9	1352.6
35°	1356.0	1340.3	1352.6	1431.4	1478.7	1513.6	1533.8	1539.4	1531.6	1505.7	1440.4
37.5°	1480.9	1475.3	1480.9	1556.3	1638.5	1671.1	1680.1	1686.9	1667.7	1620.5	1534.9
40°	1619.3	1620.5	1613.7	1682.4	1785.9	1833.1	1854.5	1839.9	1816.3	1748.7	1654.2
42.5°	1810.6	1803.9	1780.3	1842.2	1974.9	2023.3	2042.5	2031.2	2007.6	1922.0	1811.8
45°	2063.8	2041.3	2018.8	2051.5	2179.7	2242.8	2270.9	2263.0	2221.4	2117.9	2014.3
47.5°	2373.3	2349.7	2308.0	2302.4	2431.8	2506.1	2516.2	2503.8	2472.3	2368.8	2241.6
50°	2698.5	2691.8	2672.6	2627.6	2743.5	2817.8	2811.1	2802.0	2767.2	2635.5	2505.0
52.5°	3035.0	3048.5	3036.1	3004.6	3128.4	3158.8	3161.0	3134.0	3093.5	2972.0	2794.2
55°	3388.3	3439.0	3458.1	3482.9	3580.8	3576.3	3550.4	3486.2	3496.4	3358.0	3111.5
57.5°	3763.1	3918.4	4041.0	4096.2	4189.6	4216.6	4151.3	4172.7	4163.7	4020.8	3632.5
60°	4257.1	4628.4	4948.0	5145.0	5271.0	5222.6	5313.8	5318.3	5472.4	5158.5	4553.0
62.5°	5044.8	5726.8	6293.9	6463.8	6496.5	6485.2	6377.2	6485.2	6456.0	6073.4	5289.0
65°	5707.6	6519.0	7095.2	7198.7	7046.8	6907.2	6781.2	6802.6	6663.0	6109.4	5267.6
67.5°	5797.7	6605.6	7140.2	7110.9	6778.9	6520.1	6310.8	6146.5	5861.8	5361.0	4627.3
70°	5085.3	5941.7	6630.4	6607.9	6146.5	5801.0	5461.2	5213.6	4923.3	4536.2	3841.8
72.5°	3955.5	4718.5	5385.8	5559.1	5104.5	4723.0	4411.3	4096.2	3796.8	3428.9	2991.1
75°	2692.9	3266.8	3577.4	3624.7	3208.3	2922.5	2802.0	2544.4	2227.0	2148.2	1824.1
77.5°	1564.2	1784.8	1690.2	1564.2	1259.2	925.0	706.7	604.3	606.5	696.6	667.3
80°	1271.6	1210.8	955.4	766.3	521.0	265.6	177.8	153.0	154.2	178.9	173.3
82.5°	1311.0	1345.9	1106.2	774.2	533.4	281.3	135.0	100.2	117.0	127.2	124.9
85°	971.2	1272.7	1141.1	821.5	572.8	299.3	87.8	55.1	77.6	94.5	101.3
87.5°	272.3	427.6	332.0	219.4	159.8	54.0	34.9	29.3	36.0	49.5	49.5
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):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1062.3	1062.3	1062.3	1062.3	1062.3	1062.3	1062.3	1062.3	1062.3	1062.3	1062.3
2.5°	1064.6	1069.1	1067.9	1070.2	1071.3	1074.7	1076.9	1075.8	1075.8	1078.1	1080.3
5°	1073.6	1079.2	1079.2	1082.6	1085.9	1090.4	1093.8	1091.6	1092.7	1094.9	1097.2
7.5°	1082.6	1089.3	1090.4	1093.8	1096.1	1098.3	1100.6	1097.2	1096.1	1096.1	1094.9
10°	1093.8	1100.6	1099.4	1099.4	1098.3	1096.1	1091.6	1083.7	1078.1	1074.7	1072.4
12.5°	1112.9	1117.4	1110.7	1103.9	1092.7	1084.8	1074.7	1065.7	1058.9	1053.3	1051.1
15°	1129.8	1127.6	1119.7	1107.3	1091.6	1079.2	1069.1	1056.7	1048.8	1042.0	1038.7
17.5°	1138.8	1130.9	1119.7	1108.4	1094.9	1083.7	1071.3	1056.7	1044.3	1035.3	1030.8
20°	1147.8	1135.4	1120.8	1109.6	1099.4	1090.4	1081.4	1063.4	1047.7	1034.2	1027.4
22.5°	1161.3	1144.5	1129.8	1119.7	1109.6	1100.6	1091.6	1074.7	1057.8	1039.8	1029.7
25°	1180.5	1158.0	1147.8	1137.7	1126.4	1117.4	1105.1	1089.3	1071.3	1049.9	1035.3
27.5°	1210.8	1190.6	1179.3	1169.2	1155.7	1141.1	1127.6	1106.2	1089.3	1064.6	1045.4
30°	1254.7	1233.4	1223.2	1213.1	1197.3	1178.2	1159.1	1132.1	1108.4	1080.3	1055.6
32.5°	1309.9	1298.6	1286.2	1269.4	1248.0	1224.3	1196.2	1160.2	1126.4	1091.6	1060.1
35°	1395.4	1376.3	1356.0	1339.1	1307.6	1275.0	1232.2	1179.3	1134.3	1091.6	1053.3
37.5°	1493.3	1473.0	1446.0	1415.7	1368.4	1316.6	1257.0	1190.6	1130.9	1079.2	1036.4
40°	1611.5	1585.6	1549.6	1492.2	1422.4	1344.8	1264.9	1181.6	1111.8	1052.2	1002.7
42.5°	1767.9	1715.0	1645.2	1560.8	1461.8	1356.0	1254.7	1158.0	1079.2	1013.9	964.4
45°	1944.6	1860.2	1747.6	1621.6	1484.3	1351.5	1232.2	1119.7	1030.8	958.8	907.0
47.5°	2134.7	2003.1	1837.6	1659.8	1486.5	1326.8	1188.3	1062.3	962.1	885.6	821.5
50°	2349.7	2132.5	1900.7	1679.0	1471.9	1282.9	1125.3	980.2	876.6	785.5	727.0
52.5°	2534.2	2246.1	1944.6	1671.1	1420.2	1206.3	1021.8	881.1	759.6	678.6	621.2
55°	2752.5	2356.4	1968.2	1631.7	1336.9	1087.1	910.4	754.0	639.2	567.2	517.6
57.5°	3120.5	2543.2	1988.4	1551.8	1199.6	937.4	756.2	609.9	519.9	456.9	422.0
60°	3830.6	2905.6	2071.7	1432.5	1025.2	757.3	584.0	477.1	399.5	357.9	333.1
62.5°	4295.4	3152.0	2034.6	1249.1	801.2	567.2	427.6	344.3	299.3	269.0	257.7
65°	4177.2	2903.3	1726.2	990.3	558.2	377.0	287.0	236.3	216.1	200.3	193.6
67.5°	3587.5	2341.8	1251.4	640.3	353.4	229.6	187.9	167.7	158.7	151.9	150.8
70°	2858.3	1650.8	743.8	339.8	195.8	151.9	133.9	126.0	122.7	122.7	122.7
72.5°	2074.0	950.9	365.7	183.4	131.7	115.9	108.0	105.8	104.7	104.7	105.8
75°	1185.0	411.9	187.9	126.0	108.0	100.2	95.7	95.7	95.7	95.7	96.8
77.5°	413.0	187.9	132.8	105.8	93.4	88.9	86.6	88.9	90.0	90.0	90.0
80°	150.8	132.8	113.7	92.3	83.3	78.8	78.8	82.1	84.4	82.1	81.0
82.5°	119.3	104.7	92.3	79.9	73.1	70.9	72.0	74.3	73.1	72.0	68.6
85°	91.2	68.6	64.1	59.6	58.5	58.5	63.0	64.1	59.6	57.4	54.0
87.5°	45.0	36.0	32.6	38.3	37.1	33.8	34.9	34.9	29.3	27.0	28.1
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):

	165°	170°	175°	180°
0°	1062.3	1062.3	1062.3	1062.3
2.5°	1080.3	1081.4	1084.8	1083.7
5°	1096.1	1097.2	1099.4	1099.4
7.5°	1092.7	1093.8	1093.8	1093.8
10°	1066.8	1066.8	1069.1	1069.1
12.5°	1046.5	1045.4	1045.4	1043.2
15°	1034.2	1031.9	1033.0	1029.7
17.5°	1025.2	1024.0	1024.0	1021.8
20°	1021.8	1019.5	1018.4	1016.2
22.5°	1019.5	1018.4	1016.2	1013.9
25°	1025.2	1019.5	1018.4	1016.2
27.5°	1030.8	1025.2	1020.7	1019.5
30°	1036.4	1026.3	1020.7	1018.4
32.5°	1035.3	1021.8	1013.9	1010.5
35°	1022.9	1006.0	995.9	992.5
37.5°	999.3	980.2	964.4	958.8
40°	965.5	940.8	926.1	918.3
42.5°	925.0	896.9	884.5	877.8
45°	858.6	836.1	821.5	815.9
47.5°	784.3	754.0	740.5	734.8
50°	688.7	663.9	652.7	644.8
52.5°	587.4	564.9	554.8	550.3
55°	489.5	478.3	462.5	459.1
57.5°	397.2	393.9	382.6	381.5
60°	323.0	317.3	309.5	309.5
62.5°	254.3	248.7	245.3	245.3
65°	195.8	194.7	192.4	191.3
67.5°	150.8	154.2	155.3	153.0
70°	126.0	127.2	127.2	127.2
72.5°	109.2	109.2	109.2	108.0
75°	99.0	99.0	96.8	95.7
77.5°	91.2	90.0	91.2	90.0
80°	79.9	78.8	76.5	74.3
82.5°	66.4	65.3	59.6	59.6
85°	51.8	48.4	43.9	39.4
87.5°	29.3	25.9	19.1	13.5
90°	0.0	0.0	0.0	0.0

(END OF REPORT)