

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: io LED

Report Number: P273380

Luminaire Tested: **0.03-5W-835-10-ID-STD-UNV-AN-3F0**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P273380  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (ITL89171-GONIOPHOTOMETRY)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: 0.03-5W-835-10-ID-STD-UNV-AN-3F0  
Description: iO LIGHTING SERIES .75 LINEAR LED LUMINAIRE, 10 DEGREE OPTIC.  
VERY HIGH OUTPUT  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 891.9 lumens  
Efficiency: N/A  
Efficacy: 48.7 lumens/watt  
Spacing Criteria (0/90/45): 0.37 / 0.89 / 0.57  
Luminous Opening: Rectangular (W 2.92' x L: 0.05' x H: 0')  
CIE Type: Direct

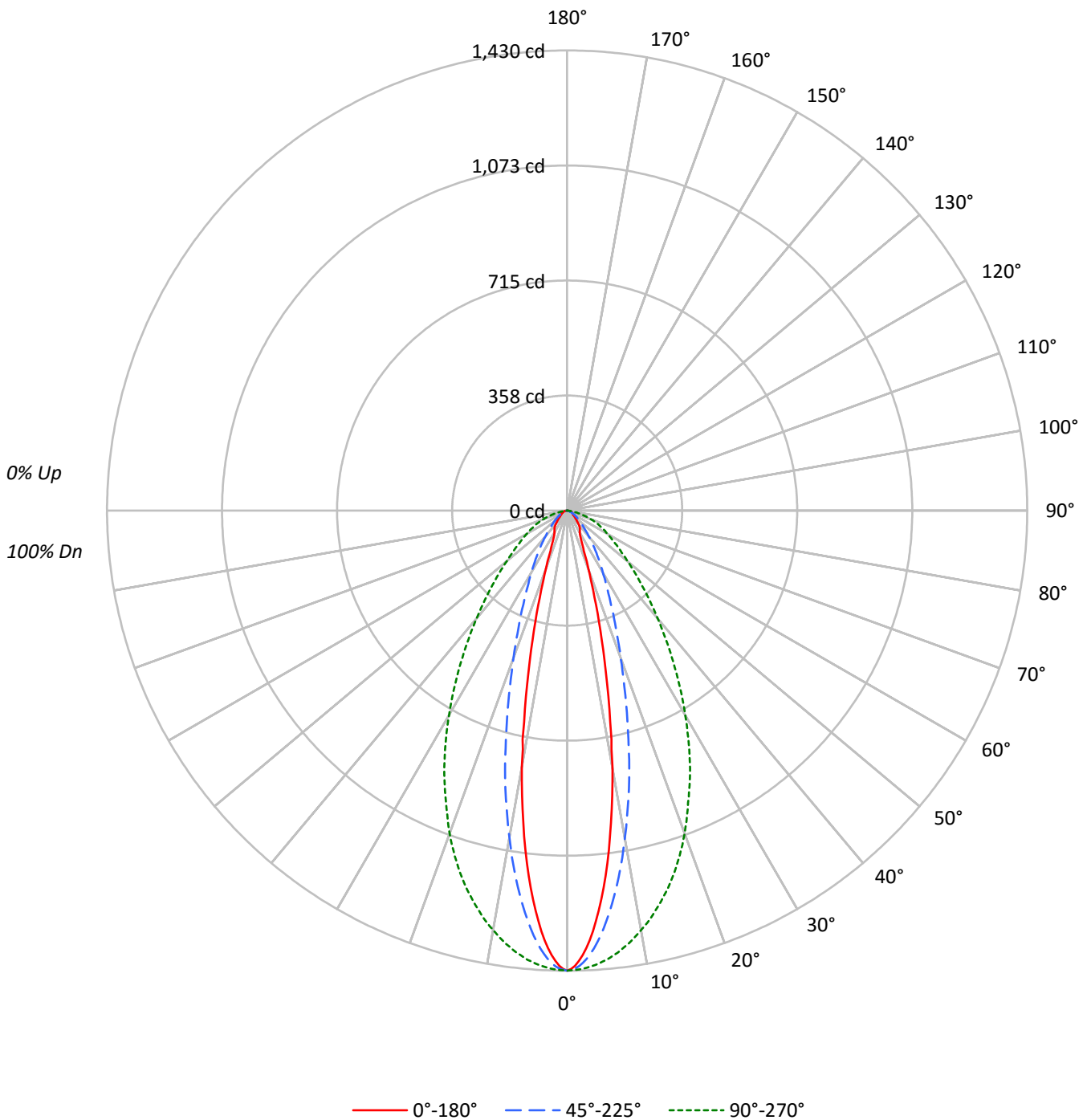
Input Watts (W): 18.3  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20					20					20					20					20					
RC	80					70					50					30					10					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	112	109	106	103	110	107	104	102	103	101	99	99	97	96	95	94	93	91					91			
2	105	100	95	91	103	98	94	90	95	91	88	92	89	86	89	86	84	82					82			
3	99	92	86	81	97	90	85	80	87	83	79	85	81	78	83	79	77	75					75			
4	93	85	78	73	91	83	77	73	81	76	72	79	75	71	77	73	70	69					69			
5	88	79	72	67	86	78	71	67	76	70	66	74	69	65	72	68	65	63					63			
6	83	73	66	62	82	72	66	61	71	65	61	69	64	61	68	64	60	59					59			
7	79	69	62	57	77	68	62	57	67	61	57	65	60	56	64	60	56	55					55			
8	75	64	58	53	74	64	58	53	63	57	53	62	56	53	61	56	53	51					51			
9	71	61	54	50	70	60	54	50	59	54	50	58	53	50	57	53	49	48					48			
10	68	58	51	47	67	57	51	47	56	51	47	55	50	47	55	50	47	45					45			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	112569	112569	112569
5°	95991	102938	110786
10°	64715	82591	105831
15°	33907	59884	98828
20°	16120	40685	89480
25°	9034	28007	78504
30°	7091	20137	66746
35°	6651	14888	55274
40°	5663	10843	44995
45°	4454	8050	36587
50°	3699	6247	30057
55°	3281	4996	25695
60°	3118	3937	22753
65°	3297	3092	20734
70°	3361	2394	18185
75°	3164	2068	13932
80°	3083	1632	8977
85°	2349	1445	4697



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	116.3	13.0
10°-20°	214.1	24.0
20°-30°	189.1	21.2
30°-40°	147.8	16.6
40°-50°	101.8	11.4
50°-60°	64.7	7.3
60°-70°	38.2	4.3
70°-80°	16.8	1.9
80°-90°	3.2	0.4
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°-30°	519.4	58.2
0°-40°	667.2	74.8
0°-60°	833.7	93.5
0°-90°	891.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	891.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1430	1430	1430	1430	1430	
5°	1215	1242	1302	1369	1402	103
15°	416	507	735	1034	1212	117
25°	104	146	322	659	904	52
35°	69	76	155	389	575	43
45°	40	45	72	218	329	31
55°	24	26	36	118	187	22
65°	18	16	17	57	111	17
75°	10	9	7	19	46	11
85°	3	3	2	2	5	3
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1429.8	1429.8	1429.8	1429.8	1429.8	1429.8	1429.8	1429.8	1429.8	1429.8	1429.8
0.5°	1424.6	1424.2	1423.7	1423.3	1422.8	1423.1	1424.1	1425.2	1426.2	1427.2	1427.4
1°	1415.3	1415.2	1415.1	1415.0	1414.9	1415.7	1417.6	1419.3	1421.2	1423.1	1423.8
1.5°	1400.2	1400.8	1401.3	1402.0	1402.5	1404.3	1407.3	1410.3	1413.3	1416.3	1417.8
2°	1382.5	1383.6	1384.6	1385.6	1386.7	1389.3	1393.4	1397.6	1401.8	1405.9	1408.8
2.5°	1360.7	1362.8	1364.8	1366.9	1369.0	1372.6	1377.8	1383.0	1388.2	1393.4	1398.0
3°	1337.3	1339.7	1342.2	1344.6	1347.0	1351.6	1358.6	1365.6	1372.4	1379.4	1385.7
3.5°	1309.7	1312.9	1316.0	1319.1	1322.2	1328.1	1337.0	1345.7	1354.6	1363.3	1371.0
4°	1280.1	1283.9	1287.7	1291.5	1295.4	1302.6	1313.1	1323.6	1334.1	1344.6	1354.8
4.5°	1247.9	1252.6	1257.3	1262.1	1266.8	1275.3	1287.7	1300.1	1312.4	1324.8	1337.4
5°	1214.6	1220.1	1225.7	1231.2	1236.7	1246.5	1260.5	1274.5	1288.5	1302.5	1317.7
5.5°	1179.2	1185.6	1191.9	1198.3	1204.6	1215.7	1231.5	1247.4	1263.3	1279.1	1297.0
6°	1142.3	1149.6	1156.9	1164.2	1171.4	1184.0	1201.9	1219.9	1237.8	1255.7	1276.2
6.5°	1103.3	1111.6	1120.0	1128.3	1136.6	1150.7	1170.7	1190.8	1210.7	1230.7	1253.8
7°	1062.8	1072.0	1081.3	1090.5	1099.8	1115.5	1137.8	1160.1	1182.5	1204.7	1230.8
7.5°	1021.7	1031.8	1041.8	1051.8	1061.9	1079.3	1104.0	1128.7	1153.4	1178.2	1206.9
8°	980.6	991.3	1002.1	1012.8	1023.6	1042.5	1069.5	1096.6	1123.6	1150.6	1182.0
8.5°	938.5	950.0	961.6	973.1	984.7	1005.2	1034.4	1063.6	1092.8	1122.0	1156.4
9°	896.9	909.3	921.6	934.0	946.4	968.1	999.3	1030.5	1061.7	1092.9	1130.0
9.5°	853.7	865.8	877.8	889.8	901.8	925.1	959.6	994.2	1028.8	1063.3	1103.2
10°	809.5	822.7	835.7	848.8	861.8	886.6	923.2	959.9	996.5	1033.1	1076.0
10.5°	753.9	770.4	787.0	803.5	820.1	847.7	886.7	925.6	964.6	1003.5	1049.1
11°	723.8	738.0	752.1	766.4	780.6	808.3	849.6	890.9	932.0	973.3	1021.8
11.5°	670.7	688.0	705.1	722.4	739.6	769.9	813.5	857.1	900.6	944.2	995.0
12°	630.2	647.8	665.5	683.2	700.9	732.5	778.1	823.8	869.4	915.1	968.1
12.5°	591.2	609.2	627.3	645.2	663.2	696.0	743.5	791.0	838.5	886.0	941.4
13°	552.7	571.0	589.2	607.5	625.7	659.5	708.7	757.9	807.2	856.3	914.4
13.5°	515.8	534.3	552.8	571.2	589.7	624.2	674.9	725.5	776.1	826.7	887.0
14°	480.9	499.6	518.2	536.8	555.4	590.4	641.9	693.5	745.0	796.6	859.6
14.5°	448.2	466.6	484.9	503.3	521.7	556.8	608.5	660.2	712.0	763.8	829.6
15°	416.0	434.3	452.5	470.8	489.0	524.4	576.9	629.5	682.1	734.7	802.9
16°	358.2	376.1	394.0	412.0	429.9	465.7	519.2	572.9	626.4	680.1	751.5
17°	306.2	323.6	340.9	358.2	375.6	411.3	465.3	519.4	573.5	627.6	701.7
18°	261.5	278.1	294.6	311.1	327.7	362.5	415.6	468.8	521.9	575.1	651.9
19°	224.6	239.3	253.9	268.6	283.3	317.1	370.0	422.9	475.9	528.8	607.1
20°	192.4	206.7	221.1	235.3	249.7	282.2	333.1	383.9	434.8	485.6	565.0
22.5°	135.2	146.0	156.9	167.7	178.7	207.6	254.5	301.4	348.3	395.2	474.1
25°	104.0	111.4	118.8	126.1	133.5	157.9	198.9	240.1	281.2	322.4	398.4
27.5°	87.4	91.8	96.4	100.9	105.3	125.1	160.1	195.2	230.1	265.2	336.0
30°	78.0	80.5	83.1	85.6	88.2	104.1	133.4	162.8	192.2	221.5	286.1
32.5°	73.3	74.4	75.4	76.4	77.5	89.8	113.7	137.5	161.3	185.1	243.6
35°	69.2	69.6	70.1	70.5	71.0	80.5	99.1	117.7	136.3	154.9	207.8
37.5°	63.4	64.1	64.6	65.2	65.7	72.9	86.6	100.5	114.2	127.9	175.5
40°	55.1	56.2	57.2	58.2	59.3	64.9	75.1	85.2	95.4	105.5	148.0
42.5°	46.8	47.9	49.1	50.2	51.4	55.8	63.6	71.3	79.1	86.8	124.4



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
45°	40.0	40.9	41.7	42.4	43.3	46.9	53.2	59.6	65.9	72.3	105.2
47.5°	34.3	35.0	35.7	36.4	37.1	39.9	45.0	50.1	55.2	60.3	89.0
50°	30.2	30.8	31.3	31.9	32.4	34.7	38.8	42.8	46.9	51.0	75.8
52.5°	27.0	27.3	27.8	28.1	28.4	30.3	33.5	36.7	39.9	43.2	64.6
55°	23.9	24.1	24.3	24.6	24.9	26.2	28.8	31.3	33.9	36.4	54.8
57.5°	21.8	21.8	21.8	21.8	21.8	22.8	24.6	26.4	28.3	30.2	45.9
60°	19.8	19.7	19.5	19.4	19.3	19.9	21.1	22.5	23.7	25.0	38.2
62.5°	18.7	18.4	18.0	17.7	17.4	17.5	18.2	18.9	19.5	20.3	31.3
65°	17.7	17.3	16.7	16.3	15.8	15.7	15.9	16.2	16.4	16.6	25.4
67.5°	16.1	15.7	15.2	14.8	14.2	13.9	13.8	13.7	13.6	13.5	20.2
70°	14.6	14.1	13.6	13.2	12.7	12.3	11.8	11.3	10.8	10.4	15.6
72.5°	13.0	12.4	11.9	11.2	10.7	10.2	9.7	9.3	8.7	8.3	12.2
75°	10.4	10.2	10.0	9.7	9.5	9.0	8.5	7.9	7.4	6.8	9.3
77.5°	8.3	8.1	7.9	7.6	7.4	7.1	6.6	6.1	5.6	5.2	6.9
80°	6.8	6.6	6.3	6.0	5.8	5.5	5.0	4.6	4.1	3.6	4.5
82.5°	4.7	4.6	4.5	4.4	4.3	4.0	3.6	3.3	2.9	2.6	2.9
85°	2.6	2.6	2.6	2.6	2.6	2.5	2.3	2.0	1.8	1.6	1.7
87.5°	1.6	1.5	1.4	1.2	1.1	1.0	1.0	1.0	1.0	1.0	0.9
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):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1429.8	1429.8	1429.8	1429.8	1429.8	1429.8	1429.8	1429.8
0.5°	1427.7	1428.0	1428.2	1428.4	1428.5	1428.6	1428.7	1428.8
1°	1424.4	1425.2	1425.9	1426.4	1426.7	1427.0	1427.4	1427.8
1.5°	1419.3	1420.8	1422.4	1423.5	1424.3	1425.1	1425.9	1426.7
2°	1411.7	1414.6	1417.5	1419.5	1420.8	1422.1	1423.4	1424.6
2.5°	1402.7	1407.3	1412.0	1415.1	1416.6	1418.3	1419.9	1421.5
3°	1392.1	1398.4	1404.8	1409.1	1411.4	1413.8	1416.1	1418.4
3.5°	1378.8	1386.5	1394.3	1400.0	1403.8	1407.7	1411.4	1415.3
4°	1365.0	1375.0	1385.2	1392.6	1397.3	1401.9	1406.5	1411.1
4.5°	1350.0	1362.6	1375.1	1384.2	1389.6	1395.1	1400.5	1405.9
5°	1332.9	1348.2	1363.5	1374.5	1381.3	1388.1	1394.9	1401.8
5.5°	1315.1	1333.1	1351.1	1364.1	1371.9	1379.8	1387.6	1395.5
6°	1296.8	1317.3	1337.9	1352.8	1361.9	1371.0	1380.1	1389.3
6.5°	1276.9	1300.1	1323.1	1340.1	1350.8	1361.5	1372.3	1383.0
7°	1256.9	1283.0	1309.1	1328.1	1340.1	1352.0	1363.9	1375.8
7.5°	1235.5	1264.2	1292.8	1313.8	1327.2	1340.6	1354.0	1367.4
8°	1213.4	1244.9	1276.4	1299.6	1314.7	1329.9	1345.0	1360.2
8.5°	1190.7	1225.0	1259.3	1284.9	1301.6	1318.4	1335.1	1351.8
9°	1167.1	1204.2	1241.3	1269.0	1287.4	1305.8	1324.1	1342.5
9.5°	1143.2	1183.2	1223.2	1253.2	1273.1	1293.2	1313.2	1333.1
10°	1118.8	1161.8	1204.6	1236.8	1258.6	1280.3	1302.0	1323.8
10.5°	1094.8	1140.4	1186.1	1220.6	1244.0	1267.5	1290.9	1314.4
11°	1070.1	1118.6	1167.0	1203.9	1229.1	1254.4	1279.8	1305.1
11.5°	1045.7	1096.3	1147.1	1186.1	1213.2	1240.4	1267.5	1294.7
12°	1021.2	1074.2	1127.2	1168.1	1196.9	1225.7	1254.4	1283.2
12.5°	996.9	1052.4	1107.8	1150.7	1181.0	1211.3	1241.5	1271.8
13°	972.4	1030.3	1088.3	1133.3	1165.0	1196.8	1228.5	1260.3
13.5°	947.3	1007.6	1068.0	1114.9	1148.3	1181.9	1215.4	1248.9
14°	922.5	985.5	1048.4	1097.3	1132.1	1166.9	1201.7	1236.4
14.5°	895.5	961.4	1027.2	1078.5	1115.1	1151.8	1188.4	1225.0
15°	871.0	939.2	1007.3	1060.5	1098.4	1136.5	1174.4	1212.5
16°	822.9	894.3	965.7	1022.0	1063.1	1104.3	1145.3	1186.5
17°	776.0	850.1	924.2	983.3	1027.1	1070.9	1114.7	1158.4
18°	728.8	805.6	882.4	944.0	990.3	1036.7	1082.9	1129.3
19°	685.5	763.8	842.1	905.5	953.9	1002.3	1050.7	1099.2
20°	644.4	723.8	803.1	867.9	917.9	967.9	1017.9	1068.0
22.5°	553.0	631.9	710.9	776.1	827.7	879.4	931.0	982.7
25°	474.4	550.4	626.4	691.1	744.2	797.4	850.5	903.7
27.5°	406.8	477.6	548.4	610.0	662.1	714.2	766.3	818.4
30°	350.6	415.2	479.8	536.8	586.2	635.5	684.9	734.2
32.5°	302.3	360.8	419.4	471.4	516.8	562.3	607.6	653.0
35°	260.6	313.3	366.1	412.8	453.4	493.9	534.5	575.1
37.5°	223.2	270.7	318.3	360.0	395.9	431.7	467.5	503.3
40°	190.4	232.7	275.2	312.1	343.5	375.0	406.4	437.8
42.5°	161.9	199.4	237.0	269.5	297.1	324.5	352.1	379.6





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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
45°	138.1	171.1	204.0	232.5	256.5	280.6	304.6	328.6
47.5°	117.6	146.3	174.9	199.8	220.8	241.9	262.9	283.9
50°	100.7	125.5	150.4	171.9	190.3	208.7	227.0	245.4
52.5°	85.9	107.3	128.6	147.6	164.0	180.3	196.7	213.2
55°	73.1	91.5	109.9	126.7	141.7	156.9	172.0	187.2
57.5°	61.6	77.3	93.0	107.9	122.0	136.1	150.2	164.3
60°	51.3	64.5	77.7	90.9	104.3	117.7	131.1	144.5
62.5°	42.2	53.2	64.2	76.1	89.1	102.0	115.0	127.9
65°	34.2	42.9	51.8	62.3	74.6	86.7	99.0	111.3
67.5°	26.9	33.6	40.3	49.5	61.0	72.6	84.1	95.7
70°	20.8	26.0	31.2	38.8	48.9	59.0	68.9	79.0
72.5°	15.9	19.8	23.6	29.4	37.4	45.4	53.3	61.4
75°	11.9	14.4	17.0	21.2	27.3	33.5	39.6	45.8
77.5°	8.4	10.1	11.6	14.6	18.7	22.9	27.0	31.2
80°	5.3	6.0	6.9	8.6	11.4	14.2	17.0	19.8
82.5°	3.3	3.6	4.0	4.9	6.2	7.6	9.0	10.4
85°	1.8	1.9	2.0	2.4	3.1	3.8	4.5	5.2
87.5°	0.8	0.7	0.6	0.6	0.7	0.8	0.9	1.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)