

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: io LED

Report Number: P135792

Luminaire Tested: **LD6A15D010TE ERM6A15827 6LM121LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P135792
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P23357-R2)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LD6A15D010TE ERM6A15827 6LM121LI
Description: PORTFOLIO 6 INCH 50 DEGREE CUTOFF RECESSED DOUBLE WALL WASH LUMINAIRE
SPECULAR CLEAR TRIM AND SPECULAR CLEAR KICKER
Light Source: (1) HIGH LUMEN LED 2700K
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1459.0 lumens
Efficiency: N/A
Efficacy: 64.6 lumens/watt
Spacing Criteria (0/90/45): 0.86 / 1.02 / 0.97
Luminous Opening: Circular (Dia: 0.46' x H: 0')
CIE Type: Direct

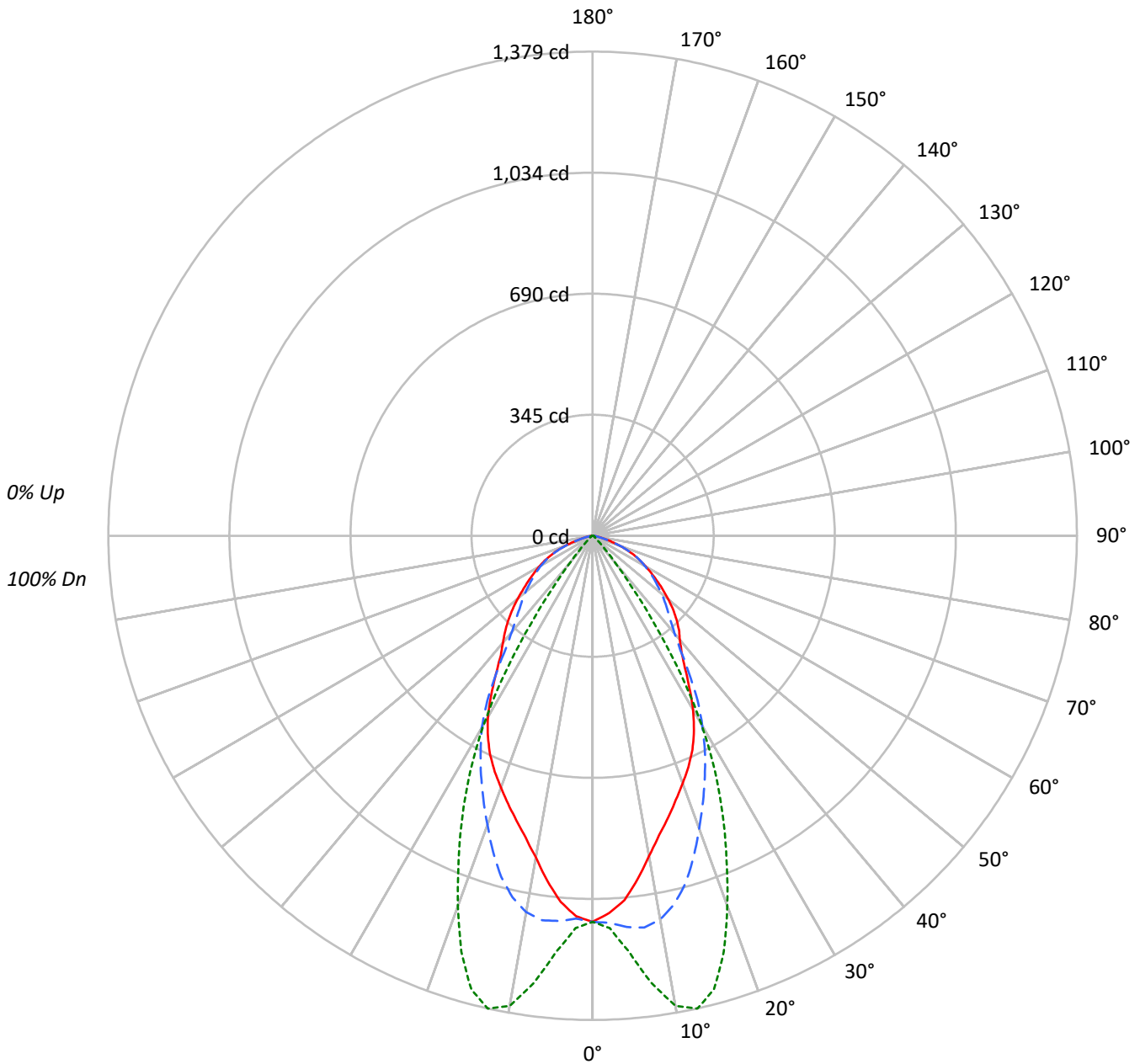
Input Watts (W): 22.6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
RC	80									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	0																
RCR																																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100																			
1	112	108	105	102	109	106	103	101	102	100	97	98	96	95	95	93	92	90																			
2	104	98	93	89	102	96	91	87	93	89	86	90	87	84	87	84	82	80																			
3	97	89	83	78	95	88	82	77	85	80	76	82	78	75	80	76	73	72																			
4	91	81	74	69	89	80	74	69	78	72	68	76	71	67	74	70	66	64																			
5	85	75	68	62	83	74	67	62	72	66	61	70	65	61	68	64	60	58																			
6	80	69	62	56	78	68	61	56	66	60	56	65	59	55	63	59	55	53																			
7	75	64	57	52	74	63	56	51	62	56	51	60	55	51	59	54	50	49																			
8	71	59	52	47	69	59	52	47	58	51	47	57	51	47	55	50	47	45																			
9	67	56	49	44	66	55	48	44	54	48	44	53	47	43	52	47	43	42																			
10	63	52	45	41	62	52	45	41	51	45	41	50	44	40	49	44	40	39																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	71726	71726	71726
5°	68208	77894	68535
10°	61312	90050	61643
15°	56100	90256	56641
20°	52043	77856	52946
25°	48424	63102	49648
30°	43068	46684	44951
35°	36381	24674	38134
40°	32857	8261	33794
45°	31167	2860	31259
50°	28510	1218	28206
55°	25467	910	25240
60°	22691	913	22952
65°	20053	926	20207
70°	15451	763	15260
75°	9579	504	9075
80°	4884	376	4508
85°	2246	0	2246



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	106.7	7.3
10°-20°	291.2	20.0
20°-30°	350.5	24.0
30°-40°	272.4	18.7
40°-50°	182.3	12.5
50°-60°	137.2	9.4
60°-70°	88.0	6.0
70°-80°	28.2	1.9
80°-90°	2.7	0.2
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°-30°	748.4	51.3
0°-40°	1020.7	70.0
0°-60°	1340.1	91.9
0°-90°	1459.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1459.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1099	1099	1099	1099	1099	
5°	1042	1118	1189	1101	1046	96
15°	831	1024	1336	1006	839	234
25°	673	756	877	752	690	307
35°	457	478	310	478	479	290
45°	338	302	31	295	339	259
55°	224	212	8	207	222	201
65°	130	131	6	128	131	127
75°	38	36	2	34	36	44
85°	3	3	0	3	3	4
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°	1099.4	1099.4	1099.4	1099.4	1099.4	1099.4	1099.4	1099.4	1099.4	1099.4	1099.4
2.5°	1075.5	1084.5	1081.5	1095.4	1085.5	1084.5	1091.4	1095.4	1096.4	1103.4	1103.4
5°	1041.5	1051.5	1048.5	1066.5	1062.5	1066.5	1081.5	1092.4	1102.4	1118.4	1128.4
7.5°	985.5	997.5	999.5	1017.5	1019.5	1030.5	1054.5	1076.5	1097.4	1125.4	1149.4
10°	925.5	937.5	940.5	960.5	966.5	981.5	1012.5	1040.5	1070.5	1109.4	1145.4
12.5°	873.6	885.6	889.6	909.5	916.5	933.5	966.5	997.5	1031.5	1074.5	1117.4
15°	830.6	841.6	845.6	863.6	870.6	886.6	917.5	947.5	980.5	1023.5	1065.5
17.5°	788.6	799.6	802.6	818.6	823.6	837.6	865.6	891.5	919.5	957.5	995.5
20°	749.6	759.6	761.6	775.6	778.6	789.6	812.6	833.6	856.6	886.6	917.5
22.5°	712.6	722.6	723.6	735.6	736.6	745.6	764.6	780.6	796.6	820.6	842.6
25°	672.7	682.7	683.7	693.6	694.6	700.6	715.6	727.6	738.6	755.6	770.6
27.5°	624.7	634.7	637.7	644.7	645.7	649.7	662.7	670.7	681.7	692.6	698.6
30°	571.7	580.7	584.7	590.7	591.7	597.7	609.7	615.7	622.7	624.7	626.7
32.5°	512.7	522.7	526.7	531.7	534.7	540.7	551.7	554.7	556.7	555.7	544.7
35°	456.8	465.8	469.8	475.8	477.8	481.8	490.8	489.8	486.8	477.8	457.8
37.5°	414.8	421.8	425.8	429.8	430.8	432.8	437.8	433.8	425.8	410.8	384.8
40°	385.8	392.8	393.8	397.8	396.8	396.8	397.8	390.8	380.8	362.8	332.8
42.5°	363.8	369.8	369.8	373.8	370.8	368.8	368.8	360.8	347.8	328.8	298.8
45°	337.8	342.8	343.8	345.8	342.8	340.8	340.8	332.8	320.8	301.8	271.9
47.5°	310.8	315.8	315.8	318.8	315.8	313.8	313.8	306.8	295.9	278.9	250.9
50°	280.9	285.9	286.9	288.9	286.9	285.9	286.9	279.9	270.9	255.9	230.9
52.5°	251.9	256.9	256.9	258.9	256.9	256.9	257.9	252.9	244.9	232.9	210.9
55°	223.9	227.9	229.9	231.9	228.9	228.9	229.9	226.9	220.9	211.9	192.9
57.5°	197.9	201.9	202.9	204.9	202.9	203.9	204.9	201.9	198.9	191.9	176.9
60°	173.9	177.9	178.9	179.9	178.9	178.9	179.9	178.9	176.9	171.9	158.9
62.5°	151.9	154.9	155.9	157.9	155.9	154.9	156.9	155.9	154.9	151.9	142.9
65°	129.9	131.9	132.9	133.9	131.9	129.9	131.9	131.9	132.9	130.9	123.9
67.5°	105.9	107.9	107.9	107.9	104.9	103.9	105.9	105.9	107.9	106.9	101.9
70°	81.0	82.0	82.0	82.0	78.0	78.0	79.0	79.0	81.0	81.0	78.0
72.5°	58.0	57.0	57.0	56.0	55.0	53.0	53.0	54.0	56.0	56.0	54.0
75°	38.0	37.0	36.0	36.0	35.0	33.0	33.0	34.0	35.0	36.0	35.0
77.5°	23.0	22.0	22.0	21.0	21.0	20.0	20.0	20.0	21.0	21.0	21.0
80°	13.0	12.0	12.0	12.0	11.0	11.0	11.0	11.0	11.0	12.0	11.0
82.5°	7.0	6.0	6.0	6.0	6.0	6.0	5.0	6.0	6.0	6.0	6.0
85°	3.0	3.0	3.0	3.0	2.0	2.0	2.0	2.0	2.0	3.0	3.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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°	1099.4	1099.4	1099.4	1099.4	1099.4	1099.4	1099.4	1099.4	1099.4	1099.4	1099.4
2.5°	1100.4	1110.4	1103.4	1125.4	1110.4	1118.4	1129.4	1118.4	1121.4	1128.4	1114.4
5°	1134.4	1152.4	1154.4	1184.4	1172.4	1186.4	1201.4	1189.4	1191.4	1196.4	1178.4
7.5°	1169.4	1201.4	1216.4	1258.4	1255.4	1278.4	1296.3	1284.4	1284.4	1285.3	1258.4
10°	1179.4	1226.4	1254.4	1306.3	1314.3	1347.3	1367.3	1359.3	1357.3	1354.3	1317.3
12.5°	1157.4	1215.4	1251.4	1309.3	1325.3	1364.3	1382.3	1379.3	1376.3	1370.3	1327.3
15°	1106.4	1166.4	1204.4	1261.4	1281.4	1321.3	1336.3	1336.3	1333.3	1327.3	1281.4
17.5°	1031.5	1087.4	1122.4	1172.4	1192.4	1229.4	1239.4	1242.4	1239.4	1233.4	1191.4
20°	946.5	993.5	1021.5	1062.5	1078.5	1110.4	1116.4	1121.4	1119.4	1114.4	1077.5
22.5°	863.6	900.5	921.5	957.5	963.5	990.5	992.5	996.5	995.5	993.5	963.5
25°	787.6	812.6	824.6	851.6	853.6	873.6	872.6	876.6	875.6	875.6	852.6
27.5°	707.6	722.6	725.6	742.6	738.6	753.6	755.6	753.6	754.6	755.6	738.6
30°	627.7	630.7	621.7	623.7	612.7	621.7	612.7	619.7	619.7	622.7	612.7
32.5°	536.7	527.7	503.7	491.8	472.8	472.8	467.8	467.8	467.8	472.8	470.8
35°	439.8	417.8	380.8	354.8	327.8	320.8	319.8	309.8	311.8	318.8	323.8
37.5°	356.8	323.8	274.9	237.9	205.9	191.9	186.9	178.9	181.9	189.9	201.9
40°	297.8	257.9	200.9	157.9	125.9	109.9	101.9	97.0	99.9	109.9	124.9
42.5°	260.9	216.9	155.9	110.9	81.0	66.0	58.0	54.0	57.0	66.0	84.0
45°	233.9	187.9	125.9	82.0	55.0	41.0	34.0	31.0	33.0	41.0	56.0
47.5°	212.9	165.9	104.9	63.0	39.0	27.0	21.0	18.0	20.0	27.0	39.0
50°	193.9	147.9	89.0	50.0	30.0	20.0	14.0	12.0	14.0	19.0	29.0
52.5°	176.9	131.9	76.0	41.0	23.0	16.0	11.0	9.0	10.0	15.0	23.0
55°	161.9	119.9	67.0	35.0	20.0	14.0	10.0	8.0	10.0	13.0	20.0
57.5°	147.9	107.9	59.0	30.0	17.0	12.0	9.0	8.0	9.0	12.0	17.0
60°	133.9	96.0	52.0	26.0	15.0	11.0	8.0	7.0	8.0	10.0	15.0
62.5°	119.9	85.0	45.0	22.0	13.0	9.0	7.0	6.0	7.0	9.0	13.0
65°	103.9	72.0	38.0	19.0	11.0	8.0	6.0	6.0	6.0	8.0	11.0
67.5°	86.0	59.0	30.0	15.0	9.0	7.0	5.0	5.0	5.0	7.0	9.0
70°	66.0	44.0	23.0	12.0	7.0	5.0	4.0	4.0	4.0	5.0	7.0
72.5°	46.0	31.0	16.0	9.0	5.0	4.0	3.0	3.0	3.0	4.0	5.0
75°	29.0	20.0	11.0	6.0	4.0	3.0	2.0	2.0	2.0	3.0	4.0
77.5°	17.0	12.0	7.0	4.0	2.0	2.0	1.0	1.0	1.0	2.0	2.0
80°	9.0	7.0	4.0	2.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
82.5°	5.0	3.0	2.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
85°	2.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1099.4	1099.4	1099.4	1099.4	1099.4	1099.4	1099.4	1099.4	1099.4	1099.4	1099.4
2.5°	1110.4	1114.4	1113.4	1092.4	1090.4	1091.4	1077.5	1082.5	1087.4	1082.5	1083.5
5°	1164.4	1163.4	1151.4	1121.4	1109.4	1101.4	1078.5	1074.5	1071.5	1060.5	1056.5
7.5°	1235.4	1221.4	1196.4	1151.4	1126.4	1104.4	1070.5	1053.5	1041.5	1022.5	1011.5
10°	1284.4	1256.4	1219.4	1160.4	1122.4	1088.4	1044.5	1018.5	998.5	973.5	957.5
12.5°	1291.3	1252.4	1209.4	1140.4	1096.4	1054.5	1006.5	977.5	954.5	927.5	912.5
15°	1246.4	1206.4	1161.4	1092.4	1048.5	1005.5	959.5	930.5	907.5	881.6	868.6
17.5°	1161.4	1124.4	1084.5	1020.5	982.5	943.5	902.5	877.6	857.6	837.6	824.6
20°	1053.5	1024.5	991.5	937.5	907.5	875.6	843.6	823.6	808.6	791.6	781.6
22.5°	946.5	924.5	900.5	857.6	835.6	812.6	787.6	773.6	762.6	749.6	742.6
25°	843.6	828.6	813.6	780.6	767.6	751.6	733.6	723.6	716.6	707.6	702.6
27.5°	736.6	731.6	727.6	706.6	701.6	690.7	678.7	672.7	667.7	661.7	657.7
30°	620.7	623.7	639.7	628.7	633.7	630.7	625.7	621.7	619.7	614.7	609.7
32.5°	489.8	510.7	533.7	536.7	551.7	558.7	557.7	558.7	559.7	555.7	551.7
35°	350.8	384.8	420.8	436.8	461.8	477.8	483.8	489.8	493.8	492.8	489.8
37.5°	233.9	279.9	322.8	350.8	383.8	405.8	418.8	428.8	434.8	436.8	436.8
40°	155.9	199.9	256.9	292.9	329.8	356.8	371.8	384.8	393.8	397.8	399.8
42.5°	109.9	156.9	214.9	255.9	293.9	322.8	339.8	353.8	362.8	367.8	369.8
45°	81.0	125.9	185.9	227.9	266.9	294.9	311.8	324.8	333.8	338.8	341.8
47.5°	62.0	105.9	163.9	206.9	245.9	271.9	287.9	299.8	307.8	311.8	313.8
50°	49.0	89.0	145.9	188.9	224.9	248.9	262.9	272.9	279.9	282.9	284.9
52.5°	40.0	77.0	130.9	171.9	205.9	226.9	237.9	245.9	251.9	253.9	255.9
55°	34.0	67.0	117.9	157.9	188.9	206.9	214.9	221.9	224.9	226.9	227.9
57.5°	30.0	59.0	106.9	144.9	172.9	187.9	193.9	198.9	199.9	201.9	202.9
60°	26.0	51.0	95.0	130.9	155.9	168.9	171.9	175.9	175.9	176.9	177.9
62.5°	22.0	44.0	83.0	116.9	138.9	149.9	151.9	152.9	152.9	152.9	153.9
65°	18.0	37.0	70.0	100.9	120.9	127.9	128.9	129.9	127.9	127.9	128.9
67.5°	15.0	29.0	56.0	83.0	98.9	104.9	103.9	103.9	100.9	100.9	101.9
70°	11.0	22.0	42.0	63.0	75.0	79.0	77.0	77.0	74.0	74.0	75.0
72.5°	8.0	16.0	29.0	43.0	52.0	54.0	52.0	52.0	50.0	50.0	51.0
75°	6.0	10.0	19.0	28.0	33.0	34.0	33.0	32.0	31.0	31.0	32.0
77.5°	4.0	7.0	11.0	16.0	19.0	20.0	19.0	19.0	18.0	19.0	19.0
80°	2.0	4.0	6.0	9.0	10.0	11.0	11.0	11.0	10.0	10.0	11.0
82.5°	1.0	2.0	3.0	4.0	5.0	6.0	5.0	5.0	5.0	5.0	5.0
85°	0.0	1.0	1.0	2.0	2.0	3.0	2.0	2.0	2.0	2.0	2.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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):

	165°	170°	175°	180°
0°	1099.4	1099.4	1099.4	1099.4
2.5°	1081.5	1076.5	1069.5	1084.5
5°	1050.5	1040.5	1032.5	1046.5
7.5°	1001.5	987.5	976.5	990.5
10°	945.5	929.5	917.5	930.5
12.5°	896.5	880.6	870.6	880.6
15°	853.6	838.6	829.6	838.6
17.5°	811.6	798.6	790.6	800.6
20°	771.6	760.6	753.6	762.6
22.5°	734.6	724.6	718.6	727.6
25°	695.6	688.7	681.7	689.7
27.5°	652.7	644.7	640.7	645.7
30°	603.7	595.7	592.7	596.7
32.5°	545.7	537.7	534.7	537.7
35°	485.8	478.8	474.8	478.8
37.5°	434.8	428.8	425.8	428.8
40°	398.8	395.8	392.8	396.8
42.5°	370.8	367.8	365.8	368.8
45°	341.8	337.8	335.8	338.8
47.5°	312.8	308.8	306.8	308.8
50°	282.9	277.9	276.9	277.9
52.5°	252.9	248.9	246.9	247.9
55°	225.9	222.9	220.9	221.9
57.5°	201.9	197.9	196.9	197.9
60°	177.9	175.9	174.9	175.9
62.5°	153.9	152.9	153.9	153.9
65°	129.9	129.9	130.9	130.9
67.5°	103.9	105.9	106.9	106.9
70°	77.0	79.0	80.0	80.0
72.5°	52.0	54.0	55.0	56.0
75°	33.0	35.0	36.0	36.0
77.5°	20.0	21.0	21.0	22.0
80°	11.0	12.0	12.0	12.0
82.5°	6.0	6.0	6.0	7.0
85°	3.0	3.0	3.0	3.0
87.5°	0.0	1.0	1.0	1.0
90°	0.0	0.0	0.0	0.0



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— 0°-180° - - 45°-225° - - - - 90°-270°













(END OF REPORT)