

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: P135676

Luminaire Tested: **LD6A15D010TE ERM6A15927 6LM111H**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P135676  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P23372)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LD6A15D010TE ERM6A15927 6LM111H  
Description: PORTFOLIO 6 INCH 50 DEGREE CUTOFF RECESSED SINGLE WALL WASH LUMINAIRE  
SEMI-SPECULAR CLEAR TRIM AND SPECULAR CLEAR KICKER  
Light Source: (1) HIGH LUMEN LED 2700K  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

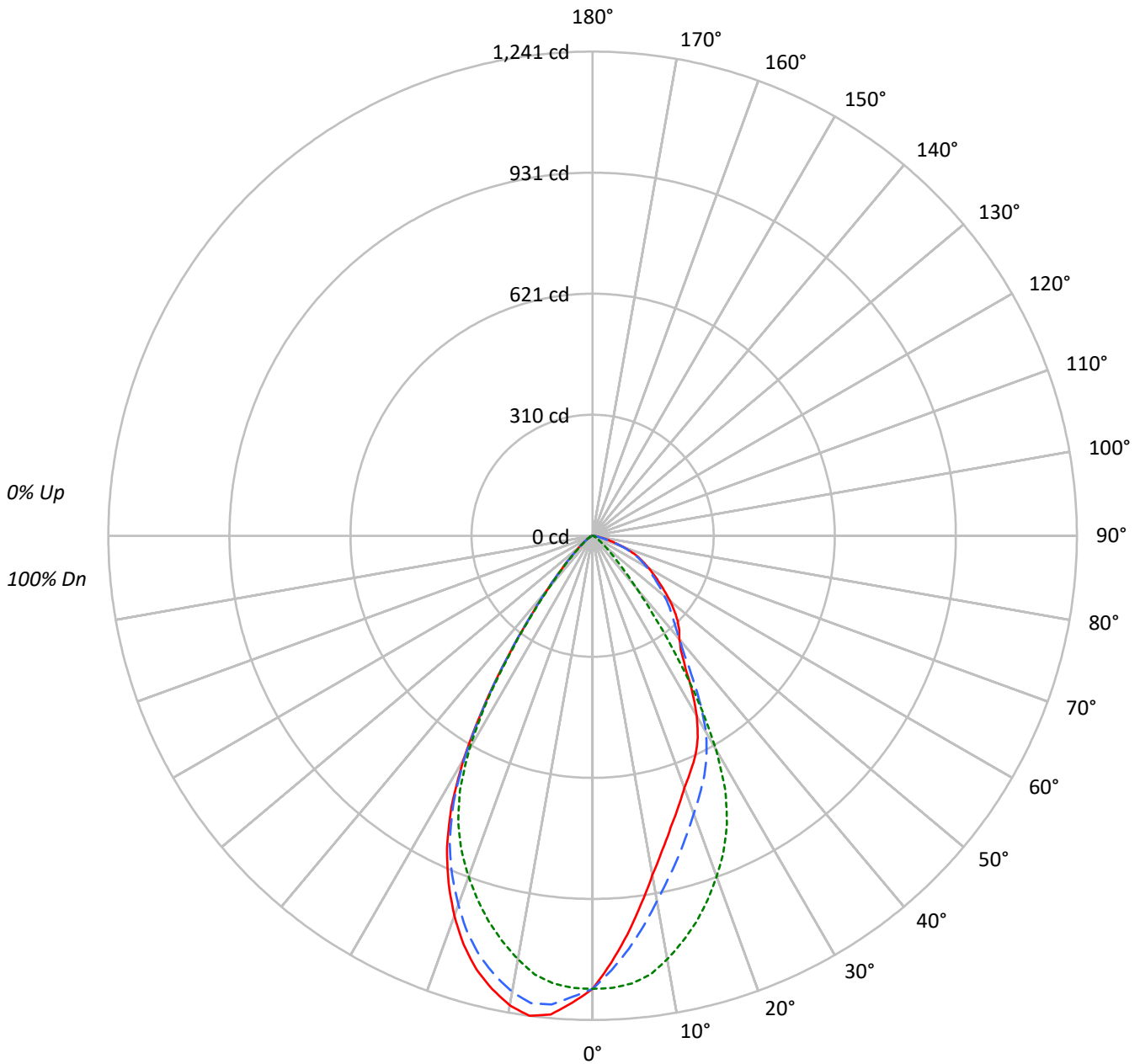
Lumens per Lamp: N/A  
Luminaire Lumens: 1253.5 lumens  
Efficiency: N/A  
Efficacy: 55.5 lumens/watt  
Spacing Criteria (0/90/45): 0.9 / 0.96 / 0.92  
Luminous Opening: Circular (Dia: 0.46' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 22.6  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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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CATALOG NUMBER: LD6A15D010TE ERM6A15927 6LM111H

### 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	0					
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100								
1	112	109	106	104	110	107	104	102	103	101	99	99	97	96	96	94	93	91								
2	106	100	95	91	103	98	94	90	95	91	88	92	89	86	89	87	84	83								
3	99	92	86	81	97	90	85	81	88	83	79	85	81	78	83	80	77	75								
4	93	85	78	73	91	83	77	73	81	76	72	79	75	71	77	73	70	68								
5	88	78	72	67	86	77	71	66	75	70	66	74	69	65	72	68	64	63								
6	83	73	66	61	81	72	65	61	70	65	60	69	64	60	67	63	59	58								
7	78	68	61	56	77	67	61	56	66	60	56	64	59	55	63	59	55	53								
8	74	63	57	52	73	63	56	52	62	56	52	60	55	51	59	55	51	50								
9	70	59	53	48	69	59	53	48	58	52	48	57	52	48	56	51	48	46								
10	67	56	49	45	65	55	49	45	54	49	45	54	48	45	53	48	45	43								

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

	0°	90°	180°
0°	75764	75764	75764
5°	67127	75438	80657
10°	58503	72998	80961
15°	52257	69231	77707
20°	47718	64505	71913
25°	44811	58617	63570
30°	40183	47611	49750
35°	33012	29468	30225
40°	29442	14487	15296
45°	28408	7224	7723
50°	26176	3847	4111
55°	23659	2309	2457
60°	21673	1592	1592
65°	19806	1250	1034
70°	15966	1030	782
75°	9856	681	353
80°	5560	526	0
85°	3069	0	0



TEST NUMBER: P135676

CATALOG NUMBER: LD6A15D010TE ERM6A15927 6LM111H

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	106.5	8.5
10°-20°	276.6	22.1
20°-30°	352.0	28.1
30°-40°	252.2	20.1
40°-50°	125.8	10.0
50°-60°	76.1	6.1
60°-70°	46.6	3.7
70°-80°	16.1	1.3
80°-90°	1.7	0.1
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°	735.0	58.6
0°-40°	987.2	78.8
0°-60°	1189.2	94.9
0°-90°	1253.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1253.5	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1161	1161	1161	1161	1161	
5°	1025	1063	1152	1206	1232	94
15°	774	851	1025	1115	1150	218
25°	622	678	814	867	883	284
35°	414	447	370	380	380	265
45°	308	288	78	86	84	236
55°	208	196	20	22	22	187
65°	128	124	8	7	7	125
75°	39	35	3	1	1	45
85°	4	3	0	0	0	6
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°	1161.3	1161.3	1161.3	1161.3	1161.3	1161.3	1161.3	1161.3	1161.3	1161.3	1161.3
2.5°	1095.2	1096.5	1099.2	1096.5	1097.8	1104.6	1101.9	1103.3	1107.3	1114.0	1110.0
5°	1025.0	1026.3	1033.1	1029.0	1031.7	1039.8	1039.8	1045.2	1053.3	1062.7	1062.7
7.5°	952.0	954.7	961.4	958.8	962.8	973.6	975.0	983.1	993.9	1007.4	1014.1
10°	883.1	885.8	892.6	891.3	896.7	907.5	912.9	921.0	934.4	950.7	958.8
12.5°	825.1	827.8	833.2	833.2	840.0	850.7	856.2	866.9	880.5	898.0	908.8
15°	773.7	777.8	783.2	783.2	789.9	800.8	807.5	817.0	831.8	850.7	862.9
17.5°	729.2	730.5	736.0	736.0	742.7	753.5	760.3	769.7	784.6	802.1	815.6
20°	687.3	688.7	694.1	695.4	700.9	710.3	717.1	726.5	740.0	757.5	769.7
22.5°	654.9	657.6	661.6	663.0	665.7	675.2	683.3	690.0	702.2	717.1	729.2
25°	622.5	623.9	627.9	629.3	633.4	640.1	645.5	652.3	663.0	677.9	687.3
27.5°	583.4	587.4	588.8	590.1	594.1	599.6	605.0	610.3	619.8	632.0	640.1
30°	533.4	534.7	538.8	541.5	545.6	550.9	557.7	563.1	571.2	580.7	586.0
32.5°	475.3	476.7	480.8	483.4	490.2	495.6	501.0	505.1	510.4	515.9	515.9
35°	414.5	418.6	420.0	424.0	430.8	436.2	440.2	441.6	444.3	447.0	437.6
37.5°	371.3	374.0	376.8	379.5	384.9	388.9	391.6	391.6	390.2	387.6	375.4
40°	345.7	347.0	349.7	351.1	356.5	359.2	359.2	356.5	351.1	344.4	325.5
42.5°	328.2	329.5	330.8	332.2	334.9	336.3	334.9	329.5	322.7	313.3	291.7
45°	307.9	309.3	310.6	310.6	313.3	313.3	311.9	306.5	298.4	287.6	264.7
47.5°	283.6	285.0	286.2	287.6	289.0	289.0	287.6	282.2	274.1	264.7	240.4
50°	257.9	259.3	260.6	260.6	263.3	263.3	261.9	256.6	249.8	240.4	218.7
52.5°	232.3	233.7	233.7	236.3	236.3	236.3	234.9	229.6	224.2	217.4	197.2
55°	208.0	209.3	209.3	212.0	213.4	212.0	210.6	206.6	201.2	195.8	179.6
57.5°	186.3	187.7	187.7	189.1	190.4	189.1	187.7	185.0	182.3	176.9	163.4
60°	166.1	167.4	167.4	168.8	168.8	167.4	167.4	164.8	162.0	159.3	147.2
62.5°	147.2	147.2	147.2	148.6	148.6	147.2	147.2	144.5	143.1	141.8	132.3
65°	128.3	128.3	128.3	128.3	128.3	125.6	125.6	124.2	122.9	124.2	116.1
67.5°	106.7	106.7	105.4	105.4	105.4	102.6	102.6	102.6	101.3	102.6	95.9
70°	83.7	83.7	82.3	82.3	81.0	78.3	78.3	78.3	77.0	78.3	74.2
72.5°	59.4	60.8	58.0	58.0	56.7	54.0	55.4	54.0	55.4	55.4	52.7
75°	39.1	40.5	37.9	37.9	36.5	35.1	35.1	35.1	36.5	35.1	33.8
77.5°	24.3	25.7	24.3	24.3	22.9	21.6	21.6	21.6	21.6	21.6	20.3
80°	14.8	14.8	14.8	13.5	13.5	12.2	12.2	12.2	12.2	12.2	10.8
82.5°	8.1	8.1	8.1	8.1	8.1	6.7	6.7	6.7	6.7	6.7	5.4
85°	4.1	4.1	4.1	4.1	4.1	2.7	2.7	2.7	2.7	2.7	2.7
87.5°	1.4	1.4	1.4	1.4	1.4	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°	1161.3	1161.3	1161.3	1161.3	1161.3	1161.3	1161.3	1161.3	1161.3	1161.3	1161.3
2.5°	1122.1	1127.6	1123.5	1139.7	1137.1	1149.1	1147.8	1160.0	1158.6	1160.0	1162.7
5°	1079.0	1089.7	1091.1	1111.4	1112.8	1131.6	1135.7	1151.9	1154.6	1160.0	1166.7
7.5°	1031.7	1047.9	1053.3	1076.3	1084.4	1104.6	1112.8	1134.3	1139.7	1149.1	1157.2
10°	980.4	999.3	1007.4	1034.4	1045.2	1068.2	1079.0	1101.9	1110.0	1120.9	1130.3
12.5°	931.8	952.0	962.8	991.2	1006.0	1029.0	1041.2	1065.4	1073.5	1087.1	1096.5
15°	885.8	907.5	919.6	948.0	962.8	988.5	1000.7	1025.0	1034.4	1047.9	1057.3
17.5°	838.6	860.2	873.7	900.7	919.6	941.3	954.7	979.0	988.5	1000.7	1010.1
20°	792.7	814.3	826.4	853.4	871.0	892.6	904.8	929.1	935.8	948.0	956.1
22.5°	749.4	769.7	780.5	808.9	823.7	842.6	854.8	876.4	884.5	893.9	899.4
25°	706.2	723.8	731.9	756.2	768.4	785.9	795.4	814.3	822.4	830.5	837.3
27.5°	657.6	667.1	669.8	688.7	698.1	714.3	718.4	736.0	742.7	748.1	753.5
30°	596.9	598.2	590.1	599.6	603.6	615.8	615.8	632.0	637.4	641.5	646.8
32.5°	519.9	511.8	492.9	490.2	487.5	494.2	491.5	505.1	510.4	513.2	517.2
35°	434.8	417.3	386.2	374.0	365.9	364.6	360.6	370.0	374.0	376.8	379.5
37.5°	360.6	334.9	295.7	274.1	260.6	255.2	249.8	255.2	257.9	260.6	263.3
40°	306.5	274.1	228.2	201.2	182.3	174.2	167.4	170.1	172.9	175.5	176.9
42.5°	267.4	230.9	181.0	148.6	129.7	120.2	113.5	114.8	116.1	117.5	120.2
45°	237.7	198.5	147.2	112.1	93.2	83.7	78.3	78.3	79.7	81.0	82.3
47.5°	213.4	171.5	120.2	86.4	68.9	59.4	54.0	54.0	55.4	55.4	56.7
50°	190.4	148.6	98.5	67.5	51.3	43.2	39.1	37.9	39.1	39.1	40.5
52.5°	171.5	131.0	82.3	54.0	39.1	32.4	28.4	28.4	28.4	28.4	28.4
55°	153.9	114.8	68.9	43.2	31.0	25.7	21.6	20.3	20.3	20.3	20.3
57.5°	140.5	102.6	59.4	36.5	25.7	20.3	17.6	16.2	16.2	16.2	16.2
60°	126.9	90.4	51.3	29.7	20.3	17.6	14.8	12.2	12.2	12.2	12.2
62.5°	113.5	78.3	43.2	25.7	17.6	13.5	12.2	9.5	9.5	9.5	9.5
65°	98.5	67.5	36.5	20.3	13.5	10.8	9.5	8.1	8.1	6.7	6.7
67.5°	81.0	54.0	29.7	17.6	12.2	9.5	8.1	6.7	5.4	5.4	5.4
70°	62.1	40.5	22.9	13.5	9.5	8.1	5.4	5.4	4.1	4.1	4.1
72.5°	44.6	28.4	16.2	10.8	6.7	5.4	5.4	4.1	4.1	4.1	2.7
75°	28.4	18.9	10.8	6.7	5.4	4.1	4.1	2.7	2.7	2.7	2.7
77.5°	17.6	12.2	8.1	5.4	4.1	2.7	2.7	2.7	1.4	1.4	1.4
80°	9.5	6.7	4.1	2.7	2.7	1.4	1.4	1.4	1.4	1.4	1.4
82.5°	5.4	4.1	2.7	1.4	1.4	1.4	1.4	1.4	0.0	0.0	0.0
85°	2.7	1.4	1.4	1.4	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°	1161.3	1161.3	1161.3	1161.3	1161.3	1161.3	1161.3	1161.3	1161.3	1161.3	1161.3
2.5°	1170.8	1177.5	1173.4	1176.2	1188.4	1182.9	1192.4	1192.4	1203.2	1203.2	1195.1
5°	1178.9	1187.0	1188.4	1192.4	1208.6	1205.9	1216.7	1219.4	1231.6	1234.2	1227.5
7.5°	1173.4	1182.9	1187.0	1193.7	1209.9	1208.6	1220.8	1226.1	1237.0	1241.0	1235.6
10°	1147.8	1158.6	1164.1	1170.8	1188.4	1187.0	1200.5	1207.2	1216.7	1220.8	1216.7
12.5°	1114.0	1126.2	1131.6	1138.4	1155.9	1154.6	1168.1	1174.8	1182.9	1188.4	1184.3
15°	1076.3	1084.4	1093.8	1100.6	1116.8	1115.4	1129.0	1135.7	1142.4	1149.1	1145.2
17.5°	1027.7	1035.8	1045.2	1050.6	1066.8	1066.8	1077.6	1083.0	1092.5	1097.8	1092.5
20°	972.3	981.7	988.5	992.6	1007.4	1006.0	1016.9	1022.2	1030.3	1034.4	1030.3
22.5°	914.2	922.3	927.7	930.4	942.6	941.3	949.3	954.7	961.4	965.5	961.4
25°	848.1	853.4	857.5	858.8	869.6	866.9	877.7	877.7	883.1	887.2	883.1
27.5°	763.0	767.0	769.7	768.4	776.5	772.4	781.8	775.1	785.9	788.7	784.6
30°	653.5	656.3	659.0	653.5	659.0	653.5	661.6	652.3	661.6	665.7	661.6
32.5°	524.0	524.0	526.6	519.9	522.6	517.2	521.3	518.5	521.3	525.3	521.3
35°	384.9	384.9	387.6	383.5	384.9	379.5	382.1	379.5	380.8	383.5	382.1
37.5°	267.4	266.0	270.0	267.4	268.7	266.0	267.4	264.7	266.0	267.4	266.0
40°	181.0	181.0	183.6	182.3	183.6	182.3	183.6	182.3	182.3	182.3	181.0
42.5°	121.6	122.9	124.2	124.2	125.6	124.2	125.6	124.2	124.2	124.2	122.9
45°	83.7	83.7	85.1	85.1	86.4	86.4	86.4	85.1	85.1	85.1	85.1
47.5°	58.0	59.4	59.4	59.4	59.4	59.4	59.4	59.4	59.4	59.4	58.0
50°	40.5	41.9	41.9	41.9	41.9	41.9	41.9	40.5	40.5	40.5	40.5
52.5°	29.7	29.7	29.7	29.7	29.7	29.7	29.7	29.7	29.7	28.4	28.4
55°	21.6	21.6	21.6	21.6	21.6	21.6	21.6	21.6	21.6	21.6	21.6
57.5°	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2
60°	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2
62.5°	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5
65°	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
67.5°	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4
70°	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
72.5°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
75°	2.7	2.7	2.7	2.7	2.7	1.4	1.4	1.4	1.4	1.4	1.4
77.5°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
80°	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	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):**

	165°	170°	175°	180°
0°	1161.3	1161.3	1161.3	1161.3
2.5°	1191.0	1201.8	1197.8	1197.8
5°	1223.5	1235.6	1232.9	1231.6
7.5°	1232.9	1243.7	1241.0	1241.0
10°	1214.0	1224.8	1222.1	1222.1
12.5°	1182.9	1192.4	1191.0	1189.7
15°	1143.8	1153.2	1151.9	1150.5
17.5°	1091.1	1101.9	1100.6	1099.2
20°	1027.7	1037.1	1037.1	1035.8
22.5°	958.8	965.5	966.9	964.2
25°	880.5	885.8	885.8	883.1
27.5°	781.8	785.9	785.9	784.6
30°	660.4	661.6	663.0	660.4
32.5°	518.5	518.5	521.3	518.5
35°	378.1	378.1	380.8	379.5
37.5°	263.3	263.3	264.7	263.3
40°	179.6	179.6	181.0	179.6
42.5°	122.9	121.6	122.9	122.9
45°	83.7	83.7	85.1	83.7
47.5°	58.0	58.0	58.0	58.0
50°	40.5	40.5	40.5	40.5
52.5°	28.4	28.4	28.4	28.4
55°	20.3	21.6	21.6	21.6
57.5°	14.8	16.2	16.2	16.2
60°	12.2	12.2	12.2	12.2
62.5°	9.5	9.5	9.5	9.5
65°	6.7	6.7	6.7	6.7
67.5°	5.4	5.4	5.4	5.4
70°	4.1	4.1	4.1	4.1
72.5°	2.7	2.7	2.7	2.7
75°	1.4	1.4	1.4	1.4
77.5°	1.4	1.4	1.4	1.4
80°	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0



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















(END OF REPORT)