

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: P135672

Luminaire Tested: **LD6A15D010TE ERM6A15827 6LM111H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P135672
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 ERM6A15827 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: 1361.0 lumens
Efficiency: N/A
Efficacy: 60.2 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

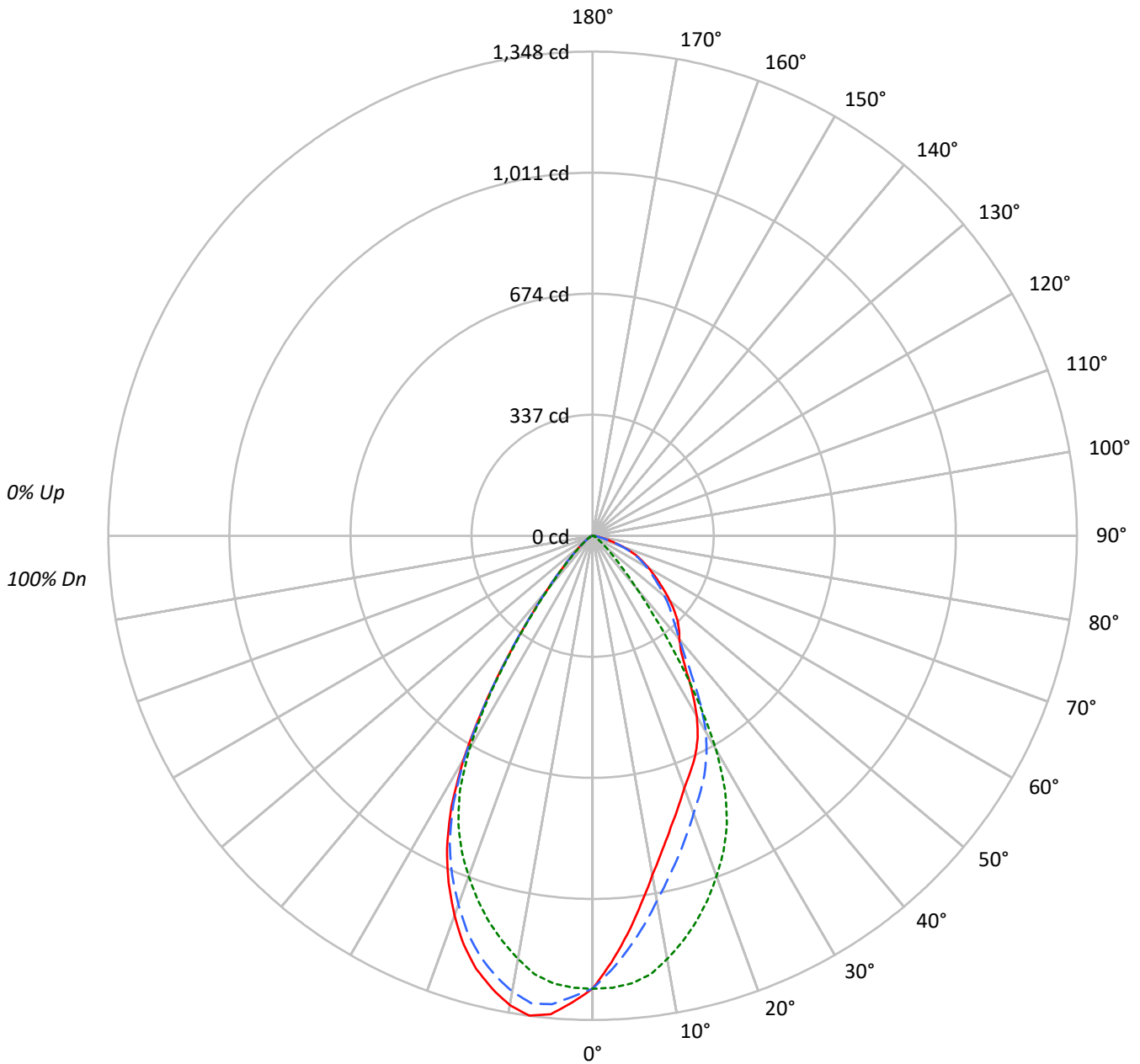
Input Watts (W): 22.6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				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°	82262	82262	82262
5°	72884	81908	87573
10°	63524	79258	87903
15°	56742	75168	84374
20°	51814	70039	78078
25°	48655	63642	69026
30°	43633	51694	54014
35°	35848	31993	32813
40°	31971	15730	16607
45°	30844	7842	8387
50°	28419	4172	4466
55°	25683	2502	2673
60°	23526	1722	1722
65°	21504	1358	1127
70°	17339	1125	839
75°	10713	731	378
80°	6049	564	0
85°	3294	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	115.6	8.5
10°-20°	300.3	22.1
20°-30°	382.2	28.1
30°-40°	273.8	20.1
40°-50°	136.6	10.0
50°-60°	82.7	6.1
60°-70°	50.5	3.7
70°-80°	17.4	1.3
80°-90°	1.9	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°	798.1	58.6
0°-40°	1071.9	78.8
0°-60°	1291.2	94.9
0°-90°	1361.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1361.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1261	1261	1261	1261	1261	
5°	1113	1154	1251	1309	1337	102
15°	840	924	1113	1211	1249	237
25°	676	736	884	941	959	308
35°	450	485	402	412	412	287
45°	334	312	85	94	91	256
55°	226	213	22	24	24	203
65°	139	135	9	7	7	136
75°	42	38	3	2	2	49
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°	1260.9	1260.9	1260.9	1260.9	1260.9	1260.9	1260.9	1260.9	1260.9	1260.9	1260.9
2.5°	1189.1	1190.6	1193.5	1190.6	1192.0	1199.4	1196.4	1197.9	1202.3	1209.6	1205.2
5°	1112.9	1114.3	1121.7	1117.3	1120.2	1129.0	1129.0	1134.9	1143.6	1153.9	1153.9
7.5°	1033.7	1036.6	1043.9	1041.0	1045.4	1057.1	1058.6	1067.4	1079.1	1093.8	1101.1
10°	958.9	961.8	969.2	967.7	973.6	985.3	991.2	1000.0	1014.6	1032.2	1041.0
12.5°	895.9	898.8	904.7	904.7	912.0	923.7	929.6	941.3	956.0	975.0	986.8
15°	840.1	844.5	850.4	850.4	857.7	869.5	876.8	887.1	903.2	923.7	936.9
17.5°	791.8	793.2	799.1	799.1	806.4	818.1	825.5	835.7	851.9	870.9	885.6
20°	746.3	747.8	753.6	755.1	761.0	771.2	778.6	788.8	803.5	822.5	835.7
22.5°	711.1	714.0	718.4	719.9	722.8	733.1	741.9	749.2	762.4	778.6	791.8
25°	675.9	677.4	681.8	683.3	687.7	695.0	700.9	708.2	719.9	736.0	746.3
27.5°	633.4	637.8	639.3	640.7	645.1	651.0	656.9	662.7	673.0	686.2	695.0
30°	579.2	580.6	585.0	588.0	592.4	598.2	605.5	611.4	620.2	630.5	636.3
32.5°	516.1	517.6	522.0	524.9	532.2	538.1	544.0	548.4	554.2	560.1	560.1
35°	450.1	454.5	456.0	460.4	467.7	473.6	478.0	479.5	482.4	485.3	475.1
37.5°	403.2	406.1	409.1	412.0	417.9	422.3	425.2	425.2	423.7	420.8	407.6
40°	375.4	376.8	379.7	381.2	387.1	390.0	390.0	387.1	381.2	373.9	353.4
42.5°	356.3	357.8	359.2	360.7	363.6	365.1	363.6	357.8	350.4	340.2	316.7
45°	334.3	335.8	337.2	337.2	340.2	340.2	338.7	332.8	324.0	312.3	287.4
47.5°	307.9	309.4	310.8	312.3	313.8	313.8	312.3	306.4	297.6	287.4	261.0
50°	280.0	281.5	283.0	283.0	285.9	285.9	284.4	278.6	271.2	261.0	237.5
52.5°	252.2	253.7	253.7	256.6	256.6	256.6	255.1	249.3	243.4	236.1	214.1
55°	225.8	227.3	227.3	230.2	231.7	230.2	228.7	224.3	218.5	212.6	195.0
57.5°	202.3	203.8	203.8	205.3	206.7	205.3	203.8	200.9	197.9	192.1	177.4
60°	180.3	181.8	181.8	183.3	183.3	181.8	181.8	178.9	175.9	173.0	159.8
62.5°	159.8	159.8	159.8	161.3	161.3	159.8	159.8	156.9	155.4	154.0	143.7
65°	139.3	139.3	139.3	139.3	139.3	136.4	136.4	134.9	133.4	134.9	126.1
67.5°	115.8	115.8	114.4	114.4	114.4	111.4	111.4	111.4	110.0	111.4	104.1
70°	90.9	90.9	89.4	89.4	88.0	85.0	85.0	85.0	83.6	85.0	80.6
72.5°	64.5	66.0	63.0	63.0	61.6	58.6	60.1	58.6	60.1	60.1	57.2
75°	42.5	44.0	41.1	41.1	39.6	38.1	38.1	38.1	39.6	38.1	36.7
77.5°	26.4	27.9	26.4	26.4	24.9	23.5	23.5	23.5	23.5	23.5	22.0
80°	16.1	16.1	16.1	14.7	14.7	13.2	13.2	13.2	13.2	13.2	11.7
82.5°	8.8	8.8	8.8	8.8	8.8	7.3	7.3	7.3	7.3	7.3	5.9
85°	4.4	4.4	4.4	4.4	4.4	2.9	2.9	2.9	2.9	2.9	2.9
87.5°	1.5	1.5	1.5	1.5	1.5	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°	1260.9	1260.9	1260.9	1260.9	1260.9	1260.9	1260.9	1260.9	1260.9	1260.9	1260.9
2.5°	1218.4	1224.3	1219.9	1237.5	1234.6	1247.7	1246.3	1259.5	1258.0	1259.5	1262.4
5°	1171.5	1183.2	1184.7	1206.7	1208.2	1228.7	1233.1	1250.7	1253.6	1259.5	1266.8
7.5°	1120.2	1137.8	1143.6	1168.6	1177.4	1199.4	1208.2	1231.6	1237.5	1247.7	1256.5
10°	1064.5	1085.0	1093.8	1123.1	1134.9	1159.8	1171.5	1196.4	1205.2	1217.0	1227.2
12.5°	1011.7	1033.7	1045.4	1076.2	1092.3	1117.3	1130.5	1156.8	1165.6	1180.3	1190.6
15°	961.8	985.3	998.5	1029.3	1045.4	1073.3	1086.5	1112.9	1123.1	1137.8	1148.0
17.5°	910.5	934.0	948.6	978.0	998.5	1022.0	1036.6	1063.0	1073.3	1086.5	1096.7
20°	860.7	884.1	897.3	926.6	945.7	969.2	982.4	1008.8	1016.1	1029.3	1038.1
22.5°	813.7	835.7	847.5	878.3	894.4	914.9	928.1	951.6	960.4	970.6	976.5
25°	766.8	785.9	794.7	821.1	834.3	853.3	863.6	884.1	892.9	901.7	909.1
27.5°	714.0	724.3	727.2	747.8	758.0	775.6	780.0	799.1	806.4	812.3	818.1
30°	648.1	649.5	640.7	651.0	655.4	668.6	668.6	686.2	692.1	696.5	702.3
32.5°	564.5	555.7	535.2	532.2	529.3	536.6	533.7	548.4	554.2	557.2	561.6
35°	472.1	453.1	419.3	406.1	397.3	395.9	391.5	401.7	406.1	409.1	412.0
37.5°	391.5	363.6	321.1	297.6	283.0	277.1	271.2	277.1	280.0	283.0	285.9
40°	332.8	297.6	247.8	218.5	197.9	189.1	181.8	184.7	187.7	190.6	192.1
42.5°	290.3	250.7	196.5	161.3	140.8	130.5	123.2	124.6	126.1	127.6	130.5
45°	258.1	215.5	159.8	121.7	101.2	90.9	85.0	85.0	86.5	88.0	89.4
47.5°	231.7	186.2	130.5	93.8	74.8	64.5	58.6	58.6	60.1	60.1	61.6
50°	206.7	161.3	107.0	73.3	55.7	46.9	42.5	41.1	42.5	42.5	44.0
52.5°	186.2	142.2	89.4	58.6	42.5	35.2	30.8	30.8	30.8	30.8	30.8
55°	167.1	124.6	74.8	46.9	33.7	27.9	23.5	22.0	22.0	22.0	22.0
57.5°	152.5	111.4	64.5	39.6	27.9	22.0	19.1	17.6	17.6	17.6	17.6
60°	137.8	98.2	55.7	32.3	22.0	19.1	16.1	13.2	13.2	13.2	13.2
62.5°	123.2	85.0	46.9	27.9	19.1	14.7	13.2	10.3	10.3	10.3	10.3
65°	107.0	73.3	39.6	22.0	14.7	11.7	10.3	8.8	8.8	7.3	7.3
67.5°	88.0	58.6	32.3	19.1	13.2	10.3	8.8	7.3	5.9	5.9	5.9
70°	67.4	44.0	24.9	14.7	10.3	8.8	5.9	5.9	4.4	4.4	4.4
72.5°	48.4	30.8	17.6	11.7	7.3	5.9	5.9	4.4	4.4	4.4	2.9
75°	30.8	20.5	11.7	7.3	5.9	4.4	4.4	2.9	2.9	2.9	2.9
77.5°	19.1	13.2	8.8	5.9	4.4	2.9	2.9	2.9	1.5	1.5	1.5
80°	10.3	7.3	4.4	2.9	2.9	1.5	1.5	1.5	1.5	1.5	1.5
82.5°	5.9	4.4	2.9	1.5	1.5	1.5	1.5	1.5	0.0	0.0	0.0
85°	2.9	1.5	1.5	1.5	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°	1260.9	1260.9	1260.9	1260.9	1260.9	1260.9	1260.9	1260.9	1260.9	1260.9	1260.9
2.5°	1271.2	1278.5	1274.1	1277.1	1290.3	1284.4	1294.7	1294.7	1306.4	1306.4	1297.6
5°	1280.0	1288.8	1290.3	1294.7	1312.3	1309.3	1321.1	1324.0	1337.2	1340.1	1332.8
7.5°	1274.1	1284.4	1288.8	1296.1	1313.7	1312.3	1325.5	1331.3	1343.1	1347.5	1341.6
10°	1246.3	1258.0	1263.9	1271.2	1290.3	1288.8	1303.5	1310.8	1321.1	1325.5	1321.1
12.5°	1209.6	1222.8	1228.7	1236.0	1255.1	1253.6	1268.3	1275.6	1284.4	1290.3	1285.9
15°	1168.6	1177.4	1187.6	1195.0	1212.6	1211.1	1225.8	1233.1	1240.4	1247.7	1243.4
17.5°	1115.8	1124.6	1134.9	1140.7	1158.3	1158.3	1170.0	1175.9	1186.2	1192.0	1186.2
20°	1055.7	1065.9	1073.3	1077.7	1093.8	1092.3	1104.1	1109.9	1118.7	1123.1	1118.7
22.5°	992.6	1001.4	1007.3	1010.2	1023.4	1022.0	1030.7	1036.6	1043.9	1048.3	1043.9
25°	920.8	926.6	931.0	932.5	944.2	941.3	953.0	953.0	958.9	963.3	958.9
27.5°	828.4	832.8	835.7	834.3	843.1	838.7	848.9	841.6	853.3	856.3	851.9
30°	709.6	712.6	715.5	709.6	715.5	709.6	718.4	708.2	718.4	722.8	718.4
32.5°	568.9	568.9	571.8	564.5	567.4	561.6	566.0	563.0	566.0	570.4	566.0
35°	417.9	417.9	420.8	416.4	417.9	412.0	414.9	412.0	413.5	416.4	414.9
37.5°	290.3	288.8	293.2	290.3	291.8	288.8	290.3	287.4	288.8	290.3	288.8
40°	196.5	196.5	199.4	197.9	199.4	197.9	199.4	197.9	197.9	197.9	196.5
42.5°	132.0	133.4	134.9	134.9	136.4	134.9	136.4	134.9	134.9	134.9	133.4
45°	90.9	90.9	92.4	92.4	93.8	93.8	93.8	92.4	92.4	92.4	92.4
47.5°	63.0	64.5	64.5	64.5	64.5	64.5	64.5	64.5	64.5	64.5	63.0
50°	44.0	45.5	45.5	45.5	45.5	45.5	45.5	44.0	44.0	44.0	44.0
52.5°	32.3	32.3	32.3	32.3	32.3	32.3	32.3	32.3	32.3	30.8	30.8
55°	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5
57.5°	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6
60°	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2
62.5°	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3
65°	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3
67.5°	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9
70°	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
72.5°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
75°	2.9	2.9	2.9	2.9	2.9	1.5	1.5	1.5	1.5	1.5	1.5
77.5°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
80°	0.0	1.5	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°	1260.9	1260.9	1260.9	1260.9
2.5°	1293.2	1304.9	1300.5	1300.5
5°	1328.4	1341.6	1338.7	1337.2
7.5°	1338.7	1350.4	1347.5	1347.5
10°	1318.1	1329.9	1326.9	1326.9
12.5°	1284.4	1294.7	1293.2	1291.7
15°	1241.9	1252.1	1250.7	1249.2
17.5°	1184.7	1196.4	1195.0	1193.5
20°	1115.8	1126.1	1126.1	1124.6
22.5°	1041.0	1048.3	1049.8	1046.9
25°	956.0	961.8	961.8	958.9
27.5°	848.9	853.3	853.3	851.9
30°	717.0	718.4	719.9	717.0
32.5°	563.0	563.0	566.0	563.0
35°	410.5	410.5	413.5	412.0
37.5°	285.9	285.9	287.4	285.9
40°	195.0	195.0	196.5	195.0
42.5°	133.4	132.0	133.4	133.4
45°	90.9	90.9	92.4	90.9
47.5°	63.0	63.0	63.0	63.0
50°	44.0	44.0	44.0	44.0
52.5°	30.8	30.8	30.8	30.8
55°	22.0	23.5	23.5	23.5
57.5°	16.1	17.6	17.6	17.6
60°	13.2	13.2	13.2	13.2
62.5°	10.3	10.3	10.3	10.3
65°	7.3	7.3	7.3	7.3
67.5°	5.9	5.9	5.9	5.9
70°	4.4	4.4	4.4	4.4
72.5°	2.9	2.9	2.9	2.9
75°	1.5	1.5	1.5	1.5
77.5°	1.5	1.5	1.5	1.5
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)