

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: P135796

Luminaire Tested: **LD6A15D010TE ERM6A15927 6LM121LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P135796
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 ERM6A15927 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: 1343.7 lumens
Efficiency: N/A
Efficacy: 59.5 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

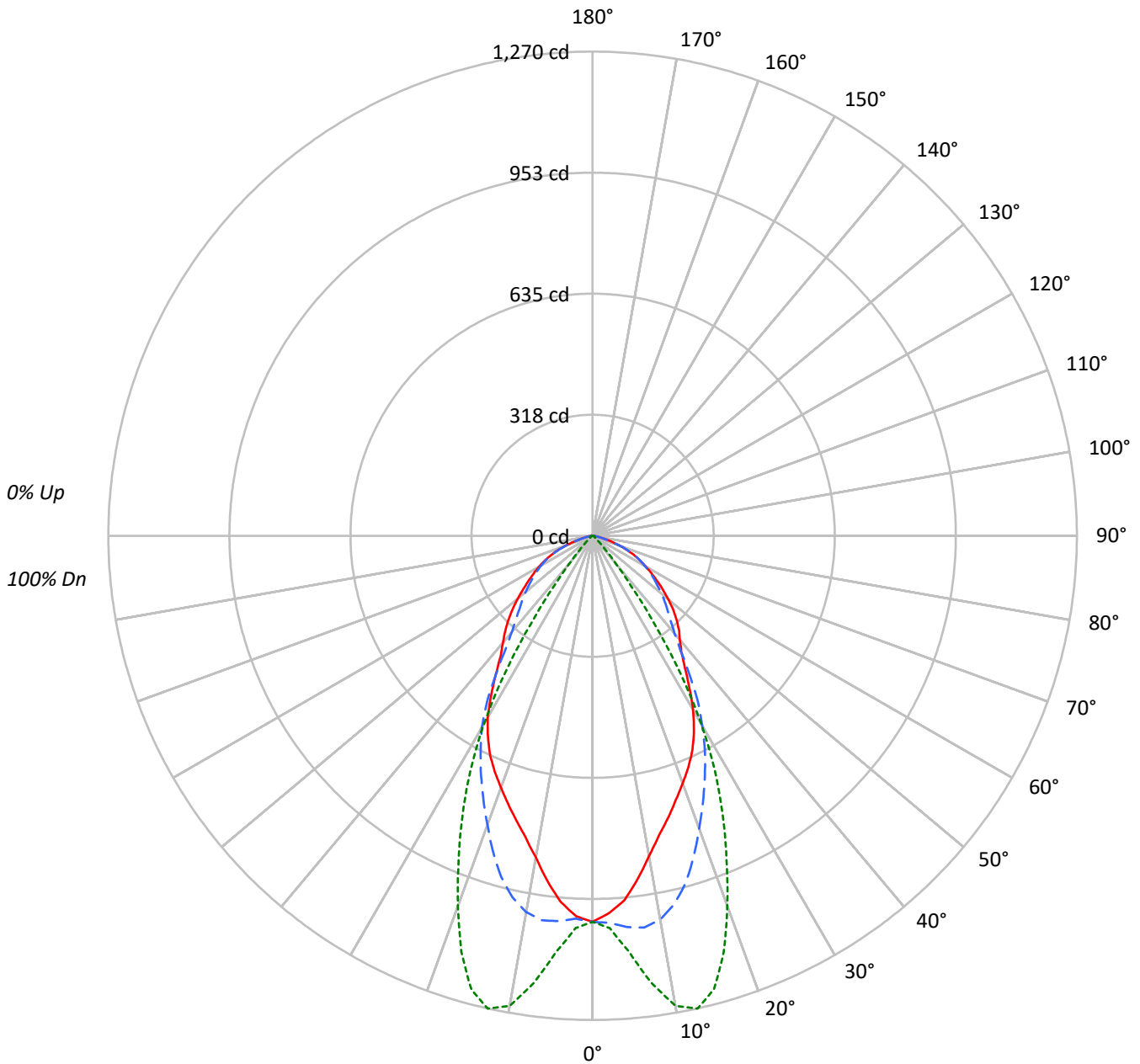
Input Watts (W): 22.6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	66056	66056	66056
5°	62818	71738	63119
10°	56469	82935	56774
15°	51670	83124	52169
20°	47933	71705	48766
25°	44602	58114	45725
30°	39663	42993	41403
35°	33506	22722	35123
40°	30259	7605	31128
45°	28703	2639	28786
50°	26257	1127	25973
55°	23454	842	23249
60°	20903	835	21138
65°	18463	849	18617
70°	14230	706	14058
75°	8822	454	8369
80°	4508	338	4170
85°	2096	0	2096



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	98.3	7.3
10°-20°	268.2	20.0
20°-30°	322.8	24.0
30°-40°	250.8	18.7
40°-50°	167.9	12.5
50°-60°	126.3	9.4
60°-70°	81.1	6.0
70°-80°	26.0	1.9
80°-90°	2.4	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°	689.2	51.3
0°-40°	940.1	70.0
0°-60°	1234.3	91.9
0°-90°	1343.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1343.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1012	1012	1012	1012	1012	
5°	959	1030	1095	1014	964	88
15°	765	943	1231	926	772	215
25°	620	696	807	692	635	282
35°	421	440	285	440	441	267
45°	311	278	29	272	312	239
55°	206	195	7	191	204	185
65°	120	121	6	118	121	117
75°	35	33	2	31	33	40
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°	1012.5	1012.5	1012.5	1012.5	1012.5	1012.5	1012.5	1012.5	1012.5	1012.5	1012.5
2.5°	990.5	998.8	996.1	1008.9	999.7	998.8	1005.2	1008.9	1009.8	1016.2	1016.2
5°	959.2	968.4	965.7	982.2	978.6	982.2	996.1	1006.1	1015.3	1030.0	1039.3
7.5°	907.6	918.7	920.5	937.1	939.0	949.1	971.2	991.5	1010.7	1036.5	1058.6
10°	852.4	863.4	866.2	884.6	890.1	904.0	932.5	958.3	985.9	1021.8	1054.9
12.5°	804.6	815.6	819.3	837.6	844.1	859.8	890.1	918.7	950.0	989.6	1029.1
15°	765.0	775.1	778.8	795.4	801.8	816.6	845.0	872.6	903.0	942.6	981.3
17.5°	726.3	736.4	739.2	753.9	758.5	771.4	797.2	821.1	846.9	881.9	916.9
20°	690.4	699.6	701.4	714.3	717.1	727.2	748.4	767.7	788.9	816.6	845.0
22.5°	656.3	665.5	666.4	677.5	678.4	686.7	704.2	718.9	733.7	755.8	776.0
25°	619.6	628.8	629.7	638.8	639.7	645.3	659.1	670.1	680.3	695.9	709.7
27.5°	575.3	584.6	587.3	593.8	594.7	598.4	610.3	617.7	627.8	637.9	643.4
30°	526.5	534.8	538.5	544.0	545.0	550.5	561.5	567.1	573.5	575.3	577.2
32.5°	472.2	481.4	485.1	489.7	492.5	498.0	508.1	510.9	512.7	511.8	501.7
35°	420.7	429.0	432.7	438.2	440.1	443.7	452.0	451.1	448.3	440.1	421.6
37.5°	382.0	388.5	392.2	395.8	396.8	398.6	403.2	399.5	392.2	378.3	354.4
40°	355.3	361.8	362.7	366.4	365.5	365.5	366.4	359.9	350.7	334.1	306.5
42.5°	335.1	340.6	340.6	344.3	341.5	339.7	339.7	332.3	320.3	302.8	275.2
45°	311.1	315.7	316.6	318.5	315.7	313.9	313.9	306.5	295.5	278.0	250.4
47.5°	286.2	290.9	290.9	293.6	290.9	289.0	289.0	282.6	272.5	256.9	231.1
50°	258.7	263.3	264.2	266.1	264.2	263.3	264.2	257.8	249.5	235.7	212.7
52.5°	232.0	236.6	236.6	238.4	236.6	236.6	237.5	232.9	225.6	214.5	194.2
55°	206.2	209.9	211.7	213.6	210.8	210.8	211.7	209.0	203.4	195.2	177.7
57.5°	182.3	185.9	186.9	188.7	186.9	187.8	188.7	185.9	183.2	176.7	162.9
60°	160.2	163.8	164.8	165.7	164.8	164.8	165.7	164.8	162.9	158.3	146.3
62.5°	139.9	142.7	143.6	145.4	143.6	142.7	144.5	143.6	142.7	139.9	131.6
65°	119.6	121.5	122.4	123.3	121.5	119.6	121.5	121.5	122.4	120.6	114.1
67.5°	97.5	99.4	99.4	99.4	96.6	95.7	97.5	97.5	99.4	98.5	93.8
70°	74.6	75.5	75.5	75.5	71.8	71.8	72.8	72.8	74.6	74.6	71.8
72.5°	53.4	52.5	52.5	51.6	50.7	48.8	48.8	49.7	51.6	51.6	49.7
75°	35.0	34.1	33.2	33.2	32.2	30.4	30.4	31.3	32.2	33.2	32.2
77.5°	21.2	20.3	20.3	19.3	19.3	18.4	18.4	18.4	19.3	19.3	19.3
80°	12.0	11.1	11.1	11.1	10.1	10.1	10.1	10.1	10.1	11.1	10.1
82.5°	6.4	5.5	5.5	5.5	5.5	5.5	4.6	5.5	5.5	5.5	5.5
85°	2.8	2.8	2.8	2.8	1.8	1.8	1.8	1.8	1.8	2.8	2.8
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°	1012.5	1012.5	1012.5	1012.5	1012.5	1012.5	1012.5	1012.5	1012.5	1012.5	1012.5
2.5°	1013.5	1022.7	1016.2	1036.5	1022.7	1030.0	1040.2	1030.0	1032.8	1039.3	1026.4
5°	1044.8	1061.4	1063.2	1090.8	1079.8	1092.7	1106.5	1095.4	1097.3	1101.9	1085.3
7.5°	1077.0	1106.5	1120.3	1159.0	1156.2	1177.4	1193.9	1182.9	1182.9	1183.8	1159.0
10°	1086.2	1129.5	1155.3	1203.1	1210.5	1240.9	1259.3	1251.9	1250.1	1247.3	1213.2
12.5°	1066.0	1119.4	1152.5	1205.9	1220.6	1256.5	1273.1	1270.3	1267.6	1262.0	1222.4
15°	1019.0	1074.3	1109.3	1161.7	1180.2	1216.9	1230.7	1230.7	1228.0	1222.4	1180.2
17.5°	950.0	1001.5	1033.7	1079.8	1098.2	1132.3	1141.5	1144.3	1141.5	1136.0	1097.3
20°	871.7	915.0	940.8	978.6	993.3	1022.7	1028.2	1032.8	1031.0	1026.4	992.4
22.5°	795.4	829.4	848.7	881.9	887.4	912.3	914.1	917.8	916.9	915.0	887.4
25°	725.4	748.4	759.5	784.3	786.2	804.6	803.7	807.3	806.4	806.4	785.2
27.5°	651.7	665.5	668.3	683.9	680.3	694.1	695.9	694.1	695.0	695.9	680.3
30°	578.1	580.9	572.6	574.4	564.3	572.6	564.3	570.7	570.7	573.5	564.3
32.5°	494.3	486.0	463.9	452.9	435.4	435.4	430.8	430.8	430.8	435.4	433.6
35°	405.1	384.8	350.7	326.8	301.9	295.5	294.5	285.3	287.2	293.6	298.2
37.5°	328.6	298.2	253.2	219.1	189.6	176.7	172.1	164.8	167.5	174.9	185.9
40°	274.3	237.5	185.0	145.4	116.0	101.2	93.8	89.3	92.0	101.2	115.0
42.5°	240.3	199.8	143.6	102.1	74.6	60.8	53.4	49.7	52.5	60.8	77.4
45°	215.4	173.1	116.0	75.5	50.7	37.8	31.3	28.6	30.4	37.8	51.6
47.5°	196.1	152.8	96.6	58.0	35.9	24.9	19.3	16.6	18.4	24.9	35.9
50°	178.6	136.2	82.0	46.1	27.6	18.4	12.9	11.1	12.9	17.5	26.7
52.5°	162.9	121.5	70.0	37.8	21.2	14.7	10.1	8.3	9.2	13.8	21.2
55°	149.1	110.4	61.7	32.2	18.4	12.9	9.2	7.4	9.2	12.0	18.4
57.5°	136.2	99.4	54.3	27.6	15.7	11.1	8.3	7.4	8.3	11.1	15.7
60°	123.3	88.4	47.9	23.9	13.8	10.1	7.4	6.4	7.4	9.2	13.8
62.5°	110.4	78.3	41.4	20.3	12.0	8.3	6.4	5.5	6.4	8.3	12.0
65°	95.7	66.3	35.0	17.5	10.1	7.4	5.5	5.5	5.5	7.4	10.1
67.5°	79.2	54.3	27.6	13.8	8.3	6.4	4.6	4.6	4.6	6.4	8.3
70°	60.8	40.5	21.2	11.1	6.4	4.6	3.7	3.7	3.7	4.6	6.4
72.5°	42.4	28.6	14.7	8.3	4.6	3.7	2.8	2.8	2.8	3.7	4.6
75°	26.7	18.4	10.1	5.5	3.7	2.8	1.8	1.8	1.8	2.8	3.7
77.5°	15.7	11.1	6.4	3.7	1.8	1.8	0.9	0.9	0.9	1.8	1.8
80°	8.3	6.4	3.7	1.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9
82.5°	4.6	2.8	1.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
85°	1.8	0.9	0.9	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°	1012.5	1012.5	1012.5	1012.5	1012.5	1012.5	1012.5	1012.5	1012.5	1012.5	1012.5
2.5°	1022.7	1026.4	1025.4	1006.1	1004.3	1005.2	992.4	997.0	1001.5	997.0	997.9
5°	1072.4	1071.5	1060.4	1032.8	1021.8	1014.4	993.3	989.6	986.9	976.7	973.0
7.5°	1137.8	1124.9	1101.9	1060.4	1037.4	1017.2	985.9	970.3	959.2	941.7	931.6
10°	1182.9	1157.1	1123.1	1068.7	1033.7	1002.4	962.0	938.0	919.6	896.6	881.9
12.5°	1189.3	1153.5	1113.9	1050.3	1009.8	971.2	927.0	900.3	879.1	854.2	840.4
15°	1147.9	1111.1	1069.6	1006.1	965.7	926.1	883.7	857.0	835.8	812.0	800.0
17.5°	1069.6	1035.6	998.8	939.9	904.9	869.0	831.2	808.3	789.8	771.4	759.5
20°	970.3	943.6	913.2	863.4	835.8	806.4	777.0	758.5	744.7	729.1	719.9
22.5°	871.7	851.5	829.4	789.8	769.6	748.4	725.4	712.5	702.4	690.4	683.9
25°	777.0	763.1	749.3	718.9	707.0	692.2	675.6	666.4	660.0	651.7	647.1
27.5°	678.4	673.8	670.1	650.8	646.2	636.1	625.1	619.6	615.0	609.4	605.7
30°	571.7	574.4	589.2	579.0	583.6	580.9	576.3	572.6	570.7	566.1	561.5
32.5°	451.1	470.4	491.5	494.3	508.1	514.6	513.6	514.6	515.5	511.8	508.1
35°	323.1	354.4	387.6	402.3	425.3	440.1	445.6	451.1	454.8	453.9	451.1
37.5°	215.4	257.8	297.3	323.1	353.5	373.7	385.7	394.9	400.5	402.3	402.3
40°	143.6	184.1	236.6	269.8	303.7	328.6	342.4	354.4	362.7	366.4	368.2
42.5°	101.2	144.5	197.9	235.7	270.7	297.3	313.0	325.8	334.1	338.7	340.6
45°	74.6	116.0	171.2	209.9	245.8	271.6	287.2	299.1	307.4	312.0	314.8
47.5°	57.1	97.5	151.0	190.6	226.5	250.4	265.2	276.1	283.5	287.2	289.0
50°	45.1	82.0	134.4	174.0	207.1	229.2	242.1	251.3	257.8	260.6	262.4
52.5°	36.8	70.9	120.6	158.3	189.6	209.0	219.1	226.5	232.0	233.8	235.7
55°	31.3	61.7	108.6	145.4	174.0	190.6	197.9	204.4	207.1	209.0	209.9
57.5°	27.6	54.3	98.5	133.5	159.2	173.1	178.6	183.2	184.1	185.9	186.9
60°	23.9	47.0	87.5	120.6	143.6	155.6	158.3	162.0	162.0	162.9	163.8
62.5°	20.3	40.5	76.4	107.7	127.9	138.1	139.9	140.8	140.8	140.8	141.7
65°	16.6	34.1	64.5	92.9	111.3	117.8	118.7	119.6	117.8	117.8	118.7
67.5°	13.8	26.7	51.6	76.4	91.1	96.6	95.7	95.7	92.9	92.9	93.8
70°	10.1	20.3	38.7	58.0	69.1	72.8	70.9	70.9	68.2	68.2	69.1
72.5°	7.4	14.7	26.7	39.6	47.9	49.7	47.9	47.9	46.1	46.1	47.0
75°	5.5	9.2	17.5	25.8	30.4	31.3	30.4	29.5	28.6	28.6	29.5
77.5°	3.7	6.4	10.1	14.7	17.5	18.4	17.5	17.5	16.6	17.5	17.5
80°	1.8	3.7	5.5	8.3	9.2	10.1	10.1	10.1	9.2	9.2	10.1
82.5°	0.9	1.8	2.8	3.7	4.6	5.5	4.6	4.6	4.6	4.6	4.6
85°	0.0	0.9	0.9	1.8	1.8	2.8	1.8	1.8	1.8	1.8	1.8
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°	1012.5	1012.5	1012.5	1012.5
2.5°	996.1	991.5	985.0	998.8
5°	967.5	958.3	950.9	963.8
7.5°	922.4	909.5	899.4	912.3
10°	870.8	856.1	845.0	857.0
12.5°	825.7	811.0	801.8	811.0
15°	786.2	772.4	764.1	772.4
17.5°	747.5	735.5	728.1	737.4
20°	710.6	700.5	694.1	702.4
22.5°	676.6	667.4	661.8	670.1
25°	640.6	634.3	627.8	635.2
27.5°	601.1	593.8	590.1	594.7
30°	556.0	548.6	545.9	549.6
32.5°	502.6	495.2	492.5	495.2
35°	447.4	441.0	437.3	441.0
37.5°	400.5	394.9	392.2	394.9
40°	367.3	364.5	361.8	365.5
42.5°	341.5	338.7	336.9	339.7
45°	314.8	311.1	309.3	312.0
47.5°	288.1	284.4	282.6	284.4
50°	260.6	255.9	255.0	255.9
52.5°	232.9	229.2	227.4	228.3
55°	208.1	205.3	203.4	204.4
57.5°	185.9	182.3	181.3	182.3
60°	163.8	162.0	161.1	162.0
62.5°	141.7	140.8	141.7	141.7
65°	119.6	119.6	120.6	120.6
67.5°	95.7	97.5	98.5	98.5
70°	70.9	72.8	73.7	73.7
72.5°	47.9	49.7	50.7	51.6
75°	30.4	32.2	33.2	33.2
77.5°	18.4	19.3	19.3	20.3
80°	10.1	11.1	11.1	11.1
82.5°	5.5	5.5	5.5	6.4
85°	2.8	2.8	2.8	2.8
87.5°	0.0	0.9	0.9	0.9
90°	0.0	0.0	0.0	0.0



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













(END OF REPORT)