

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: P136279

Luminaire Tested: **LD6A15D010TE ERW6A15940 6LW111LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P136279
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P23359-R2)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LD6A15D010TE ERW6A15940 6LW111LI
Description: PORTFOLIO 6 INCH 60 DEGREE CUTOFF RECESSED SINGLE WALL WASH LUMINAIRE
SPECULAR CLEAR TRIM AND SPECULAR CLEAR KICKER
Light Source: (1) HIGH LUMEN LED 4000K
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1504.9 lumens
Efficiency: N/A
Efficacy: 66.6 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 1.19 / 1.1
Luminous Opening: Circular (Dia: 0.46' x H: 0')
CIE Type: Direct

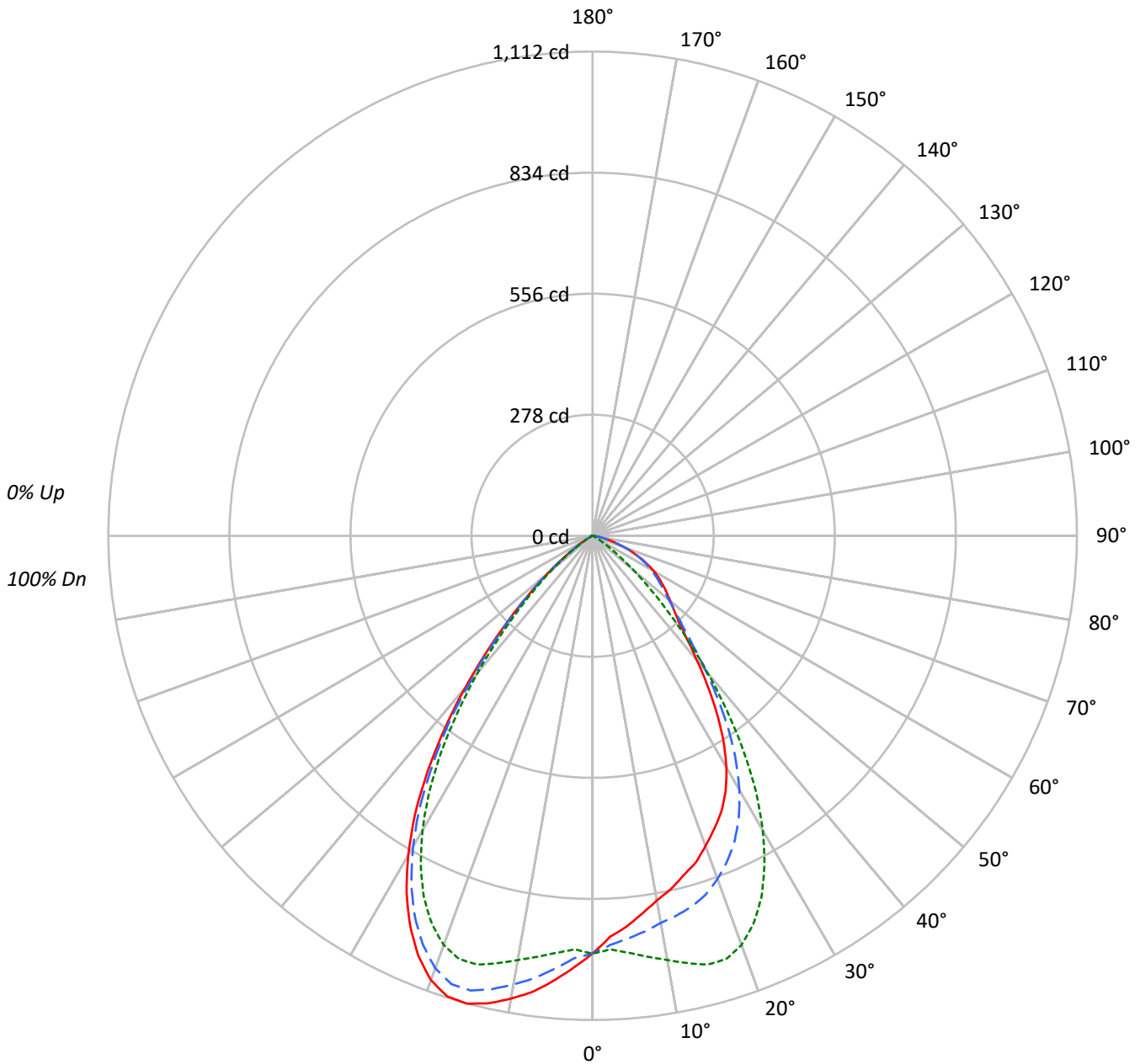
Input Watts (W): 22.6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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			100
1	112	109	106	103	110	107	104	102	103	100	98	99	97	95	95	94	93	91			91
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	86	83	82			82
3	98	91	85	80	96	89	84	79	86	82	78	84	80	77	82	78	75	74			74
4	92	83	76	71	90	82	76	71	80	74	70	77	73	69	75	71	68	66			66
5	86	76	69	64	84	75	69	64	73	68	63	72	67	63	70	66	62	60			60
6	81	70	63	58	79	70	63	58	68	62	57	66	61	57	65	60	57	55			55
7	76	65	58	53	75	64	58	53	63	57	53	62	56	52	60	56	52	50			50
8	72	60	53	49	70	60	53	48	59	53	48	58	52	48	56	51	48	46			46
9	68	56	49	45	66	56	49	45	55	49	44	54	48	44	53	48	44	43			43
10	64	53	46	41	63	52	46	41	51	45	41	50	45	41	50	45	41	39			39

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	62592	62592	62592
5°	58974	62968	67179
10°	56323	65538	71500
15°	54527	68852	75141
20°	52633	69435	75385
25°	50332	65982	71294
30°	46300	58888	63807
35°	39567	48185	52613
40°	31639	34926	38665
45°	25779	22125	24791
50°	23588	12169	13793
55°	22407	4993	5846
60°	21099	1814	1814
65°	18833	988	818
70°	15107	820	610
75°	9982	529	529
80°	5222	413	413
85°	2395	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	92.6	6.2
10°-20°	277.5	18.4
20°-30°	399.2	26.5
30°-40°	366.7	24.4
40°-50°	210.6	14.0
50°-60°	93.0	6.2
60°-70°	45.7	3.0
70°-80°	17.5	1.2
80°-90°	2.0	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°	769.3	51.1
0°-40°	1136.1	75.5
0°-60°	1439.7	95.7
0°-90°	1504.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1504.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	959	959	959	959	959	
5°	900	928	962	998	1026	84
15°	807	881	1019	1081	1112	228
25°	699	772	917	966	990	319
35°	497	544	605	639	661	308
45°	279	291	240	262	269	222
55°	197	187	44	48	51	176
65°	122	118	6	4	5	119
75°	40	42	2	2	2	44
85°	3	3	0	0	0	5
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°	959.4	959.4	959.4	959.4	959.4	959.4	959.4	959.4	959.4	959.4	959.4
2.5°	921.9	927.3	921.9	929.4	933.7	935.8	933.7	928.4	935.8	940.2	939.1
5°	900.5	904.8	900.5	908.0	913.4	918.7	916.6	913.4	921.9	928.4	929.4
7.5°	874.8	880.2	877.0	884.4	890.9	897.3	897.3	896.2	906.9	916.6	919.8
10°	850.2	854.4	852.3	859.8	867.3	874.8	877.0	878.0	889.8	902.7	910.1
12.5°	830.9	833.0	830.9	839.5	847.0	855.5	859.8	862.0	877.0	893.0	902.7
15°	807.3	812.7	810.6	819.1	827.7	837.3	842.7	847.0	863.1	881.2	895.1
17.5°	787.0	789.1	787.0	796.7	804.1	814.8	821.3	826.6	843.7	864.1	879.1
20°	758.1	762.4	761.3	769.9	778.4	788.1	794.5	799.9	818.0	838.4	855.5
22.5°	729.2	733.5	733.5	742.0	748.5	759.2	764.5	769.9	787.0	808.5	823.4
25°	699.2	702.4	701.3	708.8	716.4	727.0	731.4	736.7	752.7	772.0	785.9
27.5°	661.7	663.9	666.0	672.4	677.8	687.4	690.7	696.0	708.8	727.0	739.9
30°	614.6	616.8	619.9	625.4	629.6	639.3	641.4	645.6	658.5	673.5	685.3
32.5°	559.0	560.0	565.3	569.6	575.0	581.4	586.8	587.9	597.5	612.5	621.0
35°	496.8	497.9	503.2	506.5	511.8	518.2	522.5	523.6	532.2	543.9	549.3
37.5°	432.6	439.0	437.9	441.2	446.5	451.8	456.2	456.2	462.5	472.2	474.3
40°	371.5	374.8	378.0	380.1	384.4	388.7	391.9	391.9	396.2	402.6	402.6
42.5°	319.1	324.5	324.5	326.6	329.8	334.0	336.3	335.2	337.3	340.5	338.4
45°	279.4	281.6	282.7	285.9	287.0	291.2	292.3	290.2	291.2	291.2	284.8
47.5°	253.7	253.7	253.7	255.9	257.0	260.2	260.2	257.0	255.9	254.8	246.3
50°	232.4	232.4	233.4	235.6	236.6	237.7	237.7	233.4	232.4	228.0	216.3
52.5°	214.1	215.2	215.2	217.4	218.5	219.5	218.5	214.1	210.9	206.7	192.8
55°	197.0	198.1	199.1	201.3	201.3	201.3	200.2	196.0	192.8	187.4	173.4
57.5°	179.9	181.0	181.0	183.1	184.2	184.2	183.1	178.9	175.6	171.3	156.3
60°	161.7	161.7	162.7	164.9	164.9	166.0	164.9	161.7	158.5	153.2	140.3
62.5°	141.4	142.4	143.5	145.6	146.7	146.7	146.7	143.5	141.4	137.0	124.2
65°	122.0	122.0	123.1	125.3	125.3	128.5	126.4	124.2	122.0	117.8	107.1
67.5°	99.6	100.7	100.7	102.8	103.9	104.9	104.9	102.8	101.7	98.5	88.9
70°	79.2	79.2	80.3	81.4	82.4	83.5	83.5	82.4	81.4	78.2	70.6
72.5°	57.8	58.9	58.9	60.0	62.1	63.2	63.2	63.2	61.1	58.9	53.5
75°	39.6	40.7	40.7	41.7	42.8	43.9	43.9	43.9	42.8	41.7	37.5
77.5°	24.6	24.6	25.7	25.7	26.8	27.8	28.9	28.9	27.8	26.8	24.6
80°	13.9	13.9	15.0	15.0	15.0	16.0	17.1	17.1	17.1	16.0	13.9
82.5°	7.5	7.5	7.5	7.5	7.5	8.6	8.6	8.6	8.6	8.6	7.5
85°	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
87.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
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°	959.4	959.4	959.4	959.4	959.4	959.4	959.4	959.4	959.4	959.4	959.4
2.5°	939.1	946.5	951.9	943.3	950.8	958.3	966.9	950.8	965.9	957.3	960.4
5°	933.7	942.3	949.7	944.4	954.1	963.6	975.4	961.5	978.7	972.2	977.5
7.5°	926.2	937.9	948.7	946.5	959.4	972.2	987.2	975.4	993.7	990.4	996.9
10°	919.8	935.8	949.7	949.7	966.9	981.9	997.9	989.3	1010.8	1007.6	1016.1
12.5°	915.5	935.8	954.1	957.3	977.5	994.7	1014.0	1005.5	1029.0	1025.8	1035.4
15°	911.2	934.7	956.2	962.6	985.1	1005.5	1025.8	1019.4	1044.0	1040.7	1050.4
17.5°	897.3	925.1	948.7	957.3	981.9	1003.3	1024.7	1019.4	1044.0	1040.7	1050.4
20°	873.8	901.6	927.3	936.9	961.5	984.0	1004.4	1000.1	1024.7	1021.5	1030.0
22.5°	843.7	870.5	895.1	904.8	928.4	948.7	969.0	964.7	988.3	983.0	992.6
25°	802.0	829.8	853.4	860.9	882.3	902.7	920.8	916.6	939.1	932.6	942.3
27.5°	759.2	779.5	798.8	805.2	824.5	841.6	858.7	854.4	875.9	868.4	878.0
30°	701.3	717.4	734.5	737.7	756.0	769.9	784.9	781.7	799.9	793.4	802.0
32.5°	633.9	647.8	659.6	660.6	675.6	687.4	700.2	698.1	714.1	708.8	715.2
35°	560.0	568.5	576.1	575.0	586.8	595.3	607.1	605.0	619.9	614.6	621.0
37.5°	481.9	486.1	488.2	484.0	492.6	499.0	507.6	506.5	519.4	515.0	521.5
40°	405.8	405.8	402.6	395.1	400.5	403.7	410.1	410.1	419.7	415.5	420.8
42.5°	336.3	331.9	324.5	313.7	314.8	319.1	319.1	319.1	326.6	322.3	331.9
45°	279.4	269.9	258.1	244.2	239.8	241.9	239.8	239.8	245.2	241.9	249.5
47.5°	235.6	223.8	203.4	186.3	178.9	177.8	174.5	174.5	177.8	177.8	181.0
50°	202.3	185.2	160.6	140.3	129.6	126.4	122.0	119.9	123.1	122.0	124.2
52.5°	175.6	154.2	125.3	101.7	91.0	83.5	80.3	76.0	77.1	77.1	78.2
55°	153.2	128.5	97.4	72.9	61.1	52.5	48.2	43.9	43.9	42.8	43.9
57.5°	135.9	110.2	79.2	54.6	41.7	33.2	28.9	24.6	23.6	23.6	23.6
60°	121.0	96.3	65.3	42.8	30.0	21.5	17.1	13.9	12.9	11.8	11.8
62.5°	106.0	83.5	55.7	35.4	22.5	16.0	11.8	8.6	7.5	6.4	6.4
65°	91.0	71.7	48.2	30.0	19.2	12.9	8.6	6.4	5.3	4.3	4.3
67.5°	75.0	58.9	40.7	24.6	16.0	10.7	7.5	5.3	4.3	3.2	3.2
70°	60.0	47.2	32.1	20.4	12.9	8.6	5.3	4.3	3.2	3.2	3.2
72.5°	44.9	35.4	24.6	15.0	9.7	6.4	4.3	3.2	2.1	2.1	2.1
75°	32.1	25.7	17.1	10.7	6.4	4.3	3.2	2.1	2.1	2.1	2.1
77.5°	20.4	16.0	10.7	6.4	4.3	2.1	2.1	1.1	1.1	1.1	1.1
80°	11.8	9.7	6.4	4.3	2.1	1.1	1.1	1.1	1.1	1.1	1.1
82.5°	6.4	4.3	3.2	2.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0
85°	2.1	2.1	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0
87.5°	1.1	1.1	1.1	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°	959.4	959.4	959.4	959.4	959.4	959.4	959.4	959.4	959.4	959.4	959.4
2.5°	969.0	966.9	974.4	977.5	975.4	971.2	985.1	988.3	978.7	983.0	983.0
5°	988.3	988.3	997.9	1002.2	1002.2	997.9	1014.0	1019.4	1009.7	1014.0	1015.0
7.5°	1009.7	1009.7	1021.5	1026.8	1027.9	1024.7	1040.7	1045.1	1038.6	1042.9	1044.0
10°	1029.0	1029.0	1042.9	1048.3	1049.3	1046.2	1062.2	1067.5	1060.1	1064.3	1065.4
12.5°	1049.3	1050.4	1064.3	1069.6	1069.6	1066.4	1082.5	1087.9	1079.3	1084.7	1083.6
15°	1064.3	1065.4	1079.3	1084.7	1085.8	1081.4	1096.5	1102.9	1094.3	1097.6	1097.6
17.5°	1063.3	1064.3	1077.2	1082.5	1082.5	1079.3	1092.1	1099.7	1091.1	1094.3	1093.2
20°	1041.8	1042.9	1056.8	1061.1	1061.1	1056.8	1068.6	1076.1	1067.5	1069.6	1068.6
22.5°	1003.3	1004.4	1017.2	1021.5	1022.6	1017.2	1029.0	1037.6	1027.9	1029.0	1027.9
25°	953.0	953.0	966.9	966.9	972.2	965.9	974.4	986.1	976.5	976.5	973.3
27.5°	887.7	887.7	901.6	901.6	908.0	901.6	915.5	920.8	912.3	911.2	911.2
30°	811.6	811.6	824.5	824.5	829.8	824.5	838.4	843.7	835.2	834.1	835.2
32.5°	724.9	724.9	737.7	736.7	743.1	738.8	751.6	756.0	749.5	746.3	748.5
35°	629.6	634.9	642.5	641.4	647.8	639.3	655.3	658.5	653.2	654.2	651.1
37.5°	528.9	534.3	539.6	539.6	545.0	542.8	552.5	555.7	551.4	552.5	549.3
40°	428.3	433.7	437.9	437.9	443.3	436.8	449.7	452.9	448.6	444.4	446.5
42.5°	333.0	338.4	342.6	341.6	346.9	345.8	353.4	355.5	352.3	351.2	349.1
45°	250.5	251.6	259.1	262.3	262.3	262.3	267.6	268.7	265.5	265.5	264.5
47.5°	181.0	183.1	188.4	190.6	191.7	190.6	192.8	197.0	193.8	193.8	194.9
50°	125.3	126.4	130.6	132.8	132.8	132.8	133.8	137.0	134.9	134.9	132.8
52.5°	80.3	80.3	83.5	84.5	84.5	84.5	85.7	87.8	85.7	86.8	87.8
55°	44.9	44.9	47.2	48.2	48.2	48.2	49.3	50.3	49.3	50.3	50.3
57.5°	23.6	23.6	24.6	24.6	25.7	25.7	25.7	26.8	26.8	26.8	26.8
60°	11.8	11.8	11.8	12.9	12.9	12.9	12.9	13.9	13.9	13.9	13.9
62.5°	6.4	6.4	6.4	6.4	6.4	6.4	6.4	7.5	7.5	7.5	7.5
65°	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
67.5°	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	4.3	4.3	4.3
70°	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
72.5°	2.1	2.1	2.1	2.1	2.1	2.1	3.2	3.2	3.2	2.1	2.1
75°	1.1	2.1	2.1	1.1	1.1	2.1	2.1	2.1	2.1	2.1	2.1
77.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
80°	0.0	0.0	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°	959.4	959.4	959.4	959.4
2.5°	974.4	975.4	993.7	992.6
5°	1006.5	1007.6	1025.8	1025.8
7.5°	1035.4	1036.5	1055.7	1056.8
10°	1056.8	1059.0	1077.2	1079.3
12.5°	1077.2	1077.2	1095.3	1099.7
15°	1090.0	1090.0	1107.1	1112.5
17.5°	1085.8	1085.8	1102.9	1109.3
20°	1062.2	1061.1	1077.2	1085.8
22.5°	1021.5	1022.6	1035.4	1045.1
25°	970.1	968.0	981.9	990.4
27.5°	905.9	906.9	915.5	925.1
30°	828.7	830.9	837.3	847.0
32.5°	742.0	745.3	749.5	759.2
35°	646.7	649.9	652.1	660.6
37.5°	543.9	548.2	549.3	557.8
40°	442.3	446.5	446.5	454.0
42.5°	346.9	350.2	349.1	355.5
45°	262.3	264.5	263.4	268.7
47.5°	191.7	193.8	191.7	196.0
50°	132.8	134.9	132.8	135.9
52.5°	85.7	86.8	84.5	87.8
55°	49.3	50.3	49.3	51.4
57.5°	27.8	26.8	25.7	27.8
60°	13.9	13.9	13.9	13.9
62.5°	7.5	7.5	7.5	7.5
65°	4.3	4.3	4.3	5.3
67.5°	4.3	4.3	4.3	4.3
70°	3.2	3.2	3.2	3.2
72.5°	2.1	2.1	2.1	2.1
75°	2.1	2.1	2.1	2.1
77.5°	1.1	1.1	1.1	1.1
80°	0.0	0.0	0.0	1.1
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)