

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: P135642

Luminaire Tested: **LD6A10D010TE ERM6A10835 6LM111H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P135642
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: LD6A10D010TE ERM6A10835 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 3500K
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1128.0 lumens
Efficiency: N/A
Efficacy: 80.6 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

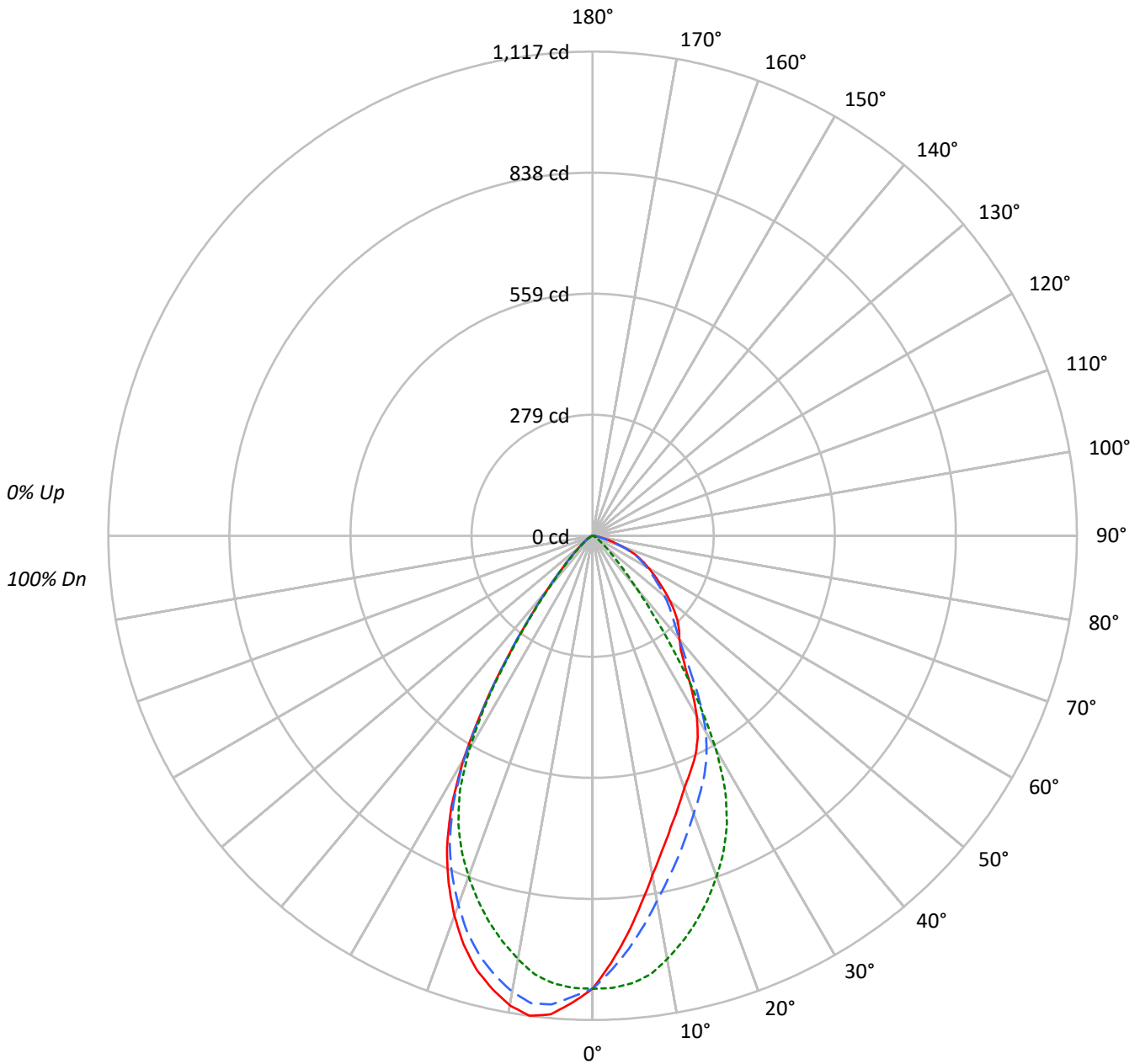
Input Watts (W): 14
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	68183	68183	68183
5°	60401	67887	72582
10°	52647	65691	72859
15°	47030	62294	69933
20°	42941	58048	64713
25°	40326	52751	57207
30°	36160	42842	44763
35°	29715	26521	27198
40°	26495	13039	13763
45°	25566	6505	6947
50°	23557	3451	3705
55°	21281	2070	2207
60°	19507	1422	1422
65°	17815	1127	942
70°	14364	935	687
75°	8873	605	302
80°	5034	451	0
85°	2695	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	95.8	8.5
10°-20°	248.9	22.1
20°-30°	316.7	28.1
30°-40°	226.9	20.1
40°-50°	113.2	10.0
50°-60°	68.5	6.1
60°-70°	41.9	3.7
70°-80°	14.4	1.3
80°-90°	1.5	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°	661.5	58.6
0°-40°	888.4	78.8
0°-60°	1070.1	94.9
0°-90°	1128.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1128.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1045	1045	1045	1045	1045	
5°	922	956	1037	1085	1108	84
15°	696	766	922	1004	1035	196
25°	560	610	733	780	795	256
35°	373	402	333	342	342	238
45°	277	259	70	78	75	212
55°	187	176	18	19	19	169
65°	115	112	7	6	6	113
75°	35	32	2	1	1	41
85°	4	2	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°	1045.1	1045.1	1045.1	1045.1	1045.1	1045.1	1045.1	1045.1	1045.1	1045.1	1045.1
2.5°	985.5	986.7	989.2	986.7	988.0	994.0	991.6	992.8	996.5	1002.5	998.9
5°	922.3	923.6	929.6	926.0	928.4	935.7	935.7	940.6	947.9	956.4	956.4
7.5°	856.7	859.1	865.2	862.8	866.4	876.2	877.4	884.7	894.4	906.5	912.6
10°	794.7	797.2	803.2	802.0	806.9	816.6	821.5	828.8	840.9	855.5	862.8
12.5°	742.5	744.9	749.8	749.8	755.9	765.6	770.4	780.2	792.3	808.1	817.8
15°	696.3	700.0	704.8	704.8	710.9	720.6	726.7	735.2	748.6	765.6	776.5
17.5°	656.2	657.4	662.3	662.3	668.4	678.1	684.2	692.7	706.0	721.8	734.0
20°	618.5	619.8	624.6	625.8	630.7	639.2	645.3	653.8	665.9	681.7	692.7
22.5°	589.4	591.8	595.4	596.7	599.1	607.6	614.9	621.0	631.9	645.3	656.2
25°	560.2	561.4	565.1	566.3	569.9	576.0	580.9	586.9	596.7	610.0	618.5
27.5°	525.0	528.6	529.8	531.0	534.7	539.6	544.4	549.3	557.8	568.7	576.0
30°	480.0	481.2	484.9	487.3	490.9	495.8	501.9	506.7	514.0	522.5	527.4
32.5°	427.8	429.0	432.6	435.0	441.1	446.0	450.8	454.5	459.3	464.2	464.2
35°	373.1	376.7	377.9	381.6	387.6	392.5	396.2	397.4	399.8	402.2	393.7
37.5°	334.2	336.6	339.0	341.5	346.3	350.0	352.4	352.4	351.2	348.8	337.8
40°	311.1	312.3	314.7	316.0	320.8	323.2	323.2	320.8	316.0	309.9	292.9
42.5°	295.3	296.5	297.7	298.9	301.4	302.6	301.4	296.5	290.4	281.9	262.5
45°	277.1	278.3	279.5	279.5	281.9	281.9	280.7	275.9	268.6	258.8	238.2
47.5°	255.2	256.4	257.6	258.8	260.1	260.1	258.8	254.0	246.7	238.2	216.3
50°	232.1	233.3	234.5	234.5	237.0	237.0	235.7	230.9	224.8	216.3	196.9
52.5°	209.0	210.2	210.2	212.7	212.7	212.7	211.4	206.6	201.7	195.6	177.4
55°	187.1	188.4	188.4	190.8	192.0	190.8	189.6	185.9	181.1	176.2	161.6
57.5°	167.7	168.9	168.9	170.1	171.3	170.1	168.9	166.5	164.1	159.2	147.0
60°	149.5	150.7	150.7	151.9	151.9	150.7	150.7	148.3	145.8	143.4	132.5
62.5°	132.5	132.5	132.5	133.7	133.7	132.5	132.5	130.0	128.8	127.6	119.1
65°	115.4	115.4	115.4	115.4	115.4	113.0	113.0	111.8	110.6	111.8	104.5
67.5°	96.0	96.0	94.8	94.8	94.8	92.4	92.4	92.4	91.1	92.4	86.3
70°	75.3	75.3	74.1	74.1	72.9	70.5	70.5	70.5	69.3	70.5	66.8
72.5°	53.5	54.7	52.3	52.3	51.0	48.6	49.8	48.6	49.8	49.8	47.4
75°	35.2	36.5	34.0	34.0	32.8	31.6	31.6	31.6	32.8	31.6	30.4
77.5°	21.9	23.1	21.9	21.9	20.7	19.4	19.4	19.4	19.4	19.4	18.2
80°	13.4	13.4	13.4	12.2	12.2	10.9	10.9	10.9	10.9	10.9	9.7
82.5°	7.3	7.3	7.3	7.3	7.3	6.1	6.1	6.1	6.1	6.1	4.9
85°	3.6	3.6	3.6	3.6	3.6	2.4	2.4	2.4	2.4	2.4	2.4
87.5°	1.2	1.2	1.2	1.2	1.2	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°	1045.1	1045.1	1045.1	1045.1	1045.1	1045.1	1045.1	1045.1	1045.1	1045.1	1045.1
2.5°	1009.8	1014.7	1011.0	1025.6	1023.2	1034.1	1032.9	1043.9	1042.6	1043.9	1046.3
5°	970.9	980.7	981.9	1000.1	1001.3	1018.3	1022.0	1036.6	1039.0	1043.9	1049.9
7.5°	928.4	943.0	947.9	968.5	975.8	994.0	1001.3	1020.8	1025.6	1034.1	1041.4
10°	882.2	899.3	906.5	930.8	940.6	961.2	970.9	991.6	998.9	1008.6	1017.1
12.5°	838.5	856.7	866.4	892.0	905.3	926.0	936.9	958.8	966.1	978.2	986.7
15°	797.2	816.6	827.6	853.1	866.4	889.5	900.5	922.3	930.8	943.0	951.5
17.5°	754.6	774.1	786.2	810.5	827.6	847.0	859.1	881.0	889.5	900.5	909.0
20°	713.3	732.8	743.7	768.0	783.8	803.2	814.2	836.1	842.1	853.1	860.4
22.5°	674.4	692.7	702.4	727.9	741.3	758.3	769.2	788.7	796.0	804.5	809.3
25°	635.6	651.3	658.6	680.5	691.5	707.2	715.8	732.8	740.1	747.3	753.4
27.5°	591.8	600.3	602.7	619.8	628.3	642.8	646.5	662.3	668.4	673.2	678.1
30°	537.1	538.3	531.0	539.6	543.2	554.1	554.1	568.7	573.6	577.2	582.1
32.5°	467.9	460.6	443.5	441.1	438.7	444.8	442.3	454.5	459.3	461.8	465.4
35°	391.3	375.5	347.5	336.6	329.3	328.1	324.5	333.0	336.6	339.0	341.5
37.5°	324.5	301.4	266.1	246.7	234.5	229.7	224.8	229.7	232.1	234.5	237.0
40°	275.9	246.7	205.4	181.1	164.1	156.8	150.7	153.1	155.5	158.0	159.2
42.5°	240.6	207.8	162.8	133.7	116.7	108.2	102.1	103.3	104.5	105.7	108.2
45°	213.9	178.6	132.5	100.9	83.8	75.3	70.5	70.5	71.7	72.9	74.1
47.5°	192.0	154.3	108.2	77.8	62.0	53.5	48.6	48.6	49.8	49.8	51.0
50°	171.3	133.7	88.7	60.8	46.2	38.9	35.2	34.0	35.2	35.2	36.5
52.5°	154.3	117.9	74.1	48.6	35.2	29.2	25.5	25.5	25.5	25.5	25.5
55°	138.5	103.3	62.0	38.9	27.9	23.1	19.4	18.2	18.2	18.2	18.2
57.5°	126.4	92.4	53.5	32.8	23.1	18.2	15.8	14.6	14.6	14.6	14.6
60°	114.2	81.4	46.2	26.7	18.2	15.8	13.4	10.9	10.9	10.9	10.9
62.5°	102.1	70.5	38.9	23.1	15.8	12.2	10.9	8.5	8.5	8.5	8.5
65°	88.7	60.8	32.8	18.2	12.2	9.7	8.5	7.3	7.3	6.1	6.1
67.5°	72.9	48.6	26.7	15.8	10.9	8.5	7.3	6.1	4.9	4.9	4.9
70°	55.9	36.5	20.7	12.2	8.5	7.3	4.9	4.9	3.6	3.6	3.6
72.5°	40.1	25.5	14.6	9.7	6.1	4.9	4.9	3.6	3.6	3.6	2.4
75°	25.5	17.0	9.7	6.1	4.9	3.6	3.6	2.4	2.4	2.4	2.4
77.5°	15.8	10.9	7.3	4.9	3.6	2.4	2.4	2.4	1.2	1.2	1.2
80°	8.5	6.1	3.6	2.4	2.4	1.2	1.2	1.2	1.2	1.2	1.2
82.5°	4.9	3.6	2.4	1.2	1.2	1.2	1.2	1.2	0.0	0.0	0.0
85°	2.4	1.2	1.2	1.2	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°	1045.1	1045.1	1045.1	1045.1	1045.1	1045.1	1045.1	1045.1	1045.1	1045.1	1045.1
2.5°	1053.6	1059.7	1056.0	1058.4	1069.4	1064.5	1073.0	1073.0	1082.7	1082.7	1075.5
5°	1060.9	1068.2	1069.4	1073.0	1087.6	1085.2	1094.9	1097.3	1108.3	1110.7	1104.6
7.5°	1056.0	1064.5	1068.2	1074.2	1088.8	1087.6	1098.5	1103.4	1113.1	1116.8	1111.9
10°	1032.9	1042.6	1047.5	1053.6	1069.4	1068.2	1080.3	1086.4	1094.9	1098.5	1094.9
12.5°	1002.5	1013.5	1018.3	1024.4	1040.2	1039.0	1051.2	1057.2	1064.5	1069.4	1065.7
15°	968.5	975.8	984.3	990.4	1005.0	1003.8	1015.9	1022.0	1028.1	1034.1	1030.5
17.5°	924.8	932.1	940.6	945.4	960.0	960.0	969.7	974.6	983.1	988.0	983.1
20°	874.9	883.5	889.5	893.2	906.5	905.3	915.0	919.9	927.2	930.8	927.2
22.5°	822.7	830.0	834.8	837.3	848.2	847.0	854.3	859.1	865.2	868.9	865.2
25°	763.1	768.0	771.7	772.9	782.6	780.2	789.9	789.9	794.7	798.4	794.7
27.5°	686.6	690.2	692.7	691.5	698.7	695.1	703.6	697.5	707.2	709.7	706.0
30°	588.2	590.6	593.0	588.2	593.0	588.2	595.4	586.9	595.4	599.1	595.4
32.5°	471.5	471.5	473.9	467.9	470.3	465.4	469.1	466.6	469.1	472.7	469.1
35°	346.3	346.3	348.8	345.1	346.3	341.5	343.9	341.5	342.7	345.1	343.9
37.5°	240.6	239.4	243.0	240.6	241.8	239.4	240.6	238.2	239.4	240.6	239.4
40°	162.8	162.8	165.3	164.1	165.3	164.1	165.3	164.1	164.1	164.1	162.8
42.5°	109.4	110.6	111.8	111.8	113.0	111.8	113.0	111.8	111.8	111.8	110.6
45°	75.3	75.3	76.6	76.6	77.8	77.8	77.8	76.6	76.6	76.6	76.6
47.5°	52.3	53.5	53.5	53.5	53.5	53.5	53.5	53.5	53.5	53.5	52.3
50°	36.5	37.7	37.7	37.7	37.7	37.7	37.7	36.5	36.5	36.5	36.5
52.5°	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	25.5	25.5
55°	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4
57.5°	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6
60°	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9
62.5°	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5
65°	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1
67.5°	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
70°	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
72.5°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
75°	2.4	2.4	2.4	2.4	2.4	1.2	1.2	1.2	1.2	1.2	1.2
77.5°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
80°	0.0	1.2	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°	1045.1	1045.1	1045.1	1045.1
2.5°	1071.8	1081.5	1077.9	1077.9
5°	1101.0	1111.9	1109.5	1108.3
7.5°	1109.5	1119.2	1116.8	1116.8
10°	1092.5	1102.2	1099.8	1099.8
12.5°	1064.5	1073.0	1071.8	1070.6
15°	1029.3	1037.8	1036.6	1035.4
17.5°	981.9	991.6	990.4	989.2
20°	924.8	933.3	933.3	932.1
22.5°	862.8	868.9	870.1	867.7
25°	792.3	797.2	797.2	794.7
27.5°	703.6	707.2	707.2	706.0
30°	594.2	595.4	596.7	594.2
32.5°	466.6	466.6	469.1	466.6
35°	340.3	340.3	342.7	341.5
37.5°	237.0	237.0	238.2	237.0
40°	161.6	161.6	162.8	161.6
42.5°	110.6	109.4	110.6	110.6
45°	75.3	75.3	76.6	75.3
47.5°	52.3	52.3	52.3	52.3
50°	36.5	36.5	36.5	36.5
52.5°	25.5	25.5	25.5	25.5
55°	18.2	19.4	19.4	19.4
57.5°	13.4	14.6	14.6	14.6
60°	10.9	10.9	10.9	10.9
62.5°	8.5	8.5	8.5	8.5
65°	6.1	6.1	6.1	6.1
67.5°	4.9	4.9	4.9	4.9
70°	3.6	3.6	3.6	3.6
72.5°	2.4	2.4	2.4	2.4
75°	1.2	1.2	1.2	1.2
77.5°	1.2	1.2	1.2	1.2
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)