

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: P136514

Luminaire Tested: **LD6A15D010TE ERW6A15835 6LW121LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P136514
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P23360)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LD6A15D010TE ERW6A15835 6LW121LI
Description: PORTFOLIO 6 INCH 60 DEGREE CUTOFF RECESSED DOUBLE WALL WASH LUMINAIRE
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: 1739.0 lumens
Efficiency: N/A
Efficacy: 76.9 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.24 / 1.14
Luminous Opening: Circular (Dia: 0.46' x H: 0')
CIE Type: Direct

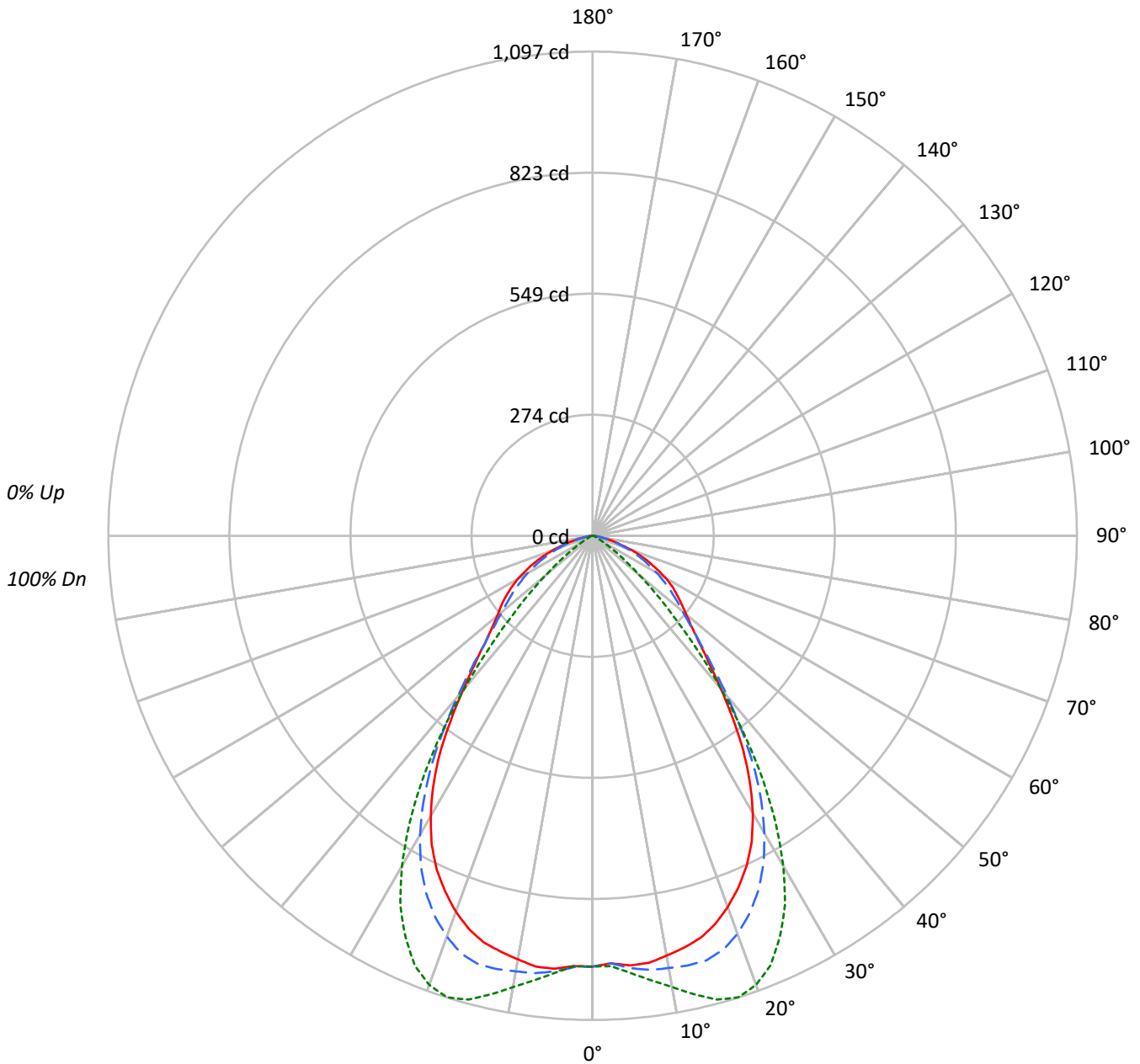
Input Watts (W): 22.6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
RC	80									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	111	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89																			
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79																			
3	97	88	82	76	94	87	81	76	84	79	74	81	77	73	79	75	72	70																			
4	90	80	73	67	88	79	72	67	77	71	66	74	69	65	72	68	65	63																			
5	84	73	66	60	82	72	65	60	70	64	59	68	63	59	67	62	58	56																			
6	78	67	60	54	77	66	59	54	65	58	54	63	57	53	62	57	53	51																			
7	73	62	54	49	72	61	54	49	60	53	49	58	53	48	57	52	48	46																			
8	69	57	50	45	68	57	50	45	55	49	44	54	48	44	53	48	44	42																			
9	65	53	46	41	64	53	46	41	52	45	41	51	45	41	50	44	40	39																			
10	61	49	42	38	60	49	42	38	48	42	38	47	42	37	46	41	37	36																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	63668	63668	63668
5°	63990	65130	64481
10°	63988	68771	64564
15°	63726	73479	64401
20°	62138	75183	62915
25°	59402	72215	60122
30°	54669	65073	55227
35°	47388	53338	48081
40°	38376	38376	38904
45°	31351	24349	31923
50°	28043	13895	28551
55°	26480	7075	27321
60°	24844	3079	25496
65°	21720	1729	22477
70°	17568	1431	18274
75°	12225	933	12553
80°	7477	451	7477
85°	3743	898	3743



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.9	5.5
10°-20°	284.5	16.4
20°-30°	413.8	23.8
30°-40°	393.3	22.6
40°-50°	254.8	14.7
50°-60°	159.8	9.2
60°-70°	95.6	5.5
70°-80°	37.3	2.1
80°-90°	5.1	0.3
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°	793.2	45.6
0°-40°	1186.4	68.2
0°-60°	1601.0	92.1
0°-90°	1739.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1739.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	976	976	976	976	976	
5°	977	983	994	991	985	93
15°	944	996	1088	1004	954	265
25°	825	888	1003	892	835	377
35°	595	635	670	637	604	368
45°	340	345	264	346	346	268
55°	233	214	62	217	240	209
65°	141	123	11	126	146	139
75°	48	42	4	44	50	54
85°	5	5	1	5	5	7
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°	975.9	975.9	975.9	975.9	975.9	975.9	975.9	975.9	975.9	975.9	975.9
2.5°	969.6	963.4	980.8	970.9	972.1	984.6	974.6	970.9	983.3	969.6	975.9
5°	977.1	972.1	989.6	980.8	982.1	994.5	985.8	982.1	995.8	983.3	989.6
7.5°	975.9	972.1	988.3	980.8	982.1	997.0	988.3	987.1	1003.2	992.0	1000.8
10°	965.9	960.9	978.3	972.1	974.6	990.8	983.3	983.3	1002.0	994.5	1007.0
12.5°	955.9	951.0	968.4	963.4	965.9	983.3	978.3	980.8	1002.0	997.0	1013.2
15°	943.5	938.5	957.2	952.2	954.7	973.4	970.9	973.4	997.0	995.8	1014.4
17.5°	922.3	919.8	936.0	933.5	936.0	954.7	953.5	957.2	983.3	983.3	1007.0
20°	895.0	891.2	908.6	906.2	907.4	926.1	926.1	929.8	957.2	959.7	983.3
22.5°	862.6	860.1	877.5	873.8	876.3	893.7	893.7	897.4	923.6	927.3	952.2
25°	825.2	822.8	838.9	837.7	838.9	856.4	855.1	860.1	885.0	887.5	911.1
27.5°	780.4	776.7	792.9	792.9	794.1	810.3	810.3	812.8	835.2	837.7	860.1
30°	725.7	721.9	736.9	738.1	738.1	754.3	754.3	755.5	776.7	777.9	797.9
32.5°	663.4	663.4	674.6	675.9	675.9	690.8	692.1	692.1	710.7	710.7	726.9
35°	595.0	596.2	604.9	606.2	607.4	621.1	621.1	619.9	636.1	634.8	648.5
37.5°	521.5	521.5	530.2	531.5	531.5	543.9	543.9	542.7	556.4	552.7	562.6
40°	450.6	450.6	458.1	460.5	459.3	469.3	469.3	468.0	478.0	473.0	478.0
42.5°	388.4	390.8	395.8	397.1	395.8	404.5	403.3	402.0	409.5	402.0	403.3
45°	339.8	342.3	346.0	347.3	346.0	352.3	351.0	348.5	352.3	344.8	341.1
47.5°	303.7	305.0	311.2	309.9	308.7	313.7	313.7	308.7	309.9	300.0	292.5
50°	276.3	277.6	282.6	282.6	280.1	285.0	282.6	277.6	276.3	265.1	253.9
52.5°	253.9	255.2	260.1	260.1	257.7	261.4	258.9	251.4	250.2	239.0	225.3
55°	232.8	234.0	239.0	239.0	236.5	239.0	235.3	229.0	226.5	214.1	199.2
57.5°	214.1	212.8	216.6	216.6	214.1	215.3	212.8	206.6	201.6	190.4	175.5
60°	190.4	189.2	191.7	191.7	189.2	190.4	188.0	180.5	178.0	166.8	151.9
62.5°	164.3	164.3	166.8	166.8	164.3	164.3	163.1	155.6	153.1	143.1	130.7
65°	140.7	140.7	143.1	143.1	140.7	141.9	139.4	134.4	131.9	123.2	112.0
67.5°	117.0	117.0	118.2	118.2	117.0	117.0	115.8	112.0	108.3	102.1	92.1
70°	92.1	92.1	93.4	93.4	92.1	92.1	92.1	88.4	87.1	80.9	73.4
72.5°	68.5	68.5	69.7	69.7	69.7	70.9	69.7	67.2	64.7	61.0	54.8
75°	48.5	48.5	48.5	49.8	48.5	48.5	49.8	47.3	46.1	42.3	38.6
77.5°	32.4	32.4	32.4	32.4	32.4	33.6	32.4	32.4	31.1	28.6	26.1
80°	19.9	19.9	19.9	19.9	19.9	19.9	19.9	19.9	18.7	18.7	16.2
82.5°	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	10.0	8.7
85°	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	3.7
87.5°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
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°	975.9	975.9	975.9	975.9	975.9	975.9	975.9	975.9	975.9	975.9	975.9
2.5°	974.6	975.9	975.9	979.6	983.3	973.4	978.3	975.9	973.4	983.3	977.1
5°	990.8	992.0	992.0	997.0	1002.0	990.8	995.8	994.5	992.0	1000.8	994.5
7.5°	1003.2	1007.0	1009.5	1015.7	1021.9	1012.0	1018.2	1015.7	1014.4	1023.2	1014.4
10°	1012.0	1019.4	1023.2	1033.1	1041.8	1031.9	1040.6	1038.1	1036.8	1044.3	1034.4
12.5°	1021.9	1031.9	1041.8	1053.0	1065.5	1056.8	1068.0	1064.2	1064.2	1070.5	1058.0
15°	1028.1	1040.6	1054.3	1070.5	1085.4	1079.2	1091.6	1087.9	1087.9	1092.9	1079.2
17.5°	1021.9	1038.1	1054.3	1072.9	1090.4	1086.6	1100.3	1096.6	1095.4	1100.3	1084.1
20°	1000.8	1019.4	1038.1	1056.8	1076.7	1074.2	1089.1	1082.9	1084.1	1086.6	1070.5
22.5°	967.1	987.1	1005.7	1025.6	1044.3	1043.1	1056.8	1053.0	1051.8	1055.5	1038.1
25°	927.3	944.7	962.2	979.6	998.3	995.8	1009.5	1003.2	1004.5	1005.7	990.8
27.5°	873.8	890.0	903.7	918.6	936.0	932.3	946.0	943.5	939.8	941.0	928.6
30°	807.8	821.5	831.5	843.9	857.6	853.9	866.3	863.8	861.3	861.3	853.9
32.5°	733.1	743.1	749.3	758.0	768.0	764.3	774.2	771.7	769.2	769.2	764.3
35°	649.7	656.0	656.0	660.9	668.4	662.2	670.9	669.7	665.9	667.2	665.9
37.5°	558.9	561.4	556.4	556.4	561.4	552.7	560.1	560.1	556.4	557.6	557.6
40°	470.5	469.3	459.3	454.3	454.3	445.6	451.8	450.6	448.1	449.3	451.8
42.5°	392.1	384.6	370.9	361.0	358.5	348.5	352.3	351.0	348.5	351.0	354.7
45°	326.1	312.4	293.8	280.1	273.8	263.9	265.1	263.9	262.6	265.1	271.3
47.5°	273.8	255.2	231.5	214.1	205.4	194.2	194.2	192.9	192.9	199.2	202.9
50°	232.8	210.4	183.0	163.1	150.6	140.7	138.2	136.9	138.2	143.1	150.6
52.5°	201.6	174.3	144.4	123.2	109.5	98.3	95.8	94.6	95.8	100.8	108.3
55°	174.3	145.6	114.5	90.9	75.9	66.0	62.2	62.2	62.2	68.5	75.9
57.5°	149.4	120.7	89.6	66.0	52.3	42.3	38.6	37.3	39.8	43.6	51.0
60°	128.2	100.8	70.9	49.8	36.1	27.4	23.6	23.6	23.6	28.6	36.1
62.5°	109.5	84.6	57.3	37.3	26.1	18.7	14.9	14.9	16.2	18.7	26.1
65°	93.4	72.2	48.5	32.4	21.2	14.9	12.4	11.2	12.4	14.9	21.2
67.5°	77.2	59.7	41.1	27.4	18.7	12.4	11.2	10.0	10.0	13.7	17.4
70°	61.0	47.3	33.6	22.4	14.9	10.0	8.7	7.5	8.7	11.2	14.9
72.5°	46.1	36.1	24.9	17.4	11.2	8.7	6.2	6.2	6.2	8.7	11.2
75°	32.4	26.1	18.7	12.4	7.5	5.0	5.0	3.7	5.0	6.2	7.5
77.5°	21.2	17.4	12.4	7.5	5.0	3.7	2.5	2.5	2.5	3.7	5.0
80°	13.7	11.2	7.5	5.0	3.7	2.5	1.2	1.2	1.2	2.5	2.5
82.5°	7.5	6.2	3.7	2.5	2.5	1.2	1.2	1.2	1.2	1.2	1.2
85°	3.7	2.5	2.5	1.2	1.2	1.2	0.0	1.2	1.2	1.2	1.2
87.5°	1.2	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°	975.9	975.9	975.9	975.9	975.9	975.9	975.9	975.9	975.9	975.9	975.9
2.5°	978.3	974.6	979.6	983.3	982.1	978.3	984.6	974.6	978.3	974.6	968.4
5°	995.8	992.0	995.8	998.3	997.0	990.8	995.8	987.1	989.6	984.6	978.3
7.5°	1014.4	1009.5	1010.7	1012.0	1008.2	999.5	1003.2	992.0	993.3	987.1	979.6
10°	1031.9	1024.4	1023.2	1020.7	1013.2	1002.0	1003.2	989.6	988.3	979.6	970.9
12.5°	1054.3	1041.8	1036.8	1031.9	1020.7	1005.7	1003.2	987.1	984.6	974.6	964.7
15°	1070.5	1056.8	1048.1	1038.1	1023.2	1004.5	999.5	980.8	975.9	964.7	954.7
17.5°	1074.2	1056.8	1044.3	1031.9	1014.4	992.0	984.6	964.7	958.4	946.0	936.0
20°	1058.0	1039.3	1025.6	1009.5	992.0	965.9	958.4	937.3	929.8	918.6	908.6
22.5°	1026.9	1005.7	992.0	975.9	958.4	933.5	924.8	904.9	897.4	886.2	876.3
25°	982.1	962.2	948.5	933.5	917.4	892.5	885.0	866.3	860.1	848.9	838.9
27.5°	919.8	901.2	893.7	878.8	863.8	842.7	835.2	819.0	812.8	805.3	794.1
30°	845.2	829.0	825.2	811.6	800.4	781.7	775.5	761.8	755.5	749.3	739.4
32.5°	759.3	746.8	746.8	735.6	728.2	713.2	708.2	697.0	692.1	687.1	678.4
35°	662.2	653.5	658.5	651.0	647.3	637.3	633.6	624.8	621.1	617.4	608.7
37.5°	558.9	552.7	562.6	563.9	563.9	555.1	552.7	547.7	545.2	541.5	534.0
40°	456.8	455.6	470.5	473.0	480.5	475.5	476.7	473.0	470.5	468.0	463.0
42.5°	362.2	367.2	385.9	397.1	404.5	404.5	408.3	407.0	405.8	403.3	399.6
45°	281.3	291.3	313.7	327.4	342.3	346.0	352.3	352.3	353.5	352.3	348.5
47.5°	215.3	230.3	256.4	277.6	293.8	301.2	309.9	312.4	313.7	313.7	311.2
50°	163.1	181.7	211.6	235.3	257.7	267.6	277.6	281.3	286.3	285.0	282.6
52.5°	123.2	144.4	176.7	205.4	229.0	240.2	251.4	256.4	261.4	261.4	260.1
55°	90.9	113.3	148.1	178.0	202.9	216.6	227.8	232.8	239.0	240.2	239.0
57.5°	66.0	88.4	122.0	154.3	178.0	192.9	204.1	209.1	215.3	216.6	216.6
60°	48.5	70.9	103.3	133.2	155.6	170.5	179.2	185.5	190.4	192.9	192.9
62.5°	37.3	57.3	87.1	114.5	134.4	146.9	155.6	160.6	165.5	166.8	168.0
65°	31.1	48.5	73.4	97.1	114.5	125.7	133.2	138.2	141.9	143.1	143.1
67.5°	26.1	41.1	61.0	79.7	94.6	103.3	109.5	113.3	117.0	118.2	118.2
70°	21.2	32.4	48.5	63.5	74.7	82.2	87.1	90.9	93.4	93.4	93.4
72.5°	16.2	24.9	36.1	47.3	56.0	62.2	66.0	67.2	69.7	69.7	69.7
75°	11.2	17.4	26.1	33.6	38.6	43.6	46.1	47.3	48.5	49.8	48.5
77.5°	7.5	11.2	16.2	21.2	26.1	28.6	29.9	31.1	32.4	32.4	32.4
80°	5.0	7.5	10.0	13.7	16.2	17.4	18.7	18.7	19.9	19.9	19.9
82.5°	2.5	3.7	6.2	7.5	8.7	10.0	10.0	10.0	11.2	11.2	10.0
85°	1.2	1.2	2.5	3.7	3.7	5.0	5.0	5.0	5.0	5.0	5.0
87.5°	0.0	0.0	0.0	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
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°	975.9	975.9	975.9	975.9
2.5°	970.9	973.4	963.4	975.9
5°	979.6	982.1	972.1	984.6
7.5°	980.8	982.1	972.1	984.6
10°	972.1	972.1	962.2	974.6
12.5°	964.7	963.4	952.2	964.7
15°	953.5	952.2	941.0	953.5
17.5°	934.8	933.5	922.3	933.5
20°	906.2	904.9	895.0	906.2
22.5°	875.0	872.5	862.6	872.5
25°	838.9	836.5	826.5	835.2
27.5°	792.9	790.4	780.4	789.2
30°	738.1	734.4	726.9	733.1
32.5°	675.9	673.4	664.7	672.1
35°	607.4	603.7	597.5	603.7
37.5°	532.7	530.2	524.0	527.8
40°	460.5	459.3	454.3	456.8
42.5°	398.3	395.8	392.1	394.6
45°	348.5	347.3	343.5	346.0
47.5°	311.2	309.9	306.2	308.7
50°	283.8	282.6	280.1	281.3
52.5°	261.4	260.1	257.7	261.4
55°	241.5	240.2	236.5	240.2
57.5°	219.1	217.8	214.1	219.1
60°	194.2	194.2	190.4	195.4
62.5°	169.3	169.3	166.8	170.5
65°	145.6	144.4	143.1	145.6
67.5°	119.5	118.2	118.2	120.7
70°	94.6	93.4	93.4	95.8
72.5°	70.9	69.7	69.7	70.9
75°	49.8	48.5	48.5	49.8
77.5°	32.4	32.4	32.4	32.4
80°	19.9	19.9	19.9	19.9
82.5°	11.2	11.2	10.0	11.2
85°	5.0	5.0	5.0	5.0
87.5°	1.2	1.2	1.2	1.2
90°	0.0	0.0	0.0	0.0



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













(END OF REPORT)