

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: P136273

Luminaire Tested: **LD6A15D010TE ERW6A15830 6LW111LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P136273
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 ERW6A15830 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 3000K
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1561.0 lumens
Efficiency: N/A
Efficacy: 69.1 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

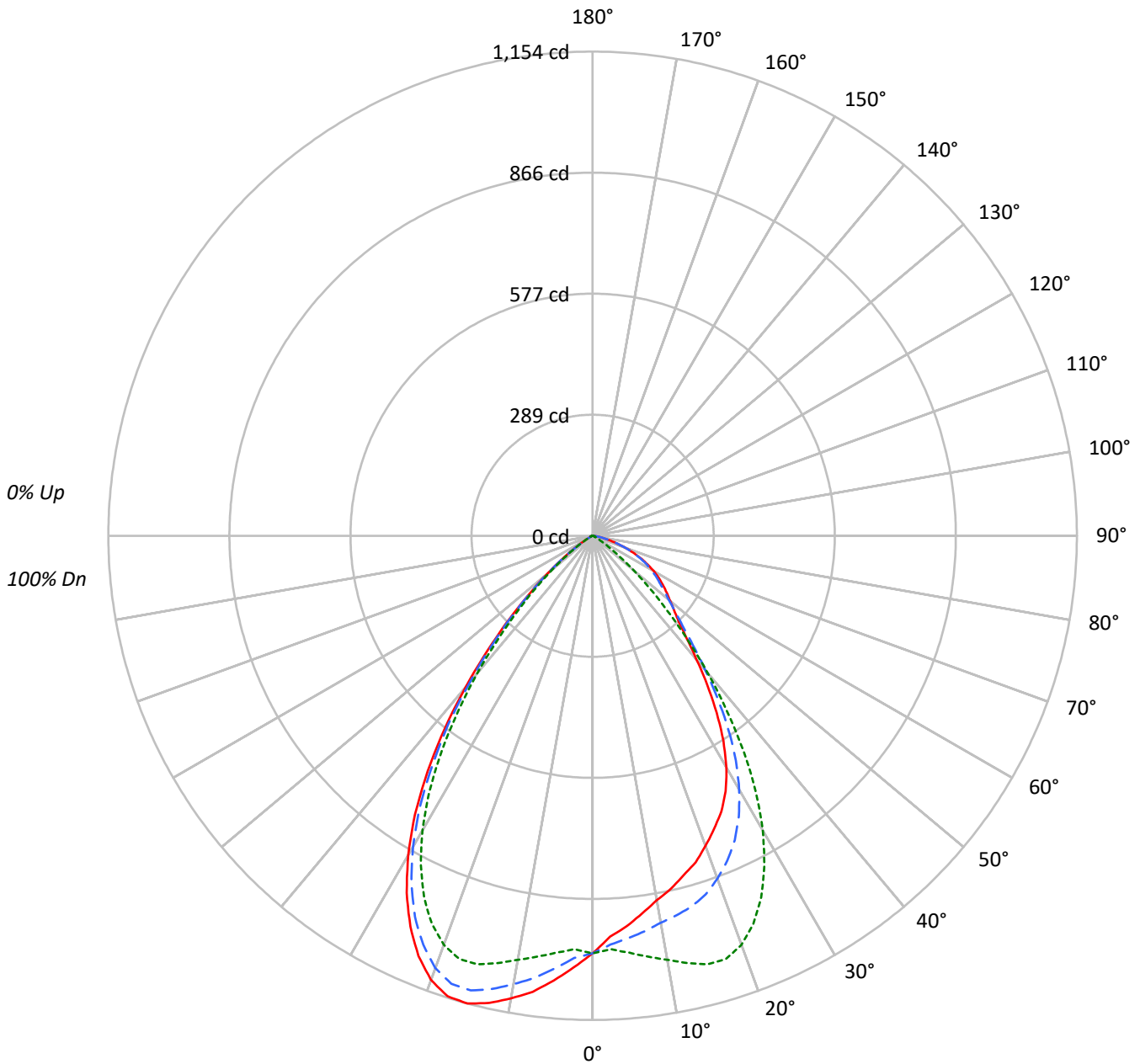
Input Watts (W): 22.6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20				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°	64921	64921	64921
5°	61174	65320	69681
10°	58423	67983	74164
15°	56560	71412	77944
20°	54591	72024	78189
25°	52211	68436	73957
30°	48025	61080	66180
35°	41041	49977	54580
40°	32823	36229	40104
45°	26747	22955	25723
50°	24461	12626	14321
55°	23249	5175	6063
60°	21882	1879	1879
65°	19544	1034	864
70°	15680	839	629
75°	10360	555	555
80°	5410	413	413
85°	2470	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	96.0	6.2
10°-20°	287.8	18.4
20°-30°	414.1	26.5
30°-40°	380.4	24.4
40°-50°	218.4	14.0
50°-60°	96.5	6.2
60°-70°	47.4	3.0
70°-80°	18.2	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°	798.0	51.1
0°-40°	1178.4	75.5
0°-60°	1493.3	95.7
0°-90°	1561.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1561.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	995	995	995	995	995	
5°	934	963	997	1035	1064	88
15°	837	914	1057	1122	1154	236
25°	725	801	951	1002	1027	331
35°	515	564	628	663	685	320
45°	290	302	249	272	279	230
55°	204	194	46	50	53	183
65°	127	122	7	4	6	124
75°	41	43	2	2	2	46
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°	995.1	995.1	995.1	995.1	995.1	995.1	995.1	995.1	995.1	995.1	995.1
2.5°	956.3	961.8	956.3	964.0	968.5	970.7	968.5	962.9	970.7	975.2	974.0
5°	934.1	938.5	934.1	941.8	947.4	952.9	950.7	947.4	956.3	962.9	964.0
7.5°	907.4	913.0	909.6	917.4	924.1	930.7	930.7	929.6	940.7	950.7	954.1
10°	881.9	886.3	884.1	891.9	899.6	907.4	909.6	910.7	923.0	936.3	944.1
12.5°	861.9	864.1	861.9	870.8	878.5	887.4	891.9	894.1	909.6	926.3	936.3
15°	837.4	843.0	840.8	849.7	858.5	868.5	874.1	878.5	895.2	914.1	928.5
17.5°	816.3	818.6	816.3	826.3	834.1	845.2	851.9	857.4	875.2	896.3	911.8
20°	786.3	790.8	789.7	798.6	807.4	817.4	824.1	829.7	848.5	869.6	887.4
22.5°	756.4	760.8	760.8	769.7	776.3	787.5	793.0	798.6	816.3	838.5	854.1
25°	725.3	728.6	727.5	735.3	743.0	754.1	758.6	764.1	780.8	800.8	815.2
27.5°	686.4	688.6	690.8	697.5	703.0	713.0	716.4	721.9	735.3	754.1	767.5
30°	637.5	639.7	643.1	648.6	653.1	663.1	665.3	669.7	683.1	698.6	710.8
32.5°	579.8	580.9	586.4	590.9	596.4	603.1	608.6	609.7	619.7	635.3	644.2
35°	515.3	516.5	522.0	525.3	530.9	537.6	542.0	543.1	552.0	564.2	569.8
37.5°	448.7	455.4	454.3	457.6	463.1	468.7	473.1	473.1	479.8	489.8	492.0
40°	385.4	388.7	392.1	394.3	398.7	403.2	406.5	406.5	410.9	417.6	417.6
42.5°	331.0	336.5	336.5	338.7	342.1	346.5	348.7	347.6	349.9	353.2	351.0
45°	289.9	292.1	293.2	296.5	297.7	302.1	303.2	301.0	302.1	302.1	295.4
47.5°	263.2	263.2	263.2	265.4	266.6	269.9	269.9	266.6	265.4	264.3	255.5
50°	241.0	241.0	242.1	244.3	245.5	246.6	246.6	242.1	241.0	236.6	224.4
52.5°	222.1	223.2	223.2	225.5	226.6	227.7	226.6	222.1	218.8	214.4	199.9
55°	204.4	205.5	206.6	208.8	208.8	208.8	207.7	203.2	199.9	194.4	179.9
57.5°	186.6	187.7	187.7	189.9	191.0	191.0	189.9	185.5	182.1	177.7	162.2
60°	167.7	167.7	168.8	171.0	171.0	172.2	171.0	167.7	164.4	158.8	145.5
62.5°	146.6	147.7	148.8	151.0	152.2	152.2	152.2	148.8	146.6	142.2	128.8
65°	126.6	126.6	127.7	129.9	129.9	133.3	131.1	128.8	126.6	122.2	111.1
67.5°	103.3	104.4	104.4	106.6	107.7	108.8	108.8	106.6	105.5	102.2	92.2
70°	82.2	82.2	83.3	84.4	85.5	86.6	86.6	85.5	84.4	81.1	73.3
72.5°	60.0	61.1	61.1	62.2	64.4	65.5	65.5	65.5	63.3	61.1	55.5
75°	41.1	42.2	42.2	43.3	44.4	45.5	45.5	45.5	44.4	43.3	38.9
77.5°	25.5	25.5	26.7	26.7	27.8	28.9	30.0	30.0	28.9	27.8	25.5
80°	14.4	14.4	15.5	15.5	15.5	16.7	17.8	17.8	17.8	16.7	14.4
82.5°	7.8	7.8	7.8	7.8	7.8	8.9	8.9	8.9	8.9	8.9	7.8
85°	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
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°	995.1	995.1	995.1	995.1	995.1	995.1	995.1	995.1	995.1	995.1	995.1
2.5°	974.0	981.8	987.4	978.5	986.3	994.0	1002.9	986.3	1001.8	992.9	996.3
5°	968.5	977.4	985.1	979.6	989.6	999.6	1011.8	997.4	1015.1	1008.5	1014.0
7.5°	960.7	972.9	984.0	981.8	995.1	1008.5	1024.0	1011.8	1030.7	1027.4	1034.0
10°	954.1	970.7	985.1	985.1	1002.9	1018.5	1035.1	1026.2	1048.5	1045.1	1054.0
12.5°	949.6	970.7	989.6	992.9	1014.0	1031.8	1051.8	1042.9	1067.3	1064.0	1074.0
15°	945.2	969.6	991.8	998.5	1021.8	1042.9	1064.0	1057.3	1082.9	1079.6	1089.6
17.5°	930.7	959.6	984.0	992.9	1018.5	1040.7	1062.9	1057.3	1082.9	1079.6	1089.6
20°	906.3	935.2	961.8	971.8	997.4	1020.7	1041.8	1037.4	1062.9	1059.6	1068.4
22.5°	875.2	903.0	928.5	938.5	962.9	984.0	1005.1	1000.7	1025.1	1019.6	1029.6
25°	831.9	860.8	885.2	893.0	915.2	936.3	955.2	950.7	974.0	967.4	977.4
27.5°	787.5	808.6	828.5	835.2	855.2	873.0	890.7	886.3	908.5	900.7	910.7
30°	727.5	744.1	761.9	765.2	784.1	798.6	814.1	810.8	829.7	823.0	831.9
32.5°	657.5	671.9	684.2	685.3	700.8	713.0	726.4	724.1	740.8	735.3	741.9
35°	580.9	589.8	597.5	596.4	608.6	617.5	629.7	627.5	643.1	637.5	644.2
37.5°	499.8	504.2	506.5	502.0	510.9	517.6	526.4	525.3	538.7	534.2	540.9
40°	420.9	420.9	417.6	409.8	415.4	418.7	425.4	425.4	435.4	430.9	436.5
42.5°	348.7	344.3	336.5	325.4	326.5	331.0	331.0	331.0	338.7	334.3	344.3
45°	289.9	279.9	267.7	253.2	248.8	251.0	248.8	248.8	254.3	251.0	258.8
47.5°	244.3	232.1	211.0	193.3	185.5	184.4	181.0	181.0	184.4	184.4	187.7
50°	209.9	192.1	166.6	145.5	134.4	131.1	126.6	124.4	127.7	126.6	128.8
52.5°	182.1	159.9	129.9	105.5	94.4	86.6	83.3	78.9	80.0	80.0	81.1
55°	158.8	133.3	101.1	75.5	63.3	54.4	50.0	45.5	45.5	44.4	45.5
57.5°	141.1	114.4	82.2	56.6	43.3	34.4	30.0	25.5	24.4	24.4	24.4
60°	125.5	100.0	67.7	44.4	31.1	22.2	17.8	14.4	13.3	12.2	12.2
62.5°	110.0	86.6	57.8	36.7	23.3	16.7	12.2	8.9	7.8	6.7	6.7
65°	94.4	74.4	50.0	31.1	20.0	13.3	8.9	6.7	5.6	4.4	4.4
67.5°	77.7	61.1	42.2	25.5	16.7	11.1	7.8	5.6	4.4	3.3	3.3
70°	62.2	48.9	33.3	21.1	13.3	8.9	5.6	4.4	3.3	3.3	3.3
72.5°	46.6	36.7	25.5	15.5	10.0	6.7	4.4	3.3	2.2	2.2	2.2
75°	33.3	26.7	17.8	11.1	6.7	4.4	3.3	2.2	2.2	2.2	2.2
77.5°	21.1	16.7	11.1	6.7	4.4	2.2	2.2	1.1	1.1	1.1	1.1
80°	12.2	10.0	6.7	4.4	2.2	1.1	1.1	1.1	1.1	1.1	1.1
82.5°	6.7	4.4	3.3	2.2	1.1	1.1	1.1	0.0	0.0	0.0	0.0
85°	2.2	2.2	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°	995.1	995.1	995.1	995.1	995.1	995.1	995.1	995.1	995.1	995.1	995.1
2.5°	1005.1	1002.9	1010.7	1014.0	1011.8	1007.4	1021.8	1025.1	1015.1	1019.6	1019.6
5°	1025.1	1025.1	1035.1	1039.6	1039.6	1035.1	1051.8	1057.3	1047.3	1051.8	1052.9
7.5°	1047.3	1047.3	1059.6	1065.1	1066.2	1062.9	1079.6	1084.0	1077.3	1081.8	1082.9
10°	1067.3	1067.3	1081.8	1087.3	1088.4	1085.1	1101.8	1107.3	1099.5	1104.0	1105.1
12.5°	1088.4	1089.6	1104.0	1109.5	1109.5	1106.2	1122.9	1128.4	1119.5	1125.1	1124.0
15°	1104.0	1105.1	1119.5	1125.1	1126.2	1121.8	1137.3	1144.0	1135.1	1138.4	1138.4
17.5°	1102.9	1104.0	1117.3	1122.9	1122.9	1119.5	1132.9	1140.6	1131.8	1135.1	1134.0
20°	1080.7	1081.8	1096.2	1100.7	1100.7	1096.2	1108.4	1116.2	1107.3	1109.5	1108.4
22.5°	1040.7	1041.8	1055.1	1059.6	1060.7	1055.1	1067.3	1076.2	1066.2	1067.3	1066.2
25°	988.5	988.5	1002.9	1002.9	1008.5	1001.8	1010.7	1022.9	1012.9	1012.9	1009.6
27.5°	920.7	920.7	935.2	935.2	941.8	935.2	949.6	955.2	946.3	945.2	945.2
30°	841.9	841.9	855.2	855.2	860.8	855.2	869.6	875.2	866.3	865.2	866.3
32.5°	751.9	751.9	765.2	764.1	770.8	766.4	779.7	784.1	777.5	774.1	776.3
35°	653.1	658.6	666.4	665.3	671.9	663.1	679.7	683.1	677.5	678.6	675.3
37.5°	548.7	554.2	559.8	559.8	565.3	563.1	573.1	576.4	572.0	573.1	569.8
40°	444.3	449.8	454.3	454.3	459.8	453.1	466.5	469.8	465.4	460.9	463.1
42.5°	345.4	351.0	355.4	354.3	359.9	358.7	366.5	368.7	365.4	364.3	362.1
45°	259.9	261.0	268.8	272.1	272.1	272.1	277.7	278.8	275.4	275.4	274.3
47.5°	187.7	189.9	195.5	197.7	198.8	197.7	199.9	204.4	201.0	201.0	202.1
50°	129.9	131.1	135.5	137.7	137.7	137.7	138.8	142.2	139.9	139.9	137.7
52.5°	83.3	83.3	86.6	87.7	87.7	87.7	88.9	91.1	88.9	90.0	91.1
55°	46.6	46.6	48.9	50.0	50.0	50.0	51.1	52.2	51.1	52.2	52.2
57.5°	24.4	24.4	25.5	25.5	26.7	26.7	26.7	27.8	27.8	27.8	27.8
60°	12.2	12.2	12.2	13.3	13.3	13.3	13.3	14.4	14.4	14.4	14.4
62.5°	6.7	6.7	6.7	6.7	6.7	6.7	6.7	7.8	7.8	7.8	7.8
65°	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
67.5°	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	4.4	4.4	4.4
70°	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
72.5°	2.2	2.2	2.2	2.2	2.2	2.2	3.3	3.3	3.3	2.2	2.2
75°	1.1	2.2	2.2	1.1	1.1	2.2	2.2	2.2	2.2	2.2	2.2
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°	995.1	995.1	995.1	995.1
2.5°	1010.7	1011.8	1030.7	1029.6
5°	1044.0	1045.1	1064.0	1064.0
7.5°	1074.0	1075.1	1095.1	1096.2
10°	1096.2	1098.4	1117.3	1119.5
12.5°	1117.3	1117.3	1136.2	1140.6
15°	1130.6	1130.6	1148.4	1154.0
17.5°	1126.2	1126.2	1144.0	1150.6
20°	1101.8	1100.7	1117.3	1126.2
22.5°	1059.6	1060.7	1074.0	1084.0
25°	1006.3	1004.0	1018.5	1027.4
27.5°	939.6	940.7	949.6	959.6
30°	859.6	861.9	868.5	878.5
32.5°	769.7	773.0	777.5	787.5
35°	670.8	674.2	676.4	685.3
37.5°	564.2	568.7	569.8	578.7
40°	458.7	463.1	463.1	470.9
42.5°	359.9	363.2	362.1	368.7
45°	272.1	274.3	273.2	278.8
47.5°	198.8	201.0	198.8	203.2
50°	137.7	139.9	137.7	141.1
52.5°	88.9	90.0	87.7	91.1
55°	51.1	52.2	51.1	53.3
57.5°	28.9	27.8	26.7	28.9
60°	14.4	14.4	14.4	14.4
62.5°	7.8	7.8	7.8	7.8
65°	4.4	4.4	4.4	5.6
67.5°	4.4	4.4	4.4	4.4
70°	3.3	3.3	3.3	3.3
72.5°	2.2	2.2	2.2	2.2
75°	2.2	2.2	2.2	2.2
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)