

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: P252578

Luminaire Tested: **LD6B20D010 EU6B10209035 6LBDW1LI**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P252578  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1712-453-8)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LD6B20D010 EU6B10209035 6LBDW1LI  
Description: PORTFOLIO 6 INCH DOUBLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1760.0 lumens  
Efficiency: N/A  
Efficacy: 84.6 lumens/watt  
Spacing Criteria (0/90/45): 1.11 / 1.22 / 1.15  
Luminous Opening: Circular (Dia: 0.46' x H: 0')  
CIE Type: Direct

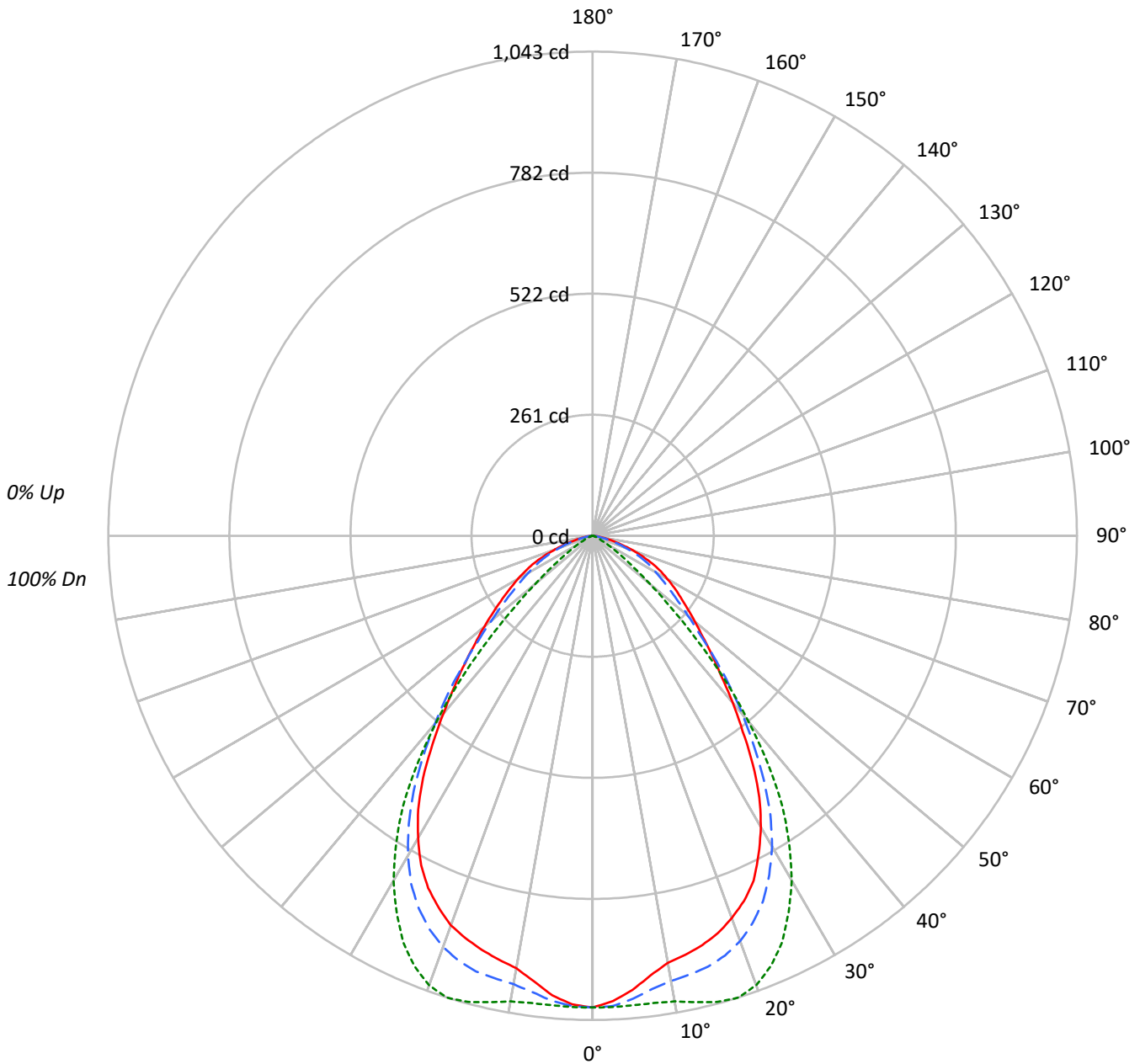
Input Watts (W): 20.8  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	87	101	95	91	86	92	88	84	89	86	83	86	83	81	79																			
3	96	88	81	76	94	86	80	76	84	79	74	81	77	73	79	75	72	70																			
4	90	80	73	67	88	79	72	67	76	70	66	74	69	65	72	68	64	62																			
5	84	73	65	60	82	72	65	59	70	64	59	68	63	58	66	62	58	56																			
6	78	67	59	54	76	66	59	53	64	58	53	63	57	53	61	56	52	50																			
7	73	61	54	49	72	61	53	48	59	53	48	58	52	48	57	51	48	46																			
8	69	57	49	44	67	56	49	44	55	48	44	54	48	44	53	47	43	42																			
9	64	53	45	40	63	52	45	40	51	45	40	50	44	40	49	44	40	38																			
10	61	49	42	37	60	48	42	37	48	41	37	47	41	37	46	41	37	35																			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	66291	66291	66291
5°	64318	66472	65084
10°	61868	67473	62650
15°	61652	70217	62362
20°	60839	71524	61985
25°	59028	69509	60295
30°	54602	64598	56636
35°	47906	56794	50709
40°	39917	44525	42523
45°	33603	29377	35872
50°	29089	16097	30885
55°	26320	8554	26991
60°	24217	4449	24217
65°	21936	2362	21396
70°	17702	1335	16366
75°	12150	882	11242
80°	7927	451	7063
85°	5240	898	4416



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	94.8	5.4
10°-20°	274.0	15.6
20°-30°	404.8	23.0
30°-40°	408.9	23.2
40°-50°	281.8	16.0
50°-60°	161.9	9.2
60°-70°	94.2	5.4
70°-80°	34.4	2.0
80°-90°	5.2	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°	773.6	44.0
0°-40°	1182.5	67.2
0°-60°	1626.2	92.4
0°-90°	1760.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1760.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1016	1016	1016	1016	1016	
5°	982	1001	1015	1006	994	92
15°	913	961	1040	972	923	257
25°	820	868	966	886	838	374
35°	602	643	713	672	637	373
45°	364	369	318	392	389	283
55°	231	203	75	212	237	208
65°	142	120	15	119	139	139
75°	48	39	4	38	45	54
85°	7	4	1	5	6	9
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1016.1	1016.1	1016.1	1016.1	1016.1	1016.1	1016.1	1016.1	1016.1	1016.1	1016.1
2.5°	1003.2	1004.4	1005.6	1004.4	1005.6	1010.3	1006.7	1009.1	1009.1	1010.3	1013.8
5°	982.1	982.1	984.4	983.2	986.8	991.5	987.9	991.5	992.6	995.0	1000.9
7.5°	955.1	955.1	956.2	956.2	960.9	965.6	963.3	968.0	972.7	977.4	984.4
10°	933.9	936.3	936.3	937.4	942.1	948.0	946.8	952.7	957.4	964.4	973.8
12.5°	924.5	925.7	925.7	928.0	932.7	938.6	937.4	943.3	950.4	958.6	968.0
15°	912.8	915.1	913.9	916.3	921.0	926.9	925.7	931.6	939.8	948.0	960.9
17.5°	897.5	898.7	899.8	899.8	904.5	909.2	909.2	915.1	924.5	933.9	948.0
20°	876.3	878.7	878.7	879.9	883.4	890.4	889.3	895.1	904.5	913.9	929.2
22.5°	851.7	852.8	852.8	854.0	859.9	863.4	864.6	869.3	877.5	888.1	902.2
25°	820.0	821.1	820.0	823.5	825.8	832.9	830.5	836.4	845.8	854.0	868.1
27.5°	774.1	776.5	776.5	777.7	783.5	789.4	789.4	795.3	803.5	809.4	823.5
30°	724.8	728.3	724.8	730.7	733.0	737.7	741.3	744.8	751.8	760.0	773.0
32.5°	668.4	667.2	668.4	670.8	677.8	681.3	683.7	687.2	694.3	701.3	711.9
35°	601.5	603.8	605.0	609.7	609.7	615.6	616.7	619.1	629.7	634.4	642.6
37.5°	531.0	533.3	534.5	536.8	541.5	543.9	547.4	550.9	558.0	566.2	570.9
40°	468.7	468.7	469.9	472.2	475.8	476.9	480.5	485.2	489.9	496.9	501.6
42.5°	410.0	411.2	410.0	412.3	415.9	420.6	419.4	425.2	426.4	431.1	434.6
45°	364.2	364.2	361.8	364.2	364.2	368.9	367.7	370.0	368.9	371.2	368.9
47.5°	320.7	321.9	320.7	321.9	321.9	321.9	323.0	320.7	321.9	318.4	311.3
50°	286.6	287.8	285.5	286.6	285.5	284.3	285.5	281.9	280.8	276.1	269.0
52.5°	257.3	256.1	254.9	254.9	254.9	253.7	252.6	249.0	245.5	240.8	232.6
55°	231.4	230.2	229.1	229.1	226.7	225.5	225.5	222.0	218.5	212.6	203.2
57.5°	207.9	206.8	205.6	205.6	204.4	202.1	202.1	198.5	193.8	186.8	178.6
60°	185.6	185.6	185.6	184.4	184.4	182.1	182.1	178.6	173.9	166.8	157.4
62.5°	165.6	164.5	164.5	164.5	164.5	163.3	162.1	159.8	155.1	148.0	139.8
65°	142.1	142.1	142.1	142.1	141.0	141.0	141.0	137.4	135.1	128.0	119.8
67.5°	116.3	116.3	116.3	116.3	115.1	116.3	116.3	113.9	111.6	104.6	97.5
70°	92.8	91.6	90.5	91.6	90.5	90.5	91.6	89.3	88.1	82.2	75.2
72.5°	68.1	69.3	68.1	68.1	68.1	67.0	68.1	67.0	64.6	59.9	55.2
75°	48.2	49.3	49.3	48.2	48.2	48.2	47.0	47.0	44.6	41.1	38.8
77.5°	32.9	32.9	32.9	32.9	31.7	31.7	31.7	30.5	29.4	27.0	24.7
80°	21.1	21.1	21.1	21.1	20.0	20.0	20.0	18.8	18.8	16.4	14.1
82.5°	12.9	12.9	12.9	12.9	12.9	12.9	11.7	11.7	10.6	9.4	8.2
85°	7.0	7.0	7.0	7.0	7.0	7.0	7.0	5.9	5.9	4.7	3.5
87.5°	2.3	2.3	3.5	3.5	3.5	3.5	3.5	3.5	2.3	2.3	2.3
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):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1016.1	1016.1	1016.1	1016.1	1016.1	1016.1	1016.1	1016.1	1016.1	1016.1	1016.1
2.5°	1011.4	1012.6	1012.6	1012.6	1016.1	1017.3	1013.8	1010.3	1017.3	1016.1	1018.5
5°	999.7	1003.2	1005.6	1006.7	1010.3	1012.6	1009.1	1007.9	1013.8	1015.0	1016.1
7.5°	985.6	991.5	997.3	999.7	1004.4	1006.7	1005.6	1005.6	1012.6	1015.0	1015.0
10°	976.2	984.4	991.5	997.3	1003.2	1006.7	1006.7	1007.9	1016.1	1018.5	1020.8
12.5°	973.8	984.4	993.8	1002.0	1006.7	1012.6	1013.8	1017.3	1025.5	1029.1	1029.1
15°	968.0	982.1	993.8	1004.4	1011.4	1018.5	1020.8	1027.9	1037.3	1039.6	1042.0
17.5°	957.4	971.5	985.6	998.5	1007.9	1013.8	1020.8	1027.9	1039.6	1043.2	1044.3
20°	938.6	955.1	969.1	982.1	991.5	999.7	1006.7	1015.0	1025.5	1030.2	1031.4
22.5°	910.4	926.9	941.0	955.1	964.4	971.5	978.5	987.9	998.5	1003.2	1003.2
25°	876.3	891.6	906.9	917.5	926.9	935.1	938.6	949.2	959.7	965.6	965.6
27.5°	832.9	847.0	861.1	872.8	878.7	885.7	891.6	901.0	909.2	913.9	918.6
30°	777.7	791.8	804.7	816.4	823.5	830.5	836.4	843.5	851.7	857.5	858.7
32.5°	717.8	729.5	742.4	754.2	761.2	763.6	769.4	776.5	783.5	788.2	789.4
35°	652.0	660.2	668.4	679.0	686.0	686.0	691.9	696.6	702.5	713.1	710.7
37.5°	574.4	586.2	592.1	595.6	600.3	605.0	606.2	612.0	619.1	621.4	625.0
40°	501.6	505.1	508.7	508.7	513.4	513.4	513.4	514.5	521.6	522.8	527.5
42.5°	428.8	428.8	425.2	421.7	422.9	421.7	415.9	415.9	419.4	424.1	424.1
45°	360.6	352.4	341.8	333.6	327.7	325.4	318.4	318.4	317.2	318.4	323.0
47.5°	303.1	289.0	271.4	254.9	249.0	244.3	233.8	229.1	226.7	227.9	230.2
50°	254.9	239.6	219.7	199.7	189.1	183.3	170.3	162.1	160.9	158.6	163.3
52.5°	219.7	200.9	179.7	156.2	145.7	136.3	122.2	115.1	110.4	110.4	111.6
55°	189.1	169.2	145.7	122.2	111.6	104.6	90.5	81.1	76.4	75.2	78.7
57.5°	163.3	144.5	121.0	97.5	86.9	78.7	64.6	56.4	52.9	50.5	51.7
60°	143.3	124.5	101.0	78.7	69.3	59.9	48.2	38.8	34.1	34.1	35.2
62.5°	124.5	106.9	85.8	64.6	56.4	48.2	35.2	27.0	23.5	22.3	23.5
65°	105.7	89.3	71.7	54.0	45.8	38.8	28.2	21.1	16.4	15.3	16.4
67.5°	85.8	72.8	57.6	43.5	36.4	30.5	21.1	15.3	11.7	10.6	11.7
70°	67.0	55.2	43.5	31.7	27.0	22.3	15.3	11.7	8.2	7.0	8.2
72.5°	48.2	39.9	30.5	22.3	18.8	15.3	10.6	8.2	5.9	4.7	5.9
75°	32.9	27.0	20.0	14.1	11.7	10.6	7.0	4.7	3.5	3.5	3.5
77.5°	21.1	16.4	12.9	9.4	7.0	5.9	3.5	2.3	2.3	2.3	2.3
80°	11.7	9.4	7.0	4.7	3.5	3.5	2.3	2.3	1.2	1.2	1.2
82.5°	7.0	4.7	3.5	2.3	2.3	1.2	1.2	1.2	1.2	1.2	1.2
85°	3.5	2.3	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
87.5°	1.2	1.2	1.2	1.2	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):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1016.1	1016.1	1016.1	1016.1	1016.1	1016.1	1016.1	1016.1	1016.1	1016.1	1016.1
2.5°	1013.8	1015.0	1011.4	1016.1	1012.6	1017.3	1017.3	1012.6	1013.8	1011.4	1016.1
5°	1011.4	1011.4	1009.1	1012.6	1007.9	1012.6	1011.4	1003.2	1005.6	1000.9	1005.6
7.5°	1011.4	1009.1	1005.6	1009.1	1003.2	1006.7	1002.0	993.8	991.5	985.6	985.6
10°	1015.0	1011.4	1006.7	1007.9	1002.0	1003.2	996.2	984.4	980.9	973.8	971.5
12.5°	1023.2	1019.7	1012.6	1015.0	1006.7	1006.7	997.3	983.2	976.2	966.8	964.4
15°	1034.9	1029.1	1020.8	1022.0	1013.8	1009.1	997.3	980.9	971.5	958.6	955.1
17.5°	1037.3	1031.4	1020.8	1020.8	1010.3	1004.4	990.3	971.5	959.7	946.8	939.8
20°	1024.4	1018.5	1006.7	1005.6	996.2	987.9	972.7	953.9	942.1	928.0	922.2
22.5°	997.3	990.3	979.7	978.5	969.1	964.4	948.0	929.2	917.5	903.4	898.7
25°	957.4	953.9	943.3	942.1	933.9	928.0	913.9	896.3	885.7	871.6	866.9
27.5°	910.4	906.9	896.3	896.3	886.9	883.4	870.5	854.0	845.8	832.9	827.0
30°	854.0	849.3	843.5	842.3	834.1	830.5	818.8	803.5	795.3	784.7	782.4
32.5°	787.1	783.5	780.0	778.8	770.6	767.1	758.9	743.6	736.6	727.2	723.6
35°	709.5	707.2	703.7	702.5	699.0	695.4	687.2	675.5	671.9	664.9	661.4
37.5°	620.3	622.6	620.3	620.3	616.7	617.9	610.9	603.8	600.3	595.6	593.2
40°	523.9	528.6	532.1	532.1	531.0	535.7	534.5	528.6	527.5	525.1	523.9
42.5°	426.4	428.8	435.8	440.5	439.3	451.1	452.3	457.0	460.5	458.1	459.3
45°	324.2	331.3	340.7	345.4	351.2	366.5	374.7	384.1	392.4	397.1	395.9
47.5°	233.8	242.0	252.6	259.6	270.2	289.0	310.1	321.9	333.6	339.5	345.4
50°	169.2	177.4	190.3	200.9	207.9	233.8	256.1	271.4	284.3	292.5	298.4
52.5°	118.6	128.0	142.1	151.5	162.1	186.8	212.6	230.2	244.3	254.9	260.8
55°	82.2	92.8	105.7	115.1	126.9	152.7	177.4	196.2	211.5	220.8	227.9
57.5°	57.6	67.0	79.9	88.1	99.9	124.5	149.2	168.0	183.3	192.7	200.9
60°	38.8	48.2	61.1	69.3	78.7	103.4	125.7	145.7	159.8	169.2	177.4
62.5°	27.0	35.2	48.2	56.4	64.6	85.8	106.9	124.5	138.6	149.2	156.2
65°	21.1	28.2	38.8	45.8	54.0	71.7	89.3	104.6	118.6	129.2	133.9
67.5°	15.3	22.3	30.5	36.4	42.3	57.6	72.8	84.6	97.5	105.7	111.6
70°	10.6	15.3	22.3	27.0	31.7	43.5	55.2	65.8	75.2	81.1	85.8
72.5°	8.2	10.6	15.3	18.8	22.3	30.5	39.9	48.2	55.2	59.9	64.6
75°	4.7	7.0	10.6	12.9	15.3	21.1	27.0	32.9	37.6	41.1	43.5
77.5°	2.3	3.5	5.9	7.0	9.4	12.9	17.6	21.1	24.7	27.0	29.4
80°	2.3	2.3	3.5	3.5	4.7	7.0	9.4	11.7	14.1	16.4	17.6
82.5°	1.2	1.2	2.3	2.3	2.3	3.5	4.7	7.0	8.2	9.4	10.6
85°	1.2	1.2	1.2	1.2	1.2	2.3	2.3	3.5	4.7	5.9	5.9
87.5°	0.0	0.0	1.2	1.2	1.2	1.2	1.2	2.3	2.3	2.3	3.5
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):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1016.1	1016.1	1016.1	1016.1	1016.1	1016.1	1016.1	1016.1
2.5°	1012.6	1015.0	1013.8	1016.1	1012.6	1011.4	1013.8	1010.3
5°	999.7	1000.9	999.7	999.7	997.3	995.0	997.3	993.8
7.5°	979.7	979.7	976.2	976.2	971.5	969.1	969.1	968.0
10°	963.3	959.7	956.2	957.4	950.4	948.0	946.8	945.7
12.5°	955.1	952.7	946.8	946.8	939.8	937.4	936.3	935.1
15°	945.7	941.0	936.3	935.1	929.2	926.9	925.7	923.3
17.5°	929.2	925.7	919.8	919.8	913.9	912.8	910.4	909.2
20°	911.6	906.9	902.2	902.2	895.1	895.1	891.6	892.8
22.5°	886.9	883.4	878.7	878.7	872.8	871.6	868.1	866.9
25°	857.5	852.8	849.3	848.2	843.5	841.1	839.9	837.6
27.5°	818.8	815.3	811.7	809.4	803.5	802.3	798.8	800.0
30°	770.6	768.3	767.1	764.7	757.7	755.3	755.3	751.8
32.5°	717.8	714.2	711.9	708.4	702.5	701.3	697.8	699.0
35°	653.1	648.4	644.9	646.1	639.0	637.9	635.5	636.7
37.5°	586.2	581.5	576.8	575.6	569.7	569.7	566.2	566.2
40°	516.9	512.2	509.8	509.8	502.8	504.0	500.4	499.3
42.5°	454.6	449.9	448.7	447.6	444.0	442.9	439.3	440.5
45°	395.9	394.7	394.7	392.4	388.8	387.7	388.8	388.8
47.5°	344.2	345.4	344.2	344.2	341.8	344.2	341.8	343.0
50°	300.7	303.1	303.1	303.1	301.9	303.1	303.1	304.3
52.5°	264.3	267.8	266.7	267.8	266.7	269.0	267.8	269.0
55°	232.6	234.9	236.1	237.3	237.3	237.3	237.3	237.3
57.5°	203.2	206.8	207.9	209.1	209.1	211.5	209.1	209.1
60°	179.7	183.3	184.4	185.6	185.6	186.8	184.4	185.6
62.5°	158.6	162.1	162.1	163.3	163.3	163.3	160.9	162.1
65°	137.4	138.6	139.8	139.8	138.6	138.6	137.4	138.6
67.5°	113.9	115.1	113.9	113.9	112.8	112.8	110.4	111.6
70°	88.1	88.1	89.3	88.1	86.9	88.1	86.9	85.8
72.5°	65.8	65.8	65.8	64.6	64.6	63.4	64.6	64.6
75°	44.6	44.6	45.8	45.8	45.8	45.8	44.6	44.6
77.5°	29.4	29.4	29.4	29.4	30.5	29.4	29.4	29.4
80°	18.8	18.8	20.0	20.0	18.8	18.8	18.8	18.8
82.5°	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7
85°	7.0	7.0	7.0	7.0	5.9	5.9	5.9	5.9
87.5°	3.5	3.5	3.5	3.5	3.5	3.5	2.3	2.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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















(END OF REPORT)